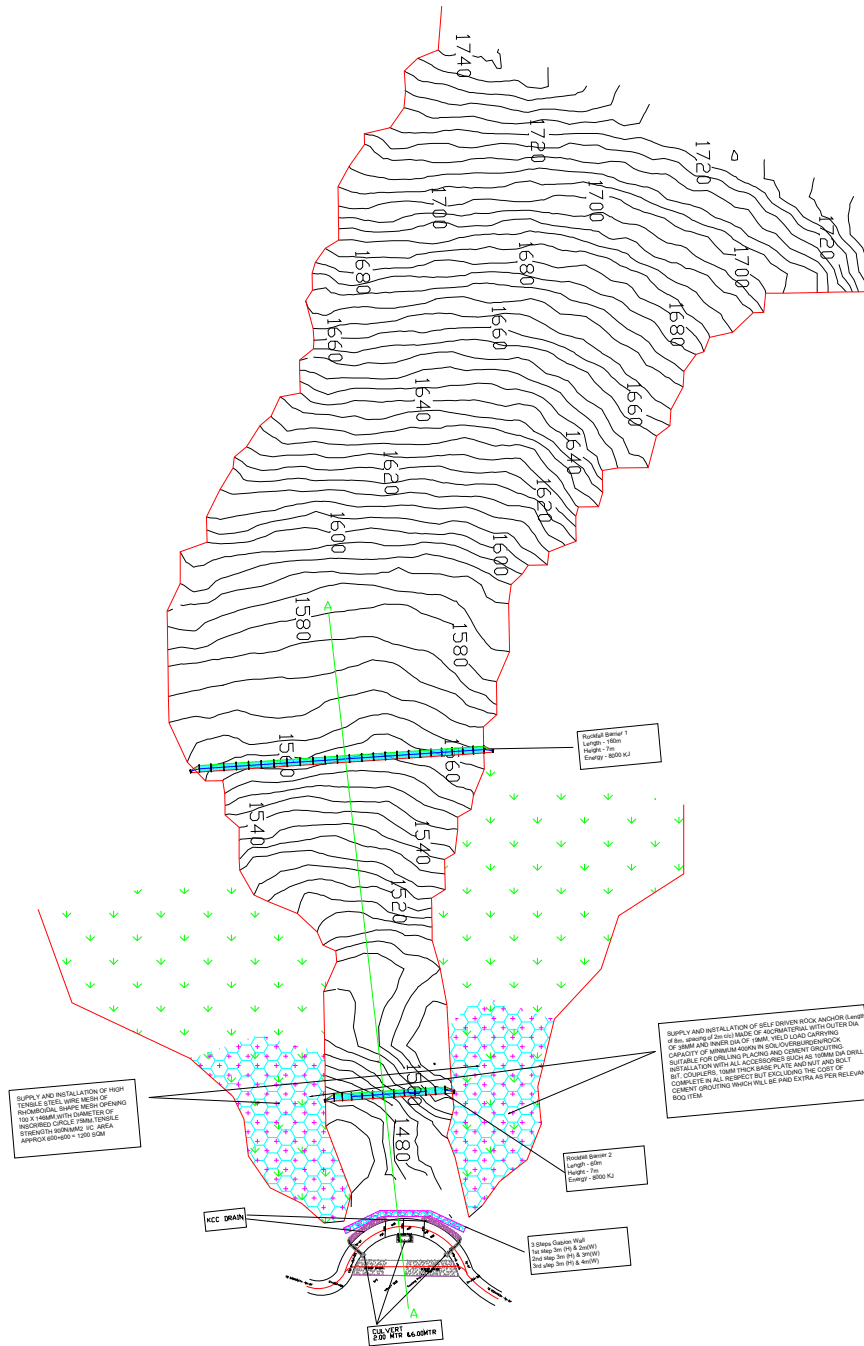
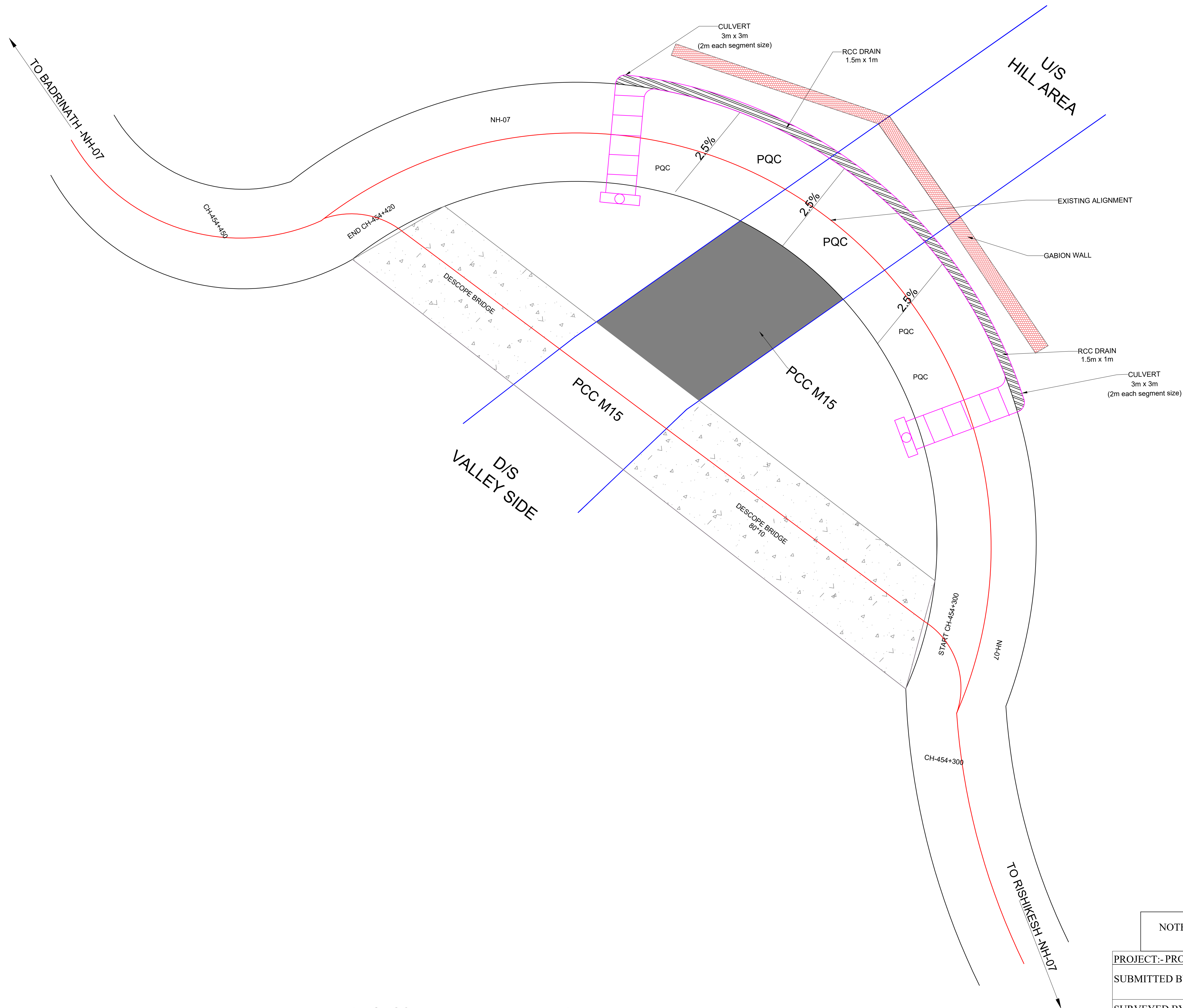


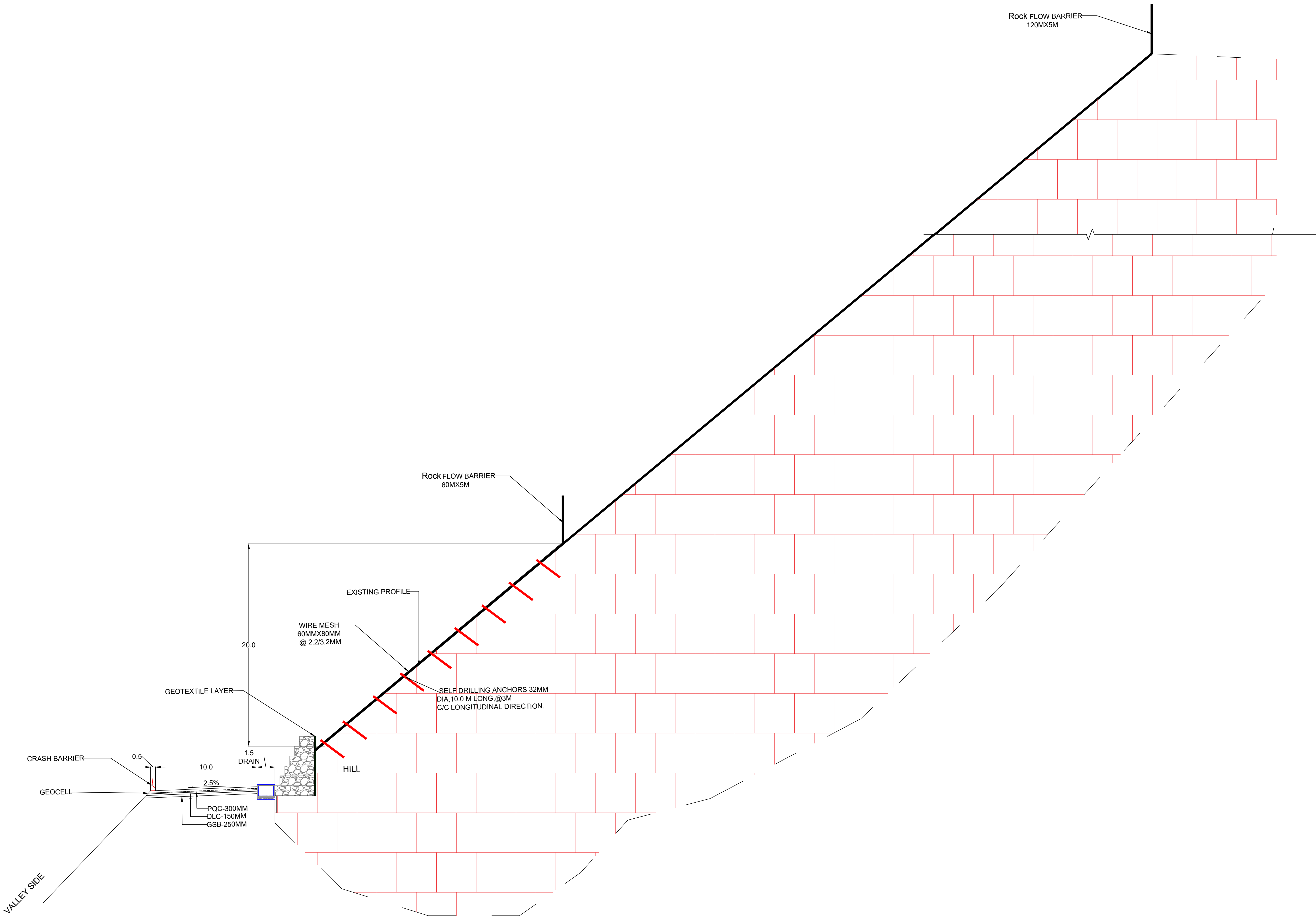


	ROCKFALL BARRIER
	HIGH TENSILE STEEL WIRE MESH
	38MM SDA
	GABION WALL
	KCC DRAIN
	CULVERT



PROPOSED TREATMENT PLAN OF PAGALNALA

NOTE:- ALL DIMENSIONS ARE IN METER		
PROJECT:- PROPOSED TREATMENT PLAN OF PAGALNALA (NH-07)		
SUBMITTED BY:-		DATE
	DRAWING NO.	SHEET NO.
SURVEYED BY:-		REV.
	----	----



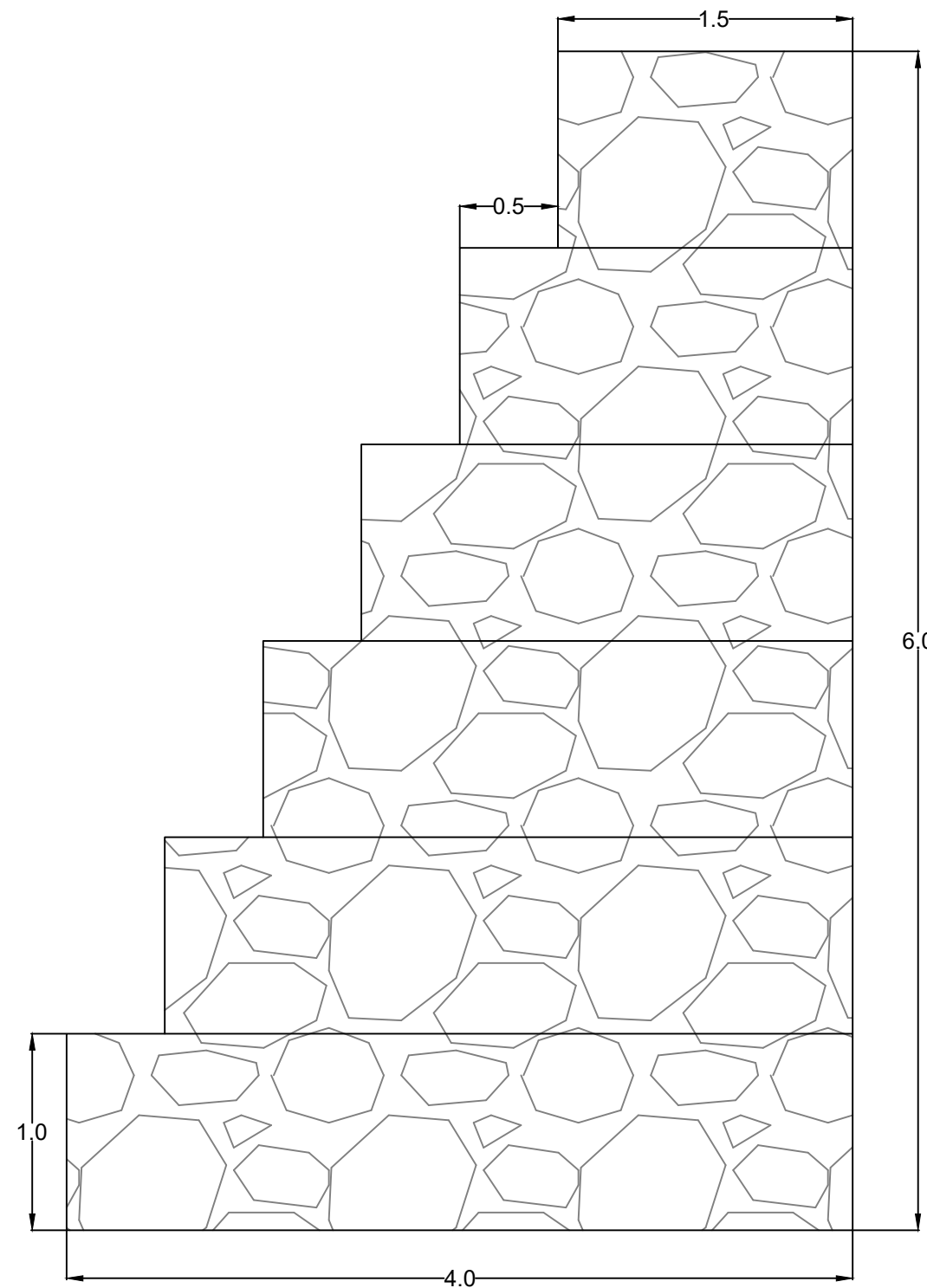
SECTION

- NOTE:-
- (1) FOR EVERY LANDSLIDE WIDTH GREATER THAN / EQUAL TO 120M , WE HAVE TO PROVIDE DEBRIS FALL BARRIER OF 120M LENGTH.
 - (2) ALL DIMENSION IN METER.

