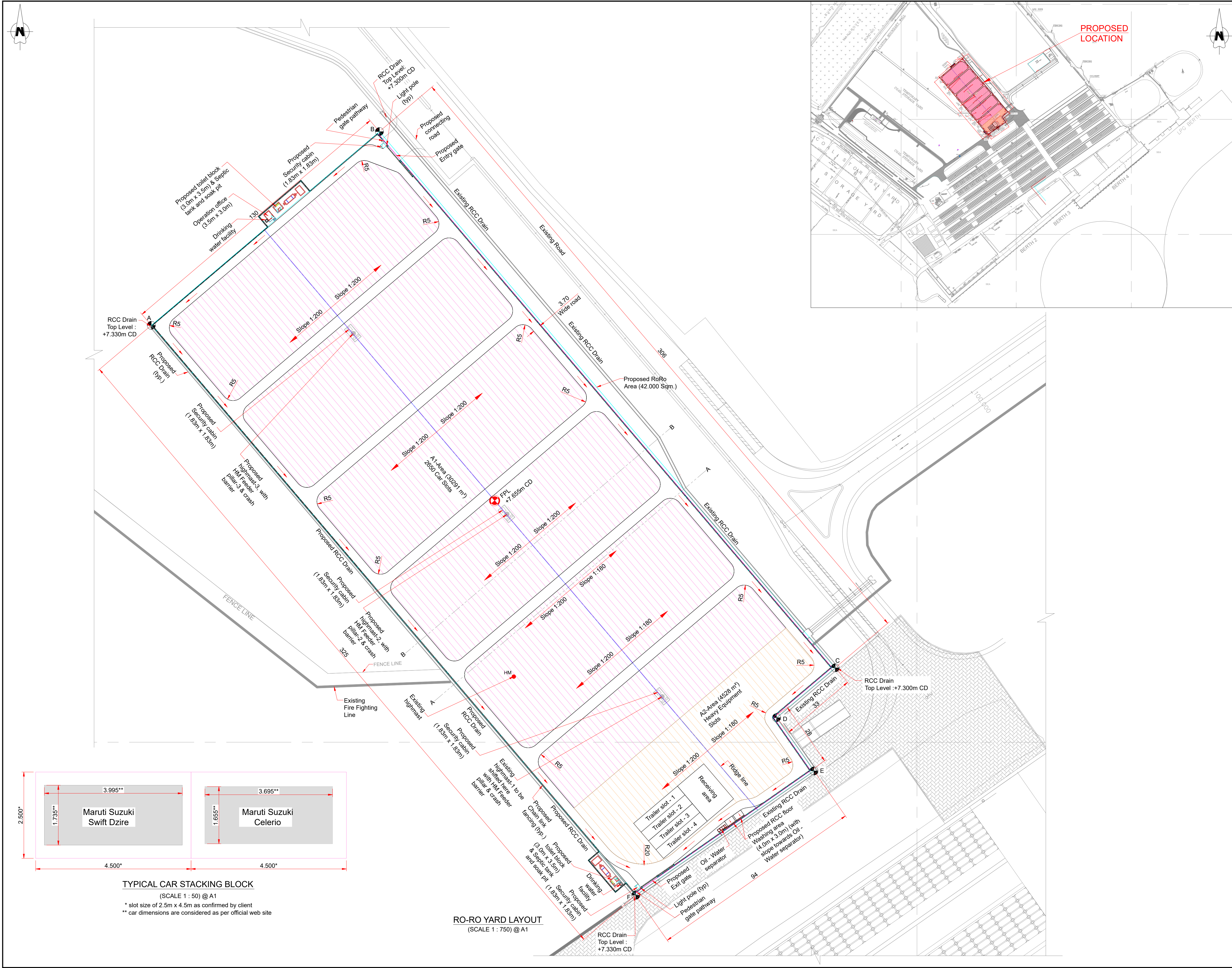




NOTES :-

- All dimensions and levels are in meter unless noted otherwise.
- This drawing should not be scaled. Only written dimensions shall be followed.
- All levels are related to chart datum (+0.0m).
- Rx Suggest radius in meter.
- Car dimensions (Maruti Suzuki Swift Dzire & Maruti Suzuki Celerio) are considered from company website and are shown for reference only.
- Transition slope from 1:180 at Line A-A to 1:200 at Line B-B (on East side of Ridge line).
- Security cabin & toilet block dimensions are as per Previous GFC dwgs.
- The top level of the existing drainage (from B to C) is considered at +7.30 m CD as per Previous GFC dwg. Therefore, the ridge line level is set at +7.655 m CD to maintain a 1:200 & 1:180 slope as shown in layout.
- The top level of the proposed drainage (from F to A) is set at +7.33 m CD as per the ridge line level of +7.655 m CD to maintain a 1:200 slope as shown in layout.

LEGEND :-

Proposed Chain link fencing

- FPL - Finished Pavement Level

SITE BOUNDARY CO-ORDINATES :-

Designation	Coordinates (m)	
	Easting	Northing
A	760667.382	2315881.170
B	760766.466	2315965.367
C	760964.479	2315732.346
D	760938.961	2315710.677
E	760955.211	2315687.544
F	760877.832	2315633.513

STACKING SLOTS :-

Unit Designation	Area	No. of units
A1- Car Slots	30291 m²	2650
A2- Heavy Equipment Slots	4528 m²	-

FOR TENDER

T2	26.09.2023	ISSUED FOR TENDER	HT	SP	INC	AR	
T1	26.09.2023	ISSUED FOR TENDER	AP/J	HT	SP	INC	AR
T0	12.09.2023	ISSUED FOR TENDER	AP/J	HT	SP	INC	AR
T0	09.08.2023	ISSUED FOR APPROVAL	HT	INC	AR		
Rev	Revision	Date	Purpose of revision	Drawn	Checked	Approved	

Client
GUJARAT PIPAVAV PORT LIMITED

Project
DETAIL DESIGN OF RORO YARD

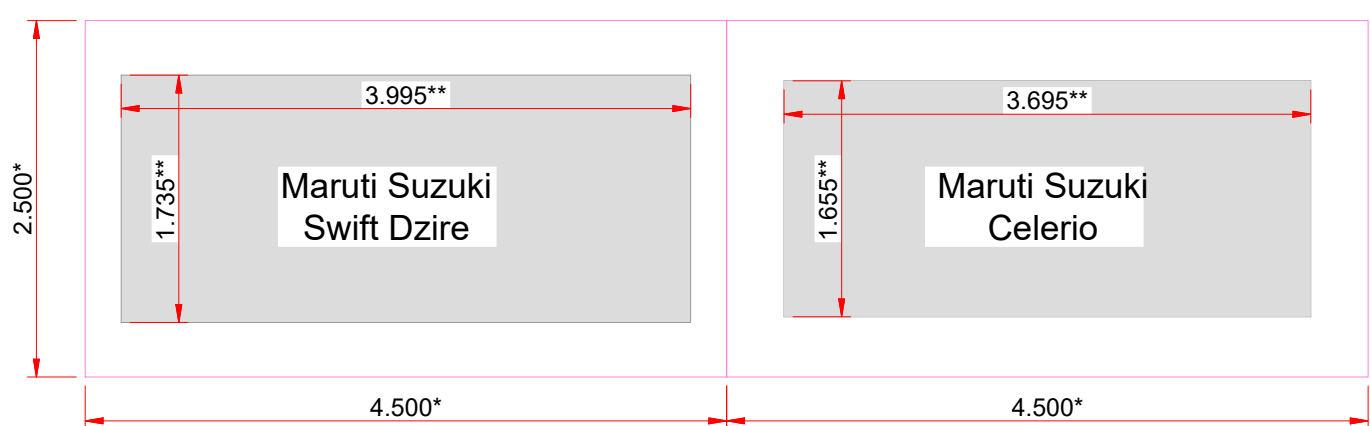
Drawing title
RORO YARD
CAR STACKING &
GENERAL ARRANGEMENT LAYOUT

Drawing status
Scale
AS SHOWN @A1
Do not scale

Drawing number
BMT-1511-GPPL-TEN-DWG-001

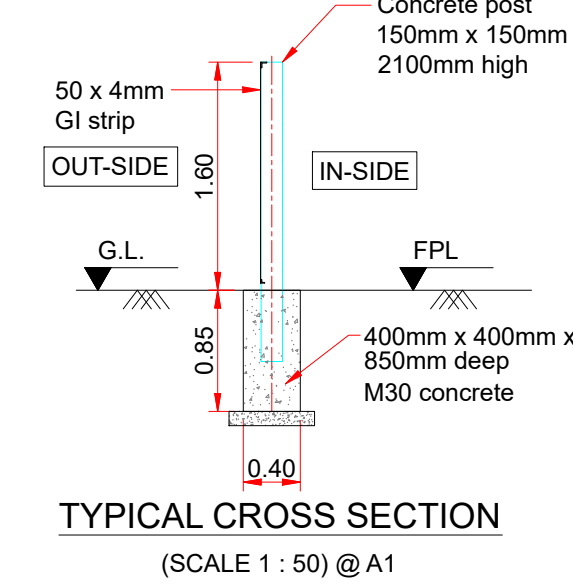
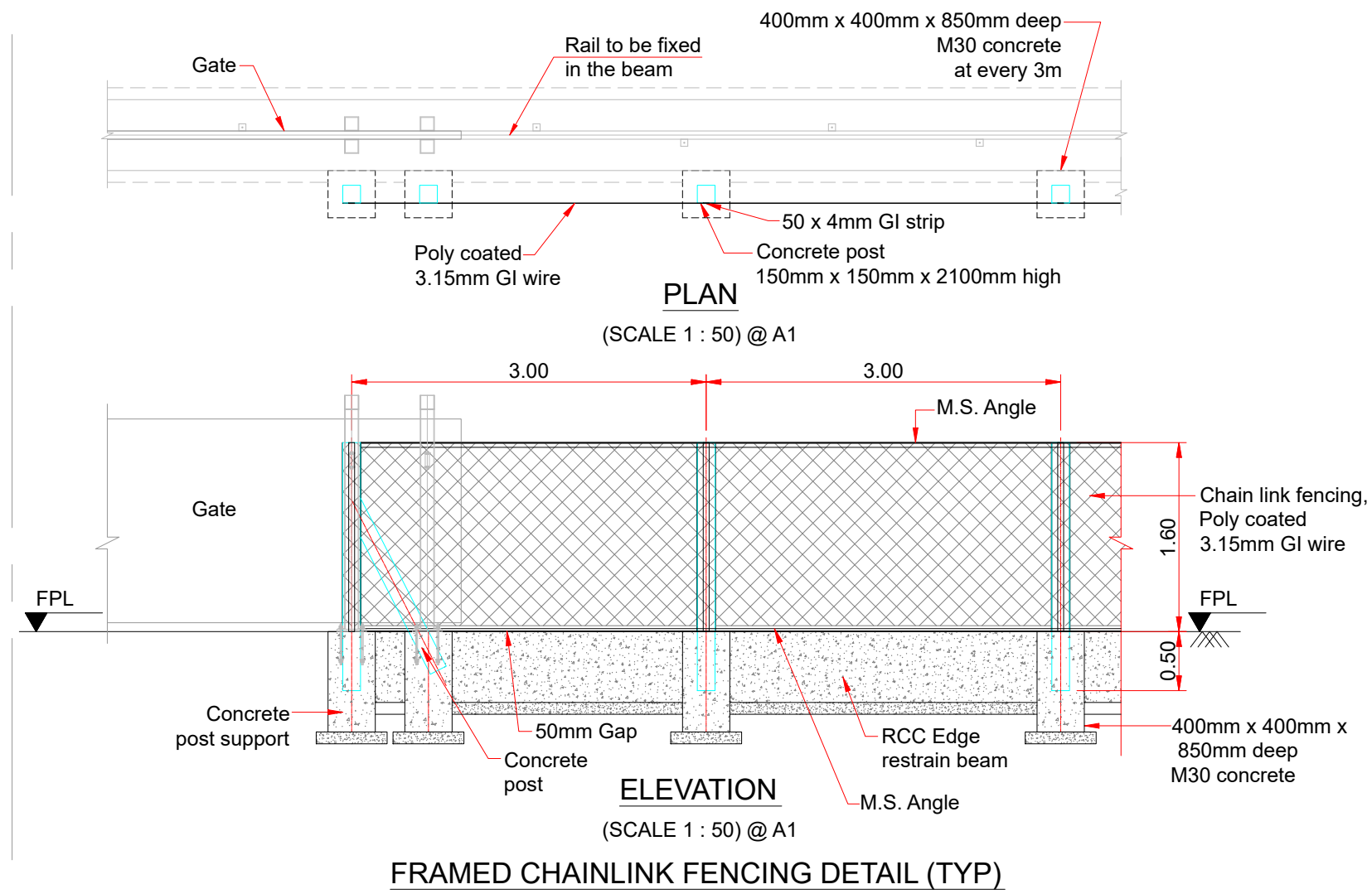
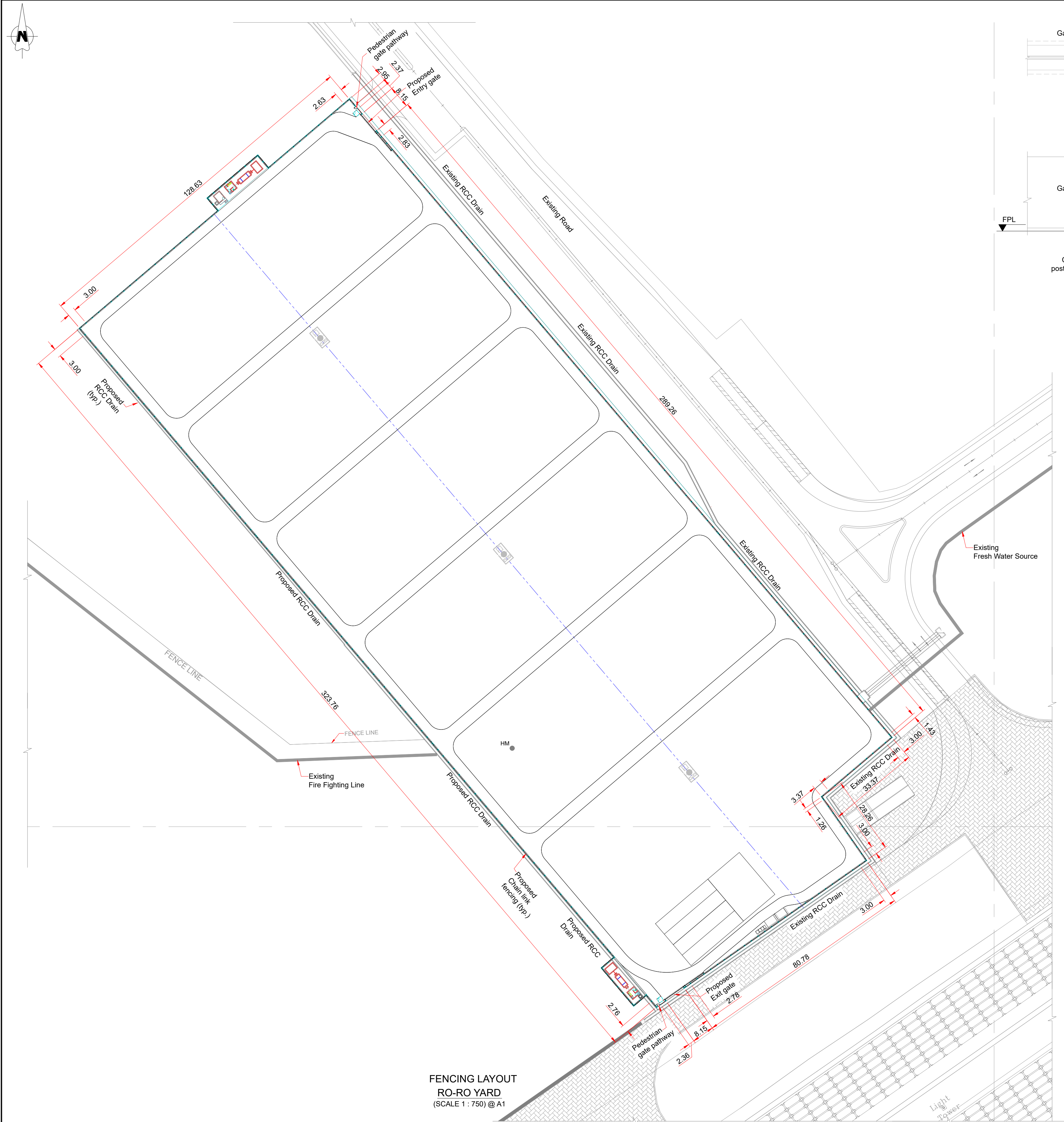
Rev
T2

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.



TYPICAL CAR STACKING BLOCK
(SCALE 1 : 50) @ A1
* slot size of 2.5m x 4.5m as confirmed by client
** car dimensions are considered as per official web site

RO-RO YARD LAYOUT
(SCALE 1 : 750) @ A1



- NOTES :-**
1. All dimensions and levels are in meter unless noted otherwise.
 2. This drawing should not be scaled. Only written dimensions shall be followed.
 3. All levels are related to chart datum (+0.0m).
 4. Concrete shall be conforming to IS 456 : 2000.
 5. Chain link fencing : mesh size 50mm $\pm$ 4mm nominal dia of mesh 3mm conforming to Table 1 IS 2721 : 2003
 6. Concrete grade M30 and reinforcement grade Fe500D.
 7. Grade of structural steel shall be E250 conforming to IS:2062.

- LEGEND :-**
- PCC = Plain Cement Concrete
 - S.W.G. = Standard Wire Gauge
 - GI = Galvanized Iron
 - G.L. = Ground Level
 - FPL = Finished Pavement Level
 - M.S. = Mild Steel

- REFERENCE DRAWINGS :-**
- BMT-1511-GPPL-TEN-DWG-001
 - RORO YARD, CAR STACKING & GENERAL ARRANGEMENT LAYOUT

SCHEDULE OF MEMBER :-

Member size	No of member / Length
Post supports of M30 concrete 400mm x 400mm x 850mm deep	355 nos.
Total fence length	920 m
Concrete Post (150mm x 150mm x 2100mm With 50 X 4mm G.I. STRIP of 1500mm length - 1 No. each post)	355 nos.

