

Initial Environmental Examination

Document stage: Draft
Project number: 49329-006
January 2019

BAN: Second City Region Development Project – Dhaka Region Roads (Savar Upazila) PART B

Package No: CRDP-II/LGED/DHAKA/SAVAR/NCB/2018/W-02

Prepared by the Local Government Engineering Department, Government of Bangladesh for the Asian Development Bank.

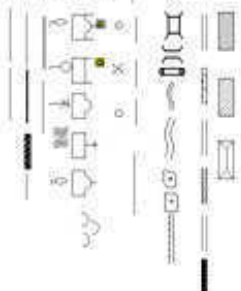
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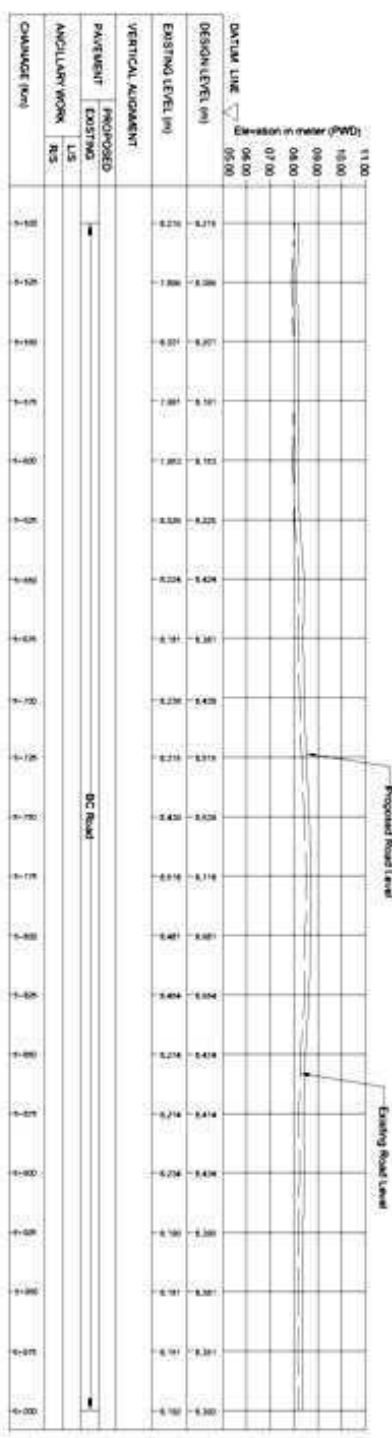
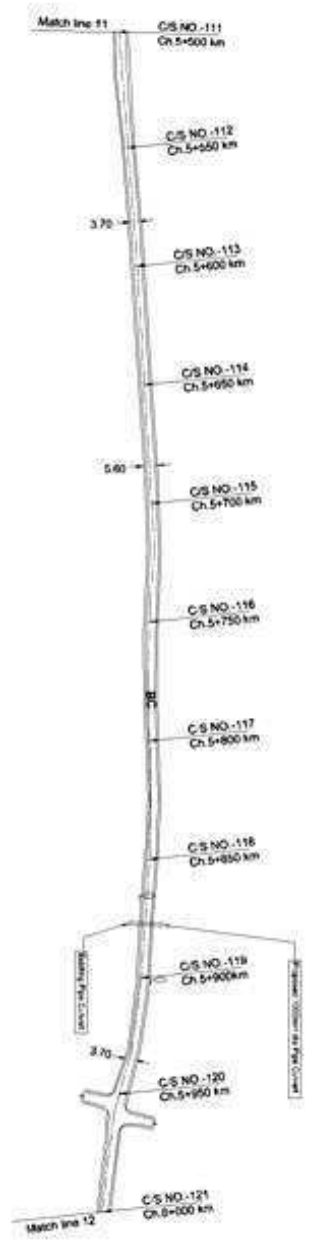
2) Bridge. But current type current

- 4) Wet Boundary Line With Street, Railway Line
- 5) Electric Pole (ET) Tower, Telephone Telegraph Pole
- 6) Barbed Wire Mesh, Temporary Barbed Wire (TBW)
- 7) Waterlog, Bar Gate, Land Church, Temple, Cemetery
- 8) Mangro, Jackfruit, Palm, Coconut, Bamboo & other Tree
- 9) Other Proposed Item
- 10) Proposed Guide With Placing CC Block, Gravelstone
- 11) Building CC, Polder, Design CC, Profile



PMCU	CITY REGION DEVELOPMENT PROJECT II (CRDP-II)
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SCHOOL ATTENDING DATE: APRIL 2018 **PACU USE NO OTHER STUDENT WORK**



- LEGEND:**
- 1) Structure - Permanent, Semi-permanent, Temporary
 - 2) Buried Road, RCC Road, HBB Road
 - 3) Bridge, Box culvert, Pipe culvert
 - 4) Well, Boundary Line, Way Boundary, Highway Line
 - 5) Electric Pole (EP), Tower, Telephone (Telephone) Pole
 - 6) Bench Mark (BM), Temporary Bench Mark (TBM)
 - 7) Manhole, E.P. Gully, Trench, Channel, Trench, Drainage
 - 8) Manhole, Trench, Channel, Trench, Drainage
 - 9) Drain, Proposed Drain
 - 10) Proposed Drain, Proposed Drain, Proposed Drain
 - 11) Existing Drain, Proposed Drain, Proposed Drain

LOCAL GOVERNMENT ENGINEERING DEPARTMENT

CITY REGION DEVELOPMENT PROJECT II (CDDP-II)

UPPALA - SAVAR

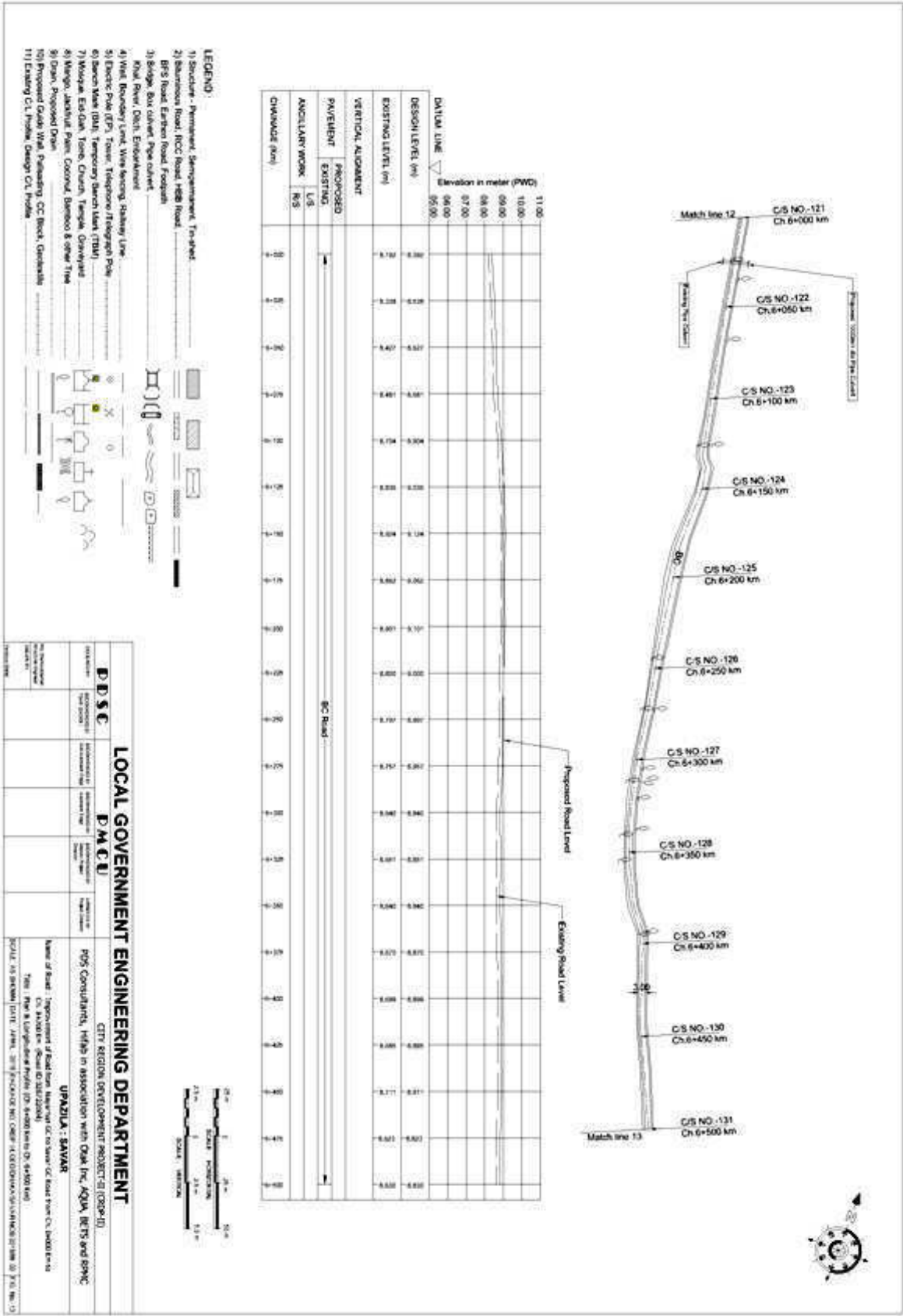
POS Consultants, Hybrid in association with C&A, AQUA, BETS and GPMC

Scale: 1:1000

Date: 10/05/2017

Project: Improvement of Road from Nayapada DC to Savar DC Road from Ch. 5+500 to Ch. 5+900

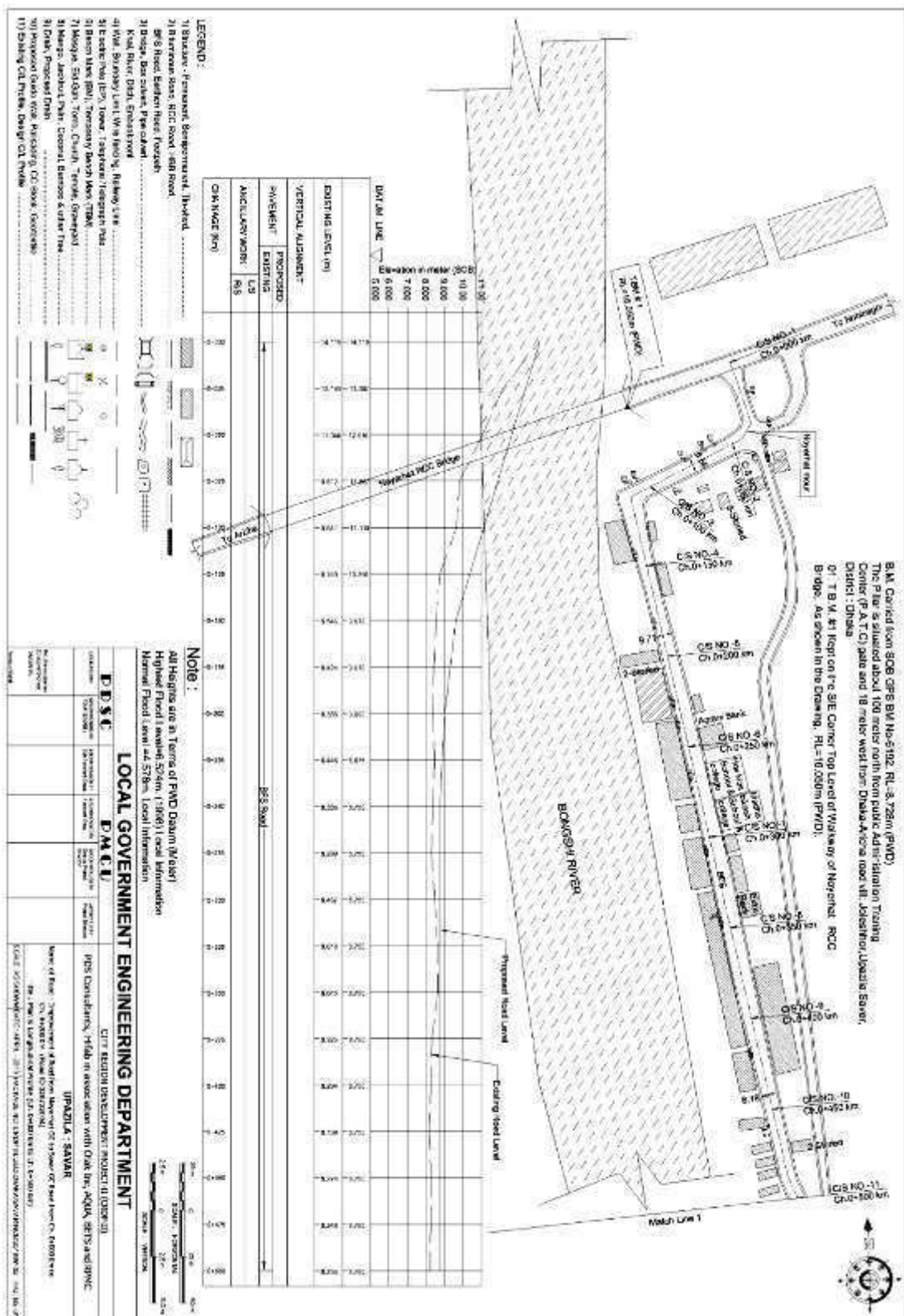
Sheet: 10 of 10





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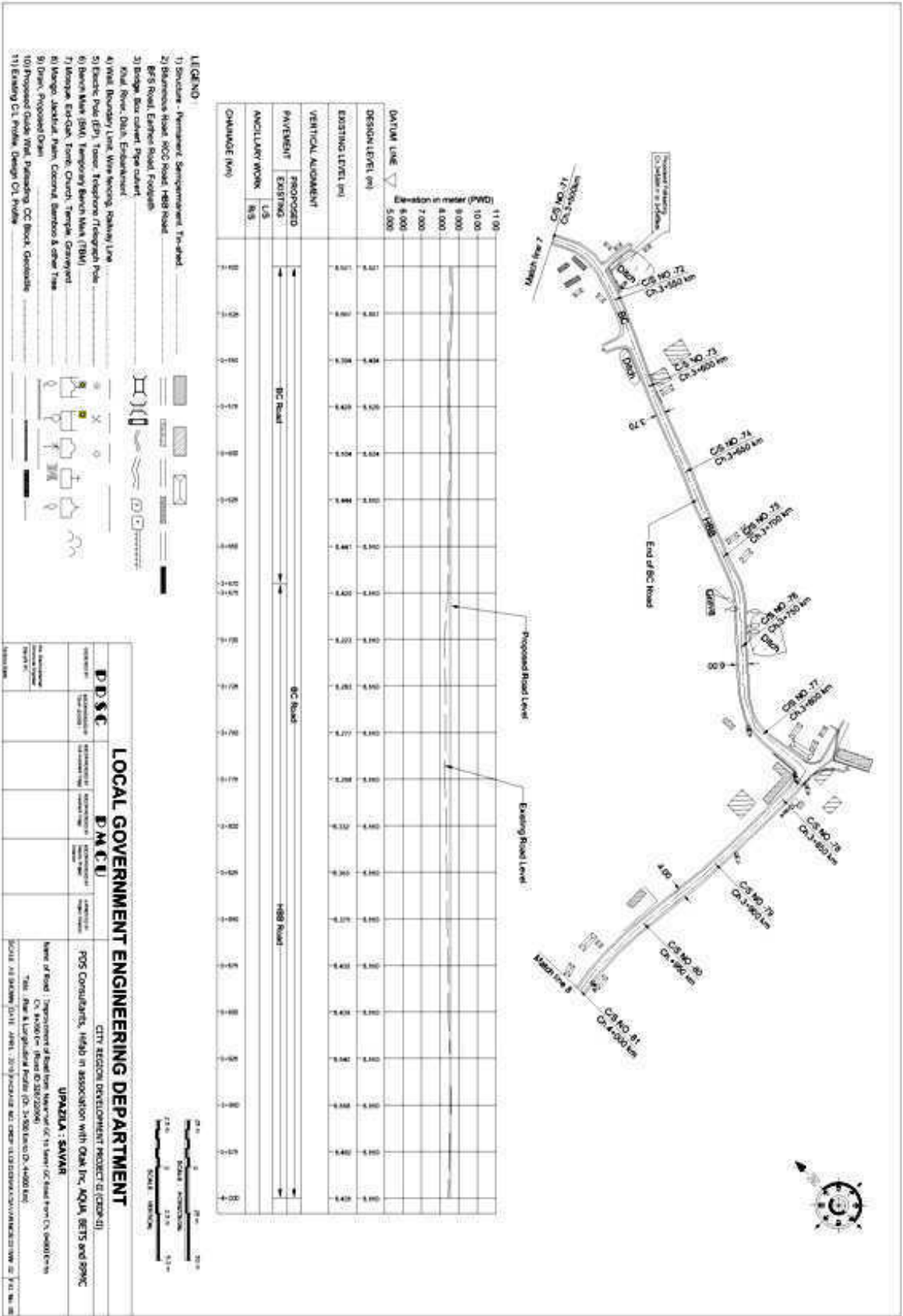
any other person or entity who has been convicted of a crime involving fraud or dishonesty.

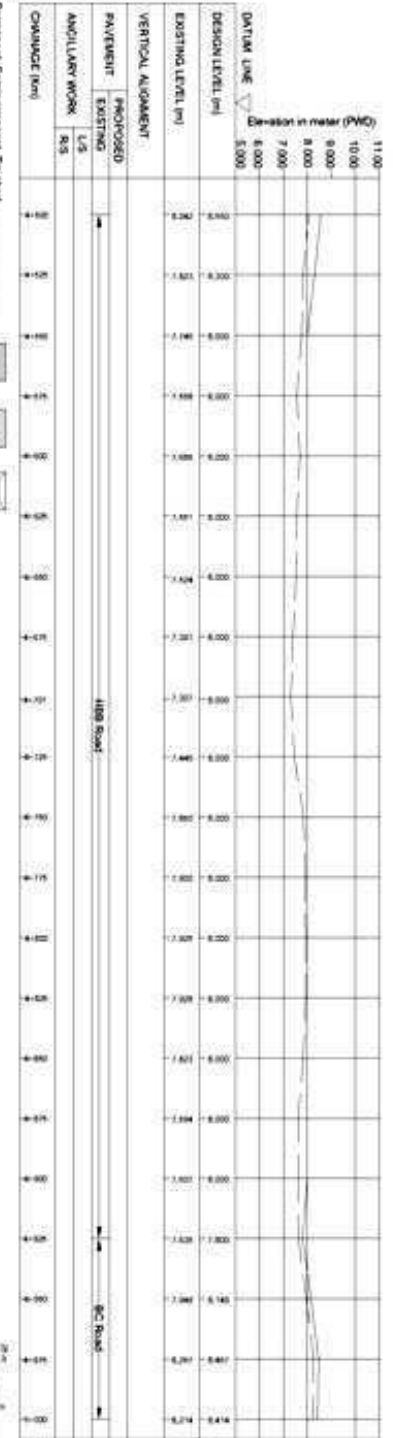
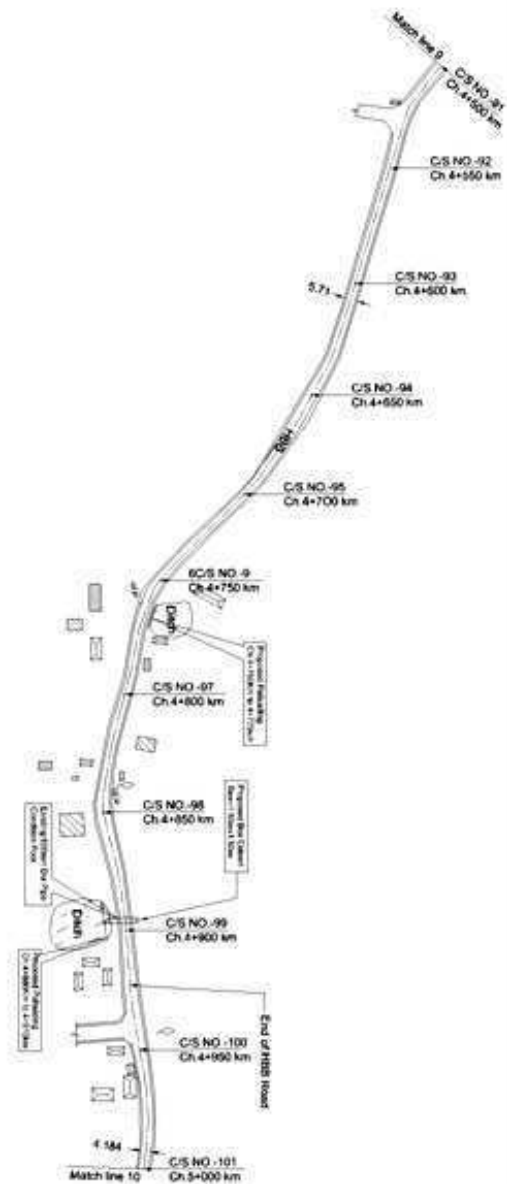




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Source: As prepared. Date: April, 2018. Prepared by: Center for the Oceans and the Atmosphere, NOAA. See also: <https://www.noaa.gov/oceans>





- LEGEND**
- 1) Structure - Permanent, Semi-permanent, Temporary
 - 2) Buried Road - RCC Road, HSB Road
 - 3) Road - Buried Road, Road
 - 4) Road - Buried Road, Road
 - 5) Road - Buried Road, Road
 - 6) Road - Buried Road, Road
 - 7) Road - Buried Road, Road
 - 8) Road - Buried Road, Road
 - 9) Road - Buried Road, Road
 - 10) Road - Buried Road, Road
 - 11) Road - Buried Road, Road

LOCAL GOVERNMENT ENGINEERING DEPARTMENT			
CITY REGION DEVELOPMENT PROJECT (C-RDP-II)			
POS CONSULTANTS, Hybrid in association with GDA, INC, AQUA, BETS and SPINC			
UPAZILA - SAVAR			
Name of Road : Improvement of Road from Hapurpur to Ch 4+500 km to Ch 5+000 km			
Scale : 1:1000			
Date : 10/01/2017			
Scale : 1:1000			

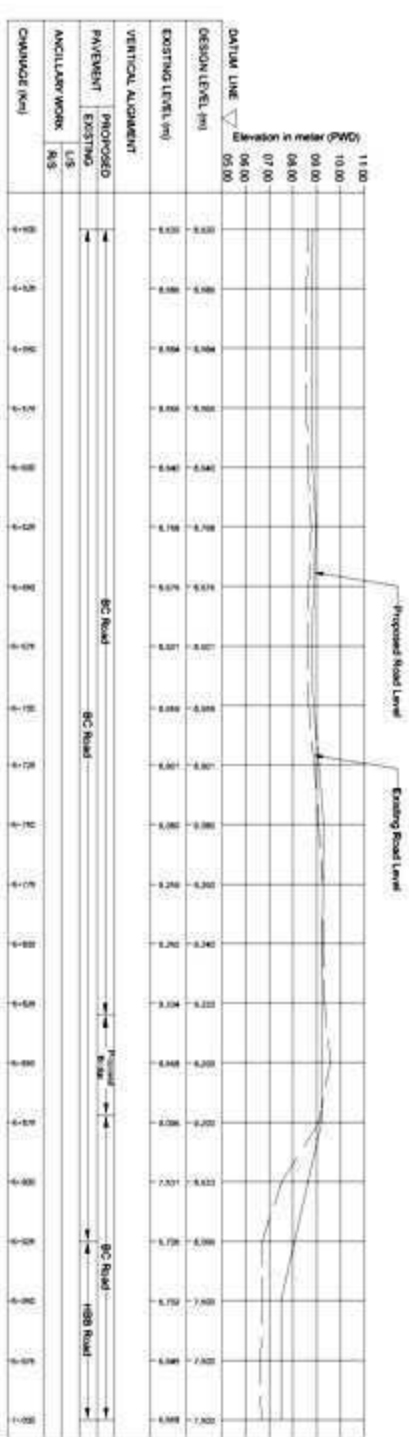
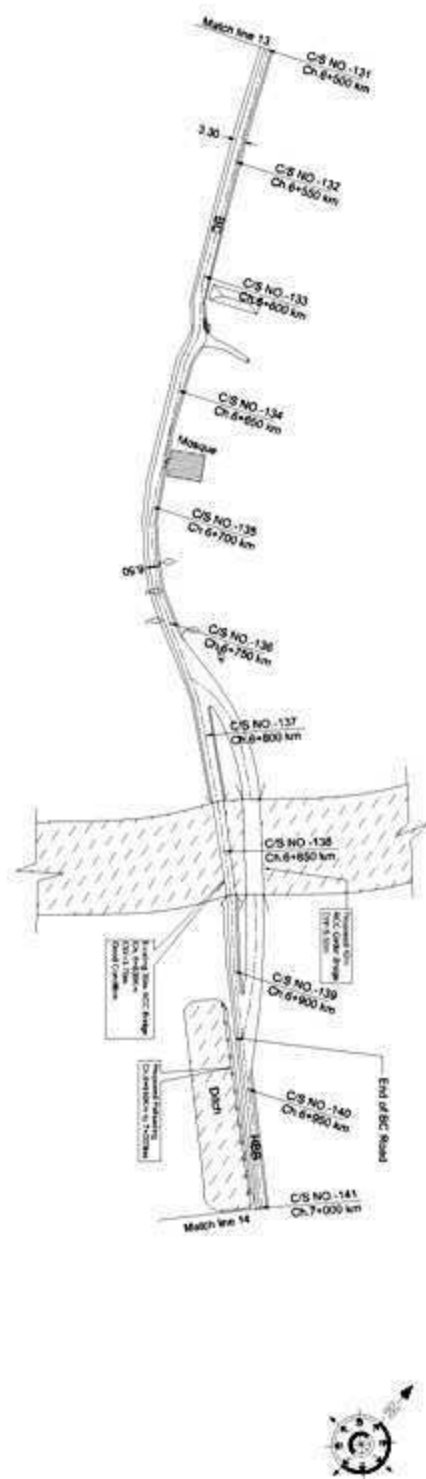




- [illegible]



- [illegible]



- LEGEND:**
- 1) Structure - Permanent, Semi-permanent, T-shaped
 - 2) Structure - Road, RCC Road, HBB Road
 - 3) Road - Existing Road, Proposed Road
 - 4) Road - Boundary Line, Wire fencing, Railway Line
 - 5) Road - Pile (P), Tower, Temporary Temporary Pole
 - 6) Road - Blank (BL), Temporary (Temp), (TBL)
 - 7) Bridge - Bridge, Road, Church, Temple, Dargah
 - 8) Mosque - Mosque, Pile, Coconut, Bamboo & other Tree
 - 9) Drain - Proposed Drain
 - 10) Proposed Guard Wall, Palisading, CC Block, Concrete
 - 11) Existing CC Bridge, Design CC Bridge

LOCAL GOVERNMENT ENGINEERING DEPARTMENT

P.D.S.C. P.M.C.U.

CITY REGION DEVELOPMENT PROJECT (C.R.D.P.)

