

In association with

Brisbane City Enterprise Pty Ltd, Australia AQUA Consultant and Associates Ltd, Bangladesh Building Design Authority, Nepal CEMAT Consultants, Nepal

## Monthly Progress Report (February, 2015) Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar, Nepal





Biratnagar Sub-Metropolitan City, Nepal

AUSTRALIA | ASIA | MIDDLE EAST | AFRICA | PACIFIC

-	Project Name:	Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP)
	Project Number:	56064023
	Report for:	Biratnagar Sub Metropolitan City, Nepal

#### PREPARATION, REVIEW and AUTHORISATION

Revision	Date	Prepared by	Reviewed by	Approved for Issue by
	5 March 2015	DSC		

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## 1. SALIENT FEATURE of Contract Package: STIUEIP/W/BRT/ICB-01

General Features		
Name of Project	Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP)	
Executing Agency	Government of Nepal, Ministry of Urban Development Department of Urban Development and Building Construction (DUDBC)	
Implementing Agency	Biratnagar Sub-Metropolitan City	
Funded By	Asian Development Bank & Government of Nepal	
Package	Sewerage and Drainage Network, Wastewater Treatment Plant and Road and Lanes Improvement Sub Project	
Contract No.	STIUEIP/W/BRT/ICB-01	
Location	Biratnagar Sub-Metropolitan City	
Consultant	SMEC in association with Brisbane/AQUA/BDA/CEMAT	
Contractor	CTCE-KALIKA Joint Venture	
Date of Commencement	8 <sup>th</sup> December, 2013	
Date of Completion	25 <sup>th</sup> May, 2016	
Contract Period	900 days from date of commencement	
Time elapsed till <b>February</b> 2015	448 days from date of commencement (49.8%)	
Contract amount with Provisional Sum	NRs. 2,119,054,525.90	
Add 13%VAT	NRs. 272,278,000.00	
Variation Order No 1 with 13% VAT	NRs 99,753,075.60	
Total Contract Amount with VAT & PS	NRs. 2,491,085,601.50	
Paid Amount of IPC 01	NRs. 209,400,000.00	
Paid Amount of IPC 07	NRs. 76,203,672.17	
Total Paid Amount from IPC 01 to IPC 07	NRs. 510,347,334.97	



## 2 INTRODUCTION / BACKGROUND

- SMEC International Pty (Australia) in association with Brisbane City Enterprise Pty Ltd (Australia), AQUA Consultant and Associates Ltd (Bangladesh), Building Design Authority (Nepal) and CEMAT Consultants (Nepal) have entered for a Contract of Consulting Services with Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Project Implementation Unit(PIU), Biratnagar Sub metropolitan City on 7<sup>th</sup> December 2011. This monthly Progress Report of December, 2014 has been submitted to the PIU as per the Work Program proposed in the consultant's technical proposal as well as TOR of the consultant.
- 2. Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), 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 Ioan from Asian Development Bank (ADB) Loan 2650-NEP. As per PAM contribution from GoN is 3.99 million USD, Asian Development Bank (ADB) 18.86 million USD and Biratnagar Sub-metropolitan City (BSMC) 1.99 million USD while contingency is 2.88 million USD for Secondary Town Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar. The cost sharing has been revised in April, 2013 as: Government of Nepal (GoN) is 5.960 Million USD, Asian Development Bank (ADB) 24.214 Million USD, TDF Ioan 4.098 Million USD and Biratnagar Sub-metropolitan City (BSMC) 2.980 Million USD and in total **37.252** Million USD.
- 3. 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 proposed project Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) is another step forward to promote healthy cities by creating healthier urban environments and was formulated under the PPTA 2010.
  - Contract of consulting services signed on 07 December 2011.
  - Design works commenced on 01 January 2012.
  - Final design works submitted to the Client on March 2013
  - Contract of construction works signed on 02 December 2013
  - Construction works commenced on 08 December 2013
  - Contractor's Work Program approved on 10 February 2014
  - Contractor's Work Program (Revision 02) under review 05 December 2014

## 3. SUB-PROJECT COMPONENTS

#### 3.1 Sewer Lines

4. The prioritized sewer lines for Final Detailed Engineering Report of BSMC are as follows:



S N.	Description	Unit	Quantity
1	Sewerage Pipe Supply and Installation		62,835.0
	Reinforced Concrete Pipe laying and jointing		15,748.0
	Line T1 (Secondary	m	3,788.0
	Line T2 (Trunk)	m	7,506.0
	Line T3 (Trunk)	m	4,136.0
	Line T4 (Secondary)	m	318.0
	HDPE laying and jointing		47,087.0
	Line T1 (Secondary	m	7,124.0
	Line T2 (Trunk)	m	19,410.0
	Line T3 (Trunk)	m	18,341.0
	Line T4 (Secondary)	m	22,12.0
2	Manhole ( Brick / RCC)	no.	2,019
3	Sewer Inlet	no.	3,766.00
4	House connection	no.	5,930.00
5	Reinstatement of Roads	km	64.50

Table 1: Proposed S	ewer Lines in BSMC
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#### 3.2 Storm Water Drains

5. Most of the storm drains (S13, S11, S9, S5, B1, B2, B3, CN2, CN3 and southern parts) have been provisioned as Phase I priority works. The major storm drain outlets as planned are 14 numbers and catchment areas and discharges are respectively 1,324.2 Ha and 73.21 cum/sec.



S. No.	Description	Unit	Quantity
А	Storm Drain for Northern Parts		39,379.00
I	Storm Drain Lines	m	25,388
II	Culvert	no	41
III	Outfall	no	15
IV	House Connection Chamber	no	5,930
V	Rain Inlet	no	500
VI	Manhole	no	2,050
VII	Canal Crossing	no	10
В	Storm Drain for Southern Part		
I	Brick Masonry Drain	m	13,991
II	Cleaning and Maintenance of Existing Drain	m	7,273
	Culverts	no	38
С	Rehabilitation of Existing Drain		
I	Drain Cover	m	30,467
II	Cleaning and Maintenance of Existing Drain	m	33,601

#### Table 2: Proposed Storm Water Drains in BSMC

#### **3.3 Waste Water Treatment Plants**

6. The quantity of domestic waste water is calculated using water supply rate at 90 liters per person per day in the design year 2035, out of which 80% is converted into waste water. Maximum quantity of waste water is calculated taking peak factor of 1.99 to 2.5. Minimum quantity of sewage is taken as 30% of the average quantity. Commercial / Institutional / Industrial waste water quantity is calculated as 0.10 LPS/ha. While in filtration quantity is calculated as 0.14 LPS/ha in the design year 2035. The total quantity of commercial / institutional / industrial and infiltration waste water estimated as 237.79 LPS in the design year 2035 which is very large in comparison with domestic waste water quantity of 207.18 LPS. The maximum quantity (peak flow) of waste water in the design year 2035 for both Phase I and Phase II areas is estimated at 650.08LPS. The maximum quantity of the waste water for Phase I areas only is estimated at 213.97 LPS. The capacity of the Phase I WWTP has been adopted as 214LPS. The capacity of the Phase II WWTP will be thus 436LPS. Features of WWTP at Jatuwa are as follows:



#### Table 3: Proposed Waste Water Components in BSMC

S.N.	Description	Unit	No
	Waste Water Treatment Plant Component		
1	By Pass Chamber	no	1
2	Distribution Chamber	no	1
3	Bar Screen Chamber	no	2
4	Sump well with Pumping Station	no	2
5	Collection Chamber1	no	1
6	Oil & Grease Chamber	no	2
7	CollectionChamber2	no	1
8	Grit Chamber	no	2
9	CollectionChamber3	no	1
10	Anaerobic Pond	no	3
11	Facultative Pond	no	3
12	Collection Chamber4	no	1
13	Outfall Structure	no	1
14	Sludge Drying Bed	no	10
15	Enclosure Chamber Shed	no	1
16	Guard House	no	1
17	Office Cum Lab Building	no	1
18	Workshop Building	no	1
19	Generator / Changing House	no	1
20	Entrance Gate	no	1
21	Boundary wall	m	1,340
22	Shallow Tube Well with water Tank	set	1
23	Landscaping and Plantation works	sqm	99,915
24	Site clearance, grubbing, surface dressing	sqm	99,915
25	Road and Drain Improvement	m	1,440
26	River training works	m	600
27	Electro mechanical works	Set	1
28	Lab Equipment and installation	Set	1

#### 3.4 Roads and Lanes

7. Most of the roads / lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement, whereas 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. Almost necessary streets are already constructed and hence the Project has considered on design based on reinstatement,



rehabilitation and upgrading of existing roads and lanes.

#### Table 4: Proposed Roads in BSMC

Description of Item	Quantity
Main Road Improvements (Road from Puspalal Chowk to Bhatta Chowk)	2.5 Km
Reinstatement and Road Improvements (under sewer line installation)	62.0 Km

#### 3.5 Environmental Aspect

- 8. The project is environmental improvement project and mainly constitutes works on sewerage and drainage improvement works in BSMC besides others. As per ADB guidelines on Environmental Assessment requirements, this project is classified as Environment Category B. According to Environmental Protection Guidelines, 2054BS, First Revised (2055BS) schedule-3, IEE is required for Operations of Sewerage Schemes under Schedule 1.h.2.e (pertaining to Rule 3). The final report on IEE was submitted and MUD had approved the IEE on May14, 2013.
- 9. Installation of functioning sewers and functioning drainage system including roads / lanes improvement in BSMC 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.
- 10. DSC has prepared and submitted Environmental Progress Reports (Quarterly) July-September 2014 and October –December 2014 on 15 February 2015.



#### 3.6 Social Aspect

11. Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) in Biratnagar has been commenced from 2010 for improving the quality of life and help to aachieve 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 STIUEIP in Biratnagar Sub-metropolitan City (BSMC). Besides of this, various social development programs and activities are executing through community development and institutional strengthening components which are other two objective focused components of STIUEIP Biratnagar.

In February 2015, DSC focused on monitoring of ongoing social development activities supported by project. As usual in previous months, Design and Supervision Consultant (DSC)/STIUEIP also assisted Project Implementation Unit (PIU) in effective implementation of social activities as and when necessary during this month. The Semiannual Social Safeguard Report of the project has been prepared and submitted.

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 DSC. The fourth meeting of safeguard desk held in this month has decided a systematic mechanism for skill development trainings, information and project message dissemination, community consultations and different social development activities.

Apart from it, many formal and informal meetings had taken place during this month. DSC had sit together with PIU and NGO in developing procedural document to address the skill development trainings included in updated resettlement plan (November 2014) of the project.

The regular monitoring visits have provided insights of the social development aspects of the project to the DSC. The community development programs are continuing through the Tole Lane Organizations (TLOs) that are almost 119 numbers in 17 wards of BSMC. Prior to the start of such community development activities, DSC has analyzed the data of poor and disadvantaged groups (DAGs) living in the various tole/ clusters identified by the poverty mapping applying participatory tools. Based on the poverty indicators, all details has been documented and shown in the social map. The program area for community development programs has been extended to most poverty stricken area scattered across several wards of the BSMC. The Community Development trainings and health, hygiene and sanitation activities which are conducted and organized by the NGO (FriPAD).

12. DSC has prepared minutes meeting No 4, please refer to Annex-7.

#### 3.7 Financial Plan

13. The Sub project cost will be disbursed in three years starting from FY2013/14 to 2015/16. It has estimated that 20 percent of the Sub project cost will be disbursed in first year.



Similarly, in second year, 50 percent will be disbursed. Finally, remaining 30 percent of Sub project cost will be disbursed in third year.

#### 3.8 Disbursement Records in Construction

S.N.	Description of Payment	Payment Items	Amount in NRs.
1	M/S Prabidhi International	Ditch Cleaning Equipment	3,300,000.00
2	M/S CTCE-Kalika JV	IPC 01	209,400,000.00
3	M/S CTCE-Kalika JV	IPC 02	27,853,500.98
4	M/S CTCE-Kalika JV	IPC 03	47,507,270.95
5	M/S CTCE-Kalika JV	IPC 04	42,241,392.52
6	M/S CTCE-Kalika JV	IPC 05	22,035,291.99
7	M/S CTCE-Kalika JV	IPC 06	85,573,541.38
8	M/S CTCE-Kalika JV	IPC 07	76,203,672.17
9	M/S CTCE-Kalika JV	IPC-08	Expected in First week of March 2015
		Total in NRs.	513,647,334.97

#### Table 5: Disbursement Record in Construction to Date

## 4. OBJECTIVES AND SCOPE OF WORKS

#### 4.1 Objectives

- 14. The following are the expected physical infrastructure improvement outputs of the project in Biratnagar:
  - Drainage and sewerage systems improved.
  - Urban roads and lanes improved.
- 15. 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

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

- A. Detailed Design and Procurement Assistance Phase
  - 1. Surveys verification of Feasibility Studies and GIS Base Maps
  - 2. Finalization of Design Criteria, Preparation of Manuals, Guidelines and Systems.
  - 3. Specific design requirements for the sub projects
    - Improvement and development of drainage and sewerage systems
      - Improvement of urban roads and lanes
  - 4. Project Planning and Management Support to PIU



- 5. Detailed Engineering Design
- B. Construction and Post Construction Management Phase
  - 1. Construction Management and Contract Administration
  - 2. Environmental and Social Compliance Monitoring
  - 3. Implementation of Community Development Program, Community Mobilization and GESI Action Plan
  - 4. Capacity Building of the Municipality and Service Providers for Operational Sustainability
- C. Communications, Reporting and Deliverables (Inception Report, Monthly Progress Reports, Interim Report for each of the outputs, Annual Progress Report, Draft Final Report for each of the outputs and Final Report).

## **5 PROGRESS OF SUB-PROJECT COMPONENTS**

#### 5.1 Storm Water Drains

17. The Contractor has not met the target set for storm water drain construction in this month. The works had been greatly affected by interruption in the supply of bricks/ bandh from political parties and less effort observed to acquire bricks from different sources.

#### 5.2 Sewer Lines

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18. The Contractor has submitted to the Consultant monthly programs of January and February 2015 for the sewer line works. The Contractor has just completed 3.5 km sewer line with HDEP pipes. The construction of manhole and house connection chambers are in progress. Meanwhile, the contractor has started the production of precast units for house connection chamber, sewer inlets and manholes at Judi, Katahari Yard.

The proposal of the precast concrete manhole, sewer inlets and house connection chambers has been submitted for review and approval. A conditional approval in consultation with the Employer has been given to the Contractor to prepare few numbers and to demonstrate at site. If the proposal comes out to be economical, time effective and environmental friendly and structurally strong enough to carry out the function of their respective items, then the Consultant will release for unconditional approval. Precast concrete house connection, sewer inlets and manholes are being produced as trial at contractor's yard.

#### 5.3 Wastewater Treatment Plant

19. Office cum laboratory building, workshop building and generator / changing house at WWTP, Jatuwa are ongoing at final and finishing stage. The doors and windows are being fixed and the painting works is in progress. Excavation of anaerobic ponds (3 nos) and facultative ponds (2 nos) had been already done. One of the facultative pond has to be excavated. The contractor is planning to start the remaining works of WWTP in the coming month. The Contractor has started excavation for sump well.

#### 5.4 Road and Lanes Improvement Works

20. The Contractor has completed the rehabilitation / repair of existing drain of 3,850 m in R2 road. The Contractor has shifted 18 numbers of electrical poles. The installation of Kerbs for footpath has been started.

#### 5.5 Construction Materials

21. The contractor has stocked sufficient construction materials like coarse aggregates, fine aggregates, cement, reinforcement etc at his yard, Katahari. The fabrication of steel moulds for precast units- manholes, sewer inlets and house connection chamber are in progress.

