

QAP No. : 6101

QAP FOR GENERAL CIVIL WORKS

(Sheet 1 of 2)

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Survey works	Contractor's Procedure	EIL Spec. No. 6-65-0002	SC	LE/SQ	RE	Yes
2.	Earthwork for underground piping	- Do -	EIL Spec. No. 6-65-0006	SC	LE/SQ	RE	Yes
3.	Compound wall	- Do -	EIL Spec. No. 6-65-0010	SC	LE/SQ	RE	Yes
4.	Classification of soil for Earth Work in site grading	- Do -	EIL Spec. No. 6-65-0016	SC	LE/SQ	RE	Yes
5.	Site grading & rock cutting for site grading	- Do -	EIL Spec. No. 6-65-0017	SC	LE/SQ	RE	Yes
6.	Road & flexible pavements (upto WBM layer)	- Do -	EIL Spec. No. 6-65-0018	SC	LE/SQ	RE	Yes
7.	Road & flexible pavements (upto WMM layer)	- Do -	EIL Spec. No. 6-65-0014	SC	LE/SQ	RE	Yes
8.	Concrete Pavement	- Do -	EIL Spec. No. 6-65-0019	SC	LE/SQ	RE	Yes
9.	Flexible pavements with bitumen premix carpet	- Do -	EIL Spec. No. 6-65-0020	SC	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

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QAP FOR GENERAL CIVIL WORKS

(Sheet 2 of 2)

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
9.	Tank Pads	Contractor's Procedure	EIL Spec. No. 6-65-0022	SC	LE/SQ	RE	Yes
10.	Underground and above ground G.I. pipeline system (water services)	- Do -	EIL Spec. No. 6-65-0027	SC	LE/SQ	RE	Yes
11.	Fabrication and laying of Underground piping	- Do -	EIL Spec. No. 6-65-0030	SC/SM	LE/SQ	RE	Yes
12.	Corrosion protection tape coating for underground steel piping	- Do -	EIL Spec. No. 6-79-0011	SC/SM	LE/SQ	RE	Yes
13.	Underground C.I. piping system	- Do -	EIL Spec. No. 6-65-0036	SC	LE/SQ	RE	Yes
14.	Underground sewer system - pre cast R.C.C. pipes	- Do -	EIL Spec. No. 6-65-0042	SC	LE/SQ	RE	Yes
15.	Underground sewer system-HDPE Pipes	- Do -	EIL Spec. No. 6-65-0044	SC	LE/SQ	RE	Yes
16.	Film lining covered with concrete lining for earthen reservoir	- Do -	EIL Spec. No. 6-65-0046	SC	LE/SQ	RE	Yes
17.	Plumbing and building drainage	- Do -	EIL Spec. No. 6-65-0053	SC	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

QAP No. : 6105

QAP FOR STRUCTURAL WORKS

(Sheet 1 of 2)

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Civil & structural works – materials	Contractor's Procedure	EIL Spec. No. 6-68-0002	SC	LE/SQ	RE	Yes
2.	Earth work	- Do -	EIL Spec. No. 6-68-0003	SC	LE/SQ	RE	Yes
3.	Plain & reinforced cement concrete	- Do -	EIL Spec. No. 6-68-0004	SC	LE/SQ	RE	Yes
4.	Reinforced cement concrete in liquid retaining structures	- Do -	EIL Spec. No. 6-68-0005	SC	LE/SQ	RE	Yes
5.	Structural steel works	- Do -	EIL Spec. No. 6-68-0006	SC/SM	LE/SQ	RE	Yes
6.	Structural steel works (tubular/ hollow sections)	- Do -	EIL Spec. No. 6-68-0007	SC/SM	LE/SQ	RE	Yes
7.	Miscellaneous steel works	- Do -	EIL Spec. No. 6-68-0008	SC/SM	LE/SQ	RE	Yes
8.	Brick masonry	- Do -	EIL Spec. No. 6-68-0009	SC	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

QAP No. : 6105

QAP FOR STRUCTURAL WORKS

(Sheet 2 of 2)

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
9.	Demolition and dismantling	Contractor's Procedure	EIL Spec. No. 6-68-0012	SC	LE/SQ	RE	Yes
10.	Miscellaneous items (like Anti-termite treatment)	- Do -	EIL Spec. No. 6-68-0013	SC	LE/SQ	RE	Yes
11.	Fire proofing of steel structures	- Do -	EIL Spec. No. 6-68-0033	SC	LE/SQ	RE	Yes
12.	Shotcreting (guniting)	- Do -	EIL Spec. No. 6-68-0055	SC	LE/SQ	RE	Yes
13.	Vacuum dewatering concrete system	- Do -	EIL Spec. No. 6-68-0062	SC	LE/SQ	RE	Yes
14.	Materials for reinforced concrete piles	- Do -	EIL Spec. No. 6-74-0006	SC	LE/SQ	RE	Yes
15.	Construction and installation of driven cast-in-situ piles	- Do -	EIL Spec. No. 6-74-0010	SC	LE/SQ	RE	Yes
16.	Testing of concrete piles	- Do -	EIL Spec. No. 6-74-0013	SC	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

QAP No. : 6110

QAP FOR ARCHITECTURAL WORKS

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Floor finishing	Contractor's Procedure	EIL Spec. No. 6-75-0002	SC	LE/SQ	RE	Yes
2.	Steel/Aluminium Doors, Windows and Ventilators	- Do -	EIL Spec. No. 6-75-0004	SC	LE/SQ	RE	Yes
3.	Plastering and pointing	- Do -	EIL Spec. No. 6-75-0005	SC	LE/SQ	RE	Yes
4.	Roofing Treatment	- Do -	EIL Spec. No. 6-75-0006	SC	LE/SQ	RE	Yes
5.	Whitewashing, Colour Washing Distempering, Painting and Polishing	- Do -	EIL Spec. No. 6-75-0007	SC	LE/SQ	RE	Yes
6.	Roofing	- Do -	EIL Spec. No. 6-75-0008	SC	LE/SQ	RE	Yes
7.	Sanitary Fittings and Fixtures	- Do -	EIL Spec. No. 6-75-0009	SC	LE/SQ	RE	Yes
8.	False Ceiling, False Flooring Under deck Insulation & Partitioning	- Do -	EIL Spec. No. 6-75-0010	SC	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

QAP No. : 6115

QAP FOR MECHANICAL WORKS

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Above Ground & Underground Piping	Contractor's/ Vendor's Procedure	EIL Spec. Nos. 6-44-0005, 0012,0013, 0016	SM	LE/SQ	RE	Yes
2.	Column Internals	- Do -	EIL Spec. No. 6-14-0016	SM	LE/SQ	RE	Yes
3.	Fired Heaters	- Do -	EIL Spec. No. 6-17-0001	SM	LE/SQ	RE	Yes
4.	Refractory & Insulation Works-Fired Heaters	- Do -	EIL Spec. No. 6-17-0001, 6-79-0001	SM	LE/SQ	RE	Yes
5.	Equipment Erection (Static)	- Do -	EIL Spec. No. 6-76-0001	SM	LE/SQ	RE	Yes
6.	Equipment Erection (Rotary)	- Do -	EIL Spec. No. 6-76-0001	SM	LE/SQ	RE	Yes
7.	Crane (EOT/HOT)	- Do -	EIL Spec. No. 6-48-0002, 0003	SM	LE/SQ	RE	Yes
8.	Storage Tanks	- Do -	EIL Spec. No. 6-13-0053	SM	LE/SQ	RE	Yes

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QAP No. : 6120

QAP FOR ELECTRICAL WORKS

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Transformer (Power/Distribution/Lighting)	Contractor's/Vendor's Procedure	EIL Spec. No. 6-51-0081	SE	LE/SQ	RE	Yes
2.	Motor (HT/LT)	- Do -	EIL Spec. No. 6-51-0081	SE	LE/SQ	RE	Yes
3.	Generator	- Do -	EIL Spec. No. 6-51-0035, 0040, 6-51-0081	SE	LE/SQ	RE	Yes
4.	Switch Gears (HV/MV)/ VSD	- Do -	EIL Spec. No. 6-51-0081	SE	LE/SQ	RE	Yes
5.	EHT/HT Main Bus & Allied Equip.	- Do -	EIL Spec. No. 6-51-0081	SE	LE/SQ	RE	Yes
6.	Cable Laying	- Do -	EIL Spec. No. 6-51-0082	SE	LE/SQ	RE	Yes
7.	Lighting	- Do -	EIL Spec. No. 6-51-0083	SE	LE/SQ	RE	Yes
8.	Earthing	- Do -	EIL Spec. No. 6-51-0084	SE	LE/SQ	RE	Yes
9.	Field inspection, testing and commissioning of electrical installations	- Do -	EIL Spec. No. 6-51-0087	SE	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

QAP No. : 6125

QAP FOR INSTRUMENTATION WORKS (FIELD)

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Installation of field instruments including calibration	Contractor's Procedure	EIL Spec. No. 6-52-0060	SI	LE/SQ	RE	Yes
2.	Cable works	- Do -	EIL Spec. No. 6-52-0060	SI	LE/SQ	RE	Yes
3.	Impulse piping/tubing works	- Do -	EIL Spec. No. 6-52-0060	SI	LE/SQ	RE	Yes
4.	Panel/Console works including DCS/PLC works	- Do -	EIL Spec. Nos. 6-52-0049, 6-52-0060	SI	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

QAP No. : 6130

QAP FOR GENERAL WORKS

ACTIVITY DESCRIPTION		PROCEDURE NO.	CODE OF CONFORMANCE	PERFORMER	CHECKER	APPROVER	RECORDS TO BE SUBMITTED
1.	Painting	Contractor's/Vendor's Procedure	EIL Spec. No. 6-79-0021	SC/SM	LE/SQ	RE	Yes
2.	Insulation	- Do -	EIL Spec. Nos. 6-79-0026, 0027	SC/ SM	LE/SQ	RE	Yes
3.	Refractory Lining	- Do -	EIL Spec. No. 6-79-0001	SC/SM	LE/SQ	RE	Yes
4.	Ceramic Fibre Lining	- Do -	EIL Spec. No. 6-79-0005	SC/SM	LE/SQ	RE	Yes
5.	Incoming material Inspection	- Do -	EIL Spec. No. 6-82-1010	SC/SM/SI/SE	LE/SQ	RE	Yes
6.	Health, Safety & Environmental Management	- Do -	EIL Spec. No. 6-82-0001	SS/SC/SM/SE/SI	LE/SQ	RE	Yes

Please refer Page 4 of 13 for General Notes and Legend

बोलीकर्ता से गुणवत्ता प्रबंधन प्रणाली अपेक्षाओं हेतु विनिर्देश

SPECIFICATION FOR QUALITY MANAGEMENT SYSTEM REQUIREMENTS FROM BIDDERS

2	12.06.20	General Revision	 QMS Standards Committee	 QMS Standards Committee	SKB	SKS
1	12.03.15	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04.06.09	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
Approved by						

Abbreviations:

ISO	-	International Organization for Standardization
MR	-	Material Requisition
PO	-	Purchase Order
PR	-	Purchase Requisition
QMS	-	Quality Management System

QMS Standards Committee

Convener: Mr. S.K. Badlani

Members: Mr. Sanjay Mazumdar (Engg.)
Mr. R.K. Singh (SCM)
Mr. B. Biswas (SCM)
Mr. Ravindra Kumar (Const.)
Mr. Vinod Kumar (CQA)
Mr. Swapnil Vaishnav (Projects)

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1.0 SCOPE

This specification establishes the Quality Management System requirements to be met by BIDDER for following purpose:

- QMS requirements to be met by suppliers / contractors after award of work / during contract execution.

2.0 DEFINITIONS

2.1 Bidder

For the purpose of this specification, the word “BIDDER” means the person(s), firm, company or organization who is under the process of being contracted by EIL / Owner for delivery of some products (including service). The word is considered synonymous to supplier, contractor or vendor.

2.2 Project Quality Plan

Document tailored from Standard Quality Management System Manual of BIDDER, specifying how the quality requirements of the project will be met.

2.3 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

6-78-0002	Specification for Documentation Requirements from Contractors
6-78-0003	Specification for Documentation Requirements from Suppliers

4.0 QUALITY MANAGEMENT SYSTEM – GENERAL

Unless otherwise agreed with EIL / Owner, the BIDDER proposed quality system shall fully satisfy all relevant requirements of ISO 9001 “Quality Management Systems – Requirements.” Evidence of compliance shall be current certificate of quality system registration to ISO 9001 or a recent compliance audit recommending registration from a certification agency. The quality system shall provide the planned and systematic control of all quality related activities for execution of contract. Implementation of the system shall be in accordance with BIDDER’S Quality Manual and PROJECT specific Quality Plan.

5.0 QUALITY SYSTEM REQUIREMENTS

- 5.1** BIDDER shall prepare and submit for review / record, Project Quality Plan / Quality Assurance Plan for contracted scope / job. The BIDDER’S Quality Plan shall address all of the applicable elements of ISO 9001, identify responsible parties within BIDDER’S organization, for the implementation / control of each area, reference the applicable procedures used to control / assure each area, and verify the documents produced for each area. The Project Quality Plan shall necessarily define control or make reference to the relevant procedures, for design and engineering, purchase, documentation, record control, bid evaluation, inspection, production / manufacturing, preservation, packaging and storage, quality control at construction site, pre-commissioning, commissioning and handing over (as applicable) in line with contract requirement and scope of work.

- 5.2** BIDDER shall identify all specified or implied statutory and regulatory requirements and communicate the same to all concerned in his organization and his sub contractor's organization for compliance.
- 5.3** BIDDER shall deploy competent and trained personnel for various activities for fulfillment of PO / contract. BIDDER shall arrange adequate infrastructure and work environment to ensure that the specification and quality of the deliverable are maintained.
- 5.4** BIDDER shall do the quality planning for all activities involved in delivery of order. The quality planning shall cover as minimum the following:
- Resources
 - Product / deliverable characteristics to be controlled.
 - Process characteristics to ensure the identified product characteristics are realized
 - Identification of any measurement requirements, acceptance criteria
 - Records to be generated
 - Need for any documented procedure
- The quality planning shall result into the quality assurance plan, inspection and test plans (ITPs) and job procedures for the project activities in the scope of bidder. These documents shall be submitted to EIL / Owner for review / approval, before commencement of work.
- 5.5** Requirements for sub-ordering of outsourced items / sub-contracting / purchasing of services specified in MR / contract / tender shall be adhered to. In general all outsourced items will be from approved vendors of EIL. Wherever requirements are not specified, or approved sub vendors do not exist, the sub-contractor shall establish and maintain a system for purchasing / sub-contracting to ensure that purchased product / service conforms to specified requirements in concurrence with EIL / Owner. Criteria for selection of sub-contractor, evaluation, re-evaluation, maintenance of purchasing data and verification of purchased product (sub-contractor services), constitute important components of this requirement.
- 5.6** BIDDER shall plan and carry production and service provision under controlled conditions. Controlled conditions shall include, as applicable
- a) the availability of information that describes the characteristics of the product
 - b) the availability of work instructions
 - c) the use of suitable equipment
 - d) the availability and use of monitoring and measuring devices
 - e) the implementation of monitoring and measurement
 - f) the implementation of release, delivery and post-delivery activities
- 5.7** BIDDER shall validate any processes for production and service provision where resulting output cannot be verified by subsequent monitoring and measurement. This includes any process where deficiencies become apparent only after the product is in use or service has been delivered.
- 5.8** BIDDER shall establish a system for identification and traceability of product / deliverable throughout product realization. Product status with respect to inspection and testing requirements shall be identified.

- 5.9** BIDDER shall identify, verify, protect and safeguard EIL / Owner property (material / document) provided for use or incorporation into the product. If any Owner / EIL property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to the EIL / Owner.
- 5.10** BIDDER shall ensure the conformity of product / deliverable during internal processing and delivery to the intended destination. Requirements mentioned in the MR/ tender shall be adhered to.
- 5.11** BIDDER shall establish system to ensure that inspection and testing activities are carried out in line with requirements. Where necessary, measuring equipment shall be calibrated at specified frequency, against national or international measurement standards; where no such standard exists, the basis used for calibration shall be recorded. The measuring equipment shall be protected from damage during handling, maintenance and storage.
- 5.12** BIDDER shall ensure effective monitoring, using suitable methods, of the processes involved in production and other related processes for delivery of the scope of contract.
- 5.13** BIDDER shall monitor and measure the characteristics of the product / deliverable to verify that product requirement has been met. The inspection (stage as well as final) by BIDDER and EIL / Owner personnel shall be carried out strictly as per the approved ITPs or ITPs forming part of the contract. Product release or service delivery shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by relevant authority and where applicable by Owner / EIL.
- 5.14** BIDDER shall establish and maintain a documented procedure to ensure that the product which does not conform to requirements is identified and controlled to prevent its unintended use or delivery
- 5.15** All non-conformities (NCs) / deficiencies found by the BIDDER'S inspection / surveillance staff shall be duly recorded, including their disposal action shall be recorded and resolved suitably. Effective corrective actions shall be implemented by the BIDDER so that similar NCs including deficiencies do not recur. The BIDDER shall take appropriate actions to address the Risks and Opportunities in the project.
- 5.16** All deficiencies noticed and reported by EIL / Owner shall be analyzed by the BIDDER and appropriate corrective actions shall be implemented. BIDDER shall intimate EIL / Owner of all such corrective action implemented by him.
- 5.17** BIDDER should follow the standards, specifications and approved drawings. Concessions / Deviations shall be allowed only in case of unavoidable circumstances. In such situations Concession / deviation request must be made by the BIDDER through online system of EIL eDMS. URL of EIL eDMS is <http://edocx.eil.co.in/vportal>.
- 5.18** BIDDER shall have documented procedure for control of documents.
- 5.19** All project records shall be carefully kept, maintained and protected for any damage or loss until the project completion, then handed over to EIL / Owner as per contract requirement (Refer Specification Nos. 6-78-0002 - Specification for Documentation Requirements from Contractors and 6-78-0003 - Specification for Documentation Requirements from Suppliers), or disposed as per relevant project procedure.

6.0 AUDITS

BIDDER shall plan and carry out the QMS audit for the job. Quality audit programme shall cover design, procurement, construction management and commissioning as applicable including activities carried out by sub-vendors and sub-contractors. This shall be additional to the certification body surveillance audits carried out under BIDDER'S own ISO 9001 certification scheme.

The audit programmes and audit reports shall be available with bidder for scrutiny by EIL / Owner. EIL or Owner's representative reserves the right to attend, as a witness, any audit conducted during the execution of the WORKS.

In addition to above, EIL, Owner and third party appointed by EIL / Owner may also perform Quality and Technical compliance audits. BIDDER shall provide assistance and access to their systems and sub-contractor / vendor systems as required for this purpose. Any deficiencies noted shall be immediately rectified by BIDDER.

7.0 DOCUMENTATION REQUIREMENTS

BIDDER shall submit following QMS documents immediately after award of work (Within one week) for record / review by EIL / Owner/ TPIA, as applicable.

- Organization chart (for complete organization structure and for the project)
- Project Quality Plan / Quality Assurance Plan
- Job specific Inspection Test Plans, if not attached with PR
- Job Procedures
- Inspection / Test Formats

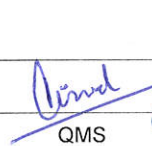
In addition to above QMS documents, following documentation shall be maintained by the BIDDER for submission to EIL / Owner on demand at any point of time during execution of the project.

- Quality Manual
- Certificate of approval for compliance to ISO: 9001 standard
- Procedure for Control of Non-conforming Product
- Procedure for Control of Documents
- Sample audit report of the QMS internal and external audits conducted during last one year
- Customer satisfaction reports from at least 2 customers,
- Project QMS audit report
- Technical audit reports for the project
- Corrective action report on the audits

Documents as specified above are minimum requirements. BIDDER shall submit any other document / data required for completion of the job as per EIL / Owner instructions.

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SPECIFICATION FOR DOCUMENTATION REQUIREMENTS FROM CONTRACTORS

2	12.06..20	General Revision	 QMS Standards Committee	 QMS Standards Committee	SKB	SKS
1	12.03.15	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04.06.09	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
Approved by						

Abbreviations:

DCI	-	Document Control Index
FOA	-	Fax of Acceptance
IC	-	Inspection Certificate
IRN	-	Inspection Release Note
ITP	-	Inspection and Test Plan
LOA	-	Letter of Acceptance
QMS	-	Quality Management System
URL	-	Universal Resource Locator
V Portal-		Vendor Portal

QMS Standards Committee

Convener: Mr. S.K. Badlani

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Attachments

Format for completeness of Final Documentation : Format No. 3-78-0004

1.0 SCOPE

This specification establishes the Documentation Requirements from Contractors

All documents / data against the Tender / Contract shall be developed and submitted to EIL / Owner by the contractor for review / records, in line with this specification.

2.0 DEFINITIONS

2.1 Contractor

For the purpose of this specification, the word “CONTRACTOR” means the person(s), firm, company or organization who has entered into a contract with EIL / Owner for delivery of some products and services. The word is considered synonymous to bidder, supplier or vendor.

2.2 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

6-78-0001 Specification for Quality Management System Requirements from Bidders

4.0 DOCUMENTATION AND DATA REQUIREMENTS

4.1 Order Acknowledgement and Assigning Project Manager

After placement of order, Contractor shall acknowledge order through V-Portal within 7 days of receipt of FOA / PO. Contractor shall assign a Project Manager for that order through online portal and provide requisite details. Project Manager details shall include e-mail address, mailing address, mobile / telephone nos., fax nos. and name of Project Manager. All the system generated emails pertaining to that order shall be sent to the assigned Project Manager.

4.2 Documents / Data to be submitted by the Contractor

4.2.1 The contractor shall submit the documents and data against the Tender / Contract as per the list specified in respective Tender / Contract.

4.2.2 Review of the contractor drawings / Documents by EIL would be only to review the compatibility with basic designs and concepts and in no way absolve the contractor of his responsibility / contractual obligation to comply with Tender / Contract requirements, applicable codes, specifications and statutory rules / regulations. Any error / deficiency noticed during any stage of manufacturing / execution / inspection / installation shall be promptly corrected by the contractor without any extra cost or time, whether or not comments on the same were received from EIL during the drawing review / inspection stage.

4.2.3 Unless otherwise specified, submission of documents for Review / Records shall commence as follows from the date of Fax of Intent / Letter of Intent/ Fax of Acceptance (FOA) / Letter of Acceptance (LOA):

QMS	- 1 week
Document Control Index	- 2 weeks
Other Documents/Drawings	- As per approved Document Control Index

- 4.2.4 Documents as specified in Tender / Contract are minimum requirements. Contractor shall submit any other document / data required for completion of the job as per EIL / Owner instructions.

4.3 Style and Formatting

- 4.3.1 All Documents shall be in ENGLISH language and in M.K.S System of units.

- 4.3.2 Before submitting the drawings and documents, contractor shall ensure that the following information are properly entered in each drawing:

Tender Number
Name of Equipment / Package
Equipment / Package Tag No.
Name of Project
Owner
Main Contractor (if work is sub-contracted)
Drawing / Document Title
Drawing / Document No.
Drawing / Document Revision No. and Date

4.4 Review and Approval of Documents by Contractor

- 4.4.1 The Drawing / Documents shall be reviewed, checked, approved and duly signed / stamped by contractor before submission. Revision number shall be changed during submission of the revised contractor documents and all revisions shall be highlighted by clouds. Whenever the contractor require any sub- contractor drawings to be reviewed by EIL, the same shall be submitted by the contractor duly reviewed, approved and stamped by the contractor. Direct submission of sub- contractor's drawings without contractor's approval shall not be entertained.

4.5 Document Category

4.5.1 Review Category

Following review codes shall be used for review of contractor Drawings / Documents:

Review Code 1	-	No comments. Proceed with Manufacture / Fabrication / Construction as per the document.
Review Code 2	-	Proceed with Manufacture / Fabrication / Construction as per commented document. Revised document required.
Review Code 3	-	Document does not conform to basic requirements as marked. Resubmit for review.
R	-	Document is retained for Records. Proceed with Manufacturing / fabrication as per Tender/ Contract Requirement.
V	-	Void

4.6 Methodology for Submission of Documents to EIL / Owner

4.6.1 Document Control Index (DCI)

Contractor shall create and submit Document Control Index (DCI) for review based on PO / PR / MR along with schedule date of submission of each drawing / document on EIL Vendor Portal. The DCI shall be specific with regard to drawing / document no. and the exact title. Proper sequencing of the drawings / documents should be ensured in schedule date of submission.

4.6.2 Submission of Drawings / Documents / Data

Drawings / documents, data and DCI shall be uploaded on the EIL Vendor Portal. The detail guidelines for uploading documents on EIL Vendor Portal are available on following URL

<http://edocx.eil.co.in/vportal>

4.6.3 Statutory Approvals

Wherever approval by any statutory body is required to be taken by Contractor, the Contractor shall submit copy of approval by the authority to EIL.

4.6.4 Schedule and Progress Reporting

Contractor shall submit monthly progress report (MPR) and updated procurement, engineering and manufacturing status (schedule vs. actual) and highlight constraints, if any, along with action plan for mitigation, to the EIL / Owner by 1st week of every month. One month Look-ahead schedule including the mobilization plan shall be submitted within 2 weeks from FOA / LOA. In case of exigencies, EIL / Owner can ask for report submission as required on weekly / fortnightly / adhoc basis depending upon supply status and contractor shall furnish such reports promptly without any price implication. Format for progress report shall be submitted by the contractor during kick off meeting or within one week of receiving FOA / LOA, whichever is earlier.

4.6.5 Quality Assurance Plan / Inspection and Test Plan

Inspection and test plans attached if any, to the tender are generic and indicative only. Immediately after receipt of the order, contractor shall submit within one week of receiving FOA / LOA, job specific ITPs based on the indicative ITPs. Further, contractor shall also submit Quality Assurance Plan for project activities in the scope of contract, starting from manufacturing to handing over / commissioning, these plans shall cover / identify the activities, relevant procedure, if any, code of conformance, resources for performance and checking / monitoring, approval requirements and authority, records to be generated and audit scope by EIL/Owner.

For EPCC / LSTK / Package contracts, the contractor shall prepare a list of items / equipment and their inspection categorization plans for all items included in the scope of supply immediately after receipt of order and obtain approval for the same from EIL. The items shall be categorized into different categories depending upon their criticality for the scope of inspection of TPIA and / or EIL.

4.6.6 Inspection Release Note (IRN)/ Inspection Certificate (IC)

Contractor shall ensure that all documents viz. documents reviewed, manufacture's test certificate etc., mentioned in Inspection Release Note (IRN), issued by EIL / third party against the materials supplied by contractor, are sent to EIL along with the IRN.

IRN / IC shall be issued by EIL Inspector / third party inspection agency only after all the drawings/documents as per DCI are submitted and are accepted under review code-1 & code R. Material / Equipment dispatch from contractor's / sub vendor's works shall not commence till above condition is met.

Note 1: Non fulfilling above requirement shall result into appropriate penalty or with- holding of payment as per conditions of Tender / Contract.

Note 2: For items where IRN/IC is issued by TPIA, supplier to ensure that following as a minimum must be mentioned by TPIA in IRN/IC

- a) Tender document number
- b) List of drawings / documents with EIL approval code
- c) Tests witnessed, documents reviewed
- d) Compliance statement by TPIA that product meets the requirement as specified in EIL standard specifications, Inspection Test Plan / QAP and approved documents.

4.6.7 Pre Commissioning & Commissioning Activities Management System (PCAMS)

Pre Commissioning & Commissioning activities management system software shall be followed for Mechanical completion, check listing of loops, punch points, hydro test and issue of Formats during the Pre Commissioning and Commissioning activities and the same can be accessed on following URL

<https://pcams.eil.co.in/>

4.7 Final Documentation

4.7.1 As built Drawings

Minor Shop / Site changes made by contractor after approval of drawings under 'Code 1' by EIL and deviations granted through online system , if any, shall be marked in hard copies of drawings which shall then be stamped 'As-built' by the contractor. These 'As-built' drawings shall be reviewed and stamped by EIL Inspector / Site engineer / TPIA also, as the case may be. Format for completeness of final documents (Format No. 3-78-0004) is attached with this specification. Contractor shall prepare scanned images files of all marked – up 'As – built' drawings. Simultaneously contractor shall incorporate the shop / site changes in the native soft files of the drawings also.

4.7.2 As built Final Documents

As built final documents shall be submitted as listed in Tender / Contract

4.7.3 Packing / Presentation of Final Documents

Final Documents shall be legible photocopies in A4, A3 size only. Drawings will be inserted in plastic pockets (both sides transparent, sheet thickness minimum 0.1 mm) with an extra strip of 12 mm wide for punching so that drawings are well placed.

Final Documentation shall be bound in hard board plastic folder(s) of size 265 mm x 315 mm ($10\frac{1}{2}$ inch x $12\frac{1}{2}$ inch) and shall not be more than 75 mm thick. It may be of several volumes and each volume shall have a volume number, index of volumes and index of contents of that particular volume. Where numbers of volumes are more, 90mm thickness can be used. Each volume shall have top PVC sheet of minimum 0.15 mm thick duly fixed and pressed on folder cover and will have 2 lever clips. In case of imported items documents, 4 lever clip shall also be accepted. All four corners of folders shall be properly metal clamped. Indexing of contents with page numbering must be incorporated by contractor. Spiral / Spico bound documents shall not be acceptable. As mentioned above, books should be in hard board plastic folders with sheets punched and having 2/4 lever clips arrangement.

Each volume shall contain on cover a title block indicating Tender No., name of project, name of customer, package equipment tag no. & name (if applicable). Each volume will have hard front cover and a reinforced spine to fit thickness of book. These spines will also have the title printed on them. Title shall include also volume number (say 11 of 15) etc.

4.7.4 Submission of Soft copies

Contractor shall submit to EIL, the scanned images files as well as the native files of drawings / documents, along with proper index.

In addition to hard copies, contractor shall submit soft copies of all the final drawings and documents in pen drive or any other specified medium with proper identification tag, all text documents prepared on computer, scanned images of all important documents (not available as soft files), all relevant catalogues, manuals available as soft files (editable copies of drawings / text documents, while for catalogues / manuals / proprietary information and data PDF files can be furnished).

All the above documents shall also be uploaded on the EIL Vendor Portal and if applicable on Client Server also.

4.7.5 Completeness of Final Documentation

Contractor shall get the completeness of final documentation verified by EIL / TPIA and attach the Format for Completeness of Final Documentation (Format No. 3-78-0004) duly signed by EIL or TPIA as applicable to the final document folder.

COMPLETENESS OF FINAL DOCUMENTATION

Name of Supplier/Contractor :
 Customer :
 Project :
 EIL's Job No. :
 Purchase Order No./
 Contract No. :
 Purchase Requisition No./
 Tender No. : Rev. No. :
 Name of the Work/ Equipment :
 Tag. No. :
 Supplier's / Contractor's Works :
 Order No.

Certified that the Engineering Documents / Manufacturing & Test Certificates submitted by the supplier (as per Index sheet mentioned in Annexure-1) are complete in accordance with the Vendor Data Requirements of Purchase Requisition / Tender.

Signature	:	.....	Signature	:	.....
Date	:	.....	Date	:	.....
Name	:	.....	Name	:	.....
Designation	:	.....	Designation	:	.....
Department	:	.....	Department	:	.....

Supplier / Contractor

EIL / TPIA

Final Documentation Index Sheet

Signature :

Date :

Name :

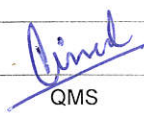
Designation :

Department :

EIL / TPIA

आपूर्तिकर्ताओं से प्रलेखन अपेक्षाओं हेतु विनिर्देश

SPECIFICATION FOR DOCUMENTATION REQUIREMENTS FROM SUPPLIERS

2	12.06.20	General Revision	 QMS Standards Committee	 QMS Standards Committee	SKB	SKS
1	12.03.15	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04.06.09	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
Approved by						

Abbreviations:

DCI	-	Document Control Index
eDMS	-	Electronic Document Management System
FOA	-	Fax of Acceptance
IC	-	Inspection Certificate
IRN	-	Inspection Release Note
ITP	-	Inspection and Test Plan
LOA	-	Letter of Acceptance
MR	-	Material Requisition
PO	-	Purchase Order
PR	-	Purchase Requisition
PVC	-	Polyvinyl Chloride
QAP	-	Quality Assurance Plan
QMS	-	Quality Management System
RPO	-	Regional Procurement Office
TPIA	-	Third Party Inspection Agency
URL	-	Universal Resource Locator
V-Portal-		Vendor Portal

QMS Standards Committee

Convener: Mr. S.K. Badlani

Members: Mr. Sanjay Mazumdar (Engg.)
Mr. R.K. Singh (SCM)
Mr. B. Biswas (SCM)
Mr. Ravindra Kumar (Const.)
Mr. Vinod Kumar (CQA)
Mr. Swapnil Vaishnav (Projects)

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Clause	Title	Page No.
1.0	SCOPE	4
2.0	DEFINITIONS	4
3.0	REFERENCE DOCUMENTS	4
4.0	DOCUMENTATION REQUIREMENTS	4

Attachments

Format for completeness of Final Documentation : Format No. 3-78-0004

1.0 SCOPE

This specification establishes the Documentation Requirements from Suppliers.

All documents / data against the PO / PR / MR shall be developed and submitted to EIL / Owner by the suppliers for review / records, in line with this specification.

2.0 DEFINITIONS

2.1 Supplier

For the purpose of this specification, the word “SUPPLIER” means the person(s), firm, company or organization who has entered into a contract with EIL / Owner for delivery of some products (including service). The word is considered synonymous to bidder, contractor or vendor.

2.2 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

6-78-0001	Specification for Quality Management System Requirements from Bidders
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4.0 DOCUMENTATION REQUIREMENTS

4.1 Order Acknowledgement and Assigning Project Manager

After placement of order, Supplier shall acknowledge order through V-Portal within 7 days of receipt of FOA / PO. Supplier shall assign a Project Manager for that order through online portal and provide requisite details. Project Manager details shall include e-mail address, mailing address, mobile/telephone nos., fax nos. and name of Project Manager. All the system generated emails pertaining to that order shall be sent to the assigned Project Manager.

4.2 Documents / Data to be submitted by the Supplier

4.2.1 The Supplier shall submit the documents and data against the PO / PR / MR as per the list given in respective PO / PR / MR.

4.2.2 Review of the supplier drawings / documents by EIL would be only to review the compatibility with basic designs and concepts and in no way absolve the supplier of his responsibility / contractual obligation to comply with PR requirements, applicable codes, specifications and statutory rules / regulations. Any error / deficiency noticed during any stage of manufacturing / execution / inspection/ installation shall be promptly corrected by the supplier without any time and cost implications, irrespective of comments on the same were received from EIL during the drawing review stage or not.