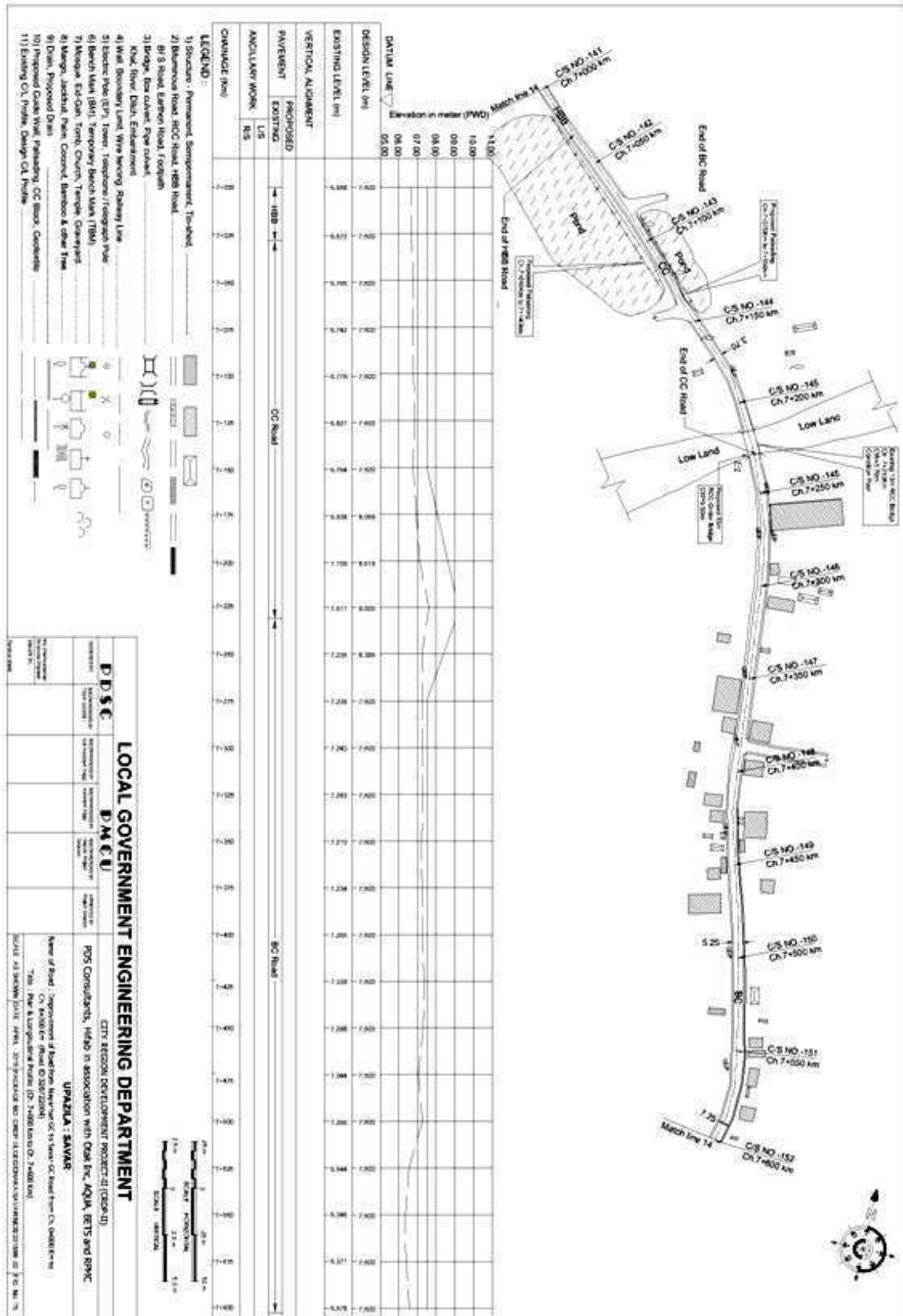
PDPS Consultants, Hyderabad in association with O&A, AQUA, BE TS and SPPCL

UPADILA : SAVAR

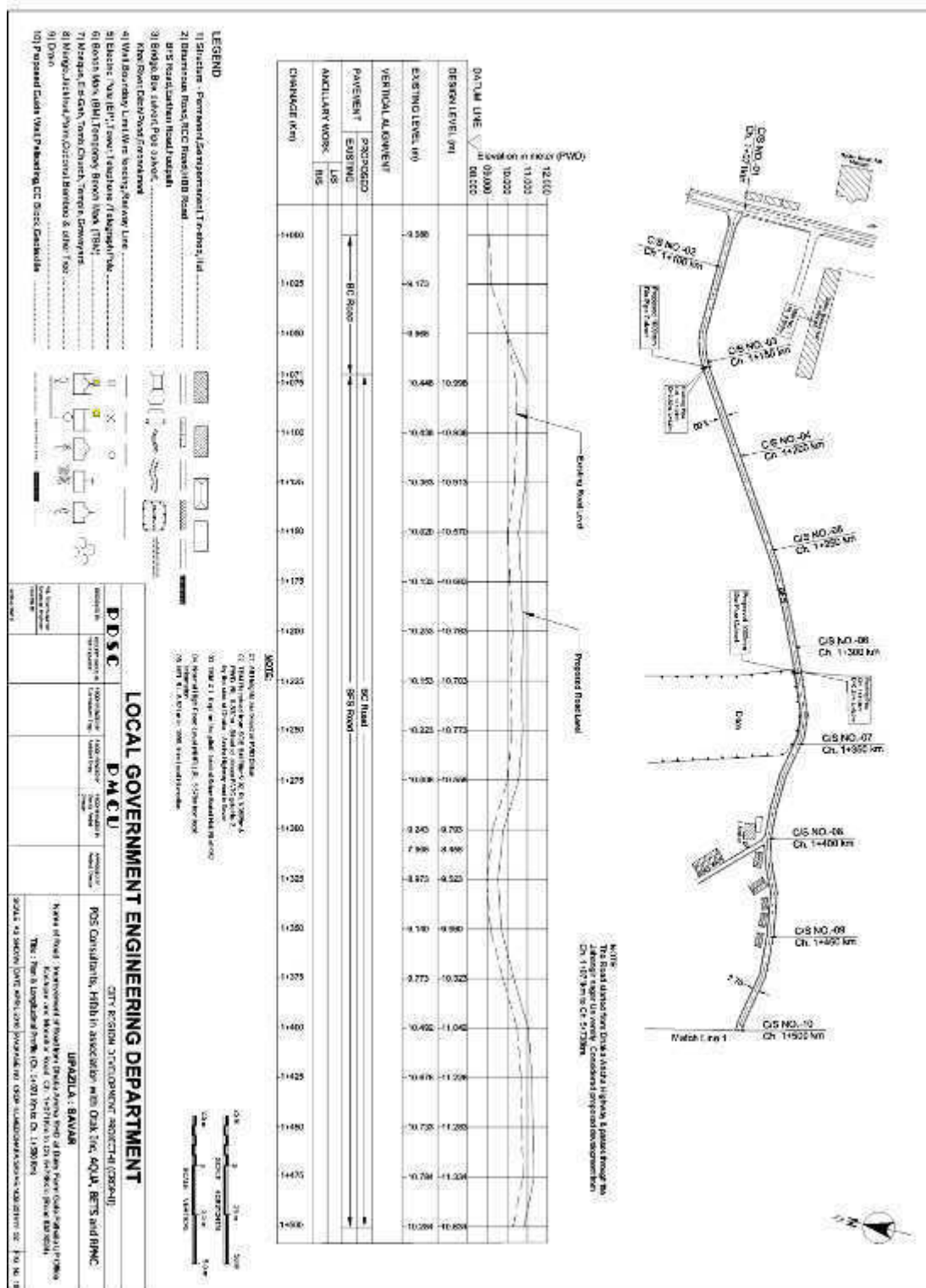
Name of Road : Improvement of Road from Heavy traffic to light traffic (C.R.D.P. project)

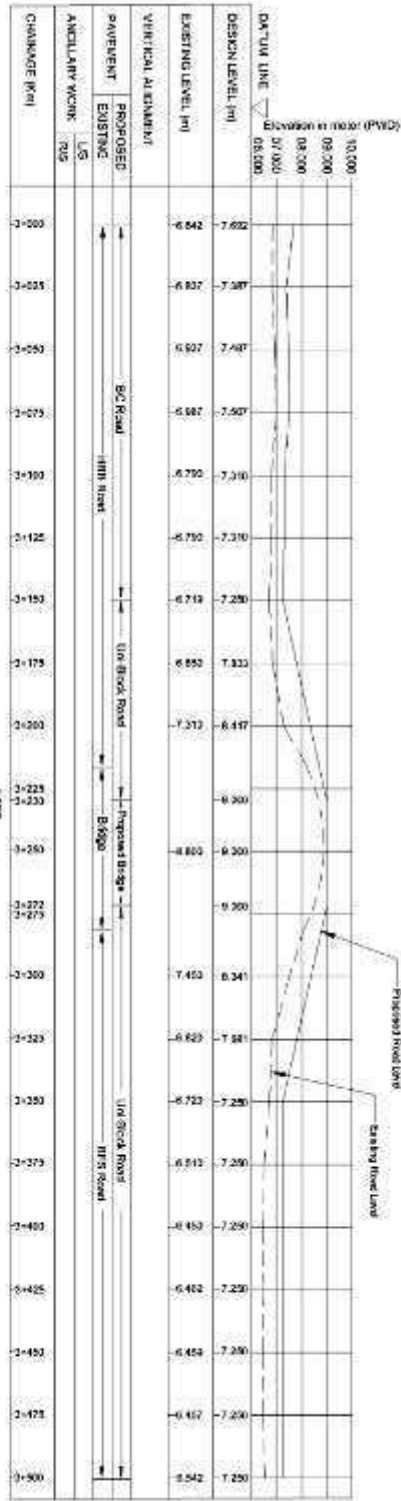
Year : 2018 & 2019

Scale : 1:1000



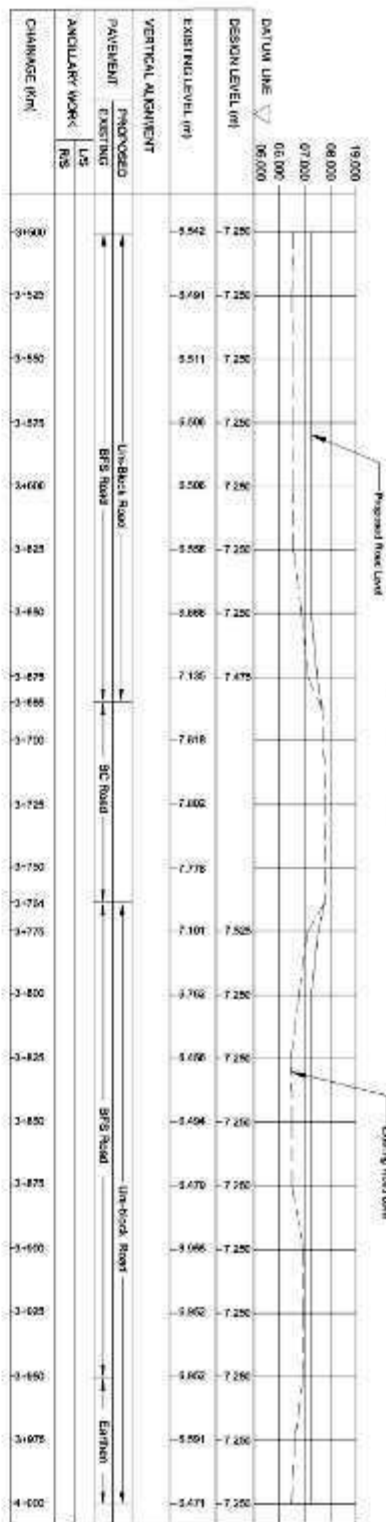
Appendix 4: Strip Maps of Subproject Alignment - Dhaka - Aricha RHD at Dairy Farm Gate - Pathalia UP Office Kashipur and Monohor Road, (Road ID: 3024)





1C) Proposed Change Wall Placement CC Block Construction

Table 1: Plot of longitudinal profile (Ch. 3: 500 km to Ch. 3: 550 km)



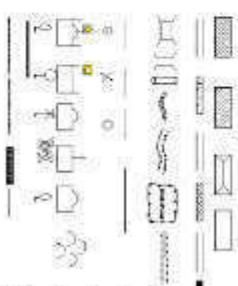
CITY REGION DEVELOPMENT PROJECT-II (CRDP-II)

LOCAL GOVERNMENT ENGINEERING DEPARTMENT				
DISEC		DMCU		
DESIGNER'S NAME AND TITLE	DESIGNING ORGANIZATION	REFERENCE NUMBER	PROJECT NUMBER	PROJECT NAME
Dr. J. Jayaraman Senior Engineer Water				<p>CITY REGION DEVELOPMENT PROJECT-II (COPRII) PDS Consultants, Hyderabad, A.Q.U.S., S.E.T.S. and R.P.W.C.</p> <p>UPAZILA : BAWAR</p> <p>Baran of River : Incorporated in Government Survey Station Office in Bawar, State : Uttar Pradesh, I.P. Code : 201110, P.O. : Bawar, District : Meerut, U.P.</p> <p>Site : 10 Km. N. from Bawar village, Dist. : Meerut, U.P., India.</p> <p>DESIGN AND CONSTRUCTION OF BARAN AND CANALS FOR IRRIGATION OF 2000 HECTARE OF LAND IN DISTRICT OF MEERUT, U.P.</p>

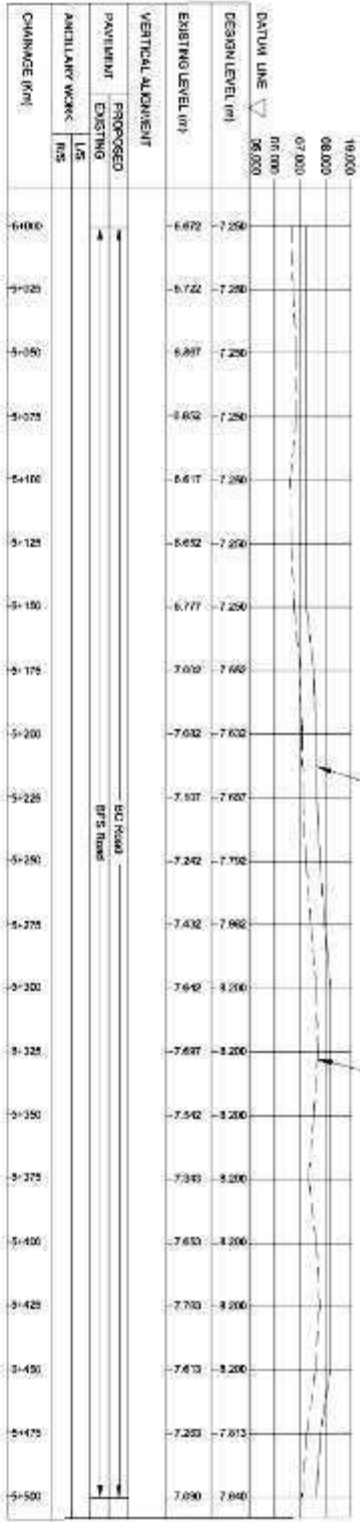
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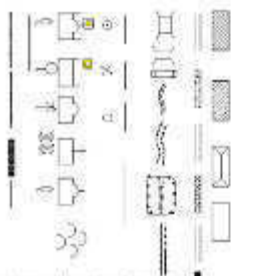
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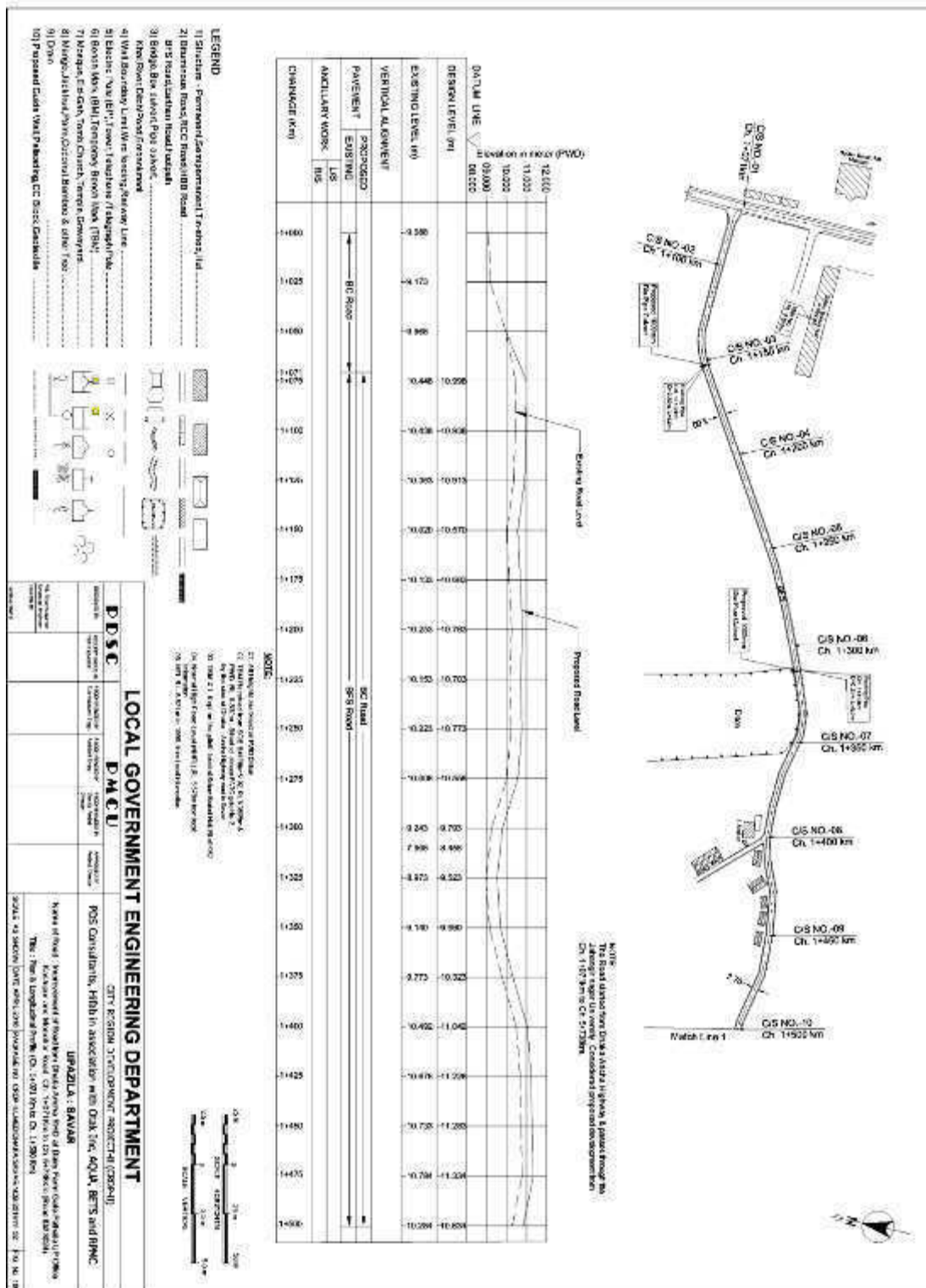
LOCAL GOVERNMENT ENGINEERING DEPARTMENT				
PDS		PMCU		
DATE OF ISSUE	REVISION (1-10)	REVISION (1-10)	REVISION (1-10)	REVISION (1-10)
CITY DESIGN DEVELOPMENT PROJECT #1 (CDP-40)				
POS Consultants, in association with Oak Inc, AQUA, BETS and BPMC				
UPAZILA : SAVAR				
Name of Project : Improvement of Road from Dhaka to the South of Dry River Circle (Purbana) in Old				
Kanchanjee and Khondar Road, Ch. 0+500K to Ch. 0+700K (Bhadrabad Road)				
Tel. : 9991 81 Longdistance from Dh. 4+500K to Ch. 0+700K				
TOTAL EST. SHEETS (NOT PART 21) : 12 SHEETS AND 100% 21 SHEETS (NOT PART 21) : 10 SHEETS				

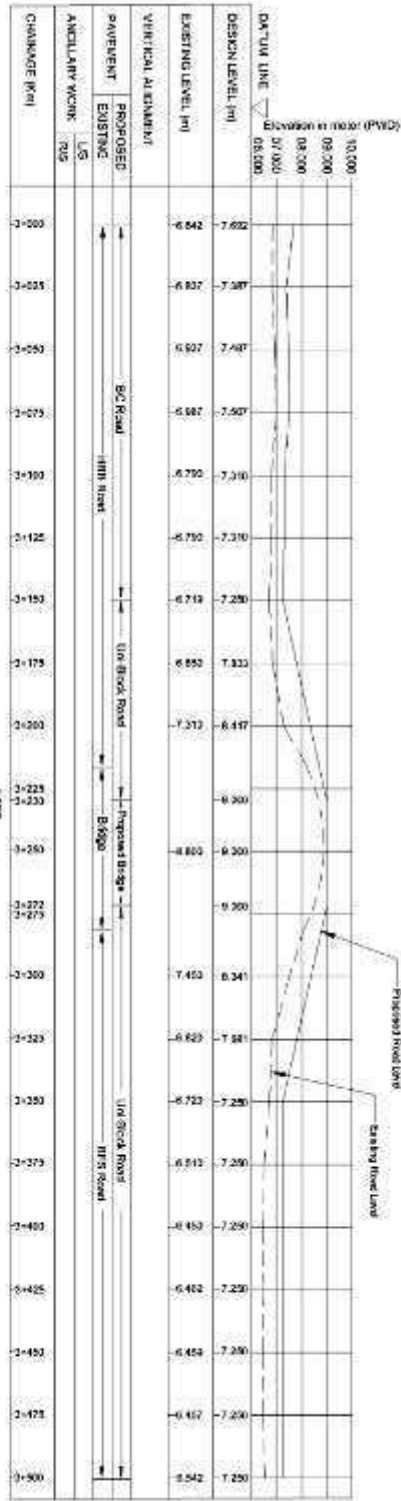


- LEGEND:**
- 1) Structure - Permanent/Semi-permanent/Temporary Hd
 - 2) Blumum Road R/C Road High Road
 - 3) Road/Canal Road/Field
 - 4) Bridge over canal/Type canal
 - 5) Road/Canal Road/Field
 - 6) Road/Canal Road/Field
 - 7) Road/Canal Road/Field
 - 8) Road/Canal Road/Field
 - 9) Road/Canal Road/Field
 - 10) Road/Canal Road/Field



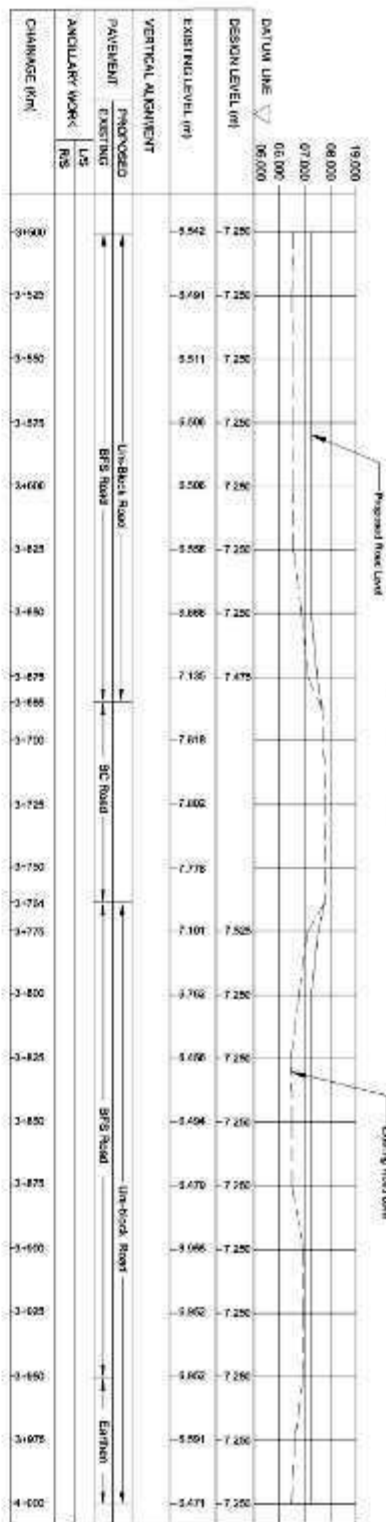
DDSC		DDCU	
CITY REGION DEVELOPMENT PROJECT-1 (COP-1)		CITY REGION DEVELOPMENT PROJECT-1 (COP-1)	
Name of Road: Road/Canal Road/Field		Name of Road: Road/Canal Road/Field	
Scale: 1:1000		Scale: 1:1000	
Date: 10/10/2019		Date: 10/10/2019	
Project: 10/10/2019		Project: 10/10/2019	





For a complete guide to the various types of business insurance, visit www.understandingbusinessinsurance.com.

Tide: 1700-1800 North (Ch. 3+500 km to Ch. 3+500 km)



CITY REGION DEVELOPMENT PROJECT-II (CRDP-II)

UPAZILA : BAVAR

London and Windsor Road, CA 94035-6110 for 7,986 mRads/decade
 1100 S. Main & Long Street, Fort Collins, 97150 for 6,400 dec/yr

[illegible]

LEGEND :

- [illegible]

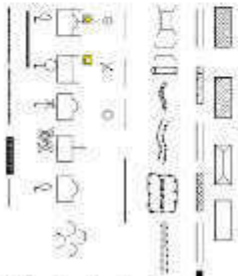
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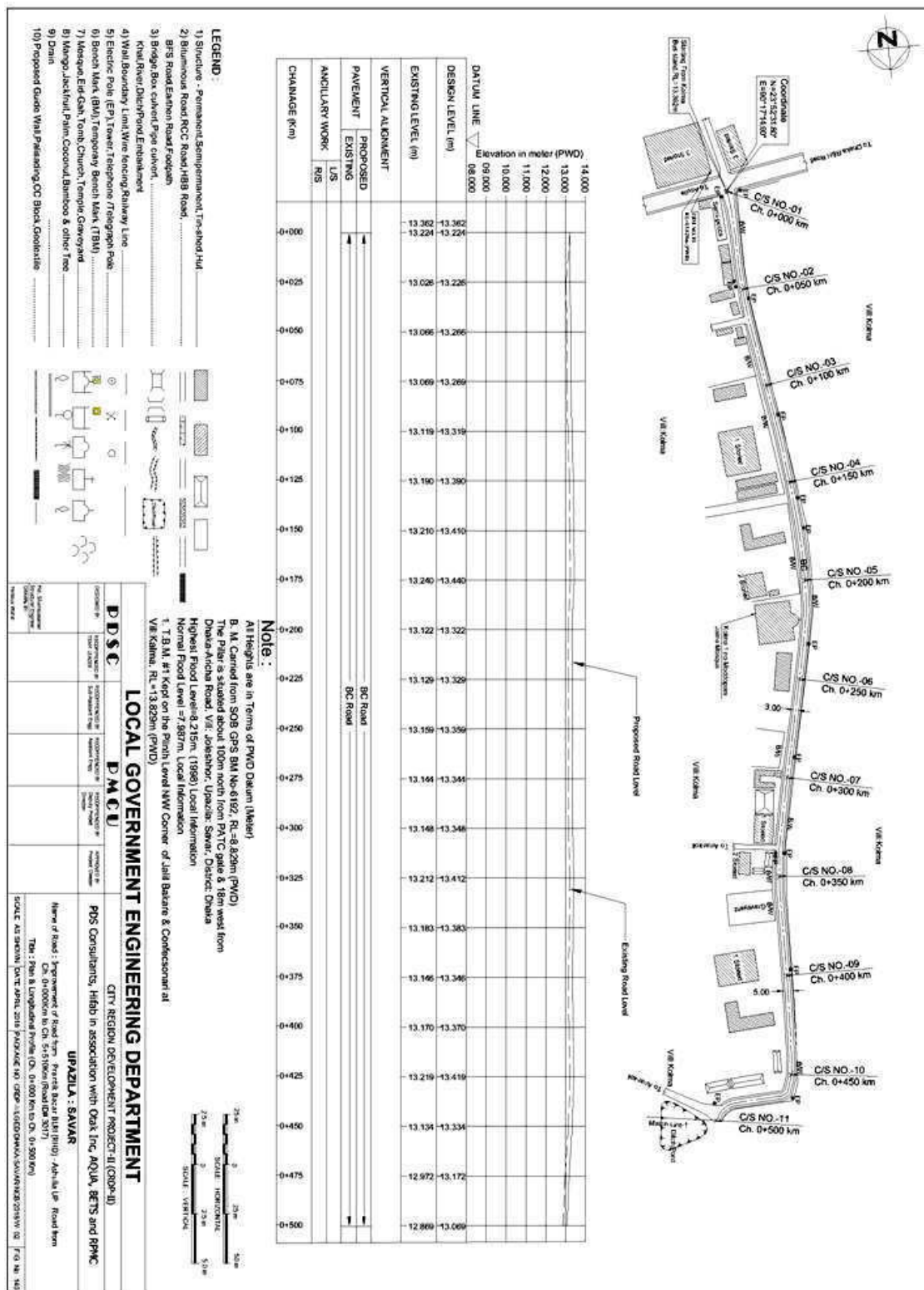
Exhibit 10.10 (continued)

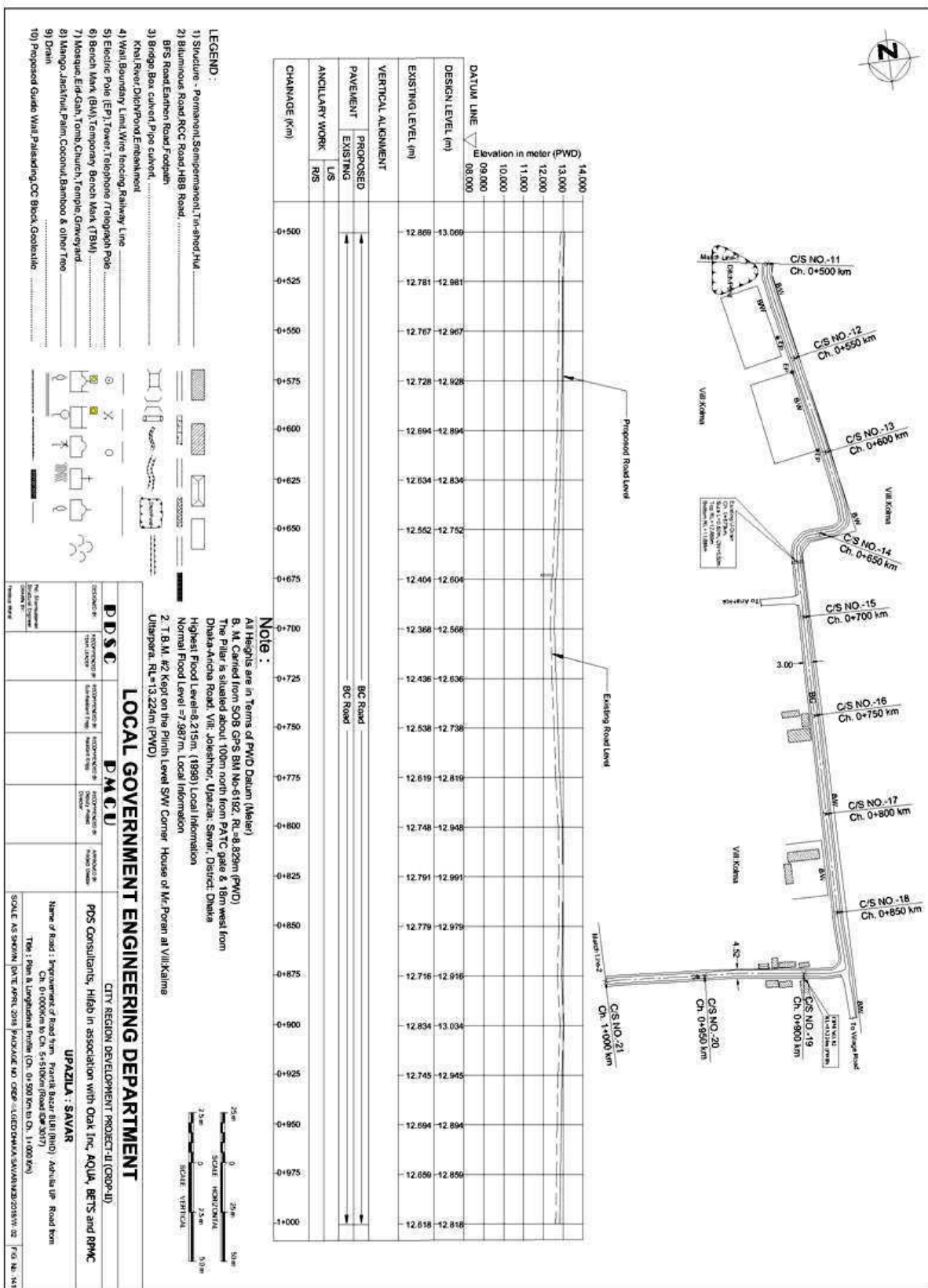
03-7144 (Received 2002-04-04; revised 2002-06-10; accepted 2002-06-10). © 2002 Wiley Periodicals, Inc. *J Biomed Mater Res (Appl Biomater)* 61: 1037–1044, 2002
DOI 10.1002/jbm.b.10039

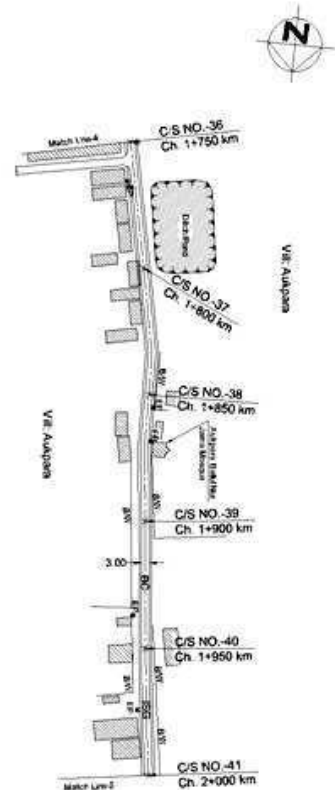
- Chemical structures and reactions are shown, including a polymer structure, a chemical reaction scheme, and a table of chemical structures.

