

**CORRIGENDUM NO. – I**

Sub: Construction of Hard Stand with Land Ties, Brackets and Service Trench including allied Electrical works at Nhava Yard, MDL

Ref: Tender no. 1900000182 dated 09 Feb '24.

1. The following points shall be considered by the bidder(s) before submission of final offer for the subject tender.

2. Following Tender Drawings listed at Enclosure 20 of TEF are **deleted**:

S No	Drawing No.	Description
1.	ARC/CD/001 Rev D5 (Sheet 1 of 2)	Layout and Details of Trench
2.	ARC/CD/001 Rev D5 (Sheet 2 of 2)	Layout and Details of Trench
3.	MEP-ELE-TD-01 Rev R1	PANEL LOCATION
4.	MEP-ELE-TD-02 Rev R1	Hi Mast Location
10.	STR/WD/003 Rev R1(Sheet 1 of 2)	Structural Layout and details of trench
11.	STR/WD/003 Rev R1(Sheet 2 of 2)	Structural Layout and details of trench

3. Following new Tender drawings are **added** and now forms part of TEF:

S No	Drawing No.	Description
1.	ARC/TD/001- Rev T0 (Sheet 1 of 2)	SITE PLAN & TRENCH DETAILS
2.	ARC/TD/001- Rev T1 (Sheet 2 of 2)	SITE PLAN & TRENCH DETAILS
3.	MEP-ELE-TD-01-Rev T2	PANEL LOCATION
4.	MEP-ELE-TD-02-Rev T2	HIGH MAST LOCATION
10.	STR/TD/001-Rev T1 (Sheet 1 of 2)	Structural Layout and details of trench
11.	STR/TD/001-Rev T1(Sheet 2 of 2)	Structural Layout and details of trench
12.	ARC/CD/005 - Rev D2	PROPOSED BOREHOLE, PLATE LOAD & CBR TEST LOCATIONS

4. Definition of Similar Work:

S No	TEF Cl. NO.	Description	Existing provision	Shall be Read as
1	7	Definition of Similar Work	“Construction of RCC flooring for industrial usage, warehouse flooring, jetty/ quay wall, Concrete Road Works.”	“Construction of RCC flooring for industrial usage OR warehouse flooring OR Jetty/ Quay wall OR Concrete Road Works.”

**5. Item Description for item no. 100/70:**

BOQ item No	Existing Item Description	Shall be Read as
100/70	<p>Providing and Fixing steel anchor dowel bars</p> <p>In open foundations including drilling holes 150 mm dia. in hard rock, providing and placing in position 32 mm dia. dowel bars 2.5 m in hard rock and 1.2 m above hard rock, effectively grouting the holes with cement & Cebex etc. complete and specified as directed. (Grout shall be filled in the hole first and bars inserted and pressed in the drilled hole).</p>	<p>Providing and Fixing steel anchor dowel bars</p> <p>In open foundations including drilling holes 150 mm dia. in weathered rock, providing and placing in position 32 mm dia. dowel bars 2.5 m in weathered rock and all other layers above weathered rock, effectively grouting the holes with cement & Cebex etc. complete and as specified and directed by Engg. In Charge. (Grout shall be filled in the hole first and bars inserted and pressed in the drilled hole).</p>

6. Bore Log Data:

Bore Log details of relevant locations are attached at **Annexure A.**

7. Technical Specifications:

Technical Specifications for Waterproofing and Epoxy Paint is attached at **Annexure B.**

8. Delivery Period/ Completion Schedule:

S No	TEF Cl. NO.	Description	Existing provision	Shall be Read as
1	16.1	Delivery Period/ Completion Schedule	The Completion period for entire work shall be 07 (SEVEN) MONTHS , (Excluding Mobilization period of 21 days from the date of placement of Purchase Order)	The Completion period for entire work shall be 10 (TEN) MONTHS , (Excluding Mobilization period of 21 days from the date of placement of Purchase Order)

Commercial:**9. Insurance:**



Sr. No.	TEF Clause No.	Description	Existing provision	Shall be Read as
1	27	Insurance	27.1. The Contractor has to keep MDL indemnified against any claims by purchasing CONTRACTOR'S ALL RISK insurance policy for the value of the Contract excluding total AMC value from any Insurance Company of repute. In Addition to above, Contractor shall submit additional CONTRACTOR'S ALL RISK insurance policy of Total AMC Value valid till end of 03 years AMC period.	27.1 The Contractor has to keep MDL indemnified against any claims by purchasing CONTRACTOR'S ALL RISK insurance policy for the full value of the Contract from any Insurance Company of repute.

10. Clarifications to bidder's queries received through emails are attached at Annexure C to this Corrigendum I.

11. All other terms & conditions remain unaltered.

12. **The Corrigendum-I as above along with all Annexures, duly signed & stamped, shall be uploaded along with Techno-commercial Bid (PART-I) of the offer.**

Signature of Contractor

Seal

Date

CLIENT : Mazagon Dock Shipbuilders Ltd., Nhava Unit	
CONTRACTOR : --	
PROJECT : Geotechnical Investigation work for your proposed Project at Nhava Yard, Nhava Sheva, Dist Raigad (Maharashtra)	
BORE HOLE NO. : BH-01	SHEET NO. : 1 OF 2
LOCATION : Nhava Yard, Nhava Sheva, Dist Raigad (MH)	DATE : --/--/2024 TO --/--/2024
CO-ORDINATES : --	METHOD : ROTARY DRILLING
GROUND R. L. : --.--- m.	CASING : 4.90 M NX CASING
GROUND W. T. : 7.00 m	BOREHOLE DEPTH : 15.00 m

FIELD DATA										LABORATORY DATA																				
DEPTH BELOW EGL (m)	DIA OF BOREHOLE	LOG	DESCRIPTION	DEPTH (m)	ELEVATION (m)	SAMPLE TYPE & NO.	BLOWS				SPT 'N' VALUE	SCR (%)	RQD (%)	CORE PIECE NO.	CLASSIFICATION	GRAIN SIZE ANALYSIS				NMC	CONSISTENCY LIMIT			ROCK						
							15	30	45	60						GRAVELS %	SAND %	SILT %	CLAY %		LL%	PL%	PLASTICITY INDEX	Cu _r (kg/cm ²)/ Ø (degrees)	UCS (MPa)	PLI (kg/cm ²)				
0.00			Bacl Filling Material. Gravels, sand, boulders.			DS1																								
1.50																														
3.00				3.00			05	--	--	--	N																			
3.05				3.05		SPT1	52	--	--	--	R																			
4.50				4.50			14	--	--	--	N																			
4.64				4.64		SPT2	52	--	--	--	R																			
5.00																														
5.50			Highly weathered, yellowish brown, ROCK								12	NIL																		
6.00				6.00																										
7.00												20	NIL																	
7.50				7.50																										
8.00																														
8.50																														
9.00				9.00																										
9.50																														
10.00																														

ABBREVIATIONS :			
DS : DISTURBED SAMPLE	SPT : STD. PENETRATION TEST	SCR : SOLID CORE RECOVERY (%)	UCS : UNCONFINED COMPRESSIVE STRENGTH
UDS : UNDISTURBED SOIL SAMPLE	VST : VANE SHEAR TEST	RQD : ROCK QUALITY DESIGNATION (%)	PL : PONT LOAD

REMARKS : Continued on next Page	TYPE OF BARREL = DOUBLE TUBE TYPE OF BIT = NX DIAMOND BIT REFERENCE STANDERD = IS 1892-1979 DRILLING MACHINE = (CALYX, 8 HP ENGINE).	DRAWN BY USP SCALE : 1:50 JOB NO. :
Structwel Designers & Consultants Pvt. Ltd.		

CLIENT	: Mazagon Dock Shipbuilders Ltd., Nhava Unit	
CONTRACTOR	: --	
PROJECT	: Geotechnical Investigation work for your proposed Project at Nhava Yard, Nhava Sheva, Dist Raigad (Maharashtra)	
BORE HOLE NO.	: BH-01	SHEET NO. : 2 OF 2
LOCATION	: Nhava Yard, Nhava Sheva, Dist Raigad (MH)	DATE : --/--/2024 TO --/--/2024
CO-ORDINATES	: --	METHOD : ROTARY DRILLING
GROUND R. L.	: --.--- m.	CASING : 4.90 M NX CASING
GROUND W. T.	: 7.00 m	BOREHOLE DEPTH : 15.00 m

FIELD DATA										LABORATORY DATA																	
DEPTH BELOW EGL (m)	DIA OF BOREHOLE	LOG	DESCRIPTION	DEPTH (m)	ELEVATION (m)	SAMPLE TYPE & NO.	BLOWS				SPT 'N' VALUE	SCR (%)	RQD (%)	CORE PIECE NO.	CLASSIFICATION	GRAIN SIZE ANALYSIS				CONSISTENCY LIMIT			ROCK				
							15	30	45	60						GRAVELS %	SAND %	SILT %	CLAY %	NMC	LL%	PL%	PLASTICITY INDEX	Cu (kg/cm ²) / Ø (degrees)	UCS (MPa)	PLI (kg/cm ²)	
10.50	NX	++	Highly weathered, yellowish brown, ROCK	10.50							37	NIL															
11.00		++	Highly to moderately weathered, yellowish brown, ROCK									73	NIL														
11.50		++																									
12.00		++			12.00																						
12.50		▽▽	Moderately weathered, greyish black, BASALT																								
13.00		▽▽												72	51												
13.50		▽▽			13.50																						
14.00		▽▽	Fresh, greyish black, BASALT																								
14.50		▽▽																									
15.00		▽▽			15.00																						

5.50																												
6.00																												
6.50																												
7.00																												
7.50																												
8.00																												
8.50																												
9.00																												
9.50																												
10.00																												

ABBREVIATIONS :			
DS : DISTURBED SAMPLE	SPT : STD. PENETRATION TEST	SCR : SOLID CORE RECOVERY (%)	UCS : UNCONFINED COMPRESSIVE STRENGTH
UDS : UNDISTURBED SOIL SAMPLE	VST : VANE SHEAR TEST	RQD : ROCK QUALITY DESIGNATION (%)	PL : PONT LOAD
REMARKS : BORE HOLE IS TERMINATED AT A DEPTH OF 15.00 m BELOW EGL.		TYPE OF BARREL = DOUBLE TUBE TYPE OF BIT = NX DIAMOND BIT REFERENCE STANDERD = IS 1892-1979 DRILLING MACHINE = (CALYX, 8 HP ENGINE).	DRAWN BY USP SCALE : 1:50 JOB NO. :
Structwel Designers & Consultants Pvt. Ltd.			

CLIENT	: Mazagon Dock Shipbuilders Ltd., Nhava Unit
CONTRACTOR	: --
PROJECT	: Geotechnical Investigation work for your proposed Project at Nhava Yard, Nhava Sheva, Dist Raigad (Maharashtra)
BORE HOLE NO.	: BH-04
SHEET NO.	: 1 OF 2
LOCATION	: Nhava Yard, Nhava Sheva, Dist Raigad (MH)
DATE	: --/--/2024 TO --/--/2024
CO-ORDINATES	: --
METHOD	: ROTARY DRILLING
GROUND R. L.	: --.--- m.
CASING	: 2.00 M NX CASING
GROUND W. T.	: NIL
BOREHOLE DEPTH	: 15.00 m

FIELD DATA											LABORATORY DATA																
DEPTH BELOW EGL (m)	DIA OF BOREHOLE	LOG	DESCRIPTION	DEPTH (m)	ELEVATION (m)	SAMPLE TYPE & NO.	BLOWS				SPT 'N' VALUE	SCR (%)	RQD (%)	CORE PIECE NO.	CLASSIFICATION	GRAIN SIZE ANALYSIS				NMC	CONSISTENCY LIMIT			ROCK			
							15	30	45	60						GRAVELS %	SAND %	SILT %	CLAY %		LL%	PL%	PLASTICITY INDEX	Cu _r (kg/cm ²)/ Ø (degrees)	UCS (MPa)	PLI (kg/cm ²)	
0.00	100 mm Ø	[Pattern]	Yellowish brown, hard MURRUM	0.00		DS1																					
1.00			1.00																								
1.50	100 mm Ø	[Pattern]	Highly weathered, yellowish brown, ROCK	1.50		SPT1	06	--	--	--	N																
2.00				1.56																							
2.50	100 mm Ø	[Pattern]	Highly weathered, yellowish brown, ROCK	2.50		SPT1						10	NIL														
3.00				3.00																							
3.50	100 mm Ø	[Pattern]	Highly weathered, yellowish brown, ROCK	3.50		SPT1																					
4.00				4.50																							
4.50	100 mm Ø	[Pattern]	Highly weathered, greyish fractured BASALT.	4.50		SPT1																					
5.00				5.00																							
5.50	100 mm Ø	[Pattern]	Highly weathered, greyish fractured BASALT.	5.50		SPT1																					
6.00				6.00																							
6.50	100 mm Ø	[Pattern]	Highly weathered, greyish fractured BASALT.	6.50		SPT1																					
7.00				7.00																							
7.50	100 mm Ø	[Pattern]	Highly weathered, greyish fractured BASALT.	7.50		SPT1																					
8.00				8.00																							
8.50	100 mm Ø	[Pattern]	Slightly weathered, greyish fractured BASALT.	8.50		SPT1																					
9.00				9.00																							
9.50	100 mm Ø	[Pattern]	Fresh, greyish fractured BASALT.	9.50		SPT1																					
10.00				10.00																							

ABBREVIATIONS :			
DS : DISTURBED SAMPLE	SPT : STD. PENETRATION TEST	SCR : SOLID CORE RECOVERY (%)	UCS : UNCONFINED COMPRESSIVE STRENGTH
UDS : UNDISTURBED SOIL SAMPLE	VST : VANE SHEAR TEST	RQD : ROCK QUALITY DESIGNATION (%)	PL : PONT LOAD

REMARKS : Continued on next Page	TYPE OF BARREL = DOUBLE TUBE	DRAWN BY USP
	TYPE OF BIT = NX DIAMOND BIT	
Structwel Designers & Consultants Pvt. Ltd.	REFERENCE STANDERD = IS 1892-1979	SCALE : 1:50
	DRILLING MACHINE = (CALYX, 8 HP ENGINE).	JOB NO. :

CLIENT : Mazagon Dock Shipbuilders Ltd., Nhava Unit	
CONTRACTOR : --	
PROJECT : Geotechnical Investigation work for your proposed Project at Nhava Yard, Nhava Sheva, Dist Raigad (Maharashtra)	
BORE HOLE NO. : BH-04	SHEET NO. : 2 OF 2
LOCATION : Nhava Yard, Nhava Sheva, Dist Raigad (MH)	DATE : --/--/2024 TO --/--/2024
CO-ORDINATES : --	METHOD : ROTARY DRILLING
GROUND R. L. : --.--- m.	CASING : 2.00 M NX CASING
GROUND W. T. : NIL	BOREHOLE DEPTH : 15.00 m

FIELD DATA												LABORATORY DATA															
DEPTH BELOW EGL (m)	DIA OF BOREHOLE	LOG	DESCRIPTION	DEPTH (m)	ELEVATION (m)	SAMPLE TYPE & NO.	BLOWS				SPT 'N' VALUE	SCR (%)	RQD (%)	CORE PIECE NO.	CLASSIFICATION	GRAIN SIZE ANALYSIS				NMC	CONSISTENCY LIMIT			ROCK			
							15	30	45	60						GRAVELS %	SAND %	SILT %	CLAY %		LL%	PL%	PLASTICITY INDEX	Cur (kg/cm ²)/Ø(degrees)	UCS (MPa)	PLI(kg/cm ²)	
10.50		▽▽▽▽	Fresh, greyish fractured BASALT.	10.50						91	83																
11.00		▽▽▽▽									90	85															
12.00		▽▽▽▽	Slightly weathered fresh, greyish, fractured, BASALT	12.00																							
13.00		▽▽▽▽									80	80															
14.00		▽▽▽▽	Modeartely to Slightly weathered greyish, fractured, BASALT	13.50																							
15.00		▽▽▽▽									73	73															
5.50																											
6.00																											
6.50																											
7.00																											
7.50																											
8.00																											
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9.00																											
9.50																											
10.00																											

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	UDS : UNDISTURBED SOIL SAMPLE	VST : VANE SHEAR TEST	RQD : ROCK QUALITY DESIGNATION (%)	PL : PONT LOAD
REMARKS : BORE HOLE IS TERMINATED AT A DEPTH OF 15.00 m BELOW EGL.	TYPE OF BARREL = DOUBLE TUBE TYPE OF BIT = NX DIAMOND BIT REFERENCE STANDERD = IS 1892-1979 DRILLING MACHINE = (CALYX, 8 HP ENGINE).			DRAWN BY USP
Structwel Designers & Consultants Pvt. Ltd.				SCALE : 1:50 JOB NO. :

CLIENT	: Mazagon Dock Shipbuilders Ltd., Nhava Unit
CONTRACTOR	: --
PROJECT	: Geotechnical Investigation work for your proposed Project at Nhava Yard, Nhava Sheva, Dist Raigad (Maharashtra)
BORE HOLE NO.	: BH-05
SHEET NO.	: 1 OF 2
LOCATION	: Nhava Yard, Nhava Sheva, Dist Raigad (MH)
DATE	: --/--/2024 TO --/--/2024
CO-ORDINATES	: --
METHOD	: ROTARY DRILLING
GROUND R. L.	: --.--- m.
CASING	: 2.00 M NX CASING
GROUND W. T.	: 6.25 m.
BOREHOLE DEPTH	: 15.00 m