- 4.2.3 Unless otherwise specified, submission of documents for Review / Records shall commence as follows from the date of Fax of Intent / Letter of Intent / Fax of Acceptance (FOA) / Letter of Acceptance (LOA):

QMS	- 1 week
Document Control Index	- 2 weeks
Other Documents / Drawings	- As per approved Document Control Index

- 4.2.4 Documents as specified in PO / PR / MR are minimum requirements. Supplier shall submit any other document / data required for completion of the job as per EIL / Owner instructions.

4.3 Style and Formatting

- 4.3.1 All Documents shall be in ENGLISH language and in M.K.S System of units.

- 4.3.2 Before forwarding the drawings and documents, contractor shall ensure that the following information are properly mentioned in each drawing:

Purchase Requisition Number
Name of Equipment / Package
Equipment / Package Tag No.
Name of Project
Client
Drawing / Document Title
Drawing / Document No.
Drawing / Document Revision No. and Date

4.4 Review and Approval of Documents by Supplier

- 4.4.1 The Drawing / Documents shall be reviewed, checked, approved and duly signed / stamped by supplier before submission. Revision number shall be changed during submission of the revised supplier documents and all revisions shall be highlighted by clouds. Whenever the supplier require any sub-supplier drawings to be reviewed by EIL, the same shall be submitted by the supplier duly reviewed, approved and stamped by the supplier. Direct submission of sub-supplier's drawings without contractor's / suppliers' approval shall not be entertained.

4.5 Document Category

4.5.1 Review Category

Following review codes shall be used for review of supplier Drawings / Documents:

Review Code 1	-	No comments. Proceed with Manufacture / Fabrication as per the document.
Review Code 2	-	Proceed with Manufacture / Fabrication as per commented document. Revised document required.
Review Code 3	-	Document does not conform to basic requirements as marked. Resubmit for review.
R	-	Document is retained for Records. Proceed with Manufacturing / Fabrication as per PR / Tender requirements.
V	-	Void

4.6 Methodology for Submission of Documents to EIL/Owner

4.6.1 Document Control Index (DCI)

Supplier shall create and submit Document Control Index (DCI) for review based on PO / PR / MR along with schedule date of submission of each drawing / document on EIL Vendor Portal. The DCI shall be specific with regard to drawing / document no. and the exact title. Proper sequencing of the drawings / documents should be ensured in schedule date of submission.

4.6.2 Submission of Drawings / Documents / Data

Drawings / documents, data and DCI shall be uploaded on the EIL Vendor Portal as per approved DCI. The detailed guidelines for uploading documents on EIL Vendor Portal are available on following URL

<http://edocx.eil.co.in/vportal>

4.6.3 Statutory Approvals

Wherever approval by any statutory body is required to be taken by Supplier, the Supplier shall submit copy of approval by the authority to EIL.

4.6.4 Manufacturing Schedule

Supplier shall prepare manufacturing schedule for the order, with key milestone activities (such as document submission, sub ordering, manufacturing, Inspection, dispatches, etc) to meet delivery as per FOA / PO terms. Supplier shall submit manufacturing schedule to concerned Regional Procurement Office (RPO) of EIL / Owner for review within 2 weeks from date of FOA / PO.

4.6.5 Schedule and Progress Reporting

Supplier shall submit monthly progress (MPR) report and updated procurement, engineering, manufacturing status, Inspection and dispatch status (schedule vs. actual) and highlight constraints, if any, along with action plan for mitigation, to the concerned Regional Procurement Office (RPO) of EIL / Owner by 1st week of every month., First MPR shall be submitted within 2 weeks from FOA / LOA. In case of exigencies, EIL / Owner can ask for report submission as required on weekly / fortnightly / adhoc basis depending upon supply status and supplier shall furnish such reports promptly without any price implication. Format for progress report shall be submitted by the Supplier during kick off meeting or within 2 weeks of receiving FOA / LOA, whichever is earlier.

4.7 Inspection and Testing

4.7.1 Quality Assurance Plan / Inspection and Test Plan

If Inspection and test plans (ITP) are attached with MR / PR same shall be followed along with additional tests requirement (if any) mentioned in MR/ PR. However for cases wherein EIL Standard ITPs not available / have not been attached with MR / PR, Supplier shall submit within one week of receiving FOA / LOA, the Quality Assurance Plan for inspection & testing at various stages of production, quality control records for critical bought out items / materials and site assembly & testing as may be applicable to the specific order and obtain approval from concerned Regional procurement Office of EIL / third party inspection agency, as applicable.

For Package equipment contracts, the supplier shall prepare a list of items / equipment and their inspection categorization plan for all items included in the scope of supply immediately after receipt of order and obtains approval for the same from EIL. The items shall be categorized into different categories depending upon their criticality for the scope of inspection of TPIA and / or EIL.

4.7.2 Inspection Requisition:

Supplier shall perform internal inspection as per ITP/ approved QAP at their works based on approved documents / drawings. Upon satisfactory internal inspection, supplier shall raise inspection call to concerned Regional Procurement Office (RPO) of EIL / TPIA / Owner with advance notice as per contract along with Internal test reports.

All changes w.r.t. PR shall be recorded through agreed variations or Concessions & Deviations. Conflict, if any, between PR / Job specifications and approved drawings, shall be brought to the notice of EIL / owner by the supplier / contractor. Decision of EIL / owner will be binding on the supplier and to be complied without time and cost implications.

Identified bought out items/ raw material shall be procured under TPIA as per ITP.

4.7.3 Inspection Release Note (IRN)/ Inspection Certificate (IC)

IRN / IC shall be issued by EIL Inspector / third party inspection agency on successful inspection, review of test reports / certificates as per specifications & ITP / agreed quality plan (as applicable) and only after all the drawings / documents as per DCI are submitted and are accepted under review code-1 or code R. Supplier shall ensure that necessary documents / manufacturing and test certificates are made available to EIL / TPIA as and when desired.

Note 1: Non fulfilling above requirement shall result into appropriate penalty or with- holding of payment as per conditions of PO / PR / MR.

Note 2: For items where IRN/IC is issued by TPIA, supplier to ensure that following as a minimum must be mentioned by TPIA in IRN / IC

- a) PR document number
- b) List of drawings / documents with EIL approval code
- c) Tests witnessed, documents reviewed
- d) Compliance statement by TPIA that product meets the requirement as specified in EIL PR, standard specifications, Inspection Test Plan / QAP and approved documents.

4.8 Transportation Plan

Transportation Plan for Over Dimensional Consignments (ODC), if any, shall be submitted within 2 weeks of receiving FOA / LOA, for approval. Consignment with parameters greater than following shall be considered as over dimensional.

Dimensions: 4 meters width x 4 meters height x 20 meters length

Weight : 32 MT

Dimensions and weight provided above are inclusive of all nozzles, attachments, transportation saddles etc.

Physical Rout survey for ODC movement shall be submitted to EIL within 8 weeks of receiving FOA / LOA.

4.9 Dispatch Details

Upon receipt of IRN / IC from EIL inspector / TPIA, supplier shall dispatch items within 2 days. Supplier shall submit dispatch details to concerned RPO of EIL / Owner within a day of dispatch. Dispatch details shall include Lorry Receipt (LR) number / Dispatch Number, Transporter Name, Date of dispatch, Packing list, Invoice copy etc.

4.10 Final Documentation

4.10.1 Supplier shall prepare final documents in line with VDR (Vendor Document Requirements) attached with PR/Tender. A copy of final document along with filled in Format for Completeness of Final Documentation (Format No. 3-78-0004) to be submitted to EIL Inspector / TPIA for review & approval within 2 weeks from dispatch. Upon receipt of EIL/TPIA endorsement on Completeness of Final Documents, supplier shall submit soft / hard copies of Final documents to EIL / Owner in requisite quantity as per PO / PR details, along with covering letter. A copy of covering letter to be submitted to the concerned Regional Procurement Office (RPO) of EIL/Owner.

4.10.2 As Built Drawings

Minor Shop changes made by Supplier after approval of drawings under 'Code 1' by EIL and deviations granted through online system ,if any, shall be marked in hard copies of drawings which shall then be stamped 'As-built' by the supplier. These 'As-built' drawings shall be reviewed and stamped by EIL Inspector / TPIA. Supplier shall prepare scanned images files of all marked – up 'As – built' drawings. Simultaneously Supplier shall incorporate the shop changes in the native soft files of the drawings also.

4.10.3 Packing / Presentation of Final Documents

Final Documents shall be legible photocopies in A4, A3 size only. Drawings will be inserted in plastic pockets (both sides transparent, sheet thickness minimum 0.1 mm) with an extra strip of 12 mm wide for punching so that drawings are well placed.

Final Documentation shall be bound in Hard board Plastic folder(s) of size 265 mm x 315 mm (10¹/₂ inch x 12¹/₂ inch) and shall not be more than 75 mm thick. It may be of several volumes and each volume shall have a volume number, index of volumes and index of contents of that particular volume. Where number of volumes are more, 90mm thickness can be used. Each volume shall have top PVC sheet of minimum 0.15 mm thick duly fixed and pressed on folder cover and will have 2 lever clip. In case of imported items documents, 4 lever clip shall also be accepted. All four corners of folders shall be properly metal clamped. Indexing of contents with page numbering must be incorporated by supplier. Spiral/Spico bound documents shall not be acceptable. As mentioned above, books should be in hard board plastic folders with sheets punched and having 2/4 lever clips arrangement.

Each volume shall contain on cover a Title Block indicating package Equipment Tag No. & Name, PO / Purchase Requisition No., Name of Project and Name of Customer. Each volume will have hard front cover and a reinforced spine to fit thickness of book. These spines will also have the title printed on them. Title shall include also volume number (say 11 of 15) etc.

4.10.4 Submission of Soft Copies

Supplier shall submit to EIL, the scanned images files as well as the native files of drawings / documents, along with proper index.

In addition to hard copies, Supplier shall submit soft copies of all the final drawings and documents in pen drive or any other specified medium with proper identification tag, all text documents prepared on computer, scanned images of all important documents (not available

as soft files), all relevant catalogues, manuals available as soft files (editable copies of drawings/text documents, while for catalogues / manuals / proprietary information and data, PDF files can be furnished).

All the above documents shall also be uploaded on the EIL Vendor Portal and if applicable on Client Server also.

4.10.5 Completeness of Final Documentation

Supplier shall get the completeness of final documentation verified by EIL / TPIA, as applicable, and attach the Format for Completeness of Final Documentation (Format No. 3-78-0004) duly signed by EIL Inspector or TPIA as applicable to the final document folder.

COMPLETENESS OF FINAL DOCUMENTATION

Name of Supplier/Contractor :
 Customer :
 Project :
 EIL's Job No. :
 Purchase Order No./ :
 Contract No. :
 Purchase Requisition No./ :
 Tender No. : Rev. No. :
 Name of the Work/ Equipment :
 Tag. No. :
 Supplier's / Contractor's Works :
 Order No. :

Certified that the Engineering Documents / Manufacturing & Test Certificates submitted by the supplier (as per Index sheet mentioned in Annexure-1) are complete in accordance with the Vendor Data Requirements of Purchase Requisition / Tender.

Signature	:	.....	Signature	:	.....
Date	:	.....	Date	:	.....
Name	:	.....	Name	:	.....
Designation	:	.....	Designation	:	.....
Department	:	.....	Department	:	.....

Supplier / Contractor

EIL / TPIA

Final Documentation Index Sheet

Signature :

Date :

Name :

Designation :

Department :

EIL / TPIA

अग्निरोधक नियंत्रण स्टेशनों के लिए निरीक्षण एवं परीक्षण योजना

INSPECTION AND TEST PLAN FOR FLAMEPROOF CONTROL STATIONS

5.	28.08.2024	Revised and Reissued	RP	GS	RK	MN
4.	14.01.2020	Revised and Reissued	MM	RS	RKS	RKT
3.	21.11.2013	Revised and Reissued	MJ	RS	SCG	SC
2	29.06.2012	Revised and Reissued	AB	HVJ	AKC	DM
1	28.09.2007	Revised and Re-issued	AKG	PPM	MVKK	VC
0	30.04.2002	Issued for implementation	RG	AKC	AKB	GRR
Rev. No.	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
Approved by						

Abbreviations

BIS	:	Bureau of Indian Standard
CIMFR	:	Central Institute of Mining & Fuel Research
DFT	:	Dry Film Thickness
ERTL	:	Electronics Regional Test Laboratory
FM	:	Factory Mutual
FLP	:	Flame Proof
IL	:	Indicating Lamps
ITP	:	Inspection and Test Plan
IP	:	Ingress Protection
IC	:	Inspection Certification
IS	:	Indian Standard
IEC	:	International Electro technical Commission
JEC	:	Japanese Electro technical Committee
MTC	:	Material Test Certificate

NEMA	:	National Electrical Manufacturers Association
PB	:	Push Button
PO	:	Purchase Order
PESO	:	Petroleum Explosive Safety Organization
PR	:	Purchase Requisition
PVC	:	Poly Vinyl Chloride
QC	:	Quality Control
TC	:	Test Certificate
TPI or TPIA	:	Third Party Inspection Agency
VDR	:	Vendor Data Requirement
XLPE	:	Cross Linked Poly Ethylene

Inspection Standards Committee

Convenor : Mr. R K Singh

Members: Mr. G Suresh
Mr. Mahendra Mittal

Mr. Himangshu Pal
Mr. Avdesh Agrawal

Mr. Chandrashekhar
Mr. Anil Kumar

Mr. R Muthu Ramalingam
Mr. Arvind NP Singh (Engg)

1.0 SCOPE

This Inspection and Test Plan covers the minimum testing requirements of Flameproof Control Stations.

2.0 REFERENCE DOCUMENTS

PO/PR/ Standards referred there in/Job specifications/Approved documents/Relevant IS/IEC Standards.

3.0 INSPECTION AND TEST REQUIREMENTS

SL NO.	STAGE/ ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
1.0	Procedures	--	--	--	--	--	--
2.0	Material Inspection						
2.1	Incoming material like castings, glass, meters, PBs, ILs, Fasteners etc	Visual, Dimensional, Chemical, Physical and Operational checks, (as applicable)	100%	MTC / Lab test records	H	H	R
3.0	In process Inspection						
3.1	Machining, Joints, Sealing methods	As per Test Lab Certified Drawings for Hazardous Area Applications	100%	Test Certificates	-	H	-
3.2	Assembly and Wiring Checks	Visual, Dimensional, Bill of Material, Rating of Components, Tightness of wiring terminations, Size, Type (FR/FRLS), continuity, color coding.	100%	Test Certificates	-	H	-

INSPECTION AND TEST PLAN
FOR
FLAMEPROOF CONTROL STATIONS

STANDARD SPECIFICATION No.

6-81-1006 Rev. 5

Page 4 of 5

SL NO.	STAGE/ ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
3.3	Flameproof enclosure without components	Routine Over-Pressure test	100%	Test Certificates	-	H	R
4.0	Final Inspection						
4.1	Flameproof Control Station (Routine tests)	• Visual/Dimensional/BOM Checks • Nameplate and Tag Number checks • Adherence of panels to Hazardous Area Certification conditions including Flame Path, Flame Gap, Thread Check, Thickness of Enclosure, No. of Cable Entries, Rating of mounted components, Maximum number of door/ cover mounted components, Joints, Sealing etc. • Wiring Checks/Electrical/ Functional Checks • High voltage test • IR test before and after High voltage Test • Paint Shade, Thickness and Adhesion check.	100% by Supplier 10% by EIL/TPIA	Test Records / Inspection Witness Record	-	H	H
4.2	Submission of Certificates & Documents	• Test Certificate of testing agency (CIMFR/ KLPL etc) for suitability of model to intended Hazardous area classification as per latest IS/IEC standards. • Certificate of Statutory authority (PESO). • Valid BIS License.	For each Type/Model	Certificates from test agencies	-	H	R

INSPECTION AND TEST PLAN
FOR
FLAMEPROOF CONTROL STATIONS

STANDARD SPECIFICATION No.

6-81-1006 Rev. 5

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SL NO.	STAGE/ ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
5.0	Painting						
5.1	Painting and Packing	- Visual checks for compliance to Painting requirements as per contract. - Suitable protection to prevent entry of foreign material. - Proper packing to prevent any damage during transportation and storage, as per contract.	100%	Packing list / Supplier's Records	-	H	-
6.0	Documentation and IC						
6.1	Documentation and IC	- Review of Internal Test Reports & MTC - IC Issuance	100%	Supplier's Test Records / Inspection Certificate	-	H	H

Legends: H- Hold (Do not proceed without approval), Random 10% , R-Review, RW-Random witness, W- Witness (Give due notice, work may proceed after scheduled date).

NOTES :-

- This document describes the generic test requirements. Any additional test or inspection scope if specified in contract documents shall also be applicable. (Unless otherwise agreed upon).
- Acceptance Norms shall be as per PO/PR/ Standards referred there in/ Job specifications /Approved documents/ Hazardous Area certifications.
- Supplier has to furnish internal test reports before scheduled inspection date.

अग्निरोधक लाइटिंग एवं पावर पैनलों के लिए निरीक्षण एवं परीक्षण योजना

INSPECTION AND TEST PLAN FOR FLAMEPROOF LIGHTING AND POWER PANELS

4.	28.08.2024	Revised and Reissued	RP	GS	RK	MN
3.	14.01.2020	Revised and Reissued	MM	RS	RKS	RKT
2.	21.11.2013	Revised and Reissued	MJ	RS	SCG	SC
1	15.07.2011	Revised and Reissued	GS	SA	AKC	DM
0	07.10.2008	Issued for implementation	SA	SKD	SKP	VC
Rev. No.	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
Approved by						

Abbreviations

BIS	: Bureau of Indian Standard	MTC	: Material Test Certificate
CIMFR	: Central Institute of Mining & Fuel Research	NEMA	: National Electrical Manufacturers Association
DFT	: Dry Film Thickness	PO	: Purchase Order
ERTL	: Electronics Regional Test Laboratory	PESO	: Petroleum Explosive Safety Organization
FM	: Factory Mutual	PQR	: Procedure Qualification Record
FLP	: Flame Proof	PR	: Purchase Requisition
FRLS	: Flame retardant low smoke	PVC	: Poly Vinyl Chloride
ITP	: Inspection and Test Plan	QC	: Quality Control
IP	: Ingress Protection	TC	: Test Certificate
IS	: Indian Standard	TPI or TPIA	: Third Party Inspection Agency
IC	: Inspection Certification	VDR	: Vendor Data Requirement
IEC	: International Electro technical Commission	XLPE	: Cross Linked Poly Ethylene
JEC	: Japanese Electro technical Committee		

Inspection Standards Committee

Convenor : Mr. Rajeev Kumar

Members: Mr. G Suresh
Mr. Mahendra Mittal

Mr. Himangshu Pal
Mr. Avdesh Agrawal

Mr. Chandrashekhar
Mr. Anil Kumar

Mr. R Muthu Ramalingam
Mr. Arvind NP Singh (Engg)

INSPECTION AND TEST PLAN
FOR
FLAMEPROOF LIGHTING AND POWER PANELS

STANDARD SPECIFICATION No.

6-81-1008 Rev. 4

Page 3 of 5

1.0 SCOPE

This Inspection and Test Plan covers the minimum inspection and testing requirements for Flameproof Lighting And Power panels.

2.0 REFERENCE DOCUMENTS

PO/PR / Standards referred there in /Job specifications / Approved documents/Relevant IS/IEC Standards.

3.0 INSPECTION AND TEST REQUIREMENT:

SL NO.	STAGE/ ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
1.0	Procedures	---	---	---	---	---	---
2.0	Material Inspection						
2.1	Incoming Materials like Castings, Glass, Meters, Wires/ Cables, Bus-Bars, Gaskets, Isolators, MCBs, MCCBs, RCCBs, CTs/ PTs etc (As applicable)	Visual, Dimensional, Physical, chemical & functional checks (as applicable)	100%	Material test certificates / Manufacturer's Test records/	H	H	R
3.0	In process Inspection						
3.1	Machining, Joints, Sealing methods	As per Test Lab Certified Drawings for Hazardous Area Applications	100%	Test records	-	H	---
3.2	Panel assembly	Visual, Dimensional, Bill of Material, Rating of Components.	100%	Test Records	-	H	---
3.3	Wiring Checks	Size, type (FR/FRLS), make, termination tightness, ferruling, continuity, color coding	100%	Test Records	-	H	----
3.4	Pressure Check	Over Pressure test on individual enclosures as per relevant standard	100%	Test Records	-	H	R

**INSPECTION AND TEST PLAN
FOR
FLAMEPROOF LIGHTING AND POWER PANELS**

STANDARD SPECIFICATION No.

6-81-1008 Rev. 4

Page 4 of 5

SL NO.	STAGE/ ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
4.0	Final Inspection						
4.1	Final Inspection	• Visual and Dimensional check • Adherence of panels to Hazardous Area Certification conditions including Flame Path, Flame Gap, Thread Check, Thickness of Enclosure, No. of Cable Entries, Rating of mounted components, Maximum number of door/ cover mounted components, Joints, Sealing etc. • Bill of material. • Wiring checks • Paint shade, adhesion and thickness. • Verification of mechanical and electrical operations • Dielectric test (High Voltage) • Insulation check before & after High Voltage • Correctness of nameplate • Annunciation/ Indication Checks	100%	Test Records	-	H	H
4.2	Submission of Certificates & Documents	• Test Certificate of testing agency (CIMFR/ KLPL etc) for suitability of model to intended Hazardous area classification as per latest IS/IEC standards. • Certificate of Statutory authority (PESO). • Valid BIS License.	For each Type/Model	Certificates from Test Labs/ Agencies	-	H	R

प्रमाणित और सही रूप से निर्धारित विवरणों के बिना निर्माण नहीं किया जा सकता है। यह दस्तावेज़ निर्माण के लिए प्रमाणित है। यदि कोई भी इस दस्तावेज़ का उपयोग करता है, तो वह अपने स्वयं के जोखिम पर है।
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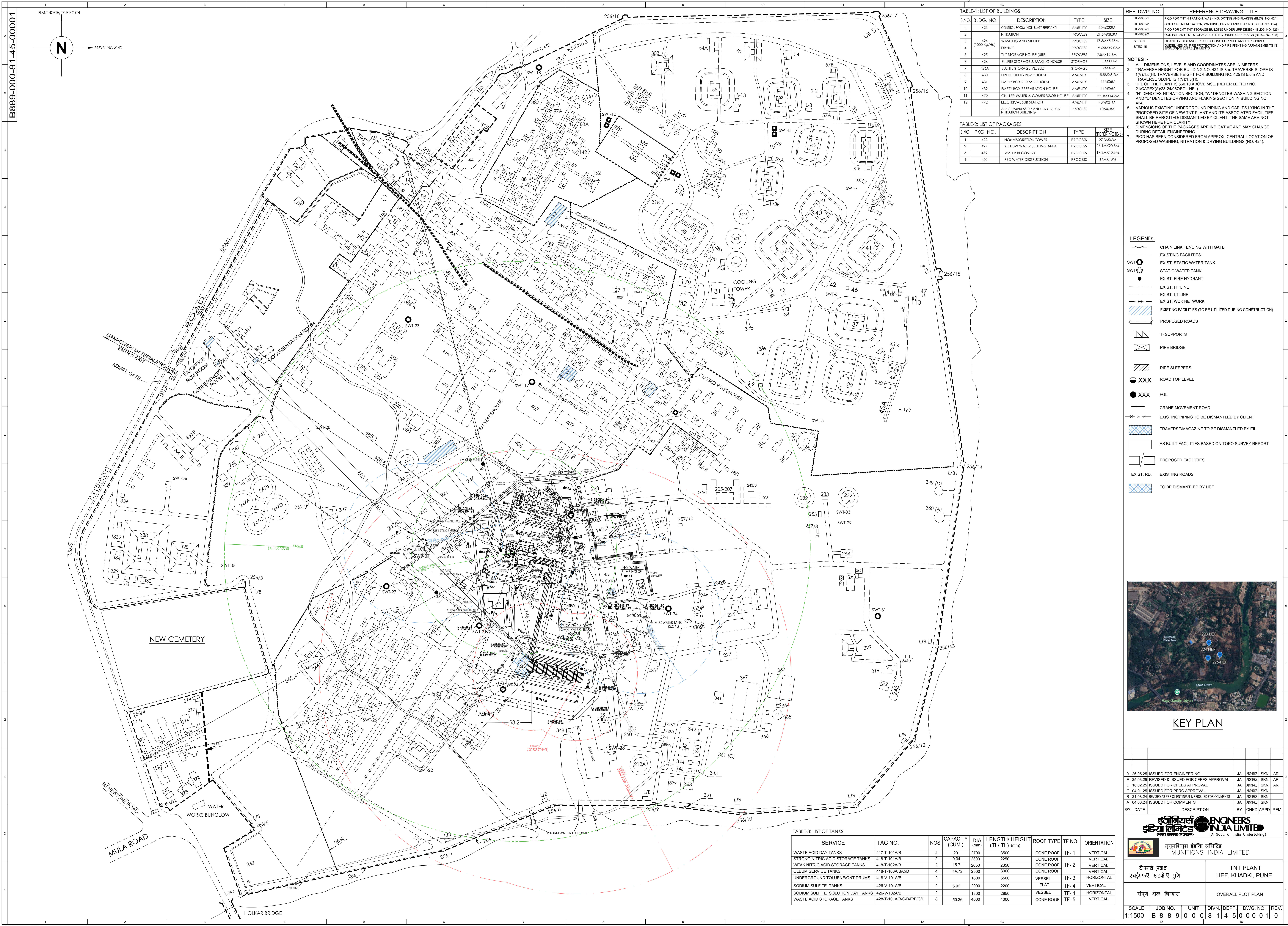


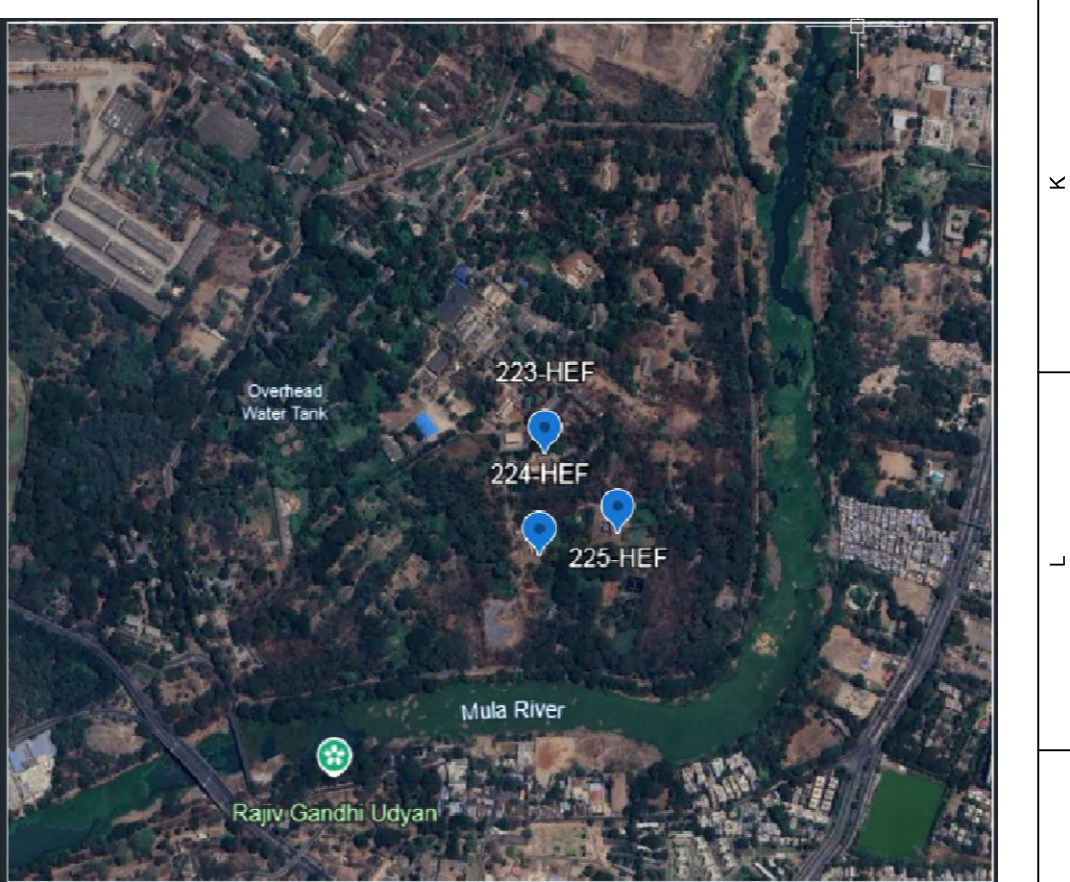
TABLE-1: LIST OF BUILDINGS				
S.NO.	BLDG. NO.	DESCRIPTION	TYPE	SIZE
1	423	CONTROL ROOM (NON BLAST RESISTANT)	AMENITY	30MX23M
2	424	NITRATION	PROCESS	21.5MX8.3M
3	(1000 Kg/Hr.)	WASHING AND MELTER	PROCESS	17.5MX5.75M
4		DRYING	PROCESS	9.65MX9.05M
5	425	TNT STORAGE HOUSE (URP)	PROCESS	75MX12.6M
6	426	SULFITE STORAGE & MAKING HOUSE	STORAGE	11MX11M
7	426A	SULFITE STORAGE VESSELS	STORAGE	7MX6M
8	430	FIRE FIGHTING PUMP HOUSE	AMENITY	8.8MX8.2M
9	431	EMPTY BOX PREPARATION HOUSE	AMENITY	11MX6M
10	432	EMPTY BOX PREPARATION HOUSE	AMENITY	11MX6M
11	470	CHILLER WATER & COMPRESSOR HOUSE	AMENITY	22.3MX14.3M
12	472	ELECTRICAL SUB STATION	AMENITY	40MX21M
		AIR COMPRESSOR AND DRYER FOR NITRATION BUILDING	PROCESS	10MX3M

TABLE-2: LIST OF PACKAGES				
S.NO.	PKG. NO.	DESCRIPTION	TYPE	SIZE (REFER NOTE 4)
1	422	NOX ABSORPTION TOWER	PROCESS	27.3MX6.6M
2	427	YELLOW WATER SETTLING AREA	PROCESS	26.1MX20.3M
3	439	WATER RECOVERY	PROCESS	19.3MX10.3M
4	450	RED WATER DESTRUCTION	PROCESS	14MX10M

REF. DWG. NO.	REFERENCE DRAWING TITLE
HE-5808/1	PGD FOR TNT NITRATION, WASHING, DRYING AND FLAKING (BLDG. NO. 424)
HE-5808/2	ODD FOR TNT NITRATION, WASHING, DRYING AND FLAKING (BLDG. NO. 424)
HE-5808/3	PGD FOR TNT STORAGE BUILDING UNDER URP DESIGN (BLDG. NO. 425)
HE-5808/4	ODD FOR TNT STORAGE BUILDING UNDER URP DESIGN (BLDG. NO. 425)
STEC-1	QUANTITY DISTANCE REGULATIONS FOR MILITARY EXPLOSIVES
STEC-1S	SUBSIDIARY ON FIRE PROTECTION AND FIRE FIGHTING ARRANGEMENTS IN EXPLOSIVE ESTABLISHMENTS

- NOTES :-**
- ALL DIMENSIONS, LEVELS AND COORDINATES ARE IN METERS.
 - TRAVERSE HEIGHT FOR BUILDING NO. 424 IS 8m. TRAVERSE SLOPE IS 1V:1.5H. TRAVERSE HEIGHT FOR BUILDING NO. 425 IS 5.5m AND TRAVERSE SLOPE IS 1V:1.5H.
 - H/L OF THE PLANT IS 860.10 ABOVE MSL. (REFER LETTER NO. 21/CAPEX(A)/23-24/087/FGH-H/L).
 - "N" DENOTES NITRATION SECTION, "W" DENOTES WASHING SECTION AND "D" DENOTES DRYING AND FLAKING SECTION IN BUILDING NO. 424.
 - VARIOUS EXISTING UNDERGROUND PIPING AND CABLES LYING IN THE PROPOSED SITE OF NEW TNT PLANT AND ITS ASSOCIATED FACILITIES SHALL BE REROUTED/ DISMANTLED BY CLIENT. THE SAME ARE NOT SHOWN HERE FOR CLARITY.
 - DIMENSIONS OF THE PACKAGES ARE INDICATIVE AND MAY CHANGE DURING DETAIL ENGINEERING.
 - PGD HAS BEEN CONSIDERED FROM APPROX. CENTRAL LOCATION OF PROPOSED WASHING, NITRATION & DRYING BUILDINGS (NO. 424).

- LEGEND :-**
- CHAIN LINK FENCING WITH GATE
 - EXISTING FACILITIES
 - EXIST. STATIC WATER TANK
 - STATIC WATER TANK
 - EXIST. FIRE HYDRANT
 - EXIST. HT LINE
 - EXIST. LT LINE
 - EXIST. WDK NETWORK
 - EXISTING FACILITIES (TO BE UTILIZED DURING CONSTRUCTION)
 - PROPOSED ROADS
 - T-SUPPORTS
 - PIPE BRIDGE
 - PIPE SLEEPERS
 - ROAD TOP LEVEL
 - FGL
 - CRANE MOVEMENT ROAD
 - EXISTING PIPING TO BE DISMANTLED BY CLIENT
 - TRAVERSE/MAGAZINE TO BE DISMANTLED BY EIL
 - AS BUILT FACILITIES BASED ON TOPO SURVEY REPORT
 - PROPOSED FACILITIES
 - EXIST. RD.
 - EXISTING ROADS
 - TO BE DISMANTLED BY HEF



KEY PLAN

0	26.05.25	ISSUED FOR ENGINEERING	JA	APRKS	SKN	AR
E	25.03.25	REVISED & ISSUED FOR CFEES APPROVAL	JA	APRKS	SKN	AR
D	18.02.25	ISSUED FOR CFEES APPROVAL	JA	APRKS	SKN	AR
C	04.01.25	ISSUED FOR PRPC APPROVAL	JA	APRKS	SKN	
B	21.06.24	REVISED & ISSUED FOR PRPC APPROVAL	JA	APRKS	SKN	
A	04.06.24	ISSUED FOR COMMENTS	JA	APRKS	SKN	

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ट्रैनर प्रबल
एचडीएफ एचडीए पुणे

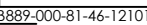
TNT PLANT
HEF, KHADKI, PUNE

संपूर्ण श्रेष्ठ विन्यास

OVERALL PLOT PLAN

SCALE	JOB NO.	UNIT	DIVN.	DEPT.	DWG. NO.	REV.
1:1500	B 8 8 9 0 0 0	0	8	14	500 0 0 1	0

TABLE-3: LIST OF TANKS							
SERVICE	TAG NO.	NOS.	CAPACITY (CUM.)	DIA (mm)	LENGTH/ HEIGHT (TL/ TL) (mm)	ROOF TYPE	TF NO.
WASTE ACID DAY TANKS	417-T-101A/B	2	20	2700	3500	CONE ROOF	TF- 1
STRONG NITRIC ACID STORAGE TANKS	418-T-101A/B	2	9.34	2300	2250	CONE ROOF	TF- 1
WEAK NITRIC ACID STORAGE TANKS	418-T-102A/B	2	15.7	2850	2850	CONE ROOF	TF- 2
OLEUM SERVICE TANKS	418-T-103A/B/C/D	4	14.72	2500	3000	CONE ROOF	TF- 2
UNDERGROUND TOLUENE/ONT DRUMS	418-V-101A/B	2	1800	5500	5500	VESEL	TF- 3
SODIUM SULFITE TANKS	426-V-101A/B	2	6.92	2000	2200	FLAT	TF- 4
SODIUM SULFITE SOLUTION DAY TANKS	426-V-102A/B	2	1800	2850	2850	VESEL	TF- 4
WASTE ACID STORAGE TANKS	428-T-101A/B/C/D/E/F/G/H	8	50.28	4000	4000	CONE ROOF	TF- 5



300 MM HIGH MIN. R.C.C. PARAPET WALL

WATER PROOFING (AS/SPECS.)