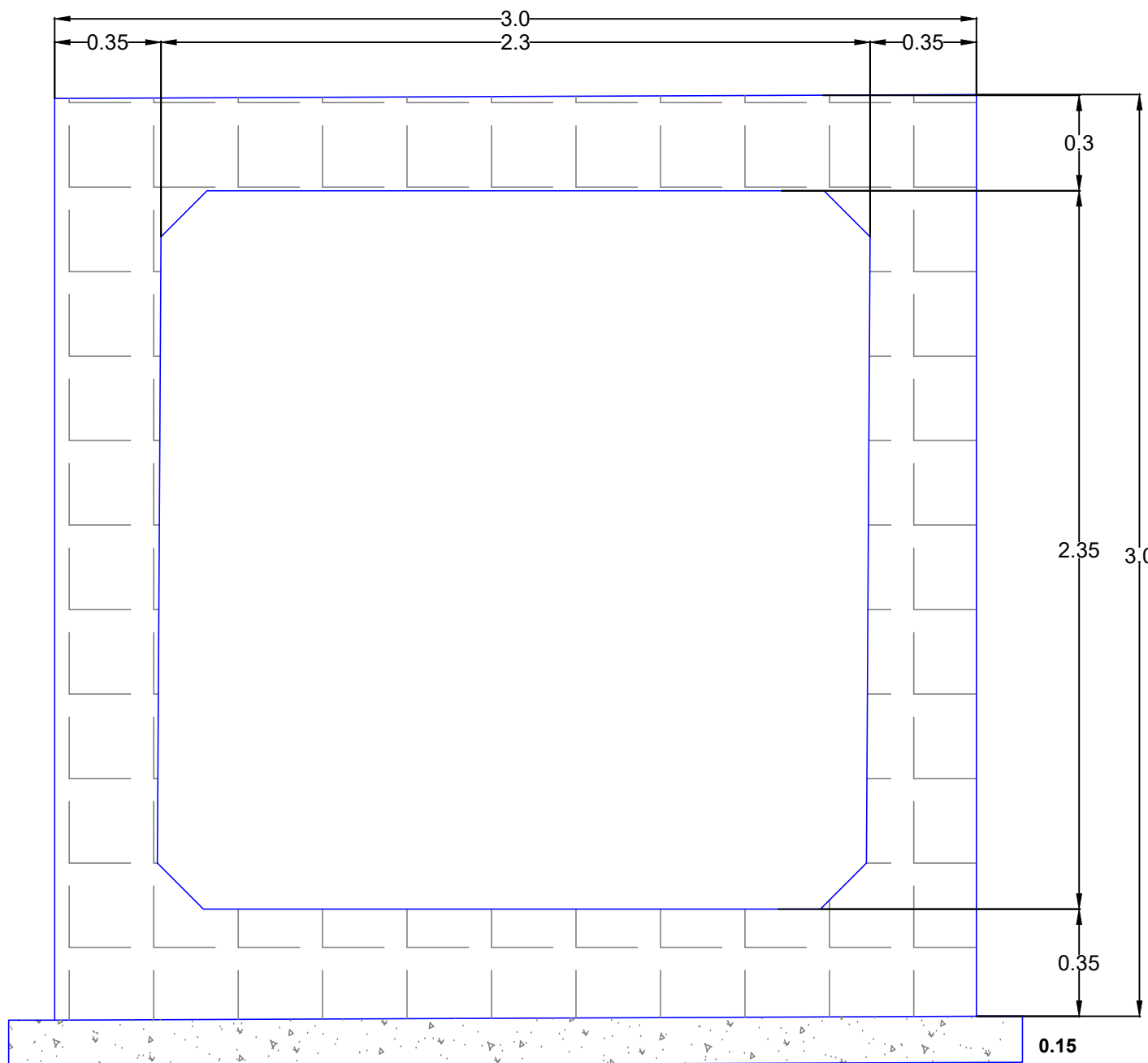
SR.NO		MM
1	GSB	250
2	DLC	150
3	PQC	300 (PQC M-30)

(PQC TOTAL LENTH-80 MTR)

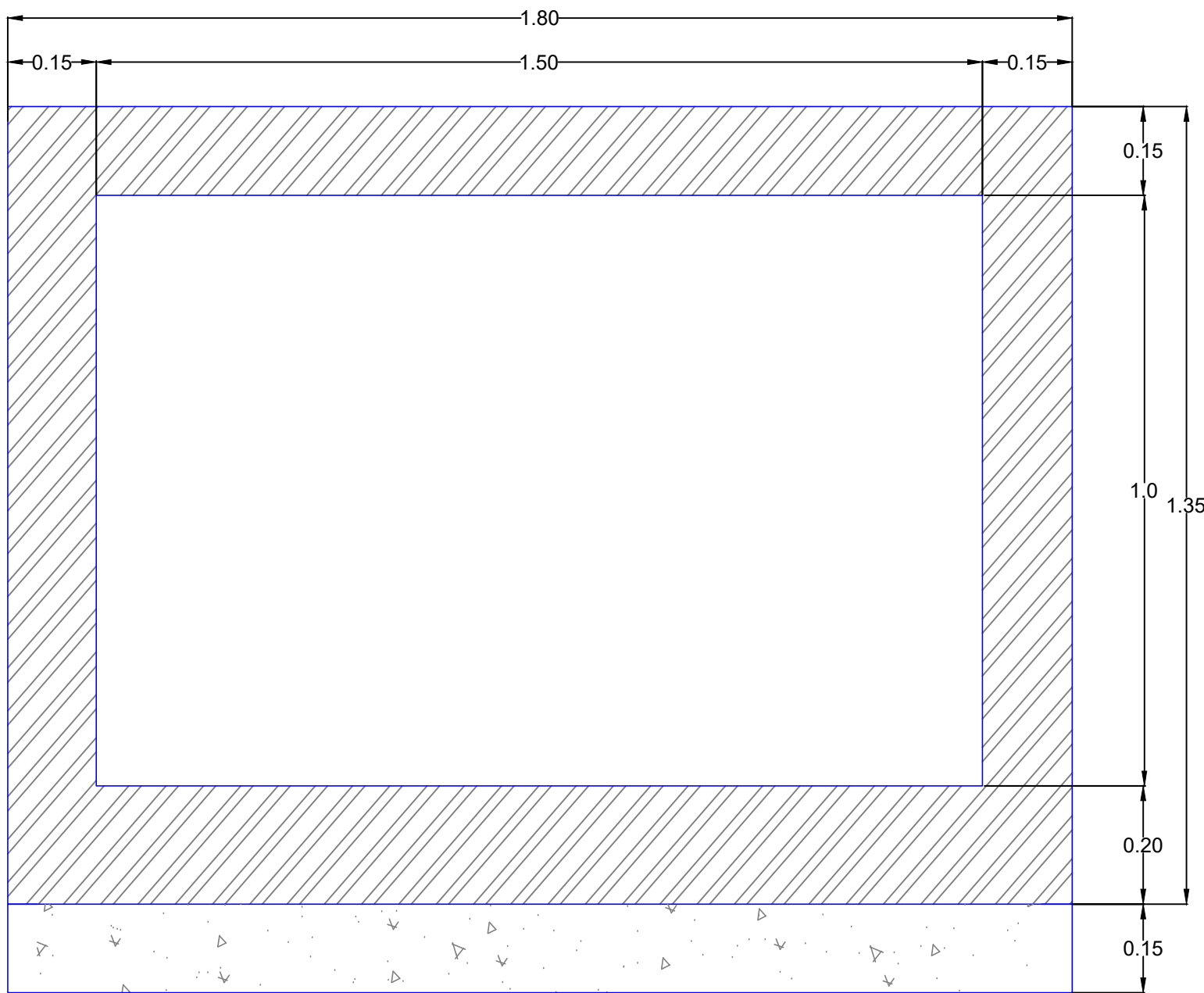
PROJECT:- PROPOSED TREATMENT PLAN OF PAGALNALA (NH-07)		
SUBMITTED BY:-		DATE
	DRAWING NO.	SHEET NO.
SURVEYED BY:-		REV.



