



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



March 2018

Biratnagar Metropolitan City (BMC), Nepal

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INTRODUCTION/BACKGROUND

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

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

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

- Design and Supervision consulting services signed on 28th August 2017.
- Design and supervision works commenced on 6th September 2017.
- Contract of construction works signed on 10th October 2017.
- Construction works commenced on 2nd Nov 2017.



2 SALIENT FEATURE OF CONTRACT PACKAGE: - 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.
Contractor	ZHONGHENG Construction Group International Engineering co Ltd. Beijing, China.
Date of Commencement	2 nd November 2017
Completion Date	1 st November 2019
Contract Amount including PS and VAT	NRs. 2,611,092,249.63
Physical Progress up to date	Planned: 14.55%, Actual: 14.57%; Lag by 0.02% S curve attached



3 SUB PROJECT COMPONENTS

3.1 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. Laying of RCC Hume pipe as well as HDPE have already been started on T2 Line 7, T2 line 27, Trunk line T4 and T4 Line 1.

Table 1: PROPOSED SEWER LINES

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



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

SN	Locations	BoQ		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	
1	Hume pipe(T2)	206	6							
2	Hume pipe(T3)	1905	58							
3	Hume Pipe (T4)	130	4	130	4	196	7	326	11	
	Subtotal in (m)	2241	68	130	4	196	7	326	11	
1	HDPE(T1)	1825	57							
2	HDPE(T2)	3927	147	120	5	799	26	919	31	
3	HDPE(T3)	9997	316	221	8	444	17	665	25	
4	HDPE(T4)	2092	68	170	6	396	14	566	20	
	Subtotal in (m)	17841	588	511	19	1965	57	2150	76	
	Total	20082	656	511	19	1965	57	2476	87	12.33%
	Sewer Inlet	BoQ(no)		Up to Pre Month		This month		Total to date		Progress %
1	Sewer inlet	1010								
2	House connection	3784								



STORM WATER DRAIN

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

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

SN	Location	Proposed Length in (m)	Progress		Total till date (m)	Progress %
			Up to previous month in (m)	This month in (m)		
1	CN2-CN3	652.89	200	125m	325 m	Construction of drain works going on (50% completed)
2	CN2-CN3	132 nos piles	120	18nos	138 nos	Piling works completed



ROADS AND LANES

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

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

SN	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
			Upto previous month	This month		
1	R3A	600	600	0	600	(100%)Sub grade,
2	R42	218	127	91	218	(100%)Sub grade,
3	R104	273	271	0	271	(99.26%)Sub grade
4	Rani site	4023	2315	0	2315	(57.54%)Sub grade,
5	R37	477	477	0	477	(100%)Sub grade,
6	R29	620	343	277	620	(100%)Sub grade,
7	R30	212	207	0	207	(97.64%)Sub grade,
8	R9	570	117	333	450	(78.94%)Sub grade,
9	R5	603	603	0	603	(100%)Sub grade,
10	R16	604	580	0	580	(96.18%)Sub grade,
11	R21	1320	1320	0	1320	(100%)Sub grade,
12	R25	599	580	0	580	(96.82%)Sub grade,
13	R24	384.41	380	0	380	(98.71%)Sub grade,
14	R28	635	343	0	343	(54.54%)Sub grade,
15	R27	810	580	0	580	(71.54%)Sub grade,
16	R26	617	580	0	580	(94.00%)Sub grade
17	B1	1172.94	1120	30	1150	(98.04%)Sub grade,
18	B2	2777.83	2152	0	2152	(77.5%)Sub grade,



19	B3	1574	1574		1574	(100%)Sub Grade ,
20	S11	660	565	95	660	(100%)Sub Grade,
21	S13	1617	1470	147	1617	(100.00%)Sub Grade,
22	R114	320	240	80	320	(100.00%) Sub Grade,
23	R12	660	660	0	660	(100%)Sub Grade
24	R5	370	370	0	370	(100%)Sub Grade
25	R113	420	420	0	420	(100%)Sub Grade
26	R24	384.41	380	0	380	(99.00%)Sub Base
27	R25	599	580	0	580	(96.83%)Sub Base
28	R26	617	580	0	580	(94.00%)Sub Base
29	R27	810	580	0	580	(71.60%)Sub Base
30	R28	635	343	0	343	(54.00%)Sub Base
31	R29	620	343	277	620	(100%)Sub Base
32	R9	544	117	333	450	(61.21%)Sub Base
33	R30	212	207	0	207	(97.65%)Sub Base
34	R42	218	117	101	218	(100%)Sub Base
35	R104	273	273	0	273	(100%)Sub Base
36	B1	1172.94	1120	30	1150	(98.04%) subbase
37	B2	2777.83	2152	0	2152	(77.47%) Sub Base
38	S11	660	340	320	660	(100%) Sub Base
39	S13	1616.26	1470	146.26	1616.26	(100%) Subbase
40	R114	320	240	80	320	(100.00%)Sub Base
41	R12	660	660	660	660	(100%)Sub Base
42	R113	420	420	0	420	(100%)Sub Base



43	R5	603	603	0	603	(100.00%)Sub Base
44	R16	604	580	0	580	(96.10%)Sub Base
45	R21	1320	1320	0	1320	(100%)Sub Base
46	B1	1172.94	1120	30	1150	(98.04%) Base
47	B2	2777.83	2150	0	2152	(100%) Base
48	B3	1630	1630	0	1630	(100%) Base
49	S11	660	565	95	660	(100%) Base
50	S13	1751	1470	281	1751	(100%) Base
51	R114	320	240	80	320	(75.00%) Base
52	R12	660	660	0	660	(100%) Base
53	R113	420	420	0	420	(100%) Base
54	R5	603	603	0	603	(100%) Base
55	R16	604	580	24	604	(100%) Base
56	R21	1320	1320	0	1320	(100%)Base
57	R24	380	380	0	380	(100%) Base
58	R25	600	600	0	600	(100%) Base
59	R26	617	580	0	580	(94%) Base
60	R27	810	580	0	580	(71.61%) Base
61	R28	635	343	0	343	(54.44%) Base
62	R29	620	343	277	620	(100%) Base
63	R9	570	117	333	450	(78.95%) Base
64	R30	212	212	0	212	(100%) Base
65	R37	477	477	0	477	(100%) Base
66	R3A	600	600	0	600	(100%) Base
67	R42	218	127	91	218	(100%) Base



68	R104	273	273	0	273	(100%) Base
69	Rani	2870	2315	0	2315	(80.66%) Base

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

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress
1	Subgrade	m	73086	18747	0	18747	25.65 %
2	Sub Base	m	73086	16207	195	16402	22.44%
3	Base	m	73086	17820	190	18010	24.64%
4	Prime	m	73086	0	2177	2177	2.97%
5	Asphalt	m	73086	0	1070	1070	1.46%

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

SN	Road Name/Location	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
			Previous month	This month		
1	B1	-	90	-	90	100%
2	R29	620	504	36	540	87.1%
3	N36	-	316	-	316	100%
4	R8	540	460	-	460	100%
5	R7	480	180	-	180	37.5%
6	R9	240	208	-	208	86.67%
7	S13	110	110	-	110	100%
8	N33	-	70	-	70	
9	R28	640	270	-	270	42.18
10	R90	620	620	-	620	100%



11	R114	530	530	-	530	100%
12	R18	762	762	-	762	100%
13	R17	680	340	-	340	50%
14	R113	-	200	-	200	
15	R77	160	160	-	160	100%
16	R76	540	100	440	540	100%
17	R9	480	0	240	240	50%
18	N4	250	0	125	125	50%
19	R33	354	0	177	177	50%
20	R36	450	0	225	225	50%
21	R86	400	0	200	200	50%
22	R183	328	0	164	164	50%
23	R7	150	0	75	75	50%
24	Rani site	340	0	170	170	50%
25	Rani site	200	0	100	100	50%
26	Remaining	17176				
		26050	4920	1952	6872	26.38%

ENVIRONMENTAL ASPECT

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

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

Borrow/ quarry sites.

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



Disposal of Spoil and Construction Waste.

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

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

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

Provision and maintenance of Toilets.

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

Crushing plants.

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

Hot mix plants and Batching plants.

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

Occupational Health and Safety Measures

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

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

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



such infrastructure development works in the urban area.

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

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

SOCIAL ASPECT

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

Status of Social and Environmental Safeguard Measures

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

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

FINANCIAL PLAN

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

3.7 DISBURSEMENT RECORDS IN CONSTRUCTION

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

1	IPC 01	339,106,000.00	Mobilization Advance.
	Grand Total =	339,106,000.00	



OBJECTIVES AND SCOPE OF WORKS

OBJECTIVES

4.1 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.

SCOPE OF WORKS

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

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

5 PROGRESS OF SUB – PROJECT COMPONENTS

CONSTRUCTION MATERIALS.

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

The Contractor has informed to borrow RCC NP-3 pipes from 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 TL discussed during monthly progress meeting and given guidance for making certain modification and review on submitted work program and QAP. Contractor agreed for review/modification and resubmission on work program / QAP.

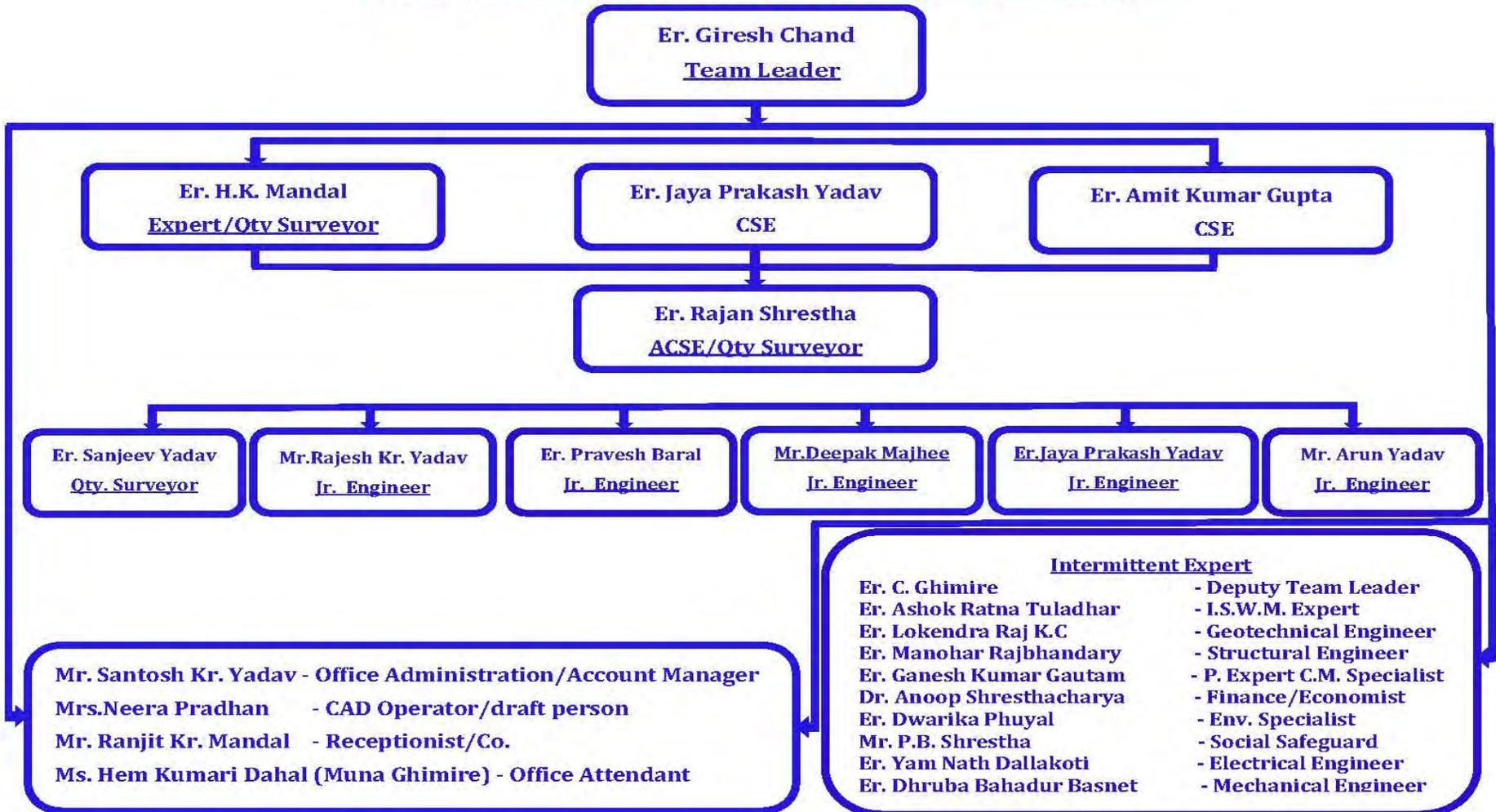


6.1 ORGANIZATION AND STAFFING

Attached



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



6.2 CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

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

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

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



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

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

6.3 Key Events

The consultant has noted the following key dates for the month of December, 2017.

