

Bangladesh Water Development Board



Drainage Improvement of Polder No. 1, 2, 6-8 & 6-8 (Ext) in Satkhira District, Under Satkhira O&M Division-2, BWDB, Satkhira

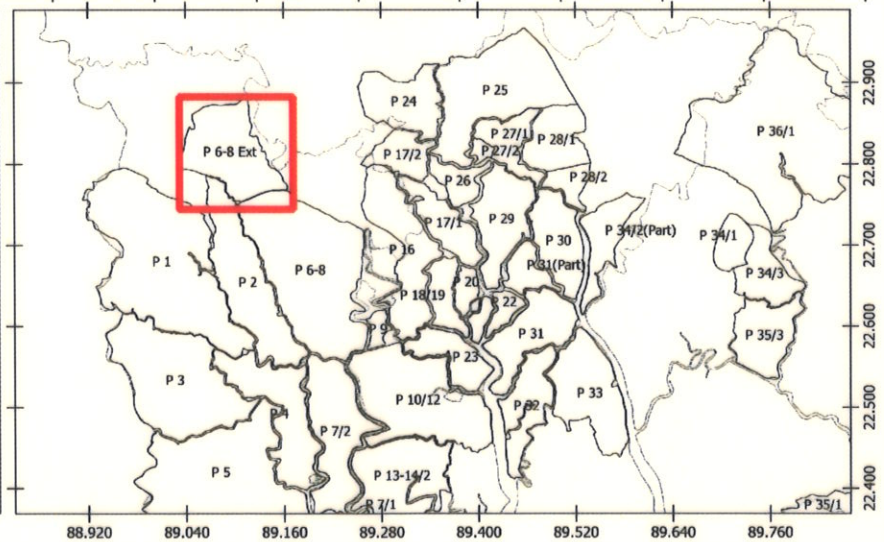
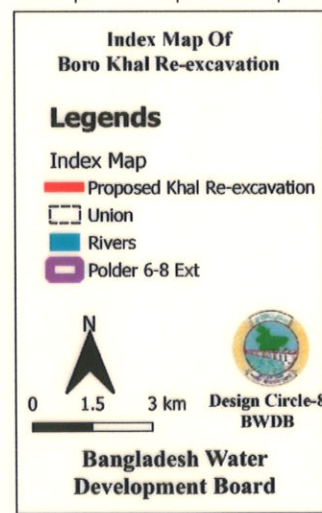
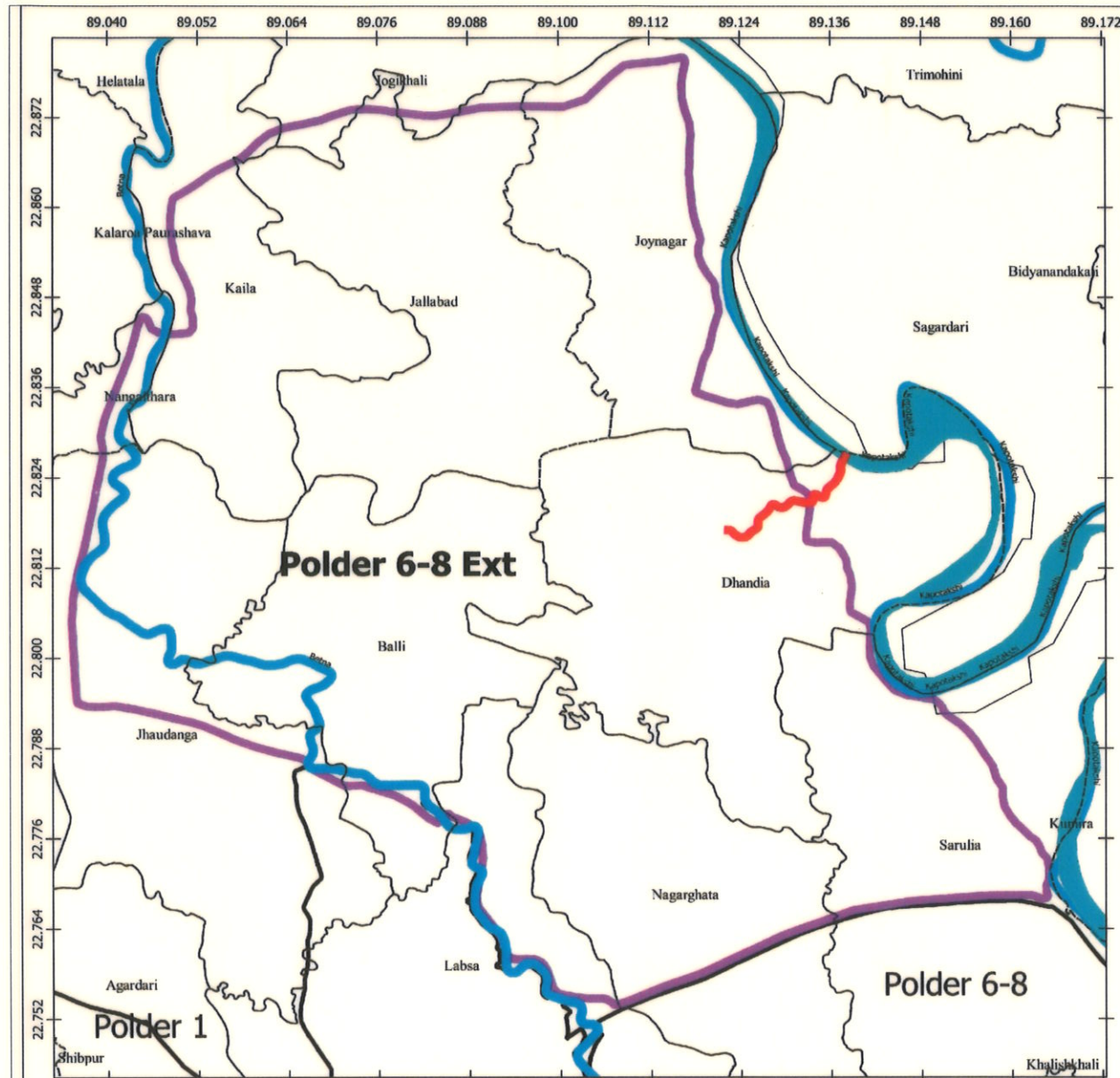
Re-excavation of Boro khal From km.0.000 to Km. 2.400 = 2.400 Km , Soto Khal From Km.0.000 to km. 4.800 = 4.800 Km, Dangi Khal From km.0.000 to km. 2.000 = 2.000 Km & Dapua Khal From Km. 0.000 To Km. 5.200 = 5.200 Km. Total = 14.400 Km. in Polder No. 6-8, InTala, Kolaroa & Assasuni Upazila, in c/w