FOR TENDER

T1	25.09.2023	ISSUED FOR TENDER	HT	SP / NC	AR
T0	12.09.2023	ISSUED FOR TENDER	HT	SP / NC	AR
T0	05.09.2023	ISSUED FOR APPROVAL	HT / AR	NC	AR
Rev	Revision	Purpose of revision	Drawn	Checked	Approved

Client
GUJARAT PIPAVAV PORT LIMITED

Project
DETAIL DESIGN OF RORO YARD

Drawing title
RORO YARD
CHAIN LINK FENCING LAYOUT AND DETAILS

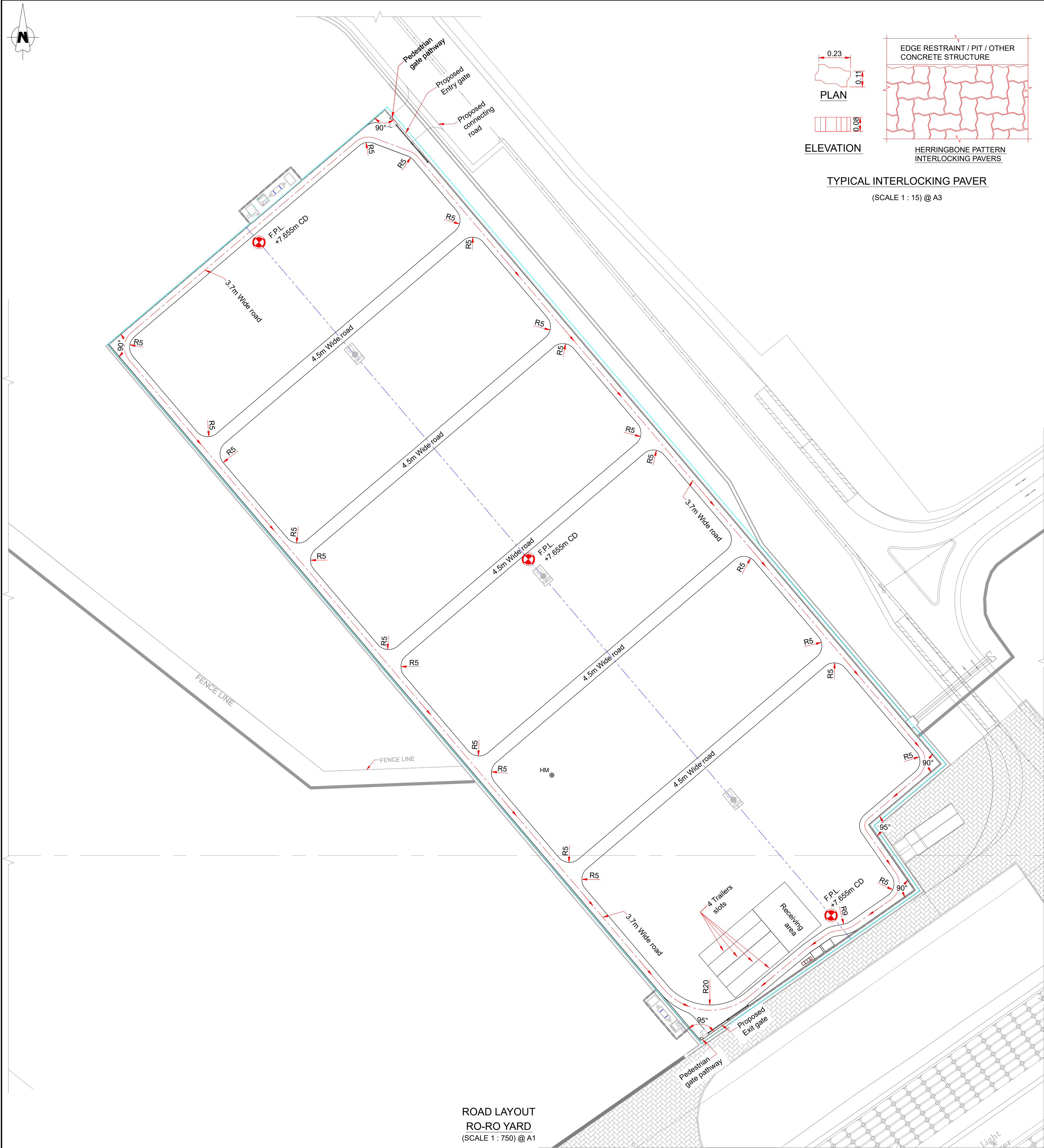
Drawing status
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Scale
AS SHOWN @ A1

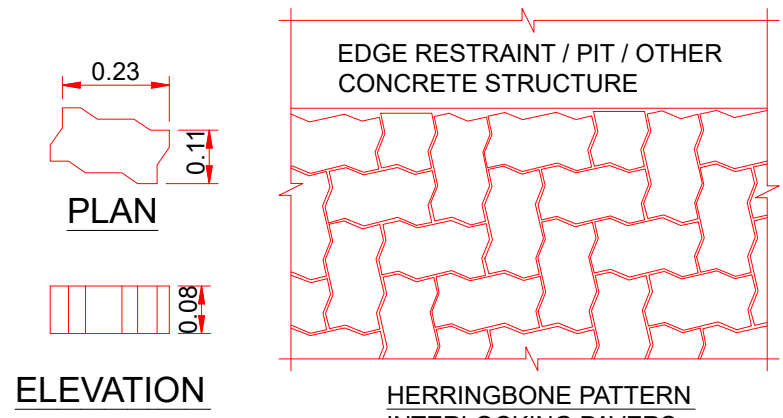
Drawing number
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Rev
T1

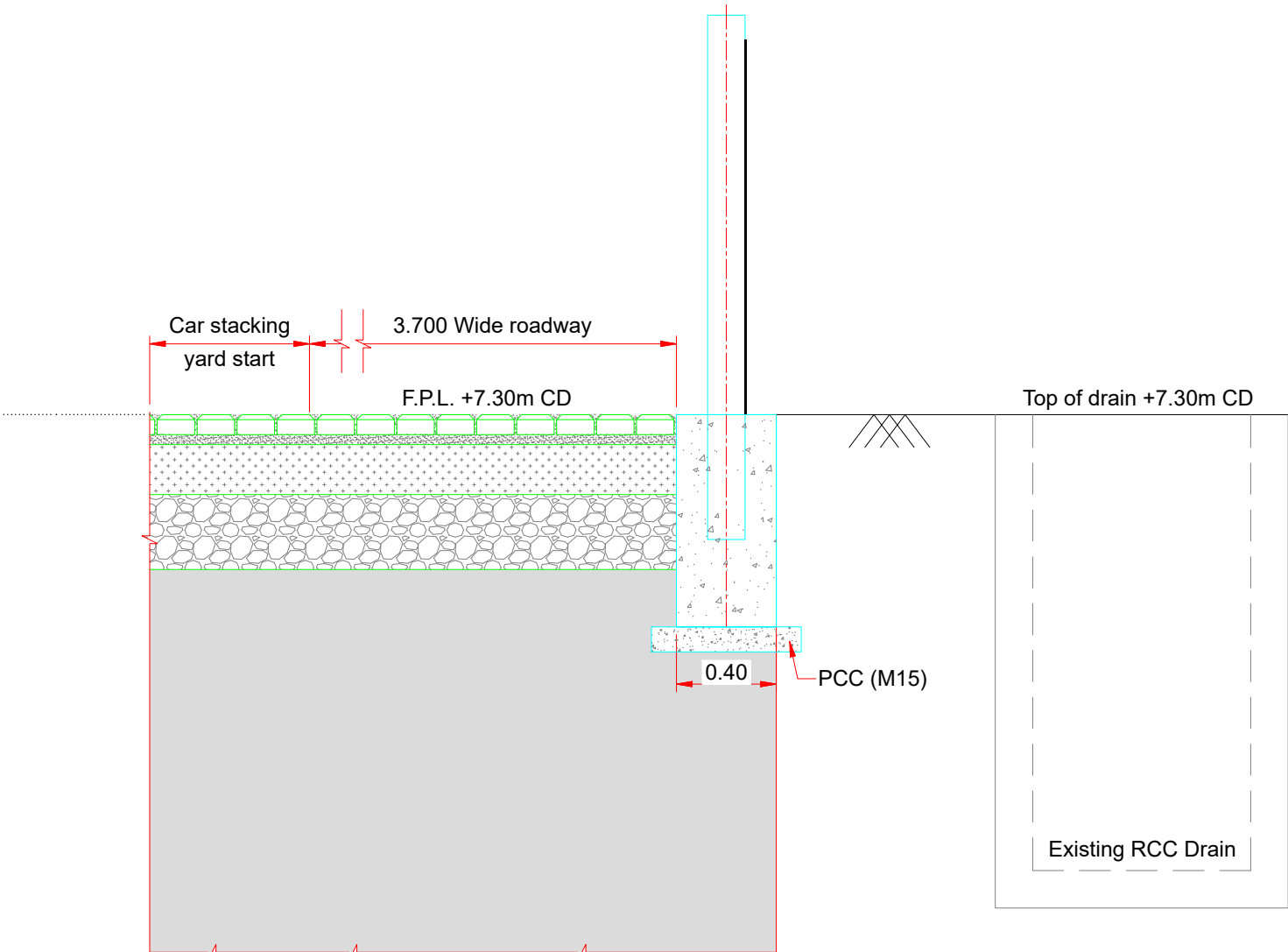
This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.



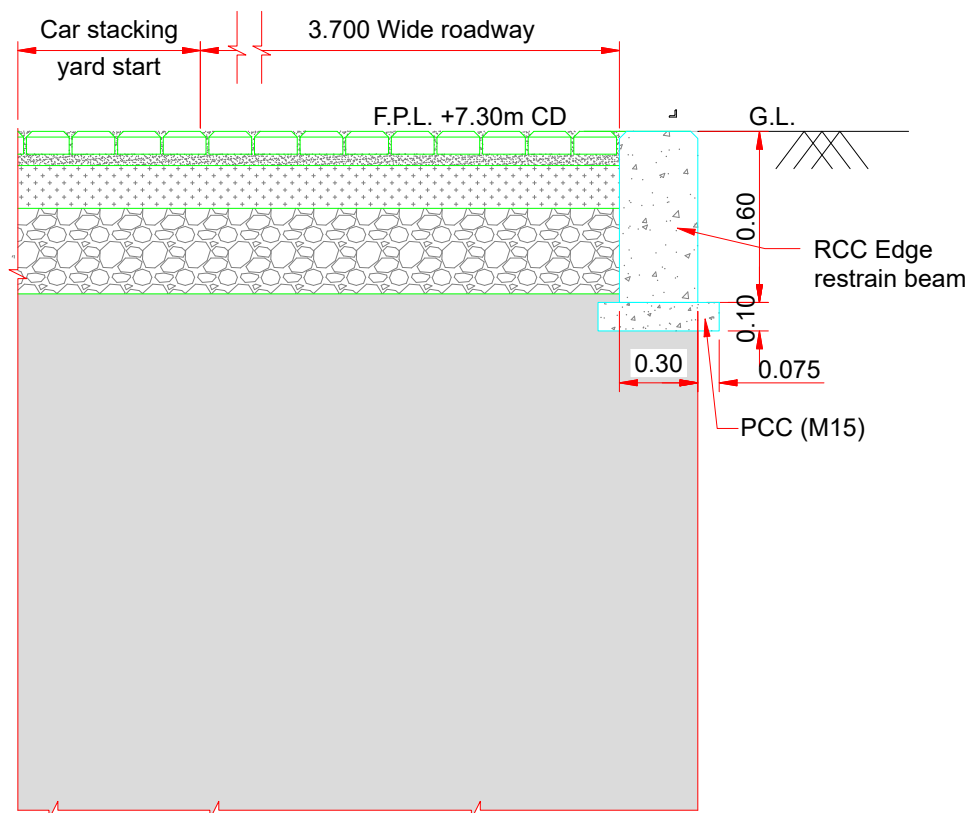
ROAD LAYOUT
RO-RO YARD
(SCALE 1 : 750) @ A1



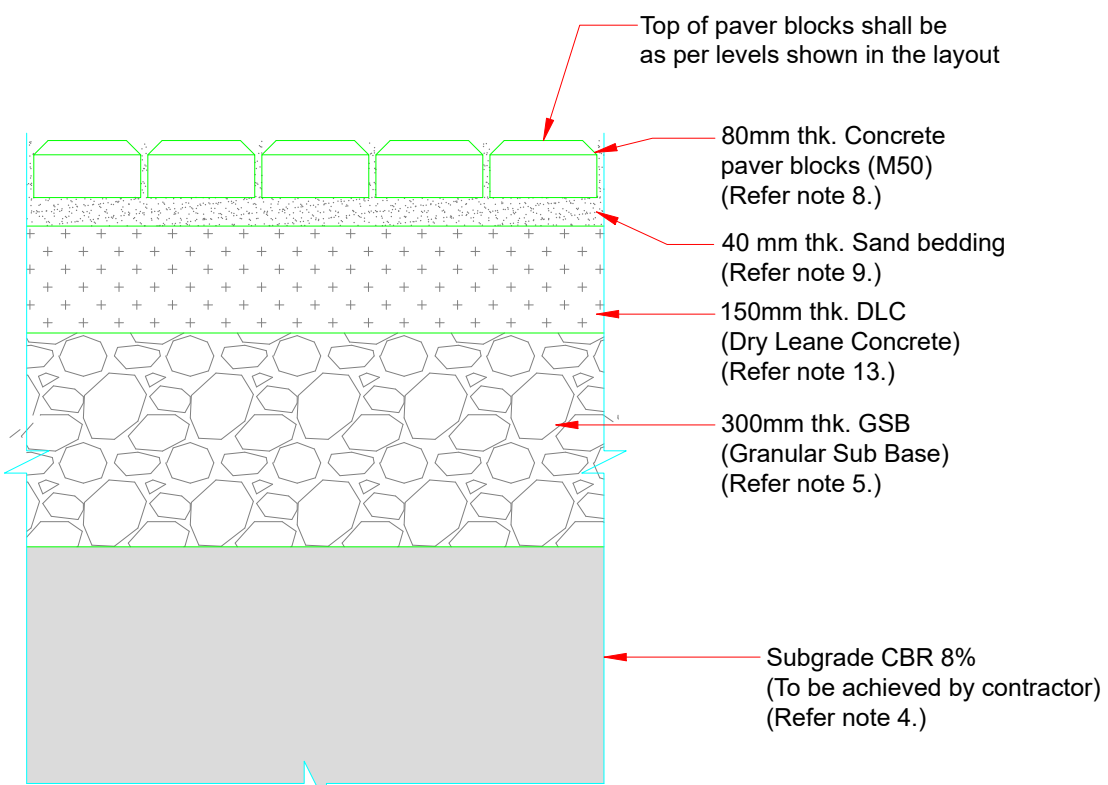
TYPICAL INTERLOCKING PAVER
(SCALE 1 : 15) @ A3



TYPICAL SECTION AT FENCE POST
(SCALE 1 : 25) @ A1



TYPICAL SECTION AT OTHER LOCATION
(SCALE 1 : 25) @ A1



TYPICAL DETAIL OF
INTERLOCKING CONCRETE
BLOCK PAVEMENT
(SCALE 1 : 10) @ A1

NOTES :-

- All dimensions and levels are in meter unless noted otherwise.
- This drawing should not be scaled. Only written dimensions shall be followed.
- All levels are related to chart datum (+0.0m).
- The sub grade and soil improvement layer as shown in the cross section shall be well compacted to achieve a minimum CBR value of 8% when tested as per the guidelines of IS 2720 (part 16). This soil shall be compacted at 97% of Maximum Dry Density (MDD) as per IS 2720 (part 7) and Optimum Moisture Content (OMC) as per the guidelines of IRC: 37-2018.
- GSB Grade V confirm to MORTH Specifications of Bridge & Road Works (fifth Revision) shall be considered. It is proposed to have sub-base material of CBR greater than 30% at 98% dry density and PI (Plasticity Index) less than 6. It shall be unbound granular material.
- Recommendations and guidelines conforming to IRC: 36 shall be followed for guidance during planning and execution of the Work.
- The gaps in between two paving blocks (Typically about 3mm) need to be filled by sand. Grading of the sand shall be in accordance to clause 6.5.2 of IRC:SP-63-2004.
- Concrete grade of paver blocks shall be M50. Mix design for the concrete block construction shall conform to the guidelines of IRC:SP-63-2018. The paving block shall be laid in herringbone pattern. Shape of blocks shall be as per category A of Fig 3 of IRC SP-63-2018.
- Sand shall be used yellow sand from the Dabholi area for all purpose to achieve the grading conforming to Clause 1.2.1 (Annexure I) of IRC:SP-63-2018.
- Concrete grade M30 and reinforcement grade Fe500D.
- Road layout shown in the drawing is indicative only. It may change as per requirement of the owner.
- The grading and quality of sand used shall be free from any plastic clay and should be angular type. It should not be degradable type.
- DLC Base layer should have characteristic (28 days) compressive strength of 10 MPa as per IRC:SP-49-2014.