R.C.C. SLAB AS/ STRL. DETAIL

SLOPE 1:33

3000 MIN.

SLOPE 1:33

BATTERY ROOM

CONSOLE ROOM

ENT./EXIT

FALSE CEILING AT 3500

FALSE FLOOR

100.950 F.F.L.

100.00 F.F.L.

1500

1000 MM HIGH SS HANDRAIL

3500

2500

800

1720

R.C.C. PROJECTION AS/ STRL. DETAIL

100.950 F.F.L.

100.00 F.F.L.

A B C D

ARCHITECTURAL FINISHES SCHEDULE (HOLD)			
ROOM	FLOOR FINISH	WALL FINISH	CEILING FINISH
RACK ROOM, CUM ENGG ROOM CONSOLE ROOM & UPS ROOM	FALSE FLOORING	CEMENT PLASTER, POP PUNNING & PLASTIC EMULSION PAINT	ALUMINIUM PANEL FALSE CEILING
ENTRANCE LOBBY, AIR LOCK LOBBY, PASSAGE	GRANITE FLOORING	CEMENT PLASTER, POP & PLASTIC EMULSION PAINT	COMBINATION OF GYPSUM BOARD PANEL AND MINERAL FIBER TILE FALSE CEILING
BATTERY ROOM	CHEMICAL RESISTANT EPOXY FLOORING	CEMENT PLASTER , ACRYLIC DISTEMPER ABOVE 2500 MM HEIGHT	CEMENT PLASTER & ACRYLIC DISTEMPER PAINT
CLEAN AGENT ROOM, AC PACKAGE ROOM	HEAVY DUTY FLOORING	CEMENT PLASTER & OIL BOUND DISTEMPER	CEMENT PLASTER & OIL BOUND DISTEMPER
MEETING ROOM , OFFICE , AIR LOCK LOBBY , PASSAGE SHIFT IN-CHARGE ROOM , STORE & ROOM	VITRIFIED TILE FLOORING	SAME AS FLOOR FINISH	COMBINATION OF GYPSUM BOARD PANEL AND MINERAL FIBER TILE FALSE CEILING
TOILETS & PANTRY	GRANITE FLOORING	GRANITE/ VITRIFIED TILE DADO UP TO CEILING/ FALSE CEILING	GYPSUM BOARD FALSE CEILING
STEPS, RAMPS	GRANITE FLOORING	-	-
EXTERNAL	COMBINATION OF : • PLAIN CEMENT PLASTER AND ACRYLIC PAINT • PLANTERS : KOTA/ SAND STONE FINISH • ROOFING : OVERDECK INSULATION CUM WATER PROOFING		

NOTES: 1. DIMENSIONS, CO-ORDINATES, LEVELS A. ALL DIMENSIONS ARE IN MILLIMETRES. B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION. C. ALL LEVELS & CO-ORDINATES ARE IN METRES. D. LEVEL 100.000 CORRESPONDS TO TOP OF APPROACH / ACCESS ROAD NEAR THE BUILDING ENTRY / CROSS E. PLINTH LEVEL OF THE BUILDING SHALL BE SAME THROUGHOUT UNLESS SPECIFICALLY INDICATED. F. LOCATION/ORIENTATION/CO-ORDINATES OF THE BUILDING SHALL BE CROSS-CHECKED WITH STRUCTURAL AND LOT PLAN DRAWINGS. IN CASE OF ANY MIS-MATCH THE SAME SHALL BE GOT RESOLVED BEFORE CONSTRUCTION.	
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-

LEGEND :-

F.R.L. - FINISHED ROAD LEVEL
 F.F.L. - FINISHED FLOOR LEVEL

 = 230 THK BRICK WALL
 = 115 THK BRICK WALL UPTO 2500 MM HIGH

AC	FC
FF	OD

AC = AIR CONDITIONED
 FC = FALSE CEILING
 FF = FALSE FLOORING
 OD = OVERDECK INSULATION


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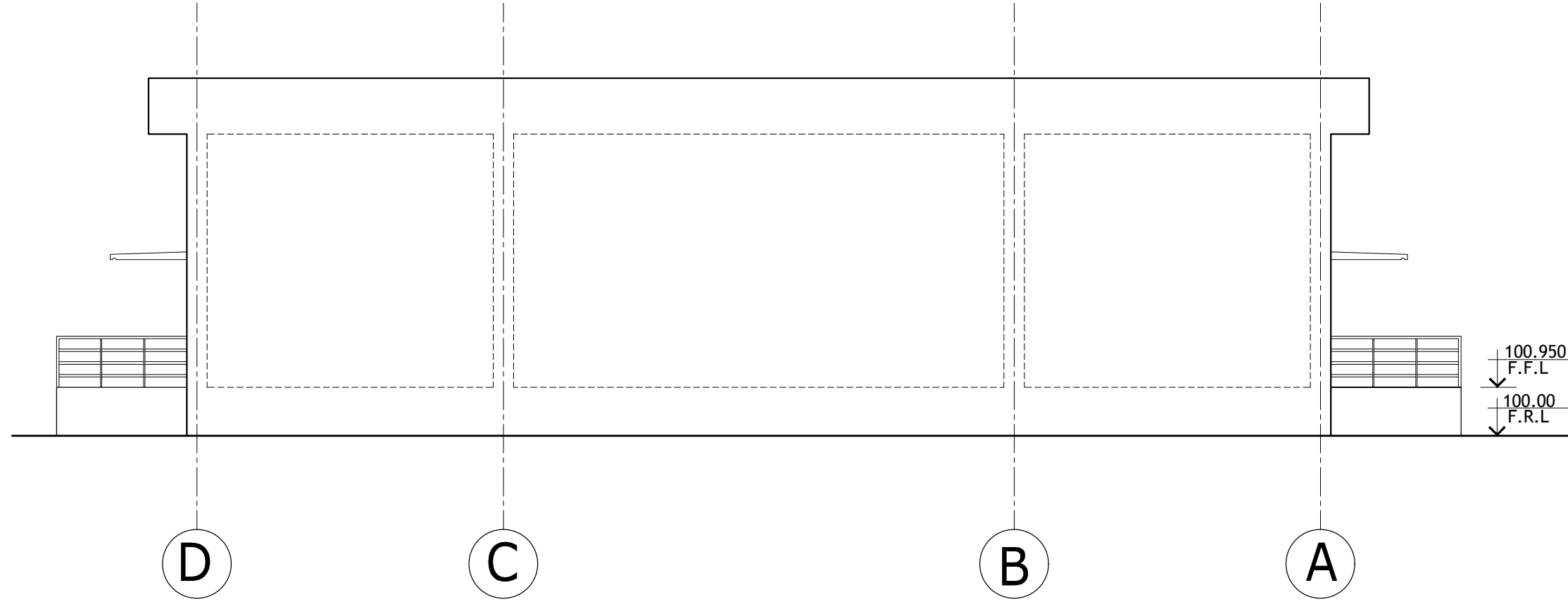
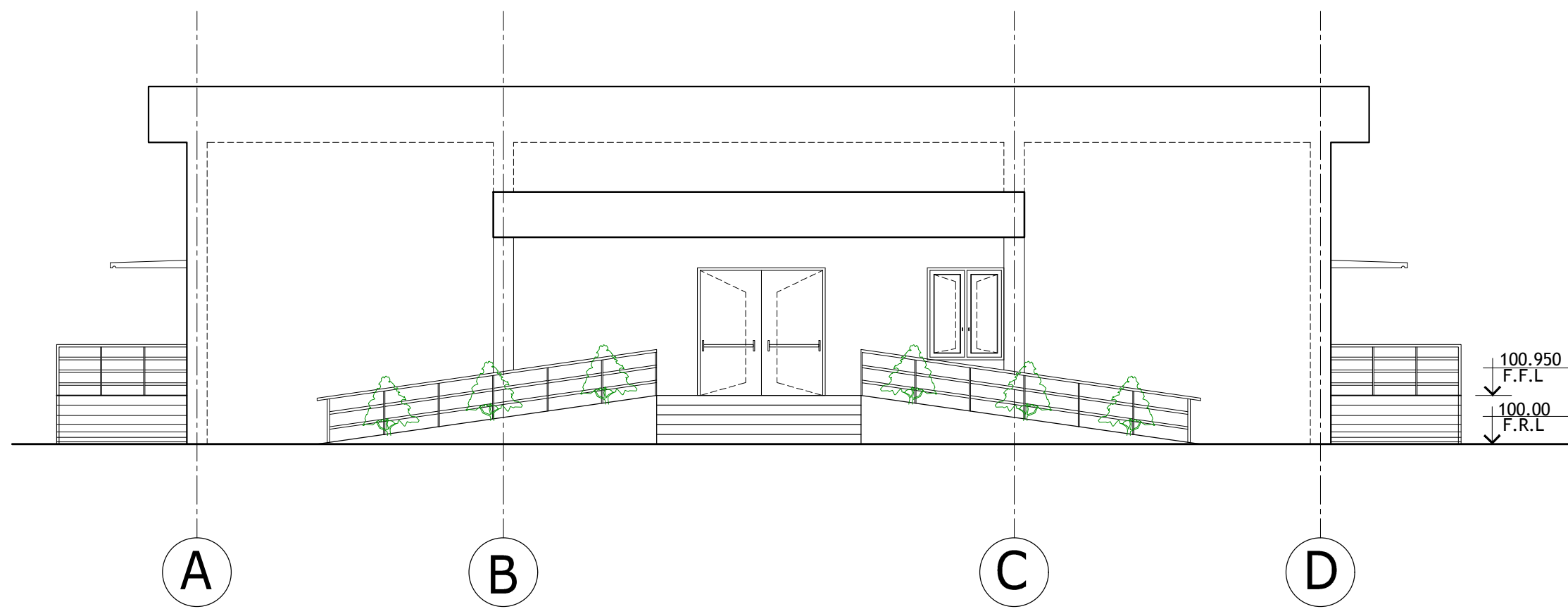
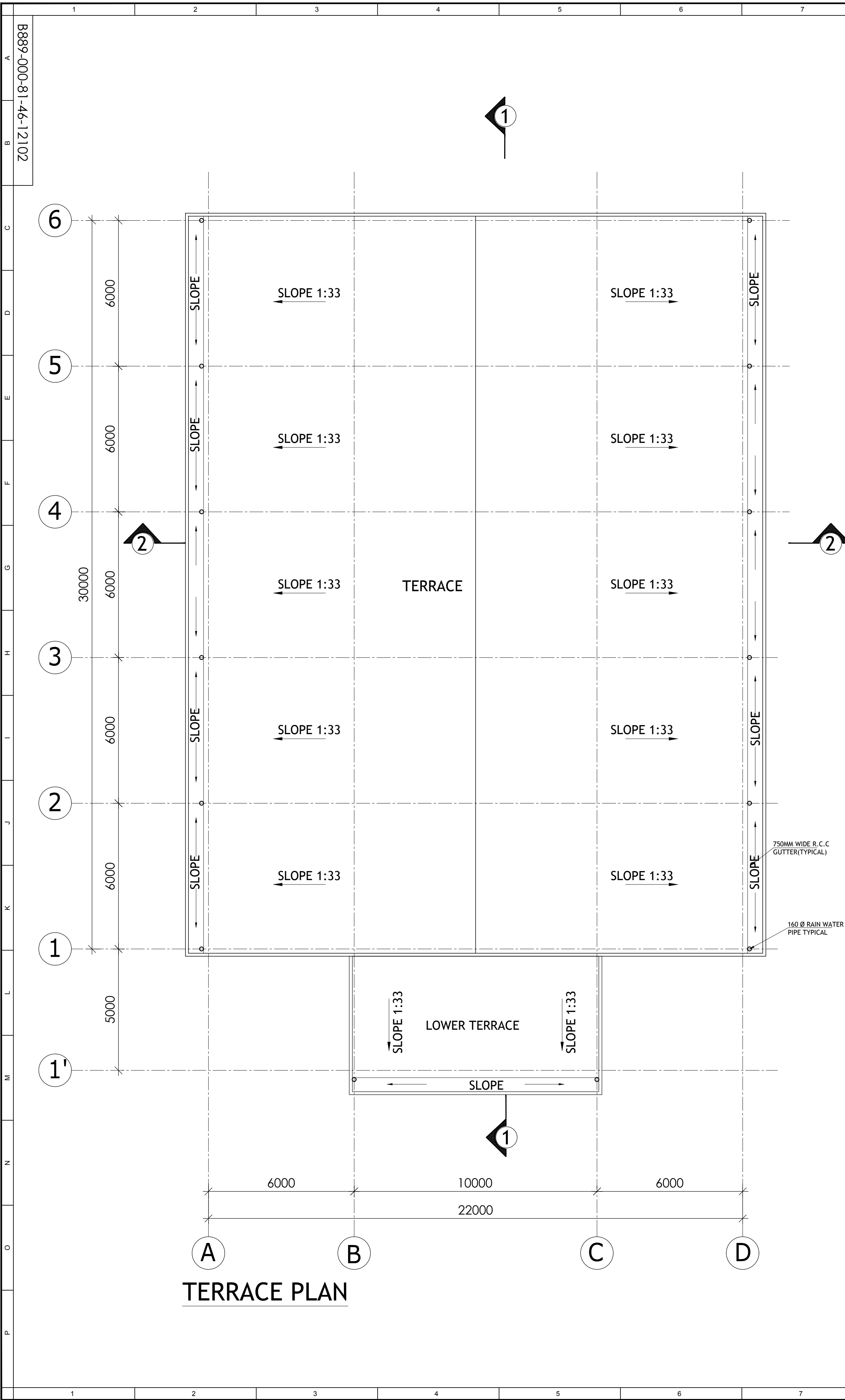

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MUNITIONS INDIA LIMITED

टीएनटी प्लांट एचईएफ, खडकी, पुणे	TNT PLANT HEF, KHADKI, PUNE
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नियंत्रण कक्ष 423 भूतल का प्लान एवं काट	CONTROL ROOM (423) GROUND FLOOR PLAN & SECTION
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3-1641-0501 REV 4 / 06.03.2024 A1-841x594

प्रस्तुत आरेख एवं इसमें विहित डिजाइन इंजीनियर्स इंडिया लिमिटेड की संसक्ति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझना कि यह है कि न तो इसे पुनः प्रेषित किया जाएगा, न तकल की जाएगी, न उधार दिए जाएंगे, न प्रदर्शित किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दो गई सवसक्ति से होगा ।
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REF. DWG. NO.		REFERENCE DRAWING TITLE			
B889-000-81-46-12101		GROUND FLOOR PLAN & SECTIONS			
B889-000-81-46-12103		ELEVATIONS & SECTIONS			
NOTES: 1. DIMENSIONS, CO-ORDINATES, LEVELS A. ALL DIMENSIONS ARE IN MILLIMETRES. B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION. C. ALL LEVELS & CO-ORDINATES ARE IN METRES.					

REV.	DATE	DESCRIPTION	BY	CHKD	APPD	PM
C	XX.04.25	ISSUED FOR ENGINEERING	NK	SS	GJK	
B	11.03.25	ISSUED FOR STATUTORY / CLIENT APPROVAL	KT	SS	GJK	
A	18.12.24	ISSUED FOR TENDER	NK	SS	GJK	

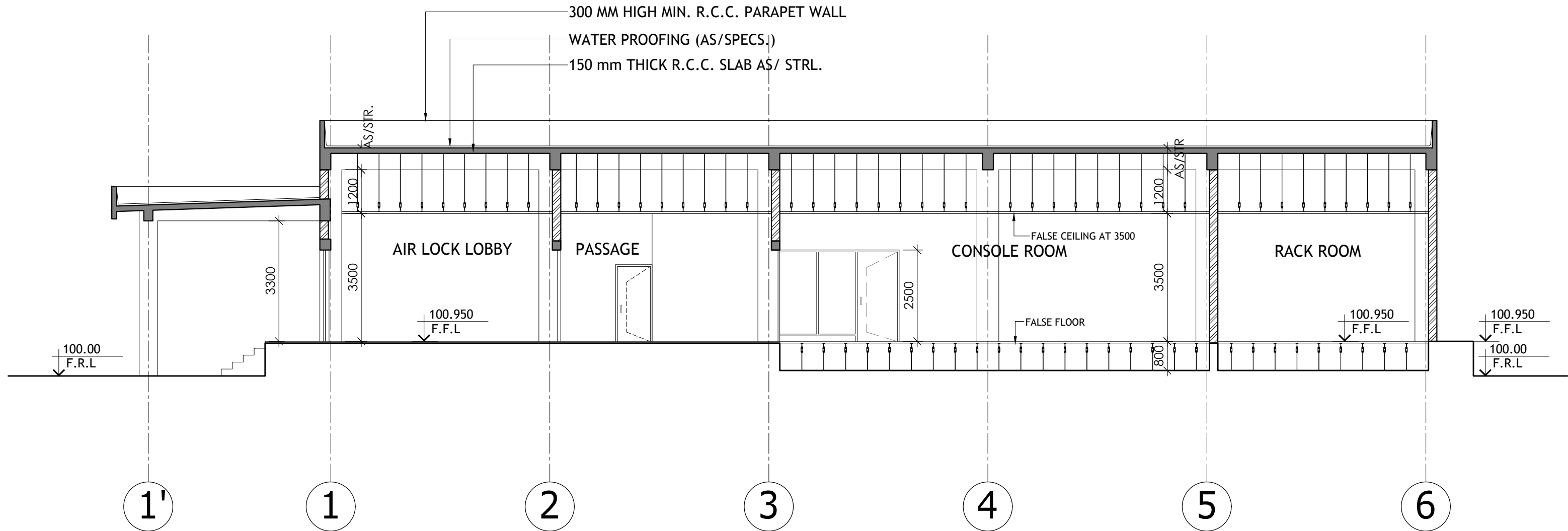
LEGEND :-	
F.R.L. - FINISHED ROAD LEVEL	230 THK BRICK WALL
F.F.L. - FINISHED FLOOR LEVEL	115 THK BRICK WALL UPTO 2500 MM HIGH
AC - AIR CONDITIONED	
FC - FALSE CEILING	
FF - FALSE FLOORING	
OD - OVERDECK INSULATION	

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TNT PLANT HEF, KHADKI, PUNE	
नियंत्रण कक्ष 423 छत का प्लान एवं दृश्य	
CONTROL ROOM (423) TERRACE PLAN & ELEVATIONS	

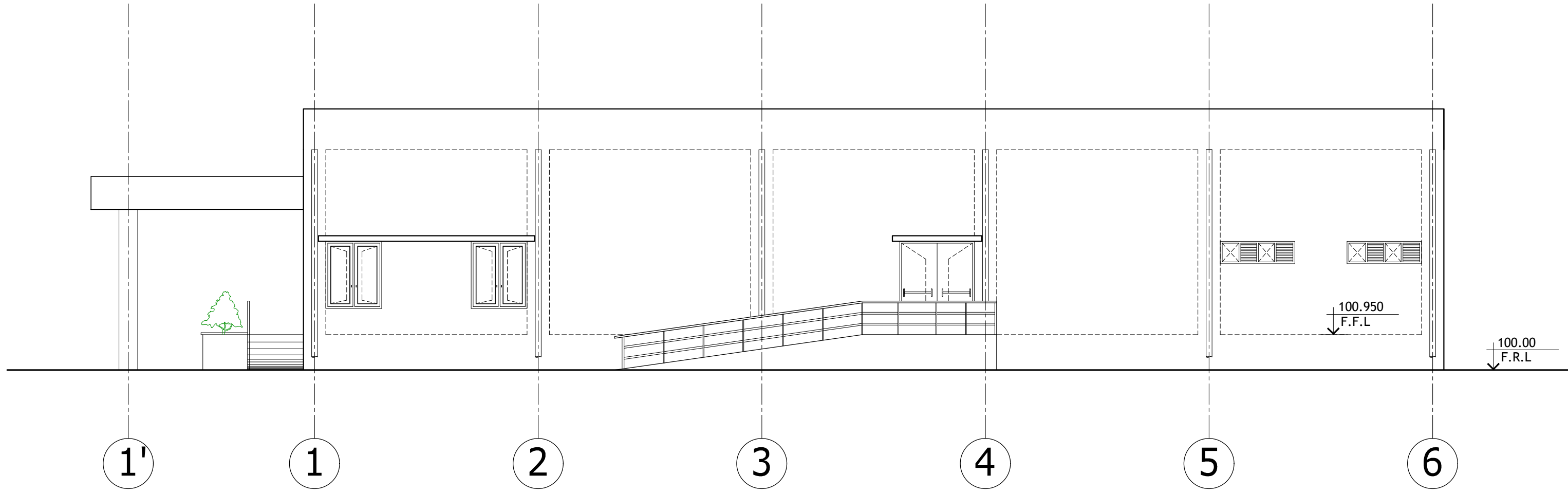
SCALE	JOB NO.	UNIT	DIVN.	DEPT.	DWG. NO.	REV.
1:100	B889	000	81	46	12102	C

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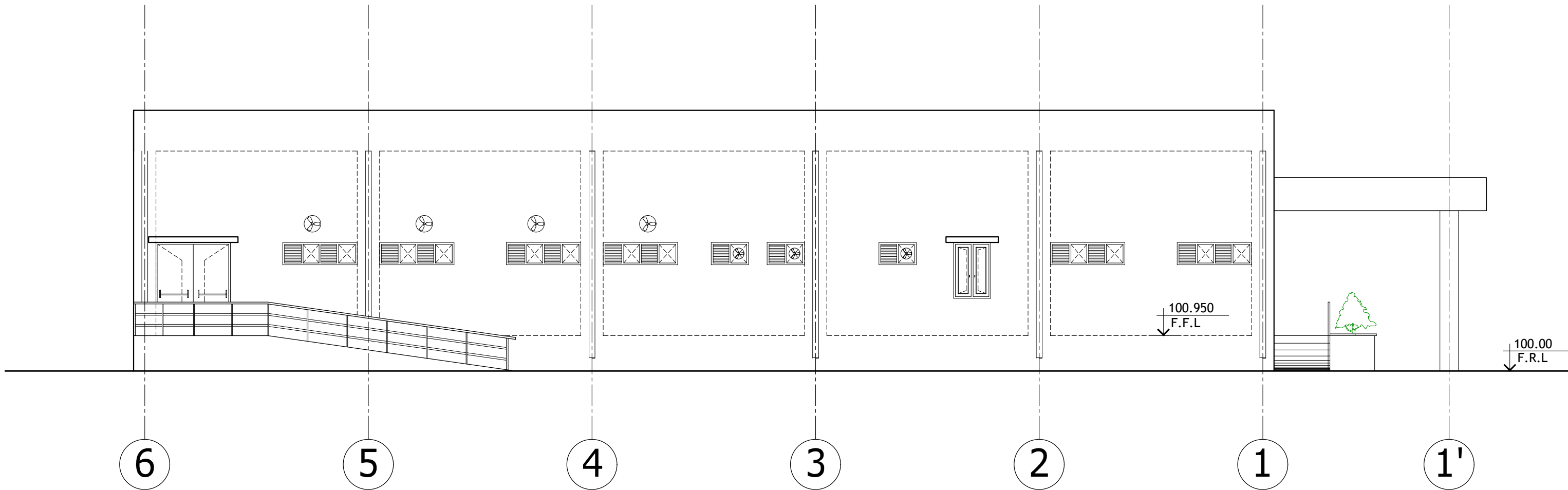
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SECTION 1-1



WEST SIDE ELEVATION



EAST SIDE ELEVATION

REF. DWG. NO.	REFERENCE DRAWING TITLE
B889-000-81-46-12101	GROUND FLOOR & SECTIONS
B889-000-81-46-12102	TERRACE PLAN & SECTIONS

NOTES:
1. DIMENSIONS, CO-ORDINATES, LEVELS
A. ALL DIMENSIONS ARE IN MILLIMETRES.
B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION.
C. ALL LEVELS & CO-ORDINATES ARE IN METRES.

REV.	DATE	DESCRIPTION	BY	CHKD	APPD	PM
C	30.04.25	ISSUED FOR ENGINEERING	NK	SS	GJK	
B	11.03.25	ISSUED FOR STATUTORY / CLIENT APPROVAL	KT	SS	GJK	
A	18.12.24	ISSUED FOR TENDER	NK	SS	GJK	



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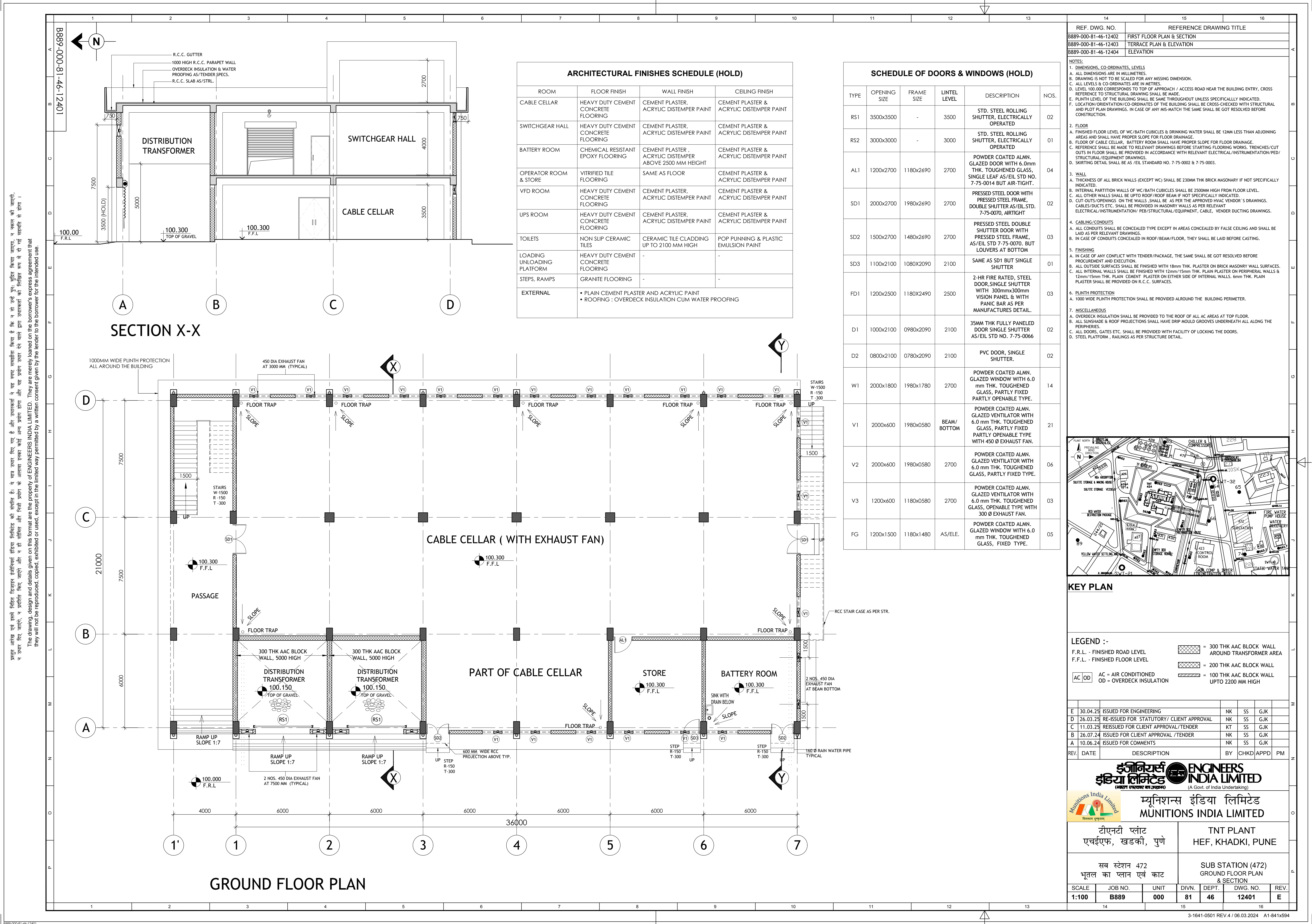
टीएनटी प्लांट
एचईएफ, खडकी, पुणे

TNT PLANT
HEF, KHADKI, PUNE

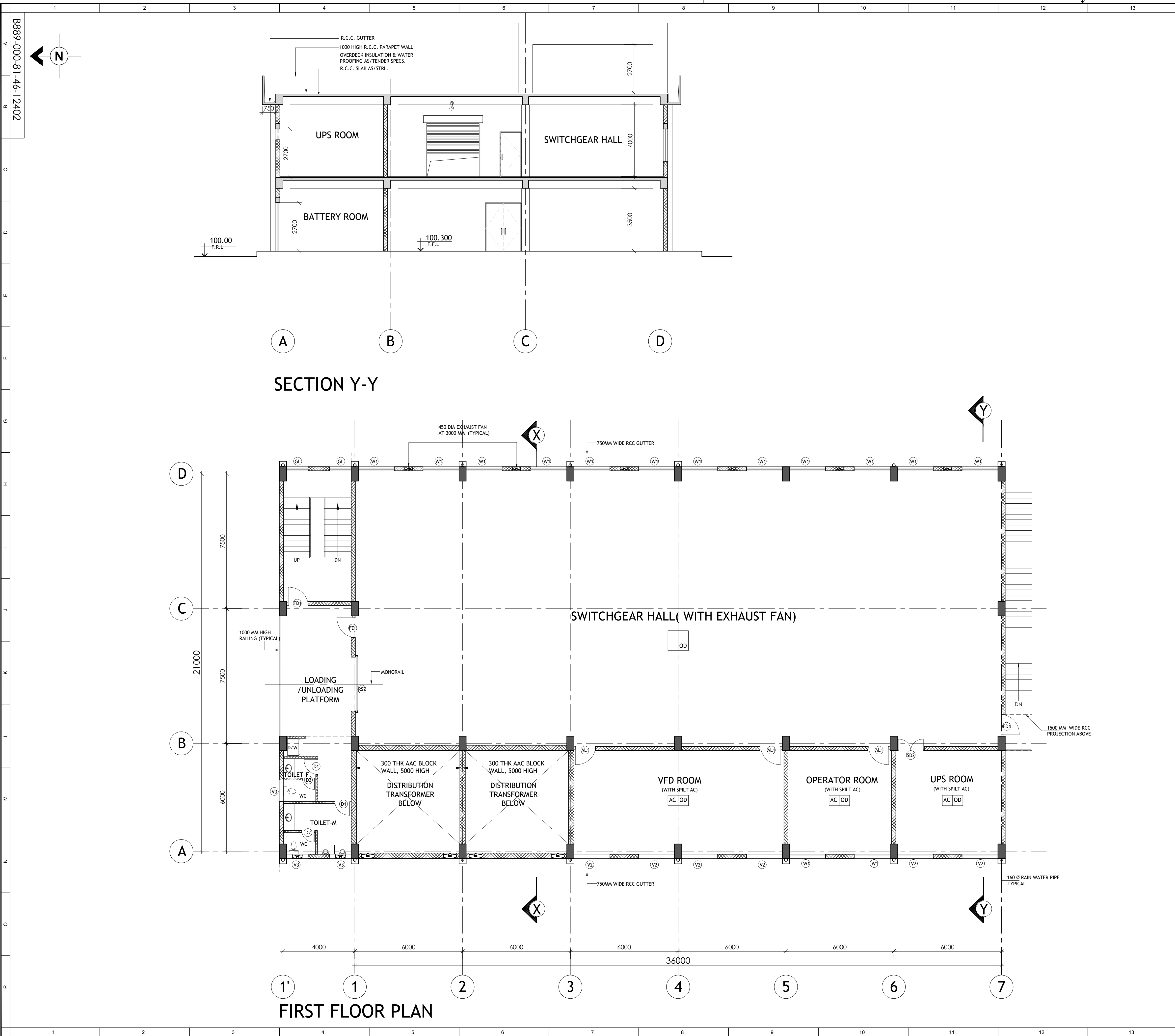
नियंत्रण कक्ष 423
दृश्य और काट

CONTROL ROOM (423)
ELEVATION & SECTION

SCALE	JOB NO.	UNIT	DIVN.	DEPT.	DWG. NO.	REV.
1:100	B889	000	81	46	12103	C



प्रस्तुत आरेख एवं इसमें विहित डिजाइन इंजीनियरिंग लिमिटेड की संपत्ति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझौता किया है कि न तो उन्हें पुनः प्रेषित किया जाएगा, न नकल की जाएगी, न उधार दिए जाएंगे, न प्रसारित किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दी गई सख्त शर्तों से होगा।
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14		15		16	
REF. DWG. NO.		REFERENCE DRAWING TITLE			
8889-000-81-46-12401		GROUND FLOOR PLAN & SECTION			
8889-000-81-46-12403		TERRACE PLAN & ELEVATION			
NOTES:					
1. DIMENSIONS, CO-ORDINATES, LEVELS					
A. ALL DIMENSIONS ARE IN MILLIMETRES.					
B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION.					
C. ALL LEVELS & CO-ORDINATES ARE IN METRES.					