#### 5.6 Construction Material Testing Lab

22. Construction material testing laboratory has been set up at the Contractor's camp at Katahari. The validity of calibration of Lab equipment was until February 2015. Now the Contractor has requested the Nepal Bureau of Standards and Metrology for calibration of the proving rings of different compressive machines and CBR machine. The calibration is scheduled on 3<sup>rd</sup> March 2015.

The two samples of bitumen one from Iranian Company and another from Bharat Petroleum Limited has been sent to the Department of Nepal Bureau of Standard and Metrology, Kathmandu for testing. Necessary suitability and routine tests for construction materials are being carried out in regular basis.

#### 5.7 Physical Progress till end of February 2015

23. The total physical progress achieved till 28<sup>th</sup> February 2015 is about 18 % whereas the cumulative planned progress till February 2015 is 29%. The progress of the work is lagging behind by 11% compared to the planned works till end of February 2015(based on work scheduled Rev 02).

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar									
		Plan V	s Progress	5					
Month	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15
Planned Work (%) Rev 01	0.576	1.416	8.074	9.81	9.883	10.666	10.056	9.725	9.865
Cumulative Planned work (%)	17.098	18.514	26.588	36.398	46.281	56.947	67.003	76.728	86.593
Planned Work (%) Rev 02				4.76	6.07	8.63	8.478	7.724	6.654
Cumulative Planned work (%)				14.04	20.11	28.74	37.218	44.94	51.60
Acutal achievment (%)	0.421	0.169	3.305	1.48	1.80	5.00			
Cumulative Actual Achievment (%)	5.81	5.98	9.29	10.77	12.57	17.57			
Progress to date wrt the revised work pla	n (%)	(12.53)	(17.30)	(3.27)	(7.54)	(11.17)			

#### Table 6: Plan Vs Actual Progress

The contractor is lagging behind by 11.2% in his own program whereas 49.8% time of the contract period has been already elapsed.



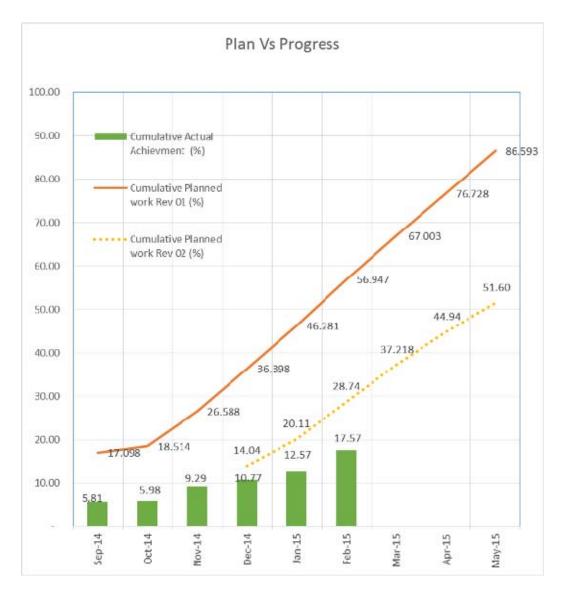


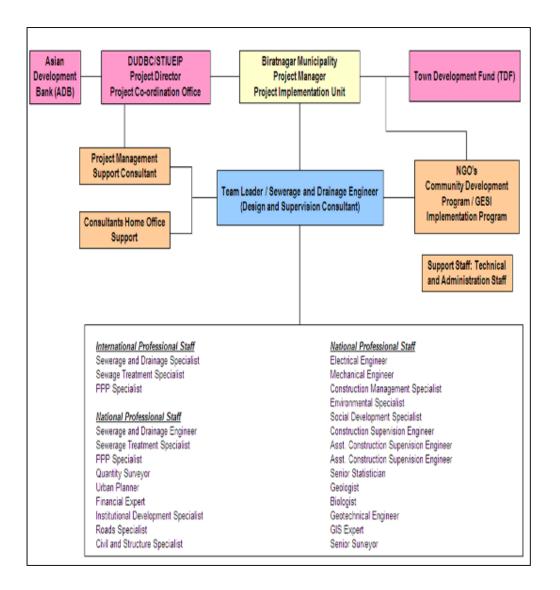
Figure 1: Plan Vs Actual Progress till end of February 2015

# 6 SUMMARY OF ACTIVITIES CARRIED OUT UP TO PREVIOUS MONTHS

#### 6.1 Organization and Staffing

The Project has involvement of different organization and the staffing as given in the next page.





#### 6.2 Inception Report

24. The Inception Report was prepared and submitted on 29 February, 2012.

#### 6.3 Conceptual Catchment Plan and Design Criteria

25. The Conceptual Catchment Plan and Design Criteria was prepared and presented in PCO on 30 March, 2012.

#### 6.4 Survey

26. The survey was completed in August, 2012

#### 6.5 Design

- 27. The design of sewer lines, storm drains, WWTPs and appurtenances and final detailed design and estimates were submitted in March 2013.
- 28. During construction B2, B3 and S5 alternate design was also submitted. Similarly, CN2 and CN3 were submitted as the community request to reduce the size. The size was reviewed with 1 year return period as per the suggestion made by PMSC during field visit. Minor modifications in drawings are being carried out for considering the site condition and progress.

#### 6.6 Pre-construction Activity

29. After successful completion of one stage two envelope bidding procedure the construction Contract for STIUEIP/W/BRT/ICB-01 was signed on December 2, 2013 with M/S CTCE-Kalika JV, Baluwatar, Kathmandu.

#### 6.7 Draft Report

- 30. The construction/contract timing schedule was needed to incorporate some additional time of about 4-5 months to account for decision re-making process, tender award procedures.
- 31. The total cost as per PPTA and earlier designs increased drastically and came to be NRs. 7,274,465,206.69 and therefore needs curtailments and revisions had to be made as per suggestions by PIU in final report.
- 32. The overall works proposed in the PPTA and the area coverage with connection was thus needed to be phased out.

#### 6.8 Final Report

- 33. The DSC submitted the Final Reports adopting cost reduction exercise by phasing out of the works. The estimated cost of the Project was reduced and kept as NRs. 3, 278, 140, 000, 00 with a lot of exercises in March 2013.
- 34. The sharing of cost by concerned institutions is as follows



#### Table 7: Agency-wise Financial Contribution to BSMC

Contributors	Amount (US\$)	Amount (NRs.)	%
Government of Nepal (GoN)	5,960,256	524,502,513	16.00%
Asian Development Bank (ADB)	24,213,539	2,130,791,460	65.00%
Biratnagar Sub-Metropolitan City (BSMC)	2,980,128	262,251,257	8.00%
Town Development Fund (TDF)	4,097,676	360,595,478	11.00%

#### 6.9 Consultant's Activities in Construction Phase

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

#### Table 8: Consultant's Staff at Project Site, Biratnagar

S. No	Name	Position
1	Mohan Kumar Tuladhar	Team Leader
2	Dil Bahadur Rana	Construction Supervision Engineer
3	Jay Prakash Yadav	Asst. Construction Supervision Engineer-1
4	Bhakta Raj Shakya	Asst. Construction Supervision Engineer-2
5	Jamuna Bahadur Shrestha	Construction Management Specialist
6	Bala Ram Mayalu	Social Development Specialist
7	Dr. Subodh Sharma	Environment Specialist
8	Rajesh Yadav	Junior Engineeer-1
9	Sujan Shrestha	Junior Engineeer-2
10	Gaurab Muni Bajracharya	Junior Engineeer-3
11	Santosh Dahal	Junior Engineeer-4
12	Umesh Bartaula	Office Manager
13	Ramji Gimire	Driver-1
14	Suman Ghimire	Driver-2
15	Ramila Ghimire	Office Assistant



- 36. 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 as listed below:
  - i. Daily Construction supervision
  - ii. Quality control, cost control and time control
- iii. Measurement and Certification of Interim Payment Certificates (IPC)
- iv. Modification and design of storm drainage and sewer lines, manholes etc.as per site condition and approve working drawings
- v. Supervise construction material testing and sampling
- vi. Monitor Environment Management Plan and its compliance
- vii. Monitor Social safeguard and Resettlement Plan
- viii. Meet obligation of reporting requirement Updated Environmental Progress Report, Updated Resettlement Progress Report, Monthly Progress Report, Semi-Annual Updated Resettlement Progress Report
- ix. Prepare Variations Order
- x. Maintain correspondences with the Employer and the Contractor
- xi. Assistance to PIU

#### 6.10 Key Dates

The consultant has noted the following key dates for the month of February 2015

Table 9: Ke	y dates of	events /Acti	vities:
-------------	------------	--------------	---------

S. No	Date	Activities/Events	Remarks
1	2-3 Feb 2015	Three Members visited project sites by National Vigilance Centre, Kathmandu and meeting with BMSC, PIU and Consultant	
2	3-4 Feb 2015	Site Visited by PMSC- Mr. Prayaga L Joshi and Mr. Prakash Siwakoti; Meeting with BMSC/PIU/Consultant	
3	06 Feb 2015	Meeting with BMSC/PIU and Consultant	
4	20 Feb 2015	An Accident with Concrete Transit Mixture at B3 (turned over into storm drain )	Drive was safe and only minor injury occurred.
5	25 Feb 2015	Meeting with Employer/ Consultant and Contractor	
6	24-25 Feb 2015	Dr. Mahendra Nath Subedi, TA Consultant , Snr.Environmentalist, ADB, NRM visited site	



## 7 DETAILS OF ACTIVITIES CARRIED OUT IN THIS MONTH

#### 7.1 Physical Progress in this month

Physical Progress till 28th February 2015							
			Prog	ress			
S.N.	Location	Proposed Length (m)	Up to Jan 2015 (m)	This Month (m)	Total to date (m)	Progress (%)	
1	B1	3,950.00	2,205.00	244.00	2,449.00	62%	
2	B2	3,742.00	2,231.00	260.00	2,491.00	67%	
3	B3	3,514.00	2,742.00	384.00	3,126.00	89%	
4	S5	740.00	-	-	-	0%	
5	S9	3,178.00	516.00	72.00	588.00	19%	
6	S11	2,092.00	1,404.00	-	1,404.00	67%	
7	S13	3,910.00	2,434.00	727.00	3,161.00	81%	
8	CN2	2,273.00	620.00	130.00	750.00	33%	
9	CN3	2,170.00	720.00	74.00	794.00	37%	
10	Rani Area	8,483.00	330.00	377.00	707.00	8%	
11	R2 (Rehab)	6,000.00	3,850.00	1,040.00	4,890.00	82%	
	Total	40,052.00	17,052.00	15,273.00	20,360.00	51%	

#### Table 10: Physical Progress in Storm Water Drains:

**Note:** There is increment in length of drain in R2 road from Bhatta Chowk to Panitanki, hence total length has been revised from previous monthly progress report.

#### Table 11: Physical Progress in Sewer Lines:

			Prog	Progress		
S.N.	Location	Proposed Length (m)	Up to Jan 2015 (m)	This Month (m)	Total to date (m)	Progress (%)
1	T1	10,912	-	-	-	0%
2	T2	27,128	1,970.00	493.00	2,463.00	9%
3	T3	23,070	1,569.00	316.00	1,885.00	8%
4	T4	2,530	-	-	-	0%
	Total	63,640	3,539.00	809.00	4,348.00	7%



#### Table 12: Physical Progress in Manholes:

		Progress	Total to		
S.N.	Description	Up to Jan 2015 (No)	This Month (No)	date (No)	
1	House Connection Chambers	24.00	11.00	35.00	
2	Sewer Inlet	-	12.00	12.00	
3	Manholes	58.00	17.00	75.00	

#### Table 13: Physical Progress in Roads and Lanes:

S.N.	Location	Proposed Length (km)	Progr Up to Previous Month (m)	ress This Month (m)	Total to date (m)	Progress (%)
1	T1, T2,T3,T4 and R2	65.0	-	0	0	Installation of Kerbs in progress
	Total	65.0				

#### Table 14: Physical Progress in Waste Water Component at WWTP, Jatuwa:

S.N.	Location	Description	Completed Items to Date	Progress in %
1	Jatuwa	Excavation of Anaerobic Pond	3 nos	Ongoing
2	Jatuwa	Excavation of Facultative Pond	2 nos	Ongoing
3	Jatuwa	River Training Work	480 m	Additional one layer of 327m gabion is complete.
4	Jatuwa	Boundary Wall	580 m	
5	Jatuwa	Office Cum Lab Building		Electrical fittings/Doors and Windows installation in progress,
6	Jatuwa	Workshop Building		White wash in progress
7	Jatuwa	Generator / Changing House		White wash /Painting in progress



S.N.	Location	Description	Up to Previous Month	This Month	Total to date	Remarks
1	Katahari	Precast Slab	20,215	1,550	21,765	
2	Katahari	Precuts	3,610	540	4,150	
3	Katahari	Kerb Stone	5,258	850	6,108	

#### Table 15: Physical Progress of Precast Concrete Works:

#### Table 16: Physical Progress of Hume Pipe (NP3): Production Detail

S.N.	Diameter (mm)	Pipes Required	Up to previous month	This Month	Total to date	Pipes to produce (Balance)	Remarks
1	200		1,562.00	0	1,562.00		
2	300		128.00	12	140.00		
3	350		90.00	20	110.00		
4	400		110.00	31	141.00		
5	450		52.00	21	73.00		
6	500		126.00	37	163.00		
7	600		475.00	101	576.00		
8	700		590.00	126	716.00		
9	900		150.00	34	184.00		
10	1000		370.00	64	434.00		
11	1600		169.00	16	185.00		
	Total		3,822.00	428.00	4,250.00		



#### Contractor's Manpower:

#### Table 17: Contractor's key staffs:

Designation	No	Remarks
Project / Contract Manager	1	
Planning Engineer/Construction Engineer	1	
Construction Engineer	1	
Site Engineers	7	
Quality Control Manager	1	
Office/Bill Engineer	1	
Junior Engineer	13	
Sub Overseers	3	
Safety Manager / Senior Supervisor	1	
Accountant / Office Manager	1	
Lab Assistant	3	
Store Keeper	1	
Light Drivers	5	
Machine Operator	5	
Site Supervisor	1	
Other Supporting Staff	22	
Skilled Labour at Site	86	M:78; F:8
Unskilled Labour at Site	189	M:154; F:35

#### Contractor's Equipment:

## Table 18: Contractor's Equipment:

Equipment	No	Remarks
Back Hoe JCB	3	
Loader	3	
Excavator	2	
Excavator with Long Boom	1	
Plate Compactor	2	
Concrete Mixer	5	
Concrete Batching Plant	1	
Kerb Stone Machine	1	
Trailer	1	
Transit Mixer	2	
Water Bowser	2	
Steel Cutter	4	
Dumping Tractor	8	
Monkey Jumper	1	
Needle Vibrator	8	
Tipper	2	
Total Station	1	
Level Machine	6	
Jeep	5	
Motor Bike	10	



## 7.2 Cumulative Progress (S Curve)

## **Contractor's Revised Cumulative Progress S-Curve**

Ce	akast As	2.05,054,329,80																																
lines			Relative	Veer	2013		-		-		Year	2014	1			-					-	-	Year	2016		-		-	-		Ye	ar 20	16	_
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	THE			Adams	: 400	4 136	8717	221;	1817	8712	221;	887	a a' 7	88.5	8 8'7	88.5	81.5	88"2	88.5		1221	1 222			1 222			1 272	a raa		_			1 200
2	<b>Gelfa</b> d	19-149700490	93.05	Bayera Júlara	0,500 0,500	0.005 0.005	1.596 1.596	0.346 0.346	1255 1265			0.100 0.100	1.384 1.384	2,105 2,105	1.159 1.159	3.293 3.293		5.659 1.767	7.437 1.491		7.513 0.003	6.035 (.000	5.050 0.000	1342 8888	1.503 0.000	0.000 0.000	0 000 0 000	1.366	6433	4947 202	100	4.784 0.000	2 <i>4</i> 17 8888	0.000 0.000
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	hievem		i age		0.000	0.381	0.120	0.361	1307	Les	1331	0.13	0.397	6431	0.160	3.305	1.144	A:10	1713	0.300	8.003	0.000	0.000	0.000	8.000	0.000	0 000	8.803	0.000	0 00C	1.003	0.000	8,000	0.000
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#### 8 DETAILS OF SAFEGUARD ACTIVITIES (SOCIAL, ENVIRONMENTAL AND RESETTLEMENT ACTIVITIES AND ISSUES)

#### 8.1 Social Issues

#### 8.1.1 Operational Guidelines for Community Mobilization and Implementation of CDP

37. The NGO (fri-PAD) working for the project is responsible for implementing community development activities at various ward/tole levels of BSMC. The programs are complying with the Operational Guideline for Community Mobilization and Implementation of the Community Development Program (CDP) that has been prepared by DSC. The Guideline has covered the role and responsibilities of different stakeholders, scope and procedure of Community Development Program (CDP) and possible steps and process for community mobilization.