Table 8: KEY DATES of EVENTS / ACTIVITIES

S.N.	Date	Activities/Events	Remarks
1		<ul style="list-style-type: none"> • <i>Chairman of BDA Swami Anand Arun and Directors Mr. Khem Dallakoti, Sudip Paudel and Mr. Anil Nepal visited BDA office, Biratnagar on 24 March 2018</i> • <i>Nepal Bandha on dated 25 March 2018 by Netra Bikram Chand-led CPN Maoist</i> • <i>Frequently site visited by surveying/supervision by the client and engineers as required.</i> 	

7 DETAILS OF PRE CAST ACTIVITIES.

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

Physical Progress till March 2018							
S.N.	Description	Unit	Progress			Total to Date (RM.)	Remarks
			BoQ	Up to Previous month (RM.)	This Month (RM.)		
1	Precast Slab	No	26049	4988	4947	9935	Under progress
2	Kerb Stone	Rm	147729.68	4500	5600	10100	6.836%

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

Physical Progress till March- 2018							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	RCC Pipe	300	336	336	0	336	Under process
2	RCC Pipe	450	681	270	70	340	
3	RCC Pipe	500	842	0	421	421	
4	RCC Pipe	600	382	230	0	230	
	Total						

Physical Progress till March- 2018							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	HDPE Pipe	110	1987.2	0	1987.2	1987.2	Under process
2	HDPE Pipe	200	16656	465	5535	6000	
3	HDPE Pipe	250	115	0	115	115	
	Total						

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



CONTRACTOR'S MANPOWER

Table 11: CONTRACTOR'S KEY STAFFS in March, 2018

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



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	2	Backhoe loader-6 nos.
2	Crane (10 ton capacity)	3	0	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	3	
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
8	Grader	1	1	
9	Track Dozer (120 to 180 HP)	1	0	
10	Bitumen distributor (4 to 6 Kilo litre)-	1	1	
11	Water browser (minimum 5000 Litres)	3	5	
12	Chips spreader	1	0	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	2	
14	Air compressor	2	2	
15	Tipping Trucks	15	25	
16	Service vehicle	2	5	
17	Survey equipment (Total station with accessories)	1	1	
18	Thedolite	2	0	
19	Levelling	5	12	
20	Mobile Generator 15-20 Kva	3	9	
21	Mixer Machine	6	7	
22	Concrete Batching Plant	1	0	
23	Concrete pump	1	0	
24	Drain cleaner/ Nala cleaner	2	0	
25	Broomer	0	2	
26	Motor Bike	0	12	



WORK PLAN FOR THE NEXT MONTH

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

- Detail Surveying works at various Road sections.
- Asphalt Concrete in Road section B1/B2/B3/S13/R16/R26/R28.
- Storm water drainage (CN2-CN3).
- Laying of HDPE pipe for sewer line of T1/T2/T3/T4 secondary.
- Precast production works at contractor's yard.
- Side drain works.
- Laying of kerb Stone and cover slab.
- Sewer Line works



ANNEX-1: Photographs of March, 2018





Asphalt concrete works at B2 Road



Asphalt Concrete works in presence of employer (CAO, PM) and TL



Sewer Line works at T2 Line 7



Raising of manhole at R16



Drain works at R113



Gutter works at B1 Road



Base works at R16 Road



Bed RCC work in CN2-CN3 storm water drain



Joint Measurement works



Chairman Swami Anand Arun and BDA Directors Mr. Khem Dallakoti, Mr. Sudip Poudel and Mr. Anil Nepal at TL office, Biratnagar



Training and awareness Program about safety and Health to site workers by safety engineer
Mr. Dhiraj Sardar

ANNEX-2: Minutes of Meeting March, 2018





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. – 8

Contract: RUDP/ICB/BRT- 02

Date: March 14, 2018

Time: 3:30 PM

Venue: TL Office, Biratnagar

Attendance

Consultant:

1. Mr. Giresh Chand , Team Leader
2. Mr. H K Mandal, Expert/Quantity Surveyor
3. Mr. Rajan Shrestha, Engineer/ Quantity Surveyor
4. Mr. Rajesh K Yadav, Jr. Engineer
5. Mr. Deepak Majhee, Jr. Engineer

Contractor:

1. Mr. Nirman Gauli, Authorized Representative
2. Mr. R.K Thakur, Contract Manager
3. Mr. Pragati Nepal, Engineer

TL welcomed all participants in the meeting. Following matters were discussed and decided:

S.N.	Minutes	Action by
1.	TL, Mr. Chand expressed his serious concern about the slow progress (momentum break). The contract Manager informed that whole work has been affected due to Holi festival and election in India. He further assured to resume the momentum within one week.	Contractor
2.	Sewer Line: TL expressed his concern regarding the construction methodology of sewer line. He further advised to improve the working methodologies of sewer line. The Contractor realized and agreed to fulfill as per approved drawing and specification. He assured that his additional roller and compactors are on the way and will reach the site by 15 March 2018	Consultant/ Contractor



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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

3.	<p>Kerb Stones:</p> <p>TL informed that the recent production of kerbstones at yard is not sufficient enough to meet our demand.</p> <p>The Contractor informed that he has made all necessary arrangement to start additional production yard at Shanti chowk. He also further assured that he is trying to increase the production rate of existing yard by installing new machine at existing yard of DDC.</p>	Consultant/ Contractor
4.	<p>Side Drain:</p> <p>TL informed that manpower deployed for the drain works is not sufficient enough to carry out works as per scheduled. He also further instructed to provide pipes at drain for water outlet.</p> <p>The Contractor informed that he will increase manpower for drain works by 20 March 2018 and start pipes at drain by 18 March 2018.</p>	Consultant/ Contractor
5.	<p>Relocation of Electric poles</p> <p>TL asked contractor that no works of relocation of electric poles have been implemented.</p> <p>The Contract Manager informed that materials for poles are in manufacturing process and will be soon relocated making necessary coordination with NEA authorities.</p>	Contractor Consultant/ Employer
6.	<p>Night shift work</p> <p>TL advice to work on the night shift for better progress.</p> <p>The Contractor responded positively and assured to inform for the same after making necessary planning and arrangements.</p>	Contractor Consultant/ Employer
7.	<p>TL informed contractor to complete all the works of the site once undertaken.eg. Backfilling of drain, untouched portion of road near Noble Hospital of B1 road etc.</p> <p>Contractor agreed on the same.</p>	Contractor
8.	<p>TL emphasized about the completion of work in stipulated time with Quality and Safety.</p> <p>Contractor admitted to complete the work in time with Quality and Safety.</p>	Contractor

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

MINUTES OF MEETING NO. – 9

Contract: Secondary Town Integrated Urban Environment Improvement Project & Regional Urban Development Project

Date : 20 March 2018
 Time : 4:00 PM
 Venue : PIU Office, Biratnagar

Attendance

Employer:

- | | | |
|---|-------------------------------|---|
| 1 | Mr. Pradeep Kumar Niraula | Chief Administrative Officer (CAO), BMC |
| 2 | Mr. Bharat Kumar Nuepane | Project Manager (PM), PIU |
| 3 | Mr. Prakash Narayan Chaudhary | Project Engineer (PE), PIU |
| 4 | Mr. Ghanendra Katuwal | Project Engineer (PE), PIU |

Consultant:

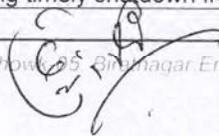
- | | | |
|---|------------------------|-----------------------|
| 1 | Mr. Giresh Chand | Team Leader (TL), DSC |
| 2 | Mr. Jaya Prakash Yadav | CSE, DSC |
| 3 | Mr. Amit Kumar Gupta | CSE, DSC |

Contractor:

- | | | |
|---|-------------------|-----------------------------------|
| 1 | Mr. Ujjwal Prasai | Project Manager (PM), CTCE-Kalika |
|---|-------------------|-----------------------------------|

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

S. NO.	Minutes	Action by
1.	Mr. Prasai briefed about the present physical progress and the status of the project. The progresses have been reported as follows: Physical progress – 96.44 % wrt VO-03 (till date) Financial progress – 94.24% PM, Mr Nuepane as well as TL, Mr Chand emphasized that the current physical progress of outstanding and defect remedial works are not satisfactory mainly in R6 (Sahi Marg) and WWTP. Mr Prasai admitted to accelerate the work and tomorrow they'll submit the work program for remaining works with date of completion. Also mentioned that to shift the electrical poles are delaying due to not getting timely shutdown from NEA.	The employer, contractor & consultant


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

S. NO.	Minutes	Action by
	CAO, Mr Niraula and PM, Mr Nuepane assured to manage the existing issues and asked Mr Prasai to submit daily shutdown schedule to PIU (where required) one day earlier to make arrangement with Nepal Electricity Authority (NEA).	
2.	Mr Prasai enquired about the purchase of equipment's to clean sewer lines. CAO, Mr Niraula as well as PM, Mr Nuepane replied that there is no objection to purchase the equipments from Provisional Sum (PS) as recommended by DSC's international sewerage expert Mr Daniel in O & M manual which already discussed in several meetings as well as during last visit of ADB Mission on dated 16-17 January 2018 in presence of Mayor. Also instructed to DSC to start the procurement process.	The employer, contractor & consultant
3.	In viewing of completion date of STIUEIP, Biratnagar and complication in sewer line of R4 Lane, PM, Mr Nuepane asked DSC to shift the sub base and road side drain quantities of remaining section of R4 in RUDP's scope. TL, Mr Chand replied that there is no any surplus financial arrangement in current BOQ and or the contract. CAO, Mr Niraula as well as PM, Mr Nuepane advice to go through variation order (VO) to incorporate the changes of STIUEIP's scope to RUDP.	The employer, contractor & consultant
4.	PM, Mr Nuepane asked DSC to instruct M/S CTCE-Kalika J/V to place the sewer inlet (where possible) in branch roads connected to Highway from Bargachhi to national trading to collect the sewer from parallel household's in future as the highway is upgrading now and after completion of all the elements of highway, it will be very difficult to connect the sewer elements in traverse direction to highway.	The employer, contractor & consultant
5.	TL, Chand mentioned that the contractor M/S CTCE-Kalika J/V asked for extension of completion date of STIUEIP, Biratnagar through letter till 31 July 2018 because till date they didn't receive the approved estimate of Dedicated feeder electricity supply at WWTP, design changed in R6 and critical works of sump well, etc. It is jointly decided to extend the completion date of contract till the end of June 2018 and PM, Mr Nuepane asked DSC to prepare the documents to get No Objection from concerned authorities.	The employer, & consultant
6.	PM, Mr Nuepane asked about the additional works of road side drain and extra black topped works to cover full width of roads. TL, Mr Chand narrated that there is no any surplus financial arrangement in current BOQ and or the contract which has	The employer, contractor & consultant

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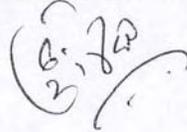




