



**Department of Pharmaceuticals**  
Ministry of Chemicals and Fertilizers  
Government of India

**AP BULK DRUG PARK  
NAKKAPALLI, ANDHRA PRADESH**

**BIDDING DOCUMENTS**

**(Tender Drawings)**

JANUARY 2024

**SUBMITTED BY**



**Government of Andhra Pradesh**

**Nodal Agency**

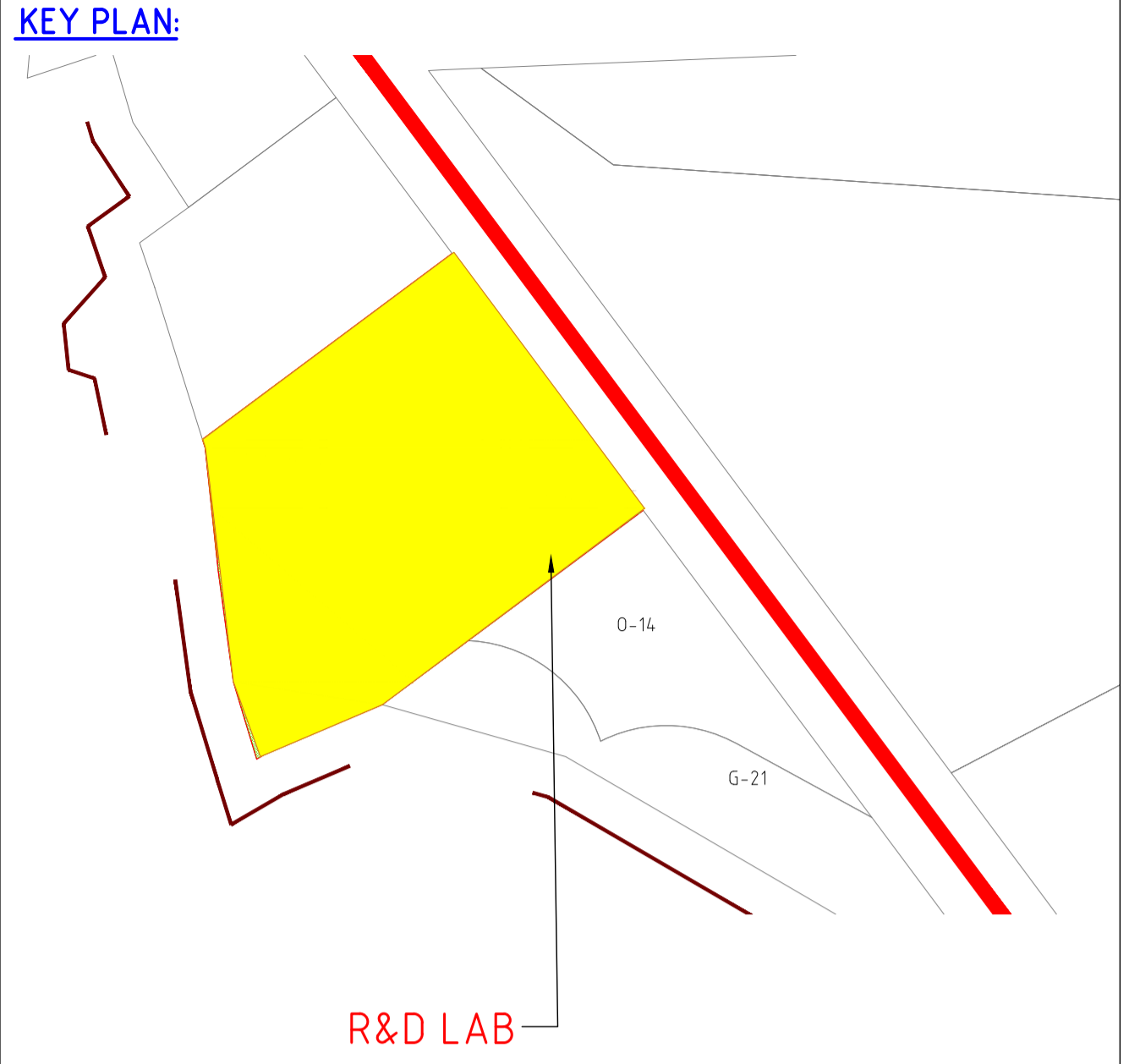
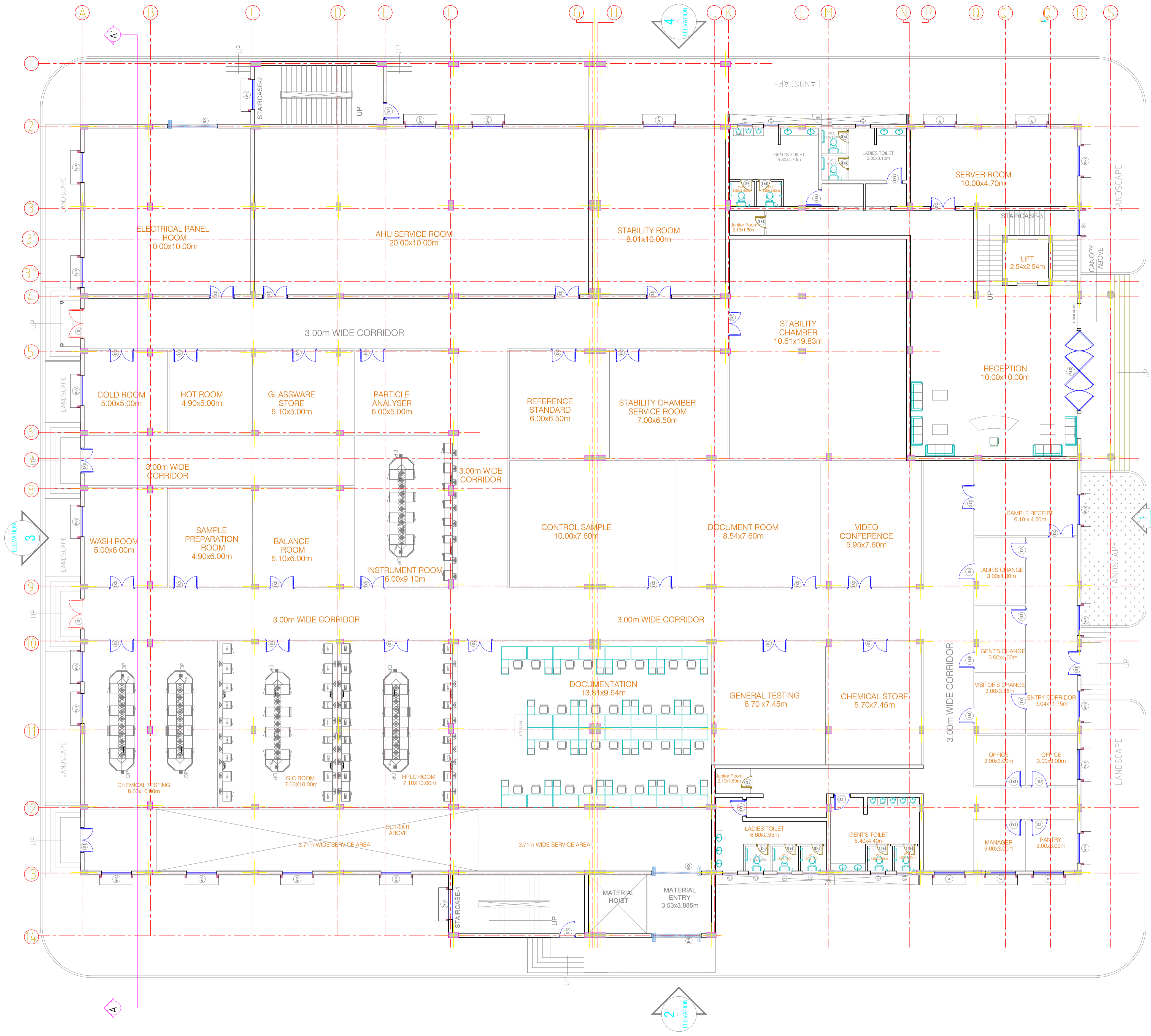
**Andhra Pradesh Industrial Infrastructure Corporation Limited**

**Implementing Agency**

**AP Bulk Drug Infrastructure Corp. Ltd.**

**VOLUME –II (I) ANALYTICAL TESTING LABS  
DRAWINGS**

C1232704  
RP003, Rev. 0



SCHEDULE OF OPENINGS							
S.no	TYPE	SIZE	SILL LINTEL	S.no	TYPE	SIZE	SILL LINTEL
<b>DOOR</b>				<b>WINDOW</b>			
01	MD	4.80x2.10	- 2.10	01	W/V	1.50x1.20	0.90 2.10
02	D	1.80x2.10	- 2.10			1.50x0.60	VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	- 2.10	02	W1	1.50x1.20	FROM BEAM BOTTOM
04	D2	1.50x2.10	- 2.10	03	W2	1.80x1.20	FROM BEAM BOTTOM
05	D3	1.00x2.10	- 2.10	<b>VENTILATOR</b>			
06	D4	0.75x2.10	- 2.10	01	V1	0.90x0.45	1.65 2.10
07	RS	3.00x2.40	- 2.40	02	V2	0.60x0.45	1.65 2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.							

**FOR TENDER PURPOSE ONLY**

**NOTES**  
1. -  
2. -

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<b>REVISIONS</b>									
STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- ...									
<b>REFERENCE DRAWINGS</b>									

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB GROUND FLOOR PLAN

**PROJECT NO:** C1232704

**COP:** -

**SCALE:** -

**DRAWING NO.:** DDA201A1

**REV:** 0

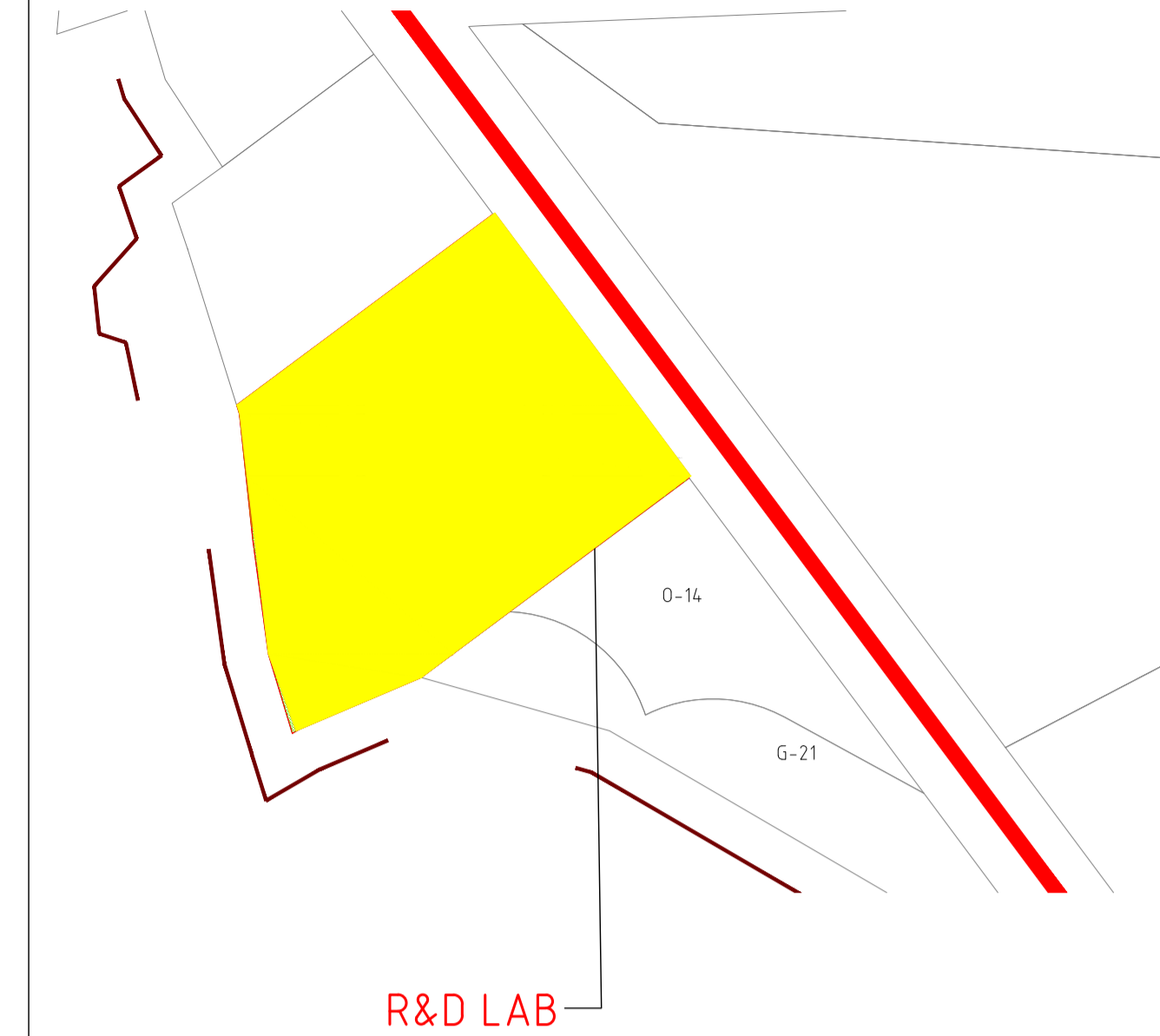
**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

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**LEFT CORNER OF THE DRAWING**

