

BANGLADESH WATER DEVELOPMENT BOARD

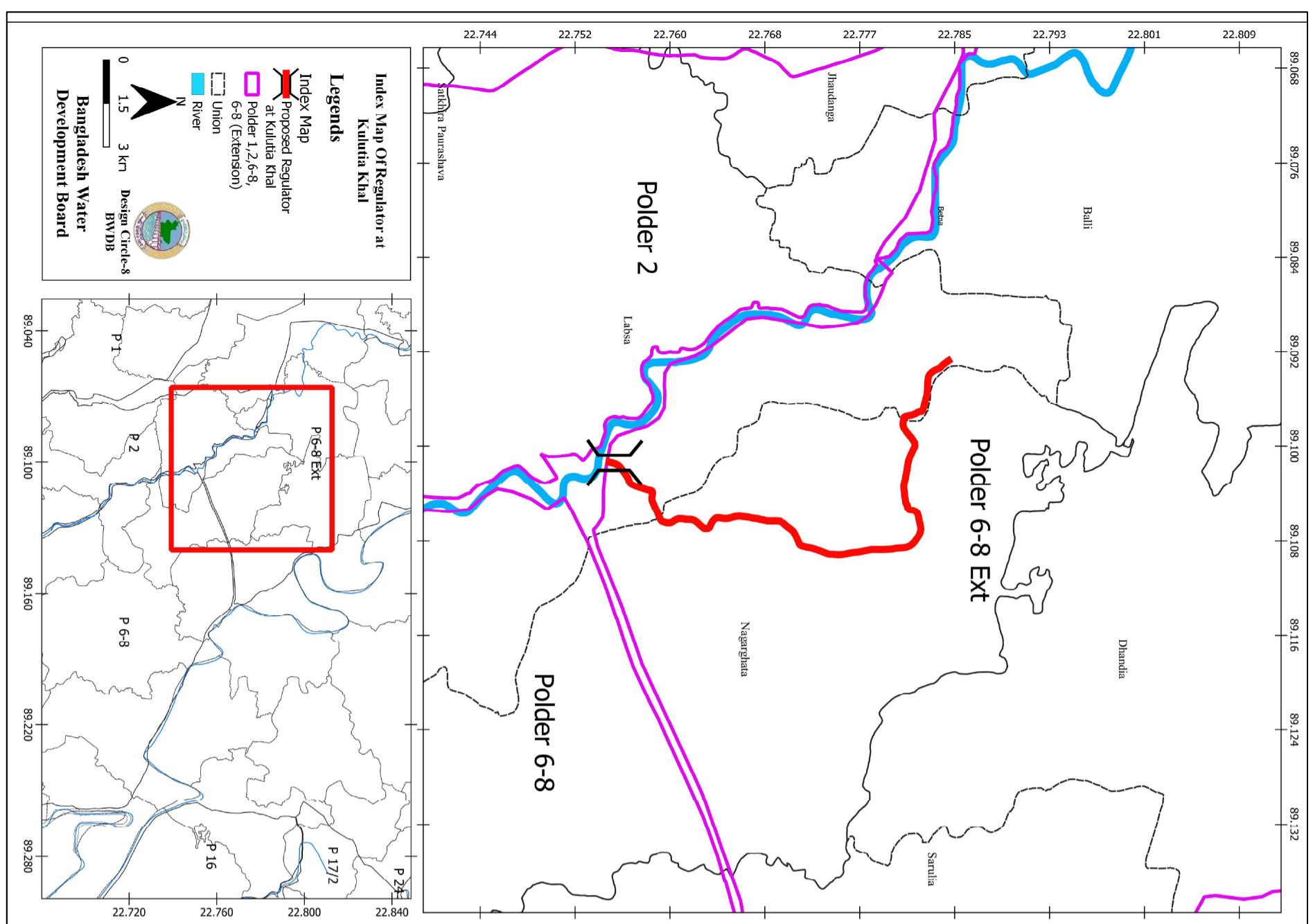


DRAINAGE IMPROVEMENT OF POLDER 1,2,6-8 AND 6-8(EXTENSION)

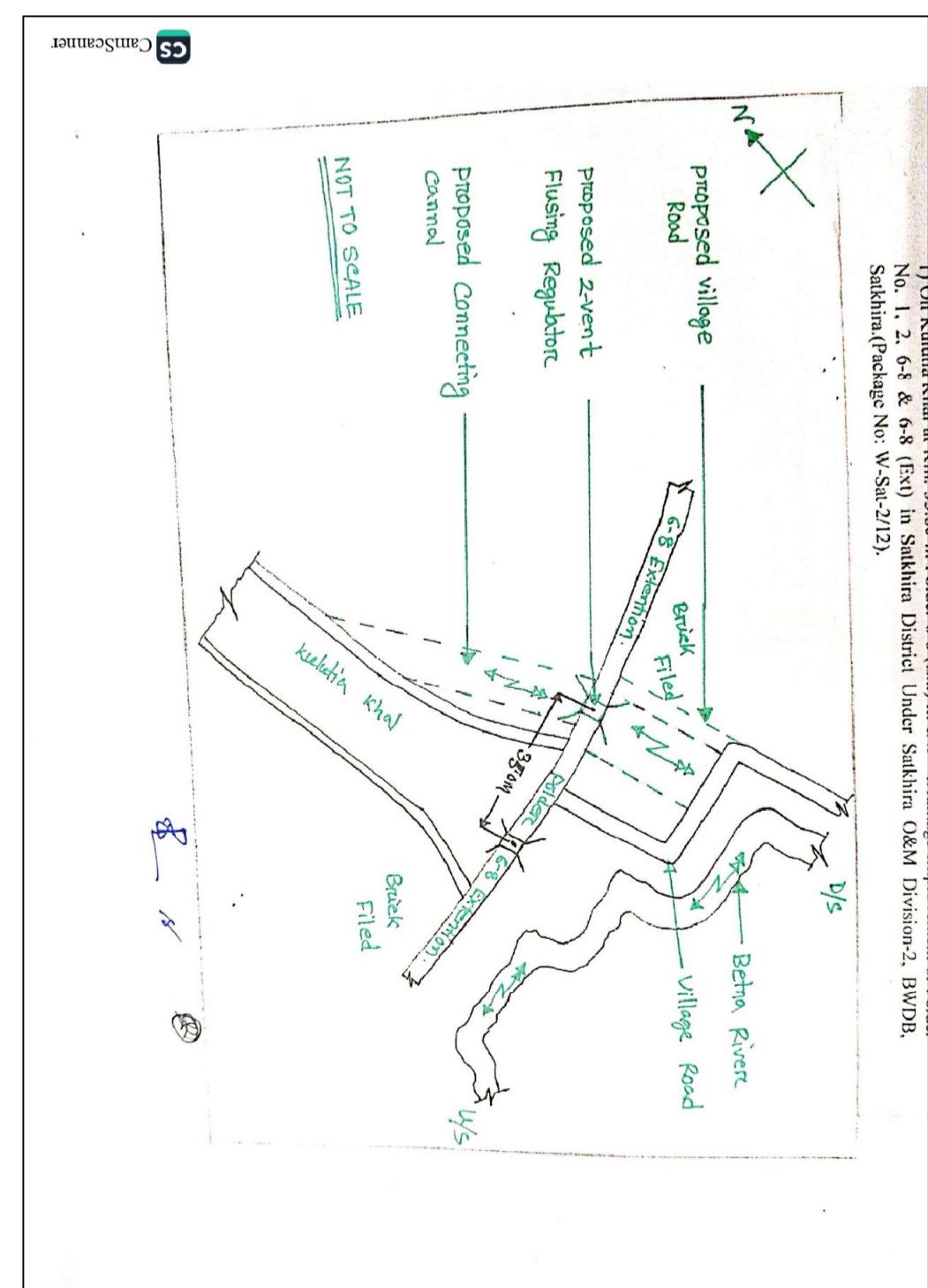
DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6-8(EXT) IN SATKHIRA
DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB, SATKHIRA.

SATKHIRA O&M DIVISION-2, BWDB, SATKHIRA

DESIGNED BY: DESIGN CIRCLE-8, BWDB, DHAKA.
JUNE, 2022



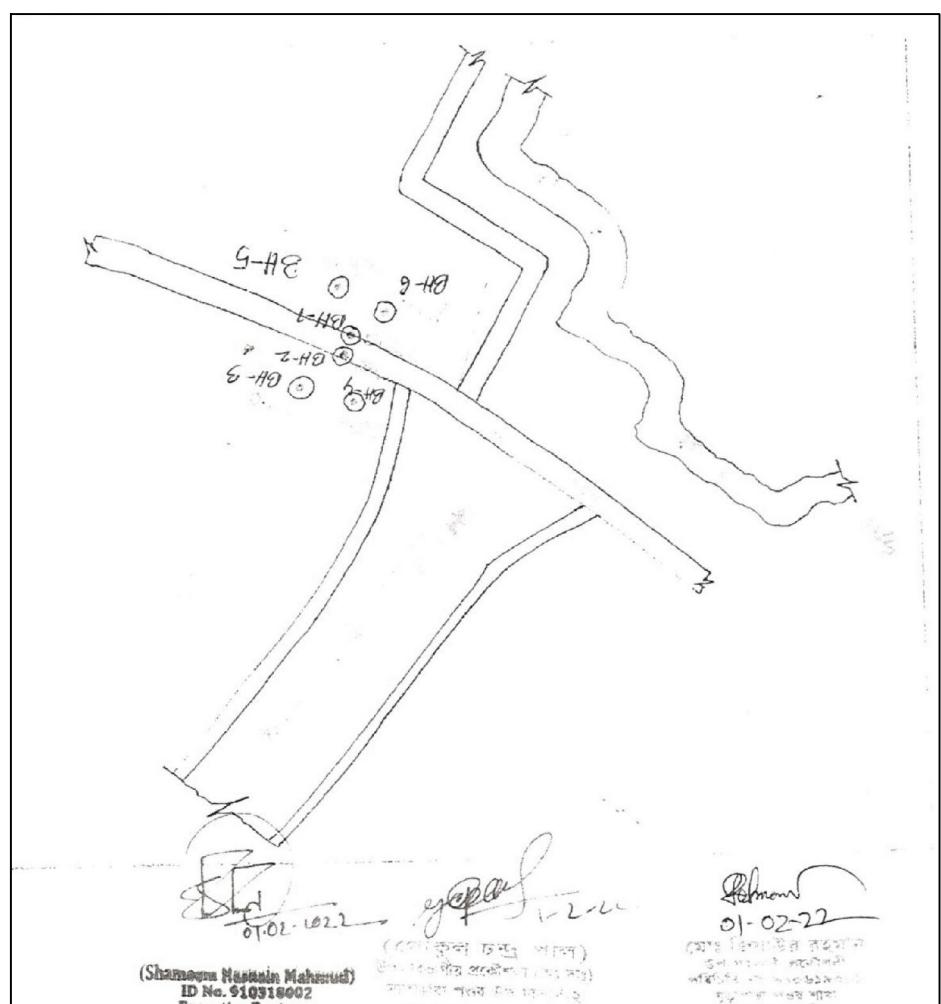
INDEX MAP



BANGLADESH WATER DEVELOPMENT BOARD GROUNDWATER HYDROLOGY GROUNDWATER HYDROLOGY DIVISION-II FIELD BORE LOG												
PROJECT-Soil Boring for the construction of four SJutes at Bainbasat, Kulutia ,Chumrikhali, and Khatjurdaenga under Satkhira Sadar and Ashashuni Upazila of Satkhira O&M Division-2, BWDB, Satkhira.			SITE- Kulutia Binerpota Site. P.S.Satkhira Sadar.			HOLE NO-01 DIST. Satkhira. GROUNDE LEVEL (+3.218 m.						
LOCATION-Kulutia Binerpota Site. CLIENT-XEN, Satkhira O&M Division-2, BWDB, Satkhira.			WATER LEVEL 3'-6"			AT 08 HRS						
DATE STARTED-13.11.2021			DATE COMPLETED-13.11.2021			OF DATE-14.11.2021						
DRILLED BY GWHD-II			UNIT Rig-21			TOTAL DEPTH 72 ft.						
No of Sample	Type of Sample	Scale	LITHOLOGICAL DESCRIPTION			PHYSICAL		DISTURBED SAMPLES		PENETRATION TEST		INDEX
D1	Clay					DENSITY	COLOR	MOISTURE	BLOWSON SPOON	BLOWS ON CASING	NO OF BLOWS PER 1 FT PENET	Disturb Undisturb
D2		10				Plastic	0	1	1	1	10	
D3	Clay Some Silt	15				0	1	1	1	1	20	
D4		20				2	2	3	5		30	
D5		25				1	1	3	5		40	
D6	Very Fine Sand Some Silt	30				4	8	9	9		50	
D7	Very Fine Sand Some Silt	35				6	8	9	10		60	
D8		40				5	9	10	11		70	
D9		45				5	10	10	11		80	
D10	Very Fine Sand Some Silt	50				6	11	17	20		90	
D11	Little Mica	55				6	9	10	10		100	
D12	Fine Sand Some Very Fine	60										
D13	Sand Little Mica	65										
D14	Dense	70										

09.01.2022
Md. Mostak Ali

Geologist
Ground Water Hydrology Division-2
BWDB, 72, Green Road, Dhaka-1205



Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER 12.6-8 AND 6-8(EXTENSION)
DESIGN OF DRAINAGE CUM RUSHING REGULATOR
2-VENT(1.5m x 1.8m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6-8(EXT)
IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB,
SATKHIRA.

BORE LOG & LOCATION SKETCH

DESIGNED BY: APPROVED BY:

(SAKIB BIN RAFI, AE)

CHECKED & RECOMMENDED BY:

(MOHAMMAD SAIF UDDIN, SE)

DATE: DWG. NO.:DC-8-0000-02/21

BANGLADESH WATER DEVELOPMENT BOARD GROUNDWATER HYDROLOGY GROUNDWATER HYDROLOGY DIVISION-II FIELD BORE LOG											
PROJECT-Soil Boring for the construction of four Sluices at Bambarasat, SITE- Kulutia Binerpota Site, Kulutia Churnikhal and Kajurbandha under Satkhira Sadar and Ashashun Upazila of Satkhira O&M Division-2, BWDB, Satkhira.											
LOCATION-Kulutia Binerpota Site, HOLE NO-04 GROUND LEVEL(+0.681m).											
CLIENT-XEN Satkhira O&M Division-2, BWDB, Satkhira, WATER LEVEL-1.6m DATE STARTED-16.11.2021 DATE COMPLETED-17.11.2021 OF DATE-17.11.2021											
DRILLED BY GWHD-II UNIT Rig-21 TOTAL DEPTH 72ft.											
No of Sample	Type of Sample	Scale	LITHOLOGICAL DESCRIPTION	PHYSICAL	DISTURBED SAMPLES	PENETRATION TEST	INDEX				
				DENSITY	BLOWS ON SPOON	BLOWS ON CASING	NO OF BLOWS PER 1 FT PENET	Disturb		Undisturb	
D1	5		Clay	1	1	1	10	20	30	40	50
D2	10		Clay	1	1	1	10	20	30	40	50
D3	15		Clay Little Silt	1	1	1	10	20	30	40	50
D4	20		Clay Little Silt	1	1	2	10	20	30	40	50
D5	25		Clay Little Silt	1	1	4	10	20	30	40	50
D6	30		Clay Little Silt	1	1	10	10	20	30	40	50
D7	35		Clay Little Silt	1	1	15	10	20	30	40	50
D8	40		Clay Little Silt	1	1	20	10	20	30	40	50
D9	45		Clay Little Silt	1	1	25	10	20	30	40	50
D10	50		Clay Little Silt	1	1	30	10	20	30	40	50
D11	55		Clay Little Silt	1	1	35	10	20	30	40	50
D12	60		Clay Little Silt	1	1	40	10	20	30	40	50
D13	65		Fine Sand Some Very Fine	1	1	45	10	20	30	40	50
D14	70		Fine Sand Some Very Fine	1	1	50	10	20	30	40	50
<i>09.01.2022</i> Md. Mostak Ali Ground Water Hydrology Division-2 BWDB, 72, Green Road, Dhaka-1205											

BANGLADESH WATER DEVELOPMENT BOARD GROUNDWATER HYDROLOGY GROUNDWATER HYDROLOGY DIVISION-II FIELD BORE LOG											
PROJECT-Soil Boring for the construction of four Sluices at Bambarasat, SITE- Kulutia Binerpota Site, Kulutia Churnikhal and Kajurbandha under Satkhira Sadar and Ashashun Upazila of Satkhira O&M Division-2, BWDB, Satkhira.											
LOCATION-Kulutia Binerpota Site, HOLE NO-06 GROUND LEVEL(+0.147 m).											
CLIENT-XEN Satkhira O&M Division-2, BWDB, Satkhira, WATER LEVEL-4.0° DATE STARTED-18.11.2021 DATE COMPLETED-19.11.2021 OF DATE-19.11.2021											
DRILLED BY GWHD-II UNIT Rig-21 TOTAL DEPTH 72ft.											
No of Sample	Type of Sample	Scale	LITHOLOGICAL DESCRIPTION	PHYSICAL	DISTURBED SAMPLES	PENETRATION TEST	INDEX				
				DENSITY	BLOWS ON SPOON	BLOWS ON CASING	NO OF BLOWS PER 1 FT PENET	Disturb		Undisturb	
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D4	20		Clay	1	1	1	10	20	30	40	50
D5	25		Clay	1	1	1	10	20	30	40	50
D6	30		Clay	1	1	1	10	20	30	40	50
D7	35		Clay	1	1	1	10	20	30	40	50
D8	40		Clay	1	1	1	10	20	30	40	50
D9	45		Clay	1	1	1	10	20	30	40	50
D10	50		Clay	1	1	1	10	20	30	40	50
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<i>09.01.2022</i> Md. Mostak Ali Ground Water Hydrology Division-2 BWDB, 72, Green Road, Dhaka-1205											

BORE LOG BH-05

Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6-8(EXT)
IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB,
SATKHIRA.