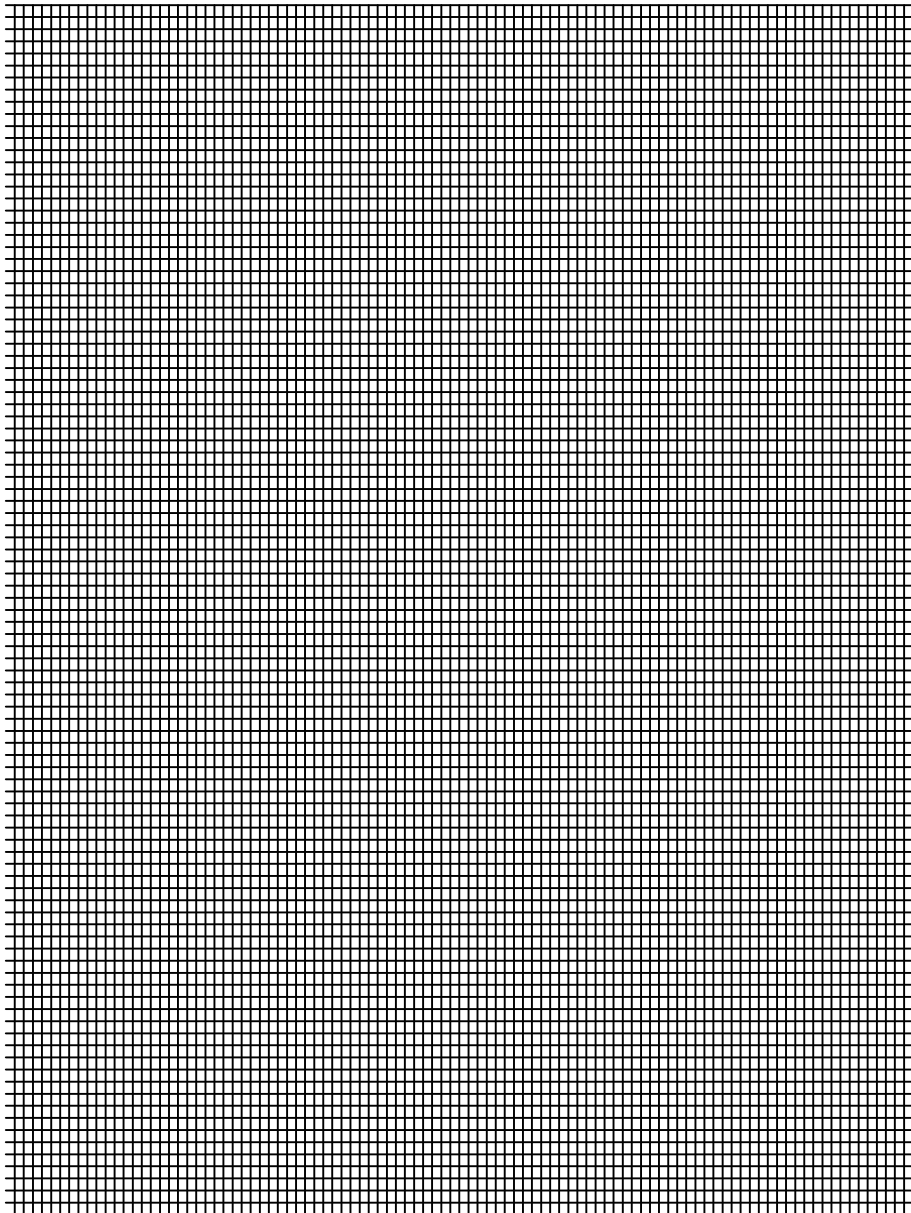
GABION WALL



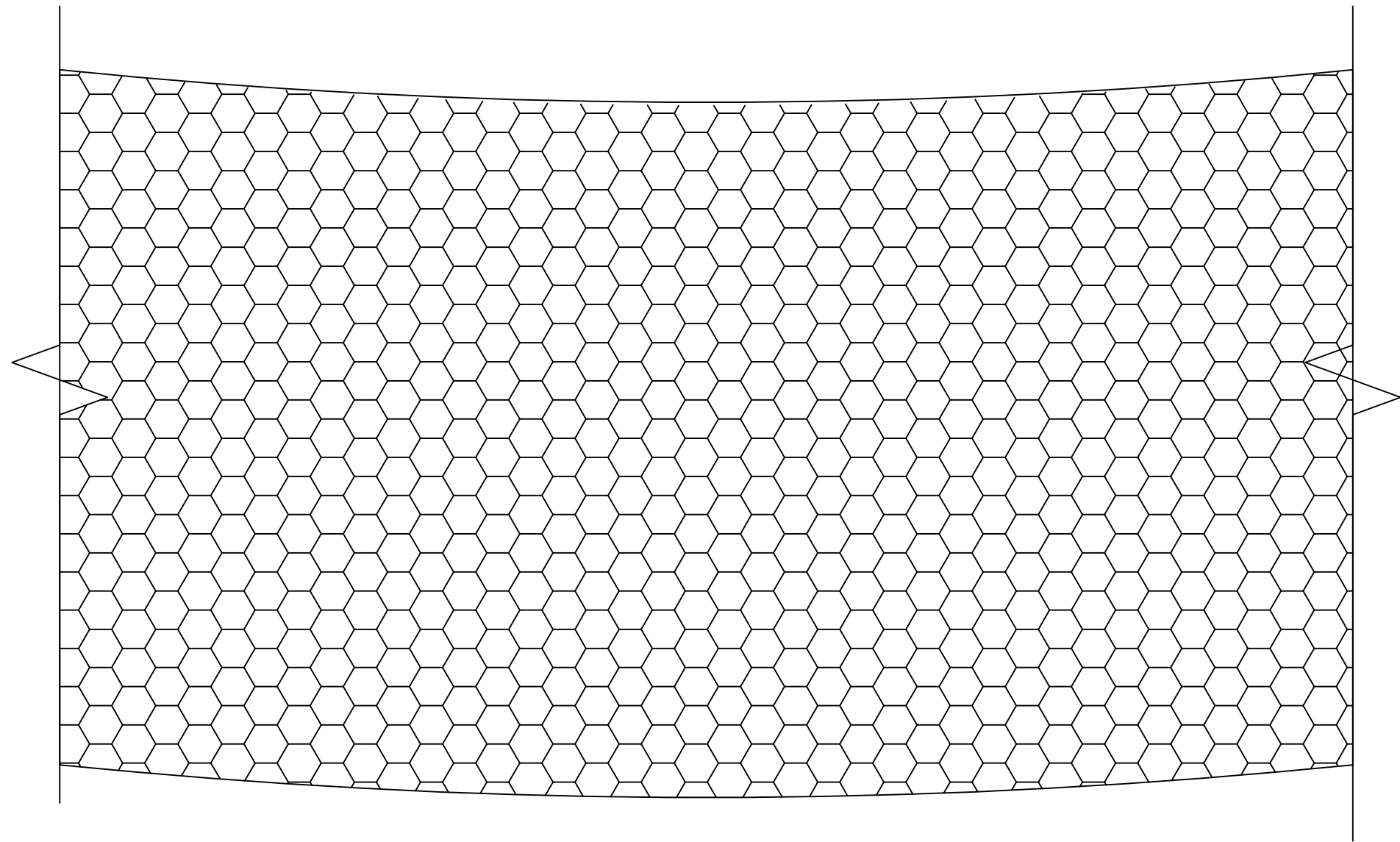
CULVERT
3mx3m



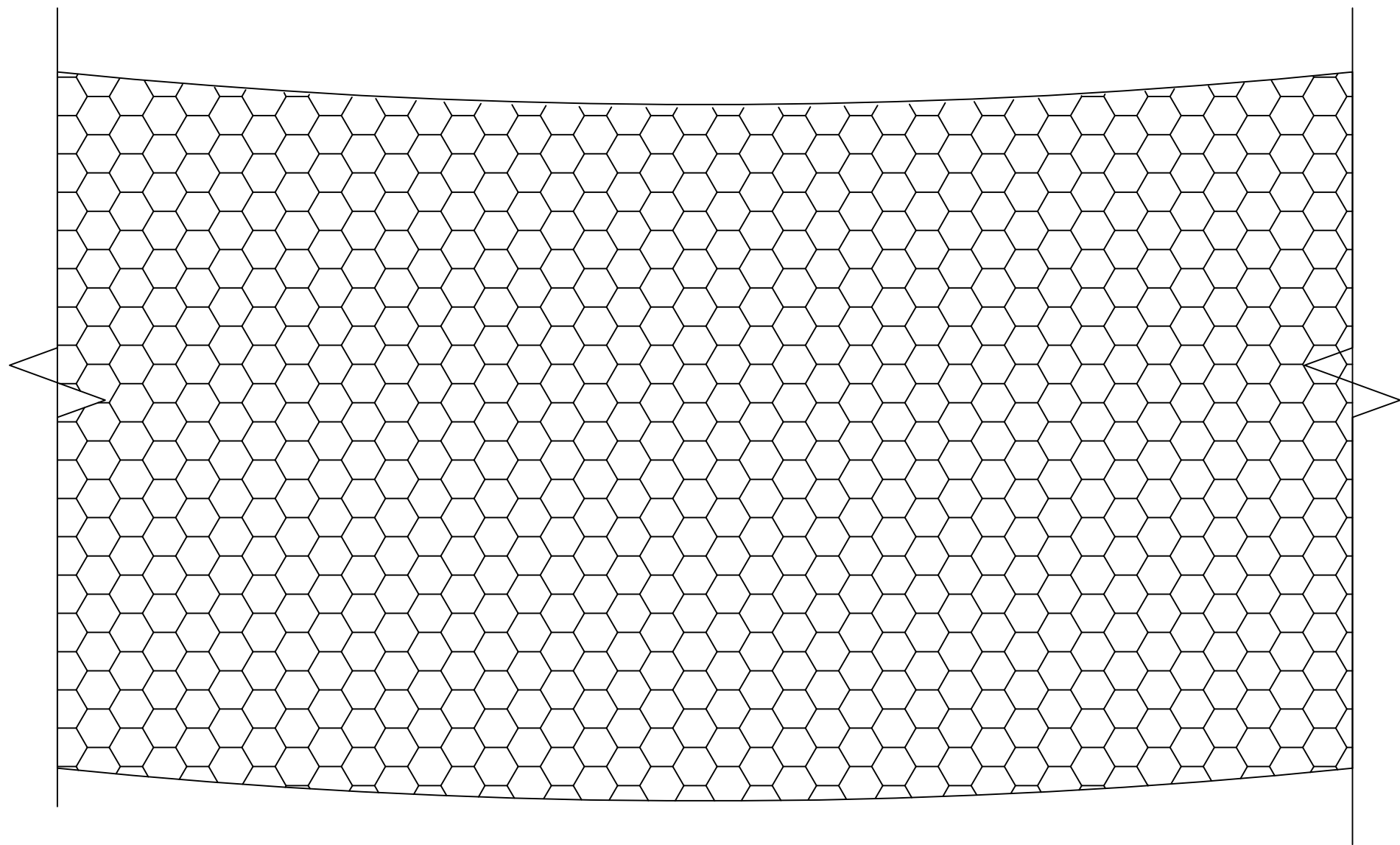
RCC DRAIN
1.5M X 1M



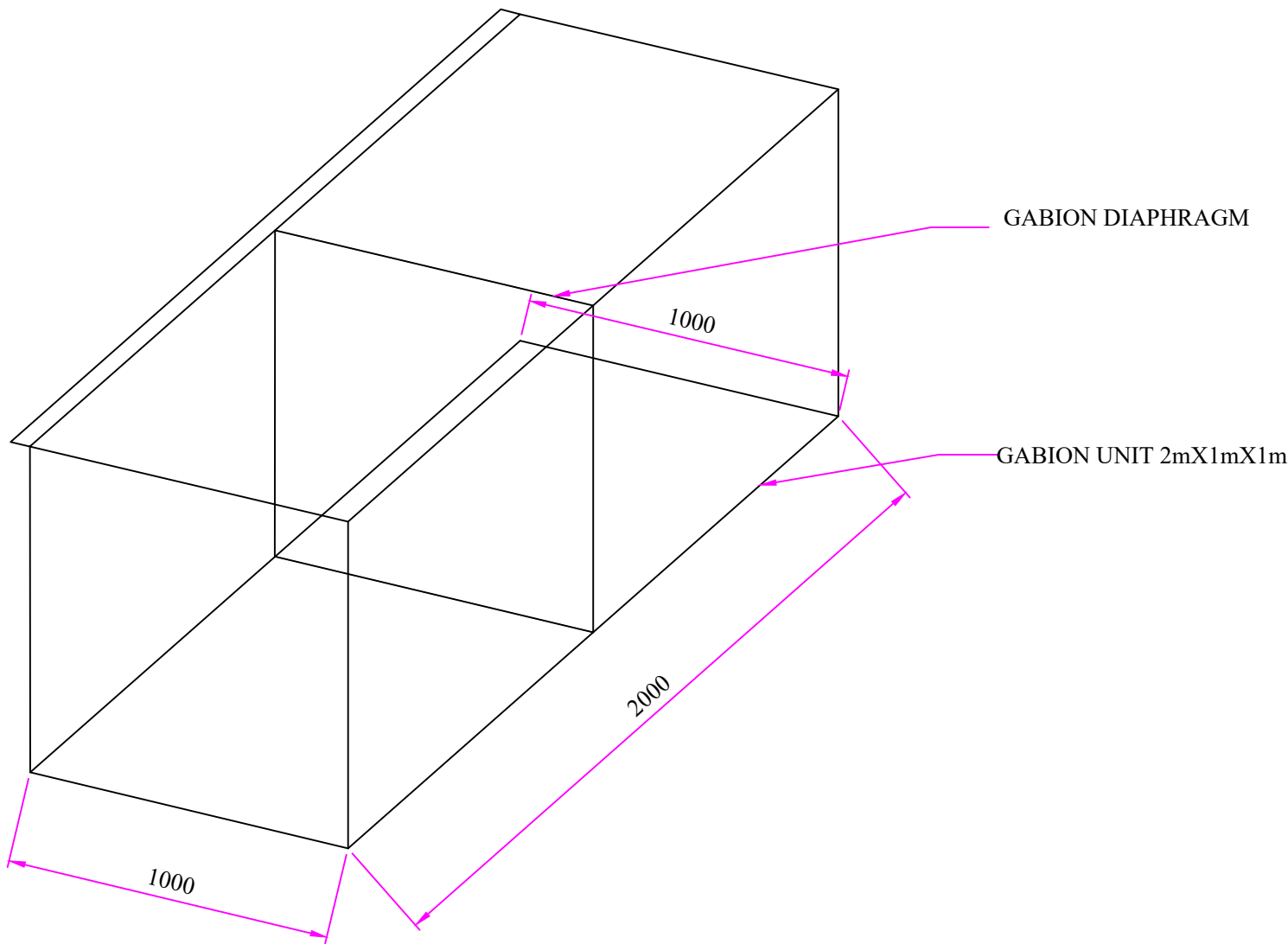
DETAIL OF WIRE MESH
6m x 8m @ 60mm x 80mm
MESH OPENING



Rock FLOW BARRIER
60MX5M



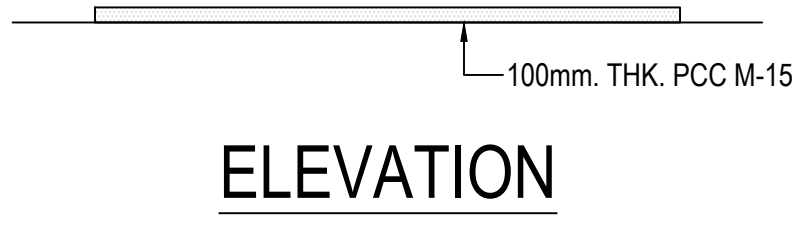
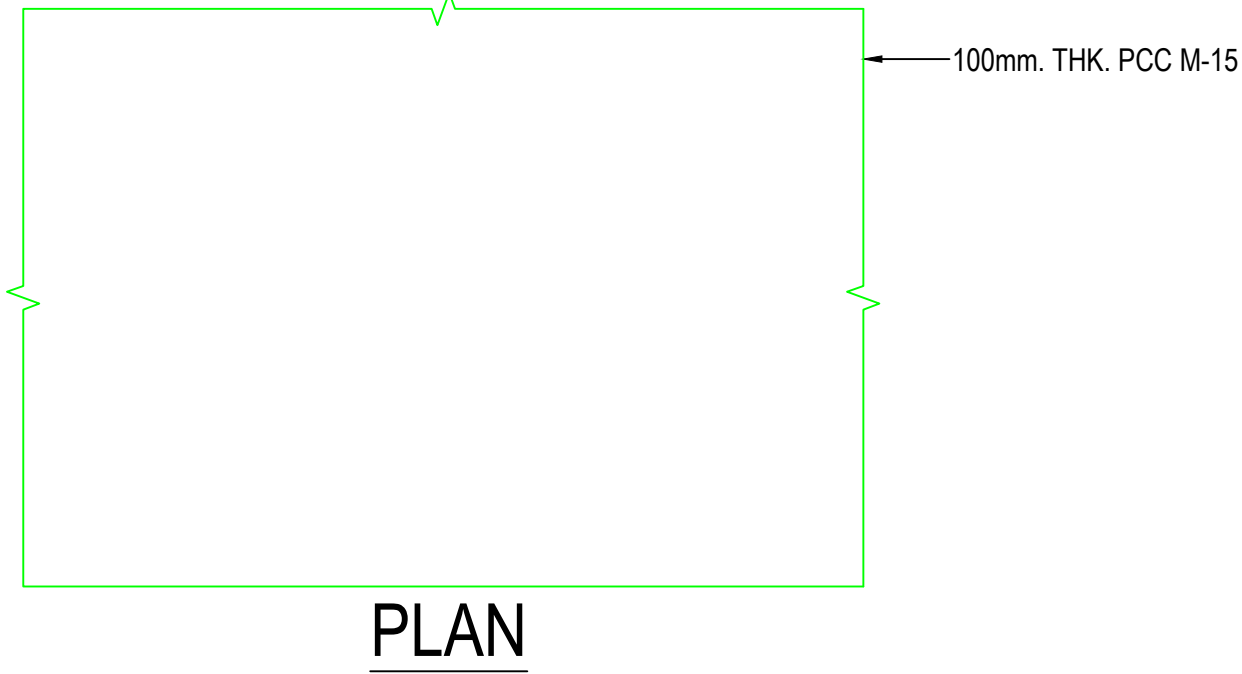
Rock FLOW BARRIER
120MX5M



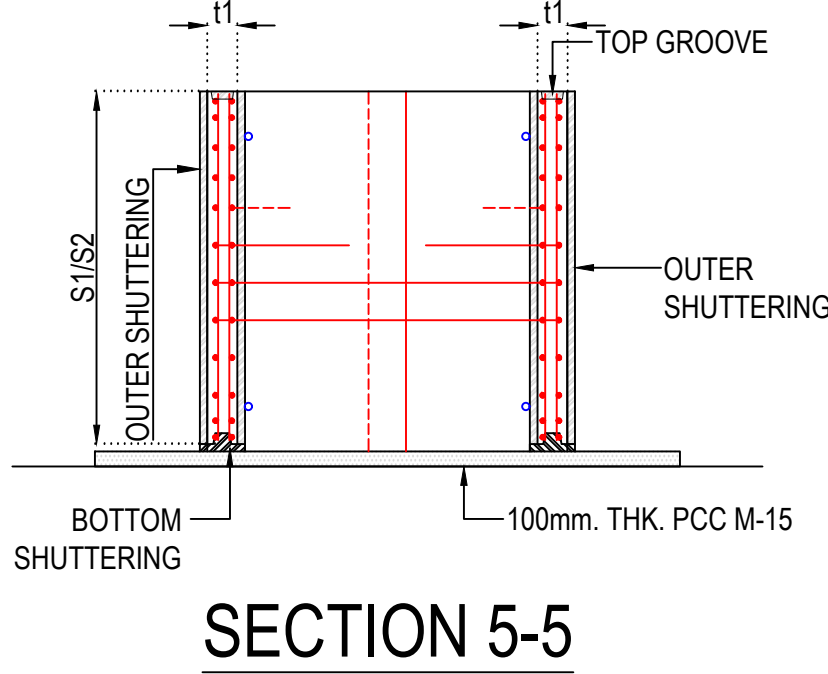
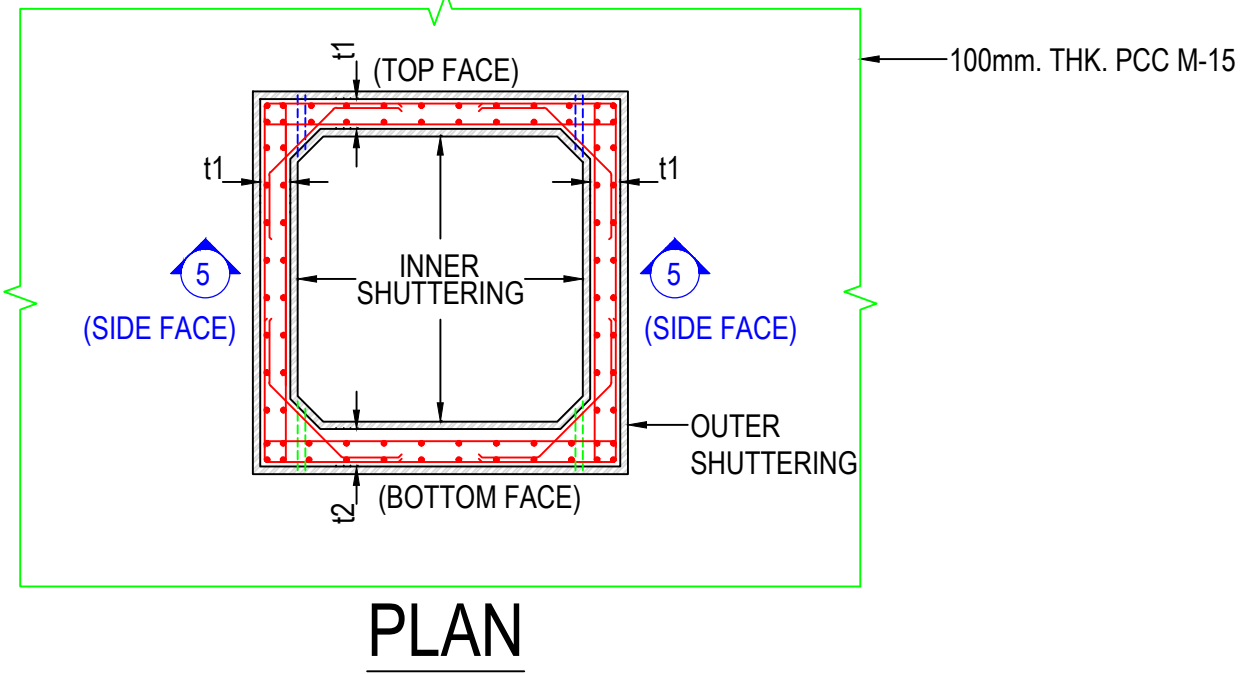
DETAIL OF GABION WALL

PROJECT:- PROPOSED TREATMENT PLAN OF PAGALNALA (NH-07)		
SUBMITTED BY:-		DATE
	DRAWING NO.	SHEET NO.
SURVEYED BY:-		REV.

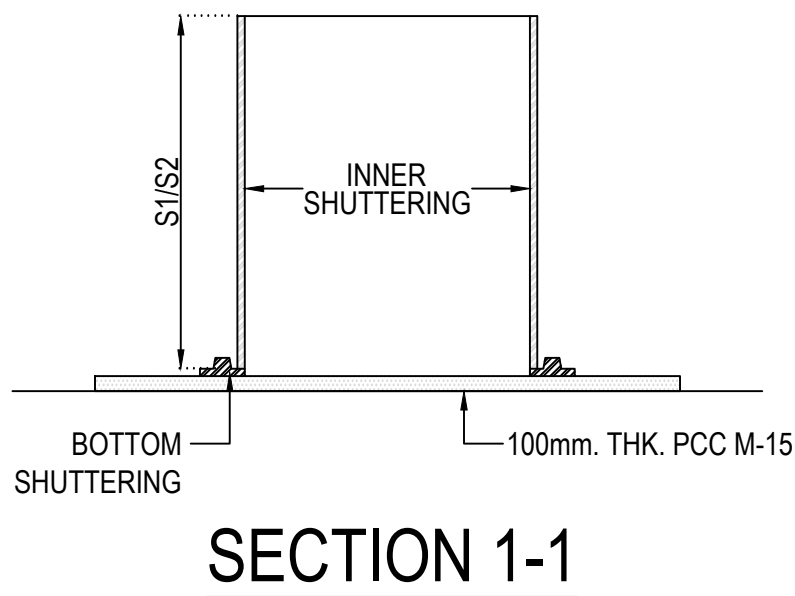
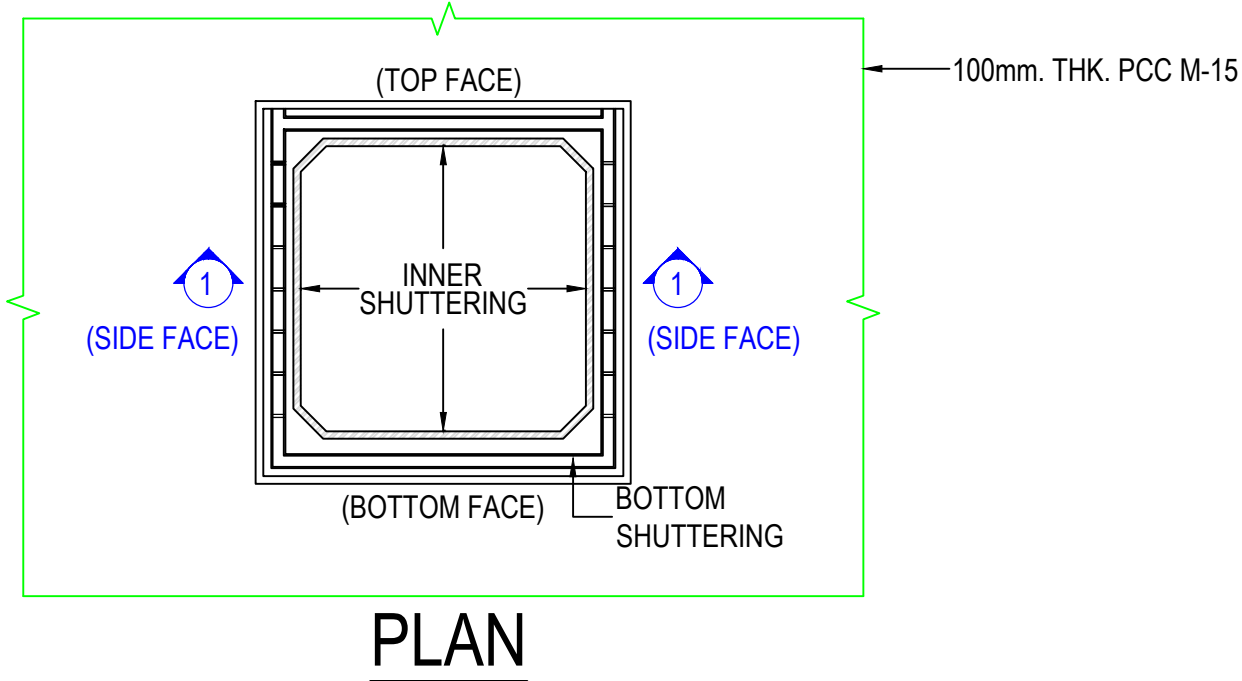
STAGE :- 1 - PREPARATION OF CASTING BED