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 Biratnagar Metropolitan City, Biratnagar

S. NO.	Minutes	Action by
	<p>already informed. TL added that he has been already prepared the estimate and submitted to PIU via letter ref No.: rudpbdbart/ti2018-61"A" dated 11 March 2018 to secure for financing arrangement required for those works to make payment to the contractor punctually.</p> <p>CAO, Mr Niraula as well as PM, Mr Nuepane emphasised that they have already discussed / decided those matters in Municipal board of BMC and assured that there will be no such financial problem arises in future for payment to the contractor, also instruct DSC to start those works as instructed earlier.</p>	



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



REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RCSP/ICB/BT-01																				
Summary Sheet of Monthly Test Report																				
																Month		March		
																Year		2018		
																Type of Material		Base		
S.N.	Lab Ref.no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.E.V. %	CBR %	Remarks
					40	51.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	B3-3.0+100	Chisang Khola	2-Mar-18	100	91.42	66.71	54.62	38.78	51.04	15.20	5.01	NP	27.64	32.55/1.56	21.30				
2	RUDP-B-02	B3-3.0+200	Chisang Khola	2-Mar-18	100	87.23	65.36	48.95	34.59	28.75	15.27	5.47	2.240	5.90	NP	34.02	24.80/15.90	20.70		
3	RUDP-B-03	B3-3.0+300	Chisang Khola	2-Mar-18	100	86.96	67.33	51.03	27.88	28.19	15.74	6.80			NP	35.78	24.68/19.77	21.20		
4	RUDP-B-04	B3-3.0+400	Chisang Khola	3-Mar-18	100	89.26	73.14	51.33	36.63	27.73	16.55	7.39	2.244	6.10	NP	32.12	21.89/20.24	20.70		
5	RUDP-B-05	B3-3.0+500	Chisang Khola	4-Mar-18	100	88.78	71.54	49.44	36.37	28.16	14.74	6.26			NP	34.02	19.34/17.46	21.80		
6	RUDP-B-06	B3-3.0+600	Chisang Khola	4-Mar-18	100	87.55	59.89	47.51	35.86	26.12	14.41	6.76	2.248	6.25	NP	32.52	21.28/13.61	19.90		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer					  Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT										
Biratnagar Metropolitan City										
Contract No:- RUDP/ICB/BRT-02										
Summary Sheet of Field Density Test										
Location:-B1										
							Month	March		
							Year	2018		
							Type of Material	Base		
Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %		
				OMC%	Field MC%	Max.Dry density	Field Dry density.	Compaction	Specified	
1	RUDP-B-FD-1, L/S	13-Mar-18	0+080	6.00	5.08	2.243	2.238	99.78	98	
2	RUDP-B-FD-1, C/L	13-Mar-18	0+190	6.00	5.09	2.243	2.199	98.05	98	
3	RUDP-B-FD-1, L/S	13-Mar-18	0+310	6.00	5.05	2.241	2.198	98.09	98	
4	RUDP-B-FD-1, L/S	13-Mar-18	0+420	6.00	5.43	2.241	2.234	99.70	98	
5	RUDP-B-FD-1, C/L	13-Mar-18	0+500	6.60	5.83	2.244	2.208	98.39	98	
6	RUDP-B-FD-1, R/S	13-Mar-18	0+620	6.60	5.83	2.244	2.218	98.85	98	
7	RUDP-B-FD-1, L/S	13-Mar-18	0+710	6.35	6.83	2.245	2.227	99.20	98	
8	RUDP-B-FD-1, C/L	13-Mar-18	0+830	6.35	5.95	2.245	2.215	98.67	98	
9	RUDP-B-FD-1, R/S	13-Mar-18	0+910	6.25	6.21	2.247	2.239	98.64	98	
10	RUDP-B-FD-1, R/S	14-Mar-18	1+000	6.25	5.71	2.247	2.217	98.67	98	
11	RUDP-B-FD-1, C/L	14-Mar-18	1+110	6.00	5.64	2.242	2.226	99.27	98	
12	RUDP-B-FD-1, L/S	14-Mar-18	1+190	6.00	6.32	2.242	2.204	98.30	98	
Contractor					Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
 Checked By Engineer		 Submitted By Contract Manager			 Verified By Qty Engineer/CSE		 Approved By Team Leader			

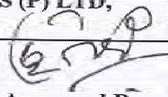


REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg.

S.n.	Lab.Ref.no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by				Month Year		March 2018	Remarks
					40	20	10	4.75	Type of Material	20 mm Agg	A.L.V.%	
1	RUDP-CA-21	4-Mar-18	DDC-Yard	Chisang Khola	100.00	96.51	54.73	5.55	25.70	19.85/17.92	19.70	
2	RUDP-CA-22	6-Mar-18	Koshi Yard	Chisang Khola	100.00	96.86	55.51	5.55	24.28	18.41/22.63	19.50	
3	RUDP-CA-23	10-Mar-18	R-76	Chisang Khola	100.00	96.03	34.41	3.95	24.24	17.98/11.08	19.50	
4	RUDP-CA-24	12-Mar-18	Koshi Yard	Chisang Khola	100.00	97.04	36.88	1.93	23.50	21.74/20.71	18.90	
5	RUDP-CA-25	14-Mar-18	R-88	Chisang Khola	100.00	96.47	41.67	1.91	24.40	19.42/20.37	20.30	
6	RUDP-CA-26	16-Mar-18	CN2CN3	Chisang Khola	100.00	97.04	36.17	2.81	23.78	19.18/18.69	20.80	
7	RUDP-CA-27	17-Mar-18	Rani Site	Chisang Khola	100.00	97.77	42.98	6.65	24.22	20.29/17.42	20.50	
8	RUDP-CA-28	19-Mar-18	R-9	Chisang Khola	100.00	97.85	42.89	6.61	27.62	19.39/17.20	18.00	
9	RUDP-CA-29	21-Mar-18	R-7	Chisang Khola	100.00	98.04	36.43	4.25	24.02	19.98/18.87	20.00	
10	RUDP-CA-30	21-Mar-18	R-17	Chisang Khola	100.00	98.21	36.05	4.67	26.16	21.77/19.93	20.00	
11	RUDP-CA-31	22-Mar-18	R-18	Chisang Khola	100.00	97.31	36.42	3.38	29.52	23.17/22.52	19.20	
12	RUDP-CA-32	22-Mar-18	B-1	Chisang Khola	100.00	97.13	36.36	1.93	27.16	20.03/16.40	19.20	
13	RUDP-CA-33	23-Mar-18	R-88	Chisang Khola	100.00	97.26	34.83	2.78	29.84	21.07/15.71	19.70	
14	RUDP-CA-34	24-Mar-18	R-40	Chisang Khola	100.00	97.49	31.85	3.22	30.60	20.36/18.35	20.30	
15	RUDP-CA-35	24-Mar-18	N-4	Chisang Khola	100.00	96.54	33.64	5.51	29.56	21.84/20.23	18.20	
16	RUDP-CA-36	26-Mar-18	R-185	Chisang Khola	100.00	96.54	35.12	6.14	27.44	21.53	19.67	
17	RUDP-CA-37	26-Mar-18	CN2CN3	Chisang Khola	100.00	96.23	34.27	5.99	28.04	20.79/17.88	21.40	
18	RUDP-CA-38	27-Mar-18	Koshi- Yard	Chisang Khola	100.00	95.55	33.44	7.92	27.76	20.34/19.25	20.40	
19	RUDP-CA-39	28-Mar-18	DDC-Yard	Chisang Khola	100.00	96.61	32.82	3.39	25.04	20.34/19.25	20.90	
Spec. Limit :					100	95-100	25-55	0-10	<35	< 25	< 25	
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			Submitted By Contract Manager			Verified By Qty Engineer/CSE			Approved By Team Leader			



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Mortar Test Report											
							Month		March		
							Year		2018		
							Description of Sample				Brick Wall
S.N	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
1	R-40	MR-64	Salimar	OPC	Chisang Khola	1-Feb-18	8-Feb-18	11-Mar-18		7.6	7.5
2	R-18	MR-65	Salimar	OPC	Chisang Khola	8-Feb-18	15-Feb-18	8-Mar-18		7.60	7.5
3	R-40	MR-66	Salimar	OPC	Chisang Khola	8-Feb-18	15-Feb-18	8-Mar-18		7.74	7.5
4	Rani-site	MR-67	Salimar	OPC	Chisang Khola	8-Feb-18	15-Feb-18	8-Mar-18		7.60	7.5
5	R-18	MR-68	Salimar	OPC	Chisang Khola	9-Feb-18	16-Feb-18	9-Mar-18		7.60	7.5
6	R-40	MR-69	Salimar	OPC	Chisang Khola	9-Feb-18	16-Feb-18	9-Mar-18		7.74	7.5
7	R-18	MR-70	Salimar	OPC	Chisang Khola	11-Feb-18	18-Feb-18	11-Mar-18		7.87	7.5
8	Rani-site	MR-71	Salimar	OPC	Chisang Khola	11-Feb-18	18-Feb-18	11-Mar-18		7.74	7.5
9	Rani-site	MR-72	Salimar	OPC	Chisang Khola	12-Feb-18	19-Feb-18	12-Mar-18		7.87	7.5
10	R-40	MR-73	Salimar	OPC	Chisang Khola	12-Feb-18	19-Feb-18	12-Mar-18		8.27	7.5
11	R-18	MR-74	Salimar	OPC	Chisang Khola	12-Feb-18	19-Feb-18	12-Mar-18		7.60	7.5
12	R-17	MR-75	Salimar	OPC	Chisang Khola	13-Feb-18	20-Feb-18	13-Mar-18		8.00	7.5
13	R-17	MR-76	Salimar	OPC	Chisang Khola	14-Feb-18	21-Feb-18	14-Mar-18		8.40	7.5
14	R-18	MR-77	Salimar	OPC	Chisang Khola	14-Feb-18	21-Feb-18	14-Mar-18		8.00	7.5
15	R-17	MR-78	Salimar	OPC	Chisang Khola	14-Feb-18	21-Feb-18	14-Mar-18		8.00	7.5
16	Rani-site	MR-79	Salimar	OPC	Chisang Khola	14-Feb-18	21-Feb-18	14-Mar-18		8.14	7.5
17	R-18	MR-80	Salimar	OPC	Chisang Khola	15-Feb-18	22-Feb-18	15-Mar-18		7.74	7.5
18	R-17	MR-81	Salimar	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18		7.74	7.5
19	R-76	MR-82	Salimar	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18		7.74	7.5
20	R-77	MR-83	Salimar	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18		7.74	7.5
21	Rani-site	MR-84	Salimar	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18		8.27	7.5
22	R-76	MR-85	Salimar	OPC	Chisang Khola	17-Feb-18	24-Feb-18	17-Mar-18		8.27	7.5
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
Checked By Engineer		Submitted By Contract Manager		Verified By Qty Engineer/CSE		Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Mortar Test Report											
							Month		March		
							Year		2018		
							Description of Sample		Brick Wall		
S.N	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
49	R-18	MR-111	Salimar	OPC	Chisang Khola	27-Feb-18	6-Mar-18	27-Mar-18	5.60	8.14	7.5
50	R-113	MR-112	Salimar	OPC	Chisang Khola	28-Feb-18	7-Mar-18	28-Mar-18	6.14	7.60	7.5
51	R-18	MR-113	Salimar	OPC	Chisang Khola	28-Feb-18	7-Mar-18	28-Mar-18	5.60	8.14	7.5
52	Rani-site	MR-114	Salimar	OPC	Chisang Khola	28-Feb-18	7-Mar-18	28-Mar-18	5.74	7.60	7.5
53	R-113	MR-115	Salimar	OPC	Chisang Khola	5-Mar-18	12-Mar-18	2-Apr-18	5.87		7.5
54	R-76	MR-116	Salimar	OPC	Chisang Khola	6-Mar-18	13-Mar-18	3-Apr-18	5.74		7.5
55	R-76	MR-117	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18	5.60		7.5
56	R-7	MR-118	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18	5.87		7.5
57	R-9	MR-119	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18	6.00		7.5
58	R-113	MR-120	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18	6.14		7.5
59	R-18	MR-121	Salimar	OPC	Chisang Khola	8-Mar-18	15-Mar-18	5-Apr-18	5.74		7.5
60	Rani-site	MR-122	Salimar	OPC	Chisang Khola	10-Mar-18	17-Mar-18	7-Apr-18	6.00		7.5
61	R-76	MR-123	Salimar	OPC	Chisang Khola	10-Mar-18	17-Mar-18	7-Apr-18	5.87		7.5
62	R-88	MR-124	Salimar	OPC	Chisang Khola	12-Mar-18	19-Mar-18	9-Apr-18	6.00		7.5
63	Rani-site	MR-125	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	6.00		7.5
64	R-76	MR-126	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18	5.87		7.5
65	R-17	MR-127	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18	6.27		7.5
66	Rani-site	MR-128	Salimar	OPC	Chisang Khola	20-Mar-18	27-Mar-18	17-Apr-18	5.87		7.5
67	R-17	MR-129	Salimar	OPC	Chisang Khola	20-Mar-18	27-Mar-18	17-Apr-18	6.40		7.5
68	N-4	MR-130	Salimar	OPC	Chisang Khola	21-Mar-18	28-Mar-18	18-Apr-18	5.60		7.5
69	R-7	MR-131	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18	6.40		7.5
70	R-9	MR-132	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18	6.27		7.5
71	R-40	MR-133	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18	6.40		7.5
72	N-4	MR-134	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18	6.14		7.5
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
Checked By Engineer		Submitted By Contract Manager		Verified By Qty Engineer/CSE		Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT

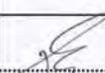
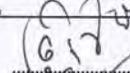
Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet of Mortar Test Report

							Month		March		
							Year		2018		
							Description of Sample			Brick Wall	
S.N.	Location	Lab Ref.no.	Type of Cemen	Brand of Cemen	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
23	R-18	MR-86	Salimar	OPC	Chisang Khola	18-Feb-18	25-Feb-18	18-Mar-18		8.4	7.5
24	R-77	MR-87	Salimar	OPC	Chisang Khola	18-Feb-18	25-Feb-18	18-Mar-18		7.60	7.5
25	R-17	MR-88	Salimar	OPC	Chisang Khola	18-Feb-18	25-Feb-18	18-Mar-18		8.27	7.5
26	R-77	MR-89	Salimar	OPC	Chisang Khola	18-Feb-18	25-Feb-18	18-Mar-18		8.14	7.5
28	R-18	MR-90	Salimar	OPC	Chisang Khola	18-Feb-18	25-Feb-18	18-Mar-18		8.14	7.5
29	Rani-site	MR-91	Salimar	OPC	Chisang Khola	19-Feb-18	26-Feb-18	19-Mar-18		7.47	7.5
30	R-40	MR-92	Salimar	OPC	Chisang Khola	19-Feb-18	26-Feb-18	19-Mar-18		8.27	7.5
31	R-76	MR-93	Salimar	OPC	Chisang Khola	19-Feb-18	26-Feb-18	19-Mar-18		8.00	7.5
32	R-77	MR-94	Salimar	OPC	Chisang Khola	19-Feb-18	26-Feb-18	19-Mar-18		7.74	7.5
33	R-76	MR-95	Salimar	OPC	Chisang Khola	20-Feb-18	27-Feb-18	20-Mar-18		8.40	7.5
34	Rani-site	MR-96	Salimar	OPC	Chisang Khola	20-Feb-18	27-Feb-18	20-Mar-18		8.00	7.5
35	R-40	MR-97	Salimar	OPC	Chisang Khola	20-Feb-18	27-Feb-18	20-Mar-18		7.47	7.5
36	R-113	MR-98	Salimar	OPC	Chisang Khola	20-Feb-18	27-Feb-18	20-Mar-18		7.87	7.5
37	R-77	MR-99	Salimar	OPC	Chisang Khola	21-Feb-18	28-Feb-18	21-Mar-18		7.74	7.5
38	R-76	MR-100	Salimar	OPC	Chisang Khola	21-Feb-18	28-Feb-18	21-Mar-18		8.00	7.5
39	Rani-site	MR-101	Salimar	OPC	Chisang Khola	21-Feb-18	28-Feb-18	21-Mar-18		7.74	7.5
40	R-113	MR-102	Salimar	OPC	Chisang Khola	22-Feb-18	1-Mar-18	22-Mar-18	6.14	8.27	7.5
41	R-113	MR-103	Salimar	OPC	Chisang Khola	23-Feb-18	2-Mar-18	23-Mar-18	6.00	8.14	7.5
42	R-18	MR-104	Salimar	OPC	Chisang Khola	24-Feb-18	3-Mar-18	24-Mar-18	6.40	7.74	7.5
43	S13-C	MR-105	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18	6.40	8.27	7.5
44	R-76	MR-106	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18	5.87	7.87	7.5
45	Rani-site	MR-107	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18	5.87	8.27	7.5
46	R-77	MR-108	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18	6.40	8.14	7.5
47	R-76	MR-109	Salimar	OPC	Chisang Khola	27-Feb-18	6-Mar-18	27-Mar-18	6.00	8.40	7.5
48	R-113	MR-110	Salimar	OPC	Chisang Khola	27-Feb-18	6-Mar-18	27-Mar-18	6.14	8.27	7.5
Contractor							Consultant				
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD							BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL				
Checked By Engineer		Submitted By Contract Manager		Verified By Qty Engineer/CSE			Approved By Team Leader				



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Concrete Cube Test Report											
							Month		March		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm ²		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
1	R-40	RUDP-103	Salimar	OPC	Chisang Khola	1-Feb-18	8-Feb-18	1-Mar-18		24.16	M20
2	R-18	RUDP-104	Arghakhachi	OPC	Chisang Khola	1-Feb-18	8-Feb-18	1-Mar-18		23.18	M20
3	R-77	RUDP-105	Arghakhachi	OPC	Chisang Khola	1-Feb-18	8-Feb-18	1-Mar-18		24.28	M20
4	Koshi-yard	RUDP-106	Arghakhachi	OPC	Chisang Khola	1-Feb-18	8-Feb-18	1-Mar-18		23.56	M20
5	S13-C	RUDP-107	Arghakhachi	OPC	Chisang Khola	2-Feb-18	9-Feb-18	2-Mar-18		22.13	M20
6	B2-3	RUDP-108	Arghakhachi	OPC	Chisang Khola	2-Feb-18	9-Feb-18	2-Mar-18		24.16	M20
7	CN2CN3	RUDP-109	Arghakhachi	OPC	Chisang Khola	3-Feb-18	10-Feb-18	3-Mar-18		23.41	M20
8	CN2CN3	RUDP-110	Arghakhachi	OPC	Chisang Khola	3-Feb-18	10-Feb-18	3-Mar-18		26.64	M25
9	Koshi-yard	RUDP-111	Arghakhachi	OPC	Chisang Khola	5-Feb-18	12-Feb-18	5-Mar-18		23.56	M20
10	CN2CN3	RUDP-112	Arghakhachi	OPC	Chisang Khola	5-Feb-18	12-Feb-18	5-Mar-18		23.63	M15
11	R-18	RUDP-113	Arghakhachi	OPC	Chisang Khola	7-Feb-18	14-Feb-18	7-Mar-18		21.83	M20
12	R-114	RUDP-114	Arghakhachi	OPC	Chisang Khola	7-Feb-18	14-Feb-18	7-Mar-18		23.41	M20
13	R-113	RUDP-115	Arghakhachi	OPC	Chisang Khola	9-Feb-18	16-Feb-18	9-Mar-18		23.26	M20
14	DDC-yard	RUDP-116	Arghakhachi	OPC	Chisang Khola	9-Feb-18	16-Feb-18	9-Mar-18		22.51	M30
15	R-114	RUDP-117	Arghakhachi	OPC	Chisang Khola	9-Feb-18	16-Feb-18	9-Mar-18		21.75	M20
16	R-18	RUDP-118	Salimar	OPC	Chisang Khola	9-Feb-18	16-Feb-18	9-Mar-18		23.10	M20
17	R-77	RUDP-119	Arghakhachi	OPC	Chisang Khola	12-Feb-18	19-Feb-18	12-Mar-18		21.75	M20
18	R-113	RUDP-120	Arghakhachi	OPC	Chisang Khola	13-Feb-18	20-Feb-18	13-Mar-18		21.98	M20
19	R-18	RUDP-121	Arghakhachi	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18		21.35	M20
20	R-17	RUDP-122	Arghakhachi	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18		22.28	M20
21	R-77	RUDP-123	Arghakhachi	OPC	Chisang Khola	17-Feb-18	24-Feb-18	17-Mar-18		21.6	M20
22	R-18	RUDP-124	Arghakhachi	OPC	Chisang Khola	19-Feb-18	26-Feb-18	19-Mar-18		23.05	M20
23	Rani Site	RUDP-125	Salimar	OPC	Chisang Khola	21-Feb-18	28-Feb-18	21-Mar-18		21.78	M20
24	R-113	RUDP-126	Arghakhachi	OPC	Chisang Khola	22-Feb-18	1-Mar-18	22-Mar-18		14.99	24.9
25	R-76	RUDP-127	Arghakhachi	OPC	Chisang Khola	22-Feb-18	1-Mar-18	22-Mar-18		14.84	23.26
26	R-17	RUDP-128	Arghakhachi	OPC	Chisang Khola	22-Feb-18	1-Mar-18	22-Mar-18		14.10	22.05
27	CN2CN3	RUDP-129	Arghakhachi	OPC	Chisang Khola	23-Feb-18	2-Mar-18	23-Mar-18		18.16	27.2
28	Koshi-yard	RUDP-130	Arghakhachi	OPC	Chisang Khola	23-Feb-18	2-Mar-18	23-Mar-18		15.74	23.03
29	CN2CN3	RUDP-131	Salimar	OPC	Chisang Khola	23-Feb-18	2-Mar-18	23-Mar-18		15.22	22.13
30	DDC-yard	RUDP-132	Arghakhachi	OPC	Chisang Khola	25-Feb-18	4-Mar-18	25-Mar-18		16.22	23.18
31	R-76	RUDP-133	Arghakhachi	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18		15.37	21.9
32	CN2CN3	RUDP-134	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18		17.66	23.71
33	R-114	RUDP-135	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18		14.32	21.83