LEGEND :-

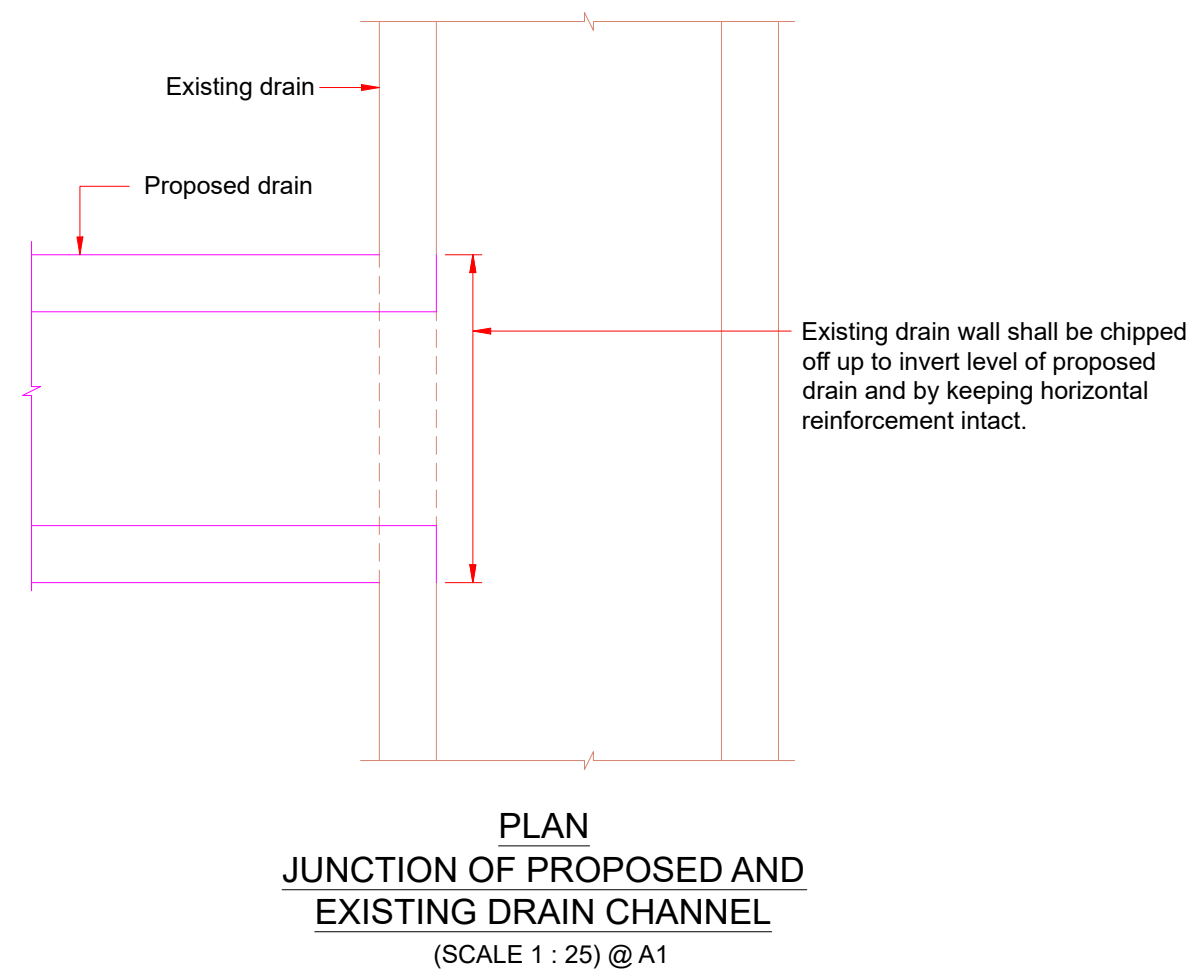
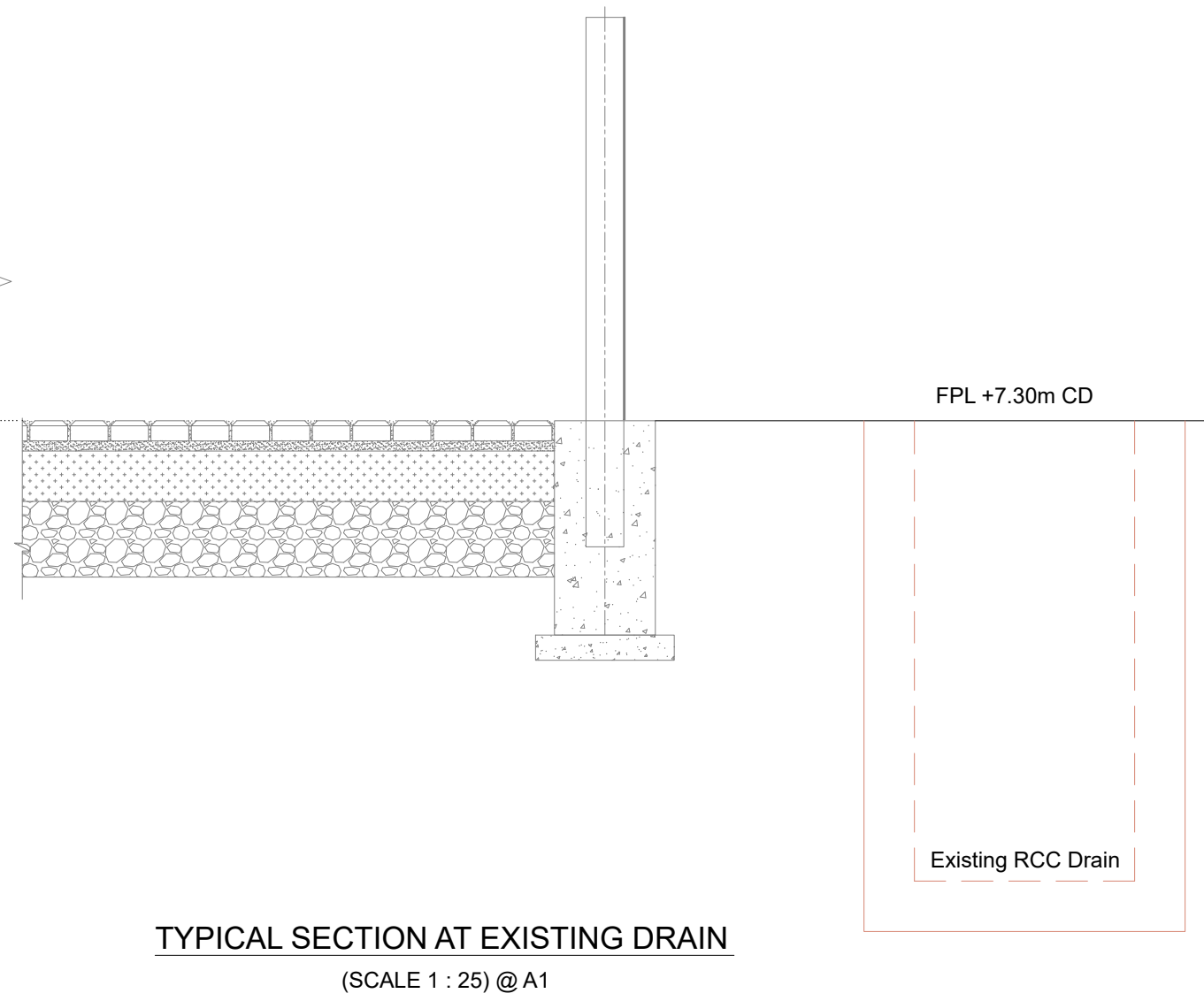
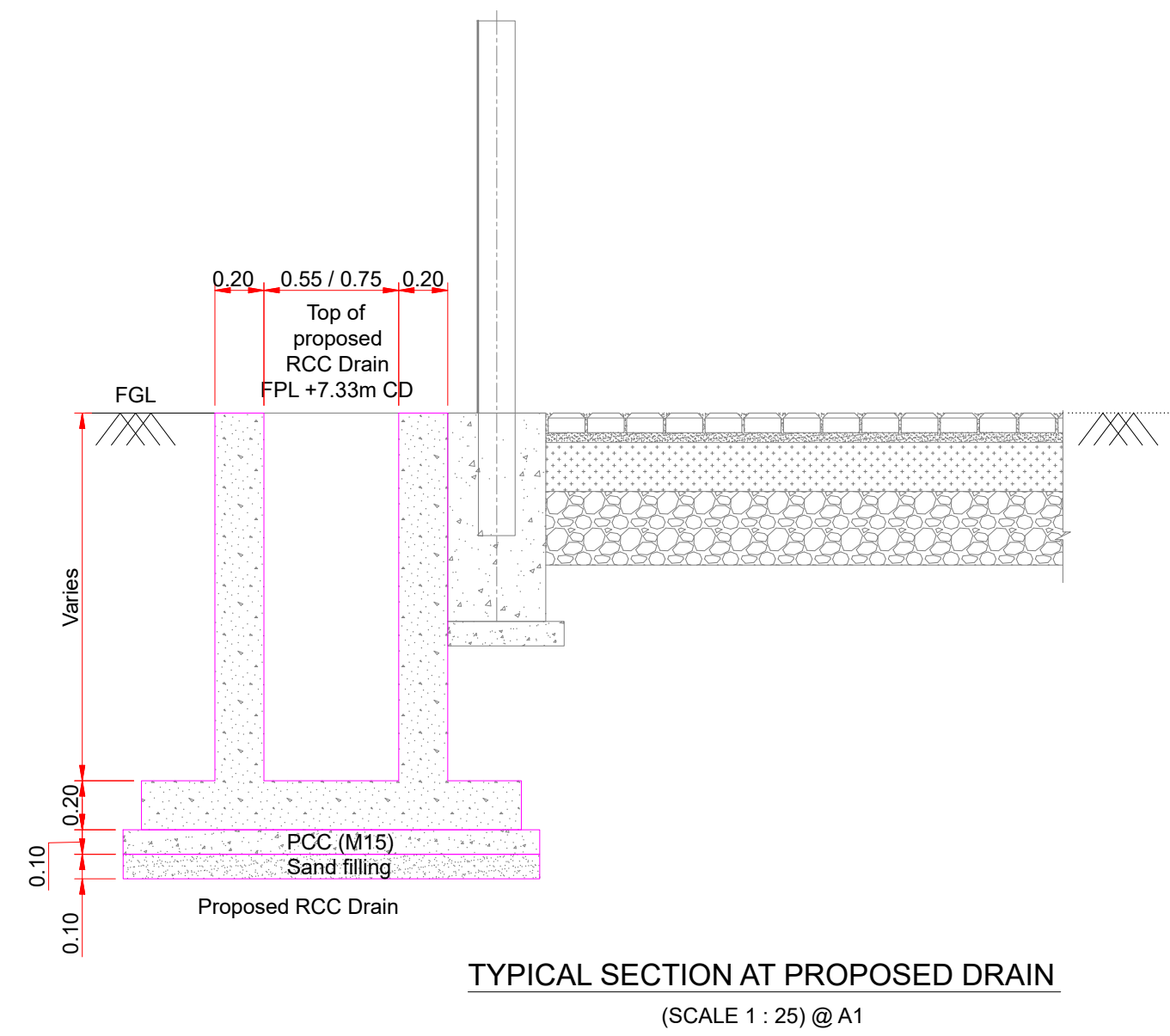
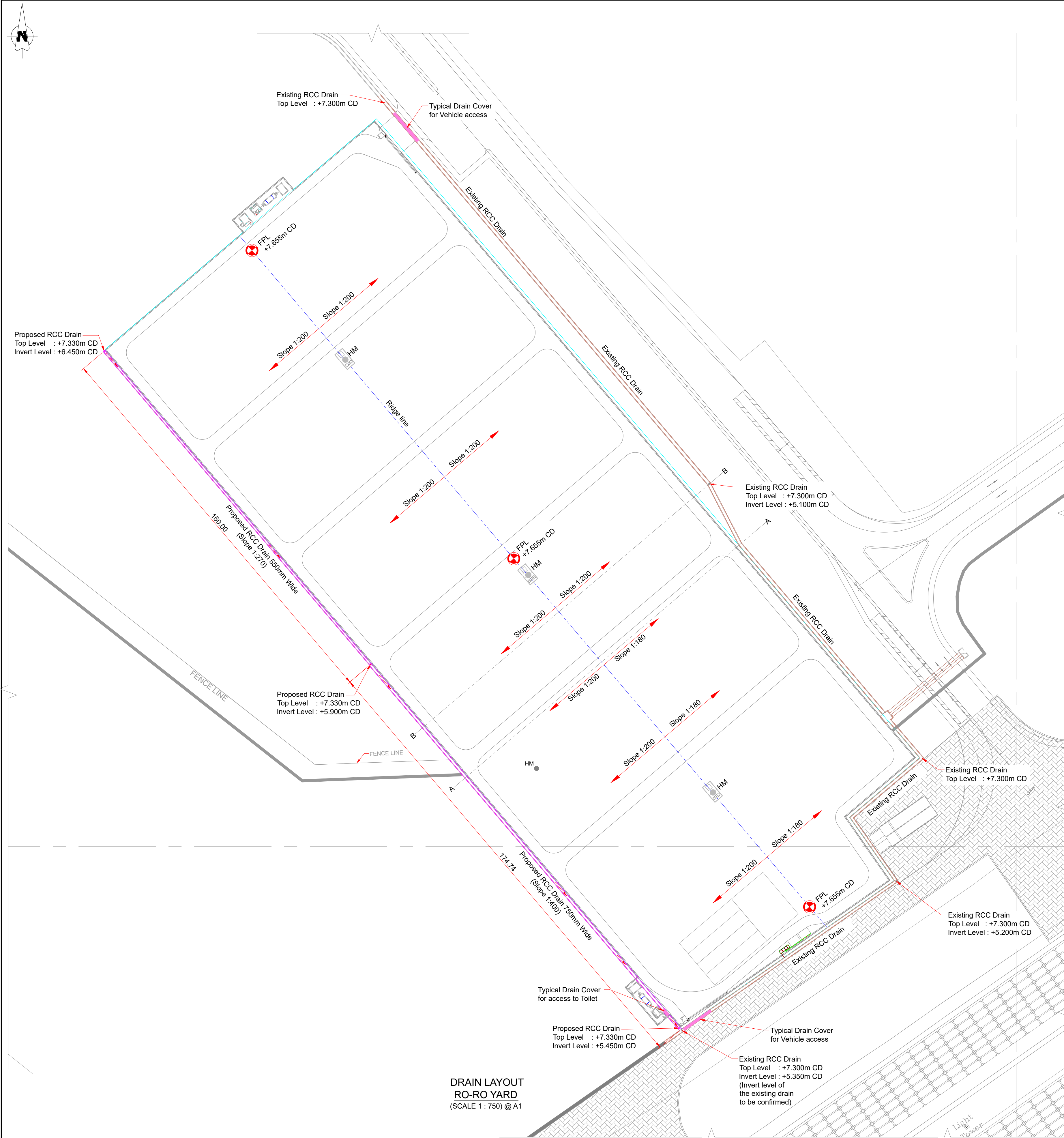
- PCC = Plain Cement Concrete
- RCC = Reinforced Cement Concrete
- GI = Galvanized Iron
- G.L. = Ground Level
- F.P.L. = Finished Pavement Level

REFERENCE DRAWINGS :-

- BMT-1511-GPPL-TEN-DWG-001
RORO YARD, CAR STACKING &
GENERAL ARRANGEMENT LAYOUT

FOR TENDER

T1	29.09.2023	DRAWING FOR TENDER	HT	SP / MC	AR
T0	14.09.2023	DRAWING FOR TENDER	HT	SP / MC	AR
Rev	Revision Date	Purpose of revision	Drawn	Checked	Approved
Client					
GUJARAT PIPAVAV PORT LIMITED					
Project					
DETAIL DESIGN OF RORO YARD					
Drawing title					
RORO YARD ROAD LAYOUT AND DETAILS					
Drawing status					
Scale					
AS SHOWN @ A1					
Drawing number					
BMT-1511-GPPL-TEN-DWG-003					
This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.					
					Rev T1



- NOTES :-**
1. All dimensions and levels are in meter unless noted otherwise.
 2. This drawing should not be scaled. Only written dimensions shall be followed.
 3. All levels are related to chart datum (+0.0m).
 4. Concrete grade M30 and reinforcement grade Fe500D.
 5. Transition slope from 1:180 at Line A-A to 1:200 at Line B-B (on East side of Ridge line).
 6. The top level of the existing drainage (from B to C) is considered at +7.30 m CD as per Previous GFC dwg. Therefore, the ridge line level is set at +7.655 m CD to maintain a 1:200 & 1:180 slope as shown in layout.
 7. The top level of the proposed drainage (from F to A) is set at +7.33 m CD as per the ridge line level of +7.655 m CD to maintain a 1:200 slope as shown in layout.

REFERENCE DRAWINGS :-

- BMT-1511-GPPL-TEN-DWG-001
- RORO YARD, CAR STACKING & GENERAL ARRANGEMENT LAYOUT

- LEGEND :-**
- RCC = Reinforce Cement Concrete
 - PCC = Plain Cement Concrete
 - FGL = Finished Ground Level
 - FPL = Finished Pavement Level
 - HM = High mast

FOR TENDER

T1	29.09.2023	DRAINED FOR TENDER	HT	SP / MC	AR
T0	18.09.2023	DRAINED FOR TENDER	HT	SP / MC	AR
Rev	Revision	Purpose of revision	Drawn	Checked	Approved

Client

GUJARAT PIPAVAV PORT LIMITED

Project

DETAIL DESIGN OF RORO YARD

Drawing title

RORO YARD
STORM WATER DRAIN
DRAINAGE LAYOUT & DETAILS

Drawing status

Scale

AS SHOWN @ A1

Do not scale

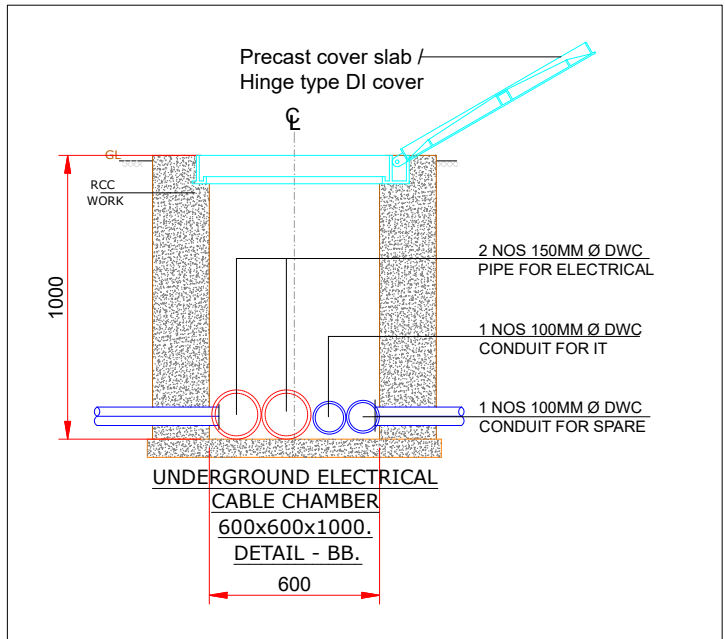
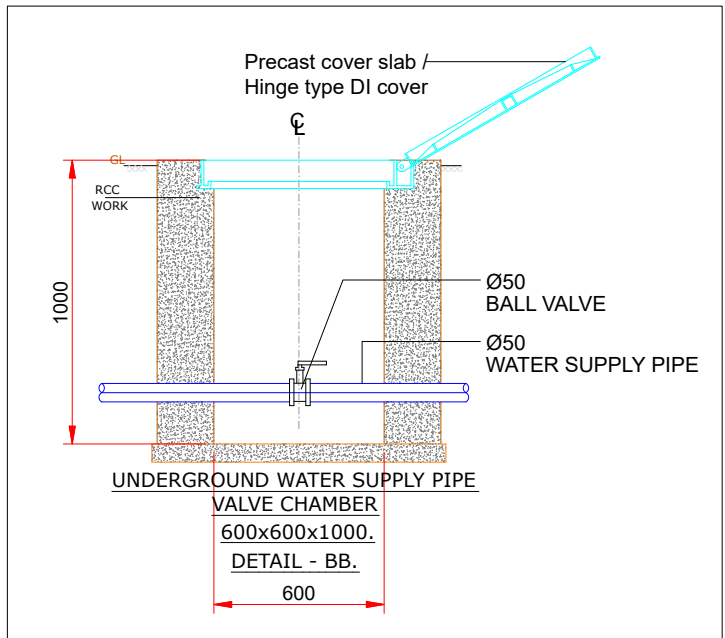
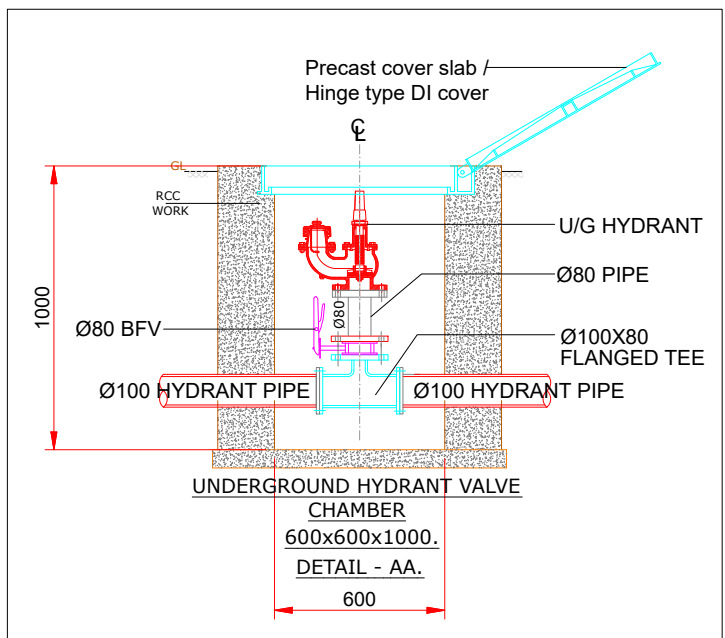
Drawing number

BMT-1511-GPPL-TEN-DWG-004

Rev

T1

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.



