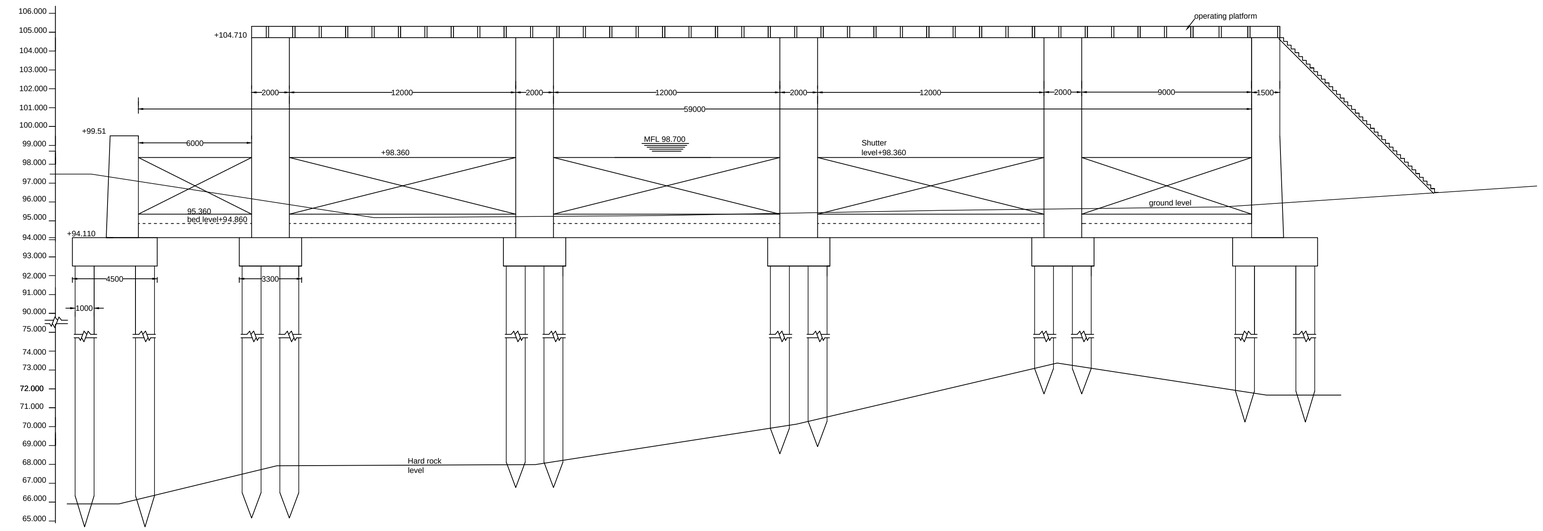
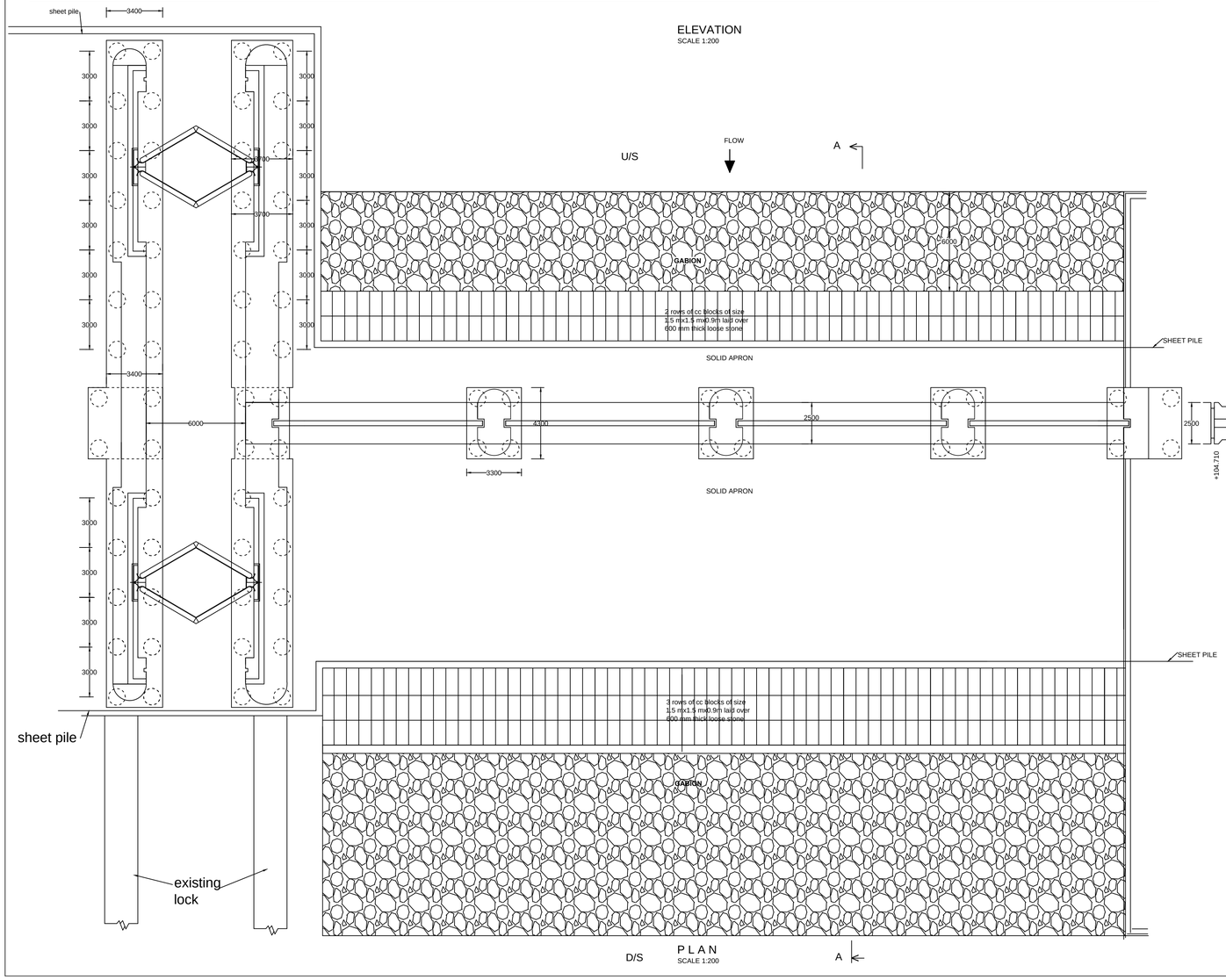
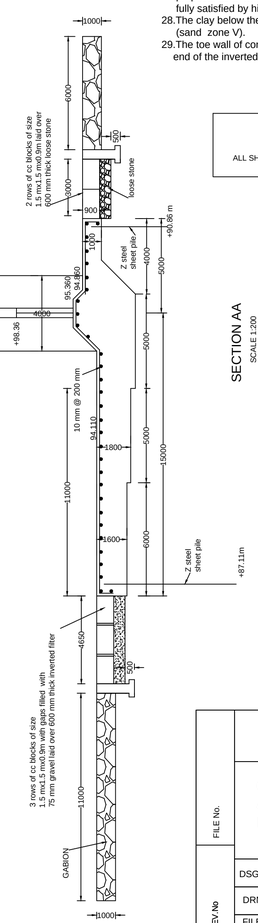