“ Drainage Improvement of Polder No. 1, 2, 6-8 & 6-8 (Ext) in Satkhira District, Under Satkhira O&M Division-2, BWDB, Satkhira.
(Design of Boro Khal)

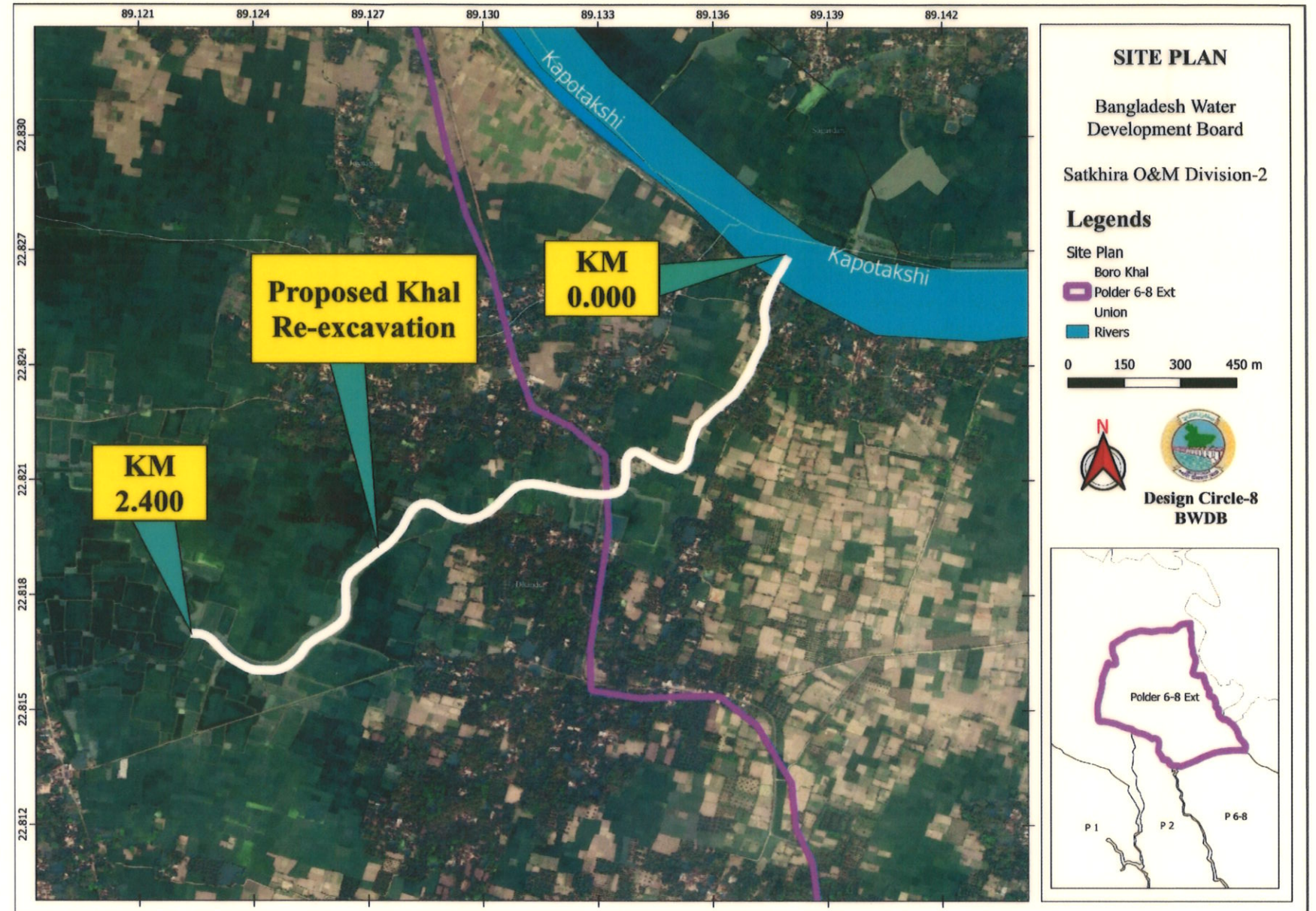
Satkhira O&M Division-2

Designed by: Design Circle-8, BWDB, Dhaka

February, 2022



INDEX MAP FOR BORO KHAL



SITE MAP FOR BORO KHAL

SITE PLAN

Bangladesh Water Development Board

Satkhira O&M Division-2

Legends

Site Plan

Boro Khal

Polder 6-8 Ext

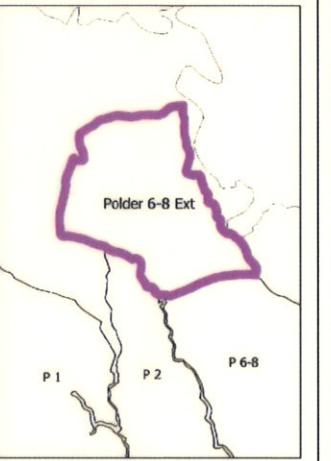
Union

Rivers

0 150 300 450 m



Design Circle-8 BWDB



Bangladesh Water Development Board

Office of The Superintending Engineer, Design Circle-8

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INDEX MAP & SITE MAP FOR BORO KHAL

DESIGNED BY:

(SAKIB BIN RAFI), AE

CHECKED AND RECOMMENDED BY:

(JAKARIA PERVEZ), EE

APPROVED BY:

(MOHAMMAD SAIF UDDIN), SE

Date:2022-02-16


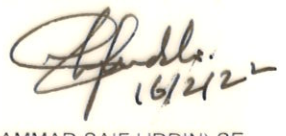
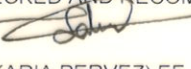
Drawing No:DC8-0217-01/5