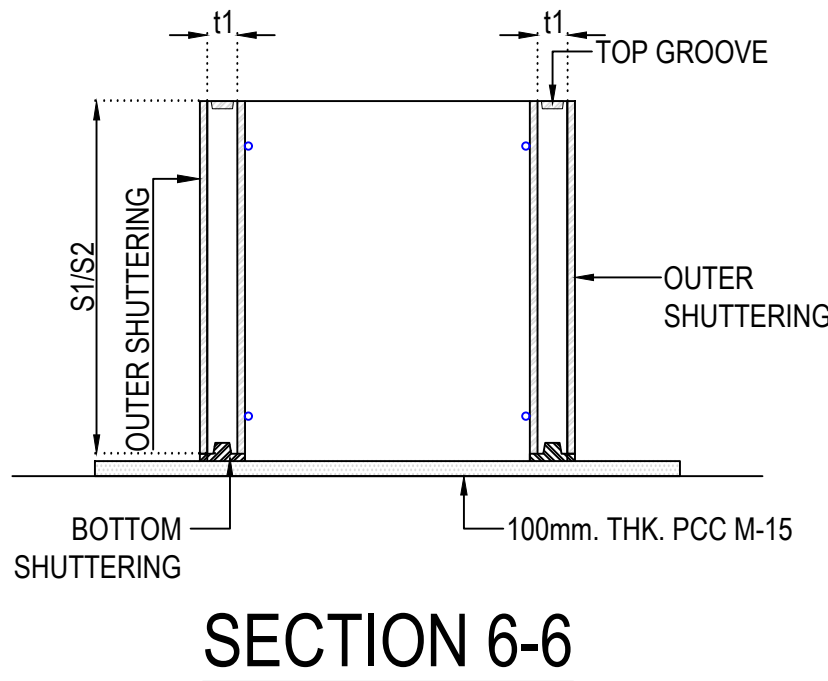
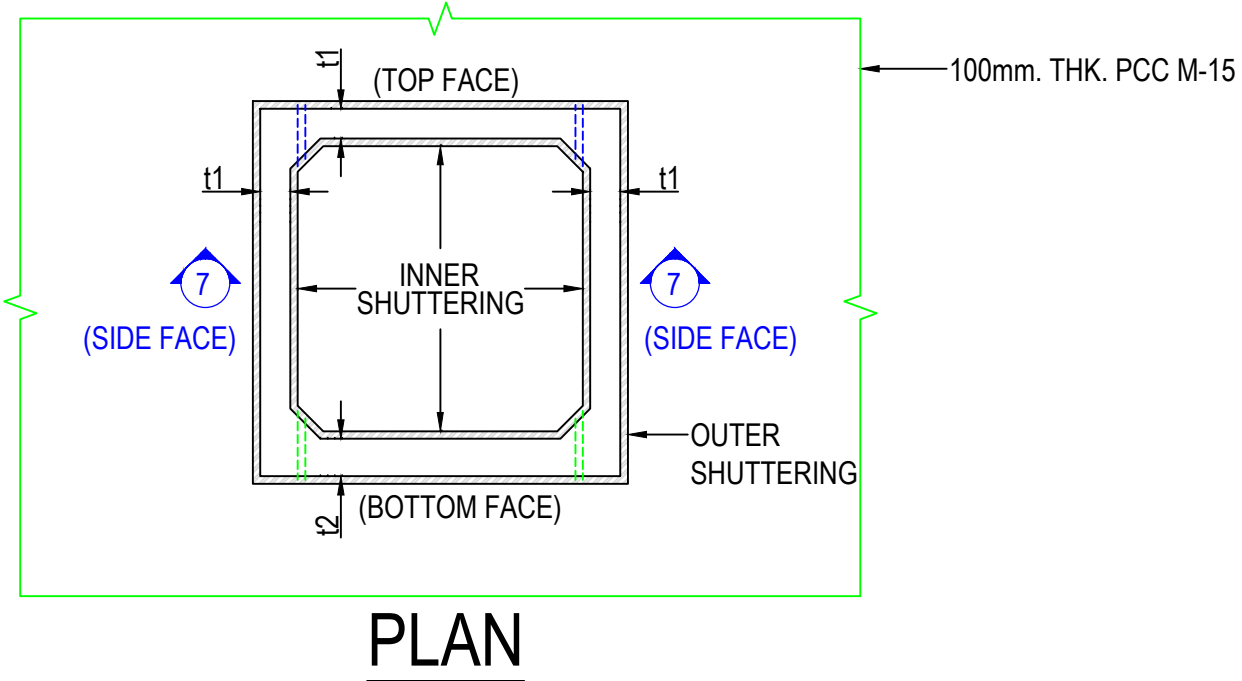
STAGE :- 5 - PLACING OF OUTER SHUTTERING AND TOP GROOVE



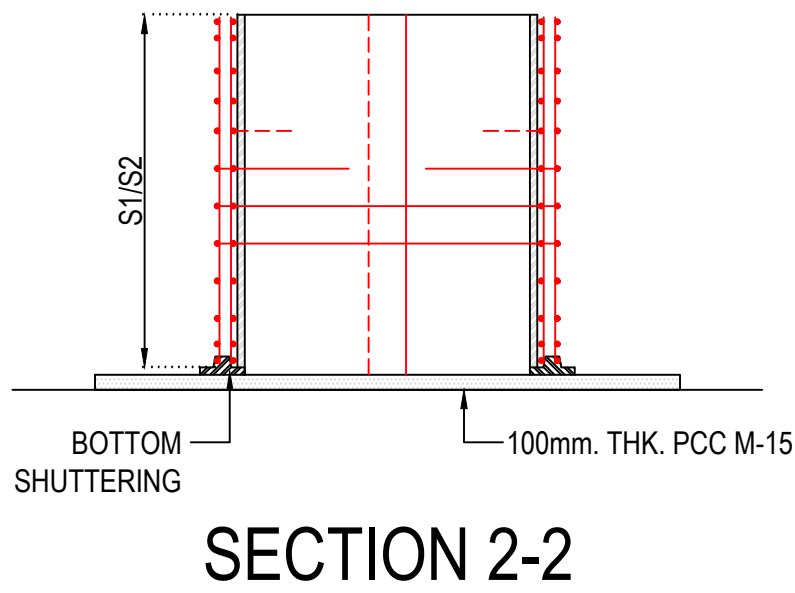
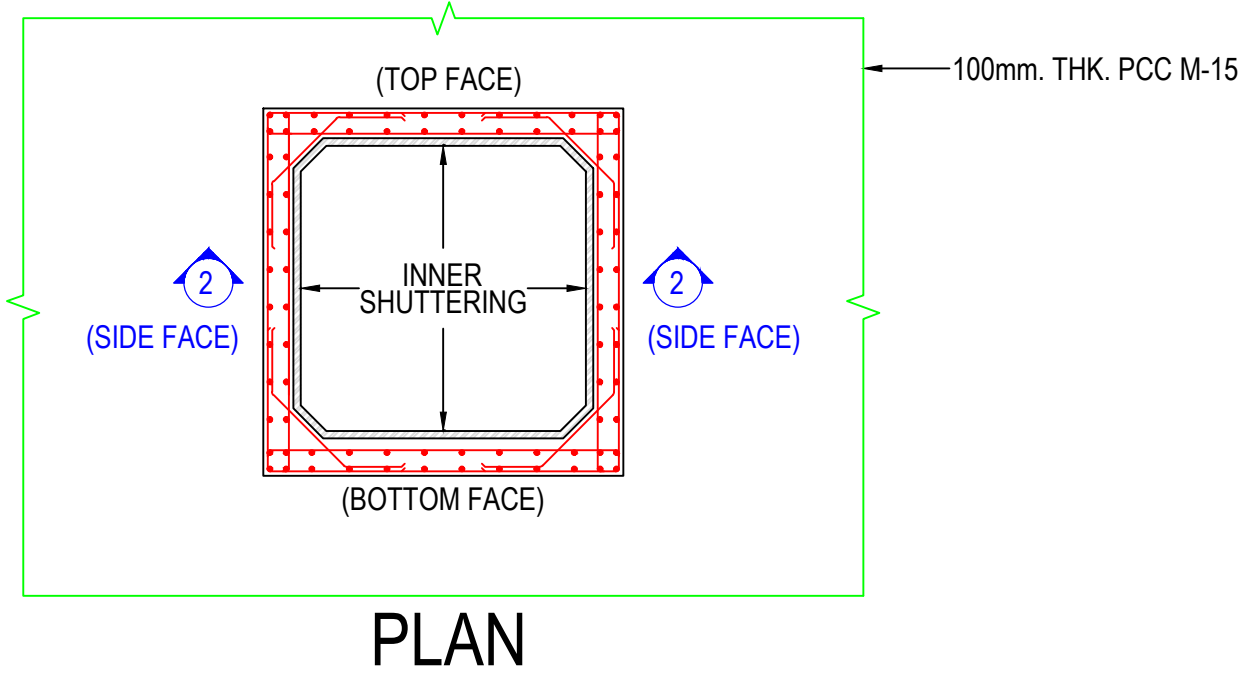
STAGE :- 2 - PLACING OF INNER SHUTTERING BOOOTOM SHUTTERING PLAN



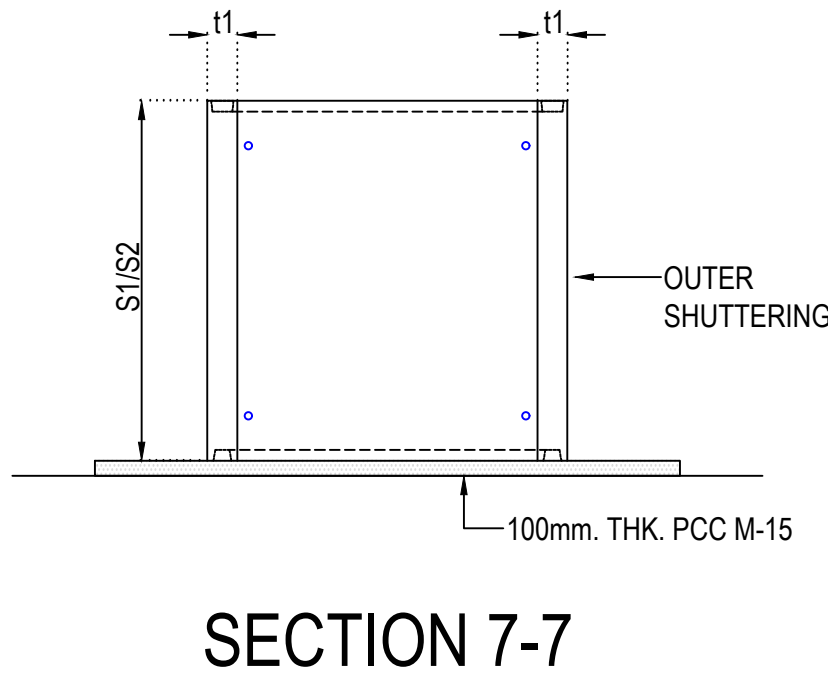
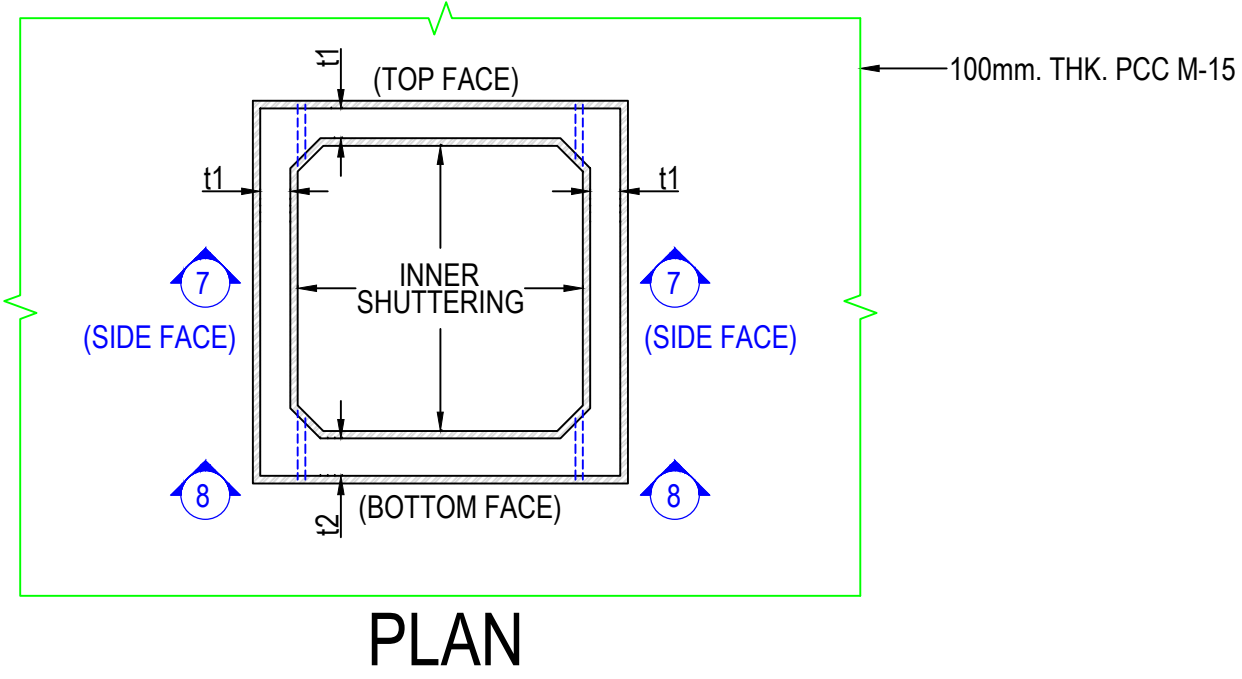
STAGE :- 6 - CASTING OF CONCRETE