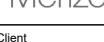
1. All dimensions and levels are in meter unless noted otherwise.
2. This drawing should not be scaled. Only written dimensions shall be followed.
3. All levels are related to chart datum (+0.0m).

	Proposed Chain link fencing
- FPL	- Finished Pavement Level
	Proposed Fire Hydrant Pipe
	Proposed Water Supply Pipe
	Under ground fire Hydrant with Valve chamber - For Fire
	Hose Box - For Fire
	SV - SLUICE VALVE - for fire
-CO2	-4.5 Kg CO2 Type Fire Extinguisher
-ABC	-6 Kg. ABC Powder type fire extinguishers
-CO2 9KG	-carbon-di-oxide fire extinguisher (9 kg) trolley mounted
	-2 nos 150mm dia DWC pipe for electrical
	-2 nos 100mm dia DWC pipe for IT
	Underground chamber for cable pulling of Electrical & It
	30mtr Highmast Lighting pole
	Street Light point
	CCTV camera pole
	Feeder Section pillar

BMT-1511-GPPL-TEN-DWG-001
RORO YARD
CAR STACKING &
GENERAL ARRANGEMENT LAYOUT

FOR TENDER

To	29.09.2023	ISSUED FOR TENDER	HT	KC	AR
By	Revision Date	Prepared by revision Date	Drawn	Checked	Approved



Client

GUJARAT PIPAVAV PORT LIMITED

Project

DETAIL DESIGN OF RORO YARD

Drawing title

**RORO YARD
UTILITIES - WATER SUPPLY, FFTG, CCTV,
ELECTRICAL**

Drawing status

Scale	AS IS/DWG @ A1	Do not scale
Drawing number		

BMT-1511-GPPL-TEN-DWG-005

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

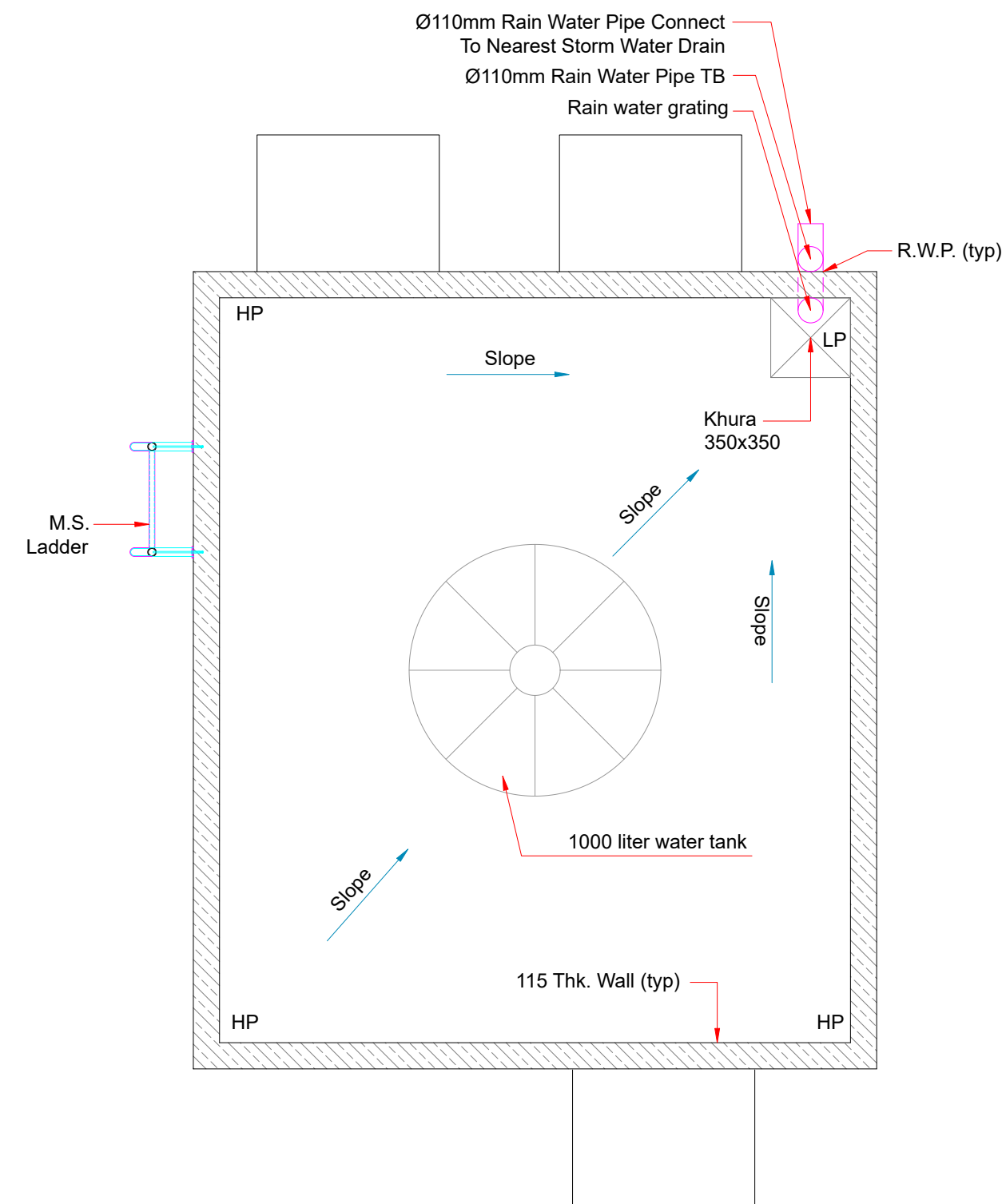
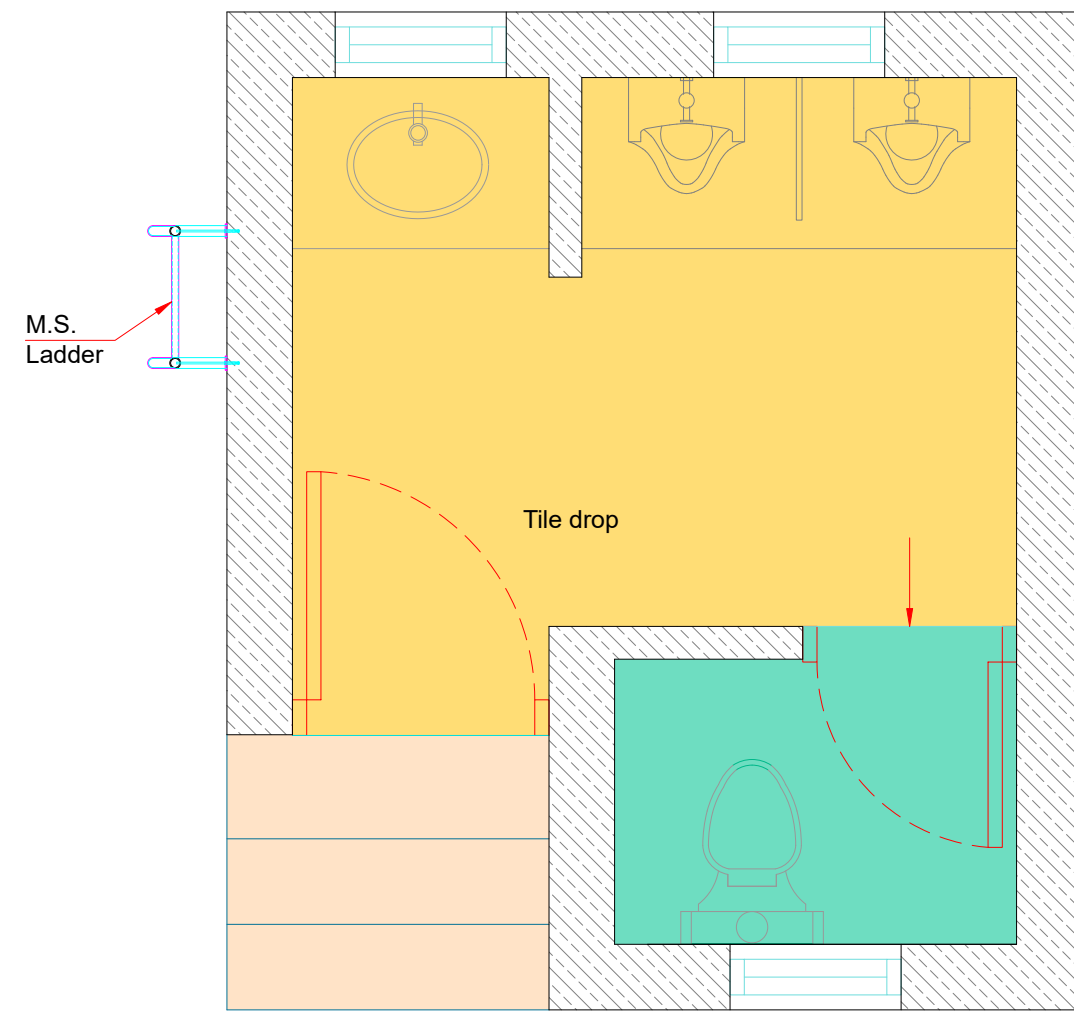
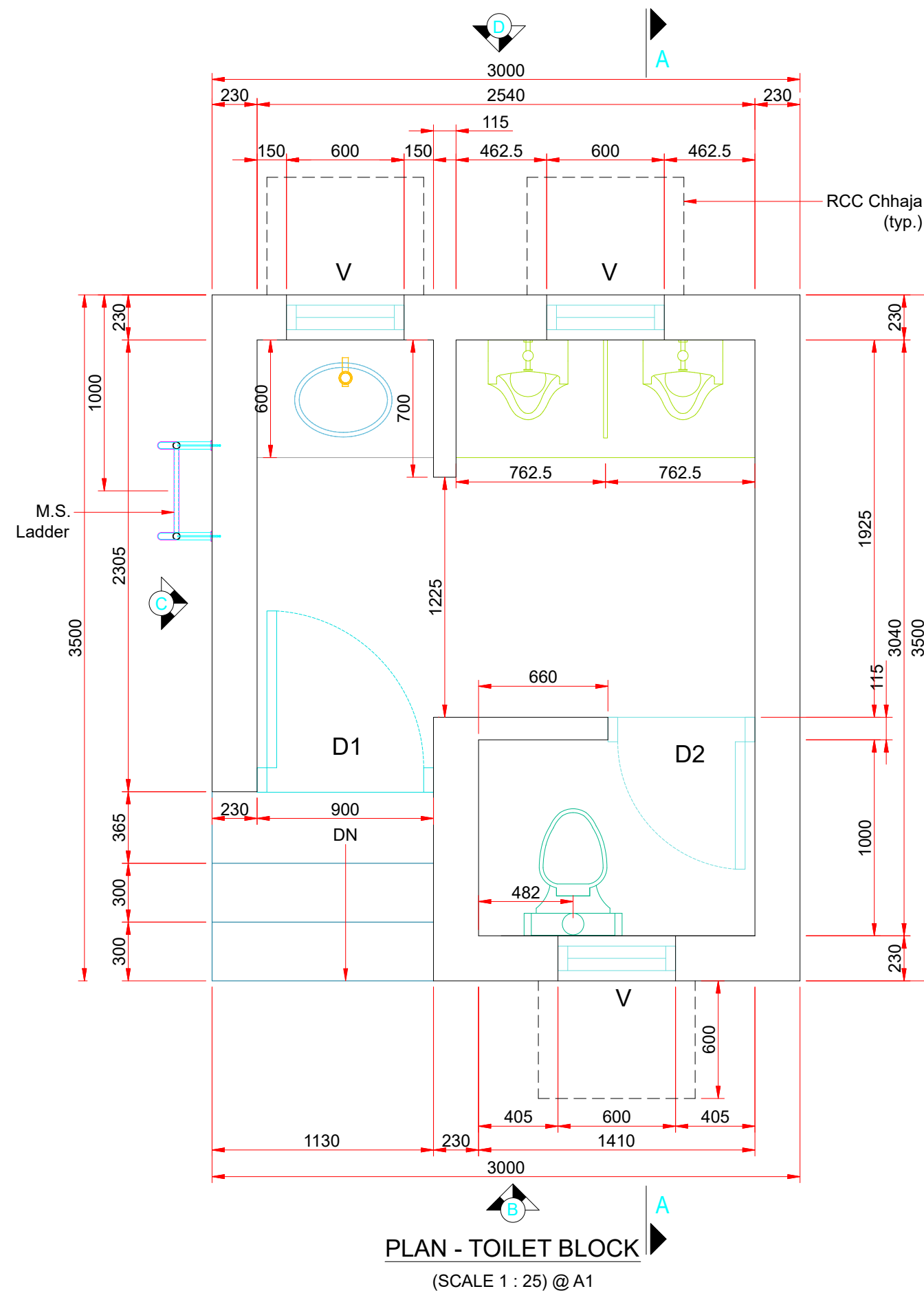
To	Rev
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- NOTES :-**
- All dimensions are in millimeter and levels are in meter unless noted otherwise.
 - This drawing should not be scaled. Only written dimensions shall be followed.
 - Grade of concrete M30 and Reinforcement Fe500D.

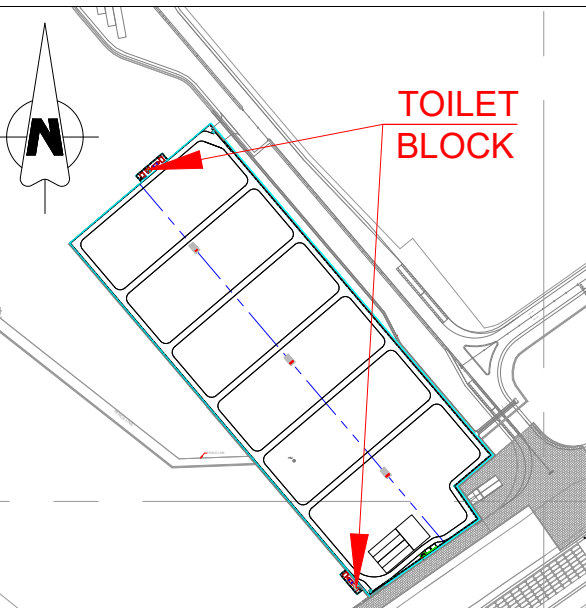
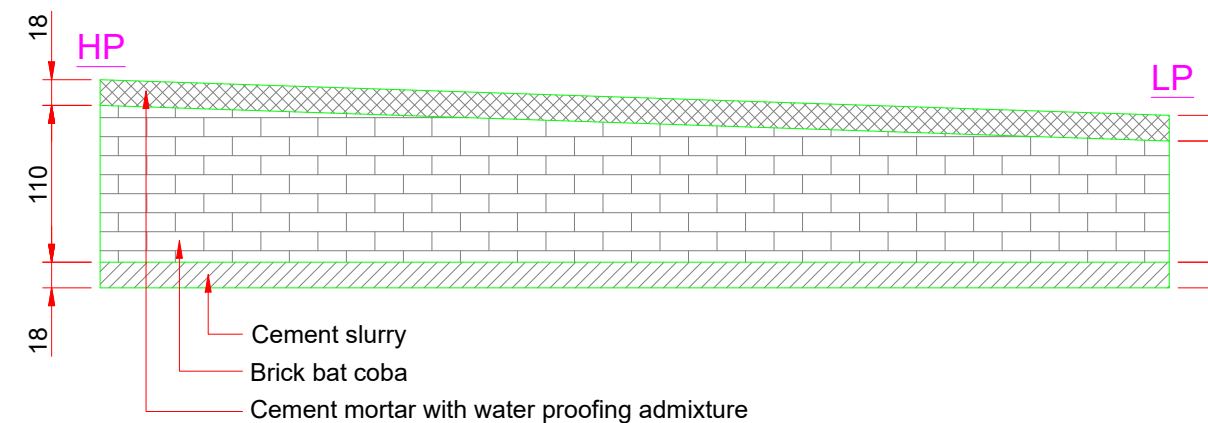
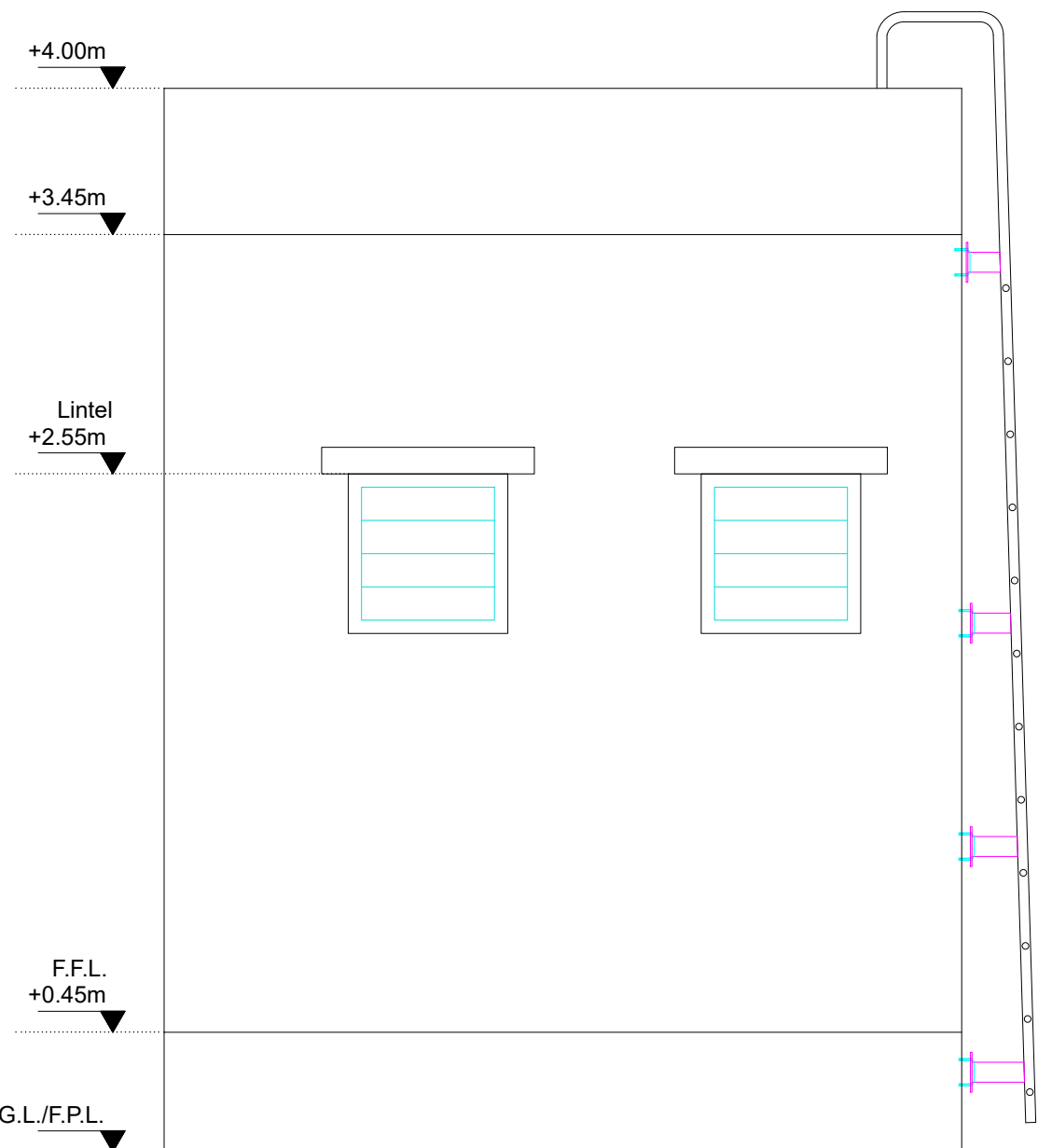
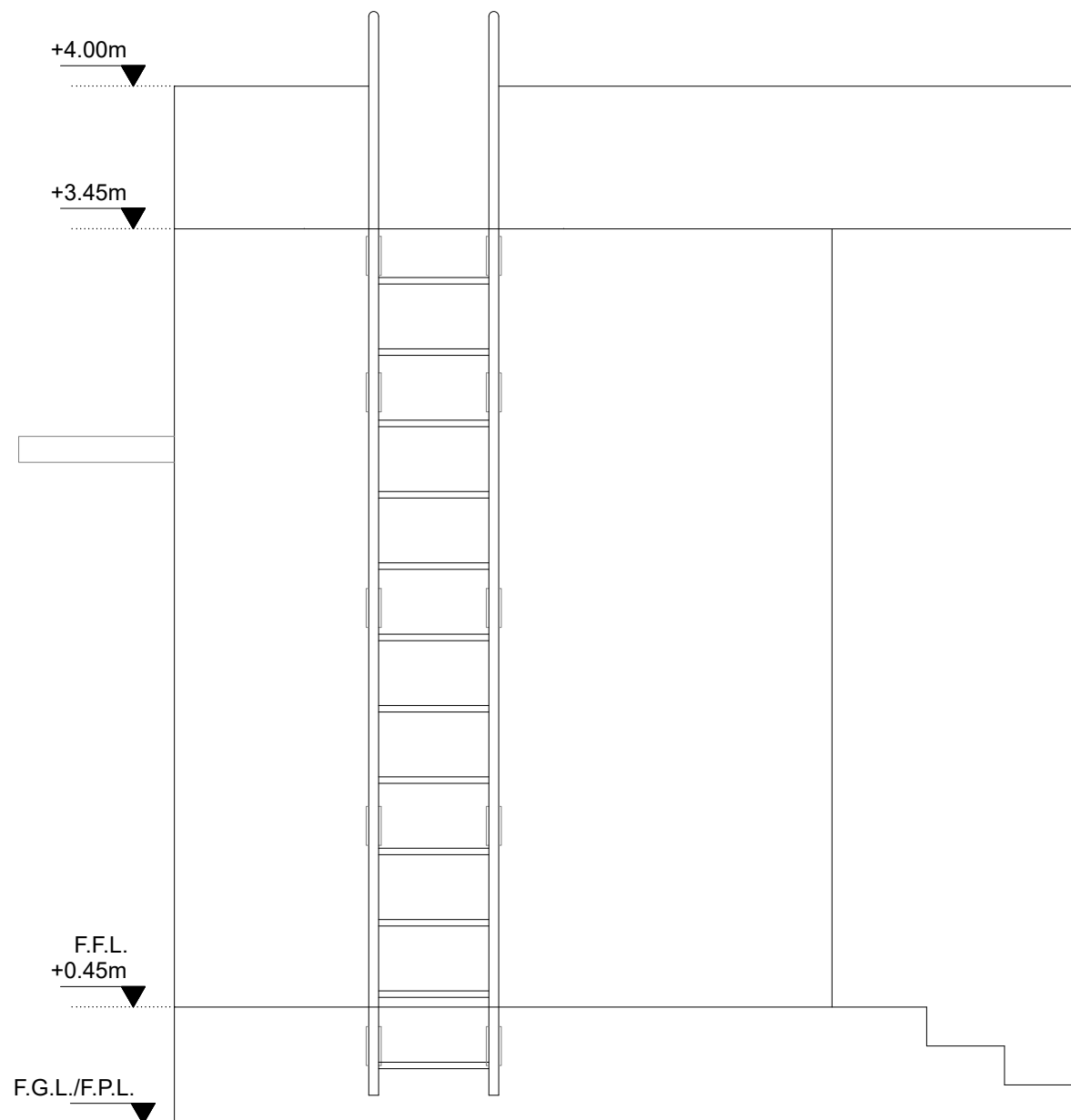
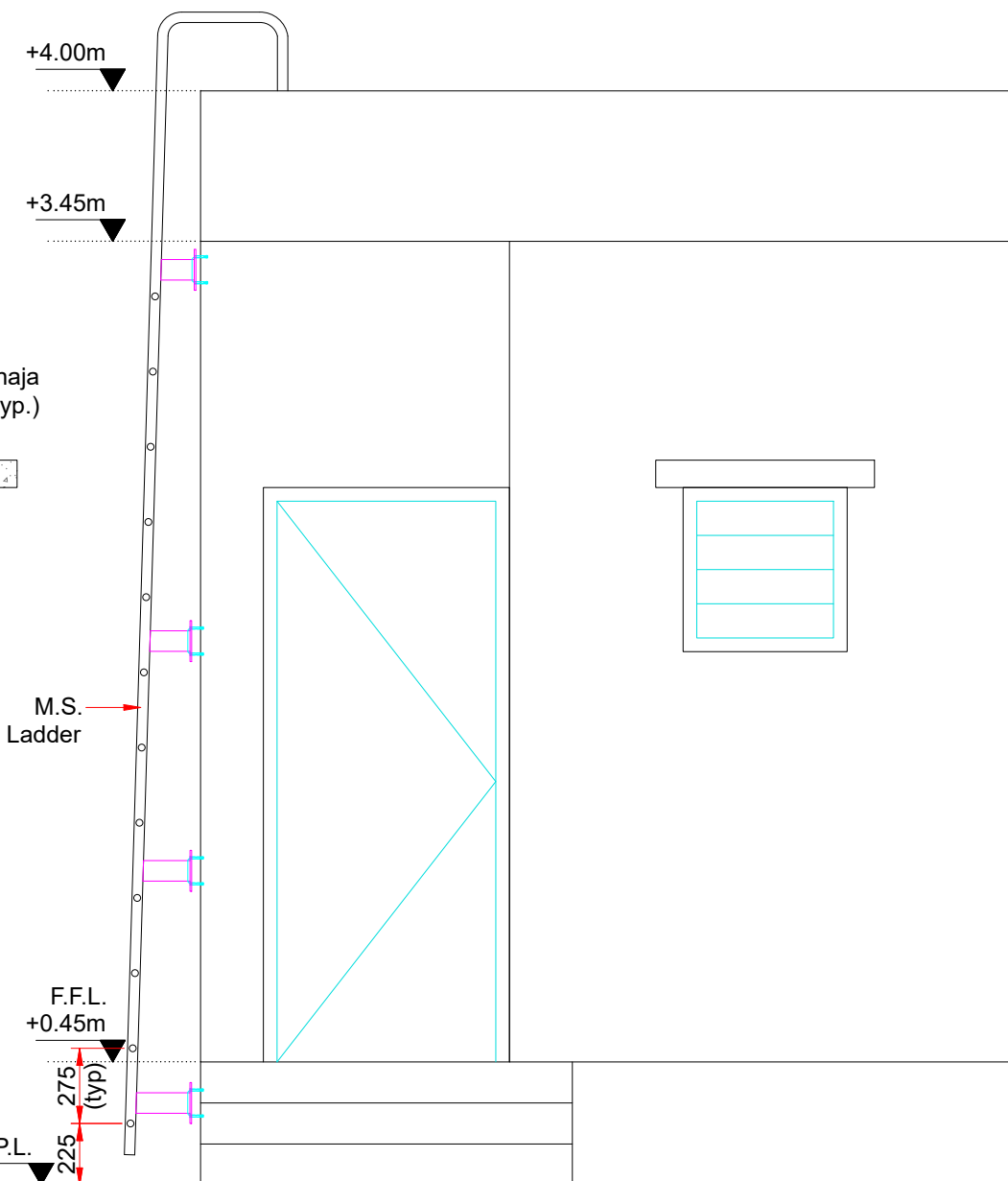
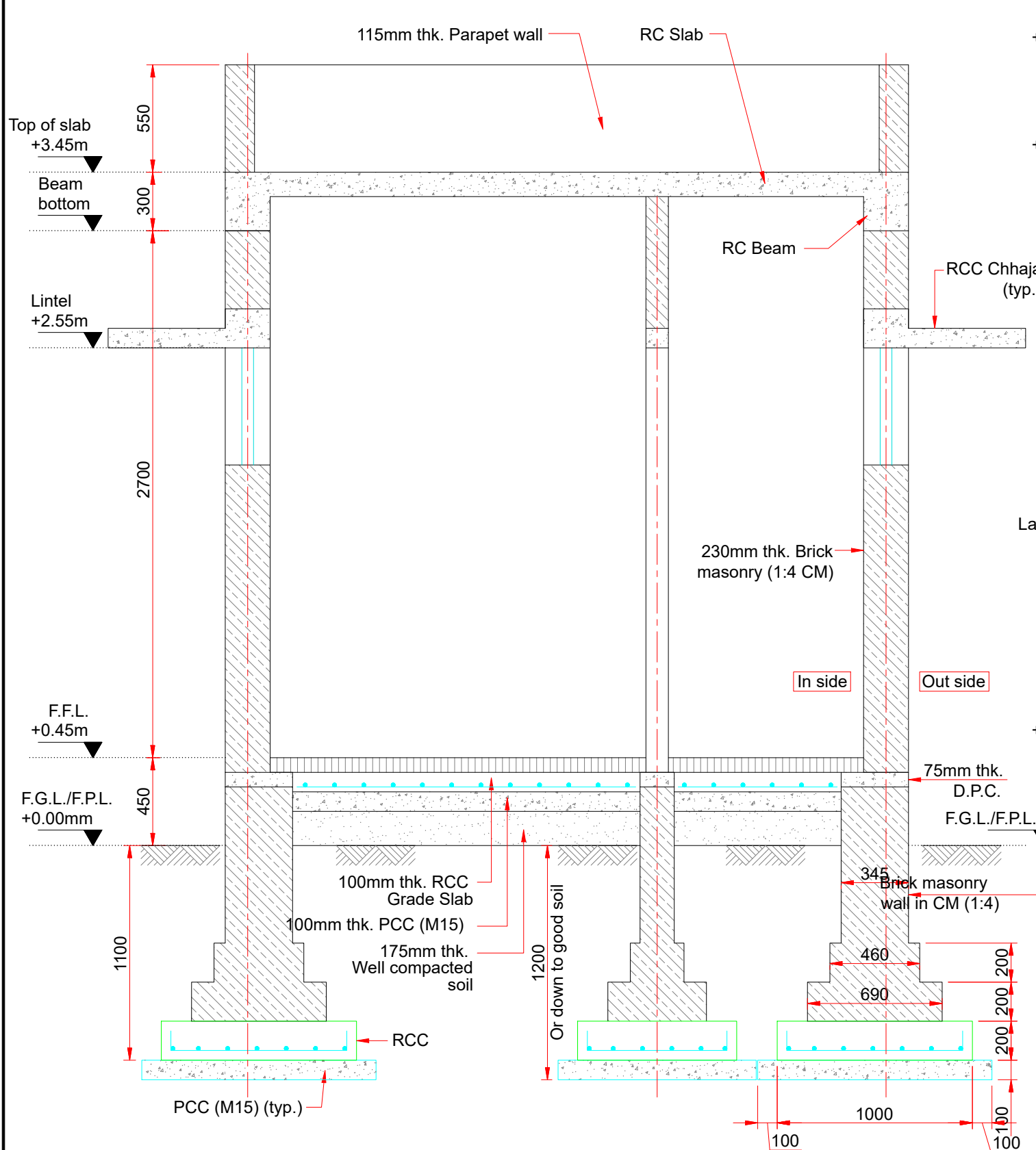
- LEGEND :-**
- F.G.L. = Finished Ground Level
 - F.P.L. = Finished Pavement Level
 - Slope 1 in 125
 - HP = High Point = +0.146m from TOC
 - LP = Low Point = +0.121m from TOC
 - TOC = Top of Concrete
 - RCC = Reinforced Cement Concrete
 - PCC = Plain Cement Concrete
 - DPC = Damp Proof Course
 - M.S. = Mild Steel
 - F.F.L. = Finished Floor Level

REFERENCE DRAWINGS :-

BMT-1511-GPPL-TEN-DWG-001
RORO YARD
CAR STACKING &
GENERAL ARRANGEMENT LAYOUT



- FLOORING LEGENDS :-**
- = Polished kota stone
 - = Vitrified tiles (600 x 600)
 - = Vitrified bathroom tiles (600 x 600)

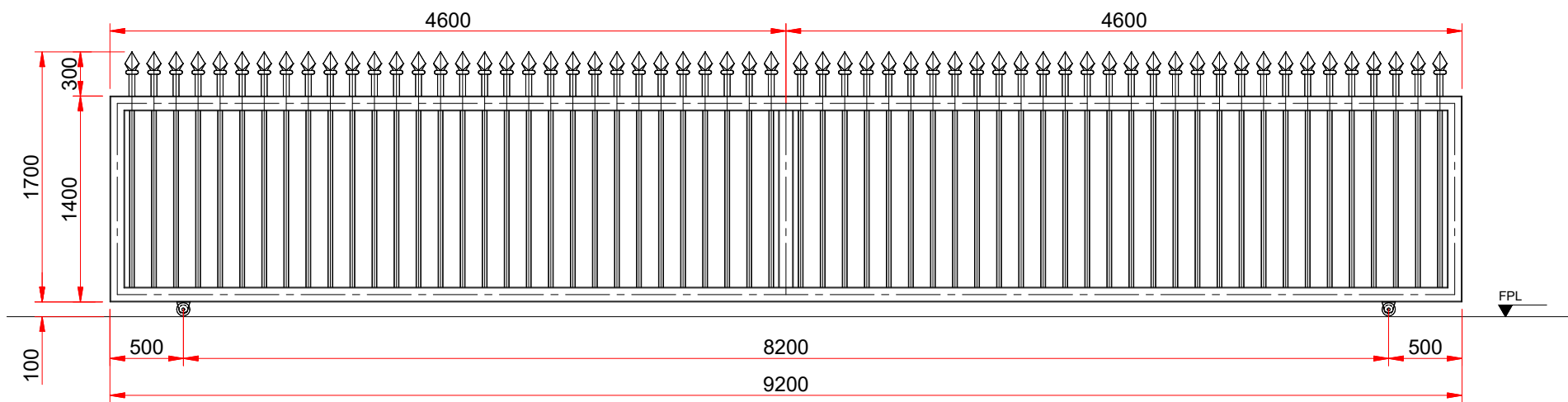


FOR TENDER

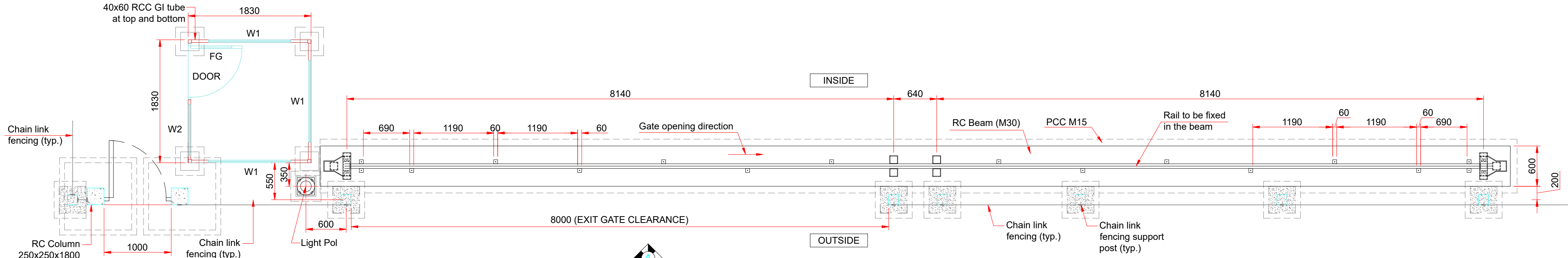
T1	29.09.2023	DESIGNED FOR TENDER	APJ/HIT	HC	AR
T0	13.09.2023	DESIGNED FOR TENDER	APJ/HIT	HC	AR
Rev	Revision	Purpose of revision	Drawn	Checked	Approved
Client					
GUJARAT PIPAVAV PORT LIMITED					
Project					
DETAIL DESIGN OF RORO YARD					
Drawing title					
RORO YARD TOILET BLOCK GENERAL ARRANGEMENT AND DETAILS					
Drawing status					
Scale					
AS SHOWN @ A1					
Drawing number					
BMT-1511-GPPL-TEN-DWG-006					
This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.					
					Rev
					T1

PORTA CABIN DOOR & WINDOW SCHEDULE

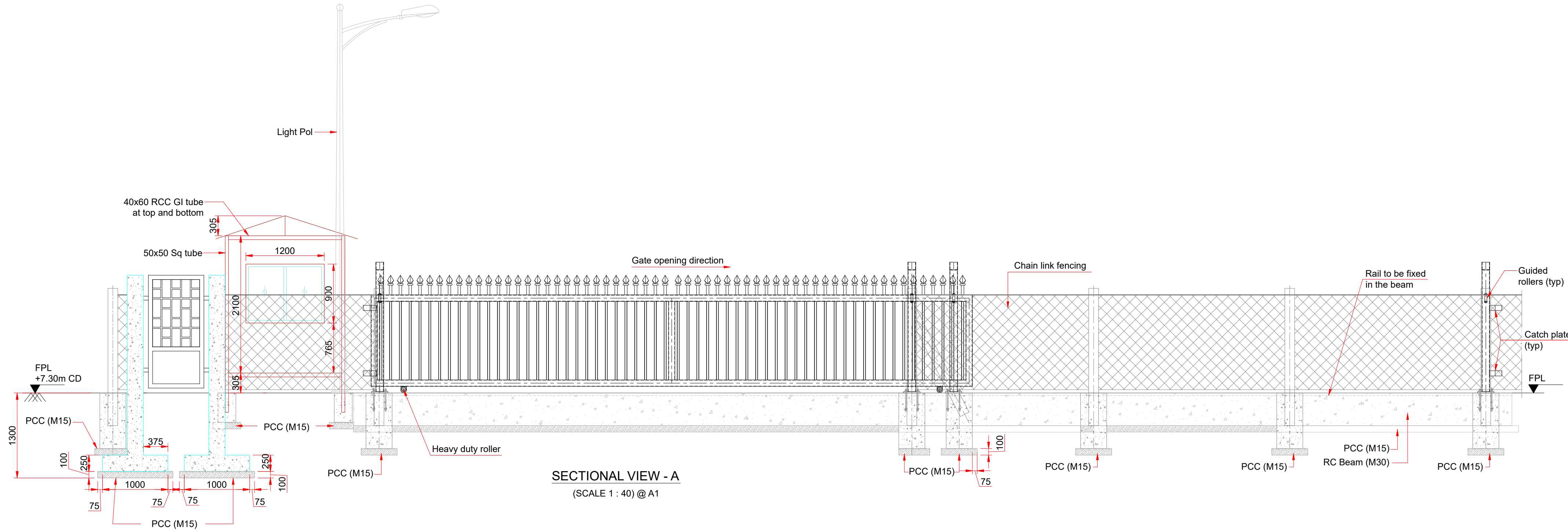
TYPE	SIZE	QUANTITY
DOOR	765 x 1800	1
W1	1200 x 900	3
W2	765 x 900	1
FIXED GLASS (FG)	450 x 600	1



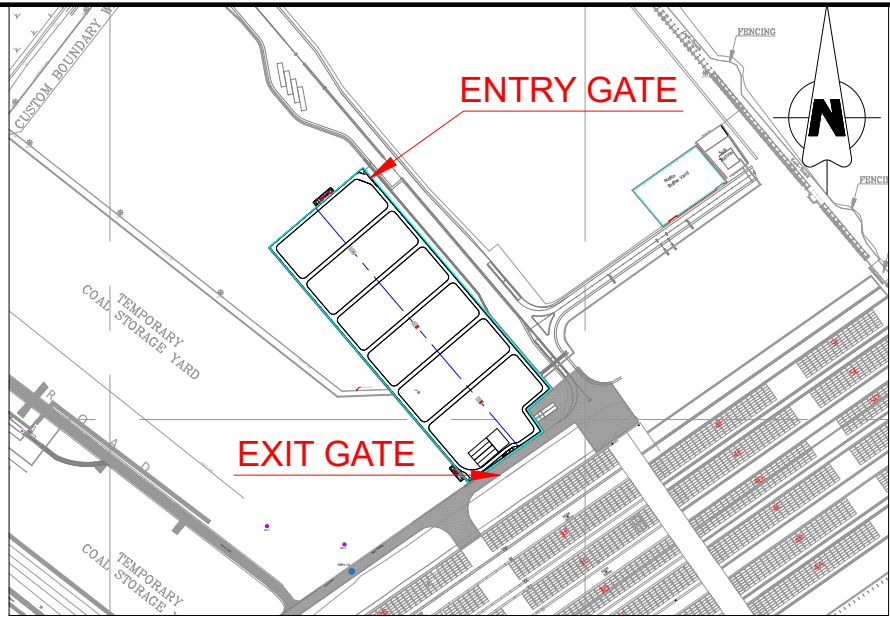
GATE - ELEVATION
(SCALE 1 : 40) @ A1



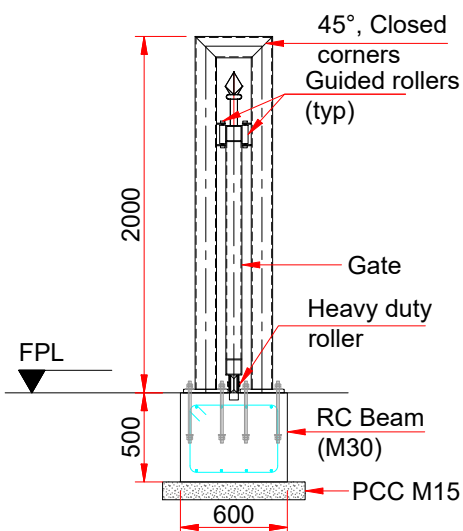
PLAN VIEW
PORTA SECURITY CABIN AND
ENTRY / EXIT GATE DETAIL
(SCALE 1 : 40) @ A1



SECTIONAL VIEW - A
(SCALE 1 : 40) @ A1



KEY PLAN
(SCALE 1 : 7500) @ A1



SECTION B-B
(SCALE 1 : 25) @ A1

NOTES :-

- All dimensions in mm and levels are in meters unless noted otherwise.
- This drawing should not be scaled. Only written dimensions should be followed.
- All levels are related to chart datum (+0.000m CD).
- All structural steel (other than tubes) shall be of grade E250 & shall conform to IS:2062 and fabrication shall be in accordance with IS:800.
- All structural steel tubes shall conform to IS:1239.
- Welding shall be done as per IS:9595.
- Open ends of all members shall be closed with 3mm plate & seal welded UNO.
- All holes must be drilled or punched and making holes by burning with flame shall not be permitted when punched, all burns that are formed shall be removed.
- All structural steel shall receive one coat at Red Oxide paint and two coats of good approved quality synthetic enamel paint.
- For all structural steel work contractor shall prepare detailed shop drawings conforming to IS:696 & 962 and have the same approved by owner before starting fabrication work. Shop drawing shall show size & details of welds & bolts & shall distinguish between shop and field bolts and welds.
- All structural steel shall be so stored and handled such that members are not subject to excessive stresses, distortion, damage and corrosion.
- All bolts and nuts shall Conform to IS:1363. Bolts of Class 8.8 Shall be Used Unless Specified in the design drawings.
- During erection, the steel work shall be securely bolted, fastened and where necessary temporarily braced.
- No permanent bolting or welding shall be done until proper alignment has been obtained.
- Electrodes shall conform to IS:814 & shall be stored in original cartons in a dry place and protected from weathering effect.
- All Square Hollow Sections (SHS) shall be of fy 310 MPa conform to IS:4923.
- Soil below subgrade shall be compacted to 97% of maximum dry density.
- All cast in situ reinforced concrete shall be of minimum grade M30 unless noted otherwise.
- All reinforcement steel shall be Fe 500D bars conforming to IS:1786.
- Typical 6mm thick fillet weld for structural steel connection UNO.
- Unless otherwise stated, minimum concrete cover to edge of outer and inner reinforcement shall be as shown below :-
 - a) RC Pedestal = 50mm
 - b) RC Footing = 50mm
- Grade of PCC shall be M15.
- Gate assembly are shown for reference only and contractor to provide a stable gate such that weight of gate shall be minimum 50 Kg / Sq.m.
- The contractor shall take the approval from the engineer - in - charge prior to procurement and installation of the porta cabin.

LEGEND :-

- RCC = Reinforced Cement Concrete
- PCC = Plain Cement Concrete
- FPL = Finished Pavement Level