TOTAL AS OF OPEN DATE APRIL 2018	PROBABLE AND REASONABLY ASSURED OIL IN PLACE	76 BBL-100
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Appendix 5: Strip Maps of Subproject Alignment - Prantik bazar BLRI (RHD) – Ashulia UP Road, (Road ID: 3017)

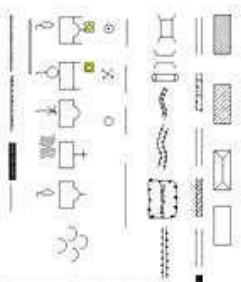


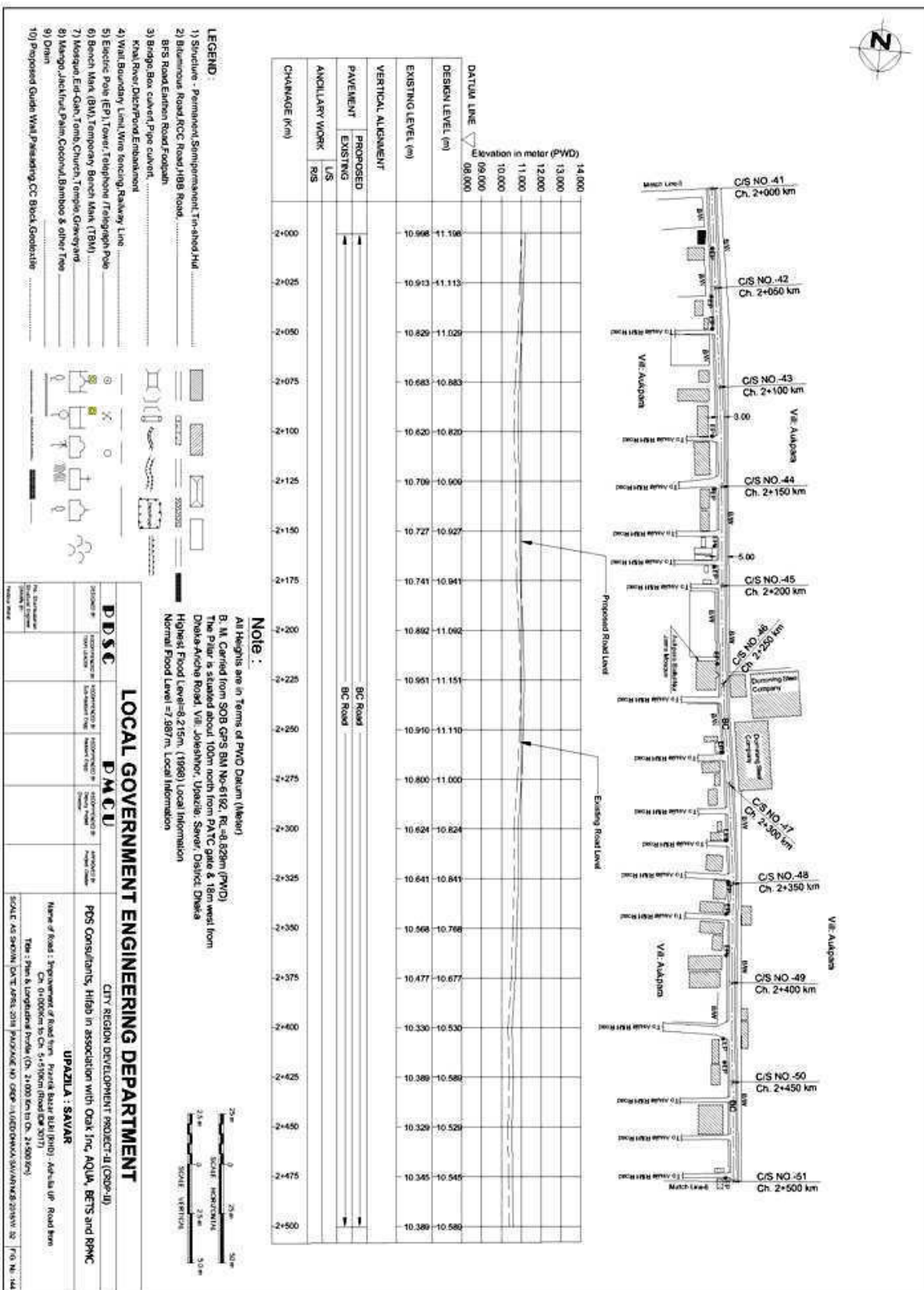




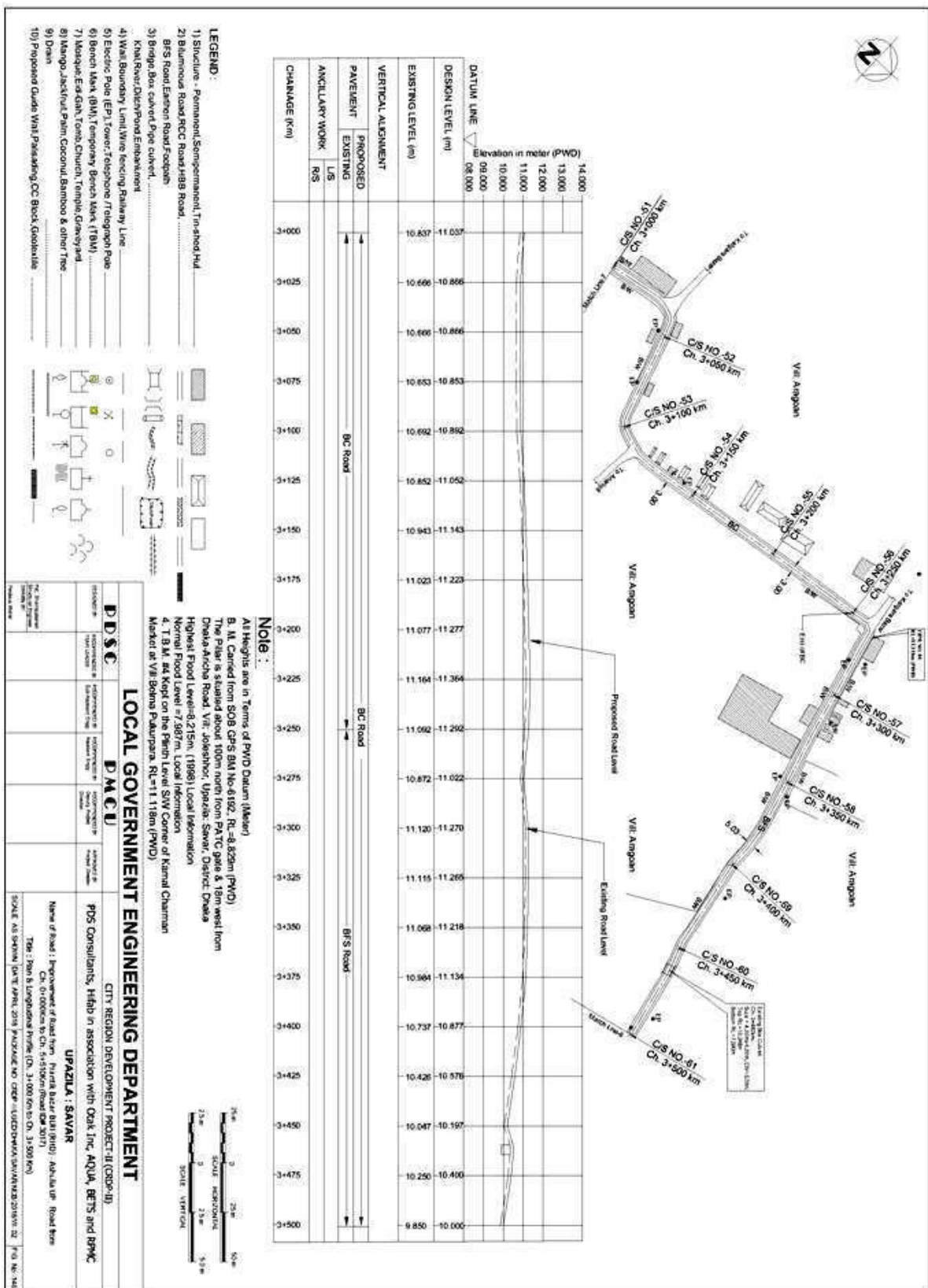
LEGEND:

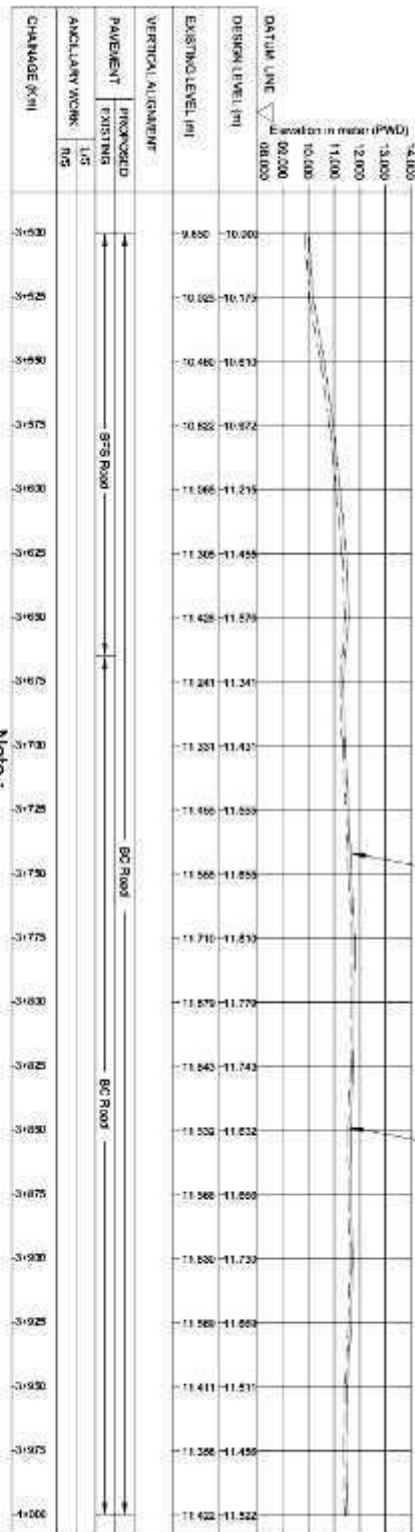
- 1) Structure - Permanent Settlement, Trench and Mid
- 2) Blumouara Road, RCC Road, HBB Road
- 3) Bridge Road, Culvert, Pipe culvert
- 4) Kral River, Diapir Road Embankment
- 5) Water Boundary, Limit, Water Inflow, Railway Line
- 6) Electric Pole (EP), Tower, Telephone, Telegraph Pole
- 7) Bench Mark (BM), Temporary Bench Mark (TBM)
- 7) Ustara, Erd-Gan, Iron Church, Temple, Cemetery
- 8) Mangro, Jackfruit, Palm, Coconut, Bamboo & other Tree
- 9) Drain
- 10) Proposed Gully Wall, Pleasuring, CC Block, Gutter

[illegible]

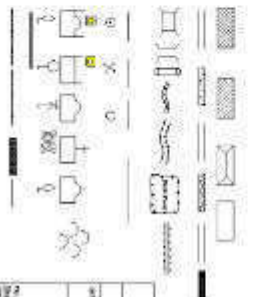








- LEGEND**
- 1) Boundary - Portland Cement Concrete, Treated Rd
 - 2) Boundary - Road/RCC Road/MSB Road
 - 3) Boundary - Road/RCC Road/MSB Road
 - 4) Boundary - Road/RCC Road/MSB Road
 - 5) Boundary - Road/RCC Road/MSB Road
 - 6) Boundary - Road/RCC Road/MSB Road
 - 7) Boundary - Road/RCC Road/MSB Road
 - 8) Boundary - Road/RCC Road/MSB Road
 - 9) Boundary - Road/RCC Road/MSB Road
 - 10) Boundary - Road/RCC Road/MSB Road



LOCAL GOVERNMENT ENGINEERING DEPARTMENT

UPAZILA - SAHAR

City Region Development Project II (CUP-II)

PDSC **PMCU**

PDSC Consultants, Pktd in association with Chak Inc, AQUA, GEI and BPIC

UPAZILA - SAHAR

City Region Development Project II (CUP-II)

PDSC Consultants, Pktd in association with Chak Inc, AQUA, GEI and BPIC

LOCAL GOVERNMENT ENGINEERING DEPARTMENT

UPAZILA - SAHAR

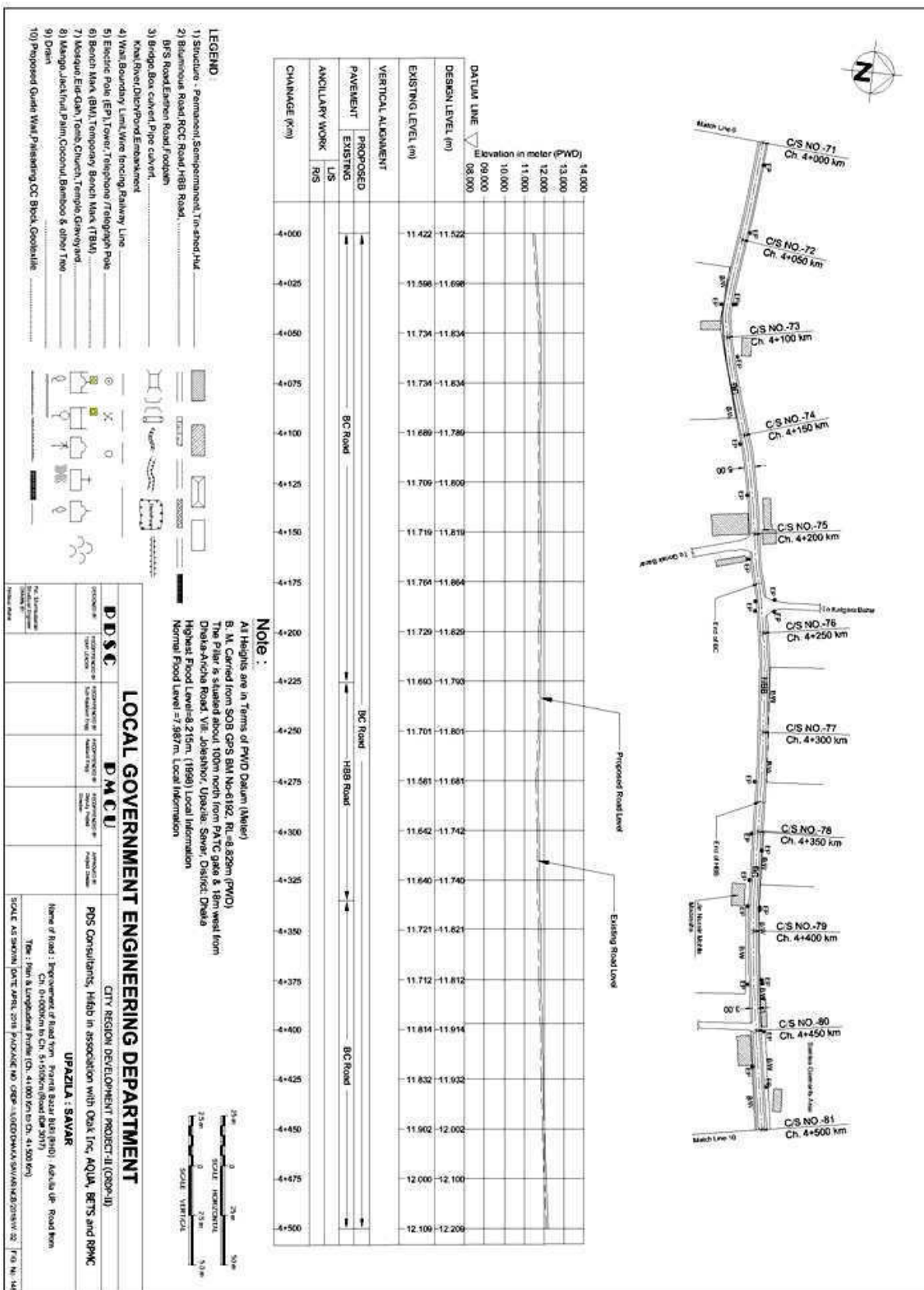
City Region Development Project II (CUP-II)

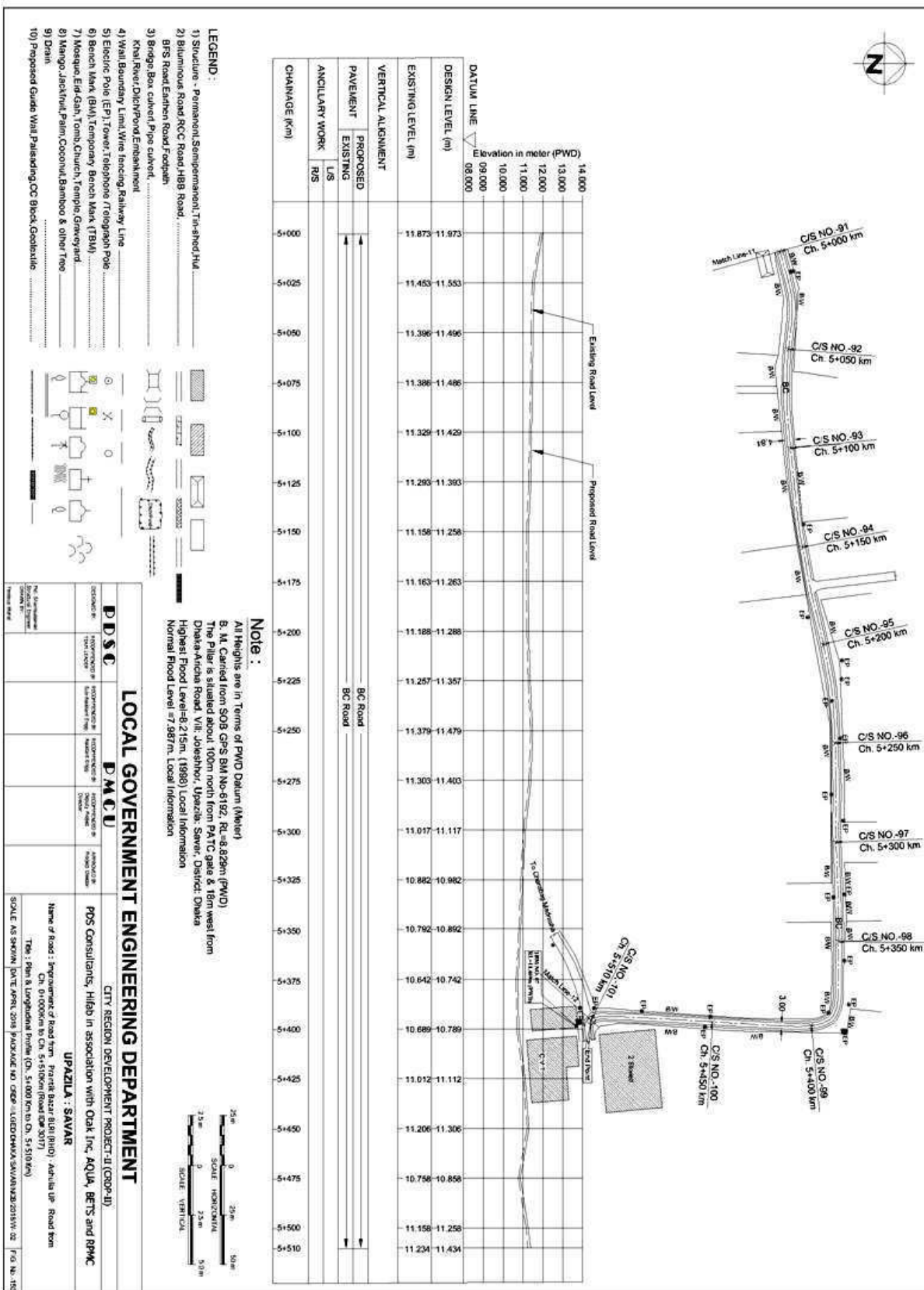
PDSC Consultants, Pktd in association with Chak Inc, AQUA, GEI and BPIC

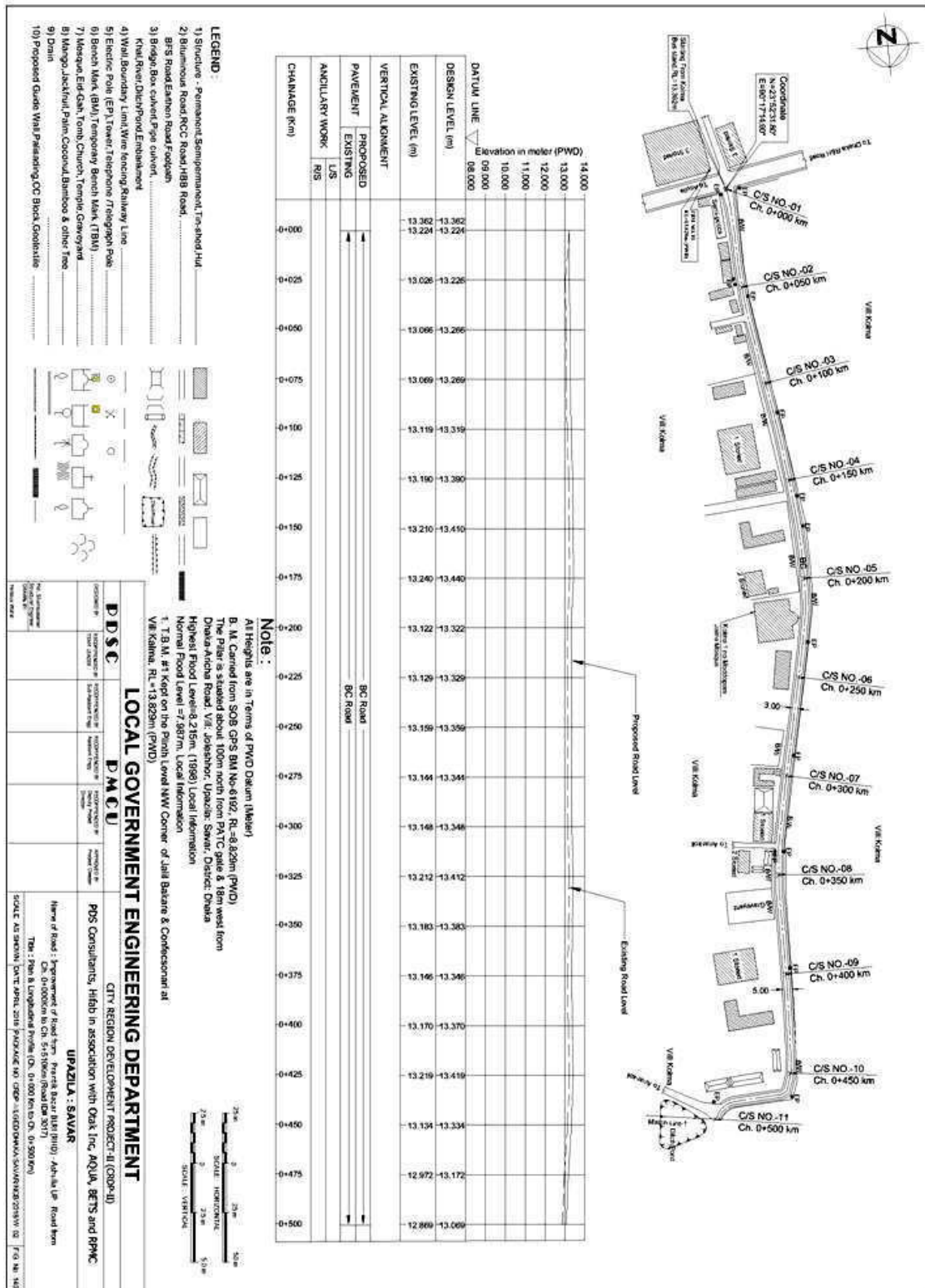
UPAZILA - SAHAR

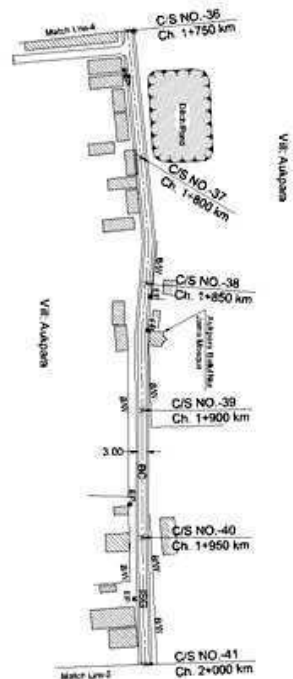
City Region Development Project II (CUP-II)


PDSC Consultants, Pktd in association with Chak Inc, AQUA, GEI and BPIC









CHAINAGE (K+m)	PAVEMENT		VERTICAL ALIGNMENT	EXISTING LEVEL (m)	DESIGN LEVEL (m)	DATUM LINE  Elevation in meter (PWD) 08.000
	PROPOSED	EXISTING				
1+500				12.346	12.546	
1+525				12.311	12.511	
1+550				12.201	12.401	
1+575				12.195	12.395	
1+600				12.221	12.421	
1+625				12.217	12.417	
1+650				12.016	12.216	
1+675				12.038	12.238	
1+700				11.856	12.056	
1+725			BC Road	12.207	12.407	
1+750			BC Road	12.181	12.381	
1+775				12.169	12.369	
1+800				12.223	12.423	
1+825				12.315	12.515	
1+850				12.057	12.257	
1+875				11.887	12.087	
1+900				11.680	11.880	
1+925				11.492	11.692	
1+950				11.386	11.586	
1+975				11.097	11.297	
2+000				10.998	11.198	

- 1) Structure - Permanent, Semi-permanent, Finished, Mul
- 2) Behaviourous Road, RCC Road, HBB Road,

BFS Road, Earthen Road, Footpath

3) Bridge, Box culvert, Pipe culvert, ...

Kristi Rover, Ditch Pond Embankment

4) **WALL BOUNDARY LIMIT:** Wall boundary

6) Bench Mark (BM) Temporary Bench

7) Mosque, Eid-Gah, Tomb, Church, T

8) Mango, Jackfruit, Palm, Coconut, B.

9) Drain

10) Proposed Guide Wall, Palisading, C

Note:
 All Heights are in Terms of PMD Datum (Mean)
 B. M. Carried from SOB GPS BM No-6 (192, RL = 8.929m (PMD))
 The Pillar is situated about 100m north from PATC gate & 15m west from
 Dhava-Aracha Road. Vill. Jolashah, Uplaval, Saver, District, Dhava

3. T.B.M. #3 Kept on the Plinth Level N/E Corner House of Mr. Najor Ali, at V&A Anarkali. Rd.=12.61m (PWD)

LOCAL GOVERNMENT ENGINEERING DEPARTMENT

CITY REGION DEVELOPMENT PROJECT-II (CRDP-II)

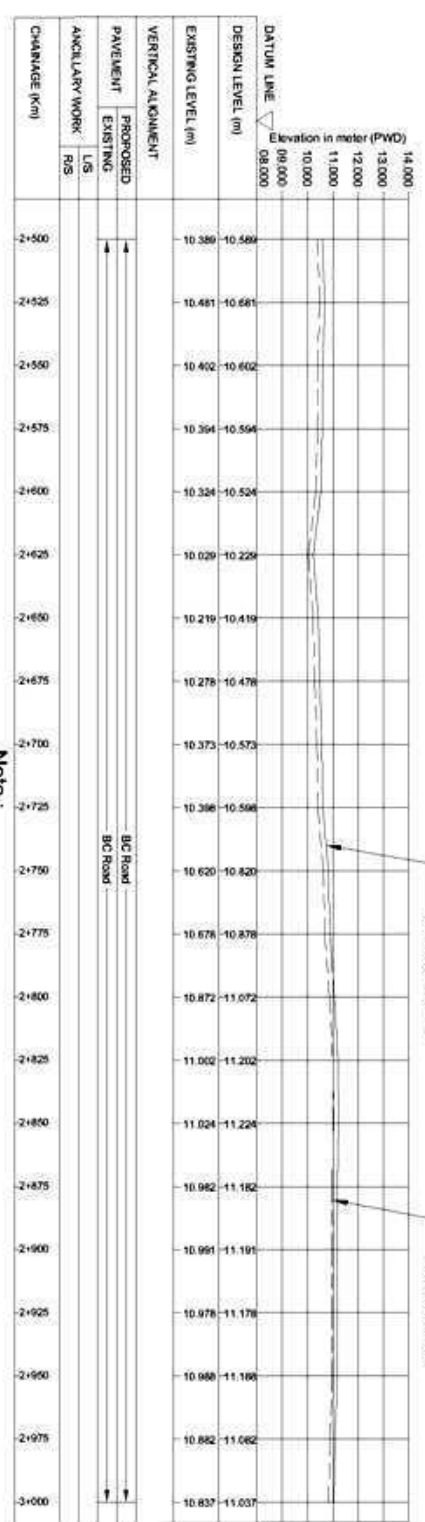
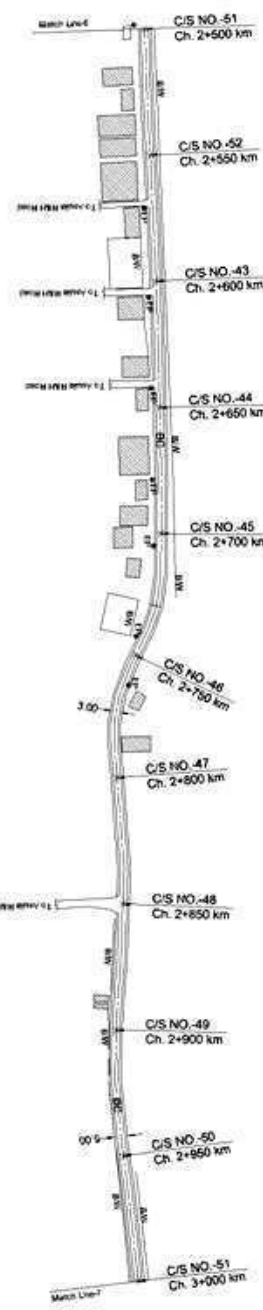
UPAZILA : SAYAR

from Paratit Bazar Bldg (R10). Address: LP Road from
to 5+5100m (Road Km 2017)

Altitude (Ch. 1 = 500 km to Ch. 2 = 1000 km)

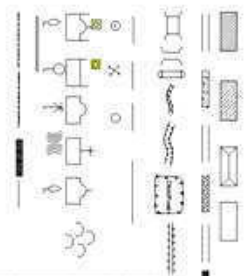
Journal of Management Education 36(7) 809-821

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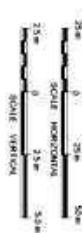
LEGEND:

- 1) Structure - Permanent, Semi-permanent, T-shaped Mid
- 2) Blumous Road/RCC Road/HBB Road
- 3) Bridge Box Culvert Pipe Culvert
- 4) Road Boundary Line/Wire Fencing/Railway Line
- 5) Electric Pole (P), Tower, Telephone / Telegraph Pole
- 6) Bench Mark (BM), Temporary Bench Mark (TBM)
- 7) Manhole, Easement, Trench, Channel, Trench, Drainage
- 8) Manhole Junction, Palm, Coconut, Bamboo & other Tree
- 9) Drain
- 10) Proposed Guard Wall, Retaining CC Block, Roadside