#### Visit, Interaction and Consultation with Community People

3.8 Social Development Specialist (SDS) of DSC is closely monitoring the social issues that are consequent with the project activities. Visiting and interacting with people, Tole Lane Organisations (TLOs) and formal and informal consultation meetings are ongoing in this regard. In February, a meeting with Ram Janaki TLO at Jatuwa is important to disseminate project features to the community. Monitoring visits with Environment Specialist, TL/DSC and TL/CDP to the Hartali Hat Public Toilet construction site has been beneficial to discuss and consult the community development programs that are ongoing within project area.

#### Training and Capacity Enhancement

39. In line with the project objectives, several skill development and awareness trainings are organizing within Community Development Programs (CDP) by NGO/STIUEIP. In January and February, 4 nos. of women awareness trainings in different ward and clusters of BSMC have been conducted by CDP/NGO with support of external training facilitators/ experts. SDS/DSC visited the Women Awareness Trainings with PM/PIU and TL/CDP. SDS at that moment provided positive feedbacks for better outcome of that type of trainings. The visits were good platform for interaction and consultation with community women from poverty stricken area of BSMC which were selected based on the poverty mapping. At the closing session of such training, SDS with PM/PIU distributed sanitary kits to the training participants provided by the project within training budgets.

#### Informative Project Message Display/ Dissemination

40. The project has been planned to disseminate the information and message to community people about the project features, its purpose, and methods of use and functionality of infrastructure under construction by the project. Social Development Specialist of DSC has prepared and presented some outlines of such informative messages to the Project Implementation Office (PIU) proposing to display in the public places regarding of the usage and its purpose of storm drainage system and sewerage system separately.



#### 8.2 Environmental Issues

41. IEE notice was published in newspaper Kantipur national daily on 2069/6/20 in this month. Baseline data for IEE has been collected from the project site during last dry season. TOR was approved on September 12, 2012 by MUD and PIU informed on September 19, 2012. Draft IEE report submitted to PIU. IEE Report presented at MUD on March 22, 2013. Final Report submitted to PIU on April 10, 2013. IEE report/proposal was approved by MUD on May 14, 2013. Updated Environmental Progress and Monitoring Report submitted to PIU on February 26, 2013, Environmental orientation/training has been organized on 30 April, 2014.

Updated Environmental Progress and Monitoring Reports (Quarterly) for the months of July –September 2014 and October to December 2014 submitted to PIU on 15 February 2015

#### 8.3 Resettlement Issues

#### 42. Functional Safeguard Desk

A Safeguard Desk is established in the project for planning, monitoring and follow up of all social development/ safeguard issues including of resettlement plan. It has been started a functional mechanism consisted with PIU, NGO and DSC for this purpose. The desk consist with Social Development Chief of PIU, Team Leader of CDP/ NGO and SDS of DSC with close consultation and guidance of PM/ PIU. It is in compliance with the Aide Memoire of last ADB Mission (21 April-12 May 2014). It is decided that the desk will review, update and discuss of progress, issues, constraints and challenges of social aspects, Community Development Program and implementation of resettlement plan as well as monitoring of social development activities.

In February, a regular meeting of social safeguard desk has been organized. The meeting (6 February, 2015) reviewed the progress status and planned for upcoming programs. (Meeting Minute in Annex 7)

#### 43. People's Concern

People of Jatuwa (BSMC, Ward no. 18) nearby of the under constructing Waste Water Treatment Plant (WWTP) has raising concerns on the existing drainage of the village. The concerns came to front at the time when underground Hume Pipe laying works has been started at that area. People obstructed the Hume Pipe laying works demanding the covered drain at the side of road. Chief Executive Officer of BSMC, officials of PIU and the community people discussed on the issues and negotiated in a point with a written agreement between Shree Ram Janaki Tole Lane Organization (TLO) and BSMC. DSC along with the PIU and NGO facilitated the consultation and agreement in this regard.

#### 44. General

Sewer/ Drainage lines are being carried primarily on public rights of way. During construction however, if there is any area affected namely trees or crops or structures demolished, it shall be properly addressed with compensation. Similarly, private individuals or shopkeepers will also be looked into if their livelihood is affected by the disturbance during constructions/ pipe laying works. Due Diligence study on this regard is being carried out in this month. SDS/DSC is preparing Due Diligence report and submitting to PIU/STIUEIP.

Apart from this, the project does not encounter any resettlement or re-location and any compensation issue.



45. Latest Updated Semi-Annual Report of Resettlement and Social Aspect on 14 January 2015.

## 9 KEY ISSUES AND REMARKS / REASON FOR DEVIATION (IF **ANY) AFFECTING PROGRESS**

46. Following are the key issues affected in progress:

- Limited site possession and Right of Way (RoW)
- Shifting of electrical poles and transformers
- Dispute from local people
- Localized disturbances at construction sites by local people for designed alignment • and RoW Standards from BSMC

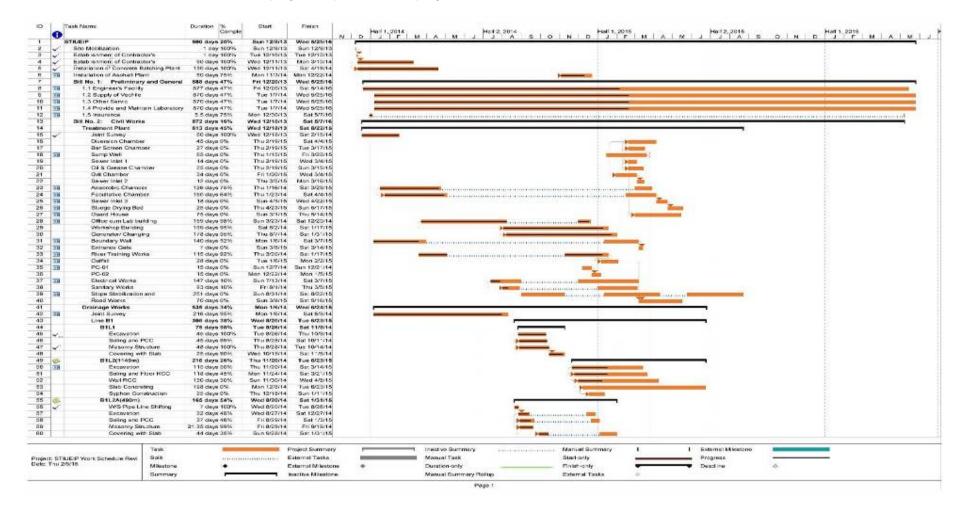
## **10 WORK PLAN FOR THE NEXT MONTH**

- 47. Following are the Contractor's works in the next month (Please refer to the contractor's progress report for quantitative plan works for next month):
  - Continuation of storm water drains •
  - Continuation of sewer pipe lines T3 Trunk Line and Secondary Lines including • manholes, sewer inlet chambers and house connecting chambers
  - Construction at WWTP, Jatuwa •
  - Cover drains with precast slabs and construction of slab guards. •
  - Start Construction of footpath
  - Road construction from Pushpalal Chowk to Bhatta Chowk
  - Production of precast RCC items (hume pipe, kerb stone, chamber, manhole, drain • cover slab etc)
  - Suitability tests and routine tests of construction materials at Lab and at site •



#### ANNEX-1: Work Schedule (Rev.02) (Under Review) and Progress

Note: Please refer to the contractor's progress report for details program.





0	Task Name		Comple	Start	Finish	Half 1, 2014 Half 2, 2014 Half 1, 2015 Half 2, 2019 Half 1, 2015 Half 2, 2019 Half 1, 2015 Half 2, 2019 Half 1, 2016 Half 1, 2016 Half 2, 2019 Half 1, 2016 Half 1, 2016 Half 2, 2019 Half 1, 2016 Half
61 🛃	61L28(135m)		28 days 0%	Sun 12/28/14		
62	W2S Pipe Lin		4 days 05%		Wed 12/31/14	E 1
63	Excevation		14 days 0%	Thu 1/1/15		
64	Soling and P		18 days 0%	Sat 1/3/16		
65	Masonry Str		18 days 0%	Sat 1/0/15		·····
	Covering with B1L2C(138m)		4 days 0%	Wed 1/21/15 Thu 1/1/16		
67 🌝	W/S Pipe Lin		28 days 0% 4 days 0%	Thu 1/1/16		
69	Excavation		14 days 0%	Mon 1/5/15		
70	Soling and P		16 days 0%	Wed 1/7/16		
71	Masonry Str		18 days 0%	Wed 1/7/15		
72	Covering wit		4 days 0%	Sun 1/25/16		·
73 60-	B1L2D(498m)		SD clays 0%	Mon 1/5/15		
74	Excevation		30 days 0%	Mon 1/5/15		
76	Soling and P		35 days 0%	VMag 1/7/16		
76	Masonry Sto		40 days 0%	Wed 1/7/15		
77	Covering with		8 days 0%	Mon 2/16/15		
78 📀	B1L2F(371m)		77 days 68%	Sun 11/16/14		
79 13	Excavation		30 days 90%		Mon 12/15/14	
05	Soling and P		32 days 80%	Tue 11/18/14		
āt	Masonry Str		34 days 80%		Sun 12/21/14	
82	Covering wit		14 days 70%	Pri 12/5/14		
83	Road Crossi		28 days 0%	Sam 1/4/16		
84	Line B2		115 days 42%	Tue 2/25/14		
-0 85	6211(690m)		30 days 55%	Tue 2/25/14		
86 13	Excavation		80 days 47%	Tue 2/25/14	Sun 12/28/14	
87	Soling and P	CC.	73 days 60%	The 2/27/14	Sat 1/3/15	
88	Masonry Str	cture	75 days 61%	Tue 3/4/14	Bat 1/10/15	
89	Covering with	1 Slab	46 days 52%	Wed 4/23/14	Tue 1/20/15	
50 (CA	D2L2(020m)	- 1	42 days 12%	Tue 11/25/14	Wed 4/15/15	
61 24	Excevation		83 days 20%	Tue 11/25/14	s 8un 2/16/16	
92	Soling and F	loor RCC	05 days 20%	Thu 11/27/14		
63	Wall RCC		95 days 14%	Thu 11/27/14	8 8un 3/1/15	
94	Stab Concre		140 days 0%	Thu 11/27/14		
25 62	B2L2C(668m)		83 days 95%	Tue 2/25/14		
06 11	Excevation		45 days 95%	Tue 2/25/14		
97	Soling and P		56 days 96%	Thu 2/27/54		
88	Masonry Str		56 days 95%	Thu 2/27/14		
99	Covering wit		25 days 96%	The 4/24/14		
100 🕪	B2L1B(860m)		66 days 32%	Sun 11/16/14		
101	Excavation		35 days 40%	Bun 11/16/14		
102	Soring and P		38 days 35%	Tue 11/18/14		
103	Masonry Str		40 days 32%	Tue 11/18/14		
104	Covering wit		14 days 0%	Sun 12/28/14		
	Line B3 B3L1A(410m)		186 days 56%	Wed 2/12/14 Wed 2/12/14		
105	Excevedion		65 days 99% 28 days 100%	Wed 2/12/14 Wed 2/12/14		
107	Soling and P		33 days 100%	Sun 2/16/14		
109	Masonry Str		45 days 100%	Sun 2/16/14		
110	Covering wit		10 days 96%	Wed 4/2/14		
111 6	B3L1B(410m)		65 days 99%	Wed 2/12/14		
112	Excevetion		28 days 100%	Wed 2/12/14		
113 2	Soling and P		33 days 100%	Sun 2/16/14		
114	Masonry Str		45 days 100%	Sun 2/16/14		
115	Covering wit		10 days 95%	Wed 4/2/14		<u> </u>
115 65	B35,4(690m)		108 days 90%	Thu 3/20/14		
117 11	Excevation		56 days 99%	Thu 3/20/14		
118	Soling and P		68 days 99%	Mon 3/24/14		
119	Masonry Str		65 days 98%	Mon 3/24/14		
120	Covering with		26 days 90%	Sat 5/3/14		
encenti -	0.00000000	ennesse - i i -	and the state of the			
		Task			Project Summary	Inactive Sammary Manual Sammary I I External Meetane
relact ST	UEIP Work Schedule Revi	Spæ	and the second	materia	External Tasks	Martual Task Start-only Programs
ute: Thu 2		Milestone			External Milestone	· · · · · · · · · · · · · · · · · · ·
		Summary			Inactive Milestone	
						e Manual Summary Rollap External Tasks