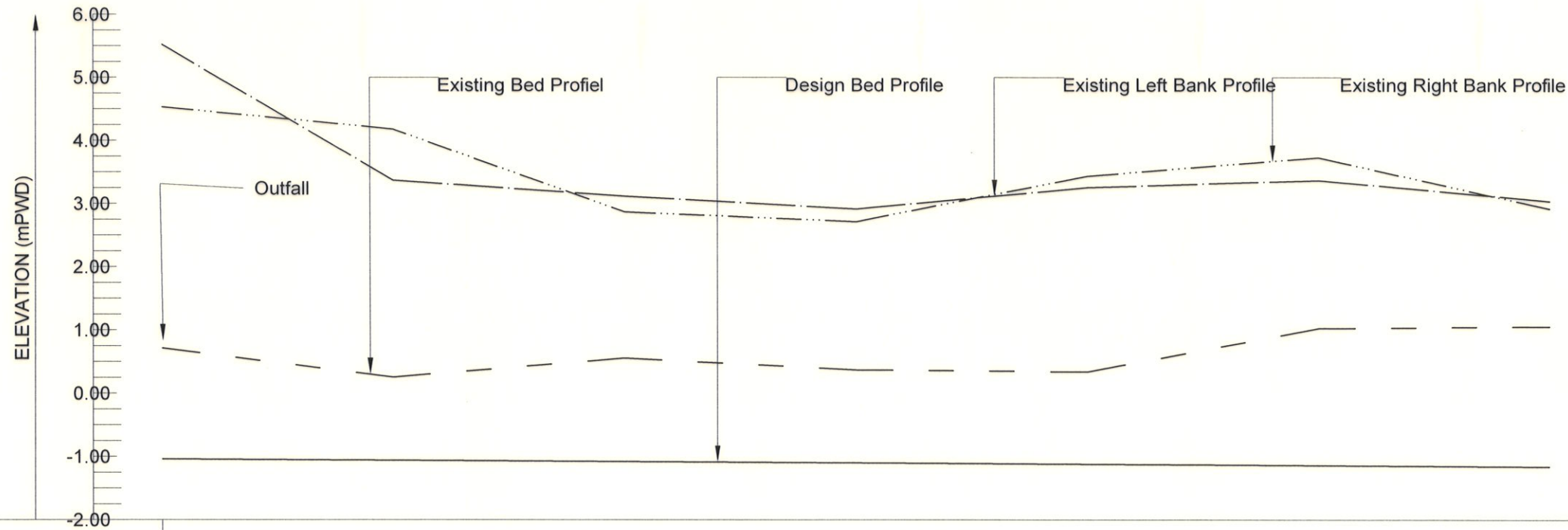
Administrative Notes. :

1. ALL MATERIALS AND WORK MUST CONFIRM WITH TECHNICAL SPECIFICATION OF BWDB.
2. WORK SHALL BE EXECUTED WITH PRIOR ADMINISTRATIVE AND FINANCIAL APPROVAL AND WITHIN DPP/ BUDGET PROVISION.
3. FOR ANY ERROR, OMISSION FIELD OFFICE IS HIGHLY RECOMMENDED TO INFORM IT TO CONCERN DESIGN CIRCLE OF BWDB.
4. NECESSARY LAND SHALL BE ARRANGED FOR EXCAVATION WORK.

Technical Notes. :