FIELD DATA											LABORATORY DATA																								
DEPTH BELOW EGL (m)	DIA OF BOREHOLE	LOG	DESCRIPTION	DEPTH (m)	ELEVATION (m)	SAMPLE TYPE & NO.	BLOWS				SPT 'N' VALUE	SCR (%)	RQD (%)	CORE PIECE NO.	CLASSIFICATION	GRAIN SIZE ANALYSIS				NMC	CONSISTENCY LIMIT			ROCK											
							15	30	45	60						GRAVELS %	SAND %	SILT %	CLAY %		LL%	PL%	PLASTICITY INDEX	Cur (kg/cm ²)/Ø (degrees)	UCS (MPa)	PLI (kg/cm ²)									
0.00	100 mm Ø	[Pattern]	Yellowish brown, hard MURRUM	0.00		DS1																													
0.50				0.50																															
1.00	NX Ø	[Pattern]	Highly weathered, yellowish grey, ROCK	1.50		SPT1	12	--	--	--	N																								
1.50				1.62																															
2.00																																			
2.50																																			
3.00																																			
3.50																																			
4.00																																			
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ABBREVIATIONS :			
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UDS : UNDISTURBED SOIL SAMPLE	VST : VANE SHEAR TEST	RQD : ROCK QUALITY DESIGNATION (%)	PL : PONT LOAD

REMARKS : Continued on next Page	TYPE OF BARREL = DOUBLE TUBE TYPE OF BIT = NX DIAMOND BIT REFERENCE STANDERD = IS 1892-1979 DRILLING MACHINE = (CALYX, 8 HP ENGINE).	DRAWN BY USP SCALE : 1:50 JOB NO. :
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CLIENT	: Mazagon Dock Shipbuilders Ltd., Nhava Unit		
CONTRACTOR	: --		
PROJECT	: Geotechnical Investigation work for your proposed Project at Nhava Yard, Nhava Sheva, Dist Raigad (Maharashtra)		
BORE HOLE NO.	: BH-05	SHEET NO.	: 2 OF 2
LOCATION	: Nhava Yard, Nhava Sheva, Dist Raigad (MH)	DATE	: --/--/2024 TO --/--/2024
CO-ORDINATES	: --	METHOD	: ROTARY DRILLING
GROUND R. L.	: ---.--- m.	CASING	: 2.00 M NX CASING
GROUND W. T.	: 6.25 m.	BOREHOLE DEPTH	: 15.00 m

FIELD DATA											LABORATORY DATA																					
DEPTH BELOW EGL (m)	DIA OF BOREHOLE	LOG	DESCRIPTION	DEPTH (m)	ELEVATION (m)	SAMPLE TYPE & NO.	BLOWS				SPT 'N' VALUE	SCR (%)	RQD (%)	CORE PIECE NO.	CLASSIFICATION	GRAIN SIZE ANALYSIS				NMC	CONSISTENCY LIMIT			Cu _v (kg/cm ²)/ ø (degrees)	UCS (MPa)	PLI (kg/cm ²)						
							15	30	45	60						GRAVELS %	SAND %	SILT %	CLAY %		LL%	PL%	PLASTICITY INDEX									
10.50	Ø NX	▽	Slightly weathered, yellowish grey BASALT.	10.50							82	65																				
11.00																																
11.50																																
12.00					Slightly weathered, greyish red fractured BASALT.	12.00																										
12.50																																
13.00																																
13.50				13.50																												
14.00																																
14.50			Modeartely weathered, greyish, fractured, BASALT								66	40																				
15.00				15.00																												
5.50																																
6.00																																
6.50																																
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10.00																																

ABBREVIATIONS :			
DS : DISTURBED SAMPLE	SPT : STD. PENETRATION TEST	SCR : SOLID CORE RECOVERY (%)	UCS : UNCONFINED COMPRESSIVE STRENGTH
UDS : UNDISTURBED SOIL SAMPLE	VST : VANE SHEAR TEST	RQD : ROCK QUALITY DESIGNATION (%)	PL : PONT LOAD
REMARKS : BORE HOLE IS TERMINATED AT A DEPTH OF 15.00 m BELOW EGL.		TYPE OF BARREL = DOUBLE TUBE TYPE OF BIT = NX DIAMOND BIT REFERENCE STANDERD = IS 1892-1979 DRILLING MACHINE = (CALYX, 8 HP ENGINE).	DRAWN BY USP SCALE : 1:50 JOB NO. :
Structwel Designers & Consultants Pvt. Ltd.			

WATER PROOFING**TWO LAYER WATER PROOFING FOR VERTICAL OF TANK WALLS AND DRAIN PITS**

After surface preparation

Cement duly blended with water proofing compound as per manufacture specification shall be used for preparing the cement slurry. The consistency of the slurry should be such that 4.4 kg. of blended cement with water proofing compound is used per sq. metre area of surface to be treated. The slurry should be started from the vertical faces towards the bottom of the floor as Particular care should be taken to see that the slurry is applied to corners without leaving any gap.

Repeat the procedure for second layer

Water test to be carried by ponding for 7 days. Test to be shown to the Engineer in charge and signed off by both contractor and Engineer In charge if found satisfactory.

Measurement

Measured in square Meter

Water proofing treatment to existing RCC overhead tank, basements, lift-pits and other underground structures.

The treatment shall be done by giving INJECTIONS wherever necessary with waterproofing compound and cement solution as per vendor specifications into the floor & walls up to the full height of structures. All inherent holes, cavities, voids & honeycomb shall be filled up to make the structure consistent, homogenous resistant to water breakages, seepage, dampness and moisture etc. The floor shall then be treated with waterproofing metal Coba of 30 mm to 35 mm thick in 1:4 C.S. mortar and walls with first coat of waterproofing plaster as per vendor specifications. Finally both floor and walls shall be finished smooth with jointless waterproofing plaster 1:3 C.S. 12 mm to 15 mm thick with water proofing materials as per vendors specifications in cement or finished rough to receive tile pavement or dado. The thickness of the treatment shall not be less than 50 mm to 60 mm for floors and 25 mm for walls. (The actual area of the floor & walls will be paid for).

Measurement

Measured in square Meter

PROVIDING WATER STOPS

Water stops conforming to IS 12200 for construction/expansion joints should be fabrication from a plastic compound, the basic resin of which shall be polyvinyl chloride. The compound shall contain additional resin/ plasticizer inhibitors or other materials such that when the materials are compounded it shall meet the requirement given in IS 15058.

PVC water stops

- Approved make 150 mm X 6 mm wide
- Serrated with central bulb complete as directed & instructed by Consultant.

Measurement

- To be taken in Running Meter

Type of Joints for which Water Bars are provided

The water bars are provided only for the movement of joints in a water retaining structure.

Different types of movement joints are as described below:

Complete Contraction Joint:

This is a movement joint with deliberate discontinuity both in concrete as well as the reinforcement but no initial gap is maintained between the concrete on either side of the joint.

This joint is intended to accommodate the contraction of the concrete.

Partial Contraction Joint:

This is a movement joint with deliberate discontinuity in concrete but no water bar is provided and no discontinuity is provided in steel. No initial gap is maintained between the concrete on either side of joint.

Expansion Joint:

This is also a movement joint with complete discontinuity in both reinforcement and concrete. It is intended to accommodate either expansion or contraction of the structure. In general such joint requires the provision of an initial gap between the adjoining parts of the structure which accommodates expansion or contraction of the structure.

Types and Performance of Water Bars

Water bars are performed strips of impermeable material which are embedded in the concrete during construction so as to span across the joints and provide a permanent water tight seal during the whole range of joint movement.

Plastic such as polyvinyl chloride PVC or Natural synthetic rubber should be used.

These bars comprise of central longitudinal hollow tube with thin walls and stiff wings of about 150 mm width. Natural synthetic rubber and plastics have very considerable advantage in handling, splicing and in making intersections.

The strip water bars described as above, while placing in position has to be passed through the end shutter of the first placed concrete with the result the shuttering at this point should be perfectly water tight otherwise cement slurry may escape from the concrete being laid and will ultimately weaken the structure. Therefore to avoid the above problem one can prefer moulded type of water bar.

The design of the moulded water bar with several projections need to be passed through the end shutter while placing the same in position. Another main advantage of this water bar is that since it occupies bigger proportion of the thickness of the joint it would lengthen the shortest alternative water path through the concrete.

It is important to ensure proper compaction of concrete around the water bar. Proper cover to all the reinforcement shall be maintained. Sometimes to increase the bond the holes are provided in the copper water bars but in the long run it proves to be disadvantageous as it shortens the path of water through concrete. Water bars should be placed at the centre of the wall or if it is to be provided away from the centre its distance from either face of the wall shall not be less than half of the width of water bar or as specified/directed by the Engineer-in-charge.

Measurement

To be taken in Running Meter

EPOXY PAINT

Material

This product has got excellent adhesion properties and offers a balanced aesthetic and corrosion protective surface. Epoxy offers good resistance to water and humidity. Epoxy coating are used because of their outstanding chemical resistance, durability, low porosity and strong bond strength and it provides dry tough and protective coatings. Epoxy coatings are created, by chemical reaction using an epoxide resin and polyamine hardener.

Painting new surface

Surface must be dried, cleaned & made free from oil, grease, dirt, dust & all other contaminants that could interfere with adhesion of coating.

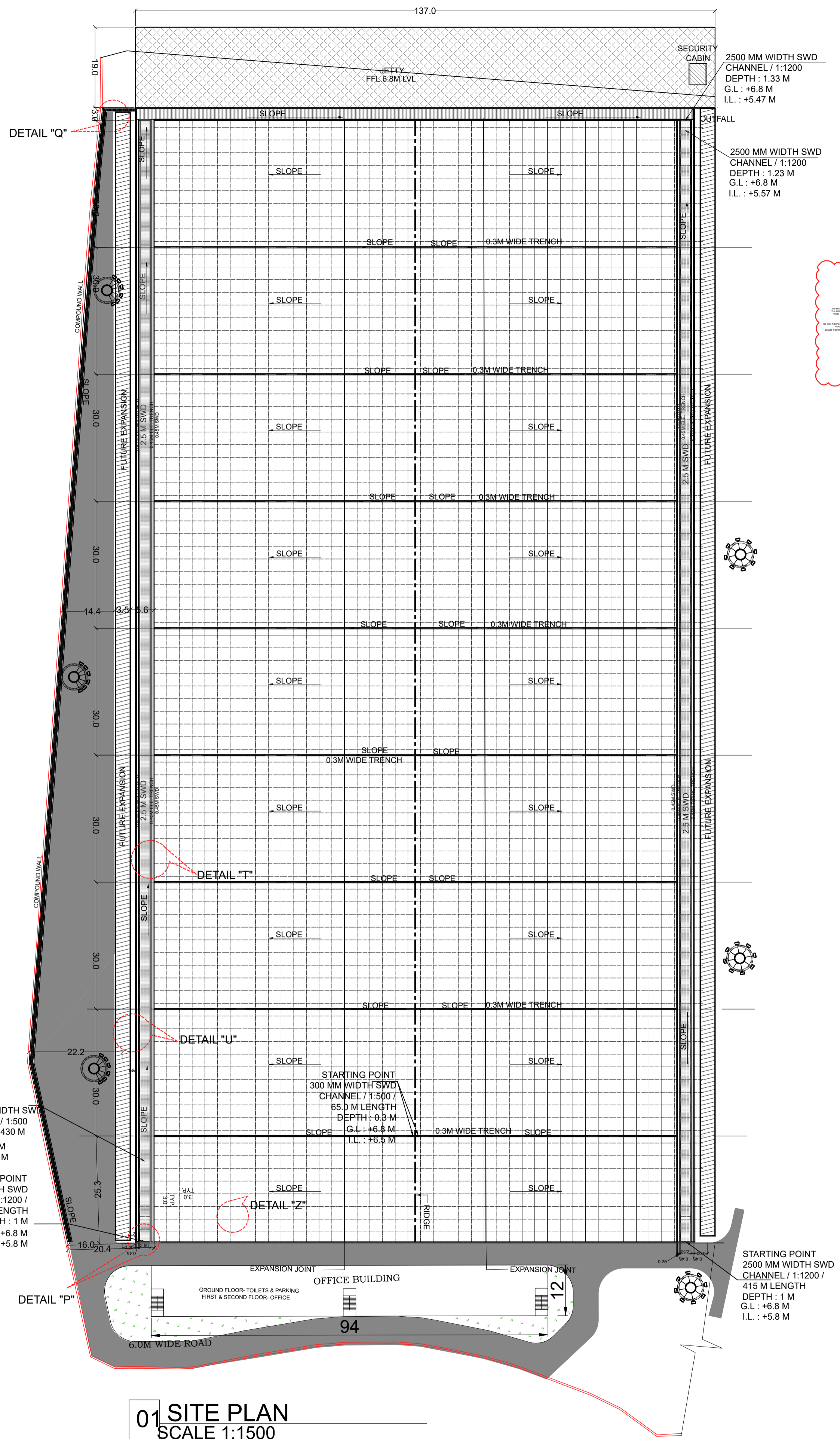
Application

The application of priming coat. Epoxy paint is supplied in two parts i.e. (base and hardener). Stir the base and hardener separately. Mix hardener gradually into the base under continuous stirring as per mixing ratio as specified by the manufacturers. The epoxy paint shall be consumed within the working pot life as specified by the manufacturers. Part mixing should be avoided. To achieve optimum performance of the product, minimum 2-3 coats by brushing would be required to get the desired dry film thickness (DFT) as specified by the manufacturer. Relative humidity in the environment should preferably be below 85%.

PROJECT NAME :- Construction of Hard Stand with Land Ties, Brackets and Service Trench including allied Electrical works at Nhava Yard, MDL Tender No. 1900000182							
Sr. no.	AS PER TENDER DOCUMENT			Clause No.	Clause Description	CLARIFICATION SOUGHT	Response
	Volume	Section	Page No.				
1	Price Bid Part II	Enclosure 19-BOQ	1	BOQ Item 100/10 - Removing WMM	Removing of WMM: Dismantling of flexible pavement (bituminous and WMM courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge. up to 50 m and lift up to 1.5 m, as directed by Engineer-in- Charge:	Approx area of proposed Hard stand size is 135m x 280 m. The disposal lead mentioned in BoQ upto 50m, which is falling in hard stand working area only. We should take the excavated material upto a lead of at least 0.5km to 1km . Please review, modify the BOQ item description and and revise the unit rate also accordingly.	The Disposal shall be considered from the working area i.e. from the Hard Stand area. The material is proposed to be re-used after excavation. Hence, it is required to be stacked in near by available area.
2	Price Bid Part II	Enclosure 19-BOQ	1	BOQ Item 100/20/30/40 Earth work Excavation	Earth work in excavation (all kind of soil): by mechanical means (Hydraulic excavator/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead up to 50 m and lift up to 1.5 m, as directed by Engineerincharge.	Approx area of proposed Hard stand size is 135m x 280 m. The disposal lead mentioned in BoQ upto 50m, which is falling in hard stand working area only. We should take the excavated material upto a lead of at least 0.5km to 1km . Please review, modify the BOQ item description and and revise the unit rate also accordingly.	The Disposal shall be considered from the working area i.e. from the Hard Stand area to nearest Municipal dumping area. The Bidder to identify a dumping area.
3	Price Bid Part II	Enclosure 19-BOQ	4	BOQ Item 200/60-water proofing Treatment	Providing water proofing treatment to existing RCC overhead tank, basements, lift-pits and other underground structures. The treatment shall be done by giving INJECTIONS wherever necessary with waterproofing compound and cement solution as per tenderer's specifications into the floor & walls up to the full height of structures.	Please provide details of the existing structures where water proofing treatment is required to be done and also, inform how old are these Existing structures ? Please provide water proofing specification , which is not covered in Technical specification.	Kindly refer the scope of work and tender drawings. The item is applicable for the hard stand work only. Kindly refer the Technical Specification of water proofing at Annexure B.
4	Price Bid Part II	Enclosure 19-BOQ	2	BOQ Item 100/80 - Disposal of earth work outside NHY premises.	Disposal of Excavated Earthwork : Disposal of Earth/building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved and Carriage of debris /Excavated materials from MDL NHY Premises to Navi Mumbai Municipal Dumping Ground	Please specify the lead for beyond 50m initial lead to be considered or, alternatively change the unit to cum.km. and accordingly change the unit rate also.	The bidder is requested to identify a municipal dumping ground for dumping excavated material and quote accordingly.
5	Price Bid Part II	Enclosure 19-BOQ	2	BOQ Item 100/90 - Disposal of earth work outside NHY premises.	Disposal of Excavated Rock : Disposal of rock or similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved and Carriage of debris /Excavated materials from MDL NHY Premises to Navi Mumbai Municipal Dumping Ground	Please specify the lead for beyond 50m initial lead to be considered or, alternatively change the unit to cum.km. and accordingly change the unit rate also.	The bidder is requested to identify a municipal dumping ground for dumping excavated material and quote accordingly.
6	Price Bid Part II	Enclosure 19-BOQ	5	BOQ Item 200/40-	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	Our under standing is that dowel /Tie bars and MS Channel sections etc as required will be measured and paid separately. Please confirm.	Please refer to description of the Item which is very clear. The work is inclusive of MS Channel shuttering and dowel bars/tie bars will be paid separately.
7	Price Bid Part II	Enclosure 19-BOQ	1	BOQ Item 100/70 Providing and fixing steel anchor dowel bars	Providing and fixing steel anchor dowel bars in open foundations including drilling holes 150 mm dia. in hard rock, providing and placing in position 32 mm dia. dowel bars 2.5m in hard rock and <u>1.2m above hard rock</u> , effectively grouting the holes with cement & Cebex etc complete and specified as directed. (Grout shall be filled in the hole first and bars inserted and pressed in the drilled hole).	As per drawing ARC/CD/001 base plate size showing 400mm x 400mm and Hole is 150mm dia . In drawing Dowel Bar to be placed as 1.2m above hard rock and WMM,PCC and PQC depth is 0.725m. Please show how the 1.2m above hard rock is to be placed.	Kindly refer para 5 of Corrigendum I.
8	Price Bid Part II	Enclosure 19-BOQ	4	BOQ Item 300/10- Steel work	Providing and fixing Structural Steel in position (MS angles, rolled steel beams, joists and stanchions, square/ rectangle sections, MS plates, Lugs etc.) including all labour and material in hoisting, fixing bolts and nuts or by welding etc. complete as directed by Engg-in-Charge, including finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate zink priming coat, preparation of surface, etc. complete. Jindal,TATA, sail, Vizag or equivalent For inserts including Hold fasts (angles, plates etc)	Please provide the Grade of structural steel to be used and also, provide the Epoxy Paint specification.	Grade of structural steel is Fe 250. Refer Annexure B for Technical Specification of Epoxy Paint.

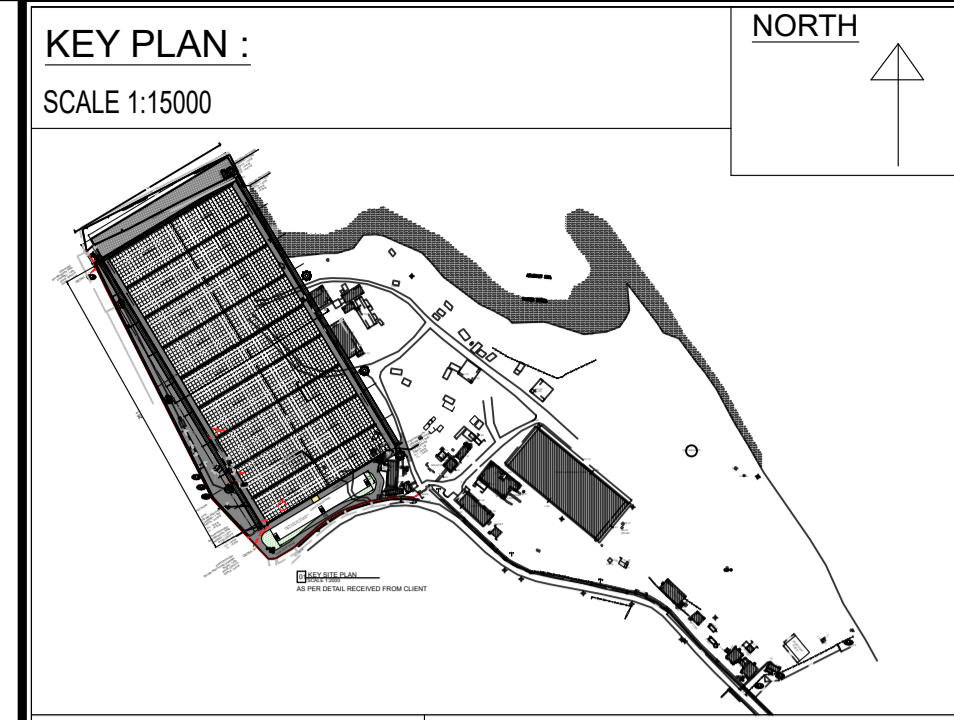
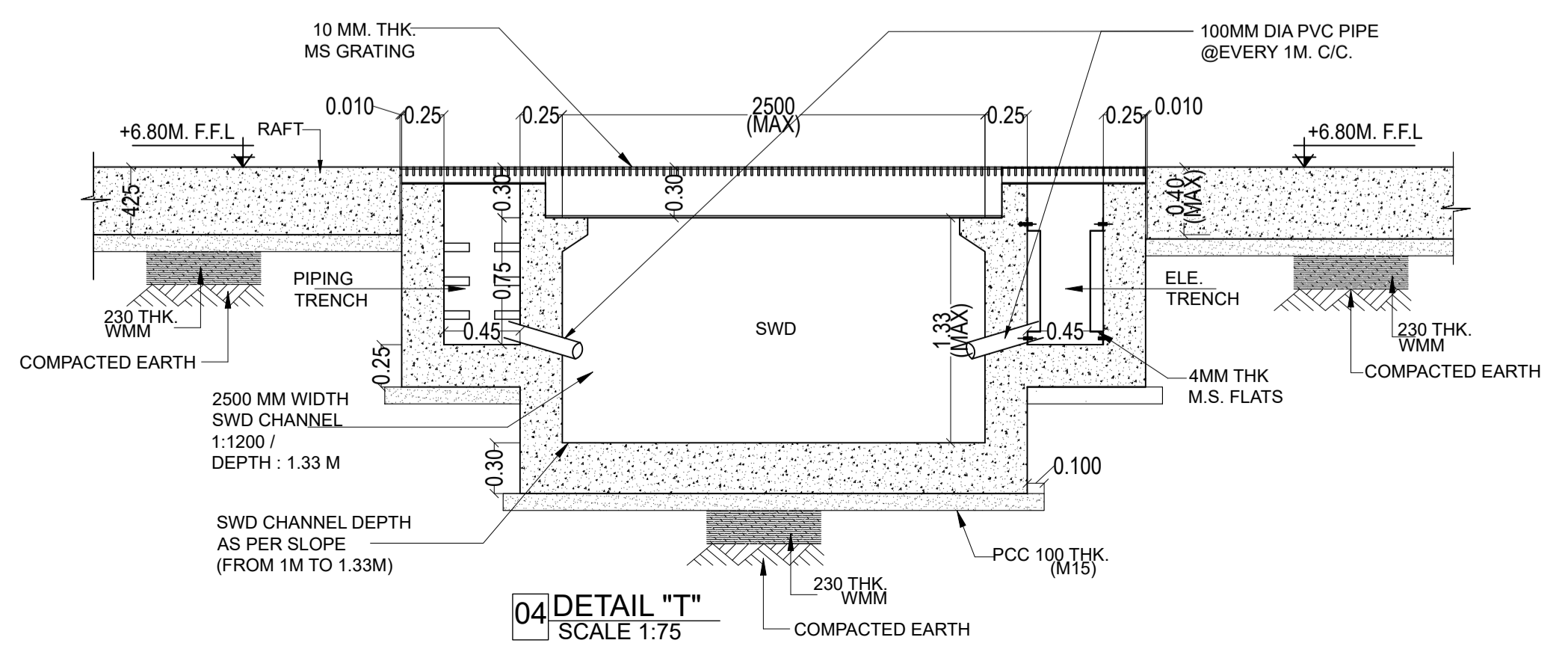
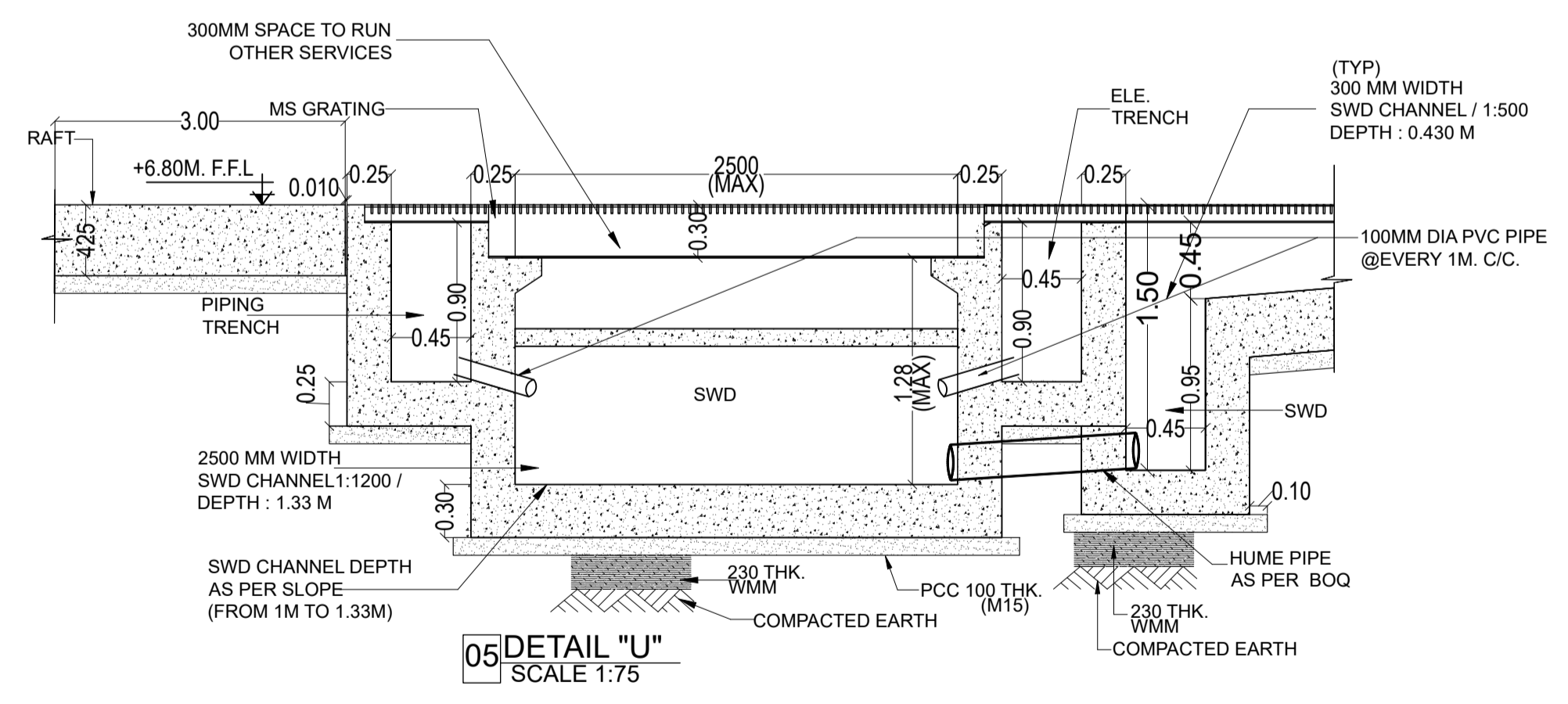
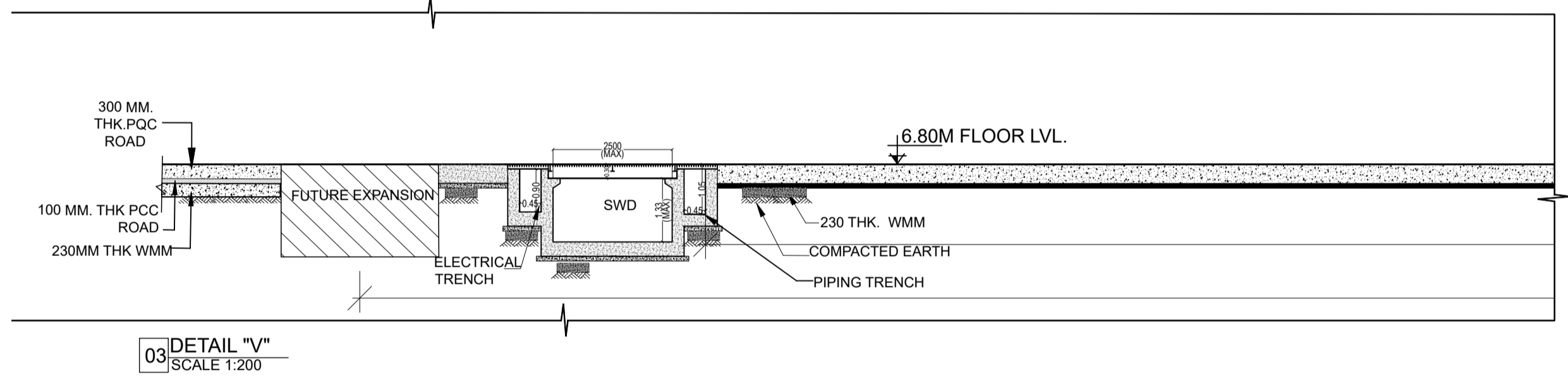
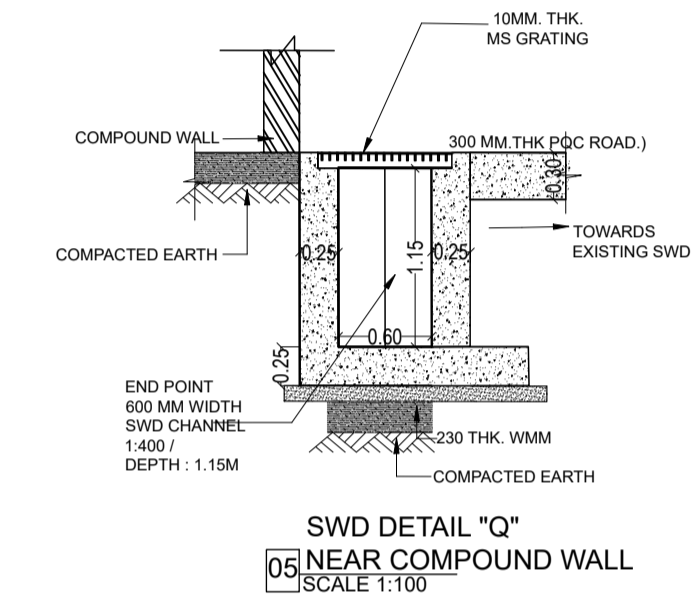
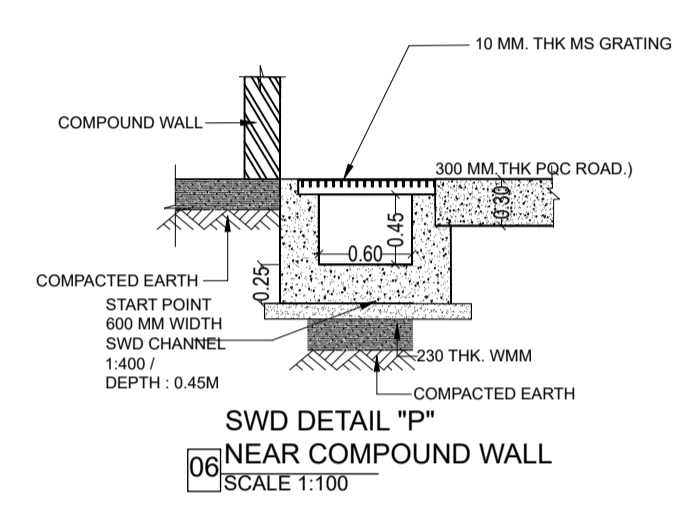
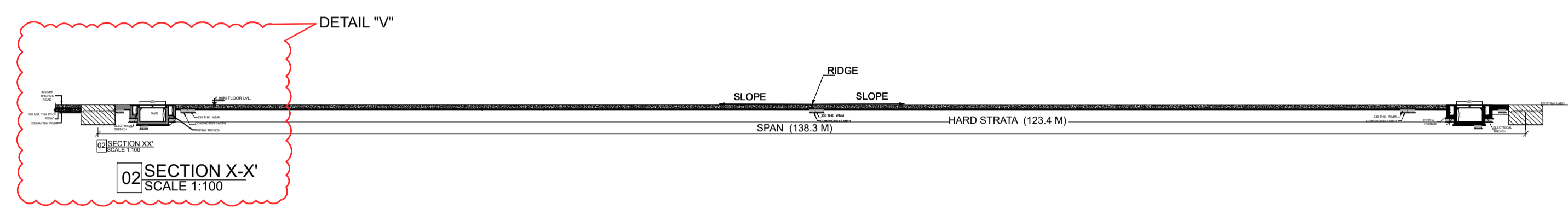
PROJECT NAME :- Construction of Hard Stand with Land Ties, Brackets and Service Trench including allied Electrical works at Nhava Yard, MDL Tender No. 190000182							
Sr. no.	AS PER TENDER DOCUMENT				CLARIFICATION SOUGHT	Response	
	Volume	Section	Page No.	Clause No.			Clause Description
9	Price Bid Part II	Enclosure 19-BOQ	5	BOQ Item 300/20- Heavy duty Grating	Supplying and fixing in position <u>Heavy duty Grating</u> of required sizes, thickness and shapes of (MS angles, rolled steel beams, joists and stanchions, square/ rectangle sections, MS plates, Lugs etc.) as per the architectural drawings. Quoted rate shall be inclusive of fabricating, welding, handling, cutting & welding, loading/ unloading, transportation, including fixing frame in the concrete. Including finishing with <u>Epoxy paint (two or more coats)</u> at allocations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete as per Drawing.	Please provide the specification for heavy duty grating and Epoxy paint ,which is not covered in technical specification.	Kindly refer drawing number STR/TD/001 Rev. T1 Sheet 2 of 2 for grating details. Kindly refer Annexure B for Technical Specification of Epoxy Paint.
10	Price Bid Part II	Enclosure 19-BOQ	5	BOQ Item 500/40-	Providing and fixing in position TMT FE 500, 32 mm dia dowel bars precoated with anticorrosive epoxy paint of required Dia. 60 cms. Long and at 30.00 cm. C/C and wherever directed including handling, straightening, necessary cutting supported by TMT FE 500, chairs with proper alignment by using properly designed assembly of Bulkheads lubricating half length with bituminous paint as	1.As per technical Specification (Pg 21 of 86) CRS steel reinforcement to be used. Please clarify the CRS or TMT to be used . 2.Please provide the specification for Epoxy paint.	Kindly consider CRS steel. Kindly refer Annexure B for Technical Specification of Epoxy Paint.
11	Price Bid Part II	Enclosure 19-BOQ	5	BOQ Item 200/50	Providing and broadcasting Nitoflor Hardtop, Non-metallic, monolithic surface hardening compound containing rust free, hardwearing aggregates to all concrete floors which cures monolithically to provide a dense, non-porous surface which is extremely hardwearing and abrasion resistant. Nitoflor Hardtop Standard shall be evenly broadcasted at correct time while concrete is having adequate moisture to absorb floor hardener at application rate of <u>7 kg/Sqm etc.</u> complete as	In technical specification (pg .23 of 86) Nitoflor Hard Top application rate mentioned 5kg/sqm and 7kg/sqm. Please confirm the application rate of Nitoflor.	Kindly consider 7 kg/Sqm as mentioned in the description of the item
12	Price Bid Part II	Enclosure 19-BOQ	5	BOQ Item 200/30-	Providing and laying in situ cement concrete M -30 with tremix treatment for 425 mm thickness for Concrete Road is including laying plastic sheet for 125 micron thickness with groove cutting of 4 mm wide and 20 mm deep with necessary refilling with bitumen (excluding reinforcement) with coarse and fine aggregate (natural sand/ VSI grade finely washed crushed sand) etc. complete with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete.	1.As per flooring Technical Specification (Pg 23 of 86) M25 concrete grade specified. Please confirm grade of concrete M25 or M30 for tremix treatment . 2. Is it mandatory to use fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer)?Please confirm.	1. Concrete grade shall be as per BOQ item i.e M-30 Grade. 2. Bidder to follow BOQ specification.
13	Price Bid Part II	Enclosure 19-BOQ	5	BOQ Item 300/30-HCRM / CRS (Corrosion Resistant Steel) bar reinforcement	Providing and fixing in position HCRM / CRS (Corrosion Resistant Steel) bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	Please confirm if Pile cap and Pile works is included in scope of this contract	Kindly refer to the scope of work specified in tender. There is no Piling work involved.
14	Price Bid Part II	Enclosure 19-BOQ	2	BOQ Item 100/50 - Reusing WMM	Reusing of WMM- mixing in a <u>mechanical mix plant at OMC</u> , carriage of mixed Material to work site, spreading in uniform layers with motor grader/ Paver on prepared surface density, complete as per clause 401 -- Plant Mix Method and Grading - I Material Quantity 6567.21 Cum	Is it mandatory to use Mechanical mix plant ?.Please confirm.	BOQ specification prevails
15	Price Bid Part II	Enclosure 19-BOQ		Concrete	Concrete work	Drawing no ARC/CD/001 and STR /WD/003 showing 750mm dia pile work ,but in BOQ, we could not find items for pile and pile cap work i.e Boring ,Liner driving ,concrete etc.. Please review and confirm.	Kindly refer to the scope of work specified in tender. There is no Piling work involved.
16	Technical specification	Flooring	23	Vaccum Dewatered flooring	vacuum dewater flooring including adding of nitoflor hard top (Fosroc or equivalent) including topping @ 7 kg/Sq.m including vibration with a poker vibrator and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. curing, machine cut grooves size = 25mm d x 3mm w (Panel Size = 4 m x 3m) and its fill with PU sealant Fosroc Make/ Equivalent brand)etc. complete	As per drawing ARC/CD/001 Panel size showing 3m x 3m and in technical specification (pg .23 of 86) panel size 4m x 3m . Please confirm the panel size to be considered	Panel size to be followed as per drawing ARC/TD/001 i.e 3.0 m X 3.0 m.
17	Technical specification	PASSIVE ROCK ANCHORS (15 TONS CAPACITY) FOR UPLIFT RESISTANCE	13		Testing of Anchorage	As per Technical specification (Pg 13 of 86) anchorage to be tested ,but in BoQ ther is no item for Testing. Please include the same in BOQ	The Rate needs to be quoted inclusive of testing.

PROJECT NAME :- Construction of Hard Stand with Land Ties, Brackets and Service Trench including allied Electrical works at Nhava Yard, MDL Tender No. 1900000182							
Sr. no.	AS PER TENDER DOCUMENT				CLARIFICATION SOUGHT	Response	
	Volume	Section	Page No.	Clause No.			Clause Description
18	General				We noted that there is no provision for Mobilisation advance payment.	The contractor has to mobilize earthmoving equipments, drilling equipment, Batching plant, paving equipment etc. and also, do site set to commence the works. The contractor will be entitled for payment only after commencing the works. We therefore request to provide 5% of contract value as interest free mobilization advance which shall be recovered from interim	Tender Conditions prevails.
19	GCC	Secured deposit	3	504.iii	<p>ii) <u>For works costing between 10 to 50 Lakhs</u> In addition to 5% retention money, the contractor before commencement of work, shall submit 'PERFORMANCE BANK GUARANTEE' in the form of a bank guarantee for 5% of the contract amount, valid till 30 days after end of the defect liability period.</p> <p>iii) <u>For works exceeding 50 Lakhs.</u> For works exceeding 50 Lakhs, the contractor before commencement of work, shall submit 'PERFORMANCE BANK GUARANTEE' in the form of a bank guarantee for 10% of the contract amount, valid till 30 days after end of the defect liability period</p>	As per clause no 504.iii , for works more than 50 lakhs , Performance Bank Guarantee is 10% of CV. We presume that no separate retention money will be applicable. Please confirm.	Refer TEF Cl. 24 wherein successful bidder within 21 days after Placement of Order shall submit PBG @10% of contract value excluding taxes, duties, freight & services component etc. valid till 30 days beyond the stipulated Defect Liability Period of One years from actual completion of entire work. No separate retention money will be applicable.
20	TEF	Insurance	23	27	Contractor shall submit additional CONTRACTOR'S ALL RISK insurance policy of Total AMC Value valid till end of 03 years AMC period.	1.As per Defect liability clause no 23 in Tender enquiry form (TEF) & As per GCC Cl.no A307.i ,the DLP /Maintenance period is for 12 months only. 2.In TEF clause no.27 of Insurance the AMC period mentioned is 3 years and for this 3 year additional CAR policy to be submitted by contractor. 3. Our understanding is that AMC means DLP/Maintenance period and that is 12 months. Please confirm.	Refer para 9 of Corrigendum I.
21	TEF	Tender Closing Date	1	Nil	TENDER CLOSING DATE & TIME: 05 MARCH 2024 at 1430 Hrs	Considering the complexity and scale of the project we require additional time to ensure the submission of comprehensive and competitive bid. Therefore we request to extend the tender submission deadline by 10 days up to 15.03.2024.	Tender Conditions prevails.



LEGEND:-

SYMBOL	DESCRIPTION	QTY.
	8 X 500W LED FLOOD LIGHT 25 Mtr POLE	03
	6 X 500W LED FLOOD LIGHT 25 Mtr POLE	03



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<input type="checkbox"/>	AS BUILT

PROJECT MANAGER

GOOD FOR CONSTRUCTION

NOTES :

- ALL DIMENSIONS ARE IN M. UNLESS OTHERWISE SHOWN.
- DIMENSIONS SHOWN ARE FROM UNFINISH SURFACES, UNLESS MENTIONED.
- DRAWING SHOULD NOT BE SCALED.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS, IF DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.

REFERENCE DRAWINGS:

- STR WD 003 R1 TRENCH
- 23123_PHE_EXTERNAL LAYOUT -R1

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
T0	FIRST ISSUE	PB	A.K.	KAR	02.02.2024
T1					
T2					
T3					
T4					
T5					
T6					
T7					
T8					
T9					
T10					

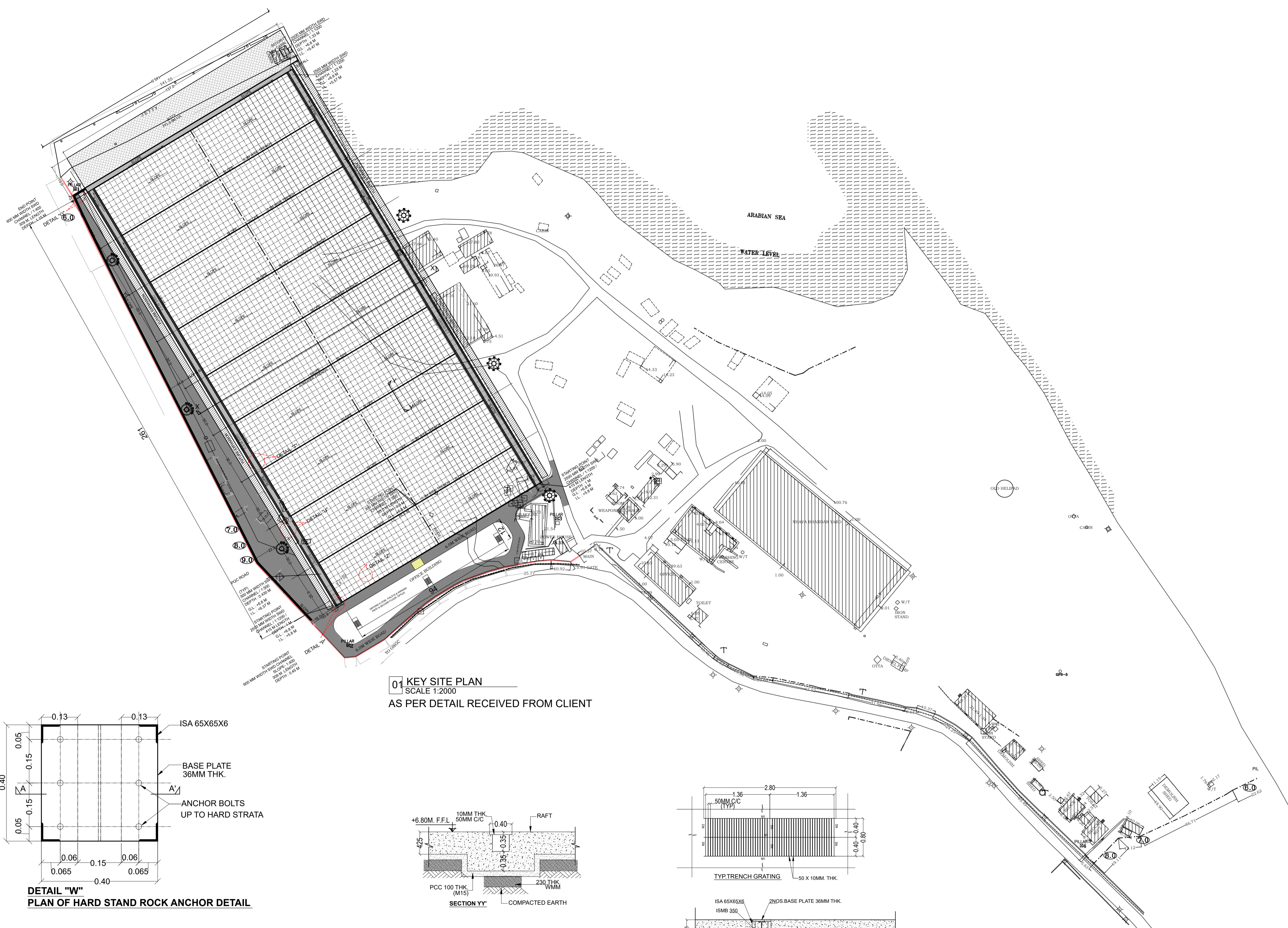
CLIENT : MAZGAON DOCK SHIP BUILDERS LTD. NHAVA YARD, RAIGAD.

CONSULTANT : **STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD**
STRUCTWEL, PLOT NO-15, SECTOR-24, OFF SION PANVEL HIGHWAY, TURBHE, NAVI MUMBAI - 400 705. PHONE : 2784 1010 (7 LINES) FAX : 91-22-2784 1007

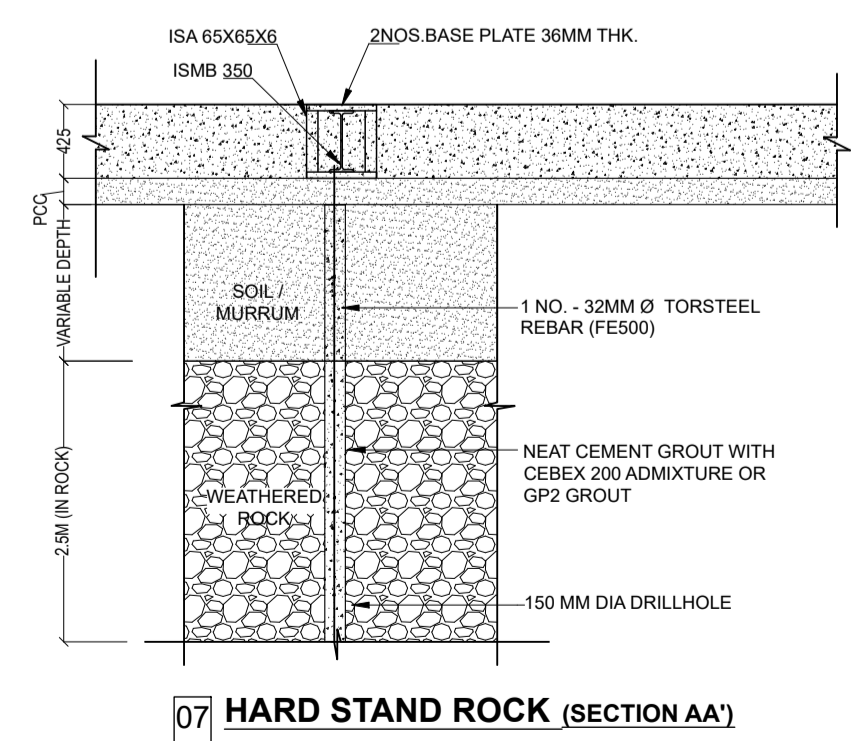
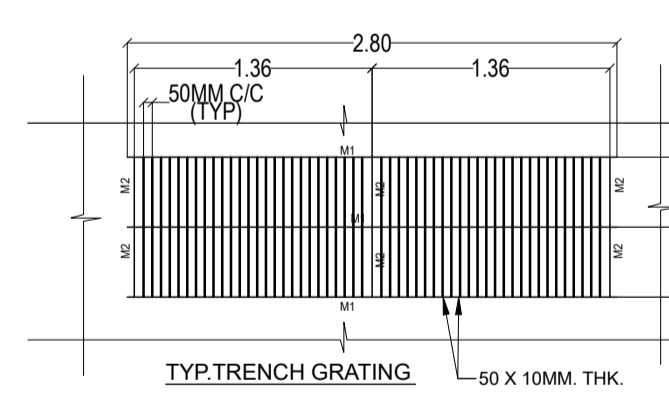
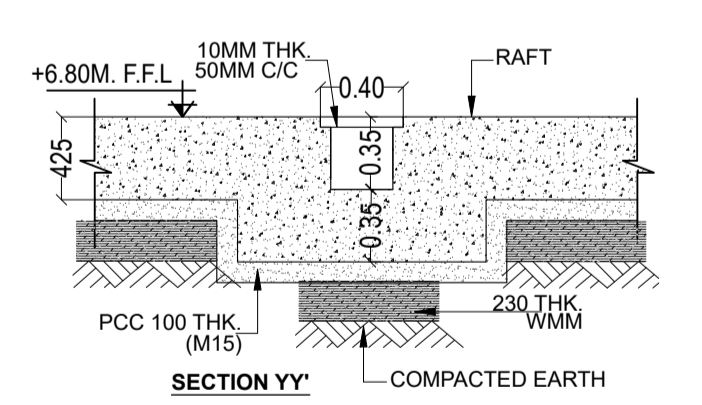
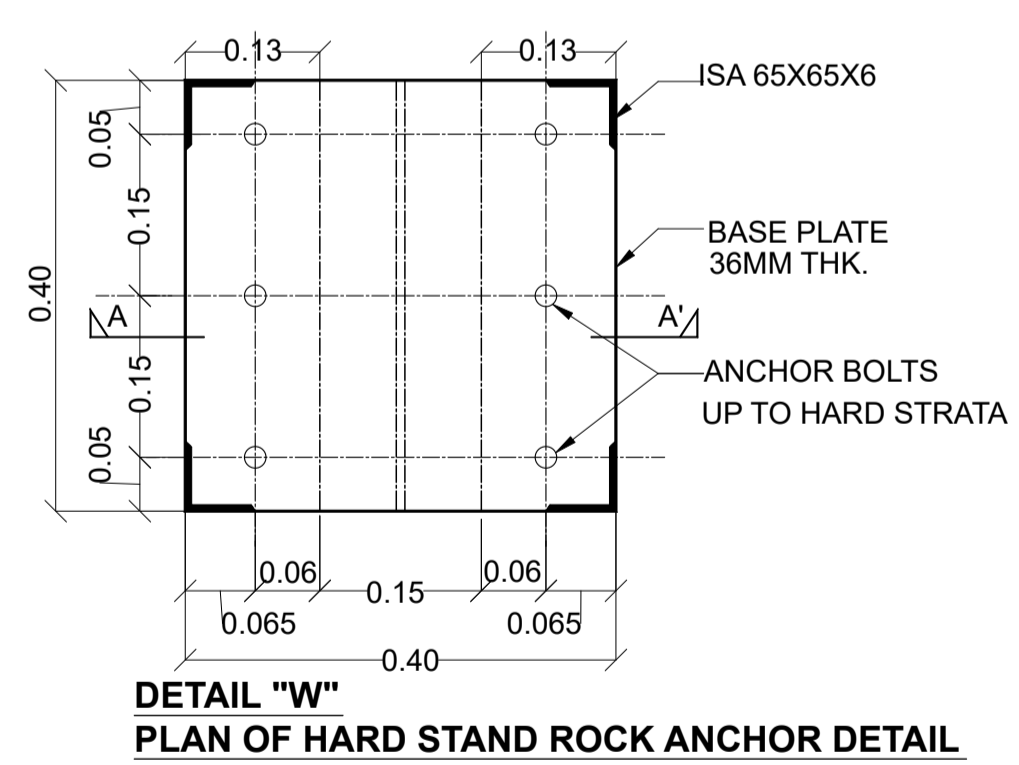
PROJECT TITLE :
SHORT TERM DEVELOPMENT AT MDL NHAVA YARD, RAIGAD

DWG. TITLE :
SITE PLAN & TRENCH DETAILS

DRN.BY	PB	CHKD BY	A.K.	VERIFIED BY	K.A.R.
JOB NO.	SCALE	DATE			
23123	AS SPECIFIED	02-02-2024			
DRG NO.	SIZE	SHEET DETAILS	REV.		
ARC/TD/001	A1	1 OF 2	T0		

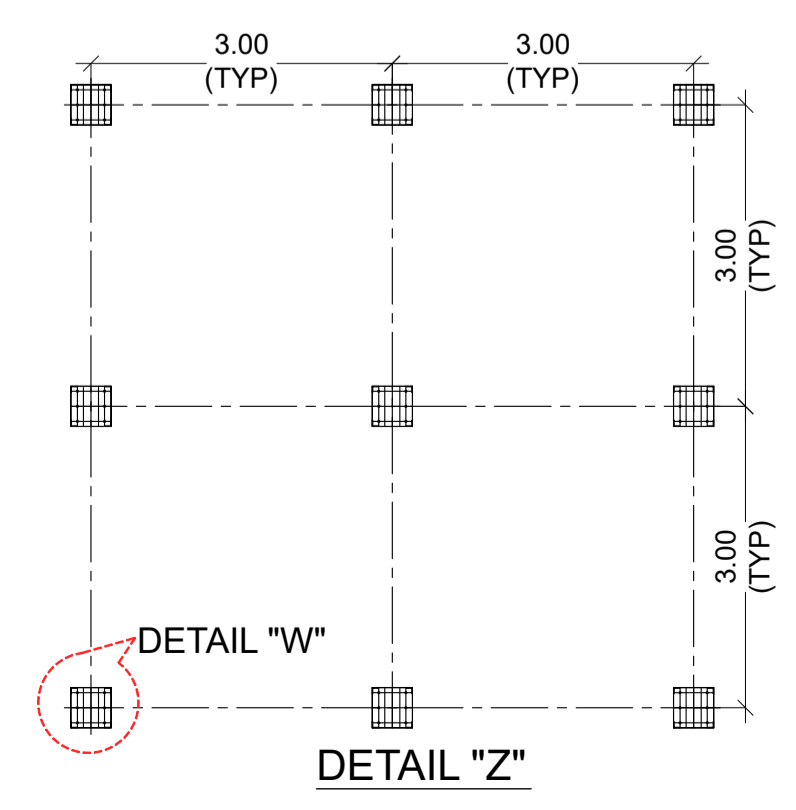


01 KEY SITE PLAN
SCALE 1:2000
AS PER DETAIL RECEIVED FROM CLIENT

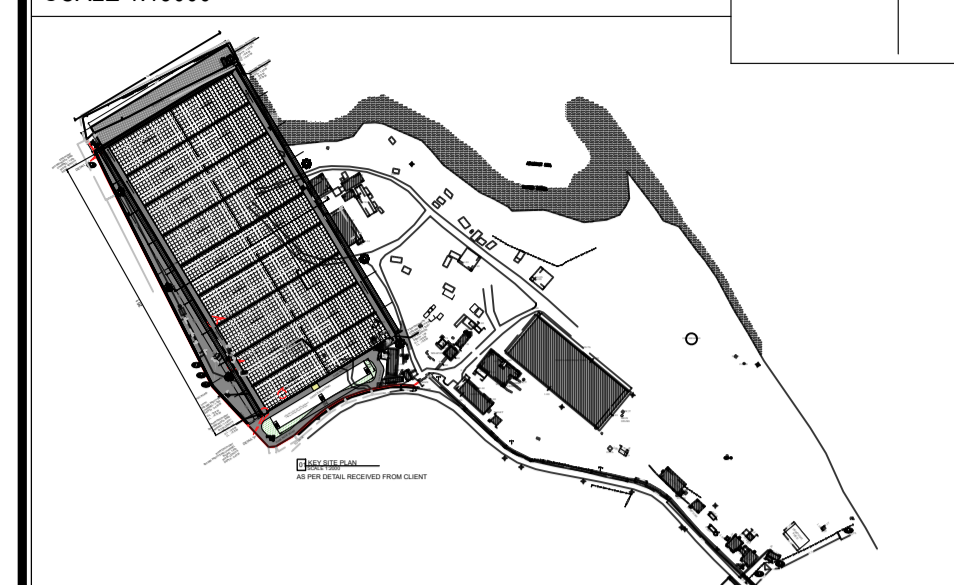


LEGEND:-

SYMBOL	DESCRIPTION	QTY.
	8 X 500W LED FLOOD LIGHT 25 Mtr POLE	03
	6 X 500W LED FLOOD LIGHT 25 Mtr POLE	03



KEY PLAN :
SCALE 1:15000



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 - PROCUREMENT
 - EXECUTION
 - AS BUILT



GOOD FOR CONSTRUCTION

PROJECT MANAGER

- NOTES :
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- REFERENCE DRAWINGS:
- STR WD 003 R1 TRENCH
 - 23123_PHE_EXTERNAL LAYOUT -R1

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
T0	FIRST ISSUE	PB	A.K.	KAR	02-02-2024
T1	REVISED THE SECTION	PB	A.K.	KAR	16-02-2024
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T3					
T4					
T5					
T6					
T7					
T8					
T9					

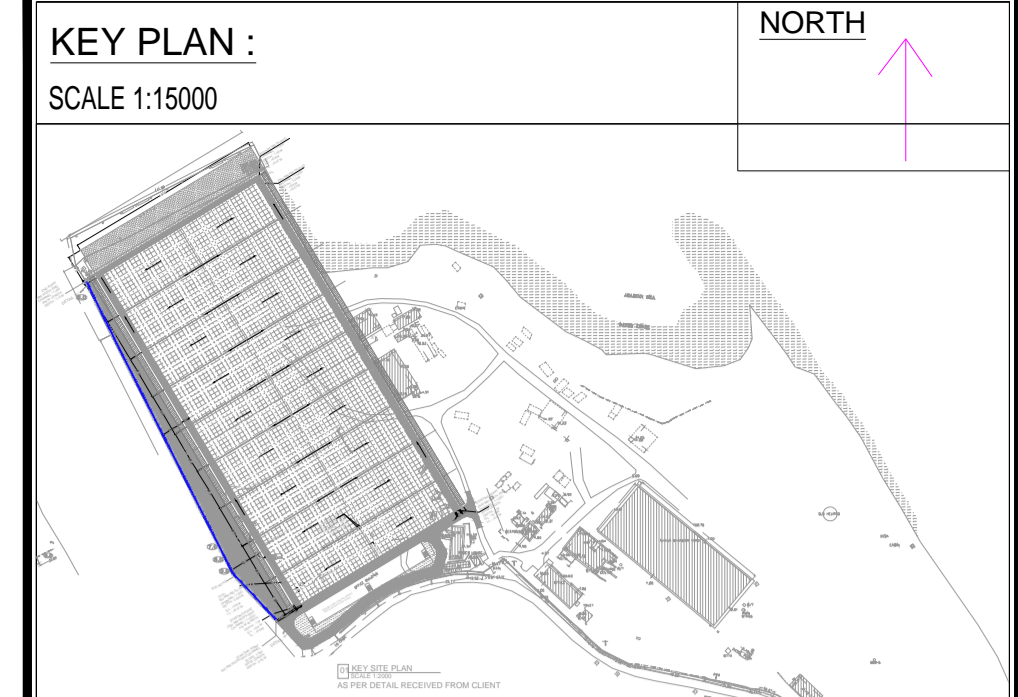
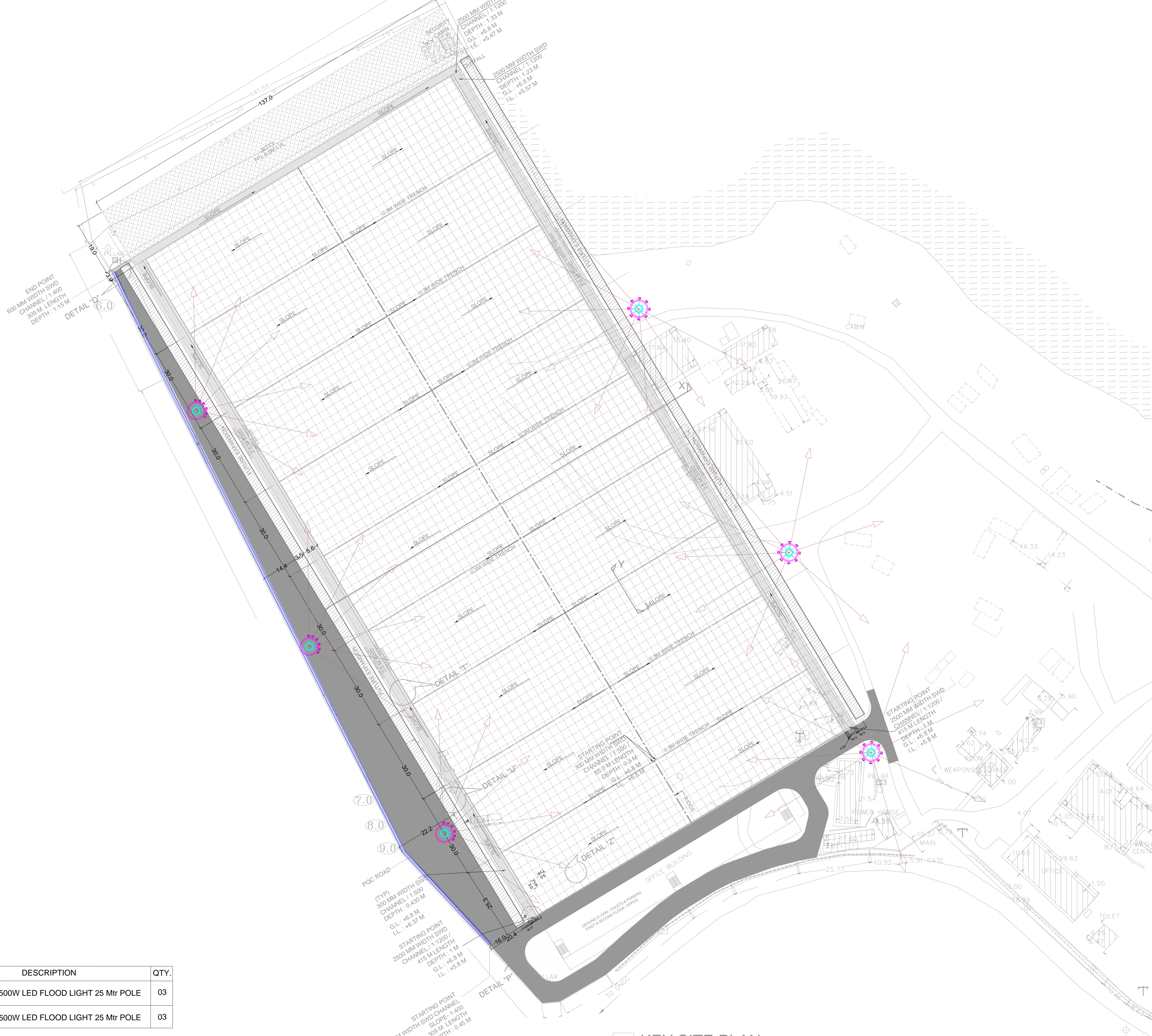
CLIENT : MAZGAON DOCK SHIP BUILDERS LTD.
NHAVA YARD, RAIGAD.

CONSULTANT : **STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD**
STRUCTWEL, PLOT NO-15, SECTOR-24,
OFF SION PANVEL HIGHWAY, TURBHE,
NAVI MUMBAI - 400 705.
PHONE : 2784 1010 (7 LINES)
FAX : 91-22-2784 1007

PROJECT TITLE :
SHORT TERM DEVELOPMENT
AT MDL NHAVA YARD, RAIGAD

DWG. TITLE :
SITE PLAN & TRENCH DETAIL

DRN.BY	PB.	CHKD BY	A.K.	VERIFIED BY	K.A.R.
23123					
JOB NO.	SCALE	DATE			
23123	AS SPECIFIED	02-02-2024			
DRG NO.	SIZE	SHEET DETAILS	REV.		
ARC/TD/001	A1	2 OF 2	T1		



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CONTROLLED COPY STAMP

GOOD FOR CONSTRUCTION

PROJECT MANAGER

NOTES :

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REFERENCE DRAWINGS:

1.STR WD 01 R0 TRENCH

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
R0	FOR TENDER	P.G.	R.Y.	R.Y.	13.12.2023
R1	FOR TENDER	P.G.	R.Y.	R.Y.	08.01.2024
R2	FOR TENDER	P.G.	R.Y.	R.Y.	02.02.2024

CLIENT :
MAZGAON DOCK SHIP BUILDERS LTD.
NHAVA SHEVA., J.N.P.T. – NAVI MUMBAI

CONSULTANT : STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD
STRUCTWEL, PLOT NO-15,
SECTOR-24, OFF SION PANVEL
HIGHWAY,TURBHE,
NAVI MUMBAI – 400 705.
PHONE : 2784 1010 (7 LINES)
FAX : 91-22-2784 1007

PROJECT TITLE :
SHORT TERM DEVELOPMENT
AT MDL NHAVA YARD, RAIGAD

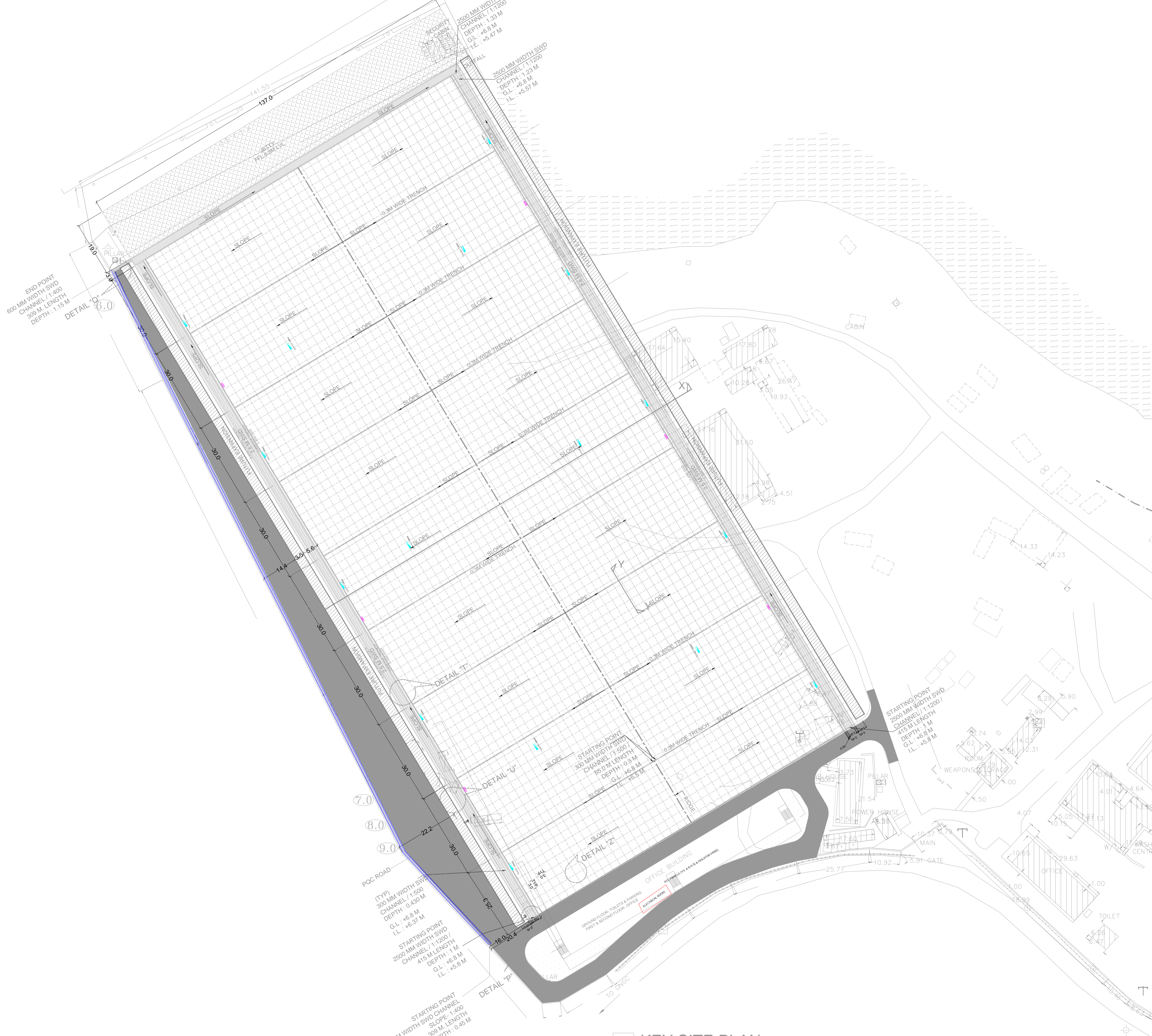
DWG. TITLE :
HIGH MAST LOCATION

DRN.BY	P.G.	CHKD BY	R.Y.	VERIFIED BY	R.Y.
JOB NO.	SCALE	DATE			
23123	1:100	13-12-2023			
DRG NO.	SIZE	SHEET DETAILS	REV.		
MEP-ELE-TD-02	A1	01 OF 01	T2		

LEGEND:-

SYMBOL	DESCRIPTION	QTY.
	8 X 500W LED FLOOD LIGHT 25 Mtr POLE	03
	6 X 500W LED FLOOD LIGHT 25 Mtr POLE	03

KEY SITE PLAN



KEY PLAN :
SCALE 1:15000

NORTH ↑

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 TENDER
 PROCUREMENT
 EXECUTION
 AS BUILT

GOOD FOR CONSTRUCTION

PROJECT MANAGER

NOTES :

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REFERENCE DRAWINGS:

1. STR WD 01 R0 TRENCH

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
T0	FOR TENDER	P.G.	R.Y.	R.Y.	13.12.2023
T1	FOR TENDER	P.G.	R.Y.	R.Y.	08.01.2024
T2	FOR TENDER	P.G.	R.Y.	R.Y.	02.02.2024

CLIENT :
MAZGAON DOCK SHIP BUILDERS LTD.
NHAVA SHEVA., J.N.P.T. – NAVI MUMBAI

CONSULTANT : STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD

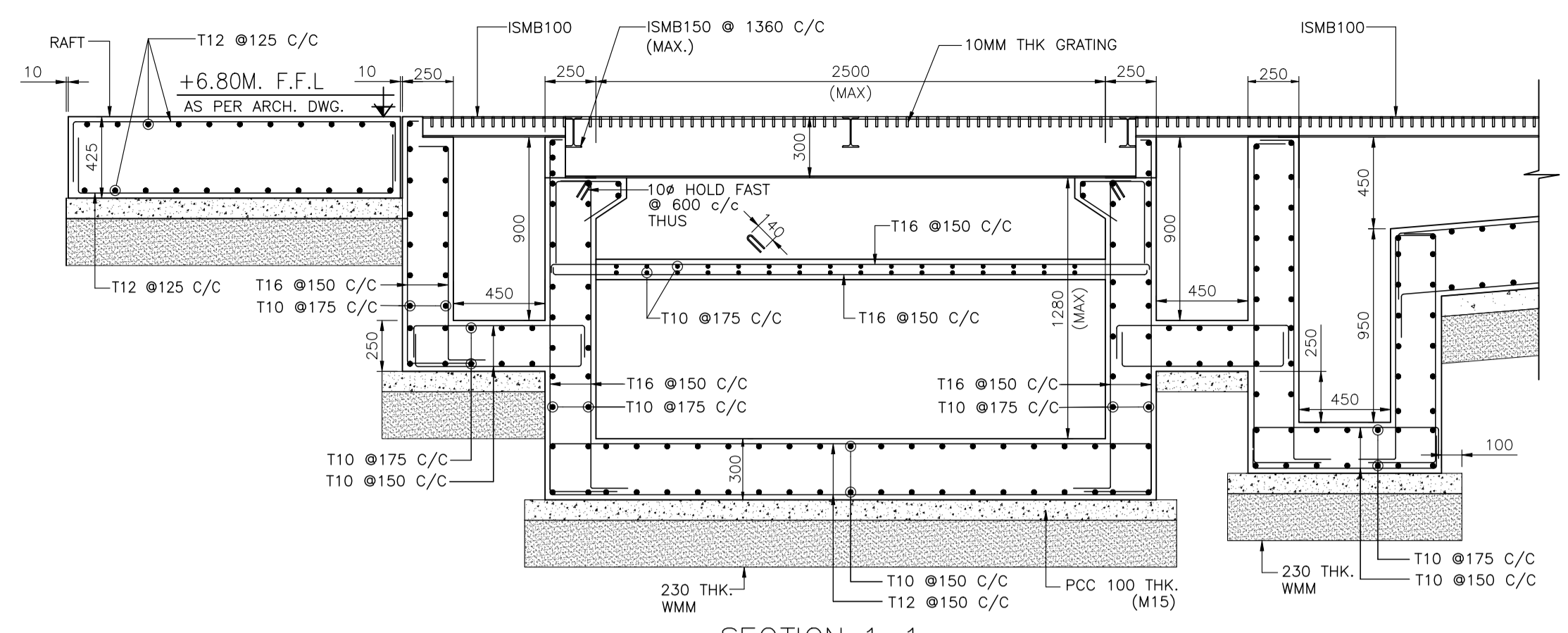
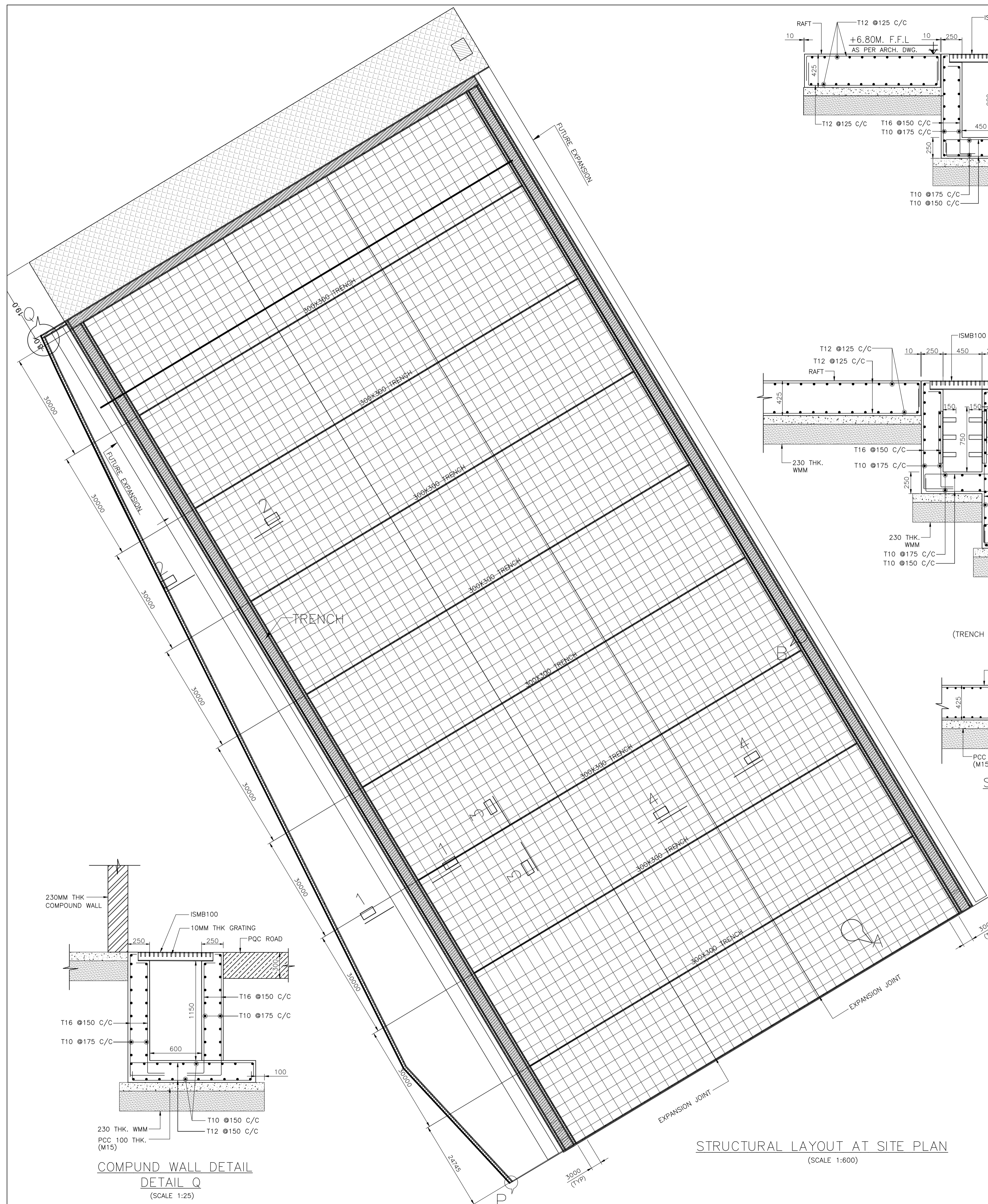
STRUCTWEL, PLOT NO-15,
SECTOR-24, OFF SION PANVEL
HIGHWAY, TURBHE,
NAVI MUMBAI – 400 705.
PHONE : 2784 1010 (7 LINES)
FAX : 91-22-2784 1007

PROJECT TITLE :
SHORT TERM DEVELOPMENT
AT MDL NHAVA YARD, RAIGAD

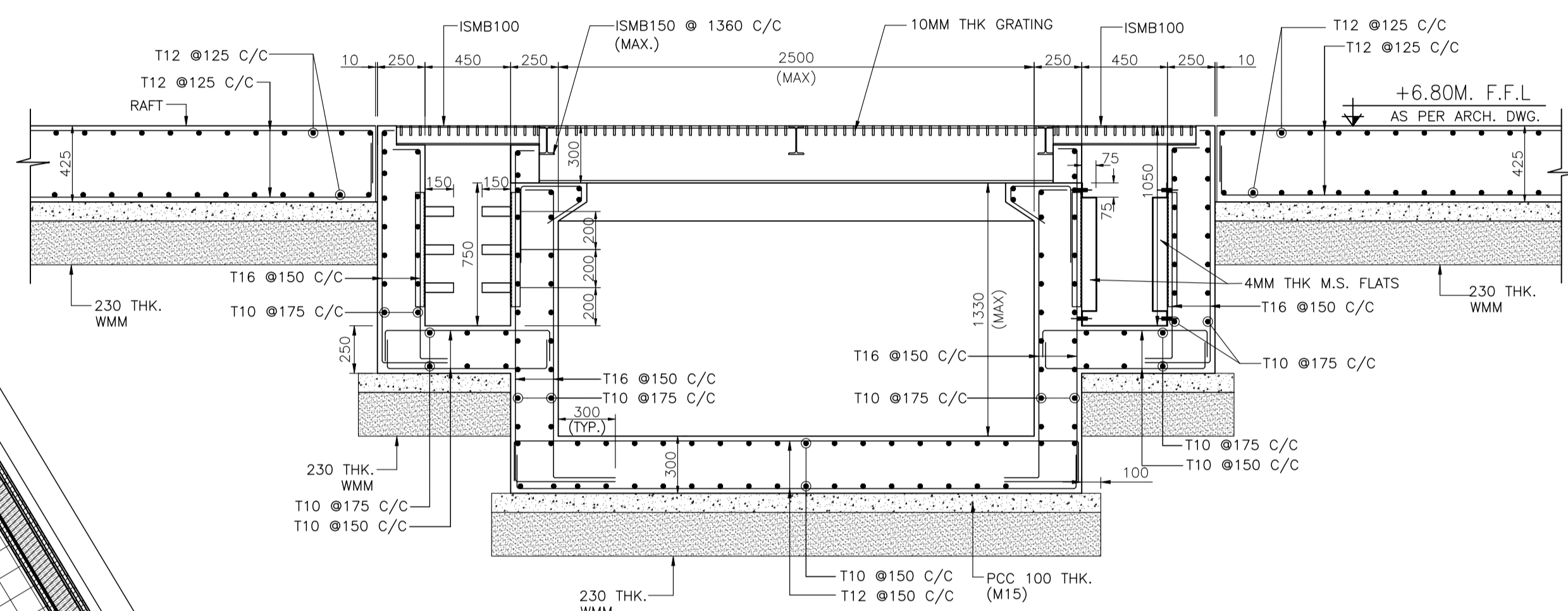
DWG. TITLE :

PANEL LOCATION

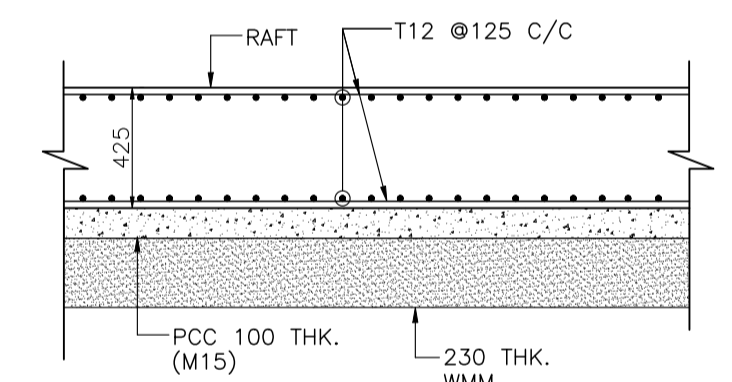
DRN.BY	P.G.	CHKD BY	R.Y.	VERIFIED BY	R.Y.
JOB NO.	SCALE	DATE			
23123	1:100	13-12-2023			
DRG NO.	SIZE	SHEET DETAILS		REV.	
MEP-ELE-TD-01	A1	01 OF 01		T2	



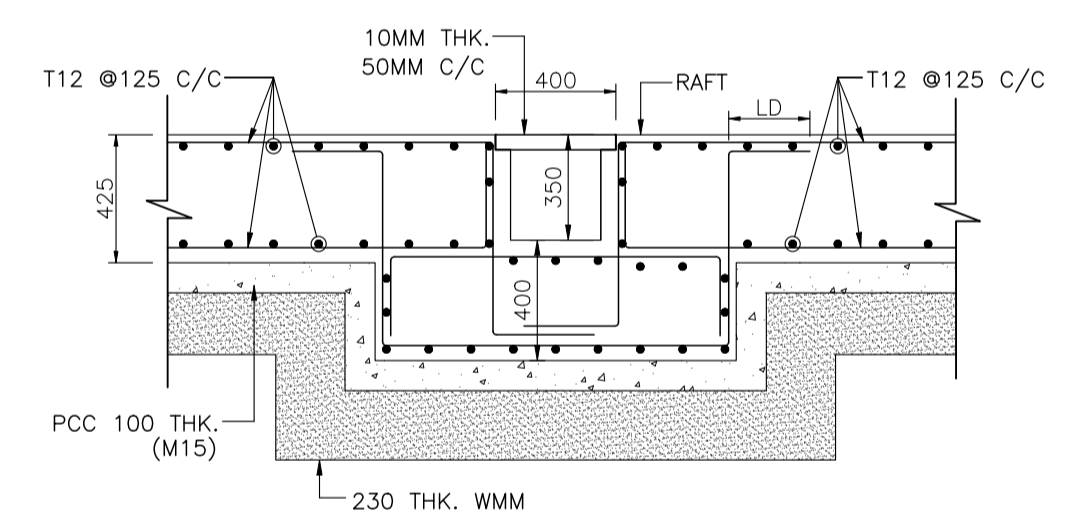
SECTION 1-1
(SCALE 1:25)
(TRENCH WIDTH AND DEPTH TO BE CONFIRM FROM ARCH./MREP. DRAWING)



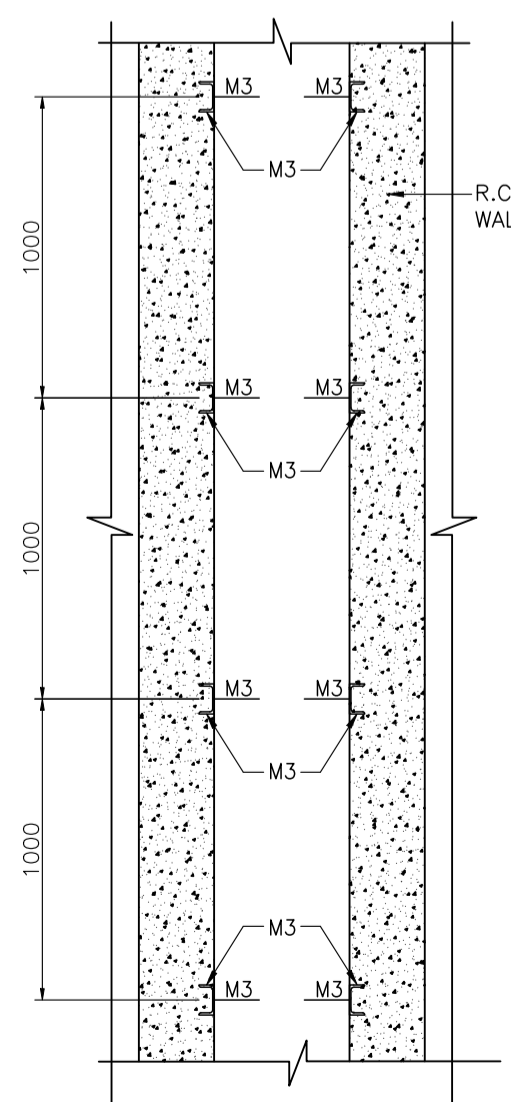
SECTION 2-2
(SCALE 1:25)
(TRENCH WIDTH AND DEPTH TO BE CONFIRM FROM ARCH./MREP. DRAWING)



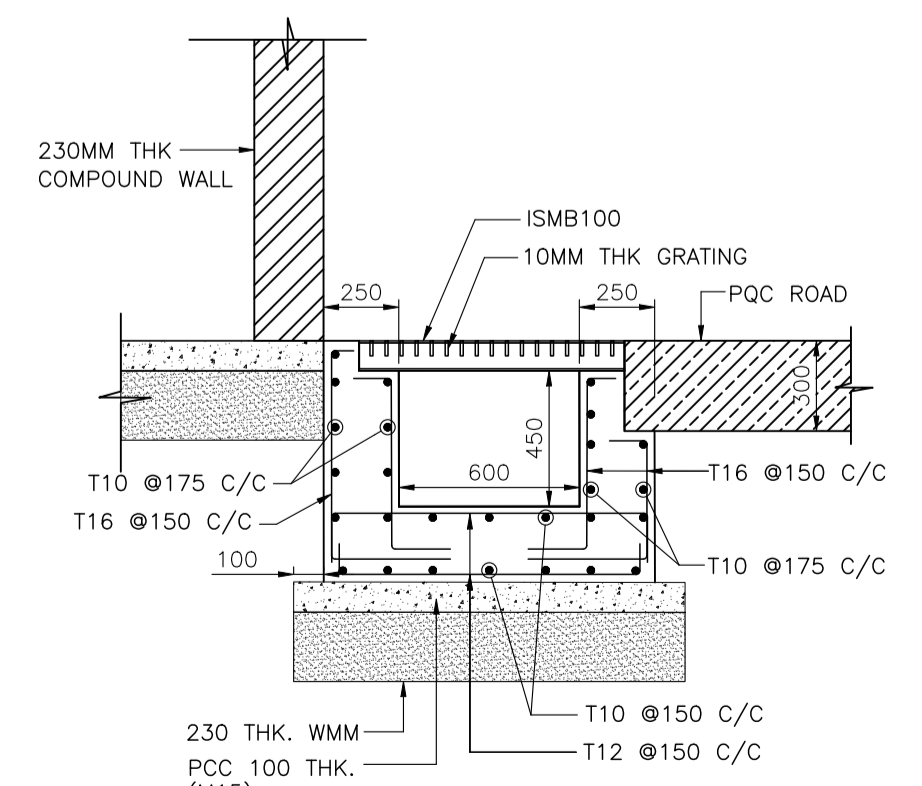
SECTION 4-4
(SCALE 1:25)



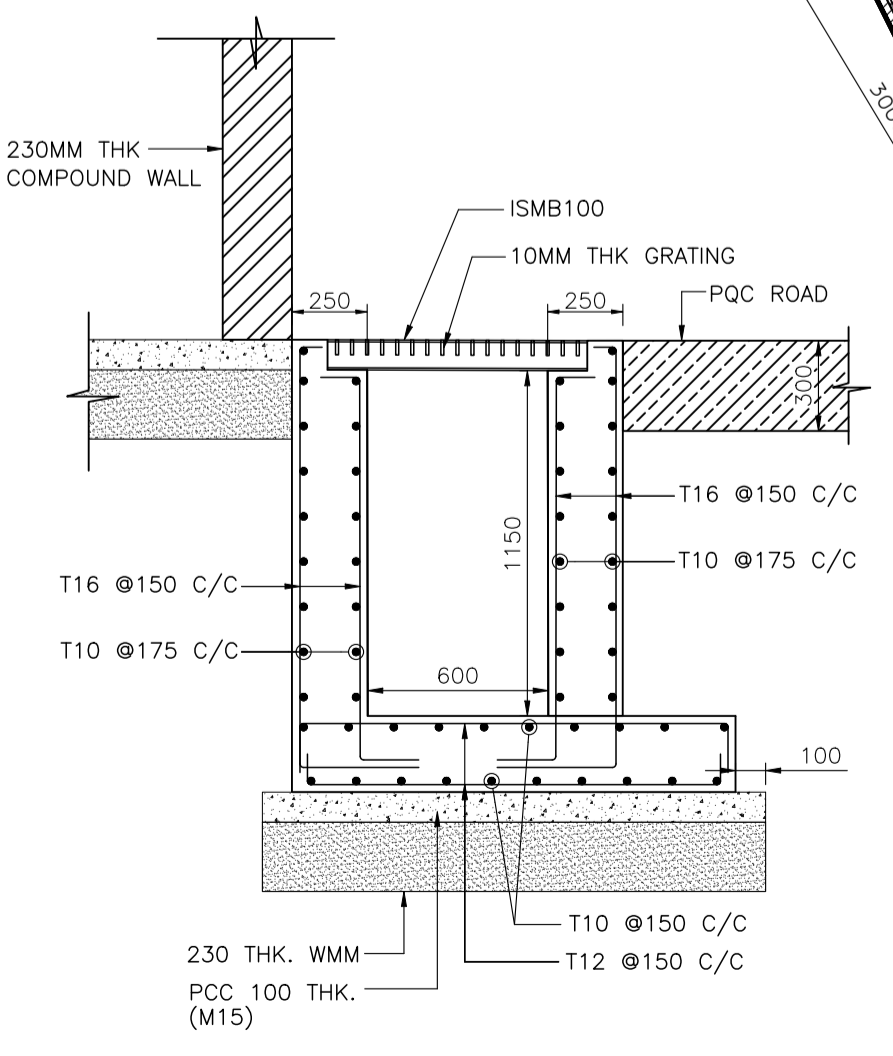
SECTION 3-3
(SCALE 1:25)



PART PLAN OF PIPING TRENCH
(SCALE-1:25)
(NOTE:-REFER SECTION 2-2 FOR LEVEL)

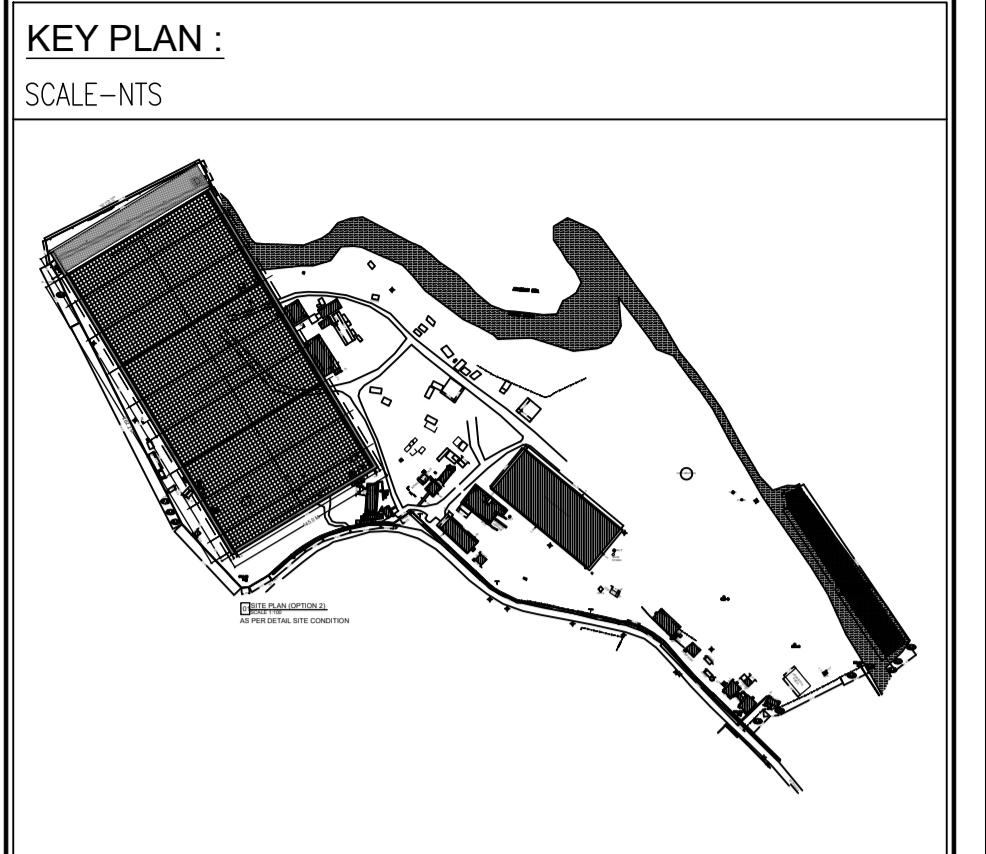


COMPUND WALL DETAIL P
(SCALE 1:25)



COMPUND WALL DETAIL Q
(SCALE 1:25)

STRUCTURAL LAYOUT AT SITE PLAN
(SCALE 1:600)



RELEASED FOR

- APPROVAL/REVIEW
- REFERENCE
- TENDER
- PROCUREMENT
- EXECUTION
- AS BUILT

CONTROLLED COPY STAMP

GOOD FOR CONSTRUCTION

PROJECT MANAGER

- NOTES :
- ALL DIMENSIONS ARE IN 'MM'.
 - DIMENSIONS SHALL NOT BE SCALED IN THIS DRG. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
 - ALL CONCRETE MIX. SHALL BE M-30 UNLESS OTHERWISE SPECIFIED.
 - ALL REINFORCEMENT Fe 500, SHALL CONFIRM TO IS-1786-1985.
 - STRUCTURE IS DESIGNED FOR G+ROOF.
 - ENSURE S.B.C. 11.7 T/M² AT 1.5M BELOW EXISTING GROUND LEVEL .
 - S.B.C. CONSIDER AT TOP OF WMM 30T/M²

REFERENCE DRAWINGS:

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
T0	FIRST ISSUE	S.A.K	D.C.K	A.P.B	14.12.2023
T1	REVISE AS PER MARKED	S.B.R.	D.C.K	A.P.B	17.02.2023
T2					
T3					
T4					
T5					
T6					
T7					
T8					
T9					
T10					

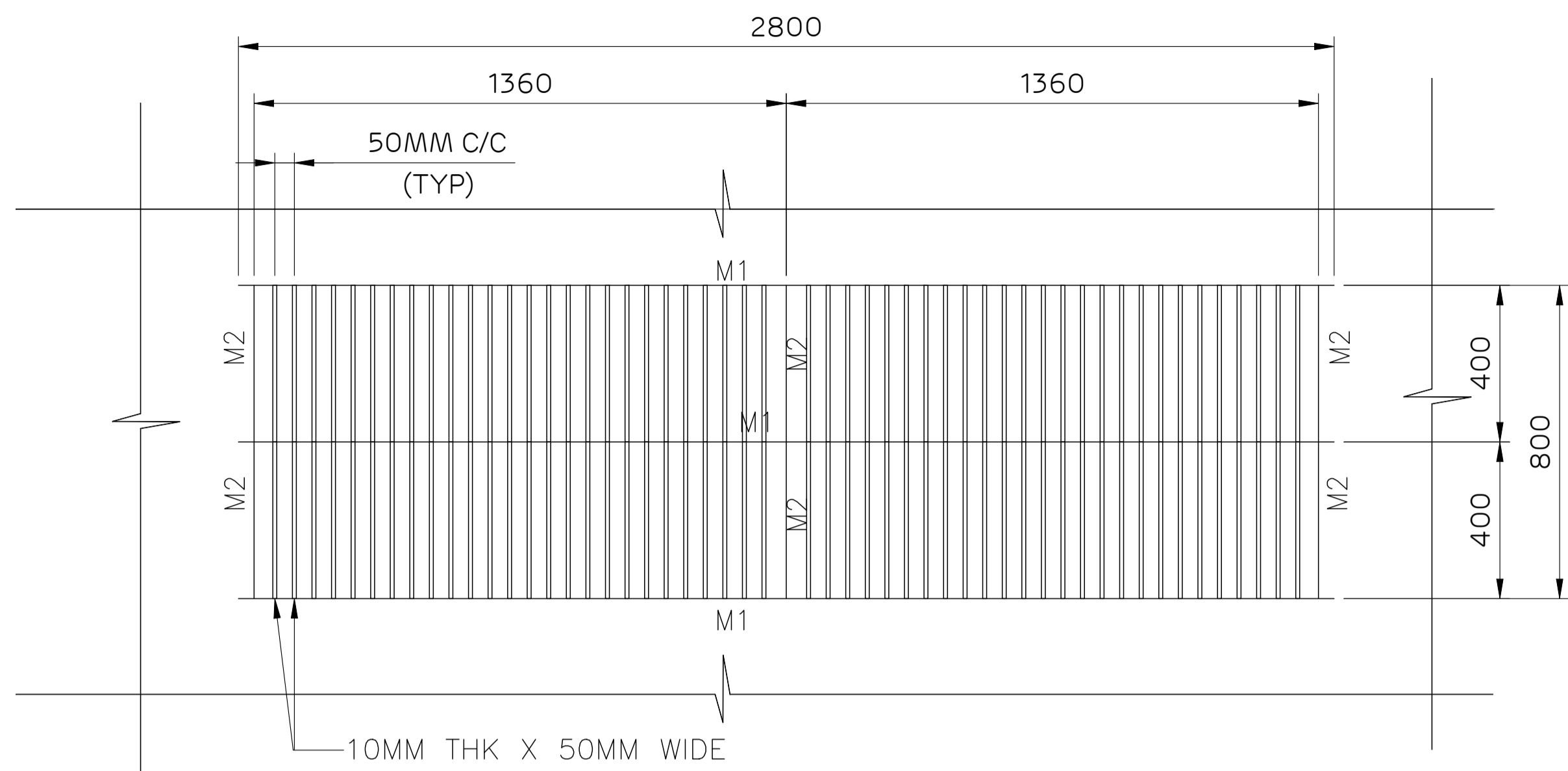
CLIENT : MAZAGON DOCK SHIPBUILDERS LIMITED. NHAVA YARD, RAIGAD

CONSULTANT : STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD
 STRUCTWEL, PLOT NO-15, SECTOR-24, OFF SION PANVEL HIGHWAY, TURBHE, NAVI MUMBAI - 400 705.
 PHONE : 6854 1010
 FAX : 91-22-6854 1007

PROJECT TITLE :
SHORT TERM DEVELOPMENT AT MDL NHAVA YARD, RAIGAD

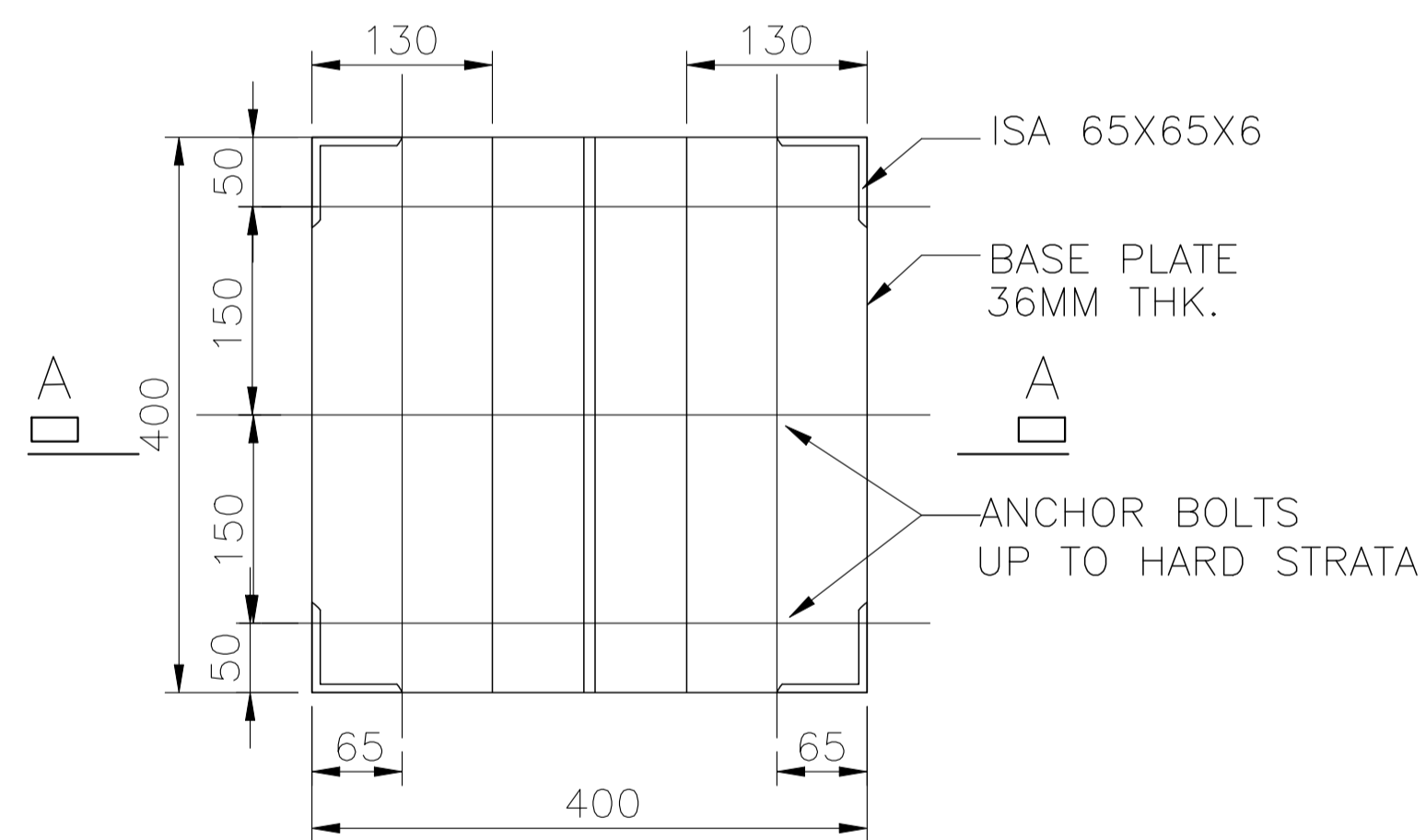
DWG. TITLE :
STRUCTURAL LAYOUT & DETAILS OF TRENCH

DRN. BY	S.A.K.	CHKD BY	D.C.K.	VERIFIED BY	A.P.B.
23123	AS SPECIFIED				14-12-2023
JOB NO.	SCALE	DATE			
23123	AS SPECIFIED	14-12-2023			
DRG NO.	SIZE	SHEET DETAILS	REV.		
STR/TD/001	A1	1 OF 2	T1		