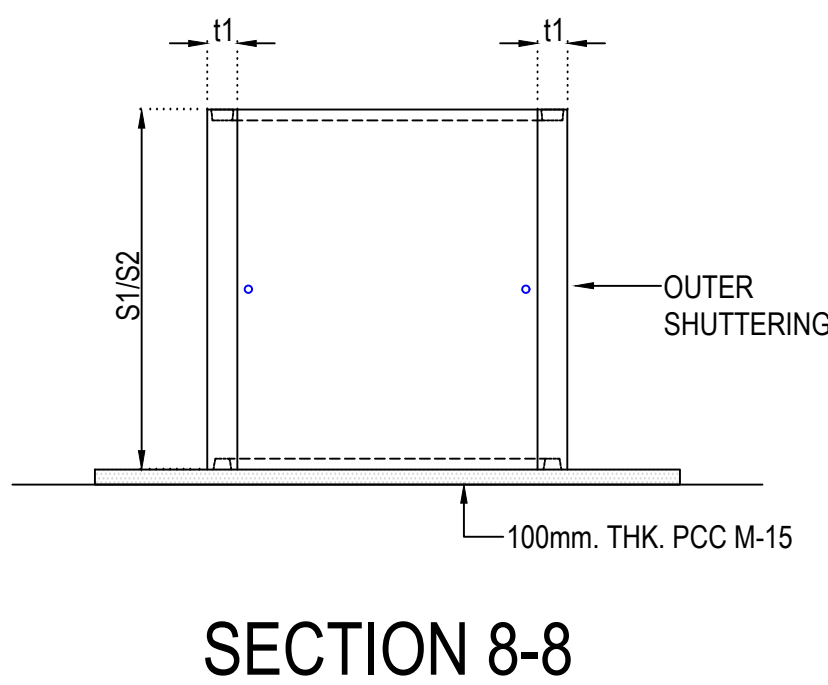
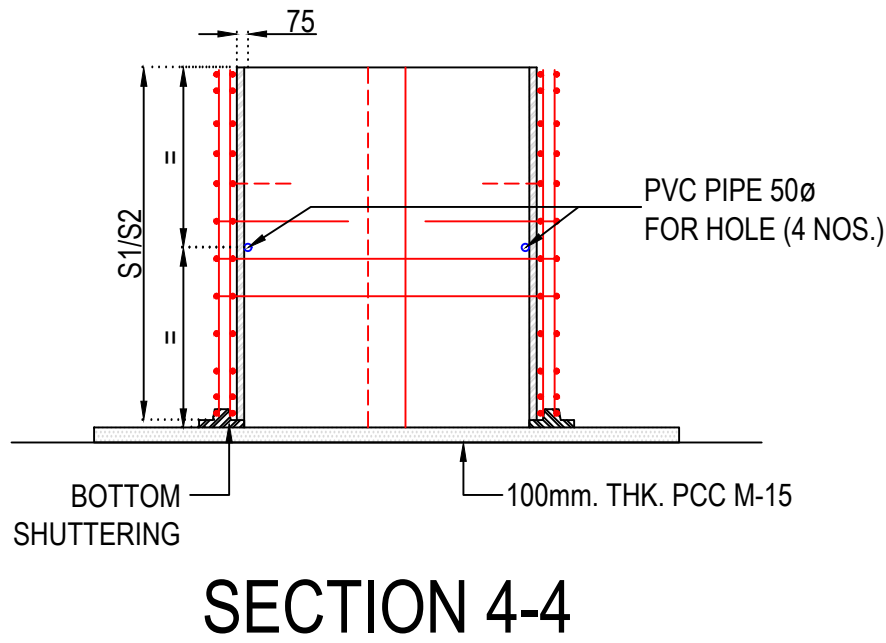
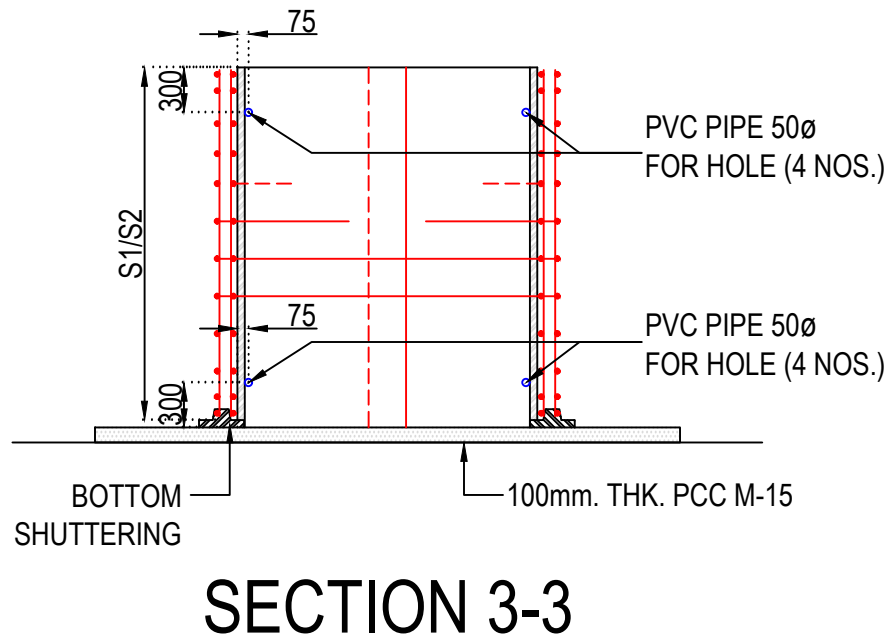
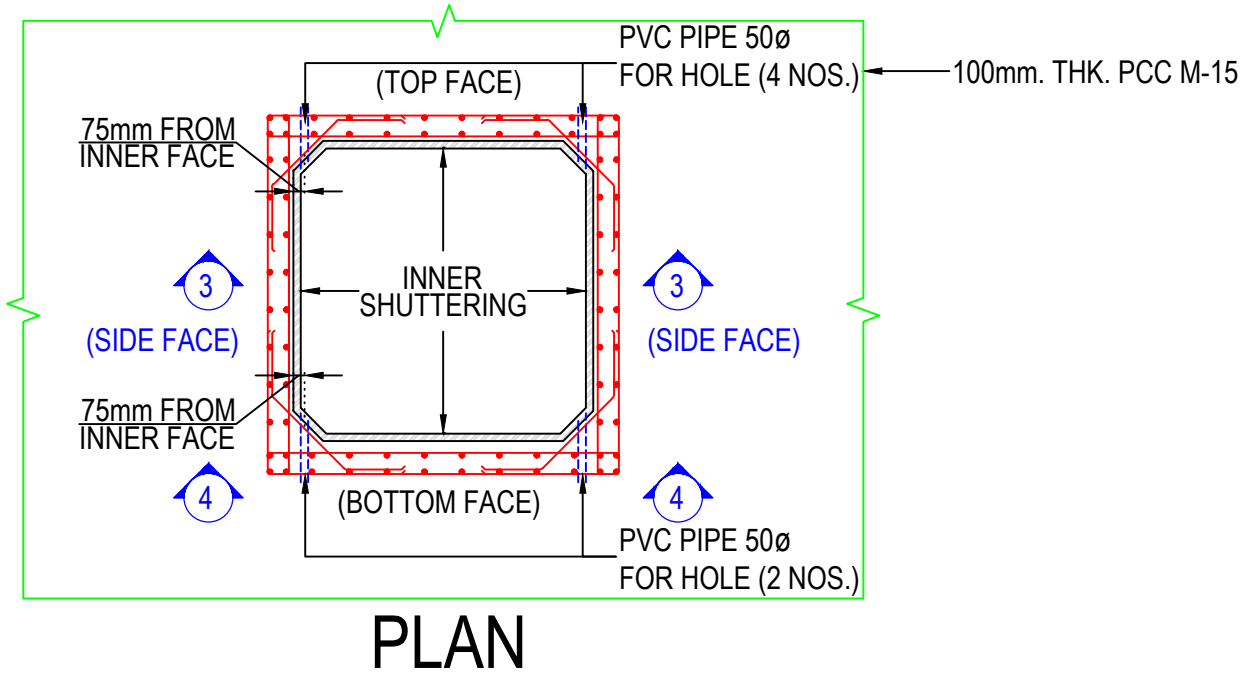
STAGE :- 3 - PLACING OF REINFORCEMENT CAGE

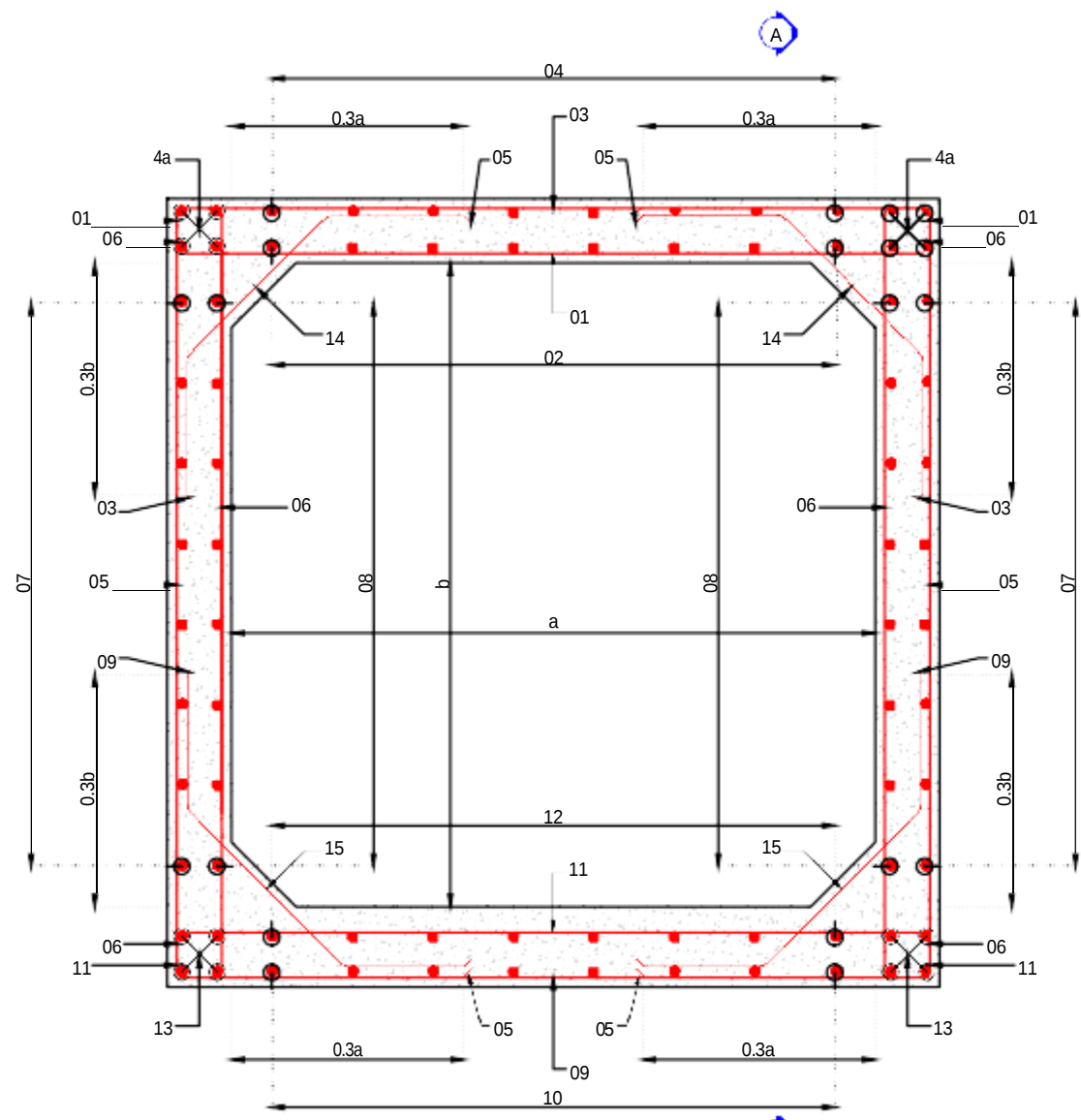


STAGE :- 7 - REMOVAL OF SHUTTERING AFTER 1 DAY

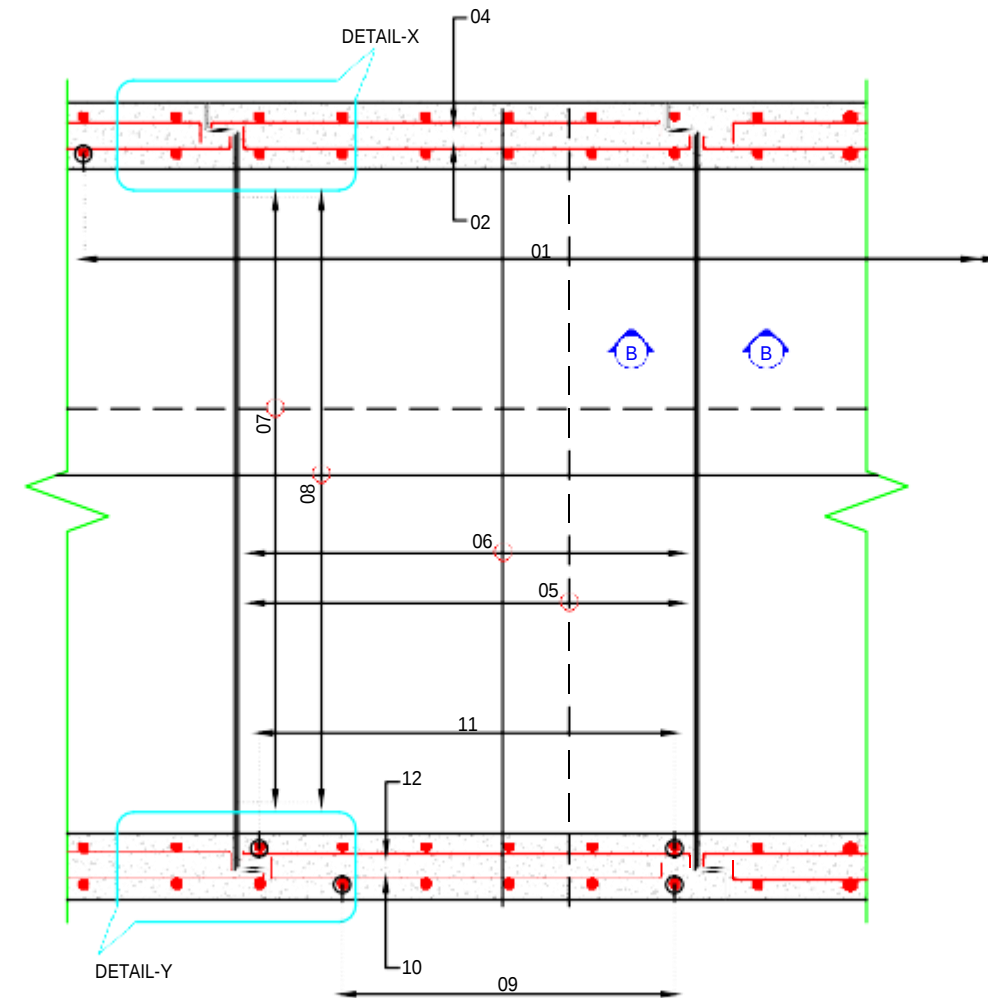


STAGE :- 4 - PLACING OF PVC PIPES FOR LIFTING HOLES

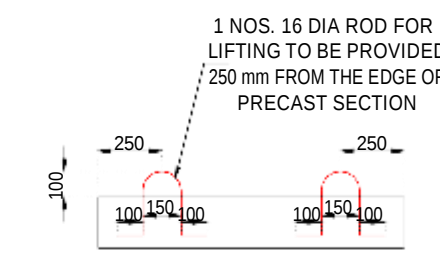




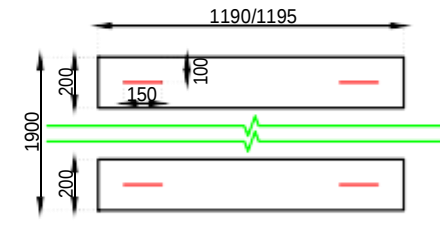
PRECAST RCC BOX



SECTION A-A



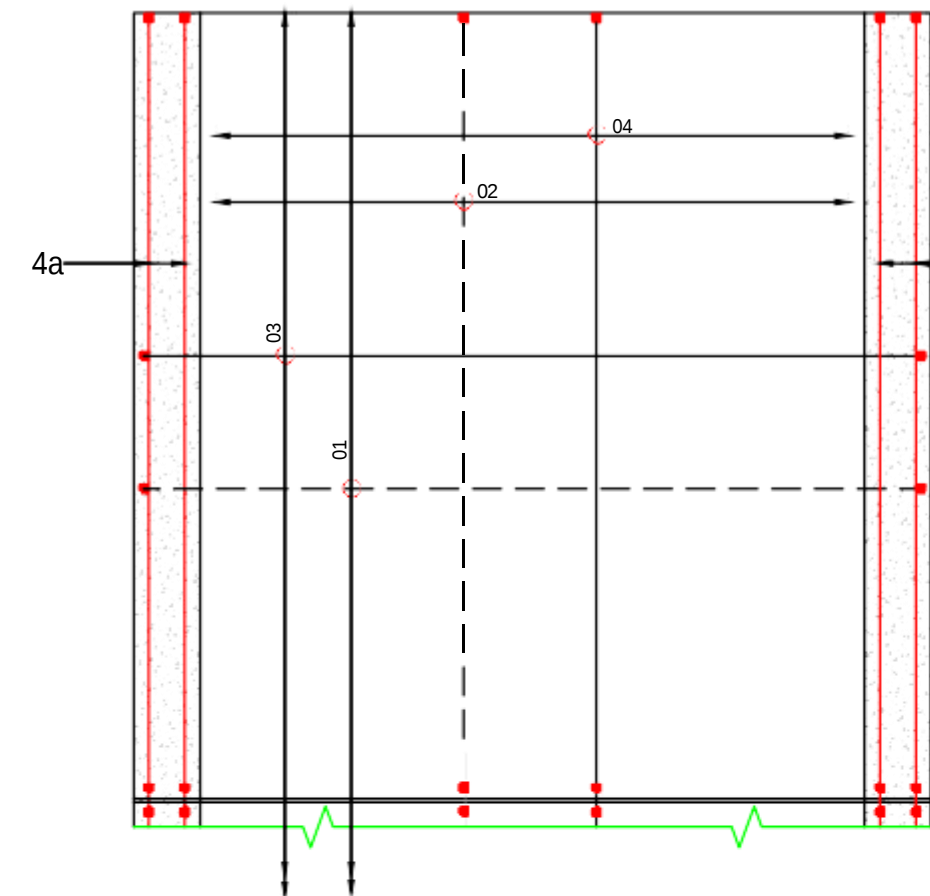
SECTION C-C



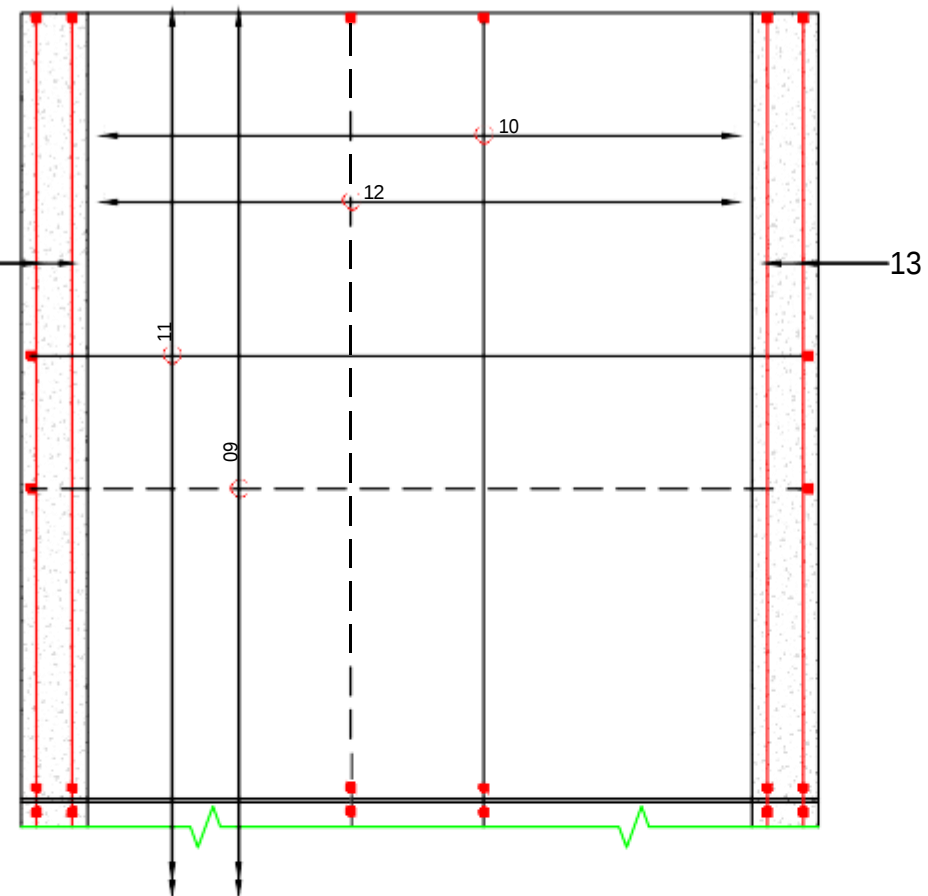
PLAN

SCHEDULE OF REINFORCEMENT (1X3.0X3.0)