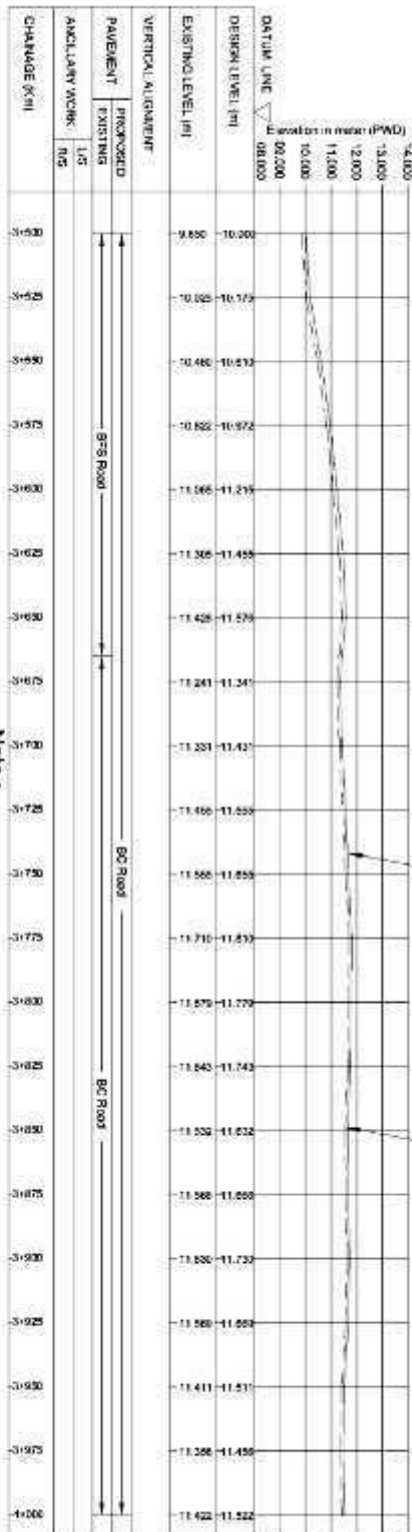
Note:

All Heights are in Terms of PWD Datum (Meter)
 B.M. Carried from SOB GPS BM No-6182, RL=8.82m (PWD)
 The P.W.D. is situated about 10km north from P.W.D. State & 18m west from
 Davao-Archana Road, Vile, Jokehlor, Upland, Savar, District, Davao
 Highest Flood Level=8.215m, (1988) Local Information
 Normal Flood Level = 7.987m, Local Information



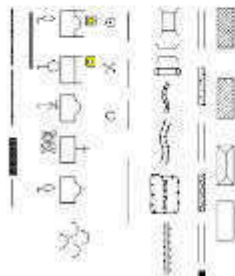
LOCAL GOVERNMENT ENGINEERING DEPARTMENT

PDSC		PMCU		POS Consultants, Hilda in association with Oak Inc, AQUA, BETS and IPMC	
DESIGNED BY	APPROVED BY	DESIGNED BY	APPROVED BY	DESIGNED BY	APPROVED BY
DATE	DATE	DATE	DATE	DATE	DATE
Name of Road: Improvement of Road from Davao-Archana Road (D.A.R.) to Davao-Archana Road (D.A.R.)			Name of Road: Improvement of Road from Davao-Archana Road (D.A.R.) to Davao-Archana Road (D.A.R.)		
Title: Plan & Longitudinal Profile (Ch. 2+500 to Ch. 3+000 km)			Title: Plan & Longitudinal Profile (Ch. 2+500 to Ch. 3+000 km)		
SCALE: AS SHOWN (HORIZONTAL: 1:1000, VERTICAL: 1:100)			SCALE: AS SHOWN (HORIZONTAL: 1:1000, VERTICAL: 1:100)		



LEGEND

- 1) Shoulder, Portland Cement Concrete, Treated Hd.
- 2) Bituminous Road/RCC Road/HB Road
- 3) Bridge Box Culvert/Pipe Culvert
- 4) Wall Boundary Line/Wire Fencing/Railway Line
- 5) Electric Pole (Pylon Tower) / Telephone / Telegraph Pole
- 6) Bench Mark (BM), temporary Bench Mark (TBM)
- 7) Mangrove, Paddy Field, Orchard, Swamp, Cemetery
- 8) Mangrove, Paddy Field, Orchard, Swamp, Cemetery
- 9) Drain
- 10) Proposed Guide Wall/Retaining Wall/Box Culvert



Note :

A) Heights are in Terms of PWD Datum (Mean Sea Level)

B) M. Center from SCS C-95 BM No. 6192, RL=6.22m (PWD)

C) The Road is situated about 100m north from PWD gate & 10m west from District Office Road, Via Jambhaya, Uthmaniyah, District Office

D) Highest Flood Level=0.21m, (1993) Local Information

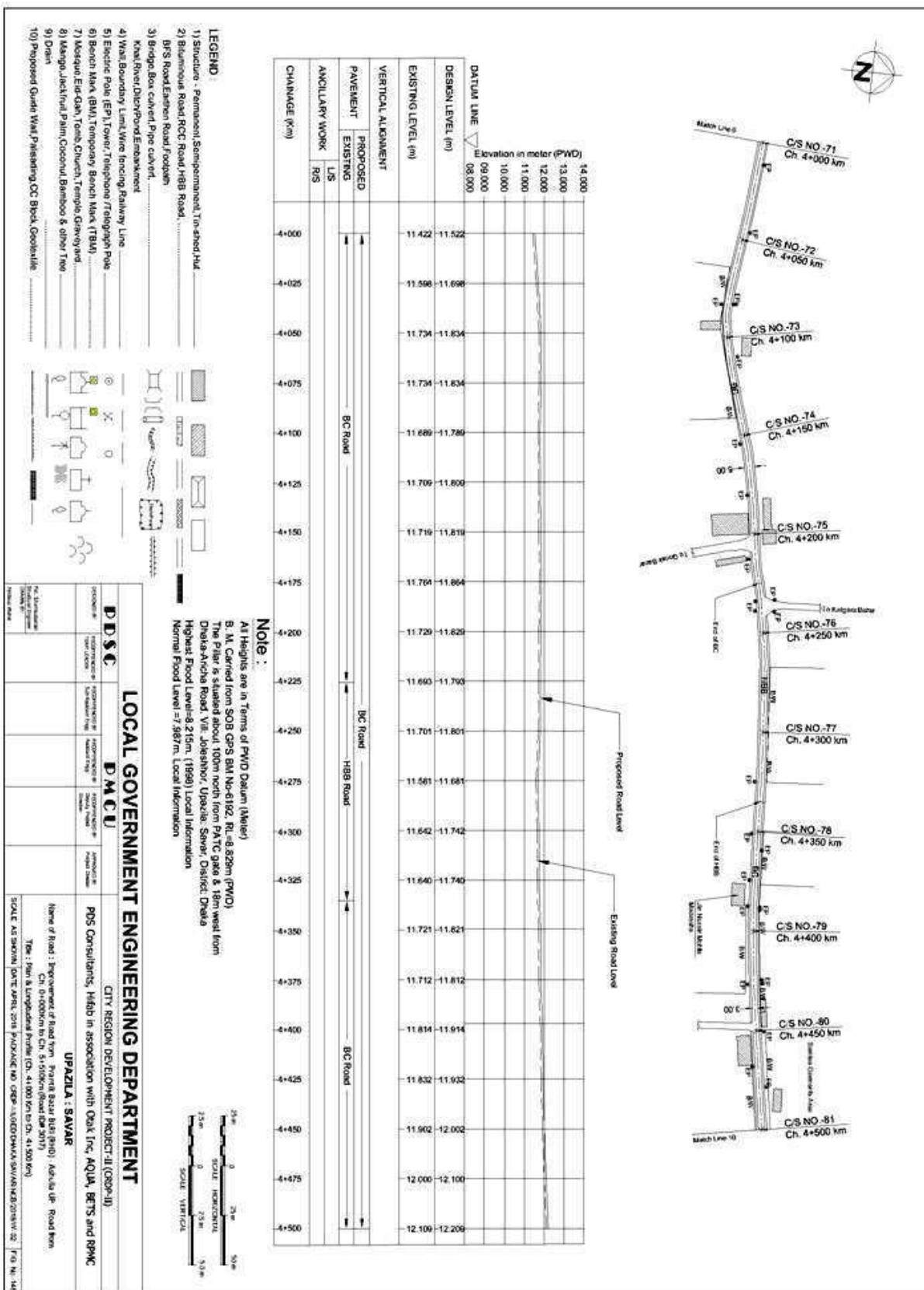
E) Normal Flood Level=0.21m, (1993) Local Information

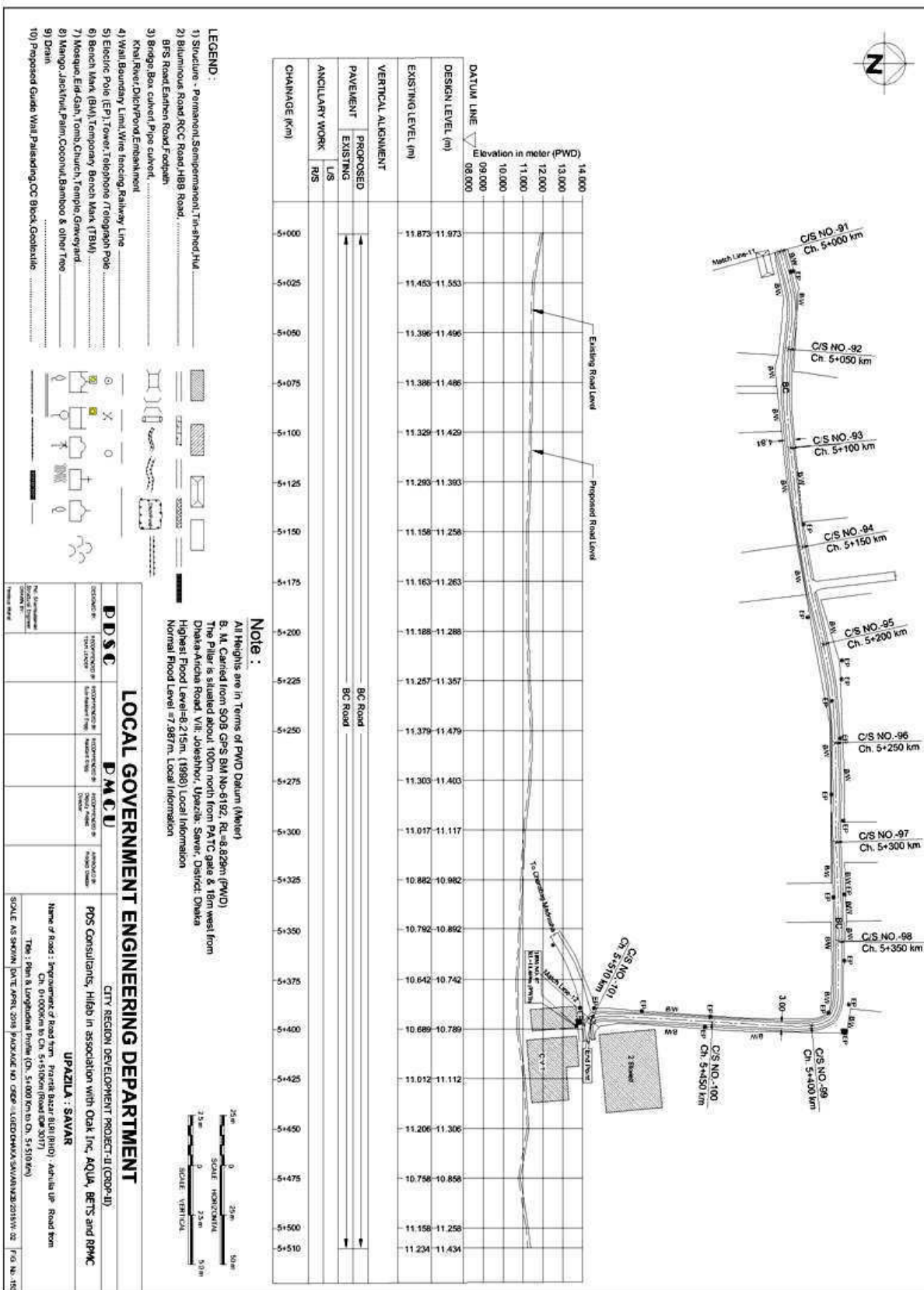
F) T.B.M. No. 6192 for the PWD Level Survey Corner of Hazrat Bait

(Reference Mosque at Via Jambhaya, RL=11.83m (PWD))

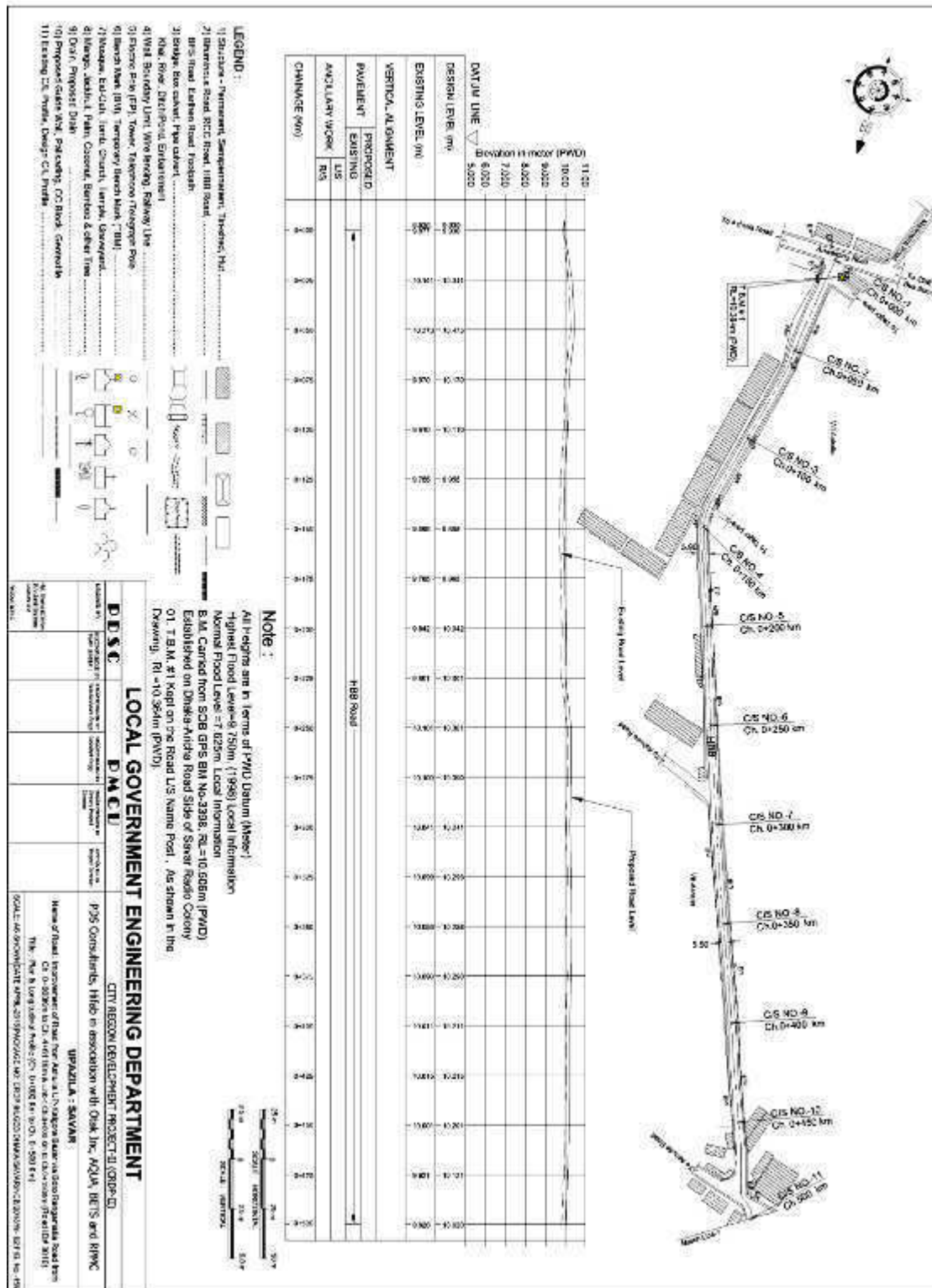
LOCAL GOVERNMENT ENGINEERING DEPARTMENT

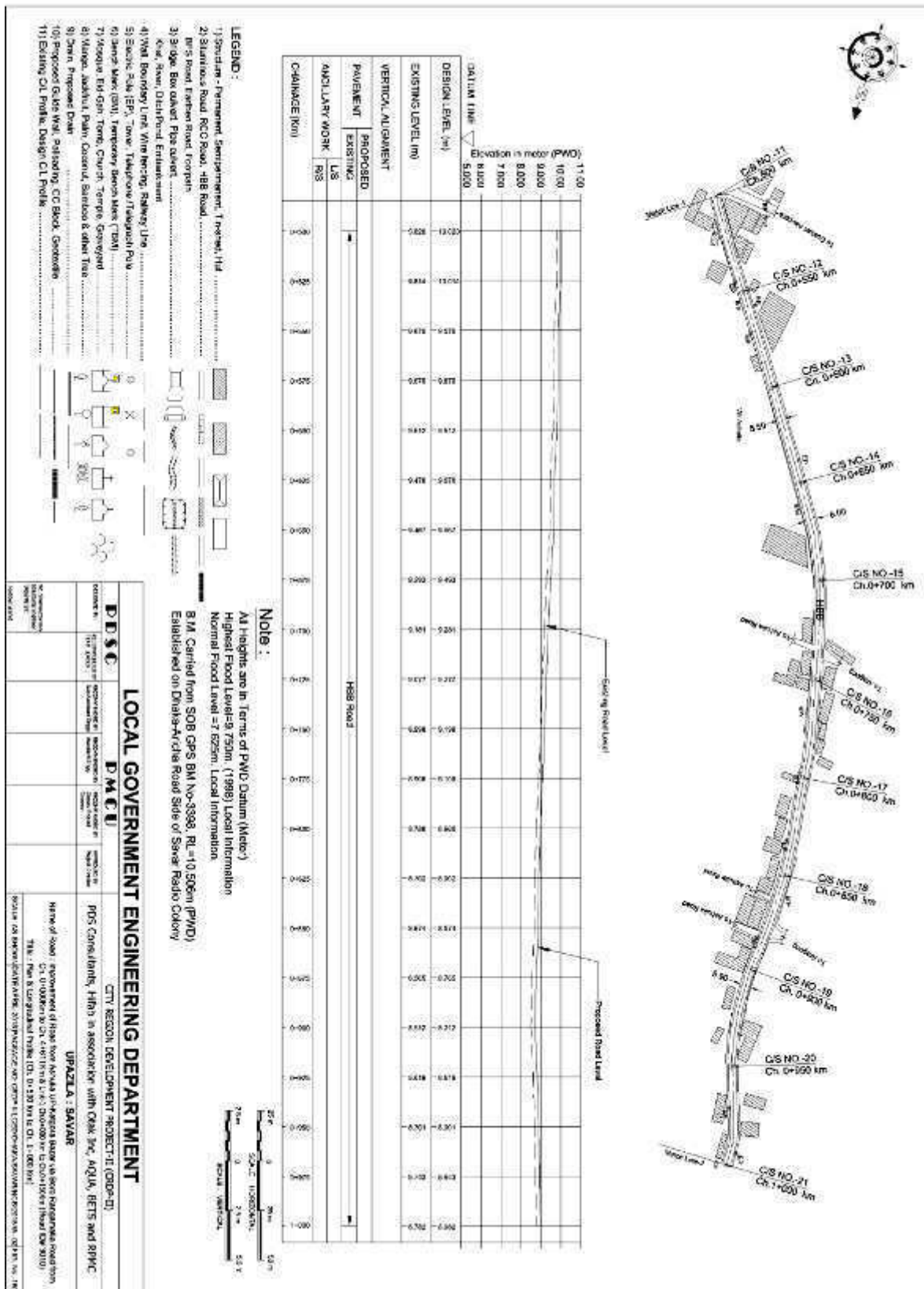
PROJECT NO.	PROJECT NAME	PROJECT LOCATION	PROJECT TYPE	PROJECT STATUS	PROJECT DATE	PROJECT DESCRIPTION	PROJECT COMMENTS
100-000000	100-000000	100-000000	100-000000	100-000000	100-000000	100-000000	100-000000

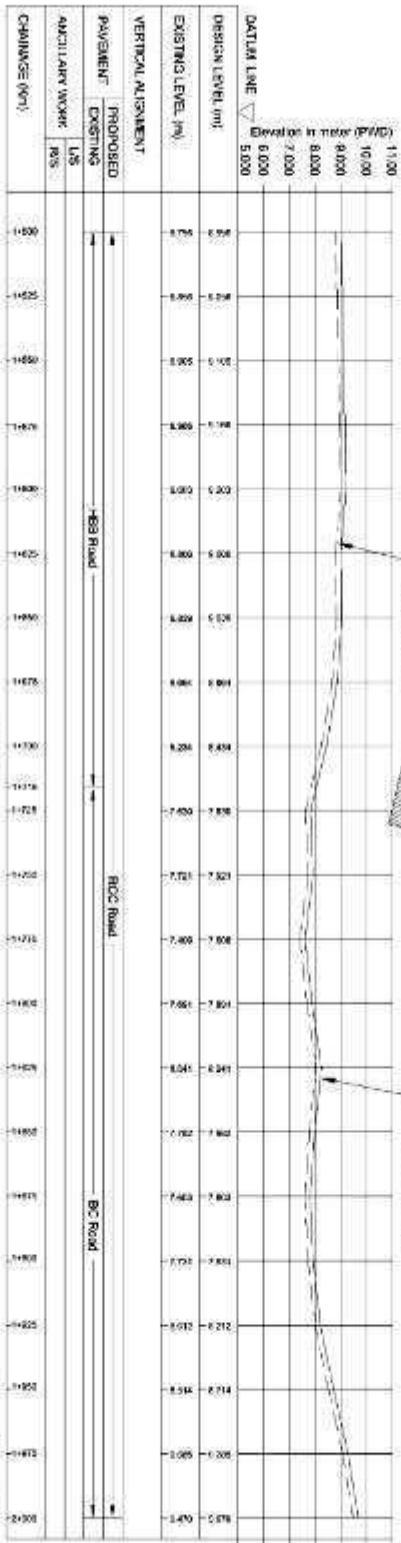
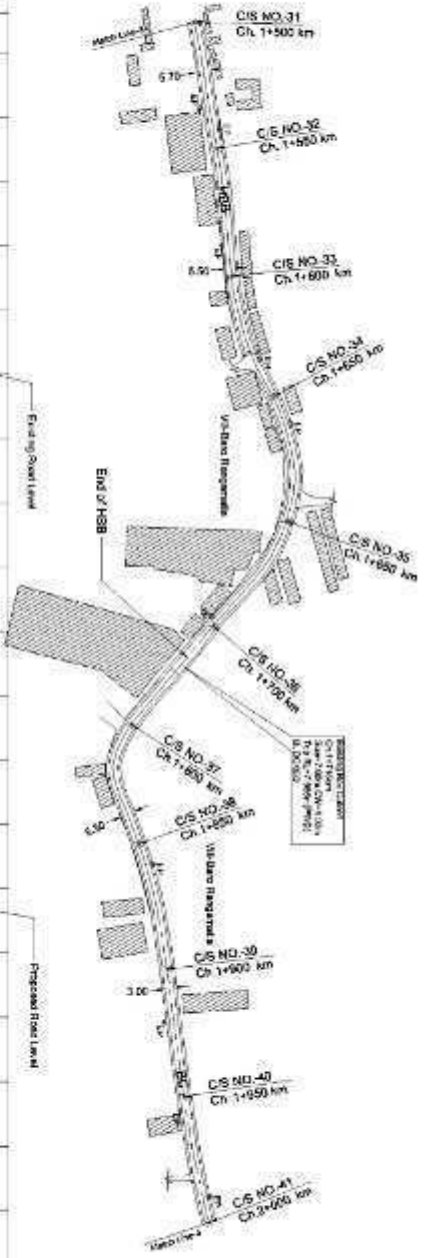




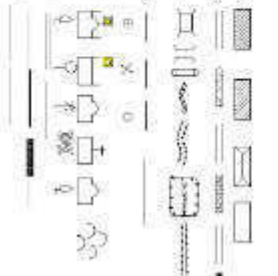
Appendix 6: Strip Maps of Subproject Alignment - Ashulia UP-Katgora Bazar via Boro Rangamatia Road, (Road ID: 3010)





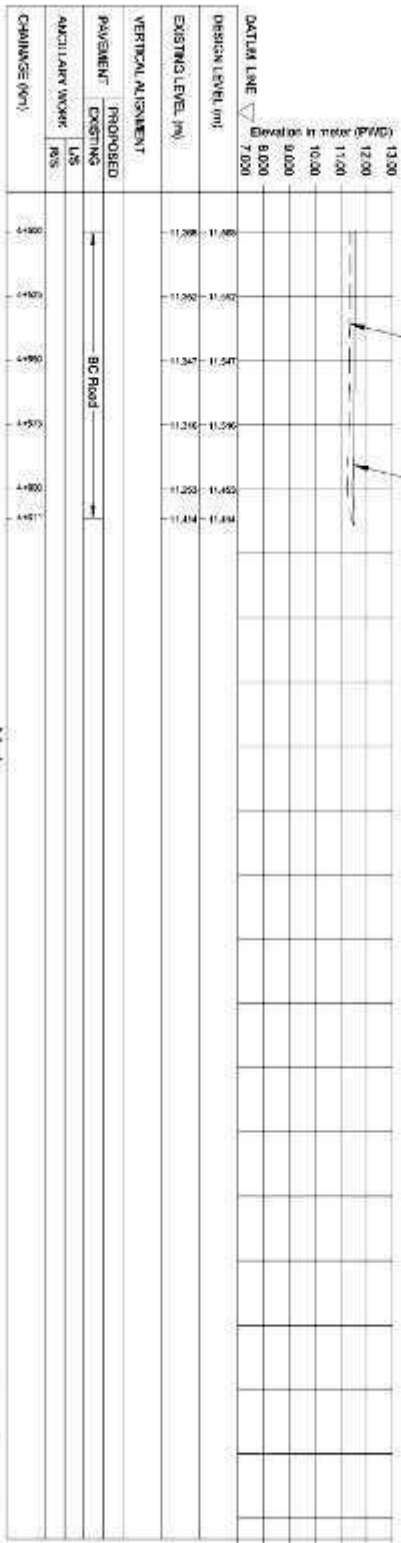


- LEGEND :**
- 1) Structure - Purnanand, Samsamuram, Thirudai, H.A.
 - 2) Burial site Road, RCC Road, HSB Road.
 - 3) Road, Earthen Road, Footpath
 - 4) Road, Box culvert, Pipe culvert.
 - 5) Road, Bridge, Embankment
 - 6) Road, Boundary Line, Wire fence, Railway Line
 - 7) Electric pole (EP), Tower, Telephone/Telegraph Pole
 - 8) Burial site (BS), Temporary Burial site (TBS)
 - 9) Mosque, Eid-Gah, Tomb, Church, Temple, Cemetery
 - 10) Mosque, Jambhuk, Purn, Cemetery, Burial site & other sites
 - 11) Drain, Draped Drain
 - 12) Proposed Gully, Wall, Paving, CC Slab, Gullies
 - 13) Existing CL Profile, Design CL Profile



LOCAL GOVERNMENT ENGINEERING DEPARTMENT			
CITY REGION DEVELOPMENT PROJECT-2 (CRDP-2)			
UPAZILA : SAVAR			
Road Consultants, Hired in association with OAK Inc, AQUA, BETS and RPNIC			
Name of Road : Improvement of Road for Aungmye Thar Road, Savar, Dhaka			
Scale : 1:5000			
Date : 15/05/2017			
Drawn by : 15/05/2017			
Checked by : 15/05/2017			
Scale : 1:5000			





At Heights are in Terms of PWD Nature (Mezro)

Highest "Good Level": B.750m. (1960) Local Information

Normal "Bad Level": A.752km. Local Information

B.M. Carried from SOB GPS BM Vn-3898, RL=+0.506m (PWD).

Established on Diara-Ardia Road Side of Savel Radio Colony.

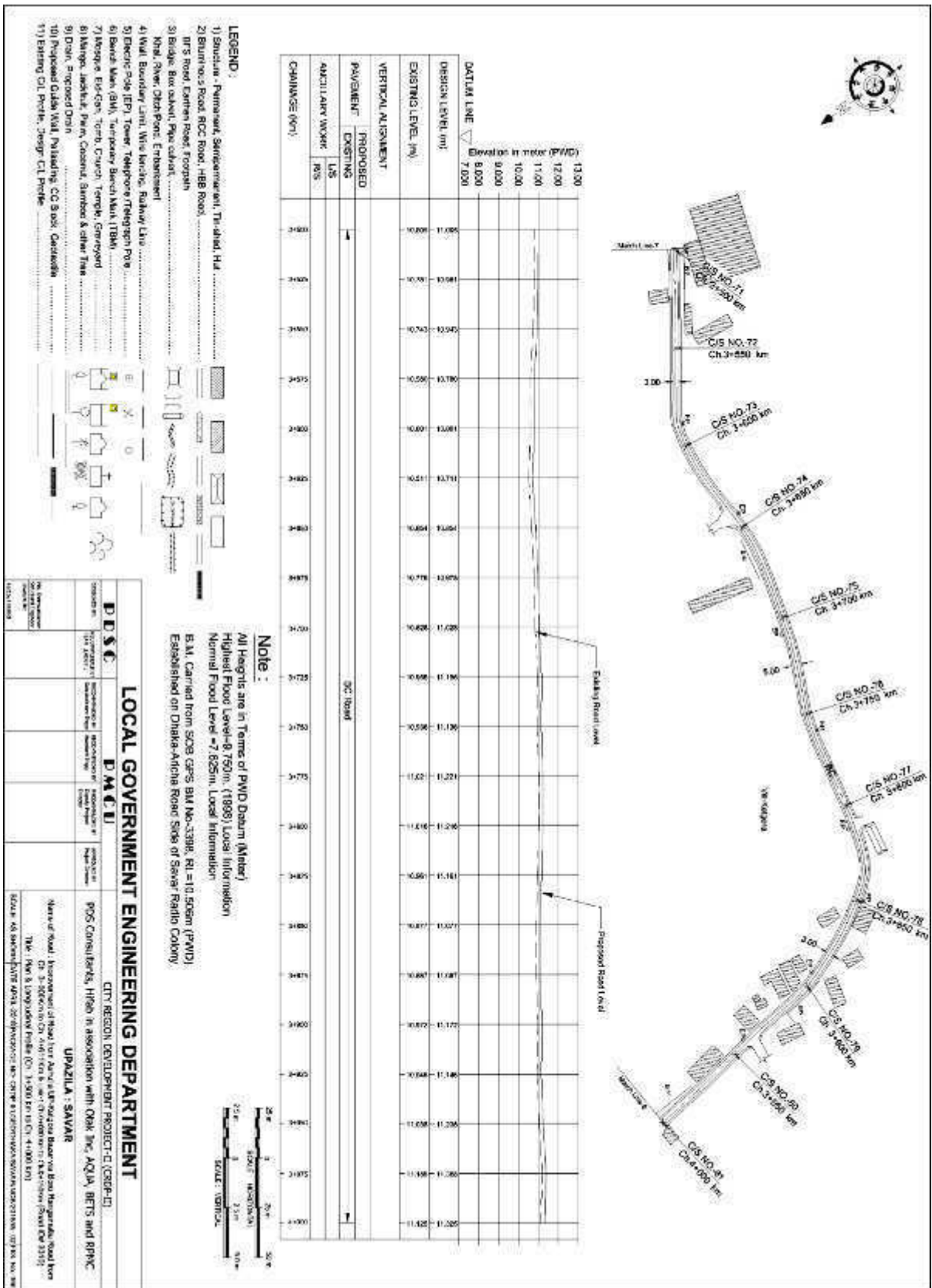
(1st). T.B.M. placed on the Norm East Corner Plinth Level of Tanmenon Electronic Shop. As shown in the Drawing, RL=+1.674m (PWD).