1. ALL DIMENSIONS ARE METERS & ALL ELEVATIONS ARE IN METRE (PWD) UNLESS OTHERWISE MENTIONED IN THE DRAWING.
2. RE-EXCAVATION WORK SHALL BE STARTED FROM D/S OF CHANNEL.
3. TYPICAL DESIGN SECTIONS ARE PROVIDED IN THIS DESIGN FOR RE-EXCAVATION. X-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.
4. EXCAVATED EARTH SHALL NOT BE DEPOSITED WITHIN THE EXISTING SECTION OF THE RIVER / KHAL. EXCAVATED EARTH SHALL BE DEPOSITED AT A DISTANCE OF AT LEAST 3.00 METER AWAY FROM THE BANK LINE OF THE RIVER / KHAL (IN A DISCONTINUOUS MANNER TO PROVIDE SPACE FOR OVERLAND FLOW TOWARDS KHAL) FROM WHERE NO FLOW BACK OF THE EXCAVATED EARTH IN THE RIVER IS POSSIBLE. UNDER NO CIRCUMSTANCES FLOW BACK OF THE EXCAVATED EARTH INTO THE RIVER SHALL BE ALLOWED. DIPOSITION OF EARTH NOT BE MORE THAN 30M OF CONTINUOUS LENGTH AND MINIMUM 5M INTERVAL TO BE PROVIDED.
5. EXCAVATED EARTH MAY BE USED FOR CONSTRUCTION / RE-SECTIONING OF DYKE / ROAD/ EMBANKMENT (WHERE APPLICABLE). EXCAVATED EARTH MAY BE ALSO USED FOR FILLING OF DITCH, POND, LOW LAND ETC.
6. EXCAVATED EARTH SHALL NOT BE DIPOSITED ON ANY OPEN CHANNEL AND AT THE FLOOD PLANE OF RIVER.
7. DIPOSITED EARTH TO BE DRESSED IN A REGULAR SHAPE & CLOSED TURFING WITH PLANTATION TO BE PROVIDED OVER DIPOSITED EARTH. PLANTATION OF VETIVER (BINNA GRASS) MAY BE PROVIDED ON SLOPE OF DIPOSITED EARTH.
8. NO FILLING SHALL BE DONE WHERE THE EXISTING BED LEVEL OF KHAL IS LOWER THAN THE DESIGN BED LEVEL (IF EXIST).
9. A SMOOTH TRANSITION (1:100) SHOULD BE PROVIDED BETWEEN TWO DIFFERENT BED WIDTH AND BED LEVEL AND ALSO AT THE OUTER END OF EXISTING CULVERT/BRIDGE (IF REQUIRED).
10. THE PROPOSED WORK SHALL BE EXECUTED PREFERABLY IN DRY SEASON.
11. EXCAVATION MUST BE DONE VERY CAREFULLY SO THAT BASE SLAB/ FOUNDATION OF THE EXISTING REGULATOR/CULVERT/BRIDGE ETC (IF ANY) DO NOT BE DISTURBED .
12. IF THERE EXISTS ANY STRUCTURE OTHER THAN BRIDGE WITHIN THE PROPOSED LENGTH OF THE RIVER, RE-EXCAVATION WORK IS PROHIBITED THROUGHOUT THE LENGTH OF THAT STRUCTURE.
13. DESIGN BED LEVEL SHALL NOT BE BELOW THE FOUNDATION TOP LEVEL OF THE EXISTING STRUCTURES (IF ANY) IN THE RIVER. 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 AT A DISTANCE OF 100 M, WHICHEVER IS HIGHER (U/S AND D/S OF THE STRUCTURE) AS SHOWN IN THE DRAWING.
14. RE-EXCAVATION OF KHAL/ RIVER WILL FACILITATE QUICK DRAINAGE, FLUSHING & STORAGE OF WATER. BUT COMPLETE DRAIN OUT OF BEEL AREA SHALL NOT BE ALLOWED FOR MAINTAINING ECOLOGICAL BALANCE.
15. IF THE BED LEVEL OF OUTFALL KHAL/RIVR IS HIGHER THAN THE DESIGN BED LEVEL OF PROPOSED KHAL, THEN RE-EXCAVATION OF PROPOSED KHAL TO BE IMPLEMENTED AFTER IMPLEMENTATION OF RE-EXCAVATION OF OUTFALL KHAL/RIVER.
16. RE-EXCAVATION OF KHAL SHALL BE STARTED FROM D/S.
17. THIS DRAWING HAS BEEN PREPARED AS PER PROPOSAL SUBMITTED BY SE, KHULNA O & M CIRCLE, BWDB, KHULNA VIDE HIS OFFICE MEMO NO-812, DATE: 02/02/2022