REFERENCE DRAWINGS :-

- BMT-1511-GPPL-BDE-DWG-001

ISSUED FOR TENDER

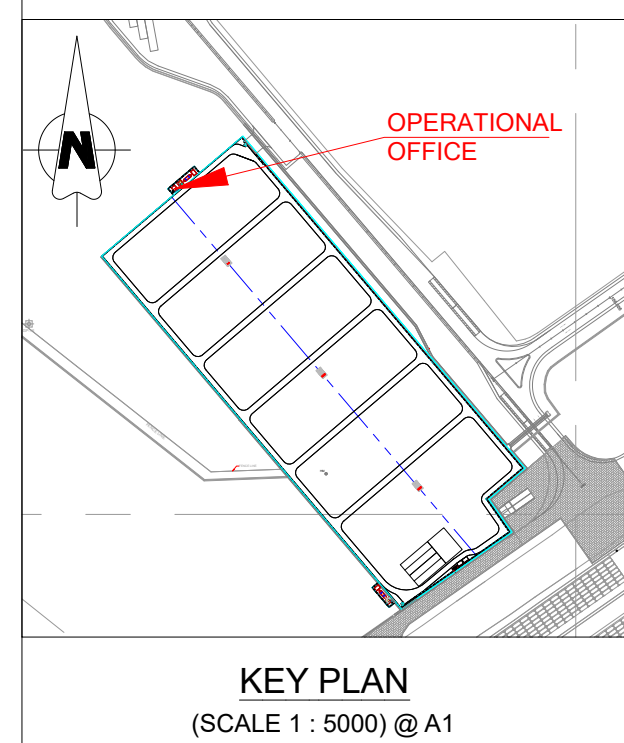
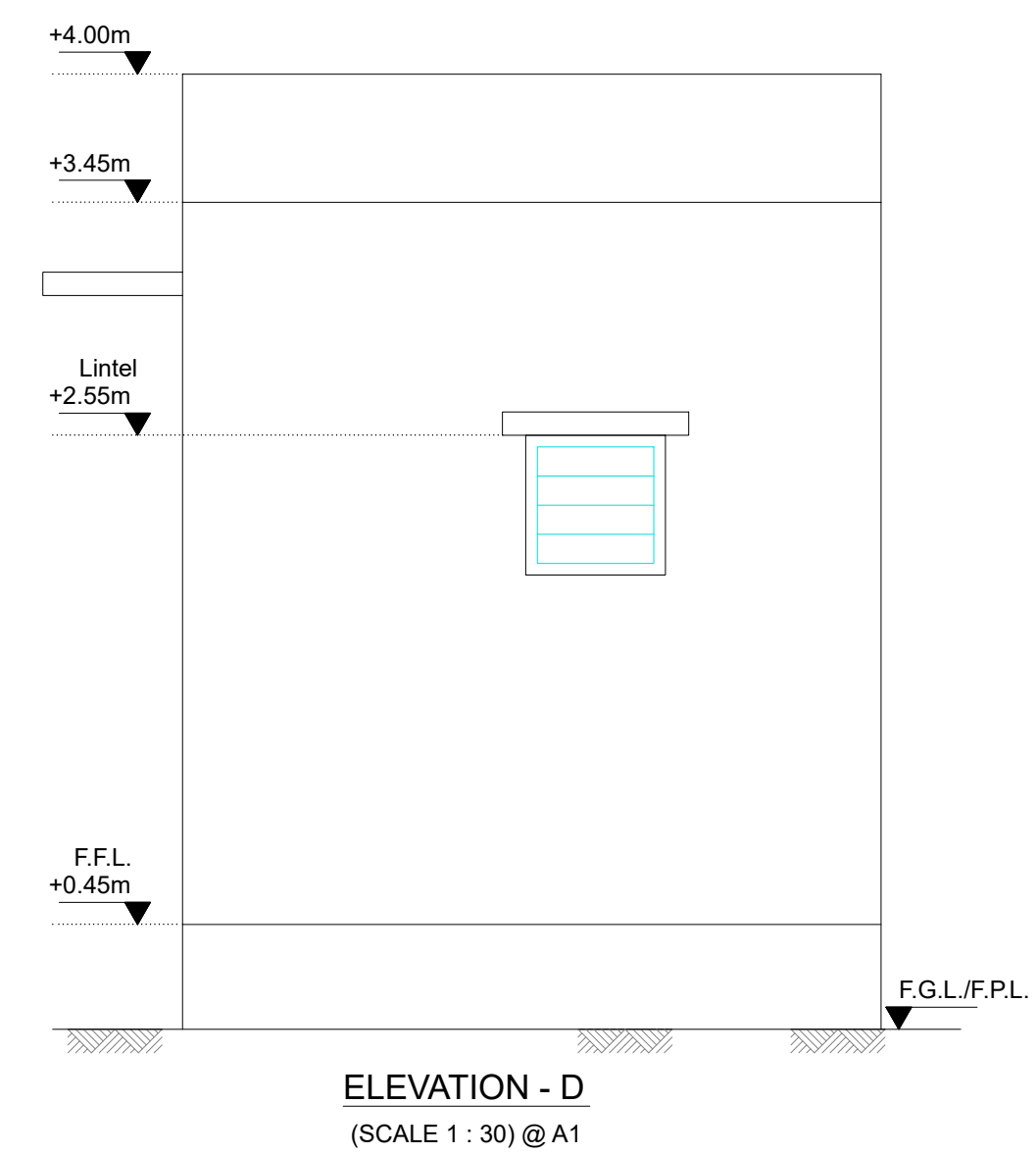
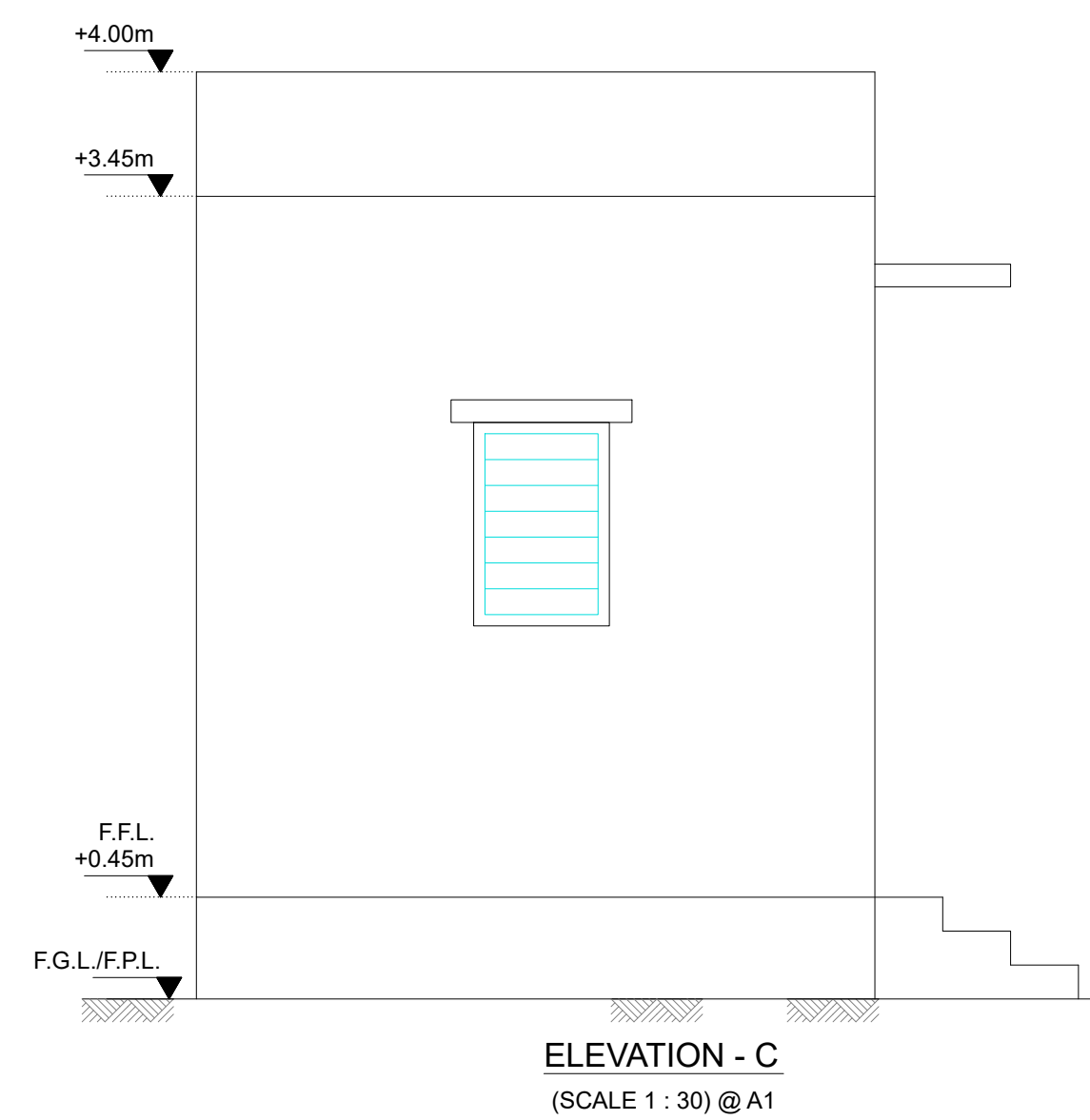
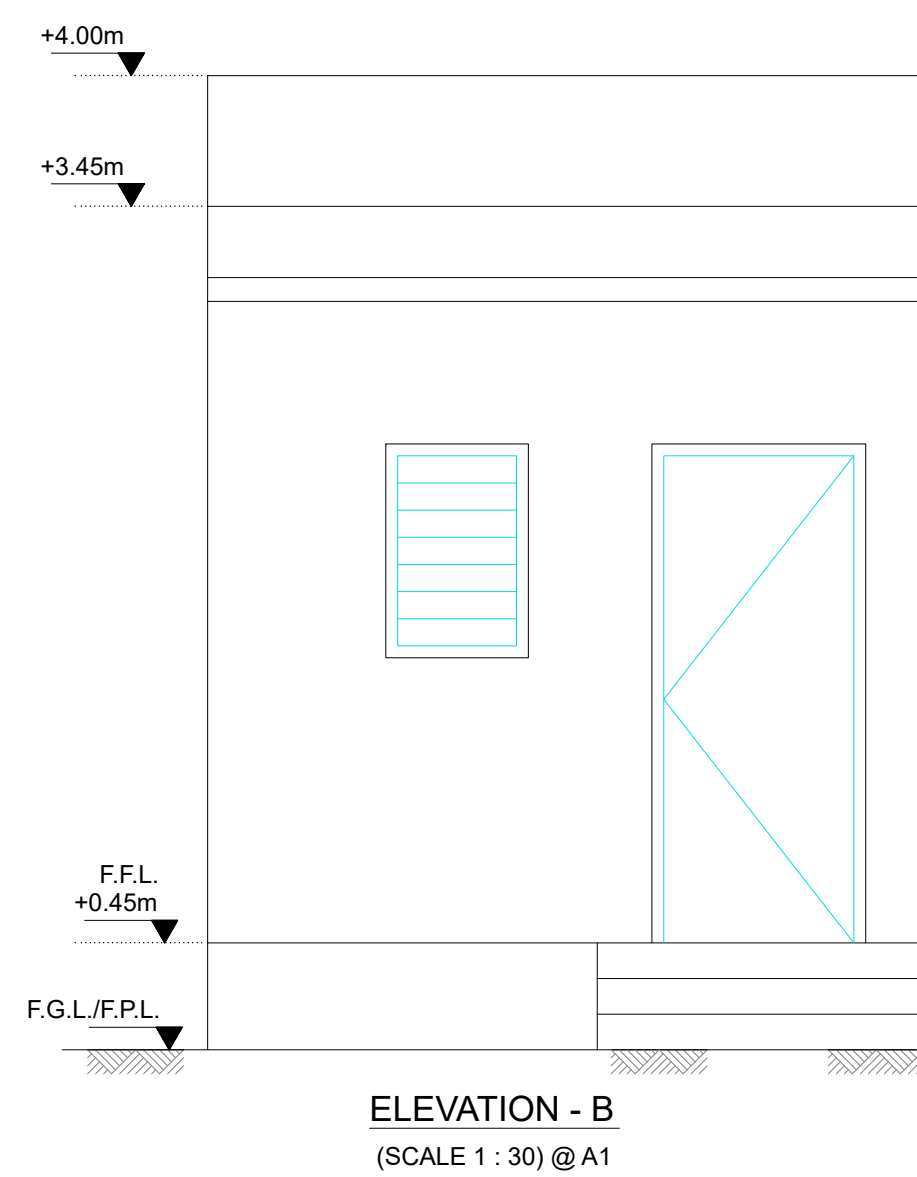
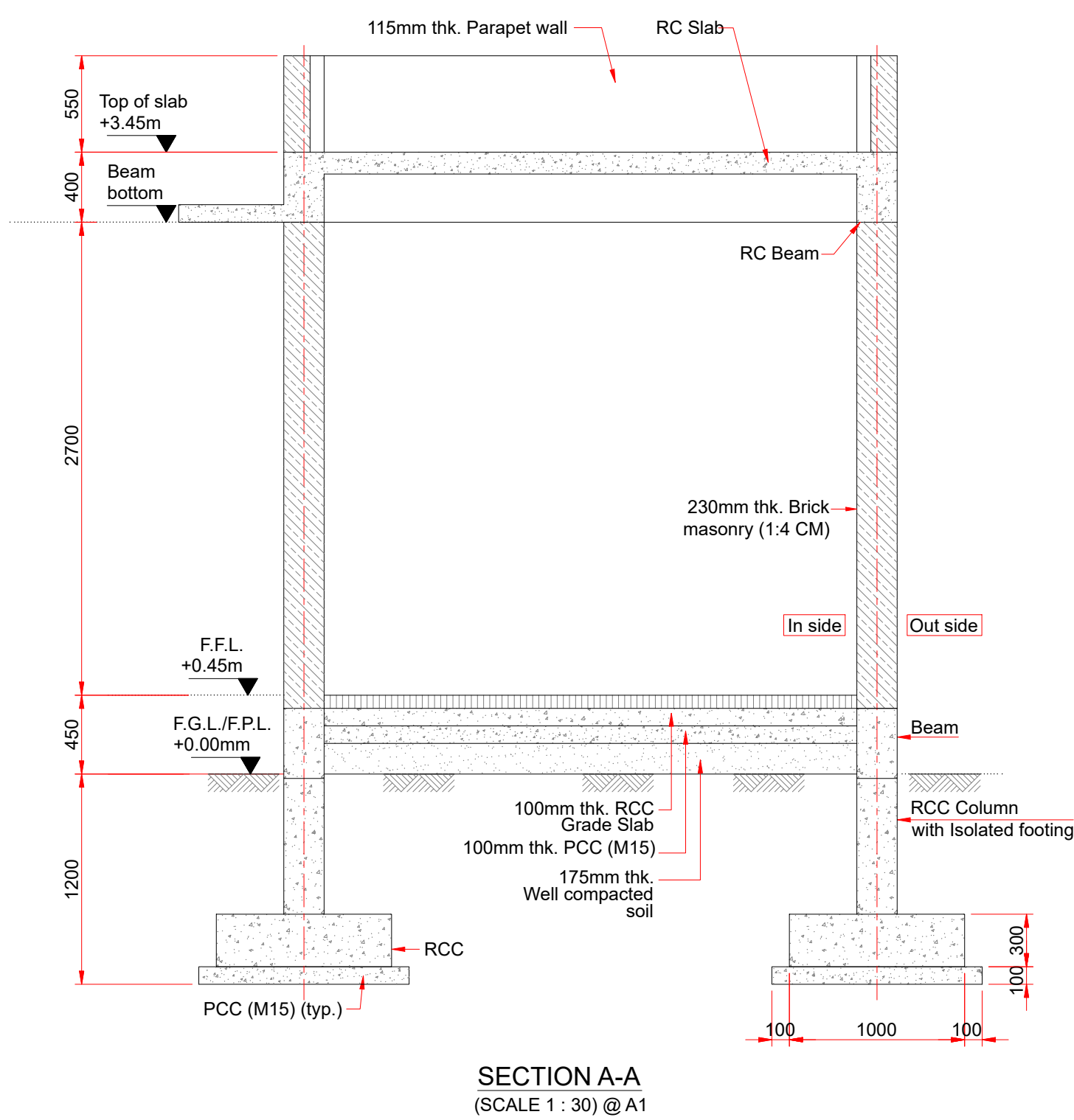
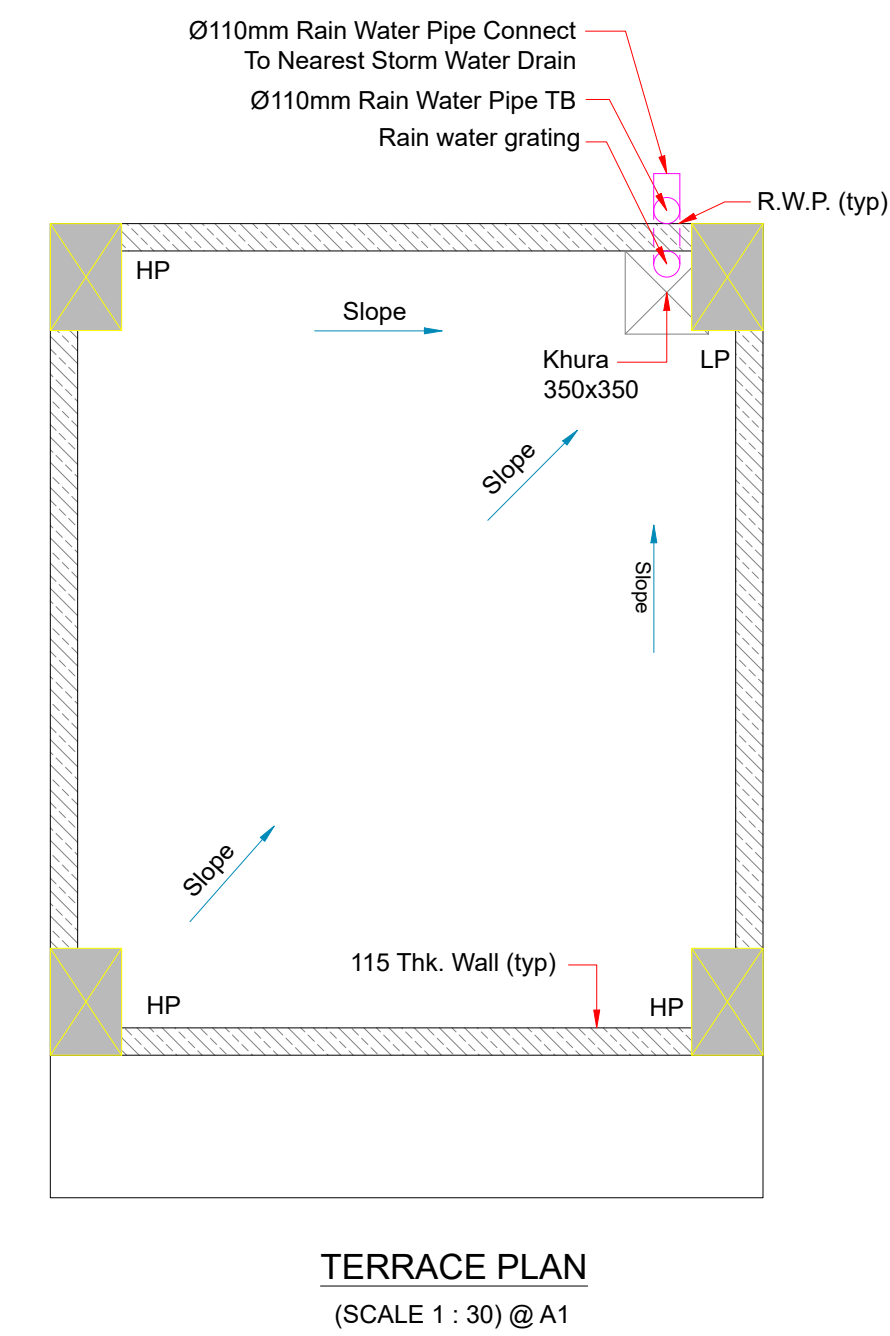
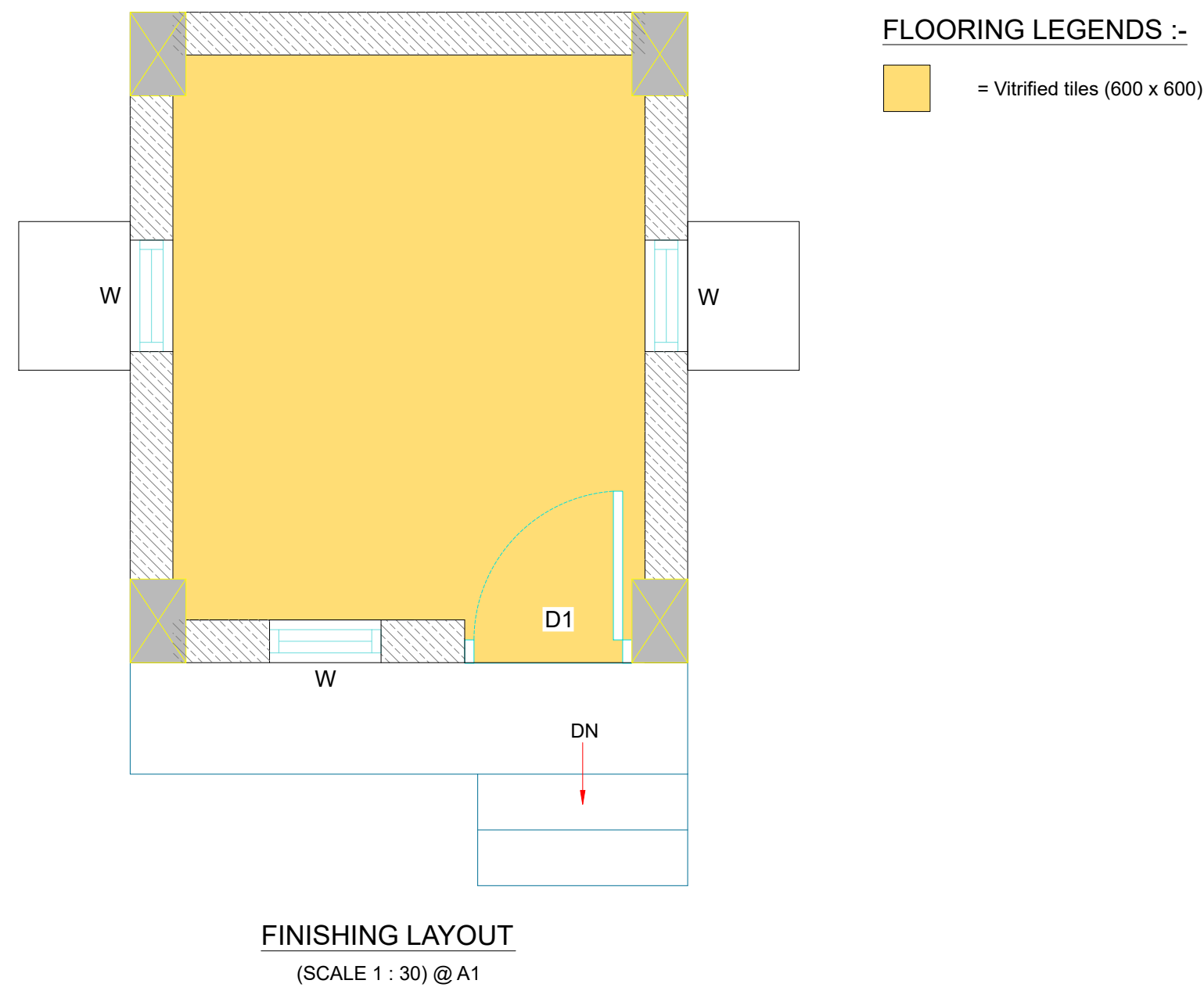
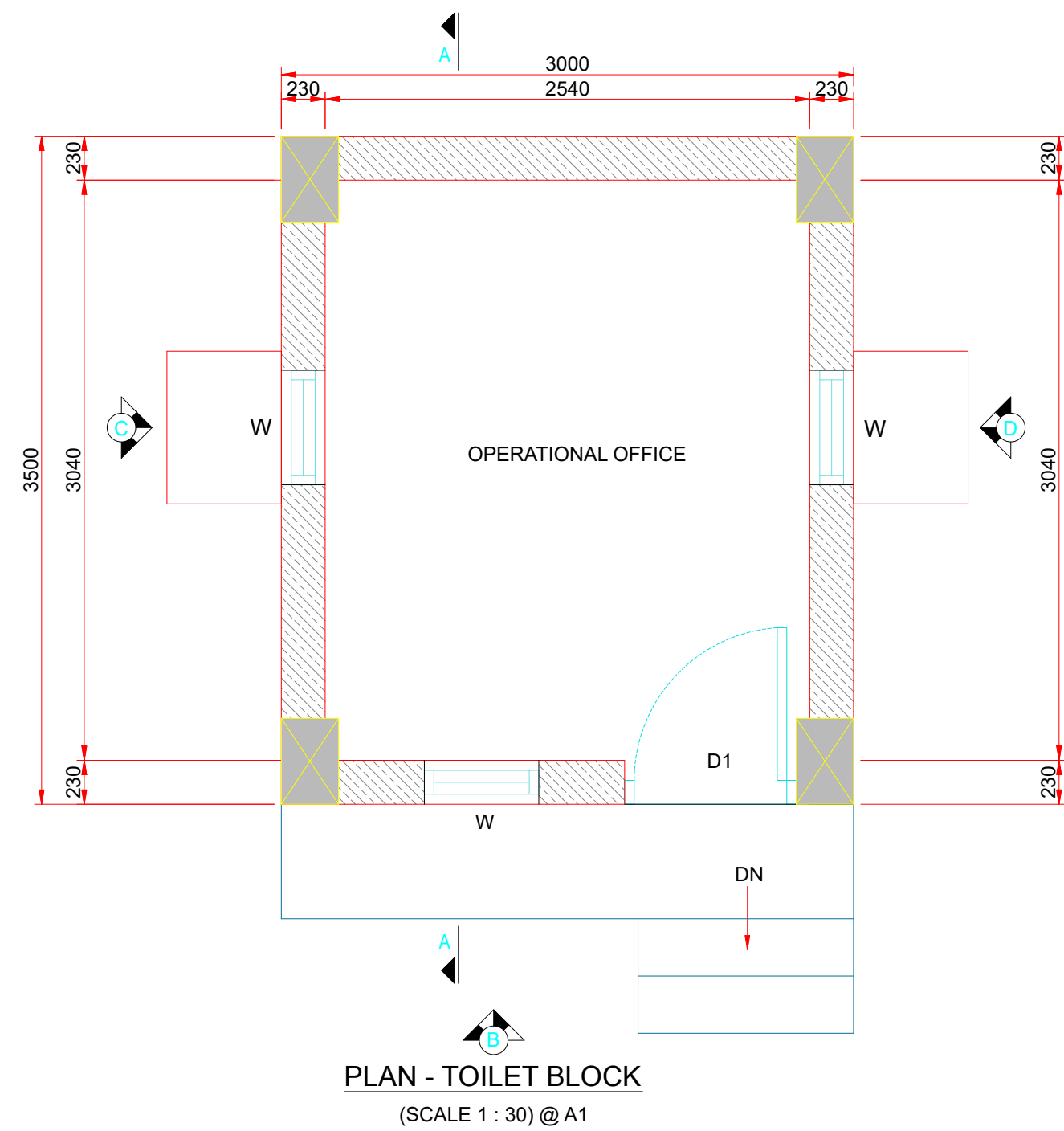
TO	20.08.2023	ISSUED FOR TENDER	HT	NC	AR
Rev	Revision	Purpose of revision	Drawn	Checked	Approved
Client					
GUJARAT PIPAVAV PORT LIMITED					
Project					
DETAIL DESIGN OF RORO YARD					
Drawing title					
RORO YARD PORTA SECURITY CABIN & ENTRY / EXIT GATE PLAN, ELEVATION AND DETAIL					
Drawing status					
Scale					
AS SHOWN @ A1					
Drawing number					
BMT-1511-GPPL-TEN-DWG-007					
This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.					
					Rev
					T0

- NOTES :-**
- All dimensions are in millimeter and levels are in meter unless noted otherwise.
 - This drawing should not be scaled. Only written dimensions shall be followed.
 - Grade of concrete M30 and Reinforcement Fe500D.

- LEGEND :-**
- F.G.L. = Finished Ground Level
 - F.P.L. = Finished Pavement Level
 - Slope 1 in 125
 - HP = High Point = +0.146m from TOC
 - LP = Low Point = +0.121m from TOC
 - TOC = Top of Concrete
 - RCC = Reinforced Cement Concrete
 - PCC = Plain Cement Concrete
 - DPC = Damp Proof Course
 - M.S. = Mild Steel
 - F.F.L. = Finished Floor Level