-	Name		Duration % Complet	Stat	Finish	Har 1, 2014		4sH 2, 2014	Hart, 2	915	Half 2, 2015	an assure a nas	Hell 1, 2016
	Ouser		18 days 0%	Sul 1/4/15	Wed 1/21/16	NOJEN	AMJ	JASO	NDJ	FMAB	JJAS	OND	HaH 1, 2016 J F M A M
2 00	E3L3(579m)		106 days 54%	Sat 1115/14			an e-sen ratione-sen		-	ALC: DOLLAR STREET			<ul> <li>Second Contract C</li></ul>
3 111	Excavation		B2 days 95%	Sat 11115/14			1			·			() () () () () () () () () () () () () (
	Soling and Fig	or RCC	85 days 80%	The 11/20/14					-				
	Well RCC		87 days 75%	Wed 11(26/14			1						
	Covering with	Slab	28 days 0%	Sun 2/1/15			1		Charlen (Charlen (Cha				1
	Syphon		18 days O'd.	Fri 2/6/18						-			8
	OuSet		18 days 0%	Tue 12/16/14			1		2 COLOR				
No.	B34.1(692m)		163 days 12%	Fri 12/12/14	Sat \$123/15		1		-		-		
1998	Excevation		85 days 30%	Fri 12/12/14	Fri 3/6/15				- House and the second se				1
100	Soling and Fig	or RCC	55 days 20%	Sun 12/14/14	Wed 3/11/15		1		b terms				1
	Wall RCC		95 days 10%	The 12/18/14	Sun 3/32/15				Print 1				1
6	Siab Concrete	10	145 days 0%	Tue 12/30/14	8416/23/15				(C 60				1
	Outet		18 days 0%	Tue 1/13/15	En 1/30/15		2		- Print I				80
No.	831.2(692m)		171 days 49%	Sun 11/16/10	Tuo 8/5/15				_				
0.00	Excevation		110 days 80%	8us 11/18/14	Thu 3/6/15					and the second se			4
	Soling and Plo	or ROC	110 days 75%	Tue 11/18/14	5un 3/15/15		1			and the second se			
	Wait RCC		122 days 70%	Sat 11/22/14	Mon 3/33/15					A CONTRACTOR OF			
	Slab Concrete	19	155 days 1%	Tue 12/2/14			1		HIM				
	Outet		18 days 0%	Tue 12/23/14					Hanna				
	Syphon		20 days 0%	Thu 1/1/15	Tue 1/20/15				Penner				
NB	B3L2E(220m)		32 days 76%	Thu 11/20/14	Bun 12/21/14		1						9
1718	Excevation		16 days 90%	Thu 11/20/14	Pri 12/5/14				-				
21 22 2	Soling and PC	C	18 days 90%	Mon 11/24/14	Thu 12/11/14				- beauting				191
	Masurry Struc	dure:	20 days 50%	Mon 11/24/14	Bal 12/13/14				-				
5	Covering with	Giab	6 days 10%	Sun 12/14/14	Sun 12/21/14								-
0	Line S6		97 days 0%	Fri 1130/16	Wed 5/6/15		-		-				
NS-	(364m)		48 days 0%	Fri 1/30/15	Wed 3/18/15		1		-				
100	Excavation		25 days 0%	Fn 1/30/15	Thu 2/25/15		1						
1	Brick Drain		33 days 0%	Sur 2/1/15	Thu 3/5/15				100	Contract of Contra			
21	Covering with	8990	10 days 0%	736 2119/15	8et 2/28/16								
5	Cutet		10 days 0%	Sun 3/1/15	Wed 3/10/15					and the second se			
100	S5L1B(376m)		48 days 0%	Fri 1/30/18	Wed 3/18/18				-	-			
4. (19)	Expervation		28 days 0%	Fit 1/30/15					- 1-00				
5	Brick Drain		33 days 0%	Sun 2/1/15			-		-	and the second se			
K	Counting with	Skot	10 days 0%.	Tea 3119/15						B-THE			1
r	Outet		18 days 0%	But 3/1/15						diama di seconda di se			
6	SI5L.1		48 days 0%	Fri 2127/15			1						
9 199	Excavation		28 days 0%	Fit 2(27/15						diameter (			4
5	Brick Drain		33 theys 0%	Sen 3/1/19			1			1-COLUMN TWO IS NOT			
6	Covering with	Slab	10 days 0%	Thu 2/19/15			1			+==			1
10	Outet		18 days 0%	Sun 3/29/15			8			since a			
	55L2A		51 days 0%	Tue 3/17/15									
100	Excavation		28 days 0%	Tue 2/17/15			1			P-1000000			4
	Brick Drain		33 days 0%	The 3/16/15						* CONTRACTOR			
	Covering with	Slab	13 days 0%	Mor 4/6/15						Peter			4
	Outet		18 days 0%	Sun 4/19/15						-			
	Line 89		462 days 17%	8un 3/16/14						_			
10	89L1(2981m)		462 days 19%	5un 3/16/14									1
100	Excevation		140 days 13%	Sun 2/16/14			- and a second second						31
	Brok Drain		00 days 76%	Tue 3/18/14		94		a					
	HCC Dram		122 days 5%	Bus 12(28)14					P ter				
	Covering with	Glab	155 days 16%	Wed 1/7/15					) - strength (				
	Outet		28 days 0%	Wed 4/1/15			1						84
ND.	59L10(195m)		33 days 0%	5un 12/28/14									
1000	Excavation		19 days 0%	Sun 12(20/14					No.				1
5 - 10 F	Brick Drain		22 days 0%	Sat 1/0/15			-		Para Para				4
5	Covering with	Slab	7 days 0%	Pri 1/23/15									4
5	Line S11		334 days 67%	Tue 2/25/14				0					a:
	811L1(1938m)		91 days 95%	Tue 2/25/14	Mon 6/26/14								S
	40405040V9	22.00	- Andrew Constant				141 0		50000000000000000000000000000000000000	10			
		Task			Project Summary		Inactive Summary	2022/00/11/01/2010/12/01	Manual Summary	1	I External Milestone		_
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0	Work Schedule Revi				External Tasks External Milestone	•	Duration-only		Frish-only	-	<ul> <li>Deadlate</li> </ul>	6	
en stiuer	Work Schedule Revi	Spirt	•					iur i	1240000000000000	-	- Deadline	6	



## ANNEX2: Photographs



Drain Cover with Pre-cast slab guards at R2 Road(Pushpalal Road)



700mm dia RCC Pipe Laying with shoring at T3 (Trunk)Line ,Yadav Chowk- Devkota Chowk





Brick Manhole at Center with Precast Sewer Inlet on Either Sides T3 Seondary Line



Laying of 200mm Dia. HDPE Pipes as Secondary Sewer Line Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) 5064023|Page|





Inspection of Precast Manholes, Sewer Inlets and House Conncetion Chambers During Site visit of Mr Parag Kayastha, Project Dy.Director



Three Edge Bearing Tests of RCC at Hume Pipe Factory at Itahari





Excavation of Trench for 1,600mm Dia. RCC pipe at S13 Storm Drainage



Site Visit by Mr. Prayag L Joshi, Dy. Team Leader, PMSC –Inspection of Manhole





Storm Drainage at B3



Storm Drainage at Rani Area in Progress (West Side of Koshi Highway)



# ANNEX-3: FINANCIAL STATUS (DETAILS OF SUBMITTED INVOICES AND RECEIPT OF PAYMENTS WITH KEY DATES)

Invoice #	For Month	Invoice Amount	including VAT	Received A	mount	Remarks
Invoice 01	Advance	NRs. 9,866,160.40	USD 104,621.20	NRs. 9,866,160.40	USD 104,621.20	Received
Invoice 02	Inception Report	NRs. 1,947, 420.08	USD 52,721.00	Rs. 1,947, 420.08	USD 52,721.00	Received
Invoice 03	Jan +Feb, 2012-months Invoice	NRs. 2,387,262.11	USD 4, 243.15	NRs.2,329,310.81	USD 4, 243.15	Partly received
Invoice 04	March, 2012	NRs. 537,546.65	USD 2,276.95	NRs. 351,430.00	USD 2,276.95	Partly received
Invoice 05	April, 2012	NRs. 396,065.00		NPR 267,810.00		Partly received
Invoice 06	Vehicle Invoice	NRs. 8,000,000.00		NRs. 8,000,000.00		Received
Invoice 07	May- month Invoice	NRs. 502,324.55		NRs 250,860.00		Partly received
Invoice 08	June-month Invoice	NRs. 464,430.00		NRs 262,160.00		Partly received
Invoice09	Interim Report		USD 70,295.04		USD 70,295.04	
Invoice 10	Interim Report	NRs. 2,596,560.10		NRs 2,596,560.10		Received

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February 2015

Invoice 11	April-June,2012		USD 1,270.00		USD 1,270.00	Received
Invoice 12	July-month Invoice		USD 2,015.00		USD 2,015.00	Received
Invoice 13	Survey Invoice I	NRs. 2,166,775.00		NRs. 2,166,775.00		Received
Invoice 14	July-month Invoice	NRs. 669,751.00		NRs. 321,146.00		Partly received
Invoice 15	August month Invoice	NRs. 337,870.00	USD 0.00	NPR 314,140.00	USD 0.00	
Invoice 16	September month Invoice	NRs. 328, 830.00	USD 3, 361.75	NRs. 314,140.00	USD1854.75	Partly received
Invoice 17	Survey Works Invoice II	NRs. 1,166,775.00		NRs. 1,166,775.00		Received
Invoice 18	Monthly Invoice Oct.12	NRs. 357,080.00	USD 2,895.00	NRs. 324,310.00	USD 2,895.00	Not received
Invoice 19	Environmental Base line survey	NRs.144,634.35		NRs. 125,769.00		Received
Invoice 20	Monthly Invoice Nov.12	NRs. 331,090.00	US\$. 4,407.00	NRs. 324,310.00	US\$. 4,407.00	Partly received
Invoice 21	Monthly Invoice-Dec.2012	NRs. 449,175.00	US\$ 1,909.70	Nrs. 350,865.00	US\$ 1,909.70	Partly received
Invoice 22	Draft Report Invoice	NRs. 5,193,120.21	US\$140,590.08	NRs. 5,193,120.21	USD 91,587.31	Received
Invoice 23	Geotechnical Investigation Invoice	NRs. 191,741.23		NRs.166,731.00		Received
Invoice 24	Vehicle hard top Invoice	NRs. 707,125.70		NRs. 707,125.70		Received
Invoice 25	Monthly Invoice Jan13	NRs. 410,868.00	USD 4,327.90	NRs. 380,923.00	USD 3103.40	Partly received

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# February 2015

Invoice 26	Monthly Invoice Feb13	NRs.324,310.00	USD 3,051.00	NRs.324,310.00	USD 2,203.50	Partly received
Invoice 27	Monthly Invoice Mar 13	NRs. 404,467.68	USD 4553.90	NRs. 361,600.00	USD 4553.90	Partly received
Invoice 28	Final Report Invoice	NRs. 3,245,700.13	USD 87,868.80	NRs. 3,245,700.13	USD 85,350.48	Partly received
Invoice 29	Monthly Invoice April 13	NRs. 340,695.00	USD 1,322.10	NRs. 324,310.00	USD 881.40	Partly received
Invoice 30	Monthly Invoice May 13	NRs. 671,951.00	USD 4,4435.25	NRs. 576,700.02	USD 4,4435.25	Partly received
Invoice 31	Monthly Invoice June 13	NRs. 1,107,583.06	USD 2,203.50	NRs.448,376.81	USD 2,203.50	Partly received
Invoice 32	Additional Survey	NRs. 1,050,052.00				Not received
Invoice 33	Monthly Invoice July 13	NRs. 589,490.49	USD 1,542.45	NRs 481,693.01	USD 1,101.75	Partly received
Invoice 34	Monthly Invoice August 13	NRs. 701,094.94	USD 00.00	NRs 629,499.89	USD 0.00	Partly received
Invoice 35	Monthly Invoice Sept. 13	NRs. 424,773.78	USD 00.00	NRs 424,772.45	USD 0.00	Not received
Invoice 36	Monthly Invoice Oct. 13	NRs. 458,661.35	USD 00.00	NRs 408,710.78	USD 0.00	Not received
Invoice 37	Monthly Invoice Nov. 13	NRs. 450,085.78	USD 0.00	NRs 431,600.15	USD 0.00	Partly received
Invoice 38	Monthly Invoice Dec. 13	NRs. 501,084.94	USD 00.00	NRs 481,693.01	USD 0.00	Partly received
Invoice 39	Monthly Invoice Jan. 2014	NRs. 695,501.44	USD 00.00	NRs. 609,960.44	USD 0.00	Partly received

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# February 2015

Invoice 40	Monthly Invoice Feb. 2014	NRs. 613,180.94	USD 00.00	NRs. 613,180.94	USD 0.00	Received
Invoice 41	Monthly Invoice Mar. 2014	NRs.1,308,022.	USD 00.00	NRs. 599,281.94	USD 0.00	Partly received
Invoice 42	Monthly Invoice Apr. 2014	NRs. 861,039.32	USD 00.00	NRs. 716,817.76	USD 0.00	Partly received
Invoice 42	Geotechnical Inv. II	NRs. 549,989.85	USD 00.00	NRs. 546,232.96	USD 0.00	Received
Invoice 43	Monthly Invoice May 2014	NRs. 1,170,291.64	USD 00.00	NRs. 965,435.84	USD 0.00	Partly received
Invoice 44	Monthly Invoice June 2014	NRs.1,163,214.	USD19,313.42	NRs. 950,892.74	USD 0.00	Partly received
Invoice 45	Monthly Invoice July 2014	NRs. 854,199.00	USD18,465.92	NRs. 719,321.84	USD 0.00	Partly received
Invoice 46	Monthly Invoice August 2014	NRs 865,951.00	USD 0.00	NRs.726,553.84	USD 0.00	Partly received
Invoice 47	Monthly Invoice September 2014	NRs 777,343.07	USD 0.00	NRs 584,568.89	USD 0.00	Partly received
Invoice 48	Monthly Invoice October 2014	NRs 841,778.13	USD 0.00	NRs 657,106.30	USD 0.00	Partly received
Invoice 49	Monthly Invoice November 2014	NRs 1,306,536.89	USD 0.00	NRs 768,654.25	USD 0.00	Partly received
Invoice 50	Monthly Invoice December 2014	NRs 1,348,791.74	USD 0.00	NRs 987,178.63	USD 0.00	Partly received
Invoice 51	Monthly Invoice Jan 2015	NRs 1,255,351.08	USD 0.00	NRs 988,789.39	USD 0.00	Partly received

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# ANNEX-4: STATUS OF ACTIONS AGREED WITH PREVIOUS ADB LOAN REVIEW MISSION

S. No.	Agreed Items in ADB Review Mission with DSC on	Status	Responsibility
	2-4 December 2014		
1	Updated Semi-Annual Resettlement and Social Aspect Report	Report Submitted on 14 January 2015	DSC/PMSC
2	DSC will review its construction supervision plan (including international experts inputs) against the contractors approved scheduled and submit it to PIU.	Draft Plan submitted	DSC
3	Submission of implementation status of EMP to ADB in quarterly basis	Report Submitted till December, 2014	DSC/PMSC

# ANNEX-5: PROFESSIONAL INPUT AS PER CONTRACT VS INPUT USED TILL THIS REPORTING PERIOD

S.No.	Expert / Position		nonths Input greement)	(as per		months Use 12/013/014/2		Balance
A	Professional Staff	Design	Construction		Up to Jan. 2015	Feb. 2015	Total	
A1	International Professional Staff							
1	Sewerage and Drainage Engineer	8	4	12	7.37	0.00	7.37	4.63

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February 2015

S.No.	Expert / Position		Total man months Input (as per agreement)		Maı 20	Balance		
2	Sewage Treatment Specialist (1 day at May, 2014)	5	4	9	6.01	0.00	6.01	2.99
3	PPP Specialist	2		2	2.00	0.00	2.0	0.00
A2	Domestic Professional Staff				Up to Jan.2015	Feb 2015	Total	Balance
4	Team Leader/ S-D Engineer	12	24	36	26.23	1.00	27.23	9.77
5	Sewage Treatment Specialist	8	18	26	10.50	0.00	10.5	15.50
6	Procurement Specialist	5	2	7	8.75	0.00	8.75	(1.75)
7	DTL/ Quantity Surveyor	9		9	10.00	0.00	10.0	(1.00)
8	Urban Planner	4	2	6	5.00	0.00	5.0	1.00
9	Financial Expert	5		5	6.00	0.00	6.0	(1.00)
10	Institutional Development Specialist	2	3	5	2.00	0.00	2.0	3.00
11	PPP Specialist	3		3	3.00	0.00	3,0	0.00
12	Roads Specialist	4	8	12	6.45	0.00	6.45	4.55
13	Civil and Structural Specialist	6	2	8	7.95	0.00	7.95	0.05