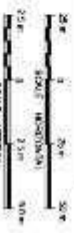
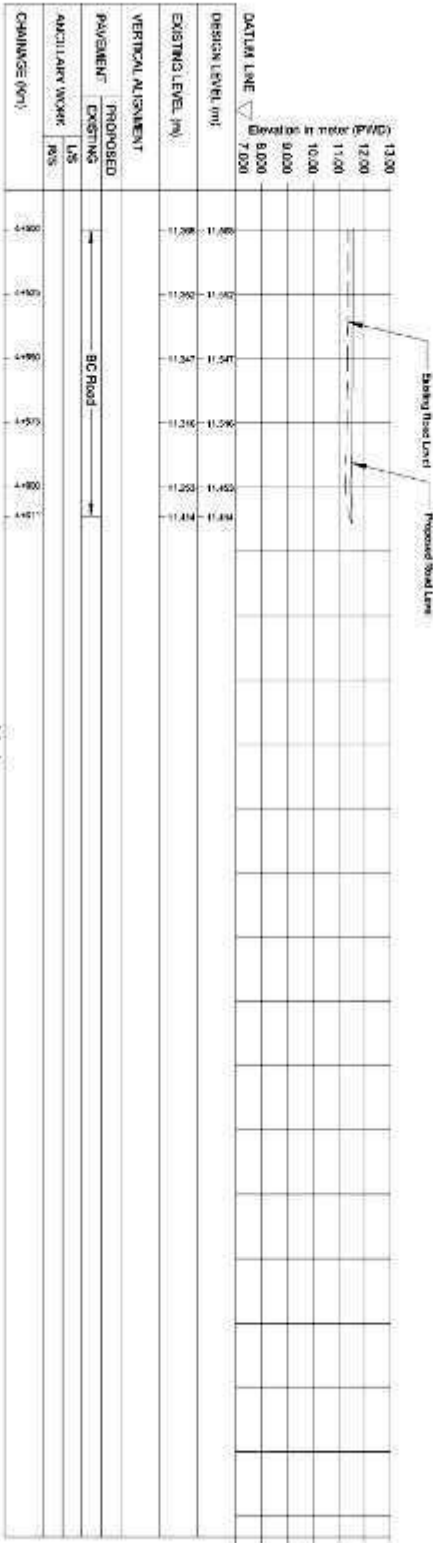


LOCAL GOVERNMENT ENGINEERING DEPARTMENT

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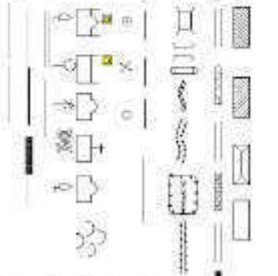






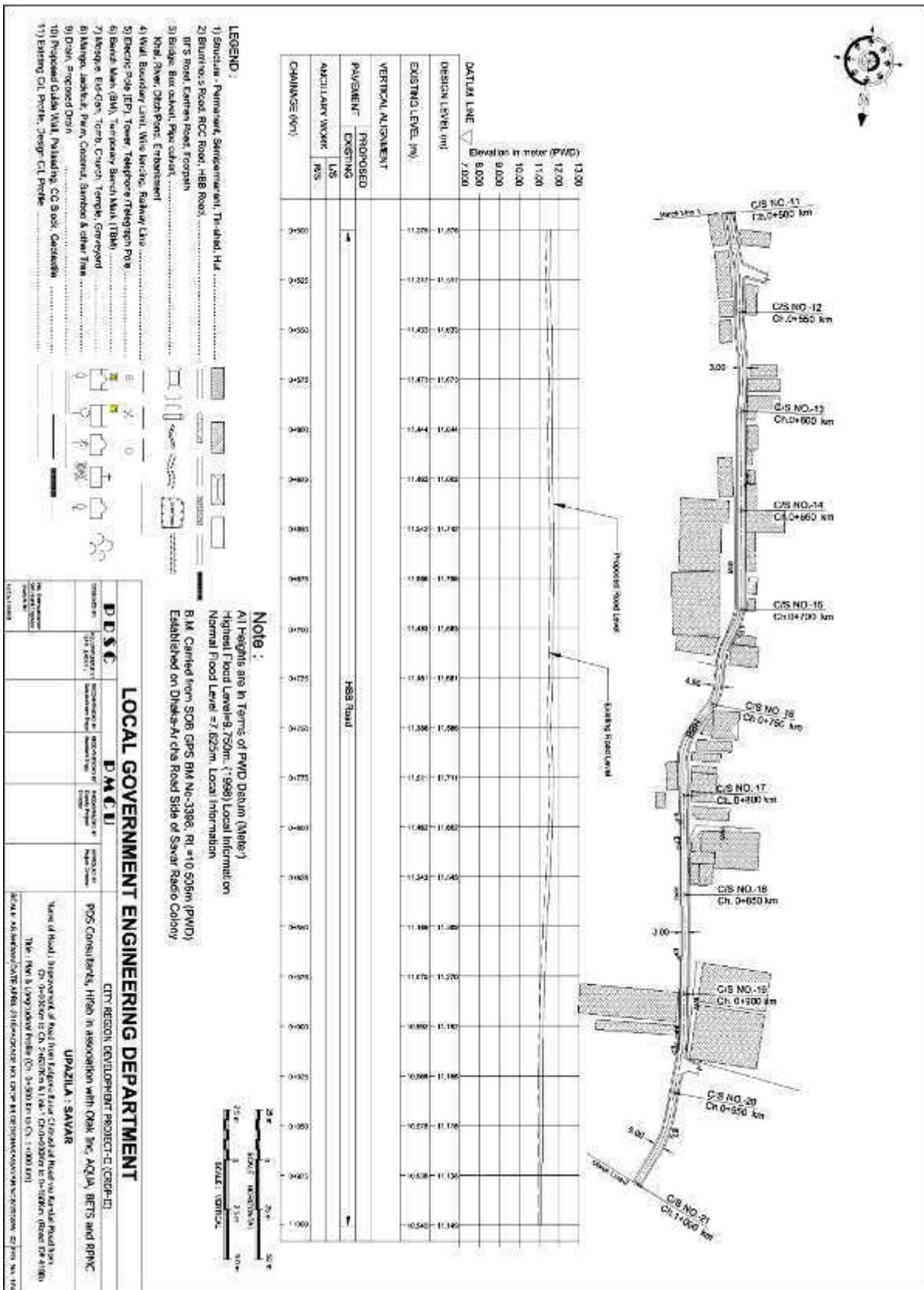
Note :
 All Heights are in Terms of P.W.D. Datum (Meerl)
 Highest Flood Level=2.750m. (1980) Local Information
 Normal Flood Level = 2.625m. Local Information
 B.M. Carried from S.O.B. C.P.S. B.M. No. 3358, R.L.=1.0.508m (P.W.D.)
 Established on Dikes-Archie Road Side of Saver Radio Colony
 01. T.B.M. 16 Keel on the North East Corner P'inth Level of T'annem
 Electronic Ship. As shown in the Drawing. R.L.=1.674m (P.W.D.)

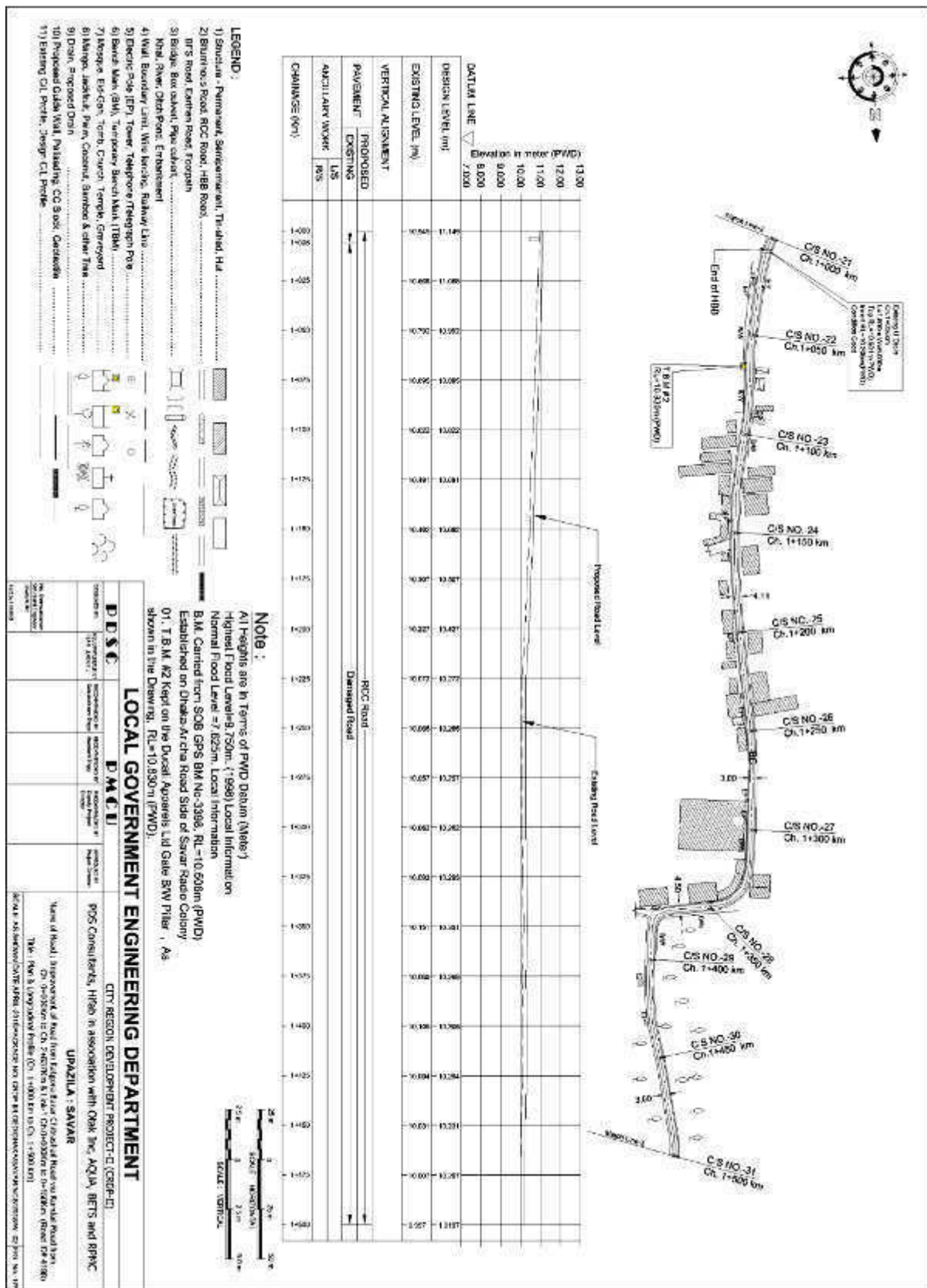
- LEGEND :**
- 1) Structure : P'innam, S'annam, Th'ndi, H.A.
 - 2) Structure : Road, RCC Road, HBB Road.
 - 3) Road : Earthen Road, Troop
 - 4) Bridge : Box culvert, Pipe culvert.
 - 5) Water : River, Creek, Pond, Embankment
 - 6) Water : Boundary Line, Wire fence, Railway Line
 - 7) Electric Pole (EP) : Tower, Telephone/Tripod Pole
 - 8) Boundary : B.M. (B.M.), Temporary Boundary Mark (T.B.M.)
 - 9) Boundary : E.R. (E.R.), Church, Temple, Cemetery
 - 10) Boundary : Jetties, Piers, Canals, Silted & other Ties
 - 11) Drain : Open, Closed
 - 12) Proposed Gully Way, Passing C.C. Road, Gully
 - 13) Existing C.C. Profile, Design C.C. Profile



LOCAL GOVERNMENT ENGINEERING DEPARTMENT			
CITY REGION DEVELOPMENT PROJECT-2 (CSDP-2)			
UPAZILA : SAVAR			
PDS Consultants, Hired in association with OAK Inc, AQUA, BETS and RPKC			
Name of Road : Improvement of Road for Along a Bypass Road between Road between			
Ch. 3+000 to Ch. 4+000 km. (Total Length 1.000 km)			
Title : Plan & Longitudinal Profile (Ch. 3+000 to Ch. 4+000 km)			
Scale : 1:1000 (Plan) and 1:100 (Profile)			

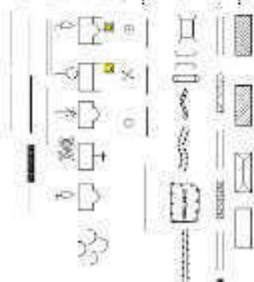
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[illegible]

- 1) Soudan : Farnham, Southwestern, Thailand, HA
- 2) Buitouris Road, ROC Road, HB Road,
- 3) at 5 road, Eastern Road, Farnham
- 3) Bialie, Bue salient, Pae salient,
- 4) Nam, Chai-Pong, Ertchaset
- 4) Nam, Boundary, and, Nue Nam, Nuey Lho
- 5) Pongsoi road (JEP), Nue Telephone (Mongson Pae
- 6) Bueat Nam, (HM), "sunday Bueat Nam (HM)
- 7) Pongsoi, Tse-Geo, "Tong, Chuan, Tong, Chuey
- 8) Mongson, Lue-Geo, Pong, Chuan, Sandoe & Guey Tse
- 9) Duan, Pongsoi Duan
- 10) Pongsoi, Guey Nam, Pongsoi, CO 3, Guey
- 11) Pongsoi, CO, Pongsoi, Tong, CO, Pongsoi

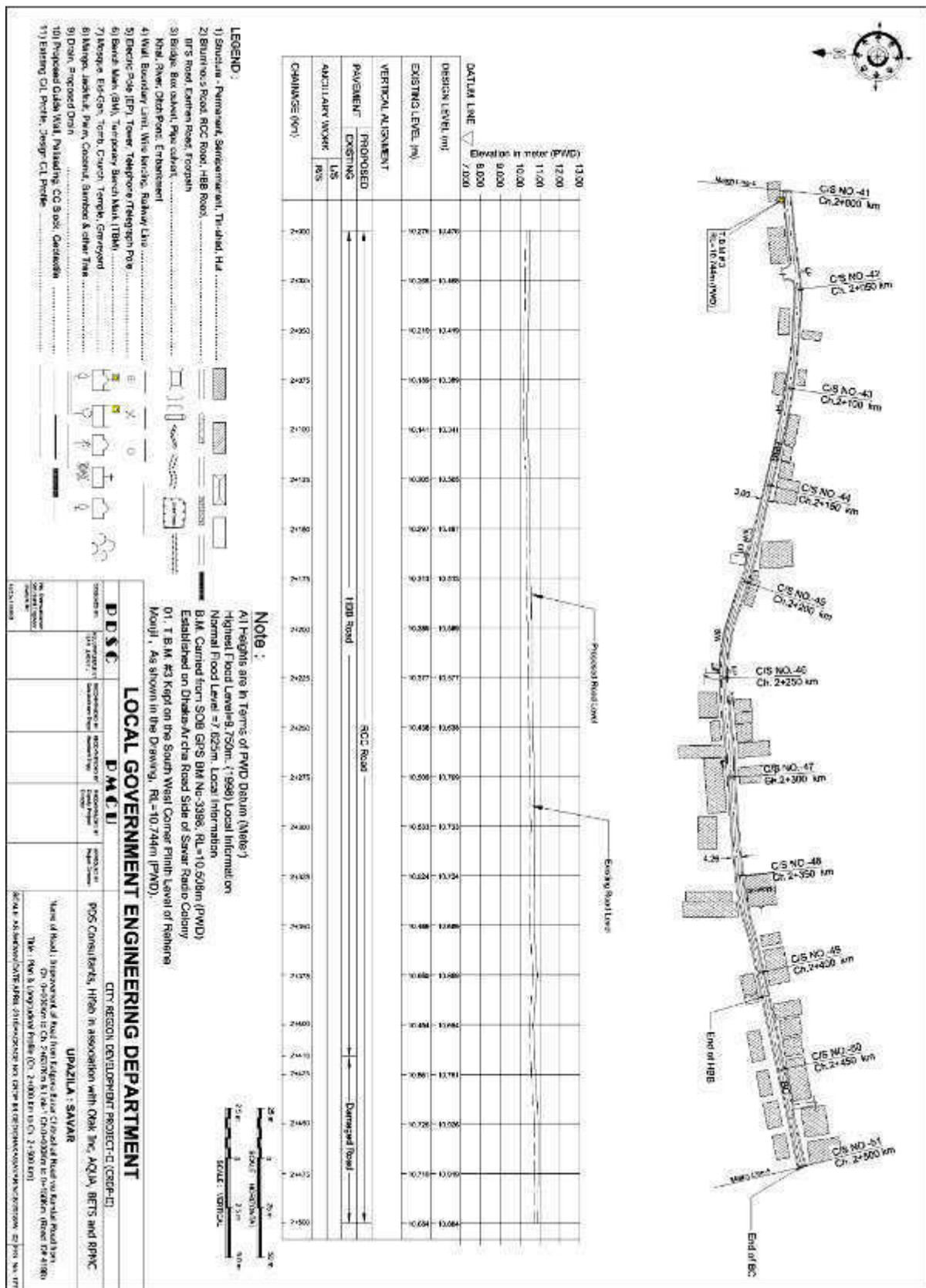


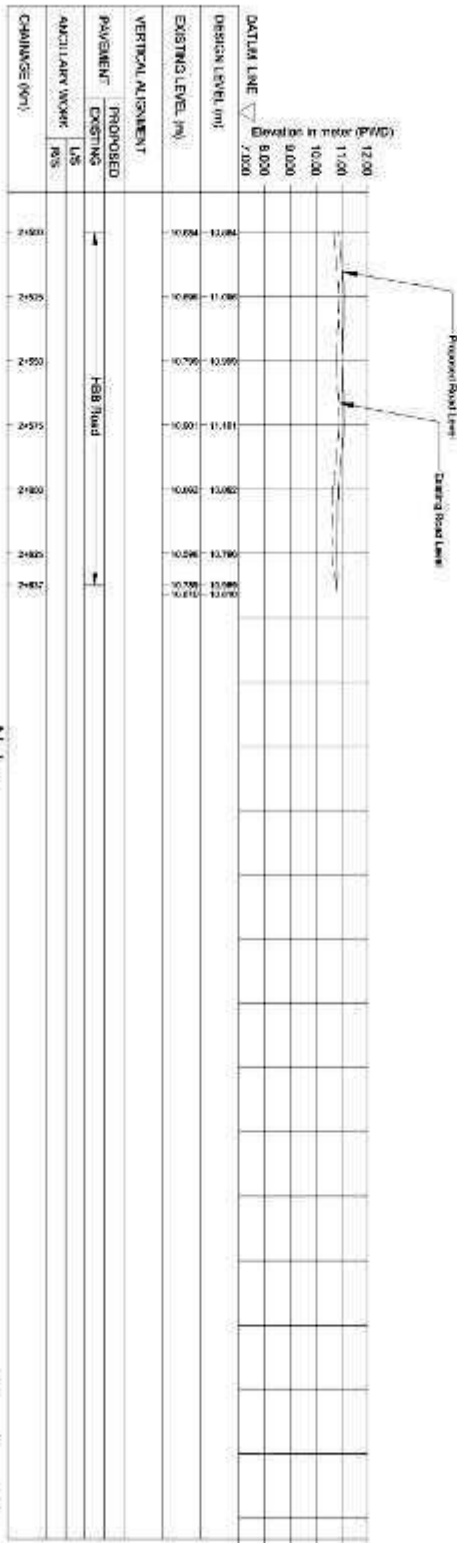
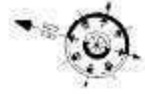
Note:
All heights are in Terms of PMD Datum (Note)
"Height" Road Lanes: 750m (+1999) Local Information
Normal Flood Level = 7.623m Local Information



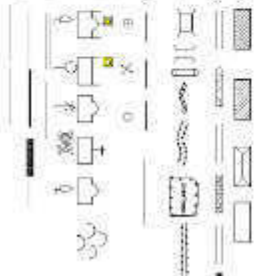
LOCAL GOVERNMENT ENGINEERING DEPARTMENT

LOCAL GOVERNMENT ENGINEERING DEPARTMENT			
CITY REGION DEVELOPMENT PROJECT - E (COPC-E)			
DESIGN		DOCUMENT	
DESIGN NO.	DESIGNING FIRM	DOCUMENT NO.	DOCUMENTING FIRM
111-1-001	111-1-001	111-1-001	111-1-001
<p>POS CONSULTANTS, Hfson in association with O&K Inc., AQUA, BERTS and RPNIC</p> <p>UPAZILA : SAWAR</p> <p>Name of Head / Supervisor of Road from Topographical Survey of Road to be made Road from</p> <p>Title : (R/S : 1,500 per H.C.T. : 1,000 H.C.T.)</p> <p>Title : (R/S : 1,500 per H.C.T. : 1,000 H.C.T.)</p> <p>Scale : 1:500 (or as directed)</p> <p>Scale : 1:500 (or as directed)</p>			





- LEGEND
- 1) Structure: Polymerized, Sulfonated, T-4, d-Adol, H₂
- 2) Butanol, 100°C, 100°C, 100°C, 100°C
- 3) Feed: Carbon, Feed, Propag
- 4) Bridge: But, d-Adol, Propag
- 5) Feed: But, d-Adol, Propag
- 6) Feed: But, d-Adol, Propag
- 7) Feed: But, d-Adol, Propag
- 8) Feed: But, d-Adol, Propag
- 9) Feed: But, d-Adol, Propag
- 10) Feed: But, d-Adol, Propag
- 11) Feed: But, d-Adol, Propag
- 12) Feed: But, d-Adol, Propag
- 13) Feed: But, d-Adol, Propag
- 14) Feed: But, d-Adol, Propag
- 15) Feed: But, d-Adol, Propag
- 16) Feed: But, d-Adol, Propag
- 17) Feed: But, d-Adol, Propag
- 18) Feed: But, d-Adol, Propag
- 19) Feed: But, d-Adol, Propag
- 20) Feed: But, d-Adol, Propag
- 21) Feed: But, d-Adol, Propag
- 22) Feed: But, d-Adol, Propag
- 23) Feed: But, d-Adol, Propag
- 24) Feed: But, d-Adol, Propag
- 25) Feed: But, d-Adol, Propag
- 26) Feed: But, d-Adol, Propag
- 27) Feed: But, d-Adol, Propag
- 28) Feed: But, d-Adol, Propag
- 29) Feed: But, d-Adol, Propag
- 30) Feed: But, d-Adol, Propag
- 31) Feed: But, d-Adol, Propag
- 32) Feed: But, d-Adol, Propag
- 33) Feed: But, d-Adol, Propag
- 34) Feed: But, d-Adol, Propag
- 35) Feed: But, d-Adol, Propag
- 36) Feed: But, d-Adol, Propag
- 37) Feed: But, d-Adol, Propag
- 38) Feed: But, d-Adol, Propag
- 39) Feed: But, d-Adol, Propag
- 40) Feed: But, d-Adol, Propag
- 41) Feed: But, d-Adol, Propag
- 42) Feed: But, d-Adol, Propag
- 43) Feed: But, d-Adol, Propag
- 44) Feed: But, d-Adol, Propag
- 45) Feed: But, d-Adol, Propag
- 46) Feed: But, d-Adol, Propag
- 47) Feed: But, d-Adol, Propag
- 48) Feed: But, d-Adol, Propag
- 49) Feed: But, d-Adol, Propag
- 50) Feed: But, d-Adol, Propag
- 51) Feed: But, d-Adol, Propag
- 52) Feed: But, d-Adol, Propag
- 53) Feed: But, d-Adol, Propag
- 54) Feed: But, d-Adol, Propag
- 55) Feed: But, d-Adol, Propag
- 56) Feed: But, d-Adol, Propag
- 57) Feed: But, d-Adol, Propag
- 58) Feed: But, d-Adol, Propag
- 59) Feed: But, d-Adol, Propag
- 60) Feed: But, d-Adol, Propag
- 61) Feed: But, d-Adol, Propag
- 62) Feed: But, d-Adol, Propag
- 63) Feed: But, d-Adol, Propag
- 64) Feed: But, d-Adol, Propag
- 65) Feed: But, d-Adol, Propag
- 66) Feed: But, d-Adol, Propag
- 67) Feed: But, d-Adol, Propag
- 68) Feed: But, d-Adol, Propag
- 69) Feed: But, d-Adol, Propag
- 70) Feed: But, d-Adol, Propag
- 71) Feed: But, d-Adol, Propag
- 72) Feed: But, d-Adol, Propag
- 73) Feed: But, d-Adol, Propag
- 74) Feed: But, d-Adol, Propag
- 75) Feed: But, d-Adol, Propag
- 76) Feed: But, d-Adol, Propag
- 77) Feed: But, d-Adol, Propag
- 78) Feed: But, d-Adol, Propag
- 79) Feed: But, d-Adol, Propag
- 80) Feed: But, d-Adol, Propag
- 81) Feed: But, d-Adol, Propag
- 82) Feed: But, d-Adol, Propag
- 83) Feed: But, d-Adol, Propag
- 84) Feed: But, d-Adol, Propag
- 85) Feed: But, d-Adol, Propag
- 86) Feed: But, d-Adol, Propag
- 87) Feed: But, d-Adol, Propag
- 88) Feed: But, d-Adol, Propag
- 89) Feed: But, d-Adol, Propag
- 90) Feed: But, d-Adol, Propag
- 91) Feed: But, d-Adol, Propag
- 92) Feed: But, d-Adol, Propag
- 93) Feed: But, d-Adol, Propag
- 94) Feed: But, d-Adol, Propag
- 95) Feed: But, d-Adol, Propag
- 96) Feed: But, d-Adol, Propag
- 97) Feed: But, d-Adol, Propag
- 98) Feed: But, d-Adol, Propag
- 99) Feed: But, d-Adol, Propag
- 100) Feed: But, d-Adol, Propag

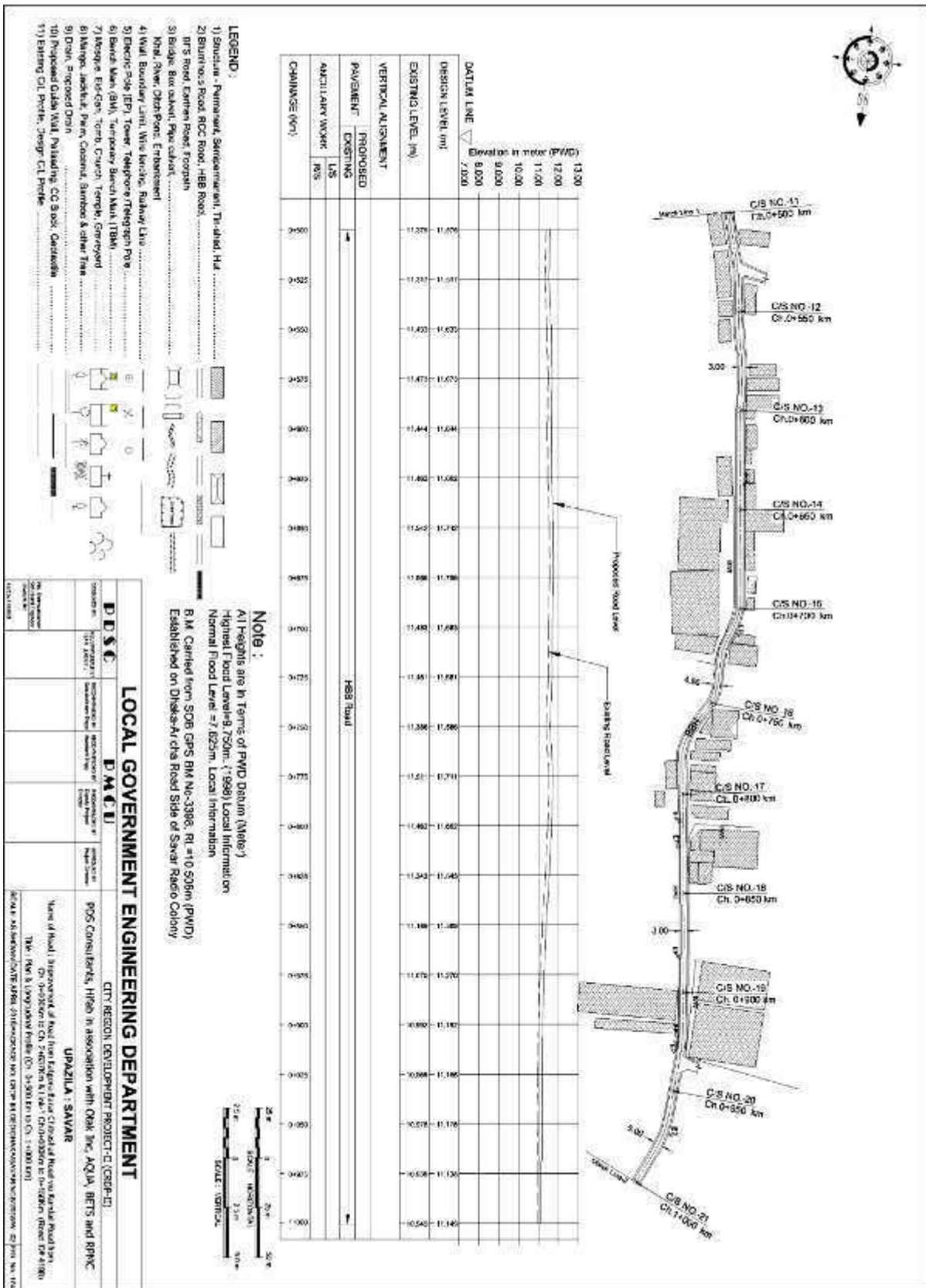


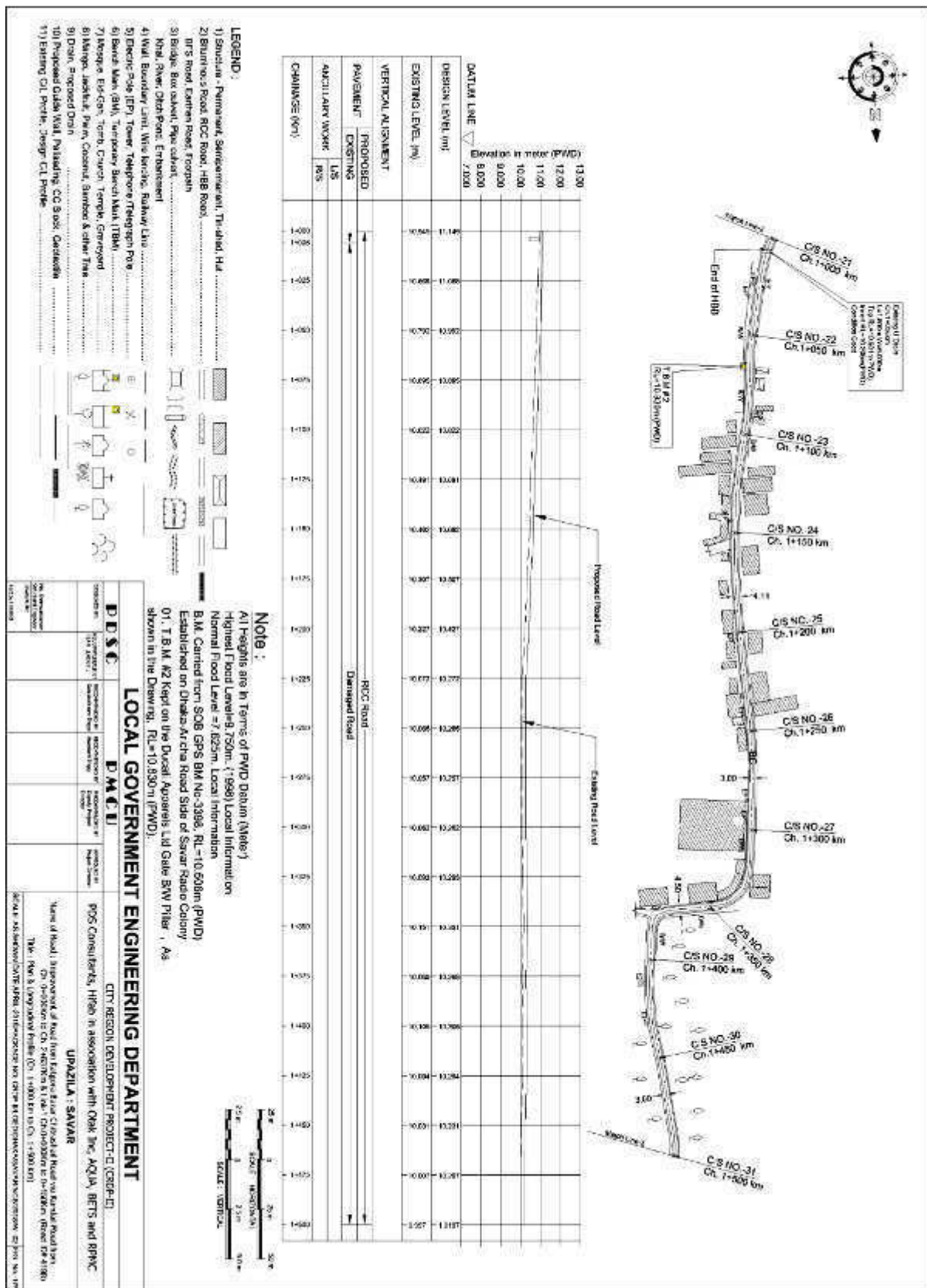
Note :
 A) Heights are in Terms of PMD Datum (Mile)
 Highest Point Level=750m. (1966) Local Information
 Normal Flood Level =7.625m. Local Information
 B.A) Carried from SOB BSA No. 3388
 Established on Diha-Midhe Road of Sassi Radio Colony
 01: T.R.M. set kept on the South West Corner Panch Level of Bank Sugar
 (Mile). As Shown in the Drawing RL=10.156m (PMD).