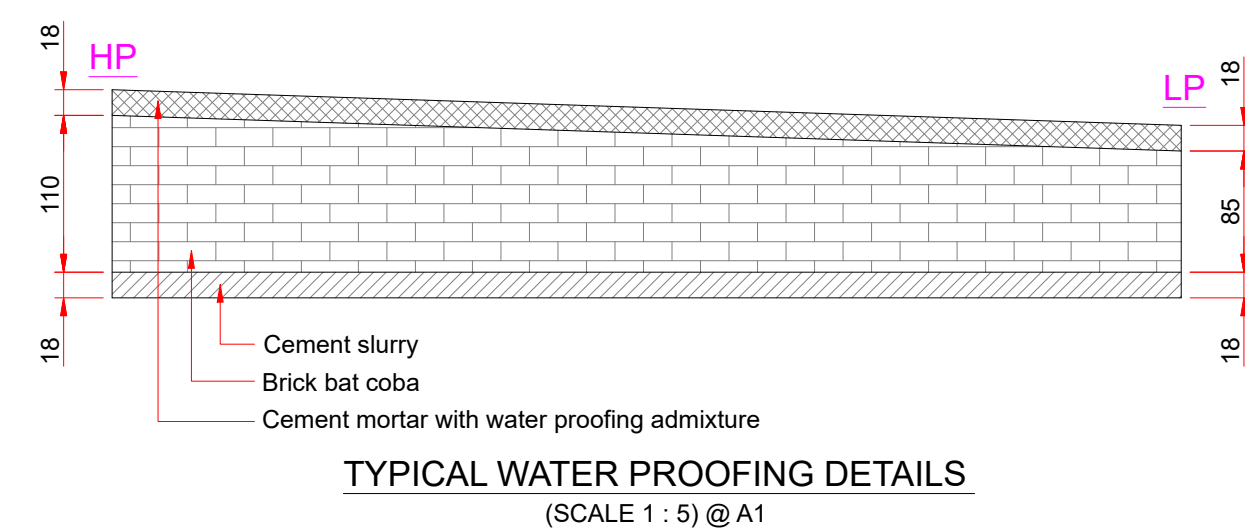
REFERENCE DRAWINGS :-

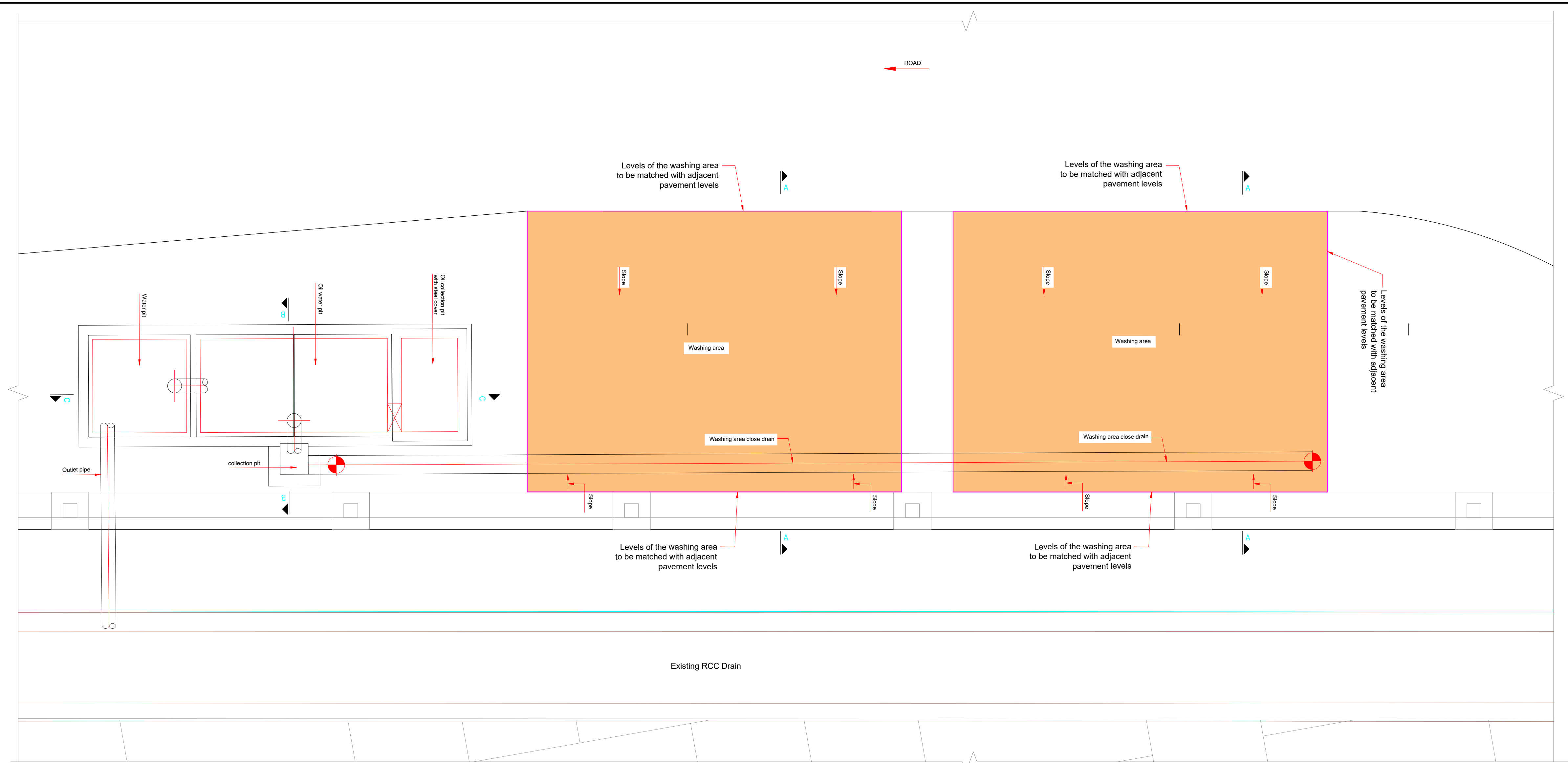
BMT-1511-GPPL-TEN-DWG-001
RORO YARD
CAR STACKING &
GENERAL ARRANGEMENT LAYOUT



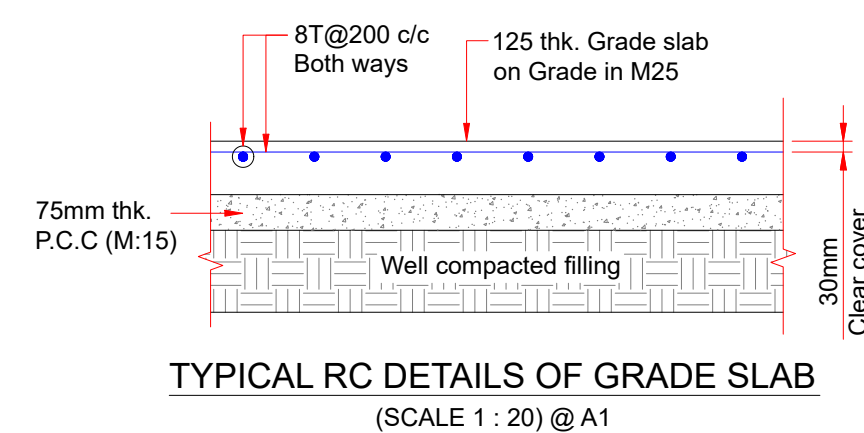
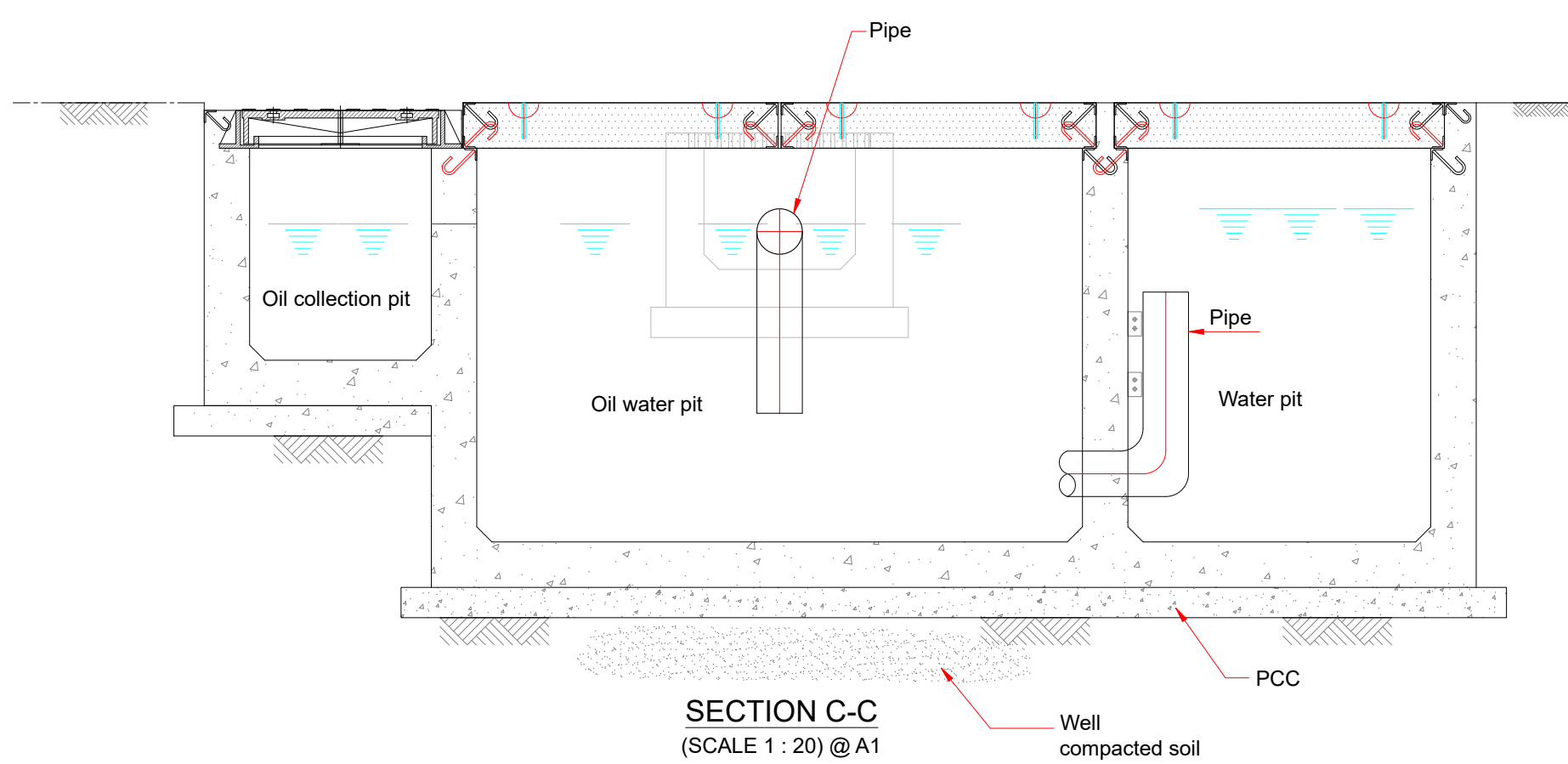
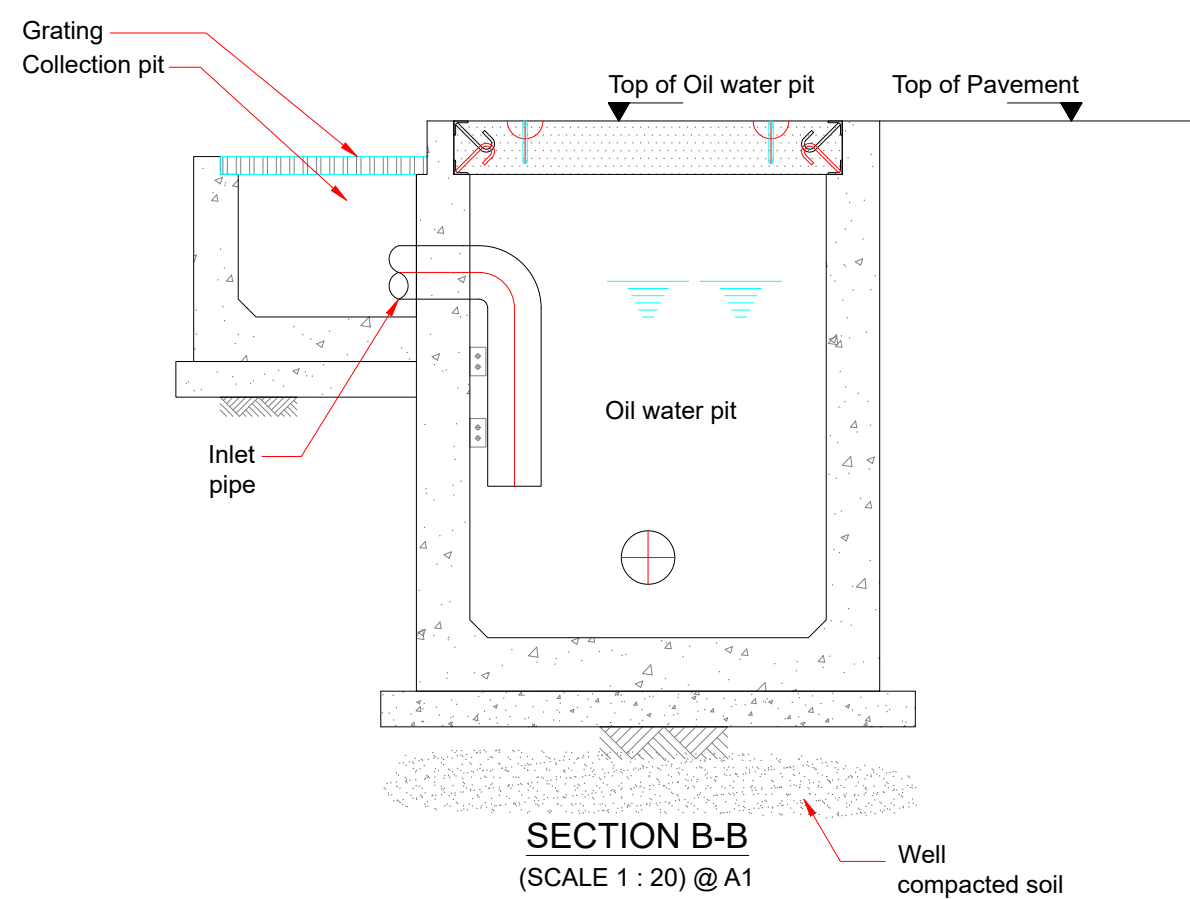
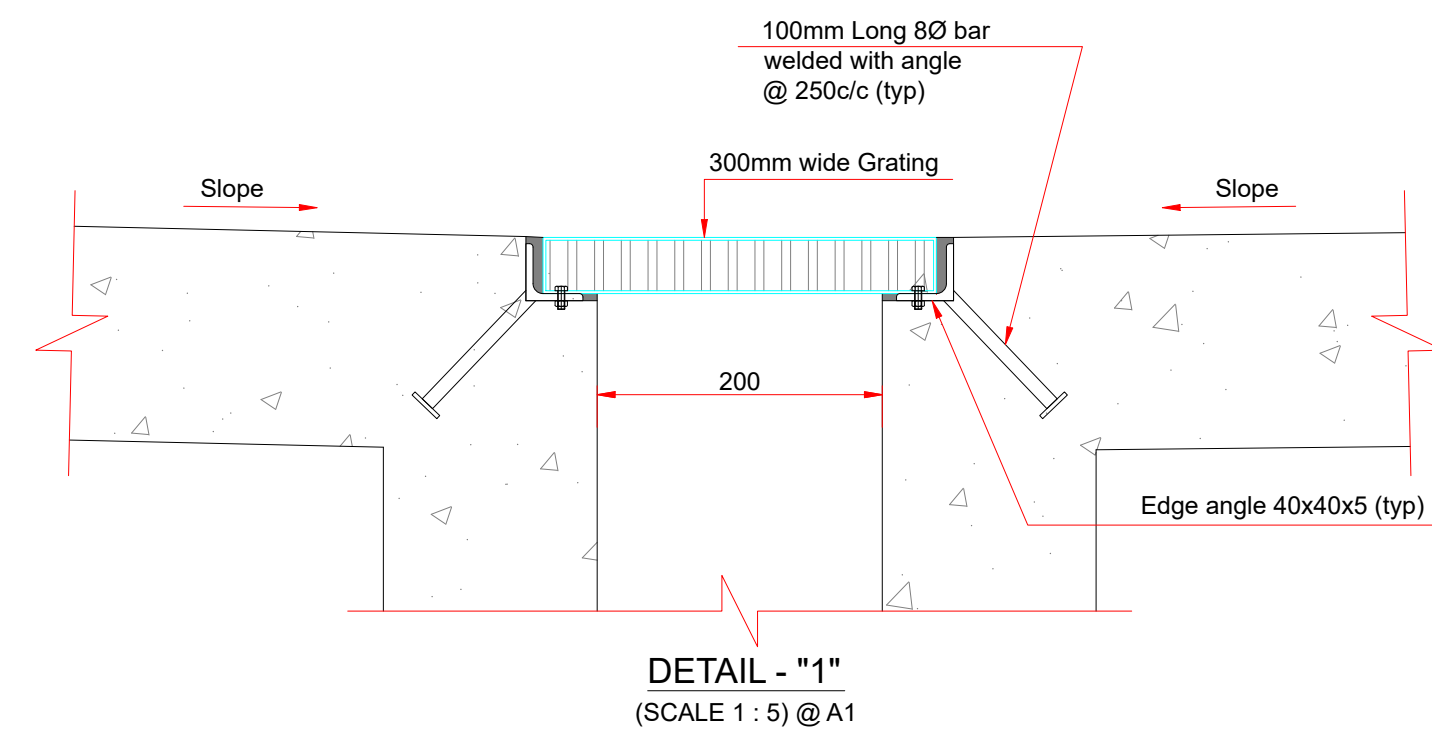
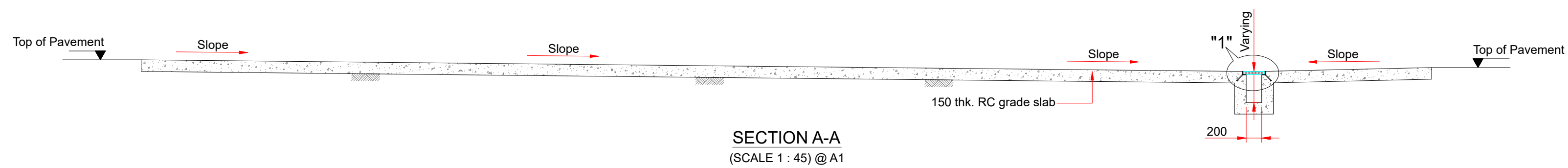
FOR TENDER					
TO	20.09.2023	ISSUED FOR TENDER	APD/MT	HC	AR
Rev	Revision	Purpose of revision	Drawn	Checked	Approved
Client GUJARAT PIPAVV PORT LIMITED					
Project DETAIL DESIGN OF RORO YARD					
Drawing title RORO YARD OPERATIONAL OFFICE PLAN, ELEVATION AND DETAIL					
Drawing status					
Scale AS SHOWN @ A1					
Drawing number					
BMT-1511-GPPL-TEN-DWG-008					
Rev T0					

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

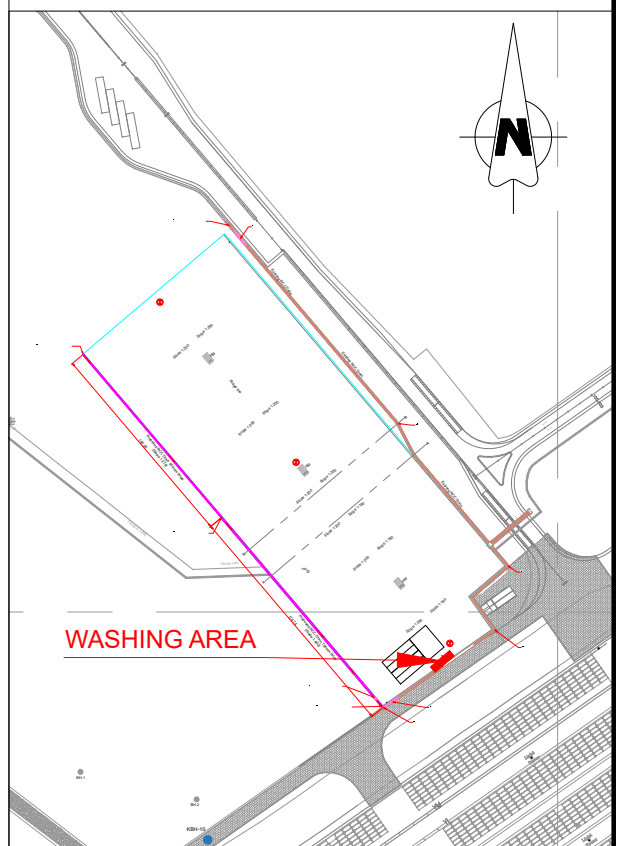




WASHING AREA - PLAN
RO-RO YARD
(SCALE 1 : 25) @ A1



- NOTES :-
1. All dimensions and levels are in meter unless noted otherwise.
 2. This drawing should not be scaled. Only written dimensions shall be followed.
 3. All levels are related to chart datum (+0.0m).



KEY PLAN
(SCALE 1 : 5000) @ A1

REFERENCE DRAWINGS :-

- BMT-1511-GPPL-TEN-DWG-001
RORO YARD, CAR STACKING &
GENERAL ARRANGEMENT LAYOUT

LEGEND :-

- Existing Drain
- Washing area
- RCC = Reinforce Cement Concrete
- P.C.C = Plain Cement Concrete
- FGL = Finished Ground Level
- FPL = Finished Pavement Level
- HM = High mast

FOR TENDER

TO	20.09.2023	AR	ISSUED FOR TENDER	HT	HC	AR
Rev	Section	Date	Purpose of revision	Drawn	Checked	Approved
Client						
GUJARAT PIPAVAV PORT LIMITED						
Project						
DETAIL DESIGN OF RORO YARD						
Drawing title						
RORO YARD Washing area & Oil water saperater GENERAL ARRANGEMENT						
Drawing status						
Scale						
AS SHOWN @ A1						
Drawing number						
BMT-1511-GPPL-TEN-DWG-010						
Rev						
T0						

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.