**plot scale:** 1:50m

**KEY PLAN:**

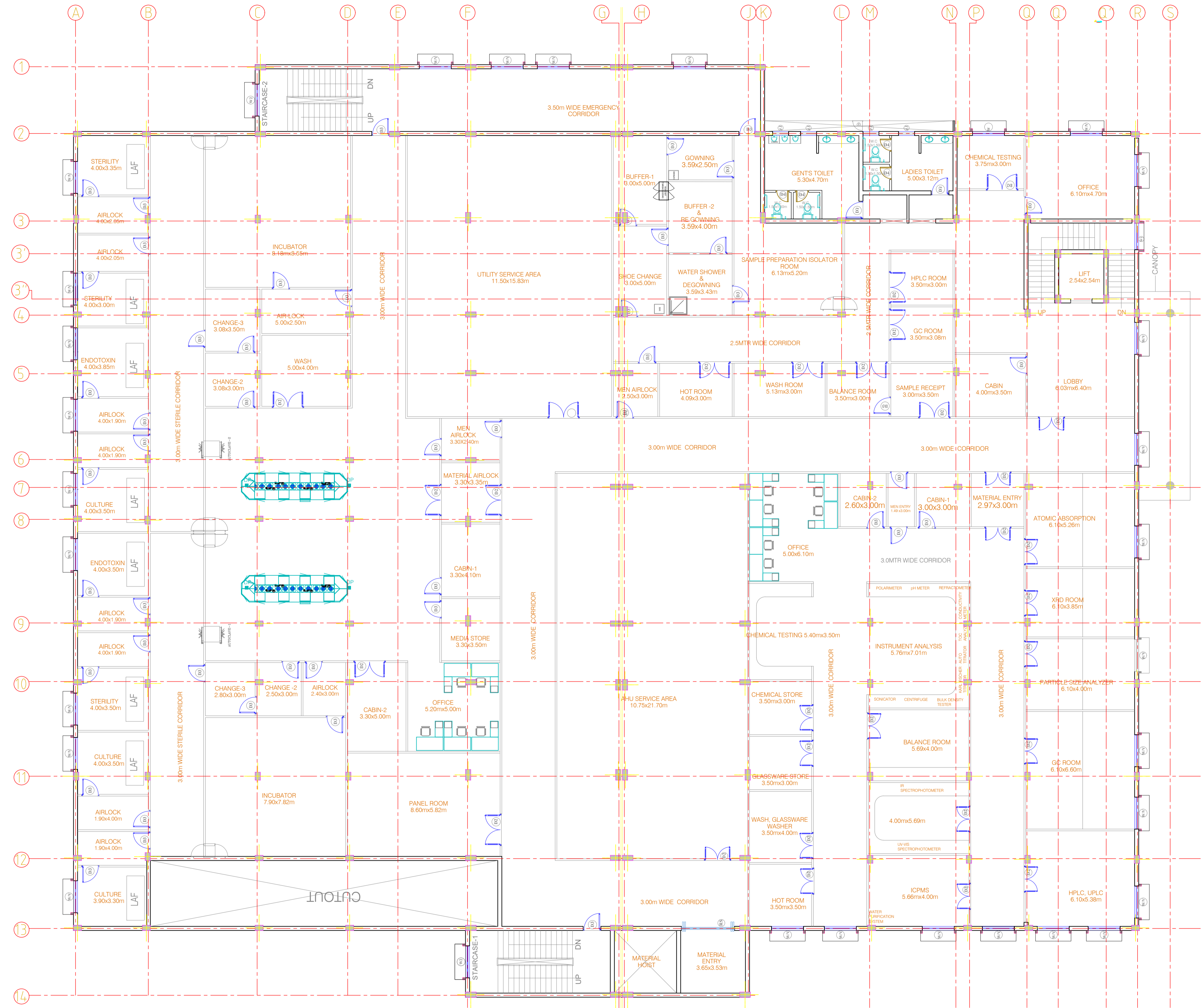


R&D LAB

SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
<b>DOOR</b>					<b>WINDOW</b>				
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	<b>VENTILATOR</b>				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10

\*NOTE  
ALL DIMENSIONS ARE FROM FFL.

**FOR TENDER PURPOSE ONLY**



**NOTES**

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DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	CHECKED	APPROVED
		0	231128	2	FIRST SUBMISSION	GVD	GVD	SLI	BRT		
<p align="center"><b>REVISIONS</b></p> <p align="center">STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- .....</p>											
<p align="center"><b>REFERENCE DRAWINGS</b></p>											

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB FIRST FLOOR PLAN

**PROJECT NO:** C1232704

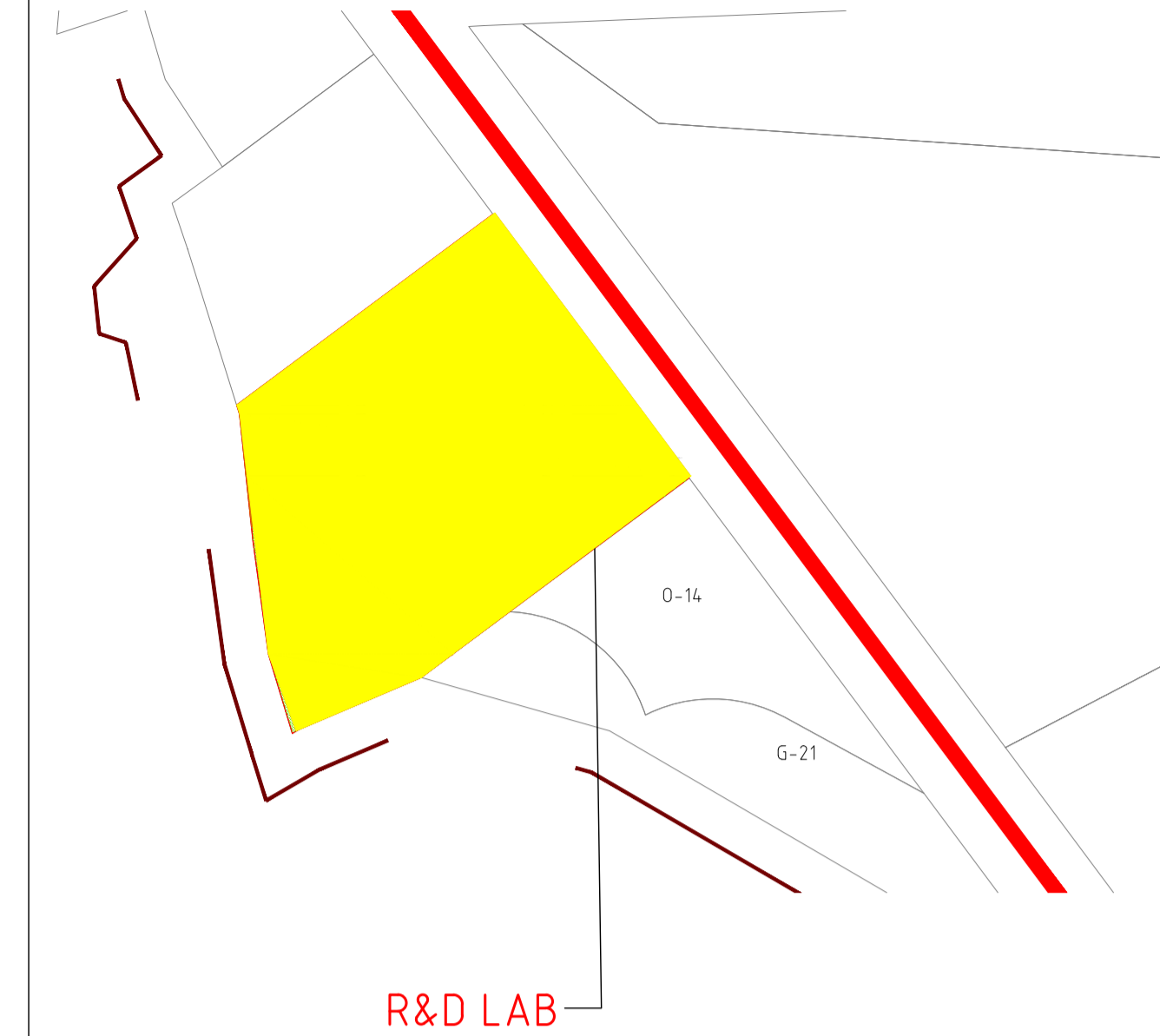
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**DRAWING NO.:** DDA201A2

**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

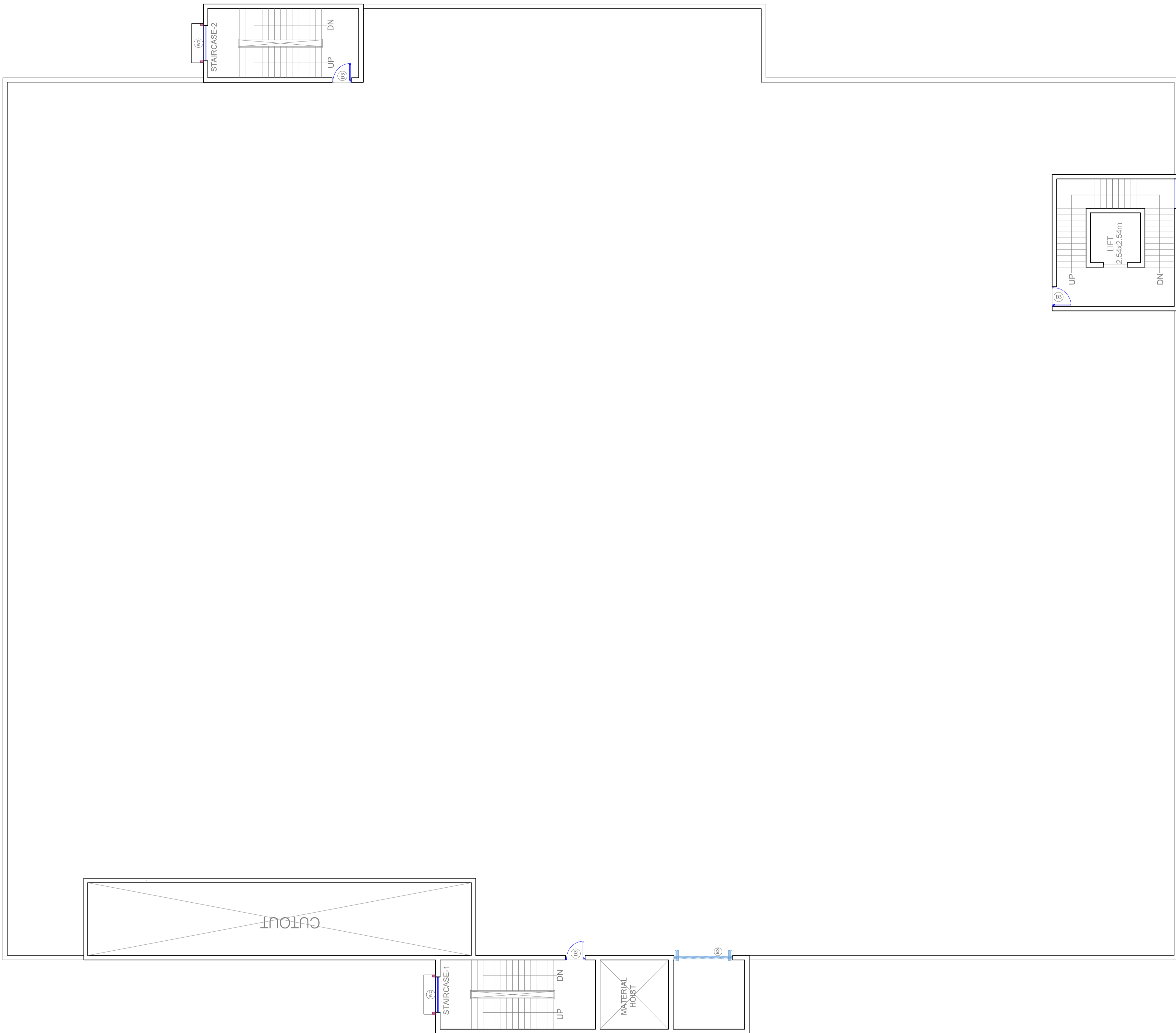
**KEY PLAN:**



SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
<b>DOOR</b>				<b>WINDOW</b>					
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
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06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
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*NOTE ALL DIMENSIONS ARE FROM FFL.									