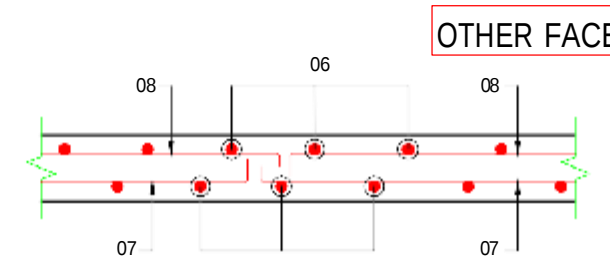
S.NO.	BAR MARK	SHAPE OF BARS (NOT TO SCALE)	CUSHION-06m to 1.0m		REMARKS
			BAR DIA IN mm	SPACING OR NO. OF BAR	
TOP SLAB	01		16	200	
	02		10	200	
	03		10	200	
	04		10	200	
VERTICAL WALL	4a		10	200	
	05		16	200	
	06		12	150	
	07		10	200	
BOTTOM SLAB	08		10	250	
	09		10	200	
	10		12	200	
	11		16+12	200	
	12		12	200	
	13		10	200	
	14		10	200	
HAUNCH	14		10	200	
	15		10	200	



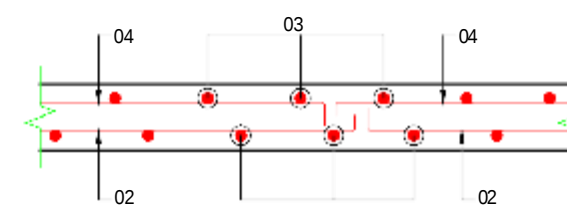
TOP SLAB REINFORCEMENT PLAN
(HAUNCH BAR NOT SHOWN IN PLAN FOR CLARITY)



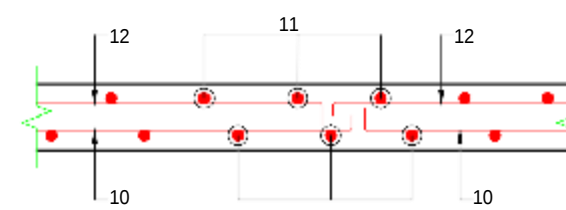
BOTTOM SLAB REINFORCEMENT PLAN
(HAUNCH BAR NOT SHOWN IN PLAN FOR CLARITY)



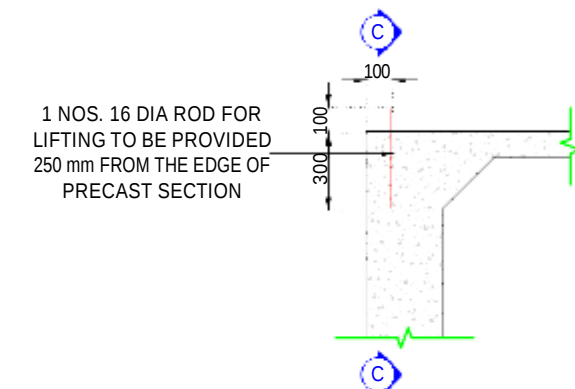
SECTION B-B
(JOINT DETAIL OF TOP SLAB)



DETAIL-X
(JOINT DETAIL OF TOP SLAB)



DETAIL-Y
(JOINT DETAIL OF BOTTOM SLAB)



DETAIL OF LIFTING BAR

- NOTES :-
- ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METERS.
 - DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
 - ALL REINFORCEMENT SHOWN IN THIS DRAWING ARE OF HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO IS:1786 GRADE OF STEEL - 500 (T.M.T. BARS)
 - GRADE OF CONC. - M35
 - MINIMUM DEVELOPMENT LENGTH = 48D.
WHERE D IS DIA OF BAR
LAP LENGTH SHALL BE (48 x DIA OF BAR x k)
WHERE, K = 1.4 IF UPTO 25% OF BARS ARE LAPPED
K = 1.6 IF UPTO 40% OF BARS ARE LAPPED
K = 1.8 IF UPTO 50% OF BARS ARE LAPPED
K = 2.2 IF MORE THAN 50% OF BARS ARE LAPPED