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February 2015

S.No.	Expert / Position		Total man months Input (as per agreement)		Man m 2012/	Balance		
14	Electrical Engineer	3	1	4	3.50	0.00	3.50	0.50
15	Mechanical Engineer	3	1	4	3.90	0.00	3.90	0.10
16	Construction Management Specialist		10	10	0.00	0.00	0.00	10.00
17	Environmental Specialist (Feb 2015)	8	12	20	11.20	1.00	12.20	7.80
18	Social Development Specialist	8	15	23	15.00	1.00	16.00	7.00
19	Construction Supervision Engineer		30	30	13.00	1.00	14.00	16.00
20	Asst. Construction S Engineer- 1		30	30	7.50	1.00	8.50	21.50
	Asst. Construction S Engineer- 2		30	30	9.70	1.00	10.70	19.30
21	Senior Statistician	4		4	4.00	0.00	4.00	0.00
22	Geologist	1		1	1.00	0.00	1.00	0.00
23	Biologist	1		1	1.00	0.00	1.00	0.00
24	Geo-technical Engineer	1		1	2.40	0.00	2.40	(1.40)
25	GIS Expert	2		2	4.00	0.00	4.00	(2.00)
26	Senior Surveyor	2		2	2.00	0.00	2.00	0.00
	Network Modular				8.00	0.00	8.00	(8.00)

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February 2015

S.No.	Expert / Position	Total man months Input (as per agreement)		Man months Used in 2012/013/014/2015		
	Hydrologist		4.00	0.00	4.00	(4.00)
A-3	Support Staff					
27	Junior Engineer-1	4	9 37.00	1.00	38.00	11.00
	Junior Engineer-2	4	9 37.00	1.00	38.00	11.00
	Junior Engineer-3	2	4 4.00	1.00	5.00	19.00
	Junior Engineer-4	4	9 0.33	1.00	1.33	47.67
	CAD Operators	2	0.00	0.00	0.00	20.00
28	Accountant / Office Manager	4	9 37.00	1.00	38.00	11.00
29	Secretary / Computer Operator	4	9 35.75	1.00	36.25	12.25
30	Driver-1	4	9 30.27	1.00	31.27	17.73
	Driver-2	4	9 29.10	1.00	30.10	18.90
30	Office Assistant	4	9 36.50	1.00	37.50	11.50

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# **ANNEX-6: MINUTES OF MEETING**

List of Minutes of Meeting

- 1. Minutes of Meeting 4<sup>th</sup> February 2015
- 2. Minutes of Meeting 6<sup>th</sup> February 2015
- 3. Minutes of Meeting 25th February 2015
- 4. Minutes of Meeting No 4- Safeguard Desk

कार्ज निर्म 2069 साल माहा 29 गीत पुरावाडादिन विदादनगर उपमहानगद्रपालिकामा कर्यालित मार्जीला काहर्जी एकिन्द बाहरी סוריוסנוטוש משנור עוצאותיו עולאוטיו סואו-סעו בגיא אר agictory young animan azictor gune to main another 20/ कार्यडादी जाहाइत कि जोपालप्राय रेजीप्रडी कार्यकताका मञ्चन a12251

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(JOIZED 9 215 สส์เทลา สองภา เรื่องา เมิ่ญนี้เกาเอา เรื่องสีกา ชายร วารี (งาร राने क्रामा देखिएका (गगान्याहार) (वस्त्यावस्तुहार्गाई द्राम्वेहित राने मंवे अम्बन्धित (मडायहार्ग्ने आन्त्राका गत्भाका गत्राका भारत कार्यादेन भारत कार्यादेन Project Progress mis moist acish 5 210 Frimi DIST absc are and arrafile abrain ( win) or design Estimate or organ (Tois oriza) @ 19 GETOIL BUTTELTUINEDIM EUTRE STIVEIP, PIU, Biramayon of प्राती व्यन्तीमात्र व्याप्ता आहे वाहिरहेडों ही दिखियी।

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# Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar

# **MEETING NOTES**

Sewerage and Drainage Network, Wastewater Treatment Plant, and Roads and Lanes Improvement Subproject

(Contract # STIUEIP/W/BRT/ICB-01)

Meeting h	neld: Date : 06 February 2015 Time : 11:00 PM Venue : PM's Office, PIU, STIUEIP ,Biratnagar
Subject :	Progress Meeting No 03
Client	BSMC, STIUEIP, Government of Nepal
Present	Mr. Gopal Prasad Regmi, Chief & Executive Officer (CEO), BSMC
	Mr. Upendra Prasad Baral, Project Manager (PM), PIU
	Mr. Bharat Neupane, Deputy Project Manager(DPM), PIU BS Muter
	Mr. Prakash Chaudhary, Project Engineer(PE), PIU
	Mr. Ghanendra Katuwal, Project Engineer(PE), PIU
	Mr. Anil Singh, Project Engineer(PE), PIU
	Mr. Mohan Kumar Tuladhar, Team Leader(TL), Consultant
	Mr. Dil Bahadur Rana, Construction Supervision Engineer (CSE), Consultant
	in the second party shares in the second state of the second state of the second state of the second state of the

The meeting was chaired by Mr. Gopal Prasad Regmi, CEO.

1) Site Possession/ Rights of Way:

Mr. Baral (PM) raised the concern about slow progress and delay, and how the work progress can be increased and improved. Mr. Tuladhar (TL) expressed that one of the prominent /obvious reason for slow progress is due to site possession of few sites and the Contractor has got opportunity to raise this issue time and again. TL mentioned that the Contractor should have complete site possession but still the Contractor is requesting to arrange possession of site to the Contractor on as of 31<sup>st</sup> January 2015(420days out of 900 days, i.e. 47% time elapsed).

TL requested Mr. Neupane (DPM) to lead and take initiation for the site clearance/RoW marking and acquire RoW of remaining sites. The issue of RoW has been discussed and the meeting has decided that DPM will lead the group for RoW activities from tomorrow and complete the task with mile stone of 15<sup>th</sup> February and 7<sup>th</sup> March 2015 as indicated in the attached drawing (Complete site possession from Shanti Chowk to Waste Water Treatment Plant site by 15<sup>th</sup> February 2015 and from. Traffic Chowk to Shanti Chowk by 7<sup>th</sup> March 2015) respectively. DPM also mentioned that R5 road does not have any obstruction to proceed the construction of storm drain and sewerage works. TL assured that the other technical works will be handled/solved between the Contractor and the Consultant for the progress of the works. The Consultant will closely monitor the work progress and inform/report to the PM, PIU on regular basis.

# Additional Works – S5 Storm Drains(Way to Waste Water Treatment Plant, Jatuwa) and Road Works:

TL expressed his serious concern that DSC is waiting for the instruction from PIU to initiate the design and cost estimate for the additional works of covered storm drain S5 on left side from Jatuwa Chowk to WWTP site, Jatuwa and about 300m on right side as per demand of the local community and the demand agreed by BSMC (Please refer to the attached meeting notes dated B.S. 9 Magh 2071 (23 January 2015) between BSMC and Ram Janaki Tole Committee, Biratnagar-18, Jatuwa). The delay in decision of this request may affect the smooth work progress of sewer works on T2 line with dia. 1,000mm RCC pipes at Jatuwa site. At the same time, TL suggested this work can be started from the original BoQ, while the process of Variation Order No 2 will be underway. The meeting agreed to proceed for construction of the S5 drains from the current BoQ while VO - 2 will be underway soon.

BSMC/PIU/ Consultant

BSMC/PIU/ Consultants

Consultants: SMEC in association with BCE, AQUA, BDA and CEMAT

Page 2 of 3

ACTION

by

Similarly, the change in the concept of reinstatement to improvement of the road condition; and the quantities deficits identified as errors in estimates during design phase will be included in Variation Order No 2.

DPM expressed that road inventory should be carried out to sort out the different types of the road surfaces (gravel or bituminous road) and the requirement of road side drains as well. The Consultant will prepare the list of roads and joint verification with PIU will be carried out for finalization of the top of road surface which will help to fix the top of manholes.

Mr. Gopal Prasad Regmi (CEO) requested Project Engineers of PIU to cooperate and support to complete the task of site possession with diligent efforts.

PE/PIU

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Consultants/

PIU

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The meeting was adjourned at 1:15 PM.

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar

# **MEETING NOTES**

Sewerage and Drainage Network, Wastewater Treatment Plant, and Roads and Lanes Improvement Subproject

# (Contract # STIUEIP/W/BRT/ICB-01)

Meeting he	Time	e : 25 February 2015 e : 4:00 PM ue : PM's Office, PIU, STIUEIP ,Biratnagar	3
Subject :	Progress	Meeting No 04	
Client	BSMC, ST	TIUEIP, Government of Nepal	
Present			
	1. Mr. Gopa	al Prasad Regmi, Chief & Executive Officer (CEO), BSMC	
	2. Mr. Upen	ndra Prasad Baral, Project Manager (PM), PIU	
	3. Mr. Bhara	at Neupane, Deputy Project Manager(DPM), PIU	
	4. Mr. Anil S	Singh, Project Engineer(PE), PIU	
	5. Mr. Ghan	nendra Katuwal, Project Engineer(PE), PIU	
	6. Mr. Puna	m Dahal, Community Development Chief, PIU	
-	7. Mr. Moha	an Kumar Tuladhar, Team Leader, Consultant	0
	8. Mr. Dil Ba	ahadur Rana, Construction Supervision Engineer (CSE), Consultant	101
	9. Mr.Ujjwal	I Prasai, Project Manager, CTCE- Kalika JV, Contractor	Bp.
	10. Mr. Mahe	esh Subedi, Construction Engineer, CTCE- Kalika, Contractor	- LI

Page 1 of 3

	ACTION by
<ul> <li>contractor's preparation for the works and the consultant's supervision activities</li> <li>Mr. Baral had requested the consultant and the contractor to aim the following works to be completed before the onset of the rainy season: <ol> <li>Completion of storm drainages - B1,B2, B3, CN2, CN3, S13, S11 and southern drainage system(Rani Area). These storm drainage should be completed with outfall structures so that these must be functional during this rainy season.</li> </ol></li></ul>	Contractor Consultant
Mr. Baral also informed that Mangadh Water Supply is ready to support technically and financially to change the pipes and accessories which may be encountered during our road works on R2 road. Mr. Baral informed the Mangadh Water Supply that the STIUEIP will support to repair the relevant water supply works disturbed during construction. Mr. Prasai requested the meeting to arrange a meeting to discuss item of works, support and mode of payment during the change of pipes/shifting of pipes/ location	Employer/ Contractor/ Consultant

of change of pipes and accessories of the Mangadh Water Supply system. The meeting has realised to have a meeting with the committee of Mangadh Water //Consultant Supply soon.

In response to the slow work progress, Mr. Prasai raised the main issues that the work progress is being suffered /hampered due to lack of complete site possession till today. Mr. Prasai requested the Employer to provide complete site possession contractor so that he can get the work done as per his work program. Mr. Prasai also confirmed that there will be more excavators for the works of sewer lines soon to start from Yadav Chowk to Koshi Highway.

Mr. Neupane(DPM) expressed his continuous efforts to mark Rights of Way(RoW) and demolition of structures within RoW are being carried out diligently. Mr. Neupane also emphasized that the site possession has been in progress and will be completed as per discussion and decision take at the meeting of 6<sup>th</sup> February 2015 (the minutes of meeting of 6<sup>th</sup> February 2015 attached).

Mr. Regmi also informed the consultant to provide the minutes of meeting dated 6<sup>th</sup> February 2015 to the Contractor.

Mr. Regmi asked his team to start clearance of right of way along National Trading Office from tomorrow. He also emphasized to clear the obstruction at the outlet/outfall of B2 on day after tomorrow (27<sup>th</sup> February 2015)

Mr. Tuladhar/TL requested Mr. Baral (PM)/PIU to formalize the approval of the construction of additional storm drainage at S5 to replace the existing trapezoidal drain (refer to letter dated 16<sup>th</sup> Febraury 2015, ref SBS-342). Mr.Baral informed the meeting that this matter has already been put forward to PCO and ADB. The meeting has confirmed and agreed that the Consultant can instruct the Contractor to proceed ahead for this drain works and also proceed to include this work in Variation Order No 2.

Mr. Regmi also commented that the alignment of the storm drain should not be deviated from design alignment to acquire a few centimetre/inches of RoW. But this issue may create dispute at local level/localized problem may be created.

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Consultants: SMEC in association with BCE, AQUA, BDA and CEMAT MoM No 4 25 Feb 2015

The meeting was closed at 5:15 PM.

Consultant

Employer

- ---

Employer/ DPM/PEs

Employer/ Consultant

Consultant/ Contractor Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar

#### (Contract # STIUEIP/W/BRT/ICB-01)

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Date: 25 February 2015

Sewerage and Drainage Network, Wastewater Treatment Plant, and Roads and Lanes Improvement Subproject

	MEETING ATTENDANCE								
S. No	Name	Designation	Organization	Signature					
1	Gopal Prasad Regmi	Office.	BSMC	(p)					
2	Upendra Prasad Baral	Project Manager	PIU	you					
3	Bharat Neupane	DPM	PIU	BRNer pire					
4	Chanendra Katuwal	Prosect Engineer	ριυ	·lent					
5	Anil Singh	Project Engineer	piu	A					
6	Mohan K. Tuladhar	Team Leader	DSC	M. berton					
7	Dil Bahadur Rana	CSE	DSC	M					
8	USJWal Prasai	PM (contractor)	CTCE Kalika	Glogof.					
9	Mahesh Subedi	Construction Engineer	CTCE/ Kalika						
10	Punam Kumar Dalap	STIDENP/C.D.	STIVERP/PIV	73					
11	,								
12									
13			4						
14 '									
15									

#### Meeting of Safeguard Desk for Planning Monitoring and Follow up of Resettlement Plan/ STIUEIP Biratnagar

Venue: Project Implementation Unit (PIU)/ STIUEIP, Biratnagar Date: 8 February 2015 Time: 11:15-13:15

#### Attended:

Upendra Prasad Baral- Project Manager/ STIUEIP, Biratnagar Punam Kumar Dahal- Chief, Social Development/ PIU, STIUEIP Biratnagar Noor Jang Thapa- Team Leader/ CDP, STIUEIP (NGO) Bala Ram Mayalu- Social Development Specialist/ DSC, STIUEIP

#### **Discussion Agenda:**

- 1. Review / Follow up of previous meeting discussion/ decisions and actions
- 2. Informative project message display/ dissemination
- 3. Community Consultation for Storm Drainage Construction Works
- Reports of Gender and Social inclusion Action Plan (GESI AP) 4.
- 5. Resettlement Plan Update Report

#### **Discussion and Decisions**

S.No.	Agenda	Discussions and Decisions	Notes/ Remarks
1.	Review / Follow up of	The fourth safeguard desk meeting of STIUEIP Biratnagar reviewed all previous discussions,	Next meeting: 6
	previous meeting	decisions and actions regarding on social safeguard and community development component of	March 2015
	discussion/ decisions and	the project. It is a functional mechanism of STIUEIP established for planning, monitoring and follow	
	actions	up of all social/ community development activities of project.	Input and feedback
•			anticipated up to
		The desk reviewed the skill development training need assessment procedure and planned to	4PM; 15 February

Safeguard Desk Meeting Minute Page 1

	1		
		organize a meeting of the committee formed for developing new criteria, selection of participants	
		and support in execution of training program in future. Mr. Punam Dahal/ PIU will arrange and call	
		first meeting of this committee within a week for this purpose.	
2.	Informative project message	The project has been planned to disseminate the information and message to community people	SDS/DSC: Forward
	display/ dissemination	about the project features, its purpose, and methods of use and functionality of infrastructure	the digital copies of
		under construction by the project. Social Development Specialist of DSC presented some outlines	the message
		of such informative messages in the meeting proposing to display in the public places regarding of	outline to PM and
		the usage and its purpose of storm drainage system and sewerage system separately. The options	desk members
		and alternative titles and texts are also depicted in this outline. He requested all to go thoroughly	
		on it and review its appropriateness prior to finalize and implement.	
		PM of STIUEIP and the desk members to review the outline and decide in next meeting for display	
•		board in terms of text, message, place, budget size and others.	
3.	Community Consultation for	This agenda is related to the prior information to be provided in project construction activities	
1.	Storm Drainage	before execution at the community. The storm drainage construction works are ongoing in the	
	Construction Works	HartaliHat locality of Rani, Biratnagar and prior information through announcement and public	
		consultation is needed for proper awareness of people of that area. Sufficient consultation	
		meetings with the TLOs and community have been conducted by PIU, NGO and DSC. TLOs have	
		requested for additional efforts to inform all people through announcement on the Tole/clusters.	
		This meeting requested to BSMC for such arrangement so that all people be informed about the project activities in their area.	
4.	Reports of Gender and	As decided in the last meeting, DSC has got the copy of updated report of Gender and Social	
0	Social inclusion Action Plan	inclusion Action Plan (GESI AP), Oct-Dec 2014.	
	(GESI AP)		
5.	Resettlement Plan Update	SDS of DSC informed in the meeting that he has prepared and submitted the semi-annual update	
	Report	report (August- December 2014) of social safeguard aspect based on resettlement plan of STIUEIP	
		Biratnagar within stipulated time.	