**FOR TENDER PURPOSE ONLY**

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)		PROJECT NO: C1232704
PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH		COP: - SCALE: -
TITLE: R&D LAB TERRACE PLAN		DRAWING NO: DDA201A3 REV: 0
	IN CONSORTIUM WITH: 	ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



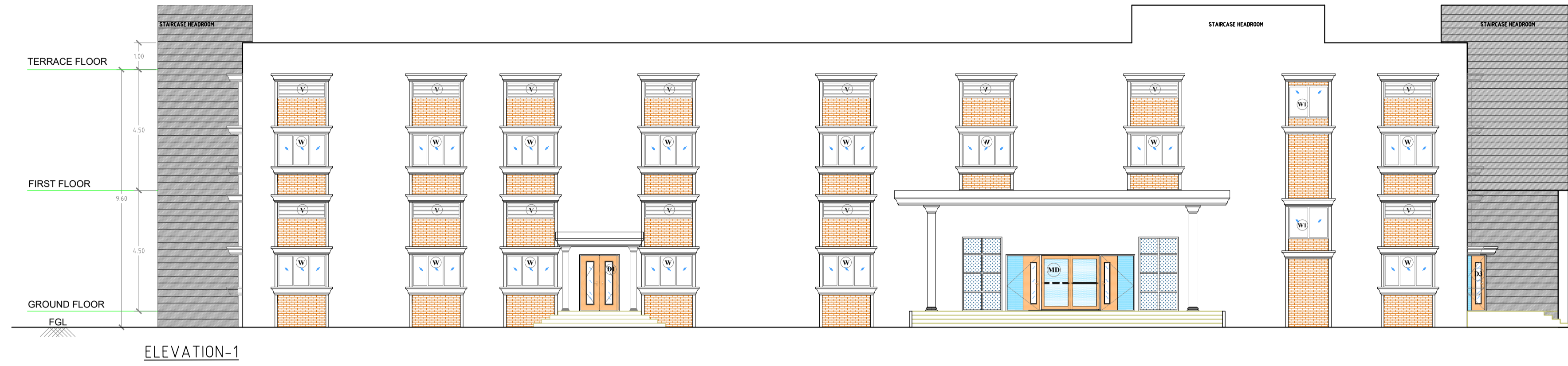
**NOTES**

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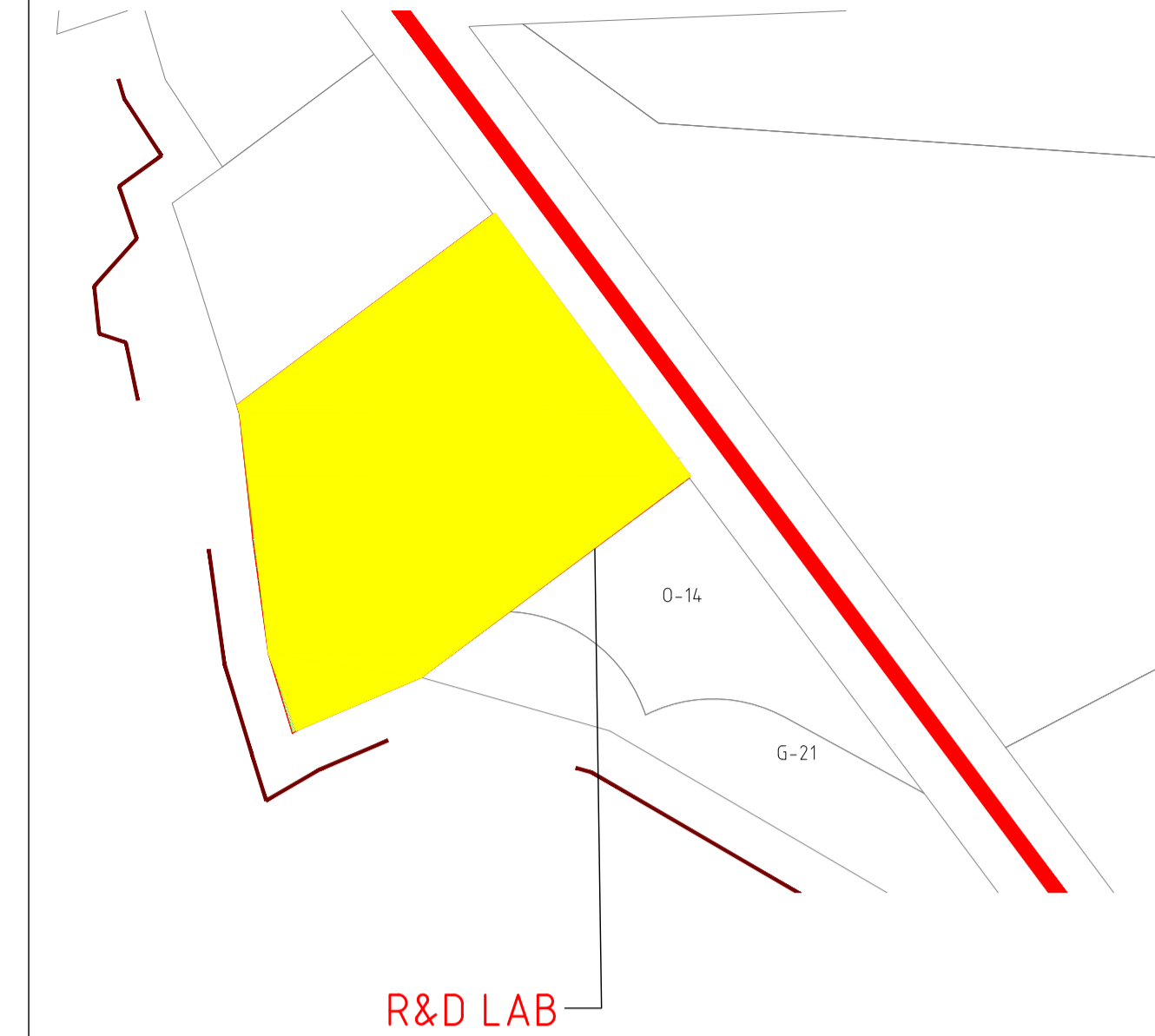
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<b>REVISIONS</b>										
STATUS CODES 1 - PRELIMINARY 2 - FOR APPROVAL 3 - GOOD FOR CONSTRUCTION 4 - .....										
<b>REFERENCE DRAWINGS</b>										

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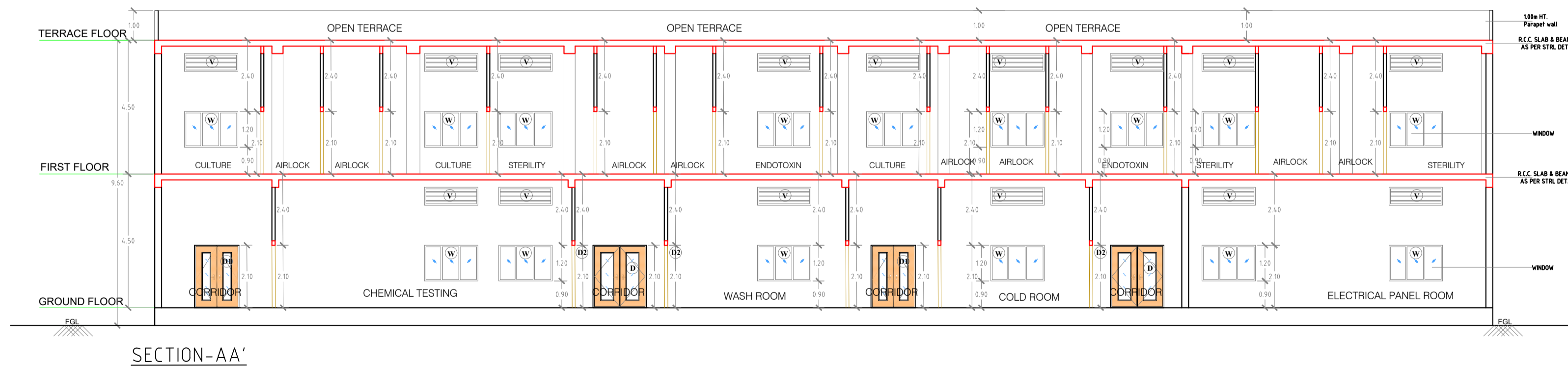
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LEFT CORNER OF THE DRAWING



KEY PLAN:



SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
<b>DOOR</b>				<b>WINDOW</b>					
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	<b>VENTILATOR</b>				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.									



FOR TENDER PURPOSE ONLY

NOTES

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REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. CHECKED	INIT. APPROVED	SIGN. APPROVED
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<p>REVISIONS</p> <p>STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- .....</p>									
DRAWING NO.		TITLE							
-		REFERENCE DRAWINGS							

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LEFT CORNER OF THE DRAWING

PATH: REFER BOTTOM ORIGINAL SIZE: A1

plot scale

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB SECTION-AA & ELEVATION-1 & 2

PROJECT NO: C1232704

COP: -

SCALE: -

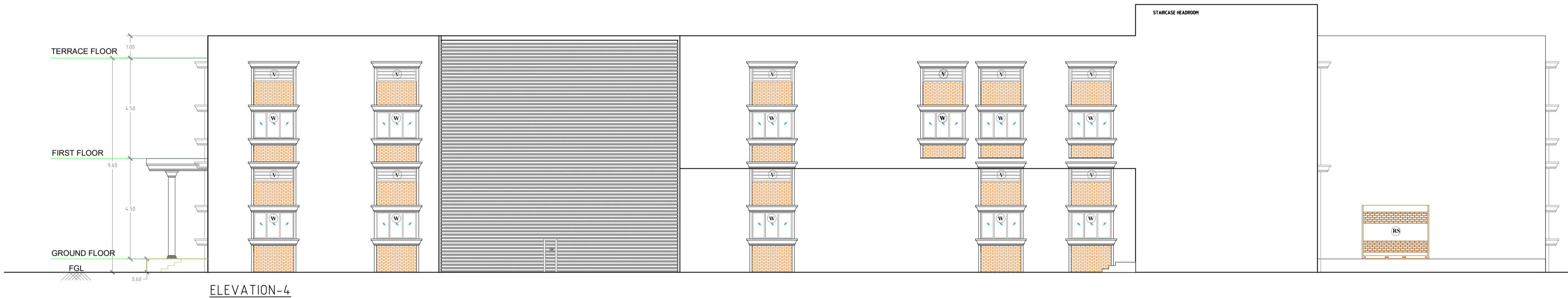
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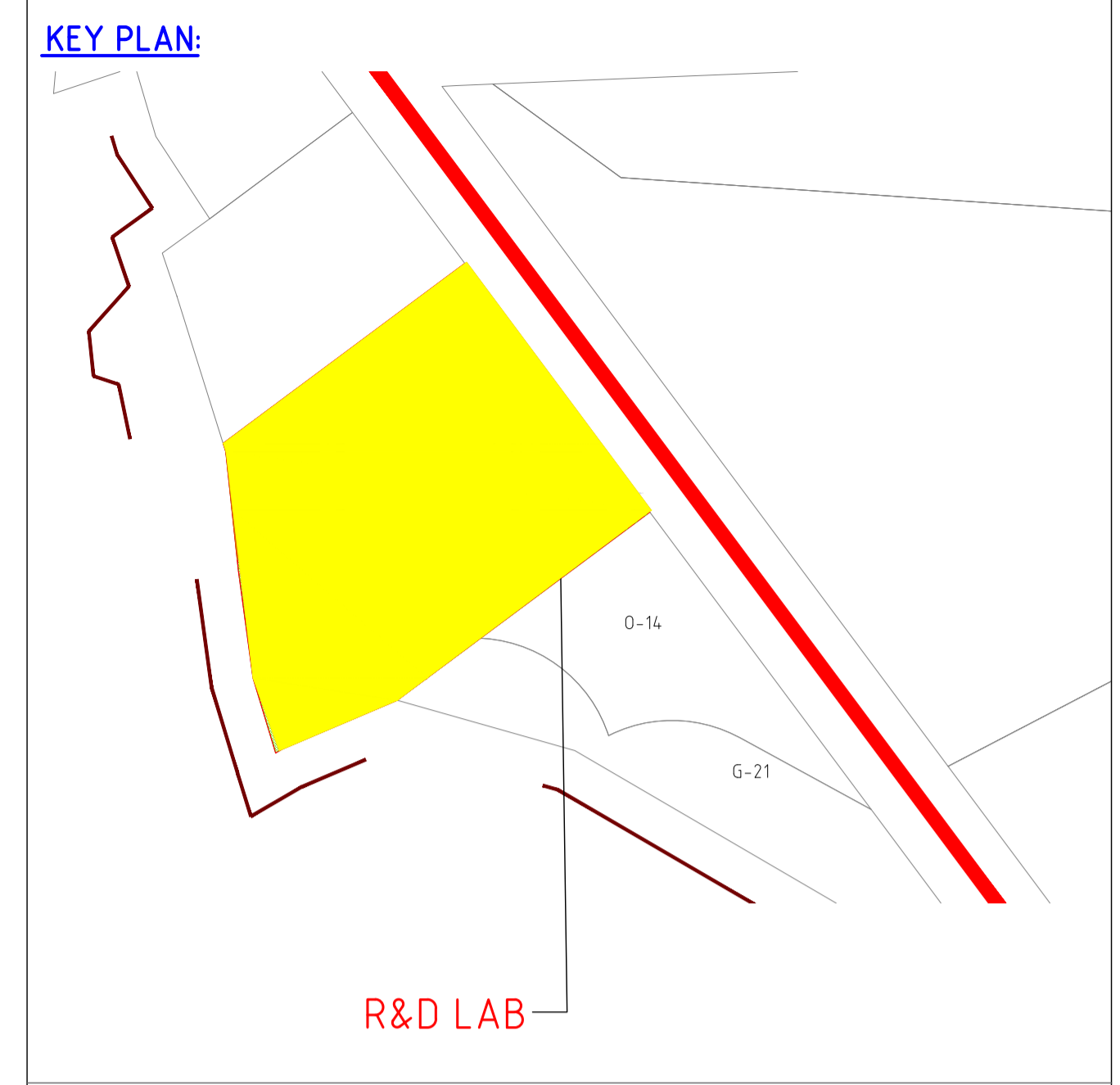
L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



ELEVATION-3



ELEVATION-4



SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
DOOR				WINDOW					
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	VENTILATOR				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.									