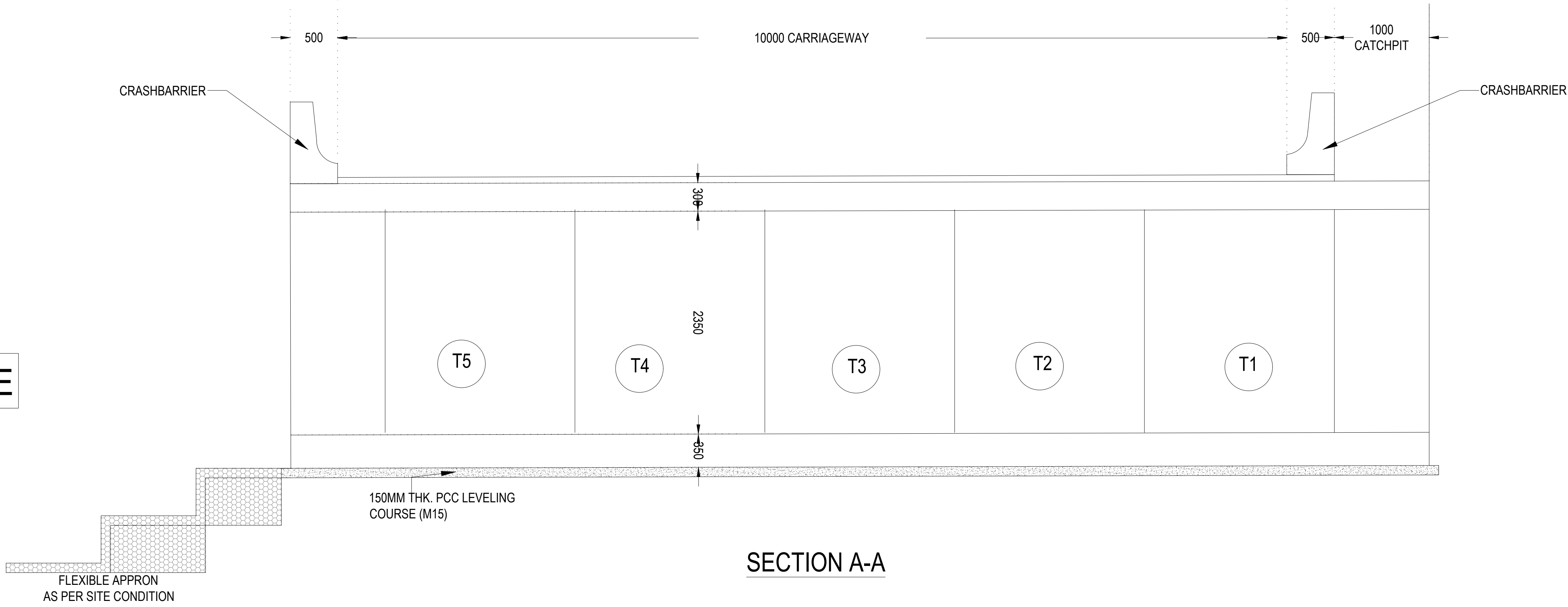
LEGEND :-

— TOP / NON EARTH FACE BAR

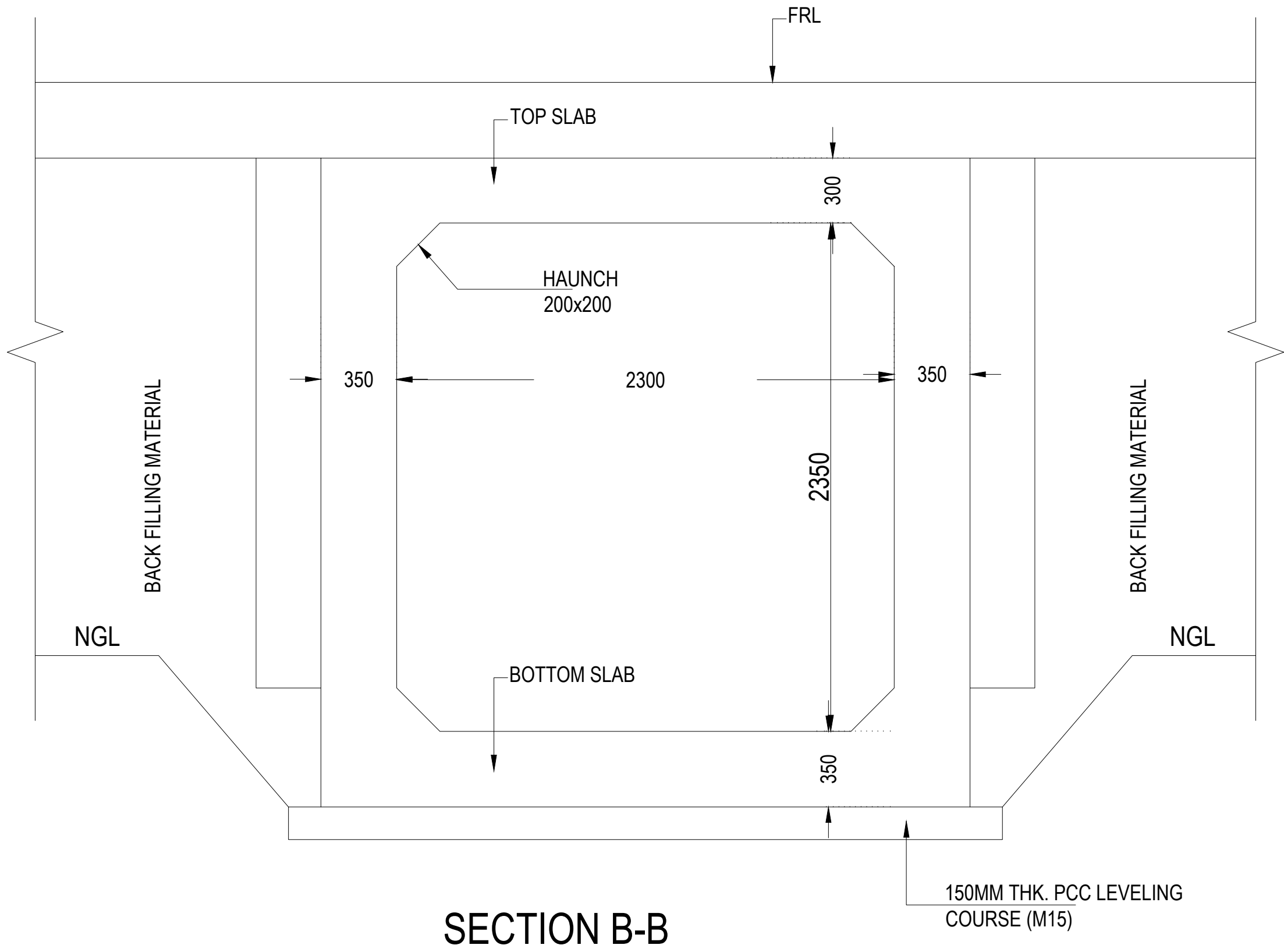
- - - - - BOTTOM / EARTH FACE BAR

HILL SIDE

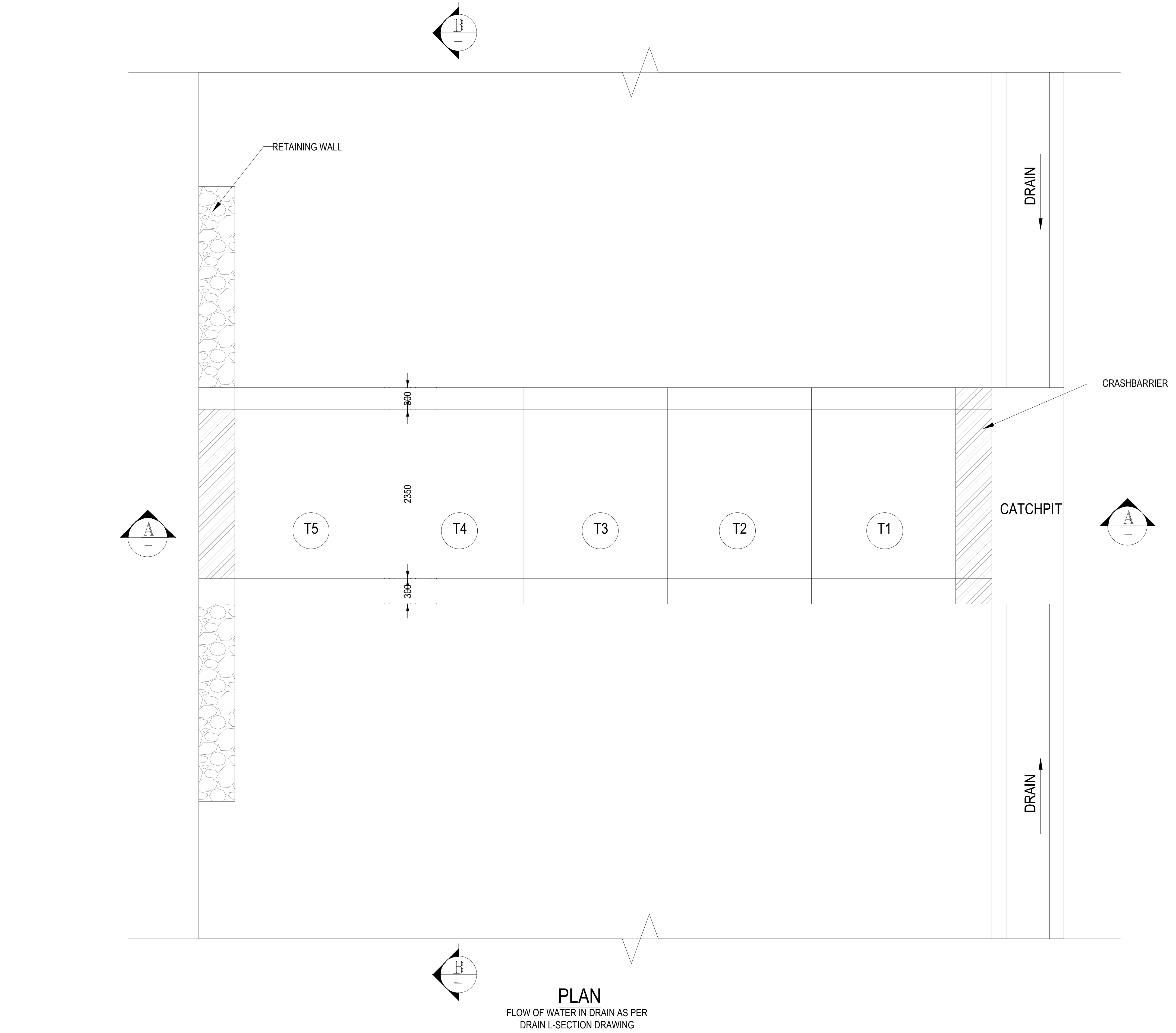
VALLEY SIDE



SECTION A-A

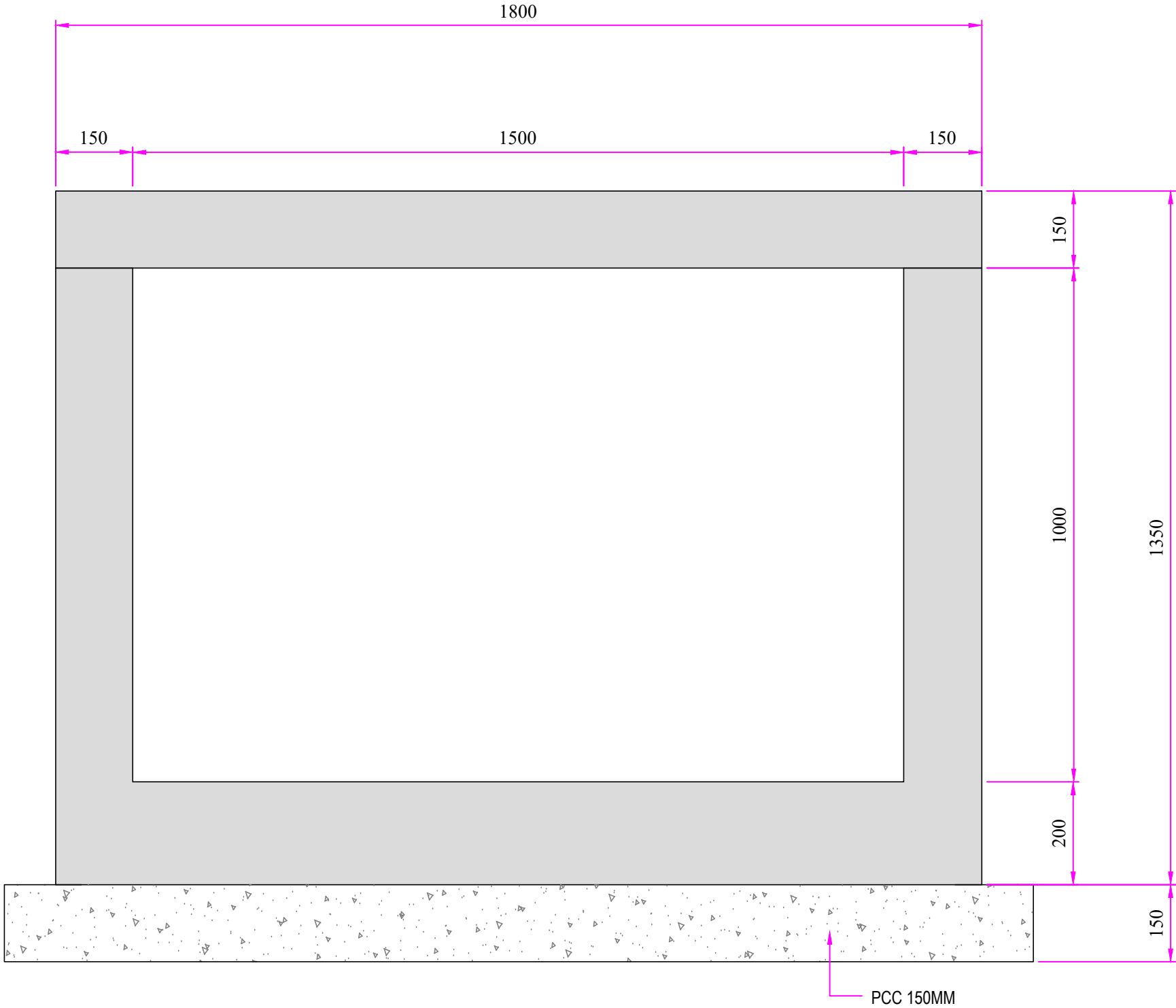


SECTION B-B

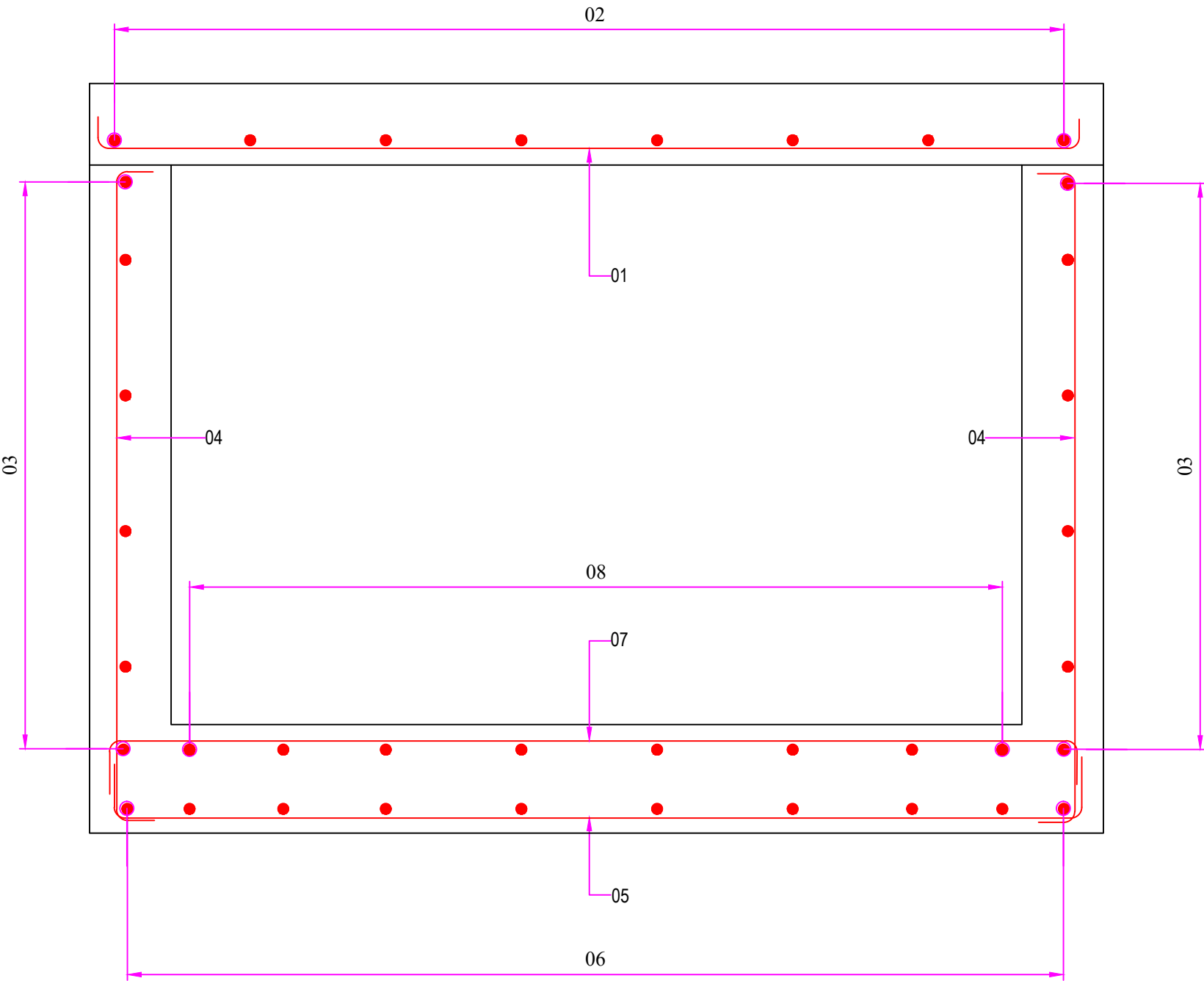


PLAN

FLOW OF WATER IN DRAIN AS PER
DRAIN L-SECTION DRAWING



CROSS SECTION OF DRAIN



REINFORCEMENT DETAIL OF DRAIN

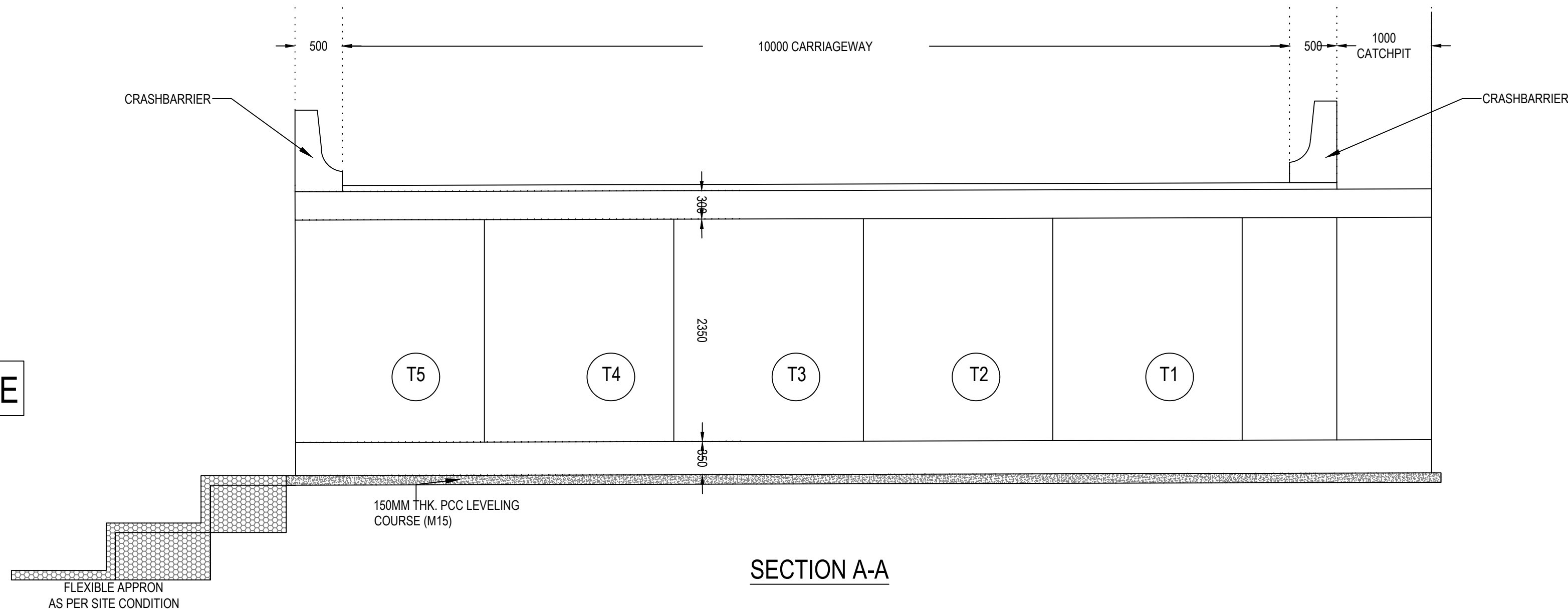
NOTES :-

1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METERS.
2. DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
3. ALL REINFORCEMENT SHOWN IN THIS DRAWING ARE OF HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO IS:1786 GRADE OF STEEL - 500 (T.M.T. BARS)
4. GRADE OF CONC. - M25
5. MINIMUM DEVELOPMENT LENGTH = 48D.
WHERE D IS DIA OF BAR
LAP LENGTH SHALL BE (48 x DIA OF BAR x k)
WHERE, K = 1.4 IF UPTO 25% OF BARS ARE LAPPED
K = 1.6 IF UPTO 40% OF BARS ARE LAPPED
K = 1.8 IF UPTO 50% OF BARS ARE LAPPED
K = 2.2 IF MORE THAN 50% OF BARS ARE LAPPED
6. CLEAR COVER - 50MM

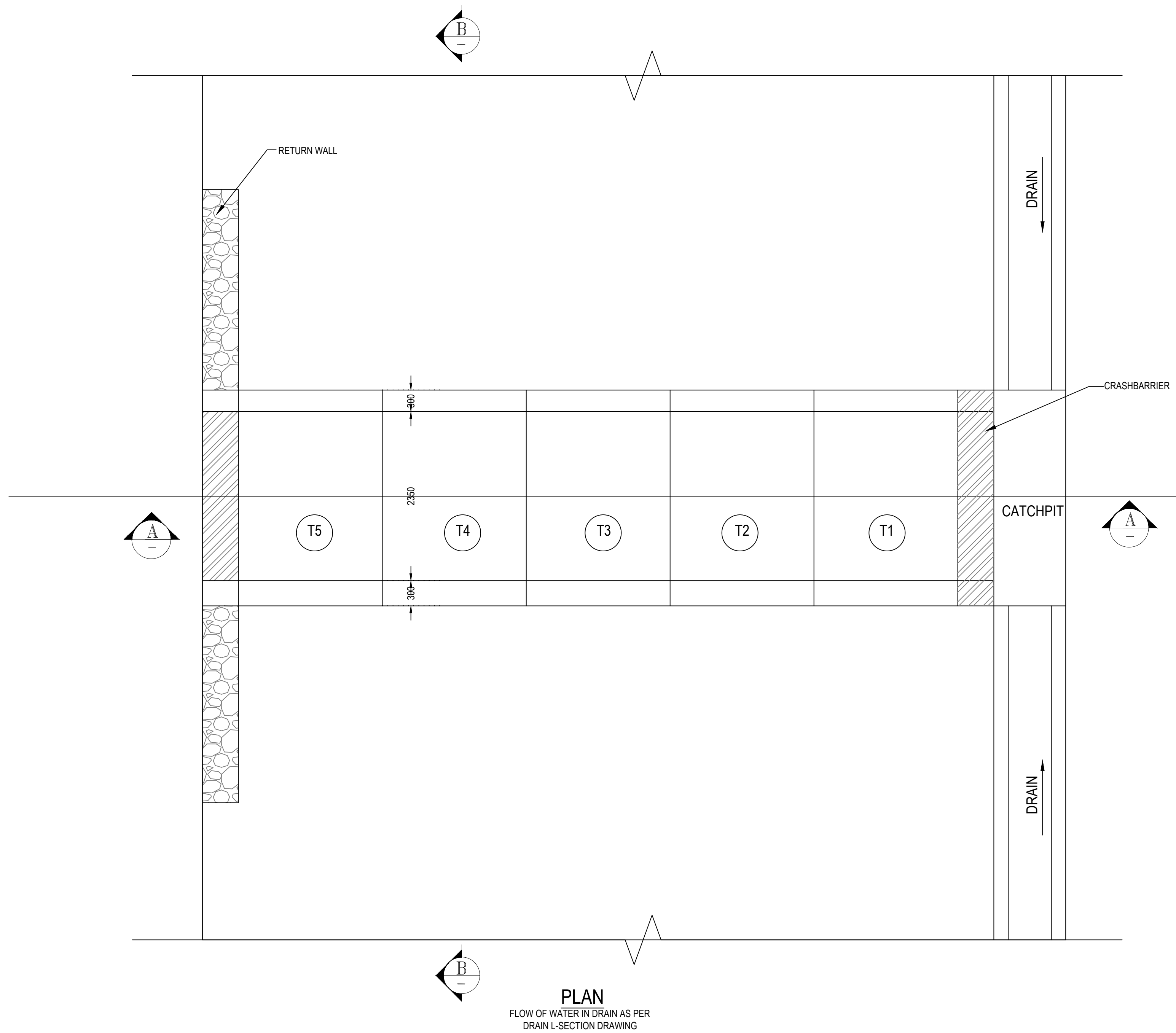
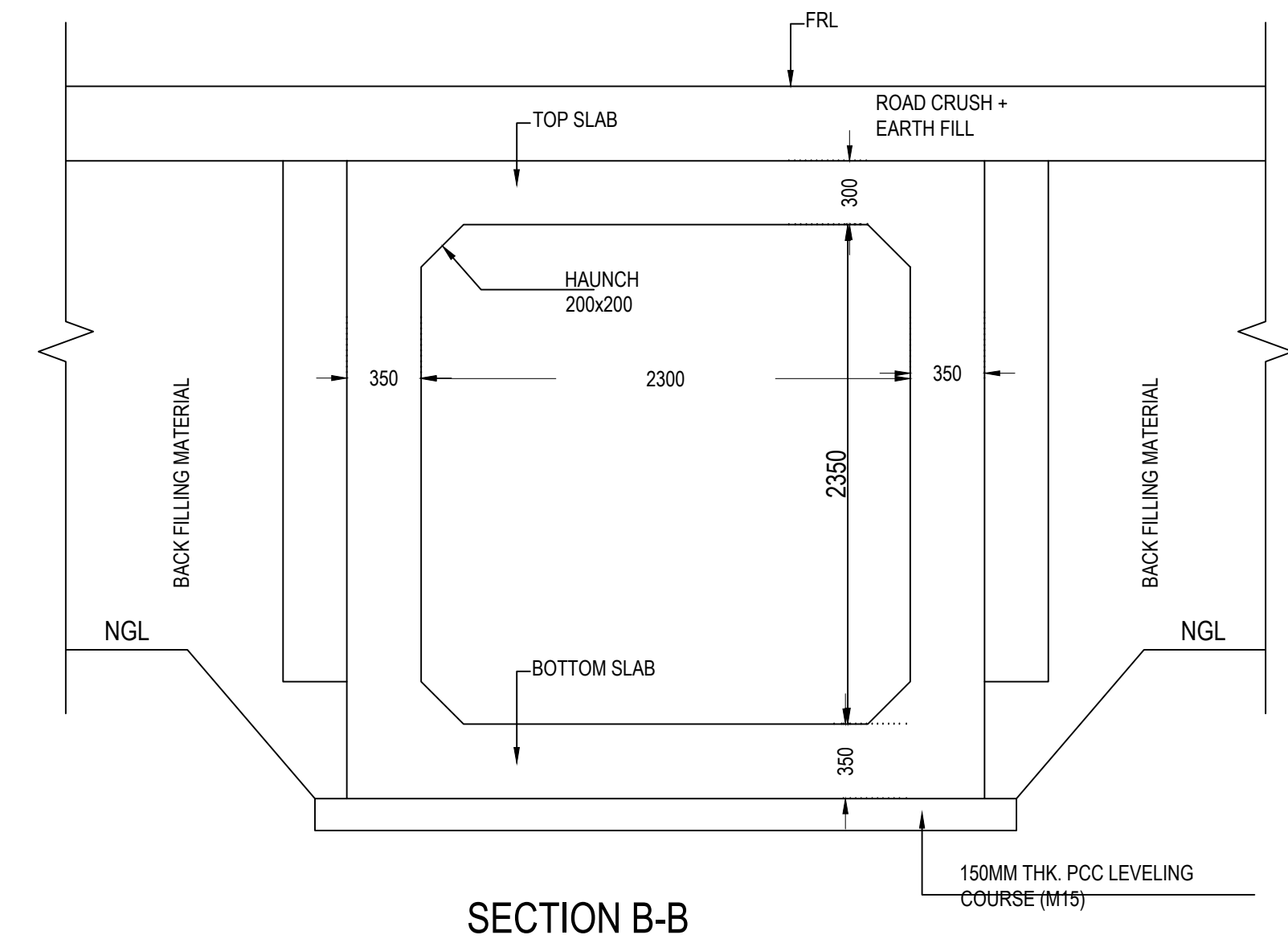
SCHEDULE OF DRAIN REINFORCEMENT