Safeguard Desk Meeting Minute Page 2

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**ANNEX-7: LABORATORY TEST RESULTS OF FEBRRARY 2015** 

Page | 44 Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar

			ULT SUMMARY	Metropolitant City SHEET For the Mo GTH OF BRICKS (Pro		2015	STIUEII
Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR63	2/2/2015	R2 Road	1+150	HIMAL	1	12.08	4500 Nos-5 Nos
MR 64	2/2/2015	R2 Road	1+170	AMBEY		11.65	6000 Nos-5 Nos
MR65	2/2/2015	S13L1F	0+600to 0+620	AAKASH		13.84	4500 Nos-5 Nos
MR66	2/2/2015	S13L1F	0+600 to 0+620	AMBEY		11.98	4500 Nos-5 Nos
MR67	2/2/2015	S13L1F	0+600 to 0+620	PRANAM		12.66	6000 Nos -5Nos
MR 68	1 68 2/2/2015 S13L1F 0+600 to 0+620			PRANAM	7.30	13.0	3000 Nos -5Nos
MR69	59 2/2/2015 CN3 0+400		0+400	AAKASH		14.4	6000 Nos-5 Nos
MR 70	2/2/2015	L5L4 RANI	0+110	SHREE		12.69	6000 Nos-5 Nos
MR 71	3/2/2015	L5L4 RANI	0+140	SHREE	5.86	13.5	3000 Nos-5 Nos
MR 72	3/2/2015	L5L4 RANI	0+880	T&B		12.03	3000 Nos-5 Nos
	Remarks:						
Spec	rification			IS1077,IS2180or NS1/2035	10%<	> 10N/MM2 ±5%	
		oane-AQUA-BDA-	107	Submitted	CTCE-KALIKA		2.
		cked by Junior Eng	ineer folkal	ur Test cond	ucted by Q.C Mana	ger Contractor Reps	32

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		Secondary Tow	ns Integrated Urab	an Environment I	mprovement Pro	iect	
		TEST RESU	Biratnagar Sub-Me LT SUMMARY SH PRESSIVE STRENGT	tropolitant City IEET For the Mo	nth of FEBUARY		STIUEII
Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR73	3/2/2015	L5L4 RANI	0+140	AMBEY	1	13.95*	3000 Nos-5 Nos
MR74	3/2/2015	L5L4 RANI	0+140	AMBEY		12.56	3000 Nos-5 Nos
MR 75	3/2/2015	L5L4 RANI			6.39		SAME
MR 76	3/2/2015	L5L4 RANI	0+140	SHREE		11.59	3000 Nos-5 Nos
MR 77	3/2/2015	L5L4 RANI	0+140	SHREE	5.23		SAME
MR 78	5/2/2015	R2 Road	2+350	SHREE		13.1	3000 Nos-5 Nos
MR 79	5/2/2015	R2 Road	3+300	HIMAL		13.3	3000 Nos-5 Nos
MR80	5/2/2015	CN3	0+350	T&B		12.73	3000 Nos-5 Nos
MR 81	7/2/2015	R2 Road	3+150	AMBEY		13.8	3000 Nos-5 Nos
MR 82	8/2/2015	L5L4 RANI	0+800	AANKIT		15.68	3000 Nos-5 Nos
	Remarks:						
Spee	cification			IS1077,IS2180or NS1/2035	10%<	> 10N/MM2 ±5%	
	SMEC-Brist	anc-AQUA-BDA-C	emat (D)		CTCE-KALIKA	J/V	
	Approved by Cor	struction Supervisio	on Engineer	Submitted	by Project Manage	r A	-9
	Test chwo	ked by Junior Engir	neerelle	/ Test cond	lucted by Q.C Mana	ger V	C
		onsultantr Reps	7	Sur Test cond	Mor Intelle	Contractor Reps	

			Biratnagar Sub-M SULT SUMMARY S MPRESSIVE STRENG	HEET For the Mo		2015	STIUEII
Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR 83	8/2/2015	\$13L1F	0+580	T&B	,	14.35	3000 Nos-5 Nos
MR84	8/2/2015	S13L1F	0+600	ANAND		14.97	3000 Nos-4 Nos
MR 85	8/2/2015	R2 Road	1+160	AMBEY		16.37	4500 Nos -5 Nos
MR 86	8/2/2015	R2 Road	3+370	AMBEY		12.75	6000 Nos-5 Nos
MR 87	11/2/2015	R2 Road	3+450	SHREE		13.48	3000 Nos-5 Nos
MR 88	11/2/2015	R2 Road	3+460	SHREE		12.6	3000 Nos-5 Nos
MR 89	13/2/2015	R2 Road	3+450	' AMBEY		12.2	3000 Nos-5 Nos
MR 90	13/2/2015	R2 Road	3+450	AMBEY		14.09	3000 Nos-5 Nos
MR 91	14/2/2015	R2 Road	3+400	AMBEY		13.0	3000 Nos-5 Nos
MR 92	14/2/2015	S13 L1F	0+200 to 0+205	T&B	1.19	16.25	3000 Nos-5 Nos
	Remarks:						
Spee	cification			IS1077,IS2180or NS1/2035	10%<	> 10N/MM2 ±5%	
	SMEC-Brisba	ane-AQUA-BDA-	CEMAT		CTCE-RALIKA.	J/V	
	Approved by Cons	struction Supervi	sion Engineer	Submitted	by Project Manage	•	A
	Test chwcl	ted by Junior En	gineergehal	/ Test cond	ucted by Q.C Mana	ger R	2
	Co	nsultantr Reps	y -	150	Place -	Contractor Reps	

			Biratnagar Sub-M ULT SUMMARY S	HEET For the Mo		2015	STIUEI
	1	COM	IPRESSIVE STRENG	TH OF BRICKS (Pro	cess Control Test)		
Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR 93	15/2/2015	R2 Road	2+150	SHREE	1	16.68	4500 Nos-5 Nos
MR 94	15/2/2015	R2 Road	3+450	T&B		12.06	4500 Nos-5 Nos
MR95	16/2/2015	CN2	CN2 L2 Sourth side	AMBEY		13.04	4500 Nos-5 Nos
MR96	16/2/2015	CN2	CN2 L2 Sourth side	AMBEY		14.77	4500 Nos-5 Nos
MR 97	17/2/2015	R2 Road	1+250	AMBEY		13.54	4500 Nos-5 Nos
MR98	17/2/2015	R2 Road	1+250	T&B		12.48	4500 Nos-3 Nos
MR99	17/2/2015	R2 Road	2+790	AMBEY		13.48	4500 Nos-3 Nos
MR100	17/2/2015	R2 Road	3+500	SHREE		11.36	4500 Nos-3 Nos
MR 101	19/2/2015	Rani western south side	0+465,0+535	SHREE		14.43	4500 Nos-3 Nos
MR 102	19/2/2015	Rani western south side	0+465,0+535	HIMAL		14.12	4500 Nos-5 Nos
	Remarks:						
Spee	cification			IS1077,IS2180or NS1/2035	10%<	> 10N/MM2 ±5%	
	SMEC-Bri	sbane-AQUA-BDA-G	CEMAT	-	CTCE-KALIKA	J/V	
	Approved by C	onstruction Supervis	ion Engineer	Submitted	by Project Manage	r Al-	
	Test chy	wcked by Junior Eng	ineer Ella		ucted by Q.C Mana		2
		Consultantr Reps	9-	Sul	in the second	Contractor Reps	

			JLT SUMMARY S	Metropolitant City SHEET For the Mo GTH OF BRICKS (Pro		2015	STIUEI
Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/nm2	SCALE OF Sample From
MR 103	20/2/2015	R2 Road	3+600	SHREE	1	13.91	4500 Nos-5 Nos
MR104	20/22015	R2 Road	3+600	AMBEY		13.86	4500 Nos-5 Nos
MR105	22/2/2015	R2 Road	1+240	T&B		11.87	4500 Nos-5 Nos
MR 106	22/2/2015	R2 Road	1+240	T&B		13.54	4500 Nos-5 Nos
MR 107	22/2/2015	R2 Road	1+240	T&B		12.37	4500 Nos-5 Nos
MR 108	22/2/2015	R2 Road	3+600	T&B		11.04	4500 Nos-5 Nos
MR 109	109 22/2/2015 R2 Road 3+600		3+600	AMBEY		14.00	4500 Nos-5 Nos
MR 110	24/2/2015	R2 Road	3+600	T&B		13.39	4500 Nos-5 Nos
MR 111	24/2/2015	R2 Road	1+850	T&B		15.81	4500 Nos-5 Nos
MR 112	24/2/2015	R2 Road	2+100	HIMAL		11.32	4500 Nos-5 Nos
	Remarks:						
Spec	ification			IS1077,IS2180or NS1/2035	10%<	> 10N/MM2 ±5%	
	Approved by Con Test chwcl	ane-AQUA-BDA-C struction Supervisi- ked by Junior Engi	on Engineer	Submitted	CTCE-KALIKA by Project Manage ucted by Q.C Mana	r	A

		TEST RESU	Biratnagar Sub-J JLT SUMMARY S	aban Environment I Metropolitant City SHEET For the Mo <u>GTH OF BRICKS (Pro</u>	nth of FEBUARY		STIUEII
Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR 113	24/2/2015	S13L1F	0+200	T&B		11.65	3000 Nos-5 Nos
MR114	26/2/2015	R2 Road	3+680	SHREE		14.35	3000 Nos-5 Nos
MR 115	26/2/2015	R2 Road	3+700	SHREE		12.49	3000 Nos-5 Nos
MR 116	26/2/2015	R2 Road	3+650	AMBEY		10.52	1500 Nos-5 Nos
MR 117	26/2/2015	R2 Road	3+660	AMBEY		12.23	1500 Nos-5 Nos
MR 118	26/2/2015	R2 Road	4+00	AMBEY		10.50	1500 Nos-5 Nos
MR119	27/2/2015	R2 Road	4+00	AMBEY	7.6	10.91	1500 Nos-5 Nos
MR120	27/2/2015	R2 Road	3+080	SHREE	7.54	11.57	1500 Nos-5 Nos
	Remarks:						
Spec	ification			IS1077,IS2180or NS1/2035	10%<	> 10N/MM2 ±5%	
	SMEC-Brisba	ne-AQUA-BDA-C	EMAT		CTCE-KALIKA	J/V	
		struction Supervisi ked by Junior Engi <i>nsultantr Reps</i>			by Project Manage ucted by Q.C Mana	40	A

#### SECONDARY TOWN INTEGRATED URABAN ENVIRONMENT IMPROVEMENT PROJECT

#### Biratnagar-Sub-Metropolitant City

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SUMMERY OF THE MOTAR WORK MIX CUBE

#### FOR THE MONTH OF FEBUARY 2015

S.N.	Cube	Name of Cement	Location/Structure	Details of MIX	Casting	Consiste	ency & Settin	ng Time	7 day's cul	be Crushing	28 day's cu	be crushing	Remark
0.14.	No.		Locations di ucture		Date	Norm. Const.	Intial(min.)	Final(min.)	Date	Str. N/mm2	Date	Str. N/mm2	
1	98	Shivam	0+500 B2L2 DPS	1:4 by volume	18/01/2015	28.50	250	330	15/02/2015	6.70	15/02/2015	7.35	
2	99	Shivam	0+500 B2 Trimurti chowck	1:4 by volume	18/01/2015	28.50	250	330	25/01/2015	8.20	15/02/2015	10.00	
3	100	Shivam	0+500 B2 Trimurti chowck	1:4 by volume	18/01/2015	28.50	250	330	25/01/2015	8.16	15/02/2015	10.00	
4	101	Shivam	T3L35t,T3L34/T3L33 Seware line	1:4 by volume	18/01/2015	28.50	250	330	25/01/2015	6.12	15/02/2015	7.55	
5	102	Shivam	S13L2A 0+600	1:4 by volume	19/01/2015	28.50	270	330	26/01/2015	-5.60 8.57	15/2/2015	9.80	
6	103	Shivam	0+427 B2L2(DPS)	1:4 by volume	20/01/2015	28.50	270	330	27/01/2015	9.80	17/2/2015	959	
7	104	Koshi	R2 Road 2+100	1:4 by volume	26/01/2015	33.00	255	325	26/01/2015	6.53	23/2/2015	10.00	
8	105	Koshi	B2L2 0+530 Trimurti chowck	1:4 by volume	27/01/2015	33.00	255	325	3/2/2015	6.90	24/2/2015	7.76	
9	106	Koshi	R2 Road 2+300 RHS	1:4 by volume	27/01/2015	33.00	255	325	3/2/2015	8.00	24/2/2015	9.80	
10	107	Koshi	R2 Road LHS 2+300	1:4 by volume	28/01/2015	33.00	255	325	4/2/2015	5.71	25/2/2015	6.53	
11	108	Koshi	R2 Road 2+250	1:4 by volume	28/01/2015	33.00	255	325	4/2/2015	3.50	25/2/2015	9.59	
12	109	Koshi	R2 Road 2+550	1:4 by volume	29/01/2015	33.00	255	325	5/2/2015	6.30	26/2/2015	8.98	
13	110	Koshi	CN3 0.565	1:4 by volume	30/01/2015	33.00	255	325	6/1/2015	N/C	27/02/2015	8.78	
14	111	Koshi	R2 Road 2+450	1:4 by volume	31/01/2015	33.00	255	325	7/2/2015	6.50	28/2/2015	10.00	
15	112	Koshi	CN3 0+450	1:4 by volume	31/01/2015	33.00	255	325	7/2/2015	6.33	28/2/2015	11.22	
16	113	Koshi	R2 Road 2+400 to 2+250	1:4 by volume	1/2/2015	33.00	255	325	8/2/2015	6.94	1/3/2015		
17	114	Koshi	R2 Road 2+300	1:4 by volume	2/2/2015	33.00	255	325	9/2/2015	N/C	2/3/2015		
18	115	Koshi	R2 Road 2+350	1:4 by volume	3/2/2015	33.00	255	325	10/2/2015	AHE 2.04	3/3/2015		-
19	116	Koshi	CN3 0+950	1:4 by volume	5/2/2015	33.00	255	325	12/2/2015	10.41	5/3/2015		
20	117	Koshi	R2 Road 1+450	1:4 by volume	5/2/2015	33.00	255	325	12/2/2015	9.80	5/3/2015		
										Total cu	be crushed	80	
		A	according to is 2250-1981				Min 45m	Max 600m	Required	strength on 2	28 days not le	ss than 5 or 7	.5 N/MM
			DA-CEMAT	(0)	1	E-KALIKA J/				$\bigcirc$			