REDUCED LEVEL	97.484		95.175		95.282		95.557		95.740		95.979
DISTANCE	0.000		15.000		30.000		45.000		60.000		63.604
ROCK LEVEL		65.820		67.820		67.960		70.120		73.370		71.620

ELEVATION
SCALE 1:200



PLAN
SCALE 1:200



SECTION AA
SCALE 1:200

N O T E S

1. All dimensions are in millimetres and levels are in metres.
2. No dimension shall be scaled off, only written dimensions to be followed.
3. All specifications shall be strictly in accordance with latest editions of relevant IS codes & I.R.C Specifications.
4. Hydraulic Particulars

Maximum Flood Level	=	+98.710
Maximum Flood Discharge	=	653.66m3/sec
Width of river	=	59.00 m
Bed Level (proposed from site)	=	+94.86
Shutter Top Level	=	+98.36
Crest level	=	+95.36

5. Mix adopted
   1. pile cap - R C C M 30
   2. Pile - R.C.C M 30
   3. Abutment, pier - R C C M 25
   4. Apron - M15
   5. Maximum size of aggregate - 20 mm
6. The chainages and levels shown are based on the cross section drawings furnished in the investigation report. Any variation in levels may be reported to this office and revised design shall be obtained.
7. Cover for all reinforcement shall be as per standards. High yield strength deformed bars confirming to IS 1786-1985/TMT bars of grade 415 should be used. The cement used shall confirm to relevant IS standards.
8. The pile foundation is provided with bored cast in situ piles 1000 mm dia.Bore holes at all pier points are not available .As perthe available data pile is designed for a length of 30.1 m embedding into hard rock for piers and abutments.
9. Gabion blocks shall be provided for a length of 6 m in the U/S and 11m in the D/S.
10. The Gabion boxes of size 1m x 1m x 1m shall be made of mechanically woven double twisted wire mesh of PVC coated galvanized steel of diameter 2.7mm / 3.7 mm (ID /OD) as per IS 16014-2012. Each box shall be tied up to the adjacent boxes to form a mat.
11. The gabion boxes shall be filled before placing in the required location and the stones shall be larger than the mesh openings and of more or less uniform size. The basket shall be full and not bulging
12. Bank connection and side protection shall be provided as per site conditions.
13. Proper drainage arrangements (Weep holes along with filter materials) shall be provided to the down stream side of the abutments. Filling material behind abutments should be as per appendix -VI of IRC section 78-1983.
14. Suitable bed protection shall be done during execution to prevent excessive erosion of bed materials.
15. Operating platform , hoisting arrangements of shutter shall be provided suitably in consultation with the Mechanical wing of Irrigation Dept.
16. Groove size provided for pier and abutment (600x600) is tentative . The actual size shall be fixed in consultation with the Mechanical wing.
17. All embedded parts required for fixing the gate should be fixed simultaneously with concreting of pier and abutments.
18. Expansion joints and construction joints shall be provided at suitable intervals and shall be in accordance with standards .
19. Abutments and wing walls shall be constructed monolithically.
20. During execution, after casting piles, pile integrity test may be conducted by engaging KERI , Peechi inorder to assess pile length and quality.
21. The cut off wall should suitably be extended into the banks on both sides (clause 17.1 of IS 6966-1988).
22. 3 shutters of 12 m x 3 m and 1 shutter 9 mx3 m are provided. 2 diamond shutters of size 6m x3 m are provided on either side of the lock. The total length between face of abutments is 59 m.
23. Cut off using hot rolled Z sheet pile confirming to IS 2314-1986 having a minimum thickness of 8.50mm and specifications as per circular No.15/92/IDRB/CS(vol 9) dated 6.3.15 shall be used. Instruction for driving of sheet piles given in circular No. 15/92/IDRB/CS(vol 9) dated 25.3.15 shall be strictly followed. Circulars are published in the web site of Irrigation department.
24. Surface reinforcement of 10 mm dia @ 200 mm c/c shall be provided for apron.
25. Fusion bonded Epoxy coated reinforcement conforming to IS13620-1993 shall only be used for all reinforced concrete components, if the regulator site is within 15 km from the sea.
26. The bed level at the time of construction should be verified and if there is any difference it may be reported.
27. Before taking up the project, the adequacy of various provisions in the drawing and feasibility of the proposal as a whole shall be examined at site by the Chief Engineer, Irrigation & Administration and fully satisfied by himself to ensure the overall and long term safety of the structure.
28. The clay below the apron should be removed for a depth of 2 m and stabilised with Jamuna sand (sand zone V).
29. The toe wall of concrete extending up to 500 mm below the bottom of filter shall be provided at the end of the inverted filter to prevent it from getting disturbed.

SPECIAL NOTE

ALL SHUTTERS SHALL BE IN FULLY OPEN CONDITION DURING FLOOD SEASON

TRUE COPY

JOINT DIRECTOR
CANALS

IRRIGATION DEPARTMENT, KERALA
IRRIGATION DESIGN AND RESEARCH BOARD

CONSTRUCTION OF REGULATOR WITH LOCK ACROSS KONOTHUPUZHA AT PUTHENKAVU IN UDAYAMPEROOR GRAMAPANCHAYATH
GENERAL DRAWING

FILE No.

REV /No

DSGN	Sd/- ASSISTANT DIRECTOR	CHD	Sd/- DEPUTY DIRECTOR	RECM	Sd/- DIRECTOR
DRN	SURESH KUMAR.V D/MAN	REWD	Sd/- JOINT DIRECTOR	APPD	Sd/- CHIEF ENGINEER
FILE No. IDRB/769/2018 /CS /PBD		THIRUVANANTHAPURAM DATE : 19/05/2018		DRG. No.25 /2018 SHEET No. 1/2	