22.80

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



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		March		Concrete Grade
							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
							7 Days	28 Days	7 Days	28 Days	
34	R-114	RUDP-136	Salimar	OPC	Chisang Khola	26-Feb-18	5-Mar-18	26-Mar-18	14.89	21.83	M20
35	DDC-yard	RUDP-137	Salimar	OPC	Chisang Khola	4-Mar-18	11-Mar-18	1-Apr-18	14.69		M20
36	R-114	RUDP-138	Salimar	OPC	Chisang Khola	4-Mar-18	11-Mar-18	1-Apr-18	15.74		M20
37	Koshi-yard	RUDP-139	Salimar	OPC	Chisang Khola	6-Mar-18	13-Mar-18	3-Apr-18	15.52		M20
38	R-76	RUDP-140	Salimar	OPC	Chisang Khola	8-Mar-18	15-Mar-18	5-Apr-18	15.96		M20
39	Koshi-yard	RUDP-141	Salimar	OPC	Chisang Khola	9-Mar-18	16-Mar-18	6-Apr-18	16.11		M20
40	CN2CN3	RUDP-142	Salimar	OPC	Chisang Khola	9-Mar-18	16-Mar-18	6-Apr-18	12.10		M15
41	Koshi-yard	RUDP-143	Salimar	OPC	Chisang Khola	11-Mar-18	18-Mar-18	8-Apr-18	16.19		M20
42	CN2CN3	RUDP-144	Salimar	OPC	Chisang Khola	11-Mar-18	18-Mar-18	8-Apr-18	15.44		M20
43	DDC-yard	RUDP-145	Salimar	OPC	Chisang Khola	11-Mar-18	18-Mar-18	8-Apr-18	15.22		M20
44	Koshi-yard	RUDP-146	Salimar	OPC	Chisang Khola	13-Mar-18	20-Mar-18	10-Apr-18	16.04		M20
45	Koshi-yard	RUDP-147	Salimar	OPC	Chisang Khola	13-Mar-18	20-Mar-18	10-Apr-18	21.00		M30
46	R-76	RUDP-148	Salimar	OPC	Chisang Khola	13-Mar-18	20-Mar-18	10-Apr-18	14.92		M20
47	DDC-yard	RUDP-149	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	14.69		M20
48	Rani-Site	RUDP-150	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	14.77		M20
49	CN2CN3	RUDP-151	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	17.38		M25
50	R-88	RUDP-152	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	14.55		M20
51	R-17	RUDP-153	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	15.07		M20
52	R-76	RUDP-154	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	15.07		M20
53	R-88	RUDP-155	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	15.52		M20
54	R-40	RUDP-156	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	14.4		M20
56	R-18	RUDP-157	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	14.69		M20
57	B-1	RUDP-158	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	15.29		M20
58	Rani-Site	RUDP-159	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	14.99		M20
59	DDC-yard	RUDP-160	Salimar	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18	15.81		M20
60	CN2CN3	RUDP-161	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	11.01		M15
61	DDC-yard	RUDP-162	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	21.67		M30
62	CN2CN3	RUDP-163	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	15.29		M20
63	DDC-yard	RUDP-164	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	14.84		M20
64	Rani-Site	RUDP-165	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	14.11		M20

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



VISWA CONSULT (P) LTD

P.O. Box : 4316, Dillibazar, Kathmandu
 Tel:- 977-1-4433156 Fax No.: 977-1-4433156
 Email : viswaconsultlab@gmail.com

Date: 2074.11.02

LAB UNIT

MARSHALL DESIGN DATA FOR ASPHALT CONCRETE

Project : Regional Urban Development project
 Contractor : Zhongheng Construction Group International Engineering Co. Ltd.
 Contract No.: RUDP-DSC/BRT/02
 Ref. No.: rudpbdbart/1 2017-25

SN	% Bitumen Content by wt. of agg. Mix	Sp. Gr. Of Agg. 16 mm	Sp. Gr. Of Agg. 10mm	Sp. Gr. Of Sand	Sp. Gr. Of Filler	Sp. Gr. Of Agg Mix	Sp Gr of Bitumen	% Aggregate Mix	Density Of Comp. A/C Mix gm/cc	Max. Sp Gr	Air Voids %	VMA %	Remarks
1	4.5	2.718	2.660	2.673	2.652	2.672	1.025	95.5	2.276	2.492	8.651	18.64	
2	5	2.601	2.534	2.647	2.674	2.620	1.013	95	2.312	2.473	6.511	17.79	
3	5.5	2.601	2.534	2.647	2.674	2.620	1.013	94.5	2.343	2.465	4.554	17.13	
4	6	2.601	2.534	2.647	2.674	2.620	1.013	94	2.376	2.437	2.495	16.40	
5	6.5	2.601	2.534	2.647	2.674	2.620	1.013	93.5	2.356	2.419	2.607	17.55	

% mix of aggregate by weight of total agg. Mix :

% coarse 16 mm aggregate	25
% coarse 10 mm aggregate	30
% Fine agg sand	5
% Mineral dust filler	40

Tested By:

Punam

Checked BY:



VISWA CONSULT (P) LTD

P.O. Box : 4316, Dillibazar, Kathmandu
 Tel:- 4433156,4433159 Fax No.: 433359
 Email : viswaconsultlab@gmail.com

LAB UNIT

MARSHALL DESIGN DATA FOR ASPHALT CONCRETE

Project : Regional Urban Development Project

Contractor : Zhongheng Construction Group international Engineering Co. Ltd.

Date: 2074/11/02

Contract No.: RUDP-DSC/BRT/02

Sample: Wearing Course

Reference No : rudpbdbart/11 2017-25

SN	% Bitumen content by wt. of agg. Mix	Flow divs.		Flow mm	Av. Flow mm	Load Providing Divs.	Thickness mm	Corr. Factor	Corr. Stab div.	Stab. KN	Av. Stab. KN	Remarks
		Initial	Final									
1	4.5	655	848	193	1.73	618	63.5	1.000	618	15.53	13.590	
2	4.5	638	824	186		520	64.7	0.940	489	12.21		
3	4.5	626	765	139		554	64.6	0.941	521	13.03		
4	5.0	619	899	280	2.27	508	63.4	1.004	510	12.75	13.908	
5	5.0	628	875	247		522	64.0	0.960	501	12.52		
6	5.0	628	782	154		648	63.2	1.009	654	16.45		
7	5.5	549	874	325	2.83	575	62.8	1.019	586	14.70	15.236	
8	5.5	578	858	280		580	62.5	1.025	595	14.94		
9	5.5	651	895	244		628	62.9	1.017	639	16.07		
10	6.0	538	938	400	3.36	558	63.4	1.004	560	14.04	14.499	
11	6.0	632	912	280		588	64.4	0.948	537	13.96		
12	6.0	616	945	329		604	62.6	1.021	617	15.50		
13	6.5	582	913	331	3.93	555	65.9	0.910	505	12.62	13.891	
14	6.5	545	926	381		598	63.5	1.000	598	15.01		
15	6.5	512	978	466		602	65.1	0.930	560	14.04		

Tested By:

Checked By:



VISWA CONSULT PVT. LTD.

P.O. Box - 4316, Dillibazar, Kathmandu

Tel : 4433156 Fax: 977-1-4433359

Email : viswaconsultlab@gmail.com

LAB UNIT

PENETRATION OF BITUMEN

ASTM D5

Project : Regional Urban Development Project

Date : 2074/10/28

Contractor : Zhongheng Construction Group international Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Reference No : rudpbdbart/11 2017-25

Temperature of Water Bath :	2.5	(STD =25°C)
-----------------------------	-----	-------------

Weight of Piston :	100gms	(STD = 100 gms)
--------------------	--------	-----------------

Determination No:	1	2	3
Penetration(1/10 mm)	82	83	85
Average Penetration	83.33		

Range of Penetration (highest - lowest) =

Reported Penetration (1/10) mm =

Tested By: 	Checked By: 
--	--



Viswa Consult Pvt. Ltd.

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SPECIFIC GRAVITY OF BITUMEN

Project : Regional Urban Development Project

Date : 2074/10/28

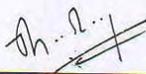
Contractor : Zhongheng Construction Group international Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Reference No : rudpbdabrt/tl 2017-25

	Determination No.	1	2	
	Temperature	25	25	
A	Wt. of Pycnometer	42.33	39.35	gms
B	Wt. of Pycnometer + sample	60.65	60.57	gms
C=(B-A)	Wt. of Sample	18.32	21.22	gms
D	Wt. of Sample+Pycnometer+Water	91.57	90.39	gms
E	Wt. of Pycnometer + Water	91.13	89.85	gms
(C+E-D)/C	Specific Gravity	1.025	1.026	
	Average Specific Gravity	1.025		

Remarks: _____

Tested By: 		Checked By: 
--	---	---



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LAB UNIT

FLASH POINT & FIRE POINT OF BITUMEN
CLEVELAND OPEN CUP

ASTM - D- 92

Project : Regional Urban Development Project

Date : 2074/10/28

Contractor : Zhongheng Construction Group international Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Reference No : rudpdabrt/tl 2017-25

OFL	OBSERVED FLASH POINT	301	°C
P	ATMOSPHERIC PRESSURE		mm Hg

FI	OBSERVED FIRE POINT	313	°C
P	ATMOSPHERIC PRESSURE		mm Hg

Reported Flash Point	301 °C
Reported Fire Point	313 °C

Tested By: 		Checked By: 
--	---	--



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 Tel : 977-1-4433156 Fax: 977-1-4433359
 Email : viswaconsultlab@gmail.com

LAB UNIT

SOFTENING POINT OF BITUMEN
(RING & BALL)

ASTM D - 36

Project : Regional Urban Development Project

Contractor : Zhongheng Construction Group international Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Date : 2074/10/28

Reference No : rudpdabrt/tl 2017-25

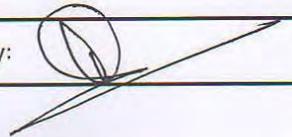
Time after start	1	2	3	min.
Temperature of bath	5	10	15	°C
Temperature of increase	5	5	5	°C
Time after start	4	5	6	min.
Temperature of bath	20	25	30	°C
Temperature of increase	5	5	5	°C
Time after start	7	8	9	min.
Temperature of bath	35	40	45	°C
Temperature of increase	5	5	1	°C

Temperature when ball no. 1 touches bottom plate	T ₁	45	°C
--	----------------	----	----

Temperature when ball no. 2 touches bottom plate	T ₂	45	°C
--	----------------	----	----

SOFTENING POINT = (T ₁ + T ₂)/2 =	45	°C
---	----	----

REPORTED SOFTENING POINT =	45	°C
----------------------------	----	----

Tested By:  Checked By: 



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LAB UNIT

DUCTILITY OF BITUMEN

ASTM D - 113

Project : Regional Urban Development Project

Date : 2074/10/28

Contractor : Zhongheng Construction Group international Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Reference No : rudpdabrt/tl 2017-25

Temperature of Water Bath		oC
Speed of Jaws (5cm/min)		cm/min

D ₁	Distance moved by jaws to break sample No. 1	> 100	cm
D ₂	Distance moved by jaws to break sample No. 2	> 100	cm
D ₃	Distance moved by jaws to break sample No. 3	> 100	cm
D	Ductility = (D ₁ +D ₂ +D ₃)/3	> 100	cm

REPORTED DUCTILITY VALUE = > 100 cm

Tested By: 	Checked By:  
--	--



VISWA CONSULT Pvt. Ltd.

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Tel:014433156,4433908 Email:viswaconsultlab@gmail.com

Date:2074.11.02

Project : Regional Urban Development Project

Contractor : Zhongheng Construction Group International Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Ref. No.: rudpbdabrt/tl 2017-25

Test Carried out for: Bituminous Wearing Course

ASPHALT CONCRETE WEARING COURSE TEST RESULTS

Mix Design Type : Asphalt Concrete Wearing Course By Marshall Design Method

1. Sieve analysis test results of the provided aggregates and filler materials :

Sieve size mm	% PASSING			
	16 mm down Agg size	10 mm down Agg size	Natural Sand	Mineral Dust Filler
16	100.00	100.00	100.00	100.00
9.5	21.31	93.38	100.00	100.00
4.75	0.38	0.97	89.00	92.96
2.36	0.21	0.23	71.40	81.36
0.6	0.09	0.12	41.40	45.76
0.075	0.02	0.05	11.80	17.34

2. Proposed mix proportions of provided aggregates and dust filler :

16 mm aggregate	=	25	%
10 mm aggregate	=	30	%
Natural Sand		5	%
Mineral Dust filler	=	40	%

3. Sieve analysis of the mix aggregates after provided proposed mix proportions :

Sieve size mm	% passing Mix grading of agg,sand and dust	Specified Limit
16	100	100
9.5	83.1	76--82
4.75	56.4	54--59
2.36	42	33--37
0.6	23.3	16--21
0.075	6.2	6--9

[Handwritten signature]




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P.O. Box:4316, Dillibazar, Kathmandu

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Date:2074.11.02

Project : Regional Urban Development project

Contractor : Zhongheng Construction Group International Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Ref. No.: rudpbdbart/1 2017-25

Test Carried out for: Bituminous Wearing Course

ASPHALT CONCRETE WEARING COURSE TEST RESULTS

Mix Design Type : Asphalt Concrete Wearing Course By Marshall Design Method

4. Specific Gravity Test Results of provided aggregates,dust filler and bitumen :

a. 16 mm size aggregate =	2.718
b. 10 mm size aggregate =	2.660
c. Mineral Dust Filler =	2.673
d. Fine agg. sand =	2.652
e. Specific gravity of bitumen =	1.025

5. Proposed Optimum Bitumen Content after Marshall Design Test results analysis :

Optimum Bitumen Content by weight of Total Agg. Mix = **5.703** %

6. A/C Mix Design Results at proposed Optimum Bitumen Content :

a. Stability at	5.703	%	Bitumen Content =	15.1	KN
b. Flow Value at	5.703	%	Bitumen Content =	3.03	mm
c. Bulk Density at	5.703	%	Bitumen Content =	2.358	gm/cc
d. Air Voids at	5.703	%	Bitumen Content =	3.63	%
e. Voids in Mineral Aggregates at	5.703	%	Bitumen Content =	16.7	%

Note: Design Results have been provided at one set proportion of the provided sample. Results have been provided of that proportion set and to approve or disapprove the design results should be carried out by the related official authority. Proportion of aggregate and grading % passing size should be as per the provided sample to meet the provided results. It is suggested to carry out bitumen content in course of asphalt concrete works and compaction test by core cutting after completion of works. Asphalt concrete design have been carried out on sample passing 16.0 mm size. It is suggested to screen through 16 mm size if oversize aggregate are available.



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



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

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: march- 2018.

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	✓			Consultant		
2	Availability of toilet facility in campsite	✓			Consultant		
3	Legal source of fuel wood use			✓	Consultant		
4	Legal document of fuel wood source			✓	Consultant		
5	Use of safety accessories		✓		Consultant		
6	Availability of first aid facility		✓		consultant	Sub 2.11 30 full	
7	Basic wage rate to construction workers	✓			Consultant		
8	Equal wage rate to male and female workers		✓		Consultant		
9	Compensation of temporarily occupied land	✓			Consultant		
10	Compensation of temporarily occupied buildings	✓			Consultant		
11	Legal document of temporarily occupied assets	✓			Consultant		
12	Non use of child labour in construction activities			✓	Consultant		

Prepared by: 
Dhraj Surdar

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: March 2018

Checklist

SN	Activity	Description/Present Status (Compliance/Partially Compliance/Non Compliance	Remarks/ Corrective actions for Non- Compliance
1	Training		Provided on 3 rd and 4 th march at working sites
1.1	Health, Safety and EMP trainings and awareness	Yes	Provided on 3 rd and 4 th march at working sites
1.2	Other awareness and skill trainings	Yes	
2	Occupational health and safety		
2.1	Insurance for workers	Yes	
2.2	Personal Protective Equipment (PPE)provided to labours andareusing(helmet, facemasks, muffles, gloves, boots, jacket, gogglesetc.)	Yes Partially complied	Orient or award to labour
2.3	Public notification Safety and warning signs and informative signboards in working sites for work safety	Yes	Provided
	Use of barricades, caution tape and		Provided

JH

JH

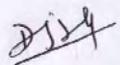


	flag	Yes	Provided
2.4	Use of shoring in sewer lines	Yes	Provided
3	Camp site management		
3.1	Location	CN2, DDC, R113, Koshi yard	Enforce to place first aid kit in working site
3.2	Firstaid facilities available at camp and worksites	Yes	Provided at camps
3.3	Drinking water supply and sanitation facilities/ pit latrines	Yes (Water quality not tested)	Enforce to test water quality prior to use for drinking NDWQS 2062
3.4	Waste Disposal and Management facilities	Yes	Provide separate Bins to collect waste
3.5	Type of fuel used for cooking	LP gas	
4	Spoil and Construction material Management		
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Reused in Backfilling	
4.2	Use of safe spoil dispose allocations		
4.3	Disturbance to Pedestrian and traffic movement		
4.4	Use of private land and agreement with land owners	Yes	
5	Air, Noise and Water Pollution		
5.1	Dust emission and Noise pollution sites	Water has been sprinkled to minimize dust pollution	
5.2	Water quality monitoring result and locations	No water quality test	Contractor instructed to test immediately

DJJ *hvt*



5.3	Blockage of natural drainages, water logging, drain water discharge into farmland/risky areas	No	
6	Quarrying of construction materials and Plants Installment		
6.1	Quarry/borrow operation sites	No	
6.2	Crusher plant and Asphalt plant operation restoration	No	
7	Impact/Disruption of Private properties		
7.1	Building structures	No	
7.2	Other utilities	No	
8	Impact/ disruption of public infrastructures		
8.1	Irrigation canal	No	
8.2	Water supply pipe	Disturbed but repair as required	Repair immediately from provisional sum
8.3	Access road	No (Traffic diversion with sign board)	In the process of relocation
8.4	Electric/Telephone pole	Poles within Row	
8.5	Others		






9	Sites for cultural and religious values		
9.1	Cultural and religious sensitive spots (if any)	N/A	
10	Forest and vegetation		
10.1	Number of trees removal	N/A	
10.2	No of tree plantation(Roadside)	N/A	
11	Accident cases and records	No cases of accident	
12	Employment to local people		Record of labour maintained
12.1	Men and women		
12.2	Child labour (if any)	119- 00 , Women -8 No	
13	Establishment of Safe guard desk and meeting	Yes	
14	Grievances from local people and addressed	Yes	GRM recorded and addressed

D.S.

Prepared by:
Dhiraj sardar
Safeguard Engineer

D.S.





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

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Fax: 01-4721031
E-mail: zcgiec.ans@gmail.com
Site Office:
Biratnagar
Ph: 021-461510

Ref: 47-RUDPBR-2017/18

Date: 11th , March, 2018

TO,
Er. Giresch Chand,
Team Leader/RUDP,
Building Design Authority (P) Ltd., B.N. Consultancy (P) Ltd. and Plus Engineers and
Architects (P) Ltd.

Ref: Construction and Completion of Sewerage, Drainage, Road, Footpath and Road
Furniture works. Contract No: RUDP/ICB/BRT/02

Subject: Training and awareness program regarding health, safety and disease

Dear Sir

We have conducted training and awareness program regarding health, safety and disease at labour camps and yards on 3rd and 4th march 2018 by our Accident preventive officer Er. Dhiraj Sardar. As per your instructions, we suggested awareness about the safety items used by labours and mosquito nets to be used in labour camps bed and also about the fatal disease HIV/AIDS, its cause and preventive measures. List of labours participated with their camps specified are attached with the letter.

Thanking you


.....
Ravindra Kr. Thakur
(Contract Manager.)
(Biratnagar, Nepal)

Cc:
The Project Manager
Regional Urban Development Project
Project Implementation Unit (PIU)Biratnagar, Nepal

*Received
Amosmy
2018/March/11*

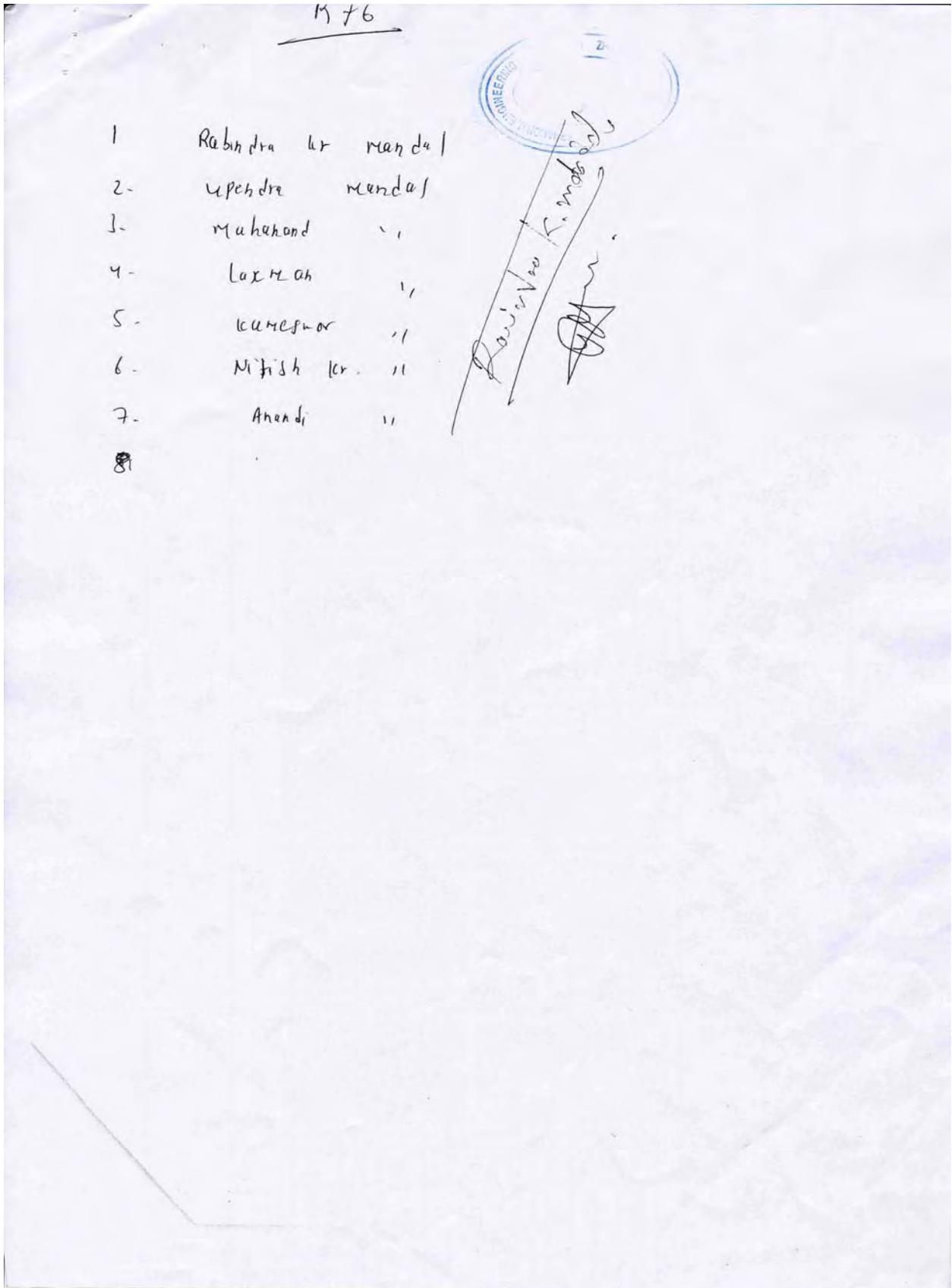


* ZHONGHENG CONSULTANTS INTERNATIONAL

Koshi yard

आवाज	स्तराहरू
(1) अरुण क. सहाई	जोशी
(2) गोला क. सहाई	शोला
(3) विजय क. सहाई	अजंठ
(4) विपल क. सहाई प्रदीप केव	दिपक
(5) धरम क. सहाई	रवि ६/१०/१८
(6) राज क. सहाई	
(7) गणेश क. सहाई	म-८-१
(8) वैकुण्ठ सहाई (निर्देशक)	अमर
(9) विवेक क. सहाई	दिलीप
(10) नरेश सहाई	नरेश
(11) निरज प्रदीप केव	नरेश
(12) अमरेश क. सहाई	





			DDC Yard	
सं. नं.	नाम धर		सही	
1	खगिन्द्र वास्तीला	दारुन, सनसरी	(72)	
2	मुपाल मगर		मुपाल	
3	शिव गुरुङ्ग	धुढान		
4	श्विन मगर	"	P. mager	
5	सुभम चौगि	"	सुभम	
6	दिपक परीचार	"	दिपक	
7	राम व. शना मगर	"	राम	
8	कमल चर्ती मगर	"	Kamal	
9	किर. व. गुरुङ्ग	"		
10	दिपक मगर	"	दीपक मगर	
11	मन मं. मगर	"	man	
12	मान सिद्ध शापा	"	Mani. Saha	
13	पुन शापा	"	Pun	
14	भिम गुरुङ्ग	"	Bhim	
15	रुक व. गुरुङ्ग	"	रुक	
16	शुक व. गुरुङ्ग	"	Yog	
17				
	प. व. लक्ष्मी सुपाध्याय		प. व. लक्ष्मी	





- 1) DCC Park Rajc Rai
- 2) Khandah Jhapra
- 3) Juviv Anjani
- 4) Bhutwa Anjani
- 5) Jhahaluk Nagar
- 6) Narsen Anjani
- 7) Suraj Sah

2018/3/24



पावन - विषी		असाये को वृष इंडिया	
1	असाये	1	
2	करमाजिरे	1	
3	रवि	1	
4	नायकुमार	1	
5	विजय	1	
6	सतीश	1	
7	मन	1	
8	समपिनास	1	
9	कामानन्द	1	
10	कमलदेव	1	
11	अमित कुमार	1	
12	छोटे	1	
13	रमेश	1	
14	अजय	1	
15	महेश	1	
16	जंगमी	1	
17			



जामुन अंशुप वेवानी अंशुप

1) अशु चौधरी

2) पहाडी चौधरी

3) मन्विकुलाल चौधरी

4) संजय चौधरी

5) लवण चौधरी

6) प्रभाष चौधरी

7) धीरज चौधरी

8) निरालाल "

9) मेन्दा "

10) कौकुराफा "

11) भासुदेव "

12) वमेश "

13) गणेश "

14) सनाप "

15) विश्वनाथ "

16) सुरेश कामेट

17) दिली कौराम

18) कदम चौधरी



पुरे सेट चौधरी
ड्रेस के लागे

2014/11/22

जासु





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

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Fax: 01-4721031
E-mail: zcgiec.ans@gmail.com
Site Office:
Biratnagar
Ph: 021-461510

Ref: 48-RUDPBRT-2017/18

Date: 11th , March, 2018

TO,
Er. Giresh Chand,
Team Leader/RUDP,
Building Design Authority (P) Ltd., B.N. Consultancy (P) Ltd. and Plus Engineers and
Architects (P) Ltd.

Ref: Construction and Completion of Sewerage, Drainage, Road, Footpath and Road
Furniture works. Contract No: RUDP/ICB/BRT/02

Subject: Submission of contract documents of land used for labour camps and yards

Dear Sir

We are submitting contract documents of land occupying for our labour camps and yards
situated in various places under RUDP, Biratnagar and they are attached with the letter.

Thanking you

With Best Regards


Ravindra Kr. Thakur
(Contract Manager.)
(Biratnagar, Nepal)

Cc:
The Project Manager
Regional Urban Development Project
Project Implementation Unit (PIU)Biratnagar, Nepal

Received
Mansingh
2018/March/11

See, Pls file





लिखितम् करारनामा कागज गरिदिने लिनेका नाम रुचुप्रसाद उपाध्यायको नाति लक्ष्मीप्रसाद उपाध्यायको छोरा जिल्ला मोरङ्ग विराटनगर महानगरपालिका वडा नं. ५ बस्ने बर्ष ५५ को रामकाजी उपाध्याय-१, (पहिलो पक्ष मानिएको), खडानन्द गौतमको नाति लक्ष्मीप्रसाद गौतमको छोरा जिल्ला मोरङ्ग विराटनगर महानगरपालिका वडा नं. ४ बस्ने बर्ष ३५ को दिपक गौतम-१ र ऐ ऐ बस्ने बर्ष ३३ को प्रमोदकुमार गौतम-१ (दोश्रो पक्ष मानिएको) आगे माथि उल्लेखित पहिलो पक्ष मानिएका रामकाजी उपाध्यायको नाममा दर्ता भएको साविक जिल्ला मोरङ्ग विराटनगर वडा नं. ६ को कि.नं. २१९३ को ज.वि. २५३.९८ र ऐ कि.नं. २१९५ को ज.वि. २५३.९८ वर्गमिटर जग्गा मात्र पहिलो पक्ष भनिएका रामकाजी उपाध्यायले आशिष निर्माण प्रा.लि.द्वारा पाइएको कामको YARD/Precast Item सञ्चालन गर्नको लागि जग्गा भाडा वापत माग गरेको हुँदा हामी पहिलो पक्ष र दोश्रो पक्ष बीच निम्न बमोजिमको शर्त पालना गर्ने गरी यो करारनामा कागज लेखि लेखाई सहीछाप गरी एक/एक प्रति लियौ दियौ ।

शर्तहरू

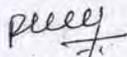
- (१) दोश्रो पक्षले आफ्नो नाममा माथि रहेको खाली जग्गा कि.नं. २१९३ को ज.वि. २५३.९८ र ऐ कि.नं. २१९५ को ज.वि. २५३.९८ वर्गमिटर मात्र जग्गा पहिलो पक्षलाई आशिष निर्माण प्रा.लि.द्वारा पाइएको कामको YARD सञ्चालन गर्न भाडामा प्रयोग गर्न दिने ।
- (२) माथि उल्लेखित जग्गा उपलब्ध गराए वापत पहिलो पक्षले बार्षिक रुपमा जम्मा रु.३,६०,०००/- (अक्षरेपी रु.तीन लाख साठी हजार मात्र) दोश्रो पक्षलाई बुझाउनु पर्नेछ । साथै बार्षिकरुपमा १०% का दरले भाडा बृद्धि गरिनेछ ।
- (३) यो करारको अवधि मिति २०७४।८।१३ आजैका मितिले २ बर्षसम्मको रहनेछ ।

प्रमोद
पक्ष



- (४) करार अवधि ३ वर्ष पुरा भएपछि पहिलो पक्ष र दोश्रो पक्ष बीच पुनः नयाँ सम्झौता गरिनेछ ।
- (५) यो करारको अवधि पुरा भएपछि पहिलो पक्षले बनाएका घर,टहरा, आशिष निर्माण प्रा.लि.द्वारा पाइएको कामको YARD संचालन गर्दा बनाएका सबै संरचनाहरु भत्काई जग्गा पहिलेकै अवस्थाको खाली गरिदिनु पर्नेछ ।
- (६) उपरोक्त उल्लेखित शर्तहरु हामी एकअर्कामा पालना गर्न मन्जुर छौ । साक्षी किनाराका सदर मुकाम विराटनगर उपमहानगरपालिका वडा नं.५ पहिलो पक्षकै घर ।

पहिलो पक्ष



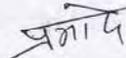
रामकाजी उपाध्याय



दोश्रो पक्ष



दिपक गौतम

प्रमोद कुमार गौतम



ईति सम्बत् २०७४ साल मंसिर महिना २६ गते रोज ३ शुभम्.....।



श्री



Jhi yard

लिखितम् शर्त करारनामाको कागज गरी लिने दिनेका नाम गोवर्धनको नाति रघुवंश साहको छोरा जिल्ला मोरंग विराटनगर उपमहानगरपालिका वडा नं. १४ हाल परिवर्तित विराटनगर महानगरपालिका वडा नं. ९ बस्ने वर्ष ४१ को गणेश प्रसाद साह (यसपछि प्रथम पक्ष भनी सम्बोधन गरिनेछ)-१, लेखनाथको नाति गोविन्द प्रसादको छोरा जि. सर्लाही वागमति नगरपालिका वडा नं. १२ बस्ने वर्ष ३८ को दिनेश प्रसाद प्रसाई (यसपछि दोश्रो पक्ष भनी सम्बोधन गरिनेछ)-१ समेत २ जना बीच तपसिल बमोजिमका शर्तहरूका अधिनमा रही तपसिल बमोजिमकै कार्य गर्न गराउनको लागि यो शर्त करारनामाको कागज गरी एक-एक प्रति लिनु दिनु गरेका छौं ।

तपशिल

शर्तहरू :

(१) म प्रथम पक्षले मेरा सगोलका दाजु रमेश कुमार साह, भाइ महेश प्रसाद साह र प्रकाश साहका संयुक्त नाम दर्ताको जि. मोरंग बखरी गा.वि.स. वडा नं. ३(ख) कि.नं ५३ को ज.वि. ०-१८-१९^१/_२ जग्गा वार्षिक रुपमा भाडामा लगाउने हुँदा कसैले भाडामा लिई कुनै फर्म व्यापार व्यवसाय सञ्चालन गर्न प्रस्ताव राख्दछु ।

(२) प्रथम पक्षले शर्त नं. १ मा राखेको प्रस्ताव बमोजिम गर्न म दोश्रो पक्ष मन्जुर गर्दछु ।

(३) शर्त नं. १ बमोजिमको जग्गालाई वार्षिक भाडा रु.१,८०,०००/- (एक लाख अस्सी हजार) कायम गरिएको छ ।

(४) भाडा रकम मुष्टमा अग्रिम भुक्तानी गर्नु पर्नेछ ।

(५) दोश्रो वर्षदेखि १० प्रतिशतले भाडा बृद्धि हुनेछ ।

(६) दोश्रो वर्षदेखि ६/६ महिनाको एकमुष्ट अग्रिम भाडा भुक्तानी गर्नुपर्नेछ ।

(७) दोश्रो पक्षले भाडामा लिएको जग्गामा कुनै अवैध वस्तु उत्पादन, भण्डारण र बिक्री वितरण गर्न पाइने छैन ।



१. विराटनगर उपमहानगरपालिका वडा नं. ९
 २. मोरंग जिल्ला बखरी गा.वि.स. वडा नं. ३(ख)
 ३. ज.वि. ०-१८-१९^१/_२
 ४. जग्गा वार्षिक रुपमा भाडामा लगाउने हुँदा
 ५. कसैले भाडामा लिई कुनै फर्म व्यापार व्यवसाय सञ्चालन गर्न प्रस्ताव राख्दछु ।
 ६. प्रथम पक्षले शर्त नं. १ मा राखेको प्रस्ताव बमोजिम गर्न म दोश्रो पक्ष मन्जुर गर्दछु ।
 ७. शर्त नं. १ बमोजिमको जग्गालाई वार्षिक भाडा रु.१,८०,०००/- (एक लाख अस्सी हजार) कायम गरिएको छ ।
 ८. भाडा रकम मुष्टमा अग्रिम भुक्तानी गर्नु पर्नेछ ।
 ९. दोश्रो वर्षदेखि १० प्रतिशतले भाडा बृद्धि हुनेछ ।
 १०. दोश्रो वर्षदेखि ६/६ महिनाको एकमुष्ट अग्रिम भाडा भुक्तानी गर्नुपर्नेछ ।
 ११. दोश्रो पक्षले भाडामा लिएको जग्गामा कुनै अवैध वस्तु उत्पादन, भण्डारण र बिक्री वितरण गर्न पाइने छैन ।



- (८) दोश्रो पक्षले भाडाको जग्गामा अवधि बाहेक जुनसुकै फर्म, कम्पनी तथा मातहतका कार्यहरु सञ्चालन भण्डारण बिक्री वितरण गर्न पाइने छ।
- (९) प्रथम पक्षको जग्गामा भइरहेका बोटविरुवा दोश्रो पक्षले हस्तक्षेप गरी काट्न मास्न पाइने छैन। यथावत रहीरहन दिनु पर्नेछ र रुख विरुवामा फलेका फलहरु समेत हस्तक्षेप गरी टिपी खान र लैजान पाइने छैन।
- (१०) भाडाको जग्गामा दोश्रो पक्षले कुनै वैध कार्य सञ्चालन गर्दा आवश्यक पर्ने घर टहरा निर्माण गर्न, बिजुली बत्ति, पानी धारा कल आदि राखी उपभोग गर्न पाइने छ। माटो उठाई अन्यत्र लैजान भने पाइने छैन।
- (११) यो करारको अवधि ३ (तीन) वर्षसम्मको हुनेछ। सो अवधी सम्म छोड्न र छोडाउन पाइने छैन। दोश्रो पक्षले छोडेमा अवधिसम्म भाडा रकम बुझाइरहनु पर्नेछ।
- (१२) ३ (तीन) वर्ष अवधि पश्चात पुनः भाडामा लिनु दिनु परे उसै बखत आपसी सहमति अनुसार हुनेछ।
- (१३) यो करार २०७४ साल मंसिर १ गतेबाट लागू हुनेछ।
- (१४) यो शर्तकरारनामाको परिपालना दुवै पक्षले गर्नु पर्नेछ। उल्लंघन गर्न पाइने छैन। कसैले उल्लंघन गरे मार्का पर्ने पक्षले कानून बमोजिम गरी लिन पाइने छ।

प्रथम पक्ष
गणेश प्रसाद साह
विराटनगर म.न.पा.-९, मोरंग

दोश्रो पक्ष
दिनेश प्रसाद प्रसाई
वागमति न.पा.-१२, सर्लाही

इति सम्बत् २०७४ साल मंसिर १ गते रोज ६ शुभम्



व्यवस्था मन्त्रालय
विभाग
जग्गाधनीको नाम.....

प्रमाण प्रज्ञा

जिल्ला	क्षेत्र	संकेत नं.	संकेत	समाप्ति मिति
५४	५-०-०	५-०-०	५-०-०	५-०-०
५४	५-०-०	५-०-०	५-०-०	५-०-०
५४	५-०-०	५-०-०	५-०-०	५-०-०
५४	५-०-०	५-०-०	५-०-०	५-०-०
५४	५-०-०	५-०-०	५-०-०	५-०-०

जग्गाधनीको नाम.....

जग्गाधनी दता

संकेत नं.	संकेत	समाप्ति मिति	समाप्ति मिति
५-०-०	५-०-०	५-०-०	५-०-०
५-०-०	५-०-०	५-०-०	५-०-०
५-०-०	५-०-०	५-०-०	५-०-०
५-०-०	५-०-०	५-०-०	५-०-०
५-०-०	५-०-०	५-०-०	५-०-०



क्र 068199120

श्री मान कन्सल्टेन्स अर्दी कर्म उत्र पत्र श्री निरात्मगर
 मेघदय



विषय : घर मडा मा लीचे का बारे

प्रो चन्द्रा भीनी रिजाल प्रेशे घर चयाजकारी नला धीयो
 मा रहेको हुनाले नला मा काम गर्ना ठेकेदार जलाउडीन
 जिलाई अडामाडिचे छु २ घरको मडा २५५००० पाँच हजार
 प्रती महीना दरले लीचे को जानकारी गडा छु

जलाउडीन

चन्द्रा भीनी रिजाल



मिति ०७४/११/१९.

श्री माता कन्सल्टेंट्स अन्ड इंजीनियर्स प्राइवेट लिमिटेड वरिष्ठ इंजीनियरों
 मोहोदयों



विषय

खाली घर मा वसोवास गरौ को बारे
 मा प्रजय कुमार मुसहर - मिहर्द मोहरा,
 साईड मा काम गरौ माई रहेको हुना
 हाम्रो मिस्त्री लेवट सुब्बारी हार
 र मिहर्द मोहरा को खाली घर मा
 वसोवास गरौना जानकारी गरौछौ

प्रजय कुमार मुसहर

(Signature)

(Signature) दिनेश खत्री सीमा हारती
 दिनेश खत्री (वामरा) सीमा हारती





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

Liaison Office:
 Maharajgunj, Kathmandu
 Ph: 01-4720273, 01-4720973
 Fax: 01-4721031
 E-mail: zcgiec.ans@gmail.com
Site Office:
 Biratnagar
 Ph: 021-461510

Ref: 52-RUDPBRT-2017/18

Date : 30th March , 2018

To,

Er. Giresh Chand
 Team Leader/RUDP,
 Building Design Authority (P) Ltd., B.N. Consultancy (P) Ltd. And Plus Engineers and
 Architect (P) Ltd.

Ref: Construction and completion of sewerage, Drainage, Road, Footpath and Road,
 Furniture works, contract No.: RUDP/ICB/BRT/02

Sub: Submission of Asphalt Mix design

Dear Sir,

We would like to inform you that we are submitting report of asphalt mix design and they are attached with letter.

Early action on this regards will be highly appreciated.

Thanking You.

With best Regard

Yours Sincerely

[Signature]

Ravindra Kr. Thakur
 (Contract manager)
 (Biratnagar, Nepal)



*Asla for debut design
 of Asphalt mix.
 Received
 /mmmm/
 01 April 2018*

Cc:

The Project Manager
 Regional Urban Development Project
 Project Implementation Unit (PIU)





VISWA CONSULT Pvt. Ltd.

P.O. Box:4316, Dillibazar, Kathmandu

Tel:014433156,4433908 Email:viswaconsultlab@gmail.com

Date:2074.11.02

Project : Regional Urban Development Project

Contractor : Zhongheng Construction Group International Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Ref. No.: rudpbdabrt/tl 2017-25

Test Carried out for: Bituminous Wearing Course

ASPHALT CONCRETE WEARING COURSE TEST RESULTS

Mix Design Type : Asphalt Concrete Wearing Course By Marshall Design Method

1. Sieve analysis test results of the provided aggregates and filler materials :

Sieve size mm	% PASSING			
	16 mm down Agg size	10 mm down Agg size	Natural Sand	Mineral Dust Filler
16	100.00	100.00	100.00	100.00
9.5	21.31	93.38	100.00	100.00
4.75	0.38	0.97	89.00	92.96
2.36	0.21	0.23	71.40	81.36
0.6	0.09	0.12	41.40	45.76
0.075	0.02	0.05	11.80	17.34

2. Proposed mix proportions of provided aggregates and dust filler :

16 mm aggregate	=	25	%
10 mm aggregate	=	30	%
Natural Sand	=	5	%
Mineral Dust filler	=	40	%

3. Sieve analysis of the mix aggregates after provided proposed mix proportions :

Sieve size mm	% passing Mix grading of agg,sand and dust	Specified Limit
16	100	100
9.5	83.1	76-82
4.75	56.4	54-59
2.36	42	33-37
0.6	23.3	16-21
0.075	6.2	6-9

[Handwritten signature]





VISWA CONSULT Pvt. Ltd.

P.O. Box:4316, Dillibazar, Kathmandu

Tel:014433156,4433908 Email:viswaconsultlab@gmail.com

Date:2074.11.02

Project : Regional Urban Development project

Contractor : Zhongheng Construction Group International Engineering Co. Ltd.

Contract No.: RUDP-DSC/BRT/02

Ref. No.: rudpbdbart/tl 2017-25

Test Carried out for: Bituminous Wearing Course

ASPHALT CONCRETE WEARING COURSE TEST RESULTS

Mix Design Type : Asphalt Concrete Wearing Course By Marshall Design Method

4. Specific Gravity Test Results of provided aggregates,dust filler and bitumen :

a. 16 mm size aggregate =	2.718
b. 10 mm size aggregate =	2.660
c. Mineral Dust Filler =	2.673
d. Fine agg. sand =	2.652
e. Specific gravity of bitumen =	1.025

5. Proposed Optimum Bitumen Content after Marshall Design Test results analysis :

Optimum Bitumen Content by weight of Total Agg. Mix = **5.703 %**

6. A/C Mix Design Results at proposed Optimum Bitumen Content :

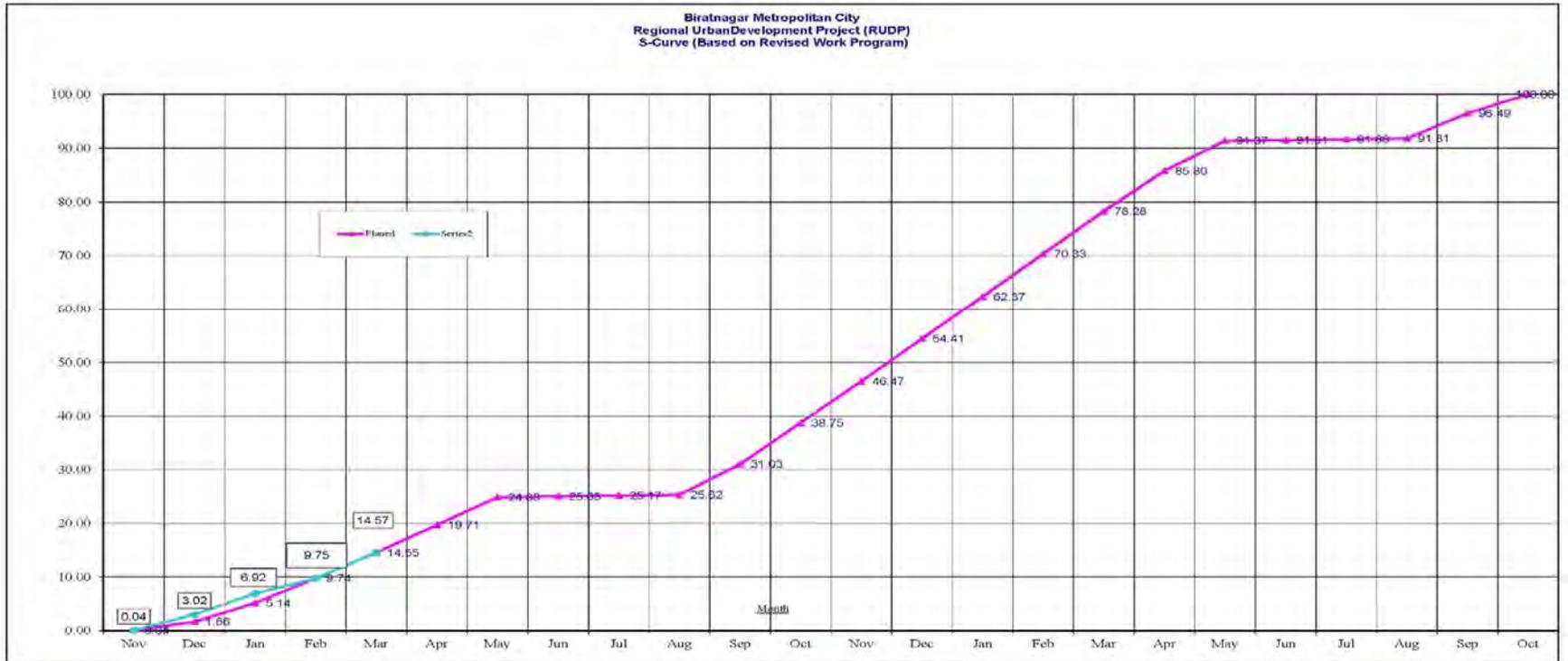
a. Stability at	5.703	%	Bitumen Content =	15.1	KN
b. Flow Value at	5.703	%	Bitumen Content =	3.03	mm
c. Bulk Density at	5.703	%	Bitumen Content =	2.358	gm/cc
d. Air Voids at	5.703	%	Bitumen Content =	3.63	%
e. Voids in Mineral Aggregates at	5.703	%	Bitumen Content =	16.7	%

Note: Design Results have been provided at one set proportion of the provided sample. Results have been provided of that proportion set and to approve or disapprove the design results should be carried out by the related official authority. Proportion of aggregate and grading % passing size should be as per the provided sample to meet the provided results. It is suggested to carry out bitumen content in course of asphalt concrete works and compaction test by core cutting after completion of works. Asphalt concrete design have been carried out on sample passing 16.0 mm size. It is suggested to screen through 16 mm size if oversize aggregate are available.



ANNEX-5: S-Curve
Attached





Year/Month	2017						2018						2019											
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Planned Month %	0.04	1.63	3.48	4.60	4.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.95	7.96	7.96	7.51	5.57	0.15	0.15	0.15	4.69	3.51	
Progress month %	0.04	2.98	3.90	2.83	4.82																			
Planned Cum %	0.04	1.66	5.14	9.74	14.55	19.71	24.88	25.03	25.17	25.32	31.03	38.75	46.47	54.41	62.37	70.33	78.28	85.80	91.37	91.51	91.66	91.81	96.49	100.00
Progress Cum%	0.04	3.02	6.92	9.75	14.57																			



Master Plan of RUDP Project