S.NO.	BAR MARK			REMARKS
		BAR DIA IN mm	SPACING OR NO. OF BAR	
TOP SLAB	01	12	150	
	02	10	200	
SIDE WALL	03	10	200	
	04	12	150	
BOTTOM SLAB	05	12	150	
	06	10	200	
	07	08	200	
	08	08	200	

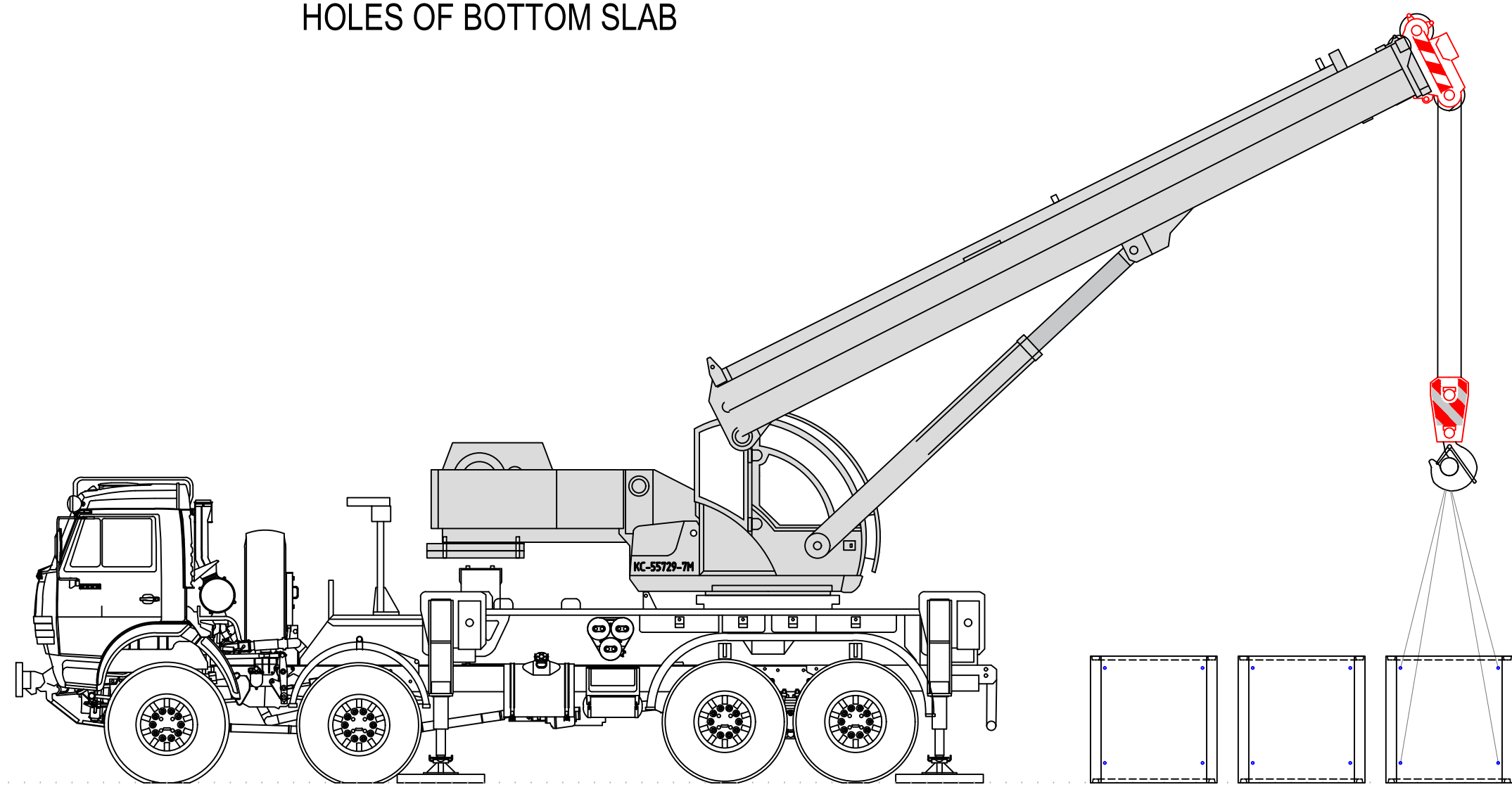
VALLEY SIDE



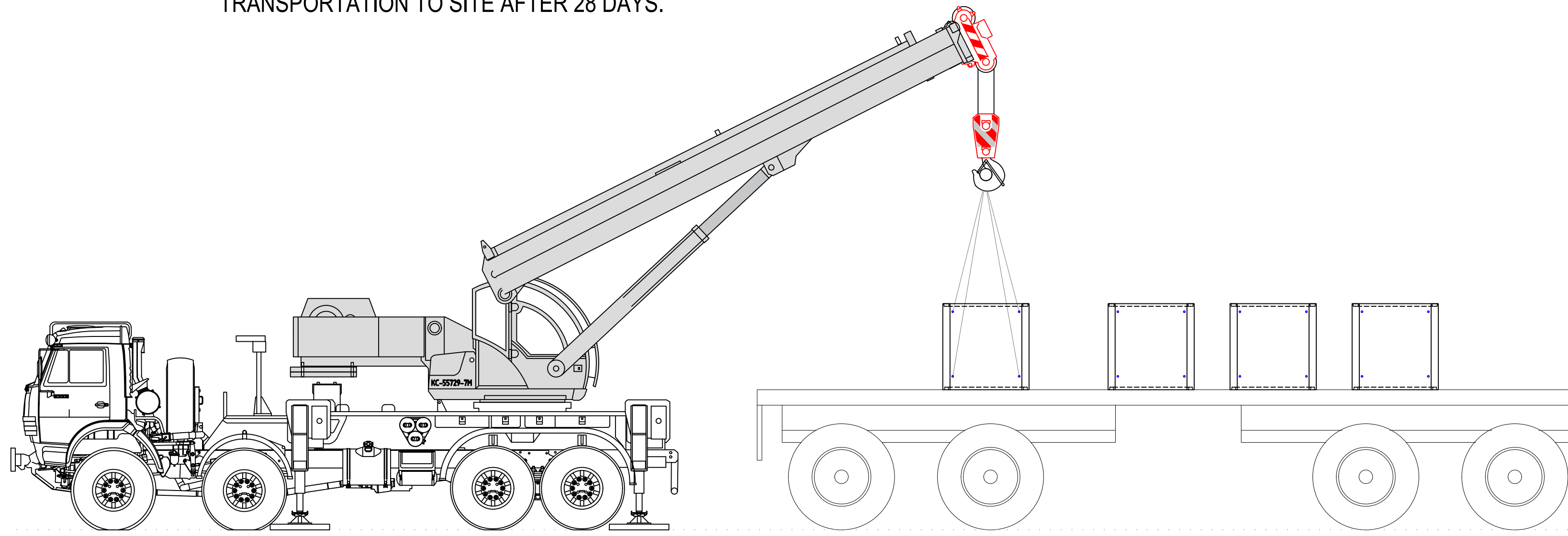
HILL SIDE



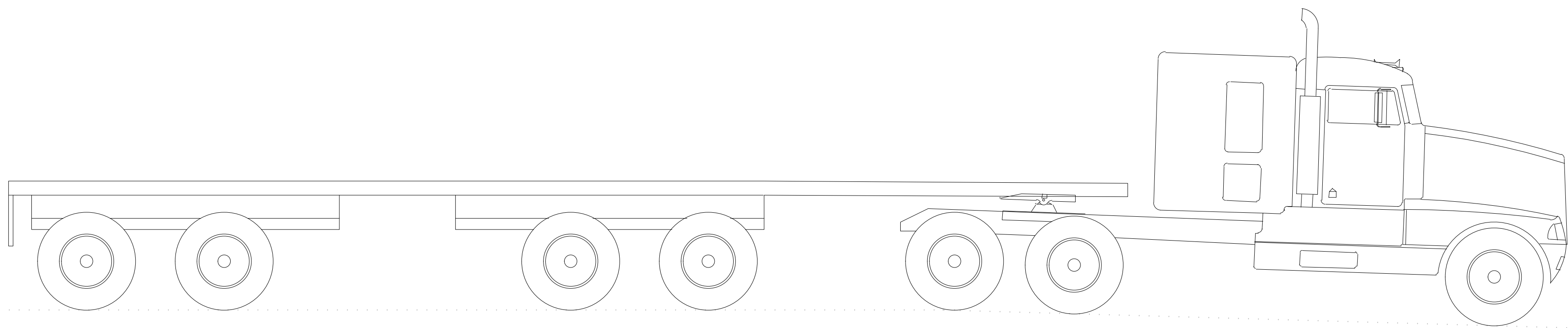
STAGE :- 8 - LEFTING OF SEGMENTS FROM BOTTOM SHUTTERING AFTER 3 DAYS OR CONCRETE STRENGTH ACHIEVED TO 20 MPa WHICHEVER ACHIEVED LATER AND SHIFTING OF SEGMENTS TO STAKING / CURING YARD WITH THE HELP OF GANTRY. SEGMENTS WILL BE LIFTED BY GANTRY WITH THE HELP OF TOP TWO HOLES OF TOP SLAB AND TWO HOLES OF BOTTOM SLAB



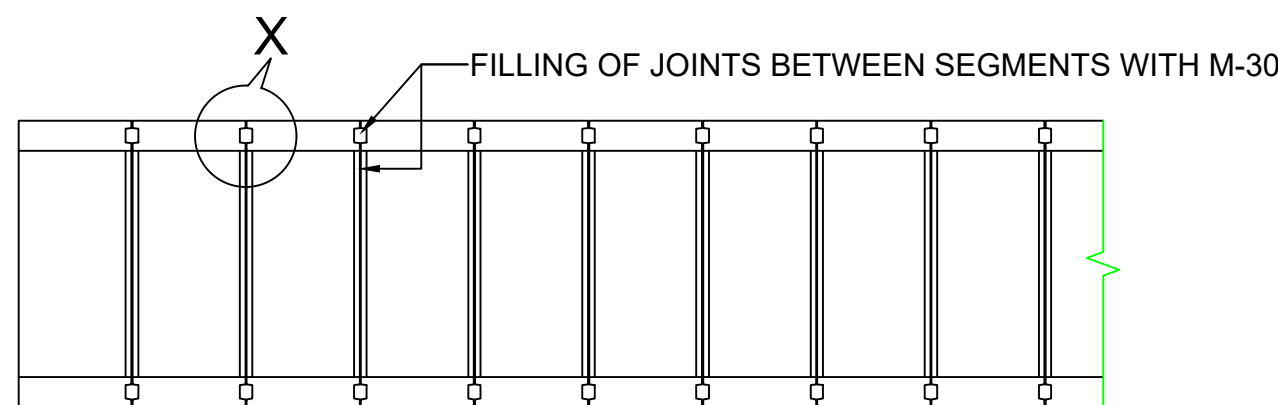
STAGE :- 9 - ATTACH TOP TWO HOLES OF TOP SLAB AND TWO HOLES BOTTOM SLAB WITH ONE SLING OF THE GANTRY. LIFT THE SEGMENT. ATTACH BOTTOM TWO HOLES OF TOP SLAB WITH OTHER SLING OF THE GANTRY. ROTATE THE SEGMENT BY TRANSFERING THE LOAD FROM ONE SLING TO ANOTHER. PLACING OF SEGMENT ON TROLLEY ON ITS VERTICAL POSITION (i.e. TOP SLAB AT TOP AND BOTTOM SLAB AT BOTTOM) FOR TRANSPORTATION TO SITE AFTER 28 DAYS.



STAGE :- 10 - UNLOADING OF SEGMENTS FROM TROLLEY AT SITE WITH THE HELPOF HYDRA PLACED ON BOTH SIDE OF THE TROLLEY.



STAGE :- 11 - PLACING OF SEGMENTS AT SITE TRUE TO ITS POSITION WITH THE HELP OF HYDRA.



STAGE :- 12 - COMPLETION OF OTHER WORKS

LIFTING HOLES AFTER TRANSPORTATION / LIFTING / SHIFTING SHOULD BE SEALED WITH M30.

PRECAUTIONS AND SAFETY MEASURES:

1. PRECAST CONCRETE SEGMENTAL BOX SHALL BE DESIGNED DULY CONSIDERING THE LOADS, FORCS, HANDLING, LIFTING TRANSPORT ARRANGEMENT ON SITE ETC.
2. THE LIFTING OF THE PRECAST SEGMENT FROM THE CASTING YARD SHALL NOT COMMENCE UNLESS THE STRENGTH OF THE CONCRETE ACHIEVED IS CHECKED AND CONFIRMED AS PER DESIGN.
3. LIFTING ARRANGEMENT, ROPES, ANCHORS FOR SEGMENT SHALL BE DESIGNED FOR WEIGHT OF SEGMENT, POSSIBLE JERKS, POSSIBLE OVERLOADING ETC.
4. DURING LIFTING AND ERECTION OF THE PRECAST SEGMENT, WORKMEN SHALL KEEP AWAY AT SAFE DISTANCE FROM THE HANGING SEGMENT TO AVOID ANY ACCIDENT.
5. CARE SHALL BE TAKEN WHILE HANDLING OR PLACING THE PRECAST SEGMENT TO PROTECT THE EDGES, CORNERS, SHEAR KEYS ETC.
6. PULLING OF PRECAST SEGMENTS ON THE BED SHALL BE AVOIDED.
7. UNIFORM CURING OF THE ENTIRE PRECAST SEGMENT IN THE CASTING YARD SHALL BE ENSURED.
8. DESIGN NAND PREPARATION OF THE BED SUPPORTING THE PRECAST SEGMENT SHALL BE DONE WELL IN ADVANCE DULY CONSIDERING LOADS, FORCES TO BE SUSTAINED AND BEARING CAPACITY OF THE STRATA BELOW.
9. CONSTRUCTION MACHINERY SHALL NOT BE PERMITTEDON THE TOP OF THE SEGMENT UNLESS REQUISITE EARTHCUSSION OF 1.0m IS PROVED AND LOADS ARE CONSIDERED IN THE DESIGNS.
10. PRECAST CONCRETE SEGMENT SHALL BE CAREFULLY INSPECTED AND CHECKED FOR ANY CRACKS, SPALLING ETC. ETC. AFTER CASTING AS WELL AS ON PLACEMENT ON SITE.

CONSTRUCTION METHODOLOGY:

1. MANUFACTURING METHOD SHOULD BE FOLLOWED AS PER CLAUSE NO. 4.3 IN IRC 122 - 2017.

