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LIST OF DRAWINGS				
S.NO.	DRAWING NO.	DESCRIPTIONS	DATE	REV
1	IITM-DPA-VAD-BJ-DWG-001	DRAWING LIST	02.05.24	A
2	IITM-DPA-VAD-BJ-DWG-002	GENERAL NOTES	02.05.24	A
3	IITM-DPA-VAD-BJ-DWG-003	METHODOLOGY	02.05.24	A
4	IITM-DPA-VAD-BJ-DWG-004	LOCATION MAP	02.05.24	A
5	IITM-DPA-VAD-BJ-DWG-101-01	LAYOUT OF EXISITING BERTHING JETTY (SHEET 1 OF 2)	02.05.24	A
6	IITM-DPA-VAD-BJ-DWG-101-02	LAYOUT OF EXISITING BERTHING JETTY (SHEET 2 OF 2)	02.05.24	A
7	IITM-DPA-VAD-BJ-DWG-102	TYPICAL REPAIR SCHEME FOR PILE AND PILEMUFF	02.05.24	A
8	IITM-DPA-VAD-BJ-DWG-103	TYPICAL REPAIR SCHEME FOR BEAM WITH SPRAY MORTAR	02.05.24	A
9	IITM-DPA-VAD-BJ-DWG-104-01	TYPICAL REPAIR SCHEME FOR FENDER WALL (SHEET 1 OF 2)	02.05.24	A
10	IITM-DPA-VAD-BJ-DWG-104-02	TYPICAL REPAIR SCHEME FOR FENDER WALL (SHEET 2 OF 2)	02.05.24	A
11	IITM-DPA-VAD-BJ-DWG-105-01	REPAIR SCHEME FOR RC STAIRCASE (SHEET 1 OF 2)	02.05.24	A
12	IITM-DPA-VAD-BJ-DWG-105-02	REPAIR SCHEME FOR RC STAIRCASE (SHEET 2 OF 2)	02.05.24	A
13	IITM-DPA-VAD-BJ-DWG-106	MODIFIED LAYOUT OF BERTHING JETTY	02.05.24	A
14	IITM-DPA-VAD-BJ-DWG-201	FIXING DETAILS OF FENDER, BOLLARD & MOORING RINGS	02.05.24	A
15	IITM-DPA-VAD-BJ-DWG-202	FIXING DETAILS OF LADDER	02.05.24	A
16	IITM-DPA-VAD-BJ-DWG-203	LAYOUT FOR WEARING COAT	02.05.24	A



A	02.05.24	ISSUED FOR REVIEW	SMM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:  PROF.S.NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: DRAWING LIST				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-001			DATE: 02.05.24	REV: A

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO CHART DATUM (EL. $\pm 0.00\text{m}$)
3. ALL DIMENSIONS AND LEVELS SHALL BE CHECKED AND VERIFIED AT THE SITE. ANY DISCREPANCIES SHALL BE REPORTED TO THE NODAL OFFICER IMMEDIATELY AND MODIFIED TO SUIT THE SITE CONDITIONS, FABRICATIONS AND INSTALLATION TOLERANCES. ALL SUCH MODIFICATIONS SHALL BE SUBJECTED TO THE APPROVAL OF THE NODAL OFFICER.
4. NO SHUTTERING SHALL BE REMOVED BEFORE CONCRETE ACHIEVING 7 DAYS STRENGTH.
5. ALL REINFORCEMENT STEEL SHALL HAVE 500MPa MINIMUM YIELD STRENGTH AND 16% ELONGATION CONFORMING TO IS1786 WITH CORROSION RESISTANCE ELEMENT.
6. MILD STEEL BARS, IF ANY SPECIFIED, SHALL HAVE A YIELD STRENGTH OF 250MPa AND SHALL BE IN ACCORDANCE WITH IS432 GRADE 1.
7. REINFORCING BARS ARE REFERENCED ON THE REINFORCEMENT DETAIL DRAWING AS FOLLOWS :
- a) MAIN BARS
- | | | | | | |
|----------------|----------------|---|----|-----|---|
| NUMBER OF BARS | 20 | T | 25 | 200 | ① |
| TYPE OF STEEL | HIGH YIELD - T | | | | |
| | MILD STEEL - R | | | | |
| BAR DIAMETER | | | | | |
| BAR SPACING | | | | | |
| BAR MARK | | | | | |
- b) STIRRUPS
- | | | | | | | |
|----------------|----------------|---|----|---|----|---|
| NUMBER OF SETS | 20 | - | 2L | T | 12 | ① |
| NUMBER OF LEGS | | | | | | |
| TYPE OF STEEL | HIGH YIELD - T | | | | | |
| | MILD STEEL - R | | | | | |
| BAR DIAMETER | | | | | | |
| BAR MARK | | | | | | |
| BAR SPACING | | | | | | |
- STIRRUPS AT 200 c/c
8. THE MINIMUM COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOWS OR THE DIAMETER OF THE BAR, WHICHEVER IS THE GREATER, UNLESS NOTED OTHERWISE.
- | | |
|--------------|--------|
| PILE CAP | - 50mm |
| BEAM /COLUMN | - 50mm |
| SLAB | - 50mm |
9. THE LAP LENGTH IN REINFORCEMENT SHALL BE EQUIVALENT TO 45 x DIAMETER OF THE BAR FOR PILES AND 42 x DIAMETER OF THE BAR FOR SUPERSTRUCTURE SLABS AND BEAMS UNLESS NOTED OTHERWISE., NOT MORE THAN HALF THE BARS SHALL BE SPICED AT A SECTION. SPICES WHERE PROVIDED SHALL BE AS FAR AS POSSIBLE AWAY FROM SECTIONS OF MAXIMUMSTRESS AND SHALL BE STAGGERED.
10. LAPPING SPICES IN TENSION REINFORCEMENT SHOULD NOT BE AT SECTIONS WHERE THE BENDING MOMENT IS MORE THAN 50 PERCENT OF THE MOMENT OF RESISTANCE / AT THE CENTER OF THE BEAM. IT IS PROVIDED L/4 LENGTH FROM THE SUPPORT LOCATION, AND LAPPING BARS SHOULD BE ALTERNATIVELY PROVIDED
11. FOR ALL SHEAR KEYS TO BE CAST INTO THE CONCRETE, THE LENGTH OF EMBEDMENT OF SHEAR KEYS SHALL BE EXECUTED AS PER DRAWINGS.
12. CUTTING, BENDING AND FIXING OF REINFORCEMENTS SHALL BE AS PER IS2502.
13. WELDING OF REINFORCEMENT BARS SHALL BE IN ACCORDANCE WITH IS2751 AND FOR DEFORMED BAR AS PER IS9417
14. REINFORCEMENT DETAILING SHOULD BE BASED ON IS 13920-2016 AND SP34.

ABBREVIATIONS

AWS	AMERICAN WELDING SOCIETY	M	METRE
ACC.	ACCORDANCE	MM	MILLIMETRE
APPROX.	APPROXIMATELY	MAX.	MAXIMUM
ARCH.	ARCHITECTURAL	MIN.	MINIMUM
BOT.	BOTTOM	M.P.I.	MAGNETIC PARTICLE INSPECTION
B/S	BOTH SIDES	M/DK.	MAIN DECK
BLDG.	BUILDING	MEZZ.	MEZZANINE
C/C	CENTRE TO CENTRE	NDT	NON-DESTRUCTIVE TESTING
C.H.S.	CIRCULAR HOLLOW SECTION	NO.	NUMBER
COL.	COLUMN	NOS.	NUMBERS
C.O.G.	CENTRE OF GRAVITY	N/S	NEAR SIDE
CONC.	CONCRETE	NOM.	NOMINAL
CONN.	CONNECTION	OD	OUTSIDE DIAMETER
CORR.	CORRUGATED	OPP.	OPPOSITE
CSK.	COUNTERSUNK	PERP.	PERPENDICULAR
CTR.	CENTRE	PL.	PLATE
DBLR.	DOUBLER	PRI.	PRIMARY
DIA.	DIAMETER	QTY.	QUANTITY
DIAG.	DIAGONAL	R	RADIUS
DIM.	DIMENSION	R.B.	ROUND BAR
DET.	DETAIL	REQD.	REQUIRED
DK.	DECK	REMOV.	REMOVABLE
DWG.	DRAWING	REF.	REFERENCE
ECC.	ECCENTRIC	REV.	REVISION
EL.	ELEVATION	SECT.	SECTION
EQUIPT.	EQUIPMENT	SECON.	SECONDARY
EST.	ESTIMATED	SHT.	SHEET
EXT.	EXTERNAL	SIM.	SIMILAR
EXTG.	EXISTING	SPCS.	SPACES
FAB.	FABRICATED	S.S.	STAINLESS STEEL
F.B.	FLAT BAR	STD.	STANDARD
F.F.W.N.	FLAT FACE WELDED NECK	STIFF.	STIFFENER
F/S	FAR SIDE	SUPPT.	SUPPORT
FLG.	FLANGE	SYMM.	SYMMETRY
FLR.	FLOOR	TEMP.	TEMPORARY
FRL.	FINISHED ROAD LEVEL	THK.	THICK.
FRMG.	FRAMING	(TYP.)	TYPICAL
GEN.	GENERAL	T.O.F.	TOP OF FLANGE
GR.	GRADE	T.O.G.	TOP OF GRATING
GDR.	GIRDER	T.O.PL.	TOP OF PLATE
GRTG.	GRATING	T.O.S.	TOP OF STEEL
HT.	HEIGHT	U.N.O.	UNLESS NOTED OTHERWISE
HORIZ.	HORIZONTAL	U.T.	ULTRA-SONIC TESTING
HR.	HANDRAIL	U/S	UNDERSIDE
ID	INSIDE DIAMETER	VERT.	VERTICAL
INT.	INTERNAL	WT.	WEIGHT
L.A.T.	LOWEST ASTRONOMICAL TIDE	W.P.	WORK POINT
LG.	LONG	WPS	WELD PROCEDURE SPECIFICATION
LGTH.	LENGTH		
LONGL.	LONGITUDINAL		

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CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: GENERAL NOTES				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-002		DATE: 02.05.24		REV: A

METHODOLOGY FOR THE PROPOSED REPAIR WORKS

A. REPAIR SCHEME USING MICRO-CONCRETE/SPRAY MORTAR METHOD

- a) TEMPORARY WORKING PLATFORM OF SUITABLE DIMENSIONS SHALL BE MOBILIZED WITH ADEQUATE STRENGTH AT THE PROPOSED LOCATIONS OF REPAIR WORK. THE SAFETY AND SECURITY OF THE WORKING PLATFORM SHALL BE ASCERTAINED IN PRIOR TO THE COMMENCEMENT OF REPAIR WORK AND APPROVED BY DPA.
- b) THE LOOSE CONCRETE OF THE DAMAGED STRUCTURES SHALL BE DISMANTLED/CHIPPED TO A REQUIRED DEPTH UNTIL THE VISIBILITY OF GOOD CONCRETE BY USING SUITABLE METHODS OF CHIPPING AS SPECIFIED IN THE DRAWING.
- c) THE EXISTING REINFORCEMENT OF THE DAMAGED STRUCTURES SHALL BE CLEANED THOROUGHLY WITH WIRE BRUSH OR OTHER SUITABLE TOOLS FOR REMOVING RUST AND DIRT. THE EXPOSED REINFORCEMENT SHALL BE APPLIED WITH TWO COATS OF ANTI-CORROSIVE PAINT OF APPROVED BRAND.
- d) ADDITIONAL REINFORCEMENT REQUIRED FOR THE DAMAGED MEMBERS SHALL BE TREATED WITH TWO COATS OF ANTI-CORROSIVE COATING OF THE APPROVED BRAND AND FIXED FIRMLY TO THE PREFIXED SHEAR CONNECTORS USING BINDING WIRE AS SHOWN IN THE APPROVED CONSTRUCTION DRAWING.
- e) SHEAR KEYS SHALL BE INSTALLED AT THE DESIGNATED LOCATIONS OF THE BEAM/STAIR/FACIA WALL/PILE CAP BY DRILLING HOLES TO A REQUIRED DEPTH USING SUITABLE MECHANICAL DEVICES AND GROUTING THE HOLES WITH TWO COMPONENT EPOXY RESIN BASED ANCHOR GROUT OF APPROVED BRAND AS SHOWN IN THE APPROVED CONSTRUCTION DRAWING.
- f) GI WELDED WIRE MESH OF 4" X 4" (16 GAUGE) SHALL BE PROVIDED AROUND THE CROSS-SECTION OF BEAMS/PILE/CAPS/STAIR AND SECURED FIRMLY WITH THE HELP OF SHEAR KEYS AND EXTENDED ALONG THE SPAN LENGTH OF THE STRUCTURE. THE JUNCTIONS OF THE MEMBER SHALL ALSO BE PROVIDED WITH ONE LAYER OF 300MM LAP.
- g) PILES AND STIFFENING WALL OF THE BERTHING JETTY SHALL BE CONCRETED WITH POLYMER MODIFIED MICRO CONCRETE OF APPROVED BRAND SUITABLE WATERTIGHT SHUTTERING SHALL BE FACILITATED AROUND THE CROSS-SECTION OF THE MEMBER FOR WITHSTANDING THE LOADS DURING CONCRETE. THE VERTICAL AND BOTTOM FACES OF SHUTTERING SHALL BE REMOVED ONLY AFTER 3 DAYS AND 7 DAYS RESPECTIVELY FROM THE DATE OF CASTING OF MICRO CONCRETE. THE CURING FOR THE REPAIRED MEMBERS SAME SHALL ALSO BE MADE USING FRESH WATER FOR NOT LESS THAN 14 DAYS FROM THE DATE OF CASTING.
- h) EXPOSED SURFACES OF THE PILE CAPS, BEAMS AND MISCELLANEOUS STRUCTURES SHALL BE PROVIDED WITH SINGLE COMPONENT, HIGH STRENGTH SHOTCRETE MORTAR OF APPROVED BRAND AND DISCHARGED USING SUITABLE PUMPING DEVICES AS DIRECTED BY MANUFACTURER SPECIFICATION. THE MORTAR SHALL BE APPLIED IN LAYERS OF THICKNESS BY SPRAY EQUIPMENT AND MONITORED AT SITE TO AVOID DELMANIATION OR COLLAPSE. FURTHER LAYERS SHALL BE APPLIED AFTER SETTING OF THE PREVIOUS LAYERS TO ATTAIN THE DESIRED THICKNESS. BEFORE APPLYING SUBSEQUENT LAYER, THE SURFACE SHALL BE SATURATED BY WATER/BONDING /PRIMING MATERIAL, AS SPECIFIED BY THE MANUFACTURER. THE FINAL SURFACE OF THE REPAIRED MEMBERS SHALL BE FINISHED USING A WOODEN/STEEL FLOAT.
- i) REPAIRED CONCRETE SURFACE SHALL BE PAINTED WITH PROTECTIVE COATING TOGETHER WITH PRIMER OF APPROVED BRAND IN TWO LAYERS OF 250 MICRON DFT.
- j) TEMPORARY PLATFORM CAN BE REMOVED ON THE COMPLETION OF REPAIR WORK.

METHOD AND MATERIAL FOR CONSTRUCTION



Sl.NO	DESCRIPTION	METHOD OF CONSTRUCTION	ANCHOR GROUT	WIRE MESH	PROTECTIVE COATING
1.	PILE. STIFFENING WALL, AND BEAMS	USING MICRO CONCRETE OF FOSROC/ BASF OR EQUIVALENT WITH SUITABLE WATER TIGHT SHUTTERING	FOSROC/BASF OR EQUIVALENT	GI WELDED WIRE MESH 4"x4"x16 GAUGE	PROTECTIVE COATING (2 COATS) WITH PRIMER OF APPROVED BRAND
2.	PILE MUFF, BEAMS AND MISCELLANEOUS STRUCTURES	USING SPRAY MORTAR OF FOSROC /BASF OR EQUIVALENT			
3.	FACIA WALL & RC STAIR	M40 INSITU CONCRETE	-	-	PROTECTIVE COATING (2 COATS) WITH PRIMER OF APPROVED BRAND

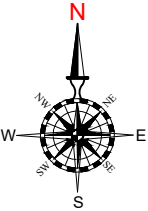
DETAILS OF DRILL HOLE AND EMBEDMENT LENGTH FOR ANCHOR GROUT

DIA OF THE REBAR	10mm	12mm	16mm	20mm	25mm
DRILL HOLE OF THE REBAR	14	16	20	25	32
EMBEDMENT LENGTH OF THE BAR	100mm	120mm	160mm	200mm	250mm

SUMMARY:



S.NO	ELEMENTS/ STRUCTURES	IDENTIFIED NUMBER OF STRUCTURES	ESTIMATED QUANTITIES OF REPAIR MATERIAL/MEMBER								
			ESTIMATED NUMBER OF SHEAR KEYS	QUANTITY OF WIRE MESH (in sqm.)	ADDITIONAL REINFORCEMENT (in kg.)	BOND COAT (in sqm.)	MICRO CONCRETE (in cum.)	SPRAY MORTAR (in cum.)	PROTECTIVE COATING (in sqm.)	M40 in cum.	MOORING RINGS IN NOS.
1	PILE	16	32.0	3.5	80.0	3.5	0.4	-	3.5	-	-
2	PILE MUFF	32	48.0	4.1	60.0	2.1	0.3	-	2.4	-	-
3	CANTILEVER TRANSVERSE BEAM	16	70.0	3.3	50.0	3.3	-	0.5	4.1	-	-
4	RC STAIR	1	24.0	0.0	250.0	-	-	-	95.0	13.5	-
5	PILE WITH STIFFENING WALL	16	217.0	24.0	450.0	23.6	2.4	-	20.0	-	-
6	MISCELLANEOUS STRUCTURES	-	-	-	1200.0	-	-	50.0	-	-	-
7	FACIA WALL	16	-	-	1420.0	4.6	16	-	36.0	6.0	6.0

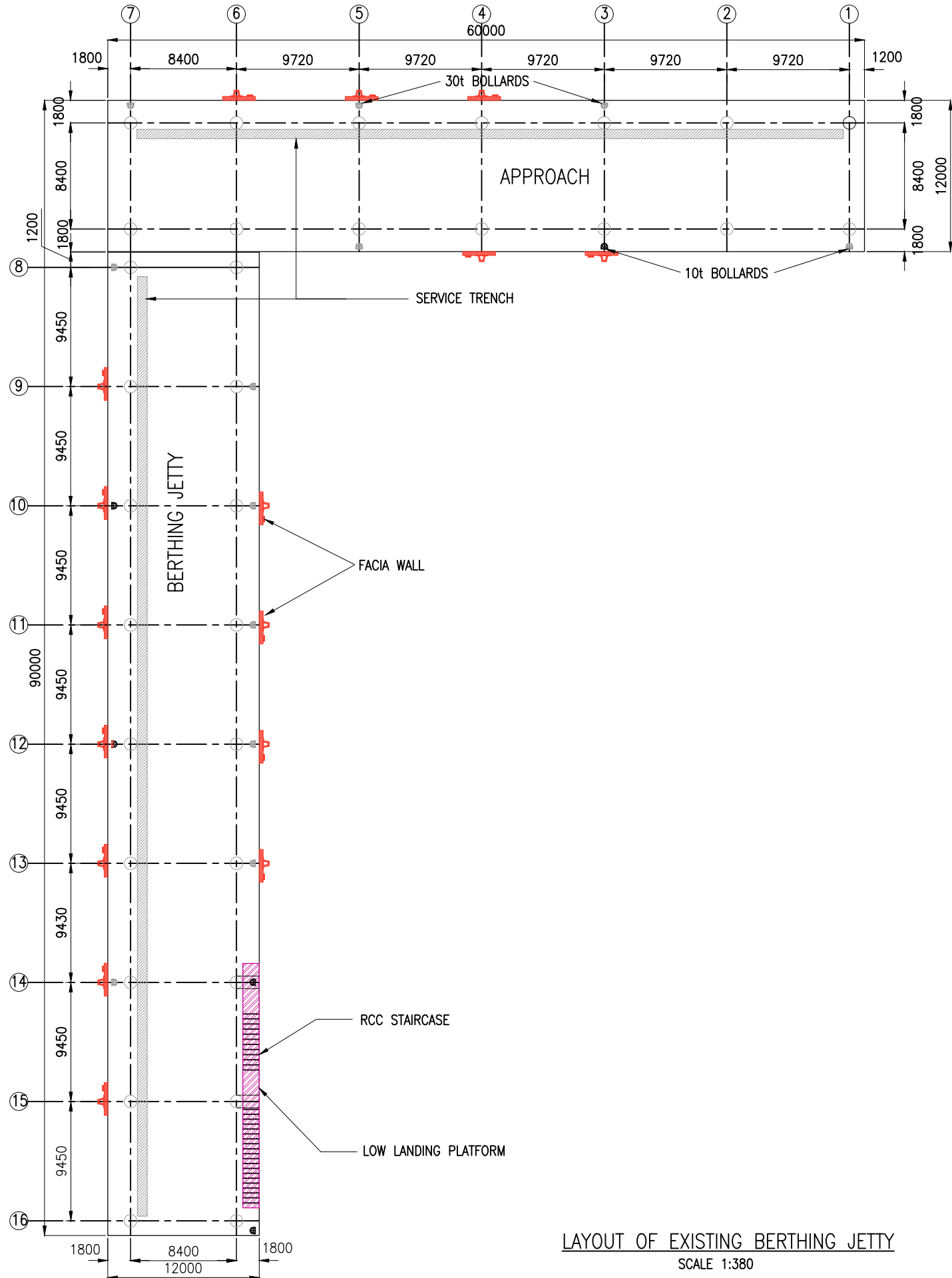
A	02.05.24	ISSUED FOR REVIEW	SM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:  PROF.S.NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: METHODOLOGY				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-003		DATE: 02.05.24	REV: A	





LOCATION MAP
(SCALE 1:1)

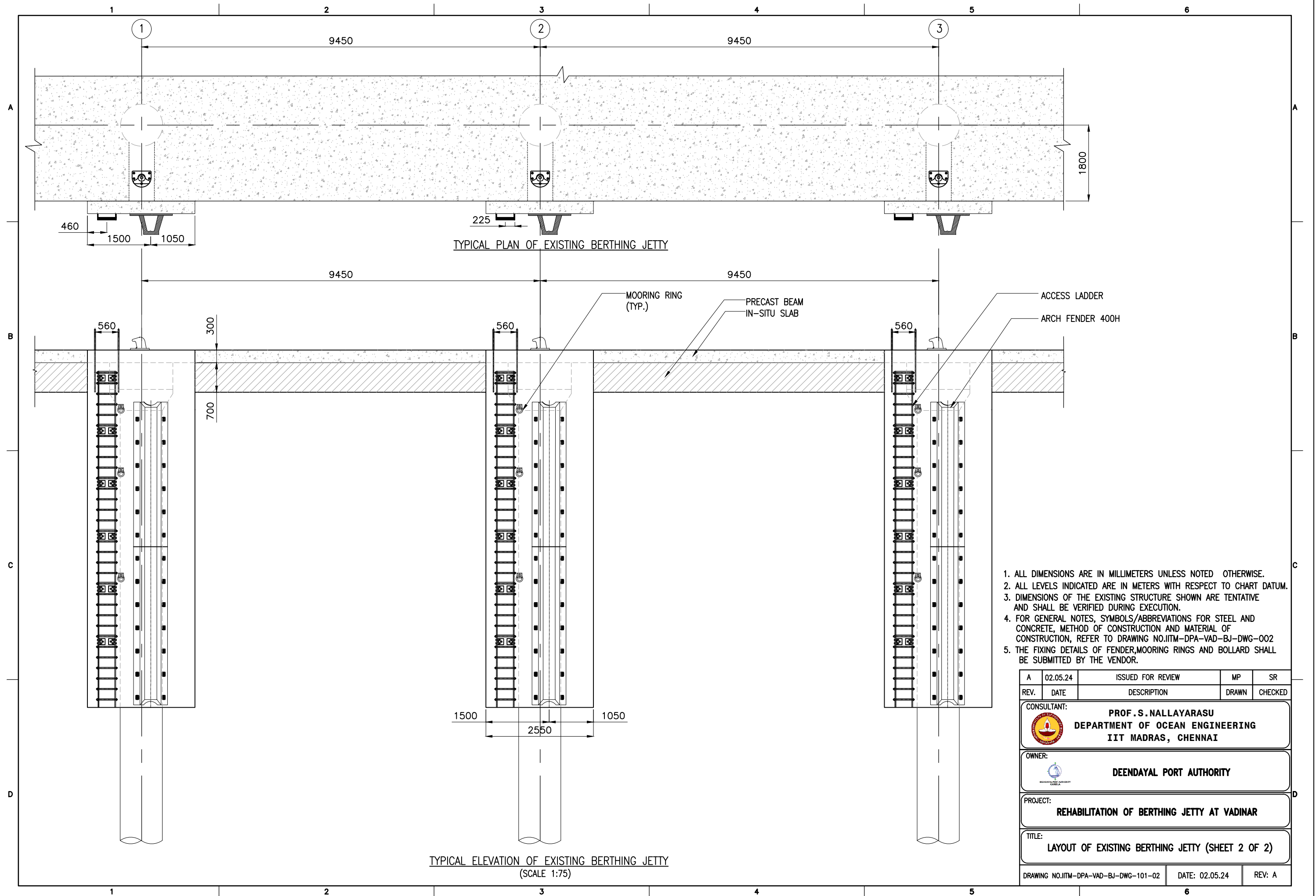
- NOTES:**
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METRES WITH RESPECT TO CHART DATUM.

A	02.05.24	ISSUED FOR REVIEW	SM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: STRUCTURAL REPAIRS TO BERTHING JETTY AT VADINAR				
TITLE: LOCATION MAP				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-004			DATE: 02.05.24	REV: A





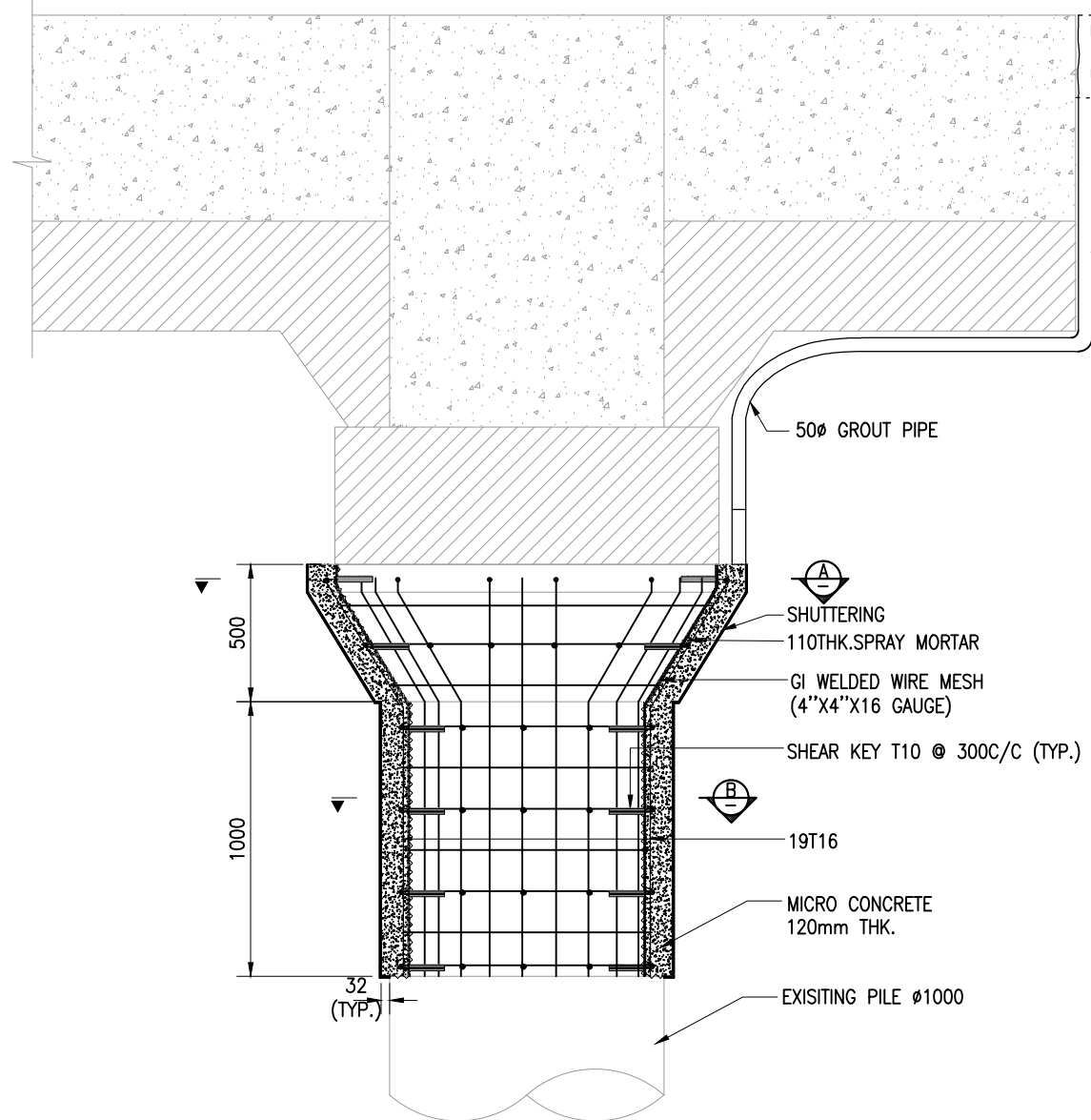
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES, SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE, METHOD OF CONSTRUCTION AND MATERIAL OF CONSTRUCTION, REFER TO DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.

A	02.05.24	ISSUED FOR REVIEW	SM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: LAYOUT OF EXISTING BERTHING JETTY (SHEET 1 OF 2)				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-101-01		DATE: 02.05.24		REV: A

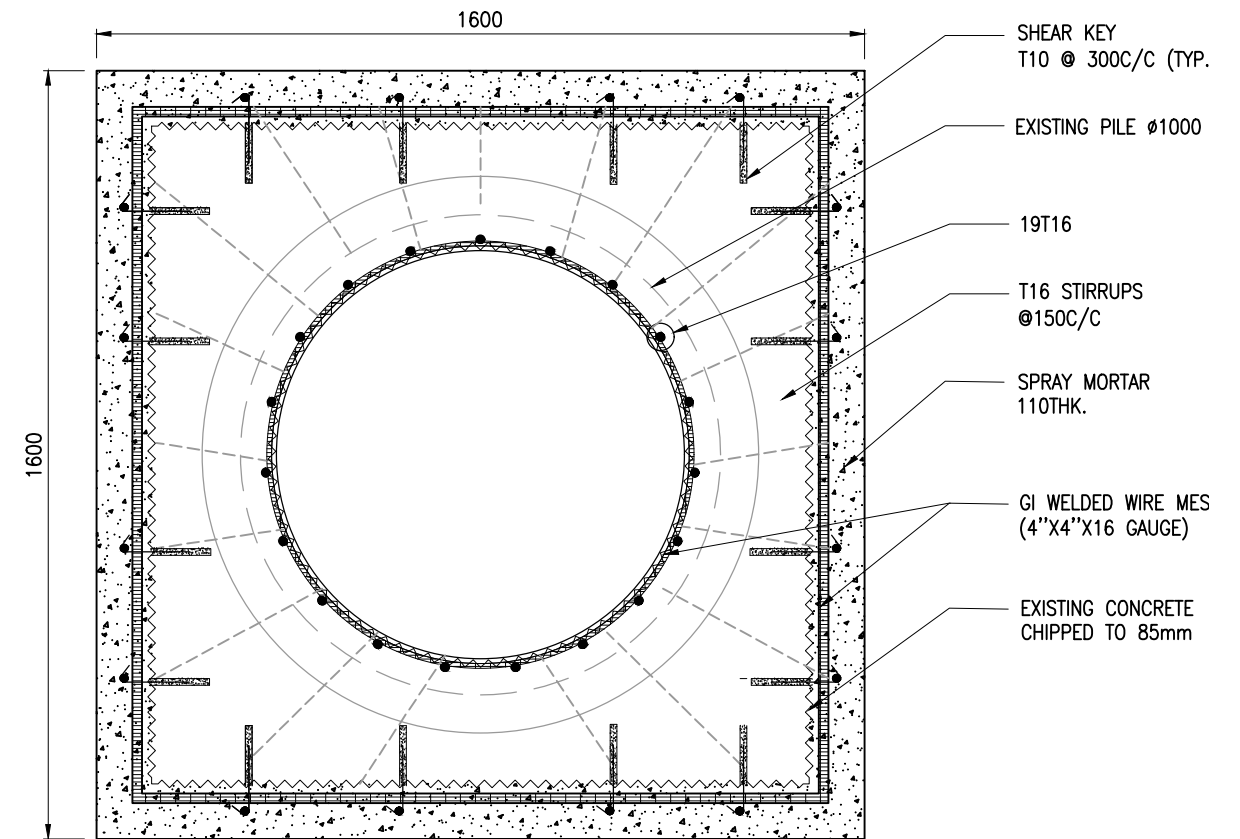


1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ARE TENTATIVE AND SHALL BE VERIFIED DURING EXECUTION.
4. FOR GENERAL NOTES, SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE, METHOD OF CONSTRUCTION AND MATERIAL OF CONSTRUCTION, REFER TO DRAWING NO.IITM-DPA-VAD-BJ-DWG-002
5. THE FIXING DETAILS OF FENDER,MOORING RINGS AND BOLLARD SHALL BE SUBMITTED BY THE VENDOR.

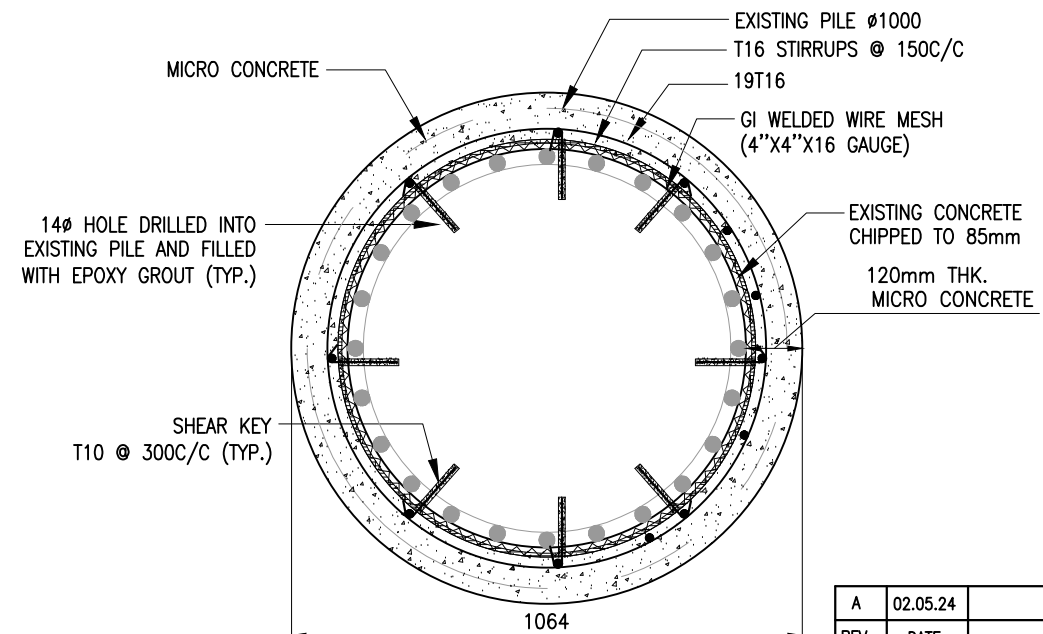
A	02.05.24	ISSUED FOR REVIEW	MP	SR
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CONSULTANT:  PROF.S.NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: LAYOUT OF EXISTING BERTHING JETTY (SHEET 2 OF 2)				
DRAWING NO.IITM-DPA-VAD-BJ-DWG-101-02			DATE: 02.05.24	REV: A



TYPICAL REPAIR SCHEME FOR PILE & PILE MUFF
SCALE 1:25





SECTION-A
SCALE 1:15

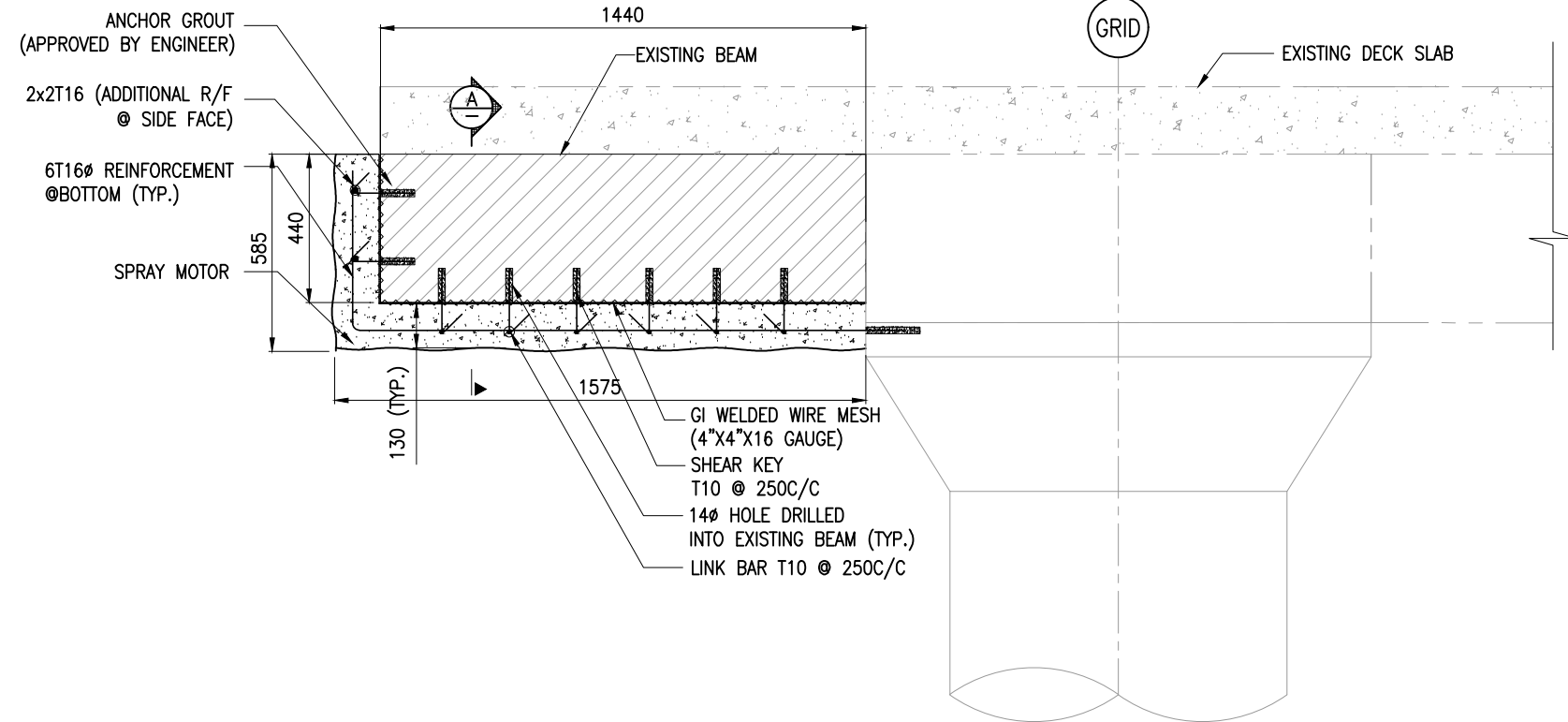


SECTION-B
SCALE 1:15

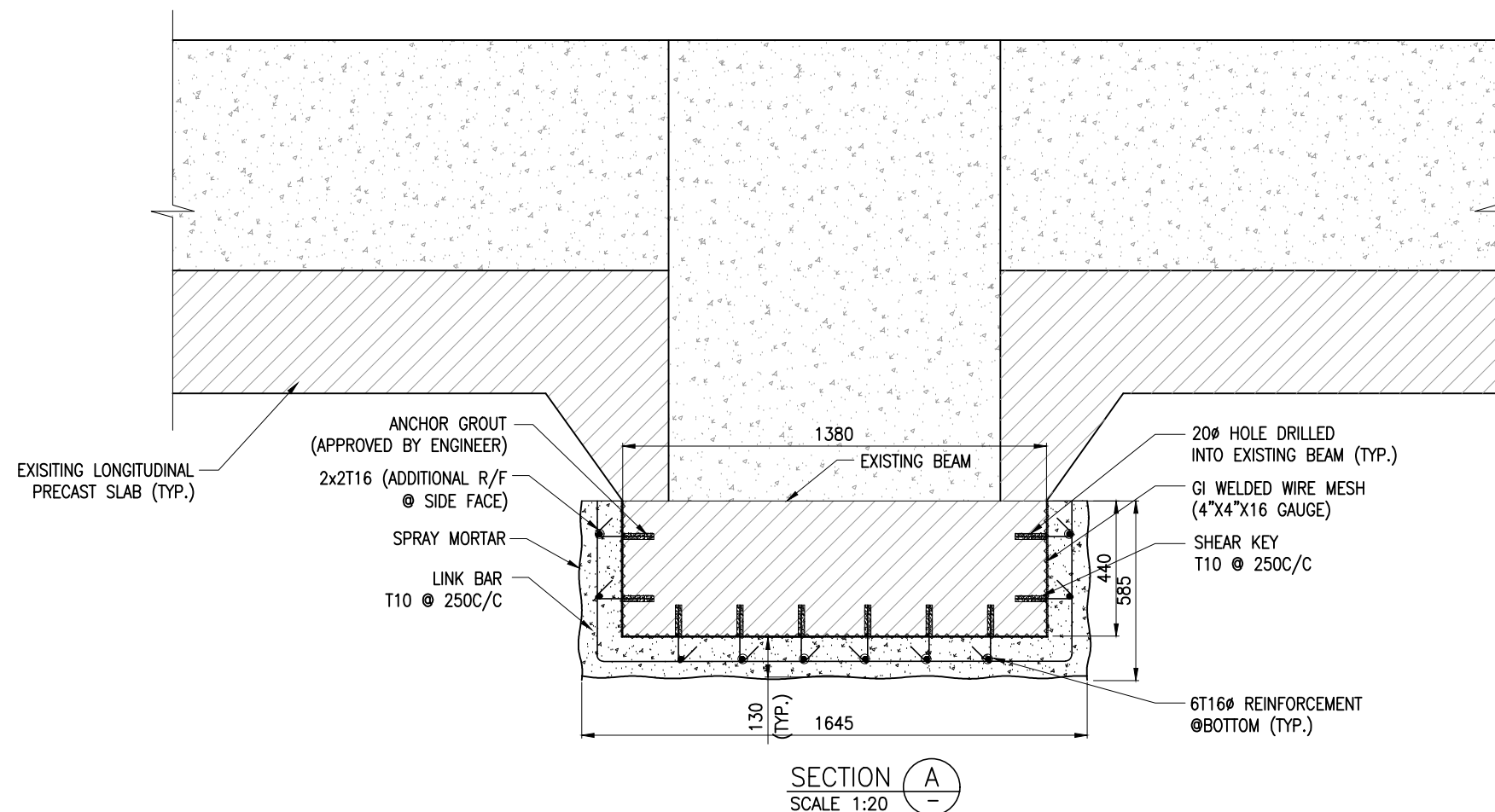
NOTES:

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CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:				
 DEENDAYAL PORT AUTHORITY				
PROJECT:				
REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE:				
TYPICAL REPAIR SCHEME FOR PILE AND PILE MUFF				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-102			DATE: 02.05.24	REV: A



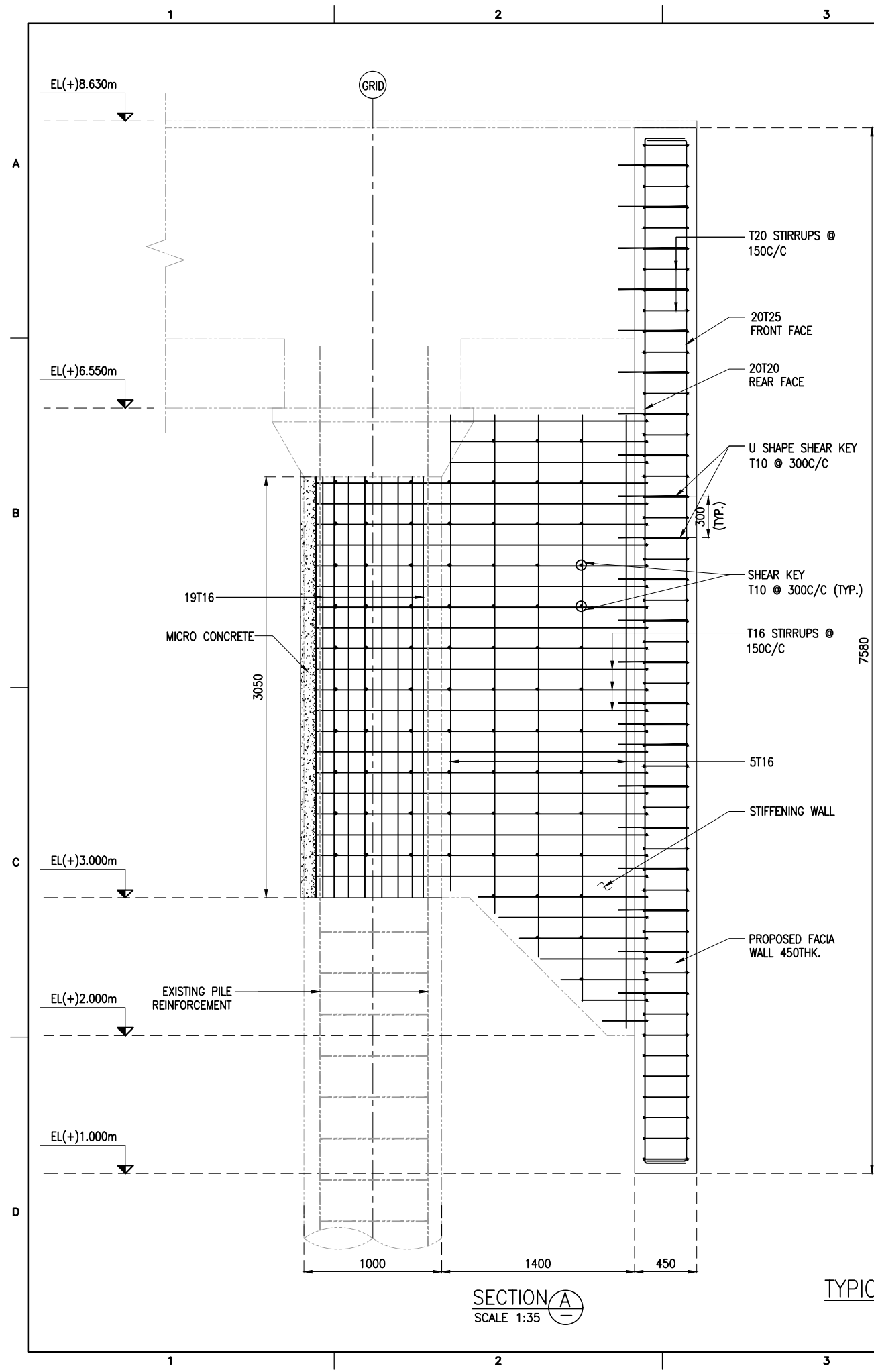
TYPICAL REPAIR SCHEME FOR TRANSVERSE BEAM
SCALE 1:20



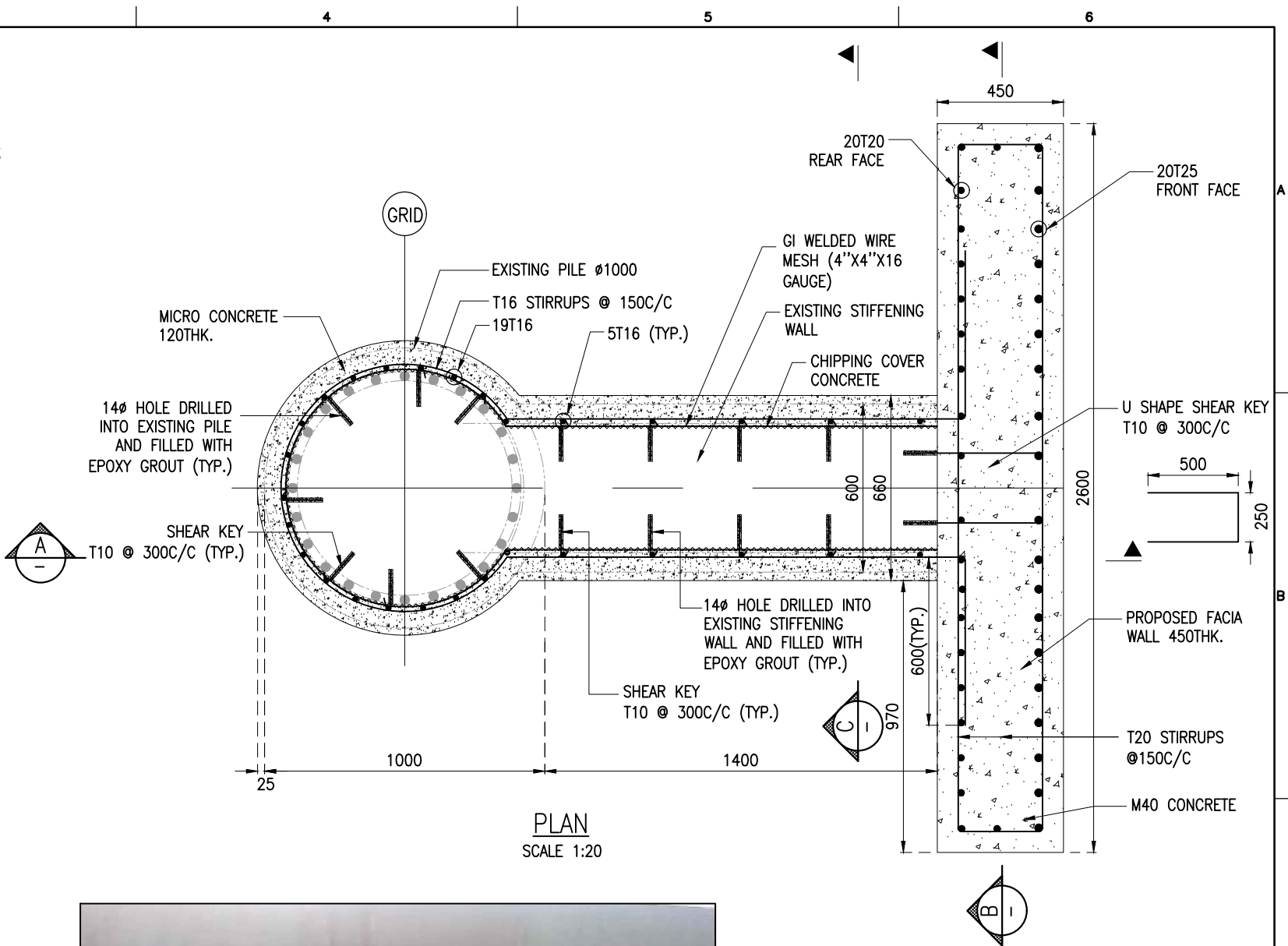
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2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
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4. THE DIA OF DRILL HOLE AND THE EMBEDMENT LENGTH OF THE SHEAR KEYS SHALL BE REFERRED TO TO THE DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
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CONSULTANT: PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
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PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: TYPICAL REPAIR SCHEME FOR BEAM WITH SPRAY MORTAR				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-103			DATE: 02.05.24	
			REV: A	



SECTION A-A
SCALE 1:35





PLAN
SCALE 1:20

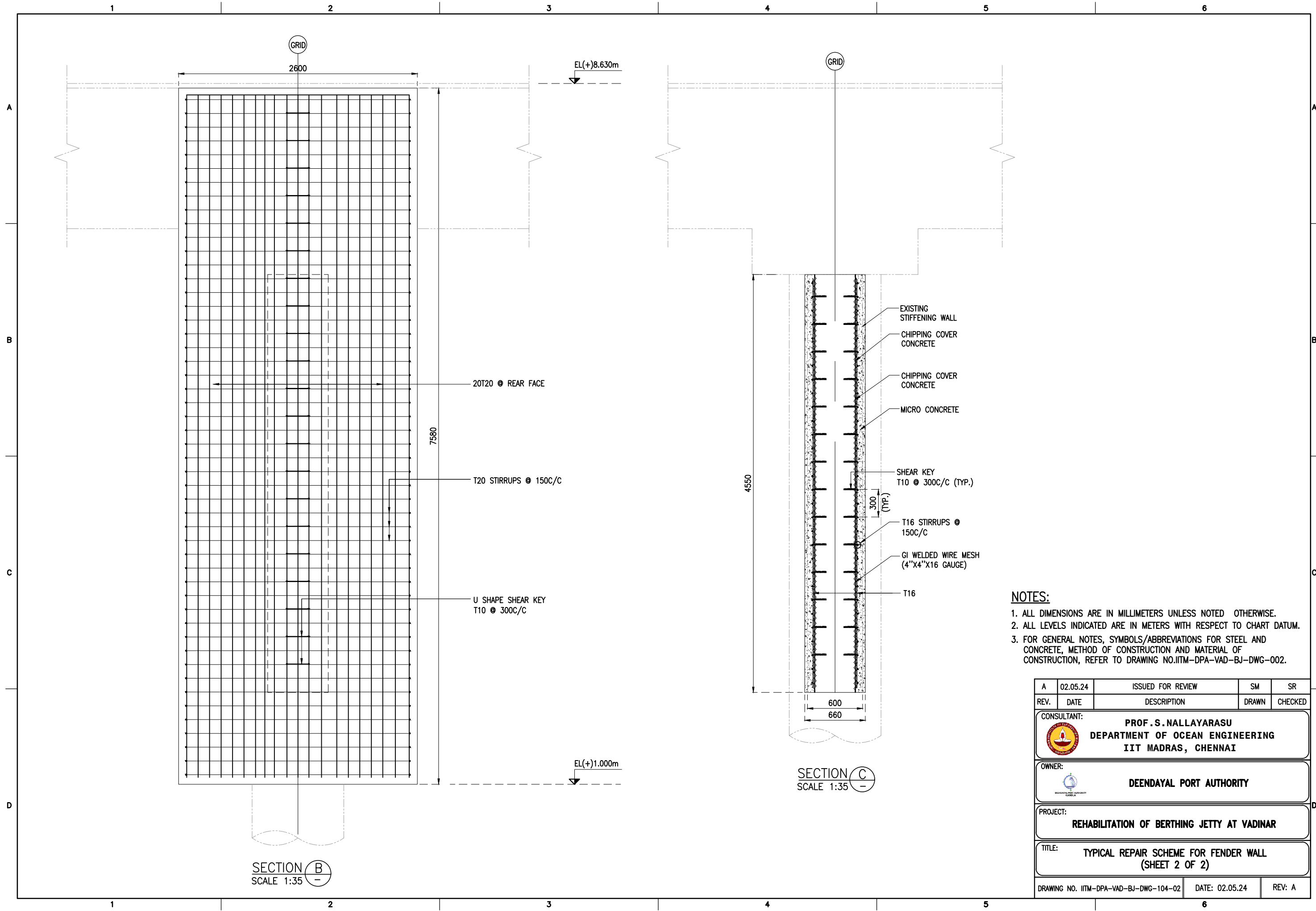


TYPICAL REPAIR SCHEME FOR FENDER WALL



NOTES:

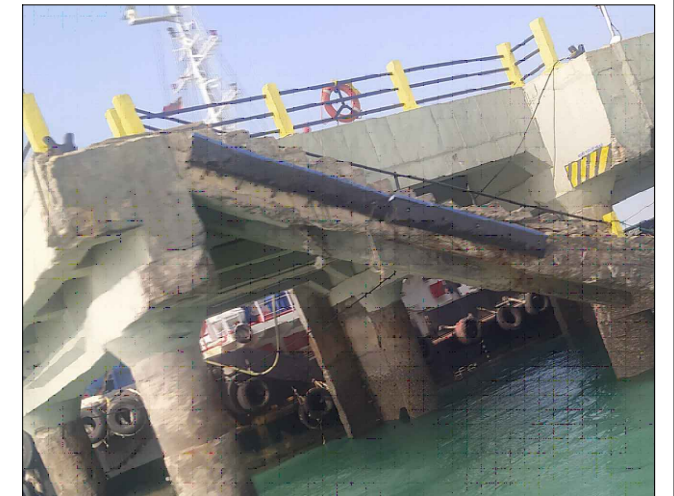
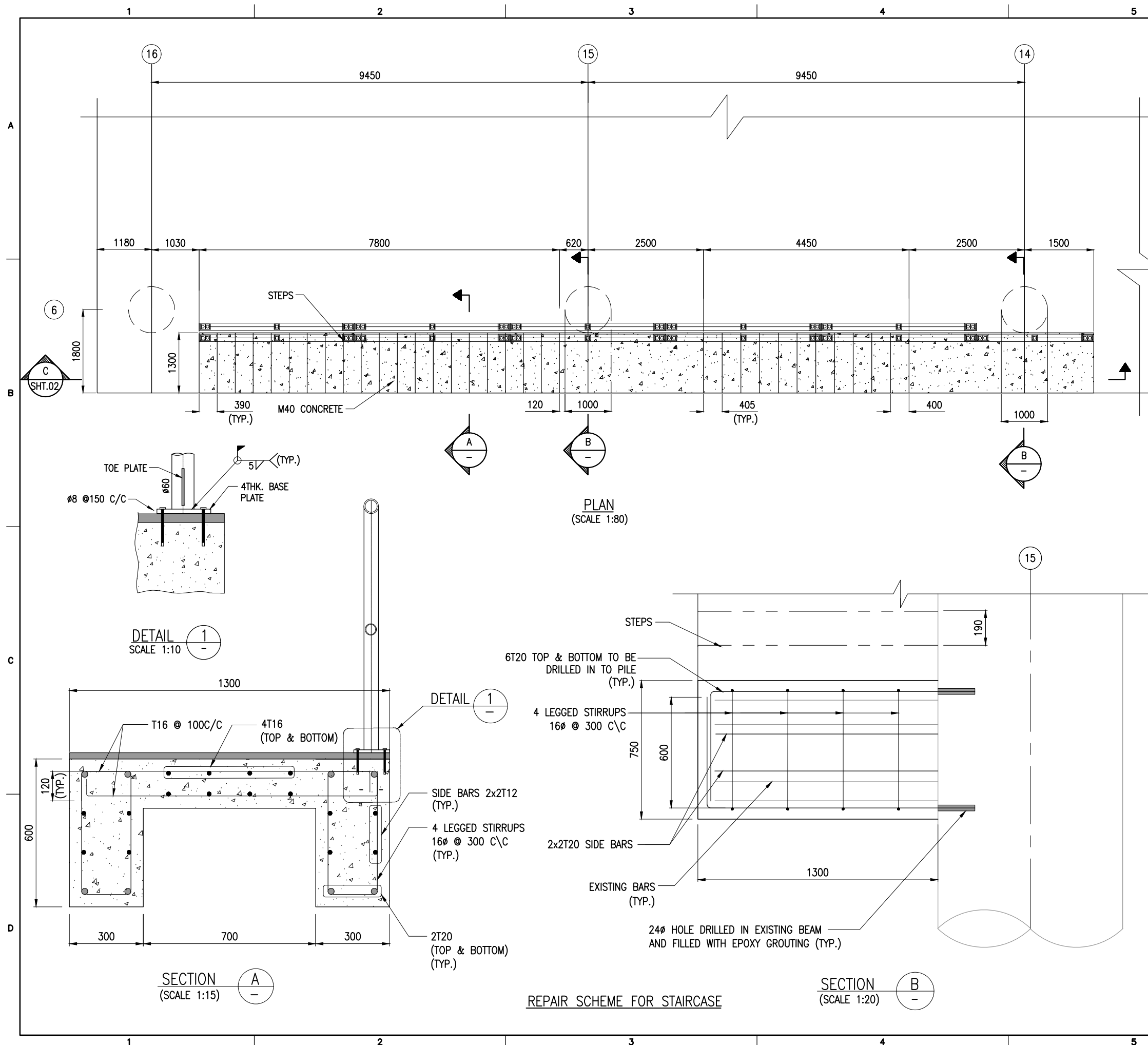
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REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE:				
TYPICAL REPAIR SCHEME FOR FENDER WALL (SHEET 1 OF 2)				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-104-01			DATE: 02.05.24	REV: A





- NOTES:**
- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 - 3. FOR GENERAL NOTES, SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE, METHOD OF CONSTRUCTION AND MATERIAL OF CONSTRUCTION, REFER TO DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.

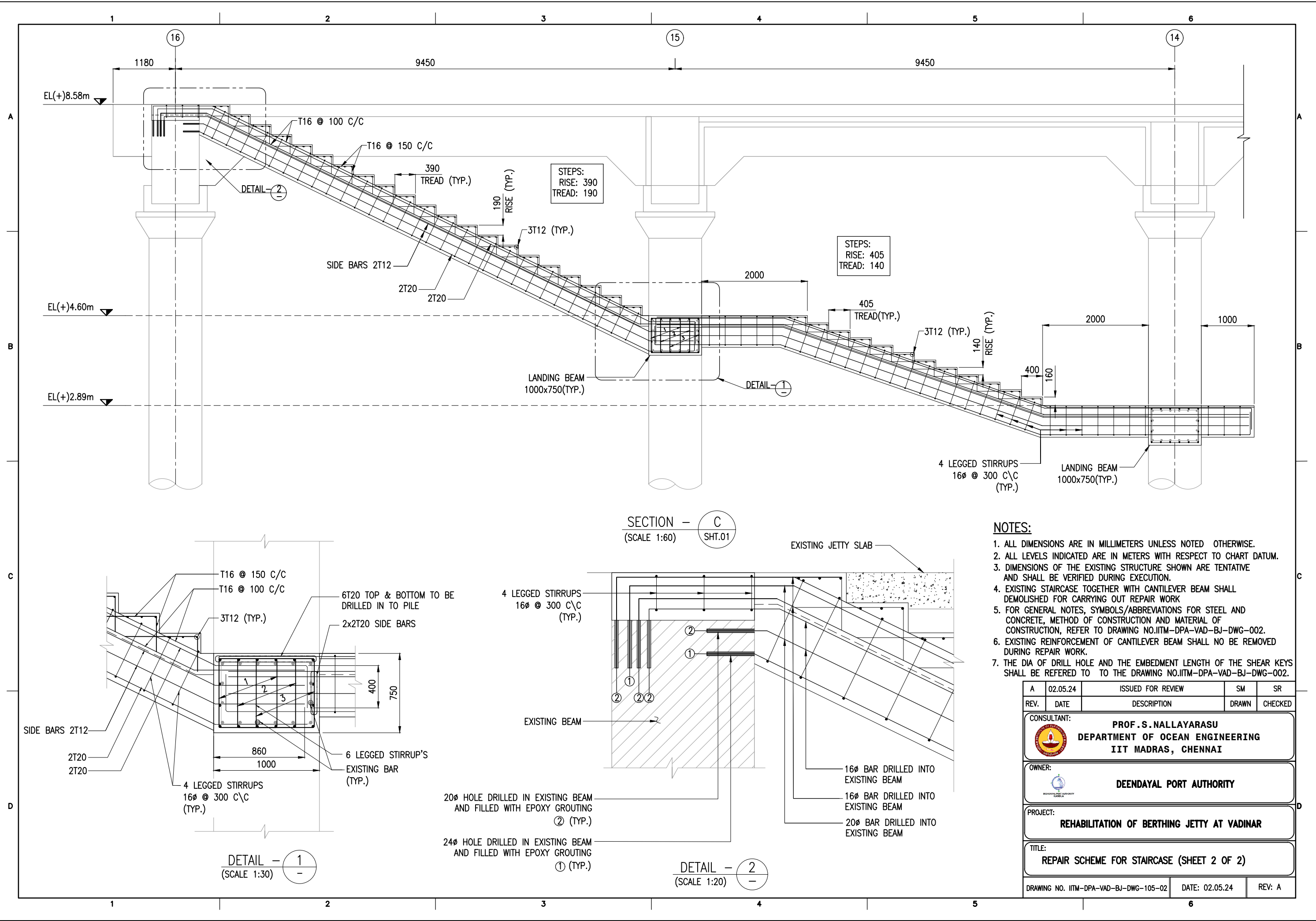
A	02.05.24	ISSUED FOR REVIEW	SM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:  PROF.S.NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:  DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: TYPICAL REPAIR SCHEME FOR FENDER WALL (SHEET 2 OF 2)				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-104-02		DATE: 02.05.24	REV: A	





NOTES:

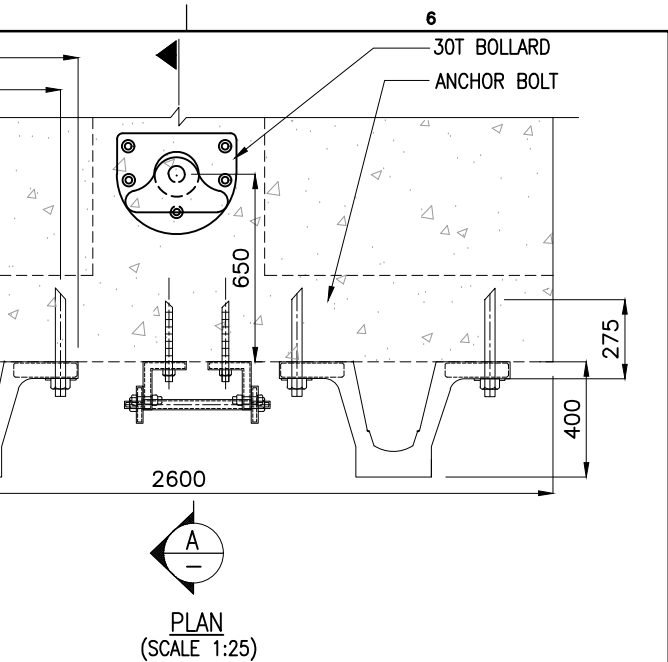
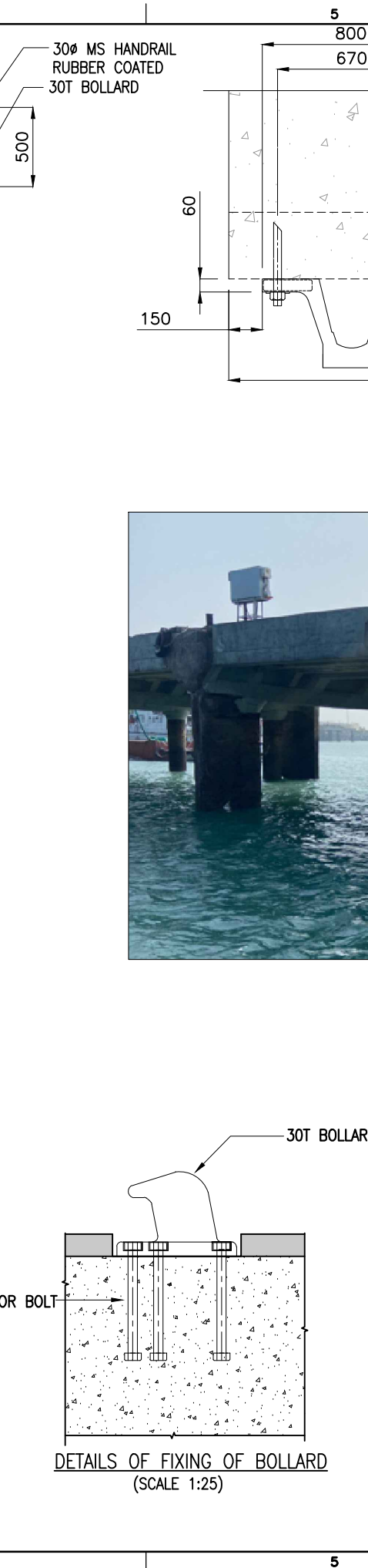
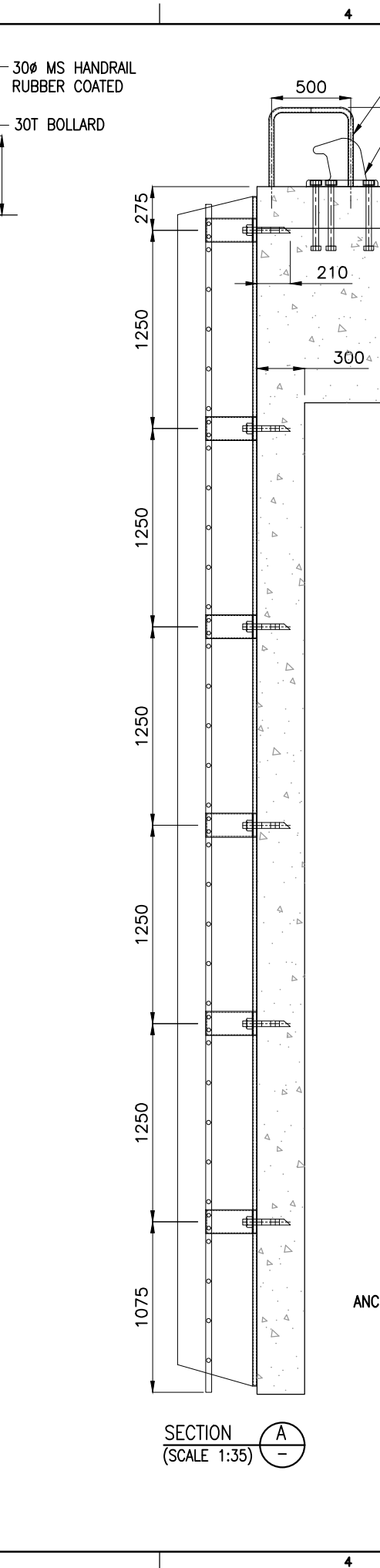
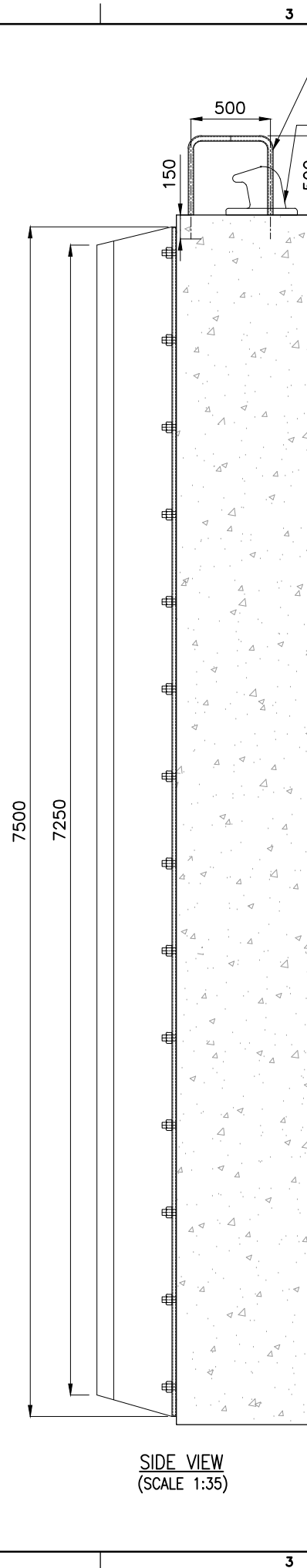
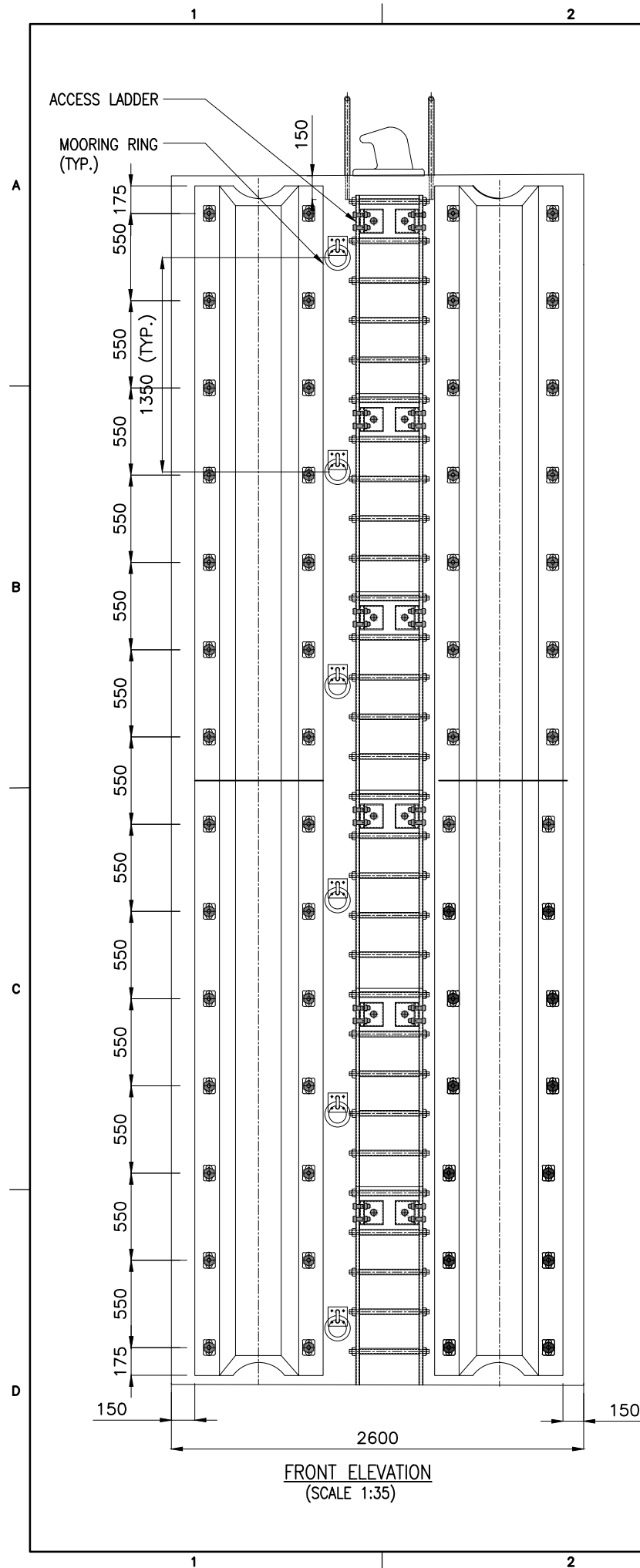
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ARE TENTATIVE AND SHALL BE VERIFIED DURING EXECUTION.
4. EXISTING STAIRCASE TOGETHER WITH CANTILEVER BEAM SHALL DEMOLISHED FOR CARRYING OUT REPAIR WORK
5. FOR GENERAL NOTES, SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE, METHOD OF CONSTRUCTION AND MATERIAL OF CONSTRUCTION, REFER TO DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.
6. EXISTING REINFORCEMENT OF CANTILEVER BEAM SHALL NO BE REMOVED DURING REPAIR WORK.
7. THE DIA OF DRILL HOLE AND THE EMBEDMENT LENGTH OF THE SHEAR KEYS SHALL BE REFERRED TO TO THE DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.

A	02.05.24	ISSUED FOR REVIEW	SM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:				
 DEENDAYAL PORT AUTHORITY				
PROJECT:				
REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE:				
REPAIR SCHEME FOR STAIRCASE (SHEET 1 OF 2)				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-105-01		DATE: 02.05.24		REV: A





- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ARE TENTATIVE AND SHALL BE VERIFIED DURING EXECUTION.
 4. EXISTING STAIRCASE TOGETHER WITH CANTILEVER BEAM SHALL DEMOLISHED FOR CARRYING OUT REPAIR WORK
 5. FOR GENERAL NOTES, SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE, METHOD OF CONSTRUCTION AND MATERIAL OF CONSTRUCTION, REFER TO DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.
 6. EXISTING REINFORCEMENT OF CANTILEVER BEAM SHALL NO BE REMOVED DURING REPAIR WORK.
 7. THE DIA OF DRILL HOLE AND THE EMBEDMENT LENGTH OF THE SHEAR KEYS SHALL BE REFERRED TO TO THE DRAWING NO.IITM-DPA-VAD-BJ-DWG-002.

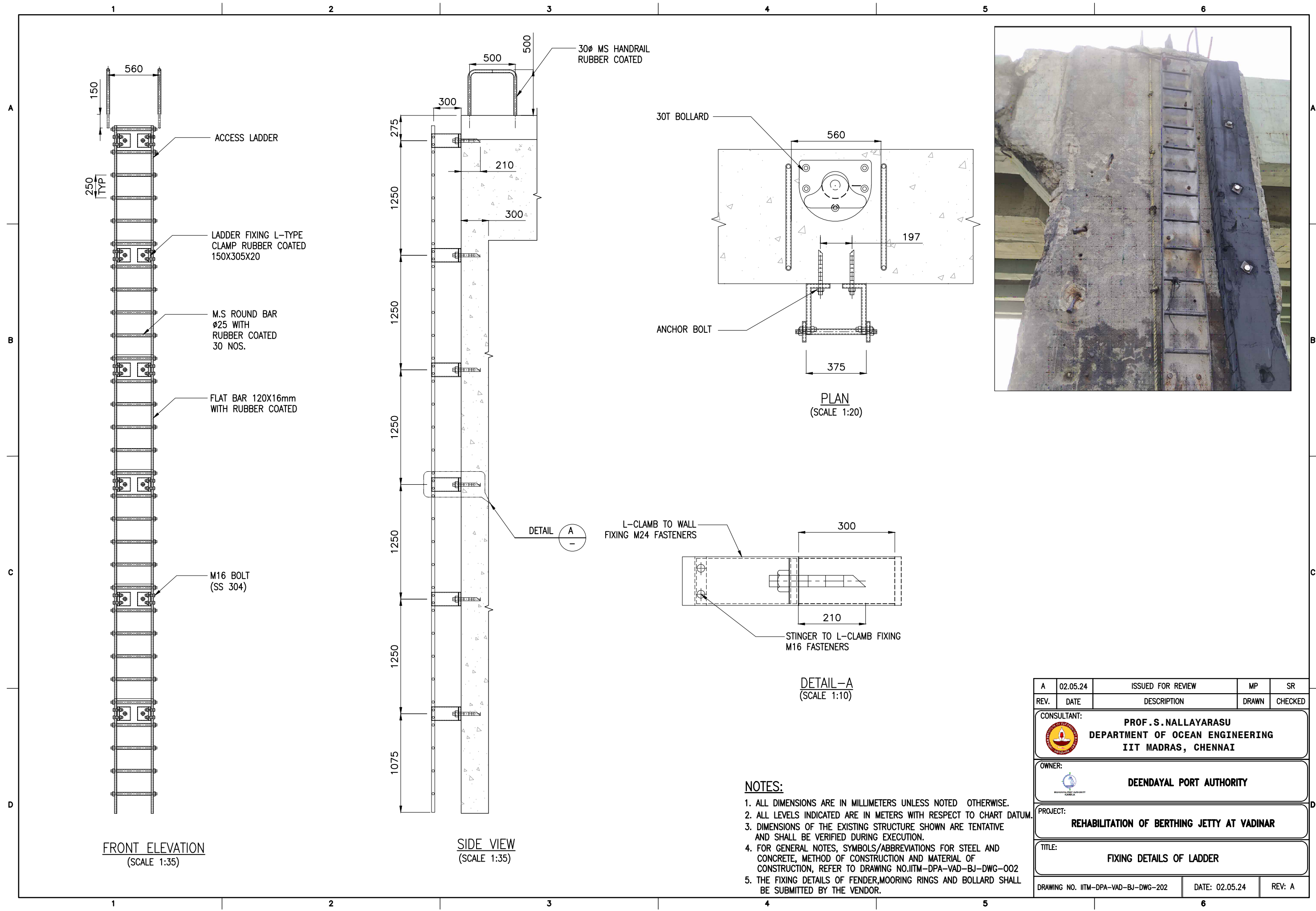
A	02.05.24	ISSUED FOR REVIEW	SM	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:				
 DEENDAYAL PORT AUTHORITY				
PROJECT:				
REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE:				
REPAIR SCHEME FOR STAIRCASE (SHEET 2 OF 2)				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-105-02		DATE: 02.05.24		REV: A



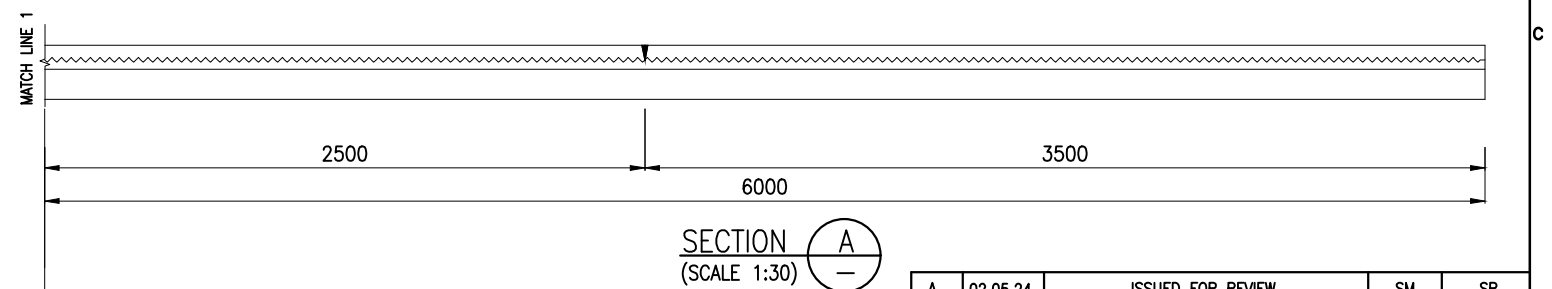
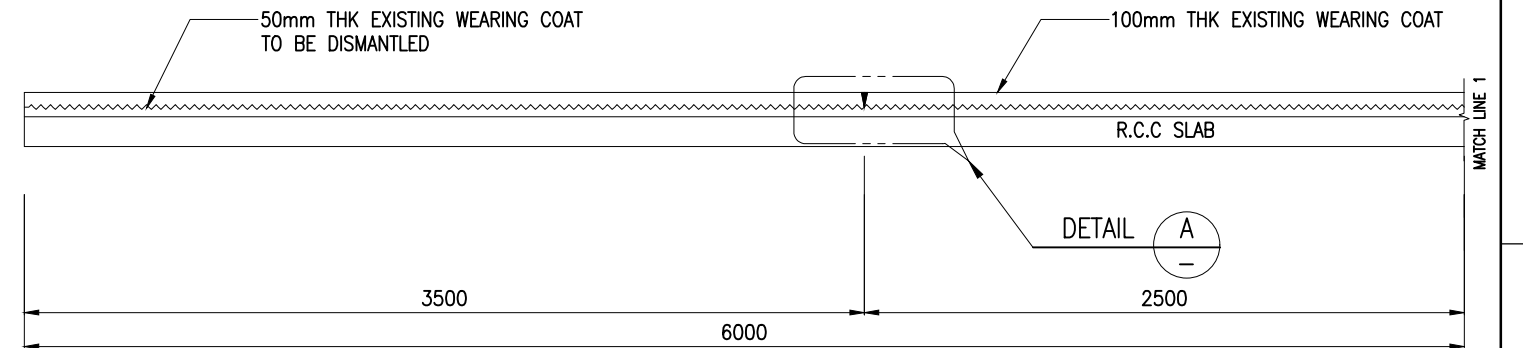
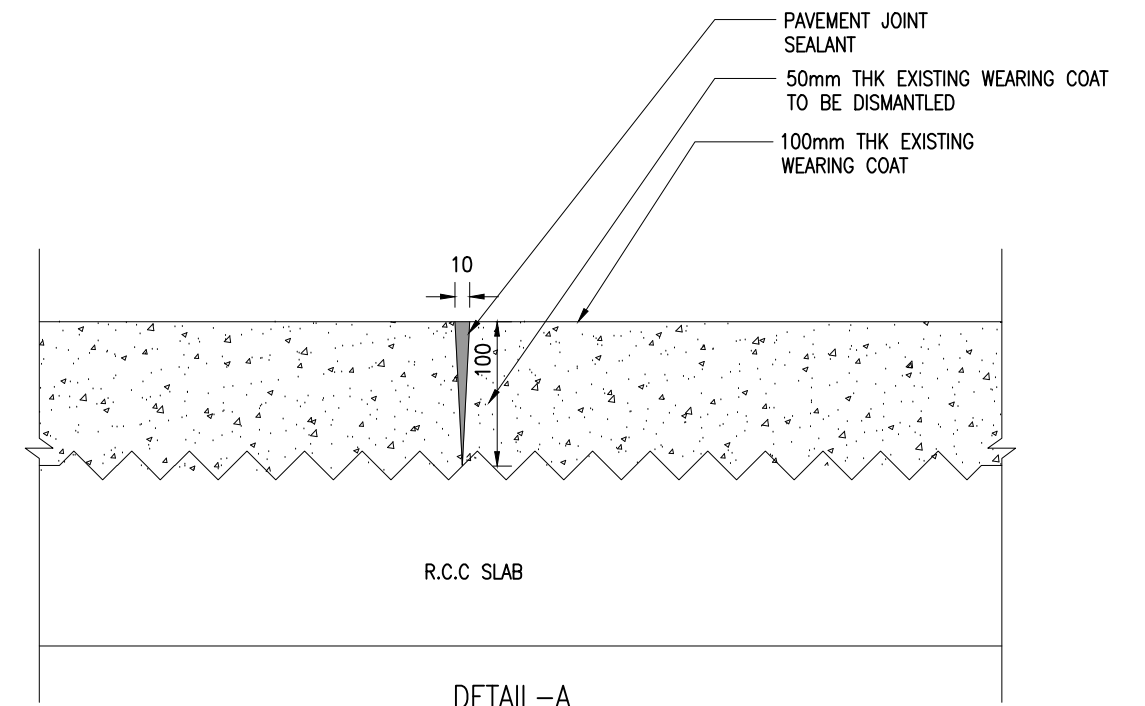
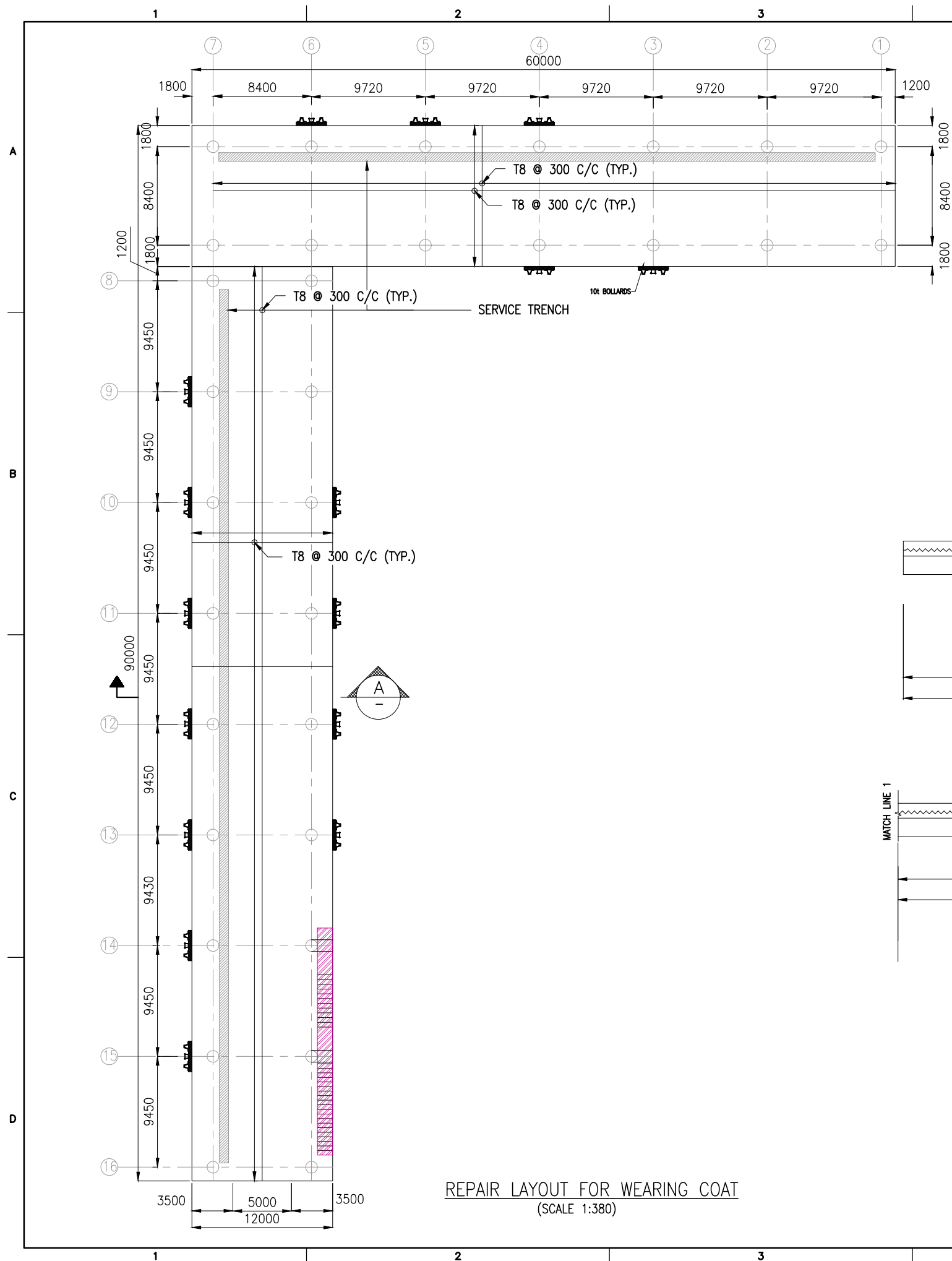
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
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4. FOR GENERAL NOTES, SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE, METHOD OF CONSTRUCTION AND MATERIAL OF CONSTRUCTION, REFER TO DRAWING NO.IITM-DPA-VAD-BJ-DWG-002
5. THE FIXING DETAILS OF FENDER,MOORING RINGS AND BOLLARD SHALL BE SUBMITTED BY THE VENDOR.

A	02.05.24	ISSUED FOR REVIEW	MP	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:				
 PROF.S.NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:				
 DEENDAYAL PORT AUTHORITY				
PROJECT:				
REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE:				
FIXING DETAILS OF FENDER AND MOORING RINGS.				
DRAWING NO.IITM-DPA-VAD-BJ-DWG-201			DATE: 02.05.24	REV: A





A	02.05.24	ISSUED FOR REVIEW	MP	SR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT: PROF.S.NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER: DEENDAYAL PORT AUTHORITY				
PROJECT: REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE: FIXING DETAILS OF LADDER				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-202			DATE: 02.05.24	REV: A



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
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3. DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ARE TENTATIVE AND SHALL BE VERIFIED DURING EXECUTION.
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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
OWNER:				
 DEENDAYAL PORT AUTHORITY				
PROJECT:				
REHABILITATION OF BERTHING JETTY AT VADINAR				
TITLE:				
LAYOUT FOR WEARING COAT				
DRAWING NO. IITM-DPA-VAD-BJ-DWG-203			DATE: 02.05.24	
			REV: A	