DESIGNED BY: APPROVED BY:

SAKIB BIN RABI, AE Md. Mostak Ali

CHIEF & RECOMMENDED BY: MOHAMMAD SAIF UDDIN, SE

DATE: DWG. NO.:DC-8-0000-03/21

GENERAL NOTES

1. THE SPECIFICATION OF MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD TECHNICAL SPECIFICATION OF BWDB, IN GENERAL.
2. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN mPWD UNLESS OTHERWISE MENTIONED IN THE DRAWINGS.
3. COMPRESSIVE STRENGTH OF REINFORCED CEMENT CONCRETE SHALL HAVE MINIMUM 28 DAYS CYLINDER STRENGTH, $f_c \geq 25.00 \text{ N/mm}^2$ (ITEM CODE: 28-230-10) AND SHALL BE CHECKED BY COLLECTING SAMPLES AND TESTING DURING CONSTRUCTION.
4. REINFORCING BAR SHALL BE DEFORMED MILD STEEL HAVING YIELD STRENGTH, $f_y \geq 400.00 \text{ N/mm}^2$.
5. CONCRETE FOR CC BLOCKS SHALL HAVE MINIMUM STRENGTH, $f_c \geq 10.50 \text{ N/mm}^2$ AT 28 DAYS.
6. CURING OF CONCRETE SHALL BE CONTINUED FOR MINIMUM 21 DAYS AFTER CASTING.
7. CONCRETE SHALL BE POURED IN DRY BED CONDITION.
8. THE SURFACE OF CONSTRUCTION JOINTS SHALL BE WASHED THOROUGHLY WITH WATER JET & SHALL BE CLEAN ENOUGH AFTER THAT, SURFACE SHALL BE DRY PRIOR TO PLACEMENT OF ADJOINING CONCRETE.
9. CONCRETE MIXTURE SHALL BE POURED AS QUICK AS POSSIBLE BUT NOT LATER THAN 45 MINUTES AFTER MIXING.
10. 75 mm LEAN CONCRETE AT BASE SHALL BE IN 1:3:6.
11. THE LEAN CONCRETE AT FOUNDATION OF THE PROPOSED REGULATOR SHALL BE PLACED AFTER PROPERLY PREPARING & COMPACTING EXCAVATED BASE.
12. CLEAR COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:
 - a) Operating deck & Railing : 25mm
 - b) Concrete adjacent to earth at foundation: 75mm
 - c) Concrete adjacent to earth: 75mm
 - d) Concrete exposed to weather and water or others: 75mm
 - e) Beam: 40mm
13. MINIMUM LAP LENGTH SHALL BE 40 TIMES THE BAR DIAMETER.
14. LAP SHALL BE STAGGERED SO THAT NOT MORE THAN 50% OF BARS ARE LAPPED IN ANY ONE CROSS SECTION, WHERE BARS MUST LAPPED IN ONE CROSS SECTION, THEN LAP LENGTH SHALL NOT BE LESS THAN 1.30 TIMES MINIMUM LAP LENGTH.
15. REINFORCING BAR MUST BE SUPPORTED IN ITS PROPER POSITION BY USE OF MORTAR BLOCK, SUPPORTS OR BY OTHERS APPROVED MEANS.
16. SAND FILLING IN FOUNDATION SHOULD BE DONE WITH SAND OF F.M. ≥ 1.50 IN LAYERS OF 150 mm THICK LAYER BY LAYER AND COMPACTED TO ATTAIN MINIMUM 50% RELATIVE DENSITY.
17. UNLESS OTHERWISE SPECIFIED, BACK FILLING SHALL BE DONE WITH SAND (F.M. ≥ 0.80) FREE FROM VEGETABLE ROOTS AND ORGANIC MATTER, BACK FILLING FOR U-SHAPE WALL SHALL BE DONE SIMULTANEOUSLY ON BOTH WALLS.
18. DESIGN OF GATE AND HOISTING SYSTEM WILL BE PREPARED BY DESIGN CIRCLE-III, BWDB, DHAKA.
19. GATE TO BE OPERATED IN CONTROLLED WAY TO AVOID ANY SCOUR WHEN HEAD DIFFERENCE IS BEYOND 0.60m.
20. THE EMBEDDED PARTS OF GATE TO BE INSTALLED DURING CONSTRUCTION OF BARREL PART AND IT SHALL BE DONE IN ACCORDANCE WITH APPROVED MECHANICAL DRAWING.
21. THE GATE SHALL BE INSTALLED BEFORE THE OPERATION OF THE STRUCTURE.
22. ANY ERROR/OMISSION IF DETECTED SHALL BE REFERRED TO THE CONCERNED DESIGN OFFICE TAKING NECESSARY ACTION.
23. ALL BORE HOLES SHALL BE SEALED BEFORE CONSTRUCTION OF REGULATOR.

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22. ANY ERROR/OMISSION IF DETECTED SHALL BE REFERRED TO THE CONCERNED DESIGN OFFICE TAKING NECESSARY ACTION.
23. ALL BORE HOLES SHALL BE SEALED BEFORE CONSTRUCTION OF REGULATOR.

SPECIAL NOTES:

1. THIS DRAWING IS PREPARED AS PER PROPOSAL AND DESIGN DATA SUBMITTED BY SE, KHULNA O&M CIRCLE, BWDB, KHULNA VIDE HIS OFFICE MEMO NO: 761, DATE: 12-01-2022 AND ADDITIONAL DATA RECEIVED FROM EE, SATKHIRA O&M DIVISION-2 BWDB SATKHIRA THROUGH EMAIL ON 02-04-2022.
2. THE WORK SHALL BE EXECUTED WITH PRIOR ADMINISTRATIVE AND FINANCIAL APPROVAL FROM THE COMPETENT AUTHORITY & WITHIN THE DPP / BUDGET PROVISION.
3. EXISTING KHAL/LINK KHAL AT THE US & DS OF THIS PROPOSED REGULATOR TO BE RE-EXCAVATED UPTO THE REQUIRED LENGTH AND LEVEL IF NECESSARY.

NOTES FOR SHEET PILES:

1. HOT ROLLED U-SHAPE STEEL SHEET PILE SHALL BE USED. COLD ROLLED SHEET PILE SHALL NEVER BE USED.
2. COATING SHALL BE PROVIDED OVER SHEET PILE IN THE FOLLOWING WAY :-
 - i) CLEAN THE SHEET PILE SURFACE PREFERABLY WITH SAND BLASTING.
 - ii) PROVIDE 1 (ONE) COAT OF ZINK PHOSPHATE AS PRIMARY COAT.
 - iii) PROVIDE 2 (TWO) COAT OF COALTAR EPOXY COAT OVER PRIMARY COAT.
3. THICKNESS OF SHEET PILE SHALL BE 10.50mm ($\pm 0.50\text{mm}$) (ITEMCODE: 44-240-10).
4. CONCERNED EXECUTIVE ENGINEER MUST ENSURE SHEET PILE INTERLOCKING, LENGTH, & DRIVING.
5. TOP LEVEL OF EVERY CONNECTED SHEET PILES MUST HAVE SAME LEVEL.

NOTES FOR EMBEDDED PARTS, GROOVE AND GATE:

1. ALL EMBEDDED PARTS OF GROOVE AND OTHERS WILL BE STAINLESS STEEL (SUS-304).
2. ALL PARTS OF MECHANICAL GATE WILL BE STAINLESS STEEL (SUS-304).

Bangladesh Water Development Board	APPROVED BY:
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER 12.6-8 AND 6-8(EXTENSION)	

DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6-8(EXT)
IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB,
SATKHIRA

NOTES**DESIGNED BY:**

(SAKIB BIN RAHMAN, AE)

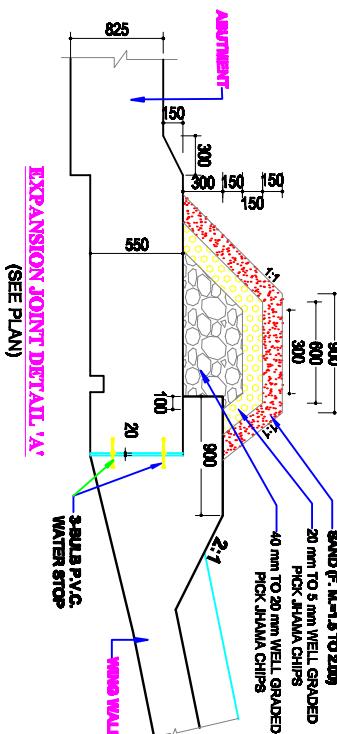
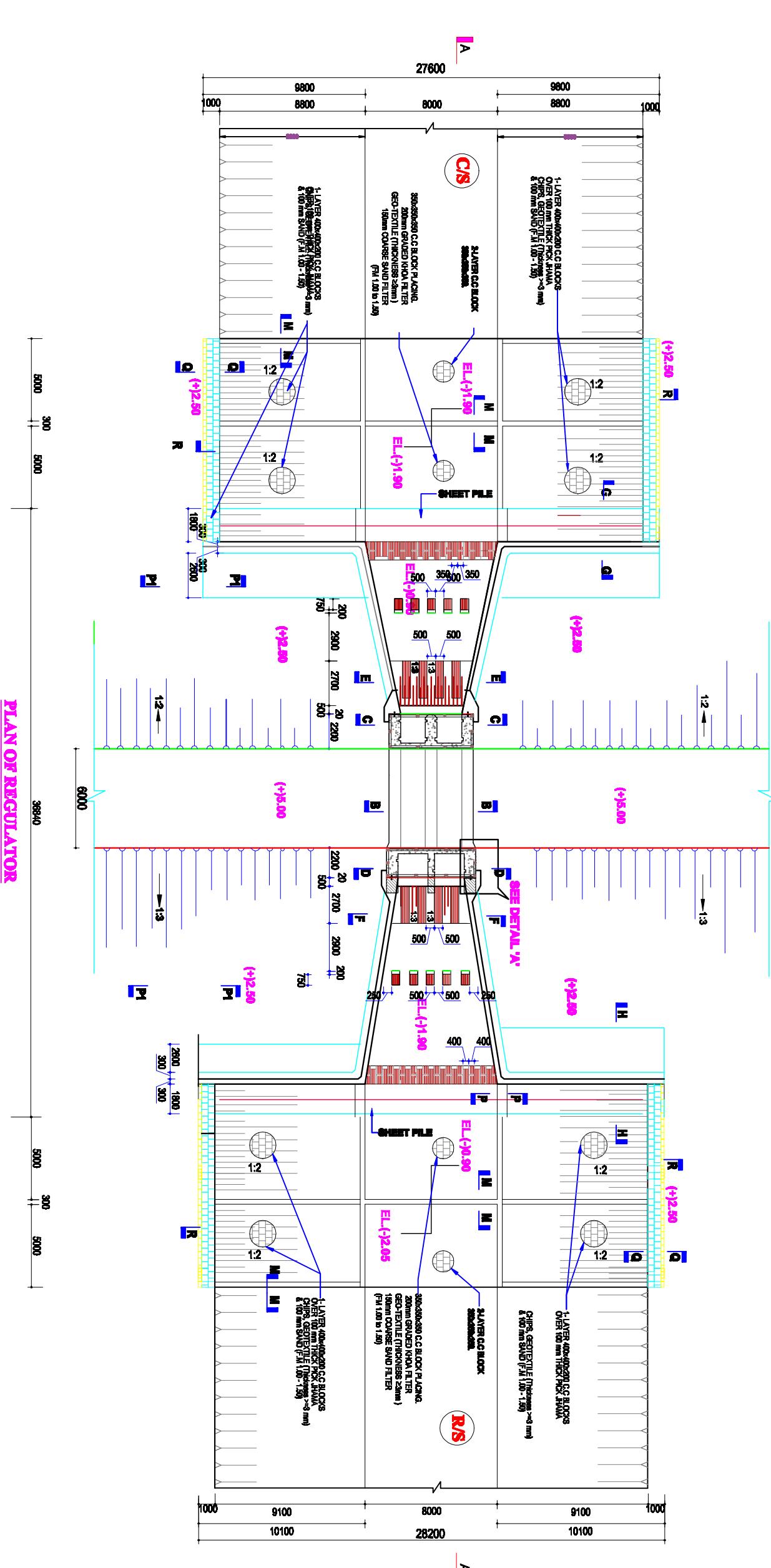
APPROVED BY:

(MOHAMMAD SAIF UDDIN, SE)

CHECKED & RECOMMENDED BY:

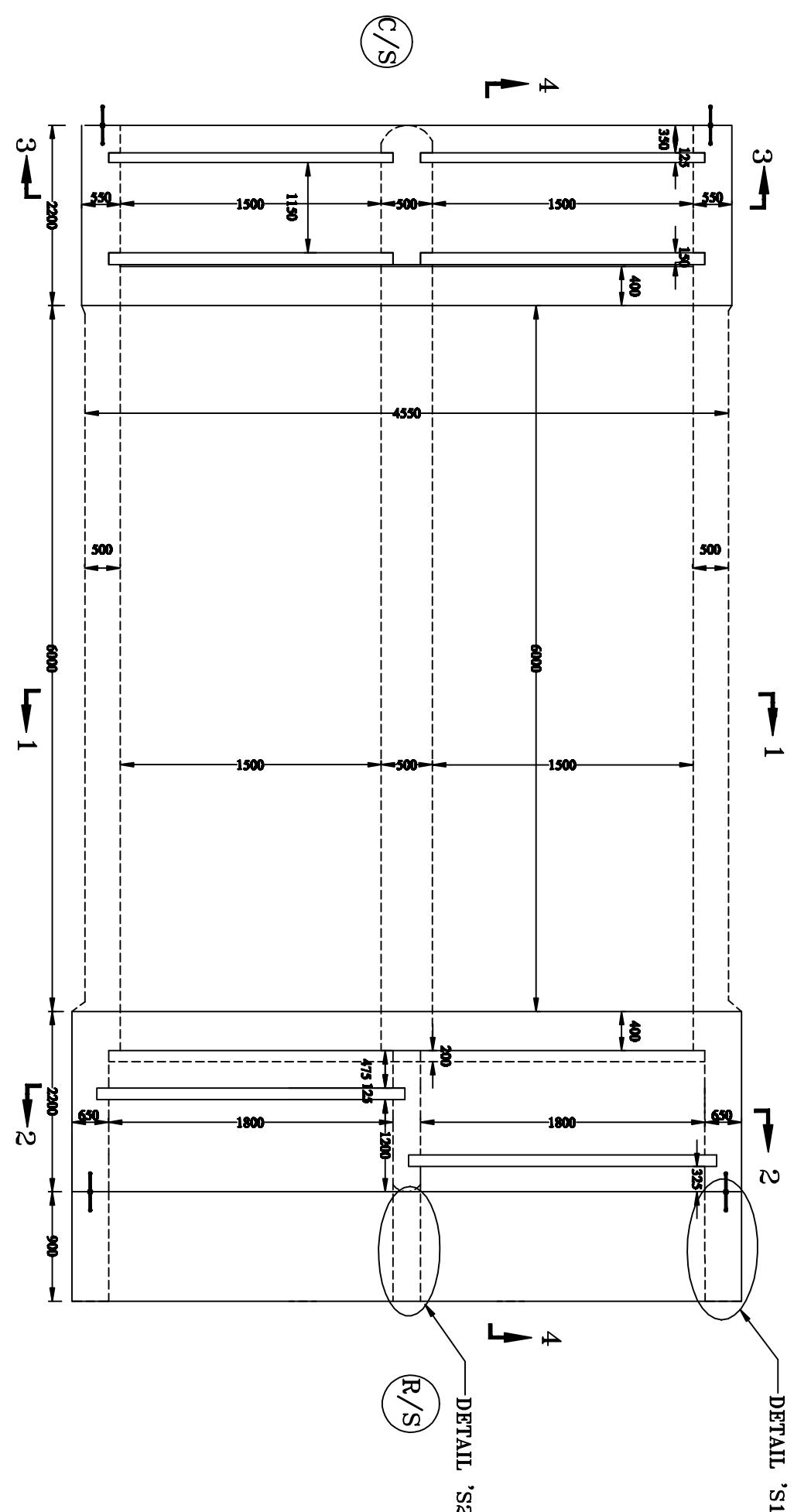
(JAKARIA PERVEZ, EE)

DWG. NO.:DC-8-0000-04/21

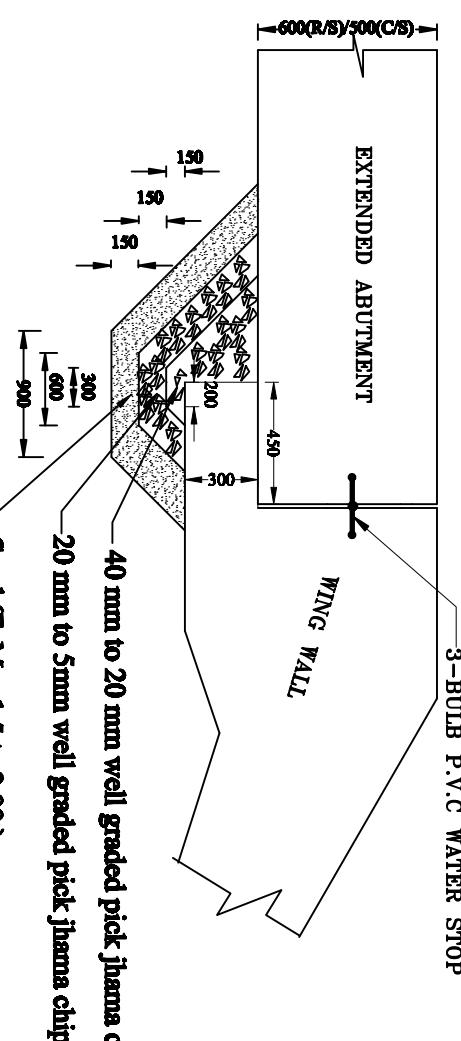


Scale : Not To Scale

DESIGNED BY:	APPROVED BY:
(SAKIB BIN RAFTI, AE)	
CHIEF ENGINEER & RECOMMENDED BY:	
JAKARIA PERVEZ, AE	(MOHAMMAD SAIF UDDIN, SE)
DATE:	DWG. NO.:DC-8-0000-05/21



PLAN OF ABUTMENT AND PIER

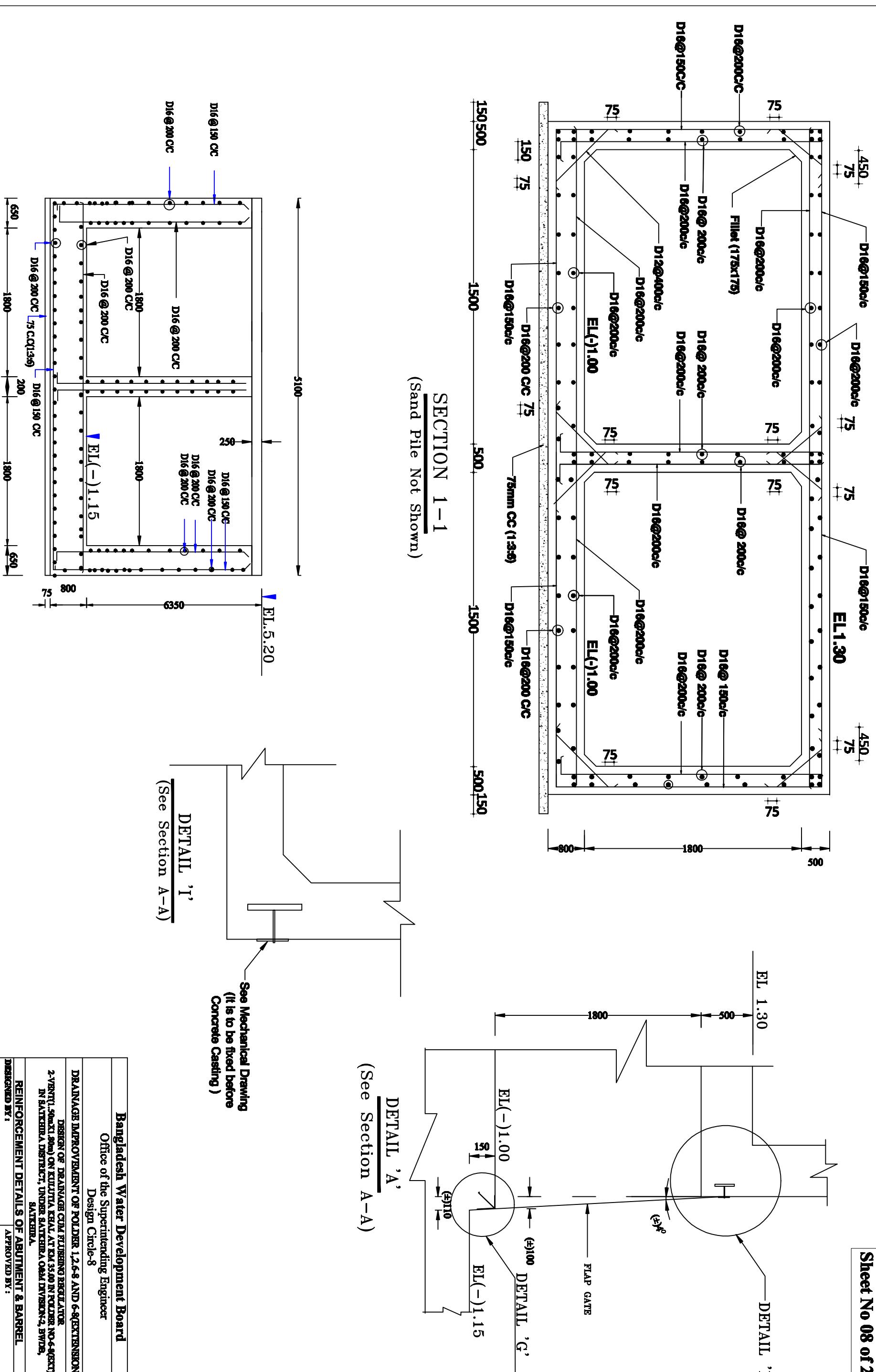


Sand (F. M = 1.5 to 2.00)

EXPANSION JOINT DETAIL 'Y'(SEE PLAN)

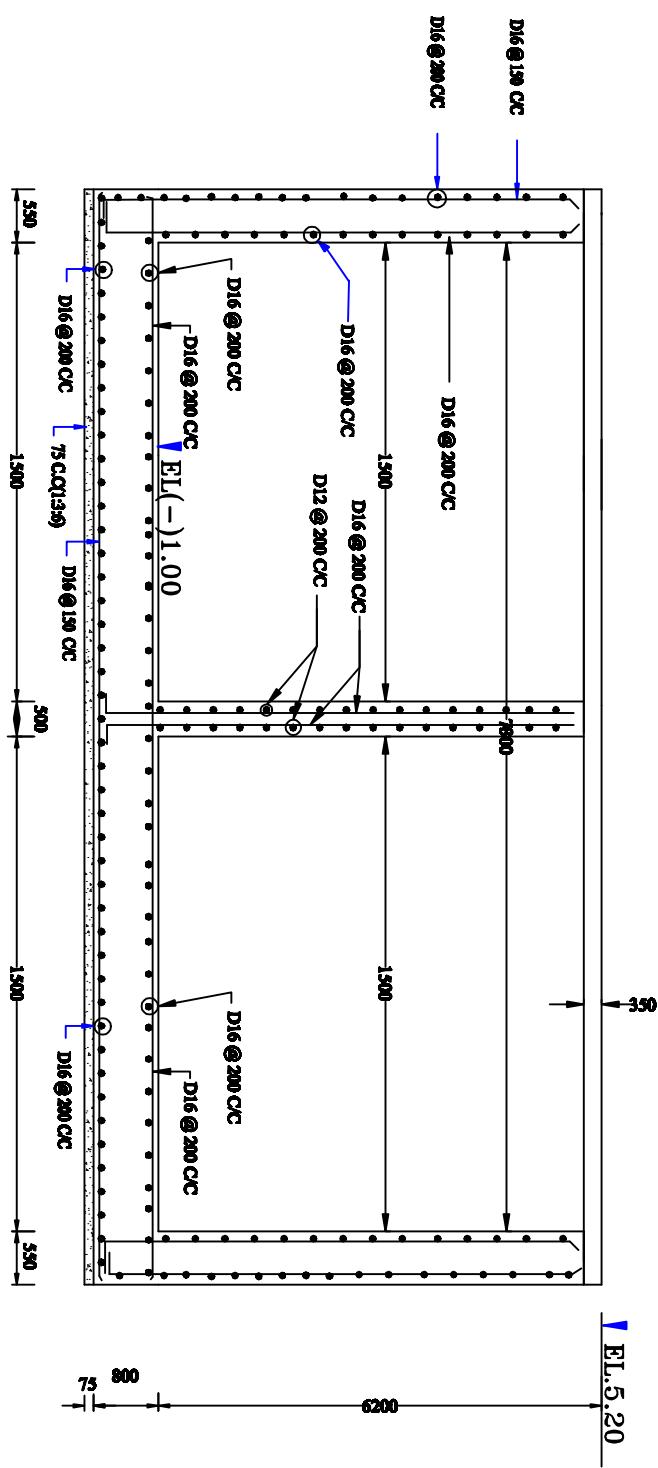
(NOT TO SCALE)

Bangladesh Water Development Board	
Office of the Superintending Engineer	Design Circle-8
DRAINAGE IMPROVEMENT OF POLDER 1,2,6,8 AND 6-(EXTENSION)	DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM.35.00 IN POLDER NO-6-(EXT)	IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB,
SATKHIRA	PLAN OF DRAINAGE CUM FLUSHING REGULATOR
DESIGNED BY:	APPROVED BY:
(SAKIB BIN RAED, AE)	
CHECKED & RECOMMENDED BY:	
(JAKARIA PERVEZ, EE)	(MOHAMMAD SAIF UDDIN, SE)
DATE:	DWG. NO.:DC-8-0000-07/21

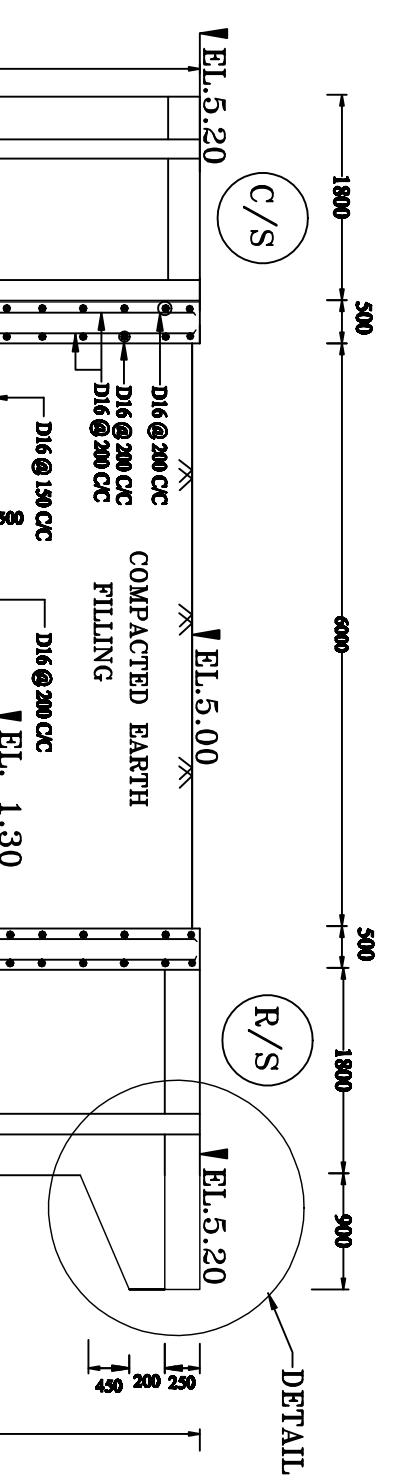


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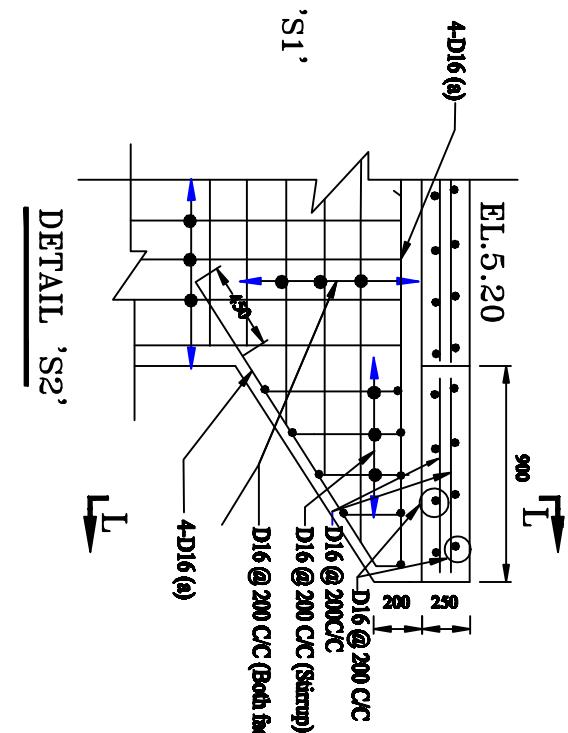
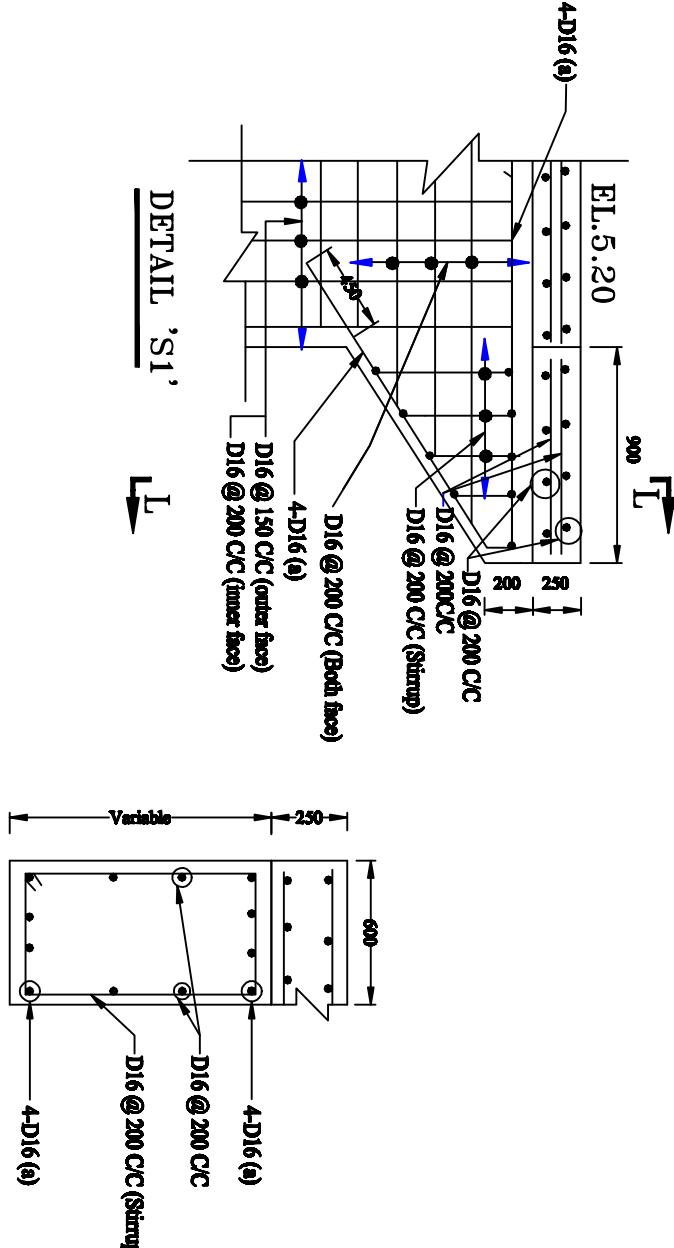
(Sand Pile Not Shown)