Test Checked by Junior Engineer

**Consultants Reps** 

Test conducted by Quality controll Manager

140112

Contractore Reps

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# SECONDARY TOWN INTEGRATED URABAN ENVIRONMENT IMPROVEMENT PROJECT

# Biratnagar-Sub-Metropolitant City

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SUMMERY OF THE MORA WORK MIX CUBE

#### FOR THE MONTH OF FEBUARY 2015

	Cube	Name of	JE THE INOTAK WORK WILL	Details of MIX	Casting		ency & Settin			be Crushing		be crushing	Remarks
S.N.	No.	Cement	Location/Structure	Details of MIX	Date	Norm. Const.	Intial(min.)		Date	Str. N/mm2	Date	Str. N/mm2	Remain
21	118	Koshi	CN3 0+950	1:4 by volume	5/2/2015	33.00	255	325	12/2/2015	AC 2.04	5/3/2015		
22	119	Koshi	CN3 12 0+360	1:4 by volume	6/2/2015	33.00	255	325	13/2/2015	Ne 3.30	6/3/2015		
23	120	Koshi	CN3L2 0+380	1:4 by volume	9/2/2015	33.00	255	325	16/2/2015	5.90	9/3/2015		
24	121	Koshi	S13L1F 0+810	1:4 by volume	9/2/2015	33.00	255	325	16/2/2015	8.60	9/3/2015		
25	122	Koshi	R2 Road 3+400	1:4 by volume	12/2/2015	33.00	255	325	19/2/2015	5.50	12/3/2015		
26	123	Koshi	RANI 0+480 Western sourth side	1:4 by volume	17/2/2015	33.00	255	325	24/2/2015	8.20	12/3/2015		
27	124	Koshi	RANI 0+490 Western Sourth side	1:4 by volume	18/2/2015	33.00	255	325	25/2/2015	7.80	18/3/2015		
28	125	Koshi	R2 Road 3+550	1:4 by volume	18/2/2015	33.00	255	325	25/2/2015	7.80	18/3/2015		
29	126	Koshi	RANI 0+500 Western sourth side	1:4 by volume	19/2/2015	33.00	255	325	26/2/2015	7.80	19/3/2015		
30	127	Koshi	R2 Road 3+550	1:4 by volume	20/2/2015	33.00	255	325	27/2/2015	8.80	20/3/2015		
31	128	Koshi	RANI 0+530 Western side	1:4 by volume	20/2/2015	33.00	255	325	27/2/2015	7.10	20/3/2015		
					1						E .		
										Tota	I cube crushe	ad 72	Till 10
	l	۵	according to is 2250-1981				Min 45m	Max 600m	Required			ess than 5 or 7	
pprov est Ch	ed by Co	onstruction y Junior E	DA-CEMAT In Supervision Engineer/CSE Ingineer	[0]	Submitted Test cond Contracto	E-KALIKA JA d by Project I ucted by Qua re Reps	lanager	oll Manage	er E	22			9

					FOR THE	MONTH	OF FE	BUARY 2	015		-		
S.N. Lat	b Ref	Date of	Deatails of Mix	Location	Ra	tio by VOL	UME		9	ource	Cube Cru	shing ,N/mm2	Remarks
N. N	No.	Casting		Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
1 MF	R 49	4/1/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.44	23.00	-
2 MF	R 50	6/1/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.11	23.33	
3 MF	R 51	9/1/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	17.11	22.67	-
4 MF	R 52	12/1/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.11	20.70	
5 MF	R 53	15/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	I KOSHI	Om shree Č/plant	14.67	25.00	
6 M	R54	16/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.67	21.10 18	5.89
7 MF	R 55	18/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	18.00	22.22	
8 MF	R 56	21/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	14.89	21.78	
9 MF	R 57	22/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	14.22	21.33	
10 MF	R 58	24/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	17.56	21.22	
11 MF	2 59	26/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.22	20.33	
12 MF	R 60	28/01/2015	M20 Work mix	SLAB YARD	0.50	1.	2	3.5	KOSHI	Om shree C/plant	16.22	23.78	
13 MF	2 61	31/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.22		
14 MF	R 62	13/2/2015	M20 Work mix	SLAB YARD	. 0.50	1	2	3.5	KOSHI	Om shree C/plant	15.00		
1										Total cube crushed	56 nos		
-			Specifacatio	n Limit Table For M20/20	on 7 days A	ae Min 67%	% of Tota	al Compressi	ive Strength	Min Required	13.4	20	
pprove	ed by ecked	by Junior Er	A Supervision Engin		Submit Test co	KALIKA J/ ted by Pro onducted J ctors Rep	oject Ma	anager Ity Controll	Manager	6	Ł		

# SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENT IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20& M25/20 Work Mix

#### FOR THE MONTH OF FEBUARY 2015

ef No. 154	Casting		a second	Ratio by VOLUME								
154			Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	-
	4/1/2015	M20 Work mix	B3L3 0+310 to 0+322 Shre wall pannel	0.50	1	2	3.5	Shivam	Om shree C/plant	16.18	26.67	
155	4/1/2015	M20 Work mix	B3L2 0+244 Share wall pannel	0.50	1	2	3.5	Shivam	Om shree C/plant	15.00	25.00	
156	5/1/2015	M20 Work mix	B3L3 0+253 Share wall pannel 12	0.50	1	2	3.5	Shivam	Om shree C/plant	15.11	20.00	
157	5/1/2015	M20 Work mix	Share wall pannel no 11 0+337	0.50	1	2	3.5	Shivam	Om shree C/plant	18.33	26.67	
158	5/1/2015	M25 Work mix	B1L1 RCC bed 2+300to 2+100	0.46	1	1.68	3.15	Shivam	Om shree C/plant	21.11	28.89	
159	6/1/2015	M20 Work mix	B3L3 0+300to 0+312	0.50	1	2	3.5	Shivam	Om shree C/plant	16.22	23.56	
160	6/1/2015	M20 Work mix	B3L3 0+712	0.50	1	2	3.5	Shivam	Om shree C/plant	16.67	22.67	
161	7/1/2015	M20 Work mix	B3L3 0+280to 0+292 share wall no 14	0.50	1	2	3.5	Shivam	Om shree C/plant	17.11	20.44	
162	7/1/2015	M20 Work mix	B2L2 DPS share wall	0.50	1	2	3.5	Shivam	Om shree C/plant	15.33	20.22	
163	11/1/2015	M20 Work mix	B2L2 DPS share wall	0.50	1	2	3.5	Shivam	Om shree C/plant	17.89	21.11	
164	19/1/2015	M20 Work mix	R2 Road 1+950to 2+00 pcc bed	0.50	1	2	3.5	Shivam	Om shree C/plant	20.00	22.11	
165	27/01/2015	M20 Work mix	CN3 0+450 to 0+480 pcc bed	0.50	1	2	3.5	Shivam	Om shree C/plant	20.67	27.78	
166	28/1/2015	M20 Work mix	CN30+950 to 0+970 pcc bed	0.50	1	2	3.5	Shivam	Om shree C/plant	15.33	29.44	
167	28/1/2015	M20 Work mix	B3L1 1+390 Share wall	0.50	1	2	3.5	Shivam	Om shree C/plant	13	24.56	
168	28/1/2015	M20 Work mix	S13L1 share wall pannel no 12	0.50	1	2	3.5	Shivam	Om shree C/plant	17.78	30.56	
169	28/1/2015	M20 Work mix	B2L2 DPS LINE share wall	0.50	1	2	3.5	Shivam	Om shree C/plant	16.22	23.33	
									Total cube crushed	64.00	* 64.00	128.00
		S	pecifacation Limit Table For M20/20 on 7	7 days A	ge Min 67	7% of T	otal Compre	ssive Strength	Min Required	13.4	20	
		s	pecifacation Limit Table For M25/20 on 7	7 days A	ge Min 67	7% of T	otal Compre	ssive Strength	Min Required	16.75	25	
	57 58 59 60 61 62 63 64 65 66 65 66 65 68 69	57         5/1/2015           58         5/1/2015           59         6/1/2015           60         6/1/2015           61         7/1/2015           62         7/1/2015           63         11/1/2015           64         19/1/2015           65         27/01/2015           66         28/1/2015           67         28/1/2015           69         28/1/2015	57         5/1/2015         M20 Work mix           58         5/1/2015         M25 Work mix           59         6/1/2015         M20 Work mix           60         6/1/2015         M20 Work mix           61         7/1/2015         M20 Work mix           62         7/1/2015         M20 Work mix           63         11/1/2015         M20 Work mix           64         19/1/2015         M20 Work mix           65         27/01/2015         M20 Work mix           66         28/1/2015         M20 Work mix           67         28/1/2015         M20 Work mix           68         28/1/2015         M20 Work mix           69         28/1/2015         M20 Work mix           58         28/1/2015         M20 Work mix	57       5/1/2015       M20 Work mix       Share wall pannel no 11       0+337         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312         60       6/1/2015       M20 Work mix       B3L3 0+300to 0+312         61       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14         62       7/1/2015       M20 Work mix       B2L2 DPS share wall         63       11/1/2015       M20 Work mix       B2L2 DPS share wall         64       19/1/2015       M20 Work mix       R2 Road 1+950to 2+00 pcc bed         65       27/01/2015       M20 Work mix       CN3 0+450 to 0+480 pcc bed         66       28/1/2015       M20 Work mix       CN30+950 to 0+970 pcc bed         67       28/1/2015       M20 Work mix       S13L1 share wall pannel no 12         68       28/1/2015       M20 Work mix       S13L1 share wall pannel no 12         69       28/1/2015       M20 Work mix       B2L2 DPS LINE share wall         70       Specifacation Limit Table For M20/20 on 3       Specifacation Limit Table For M25/20 on 3	57       5/1/2015       M20 Work mix       Share wall pannel no 11       0+337       0.50         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50         60       6/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50         61       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50         62       7/1/2015       M20 Work mix       B2L2 DPS share wall       0.50         63       11/1/2015       M20 Work mix       B2L2 DPS share wall       0.50         64       19/1/2015       M20 Work mix       R2 Road 1+950to 2+00 pcc bed       0.50         65       27/01/2015       M20 Work mix       CN3 0+450 to 0+480 pcc bed       0.50         66       28/1/2015       M20 Work mix       CN3 0+950 to 0+970 pcc bed       0.50         67       28/1/2015       M20 Work mix       B3L1 1+390 Share wall       0.50         68       28/1/2015       M20 Work mix       S13L1 share wall pannel no 12       0.50         69       28/1/2015       M20 Work mix       B3L2 DPS LINE share wall       0.50         69       28/1/2015	57       5/1/2015       M20 Work mix       Share wall pannel no 11       0+337       0.50       1         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46       1         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1         60       6/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1         61       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1         62       7/1/2015       M20 Work mix       B2L2 DPS share wall       0.50       1         63       11/1/2015       M20 Work mix       B2L2 DPS share wall       0.50       1         64       19/1/2015       M20 Work mix       R2 Road 1+950to 2+00 pcc bed       0.50       1         65       27/01/2015       M20 Work mix       CN3 0+450 to 0+480 pcc bed       0.50       1         66       28/1/2015       M20 Work mix       B3L1 1+390 Share wall       0.50       1         67       28/1/2015       M20 Work mix       S13L1 share wall pannel no 12       0.50       1         68       28/1/2015       M20 Work mix       S13L1 share wall pannel no 12       0.50       1	57       5/1/2015       M20 Work mix       Share wall pannel no 11 0+337       0.50       1       2         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46       1       1.68         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2         60       6/1/2015       M20 Work mix       B3L3 0+200to 0+312       0.50       1       2         61       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2         62       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2         63       11/1/2015       M20 Work mix       B3L2 DPS share wall       0.50       1       2         64       19/1/2015       M20 Work mix       R2 Road 1+950to 2+00 pcc bed       0.50       1       2         65       27/01/2015       M20 Work mix       CN3 0+450 to 0+9480 pcc bed       0.50       1       2         66       28/1/2015       M20 Work mix       S13L1 1+390 Share wall       0.50       1       2         67       28/1/2015       M20 Work mix       S13L1 share wall pannel no 12       0.50       1       2	57       5/1/2015       M20 Work mix       Share wall pannel no 11 0+337       0.50       1       2       3.5         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46       1       1.68       3.15         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2       3.5         60       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2       3.5         60       6/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2       3.5         61       7/1/2015       M20 Work mix       B3L2 0PS share wall       0.50       1       2       3.5         62       7/1/2015       M20 Work mix       B2L2 DPS share wall       0.50       1       2       3.5         63       11/1/2015       M20 Work mix       R2 Road 1+950to 2+00 pcc bed       0.50       1       2       3.5         64       19/1/2015       M20 Work mix       CN3 0+450 to 0+480 pcc bed       0.50       1       2       3.5         65       28/1/2015       M20 Work mix       B3L1 1+390 Share wall       0.50       1       2       3.5	57       5/1/2015       M20 Work mix       Share wall pannel no 11       0+337       0.50       1       2       3.5       Shivam         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46       1       1.68       3.15       Shivam         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2       3.5       Shivam         60       6/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2       3.5       Shivam         61       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2       3.5       Shivam         62       7/1/2015       M20 Work mix       B2L2 DPS share wall       0.50       1       2       3.5       Shivam         63       11/1/2015       M20 Work mix       B2L2 DPS share wall       0.50       1       2       3.5       Shivam         64       19/1/2015       M20 Work mix       CN3 0+450 to 2+00 pcc bed       0.50       1       2       3.5       Shivam         65       28/1/2015       M20 Work mix       CN3 0+450 to 0+480 pcc bed       0.50       1       2       3.5       Sh	57       5/1/2015       M20 Work mix       Share wall pannel no 11 0+337       0.50       1       2       3.5       Shivam       Om shree C/plant         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46       1       1.68       3.15       Shivam       Om shree C/plant         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2       3.5       Shivam       Om shree C/plant         60       6/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2       3.5       Shivam       Om shree C/plant         61       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall no 14       0.50       1       2       3.5       Shivam       Om shree C/plant         62       7/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall       0.50       1       2       3.5       Shivam       Om shree C/plant         63       11/1/2015       M20 Work mix       B3L3 0+280to 0+292 share wall       0.50       1       2       3.5       Shivam       Om shree C/plant         64       19/1/2015       M20 Work mix       R2 Road 1+960 to 2+00 pcc bed       0.50       1       2       3.5	57       5/1/2015       M20 Work mix       Share wall pannel no 11 0+337       0.50       1       2       3.5       Shivam       Om shree C/plant       18.33         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300 to 2+100       0.46       1       1.68       3.15       Shivam       Om shree C/plant       21.11         59       6/1/2015       M20 Work mix       B3L3 0+300 to 0+312       0.50       1       2       3.5       Shivam       Om shree C/plant       16.22         60       6/1/2015       M20 Work mix       B3L3 0+280 to 0+292 share wall no 14       0.50       1       2       3.5       Shivam       Om shree C/plant       16.67         61       7/1/2015       M20 Work mix       B3L3 0+280 to 0+292 share wall no 14       0.50       1       2       3.5       Shivam       Om shree C/plant       17.11         62       7/1/2015       M20 Work mix       B3L2 DPS share wall       0.50       1       2       3.5       Shivam       Om shree C/plant       17.83         63       11/1/2015       M20 Work mix       B2L2 DPS share wall       0.50       1       2       3.5       Shivam       Om shree C/plant       17.33         64       19/1/2015       M20 Work mi	57       5/1/2015       M20 Work mix       Share wall panel no 11 0+337       0.50       1       2       3.5       Shivam       Om shree C/plant       18.33       26.67         58       5/1/2015       M25 Work mix       B1L1 RCC bed 2+300to 2+100       0.46       1       1.68       3.15       Shivam       Om shree C/plant       21.11       28.89         59       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2       3.5       Shivam       Om shree C/plant       16.22       23.55         60       6/1/2015       M20 Work mix       B3L3 0+300to 0+312       0.50       1       2       3.5       Shivam       Om shree C/plant       16.22       23.55         60       6/1/2015       M20 Work mix       B3L3 0+280 to 0+292 share wall no 14       0.50       1       2       3.5       Shivam       Om shree C/plant       17.11       20.44         61       7/1/2015       M20 Work mix       B3L2 DPS share wall       0.50       1       2       3.5       Shivam       Om shree C/plant       17.83       20.22         63       1/1/12015       M20 Work mix       B3L2 DPS share wall       0.50       1       2       3.5       Shivam       Om shree C/plant

Test conducted by Quality Controll Manager

Contractors Repart

Approved by Construction Supervision Engineer/CSE

Test checked by Junior Engineer Bulyt.