प्रस्तावित आरेख एवं इसमें विहित डिजाइन इंजीनियरिंग लिमिटेड की संमति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझौता किया है कि न तो उन्हें पुनः प्रेषित किया जाएगा, न संकलन की जाएगी, न उधार दिए जाएंगे, न प्रेषित किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दी गई सख्त शर्तों से होगा ।
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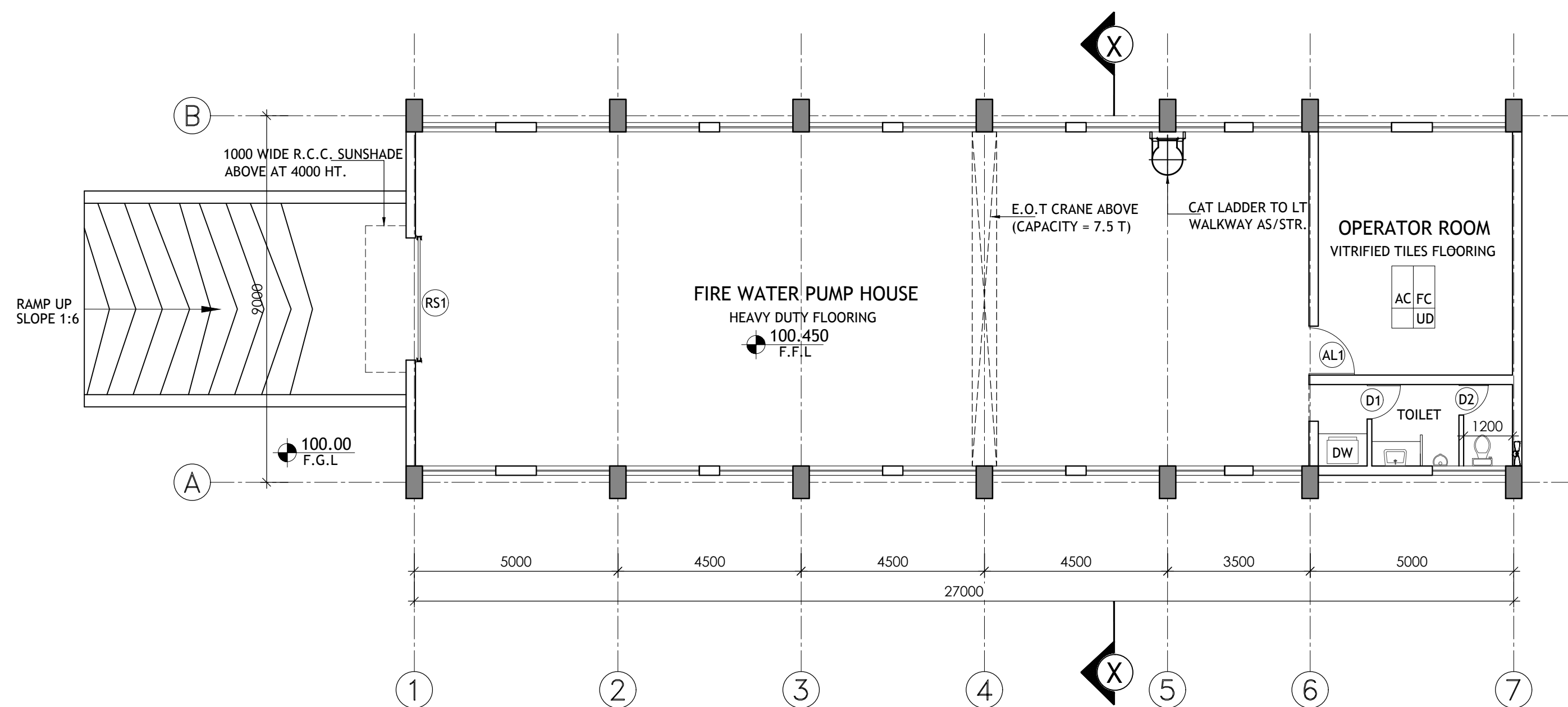
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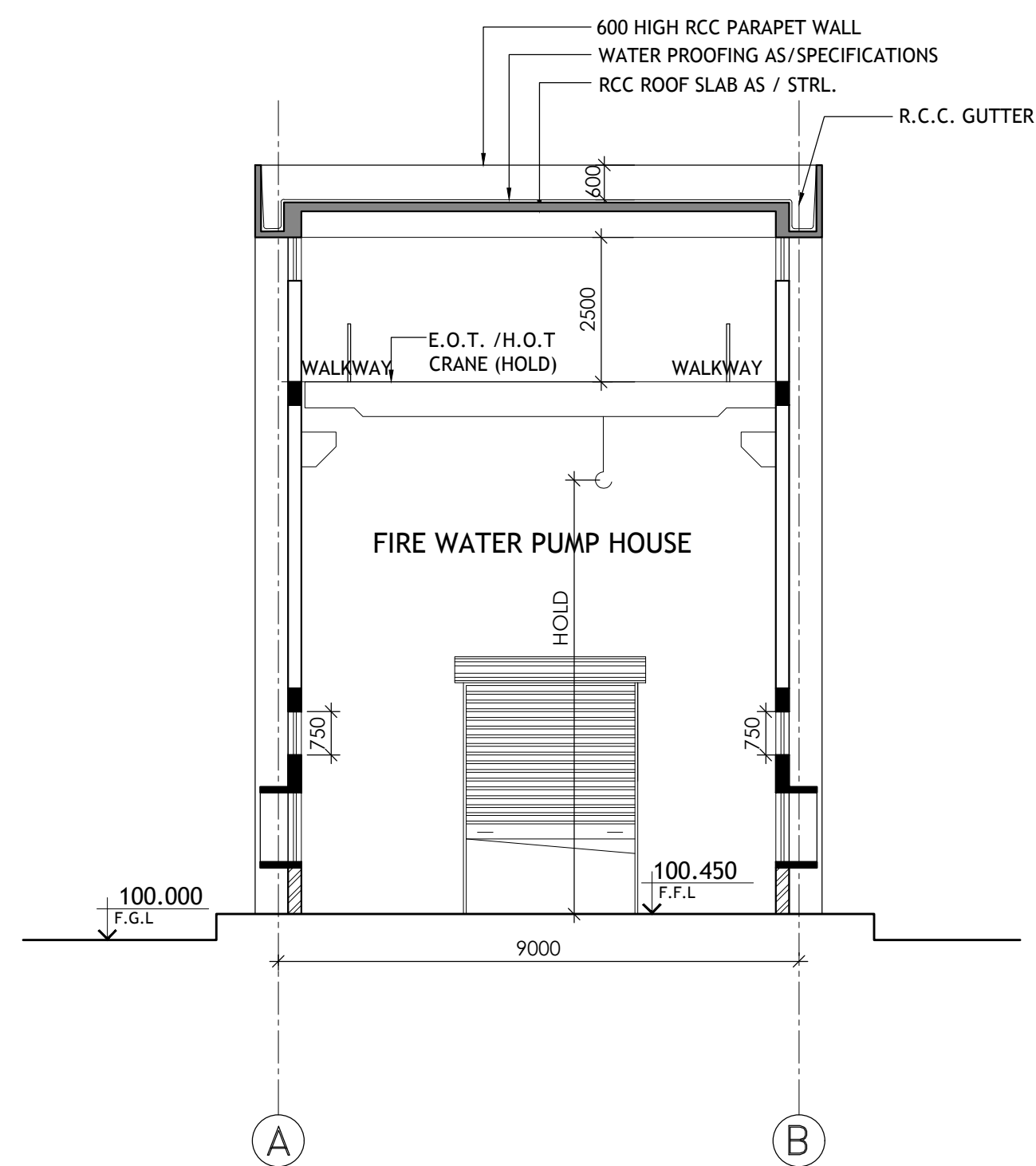
प्रस्तुत अनेक वर्ष पहले निर्मित डिवाइस इंजीनियरिंग डिपार्टमेंट की संपत्ति है। ये प्राप्त उधार दिए गए हैं और उधारकर्ता को लौटाना होगा और यह उधार प्राप्त होने और यह उधार देने वाले द्वारा उधारकर्ता को लौटाने रूप में दो गुरु संपत्ति से होगा।

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GROUND FLOOR PLAN



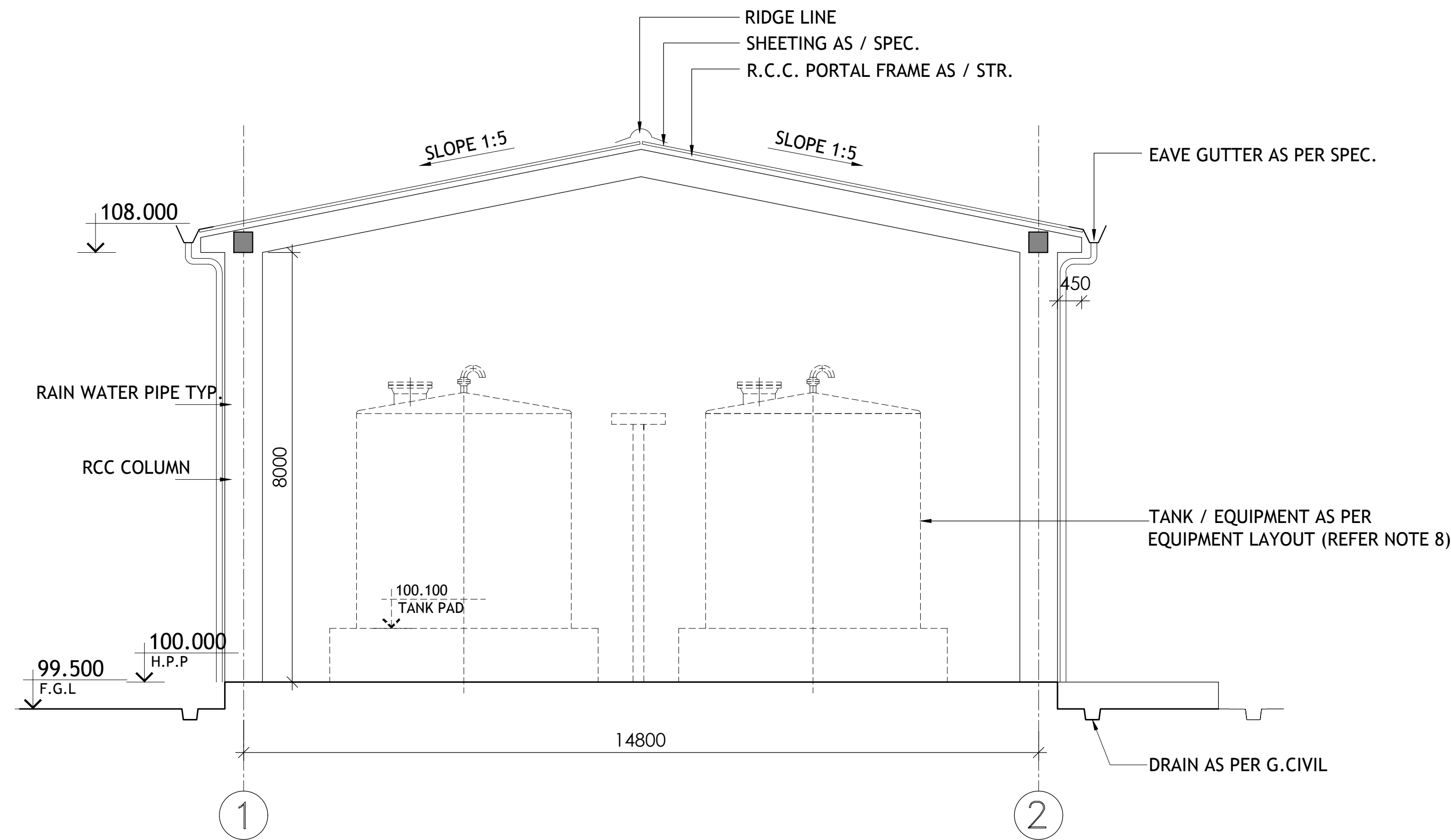
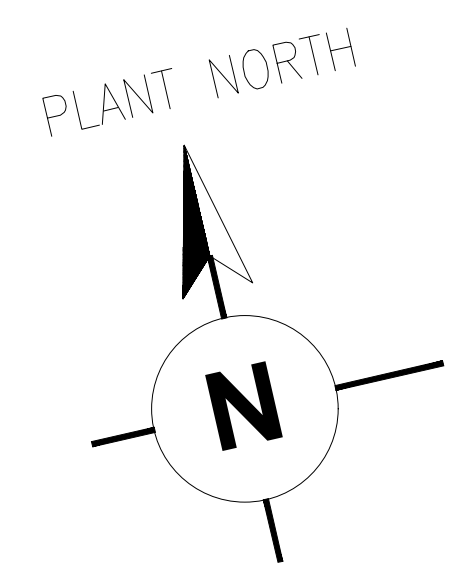
SECTION X-X

REF. DWG. NO.

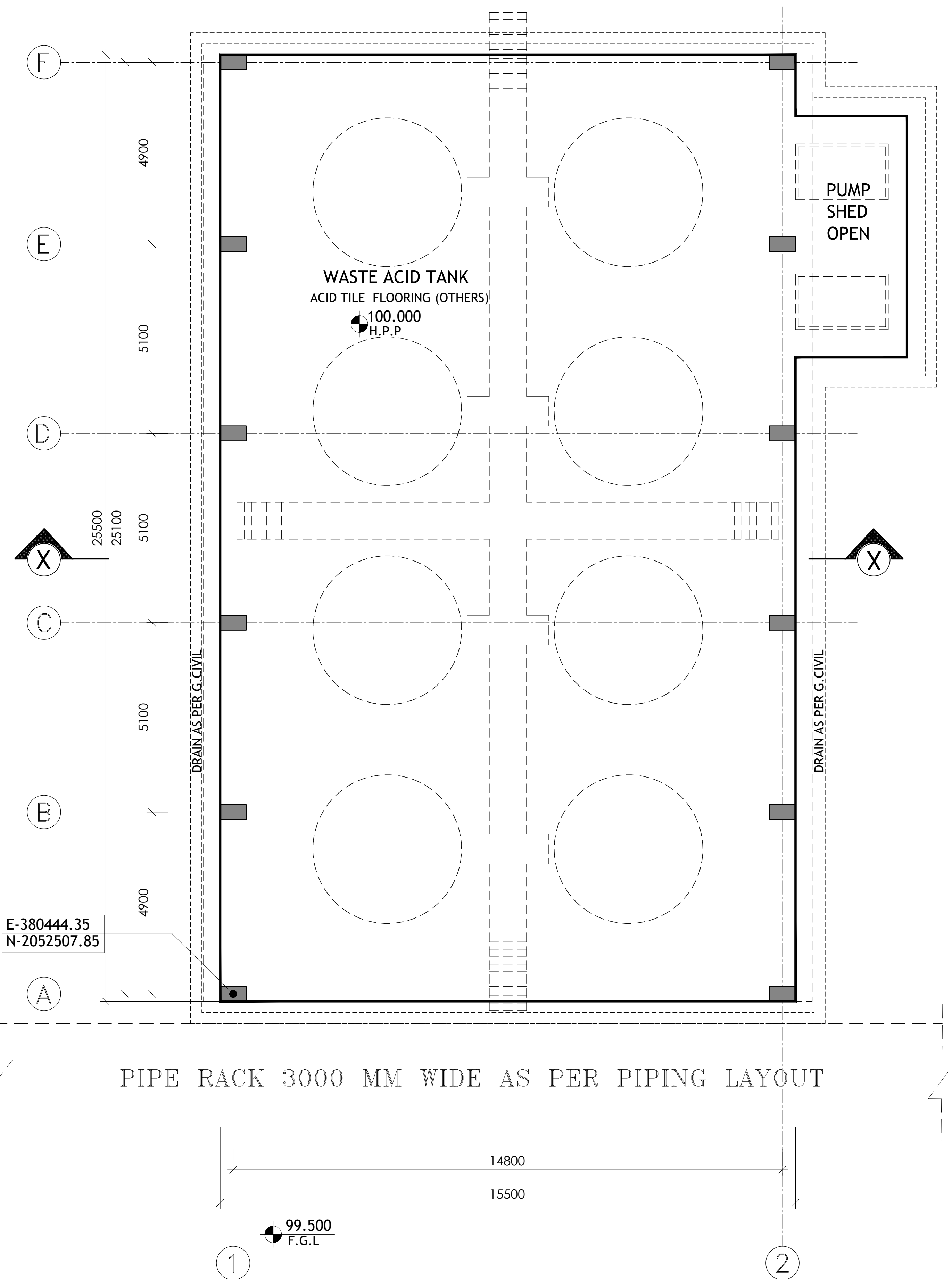
REFERENCE DRAWING TITLE

प्रभुदत्त ओंख एल हमने लिङ्गान ईडीएमएस डीएमए लिमिटेड की संर्पत्ति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट संर्पत्ति किया है कि न तो उन्हें पूरा: मुद्रित किया जाएगा, न मकल को जाएगा, न उधार दिए जाएंगे, न प्रर्पत्ति किए जाएंगे और न ही संर्पत्ति और किसी प्रकार के अलावा इस्तेमाल के अलावा उधार और यह प्रयोग उधार देते वाले द्वारा उधारकर्ता को लिखित रूप में दो या दो सार्पत्ति से होगा ।

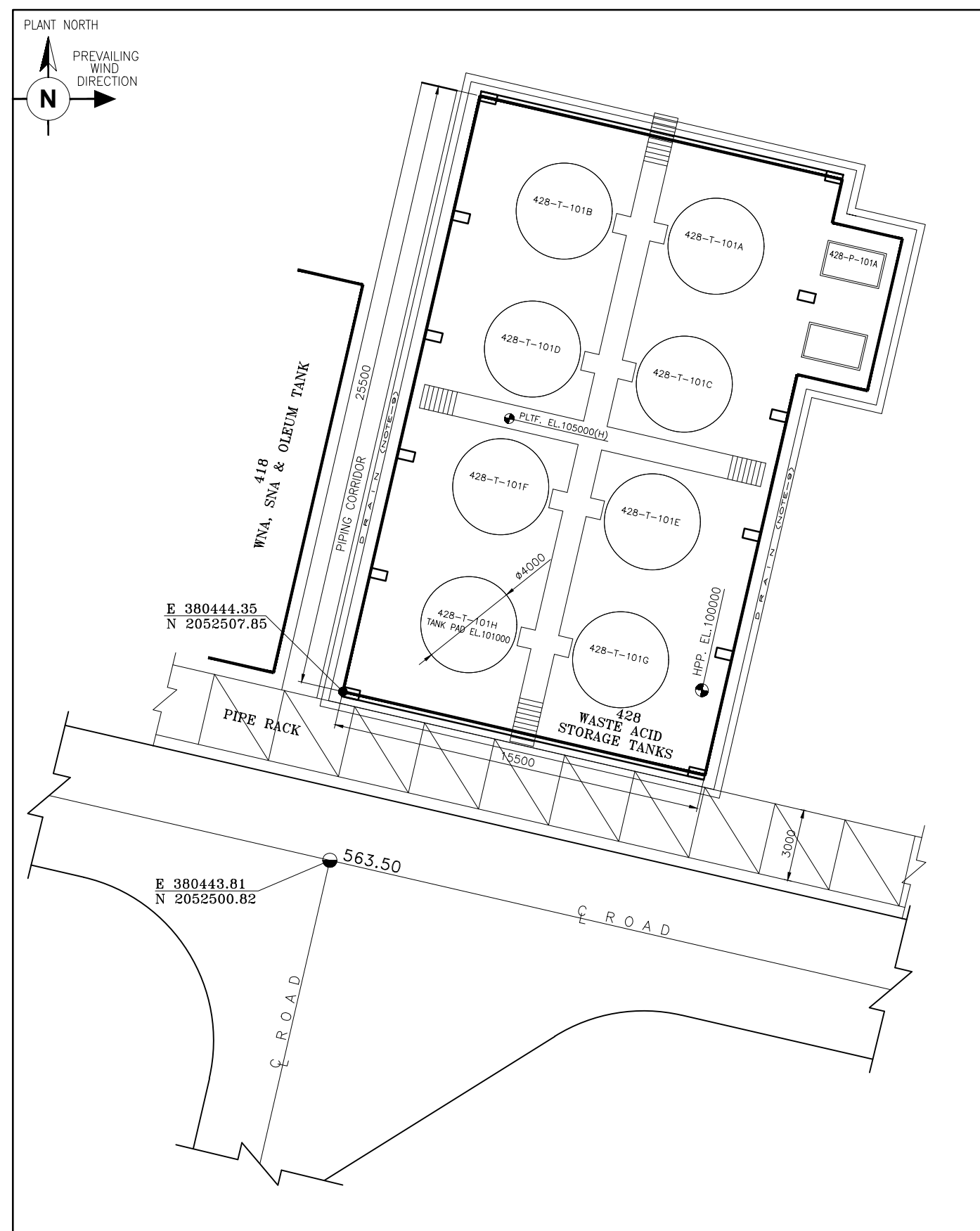
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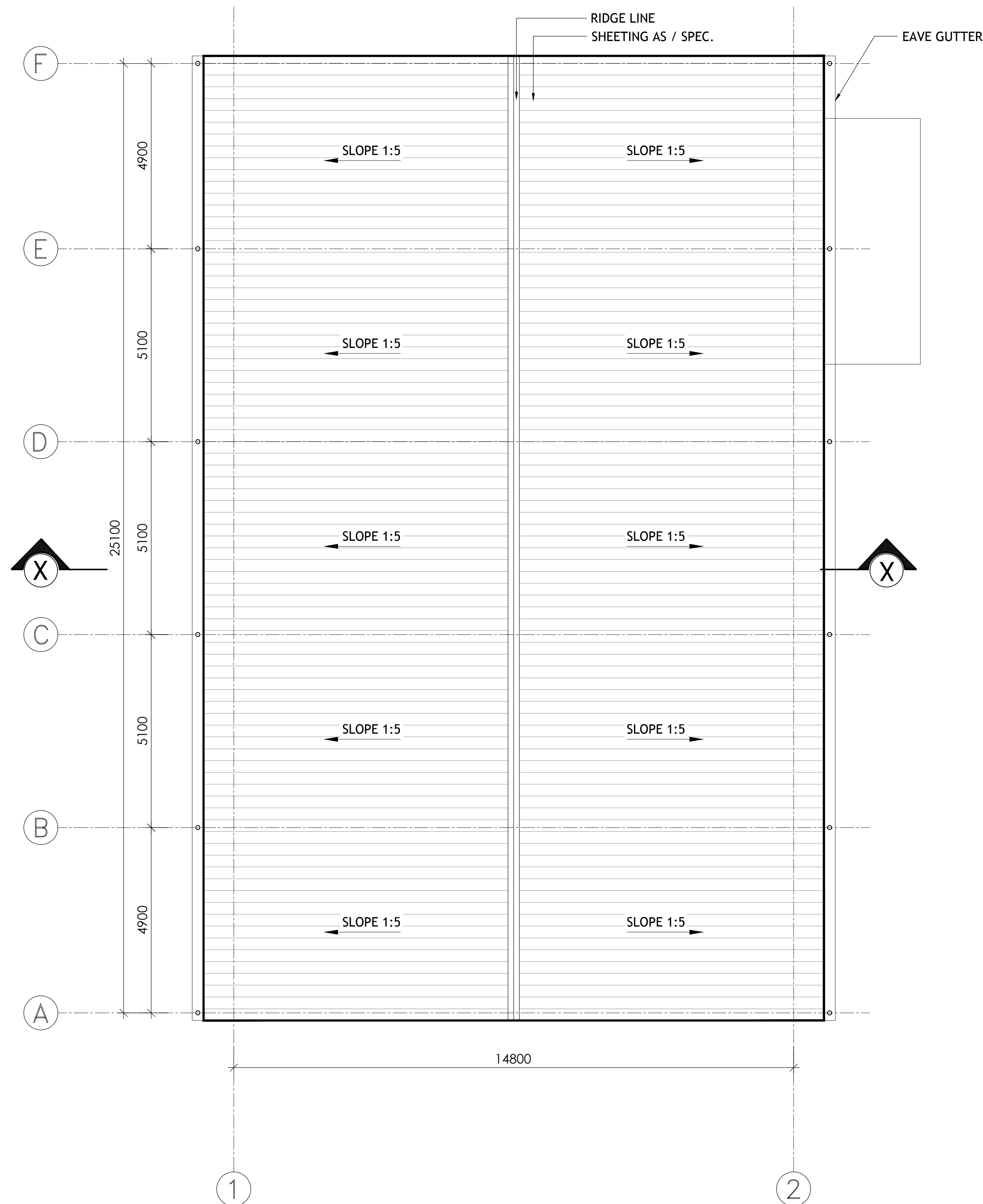
SECTION X-X



GROUND FLOOR PLAN



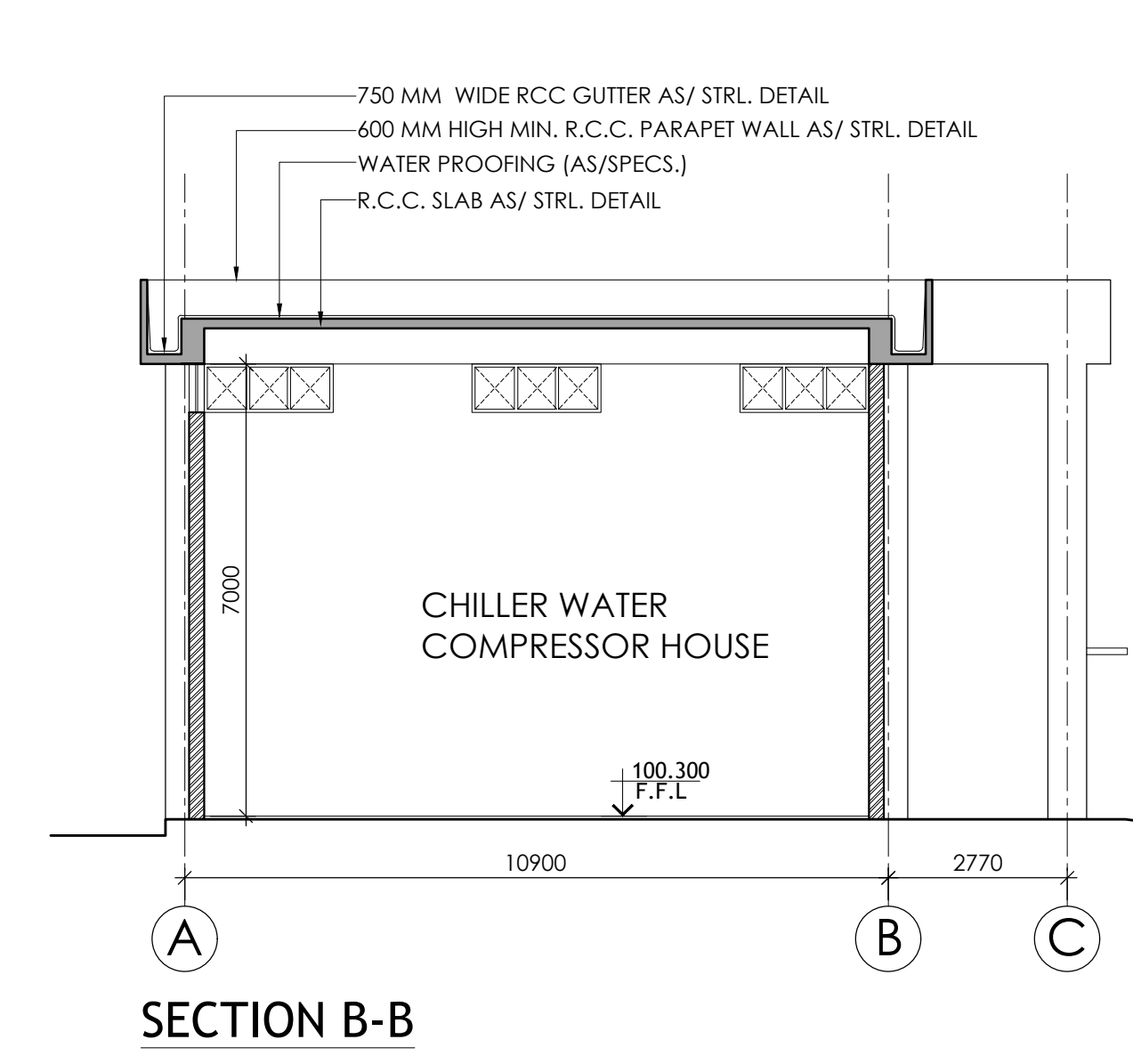
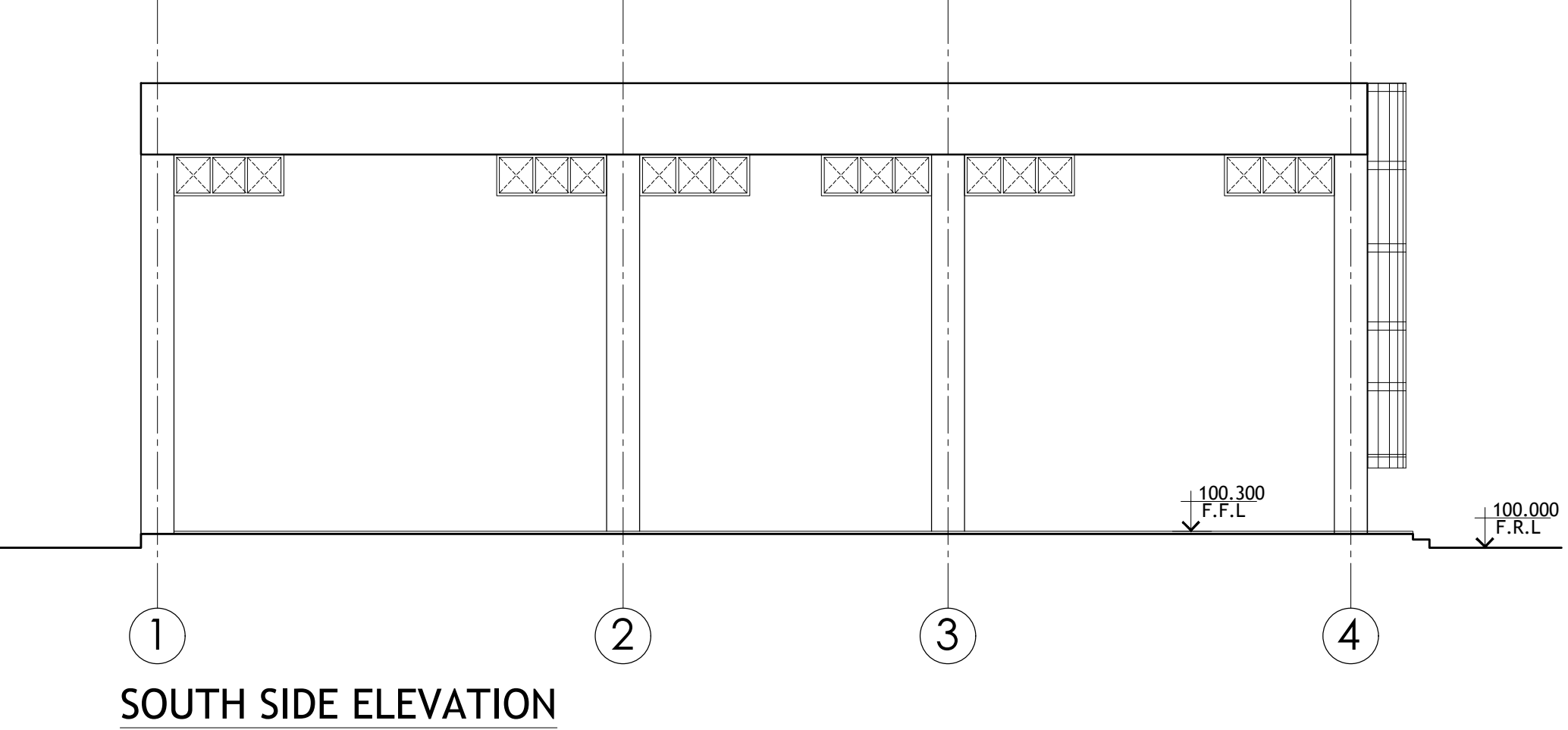
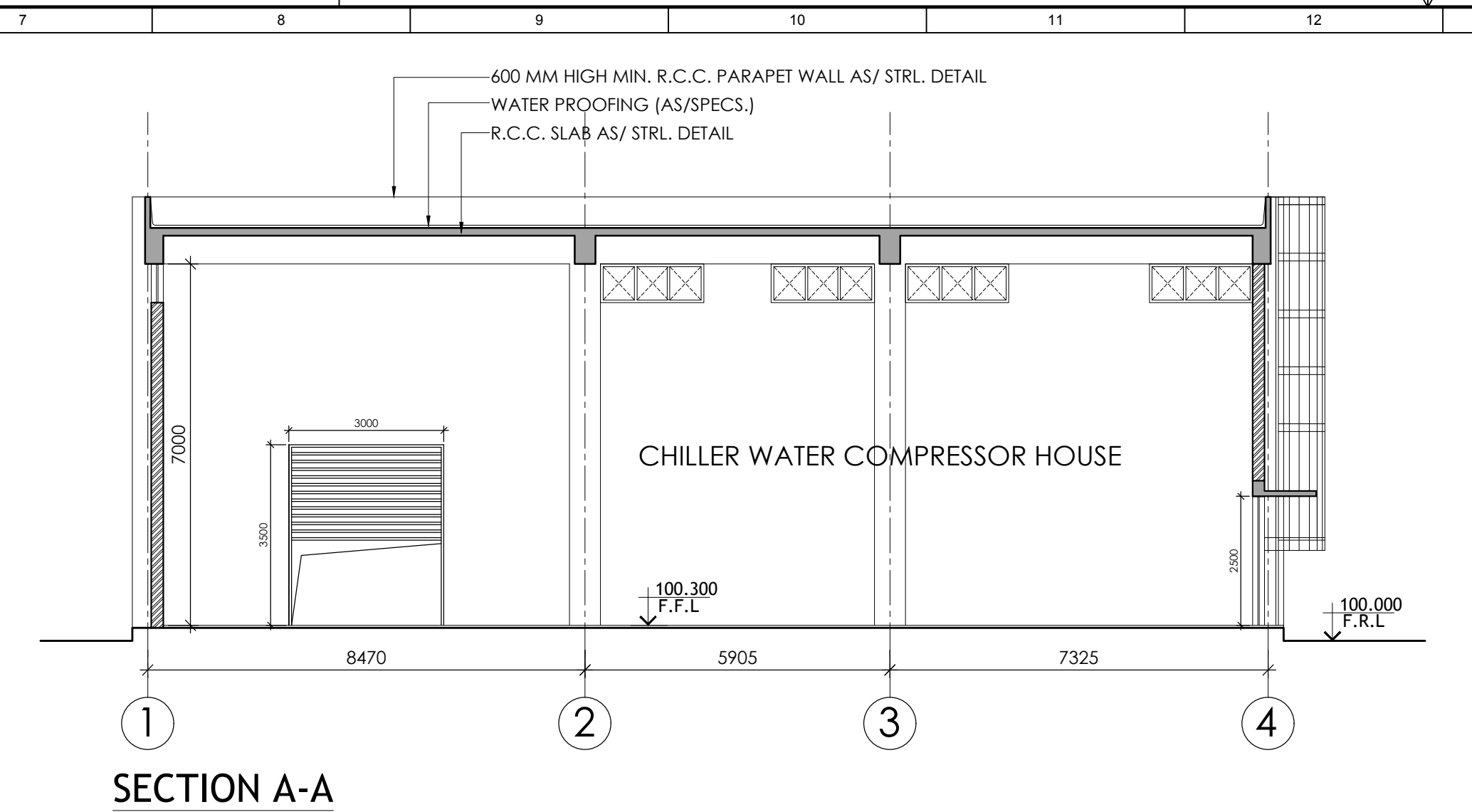
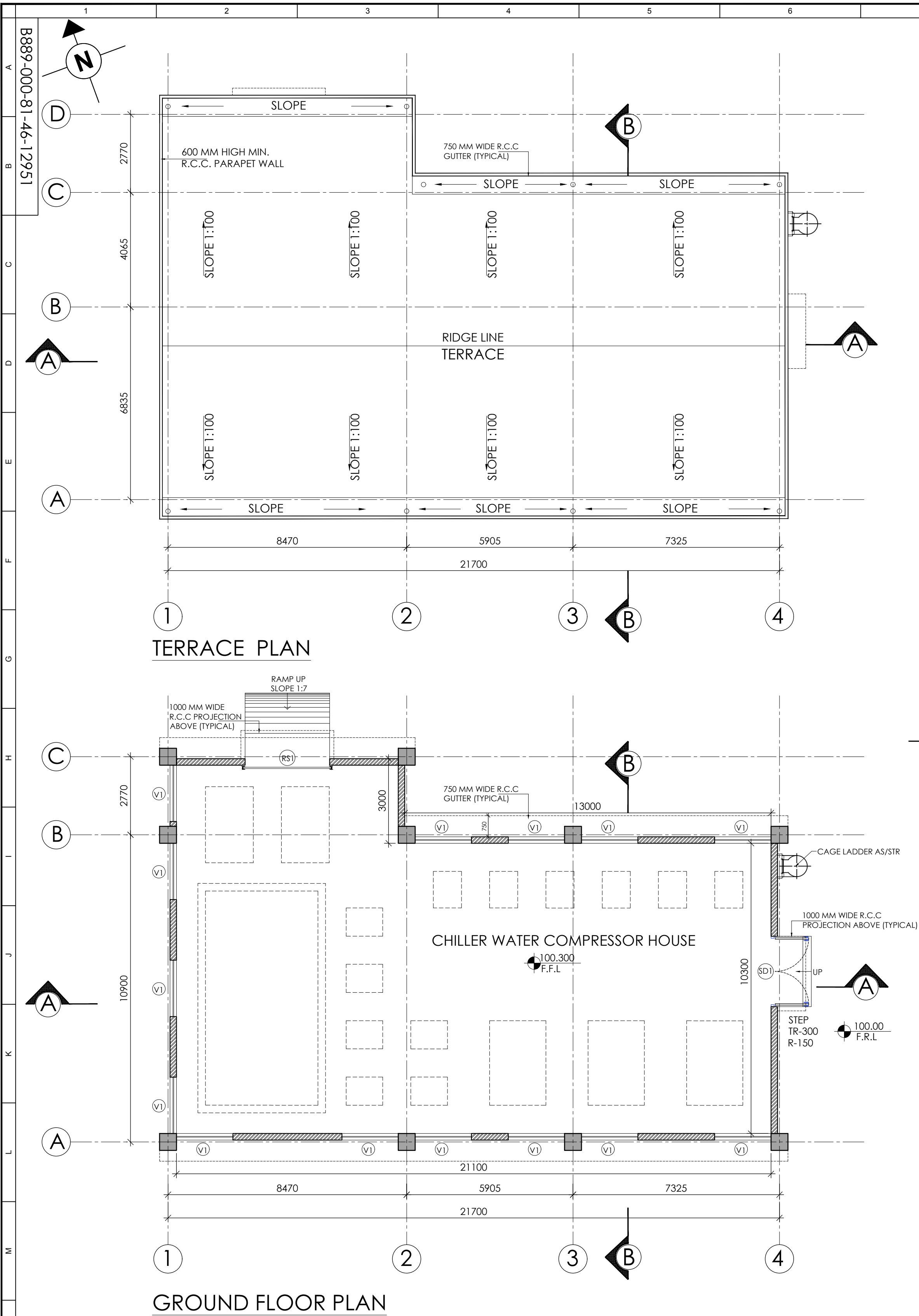
KEY PLAN (N.T.S)



ROOF PLAN

[illegible]

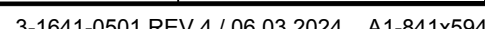
प्रस्तुत आरेख एवं इसमें विहित डिजाइन इंजीनियर्स इंडिया लिमिटेड की संपत्ति है। ये चित्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझौता किया है कि वे तो उन्हें पुनः मुद्रित किया जाएगा, न चकल की जाएगी, न तैयार किए जाएंगे, न प्रतिलिपि किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दी गई सहमति से होगा।
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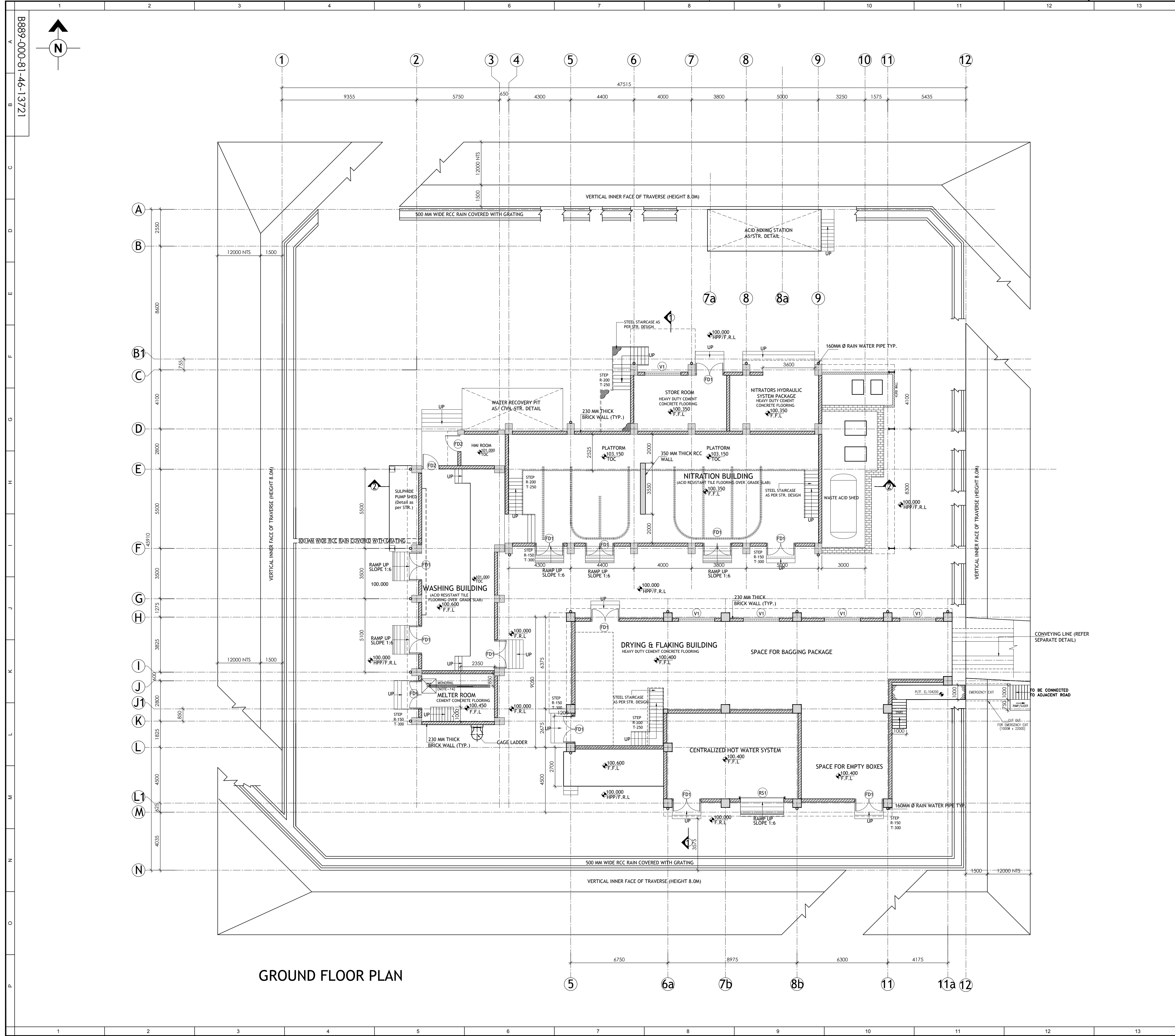
SCHEDULE OF DOORS & WINDOWS					
TYPE	OPENING SIZE	FRAME SIZE	LINTEL LEVEL	DESCRIPTION	NOS.
RS1	3000x3500	-	3500	STD. STEEL ROLLING SHUTTER, ELECTRICALLY OPERATED	01
SD1	2500x2500	2480x2490	2500	PRESSED STEEL DOOR WITH PRESSED STEEL FRAME, DOUBLE SHUTTER AS/EIL-STD. 7-75-0070, AIRTIGHT	01
V1	2000x0750	1980x0730	BEAM/ BOTTOM	POWDER COATED ALMN. GLAZED VENTILATOR WITH 6 mm THK TOUGHENED GLASS, PARTLY FIXED/ OPENABLE	14

ARCHITECTURAL FINISHES SCHEDULE			
ROOM	FLOOR FINISH	WALL FINISH	CEILING FINISH
CHILLER WATER COMPRESSOR HOUSE	HEAVY DUTY CEMENT CONCRETE FLOORING	CEMENT PLASTER, ACRYLIC DISTEMPER PAINT	CEMENT PLASTER & ACRYLIC DISTEMPER PAINT
STEPS, RAMPS	HEAVY DUTY CEMENT CONCRETE FLOORING	-	-
EXTERNAL	• PLAIN CEMENT PLASTER AND ACRYLIC PAINT • ROOFING : OVERDECK INSULATION CUM WATER PROOFING		

REF. DWG. NO. B889-000-16-43-34020		REFERENCE DRAWING TITLE PIPING SCOPE DRAWING FOR CHILLER WATER PACKAGE				
NOTES: 1. DIMENSIONS, CO-ORDINATES, LEVELS A. ALL DIMENSIONS ARE IN MILLIMETRES. B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION. C. ALL LEVELS & CO-ORDINATES ARE IN METRES. D. LEVEL 100.000 CORRESPONDS TO TOP OF APPROACH / ACCESS ROAD NEAR THE BUILDING ENTRY, CROSS REFERENCE TO STRUCTURAL DRAWING SHALL BE MADE. E. PLINTH LEVEL OF THE BUILDING SHALL BE SAME THROUGHOUT UNLESS SPECIFICALLY INDICATED. F. LOCATION/ ORIENTATION/ CO-ORDINATES OF THE BUILDING SHALL BE CROSS-CHECKED WITH STRUCTURAL AND PLOT PLAN DRAWINGS. IN CASE OF ANY MIS-MATCH THE SAME SHALL BE GOT RESOLVED BEFORE CONSTRUCTION. 2. FLOOR A. REFERENCE SHALL BE MADE TO RELEVANT DRAWINGS BEFORE STARTING FLOORING WORKS. TRENCHES/CUT OUTS IN FLOOR SHALL BE PROVIDED IN ACCORDANCE WITH RELEVANT ELECTRICAL/INSTRUMENTATION/PED/ STRUCTURAL/EQUIPMENT DRAWINGS. B. SKIRTING DETAIL SHALL BE AS /EIL STANDARD NO. 7-75-0002 & 7-75-0003. 3. CABLING/CONDUITS A. ALL CONDUITS SHALL BE CONCEALED TYPE EXCEPT IN AREAS CONCEALED BY FALSE CEILING AND SHALL BE LAID AS PER RELEVANT DRAWINGS. B. IN CASE OF CONDUITS CONCEALED IN ROOF/BEAM/FLOOR, THEY SHALL BE LAID BEFORE CASTING. 4. PLINTH PROTECTION A. 1000 WIDE PLINTH PROTECTION SHALL BE PROVIDED AROUND THE BUILDING PERIMETER. 7. MISCELLANEOUS A. STEEL PLATFORM, RAILINGS AS PER STRUCTURE DETAIL.						
LEGEND :- F.R.L. - FINISHED ROAD LEVEL F.F.L. - FINISHED FLOOR LEVEL 230 THK BRICK WALL						
REV.	DATE	DESCRIPTION	BY	CHKD	APPD	PM
C	29.05.25	RE-ISSUED FOR TENDER	NK	SS	GJK	
B	24.01.25	ISSUED FOR CLIENT APPROVAL /TENDER	NK	SS	GJK	
A	08.01.25	ISSUED FOR COMMENTS	NK	SS	GJK	
 Munitions India Limited म्युनिशन्स इंडिया लिमिटेड TNT PLANT HEF, KHADKI, PUNE CHILLER WATER COMPRESSOR HOUSE(470) GROUND FLOOR PLAN & SECTION						
SCALE	JOB NO.	UNIT	DIVN.	DEPT.	DWG. NO.	REV.
1:100	B889	000	81	46	12951	C



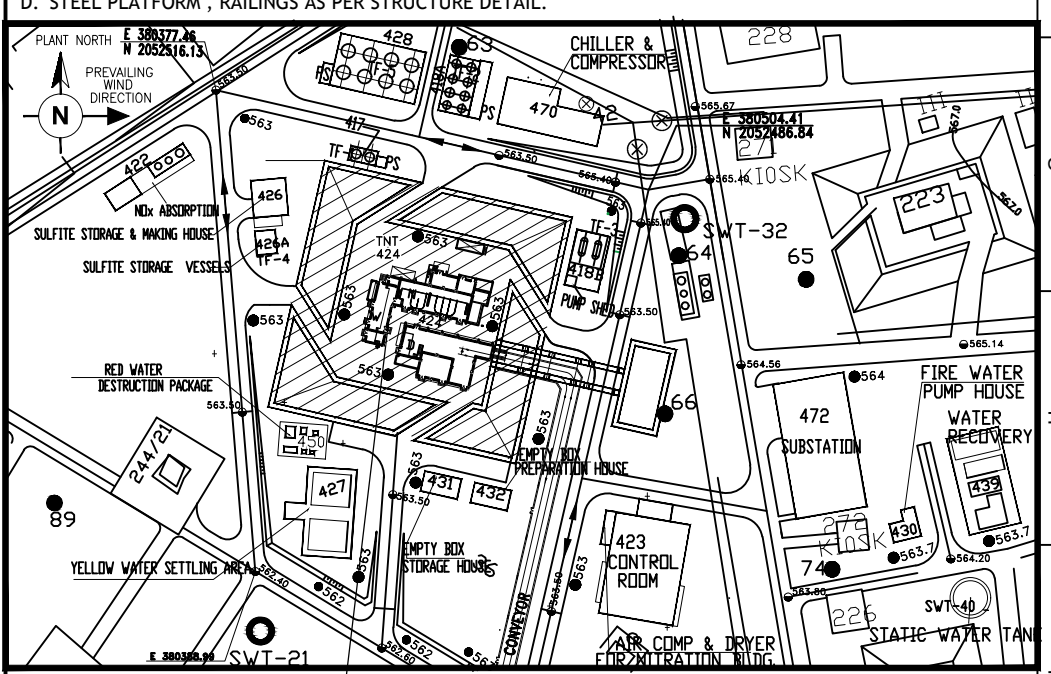
प्रस्तुत आरेख एवं इसमें निहित डिजाइन इंजीनियरिंग लिमिटेड की संपत्ति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझौता किया है कि वे तो उन्हें पुनः मुद्रित किया जाएगा, न कलन को जाएंगे, न उधार दिए जाएंगे, न प्रसारित किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दी गई सहमति से होगा। The drawing, design and details given on this format are the property of ENGINEERS INDIA LIMITED. They are merely loaned on the borrower's express agreement that they will not be reproduced, copied, exhibited or used, except in the limited way permitted by a written consent given by the lender to the borrower for the intended use.



GROUND FLOOR PLAN

REF. DWG. NO.	REFERENCE DRAWING TITLE
B889-000-81-45-00001_E	OVERALL PLOT PLAN
B889-424-16-43-00001_D	EQUIPMENT LAYOUT
B889-424-16-43-00002_D	EQUIPMENT LAYOUT SECTIONS
B889-000-81-46-13722_G	FIRST FLOOR PLAN
B889-000-81-46-13723_G	TERRACE PLAN
B889-000-81-46-13724_G	SECTIONS

- NOTES:
- DIMENSIONS, CO-ORDINATES, LEVELS
A. ALL DIMENSIONS ARE IN MILLIMETRES.
B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION.
C. ALL LEVELS & CO-ORDINATES ARE IN METRES.
D. LEVEL 100.000 CORRESPONDS TO TOP OF APPROACH / ACCESS ROAD NEAR THE BUILDING ENTRY, CROSS REFERENCE TO STRUCTURAL DRAWING SHALL BE MADE.
E. PLINTH LEVEL OF THE BUILDING SHALL BE SAME THROUGHOUT UNLESS SPECIFICALLY INDICATED.
F. LOCATION/ORIENTATION/CO-ORDINATES OF THE BUILDING SHALL BE CROSS-CHECKED WITH STRUCTURAL AND PLOT PLAN DRAWINGS. IN CASE OF ANY MIS-MATCH THE SAME SHALL BE GOT RESOLVED BEFORE CONSTRUCTION.
 - FLOOR
A. FINISHED FLOOR LEVEL OF WC/BATH CUBICLES & DRINKING WATER SHALL BE 12MM LESS THAN ADJOINING AREAS AND SHALL HAVE PROPER SLOPE FOR FLOOR DRAINAGE.
B. FLOOR OF CABLE-CELLAR, BATTERY-ROOM SHALL HAVE PROPER SLOPE FOR FLOOR DRAINAGE.
C. REFERENCE SHALL BE MADE TO RELEVANT DRAWINGS BEFORE STARTING FLOORING WORKS. TRENCHES/CUT OUTS IN FLOOR SHALL BE PROVIDED IN ACCORDANCE WITH RELEVANT ELECTRICAL/INSTRUMENTATION/FED/ STRUCTURAL/EQUIPMENT DRAWINGS.
D. SKIRTING DETAIL SHALL BE AS /EIL STANDARD NO. 7-75-0002 & 7-75-0003.
 - WALL
A. THICKNESS OF ALL BRICK WALLS (EXCEPT WC) SHALL BE 230MM THK BRICK MASONRY IF NOT SPECIFICALLY INDICATED.
B. INTERNAL PARTITION WALLS OF WC/BATH CUBICLES SHALL BE 230MM HIGH FROM FLOOR LEVEL.
C. ALL OTHER WALLS SHALL BE UP TO ROOF/ROOF BEAM IF NOT SPECIFICALLY INDICATED.
D. CUT-OUTS/OPENINGS ON THE WALLS, SHALL BE AS PER THE APPROVED HVAC VENDOR'S DRAWINGS. CABLES/DUCTS ETC. SHALL BE PROVIDED IN MASONRY WALLS AS PER RELEVANT ELECTRICAL/INSTRUMENTATION/ FEB/STRUCTURAL/EQUIPMENT, CABLE, VENDER DUCTING DRAWINGS.
 - CABLING/CONDUITS
A. ALL CONDUITS SHALL BE CONCEALED TYPE EXCEPT IN AREAS CONCEALED BY FALSE CEILING AND SHALL BE LAID AS PER RELEVANT DRAWINGS.
B. IN CASE OF CONDUITS CONCEALED IN ROOF/BELM/FLOOR, THEY SHALL BE LAID BEFORE CASTING.
 - FINISHING
A. IN CASE OF ANY CONFLICT WITH TENDER/PACKAGE, THE SAME SHALL BE GOT RESOLVED BEFORE PROCUREMENT AND EXECUTION.
B. ALL OUTSIDE SURFACES SHALL BE FINISHED WITH 18mm THK. PLASTER ON BRICK MASONRY WALL SURFACES.
C. ALL INTERNAL WALLS SHALL BE FINISHED WITH 12mm/15mm THK. PLAIN PLASTER ON PERIPHERAL WALLS & 12mm/15mm THK. PLAIN CEMENT PLASTER ON OTHER SIDE OF INTERNAL WALLS. 6mm THK. PLAIN PLASTER SHALL BE PROVIDED ON R.C.C. SURFACES.
 - PLINTH PROTECTION
A. 1000 WIDE PLINTH PROTECTION SHALL BE PROVIDED AROUND THE BUILDING PERIMETER.
 - MISCELLANEOUS
A. OVERDECK INSULATION SHALL BE PROVIDED TO THE ROOF OF ALL AC AREAS AT TOP FLOOR.
B. ALL SUNSHADE & ROOF PROJECTIONS SHALL HAVE DRIP MOULD GROOVES UNDERNEATH ALL ALONG THE PERIPHERIES.
C. ALL DOORS, GATES ETC. SHALL BE PROVIDED WITH FACILITY OF LOCKING THE DOORS.
D. STEEL PLATFORM, RAILINGS AS PER STRUCTURE DETAIL.



KEY PLAN

SCHEDULE OF DOORS & WINDOWS (HOLD)				
TYPE	OPENING SIZE	FRAME SIZE	LINTEL LEVEL	DESCRIPTIONS
RS1	3000x3500	-	3500	STD. STEEL ROLLING SHUTTER, ELECTRICALLY OPERATED
FD1	2000x2400	1980x2390	2400	2-HR FIRE RATED, STEEL DOOR, DOUBLE SHUTTER WITH PANIC BAR AS PER MANUFACTURES DETAIL.
FD2	1200x2400	1180x2390	2400	2-HR FIRE RATED, STEEL DOOR, SINGLE SHUTTER WITH PANIC BAR AS PER MANUFACTURES DETAIL.
FD2A	1500x2400	1480x2390	2400	2-HR FIRE RATED, STEEL DOOR, DOBLE SHUTTER WITH PANIC BAR AS PER MANUFACTURES DETAIL.
FD3	1000x2100	0980x2090	2100	2-HR FIRE RATED, STEEL DOOR, SINGLE SHUTTER WITH PANIC BAR AS PER MANUFACTURES DETAIL.
W1	3500x1500	3480x1490	2400	ALMN. GLAZED FIXED WINDOW POWDER COATED ALMO. WITH 6 mm THK TOUGHENED GLASS
V1	2500x600	2480x590	BEAM BOTTOM	ALMN. GLAZED VENTILATOR POWDER COATED WITH 6mm THK TOUGHENED GLASS, PARTLY FIXED PARTLY OPENABLE TYPE WITH EXHAUST FAN

LEGEND :-	
F.R.L. - FINISHED ROAD LEVEL	230 THK BRICK WALL
F.F.L. - FINISHED FLOOR LEVEL	350 THK RCC WALL WITH 0.7% REINFORCEMENT
T.O.C. - TOP OF CONCRETE	RCC
T.O.S. - TOP OF STEEL	STEEL

REV.	DATE	DESCRIPTION	BY	CHKD	APPD	PM
G	30.04.25	ISSUED FOR ENGINEERING	NK	SS	GJK	
F	08.04.25	RE-ISSUED FOR STATUTORY/ CLIENT APPROVAL	NK	SS	GJK	
E	26.03.25	RE-ISSUED FOR STATUTORY/ CLIENT APPROVAL	NK	SS	GJK	
D	12.03.25	RE-ISSUED FOR STATUTORY/ CLIENT APPROVAL	KT	SS	GJK	
C	27.02.25	ISSUED FOR STATUTORY/ CLIENT APPROVAL	NK	SS	GJK	
B	06.02.25	ISSUED FOR CLIENT APPROVAL / TENDER	NK	SS	GJK	
A	10.12.24	ISSUED FOR COMMENTS	NK	SS	GJK	



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म्यूनिशन्स इंडिया लिमिटेड
MUNITIONS INDIA LIMITED

टीएनटी प्लांट
एचईएफ, खडकी, पुणे

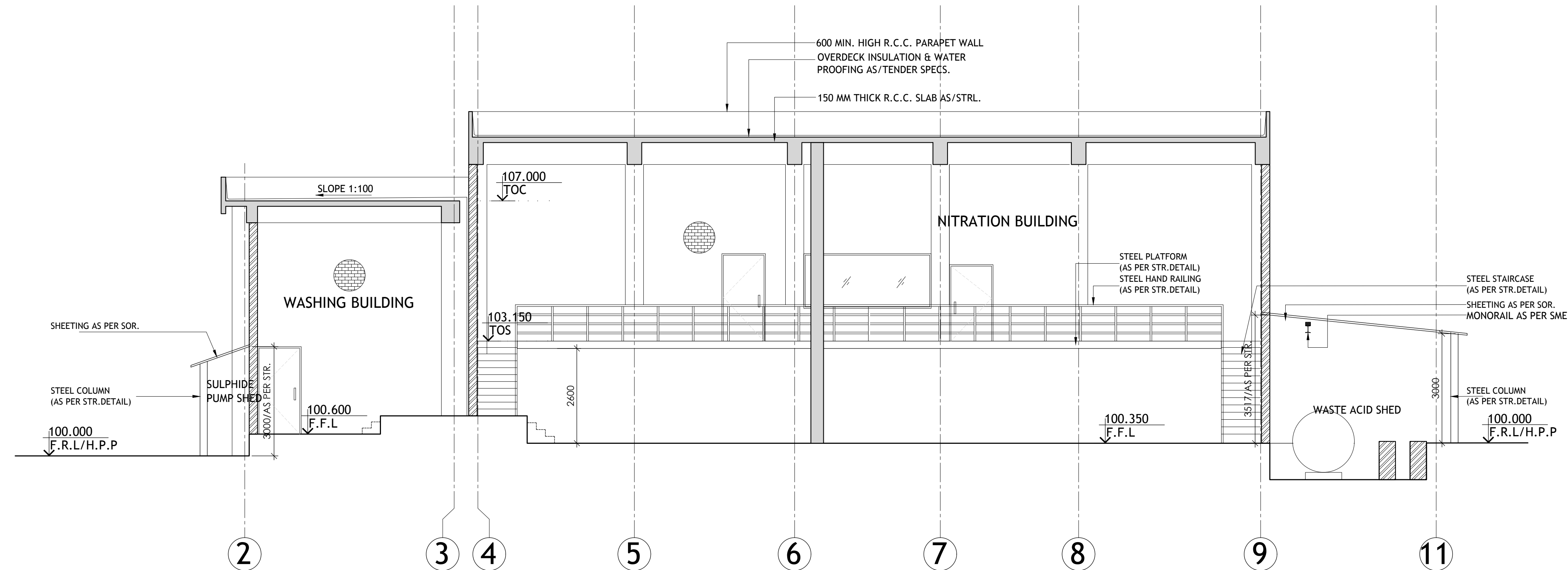
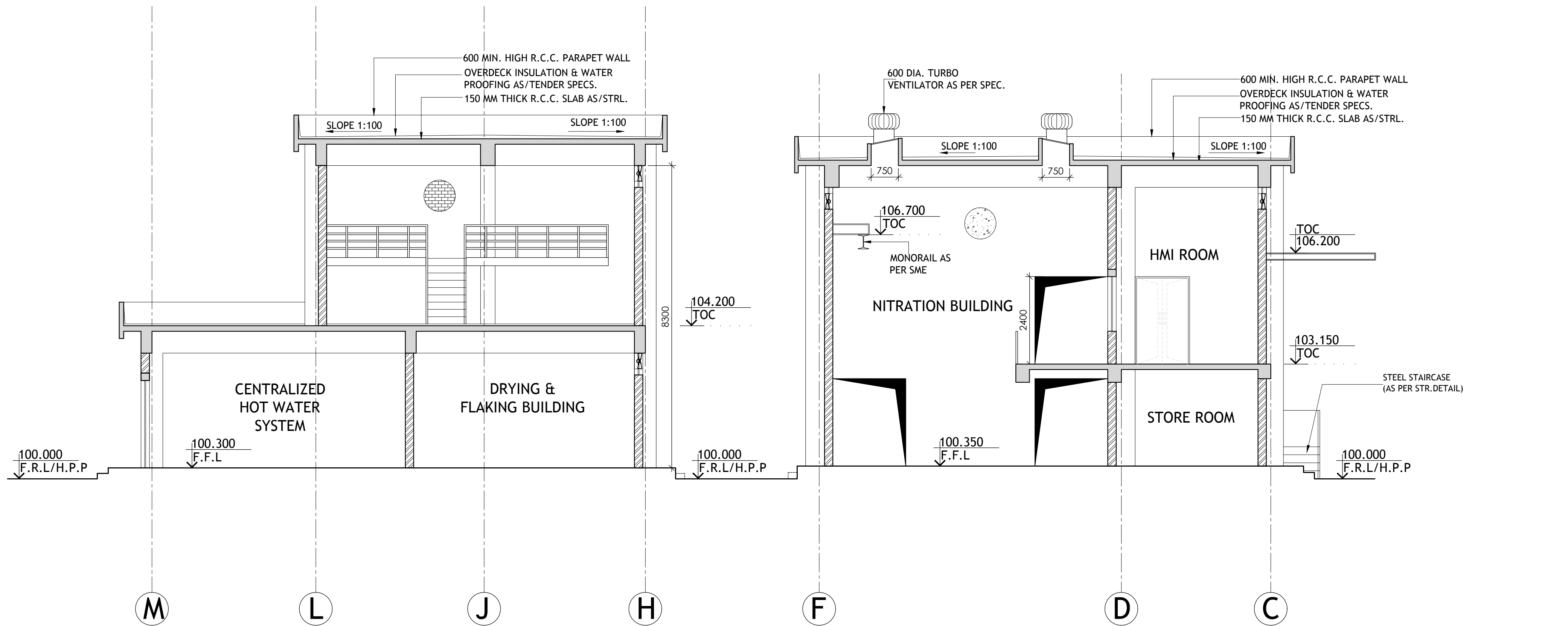
TNT PLANT
HEF, KHADKI, PUNE

नाइट्रीकरण, धुलाई व शुष्कन
और शल्कन 424
भूतल का प्लान

NITRATION, WASHING & DRYING
& FLAKING (424)
GROUND FLOOR PLAN

SCALE	JOB NO.	UNIT	DIVN.	DEPT.	DWG. NO.	REV.
1:125	B889	000	15	46	13721	G

प्रस्तुत आरेख एवं इसमें विहित डिजाइन इंजीनियर्स इंडिया लिमिटेड की संपत्ति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझौता किया है कि न तो उन्हें पुनः प्रुति किया जाएगा, न तब तक की जाएगी, न वे उसे फिर से प्रुति करेंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दो तह सही सही से होगा ।
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REF. DWG. NO.	REFERENCE DRAWING TITLE
B889-000-81-45-00001_E	OVERALL PLOT PLAN
B889-424-16-43-00001_O	EQUIPMENT LAYOUT
B889-424-16-43-00002_O	EQUIPMENT LAYOUT SECTIONS
B889-000-81-46-13721_G	GROUND FLOOR PLAN
B889-000-81-46-13722_G	FIRST FLOOR PLAN
B889-000-81-46-13723_G	TERRACE PLAN

NOTES:
1. DIMENSIONS, CO-ORDINATES, LEVELS
A. ALL DIMENSIONS ARE IN MILLIMETRES.
B. DRAWING IS NOT TO BE SCALED FOR ANY MISSING DIMENSION.

REV.	DATE	DESCRIPTION	BY	CHKD	APPD	PM
G	30.04.25	ISSUED FOR ENGINEERING	NK	SS	GJK	
F	08.04.25	ISSUED FOR STATUTORY/ CLIENT APPROVAL	NK	SS	GJK	
E	26.03.25	ISSUED FOR STATUTORY/ CLIENT APPROVAL	NK	SS	GJK	
D	12.03.25	ISSUED FOR STATUTORY/ CLIENT APPROVAL	KT	SS	GJK	
C	27.02.25	ISSUED FOR STATUTORY/ CLIENT APPROVAL	NK	SS	GJK	
B	06.02.25	ISSUED FOR CLIENT APPROVAL / TENDER	NK	SS	GJK	
A	10.12.24	ISSUED FOR COMMENTS	NK	SS	GJK	

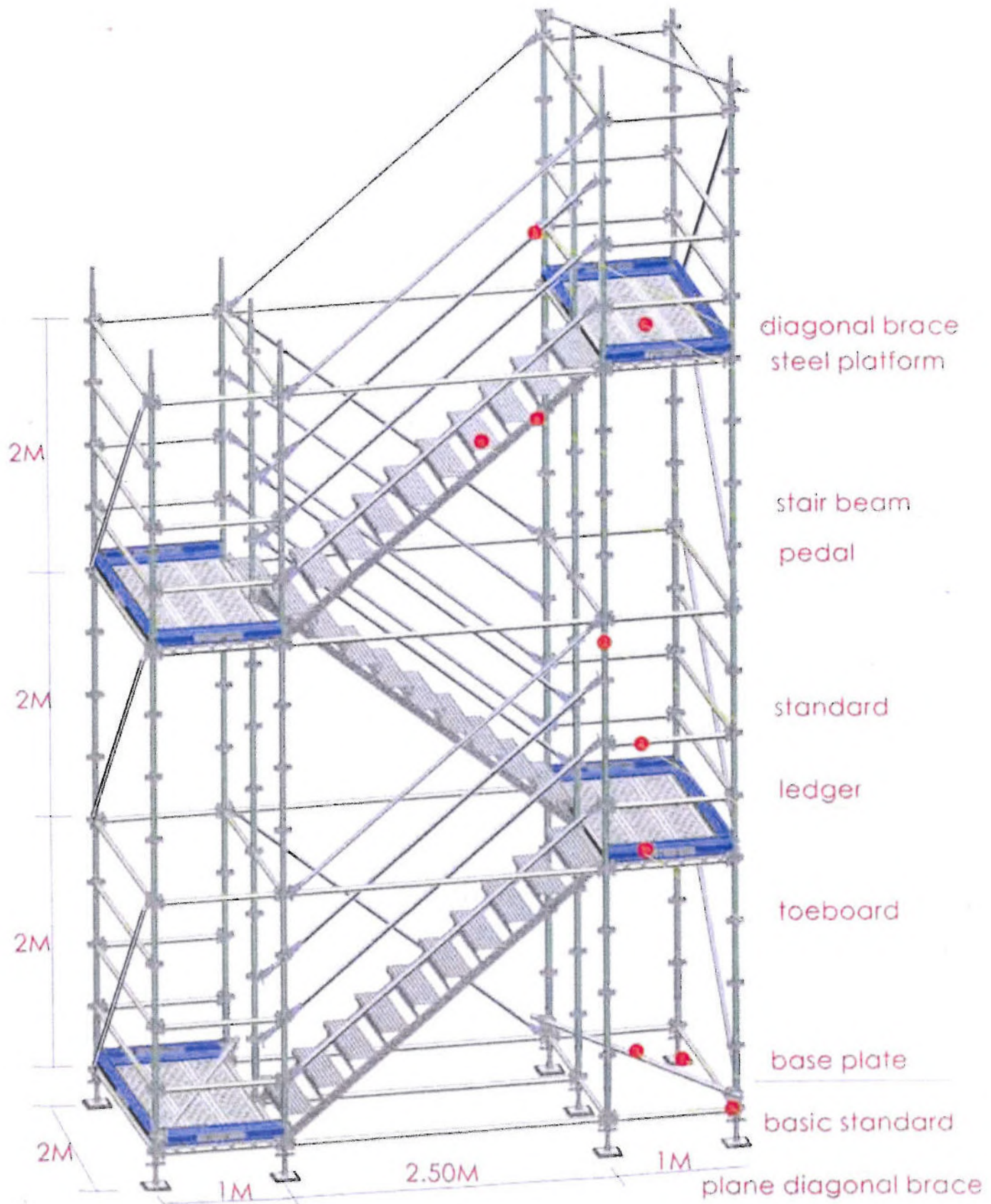
इंजीनियर्स इंडिया लिमिटेड (भारत सरकार का उपक्रम)		ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)	
Munitions India Limited म्यूनिशन्स इंडिया लिमिटेड MUNITIONS INDIA LIMITED			
टीएनटी प्लांट एचईएफ, खडकी, पुणे		TNT PLANT HEF, KHADKI, PUNE	
नाइट्रीकरण, धुलाई व शुष्कन और शल्कन 424 काट		NITRATION, WASHING & DRYING & FLAKING (424) SECTIONS	
SCALE 1:75	JOB NO. B889	UNIT 000	DIVN. DEPT. DWG. NO. REV. 81 46 13724 G
14		15	
		16	

indicative sketch w.r.t item No 4

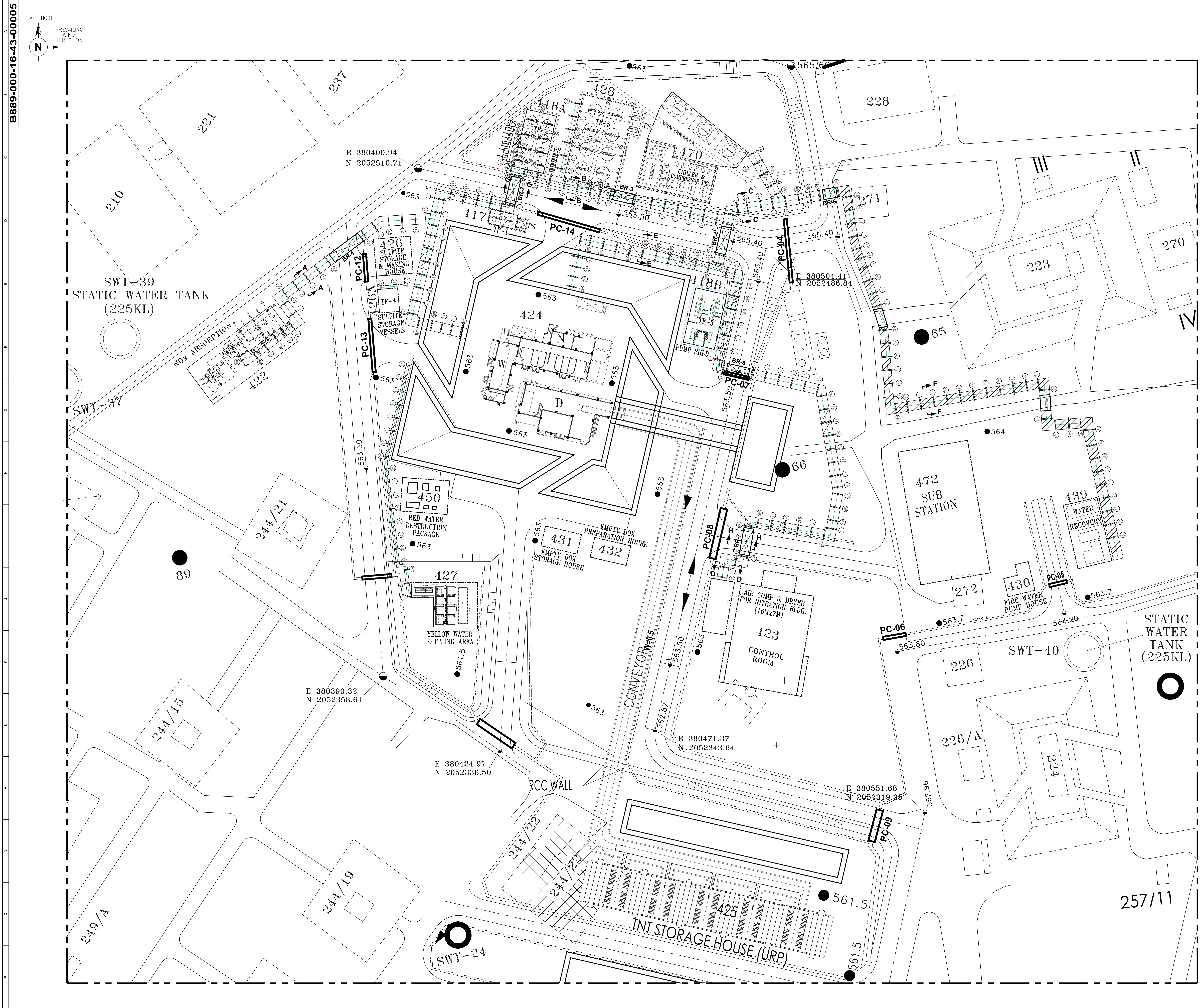
DWG NO-B889-000-81-41-49093

ISSUED FOR TENDER

TITLE- SKETCH FOR STAIR TOWER



प्रस्तावित संरचना एवं इसके निर्माण विवरण संबंधित सर्वेक्षण विवरण, निर्माण के लिए न तो उन्हें पुनः मुद्रित किया जाएगा, न बदल को जाएगा, न अंतर दिए जाएंगे, न परिवर्तन किए जाएंगे और न ही सीमित और निरीक्षण और अन्य प्रयोग और अन्य प्रकार के अनावश्यक को निर्माण कर न ही यह संपत्ति में शामिल है।
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REF. DWG. NO.
B889-000-81-45-00001

REFERENCE DRAWING TITLE
OVERALL PLOT PLAN

NOTES :-

1. ALL DIMENSIONS ARE IN M.M., CO-ORDINATES ARE IN METER UNLESS OTHERWISE SPECIFIED.

2. ALL ELEVATIONS ARE IN MM. AND ARE WITH REFERENCE TO FGL ELEVATION 100000 WHICH CORRESPONDS TO 563.000 M ABOVE MSL.

3. LOCATION OF PIPING CORRIDOR ARE TENTATIVE AND ENVISAGED ON THE BASIS OF INPUT RECEIVED FROM THE CONCERNED DEPTT.

4. ELEVATIONS OF THE CORRIDOR HAS BEEN DECIDED ON THE BASIS OF GOOD ENGINEERING PRACTICES.

5. WHEREVER ELEVATIONS AS SHOWN IN THE DRAWING IS NOT POSSIBLE TO MATCH THE SAME, SHALL BE CONSIDERED AS PER SUIT TO SITE CONDITIONS.

6. LOCATION OF CORRIDOR HAS BEEN DECIDED ON THE BASIS OF PIPING AS DEFINE IN PROCESS PAID, ADDITION /DELETION /ALTERATION IN CORRIDOR SHALL BE CHANGED AS PER THE PAID'S AVAILABILITY.

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION A - A
(CORRESPONDING TO FGL)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION B - B
(CORRESPONDING TO FGL)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION C - C
(CORRESPONDING TO FGL)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION D - D
(CORRESPONDING TO FGL)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION E - E
(CORRESPONDING TO FGL)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION F - F
(CORRESPONDING TO FGL)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION G - G
(FOR BRIDGES)
(FOR BR-1,2 & 6)

ELECT. CABLE TRAY
(750 WIDE)
TOS. EL. 103000
TYP. EL. 102500

INST. TRAY
(200 WIDE)
TOS. EL. 103000
TYP. EL. 102500

SECTION H - H
(FOR BRIDGES)
(FOR BR-3,4,5 & 7)

LEGENDS :-

PLTF. EL. PLATFORM ELEVATION

TOS. EL. TOP OF STEEL ELEVATION

INST. INSTRUMENTATION

ELECT. ELECTRICAL

BOP. BALANCE OF PLANT

ENG. ENGINEERING

U/G UNDERGROUND

TYP. TYPICAL

TS T-TYPE SUPPORT

PS PIPE-RACK SUPPORT

S SLEEPER

KEY PLAN

REV. DATE DESCRIPTION BY CHKD APPD PEM

C 17/05/2025 ISSUED FOR TENDER

CHK/AM UC -

B 24/04/2025 REVISED AND REISSUED FOR COMMENTS

CHK/AM UC -

A 25/03/2025 ISSUED FOR COMMENTS

CHK/AM UC -

ENGINEERS INDIA LIMITED

(A Govt. of India Undertaking)

MUNITIONS INDIA LTD.

म्यूनिशंस इंडिया लिमिटेड

टी एन टी प्लांट

एचईएफ, खड़की-पुणे, भारत

TNT PLANT AT

HEF KHADKI - PUNE, INDIA

पाइपिंग कॉरिडोर अभिन्यास

रोप संवंत्र के लिए

PIPING CORRIDOR LAYOUT

FOR BALANCE OF PLANT

SCALE 1:375

JOB NO. B889

UNIT 000

DIVN. 16

DEPT. 43

DWG. NO. 00005

REV. C

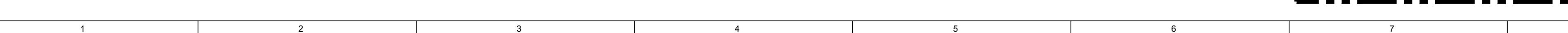
DWG NO B889-000-16-43-00003

3-1641-0500 REV.5 / 06.12.2024 A0-1189 x 41

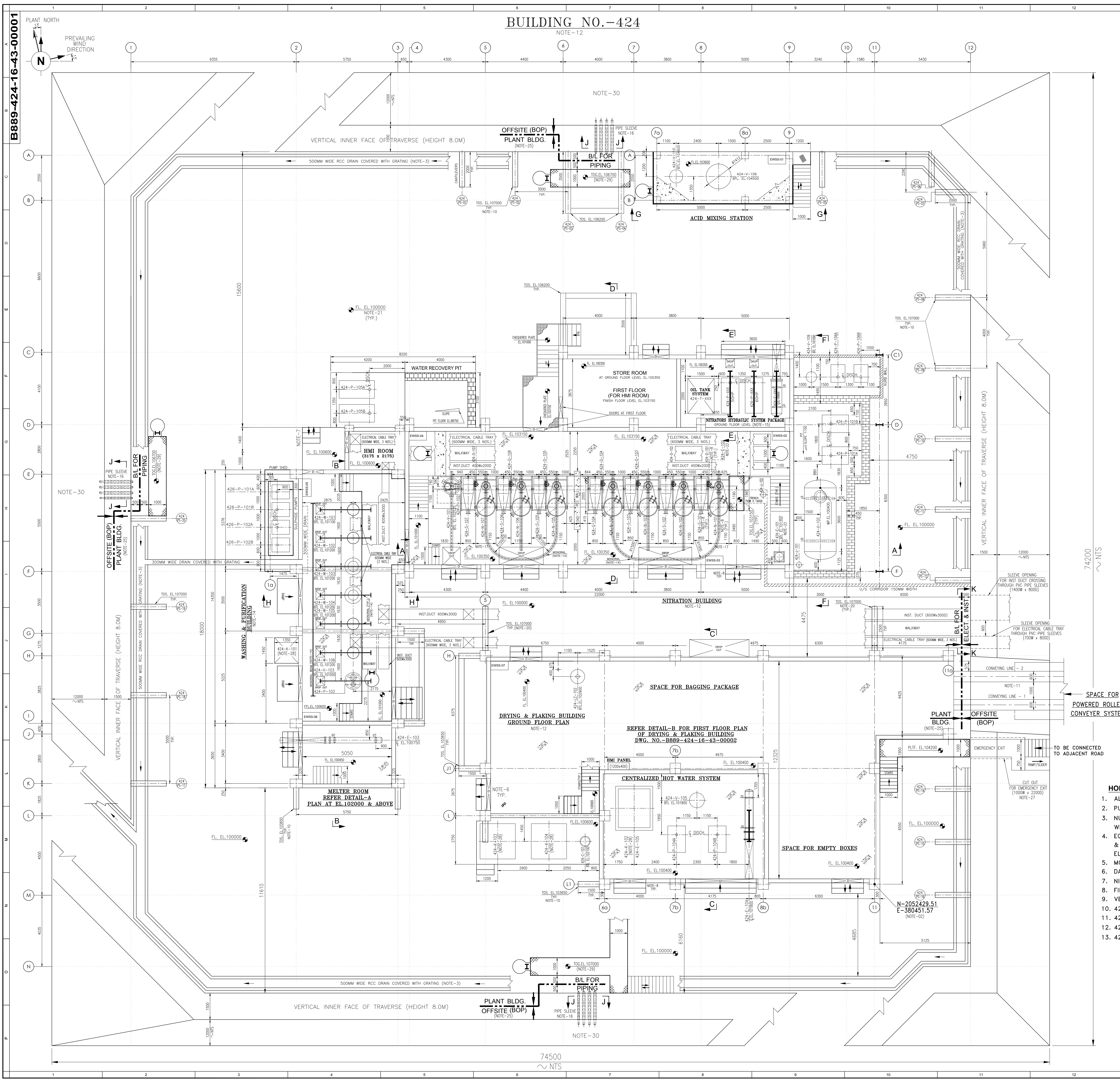
NOTES :-

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH
MAIN PLAN DRAWING NO. 8889-424-16-43-00001.

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE
MAIN PLAN DRAWING NO. B889-424-16-43-00001.



प्रमाण आशय हवे इन्जिनियर इन्स्टिट्यूट इन्डिया लिमिटेड की संपत्ति है। ये मान्यता प्राप्त है और उपयोगकर्ता ने यह स्पष्ट समझौता किया है कि ये न तो उन्हें और उपयोगकर्ता, न कानून को जाना। न उधार दिए जाएंगे, न प्रसारित किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इन्फो और अन्य सेवाएं प्राप्त की जा सकेंगी। को लिखित रूप से ये भी संपत्ति से जमा।
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EQUIPMENT LIST-NITRATION SECTION					REF. DWG. NO.	REFERENCE DRAWING TITLE
EQP. No.	DESCRIPTION	P&ID	LOCATION	REMARKS	B889-000-81-45-00001	OVERALL PLOT PLAN
NITRATORS					B889-000-81-46-13721/22/23/24	ARCHITECTURAL PLANT BUILDING DWGS.
EXISTING PLANT DRAWINGS						
SEPARATORS						
424-N-101	NITRATOR-1		1112	H-8		
424-N-102	NITRATOR-2		1113	H-8		
424-N-103	NITRATOR-3		1114	H-7		
424-N-104	NITRATOR-4		1116	H-7		
424-N-105	NITRATOR-5		1117	H-6		
424-N-106	NITRATOR-6		1118	H-6		
424-N-107	NITRATOR-7		1119	H-6		
DECANTERS						
424-D-101	DECANTER-1		1112	H-8		
424-D-102	DECANTER-2		1113	H-8		
424-D-103	DECANTER-3		1114	H-7		
424-D-104	DECANTER-4		1116	H-7		
424-D-105	DECANTER-5		1117	H-6		
424-D-106	DECANTER-6		1118	H-6		
424-D-107	DECANTER-7		1119	H-6		
EMULSIFIERS & VESSEL						
424-V-101	EMULSIFIER		1120	H-5		
424-V-102	WASTE ACID DRUM		1121	H-9		
424-V-106	MIXED ACID PREPARATION VESSEL		1123	C-8		
424-V-109	NITRO BODY DRUM-I		1122	F-9		
424-V-110	NITRO BODY DRUM-II		1122	C-8		
PUMPS						
424-P-101A/B	WASTE ACID PUMPS		1121	G-9		
424-P-102	EMULSIFIER PUMP-I		1120	H-5		
424-P-105A/B	COOLING WATER RETURN PUMPS		1124	F-4		
424-P-106A/B	PUMPS (NITRO BODY PUMPS)		1122	F-9		
EXCHANGERS						
424-E-101	WASTE ACID COOLER		1121	F-9		
424-E-102	TOLUENE CONDENSER		1112	H-8		
MISCELLANEOUS						
424-J-101	EJECTOR		-	I-9		
424-M-101	EJECTOR		-	H-9		
424-M-102	MIXER WITH NITRATOR-1		1112	-	NOT SHOWN	
424-M-103	MIXER WITH NITRATOR-2		1113	-	NOT SHOWN	
424-M-104	MIXER WITH NITRATOR-3		1114	-	NOT SHOWN	
424-M-105	MIXER WITH NITRATOR-4		1116	-	NOT SHOWN	
424-M-106	MIXER WITH NITRATOR-5		1117	-	NOT SHOWN	
424-M-107	MIXER WITH NITRATOR-6		1118	-	NOT SHOWN	
424-M-108	MIXER WITH NITRATOR-7		1119	-	NOT SHOWN	
424-M-109	MIXER WITH EMULSIFIER-I		1120	-	NOT SHOWN	
424-M-110	MIXER WITH MIXED ACID PREPARATION VESSEL		1123	-	NOT SHOWN	

- NOTES :-**
- ALL DIMENSIONS ARE IN M.M., CO-ORDINATES ARE IN METER UNLESS OTHERWISE SPECIFIED.
 - ALL ELEVATIONS/BTL EL. ARE IN MM. AND ARE WITH REFERENCE TO FL. ELEVATION 100000 WHICH CORRESPONDS TO 563.000 M ABOVE MSL AND CO-ORDINATES OF THE DRAWING SHALL BE REFERRED FROM PLOT PLAN/GEN CIVIL DRAWING.
 - TRAVERSE AND PERIPHERAL DRAIN ALONG THE TRAVERSE SHALL BE PROVIDED AS PER GENERAL CIVIL DRAWING.
 - ALL EQUIPMENTS SIZE, DIMENSIONS AND THEIR INTER DISTANCES ARE PRELIMINARY (BASED ON EXISTING AVAILABLE DRAWINGS/DATA COLLECTED DURING SITE VISIT). SAME SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - PLATFORMS REQUIRED FOR OPERATION & MAINTENANCE OF EQUIPMENTS/VALVES SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - FOR EXACT NUMBER OF DOORS, THEIR LOCATIONS AND SIZES ETC. REFER RESPECTIVE BUILDING ARCHITECTURAL/ STRUCTURAL DRAWINGS.
 - FL. ELEVATIONS & CO-ORDINATES SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - FOR VARIOUS OTHER PLAN, SECTION VIEWS/DETAILS, EQUIPMENT ELEVATION & SUPPORTS REFER DWG. NO. B889-424-16-43-00002.
 - VARIOUS SECTIONS/ ELEVATION VIEWS SHALL BE FINALIZED DURING DETAIL ENGG.
 - INTERMEDIATE PIPING SHOWING MEMBERS AT BUILDING PIPING CORRIDOR/ CANTILEVER'S EXTENT AND ITS TOS ELEVATION SHALL BE FINALIZED AND FURNISHED DURING DETAIL ENGINEERING.
 - WEATHER PROTECTION MEASURES AS PER SMD (PFD) REQUIREMENTS.
 - FOR BUILDING'S SIZE/ DIMENSIONS, NUMBER/ LOCATION OF STRUCTURAL COLUMNS ITS SIZES, WALL WIDTH, FLOOR FINISHING LEVEL ETC. REFER BUILDING ARCHITECTURAL/CIVIL STRUCTURAL DRAWINGS.
 - AIR COMPRESSOR & DRYER FOR NITRATION HOUSE HAS BEEN LOCATED IN BOP AREA - ADJACENT TO NEW CONTROL ROOM BUILDING (NO. 423)
 - MONORAIL LOCATION/ ELEVATION SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - EQUIPMENTS PERTAINING TO NITRATOR'S HYDRAULIC SYSTEM PACKAGE SHALL BE FINALIZED BY HYDRAULIC SYSTEM PACKAGE VENDOR.
 - EXACT NUMBER OF PIPE SLEEVES, THEIR SIZE AND EXACT LOCATION/ELEVATIONS ETC. SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - DIMENSION BETWEEN STRUCTURED MEMBER MENTIONED IN STEEL STAGING IS NOT CONFIRMED AND SAME SHALL BE CONFIRMED BY PROJECT/ STRUCTURE.
 - DAVIT DIMENSION & ITS CAPACITY ARE PRELIMINARY AND SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - ELECTRICAL CABLE TRAY & INST. DUCT SUPPORT DETAILS (INSIDE & OUTSIDE BUILDING) SHALL BE DEVELOPED BY ELECTRICAL/INST./STRUCTURE BASED ON TRAY/DUCT SUPPORT REQUIREMENTS.
 - PROVISION OF INSERT PLATES FOR PROVIDING CANTILEVERS ON EXTERNAL STRL. COLUMN FACES.
 - AREA INSIDE TRAVERSE WALL TO BE PAVED/TILED AS PER CLIENT REQUIREMENTS.
 - WHEREVER GRADINGS ARE NOT INDICATED IN PLANS/SECTIONS THE FINISH FLOOR ELEVATION CORRESPONDS TO RCC/FLOOR AS PER CLIENT'S REQUIREMENTS.
 - FOR PORTION OF BUILDING/HOUSING THE PACKAGE EQUIPMENTS/VENDOR DESIGN EQUIPMENTS SHALL BE FINALIZED ONLY AFTER RECEIPT OF CONFIRMED DATA.
 - STRUCTURE FOR PIPES/ELECTRICAL CABLE TRAY/INST. DUCT SUPPORTS SHALL BE SEPARATE FROM MONORAIL BEAM.
 - BATTERY LIMIT LOCATION SHOWN IS PRELIMINARY AND SAME SHALL BE FINALIZED DURING DETAIL ENGINEERING.
 - ELEVATION TO BE FINALISED AS PER STRUCTURAL DRAWINGS.
 - FOR DETAILS OF TRAVERSE AND CUT OUT FOR EMERGENCY EXIT THROUGH THE TRAVERSE ALONG WITH RAMP/SLIDER PROVISION SHALL BE AS PER THE RESPECTIVE STRUCTURAL DRAWING.
 - SKID SIZE FOR COMPRESSOR/BLOWER IS TENTATIVE. SAME SHALL BE FINALISED AFTER RECEIVING VENDOR DATA.
 - ELEVATION OF INTERCONNECTION PLATFORMS BETWEEN TRAVERSE & BUILDINGS ARE TENTATIVE AND SHALL BE FINALISED DURING DETAIL ENGINEERING.
 - STRUCTURAL ARRANGEMENT FOR PIPE SUPPORT OUTSIDE TRAVERSE SHALL BE PROVIDED BASED ON REQUIREMENTS TO BE WORKED OUT DURING DETAIL ENGINEERING.

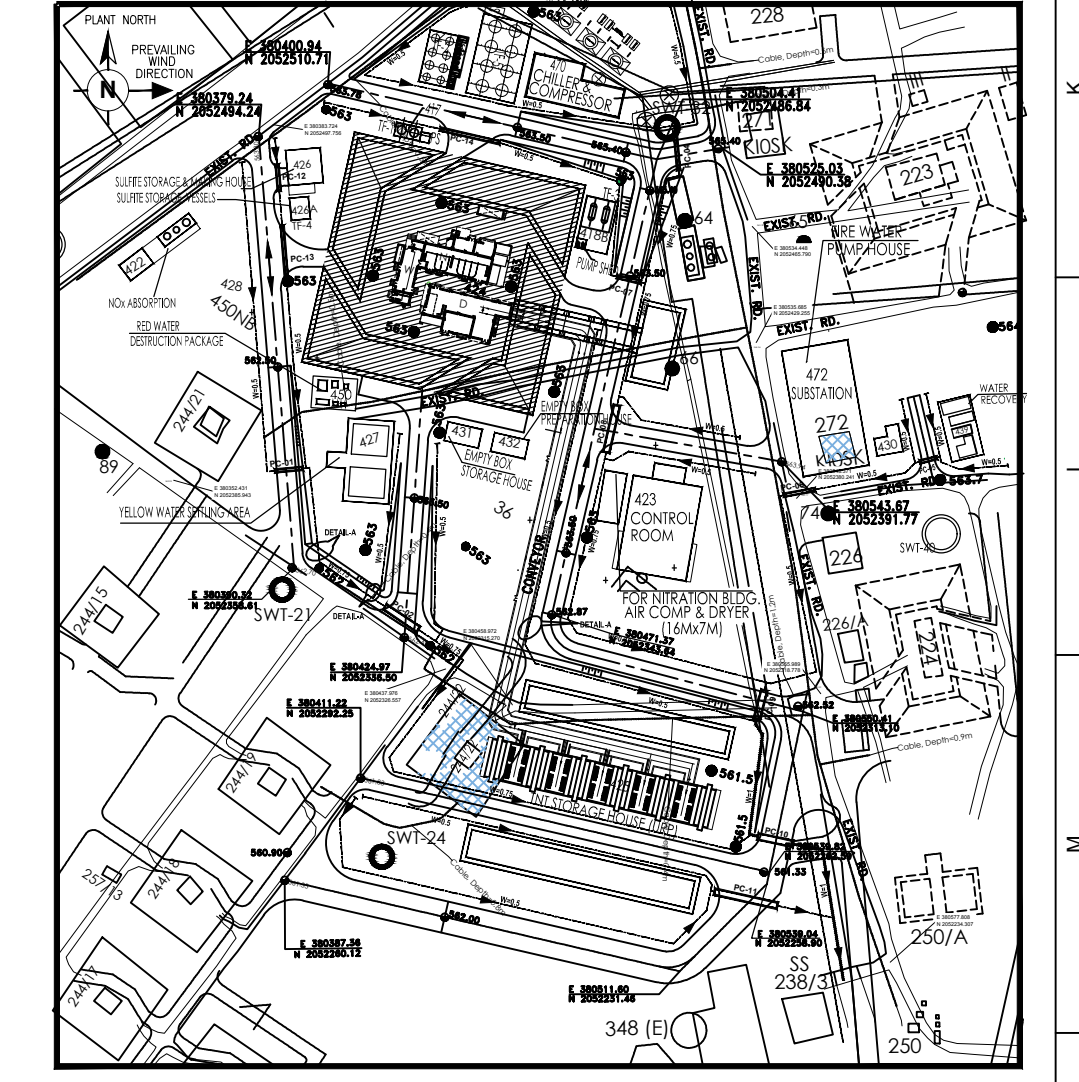
EQUIPMENT LIST-WASHING & PURIFICATION SECTION				
EQP. No.	DESCRIPTION	P&ID	LOCATION	REMARKS
WASHERS				
424-W-101	WASHER-1		1126	H-4
424-W-102	WASHER-2		1126	H-4
424-W-103	WASHER-3		1127	I-4
424-W-104	WASHER-4		1127	I-4
424-W-105	WASHER-5		1128	J-4
424-W-106	WASHER-6		1128	J-4
EMULSIFIERS & VESSEL				
424-V-103	EMULSIFIER-II		1129	H-3
424-V-104	MELTER		1130	I-2
PUMPS				
424-P-103	EMULSIFIER PUMP-II		1129	K-4
426-P-101A/B	SULFATE TRANSFER PUMPS (TO WASHER-3)		1112	H-3
426-P-102A/B	SULFATE TRANSFER PUMPS (TO WASHER-4)		1112	H-3
EXCHANGERS				
424-E-103	HOT WATER EXCHANGER (CALORIFIER)		1131	K-4
MISCELLANEOUS				
424-M-101	SUCTION FAN		1132	J-3
424-M-109	MIXER WITH WASHER-1		1126	-
424-M-110	MIXER WITH WASHER-2		1126	-
424-M-111	MIXER WITH WASHER-3		1127	-
424-M-112	MIXER WITH WASHER-4		1127	-
424-M-113	MIXER WITH WASHER-5		1128	-
424-M-114	MIXER WITH WASHER-6		1128	-
424-M-115	MIXER WITH EMULSIFIER-I		1129	-
424-M-117	MIXER WITH MELTER		1130	-

EQUIPMENT LIST-DRYING & FLAKING SECTION				
EQP. No.	DESCRIPTION	P&ID	LOCATION	REMARKS
SEPARATORS				
424-S-108	SEPARATOR		1136	M-8
EMULSIFIERS & VESSEL				
424-V-105	EXPANSION VESSEL		1142	M-8
424-V-108	HOLD TANK		1136	L-8
SCRUBBERS				
424-S-101	FLAKER FINE SCRUBBER		1141	M-7
424-S-102	AUXILIARY SCRUBBER		1140	N-9
PUMPS				
424-P-104A/B	HOT WATER PUMPS-IN LINE		1142	M-8
EXCHANGERS				
424-E-104	HOT WATER EXCHANGER		1142	M-8
424-E-105	LP STEAM/HK EXCHANGER		1139	M-7
MISCELLANEOUS				
424-K-102	HOT AIR BLOWER		1139	M-7
424-K-103	EXHAUST BLOWER-1		1141	M-6
424-K-104	EXHAUST BLOWER-2		1140	M-6
424-DR-101	TNT DRYER		1137	K-8
424-L-101	FLASKER DRUM		1138	K-9
424-LZ-101	CONVEYOR AND BAGGING		-	NOT SHOWN
424-LZ-102	SILO / HOPPER		1138	K-7
424-LZ-103	SILICA GEL BREAKER		1139	-
424-L-101	HOT AIR BLOWER AIR FILTER		1139	-
424-LZ-121	HOT AIR BLOWER SUCTION SILENCER		1139	-
424-LZ-122	HOT AIR BLOWER BLOW-OFF SILENCER		1139	-

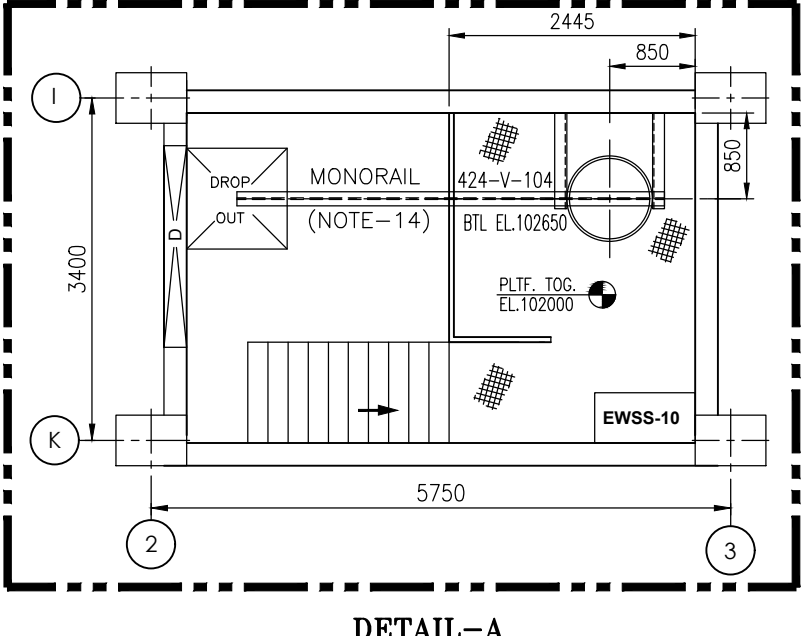
LEGENDS :-

BTL EL.	BOTTOM TANGENT LINE ELEVATION	FS	FIXED SUPPORT
C. EL.	CENTRE LINE ELEVATION	SS	SLIDING SUPPORT
EWSS	EYE WASH & SAFETY SHOWER	D	DOOR
PLTF. EL.	PLATFORM ELEVATION	B/L	BATTERY LIMIT
TOS EL.	TOP OF CONCRETE ELEVATION	B/G	UNDERGROUND
TOT EL.	TOP OF TANK ELEVATION	B/G	UNDERGROUND
TOS EL.	TOP OF STEEL ELEVATION	TYP.	BALANCE OF PLANT
WP. EL.	WORK POINT ELEVATION		
FL. EL.	FLOOR ELEVATION	ENGG.	ENGINEERING
ELECT.	ELECTRICAL	INST.	INSTRUMENTATION
~ NTS	NOT TO SCALE		
=====	PLATFORM GRATING		
=====	FLOOR WITH ACID RESISTANT FINISH		
=====	BUILDING WALL		
=====	PERIPHERAL DRAIN		
=====	U/S CORRIDOR		
=====	TILE FINISH SURFACE		
=====	INSTRUMENT DUCT/ELECTRICAL CABLE TRAY		
=====	MONKEY LADDER		

PLANT NAME	CAPACITY	LICENSOR
NITRATION SECTION	1.0 Ton./Hr.	HEF / EIL
WASHING & MELTER SECTION		
DRYING & FLAKING SECTION		



- HOLDS :-**
- ALL CO-ORDINATES.
 - PUMP/BLOWER SKID SIZES.
 - NUMBER/LOCATION OF BUILDING APPROACH DOORS AND WINDOWS ETC.
 - EQUIPMENTS DIMENSIONS, CL. ELEVATIONS OF ALL SHELL & TUBE EXCHANGERS, HORIZONTAL VESSELS AND BTL. ELEVATIONS OF VERTICAL EQUIPMENTS ETC.
 - MONORAIL ARRANGEMENT.
 - DAVIT SIZE AND CAPACITY.
 - NITRATOR'S HYDRAULIC SYSTEM PACKAGE.
 - FIRE FIGHTING SYSTEM.
 - VENDOR DESIGN EQUIPMENTS.
 10. 424-E-101/102/105; DIMENSIONS HOLD.
 11. 424-DR-101; DRYER DIMENSIONS.
 12. 424-J-101/102; EJECTOR DETAILS.
 13. 424-K-101/102/103/104; SKID DIMENSION HOLD.



KEY PLAN

0 02/05/2025	ISSUED FOR ENGINEERING	GPS/AR UC/GB	PEM
07/04/2025	COMMENTS INCORPORATED & REISSUED FOR OFFES APPROVAL	GPS/AR UC/GB	PEM
10/03/2025	ISSUED FOR OFFES APPROVAL	FW	GPS/AR UC/GB PEM
09/01/2025	ISSUED FOR EQUIPMENT LAYOUT REVIEW COMMITTEE	FW	MX/AR SHH
25/11/2024	COMMENTS INCORPORATED & REISSUED FOR INTERNAL REVIEW	FW	MX/AR SHH
27/09/2024	REVISED AND RE-ISSUED FOR COMMENTS	FW	MX/AR SHH
08/07/2024	ISSUED FOR COMMENTS (PRELIMINARY LAYOUT)	FW	MX/AR SHH

REV.	DATE	DESCRIPTION	BY	CHKD	APPD	PEM

ENGINEERS INDIA LIMITED
(A Govt. of India Undertaking)
MUNITIONS INDIA LTD.
म्यूनिशंस इंडिया लिमिटेड

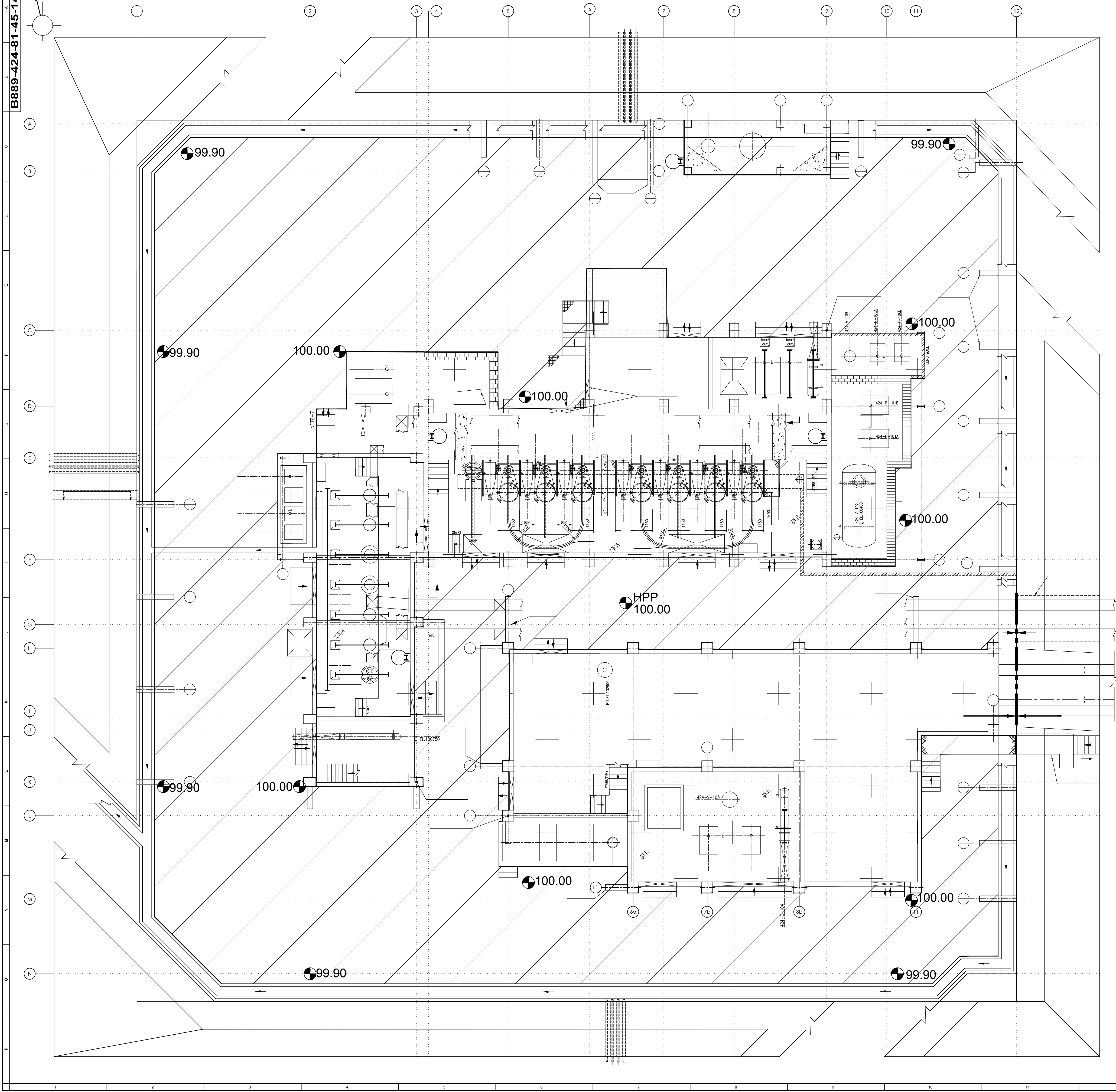
टी एन टी प्लांट एचईएफ, खड़की-पुणे, भारत	TNT PLANT AT HEF KHADKI - PUNE, INDIA					
उपस्कर अभिनव्यास भवन संख्या-424 के लिए नाइट्रिकेशन, शुलाई, शुक्ल और शक्लन	EQUIPMENT LAYOUT FOR BUILDING NO. -424 NITRATION, WASHING, DRYING & FLAKING					
SCALE	JOB NO.	UNIT	DIVN.	DEPT.	DWG. NO.	REV.
1:75	B889	424	16	43	00001	0



आवक और गत के प्रमाण के बिना प्रमाणित नहीं किया जा सकता है कि यह आकृति सच है और इसमें कोई भी त्रुटि नहीं है।
आवक और गत के प्रमाण के बिना प्रमाणित नहीं किया जा सकता है कि यह आकृति सच है और इसमें कोई भी त्रुटि नहीं है।
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B889-424-81-45-14431

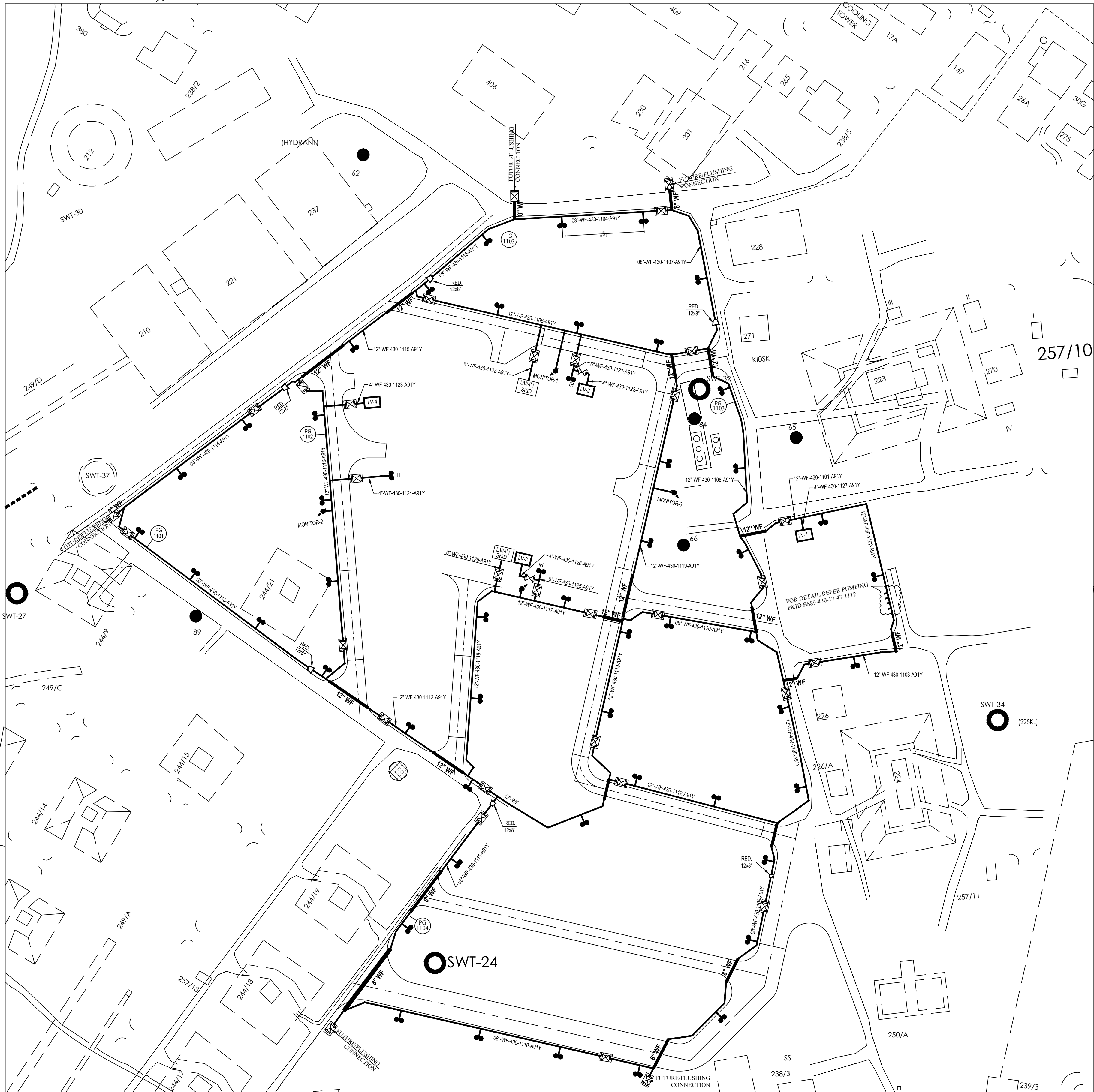
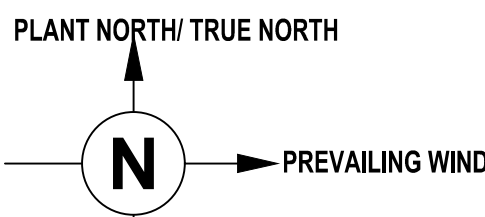
BUILDING NO.-424



REF. DWG. NO. B889-000-81-45-00001 B889-000-81-45-13721/22/23/24	REFERENCE DRAWING TITLE OVERALL PLOT PLAN ARCHITECTURAL PLANT BUILDING DWGS.																																								
NOTES :- 1. ALL DIMENSIONS ARE IN MM AND LEVELS & CO-ORDINATES ARE IN METERS. 2. LEVEL 100.00 IS THE HPP (HIGH POINT OF PAVEMENT WITH ACID RESISTANT BRICKS) OF THE AREA AND CORRESPONDS TO 563.50 M ABOVE MEAN SEA LEVEL (M.S.L.). 3. RCC PAVEMENT AND DRAINS SHALL BE MADE ONLY AFTER CASTING FOUNDATIONS, LAYING ALL UNDERGROUND PIPING, U/G PORTION OF VENT PIPES, TRENCHES FOR FIRE WATER PIPING, CABLES, ELECTRICAL EARTHING STRIPS, SLEEVES ETC. IN POSITION. 4. RCC CABLE /INSTRUMENTATION TRENCH (IF ANY) SHALL BE CONSTRUCTED AS PER RELEVANT STRUCTURAL DRAWINGS. 5. CONSTRUCTION OF DRAIN SHALL BE AS PER RELEVANT CIVIL/ STRUCTURAL DRAWINGS. 6. LOCATION OF STRUCTURAL ELEMENTS ARE INDICATIVE ONLY. SAME SHALL BE CONFIRMED AS PER STRUCTURAL FOUNDATION LAYOUT.																																									
LEGENDS HPP HIGH POINT OF PAVEMENT LPP LOW POINT OF PAVEMENT RCC PAVEMENT TYPE-I STRUCTURAL ELEMENT																																									
<table><tr><td>A</td><td>26.05.2025</td><td>ISSUED FOR BIDS</td><td>PREP</td><td>APP</td><td>RKS</td></tr><tr><td>RE</td><td>DATE</td><td>DESCRIPTION</td><td>BY</td><td>CHKD</td><td>APPD</td></tr><tr><td colspan="2"></td><td colspan="4">BY CHKD APPD PEM</td></tr></table> ENGINEERS INDIA LIMITED (A Govt. of India Undertaking) MUNITIONS INDIA LTD. म्यूनिशंस इंडिया लिमिटेड <table><tr><td colspan="2">टी एन टी प्लांट एचवईएफ, खडकी-पुणे, भारत</td><td colspan="2">TNT PLANT AT HEF KHADKI - PUNE, INDIA</td></tr><tr><td colspan="2">आर.सी.सी. पेवमेंट अभियान</td><td colspan="2">RCC PAVEMENT LAYOUT</td></tr></table> <table><tr><td>SCALE</td><td>JOB NO.</td><td>UNIT</td><td>DIVN</td><td>DEPT</td><td>DWG. NO.</td><td>REV.</td></tr><tr><td>1:75</td><td>B889</td><td>424</td><td>81</td><td>45</td><td>14431</td><td>A</td></tr></table>		A	26.05.2025	ISSUED FOR BIDS	PREP	APP	RKS	RE	DATE	DESCRIPTION	BY	CHKD	APPD			BY CHKD APPD PEM				टी एन टी प्लांट एचवईएफ, खडकी-पुणे, भारत		TNT PLANT AT HEF KHADKI - PUNE, INDIA		आर.सी.सी. पेवमेंट अभियान		RCC PAVEMENT LAYOUT		SCALE	JOB NO.	UNIT	DIVN	DEPT	DWG. NO.	REV.	1:75	B889	424	81	45	14431	A
A	26.05.2025	ISSUED FOR BIDS	PREP	APP	RKS																																				
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SCALE	JOB NO.	UNIT	DIVN	DEPT	DWG. NO.	REV.																																			
1:75	B889	424	81	45	14431	A																																			
3-1641-0500 REV.5 / 06.12.2024 A0-1189 x 841																																									

प्रस्तावित आरेख एवं इसमें विहित डिजाइन इंजीनियरिंग लिमिटेड की संपत्ति है। ये मात्र उधार दिए गए हैं और उधारकर्ता ने यह स्पष्ट समझौता किया है कि न तो उन्हें पुनः प्रेषित किया जाएगा, न तब तक की जाएगी, न उधार किए जाएंगे, न प्रदर्शित किए जाएंगे और न ही सीमित और निजी प्रयोग के अलावा इसका कोई अन्य प्रयोग होगा और यह प्रयोग उधार देने वाले द्वारा उधारकर्ता को लिखित रूप में दो तई सहमति से होगा।
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B889-000-81-45-14401



REF. DWG. NO.	REFERENCE DRAWING TITLE
B889-000-81-45-00001	OVERALL PLOT PLAN
B889-430-17-43-1111	OVERALL FIRE WATER P&ID

- NOTES :-
- FIRE WATER PIPING/VALVES CLASS SHALL BE AS PER PMS/VMS OF PIPING CLASS A91Y FOR ABOVEGROUND & UNDERGROUND. FIRE WATER PIPES FOR SPRAY SPRINKLER SYSTEM SHALL BE AS PER PIPING CLASS J2A.
 - ABOVE GROUND FIRE WATER LINES SHALL BE SUPPORTED ON INDEPENDENT RCC SLEEPERS AND PAINTED FIRE RED AS PER PAINTING SPECIFICATION.
 - ISOLATION VALVES IN THE FIRE WATER NETWORK SHALL BE OF GATE VALVE TYPE.
 - FIRE WATER PIPES SHALL BE LAID WITH 1.0M EARTH CUSHION IN OPEN GROUND AND 1.5M EARTH CUSHION UNDER ROADS.
 - ADDITIONAL ISOLATION VALVE SHALL BE PROVIDED IN THE SEGMENTS WHERE THE LENGTH OF SEGMENT EXCEEDS 300M AS PER DETAILED ENGINEERING.
 - IN UNDERGROUND FIRE WATER HEADER ISOLATION VALVE TO BE PROVIDED IN PIT.
 - EXPANSION LOOPS SHALL BE PROVIDED AS PER DETAIL DRAWINGS.
 - LOCATION OF HYDRANTS AS SHOWN ARE INDICATIVE ONLY. EXACT LOCATION WILL BE FINALISED DURING DETAILED ENGINEERING.
 - HOSE BOXES/ CABINET WITH ACCESSORIES SHALL BE PROVIDED AT EVERY HYDRANT POINTS ON GRADE AND AT EVERY HYDRANT INSIDE UNIT AND AT EACH LANDING VALVE.

LEGEND:-

FIREWATER HEADER

DOUBLE HEADED HYDRANT

FIRE WATER MONITOR
CAPACITY (500 GPM)

REDUCER

X" (FCN)

PRESSURE GAUGE

INTERNAL HYDRANT

DELUGE VALVE SKID

LANDING VALVE

FIRE WATER

VALVE IN PIT

A 26.05.26 ISSUED FOR BIDS		PREETI ADPRIKS SKN	
REV.	DATE	DESCRIPTION	BY CHKD APPD PEM
ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)			
MUNITIONS INDIA LIMITED			
टीएनटी प्लांट एचईएफ, खडकी, पुणे		TNT PLANT HEF, KHADKI, PUNE	
अग्नशोमक जल काअभिन्यास		LAYOUT OF FIRE WATER	
SCALE	JOB NO.	UNIT	DIVN. DEPT. DWG. NO. REV.
1:800	B889	000	81 45 14441 A

VENDOR LIST FOR STRUCTURAL WORKS

**PROJECT: EXECUTION OF TRI-NITRO TOLUENE (TNT)
PLANT ON OBE BASIS**

UNIT : 000

**CLIENT : M/S MUNITION IINDIA LIMITED (HEF),
KHADKI, PUNE**

JOB NO : B889

A	08.01.2025	ISSUED FOR TENDER	AB	SD	VKG
Rev. No.	Date	Purpose	Prepared by	Checked by	Approved by

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
Department : STRUCTURE					
General Notes/ Instructions:- 1. SPECIFICATION OF THE PRODUCT SHALL BE CHECKED AGAINST TENDER SPECIFICATIONS BEFORE SELECTING ANY PRODUCT/ BRAND. IN CASE OF ANY DISCREPANCY, TENDER ITEM/ SPECIFICATIONS SHALL PREVAIL, AND ANY SUCH PRODUCT/ BRAND SHALL NOT BE USED WHICH IS NOT CONFORMING TO TENDER SPECIFICATIONS EVEN IF IT IS APPEARING IN THIS LIST. 2. DOSAGE OF ADMIXTURES, WHEREVER NOT MENTIONED IN THIS LIST, SHALL BE AS PER MANUFACTURER'S SPECIFICATIONS. 3. IN CASE OF NON-AVAILABILITY OF ANY PRODUCT AMONG APPROVED PRODUCTS/ BRANDS AT A PARTICULAR SITE/ REGION, ALTERNATE PRODUCT/ BRAND NAME SHALL BE PROPOSED BY RCM TO EIL-HO FOR APPROVAL, ALONG WITH THE CREDENTIALS OF THE MANUFACTURER AND DETAILS OF THE PROPOSED PRODUCT/BRAND. 4. UNDER THE LISTED CATEGORIES, ALL PRODUCTS CARRYING "ISI" CERTIFICATION MARK OF BIS ALONG WITH RELEVANT STANDARD NUMBER "IS:*****" AND THE RELEVANT LICENSE NUMBER "CM/L *****" AND LISTED AT BIS WEBSITE " http://www.manakonline.in " ON THE DATE OF PLACEMENT OF PURCHASE ORDER ARE DEEMED TO BE CONSIDERED AS APPROVED FOR USAGE. 5. IN ADDITION TO PRODUCTS MENTIONED IN THIS LIST, PRODUCTS APPROVED AFTER ISSUE OF THIS LIST SHALL ALSO BE CONSIDERED FOR USE BASED ON PRODUCTION OF "PRODUCT APPROVAL LETTER" ISSUED TO THE MANUFACTURER BY EIL-HO.					
Area of Experience: Other					
Item : A. INTEGRAL WATER-PROOFING COMPOUNDS FOR CONCRETE (AS PER IS:2645)					
1	Refer Remark	INDIA	,	NA	All Integral Waterproofing Compounds for Concrete which carry "ISI" certification mark of BIS along with standard number "IS 2645" and the license number "CM/L**....*)" and listed at BIS website " https://www.bis.gov.in ".
Item : B. CONCRETE ADMIXTURES -(AS PER IS:9103)					
1	Refer Remark	INDIA	,	NA	All Accelerating, Retarding, Water-reducing, Air-entraining & Super-plastizing Admixtures for Concrete which carry "ISI" certification mark of BIS along with standard number "IS 9103" and the license number "CM/L**....*)" and listed at BIS website " https://www.bis.gov.in ".
Item : C. BI-POLAR CONCRETE PENETRATING CORROSION INHIBITING ADMIXTURE (AS PER EIL STD SPEC NO 6-68-0017)					
1	APPLE CHEMIE INDIA PVT LTD	NAGPUR	+91 9607001014, ,	www.applechemie.com	PRODUCT NAME-AC CORROGUARD-BP

Departmental List

Date :08/01/2025 13:33:25

Page 2 of 5

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
2	CHRYSO INDIA PRIVATE LIMITED	NAVI MUMBAI	022 2768 5991, ,	info.india@chryso.com	BRAND NAME-CHRYSO CORROCRETE
3	CLEAN COATS PVT LTD	THANE	, ,		PRODUCT NAME-CONPROOF 1A (DOSAGE 1% W/W OF CEMENT)
4	FOSROC CHEMICALS (INDIA) PVT LTD	BENGALURU	+91 8042521900, ,	enquiry.india@fosroc.com	BRAND NAME-AURAMIX BCI
5	HINDCON CHEMICALS LTD	KOLKATA	, ,	NA	BRAND NAME- HIND CORROGUARD
6	KRISHNA CONCHEM PRODUCTS PVT LTD	NAVI MUMBAI	, ,		PRODUCT NAME-EPCO KP-200 (DOSAGE 1% W/W OF CEMENT)
7	MASTER BUILDERS SOLUTIONS INDIA PVT LTD	NAVI MUMBAI	, ,	NA	PRODUCT NAME- MASTERLIFE CI 220 (DOSAGE 1% W/W OF CEMENT)
8	SP CONCARE PVT. LTD.	SANGLI	, ,	NA	BRAND NAME:ADDMIX 109 PCCI
9	STP LTD.	DELHI	, ,	NA	PRODUCT NAME-SHALIPLAST MCI (DOSAGE 1% W/W OF CEMENT)
10	SUNANDA SPECIALITY COATING PVT LTD	MUMBAI	, , 065053049052		PRODUCT NAME-POLYALK CP 293 (DOSAGE 1% W/W OF CEMENT)
Item : D. POLYSULPHIDE SEALANTS (TWO PART, AS PER IS:12118)					
1	APPLE CHEMIE INDIA PVT LTD	NAGPUR	+91 9607001014, ,	www.applechemie.com	PRODUCT NAME-AC POLYSEAL (PG)
2	CHOWKSEY CHEMICALS PVT LTD	MUMBAI	, ,		PRODUCT NAME-TECHSEAL 940/941
3	CICO TECHNOLOGIES LIMITED	DELHI	, ,		PRODUCT NAME-CICO SEAL T680
4	DON CONSTRUCTION CHEMICALS INDIA LTD	CHENNAI	, ,	NA	BRAND NAME- 1. FLEXSEAL PS660 (GUN GRADE) 2. FLEXSEAL PS660 (POUR GRADE)
5	DURA BUILD CARE PVT LTD	DELHI	, ,	NA	PRODUCT NAME- DURASIL PPS (POURING GRADE)
6	FOSROC CHEMICALS (INDIA) PVT LTD	BENGALURU	+91 8042521900, ,	enquiry.india@fosroc.com	PRODUCT NAME-THIOFLEX 600
7	HINDCON CHEMICALS LTD	KOLKATA	, ,	NA	BRAND NAME- 1. HIND SEALANT PS (POUR GRADE). 2. HIND SEALANT PS (GUN GRADE)
8	JAY CHEMICAL INDUSTRIES PVT LTD	AHMEDABAD	, ,	NA	PRODUCT NAME- K2 POLYSEAL 22P (POUR GRADE)

Departmental List

Date :08/01/2025 13:33:25

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Sr No	Supplier Name	City	Phone	E-Mail	Remarks
9	KANSAI NEROLAC PAINTS LIMITED	MUMBAI	9999100064, ,	preetirohatgi@nerolac.com	PRODUCT NAME- 1. PERMA POLYSEAL (GUN GRADE) 2. PERMA POLYSEAL (POUR GRADE)
10	PIDILITE INDUSTRIES LTD (DR. FIXIT)	MUMBAI	, ,	NA	PRODUCT NAME-1. PIDISEAL PS41G, 2. PIDISEAL PS42P
11	SIKA INDIA PVT LTD	KOLKATA	, ,		BRAND NAME- 1. SIKA POLYSULPHIDE (SIKALASTIC) 2. SIKAFLEX CONSTRUCTION 3. IGAS Ih
12	STP LIMITED	NEW DELHI	, ,		PRODUCT NAME- SHALISEAL PS
13	ZZ-Refer Remarks (ZZ inserted to maintain the alphabetic chronology)	INDIA	, ,	NA	All other Polysulphide Sealants (Two Parts) which carry "ISI" certification mark of BIS along with standard number "IS 12118" and the license number "CM/L**....*)" and listed at BIS website "https://www.bis.gov.in".
Item : E. ANCHOR FASTENERS - CHEMICAL TYPE (EOTA / DIBt/ FM/ ICBO-ES-APPROVED). Note- Design of post-installed Anchors and Rebars shall be provided/ verified by the approved manufacturer with installation instructions and execution shall be done by an applicator trained by the approved manufacturer (preferably in the presence of manufacturer for critical applications/ structures).					
1	FISCHER FIXING SYSTEMS(MICO) LTD	BENGALURU	, ,		BRAND NAME-FISCHER ANCHORS
2	FOSROC CHEMICALS (INDIA) PVT LTD	BENGALURU	+91 8042521900, ,	enquiry.india@fosroc.com	CHEMICAL ANCHORING OF REBAR, BRANDS NAMES- LOKFIX E55, LOKFIX E77 & LOKFIX E45T
3	HILTI INDIA PVT LTD	DELHI	, ,		BRAND NAME-HILTI ANCHORS
4	INDO SPARK CONSTRUCTION SERVICES	KOLHAPUR	, ,	NA	BRAND NAME-ICFS CM VESF, CM VESF TROPICAL, CM SH, CM SH TROPICAL, CM 585 PE PRO, CM 385 PE PRO, CM 400 PE, CM 650 PE
5	MASTER BUILDERS SOLUTIONS INDIA PVT LTD	NAVI MUMBAI	, ,	NA	BRAND NAMES-MASTERFLOW 916 AN, 918 AN, 920 AN, 932 AN, 936 AN
6	MUNGO FIXINGS INDIA PVT LTD	BENGALURU	, ,	NA	BRAND NAME-MIT 700 RE, MIT SE PLUS, MIT TROPICAL, MIT SP & MVA CAPSULE
7	POWERS FASTENERS(THROUGH M/S KRAFT SALES & SERVICES (I) LTD.)	PUNE	, ,	NA	BRAND NAME-POWERS FASTENERS

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
8	UIP SYSTEMS (INDIA) PVT LTD	MUMBAI	, ,	NA	UIP FASTENERS
9	WUERTH INDIA PVT LTD	DELHI	, ,	NA	BRAND NAME-WUERTH ANCHORS
Item : F. ANCHOR FASTENERS - MECHANICAL TYPE (EOTA / DIBT/ FM/ ICBO-ES APPROVED). Note- Design of post-installed Anchors and Rebars shall be provided/ verified by the approved manufacturer with installation instructions and execution shall be done by an applicator trained by the approved manufacturer (preferably in the presence of manufacturer for critical applications/ structures).					
1	FISCHER FIXING SYSTEMS(MICO) LTD	BENGALURU	, ,		BRAND NAME-FISCHER ANCHORS
2	HILTI INDIA PVT LTD	DELHI	, ,		BRAND NAME-HILTI ANCHORS
3	INDO SPARK CONSTRUCTION SERVICES	KOLHAPUR	, ,	NA	BRAND NAME: (ICFS) INDO WEDGE ANCHOR IWA, IWA-A2, IWA-A4
4	MUNGO FIXINGS INDIA PVT LTD	BENGALURU	, ,	NA	BRAND NAME-M1 POWER GRIP, M1r POWER GRIP, M1T, M2, M2r, MCS, MEA
5	POWERS FASTENERS(THROUGH M/S KRAFT SALES & SERVICES (I) LTD.)	PUNE	, ,	NA	BRAND NAME-POWERS FASTENERS
6	UIP SYSTEMS (INDIA) PVT LTD	MUMBAI	, ,	NA	UIP FASTENERS
7	WUERTH INDIA PVT LTD	DELHI	065053049052	NA	PRODUCT NAME- WUERTH ANCHORS
Item : G. ELECTRO-FORGED GALVANISED GRATINGS (AS PER EIL STD 7-68-0697, BS:4592)					
1	ABHYANT EFG & ENGINEERING PVT. LTD	RAIPUR	, ,	NA	TYPE-I & TYPE-II
2	ANKIT ELECTROGRATING	RAIPUR	, ,	NA	TYPE-I & TYPE-II
3	BHOLA RAM STEEL PVT LTD	PATNA	, ,		BRAND NAME-BHOLARAM GRATINGS
4	CELL COM TELESERVICES PVT LTD	SIKANDRABAD	, ,	NA	BRAND NAME-CELLCOM GRATINGS
5	FERROTECH STRUCTURALS (INDIA) PVT LTD	KANCHIPURAM & PUNE	+91 9840308880, ,	www.ferrotechindia.net	TYPE-I & TYPE-II
6	GREATWELD ENGINEERING PVT. LTD.	PUNE	+91 7350304304, ,	sumit.rungta@greatweld.com	BRAND NAME-GREATWELD GRATINGS, TYPE-I & TYPE-II
7	INDIANA GRATING PVT.LTD	MUMBAI	, ,		BRAND NAME-INDIANA GRATINGS
8	IRONWELD ENGINEERING PVT LTD	PUNE	, ,	NA	TYPE-I & TYPE-II
9	JACINTH ENGINEERING PVT LTD	MUMBAI	, ,	NA	BRAND NAME-JACINTH GRATINGS
10	KANADE ANAND UDYOG PVT LTD	MUMBAI	, ,		BRAND NAME-KANADE GRATINGS
11	LIONWELD MEISER LLC	DUBAI	, ,	NA	TYPE-I & TYPE-II

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
12	MEET ENGINEERING	VADODARA	, ,	NA	TYPE-I & TYPE-II
13	OMKAR GRATINGS PVT LTD	MUMBAI	, ,		BRAND NAME-OMKAR GRATINGS (FOR EIL TYPE-II GRATING ONLY)
14	PARCO ENGINEERS (MUMBAI) PVT LTD	Mumbai	9819278530, , 9819278530	info@parcoengineers.com	TYPE-I & TYPE-II
15	PINAX STEEL INDUSTRIES PVT LTD	KOLKATA	, ,		BRAND NAME-PINAX GRATINGS
16	PREMIER POWER PRODUCTS PVT LTD	KOLKATA	, ,		BRAND NAME-PREMIER GRATINGS
17	RATAN PROJECTS & ENGINEERING CO.PVT LTD.	KOLKATTA	, ,	sales@ratans.com	BRAND NAME- RATAN GRATINGS
18	SIGMA GALVANIZING PVT LTD	NAVI MUMBAI	, ,	NA	TYPE-I & TYPE-II
19	VINFAB GRATINGS	MUMBAI	, ,		BRAND NAME-VINFAB GRATINGS
20	WHEELS INDIA LTD	CHENNAI	, ,	NA	PRODUCT NAME-WHEELS GRATINGS
Item : H. INTEGRAL CRYSTALLINE ADMIXTURE FOR WATERPROOFING TREATMENT TO CONCRETE (AS PER CPWD SPECIFICATION 2019, CLAUSE 22.14)					
1	CHRYSO INDIA PRIVATE LIMITED	NAVI MUMBAI	022 2768 5991, , 065053049052	info.india@chryso.com	PRODUCT NAME-CHRYSO CWA10
2	KRYTON BUILDMAT CO PVT LTD	GURUGRAM	0124 4381 140, ,	info@kryton.in	PRODUCT NAME-KRYSTOL INTERNAL MEMBRANE "KIM"
3	PENETRON INFRA PRODUCTS PVT LTD	NAVI MUMBAI	+91 7738444041, ,	inquiry@penetron.co.in	PRODUCT NAME-PENETRON ADMIX
4	SHALIMAR SEAL & TAR PRODUCTS PVT LTD	JAIPUR	+91 9829065184, ,	ocrd@shalimartar.com	PRODUCT NAME-KAVASSU CRYSTALLOMIX-PG
5	XYPEX	GAUTAM BUDH NAGAR	0120-4090900, ,	info@xypex.in	PRODUCT NAME-XYPEX ADMIX C-2000 NF

VENDOR LIST FOR ARCHITECTURAL PRODUCTS

TENDER NO.: B889-000-81-46-CF-T-8202-0

**PROJECT : EXECUTION OF TRI-NITRO TOLUENE (TNT) PLANT ON
OBE BASIS**

OWNER : HIGH EXPLOSIVE FACTORY, KHADKI, PUNE

JOB NO : B889

0	01.04.2026	ISSUED FOR TENDER	SR	KP	ND
Rev. No	Date	Purpose	Prepared by	Checked by	Approved by

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
Department : ARCHITECTURE					
Area of Experience: Other					
Item : 1.1 FLOOR FINISHING - CERAMIC TILES					
1	APARNA ENTERPRISES LIMITED	Hyderabad	, , NA	NA	BRAND NAME-VITERO
2	ASIAN GRANITO INDIA LIMITED	MATHURA	, ,		BRAND NAME-ASIAN
3	CERA SANITARYWARE LTD.	NEW DELHI	, ,	NA	BRAND NAME- CERA
4	H&R JOHNSON LIMITED	MUMBAI	, ,		BRAND NAME-JOHNSON
5	KAJARIA CERAMICS LIMITED	DELHI	, ,		BRAND NAME-KAJARIA
6	MURUDESHWAR CERAMICS LIMITED	HUBLI	, ,	"	BRAND NAME-NAVEEN
7	NITCO LIMITED	Mumbai	" , ,	"	BRAND NAME-NITCO
8	ORIENT BELL CERAMICS & INDUSTRIES LTD.	DELHI	, ,		BRAND NAME-ORIENT
9	REGENCY CERAMICS LIMITED	HYDERABAD	, ,		BRAND NAME-REGENCY
10	SPL LIMITED	DELHI	, ,		BRAND NAME-SOMANY
11	VARMORA GRANITO PVT. LTD.	MUMBAI	, ,		BRAND NAME-VARMORA
Item : 1.2 FLOOR FINISHING - VITRIFIED TILES					
1	APARNA ENTERPRISES LIMITED	Hyderabad	, , NA	NA	BRAND NAME-VITERO
2	ASIAN GRANITO INDIA LIMITED	MATHURA	, ,		BRAND NAME-ASIAN
3	CERA SANITARYWARE LTD.	NEW DELHI	, ,	NA	BRAND NAME- CERA
4	EURO CERAMICS LIMITED	MUMBAI	, ,		BRAND NAME-EURO
5	H&R JOHNSON(I) LIMITED	MUMBAI	, ,		BRAND NAME-JOHNSON
6	KAJARIA CERAMICS LIMITED	DELHI	, ,		BRAND NAME-KERROGRES
7	MURUDESHWAR CERAMICS LTD.	HUBLI	, ,		BRAND NAME-NAVEEN
8	NITCO LIMITED	Mumbai	" , ,	"	BRAND NAME--NITCO
9	ORIENT BELL CERAMICS & INDUSTRIES LTD.	DELHI	, ,		BRAND NAME-ORIENT
10	PAVIT CERAMICS PVT LTD	AHMEDABAD	, ,	NA	BRAND NAME- PAVIT
11	RAK CERAMICS INDIA PVT. LTD.	MUMBAI	, ,		
12	REGENCY CERAMICS LIMITED	HYDERABAD	, ,		BRAND NAME-REGENCY
13	REGENT GRANITO INDIA LTD.	GUJARAT	, ,		BRAND NAME-REGENT
14	SPL LIMITED	DELHI	, ,		BRAND NAME-SOMANY
15	VARMORA GRANITO PVT. LTD.	MUMBAI	, ,		BRAND NAME-VARMORA
Item : 1.3 FLOOR FINISHING - ACID RESISTANT TILES					
1	H & R JOHNSON(I) LTD.	MUMBAI	, ,		BRAND NAME-ENDURA
2	REGENCY CERAMICS LIMITED	HYDERABAD	, ,		BRAND NAME-REGENCY
Item : 1.4 FLOOR FINISHING - PVC TILES/ROLLS					