NOTES

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REV.	YYMMDD	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	CHECKED	INIT.	SIGN.	APPROVED
0	231128	2	FIRST SUBMISSION				GVD	GVD	SLI	BRT		

DRAWING NO.	TITLE	REVISIONS	STATUS CODES
-	-		1 - PRELIMINARY 2 - FOR APPROVAL 3 - GOOD FOR CONSTRUCTION 4 -
	REFERENCE DRAWINGS		

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 PATH: REFER BOTTOM ORIGINAL SIZE: A1  
 LEFT CORNER OF THE DRAWING

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB ELEVATION-3 & 4

PROJECT NO: C1232704

COP: -

SCALE: -

DRAWING NO: DDA201B2

REV: 0

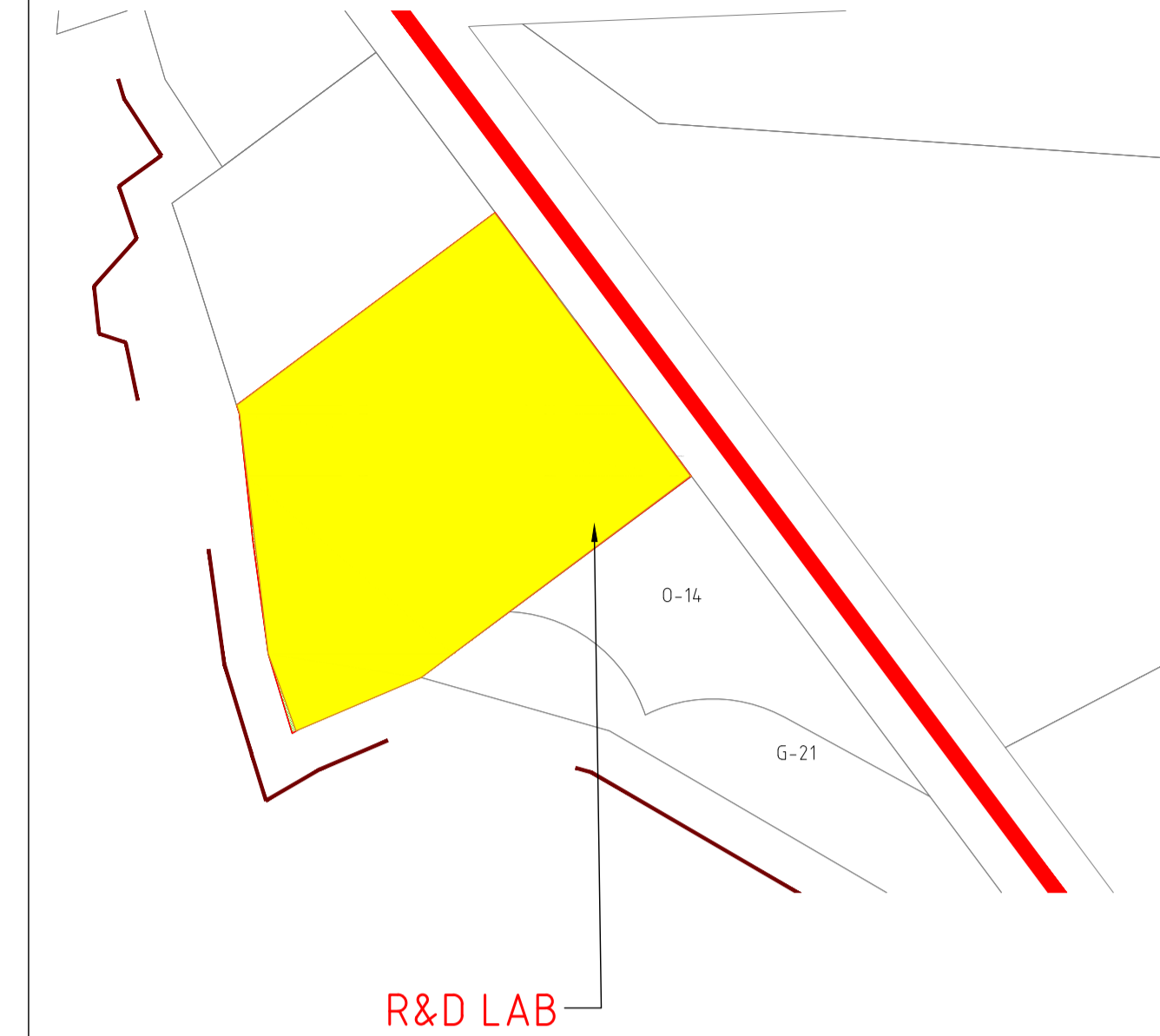
IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.

ARTELIA

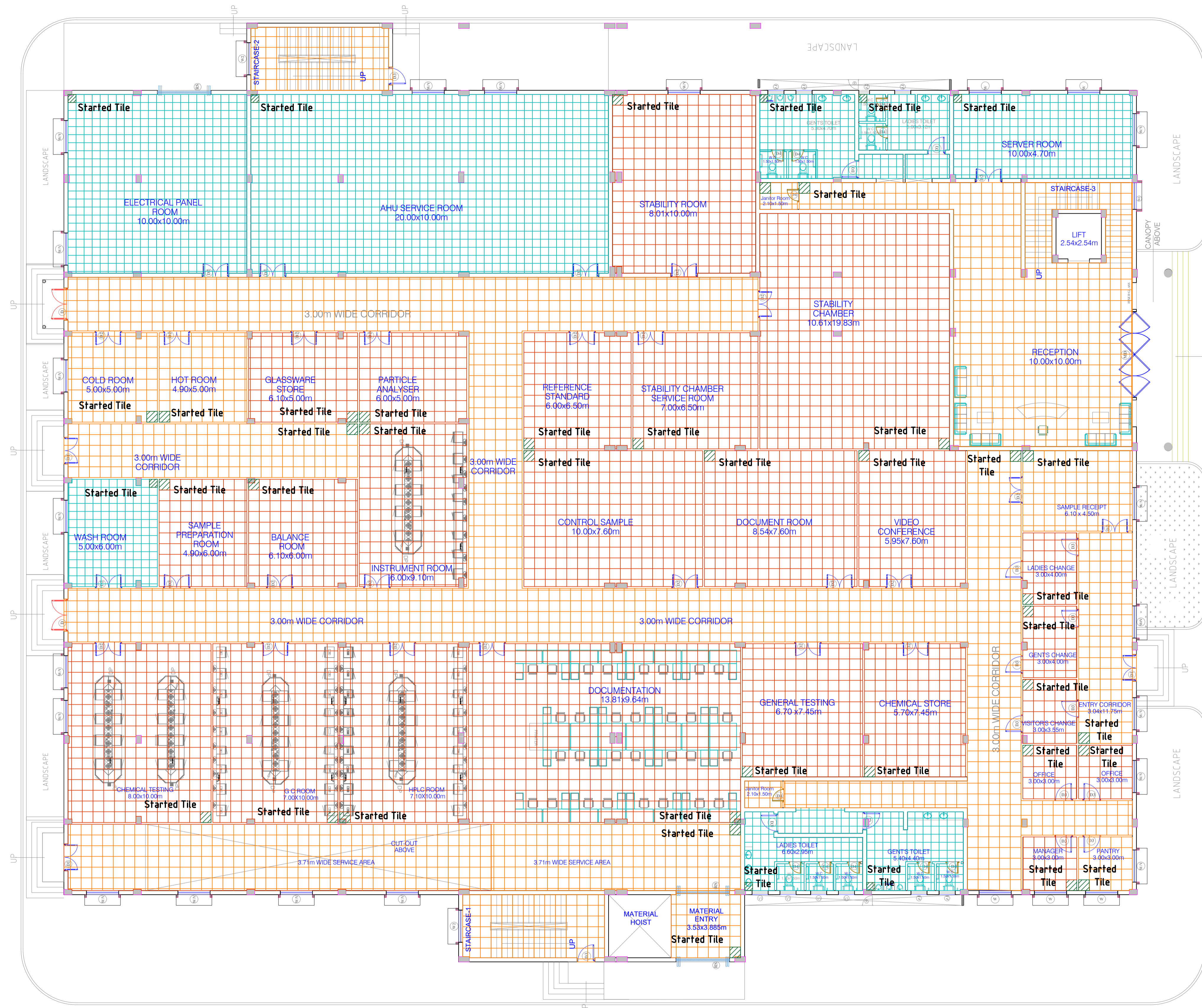
FOR TENDER PURPOSE ONLY

**KEY PLAN:**



**LEGEND:**

- GRANITE (600X600)
- VITRIFIED TILE (600X600)
- CERAMIC TILE (450X450)
- STARTED TILE



**FOR TENDER PURPOSE ONLY**

**NOTES**

1. -
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DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
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<b>REVISIONS</b>											
STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- .....											

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PATH: REFER BOTTOM ORIGINAL SIZE: A1

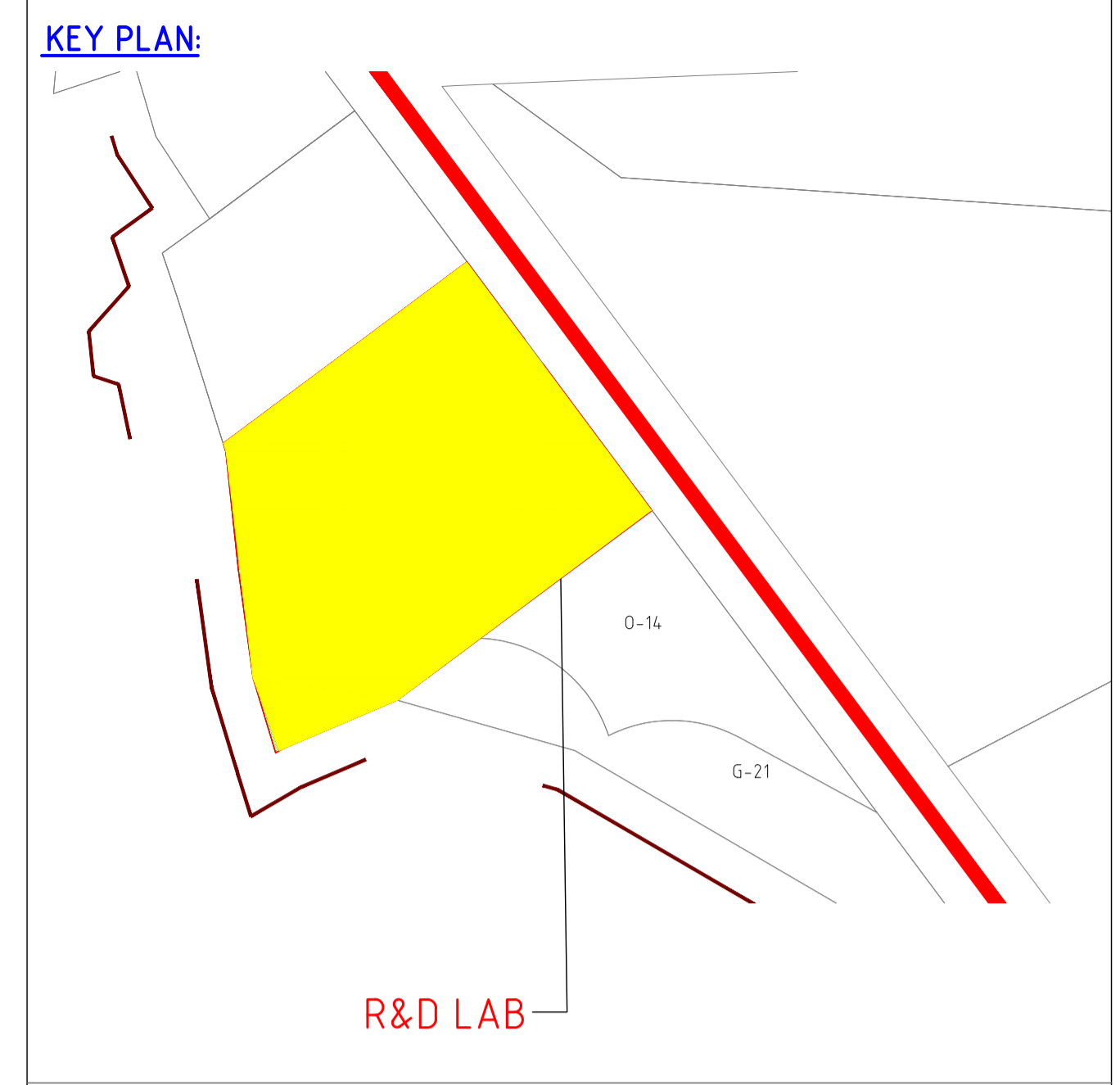
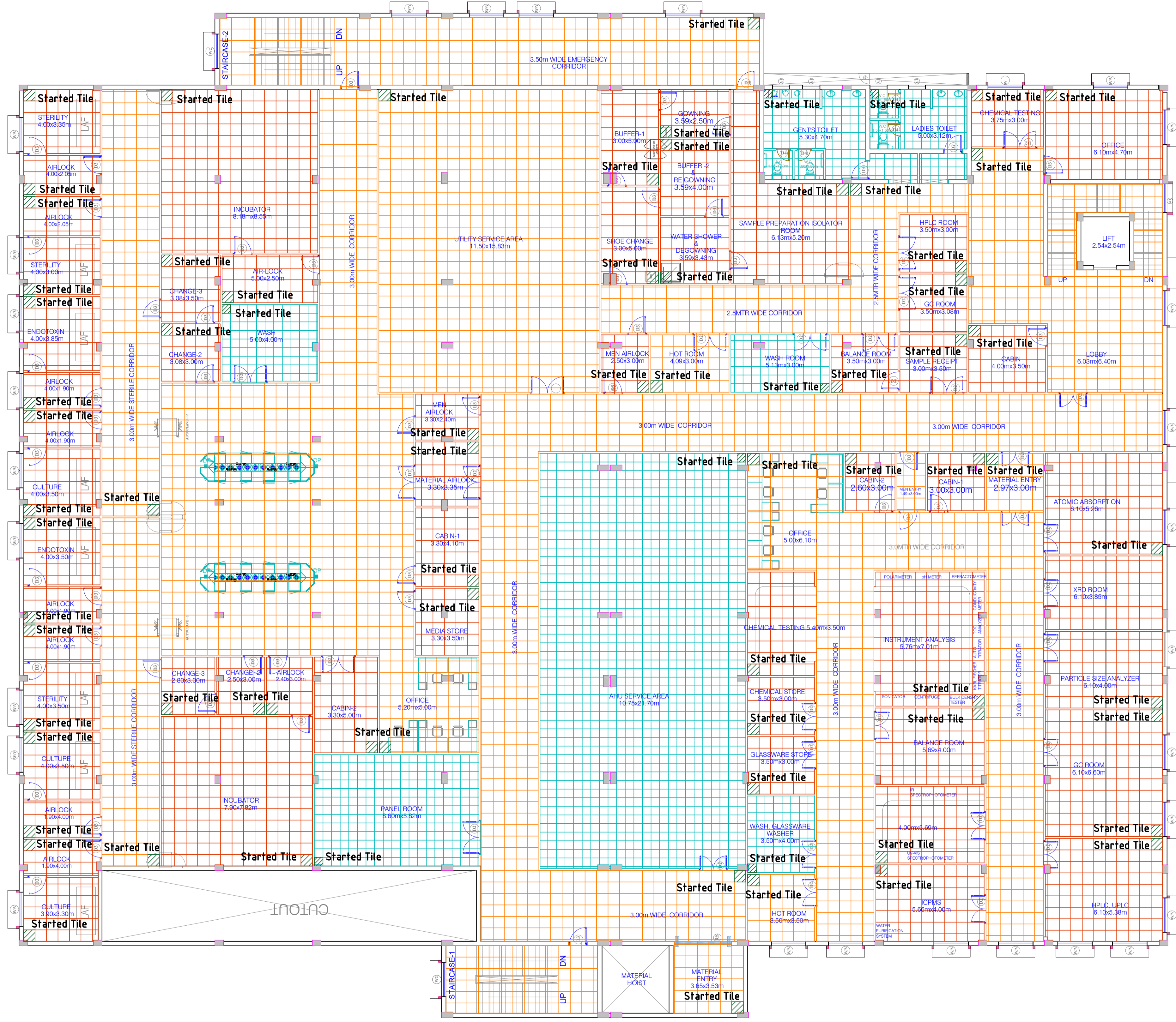
**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)  
**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH  
**TITLE:** R&D LAB GROUND FLOOR FINISHES

**PROJECT NO:** C1232704  
**COP:** -  
**SCALE:** -  
**DRAWING NO:** DDA201C1  
**REV:** 0

**IN CONSORTIUM WITH:** ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

**L&T Infrastructure Engineering Ltd.**





- LEGEND:**
- GRANITE (600X600)
  - VITRIFIED TILE (600X600)
  - CERAMIC TILE (450X450)
  - STARTED TILE

**FOR TENDER PURPOSE ONLY**

**NOTES**  
1. -  
2. -

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
		0	231128	2	FIRST SUBMISSION	GVD	GVD	SLI	BRT		
<b>REVISIONS</b>											
STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- ...											
<b>REFERENCE DRAWINGS</b>											

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB FIRST FLOOR FINISHES

**PROJECT NO:** C1232704

**COP:** -

**SCALE:** -

**DRAWING NO:** DDA201C2

**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd., ARTELIA Consulting Engineers Ltd., ARTELIA (Formerly Mahindra Consulting Engineers Ltd.)

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PATH: REFER BOTTOM LEFT CORNER OF THE DRAWING

plot scale 1:50m





Ground Floor Plan

Legend:

S.No	Symbols	Description
1		Lighting Distribution Board
2		Power Distribution Board
3		Uninterrupted Power Supply
4		1 ph 5 Amp socket outlet with switch
5		1 ph 5 Amp socket outlet with switch for UPS
6		1 ph 5/15 Amp socket outlet with switch
7		1 ph 20 Amp socket outlet with MCB for 1.5 TON AC

Legend:

S.No	Symbols	Description
1		Emergency Lighting Power distribution board
2		Lighting distribution board
3		Power distribution board
4		36 W LED light fitting
5		18W EL LED light fitting (for UPS backup)
6		18 W LED light fitting
7		18W EL LED light fitting (for UPS backup)
8		24W LED light fitting
9		24W EL LED light fitting (for UPS backup)
10		2X20W LED light fitting
11		2x20W EL LED light fitting (for UPS backup)
12		Mirror light
13		Ceiling fan
14		Exhaust fan
15		Switch board with 5 amps socket

**FOR TENDER PURPOSE ONLY**

NOTES:

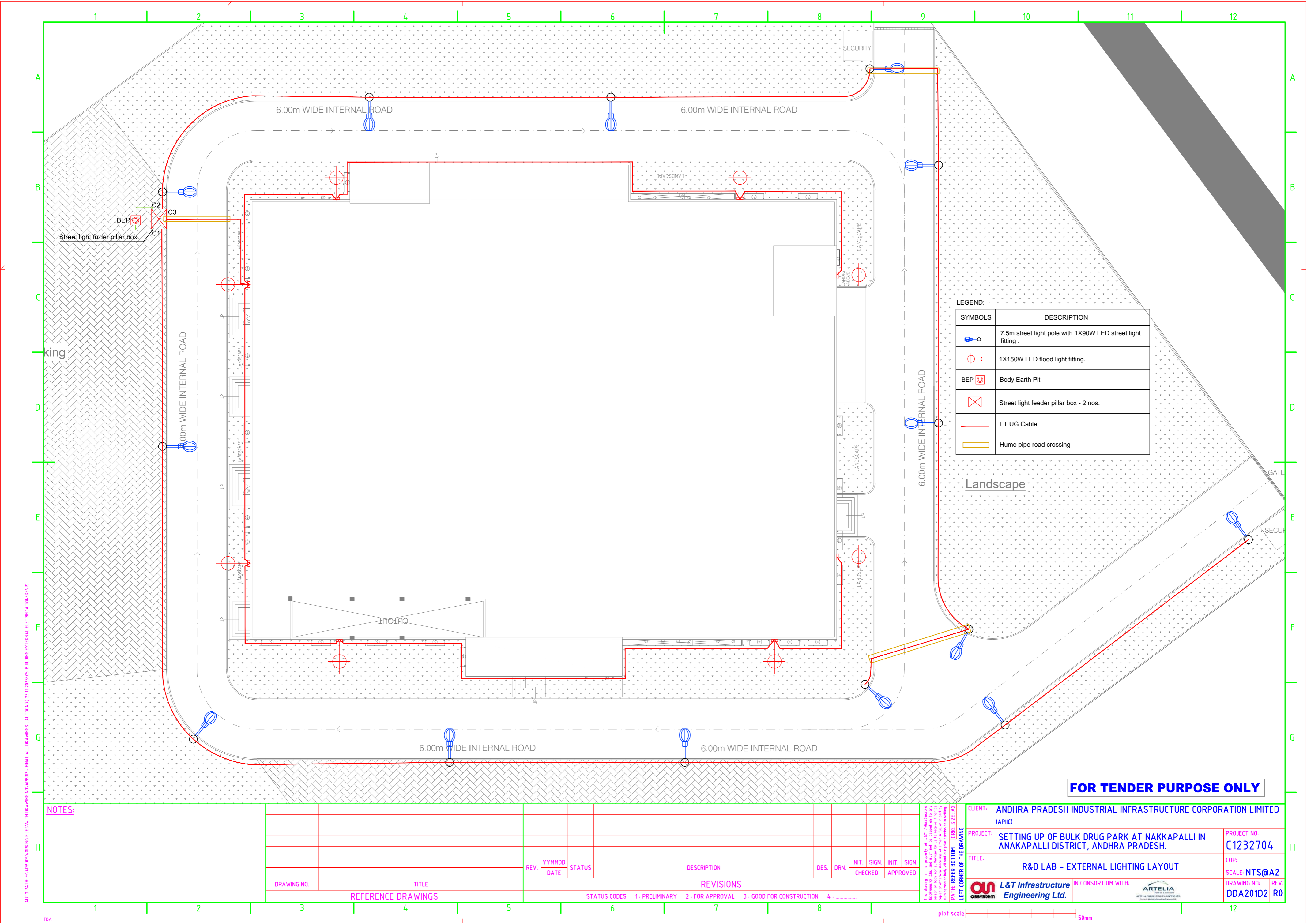
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REVISIONS									
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....									

CLIENT:	ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)	PROJECT NO:	C1232704
PROJECT:	SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH.	COP:	
TITLE:	R&D LAB - LIGHTING AND SMALL POWER LAYOUT GROUND FLOOR	SCALE:	NTS@A2
		DRAWING NO.:	DDA201D1
		REV:	R0



plot scale 50mm

AUTO PATH: F:\ARBDP\WORKING FILES\WITH DRAWING\NO.48BDDP - FINAL ALL DRAWINGS / AUTOCAD / 23.02.2023\ARBDP - BUILDING INTERNAL ELECTRIFICATION\REVIS



LEGEND:

SYMBOLS	DESCRIPTION
	7.5m street light pole with 1X90W LED street light fitting .
	1X150W LED flood light fitting.
	Body Earth Pit
	Street light feeder pillar box - 2 nos.
	LT UG Cable
	Hume pipe road crossing

**FOR TENDER PURPOSE ONLY**

NOTES:

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED

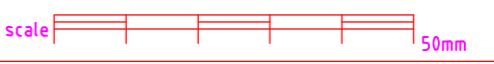
DRAWING NO.      TITLE  
 REFERENCE DRAWINGS

STATUS CODES    1: PRELIMINARY    2: FOR APPROVAL    3: GOOD FOR CONSTRUCTION    4: .....

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)  
 PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH.  
 TITLE: R&D LAB - EXTERNAL LIGHTING LAYOUT

PROJECT NO: C1232704  
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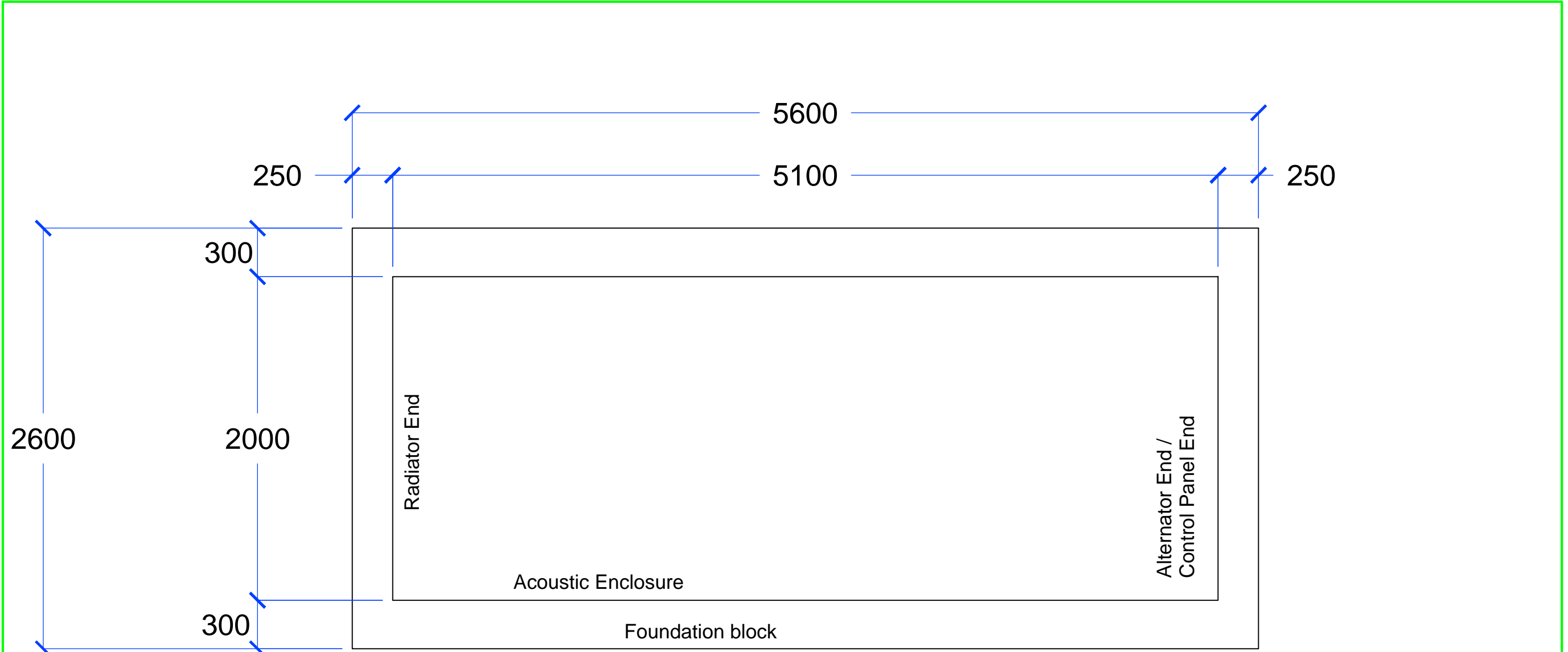
L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA CONSULTING ENGINEERS LTD.



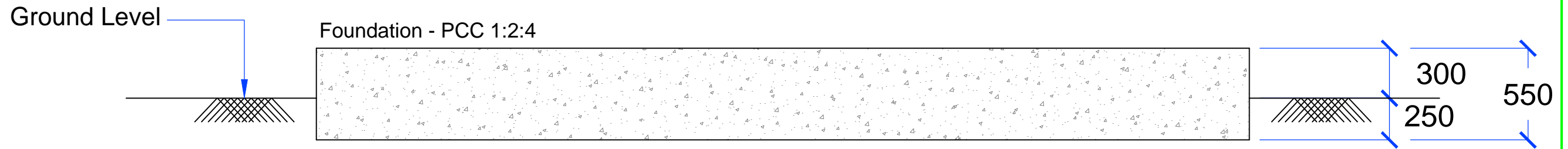
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TBA

AUTO PATH: F:\APBDP\WORKING FILES\WITH DRAWING NO\APBDP - FINAL ALL DRAWINGS ( AUTOCAD ) 23.12.2023\04. TYPICAL FOUNDATION DETAILS OF DG SET\T




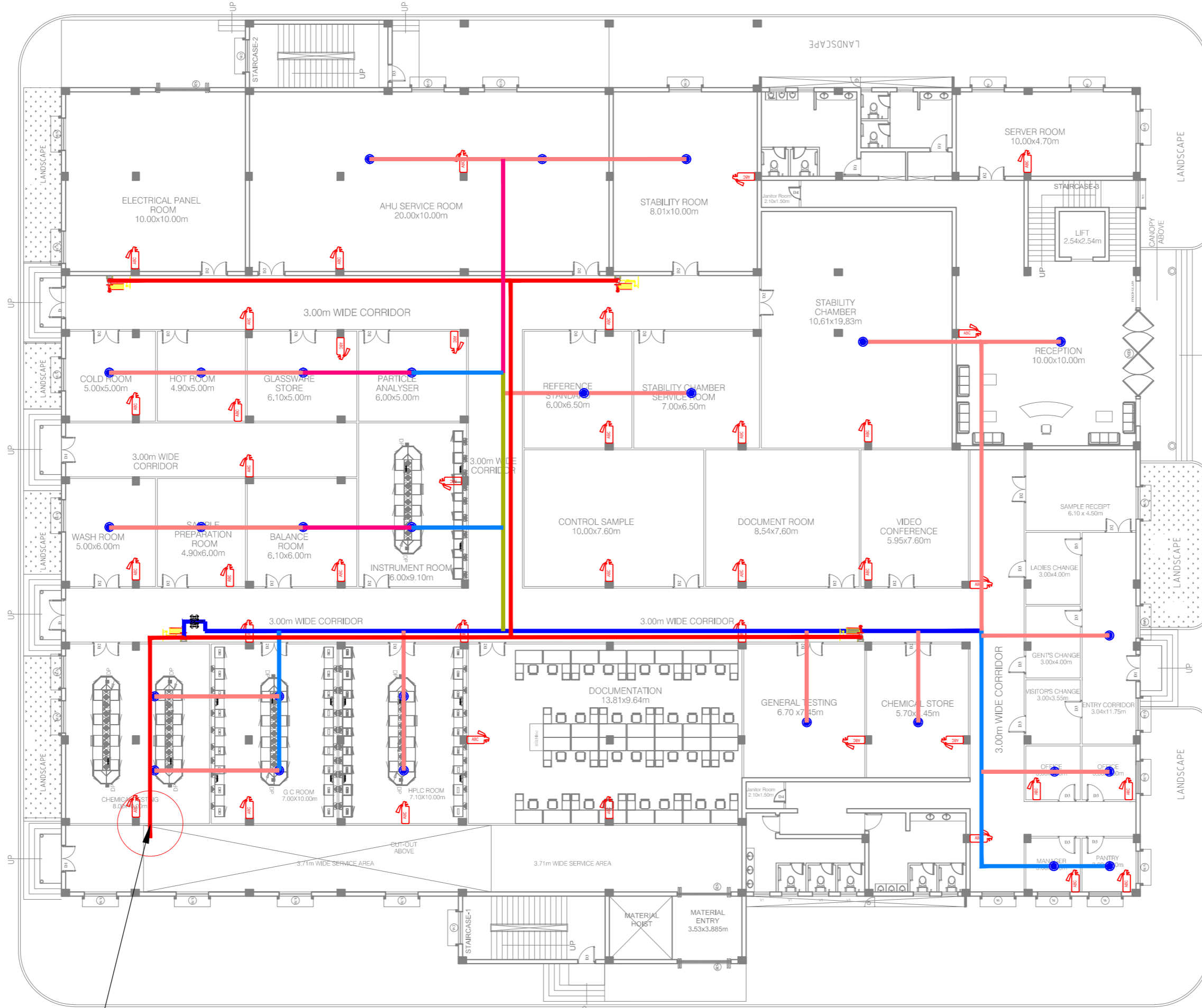
**FLOOR PLAN FOR 320KVA DG**



**CROSS - SECTION ELEV. (FDN)**

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	TITLE: <b>TYPICAL FOUNDATION DETAILS OF 320 KVA DG SET ( SHEET 1 OF 5 )</b>	DATE: MADE:
	IN CONSORTIUM WITH: 	FIGURE NO: <b>DDE403</b>



- LEGENDS:**
- INTERNAL HYDRANT WITH HOSE REEL
  - ABC FIRE EXTINGUISHER
  - PENDENT SPRINKLER 68 deg,C
  - BUTTERFLY VALVE
  - 100Ø MM, DIA - MS PIPE (FOR INTERNAL HYDRANT)
  - 80Ø MM, DIA - MS PIPE
  - 65Ø MM, DIA - MS PIPE
  - 50Ø MM, DIA - MS PIPE
  - 40Ø MM, DIA - MS PIPE
  - 32Ø MM, DIA - MS PIPE
  - 25Ø MM, DIA - MS PIPE

S.No	Items	Size(mm)	Quantity	Unit
1	MS pipe	Ø100	150	RM
		Ø80	6	RM
		Ø65	25	RM
		Ø50	30	RM
		Ø40	40	RM
		Ø32	20	RM
2	Butterfly valve(BFV)	Ø100	5	Nos
		Ø50	1	Nos
3	Internal Hydrant with hose reel	-	4	Nos
4	Pendent Sprinkler	-	28	Nos
5	Extinguisher(ABC)	-	39	Nos

Connected to terrace pump with tank (10Cum)  
Flow of 450 LPM at 35 Mtr

# Ground Floor Plan

**FOR TENDER PURPOSE ONLY**

**NOTES:**

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REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
DRAWING NO.	TITLE		REVISIONS				
	REFERENCE DRAWINGS		STATUS CODES 1 : PRELIMINARY 2 : FOR APPROVAL 3 : GOOD FOR CONSTRUCTION 4 : .....				

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB FIRE FIGHTING SYSTEM GROUND FLOOR

**PROJECT NO:** C1232704

**COP:**

**SCALE:** NTS@A2

**DRAWING NO:** DDA201E1 R0

**REV:**

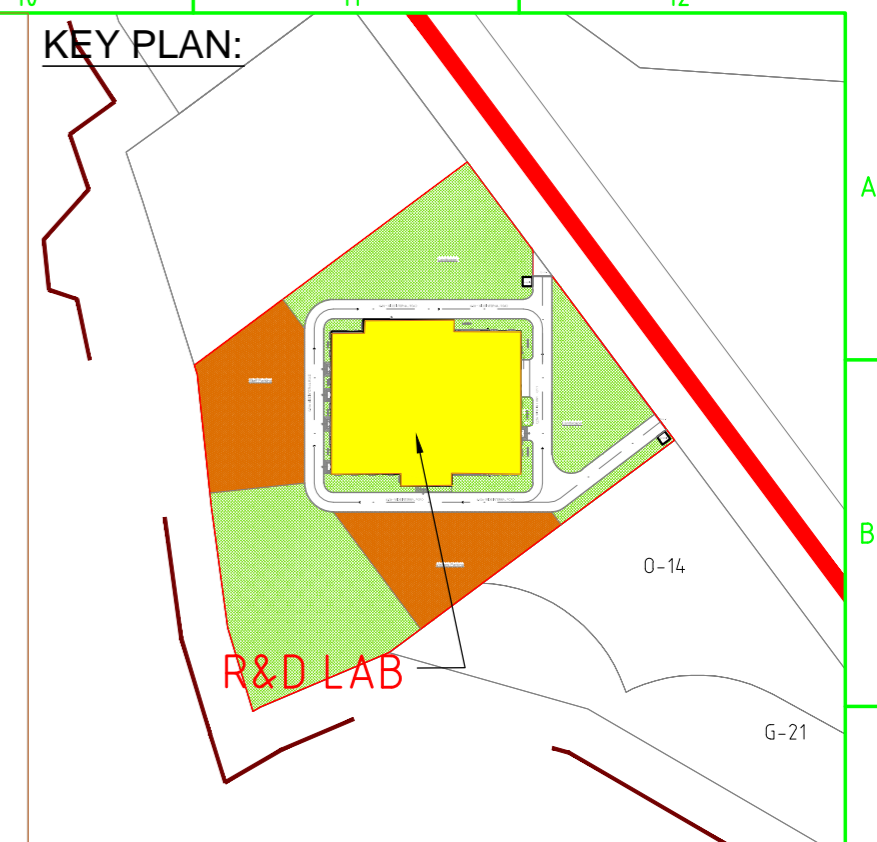
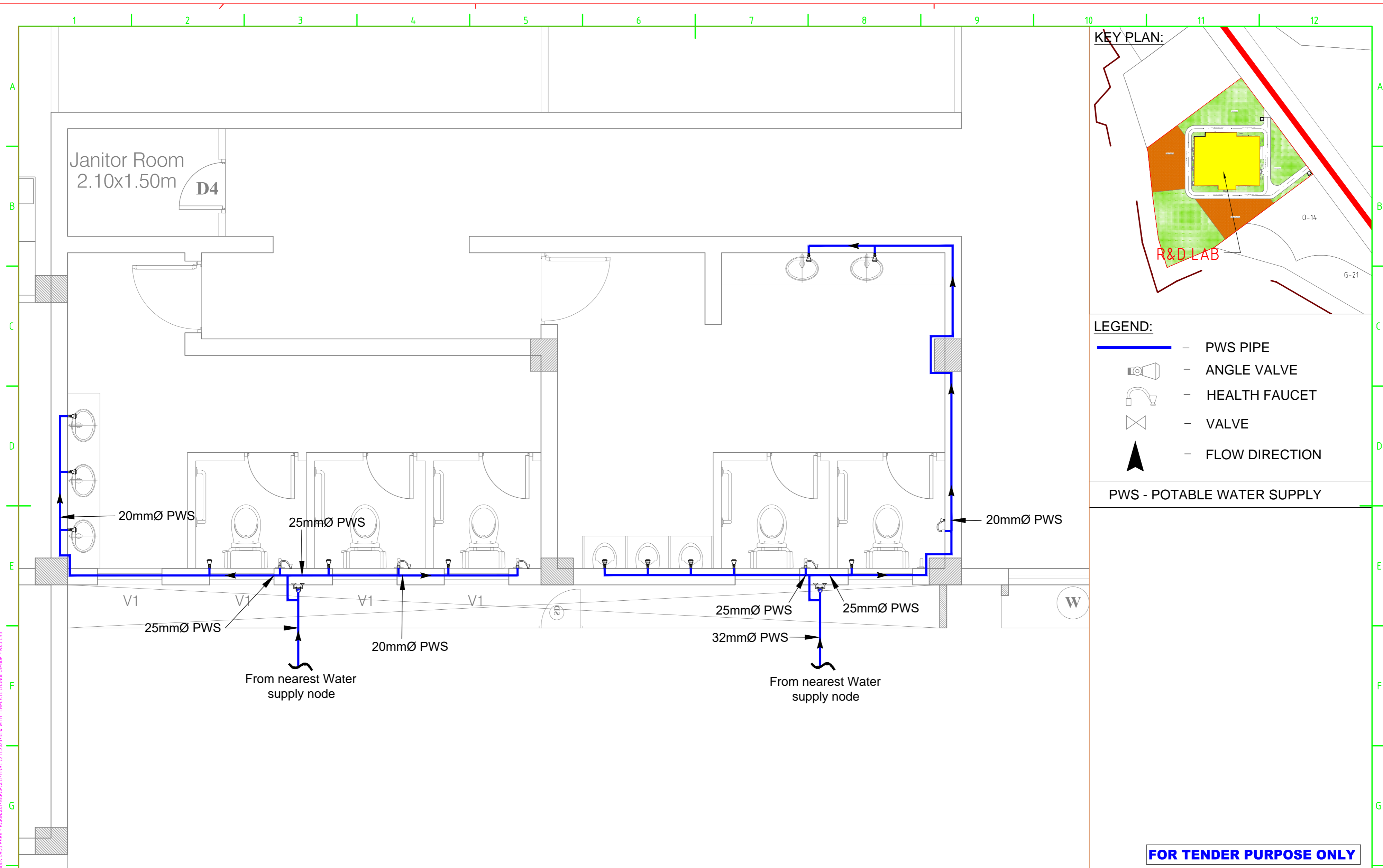
**IN CONSORTIUM WITH:** ARTELIA

**L&T Infrastructure Engineering Ltd.**

**ARTELIA**

plot scale 50mm

AUTO PATH E:\M\ANI FILES\PROJECTS\APR\BP\030221\DRAWINGS\FINAL DRAWINGS\210221\WORKING FILE\BP\CAD DRAWINGS\3\REF BUILDINGS\3\REF LAB-FIRE WATER SUPPLY GROUND FLOOR.DWG



- LEGEND:**
- PWS PIPE
  - ANGLE VALVE
  - HEALTH FAUCET
  - VALVE
  - FLOW DIRECTION

PWS - POTABLE WATER SUPPLY

**FOR TENDER PURPOSE ONLY**

**NOTES:**

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT.	SIGN.

DRAWING NO.	TITLE

REVISIONS			

STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

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CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB - INTERNAL WATER SUPPLY LAYOUT - GROUND FLOOR (SHEET 1 OF 2)

PROJECT NO: C1232704

COP: NTS

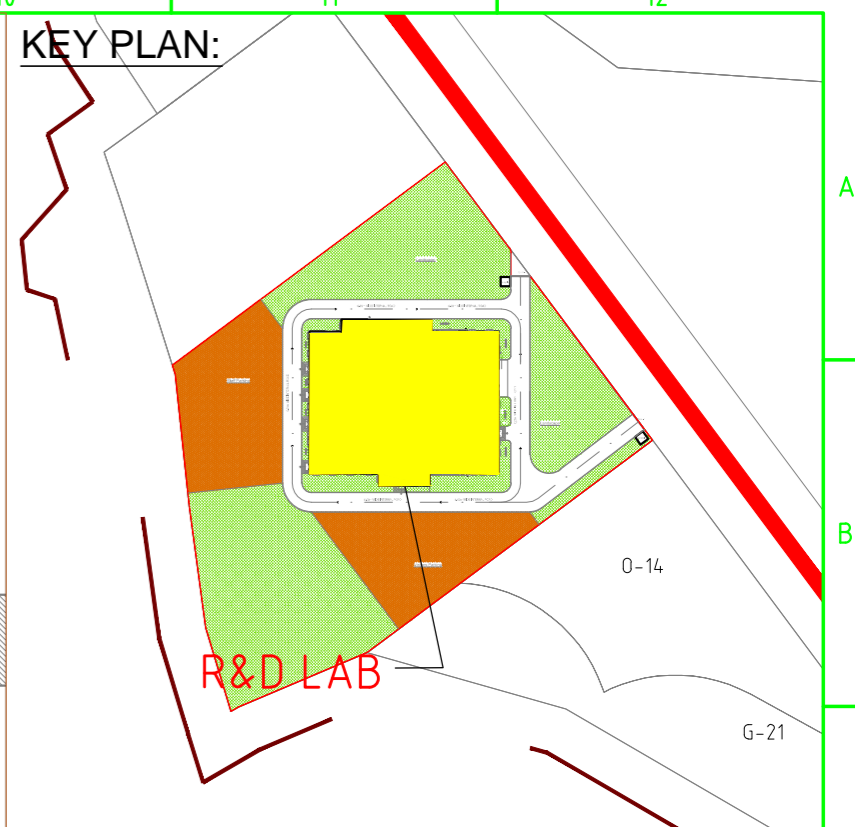
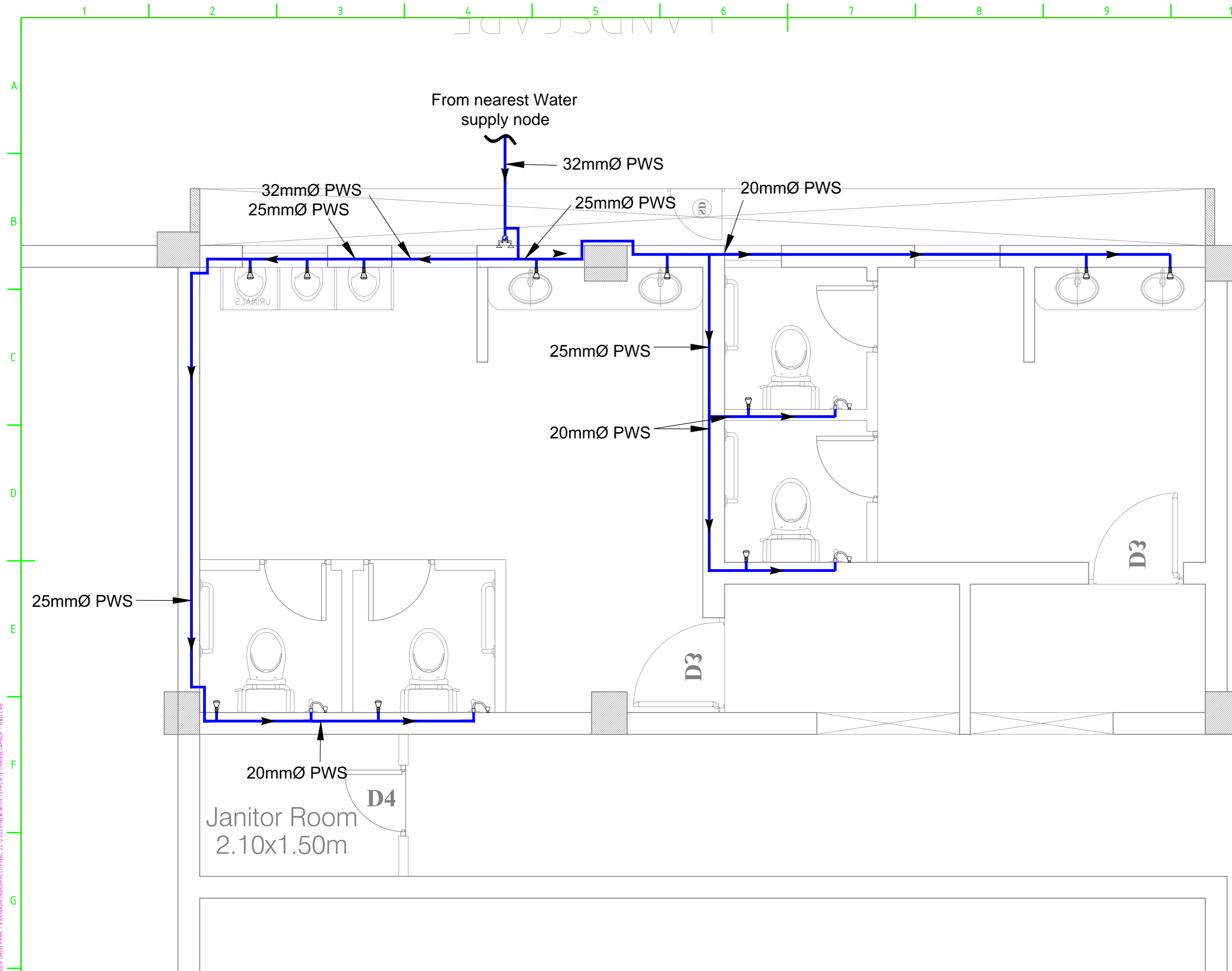
SCALE: NTS

DRAWING NO: DDA201F1

REV: R0

IN CONSORTIUM WITH: **ARTELIA** (ARTELIA CONSULTANTS AND ENGINEERS LTD)

**L&T Infrastructure Engineering Ltd.**



- LEGEND:**
- PWS PIPE
  - ANGLE VALVE
  - HEALTH FAUCET
  - VALVE
  - FLOW DIRECTION

PWS - POTABLE WATER SUPPLY

**FOR TENDER PURPOSE ONLY**

**NOTES:**

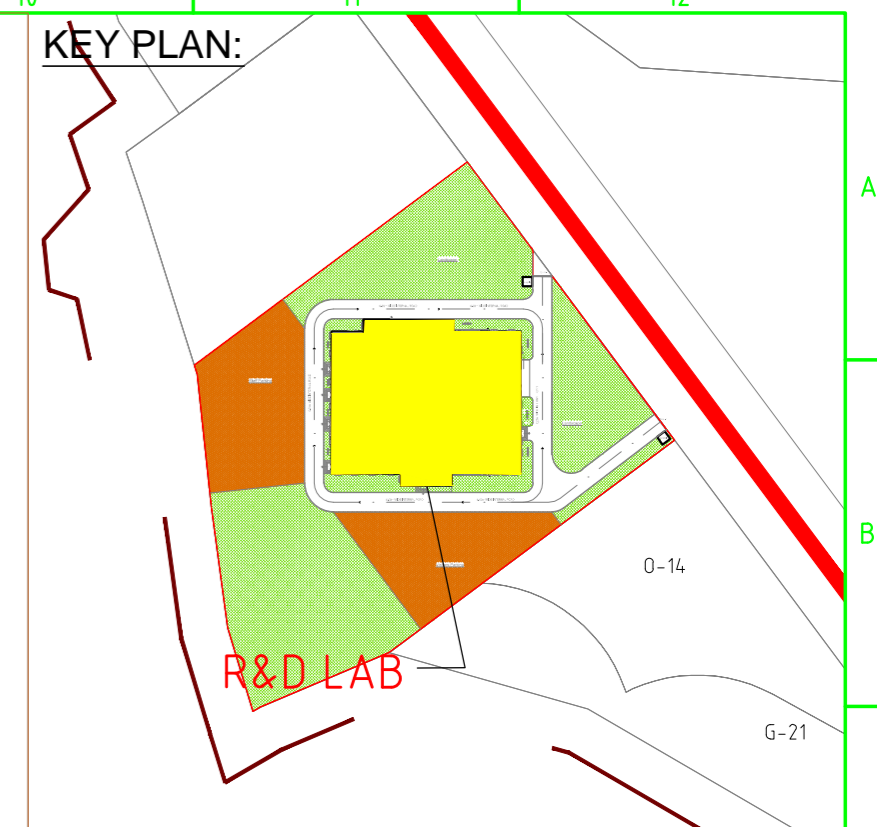
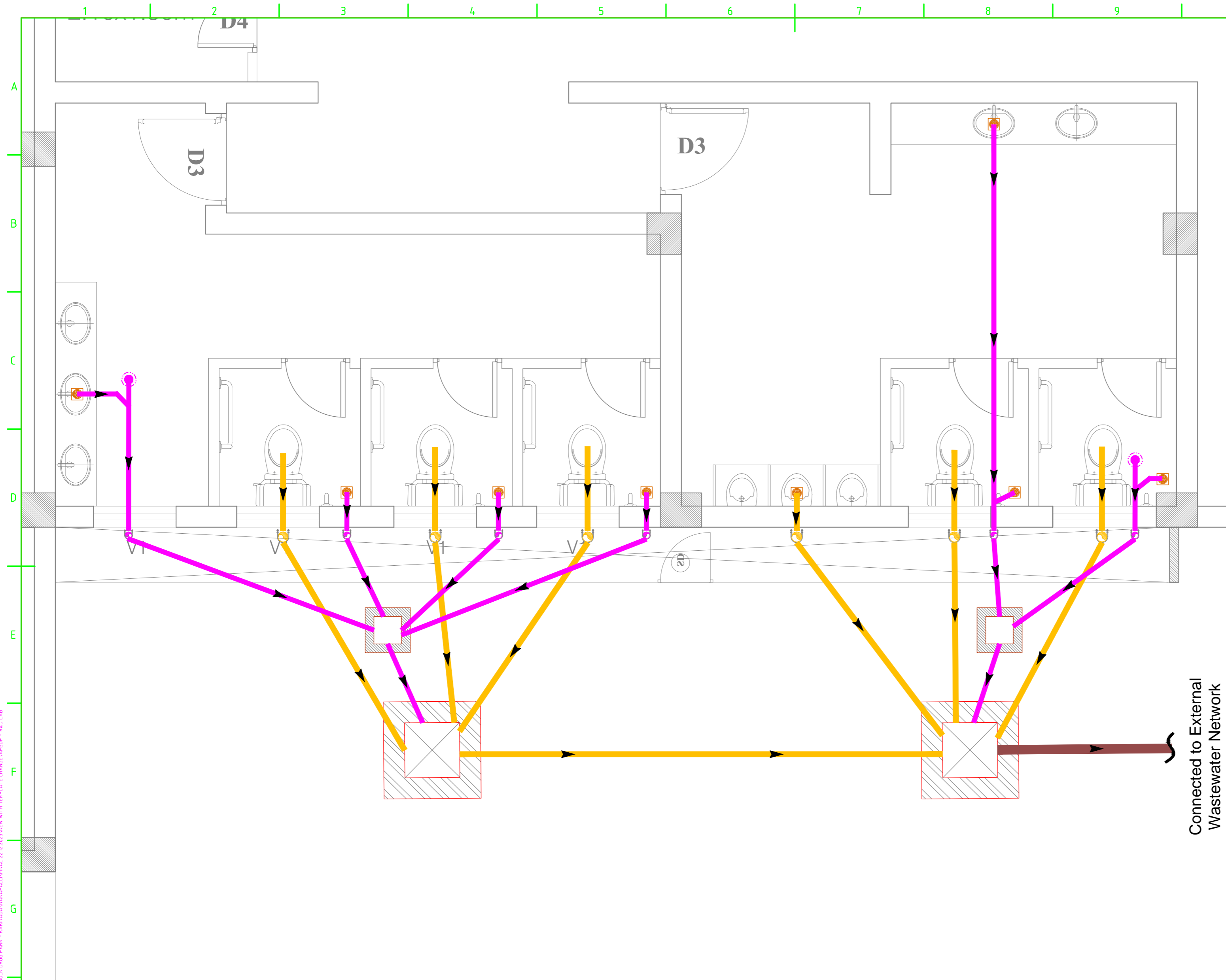

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT.	SIGN.