Consultants Reps

	50	condary	y rown	Integrated Urba			roject	
				Biratnagar Sub	-Metropolitan	city		
			C	ontract Package:	STIUEIP/W/BRT	/ICB-01		
				DAILY WEA	THER RECORD		۲	
FEB						Year:2015		
				WEATHER Record	Temp.c			
Sunny	Foggy	Windy	Cloudy	Morning Rain HRS	Night Rain Hrs.	Day Rain Hrs.	9:00 AM	Rain fall mm
	Foggy						18.5	
	Foggy						19.1	
Sunny							18.2	
Sunny							19.5	-
Sunny							20.1	
	Foggy						19.8	
Sunny							20.2	
	Foggy						19.8	
Sunny							18.2	
Sunny							19.9	
Sunny							20.1	
Sunny							20.5	
Sunny							20.8	
Sunny							20.2	
Sunny							19.9	
Sunny							20.9	
Sunny							21.2	
Sunny	-						20.2	
Sunny				-			19.9	
Sunny							18.9	
Sunny					Night hours		20.1	10mm
Sunny							19.5	
Sunny							20.5	
Sunny		-					19.8	
Sunny		-					20.1	
Sunny						-	19.2	
Sunny							20.2	
Sunny							20.5	
	Sunny Sunny	SunnyFoggyFoggySunnySunySunySunySunySunySunySunySuny	SunnyFoggyWindyFoggy-Foggy-Sunny- <td< td=""><td>FEBSunnyFoggyWindyCloudyFoggyIIFoggyIISunny<td>DAILY WEAK         FEB         Sunny       Foggy       Windy       Cloudy       Morning Rain HRS         Foggy       I       I       I       I         Foggy       I       I       I       I         Sunny       Foggy       I       I       I         Sunny       I       I       I       I         Foggy       I       I       I       I         Sunny       I       I       I       I       I         Sunny       I       I       I       I       <thi< th="">         Sunny<!--</td--><td>DAILY WEATHER RECORD         FEB         Sunny       Foggy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy<!--</td--><td>FEB       VEATHER Record         Sunny       Foggy       Windy       Cloudy       Morning Rain HRS       Night Rain Hrs.       Day Rain Hrs.         Foggy       I       I       I       I       I       I         Foggy       I       I       I       I       I       I         Sunny       I       I       I       I       I       I       I         Sunny       I</td><td>DAILY WEATHER RECORD         Ser: 51         YEATHER Record       Temp r         Samay       Fogy       Cold Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Moning Rain HRS       Night Rain Hrs.       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Day Rain Hrs.       9.00 AM         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"       Colspan="4"       Colspan=</td></td></thi<></td></td></td<>	FEBSunnyFoggyWindyCloudyFoggyIIFoggyIISunny <td>DAILY WEAK         FEB         Sunny       Foggy       Windy       Cloudy       Morning Rain HRS         Foggy       I       I       I       I         Foggy       I       I       I       I         Sunny       Foggy       I       I       I         Sunny       I       I       I       I         Foggy       I       I       I       I         Sunny       I       I       I       I       I         Sunny       I       I       I       I       <thi< th="">         Sunny<!--</td--><td>DAILY WEATHER RECORD         FEB         Sunny       Foggy       Cloudy       Morning Rain HRS       Night Rain Hrs.         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Sunny       Cloudy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy<!--</td--><td>FEB       VEATHER Record         Sunny       Foggy       Windy       Cloudy       Morning Rain HRS       Night Rain Hrs.       Day Rain Hrs.         Foggy       I       I       I       I       I       I         Foggy       I       I       I       I       I       I         Sunny       I       I       I       I       I       I       I         Sunny       I</td><td>DAILY WEATHER RECORD         Ser: 51         YEATHER Record       Temp r         Samay       Fogy       Cold Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Cold       Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"       Colspan="4"       Colspan=</td></td></thi<>	DAILY WEATHER RECORD         FEB         Sunny       Foggy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Morning Rain HRS       Night Rain Hrs.         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy         Sunny       Cloudy       Cloudy       Cloudy       Cloudy       Cloudy </td <td>FEB       VEATHER Record         Sunny       Foggy       Windy       Cloudy       Morning Rain HRS       Night Rain Hrs.       Day Rain Hrs.         Foggy       I       I       I       I       I       I         Foggy       I       I       I       I       I       I         Sunny       I       I       I       I       I       I       I         Sunny       I</td> <td>DAILY WEATHER RECORD         Ser: 51         YEATHER Record       Temp r         Samay       Fogy       Cold Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Cold       Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"&gt;Colspan="4"         Sunny       Colspan="4"       Colspan="4"       Colspan=</td>	FEB       VEATHER Record         Sunny       Foggy       Windy       Cloudy       Morning Rain HRS       Night Rain Hrs.       Day Rain Hrs.         Foggy       I       I       I       I       I       I         Foggy       I       I       I       I       I       I         Sunny       I       I       I       I       I       I       I         Sunny       I	DAILY WEATHER RECORD         Ser: 51         YEATHER Record       Temp r         Samay       Fogy       Cold Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Fogy       Cold       Cold       Moning Rain HRS       Night Rain Hrs.       Day Rain Hrs.       9.00 AM         Sunny       Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4"         Sunny       Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4"         Sunny       Colspan="4">Colspan="4">Colspan="4">Colspan="4"         Sunny       Colspan="4">Colspan="4">Colspan="4"         Sunny       Colspan="4">Colspan="4"         Sunny       Colspan="4"       Colspan="4"       Colspan=

### SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENT IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20& M25/20 Work Mix

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#### FOR THE MONTH OF FEBUARY 2015

S.N.	Lab Ref	Date of	Deatails of Mix	Location	Rati	o by VO	LUME	102-0	S	ource	Cube Cri	Remarks	
	No.	Casting		Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
17	170	29/1/2015	M20 Work mix	B3L1 Share wall 1+400.5	0.50	1	2	3.5	Shivam	Om shree C/plant	12.78	21.78	
18	171	1/2/2015	M15 Work mix	B3L1 Leanear concrete pcc bed 1+145 to 1+160	0.52	1	2.33	4.17	Koshi	Om shree C/plant	7.33		1.0
19	172	2/2/2015	M15 Work mix	B3L1 Leanear concrete pcc bed 1+160 to 1+180	0.52	1	2.33	4.17	Koshi	Om shree C/plant	5.56		
20	173	3/2/2015	M15 Work mix	B3L1 Leanear concrete pcc bed 1+185 to 1+195	0.52	1	2.33	4.17	Koshi	Om shree C/plant	6.11		
21	174	3/2/2015	M20 Work mix	B3L1 share wall 1+441	0.50	1	2	3.5	Koshi	Om shree C/plant	13.89		
22	175	5/2/2015	M20 Work mix	B3L1 1+431 share wall	0.50	1.	2	3.5	Koshi	Om shree C/plant	13.11		
23	176	5/2/2015	M20 Work mix	B3L2 1+438	0.50	1	2	3.5	Koshi	Om shree C/plant	16.67		
24	177	9/2/2015	M20 Work mix	B3L1 1+140 Share wall	0.50	1	2	3.5	Koshi	Om shree C/plant	16.89		
25	178	10/2/2015	M25 Work mix	B1L2 Rcc Bed	0.46	1	1.68	3.15	Koshi	Om shree C/plant	20.00		
26	179	14/2/2015	M15 Work mix	B1L1 PCC Bed	0.52	1	2.33	4.17	Koshi	Om shree C/plant	8.89		
27	180	14/2/2015	M25 Work mix	B3L1 House crossing RCC	0.46	1	1.68	3.15	Koshi	Om shree C/plant	17.22		
28	181	14/2/2015	M25 Work mix	R2 Road Road crossing Top slab 1+700,1+500,1+850 LHS/RHS	0.46	1	1.68	3.15	Koshi	Om shree C/plant	20.33		
29	182	15/2/2015	M15 Work mix	R2 Road footh path 2+150 to 2+180	0.52	1	2.33	4.17	Koshi	Om shree C/plant	12.78		
30	183	17/2/2015	M25 Work mix	B3L1 House crossing Top slab 1+160,1+180,0+100	0.46	1	1.68	3.15	Koshi	Om shree C/plant	26.56		Near Cemen Godam
31	184	18/2/2015	M20 Work mix	S9 Share wall	0.50	1	2	3.5	Koshi	Om shree C/plant	12.89		
32	185	19/2/2015	M20 Work mix	RANI 0+500 PCC Bed	0.50	1	2	3.5	Koshi	Om shree C/plant	16.67		
33	186	19/2/2015	M20 Work mix	S13L1F 0+210 to 0+250 pcc bed	0.50	1	2	3.5	Koshi	Om shree C/plant	15.67	4	
	Note:2	28 days cube	test awaiting to be							Total cube crushed	70.00	66 Remains	
			5	Specifacation Limit Table For M20/20 on 7	days Ag	e Min 67	% of To	tal Compres	ssive Strength	Min Required	13.4	20	
			S	Specifacation Limit Table For M25/20 on 7	days Ag	e Min 67	% of To	tal Compre	ssive Strength	Min Required	16.75	25	
ppro	ved by		DA on Supervision E Engineer for			ed by F	Project	Manager ality Contr	oll Manager	-6:	7		<i></i>

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Consultants Reps

Contractors Reps

# SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENT IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

Summary of (Fine Aggregate concrete Sand)

# FOR THE MONTH OF FEBUARY 2015

		LAB		(	Grain Si	za Dist	ribution			Sp	Water	Unit Weight	DEMADKS
S.N.	DESCRIPTION / LOCATION	REF. NO:	10	4.75	2.36	1.18	0.6	0.3	0.15	Gr	Absorption %	gm/cc	REMARKS
1	From R2 Road	MR10	100	99.5	92.03	70.43	51.66	18.6	4.49			1416kg/m3	source
2	From R2 Road	MR11	100	99.27	90.64	70.28	49.72	18.17	4.59				om shree
													crusher
													plant
			100-100	90-100	75-100	55-90	35-59		0-10				
	SPECIFICATION			IS 38	33-1970	Zone-2							
	*												
Cons Test	C-BRISBANE-AQUA-CEMAT-B truction Supervision Enginer Checked by Junior Engineer ultant Reps	CSE '	97			tted by	Projected by	J. hull	ager anager	) -	Fre		

#### SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENT IMPROVEMENT PROJECT Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20 KERB STONE

#### FOR THE MONTH OF FEBUARY 2015

	Lab Ref	Date of	Deatails of Mix	Location	Ra	tio by VOL	UME		S	iource	Cube Cru	shing ,N/mm2	Remarks
.N.	No.	Casting		Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	8K	7/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.00	0.00	
2	эĸ	20/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	17.00	0.00	
3	10K	21/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.90	0.00	
4	11K	22/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	0.00	0.00	
5	12K	24/02/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	I KOSHI	Om shree ⊄/plant	0.00	0.00	
6	13K	27/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	0.00	0.00	
													-
_													
-													
-													
-					-								
-					-	1							
-					-								
			8						1	Total cube crushed	12 nos		
			Specifacatio	n Limit Table For M30/20 or	n 7 days A	ge Min 67%	6 of Tota	al Compressi	ve Strength	Min Required	20.1	30	
op est	roved by	by Junior Er	DA n Supervision Engir ngineer fully	neer/CSE	Submit Test co	KALIKA J/ ted by Pro inducted I ctors Rep	oject Ma ov Quali	ity Controll	Manager	Pe	9		

			FOR TH		OF FEB	UARY 20	015								
.N.	DESCRIPTION / SOURCE	TYPE OF MAT.			a Distribu	tion		FI	LAA	ACV	SSS	Unit Wt	Sp. Gr.	Absorpt ion %	REMARKS
-			REF. NO.	25	20	10	4.75	%	%			%			
1	From Contractor yard stock pile	Cr Aggregates	MR 11	100	98.58	31.48	11.83								Aggregates
2	From Contractor yard stock pile	Cr Aggregates	MR12	100	97.03	34.55	11.12				-				Source
Ĩ							•								Om shree
											6				Crusher
															Plant
1	REQUIREMENT LIMITS	AVG		100.0	97.8	33.0	11.5			-					Absorved 1.5
	Section 900:IS 383-1970	Gradednominal size 20mm		100	95-100	25-55	0-10	Less 25%	Less 35%	Less 30%					Finer
	NOTE :Sample collected from R2 Road For PCC Bed concrete 20mm 65% & 10mm 35 % mixed SMEC -BRISBANE-AQUA-CE Approved by C.S.E	MAT-BDA	Tes	t Checke	d by Jun	ior Engil	neer A	luf		KALIKA J	1-18-		р	rojest Ma	anager

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_			Deatails of Mix	Location			Contraction of the local division of the loc	BUARY 2			Out- Ou	Num Num O	Barrata
S.N.	Lab Ref No.	Date of Casting	Deatans of Mix	- chest rent		io by VOL				Source	Cube Crushing ,N/mm 7 days 28-Days		Remarks
1	MR 01	1/2/2015	M30 Work mix	Structure SLAB YARD	0.40	Cement 1	Sand	Aggregate 2.4	Cement Brand SHIVAM	Aggregate/Sand Om shree C/plant	7 days 21.10	28-Days 0.00	
2	MR 02	3/2/2015	M30 Work mix	SLAB YARD	0.40	1	1.5	2.4	SHIVAM	Om shree C/plant	20.70	0.00	
3	MR 03	4/2/2015	M30 Work mix	SLAB YARD	0.40	1	1.5	2.4	SHIVAM	Om shree C/plant	20.90	0.00	
4	MR 04	22/2/2015	M30 Work mix	SLAB YARD	0.40	1	1.5	2.4	KOSHI	Om shree C/plant	0.00	0.00	
5	MR 05	23/02/2015	M30 Work mix	SLAB YARD	0.40	1	1.5	2.4	I KOSHI	Om shree C/plant	0.00	0.00	
6	MR 06	27/02/2015	M30 Work mix	SLAB YARD	0.40	1	1.5	2.4	KOSHI	Om shree C/plant	0.00	0.00	
-			41.0										
-					-								
-						-							
-					-								
-													
						t							
1					-			14				2	
-							-						
-													
+					_					Total cube crushed	16. nos		
			Specifacation	Limit Table For M30/20	on 7 days Ag	e Min 67%	of Tota	l Compressi	ve Strength	Min Required	20.1	30	
ppi	roved by		A Supervision Engine Igineer galat	er/CSE	Submitt	ALIKA J/ ed by Pro	ject Ma	nager ty Controll	Manager				

# ANNEX-8: CONTRACTOR'S PROGRESS REPORT

Page | 45 Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar