

# Bangladesh Water Development Board

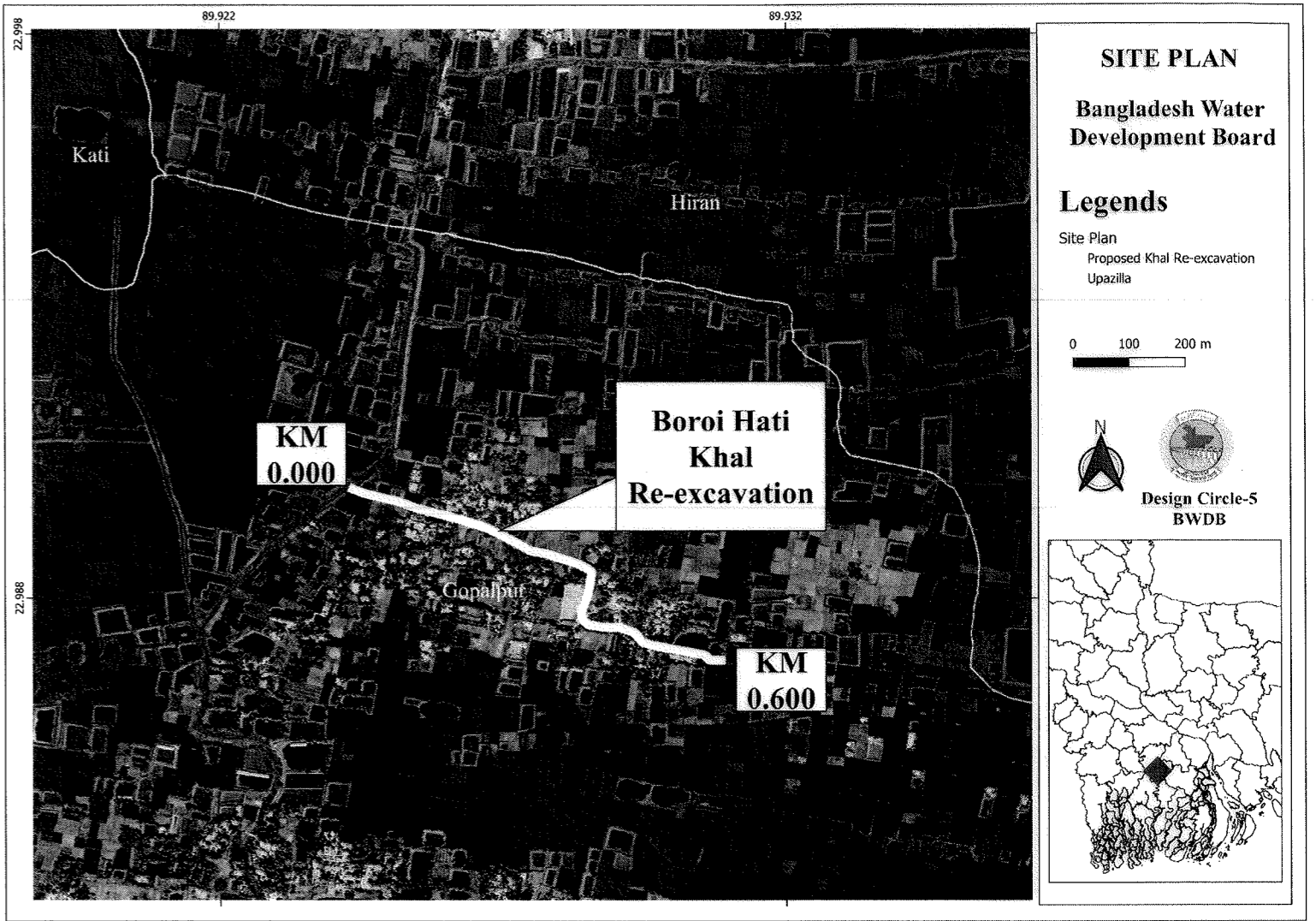
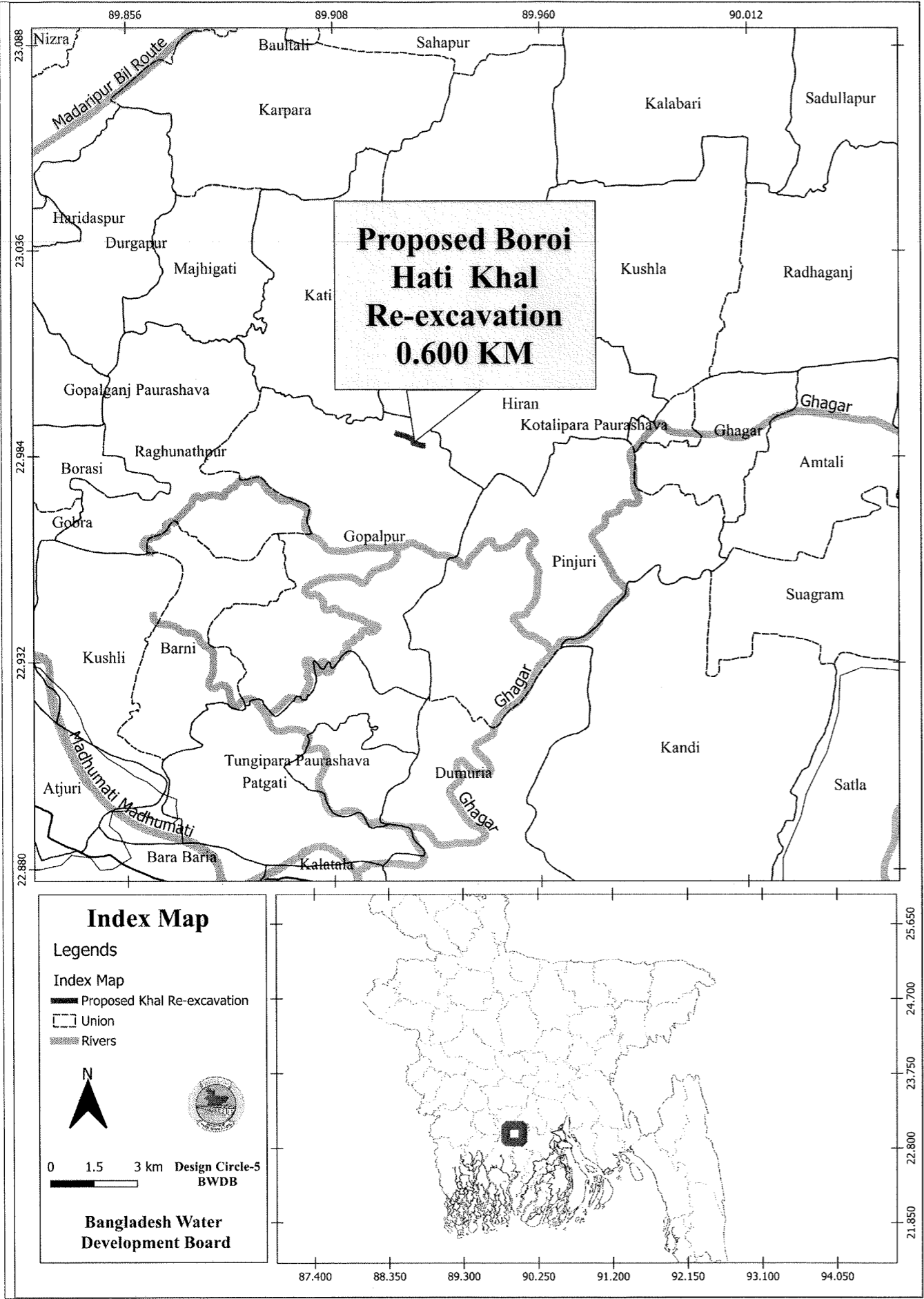
## CRISP-WRM




Re-excavation of Boroj Hati Khal from km. 0.000 to km. 0.600 in polder -2 in c/w Tarail-Pachuria  
Sub-Project under CRISP-WRM under Specialized Division. BWDB, Gopalganj during the year 2024-2025

SMO, IDWRM-KT

Designed by: Design Circle-5, BWDB, Dhaka

February, 2025



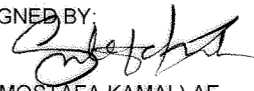
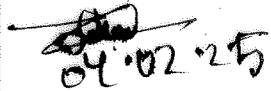

Bangladesh Water Development Board	
Office of The Superintending Engineer,Design Circle-5	
CRISP-WRM	
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INDEX MAP & SITE MAP FOR BOROI HATI KHAL	
DESIGNED BY:  (MD. MOSTAFA KAMAL),AE	APPROVED BY:  (JAKARIA PERVEZ),SE
CHECKED AND RECOMMENDED BY:  (MD. KAMRUL HASAN),EE	
Date:04/02/2025	Drawing No:DC5-5779-01/7

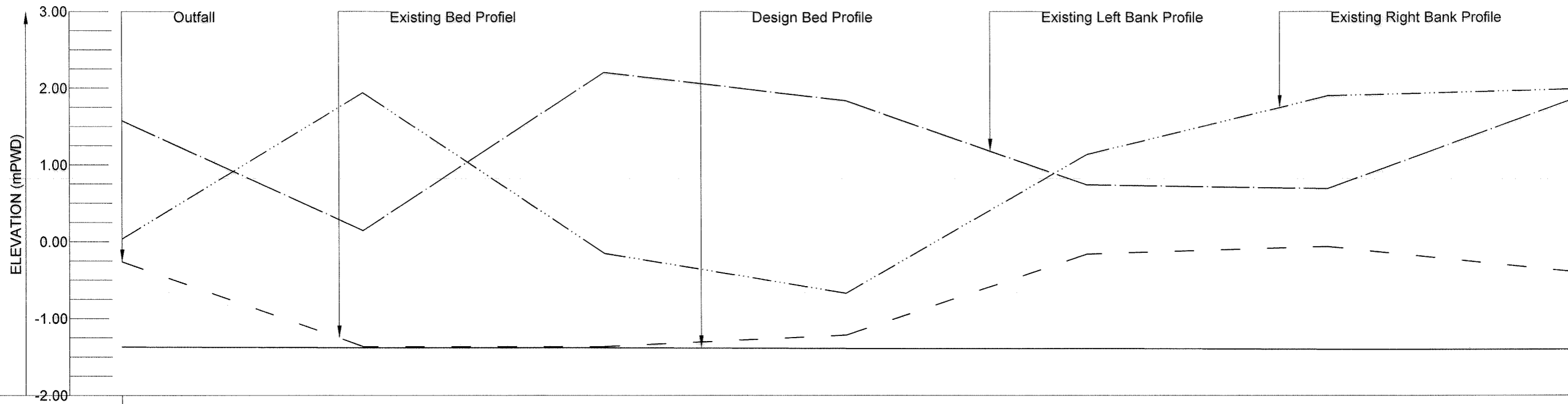
Adminstrative Notes. :

1. FOR ANY ERROR, OMISSION OR CONFUSION PLEASE REFER TO THIS OFFICE AS QUICK AS POSSIBLE FOR FURTHER NECESSARY ACTION
2. WORK SHALL BE EXECUTED AFTER ADMINISTRATIVE AND FINANCIAL APPROVAL AND TECHNICAL SANCTION FROM THE COMPETENT AUTHORITY AND WITHIN THE DPP / BUDGET PROVISION.
3. ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETER AND METER(PWD) RESPECTIVELY UNLESS OTHERWISE MENTIONED IN THE DRAWING.
4. ALL MATERIALS AND WORK MUST CONFIRM WITH BWDB TECHNICAL SPECIFICATION.
5. NECESSARY LAND (IF REQUIRED) SHALL BE ARRANGED BY THE FIELD OFFICE FOR RE-EXCAVATION & CONSTRUCTION OF DYKE (IF REQUIRED).
6. THE RE-EXCAVATION OF THE KHAL SHALL START FROM DOWNSTREAM SIDE.
7. A SMOOTH TRANSITION SHALL BE PROVIDED BETWEEN THE EXCAVATED SECTION OF THE KHAL AND THE EXISTING SECTION.
8. A SMOOTH TRANSITION 1:100 SHALL BE PROVIDED AT THE POINT WHERE DESIGN BED WIDTH OR BED LEVEL CHANGES.
9. A SMOOTH TRANSITION AT A SLOPE OF 1:100 SHALL BE KEPT BETWEEN APRON LEVEL OF CONNECTING STRUCTURE (IF ANY) TO DESIGN BED LEVEL OF KHAL.
10. THE RE-EXCAVATION WORK SHALL BE DONE IN THE DRY SEASON WHEN WATER LEVEL IS AT OR NEAR LOW WATER LEVEL
11. NO FILLING SHALL BE DONE WHERE THE EXISTING BED LEVEL OF THE KHAL IS LOWER THAN THE DESIGN BED LEVEL AND EXISTING SIDE SLOPE IS FLATTER THAN DESIGN SECTION.
12. ANY OUTFALL/OFTAKE RIVER/KHAL WHICH IS CONNECTED WITH THE PROPOSED KHAL SHALL BE KEPT OPEN.
13. TYPICAL DESIGN SECTIONS ARE PROVIDED IN THIS DESIGN FOR RE-EXCAVATION. CROSS SECTIONS AT AN INTERVAL NOT MORE THAN 150.00M TO BE TAKEN BY THE FIELD OFFICE FOR THE ESTIMATION OF ACTUAL VOLUME OF EARTH CUTTING.
- 14.EXCAVATED EARTH TO BE COLLECTED FROM RIVER CAREFULLY CONSIDERING NO ADVERSE EFFECT ON CHANNEL FLOW AND BANK ERROSION.
15. ANY PROPOSED BOX CULVERT /BRIDGE OVER THIS KHAL WILL BE DESIGNED CONSIDERING DESIGN SECTIONS OF THIS KHAL

SPECIAL NOTES :



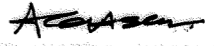
1. THIS REVISED DRAWING HAS BEEN PREPARED AS PER PROPOSAL AND DESIGN DATA SUBMITTED BY PD,CRISP-WRM HIS OFFICE MEMO NO-PMO/190; DATE: 11/11/2024
2. THIS RE-REEXCAVATION WORK HAS ALSO BEEN DESIGNED CONSIDERING THE WATER RESERVOIR AS WELL AS FOR IRRIGATION PURPOSE.
3. IF THE EXISTING BED LEVEL OF THE OUTFALL (RIVER / KHAL) IS HIGHER THAN DESIGN BED LEVEL OF THIS KHAL, RE-EXCAVATION OF THIS KHAL MUST BE DONE IN PARALLEL/ AFTER THE RE-EXCAVATION OF ITS OUTFALL RIVER / KHAL AS PER APPROVED DESIGN.
4. IF THERE EXISTS ANY STRUCTURE ( REGULATOR, BOX CULVERT ETC.) OTHER THAN BRIDGE WITHIN THE PROPOSED LENGTH OF THE KHAL, RE-EXCAVATION WORK IS PROHIBITED THROUGHTOUT THE LENGTH OF THAT STRUCTURE.
5. DESIGN BED LEVEL OF THE KHAL SHALL NOT BE BELOW THE FOUNDATION TOP LEVEL OF THE EXISTING STRUCTURES (IF ANY) IN THE KHAL. IF THE DESIGN BED LEVEL IS BELOW THE FOUNDATION TOP LEVEL THEN THE DIFFERENCE BETWEEN THESE LEVELS SHALL BE MATCHED IN A SLOPE 1:100, OR A DISTANCE OF 100 M, WHICHEVER IS HEIGHER (U/S AND D/S OF THE STRUCTURE), (OR AS SHOWN IN THE DRAWING).
6. DESIGN BED LEVEL & BED WIDTH OF THIS KHAL HAVE BEEN FIXED CONSIDERING THE BED LEVEL & BED WIDTH OF EXISTING KHAL/ FLOOR LEVEL OF EXISTING HYDRAULIC STRUCTURE.
7. ALL SAFETY PRECAUTION MUST BE TAKEN DURING EXECUTION OF WORK.

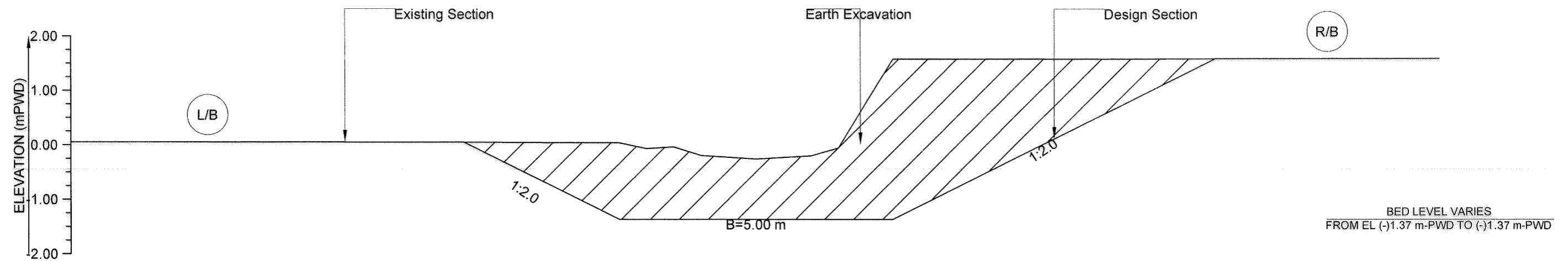
Bangladesh Water Development Board	
Office of The Superintending Engineer,Design Circle-5	
CRISP-WRM	
Re-excavation of Boroï Hati Khal from km. 0.000 to km. 0.600 in polder -2 in c/w Tarail-Pachuria Sub-Project under CRISP-WRM under Specialized Division. BWDB, Gopalganj during the year 2024-2025	
NOTES FOR BOROÏ HATI KHAL	
DESIGNED BY:  (MD. MOSTAFA KAMAL),AE	APPROVED BY:  (JAKARIA PERVEZ),SE
CHECKED AND RECOMMENDED BY:  (MD. KAMRUL HASAN),EE	
Date:04/02/2025	Drawing No:DC5-5779-02/7



Design Bed Width(m)						
Design Bed Level (mPWD)	-1.370	-1.380		-1.390		-1.400
Existing Bed Level (mPWD)	-0.264	-1.364		-1.218	-0.164	-0.064
Existing Left Bank Level (mPWD)	0.035	1.938	-0.154	-0.672	1.130	1.898
Existing Right Bank Level (mPWD)	1.573	0.143	2.204	1.834	0.736	0.688
Distance(Km)	0.000	0.100	0.200	0.300	0.400	0.500
						0.600

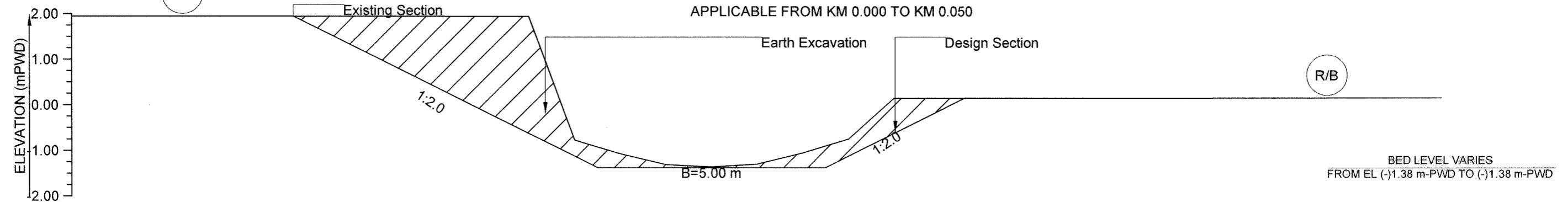
LONG SECTION OF BOROJ HATI KHAL APPLICABLE FROM KM 0.000 TO KM 0.600

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DESIGNED BY:  (MD. MOSTAFA KAMAL),AE	APPROVED BY:  (JAKARIA PERVEZ),SE
CHECKED AND RECOMMENDED BY:  (MD. KAMRUL HASAN),EE	
Date:04/02/2025	Drawing No:DC5-5779-03/7



Design Bed Level in (mPWD)																				
Existing Bed Level in (mPWD)	0.053	0.048	0.042	0.039	0.035	-0.072	-0.042	-0.199	-0.264	-0.207	-0.085	1.573	1.576	1.578	1.579	1.583				
Distance(m)	0.000	5.000	7.175	8.588	10.000	10.500	11.000	11.500	12.500	13.500	14.000	15.000	17.949	20.000	20.898	25.000				

TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.000  
APPLICABLE FROM KM 0.000 TO KM 0.050



Design Bed Level in (mPWD)																				
Existing Bed Level in (mPWD)	1.948	1.943	1.940	1.938	-0.780	-0.929	-1.077	-1.317	-1.364	-1.303	-1.057	-0.907	-0.757	0.143	0.144	0.148	0.153			
Distance(m)	0.000	4.854	8.177	10.000	11.000	11.500	12.000	13.000	14.000	15.000	16.000	16.500	17.000	18.000	19.548	25.000	30.000			

TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.100  
APPLICABLE FROM KM 0.050 TO KM 0.150

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TYPICAL CROSS SECTION OF BOROI HATI KHAL

DESIGNED BY:  
(MD. MOSTAFA KAMAL), AE

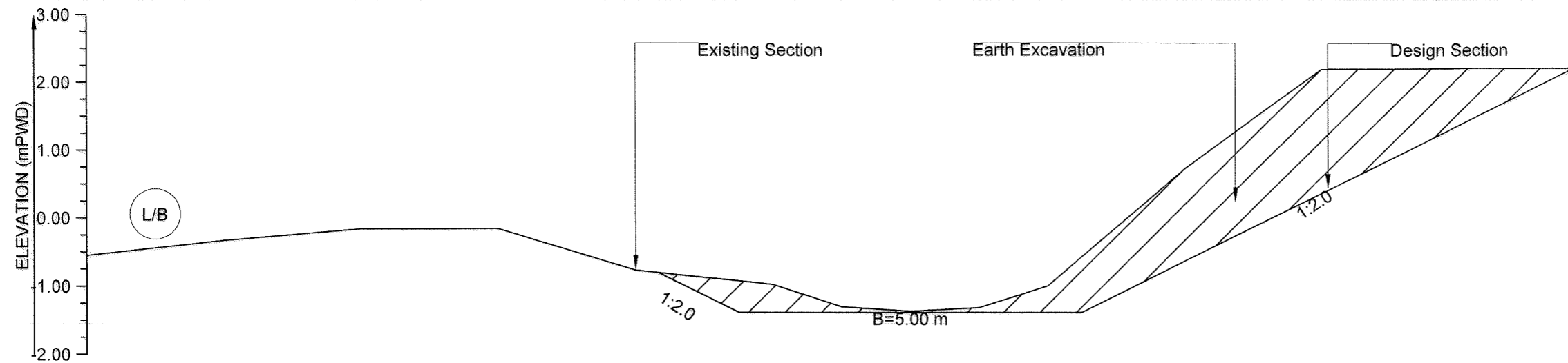
APPROVED BY:

CHECKED AND RECOMMENDED BY:  
(MD. KAMRUL HASAN), EE

(JAKARIA PERVEZ), SE

Date:04/02/2025

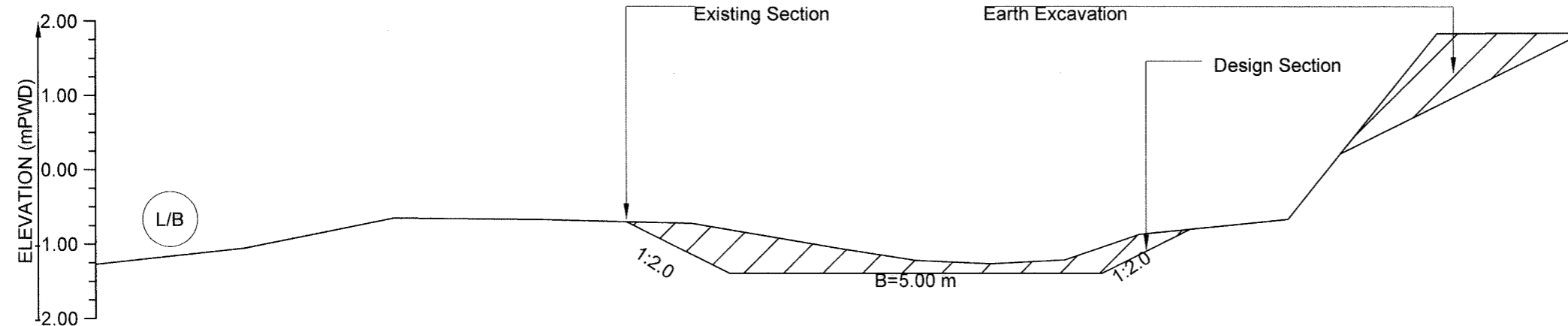
Drawing No:DC5-5779-04/7



BED LEVEL VARIES  
FROM EL (-)1.38 m-PWD TO (-)1.38 m-PWD

Design Bed Level in (mPWD)																			
Existing Bed Level in (mPWD)	(-)0.551	(-)0.331	(-)0.156	(-)0.154	(-)0.761	(-)0.796	(-)0.857	(-)0.919(-)1.380	(-)0.971	(-)1.301	(-)1.364(-)1.380	(-)1.311	(-)0.991	(-)0.561(-)1.380	0.729	2.204	2.214	2.688	25.000
Distance(m)	0.000	2.000	4.000	5.000	8.000	8.332	8.916	9.500	10.000	11.000	12.000	13.000	14.000	14.500	16.000	18.000	21.000	21.688	25.000

TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.200  
APPLICABLE FROM KM 0.150 TO KM 0.250



BED LEVEL VARIES  
FROM EL (-)1.39 m-PWD TO (-)1.39 m-PWD

Design Bed Level in (mPWD)																			
Existing Bed Level in (mPWD)	(-)1.272	(-)1.057	(-)0.651	(-)0.672	(-)0.700	(-)0.717	(-)0.722	(-)0.807(-)1.390	(-)1.062	(-)1.218(-)1.390	(-)1.264	(-)1.212	(-)1.040(-)1.390	(-)0.867	(-)0.799	(-)0.667	1.834	1.843	1.848
Distance(m)	0.000	2.000	4.000	6.000	7.120	7.810	8.000	8.500	10.000	11.000	12.000	13.000	13.500	14.000	14.683	16.000	18.000	20.000	25.000

TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.300  
APPLICABLE FROM KM 0.250 TO KM 0.350

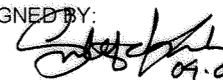
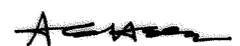
Bangladesh Water Development Board

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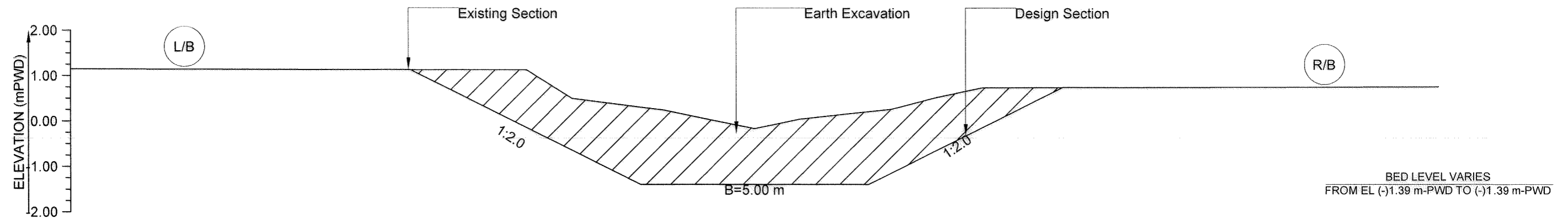
TYPICAL CROSS SECTION OF BOROI HATI KHAL

DESIGNED BY:  
  
(MD. MOSTAFA KAMAL), AE  
04.02.25  
CHECKED AND RECOMMENDED BY:  
  
(MD. KAMRUL HASAN), EE

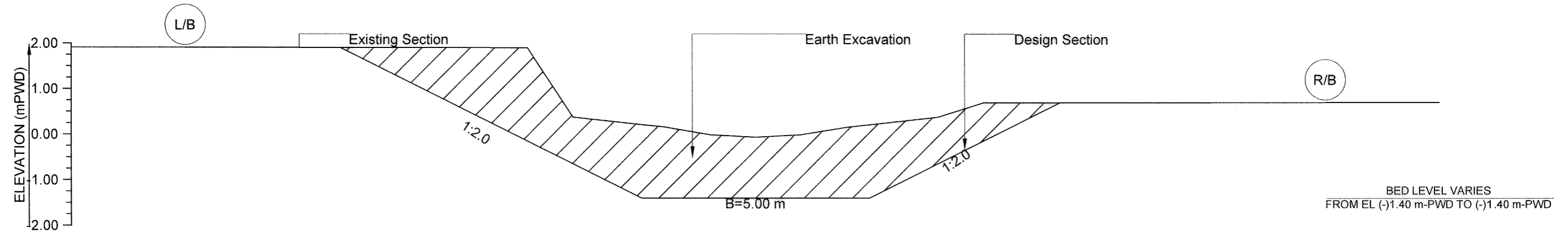
APPROVED BY:  
  
(JAKARIA PERVEZ), SE

Date:04/02/2025

Drawing No:DC5-5779-05/7

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TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.400  
APPLICABLE FROM KM 0.350 TO KM 0.450



Design Bed Level in (mPWD)	Existing Bed Level in (mPWD)	Distance(m)
	1.908	0.000
		0.500
	1.903	
	1.902	0.896
		10.000
	1.898	
		11.000
	0.373	
		12.500
	0.212	
		13.000
		14.000
	-0.010	
	-0.064	15.000
	-0.140	
		16.000
	-0.013	
		17.000
	0.153	
		17.500
	0.208	
	-0.140	
		19.000
		19.591
	0.559	
		20.000
	0.688	
		21.683
	0.691	
		25.000
	0.698	
		30.000
	0.703	

TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.500  
APPLICABLE FROM KM 0.450 TO KM 0.550

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TYPICAL CROSS SECTION OF BOROI HATI KHAL

DESIGNED BY: 11

(MD. MOSTAFA KAMAL), AE

CHECKED AND RECOMMENDED BY:

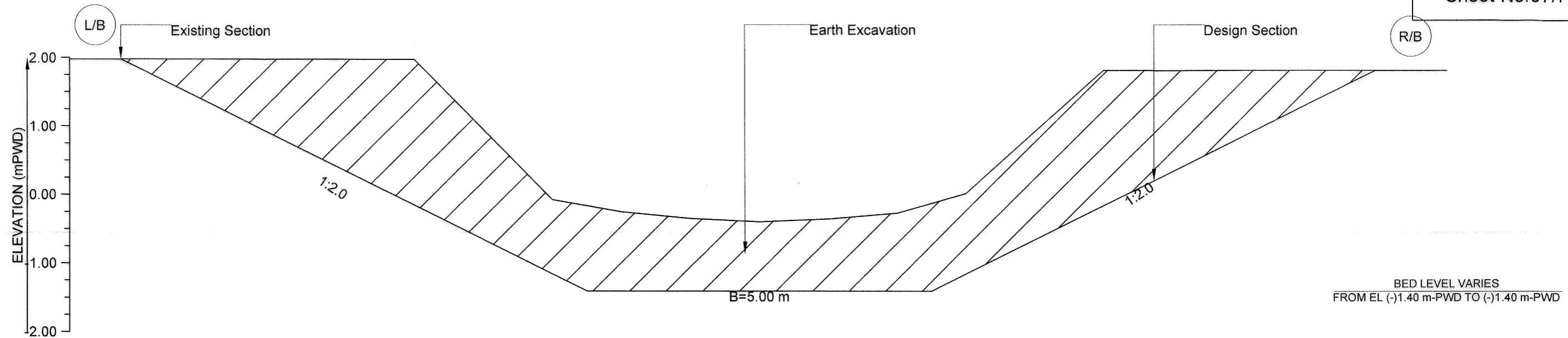
(MD. KAMRUL HASAN), EE

APPROVED BY:

04.02.25  
(JAKARIA PERVEZ),SE

Date:04/02/2025

Drawing No:DC5-5779-06/7



TYPICAL CROSS SECTION OF BOROI HATI KHAL AT KM 0.600  
APPLICABLE FROM KM 0.550 TO KM 0.600

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TYPICAL CROSS SECTION OF BOROI HATI KHAL

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APPROVED BY:

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Date:04/02/2025

Drawing No:DC5-5779-07/7