SECTION 3-3
(Sand Pile Not Shown)

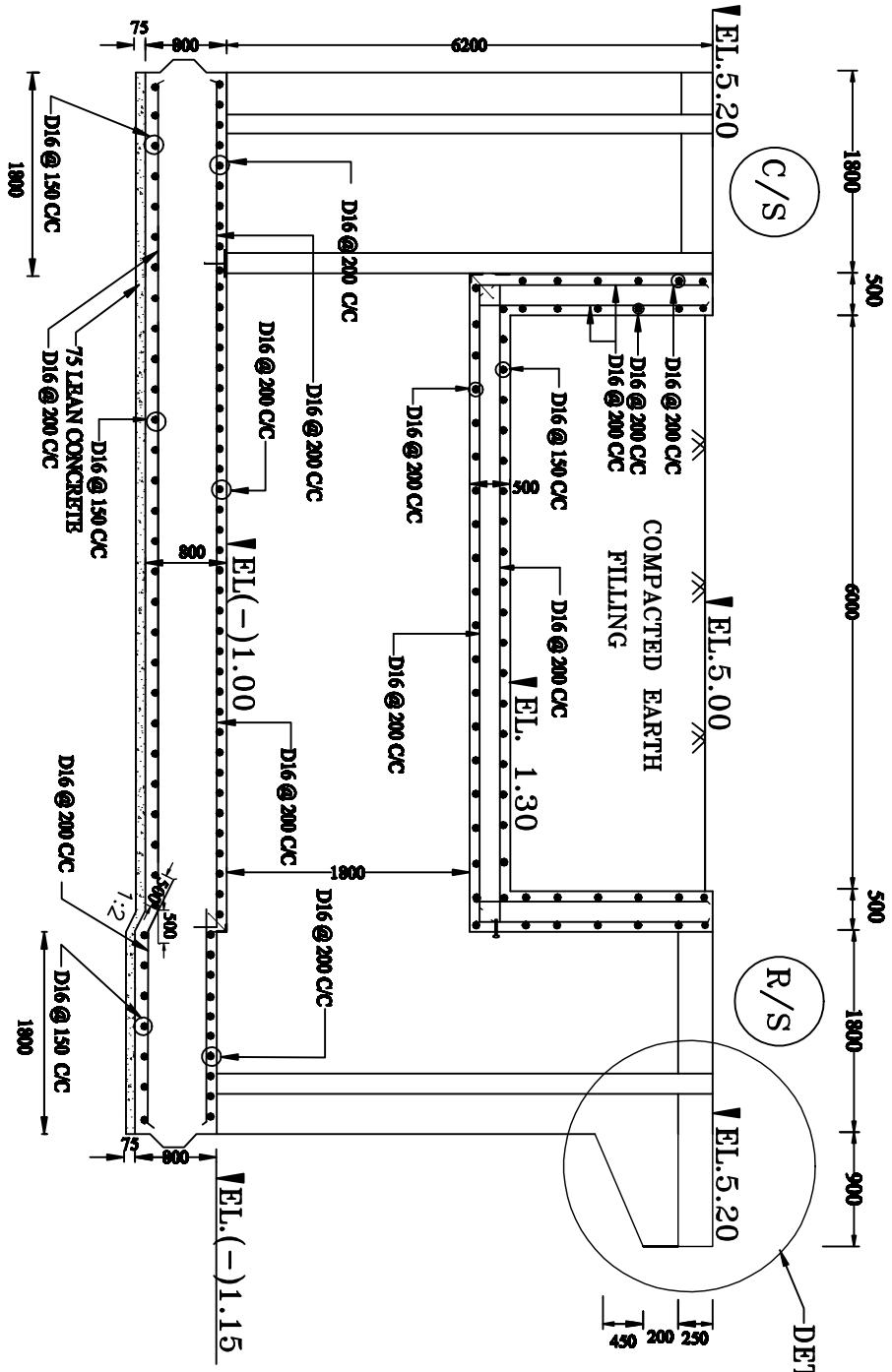


SECTION L-L



DETAIL 'S1'

DETAIL 'S2'



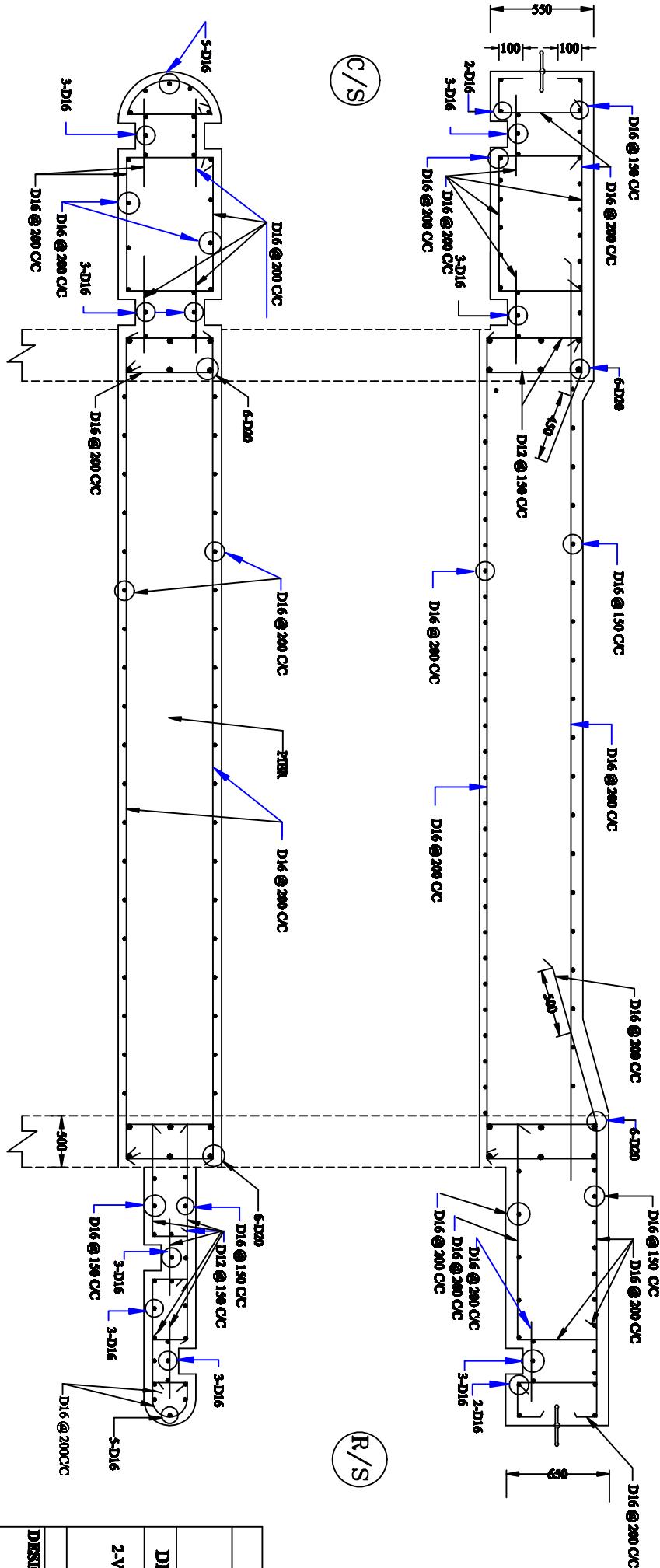
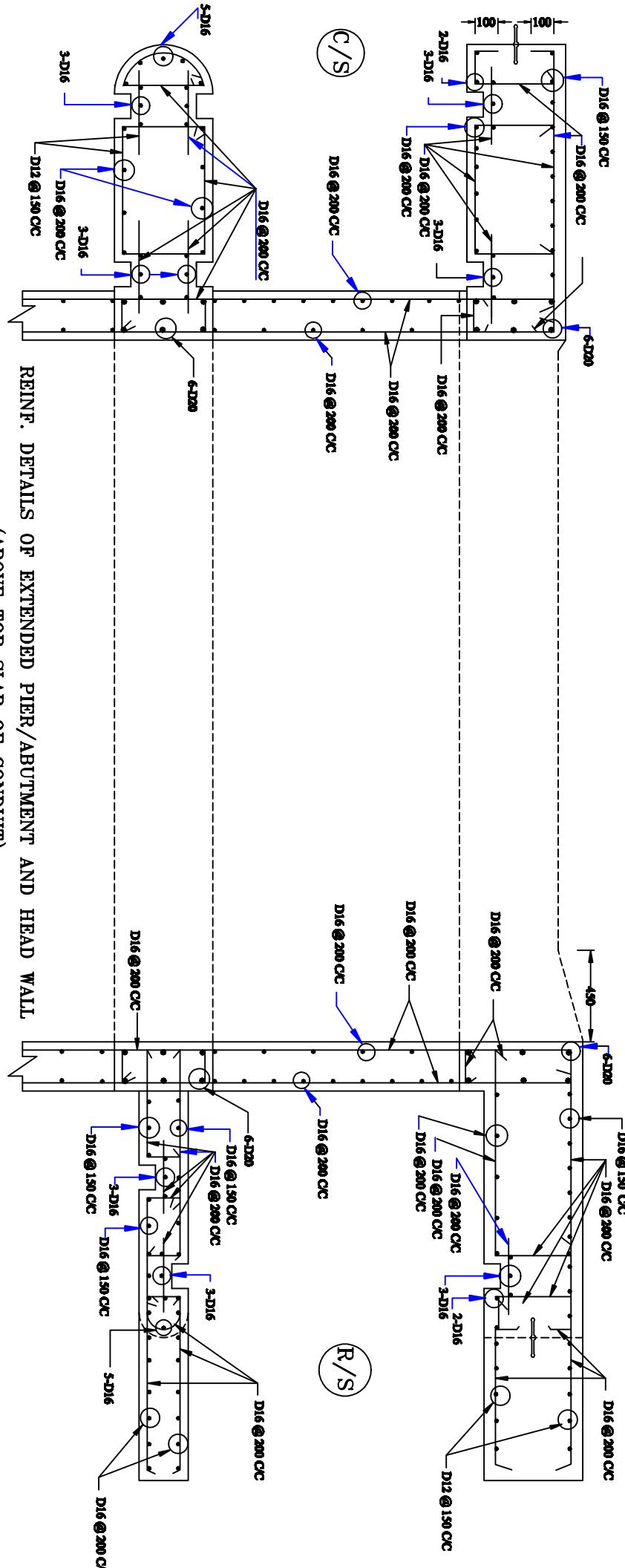
SECTION 4-4
(Sand Pile Not Shown)

Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER 1,2,6-8 AND 6-8(EXTENSION)
DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO 6-8(EXT)
IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB,
SATKHIRA.

REINFORCEMENT DETAILS OF ABUTMENT & BARREL

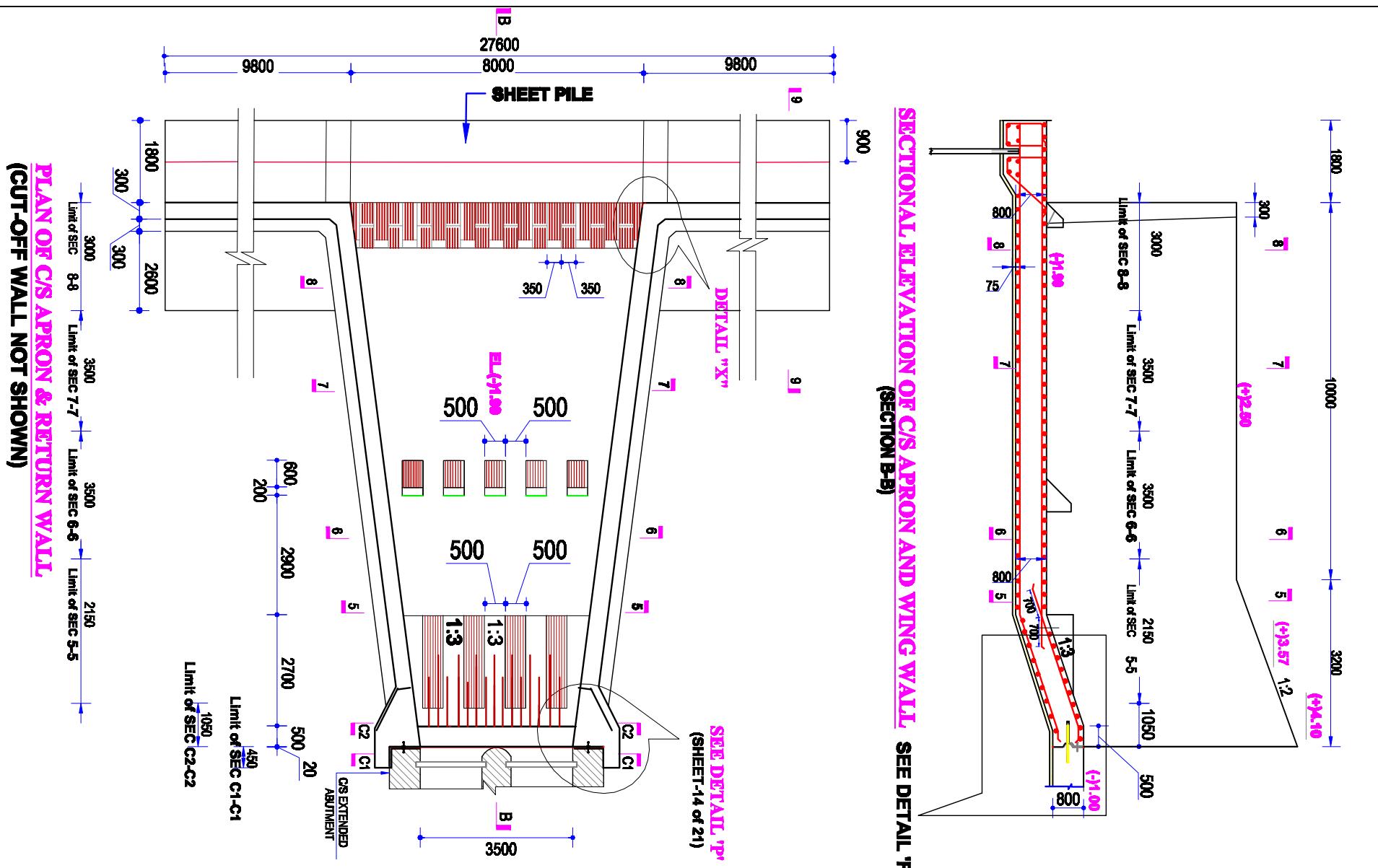
DESIGNED BY: APPROVED BY:
(JAKIYA PERVEZ, AE) (MOHAMMAD SAIF UDDIN, SE)
CHECKED & RECOMMENDED BY:
DATE: DWG. NO.:DC-8-0000-09/21