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
1	ALL MANUFACTURE'S LISTED BY BIS UNDER IS 3462		, ,		
Item : 1.5 FLOOR FINISHING - PVC TILES/ROLLS(ANTI STATIC)					
1	ARMSTRONG WORLD INDUSTRIES INDIA (P) LTD	MUMBAI	, ,		BRAND NAME-SOLIDLG1
2	PREMIER POLYFILM LTD.	DELHI	, ,		BRAND NAME-ANSTAT
Item : 1.6 FLOOR FINISHING - EPOXY COATING					
1	APURVA INDIA LIMITED	MUMBAI	, ,		
2	BASF CONSTRUCTION CHEMICALS (I) PVT.LIMITED	DELHI	, ,		BRAND NAME-MASTERTOP-1200 SERIES
3	BUILDTech PRODUCTS(I) PVT LIMITED	DELHI	, ,		BRAND NAME-BUILDPOXY-SL
4	CICO TECHNOLOGIES	DELHI	, ,		BRAND NAME-CICO POXY TC 200
5	CIPY POLYURETHANES PVT.LIMITED	PUNE	, ,		BRAND NAME-CIPOXY SL 1000
6	FOSROC CHEMICALS (INDIA) PVT LTD	BANGALORE	+91 8042521900, ,	enquiry.india@fosroc.com	BRAND NAME-NITOFLOOR SL 2000/1000
7	LEADING EDGE INDUSTRIAL CORPORATION	NAGPUR	, , 066048048051	NA	BRAND NAME: 1. COROGUARD-KRAYON MAKE 2. KRAYON
8	PIDILITE INDUSTRIES LIMITED	New Delhi	, ,	NA	BRAND NAME-DR. FIXIT PIDIPOXY ESL
9	SIKA	KOLKATA	, ,		BRAND NAME-SIKA FLOOR
10	STP LIMITED	NEW DELHI	, ,		
11	SUNANDA SPECIALITY COATING PVT LTD	MUMBAI	, ,		BRAND NAME- SUNEPOXY-SL (Epoxy Coating)
12	SYNORGANIC PAINTS PVT LTD	Bhilai	, ,		BRAND NAME-INDUSCOAT EP COVER 100
Item : 1.7 FLOOR FINISHING - FLOOR HARDENER					
1	CHOKSEY CHEMICALS	MUMBAI	, ,		BRAND NAME-TECHFLOOR HT-200
2	CICO TECHNOLOGIES LTD.	DELHI	, ,		BRAND NAME-CICO SURFACE HARDENER
3	SAMROCK CHEMICALS (I) LTD.	AHMEDABAD	, ,		BRAND NAME-SAMHARD STD
4	STP LIMITED	NEW DELHI	, ,		
Item : 2.1 WOODWORK - BLOCK BOARD/FLUSH DOOR					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:2202		, ,		
Item : 2.2 WOODWORK - PLYWOOD					

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:303	--	, ,		
Item : 2.3 WOODWORK - LAMINATES					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:2046		, ,		
Item : 2.4 WOODWORK - MDF BOARDS					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:12406	--	, ,		
Item : 2.5 WOODWORK - PARTICLE BOARD (Plain / Veneered / Pre-Laminated)					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:3087,IS:3097 & IS:12823(GRADE 1& 2)	--	, ,		
Item : 3.1 DOORS/ WINDOWS/ VENTILATORS - PRESSED STEEL					
1	DHIMAN STEEL	DELHI	, ,		
2	SHAKTI HORMANN PVT. LTD.	MEDCHAL MALKAGIRI	, ,	NA	BRAND NAME- SHAKTI HORMANN
3	SKS STEEL IND.	DELHI	, ,		
4	SUPER STEEL WINDOWS CO.	DELHI	, ,		
Item : 3.2 ALUMINIUM EXTRUSION PROFILES FOR DOORS, WINDOWS AND VENTILATORS					
1	HINDALCO	MUMBAI	, ,		
2	JINDAL ALUMINIUM LTD.	BANGALORE	, ,		
3	OMALCO EXTRUSION (P) LTD	NEW DELHI	, ,	NA	BRAND NAME- OMALCO
Item : 3.3 DOORS/ WINDOWS/ VENTILATORS - FIRE RATED					
1	BHAWANI FIRE PROTECTION PRIVATE LIMITED	GHAZIABAD	, ,	NA	BRAND NAME- BHAWANI FIRE
2	GALAXY FIRE PROTECTION COMPANY	DELHI	, ,	"	BRAND NAME-FIRE CHECK
3	MPP TECHNOLOGIES PVT. LTD.	BANGALORE	, ,		
4	NAVAIR INTERNATIONAL LTD.	DELHI	, ,		
5	PACIFIC FIRE CONTROLS PRIVATE LIMITED	New Delhi	, ,	NA	BRAND NAME-PACIFIC
6	PAULSON INDUSTRIES	ERNAKULAM	, ,	NA	BRAND NAME- PAULSON INDUSTRIES
7	SHAKTI HORMANN PVT. LTD.	MEDCHAL MALKAGIRI	, ,	NA	BRAND NAME- SHAKTI HORMANN
8	SUPER STEEL WINDOWS CO.	DELHI	, ,		
Item : 4.1 DOORS / WINDOWS FITTINGS - MORTICE LOCKS WITH HANDLES					
1	EVERITE AGENCIES (P) LTD.	DELHI	, ,		BRAND NAME-EVERITE
2	GODREJ & BOYCE	INDIA	, ,		BRAND NAME-GODREJ

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
3	GOLDEN INDUSTRIES	DELHI	, ,		BRAND NAME-GOLDEN
Item : 4.2 DOORS / WINDOWS FITTINGS - HYDRAULIC DOOR CLOSER (Overhead / Floor Mounted)					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:3564 FOR OVERHEAD TYPE & IS:6315 FOR FLOOR MOUNTED TYPE	--	, ,		
Item : 4.3 DOORS/ WINDOWS FITTINGS - MISC. DOOR FITTINGS e.g. Hinges, Tower Bolts, Latches, Stoppers etc					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:204 FOR TOWER BOLTS, IS 2681 FOR ALDROP,IS:1823 FOR STOPPE		, ,		
Item : 5.1 ROOF TREATMENT & WATERPROOFING - P.U. BASED (ONE COMPONENT)					
1	ASIAN PAINTS LIMITED	MUMBAI	, ,	NA	BRAND NAME-ASIAN PAINTS SMARTCARE PU MAGNUM
2	BASF CONSTRUCTION CHEMICAL (I) PVT. LTD.	DELHI	, ,		BRAND NAME-SONOSHIELD/ MASTERSEAL HLM 5000R
3	BERGER PAINTS INDIA LIMITED	New Delhi	, ,	NA	BRAND NAME-HOMESHIELD ELASTOSEAL NON UV 1K
4	CHRYSO INDIA PRIVATE LIMITED	NAVI MUMBAI	022 2768 5991, ,	info.india@chryso.com	BRAND NAME-CHRYSO ELASTOTHANE
5	CICO TECHNOLOGIES LTD.	DELHI	, ,		BRAND NAME-CORCHEM 2061
6	FOSROC CHEMICALS (INDIA) PVT LTD	BANGALORE	+91 8042521900, ,	enquiry.india@fosroc.com	BRAND NAME-NITOPROOF 600 PF
7	LLOYD INSULATIONS (I) LTD.	DELHI	, ,		BRAND NAME-ISOTHANE EMA
8	MAPEI CONSTRUCTION PRODUCTS INDIA PVT LTD	BANGALORE	, ,	"	BRAND NAME- PURTOP ONE IN
9	MYK ARMENT PVT LTD	HYDERABAD	, ,	"	BRAND NAME-AQUAARM SPU-SPL
10	PIDILITE INDUSTRIES LIMITED	New Delhi	, ,	NA	BRAND NAME- DR. FIXIT FLEXI PU 270 (I)
11	STP LIMITED	NEW DELHI	, ,		
12	SUNANDA SPECIALITY COATING PVT LTD	MUMBAI	, ,		BRAND NAME- FLEXIROOF PU/ SUNROOF PU - One component PU based waterproofing
13	SUPREME BITUCHEM INDIA PVT.LTD	NAGAPUR	, ,		
14	TECHNONICOL INDIA PVT LTD	MUMBAI	, ,	"	BRAND NAME-TECHNONICOL ULTRATHANE
Item : 5.2 ROOF TREATMENT & WATERPROOFING - P.U. BASED (TWO COMPONENT)					

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
1	BUILDTech PRODUCTS INDIA PVT. LTD.	DELHI	, ,		BRAND NAME-BUILDTHENE IC
2	FOSROC CHEMICALS (INDIA) PVT LTD	BANGALORE	+91 8042521900, ,	enquiry.india@fosroc.com	BRAND NAME-BRUSHBOND
3	INDUSTRIAL PRODUCT MFG. CO.	PUNE	, ,		BRAND NAME-EZECOAT
4	SHIVALIK AGRO POLY PRODUCTS LTD.	DELHI	, ,		BRAND NAME-SHIVABOND 903
5	SIKA	KOLKATA	, ,		BRAND NAME-SIKALASTIC 450H
6	STP LIMITED	NEW DELHI	, ,		
Item : 5.3 ROOF TREATMENT & WATERPROOFING - APP MEMBRANE					
1	A.R. Industries	Vadodara	, ,	-	BRAND NAME- BITUSEAL (APP Waterproofing Membrane)
2	ALEX EXTRUSIONS LTD	KOLKATTA	, ,		
3	ASIAN PAINTS LIMITED	MUMBAI	, ,	NA	BRAND NAME-SMARTCARE
4	BERGER PAINTS INDIA LIMITED	New Delhi	, ,	NA	BRAND NAME-PROSHIELD P
5	BUILDTech PRODUCTS PVT. (I) LTD.	DELHI	, ,		BRAND NAME-BUILDWRAP P
6	CHOKSEY CHEMICALS	MUMBAI	, ,		BRAND NAME-POLYMOD
7	CHRYSO INDIA PRIVATE LIMITED	NAVI MUMBAI	022 2768 5991, , 066048048051	info.india@chryso.com	BRAND NAME-CHRYSO ARMOURSHIELD
8	CICO TECHNOLOGIES LTD.	DELHI	, ,		BRAND NAME-CICO SHIELD
9	DELHI BUILDER'S STORES	DELHI	, ,		BRAND NAME-DERMABIT APP
10	FAIRMATE CHEMICALS PVT. LTD.	GUJARAT	, ,		BRAND NAME-WATERGAURD MEMBRANE APP G
11	FOSROC CHEMICALS (INDIA) PVT LTD	BANGALORE	+91 8042521900, ,	enquiry.india@fosroc.com	BRAND NAME-PROOFEX TORCHSEAL
12	IWL INDIA LTD.	CHENNAI	, ,		BRAND NAME-HYPERPLAS
13	LLOYD INSULATIONS (I) LTD.	DELHI	, ,		BRAND NAME-LLOYD PLASTOLAY
14	PIDILITE INDUSTRIES LTD.	MUMBAI	, ,		BRAND NAME-DR. FIXIT TORCHSHEILD P 4160
15	PURE LEATHERS PVT. LTD.	DELHI	, ,		BRAND NAME-ROOFSEAL
16	SHIVAM TAR PRODUCTS	KARNAL	, ,	NA	BRAND NAME- SUPERIOR MULTIPOLYPLAS-SHIVAM
17	SIKA	KOLKATA	, ,		BRAND NAME-SIKA WP SHIELD
18	STP LTD.	DELHI	, ,	NA	SUPER THERMOLAY
19	SUPREME BITUCHEM INDIA PVT. LTD.	NAGPUR	, ,		
20	TECHNONICOL INDIA PVT LTD	MUMBAI	, ,	"	BRAND NAME- ULTRAPLAST
21	TEXSA INDIA LTD.	GURUGRAM	, , "	"	BRAND NAME-MOPLY

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
22	TIKI TAR DANOSA (INDIA) PVT LTD	Vadodara	, ,	NA	BRAND NAME-HYDROSTOP
Item : 6.1 PAINTING WORKS - PLASTIC/ ACRYLIC EMULSION (INTERNAL AND EXTERNAL), DISTEMPER ETC					
1	ACROPAINTS LTD.	DELHI	, ,		
2	ASIAN PAINTS LIMITED	MUMBAI	, ,	NA	
3	BERGER PAINTS	KOLKATA	, ,		
4	GODAVARI PAINTS PVT. LTD.	MUMBAI	, ,		
5	ICI PAINTS/ICI INDIA LTD.	KOLKATA	, ,		
6	KAMDHENU ISPAT LTD.	GURUGRAM	, ,	"	
7	N.E. PAINT UDYOG	SIVASAGAR(ASSA M)	, ,		
8	NEROLAC PAINTS	MUMBAI	, ,		
9	SHALIMAR PAINTS	MUMBAI	, ,		
Item : 6.2 PAINTING WORKS - SYNTHETIC ENAMEL (FOR BUILDING WORKS)					
1	ASIAN PAINTS LIMITED	MUMBAI	, ,	NA	
2	BERGER PAINTS	KOLKATA	, ,		
3	BERGER PAINTS INDIA LIMITED, BRITISH PAINT DIVISION	NEW DELHI	, ,	NA	BRAND NAME- GLO HI-GLOSS ENAMEL
4	GODAVARI PAINTS PVT.LIMITED	MUMBAI	066048048051		
5	ICI PAINTS/ICI INDIA LIMITED	KOLKATA	, ,		
6	KAMDHENU ISPAT LIMITED	GURUGRAM	, ,	"	
7	N.E PAINT UDYOG	SIVANAGAR(ASSA M)	, ,		
8	NEROLAC PAINTS	MUMBAI	, ,		
9	SHALIMAR PAINTS	MUMBAI	, ,		
Item : 6.3 PAINTING WORKS - WATERPROOF CEMENT					
1	ACRO PAINTS LTD.	DELHI	, ,		BRAND NAME-ACROCEM
2	GODAVARI PAINTS PVT. LTD.	MUMBAI	, ,		BRAND NAME-SUPEREMCEM
3	KAMDHENU ISPAT LTD.	GURUGRAM	, ,	"	BRAND NAME-DREAMZ COLOR
4	KILICK NIXON LTD.	MUMBAI	, ,		BRAND NAME-SNOWCEM
5	RAJDOOT PAINTS	DELHI	, ,		BRAND NAME-XTRACEM 76 SUPERIOR CEMENT PAINT
6	SNOW WHITE INDUSTRIAL CORP.	CHENNAI	, ,		BRAND NAME-SUPERCCEM
Item : 6.4 PAINTING WORKS - DECORATIVE TEXTURED COATING					
1	ACRO PAINTS LTD.	DELHI	, ,		BRAND NAME-ACROTEXTURES
2	BAKELITE HYLAM LTD	SECUNDRABAD	, ,		BRAND NAME-HARITAGE
3	KAMDHENU ISPAT LTD.	GURUGRAM	, ,	"	BRAND NAME-DREAMZ COLOR
4	LUXTURE SURFACE COATINGS PVT. LTD.	AJMER	, ,		BRAND NAME-LUXTURE

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
5	NCL ALLTEK AND SECCOLOR LTD	HYDERABAD	, ,		BRAND NAME-ALLTEK
6	SPECTRUM PAINTS	DELHI	, ,		BRAND NAME-SPECTRUM
7	UNITILE	DELHI	, ,		BRAND NAME-UNITILE
Item : 6.5 PAINTING WORKS - POLISHING (for Woodwork)					
1	ASIAN PAINTS LIMITED	MUMBAI	, ,	NA	
2	SHALIMAR PAINTS	MUMBAI	, ,		
Item : 6.6 PAINTING WORKS - WALL PUTTY					
1	BIRLA WHITE	DELHI	, ,		BRAND NAME-WALL CARE
2	JK CEMENT LTD	DELHI	, ,		BRAND NAME-JK WALL PUTTY
3	MANCHANDA ENTERPRISES	FARIDABAD	, ,		BRAND NAME-SARA
4	MYK LATRICRETE	LATA FINISH	, ,		BRAND NAME-LATA FINISH
5	NCL ALTEK & SECCOLOR LTD.	HYDERABAD	, ,		BRAND NAME-NCL SKIM COAT 1127
Item : 10 FALSE FLOORING					
1	AET FLEXIBLESPACE (I) PVT LTD	Mumbai	" , ,	"	BRAND NAME-FLEXI
2	EVEREST INDUSTRIES LTD	NOIDA	" , ,	"	BRAND NAME-EVEREST ACCESS FLOOR
3	LLOYD INSULATION (I) LTD	DELHI	066048048051		
4	MULTI FLOORS	DELHI	, ,		
5	THE ELEMENTS	NEW DELHI	, ,	"	BRAND NAME-HI FLOOR
6	UNITED ACCESS FLOORS PVT LTD	MUMBAI	, ,		BRAND NAME- UNITILE
7	UNIVERSAL BUILDING PRODUCTS	DELHI	, ,		BRAND NAME-UNIFLOOR FS1500
Item : 11.1 INSULATION - UNDERDECK INSULATION					
1	BAKELITE HYLAM LTD	SECUNDRABAD	, ,		BRAND NAME-PHENOTHERM
2	LLOYD INSULATIONS (I) LTD	DELHI	, ,		BRAND NAME-ISOLLOYD NILFLAME
3	ROCKWOOL INDIA PVT LTD	HYDERABAD	, ,	"	BRAND NAME-ROCKINSUL
4	UP TWIGA FIBRE GLASS LTD	DELHI	, ,		BRAND NAME-TWIGA
Item : 11.2 INSULATION - OVERDECK INSULATION					
1	BASF CONSTRUCTION CHEMICALS (I) PVT LTD	DELHI	, ,		BRAND NAME-ELASTOSPRAY
2	BEST PLASTRONICS LTD	DELHI	, ,		BRAND NAME-BESTPLASTRONICS
3	LLOYD INSULATION (I) LTD	DELHI	, ,		BRAND NAME-LLOYD SPRAY FOAM
Item : 7.1 ROOFING SHEETS & ACCESSORIES - PRECOATED PROFILED G.I./ GALVALUME/ ZINCALUME SHEETS					
1	BDS PROJECTS	Rohtak	, ,	NA	BRAND NAME-BDS
2	COLOUR ROOF INDIA LTD.	MUMBAI	, ,		BRAND NAME-HISPAN

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
3	ERA BUILDING SYSTEMS LTD	DELHI	, ,		BRAND NAME-ERA
4	INTERARCH BUILDING PRODUCTS (P) LTD	NOIDA	, ,	NA	BRAND NAME-TRACDEK
5	JAPAN METAL BUILDING SYTEMS PVT LTD	BANGALORE	, ,		BRAND NAME-JMBS
6	LLOYD INSULATION (I) LTD	DELHI	, ,		BRAND NAME-LLOYDECK
7	METCO ROOF PVT LTD	CHENNAI	" , ,	"	BRAND NAME-TOP GUARD
8	METECNO (INDIA) PVT LTD	CHENNAI	, ,		BRAND NAME-G6
9	MULTI COLOR STEEL (I0 PVT LTD	CHENNAI	, ,		BRAND NAME-MULTI CLAD
10	PHENIX CONSTRUCTION TECHNOLOGIES	AHMEDABAD	, ,	"	BRAND NAME-PHENIX
11	ROOFCLAD INFRA PVT LTD	PALWAL	, ,	NA	BRAND NAME- ROOFCLAD
12	SHIV SHAKTI FIBRE UDYOG	DELHI	, ,		
13	SHREE PRE FAB STEELS (P) LTD	AHEMDABAD	, ,	NA	BRAND NAME- PRIMEDEK 1015
14	SHREE PRECOATED STEELS LTD	MUMBAI	, ,		BRAND NAME-METACOLOUR
15	SUPERTECH (INDIA) PVT LTD	NOIDA	, ,	NA	BRAND NAME- SUPERTECH HI-RIB
16	TATA BLUESCOPE STEEL LTD	PUNE	, ,		BRAND NAME-TRIMDECK
Item : 12.1 MISCELLANEOUS ITEMS - INTEGRAL WATER PROOFING COMPOUND (IN PLASTER)					
1	CHOKSEY CHEMICALS	MUMBAI	, ,		BRAND NAME-MASTERPROOF IWP-1/ IWP-2
2	CICO TECHNOLOGIES LIMITED	DELHI	, ,		BRAND NAME-CICO NO 1
3	FAIRMATE CHEMICALS PVT LIMITED	VADODARA	, ,		BRAND NAME-FAIRPLAST IP
4	PIDILITE INDUSTRIES	MUMBAI	, ,		BRAND NAME-PIDIPROOF LW
5	SAMROCK MUREXIN CHEMICAL (I) LIMITED	GUJARAT	, ,		BRAND NAME-SAMPLAST LW 150/PW
6	STP LIMITED	NEW DELHI	, ,		
Item : 13.1 CONSTRUCTION SEALANTS - POLYSULPHIDE SEALANT					
1	CHOWKSEY CHEMICALS PVT LTD	MUMBAI	, ,		BRAND NAME-TECHSEAL 940/941
2	CICO TECHNOLOGIES LTD	DELHI	, ,		BRAND NAME-CICOSEALANT T680
3	FOSROC CHEMICALS (INDIA) PVT LTD	BANGALURU	+91 8042521900, ,	enquiry.india@fosroc.com	BRAND NAME-THIOFLEX 600
4	PIDILITE INDUSTRIES LTD (DR. FIXIT)	MUMBAI	, ,	NA	BRAND NAME-PIDISEAL PS41G/ PIDISEAL PS42P
5	STP LIMITED	NEW DELHI	, ,		
Item : 13.2 CONSTRUCTION SEALANTS - SILICON SEALANTS					

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
1	PIDILITE INDUSTRIES LTD (DR. FIXIT)	MUMBAI	, ,	NA	BRAND NAME-DR. FIXIT SILICON SEALANT WX
Item : 14.1 PRE ENGINEERED BUILDINGS (PEB)					
1	BALARKA FABRICON PRIVATE LIMITED	JHAJJAR	" , ,	"	
2	BDS PROJECTS	Rohtak	, ,	NA	BRAND NAME-BDS
3	EVEREST INDUSTRIES LTD	NOIDA	" , ,	"	
4	INTERARCH BUILDING PRODUCTS (P) LTD	NOIDA	, ,	NA	
5	JINDAL MEC TEC PVT LTD	GURUGRAM	" , ,	"	
6	KIRBY BUILDING SYSTEMS	NEW DELHI	" , ,	"	
7	LLOYD INSULATION (I) LTD	DELHI	, ,		
8	METCO ROOF PVT LTD	CHENNAI	" , ,	"	
9	MGI INFRA PRIVATE LIMITED	NEW DELHI	, ,	"	
10	MOONWALK INFRAPROJECTS PVT. LTD.	NOIDA	, ,	NA	BRAND NAME- MOONWALK
11	MPIL STEEL STRUCTURES LIMITED	MUMBAI	, ,	"	
12	PENNAR ENGINEERED BUILDING SYSTEM LTD	HYDERABAD	" , , 066048048051	"	
13	PHENIX CONSTRUCTION TECHNOLOGIES	AHMEDABAD	, ,	"	
14	PKM METAL BUILDINGS COMPANY PRIVATE LIMITED	CHENNAI	" , ,	"	
15	RISHIKESH STRUCTURAL SOLUTIONS LLP	VADODARA	, ,	NOT AVAILABLE	
16	SAXENA MARINE TECH (P) LTD	NOIDA	, ,	"	
17	SHIV SHAKTI FIBER UDYOG	FARIDABAD	, ,		BRAND NAME- SHIV SHAKTI FIBER UDYOG
18	SHREE PRE FAB STEELS (P) LTD	AHEMDABAD	, ,	NA	
19	SUPER DISCO ISPAT PVT LTD	New Delhi	, ,	NA	
20	SUPERTECH (INDIA) PVT LTD	NOIDA	, ,	NA	
21	ZAMIL STEEL BUILDINGS INDIA PVT LTD	PUNE	, ,	NA	
Item : 15.1 ALUMINIUM COMPOSITE PANEL					
1	3A COMPOSITES INDIA PVT LTD	Mumbai	, ,	-	BRAND NAME- ALUCOBOND
2	ALSTONE INTERNATIONAL	New Delhi	, ,	NA	BRAND NAME-ALSTONE
3	ALUBOND DACS INDIA PVT LTD	Mumbai	, ,	NA	BRAND NAME- ALUBOND
4	ALUDECOR LAMINATION PVT LTD	New Delhi	, ,	NOT AVAILABLE	BRAND NAME- ALUDECOR
5	ALUTECH INDUSTRIES	New Delhi	, ,	NA	BRAND NAME-ALUTECH

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
6	EURO PANEL PRODUCTS PVT LTD	Mumbai	, ,	-	BRAND NAME- EUROBOND
7	PIONEER PANELS	MUMBAI	, ,	NA	BRAND NAME-PIONEER
8	REYNOBOND INDIA	NEW DELHI	, ,	'	BRAND NAME-REYNOARCH FR (PLUS)
9	SONIA PLASTICS PVT LTD	NEW DELHI	" , ,	"	BRAND NAME-HYNADECOR
10	VIRGO LAMINATES LIMITED	New Delhi	, ,	NA	BRAND NAME-VIRGO
11	VIVA COMPOSITES PANEL PVT LTD	MUMBAI	, ,	-	BRAND NAME- VIVA
Item : 7.2 ROOFING SHEETS & ACCESSORIES - C.G.I. SHEET					
1	ISPAT INDUSTRIES LTD	DELHI	, ,		BRAND NAME-EVEREST
2	STEEL AUTHORITY OF INDIA LTD	--	, ,		BRAND NAME-SAIL
3	TATA STEEL	--	, ,		BRAND NAME-TISCO
Item : 16.1 TOILET CUBICLE/ TOILET PARTITION					
1	GREENLAM INDUSTRIES LTD	TINSUKIA	, ,	"	BRAND NAME- GREENLAM
2	INNER SPACE	MUMBAI	, ,	"	BRAND NAME- T-LINE
3	MERINO PANEL PRODUCTS LTD	NEW DELHI	, ,	"	BRAND NAME- MERINO
Item : 7.3 ROOFING SHEETS & ACCESSORIES - ALUMINIUM SHEET					
1	HINDALCO	MUMBAI	, ,		
2	JINDAL ALUMINIUM LTD	BANGALORE	066048048051		
Item : 7.4 ROOFING SHEETS & ACCESSORIES - FIBER GLASS SHEET & PANELS					
1	ROOFCLAD INFRA PVT LTD	PALWAL	, ,	NA	BRAND NAME- ROOFCLAD
2	SHIV SHAKTI FIBER UDYOG	FARIDABAD	, ,		BRAND NAME-FRP SHEET
3	SIMBA FRP (P) LTD	DELHI	, ,		BRAND NAME-SIMCRYL
Item : 7.5 ROOFING SHEETS & ACCESSORIES - POLYCARBONATE ROOFING SHEET					
1	ROOFCLAD INFRA PVT LTD	PALWAL	, ,	NA	BRAND NAME- ROOFCLAD
2	SARASWATI PLASTOTECH INDIA PVT. LTD.	JAMMU	, ,	NA	BRAND NAME- ULTRALITE
3	SHIV SHAKTI FIBRE UDYOG	DELHI	, ,		BRAND NAME-SHIV SHAKTI
4	UNITED STEEL & STRUCTURES PVT LTD	CHENNAI	, ,		TUFLIFE
Item : 8.1 SANITARY, PLUMBING FITTINGS & FIXTURES - SANITARY FITTINGS					
1	ALL MANUFACTURER'S LISTED BY BIS UNDER IS:2556	--	, ,		
Item : 8.2 SANITARY, PLUMBING FITTINGS & FIXTURES - PLUMBING FITTINGS AND FIXTURES					
1	CERA SANITARYWARE LTD.	NEW DELHI	, ,	NA	BRAND NAME- CERA
2	GEM INTERNATIONAL	FARIDABAD	, ,		BRAND NAME-GEM
3	H&R JOHNSON INDIA	DELHI	, ,		BRAND NAME-JOHNSON
4	JAQUAR & COMPANY LTD	DELHI	, ,		BRAND NAME-JAQUAR
5	JUPITER AQUA LINES LTD	MOHALI	, ,		BRAND NAME-JUPITOR

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
6	ORIENT CERAMICS	DELHI	, ,		BRAND NAME-ORIENT
7	OTHELLO FAUCETS PVT LTD	DELHI	, ,		BRAND NAME-MAYUR
8	PARKASH BRASSWARE INDUSTRIES	DELHI	, ,		BRAND NAME-PARKO
9	PLASTOCRAFT SANITARY INDIA PVT LTD	DELHI	, ,		BRAND NAME-KINGSTON
10	PRAYAG POLYMERS (P) LTD	DELHI	, ,		BRAND NAME-H2O
Item : 8.3 SANITARY, PLUMBING FITTINGS & FIXTURES - MIRROR / GLASS					
1	ATUL GLASS	DELHI	, ,		BRAND NAME-ATUL
2	CERA SANITARYWARE LTD.	NEW DELHI	, ,	NA	BRAND NAME- CERA
3	CONTINENTAL FLOAT GLASS	DELHI	, ,		BRAND NAME-CONTINENTAL
4	GUJARAT GUARDIAN LTD	DELHI	, ,		BRAND NAME-MODIGUARD
5	HINDUSTAN SAFETY GLASS	KOLKATA	, ,		BRAND NAME-HINDUSTAN
6	TRIVENI GLASS	KOLKATA	, ,		BRAND NAME-TRIVENI
Item : 9.1 FALSE CEILING - ALUMINIUM STRIP/ TRAY TYPE					
1	AURA SYNERGY INDIA PVT LTD	NEW DELHI	, ,	NA	BRAND NAME- GRID SQUARE
2	COMPLETE INFRA STRUCTURE PVT LTD	NEW DELHI	, ,	NA	BRAND NAME- BOLLARD
3	HUNTER DOUGLAS	DELHI	066948048051		BRAND NAME-LUXALON
4	INTERARCH BUILDING PRODUCTS (P) LTD	NOIDA	, ,		BRAND NAME-TRAC
5	LLOYD INSULATION (I) LTD	DELHI	, ,		BRAND NAME-LLOYD LINEAL CEILINGS
6	MANRAJ CEILING PRODUCTS PVT LTD	Ghaziabad	, ,	NA	BRAND NAME- ROYAL KRAFT
7	MASCOT OVERSEAS	DELHI	, ,		BRAND NAME-METALIC/ TRULON
8	P. R. PRODUCTS	DELHI	, ,	"	BRAND NAME-Hi-Steel
9	P.R. CEILING PRODUCTS	AGRA	, ,	"	BRAND NAME- MCRA
Item : 9.2 FALSE CEILING - GYPSUM BOARD					
1	SAINT GOBAIN GYPROC INDIA LTD	MUMBAI	, ,		BRAND NAME-GYPBOARD
2	USG BORAL BUILDING (INDIA) PRIVATE LIMITED	GURUGRAM	, ,	"	BRAND NAME-LaGyp
Item : 9.3 FALSE CEILING SYSTEM- MINERAL FIBER					
1	ARMSTRONG WORLD INDUSTRIES INDIA (P) LTD	MUMBAI	, ,		
2	COMPLETE INFRA STRUCTURE PVT LTD	NEW DELHI	, ,	NA	BRAND NAME- BOLLARD
3	USG BORAL BUILDING (INDIA) PRIVATE LIMITED	GURUGRAM	, ,	"	

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
Item : 17.1 SPRAYED PU FOAM INSULATION (FOR OVERDECK ROOF INSULATION CUM WATER PROOFING SYSTEM)					
1	ASIAN PAINTS LIMITED	MUMBAI	, ,	NA	BRAND NAME-ASIAN PAINTS (AP) SMART CARE (SC) PU INSULATOR
2	BERGER PAINTS INDIA LIMITED	New Delhi	, ,	NA	BRAND NAME-PU SPRAY PUF
3	CHRYSO INDIA PRIVATE LIMITED	NAVI MUMBAI	022 2768 5991, ,	info.india@chryso.com	BRAND NAME-CHRYSO ELASTOTHANE SF
4	MAPEI CONSTRUCTION PRODUCTS INDIA PVT LTD	BANGALORE	, ,	"	BRAND NAME-PURTOP FOAM 45 HFC
5	MYK ARMENT PVT LTD	HYDERABAD	, ,	"	BRAND NAME-AQUAARM INSUSPRAY PUF B2
6	PIDILITE INDUSTRIES LIMITED	New Delhi	, ,	NA	BRAND NAME-DR. FIXIT FOAM SHIELD
7	STP LIMITED	NEW DELHI	, ,		BRAND NAME-SHALI PUF SA
8	TECHNONICOL INDIA PVT LTD	MUMBAI	, ,	"	BRAND NAME-TECHNONICOL LOGICFOAM SPF
Item : 18.1 ABRASION RESISTANT EPOXY FLOOR COATING SYSTEM					
1	BERGER PAINTS INDIA LIMITED	New Delhi	, , 066048048051	NA	BRAND NAME- PRO SHIELD HS (PRIMER) + PRO EPISHIELD (FLOOR SCREED) + PRO EPISHIELD SL (COATING)
2	PIDILITE INDUSTRIES LIMITED	New Delhi	, ,	NA	BRAND NAME- DR. CIPY CIPPOXY 17 (PRIMER, SCREED/ SCRATCH COAT) & DR. CIPY FLOORTOP 2000 (TOP COAT)
3	SYNORGANIC PAINTS PVT LTD	Bhilai	, ,	'	INDUSCOAT EP BOND 250 (PRIMER) & INDUSCOAT EP COVER 100 (SCREED/ SCRATCH COAT) & INDUSCOAT EP COVER 100 (SCREED) & INDUSCOAT EP COVER 100 (TOP COAT)
Item : 19.1 ABRASION & IMPACT RESISTANT POLYURETHANE FLOORING SYSTEM					
1	BERGER PAINTS INDIA LIMITED	New Delhi	, ,	NA	BRAND NAME-PRO EPISHIELD WB (PRIMER) + PRO POLYSHIELD CONCRETE (SCREED/SCRATCH COAT) + PRO POLYSHIELD CONCRETE (COATING)

Sr No	Supplier Name	City	Phone	E-Mail	Remarks
2	PIDILITE INDUSTRIES LIMITED	New Delhi	,	NA	BRAND NAME- DR. CIPY AQUOXY 50 (PRIMER) & DR. CIPY DURACRETE MD (SCREED/ SCRATCH COAT & TOP COAT)
3	SYNORGANIC PAINTS PVT LTD	Bhilai	,		INDUSCOAT EP WB (PRIMER) & INDUSCOAT PU SHIELD 100 (SCREED/ SCRATCH COAT) & INDUSCOAT EP TOPCRETE 300 (TOP COAT)
Area of Experience:					
Item : 13.1 CONSTRUCTION SEALANTS - POLYSULPHIDE SEALANT					
1	SIKA INDIA PVT LTD	KOLKATA	,		
066048048051 Signature Not Verified Digitally signed by P KONGUPRABAHARAN Date: 2026.05.09 17:26:03 IST Location: eProcure-EPROC ?					