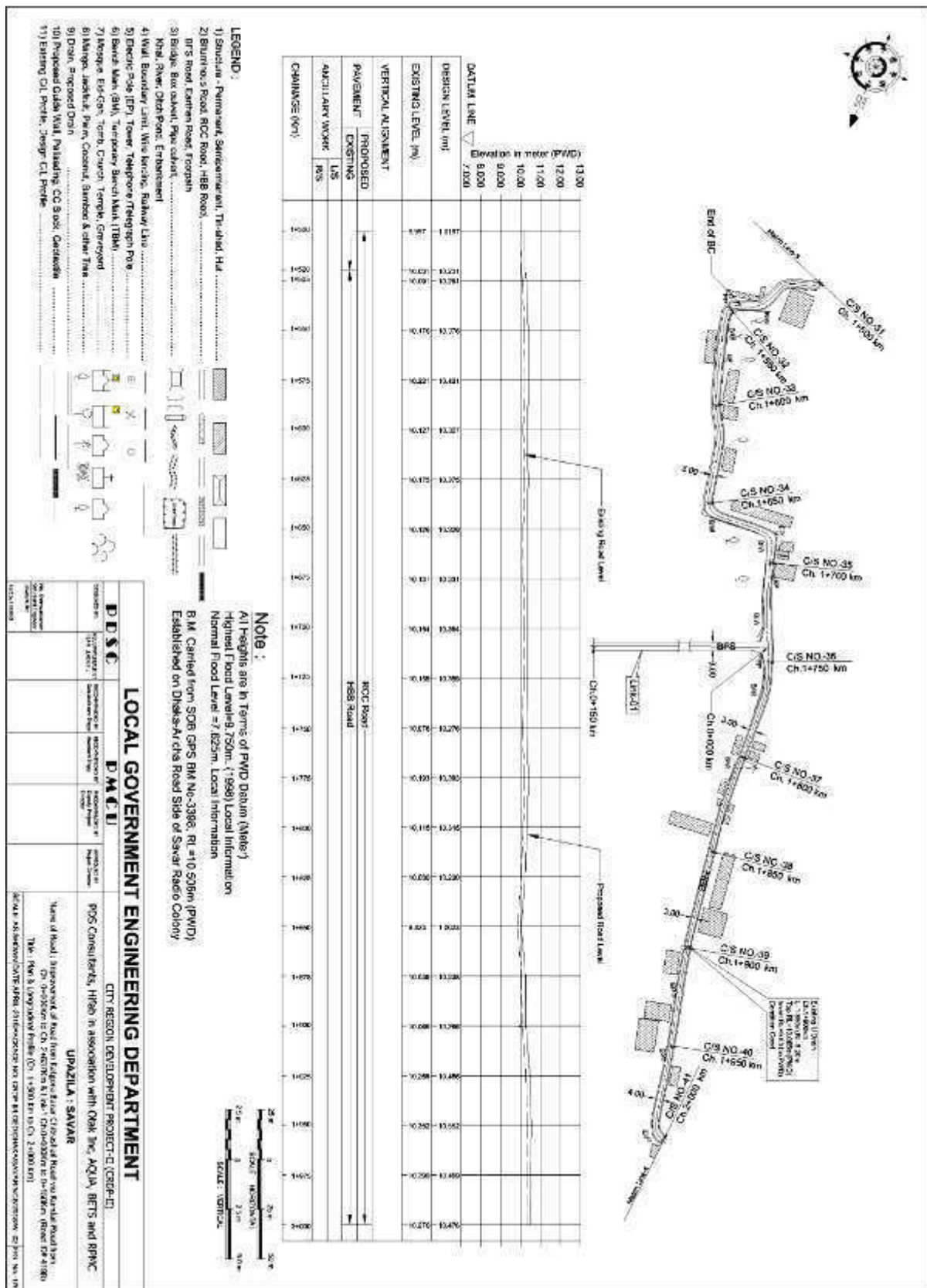


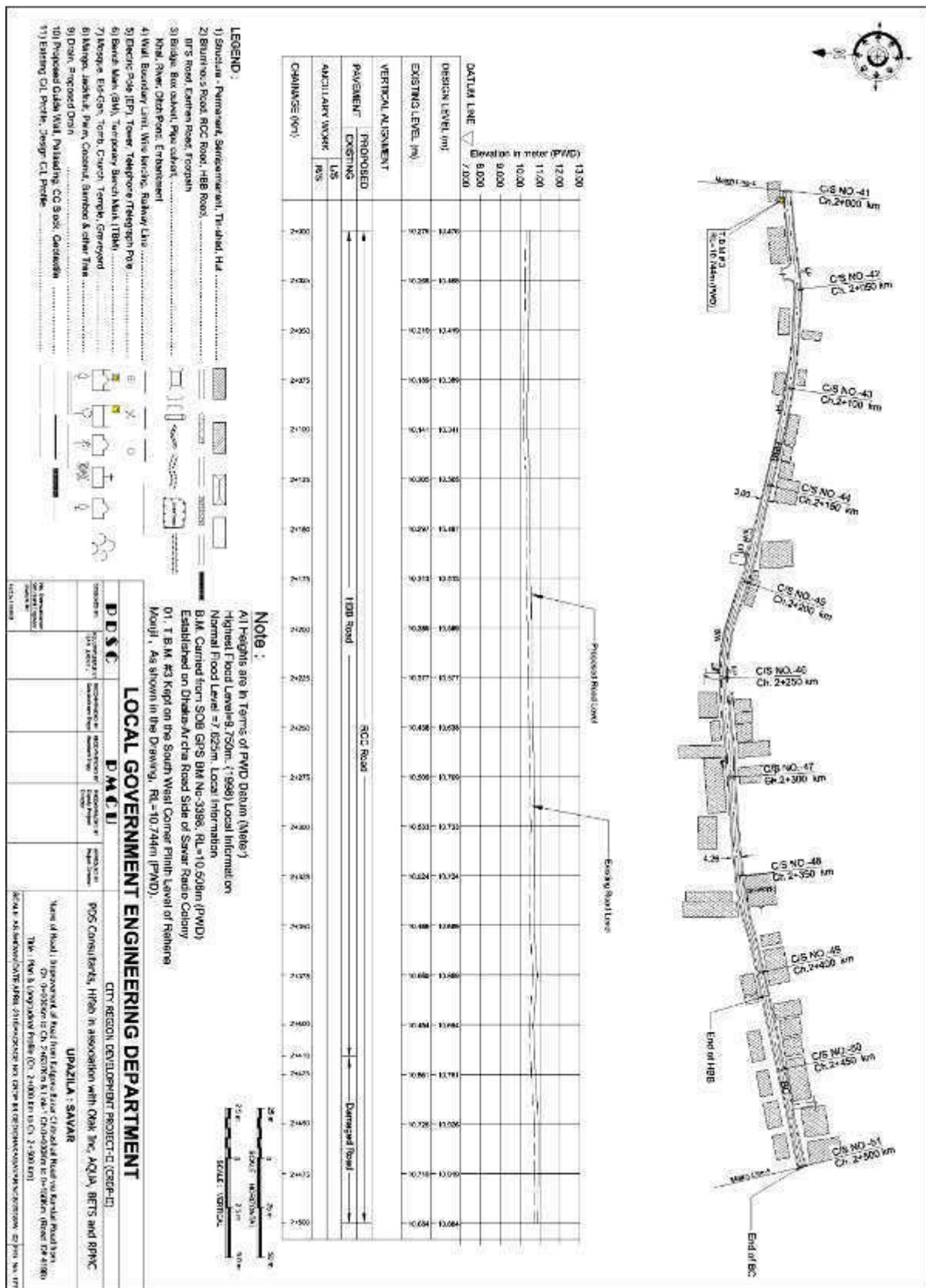
LOCAL GOVERNMENT ENGINEERING DEPARTMENT

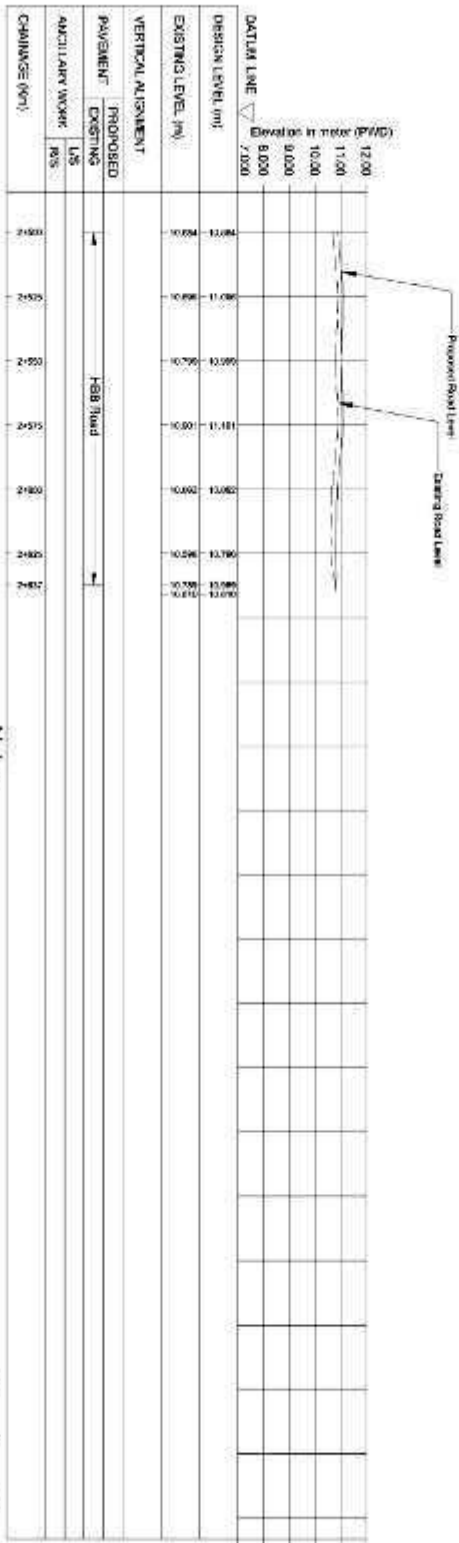
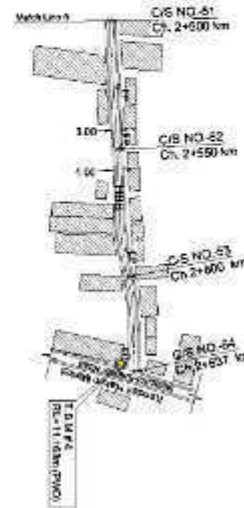
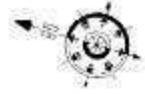
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- LEGEND :**
- 1) Structure : Pinnarua, Samsamwan, Thadud, H.A.
 - 2) Burmese Road, RCC Road, HBB Road.
 - 3) Road, Earthen Road, Footpath
 - 4) Bridge, Box culvert, Pipe culvert.
 - 5) Water, River, Chik-Pang, Embankment
 - 6) Wall, Boundary Line, Wire fence, Railway Line
 - 7) Electric Pole (EP), Tower, Telephone/Telegraph Pole
 - 8) Burmese Wall (BW), Temporary Burmese Wall (TBW)
 - 9) Mosque, E-S-Cen, Tomb, Church, Temple, Cemetery
 - 10) Village, Jachuk, Puan, Coconut, Bamboo & other Tree
 - 11) Drain, Trapped Drain
 - 12) Proposed Guide Wall, Pileading, CC Block, Girders
 - 13) Existing CL, Profile, Design, C/L Profile

Note :

All Heights are in Terms of P.W.D. Datum (Meter)
 Highest Flood Level=8.750m, (1989) Local Information
 Normal Flood Level =7.625m, Local Information
 B.M. Carried from SOB GPS B.M. No-3398, RL=10.506m (P.W.D.)
 Established on Dnaka-Aungmye Road Side of Sagar Radio Colony
 01. T.B.M. #4 Kept on the South West Corner Puth level of Bank Super
 marker, As shown in the Drawing. RL=10.168m (P.W.D.)

LOCAL GOVERNMENT ENGINEERING DEPARTMENT

CITY REGION DEVELOPMENT PROJECT-2 (CSDP-2)

UPAZILA : SAVAR

PROS Consultants, Hired in association with OAK Inc, AQUA, BETS and RPHC

Name of Road : Improvement of Road from Tadjura Road (Crossed at Road No. 10) to Road No. 11
 Ch 2+500 to Ch 2+650 (Total Length 150m)
 Scale : Plan & Longitudinal Profile (1:500) to Ch 2+500 km
 Sectional Profile (1:100) to Ch 2+650 km

Scale : 1:500

Appendix 8: Sample Spoil Management Plan

Purpose and application: Spoil Management Plan (SMP)is to describe how Second CRDP will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works in accordance with the spoil management hierarchy outlined in this document.

Objectives of SMP: The objectives of SMP are:

- (i) To minimize spoil generation where possible
- (ii) Maximize beneficial reuse of spoil from construction works in accordance with spoil management hierarchy
- (iii) Manage onsite spoil handling to minimize environmental impacts on resident and other receivers
- (iv) Minimize any further site contamination of land, water, soil
- (v) Manage the transportation of spoil with consideration of traffic impacts and transport related emissions

Structure of SMP:

Section1: Introduction of SMP

Section2: Legal and other requirements

Section3: Roles and responsibilities

Section4: Identification and assessment of spoil aspects and impacts

Section5: Spoil volumes, characteristics and minimization

Section6: Spoil reuses opportunities, identification and assessment

Section7: Onsite spoil management approach

Section8: Spoil transportation methodology

Section9: Monitoring, Reporting, Review, and Improvements

Aspects and potential impacts

The key aspects of potential impacts in relation to SMP are listed in table below

Aspects	PotentialImpacts
Air Quality	Potential for high winds generating air borne dust from the stockpiles
Sedimentation	Potential for sediment laden site runoff from spoil stockpiles and potential for spillage of spoil from truck on roads
Surface and groundwater	Contamination of surface and ground water
Noise	Associated with spoil handling and haulage and storage
Traffic	Impacts associated with spoil haulage
Land Use	Potential for spoil to be transported to a that does not have permission for storage/disposal
Design specifications	Limitations on opportunities to minimize spoil generation
Sustainability	Limited sites for storage, reuse opportunities

Spoil volumes, Characteristics and Minimization

Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites.

Characterization of spoil: Based on the type of spoil; characterization is done (sandstone, mud-mix materials, reusable materials)

Adopt Spoil Reduce, Reuse Opportunities: An overview of the assessment methodology to be used is mentioned below.

- Consideration of likely spoil characteristics
- Identification of possible reuse sites
- Screening of possible reuse opportunities

Identification of possible safe disposal sites for spoil: Those spoils which can't be reused shall be properly disposed in designated areas, such disposal areas should be identified in project locations. Such disposal areas should be safe from environmental aspects and there should be any legal and resettlement related issues. Such areas need to be identified and prior client approval should be obtained to use it as spoil disposal area. The local administration must be consulted and if required permission should be obtained from them.

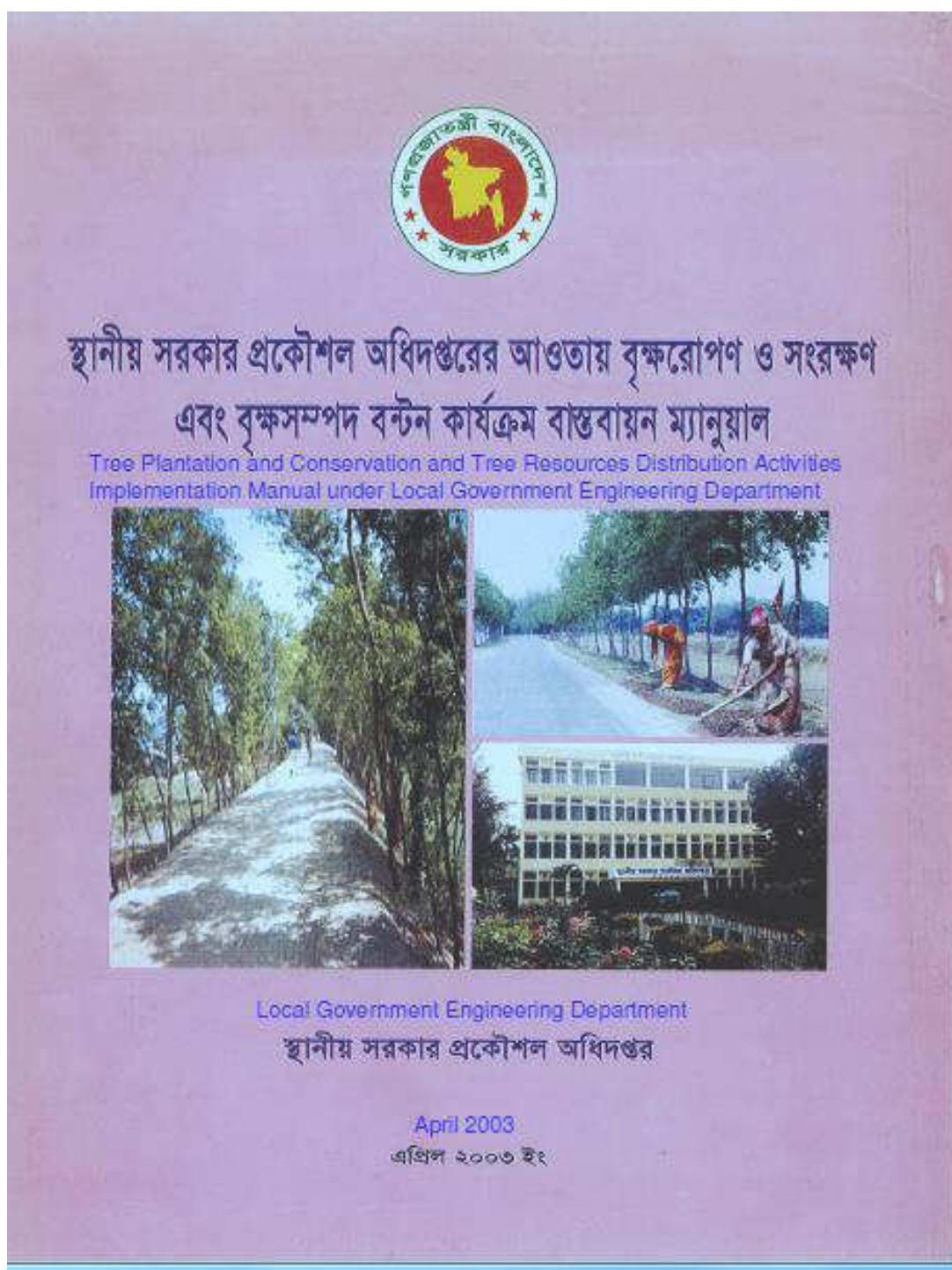
Storage and stockpiling Transportation and haulage route

Based on the above, the contractor will prepare a SMP as an integral part of EMP and submit to the PDSC for their review and approval.

Summary of Key Issues and Remedial Actions

Summary of follow-up time-bound actions to be taken within a set time frame.

Appendix 9: LGED Tree Plantation Program Manual (Cover Page and Table of Contents)
Note: Copy of the full manual is available upon request at the PMCU Office



***Tree Plantation and Conservation and Tree Resources Distribution
Activities Implementation Manual
under
Local Government Engineering Department***

Table of Contents

- 1. Tree Plantation and Conservation in the LGED's Premises and Fallow Land**
 - 1.1 Availability of Land**
 - 1.2 Estimate Preparation of Schemes**
 - 1.3 Implementation**
 - 1.4 Tree Resources Distribution**
 - 1.5 Financing**
 - 1.6 Implementing Office and Designated Officer**
 - 1.7 Responsibility of the Implementing Office's Designated Officer**
- 2. Roadside Tree Plantation and Conservation**
 - 2.1 Road Maintenance**
 - 2.2 Tree Plantation and Caring**
 - 2.3 Road Maintenance , Tree Plantation and Conservation Activities Implementation**
 - 2.3.1 Road Maintenance, Tree Plantation and Conservation Scheme Identification, Scheme Preparation, Approval, Financing and Implementation Process**
 - 2.3.2 Implementation adopting Lenthperson Process by Organized Women Group**
 - 2.3.3 Worker Selection**
 - 2.3.4 Worker Selection Policy**
 - 2.3.5 Formation of the Interview Board**
 - 2.3.6 Campaign**
 - 2.3.7 Interviewing and Selection**
 - 2.3.8 Team Formation**
 - 2.3.9 Responsibility of Women Worker**
 - 2.3.10 Responsibility of Co- women group Leader**
 - 2.3.11 Responsibility of Women group Leader**
 - 2.3.12 Recruitment of Supervisor**
 - 2.3.13 Provide Appointment Letters**
 - 2.3.14 Provide Equipments among Worker Women for Maintenance Work**
 - 2.3.15 Initiation of Implementation of Scheme**
 - 2.4 Training**
 - 2.4.1 General Awareness Training for Women Workers on Road Maintenance, Plantation and Conservation**
 - 2.4.2 General Awareness Training for Women Workers on Primary Health Care and Income-generating Activities**
 - 2.5 Inspection and Monitoring**
 - 2.5.1 Inspection and Monitoring System of Road Maintenance, Plantation and Conservation Program**

- 2.6 Wage
 - 2.6.1 Wage Fixation
 - 2.6.2 Bank Account
 - 2.6.3 Wage Payment
 - 2.6.4 Compulsory Savings
- 2.7 Distribution of Income from Trees
 - 2.7.1 Tree Resources Distribution System
 - 2.7.2 Template: Tree Resources Distribution
 - 2.7.3 Contract signed for Distribution of Tree Resources among different parties according to the Adopted Policy
 - 2.7.4 Monitoring the Implementation of the Contract
- 2.8 Financing
 - 2.8.1 Source of Funding for the Program
 - 2.8.2 Financing Process
- 2.9 Description of Responsibility of Representatives of Local Government Organizations and of LGED Officials in the Implementation of Road Maintenance (off-pavement), Plantation and Conservation Program
 - 2.9.1 Responsibility of Union Parishad (UP)
 - 2.9.2 Responsibility of UP Male/Female Member
 - 2.9.3 Responsibility of UP Chairman
 - 2.9.4 Responsibility of Upazila Parishad
 - 2.9.5 Responsibility of Upazila Executive/Nirbahi Officer (UNO)
 - 2.9.6 Responsibility of LGED's Community Organizer (CO)
 - 2.9.7 Responsibility of Sub-Assistant Engineer
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 - 3.3.4 Inspection and Monitoring
 - 3.4 Wages
 - 3.5 Financing
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 - 3.7 Tree Resources Distribution
 - 3.8 Distribution of Money from Sale of Trees Grown at Embankment Slope and Canal Bank

Annexures

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Road/Annex – 3:	Points Value for Priority Ranking
Road/Annex – 4:	Technical Report
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Embankment/Annex- 4:	Contractor's Responsibility and Condition of Recruitment
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Embankment/Annex- 6:	Template of Monthly Progress Report



স্থানীয় সরকার প্রকৌশল অধিদপ্তরের আওতায় বৃক্ষরোপণ ও সংরক্ষণ
এবং বৃক্ষসম্পদ বন্টন কার্যক্রম বাস্তবায়ন ম্যানুয়াল

Tree Plantation and Conservation and Tree Resources Distribution Activities
Implementation Manual under Local Government Engineering Department



Local Government Engineering Department

স্থানীয় সরকার প্রকৌশল অধিদপ্তর

April 2003

এপ্রিল ২০০৩ ইং

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Local Government Engineering Department***

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Annexures

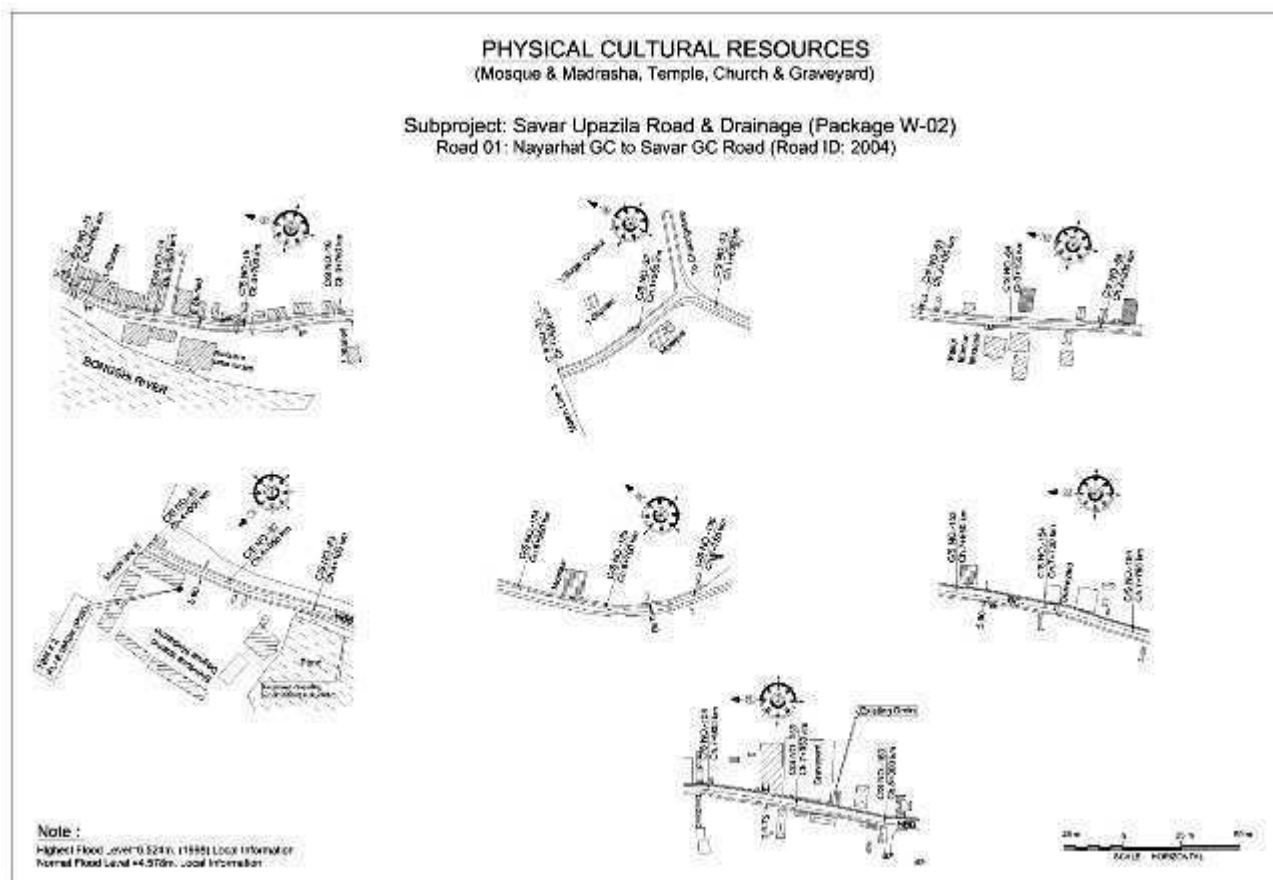
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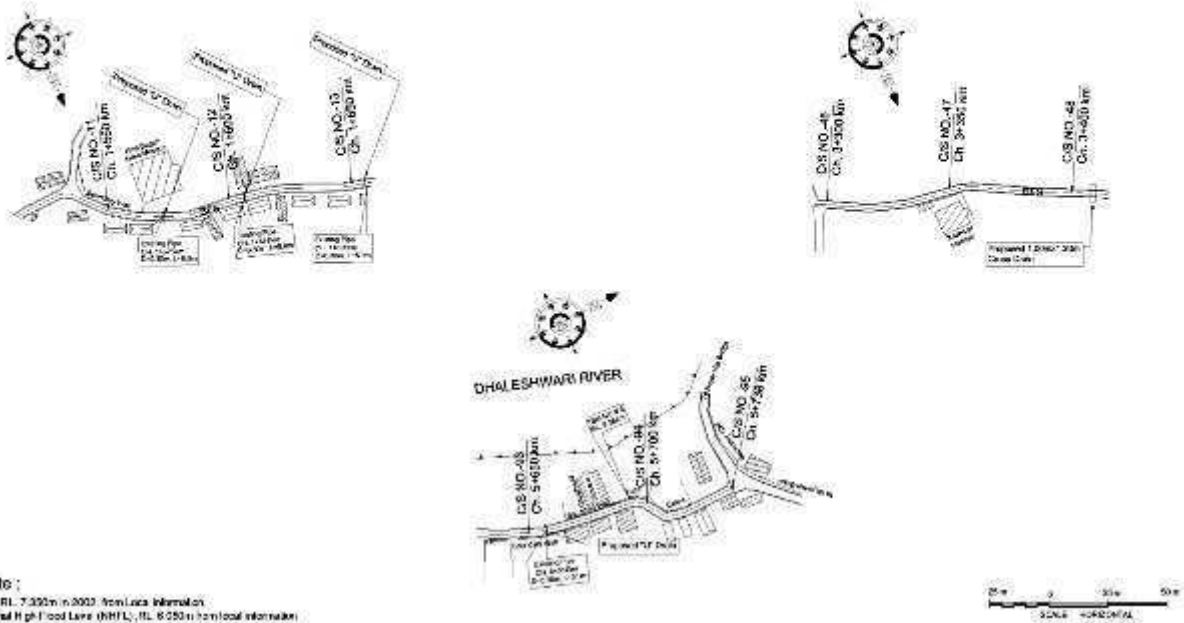
Appendix 10: Strip Maps Showing PCRs (Religious Establishments) Along the Road Alignments



PHYSICAL CULTURAL RESOURCES

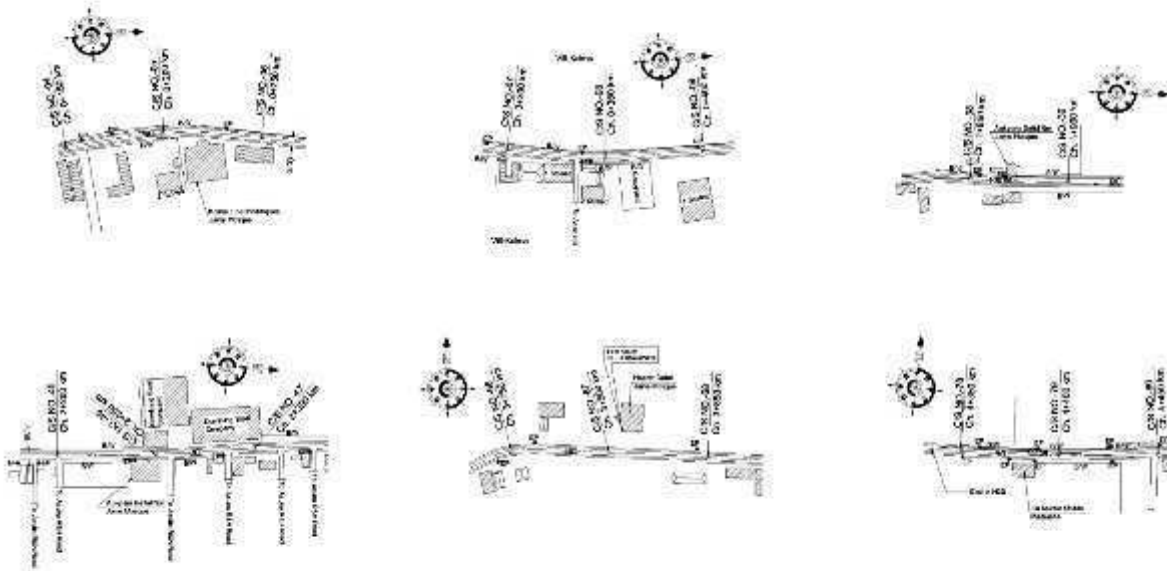
(Mosque & Madrasha, Temple, Church & Graveyard)

Subproject: Savar Upazila Road & Drainage (Package W-02)
Road 02: Dhaka Aricha RHD at Dairy Farm Gate-Pathalia UP Office Kashipur and Monohor Road. (Road ID# 3024)



PHYSICAL CULTURAL RESOURCES
(Mosque & Madrasha, Temple, Church & Graveyard)

Subproject: Savar Upazila Road & Drainage (Package W-02)
Road 03: Prantik Bazar BLRI (RHD) - Ashulia UP Road (Road ID# 3017)

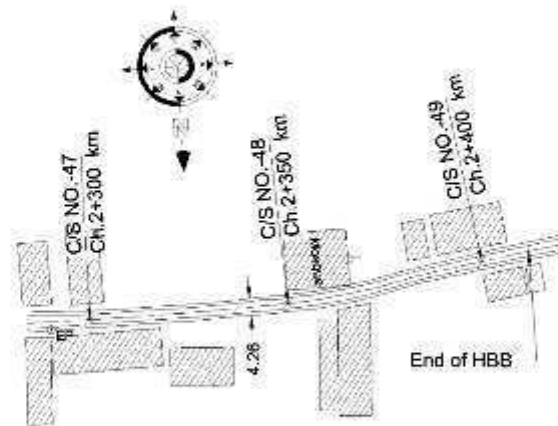


Note :
Highest Flood Level: 8.215m (1990) Local Information
Normal Flood Level: 7.987m, Local Information



PHYSICAL CULTURAL RESOURCES (Mosque & Madrasha, Temple, Church & Graveyard)

Subproject: Savar Upazila Road & Drainage (Package W-02)
Road 05: Katgora Bazar Chitrashail Road via Kandail Road. (Road ID# 4198)



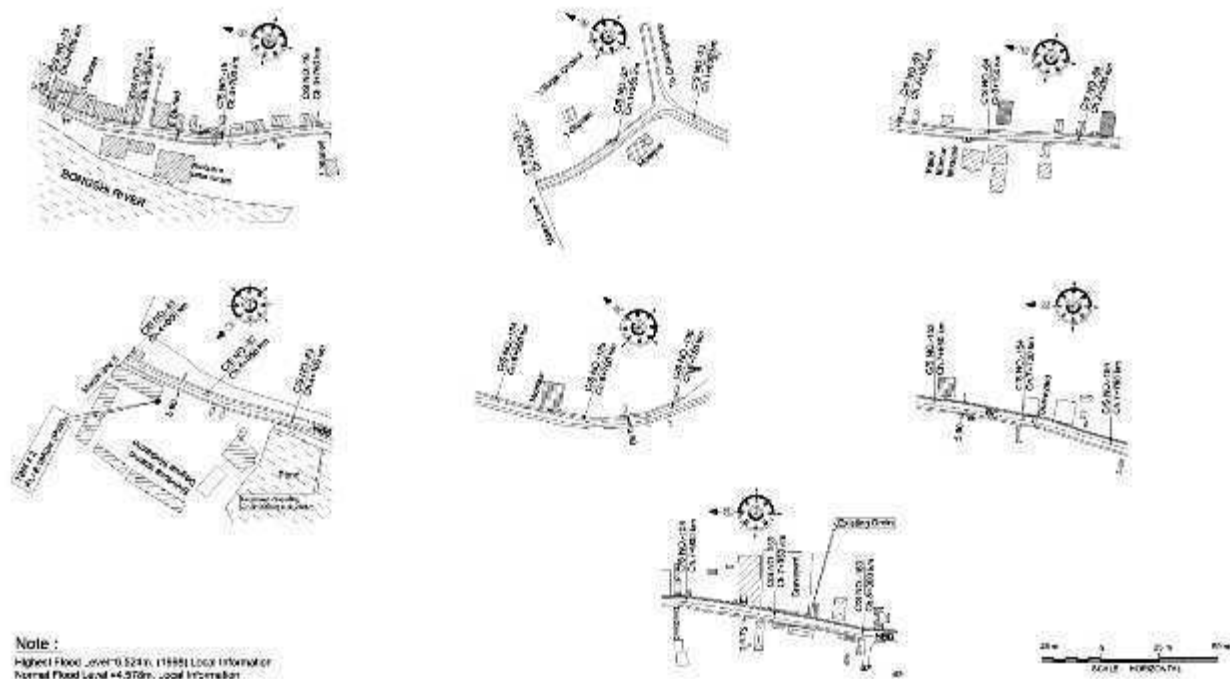
Note :

Highest Flood Level = 8.75m. (1996) Local Information
Normal Flood Level = 7.52m. Local Information



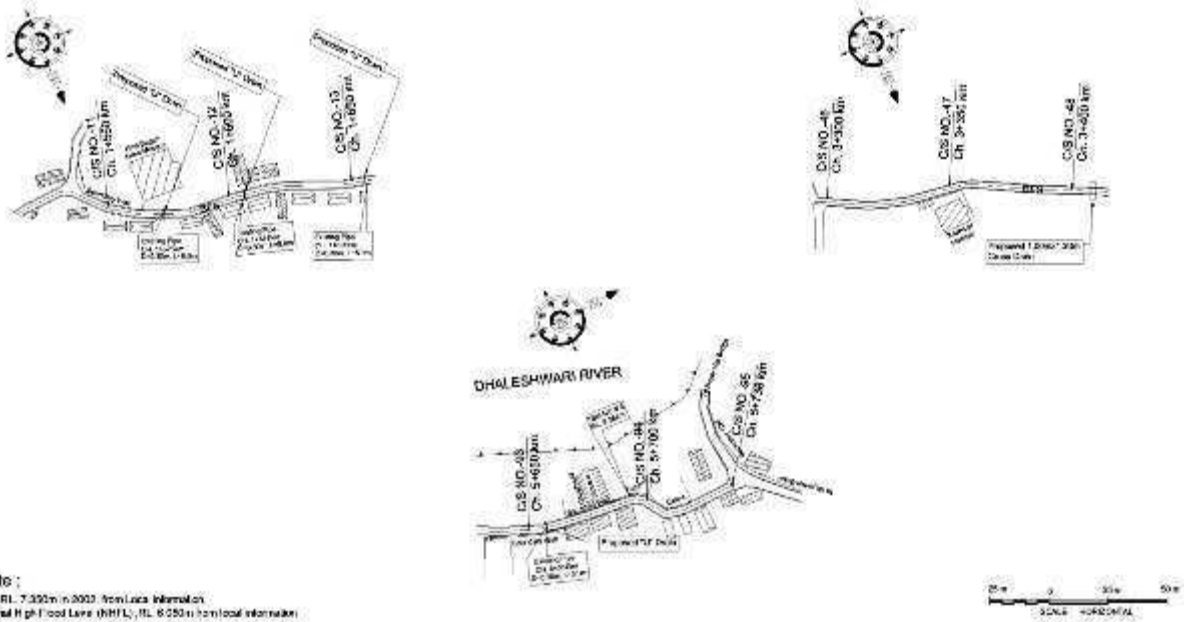
PHYSICAL CULTURAL RESOURCES (Mosque & Madrasha, Temple, Church & Graveyard)

Subproject: Savar Upazila Road & Drainage (Package W-02)
Road 01: Nayarhat GC to Savar GC Road (Road ID: 2004)



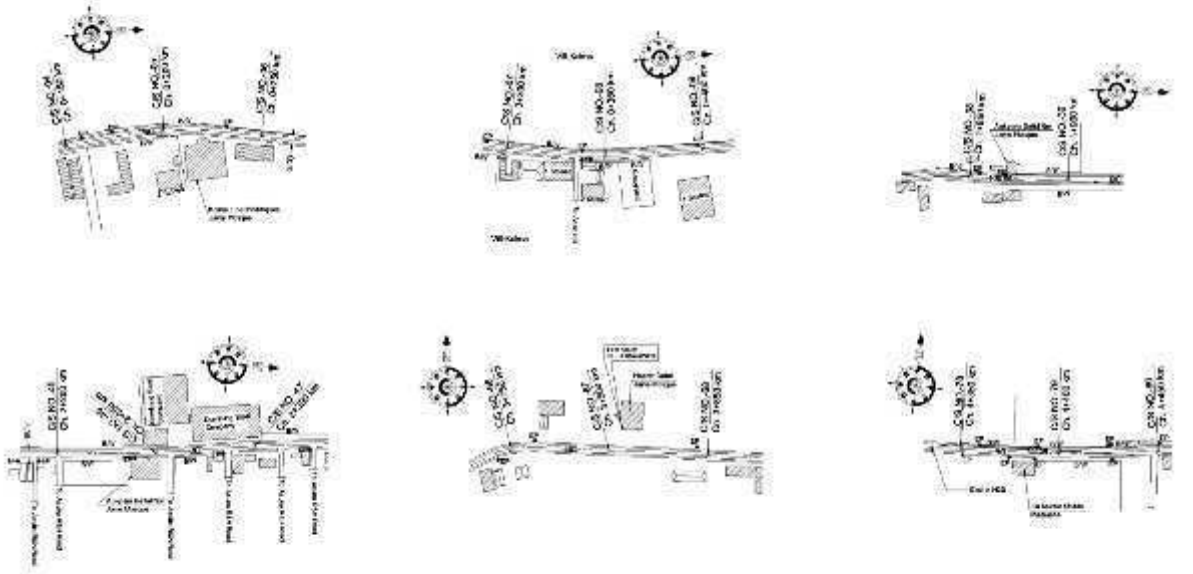
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PHYSICAL CULTURAL RESOURCES
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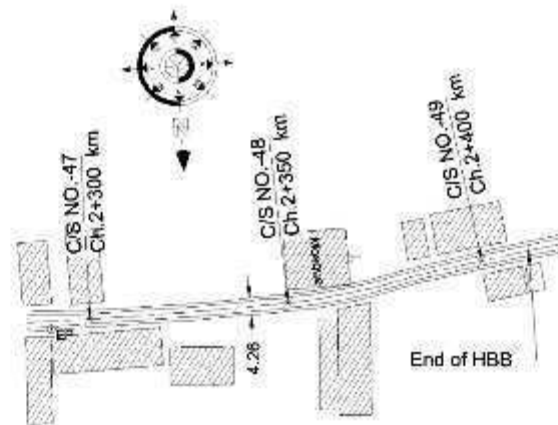


Note :
Highest Flood Level = 9.215m (1996) Local information.
Normal Flood Level = 7.987m, Local information.



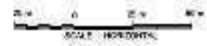
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Note:

Highway Flood Level=8.75m. (1990) Local information
Normal Flood Level =7.52m. Local information



Appendix 11: Public Consultations

Details of date, time, location, type of participants and discussed issues are presented in a tabular form below:

Sl. No	Date of Consultation	Road & Place of consultation	Number & Type of Participants	Issues Discussed
01	16.09. 18	1.At roadside of - Nayarhat GC-Savar GC Road (ID 2004)	Total 41 (male 20, female 21) (Councilors, Retired Govt. Officials, Local Elite, Businessmen, project beneficiaries etc.)	<p>General perception about the project and the awareness about the proposed project are disseminated in the meeting. The following pre-defined issues are discussed in the consultation meetings:</p> <ul style="list-style-type: none"> • Information dissemination about the subproject • possible impacts of the subproject • participation of local people in different project activities • Employment potential for local people in the project works • Loss of residential/commercial structures, if any due to the project • Resettlement and land acquisition (if foreseen specially on private land). • Impact on social issues due to the project • Protected areas (national park, protected forest, religiously sensitive sites, historical or archaeological sites), if any • Any critical issue or concern by the local people regarding the project • Grievances redress mechanism etc.

02.	07.11.17	2. At roadside of - Dhaka-Aricha RHD at Dairy Farm Gate - Pathalia UP Office kashipur and Monohor Road.(ID 3024)	Total 21 (male 14, female 7) (Councilors, Retired Govt. Officials, Local Elite, Businessmen, project beneficiaries etc.)	•
03	09.11.17	3. Prantik bazar BLRI – Ashulia UP Road (ID 3017) 4. Ashulia UP - Katgora bazar via Baro Rangamatia Road (ID 3010) 5. Katgora Bazar – Chitrashail Road via Kandail Road.(ID 4198)	Total 18 (male 13, female 5) (Councilors, Businessmen, Local Elites, Beneficiaries Service holders etc.)	

Finding in the public consultation meeting

- Local people will support the project activities.
- The main issue arising from the consultation is that the people of this area suffering huge traffic congestion due to movement of heavy container truck. They cannot easily move to the school, hospital, and their working place from their due to congestion. . Peoples will be benefitted who are residing alongside the road of area if the project will undertake..
- The area is dominating business area about 70% are depends on business and the rest service and cultivations.
- During construction period short term community activities will be affected.
- No resettlement and land acquisition required for due to the project, only compensation need for the unauthorized shop and residence.
- There is no protected area in and around the project area.
- The project will never impact on natural water body and not contaminate the soil resources.
- The NGOs within the areas are: ASA, BRAC, Grameen Bank, Karitas, MSS, ODC, UPPR, JIZ, Gonosasto, etc.

- It assured by the participant, that they will welcome the project, and will support/cooperate in all stages of the project works.




LIST OF PARTICIPANTS

N. Hnt

নগরসভা জিআই ২৫৩ আওতাধীন জিআই
 ফোকাস গ্রুপ আলোচনায় অংশ গ্রহণকারীর হাজিরা

ক্রমিক সংখ্যা	নাম ও ঠিকানা	পেশা/পদবী	স্বাক্ষর
১।	শ্রী সুবিনা বেগম	ডাক্তার	শ্রী সুবিনা বেগম
২।	শ্রীমতী মাহমুদা	বিশেষজ্ঞ	শ্রীমতী মাহমুদা
৩।	শ্রীমতী (মহুদা)	স্বতন্ত্র	শ্রীমতী
৪।	ডাঃ মজিদ হোসেন বেগম	ডাক্তার ২	মজিদ
৫।	ডাঃ কামরুজ্জামান	ডাক্তার ৪২	ডাঃ কামরুজ্জামান
৬।	ডাঃ মাহমুদা বেগম	২-২.৬	ডাঃ মাহমুদা
৭।	ডাঃ ডাঃ হানিফ	স্বতন্ত্র	ডাঃ হানিফ
৮।	ডাঃ মাহমুদা কামরুজ্জামান	স্বতন্ত্র	ডাঃ মাহমুদা কামরুজ্জামান
৯।	ডাঃ (ডাঃ মাহমুদা)		
১০।	শ্রীমতী মাহমুদা		শ্রীমতী মাহমুদা

ନିମ୍ନଲିଖିତ ଜିଲ୍ଲା ଉଚ୍ଚତ ଓ ନିମ୍ନତ ଜିଲ୍ଲା ଉଚ୍ଚତ
ଫୋକାସ ଗ୍ରୁପ ଆଲୋଚନାୟ ଅଂଶ ଗ୍ରହଣକାରୀର ହାଜିରା

କ୍ରମିକ ସଂଖ୍ୟା	ନାମ ଓ ଠିକାନା	ପେଶା/ପଦବୀ	ସ୍ୱାକ୍ଷର
୧।	ସୁକୁମ୍ଭ ମହାପାତ୍ର		
୨।	ସୁବାସ ଚନ୍ଦ୍ର ସାହୁ		
୩।	ନିରଞ୍ଜନ ବର୍ମା		
୪।	ବିଜୁ		
୫।	ସୁରଜ୍ୟାମହାପାତ୍ର		
୬।	ହରିହରଚନ୍ଦ୍ର ବର୍ମା		
୭।	ବି/ସି		
୮।	ସୁନୀଲ		
୯।	ଜି/ସି		
୧୦।	ଶ୍ରୀ ଚନ୍ଦ୍ର ବର୍ମା		

ନାମ ସହ ଜିଲ୍ଲା ସ୍ତରୀୟ ଶାସନର ଜିଲ୍ଲା ସ୍ତରୀୟ

ଫୋକାସ ଗ୍ରୁପ ଆଲୋଚନା ସ୍ତରୀୟ ଗ୍ରହଣକାରୀର ହାଜିରା




କ୍ରମିକ ସଂଖ୍ୟା	ନାମ ଓ ଠିକାନା	ପେଶା/ପଦବୀ	ସ୍ଥାନ
୧।	ଜୟୀରାମ		
୨।	ଆର୍ତ୍ତ		
୩।	ସୁଧାଂଶୁ		
୪।	ଅଶୋକ		
୫।	ଶ୍ରୀରାମ		
୬।	ସୁଧାଂଶୁ		
୭।	ଅଶୋକ		
୮।	ଅଶୋକ		
୯।	ଅଶୋକ		
୧୦।	ଅଶୋକ		

N. Hnt

ସହକାରୀ କ୍ରିଡ଼ା ଯୁକ୍ତ ଶାସନ କ୍ରିଡ଼ା
ସେବାକାମ ଗ୍ରୁପ ଆଲୋଚନା ଅଂଶ ଗ୍ରହଣକାରୀର ହାଜିରା

କ୍ରମିକ ସଂଖ୍ୟା	ନାମ ଓ ଠିକାନା	ପେଶା/ପଦବୀ	ସାକ୍ଷର
୧।	ଶ୍ରୀମତୀ ଦେବୀ	ଭାଗ୍ୟବତୀ	ଶ୍ରୀମତୀ ଦେବୀ
୨।	ସିଦ୍ଧାନ୍ତ ଦେବୀ	ବିଶେଷଜ୍ଞ	ସିଦ୍ଧାନ୍ତ
୩।	ଶ୍ରୀମତୀ (ଦେବୀ)	ବିଶେଷଜ୍ଞ	ଶ୍ରୀମତୀ
୪।	ଶ୍ରୀମତୀ (ହେମନ୍ତ ଦେବୀ)	ବିଶେଷଜ୍ଞ ୨	ଶ୍ରୀମତୀ
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୯।	ଶ୍ରୀମତୀ (ହେମନ୍ତ ଦେବୀ)	ବିଶେଷଜ୍ଞ	ଶ୍ରୀମତୀ
୧୦।	ଶ୍ରୀମତୀ (ହେମନ୍ତ ଦେବୀ)	ବିଶେଷଜ୍ଞ	ଶ୍ରୀମତୀ

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ଫୋକାସ ଗ୍ରୁପ ଆଲୋଚନାୟ ଅଂଶ ଗ୍ରହଣକାରୀର ହାଜିରା

କ୍ରମିକ ସଂଖ୍ୟା	ନାମ ଓ ଠିକାନା	ପେଶା/ପଦବୀ	ସ୍ୱାକ୍ଷର
୧।	ସୁକୁମ୍ଭ ମହାପାତ୍ର		
୨।	ସୁବାସ ଚନ୍ଦ୍ର ସାହୁ		
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୮।	ସୁନୀଲ		
୯।	ଜି/ସି		
୧୦।	ଶ୍ରୀ ଚନ୍ଦ୍ର ବର୍ମା		

নগর হাট ডিআই ইজিও অফিস ডিআই অফিস

ফোকাস গ্রুপ আলোচনায় অংশ গ্রহণকারীর হাজিরা

ক্রমিক সংখ্যা	নাম ও ঠিকানা	পেশা/পদবী	স্বাক্ষর
১।	উম্মেদা।এ।		
২।	আব্দুল্লাহ		
৩।	মুহাম্মাদুল্লাহ		
৪।	মুহাম্মাদুল্লাহ		
৫।	মুহাম্মাদুল্লাহ		
৬।	মুহাম্মাদুল্লাহ		
৭।	মুহাম্মাদুল্লাহ		
৮।	মুহাম্মাদুল্লাহ		
৯।	মুহাম্মাদুল্লাহ		
১০।	মুহাম্মাদুল্লাহ		

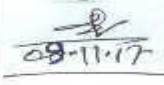





Attendance sheet of Consultation meeting

LRS-10
HR154

Name of the Upa-zila/ paura:

Meeting date: 09.11.17

Name of the sub-project: ગાંધી રાજા રૂરી-બાજુનિયા કેડેલ લાડ, કોમજી
રાજા રૂરી અને રાજા રૂરીના લાડ, કોમજી વગેરે

Sl.#	Name of the participants	Address	Mobile Number	Signature
01.	શ્રી. કામરુદ્ધન કેડેલના બાજુનિયા કેડે, પા:		01713331300	 09.11.17
02.	શ્રી. જી.પી. પાની	કેડે, બાજુનિયા કેડે, પા. રૂરી કેડે, પા. રૂરી	01711945226	 09.11.17
03.	શ્રી. ભરણી ભાણ	કેડે, પા. રૂરી બાજુનિયા	01929374496	ભરણી
04.	શ્રી. ભરણી ભાણ	કેડે, પા. રૂરી	01812238851	K. Bhargava
05.	શ્રી. અનિલ રૂરી રાજા રૂરી અને રાજા રૂરીના રાજા રૂરીના રૂરી		0175764362	
06.	શ્રી. રૂરી	રાજા રૂરી, બાજુનિયા કેડે, પા. રૂરી	01715243283	
07.	શ્રી. રૂરી	રાજા રૂરી કેડે, પા. રૂરી	01710035602	
08.	શ્રી. રૂરી	કેડે, રૂરી રૂરી બાજુનિયા રૂરી કેડે, પા. રૂરી	01651320428	શ્રી. રૂરી
09.	શ્રી. રૂરી	કેડે, પા. રૂરી બાજુનિયા રૂરી કેડે, પા. રૂરી	01912935054	

Attendance sheet of Consultation meeting

Name of the Upa-zila/ poura:

Meeting date:

Name of the sub-project:

Sl.#	Name of the participants	Address	Mobile Number	Signature
01.	મતી અર્ધેર	ધુકપાલ	0173837-6832	
02.	બાઈ જી	Charubag	01966903804	
03.	સુભાષીનબેન	સીડર	9716-788-209	
04.	સર. હરમણસો જોશી	સરમણસો (પાંડાગ્રામ)	0191530392	harman
05.	સર. અરુણ ભાભે	સરમણસો, ગ્રામ પંચાયત 23 ફા.	01972160990	
06.	સર. અમરેશભાઈ	સરમણસો	01821645775	Absul
07.	સર. કમલ (સરકાર)	સરમણસો, ગ્રામ પંચાયત 23 ફા.	01924736888	
08.	સર. સતીશભાઈ	સરમણસો, ગ્રામ પંચાયત 23 ફા.	017335686	
09.	અમરેશભાઈ	સરમણસો	0175695961	amr

Attendance sheet of Consultation meeting

Name of the Upa-zila/ paura:

Meeting date:

Name of the sub-project:

Sl.#	Name of the participants	Address	Mobile Number	Signature
01.	माली अर्धेर	हुकपास	0173837-6832	
02.	माली जी	Charabag	01966903804	
03.	हमरुमनमरुमन	सिद्धार्थ	9716-788-209	
04.	हमरुमनमरुमन	मरुमनमरुमन	0191530392	
05.	हमरुमनमरुमन	मरुमनमरुमन	01972160990	
06.	हमरुमनमरुमन	मरुमनमरुमन	01821645775	
07.	हमरुमनमरुमन	मरुमनमरुमन	01924736888	
08.	हमरुमनमरुमन	मरुमनमरुमन	017335686	
09.	हमरुमनमरुमन	मरुमनमरुमन	0175695961	

Meeting date: 07.11.2017

Name of the sub-project: Shorha Aricha RHD at dairy farm gate
to Pathulia UP office Kankinpur & Monohar rail

259

10.	ମା. ଡା. ଅମର ନାଥ	ସୁନାମ	01639663000	ଅମର
11.	ଡା. ବାବୁ ଚନ୍ଦ୍ର କୁମାର	ନାଥ	01850365813	ଅମର
12.	ମା. ବାବୁ ଚନ୍ଦ୍ର କୁମାର	ନାଥ	ଅମର	ଅମର
13.	ଅମର	ଅମର	ଅମର	ଅମର
14.		(ଅମର)	01812548766	(ଅମର)
15.	ଅମର	ଅମର	01813591625	ଅମର
16.	ଅମର	ଅମର	ଅମର	ଅମର
17.	ମା. ଅମର	ଅମର	ଅମର	ଅମର
18.	(ମା. ଅମର)	ଅମର	01918954053	ଅମର
19.	ଅମର	ଅମର	01819883334	ଅମର
20.	ମା. ଅମର	ଅମର	00930000000	ଅମର

11-14
F. 7

10.	ମା. ଡା. ଅମର ନାଥ	ସମସ୍ତଙ୍କ	01639663000	ଅମର
11.	ଡା. ବାବୁ ଚନ୍ଦ୍ରଶେଖର	ନାଥ	01850365813	ଅମର
12.	ମା. ବାବୁ ଚନ୍ଦ୍ରଶେଖର	ନାଥ	ଅମର	ଅମର
13.	ଅମର	ଅମର	ଅମର	ଅମର
14.		(ଅମର)	01812548766	(ଅମର)
15.	ଅମର	ଅମର	0181359625	ଅମର
16.	ଅମର	ଅମର	ଅମର	ଅମର
17.	ମା. ଅମର	ଅମର	ଅମର	ଅମର
18.	(ମା. ଅମର)	ଅମର	01918954053	ଅମର
19.	ଅମର	ଅମର	01819883334	ଅମର
20.	ମା. ଅମର	ଅମର	00930000000	ଅମର

11-14
F. 7

Photographs of Community Consultations



Consultation at roadside (Road ID 2004)



Consultation at roadside (Road ID 2004)





Consultation at roadside (Road ID 3017, 3010 & 4198)



Consultation at roadside (Road ID 3017, 3010 & 4198)



Consultation at roadside (Road ID 3024)



Consultation at roadside (Road ID 3024)



Appendix 12: Sample Grievance Registration Form

(To be available in Bangla and Other Local Language, if any)

The _____ Project welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing ***(CONFIDENTIAL)*** above your name. Thank you.

Date	Place of registration				
Contact Information/Personal Details					
Name		Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female	Age	
Home Address					
Village / Town					
District					
Phone no.					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below: If included as attachment/note/letter, please tick here:					
How do you want us to reach you for feedback or update on your comment/grievance?					

FOR OFFICIAL USE ONLY

Registered by: (Name of Official registering grievance)	
Mode of communication: <input type="checkbox"/> Note/Letter <input type="checkbox"/> E-mail <input type="checkbox"/> Verbal/Telephonic	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Means of Disclosure:	

Appendix 13: Suggested Template for Record-Keeping of Grievances

Sl. No.	Date of receipt of grievance	Name and contact details of complainant	Description of complaint	Nature of complaint	Decisions taken	Response given to complainant and date	Whether closed/resolved

Appendix 14: Indicative Terms of Reference for Safeguards Specialist for PMCU, PIUs and PDSC

A. Preparation, Design, and Supervision Consultants (PDSC)

1. Environmental Safeguards Specialist (National)

1. **Experience.** A civil engineer with specialization in environment, having at least 5-10 years of working experience related to the integration of environmental issues in design, and construction of infrastructure projects. Past experience working on donor projects preferable.

2. Detailed Tasks:

- (i) Prepare Initial Environmental Examination (IEE) in accordance with the Environmental Assessment Review Framework (EARF) for subprojects;
- (ii) Assist PMCU Environment Officer in ensuring prepared IEEs are submitted to ADB for review;
- (iii) Assist PMCU in ensuring approved IEEs are disclosed on PMCU/LGED website;
- (iv) Ensure approved final IEEs and Environmental Management Plans (EMPs) are included in contract documents;
- (v) Assist PMCU in ensuring compliance of Second CRDP and its subprojects with all relevant national laws;
- (vi) Interact with the sector specialists and integrate environmentally sound practices into the detailed design of project components;
- (vii) Work out the site specific mitigation and adaptation measures for components as required and integrate the same into contractual provisions;
- (viii) Assist the international environment/Climate Change specialist in environmental training programs and workshops for the staffs of the PMCU, PIU and contractors and in accordance to the Capacity Building Program;
- (ix) Prepare activity plans as identified in IEE (includes site management plans, waste management plans, sludge management and disposal plans, occupational safety plans, etc.);
- (x) Assist PIU in reviewing the contractors' SEMP to ensure compliance with the IEE/EMP;
- (xi) Assist PIU in supervising the implementation of the EMP and SEMP by the contractors;
- (xii) Assist PIU in preparing quarterly environmental monitoring reports and submit to PMCU;
- (xiii) Review site specific environmental enhancement/mitigation designs worked out by the contractor and assist PIU in approving such designs;
- (xiv) Assist in providing occupational health and safety training for contractors' personnel before commencement of civil works for all sub-projects;
- (xv) Assist the PMCU environment officer in preparing semi-annual environmental monitoring reports and submit to ADB;
- (xvi) Establish dialogue with the affected communities and ensure that the environmental concerns and suggestions are incorporated and implemented in the project;
- (xvii) Assist PMCU and PIUs in attending to or facilitating responses to any public grievances per GRM; and
- (xviii) Assist in any other task assigned by the PMCU Environment Officer and/or supervising consultant in relevance to effective project implementation.

B. Project Management Coordination unit (PMCU)

1. Environmental Safeguards Officer – PMCU

3. **Experience.** An Environmental Engineer / scientist with experience in management of environmental issues of infrastructure projects and understanding of the regulatory framework for environmental management in Bangladesh.

4. Detailed Tasks:

- (i) Ensure the conformance of all Subprojects proposed under the project to the regulatory compliance to the Government, with reference to environmental requirements, with support from the Environmental Officer of the PIUs. This shall include preparation of the documents as required under the Environmental Conservation rules, submission of application forms, and obtaining clearances from the DOE; and ensuring conformance to the clearance conditions laid down in the clearances for the Subprojects by the DOE;
- (ii) Liaise with the various Government agencies on environmental and other regulatory matters pertaining to implementation of the subprojects;
- (iii) Work closely with the PIUs and provide guidance on the shifting of utilities and services, including obtaining necessary clearances from the respective line agencies, prior to award of civil works contracts;
- (iv) Provide support and assistance to the Government Agencies and the Asian Development Bank to supervise the implementation of the IEE during the construction as well as operation stage of the project ;
- (v) Monitor construction activities to ensure that identified and appropriate control measures are effective and in compliance with the IEE and advise PIUs for compliance with statutory requirements;
- (vi) Work in close co-ordination with the Social Safeguards officer of the PMCU and participate in the Grievance Redressal Mechanism for all grievances that are brought forward to the PMCU. Monitor on a continuous basis the effective functioning of the Grievance mechanisms at the PIU and Pourashava levels on all grievances related to environmental issues; and
- (vii) Jointly (with the environmental engineer of the PMCU), review the environmental performance of the project through an assessment of the periodic environmental monitoring reports submitted by the PDSC; provide a summary of the same to the Project Director, and initiate necessary follow-up actions.

2. Environmental Engineer - PMCU

5. **Experience.** A Civil Engineer with specialization in Environment with experience in implementation of environmental management plans of infrastructure projects, especially those funded by donor agencies.

6. Detailed Tasks.

- (i) Review the IEE Document and contract clauses and ensure adequacy under ADB's Environmental Assessment Guidelines, 2003 and the updated Safeguards Policy Statement, 2009 and identify any areas for improvement.
- (ii) Ensure that the subproject design and specifications adequately reflect the IEE.

- (iii) Monitor construction activities to ensure that identified and appropriate control measures are effective and in compliance with the IEE.
- (iv) Review and approve the Contractor's Implementation Plan for the environmental measures, as per IEEs/EMPs.
- (v) Liaise with the Contractors and Consultants on the implementation of the Environmental management measures proposed in the IEE/EMP.
- (i) Jointly (with the environmental safeguards officer of the PMCU), review the environmental performance of the project through an assessment of the periodic environmental monitoring reports submitted by the PDSC; provide a summary of the same to the Project Director, and initiate necessary follow-up actions.
- (ii) Document the good practices in the project, with support from Environmental Specialists of the PDSC and PIU on (a) incorporation and integration of environmental issues into engineering design and (b) on implementing environmental measures in the construction, and dissemination of the same.

C. Project Implementation Unit (PIU)

1. Environmental Officer (PIU)

7. **Experience.** A civil engineer with working experience related to the integration of environmental issues in design, and construction of infrastructure projects.

8. Detailed tasks:

- (i) Support the Environmental Safeguards officer of the PMCU towards ensuring the conformance of the subproject to the regulatory compliance to the Government, with reference to environmental requirements; including preparation of documents required for clearances, obtaining clearances from the divisional office of the DOE, etc..
- (ii) Work with the PDSC Environmental Specialists in the preparation of the Environmental Safeguards Documents; including integration of environmental provisions into the contract provisions of the respective subprojects.
- (iii) With support of the PMCU and PDSC Environmental Specialists, monitor compliance of the implementation of the environmental provisions; and ensure that identified control measures are effective and in compliance with the IEE.
- (iv) Review and approve the Contractor's Implementation Plan for the environmental measures, as per IEEs/EMPs.
- (v) Liaise with the Contractors and Consultants on the implementation of the Environmental management measures proposed in the IEE/EMP; including the implementation of the environmental monitoring plan outlined in the IEE.
- (vi) Establish dialogue with the affected communities and ensure that the environmental concerns and suggestions are incorporated and implemented in the project.
- (vii) Participate in the Grievance redressal of all grievances pertaining to environment and support the PIU/Pourashava in redressal of the same.
- (viii) Prepare and submit environmental monitoring and implementation progress reports with support from PDSC consultants, to the PMCU.
- (ix) Assist Environmental Specialist of the PMCU to prepare good practice dissemination notes based on the experience gained from site supervision.

Appendix 15: Traffic Management Plan Template

A. Principles

1. One of the prime objectives of this traffic management plan (TMP) is to ensure the safety of all the road users along the work zone, and to address the following issues:
 - the safety of pedestrians, bicyclists, and motorists travelling through the construction zone;
 - protection of work crews from hazards associated with moving traffic;
 - mitigation of the adverse impact on road capacity and delays to the road users;
 - maintenance of access to adjoining properties
 - Avoid hazards in addressing issues that may delay the project.

B. Operating Policies for Traffic Management Plan

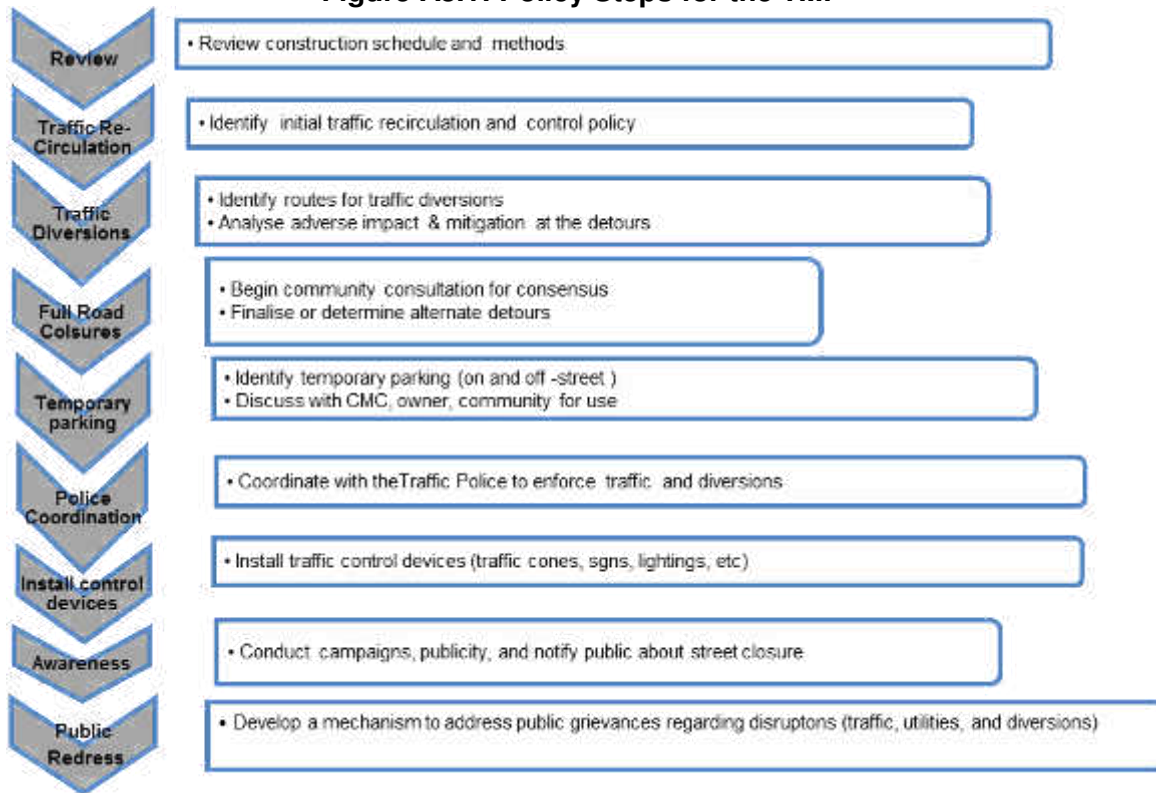
2. The following principles will help promote safe and efficient movement for all road users (motorists, bicyclists, and pedestrians, including persons with disabilities) through and around work zones while reasonably protecting workers and equipment.
 - Make traffic safety and temporary traffic control an integral and high-priority element of every project from planning through design, construction, and maintenance.
 - Inhibit traffic movement as little as possible.
 - Provide clear and positive guidance to drivers, bicyclists, and pedestrians as they approach and travel through the temporary traffic control zone.
 - Inspect traffic control elements routinely, both day and night, and make modifications when necessary.
 - Pay increased attention to roadside safety in the vicinity of temporary traffic control zones.
 - Train all persons that select, place, and maintain temporary traffic control devices.
 - Keep the public well informed.
 - Make appropriate accommodation for abutting property owners, residents, businesses, emergency services, railroads, commercial vehicles, and transit operations.

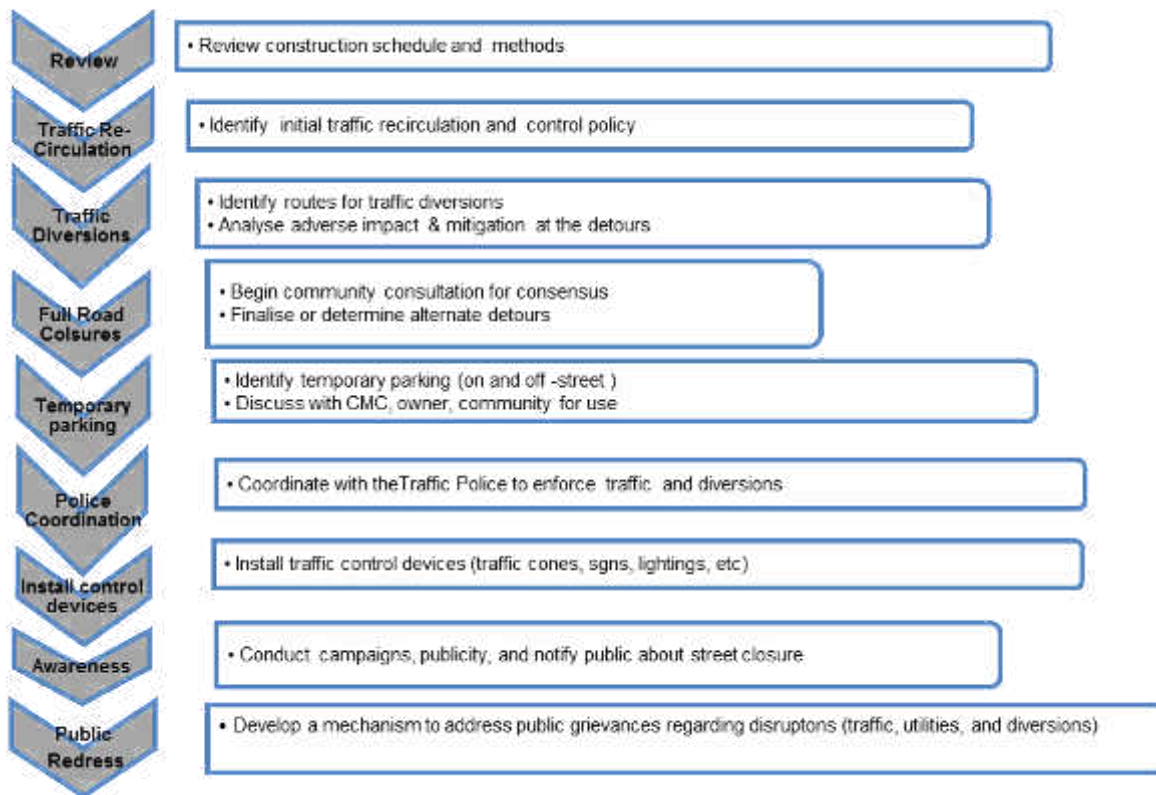
C. Analyze the Impact Due to Street Closure

3. Apart from the capacity analysis, a final decision to close a particular street and divert the traffic should involve the following steps:
 - approval from the local authorities to use the local streets as detours;
 - consultation with businesses, community members, traffic police, etc, regarding the mitigation measures necessary at the detours where the road is diverted during the construction;
 - determining of the maximum number of days allowed for road closure, and incorporation of such provisions into the contract documents;
 - determining if additional traffic control or temporary improvements are needed along the detour route;
 - considering how access will be provided to the worksite;
 - contacting emergency service, school officials, and transit authorities to determine if there are impacts to their operations; and
 - developing a notification program to the public so that the closure is not a surprise. As part of this program, the public should be advised of alternate routes that commuters can take or will have to take as result of the traffic diversion.

4. If full road-closure of certain streets within the area is not feasible due to inadequate capacity of the Detour Street or public opposition, the full closure can be restricted to weekends.

Figure A8.1: Policy Steps for the TMP





D. Public awareness and notifications

5. As per discussions in the previous sections, there will be travel delays during the constructions, as is the case with most construction projects, albeit on a reduced scale if utilities and traffic management are properly coordinated. There are additional grounds for travel delays in the area, as most of the streets lack sufficient capacity to accommodate additional traffic from diverted traffic as a result of street closures to accommodate the works.

6. The awareness campaign and the prior notification for the public will be a continuous activity which the project will carry out to compensate for the above delays and minimize public claims as result of these problems. These activities will take place sufficiently in advance of the time when the roadblocks or traffic diversions take place at the particular streets. The reason for this is to allow sufficient time for the public and residents to understand the changes to their travel plans. The project will notify the public about the roadblocks and traffic diversion through public notices, ward level meetings and city level meeting with the elected representatives.

7. The PMCU and PIU will also conduct an awareness campaign to educate the public about the following issues:

- traffic control devices in place at the work zones (signs, traffic cones, barriers, etc.);
- defensive driving behavior along the work zones; and
- reduced speeds enforced at the work zones and traffic diversions.

8. It may be necessary to conduct the awareness programs/campaigns on road safety during construction.

9. The campaign will cater to all types of target groups i.e. children, adults, and drivers. Therefore, these campaigns will be conducted in schools and community centers. In addition, the project will publish a brochure for public information. These brochures will be widely circulated around the area and will also be available at the PMCU, PIU and the contractor's site offices. The text of the brochure should be concise to be effective, with a lot of graphics. It will serve the following purpose:

- Explain why the brochure was prepared, along with a brief description of the project;
- Advise the public to expect the unexpected;
- Educate the public about the various traffic control devices and safety measures adopted at the work zones;
- Educate the public about the safe road user behavior to emulate at the work zones;
- Tell the public how to stay informed or where to inquire about road safety issues at the work zones (name, telephone, mobile number of the contact person; and
- Indicate the office hours of relevant offices.

E. Vehicle Maintenance and Safety

10. A vehicle maintenance and safety program shall be implemented by the construction contractor. The contractor should ensure that all the vehicles are in proper running condition and it comply with roadworthy and meet certification standards of Government of Bangladesh. All vehicles to be used shall be in perfect condition meeting pollution standards of Government of Bangladesh. The vehicle operator requires a prestate of shift checklist. Additional safety precautions will include the requirement for:

- Driver will follow the special code of conduct and road safety rules of Government of Bangladesh.
- Drivers to ensure that all loads are covered and secured drivers to ensure operation equipment can't leak materials hauled
- Vehicles will be cleaned and maintained in designed places.

F. Install traffic control devices at the work zones and traffic diversion routes

11. The purpose of installing traffic control devices at the work zones is to delineate these areas to warn, inform, and direct the road users about a hazard ahead, and to protect them as well as the workers. As proper delineation is a key to achieve the above objective, it is important to install good traffic signs at the work zones. The following traffic control devices are used in work zones:

- Signs
- Pavement Markings
- Channelizing Devices
- Arrow Panels
- Warning Lights

12. Procedures for installing traffic control devices at any work zone vary, depending on road configuration, location of the work, construction activity, duration, traffic speed and volume, and pedestrian traffic. Work will take place along major roads, and the minor internal roads. As such, the traffic volume and road geometry vary. The main roads carry considerable traffic; internal roads in the new city areas are wide but in old city roads very narrow and carry considerable traffic. However, regardless of where the construction takes place, all the work zones should be cordoned off, and traffic shifted away at least with traffic cones, barricades, and temporary signs (temporary “STOP” and “GO”).

13. The work zone should take into consideration the space required for a buffer zone between the workers and the traffic (lateral and longitudinal) and the transition space required for delineation, as applicable. For the works, a 30 cm clearance between the traffic and the temporary STOP and GO signs should be provided. In addition, at least 60 cm is necessary to install the temporary traffic signs and cones.

14. Traffic police should regulate traffic away from the work zone and enforce the traffic diversion result from full street closure in certain areas during construction. Flaggers/ personnel should be equipped with reflective jackets at all times and have traffic control batons (preferably the LED type) for regulating the traffic during night time.

15. In addition to the delineation devices, all the construction workers should wear fluorescent safety vests and helmets in order to be visible to the motorists at all times. There should be provision for lighting beacons and illumination for night constructions.

16. The PIU and contractor will coordinate with the local administration and traffic police regarding the traffic signs, detour, and any other matters related to traffic. The contractor will prepare the traffic management plan in detail and submit it along with the EMP for the final approval.

Appendix 16: Sample Daily Monitoring Sheet for Contractors

CITY REGIONS DEVELOPMENT PROJECT II Contractor Monitoring Sheet

Name of Subproject: _____
 Location of Subproject: _____
 Chainage covered (for linear works): _____
 Supervising PIU: _____
 Contractor: _____
 Contractor EHS Supervisor (or equivalent): _____
 Date of monitoring: _____

Summary of Findings

Monitoring Item	Status	Remarks
1. Compliance with Local Permit Requirements	(Secured / Application Submitted / Not Applicable)	
<i>Location/zoning permits</i>		
<i>Permit to construct</i>		
<i>Building permit</i>		
<i>Transport / hauling permits</i>		
2. Compliance with IEE Requirements	(Approved / Under Preparation / Submitted to PIU for Approval)	
<i>Site-specific EMP (SEMP)</i>		
<i>Corrective Action Plan, if any</i>		
3. Compliance with SEMP		
Construction Site	(Satisfactory / Needs Improvement / Not Implemented)	
- Conduct of toolbox talk		
- Use of PPE		
- Rest areas for male and female workers		
- Toilets for male and female workers		
- Medical kits		
- Drinking water supply		
- Dust control		
- Noise control		
- Solid waste management		
- Wastewater management		
- Chemicals storage (fuel, oil, etc.)		
- Siltation or erosion control		
- Heavy equipment staging / parking area		
- Barricades around excavation sites		
- Access to residential houses/shops/businesses		
- Traffic routing signages		
- Lightings at night		
- Trench shoring / landslide protection		

Monitoring Item	Status	Remarks
Construction Workers' Camp Site	(Available / Needs Improvement / Not Available)	
- Quarters for male and female workers		
- Sleeping utilities (e.g. beds, pillows, blankets, mosquito nets, etc.)		
- Power/Electricity supply		
- Drinking water supply		
- Toilets for male and female workers		
- General purpose water supply (cooking, washing, bathing)		
- Cooking facilities and areas		
- Solid waste management		
- Wastewater management		
- Pest control		
4. Implementation of GRM	(Yes / No or None / Under Resolution)	
<i>Complaints</i>		
<i>Complaints resolution</i>		
5. Environmental Quality Measurement	(Passed / Failed / Not Applicable)	
<i>Ambient air quality sampling</i>		
<i>Noise level measurement</i>		
<i>Receiving water quality sampling</i>		

Other Issues: _____

Attachments:

1. Copies of permits secured, if any.
2. Photos taken at worksites, if any.
(photos attached in previous monitoring sheets should not be used again).
3. Laboratory results of environmental quality measurements, if any.

Prepared by: _____
Name, Designation and Signature

Appendix 17: Sample Inspection Report for PMCU and PIUs

CITY REGIONS DEVELOPMENT PROJECT II SITE INSPECTION CHECKLIST

Subproject: _____

Date: _____

Location: _____

Chainage (for linear works): _____

MONITORING/INSPECTION QUESTIONS		FINDINGS			COMMENTS / CLARIFICATIONS
1.	Supervision and Management On-Site	Yes	No	NA	
	a. Is an EHS supervisor available?				
	b. Is a copy of the SEMP available?				
	c. Are daily toolbox talks conducted on site?				
2.	The Facilities	Yes	No	NA	
	a. Are there a medical and first aid kits on site?				
	b. Are emergency contact details available on-site?				
	c. Are there PPEs available? What are they?				
	d. Are the PPEs in good condition?				
	e. Are there firefighting equipment on site?				
	f. Are there separate sanitary facilities for male and female workers?				
	g. Is drinking water supply available for workers?				
	h. Is there a rest area for workers?				
	i. Are storage areas for chemicals available and with protection? in safe locations?				
3.	Occupational Health and Safety	Yes	No	NA	
	a. Are the PPEs being used by workers?				
	b. Are excavation trenches provided with shores or protection from landslide?				
	c. Is breaktime for workers provided?				
	d. How many for each type of collection vehicle is in current use?				
4.	Community Safety	Yes	No	NA	
	a) Are excavation areas provided with barricades around them?				
	b) Are safety signages posted around the sites?				
	c) Are temporary and safe walkways for pedestrians available near work sites?				

MONITORING/INSPECTION QUESTIONS		FINDINGS			COMMENTS / CLARIFICATIONS
	d) Is there a record of treated wastewater quality testing/measurement?				
5.	Solid Waste Management	Yes	No	NA	
	a. Are excavated materials placed sufficiently away from water courses?				
	b. Is solid waste segregation and management in place?				
	c. Is there a regular collection fo solid wastes from work sites?				
6.	Wastewater Management	Yes	No	NA	
	a) Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?				
	b) Is any wastewater discharged to storm drains?				
	c) Is any wastewater being treated prior to discharge?				
	d) Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?				
	e) Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?				
7.	Dust Control	Yes	No	NA	
	a. Is the construction site watered to minimize generation of dust?				
	b. Are roads within and around the construction sites sprayed with water on regular intervals?				
	c. Is there a speed control for vehicles at construction sites?				
	d. Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?				
	e. Are construction vehicles carrying soils and other spoils covered?				
	f. Are generators provided with air pollution control devices?				
	g. Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid permits?				
8.	Noise Control	Yes	No	NA	
	a) Is the work only taking place between 7 am and 7 pm, week days?				

MONITORING/INSPECTION QUESTIONS		FINDINGS			COMMENTS / CLARIFICATIONS
	b) Do generators operate with doors closed or provided with sound barrier around them?				
	c) Is idle equipment turned off or throttled down?				
	d) Are there noise mitigation measures adopted at construction sites?				
	e) Are neighboring residents notified in advance of any noisy activities expected at construction sites?				
9.	Traffic Management	Yes	No	NA	
	a) Are traffic signages available around the construction sites and nearby roads?				
	b) Are re-routing signages sufficient to guide motorists?				
	c) Are the excavation sites along roads provided with barricades with reflectors?				
	d) Are the excavation sites provided with sufficient lighting at night?				
10.	Recording System	Yes	No	NA	
	a) Do the contractors have recording system for SEMP implementation?				
	b) Are the daily monitoring sheets accomplished by the contractor EHS supervisor (or equivalent) properly compiled?				
	c) Are laboratory results of environmental sampling conducted since the commencement of construction activities properly compiled?				
	d) Are these records readily available at the site and to the inspection team?				

Other Issues: _____

Prepared by: _____

Name, Designation and Signature

Appendix 18: Semi-Annual Environmental Monitoring Template

- Introduction
- Overall project description and objectives
- Environmental category as per ADB Safeguard Policy Statement, 2009
- Environmental category of each subproject as per national laws and regulations
- Project Safeguards Team

Name	Designation/Office	Email Address	Contact Number	Roles
1. PMU				
2. PIUs				
3. Consultants				

- Overall project and sub-project progress and status
- Description of subprojects (package-wise) and status of implementation (preliminary, detailed design, on-going construction, completed, and/or O&M stage)

Package Number	Components/List of Works	Contract Status (specify if under bidding or contract awarded)	Status of Implementation (Preliminary Design/Detailed Design/On-going Construction/Completed/O&M) ²²	If On-going Construction	
				%Physical Progress	Expected Completion Date

- COMPLIANCE STATUS WITH NATIONAL/STATE/LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS²³

Package No.	Subproject Name	Statutory Environmental Requirements ²⁴	Status of Compliance ²⁵	Validity if obtained	Action Required	Specific Conditions that will require environmental monitoring as per Environment Clearance, Consent/Permit to Establish ²⁶

- Compliance status with environmental loan covenants

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required

- Compliance status with the environmental management plan (refer to EMP TaBLES in APPROVED IEE/S)
- Confirm if IEE/s require contractors to submit site-specific EMP/construction EMPs. If not, describe the methodology of monitoring each package under implementation.

Package-wise IEE Documentation Status

Package Number	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Director? (Yes/No)	Remarks
	Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		

- For each package, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

Package-wise Contractor/s' Nodal Persons for Environmental Safeguards

Package Name	Contractor	Nodal Person	Email Address	Contact Number

- With reference to approved EMP/site-specific EMP/construction EMP, complete the table below

Summary of Environmental Monitoring Activities (for the Reporting Period)²⁷

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
Pre-Construction Phase						
Construction Phase						
Operational Phase						

Overall Compliance with CEMP/ EMP

No.	Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required

- **APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT**
- Briefly describe the approach and methodology used for environmental monitoring of each sub-project.
- **MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVELS)**
- Discuss the general condition of surroundings at the project site, with consideration of the following, whichever are applicable:
 - Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
 - Identify if muddy water is escaping site boundaries or if muddy tracks are seen on adjacent roads.
 - Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these are intact following heavy rain;
 - Identify designated areas for concrete works, chemical storage, construction materials, and refueling. Attach photographs of each area in the Appendix.
 - Confirm spill kits on site and site procedure for handling emergencies.
 - Identify any chemical stored on site and provide information on storage condition. Attach photograph.
 - Describe management of stockpiles (construction materials, excavated soils, spoils, etc.). Provide photographs.
 - Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
 - Provide information on barricades, signages, and on-site boards. Provide photographs in the Appendix.
 - Indicate if there are any activities being under taken out of working hours and how that is being managed.
- Briefly discuss the basis for environmental parameters monitoring.

- Indicate type of environmental parameters to be monitored and identify the location.
- Indicate the method of monitoring and equipment used.
- Provide monitoring results and an analysis of results in relation to baseline data and statutory requirements.

As a minimum the results should be presented as per the tables below.

Air Quality Results

Site No.	Date of Testing	Site Location	Parameters (Government Standards)		
			PM10 µg/m3	SO2 µg/m3	NO2 µg/m3

Site No.	Date of Testing	Site Location	Parameters (Monitoring Results)		
			PM10 µg/m3	SO2 µg/m3	NO2 µg/m3

Water Quality Results

Site No.	Date of Sampling	Site Location	Parameters (Government Standards)					
			pH	Conductivity µS/cm	BOD mg/L	TSS mg/L	TN mg/L	TP mg/L

Site No.	Date of Sampling	Site Location	Parameters (Monitoring Results)					
			pH	Conductivity µS/cm	BOD mg/L	TSS mg/L	TN mg/L	TP mg/L

Noise Quality Results

Site No.	Date of Testing	Site Location	LA _{eq} (dBA) (Government Standard)	
			Day Time	Night Time

Site No.	Date of Testing	Site Location	LA _{eq} (dBA) (Monitoring Results)	
			Day Time	Night Time

- **GRIEVANCE REDRESS MECHANISM**

- Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-related issues/complaints. Include as appendix Notification of the GRM (town-wise if applicable).

- **COMPLAINTS RECEIVED DURING THE REPORTING PERIOD**
- Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).

- **SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS**
- Summary of follow up time-bound actions to be taken within a set timeframe.

- **APPENDIXES**
- Photos
- Summary of consultations
- Copies of environmental clearances and permits
- Sample of environmental site inspection report
- all supporting documents including **signed** monthly environmental site inspection reports prepared by consultants and/or contractors
- Others