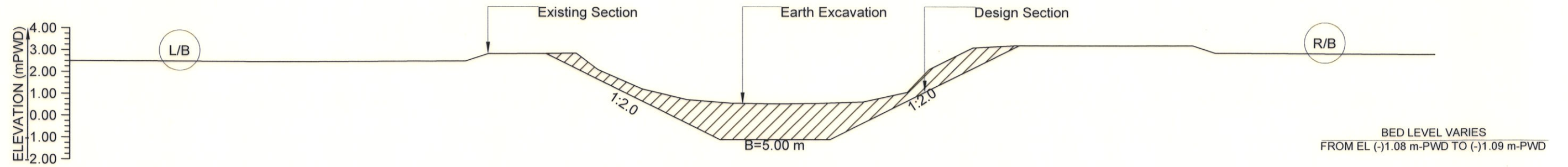
Bangladesh Water Development Board	
Office of The Superintending Engineer, Design Circle-8	
Drainage Improvement of Polder No. 1, 2, 6-8 & 6-8 (Ext) in Satkhira District, Under Satkhira O&M Division-2, BWDB, Satkhira	
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NOTES FOR BORO KHAL	
<p>DESIGNED BY:</p> <p></p> <p>(SAKIB BIN RAFI), AE</p>	<p>APPROVED BY:</p> <p></p> <p>(MOHAMMAD SAIF UDDIN), SE</p>
<p>CHECKED AND RECOMMENDED BY:</p> <p></p> <p>(JAKARIA PERVEZ), EE</p>	
Date: 2022-02-16	Drawing No: DC8-0217-02/5



-2.00							
Design Bed Width(m)							
Design Bed Level (mPWD)	(-)1.040	(-)1.060	(-)1.080	(-)1.100	(-)1.120	(-)1.140	(-)1.160
Existing Bed Level (mPWD)	0.711	0.253	0.553	0.369	0.337	1.022	1.056
Existing Left Bank Level (mPWD)	4.529	4.177	2.866	2.712	3.433	3.725	2.916
Existing Right Bank Level (mPWD)	5.519	3.367	3.116	2.912	3.253	3.365	3.036
Distance(Km)	0.000	0.400	0.800	1.200	1.600	2.000	2.400

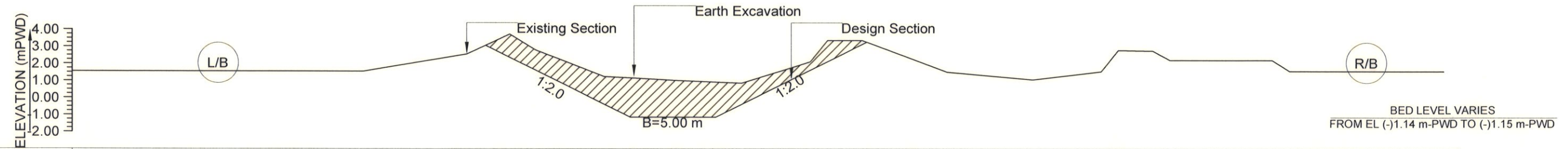
LONG SECTION OF BORO KHAL APPLICABLE FROM KM 0.000 TO KM 2.400

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LONG SECTION OF BORO KHAL	
DESIGNED BY:  (SAKIB BIN RAFI),AE	APPROVED BY:  (MOHAMMAD SAIF UDDIN),SE
CHECKED AND RECOMMENDED BY:  (JAKARIA PERVEZ),EE	
Date:2022-02-16	Drawing No:DC8-0217-03/5



Design Bed Level in (mPWD)	
Existing Bed Level in (mPWD)	
Distance(m)	
0.000	2.496
10.000	2.456
18.000	2.506
19.000	2.836
21.629	2.856
23.000	2.866
24.000	2.113
25.564	1.425
26.000	1.233
28.000	0.743
29.500	0.623
30.000	0.583
32.000	0.553
34.000	0.573
34.500	0.591
36.000	0.643
38.000	1.073
38.806	1.914
41.000	3.116
43.000	3.226
51.000	3.216
52.000	2.886
62.000	

TYPICAL CROSS SECTION OF BORO KHAL AT KM 0.800



Design Bed Level in (mPWD)	Existing Bed Level in (mPWD)	Distance(m)
	1.535	0.000
		17.000
	1.545	
		23.000
	2.555	
		24.090
	3.065	
		25.500
	3.725	
		27.000
	2.795	
		28.295
	2.292	
		31.000
	1.242	
		32.500
	1.160	
		35.000
	1.022	
		37.500
	0.916	
		39.000
	0.852	
		41.896
	1.759	
		43.000
	2.105	
		44.000
	3.355	
		46.000
	3.365	
		51.000
	1.505	
		56.000
	1.065	
		60.000
		61.000
		63.000
	2.755	
		64.000
	2.215	
		70.000
	2.205	
		71.000
	1.565	
		80.000
	1.555	

TYPICAL CROSS SECTION OF BORO KHAL AT KM 2.000

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" Drainage Improvement of Polder No. 1, 2, 6-8 & 6-8 (Ext) in Sathkhal District, Under Sathkhal O&M
Division-2, BVWDB, Sathkhal.