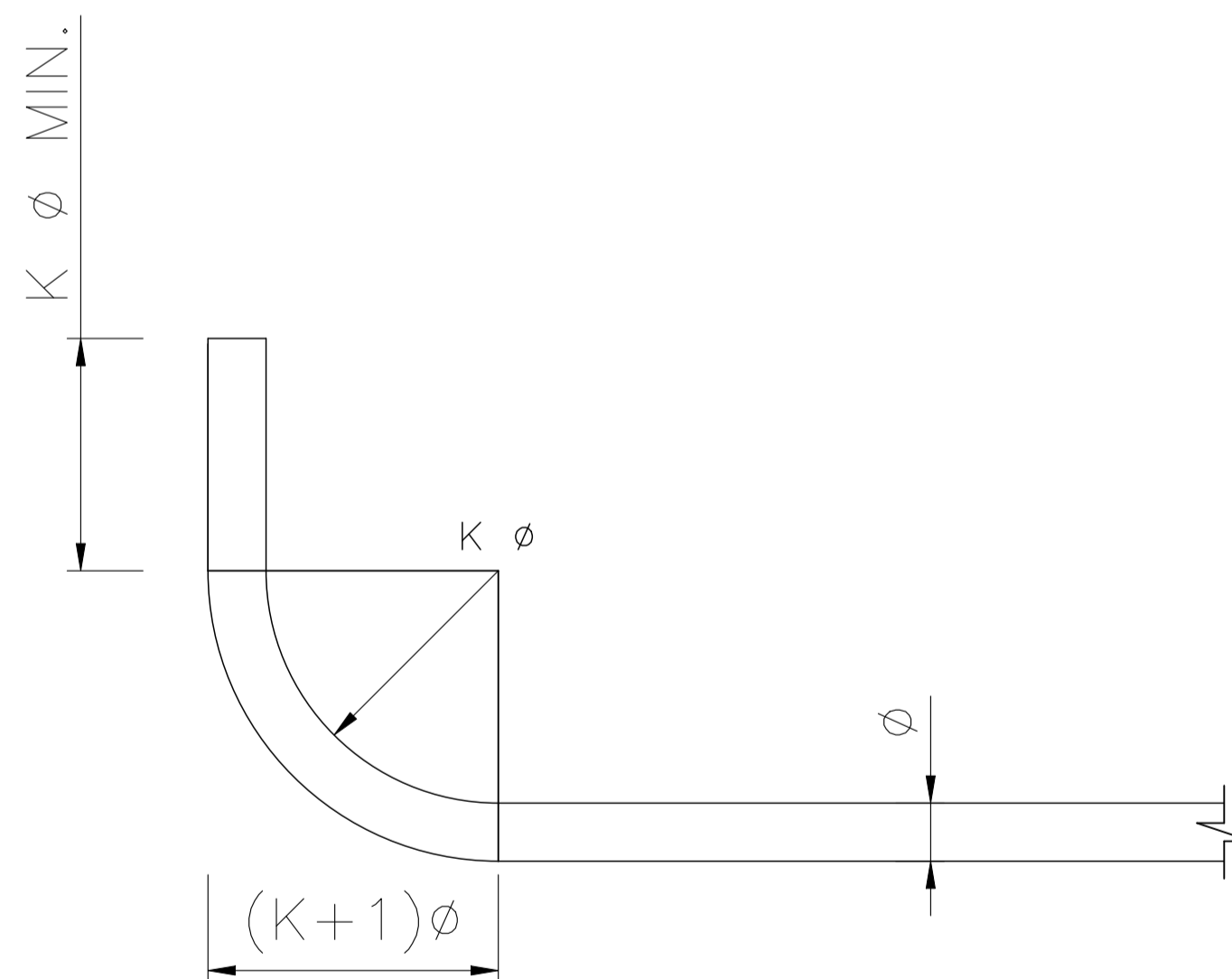
PART PLAN OF DETAIL B
FOR TRENCH GRATING

(SCALE-1:25)



PLAN OF LAND BRACKET
DETAIL A

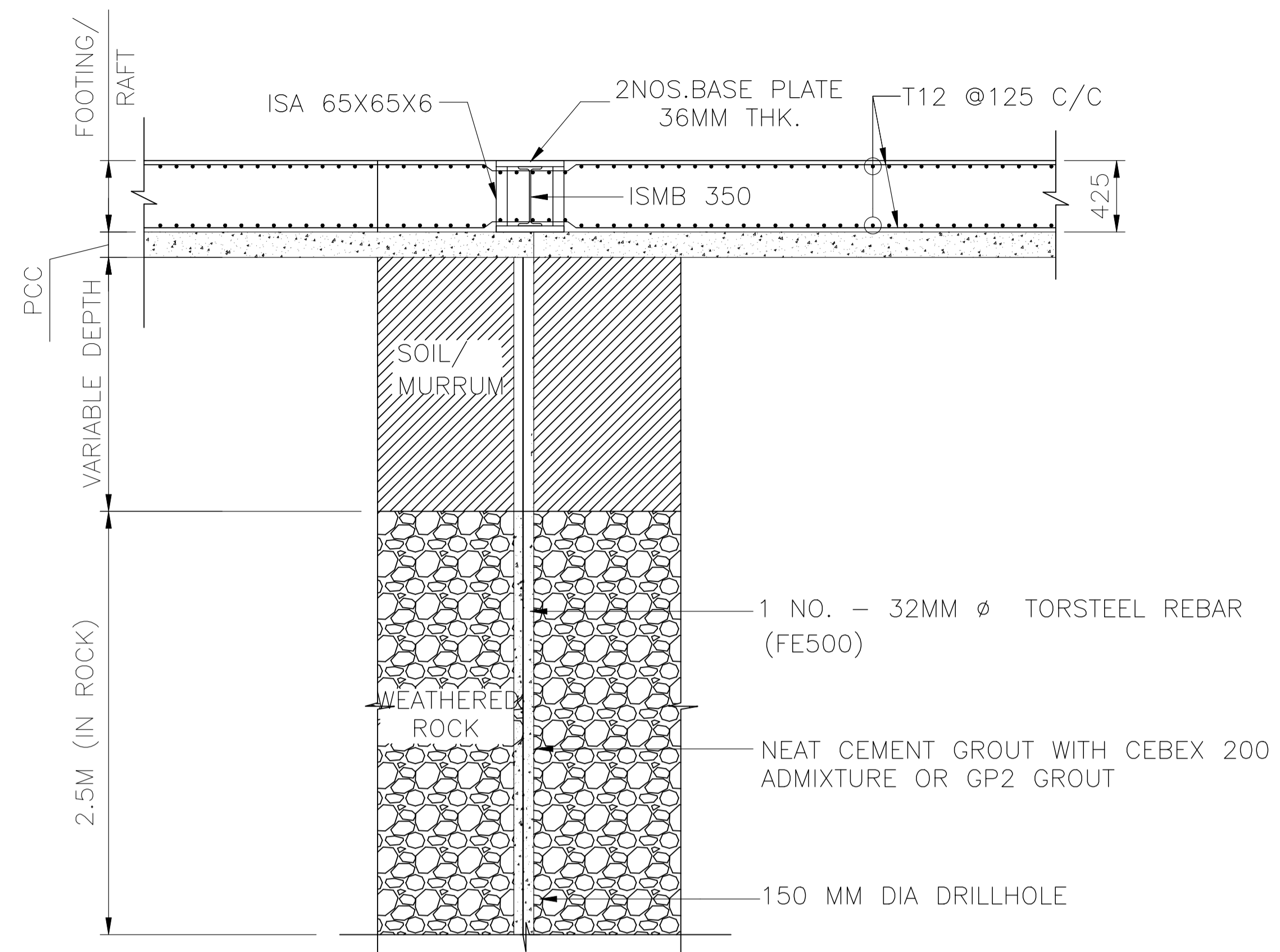
(SCALE 1:10)



NOTE:- MINIMUM VALUE OF 'K' FOR HIGH STRENGTH DEFORMED BARS IS 4.

(90° BEND DETAILS)

(SCALE-1:75)



SECTION A-A

(SCALE-1:50)

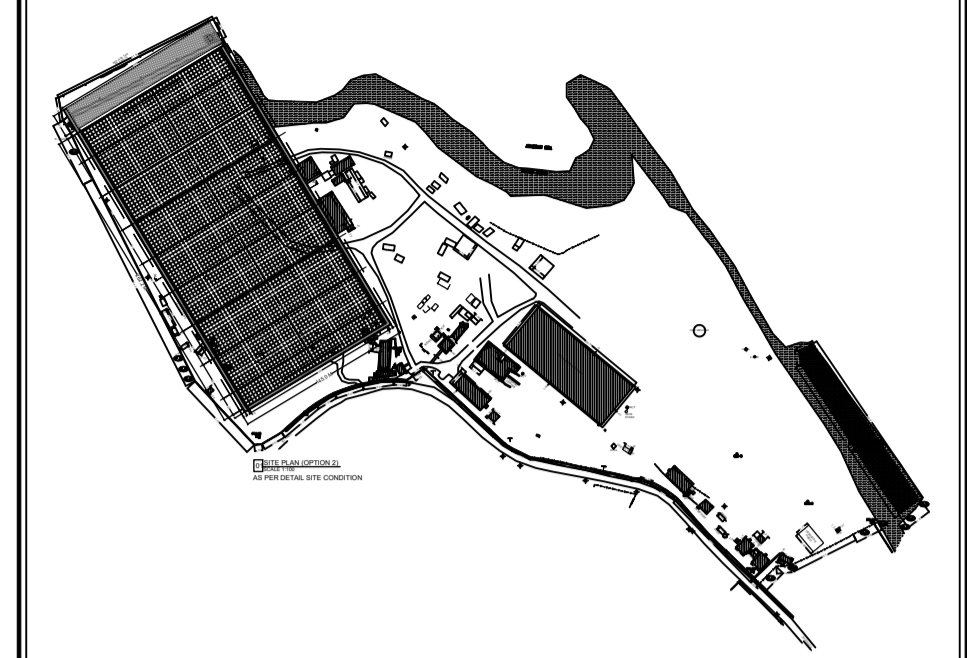
NOTE - ANCHORS SHOULD BE SPACED MINIMUM 1 C/C.

LEGEND

SR. NO.	MEMBER MARKED	MEMBER SIZE
1	M1	ISMB 300
2	M2	ISMB 150
3	M3	ISM 100

KEY PLAN :

SCALE-NTS



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CONTROLLED COPY STAMP



GOOD FOR CONSTRUCTION

PROJECT MANAGER

NOTES :

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- STRUCTURE IS DESIGNED FOR G+ROOF
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- S.B.C. CONSIDER AT TOP OF WMM 30T/M²

REFERENCE DRAWINGS:

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
T0	FIRST ISSUE	S.A.K.	D.C.K.	A.P.B.	14.12.2023
T1	REVISE AS PER MARKED	S.B.R.	D.C.K.	A.P.B.	17.02.2023
T2					
T3					
T4					
T5					
T6					
T7					
T8					
T9					
T10					

CLIENT : MAZAGON DOCK SHIPBUILDERS LIMITED.
NHAVA YARD, RAIGAD

CONSULTANT : STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD
STRUCTWEL, PLOT NO-15, SECTOR-24, OFF SION PANVEL HIGHWAY, TURBHE, NAVI MUMBAI - 400 705.
PHONE : 6854 1010
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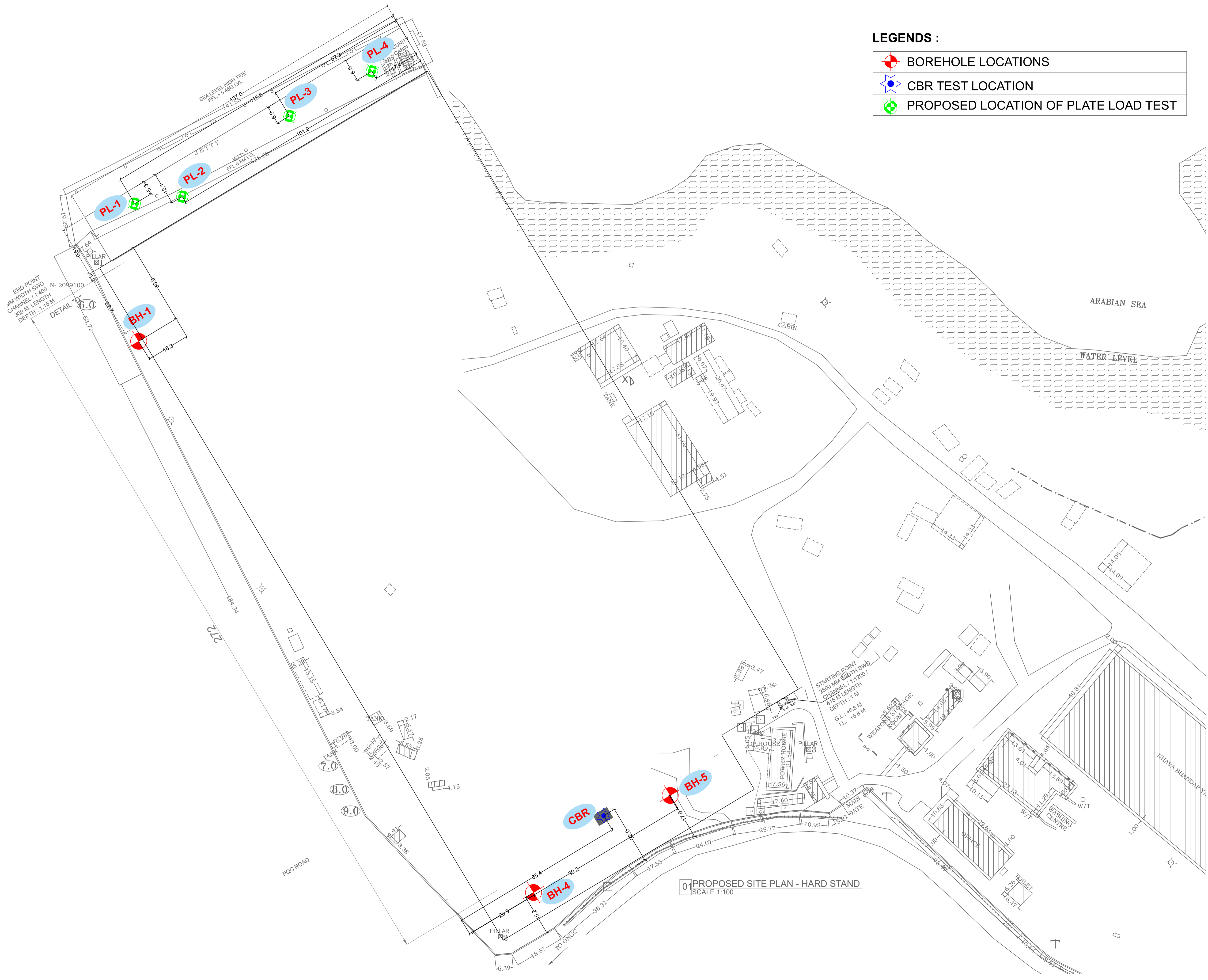
PROJECT TITLE :

SHORT TERM DEVELOPMENT AT MDL NHAVA YARD, RAIGAD




DWG. TITLE :

STRUCTURAL LAYOUT & DETAILS OF TRENCH

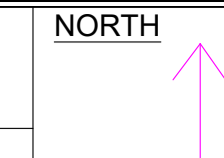
DRN. BY	S.A.K.	CHKD BY	D.C.K.	VERIFIED BY	A.P.B.
JOB NO.	SCALE		DATE		
23123	AS SPECIFIED		14-12-2023		
DRG NO.	SIZE	SHEET DETAILS		REV.	
STR/TD/001	A3	2 OF 2		T1	



LEGENDS :

-  BOREHOLE LOCATIONS
-  CBR TEST LOCATION
-  PROPOSED LOCATION OF PLATE LOAD TEST

KEY PLAN :
SCALE 1:15000



RELEASED FOR

- APPROVAL/REVIEW
- REFERENCE
- TENDER
- PROCUREMENT
- EXECUTION
- AS BUILT

GOOD FOR CONSTRUCTION

PROJECT MANAGER

NOTES :


1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SHOWN.
2. DIMENSIONS SHOWN ARE FROM UNFINISH SURFACES, UNLESS MENTIONED.
3. DRAWING SHOULD NOT BE SCALED.
4. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS, IF DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.

REFERENCE DRAWINGS:

REVISIONS:

REV. NO.	DETAILS	DRN BY	CHKD BY	VERIFIED BY	DATE
D0	FIRST ISSUE	S.B.	V.P.	A.L.	28-12-2023
D1	DATA ADDED	S.B.	V.P.	A.L.	29-01-2024
D2	DATA ADDED	S.B.	V.P.	A.L.	26-02-2024
D3					
D4					
D5					
D6					
D7					
D8					
D9					
D10					

CLIENT :
MAZGAO DOCK SHIP BUILDERS LTD.
NHAVYA SEVA., J.N.P.T. - NAVI MUMBAI

CONSULTANT :  **STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD**
STRUCTWEL, PLOT NO-15,
SECTOR-24, OFF SION PANVEL
HIGHWAY, TURBHE,
NAVI MUMBAI - 400 705.
PHONE : 2784 1010 (7 LINES)
FAX : 91-22-2784 1007

PROJECT TITLE :
MAZAGON DOCK SHIP BUILDER LTD,

DWG. TITLE :
PROPOSED BOREHOLE, PLATE LOAD & CBR
TEST LOCATIONS

DRN. BY	S.B.	CHKD BY	V.P.	VERIFIED BY	A.L.
JOB NO.	SCALE		DATE		
23123	NTS		28-12-2023		
DRG NO.	SIZE	SHEET DETAILS		REV.	
ARC/CD/005	A1	1 OF 1		D2	

01 PROPOSED SITE PLAN - HARD STAND
SCALE 1:100