REINF. DETAILS OF EXTENDED PIER/ABUTMENT AND HEAD WALL
(BELOW TOP SLAB OF CONDUIT)

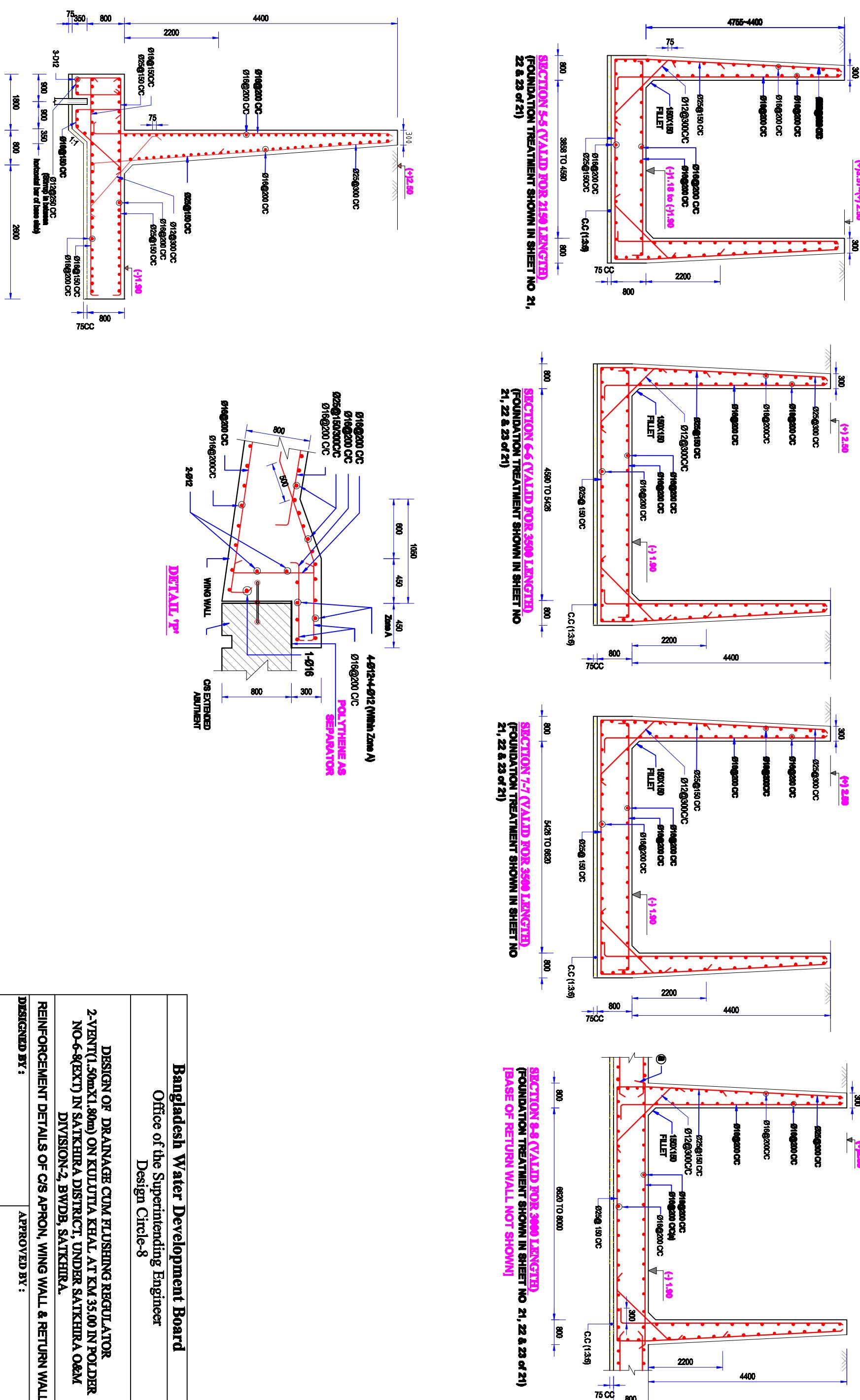
(NOT TO SCALE)

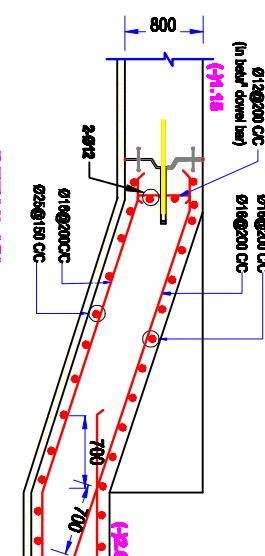
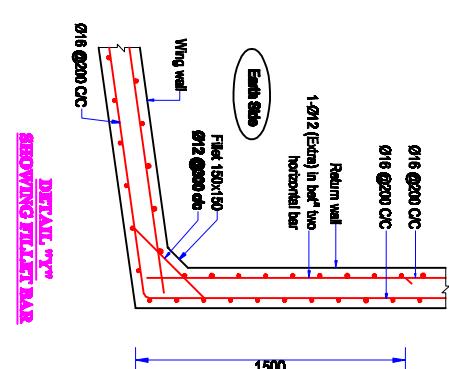
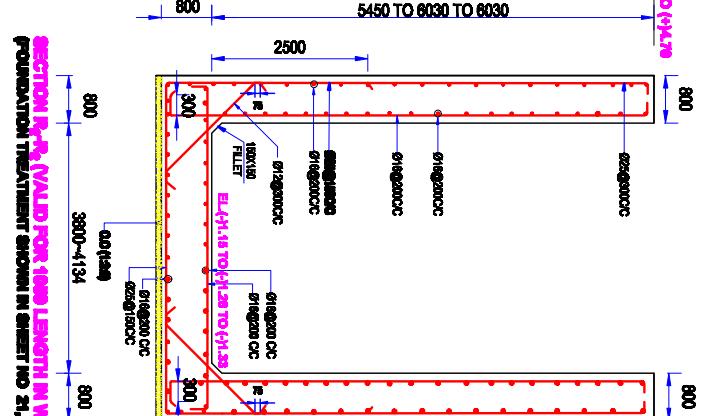
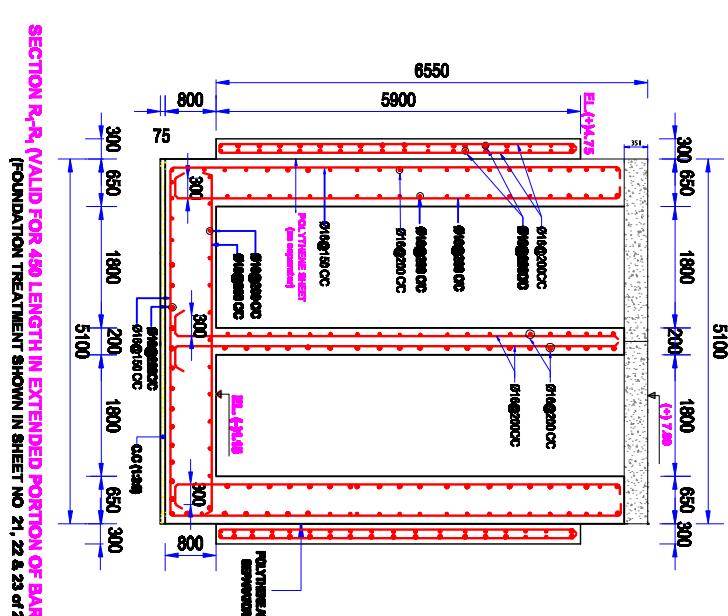
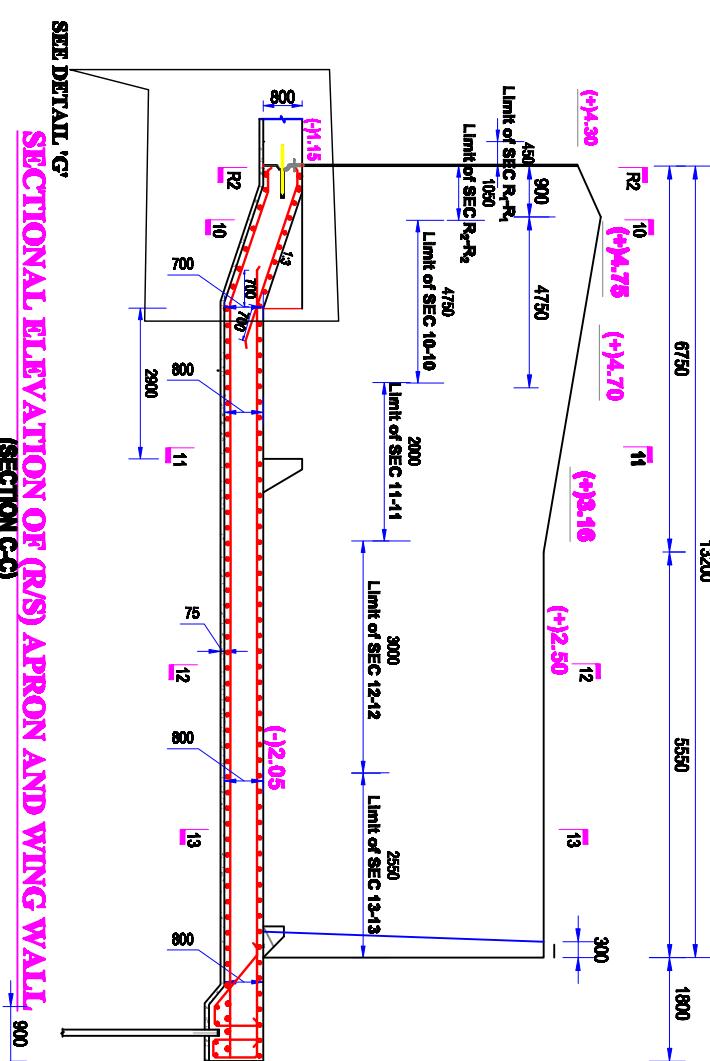
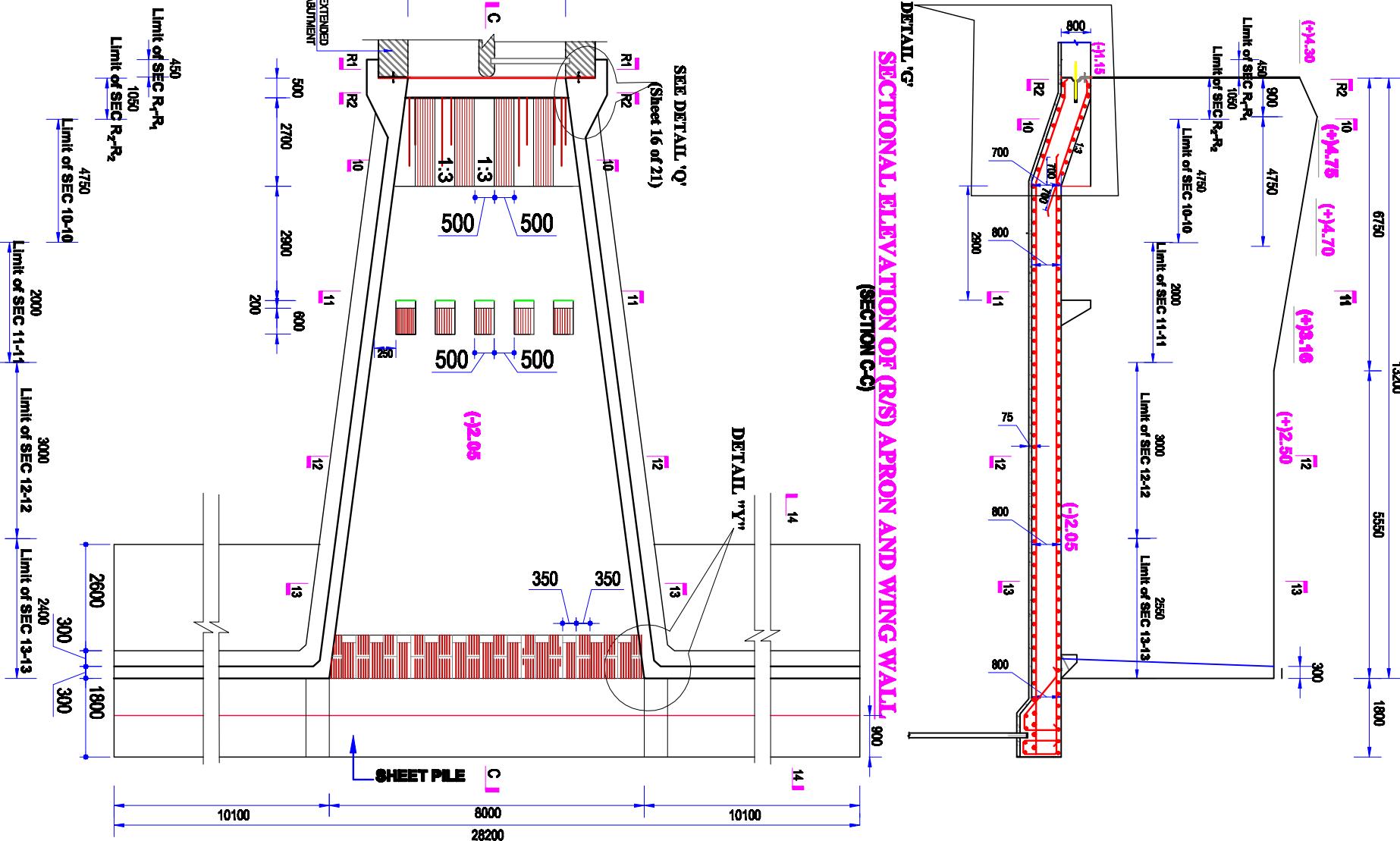
DESIGNED BY:	APPROVED BY:
(SAKIB BIN RAFLI, AE)	
CHECKED & RECOMMENDED BY:	
(JAKIYA PERVIZ, EE)	(MOHAMMAD SAIF UDDIN, SE)
DATE:	DWG. NO.:DC-8-0000-10/21



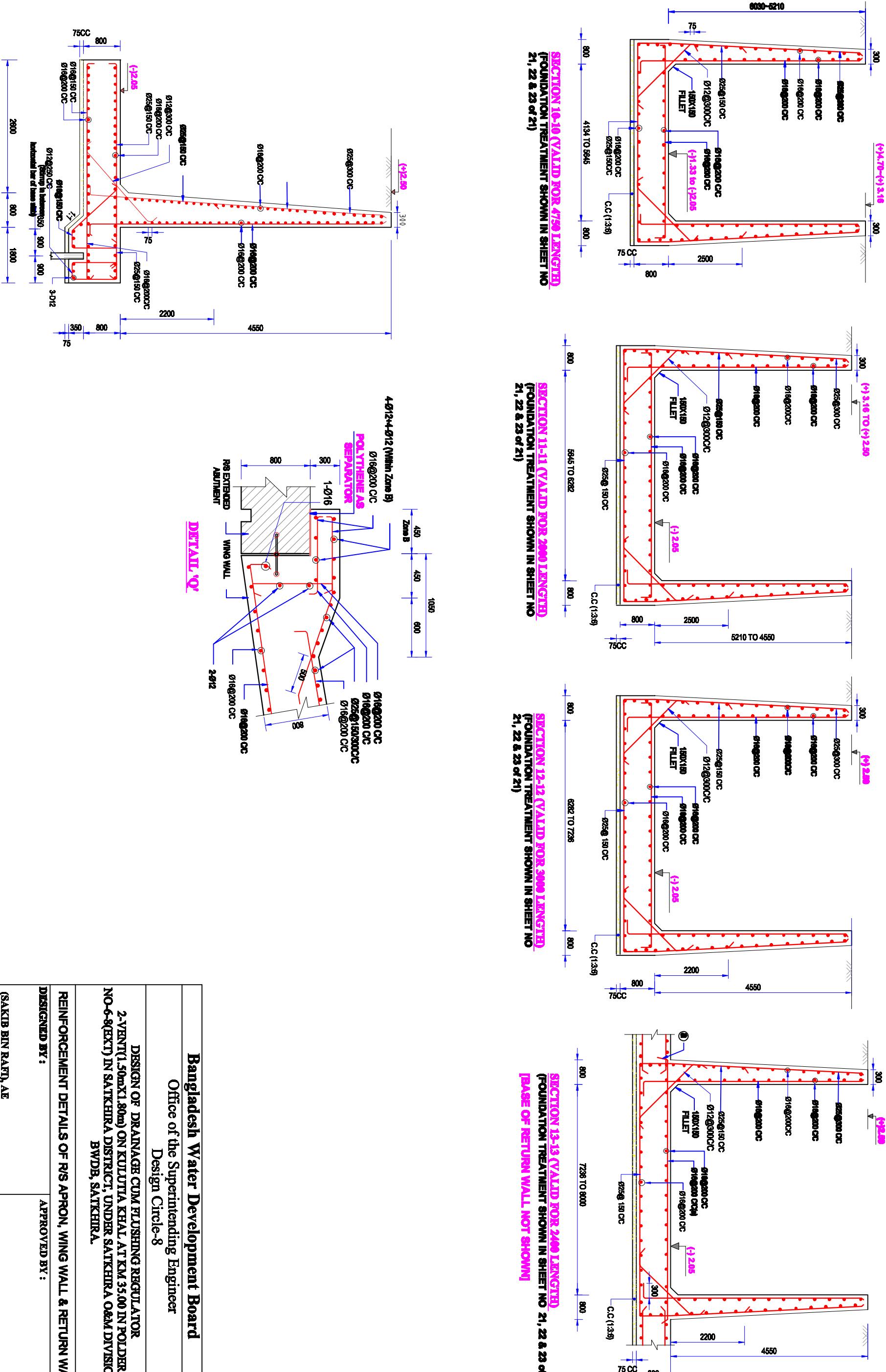
**PLAN OF CS APRON & RETURN WALL
(CUT-OFF WALL NOT SHOWN)**

Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER	
NO.6-(BKT) IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2,	
BWDB, SATKHIRA.	
REINFORCEMENT DETAILS OF CS APRON AND WING WALL	
DESIGNED BY:	APPROVED BY:
(SAKIB BIN RAFLI, AE)	(MOHAMMAD SAIF UDDIN), SE
CHECKED & RECOMMENDED BY:	
DATE:	DWG. NO.:DC-8-0000-11/21





Bangladesh Water Development Board	
Office of the Superintending Engineer	Design Circle-8
2-VENTI(50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6 (SEXTI) IN SATKHIRA DISTRICT UNDER SATKHIRA OEM DIVISION-2, BWDR, SATKHIRA.	DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
REINFORCEMENT DETAILS OF R/S APRON AND WING WALL	APPROVED BY:
(SAKIB BIN RAHMAN, AE)	MUHAMMAD SAIF UDDIN, SE
DESIGNED BY:	DATE: DWG. NO.:DC-8-0000-13/21
CHECKED & RECOMMENDED BY:	



Bangladesh Water Development Board

Office of the Superintending Engineer

Design Circle-8

DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENT(1.50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER
NO-6-8(EXT) IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2,
BWDB, SATKHIRA.

REINFORCEMENT DETAILS OF R/S APRON, WING WALL & RETURN WALL

DESIGNED BY :

(SAKIB BIN RAFTI, AE)

APPROVED BY :

SAKIB BIN RAFTI, AE

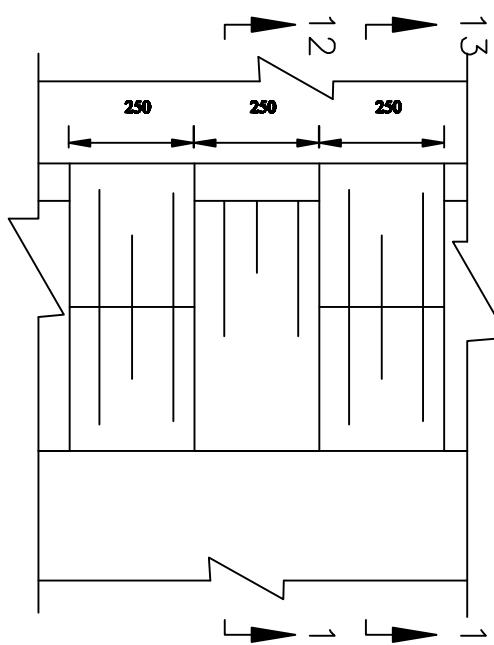
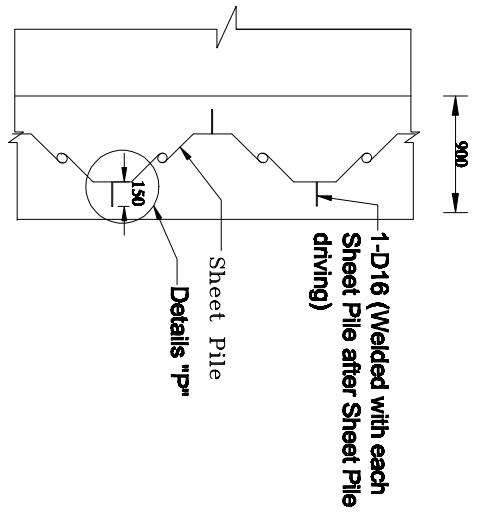
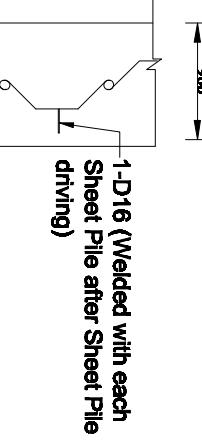
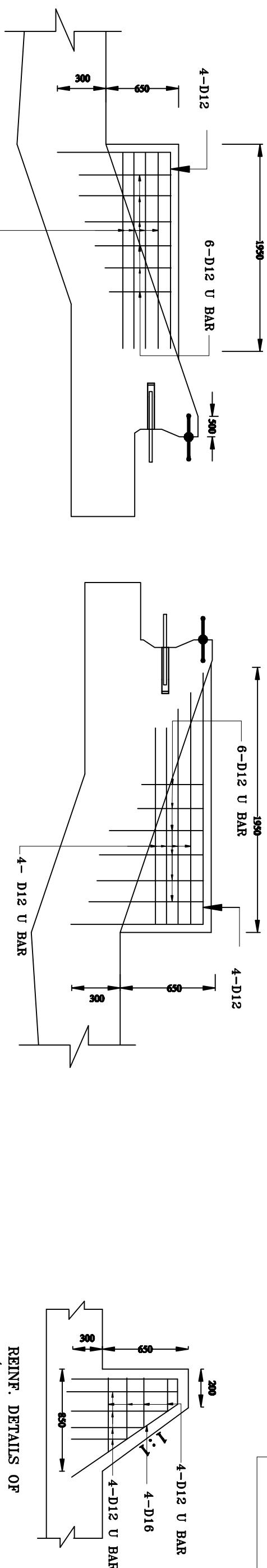
CHECKED & RECOMMENDED BY :

MUHAMMAD SAIF UDDIN, SE

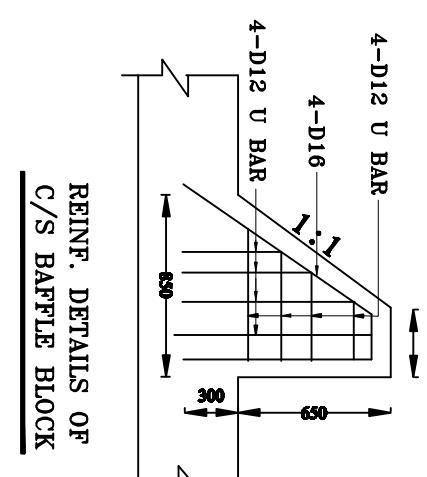
JAKARIA PERVEZEE

DWG. NO.:DC-8-0000-14/21

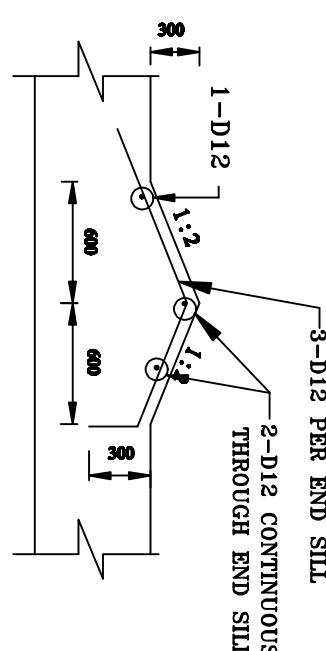
Sheet No 15 of 21



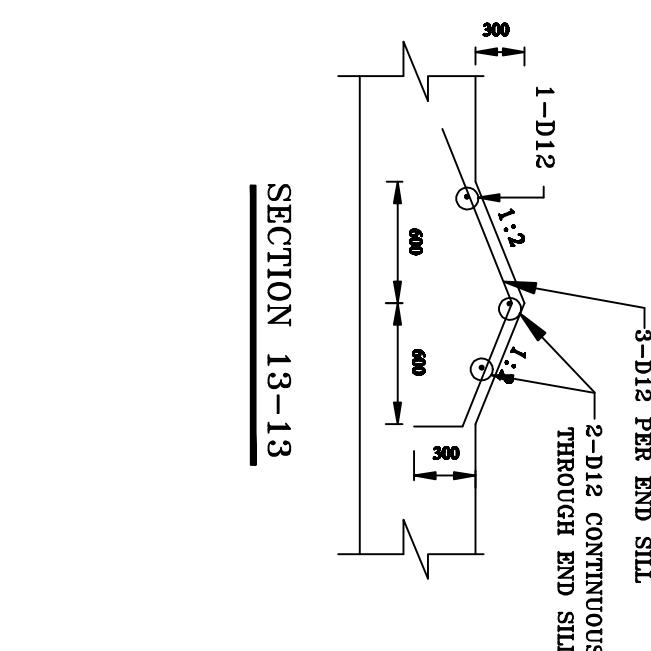
PART PLAN OF END SILL
(For both R/S & C/S)



REINF. DETAILS OF C/S CHUTE BLOCK



SECTION 13-13



SECTION 12-12

LAYOUT PLAN OF SHEET PILE

See Details 'P'

20 mm THICK HESSIAN CLOTH IMPREGNATED WITH BITUMEN



DETAILS 'P'

DETAILS OF SHEET PILE CAP

(Under Aprons)

DETAILS OF CONSTRUCTION JOINT (FOR SLAB)

DETAILS OF CONSTRUCTION JOINT (FOR WALL)

(NOT TO SCALE)

Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER 12.6-8 AND 6-(EXTENSION)

**DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENTIL (50mX1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO.6-(EXTENSION)
IN SATKHIRA DISTRICT, UNDER SATKHIRA OEM DIVISION-2, BWDB,
SATKHIRA.**

MISCELLANEOUS DETAILS

DESIGNED BY:

APPROVED BY:

(SAKIB BIN RAHMAN, AE)

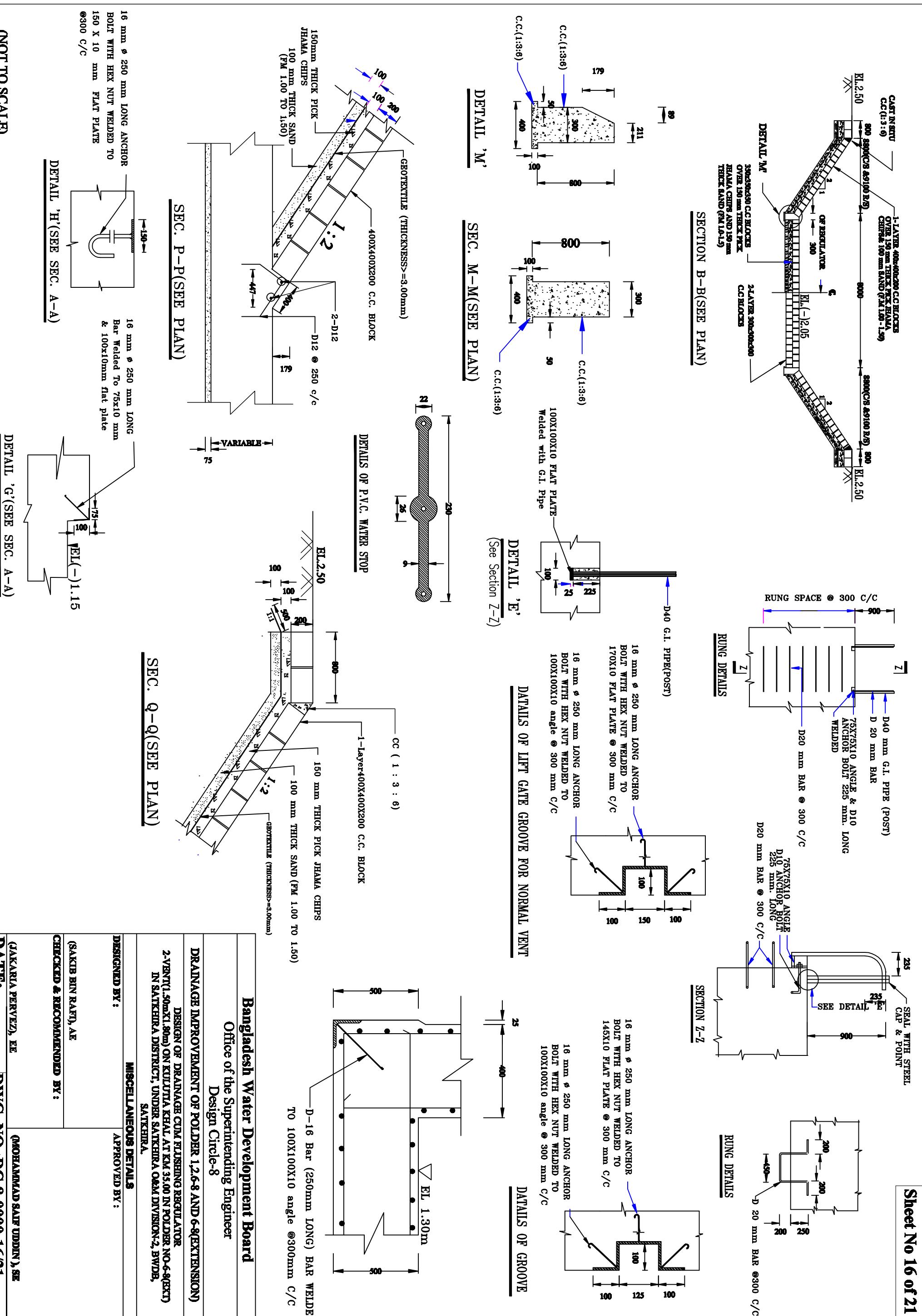
APPROVED BY:

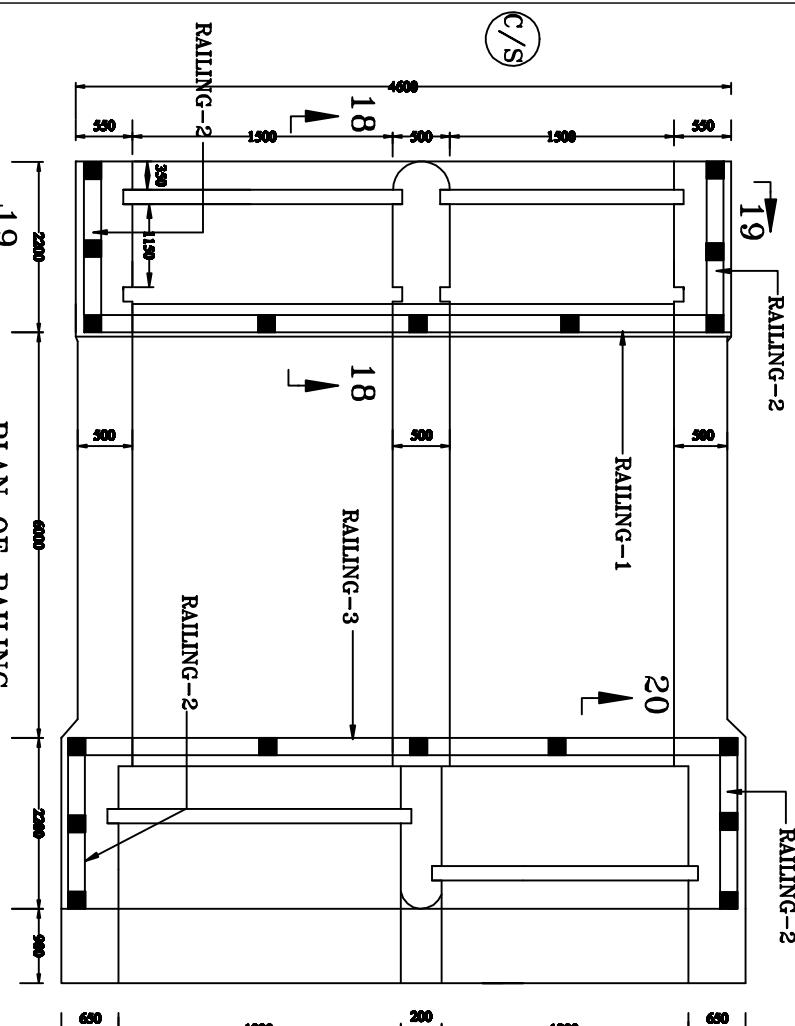
DATE:

15/21

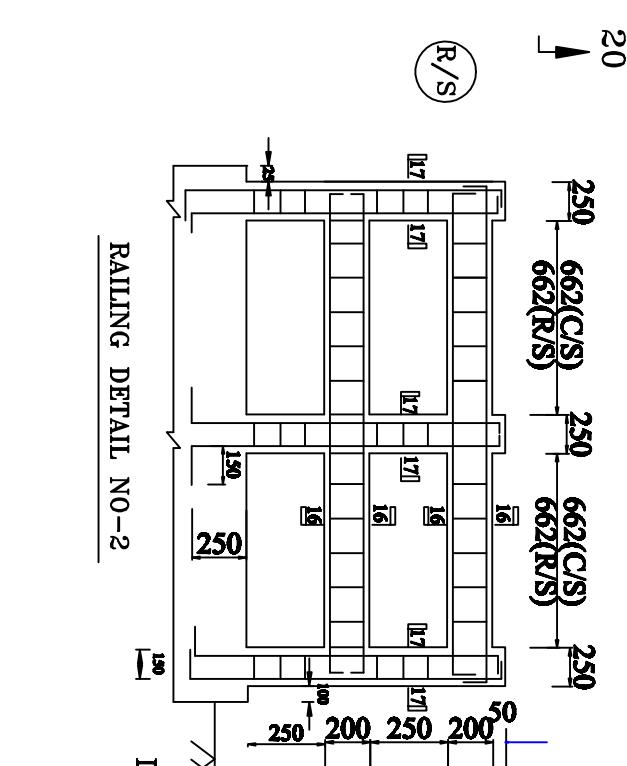
DWG. NO.:DC-8-0000-15/21

(MOHAMMAD SAIF UDDIN, SE)



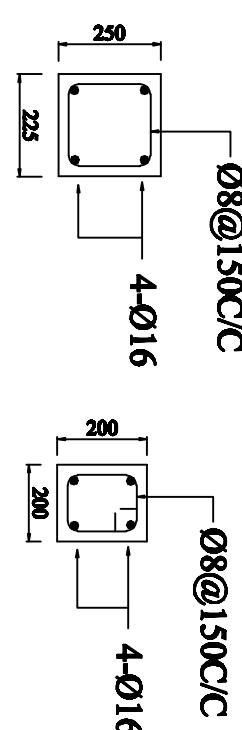


PLAN OF RAILING



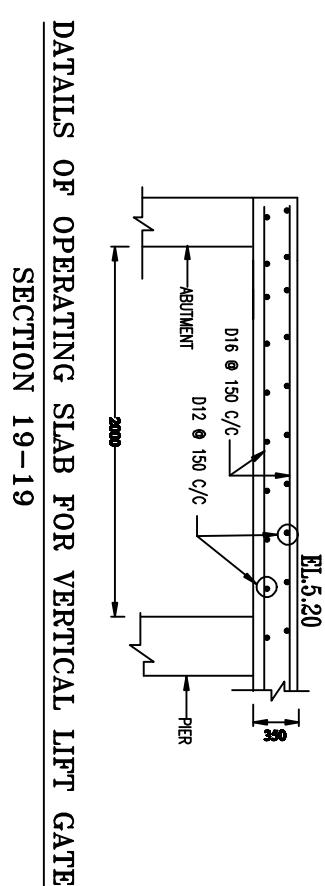
SECTION 15-15

SECTION 16-16



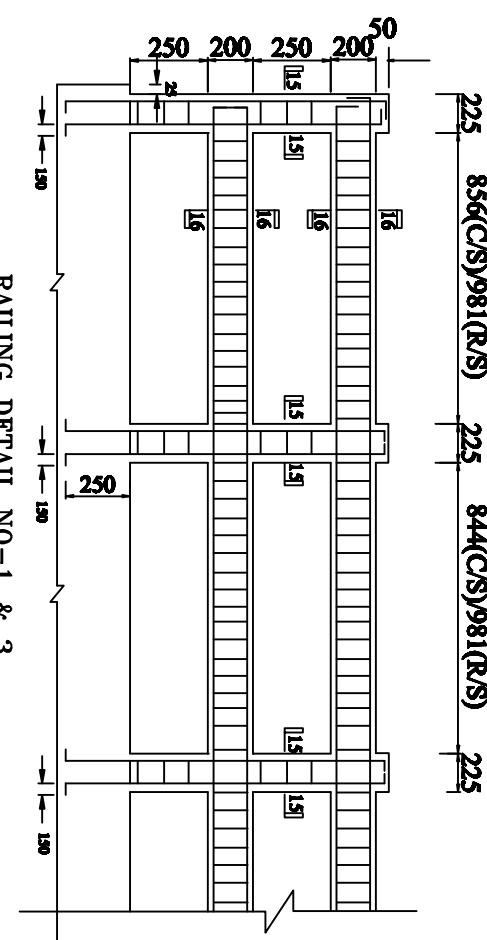
SECTION 17-17

SECTION 18-18

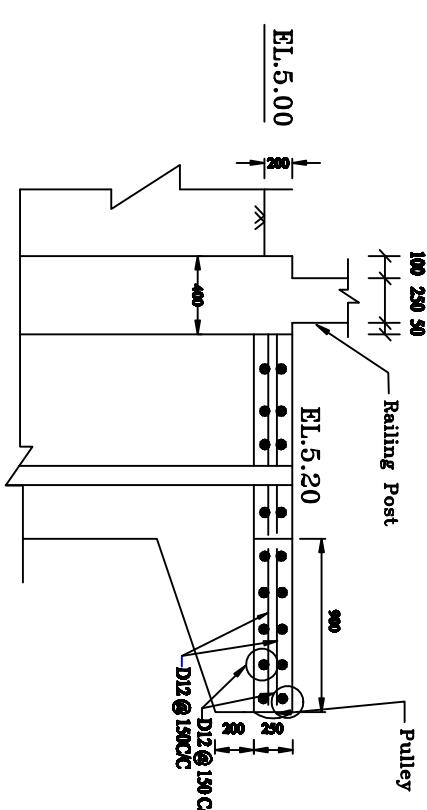


DETAILS OF OPERATING SLAB FOR VERTICAL LIFT GATE

SECTION 19-19

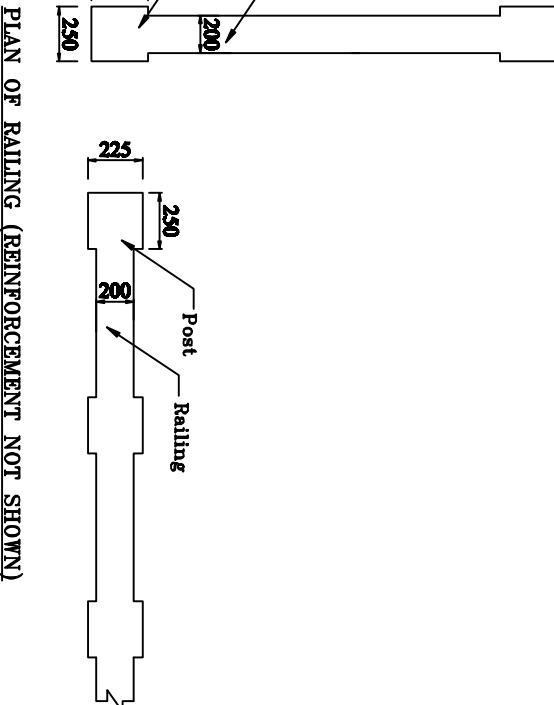


RAILING DETAIL NO-1 & 3



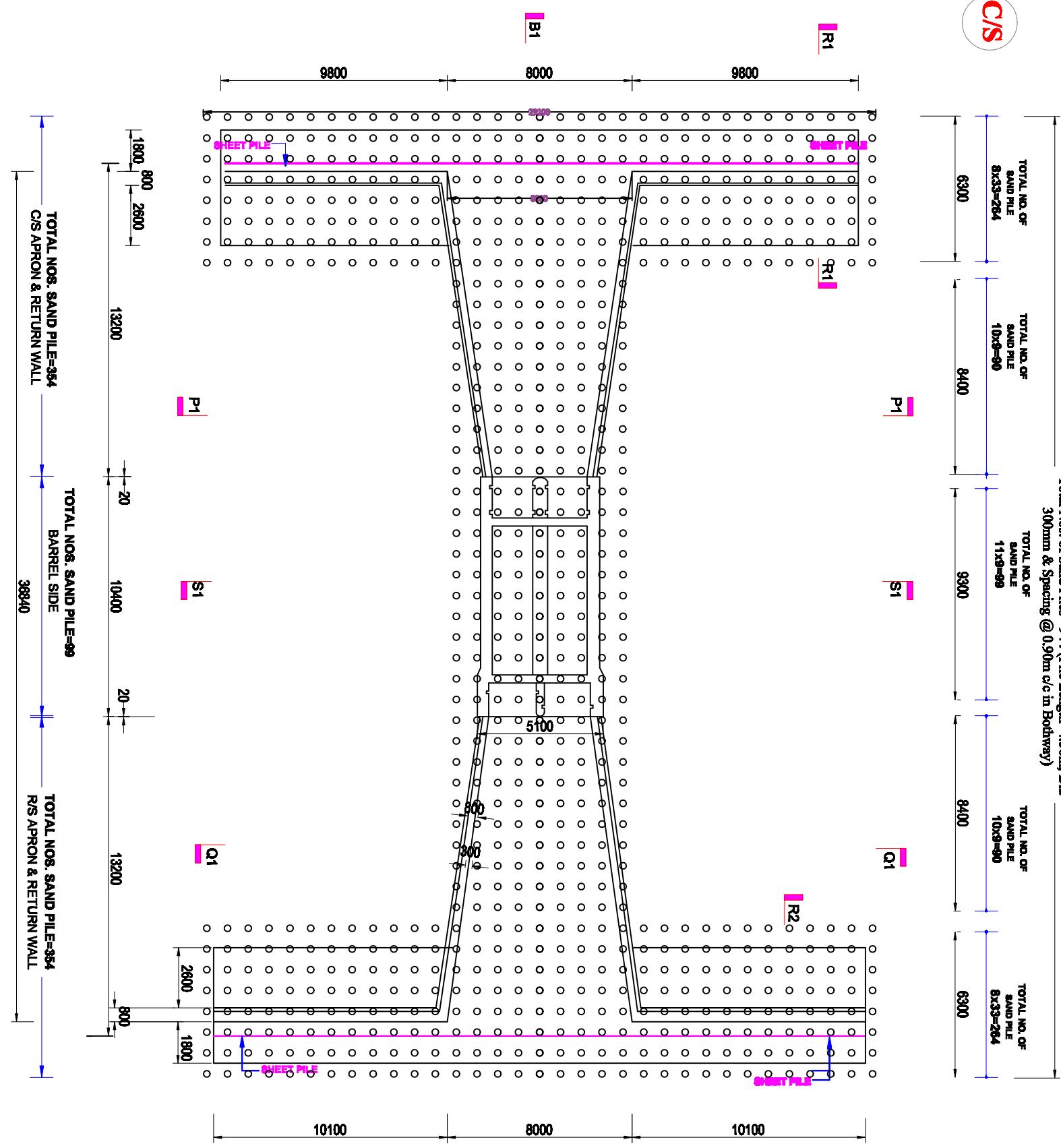
SECTION 20-20

(NOT TO SCALE)



PLAN OF RAILING (REINFORCEMENT NOT SHOWN)

DESIGNED BY:	APPROVED BY:
JAKIB BIN RAZI, AE	
CHECKED & RECOMMENDED BY:	MOHAMMAD SAIF UDDIN, AE
DATE: DWG. NO.:DC-8-0000-17/21	



NOTE FOR SAND PILE:

1. SAND PILE OF 4.50m LENGTH WITH 300mm CASING DIA AS SPECIFIED IN THE DRAWING SHALL HAVE TO BE CONSTRUCTED AS PER STANDARD DISPLACEMENT METHOD.
2. SAND TO BE USED IN PILING SHALL BE FREE FROM ALL ORGANIC AND FOREIGN MATERIALS AND SHALL HAVE FINE 2.00.
3. DIAMETER LENGTH CONTINUITY OF PILE SHALL HAVE TO BE CHECKED BY MEASURING SAND FORCE VOLUME FOR EACH EXECUTED PILE. THE SAND FORCE VOLUME PER METER AND 1.58 CUBIC METER RESPECTIVELY (ITEM CODE: 44-401-10).
4. AFTER EXECUTION OF ALL SAND PILE, SPT VALUES SHALL HAVE TO BE DETERMINED BY THE FIELD TESTS. SPT VALUES ATTAINED AT 1.50 METER INTERVALS SHALL BE DETERMINED.
5. AFTER PILING SPT VALUE IN BETWEEN SAND PILES AT FOUNDATION LEVEL SHALL BE MINIMUM 12 TO 14.
6. ALL THE RECORDS OF SAND PILING SHALL BE MAINTAINED IN DETAILS WITH CONSTANT SUPERVISION AND IT SHOULD BE SENT TO THE DESIGN OFFICE.

SAND PILE LAYOUT PLAN

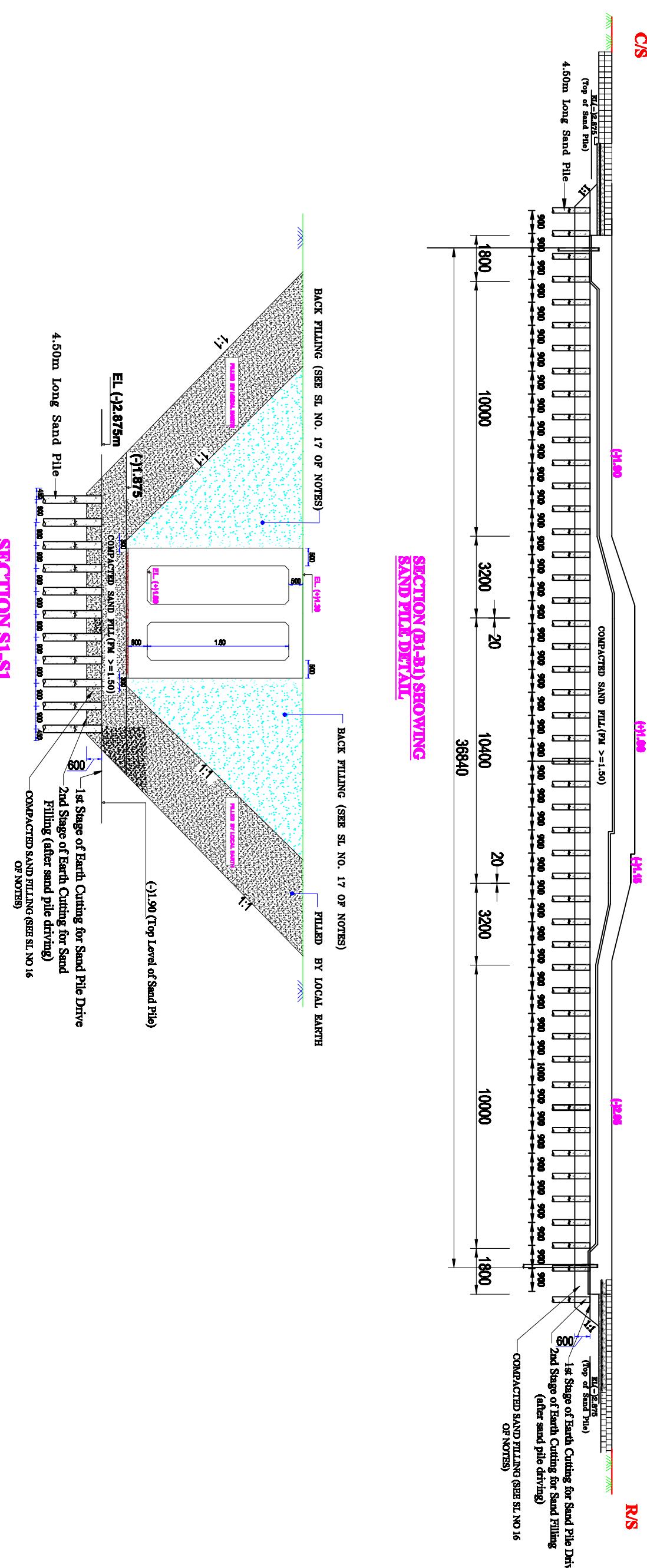
Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DESIGN OF DRAINAGE CUM FLUSHING REGULATOR 2-VENT(1.50mx1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6-SQEXT IN SATKHIRA DISTRICT, UNDER SATKHIRA OEM DIVISION-2, BWDB, SATKHIRA.

DESIGNED BY: **SAND PILE LAYOUT PLAN**

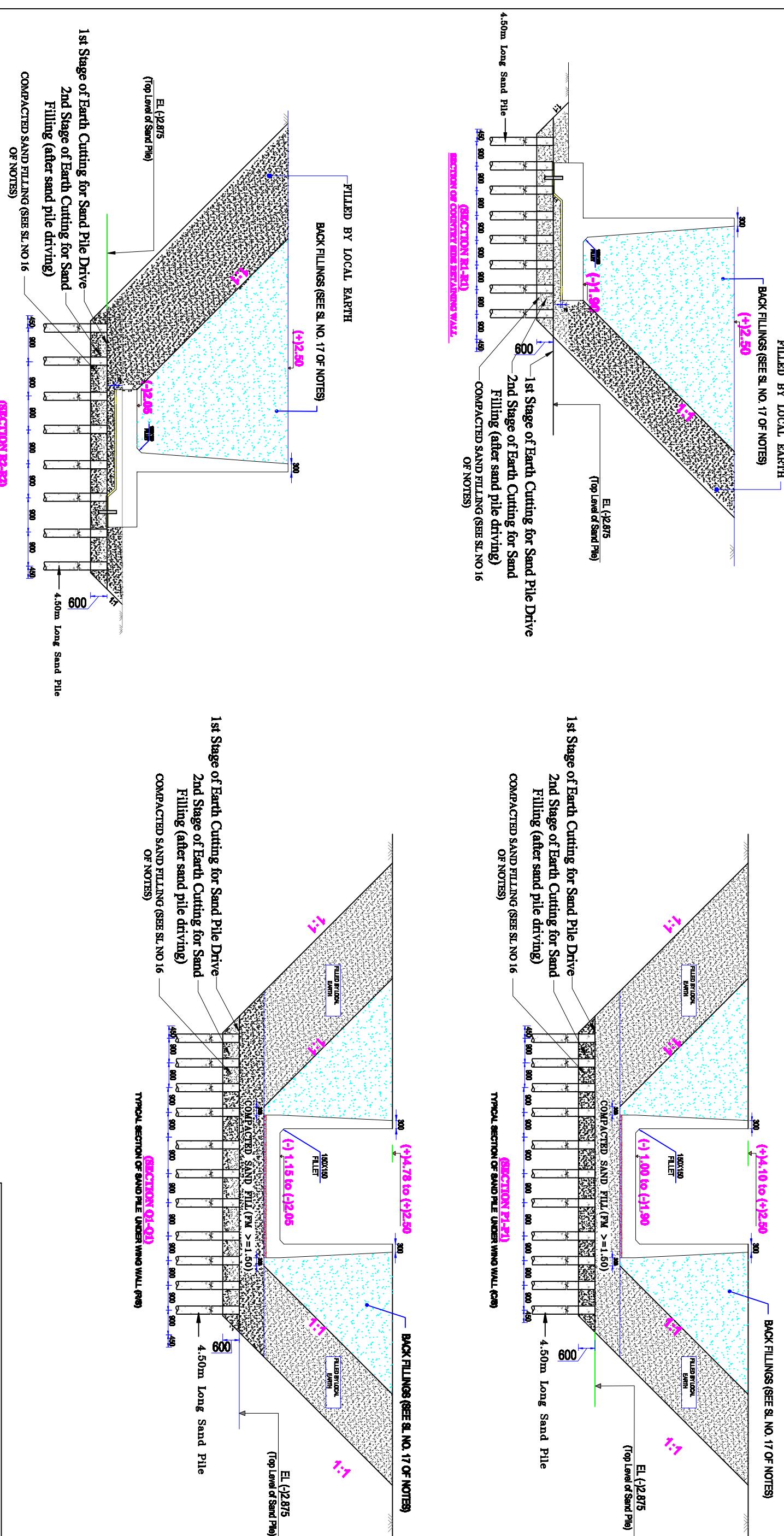
APPROVED BY:

(SAKIB BIN RAED, AE)
CHECKED & RECOMMENDED BY: (MOHAMMAD SAIF UDDIN), SE
DATE: DWG. NO.:DC-8-0000-18/21

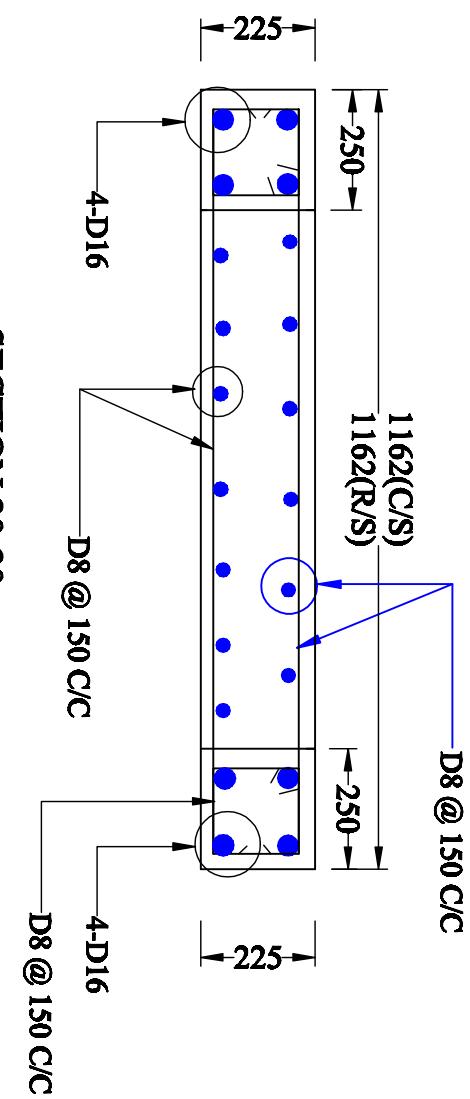


SECTION SIX

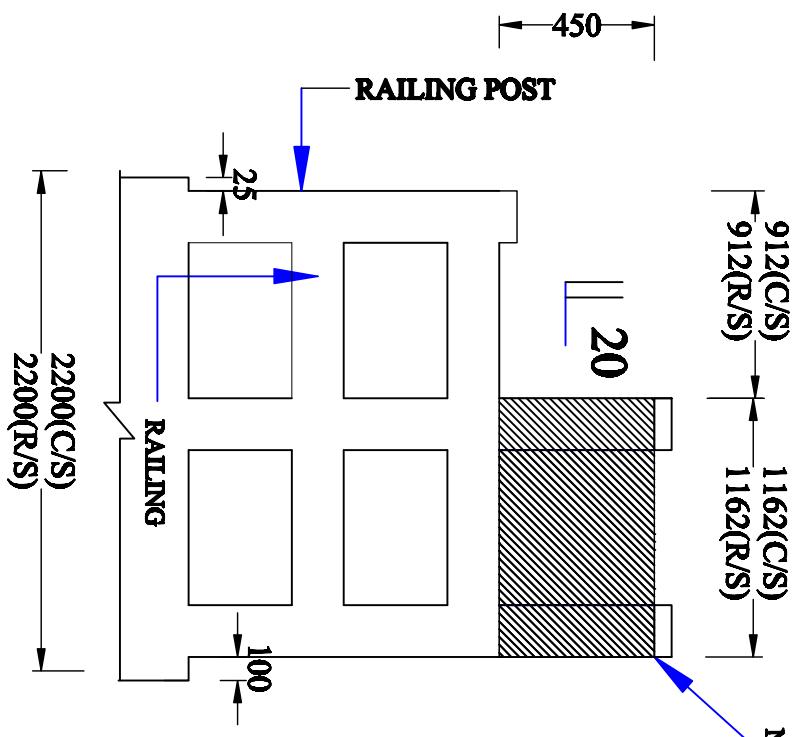
Bangladesh Water Development Board Office of the Superintending Engineer Design Circle-8	
DESIGN OF DRAINAGE CUM FLUSHING REGULATOR 2-VENTI(1.50mx1.80m) ON KUJUTIA KHAL AT KM 35.00 IN FOLDER NO.68(EXT) IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB, SATKHIRA.	
SAND PILE DETAILS OF LONGITUDINAL PROFILE & BOX	
DESIGNED BY: (SAKIB BIN RAZI, AE)	APPROVED BY: (MOHAMMAD SAIF UDDIN, SE)
CHECKED & RECOMMENDED BY: JAKARTA PERVEZEE	DATE: DWG. NO.:DC-8-0000-19/21



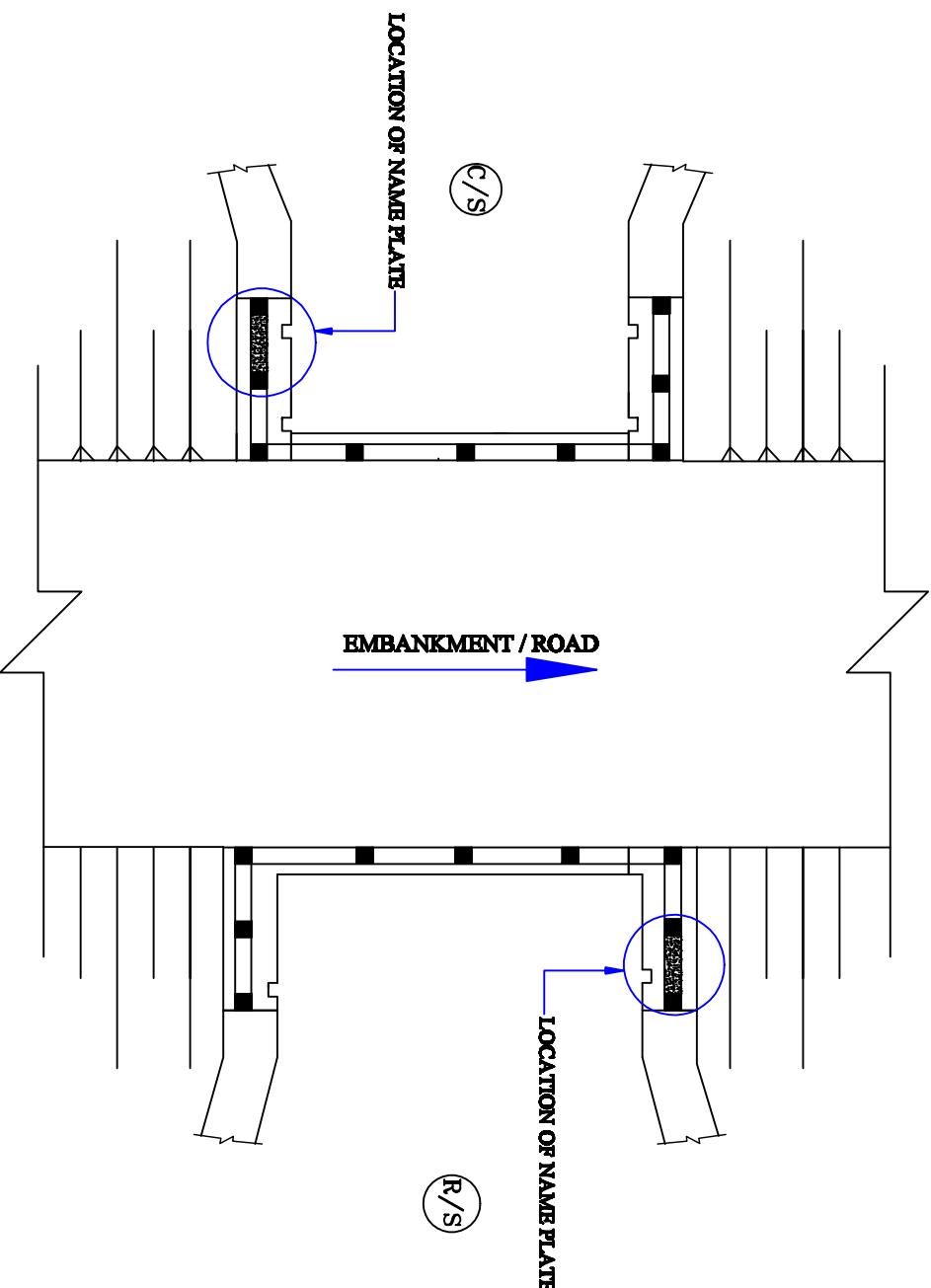
- NOTES**
1. THE NAME PLATE SHALL BE PLACED AT THE LEFT SIDE OF BOTH APPROACHES.
 2. THE SIZE OF LETTER SHOULD BE 30 mm TO 40 mm & IT SHOULD BE ENGRAVED IN THE PLATE.
 3. THE COLOR OF THE LETTER SHOULD BE WHITE ON MEDIUM BLUE SURFACE.
 4. THE NAME PLATE SHOULD BE CAST MONOLITHICALLY WITH THE POST AND THE WRITINGS SHOULD BE WRITTEN ON THE PLATE AFTER PLASTERING.



SECTION 20-20



ELEVATION

**PLAN SHOWING NAME PLATE LOCATION ON REGULATOR**

(NOT TO SCALE)

Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER 1,2,6-8 AND 6-8(EXTENSION)

**DESIGN OF DRAINAGE CUM FLUSHING REGULATOR
2-VENTI(1.50mx1.80m) ON KULUTIA KHAL AT KM 35.00 IN POLDER NO-6-8(EXT)
IN SATKHIRA DISTRICT, UNDER SATKHIRA O&M DIVISION-2, BWDB,
SATKHIRA.**

DETAILS OF NAME PLATE**DESIGNED BY:**

(SAKIB BIN RAFI, AE)

CHECKED & RECOMMENDED BY:

APPROVED BY:

DATE:

(JAKARIA PERVEZ), EE

DATE:

(MOHAMMAD SAIF UDDIN), SE

DWG. NO.:DC-8-0000-21/21