TYPICAL CROSS SECTION OF BORO KHAL

DESIGNED BY:

(SAKIB BIN RAFI), AE

CHECKED AND RECOMMENDED BY:

(JAKARIA PERVEZ), EE

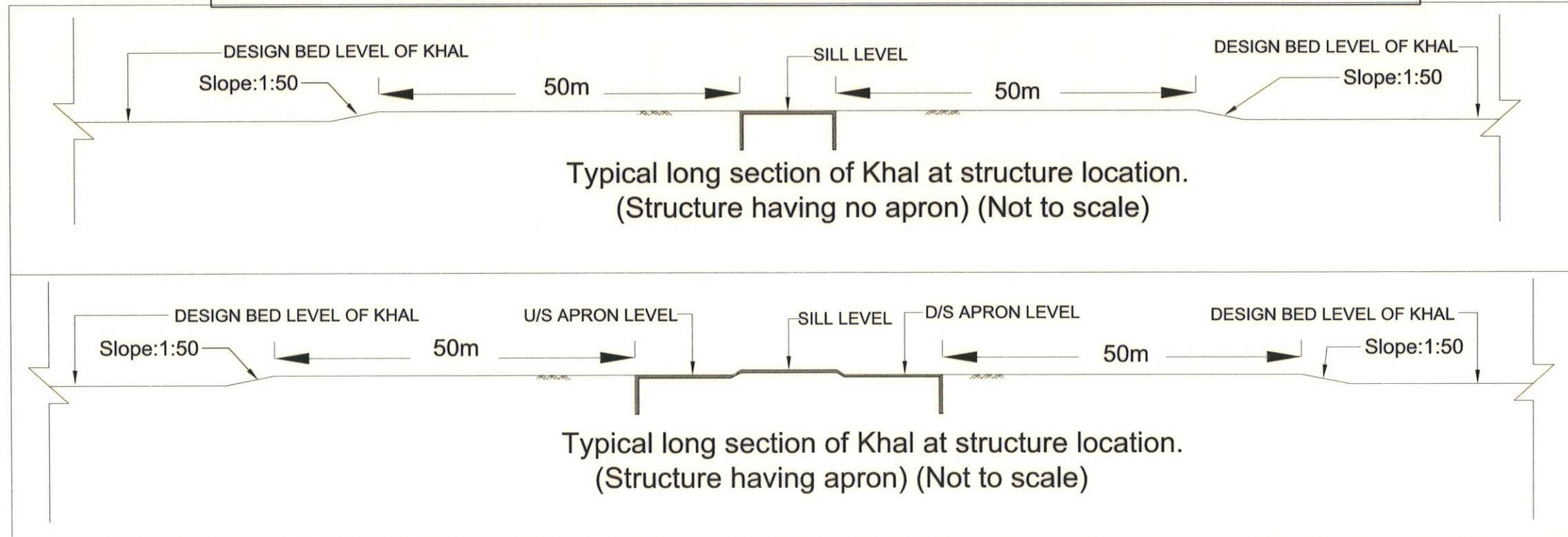
APPROVED BY:

(MOHAMMAD SAIF UDDIN), SE

Date: 2022-02-16

Drawing No:DC8-0217-04/5

Guideline for matching the excavated level of khal to the existing foundation level of structure (where foundation level of structure is above the design bed level of khal)



Bangladesh Water Development Board

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DETAILS

DESIGNED BY:

(Signature)
(SAKIB BIN RAFI), AE

APPROVED BY:

(Signature)
16/2/24
(MOHAMMAD SAIF UDDIN), SE

CHECKED AND RECOMMENDED BY:

(Signature)
(JAKARIA PERVEZ), EE

Date:2022-02-16

Drawing No:DC8-0217-05/5