DRAWING NO.	TITLE	STATUS CODES
	REFERENCE DRAWINGS	1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

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CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)	PROJECT NO: C1232704
PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH	COP:
TITLE: R&D LAB - INTERNAL WATER SUPPLY LAYOUT - GROUND FLOOR	SCALE: NTS
	(SHEET 2 OF 2)
DRAWING NO: DDA201F2	REV: R0

AUTO DATA: CADITHYA FILES - TOOR NUBERLAPARC - BULK DRUG PARK - KAKINDANAMAKAPALLI/INITIAL 22 02 2023/NEW WITH TEMPLATE CHANGE/L&T/BBP - R&D LAB



- LEGEND:**
- 110Ø SOIL PIPE
  - 75Ø WASTE PIPE
  - 150Ø SOIL PIPE
  - 75Ø CLEAN OUT PLUG
  - 110Ø CLEAN OUT PLUG
  - FLOOR TRAP
  - FLOW DIRECTION
  - INSPECTION CHAMBER
  - GULLY TRAP

Connected to External Wastewater Network

**FOR TENDER PURPOSE ONLY**

**NOTES:**

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT. SIGN.	SIGN. APPROVED

**REFERENCE DRAWINGS**

DRAWING NO.	TITLE

**STATUS CODES** 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB - INTERNAL SEWER LAYOUT - GROUND FLOOR

**PROJECT NO.:** C1232704

**SCALE:** NTS

**DRAWING NO.:** DDA201G1

**REV.:** R0

**IN CONSORTIUM WITH:** ARTELIA

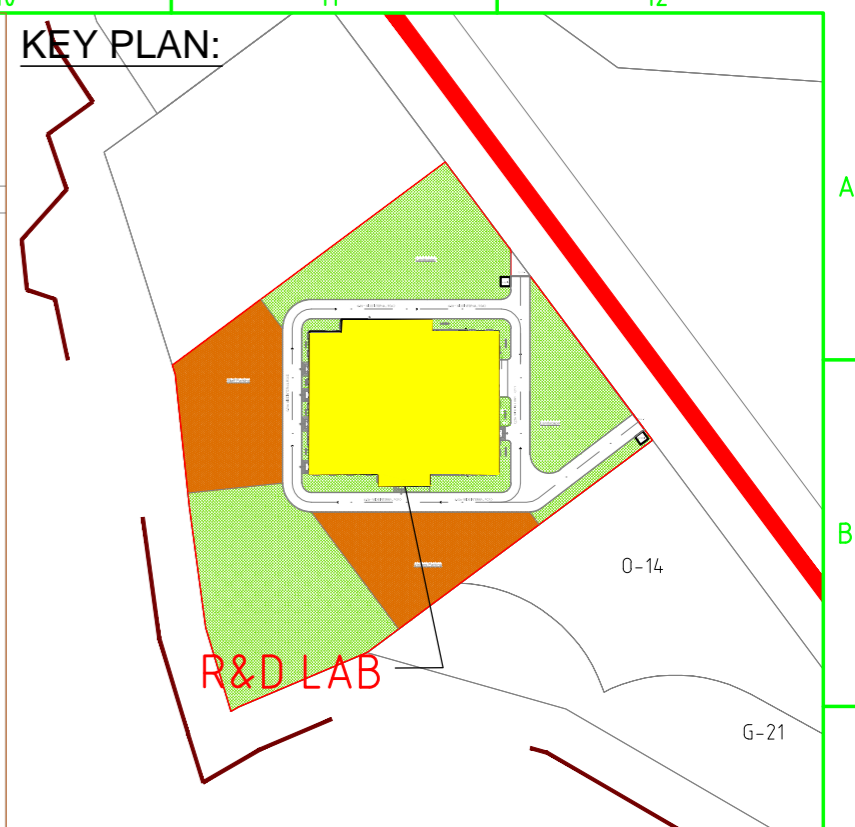
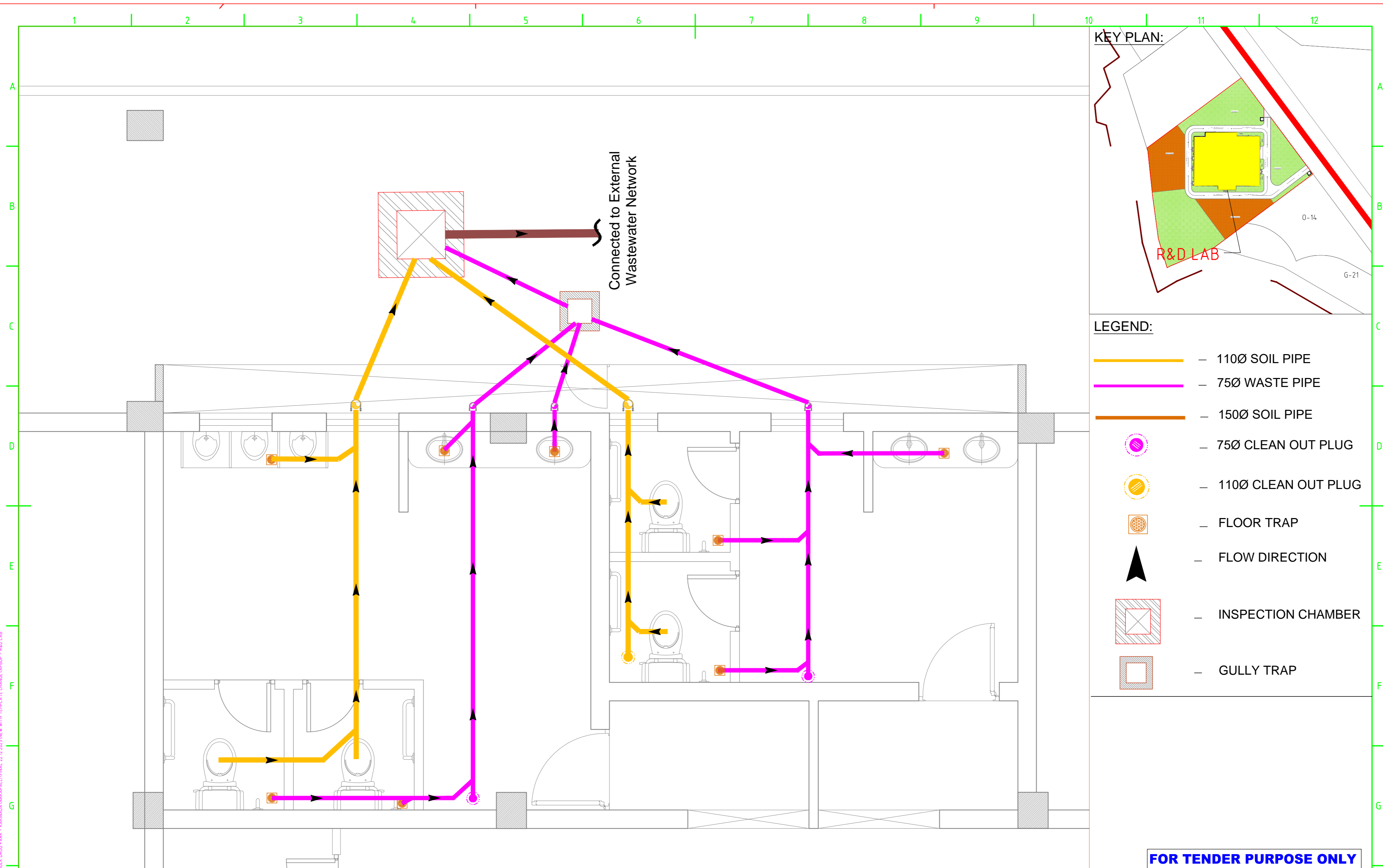
**L&T Infrastructure Engineering Ltd.**

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PLATE: REFER BOTTOM OF SIZE A2 LEFT CORNER OF THE DRAWING

plot scale

AUTO DATA CADDRYVA FILE-TOR MUDRALAPIC - BULK DRUG PARK - KAKINDANAKAPALLI/INITIAL 22 02 2023/NEW WITH TEMPLATE CHANGE/ARBP - R&D LAB



- LEGEND:**
- 110Ø SOIL PIPE
  - 75Ø WASTE PIPE
  - 150Ø SOIL PIPE
  - 75Ø CLEAN OUT PLUG
  - 110Ø CLEAN OUT PLUG
  - FLOOR TRAP
  - FLOW DIRECTION
  - INSPECTION CHAMBER
  - GULLY TRAP

**FOR TENDER PURPOSE ONLY**

**NOTES:**

1. ALL WORK TO BE DONE AS PER THE SPECIFICATIONS AND DRAWINGS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND SERVICES AT ALL TIMES.

4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES.

5. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL WORK DONE AND PROVIDE IT TO THE CLIENT UPON COMPLETION.

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT.	SIGN.

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB - INTERNAL SEWER LAYOUT - GROUND FLOOR

**PROJECT NO.:** C1232704

**SCALE:** NTS

**DRAWING NO.:** DDA201G2

**REV.:** R0

**IN CONSORTIUM WITH:** ARTELIA

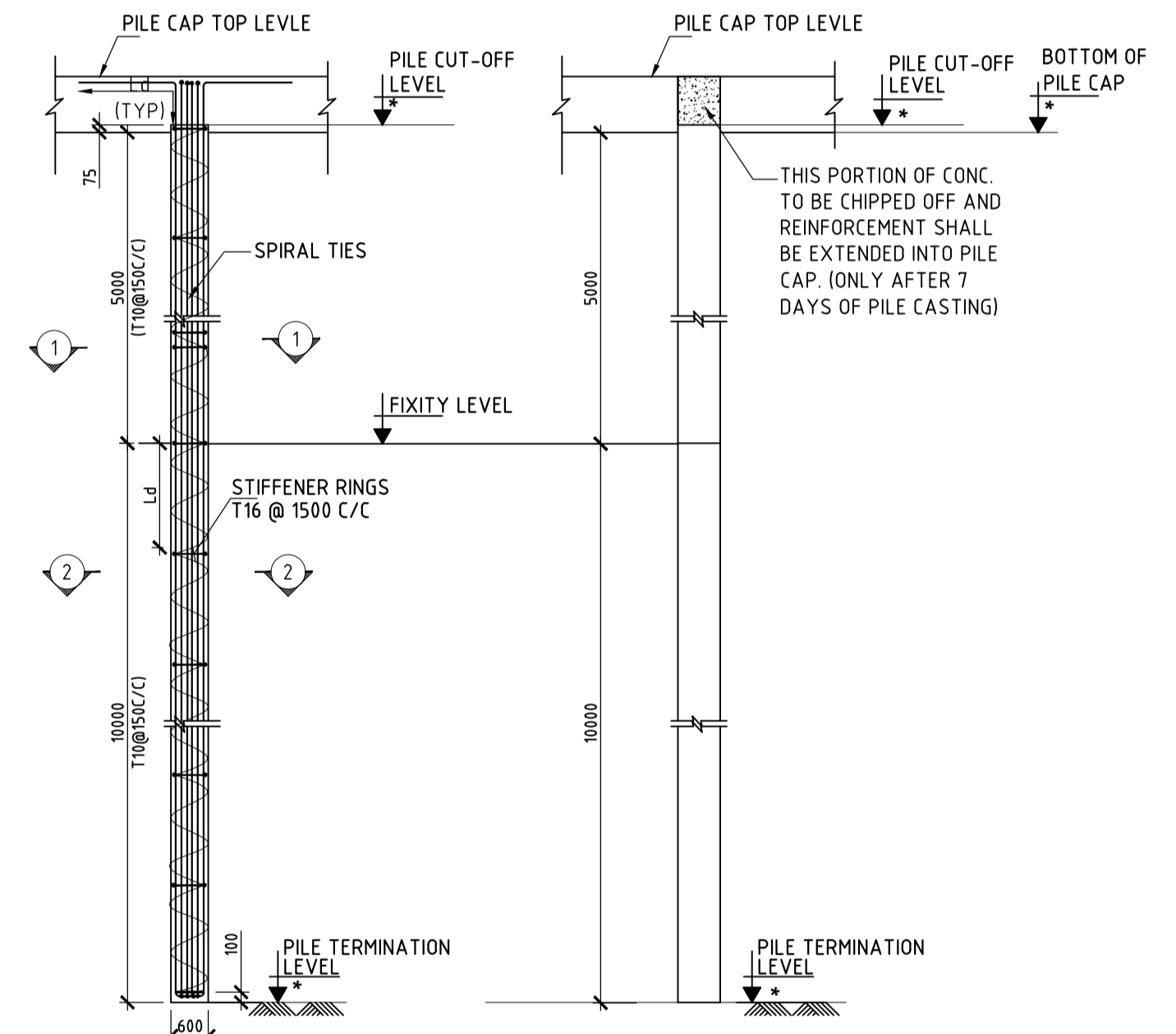
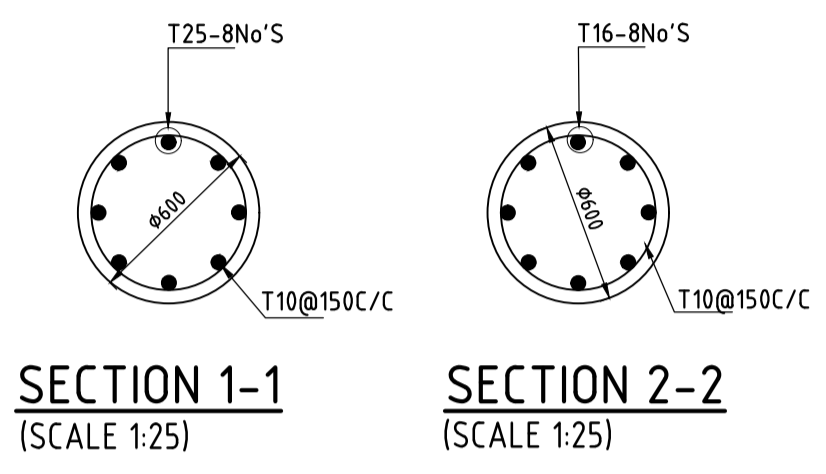
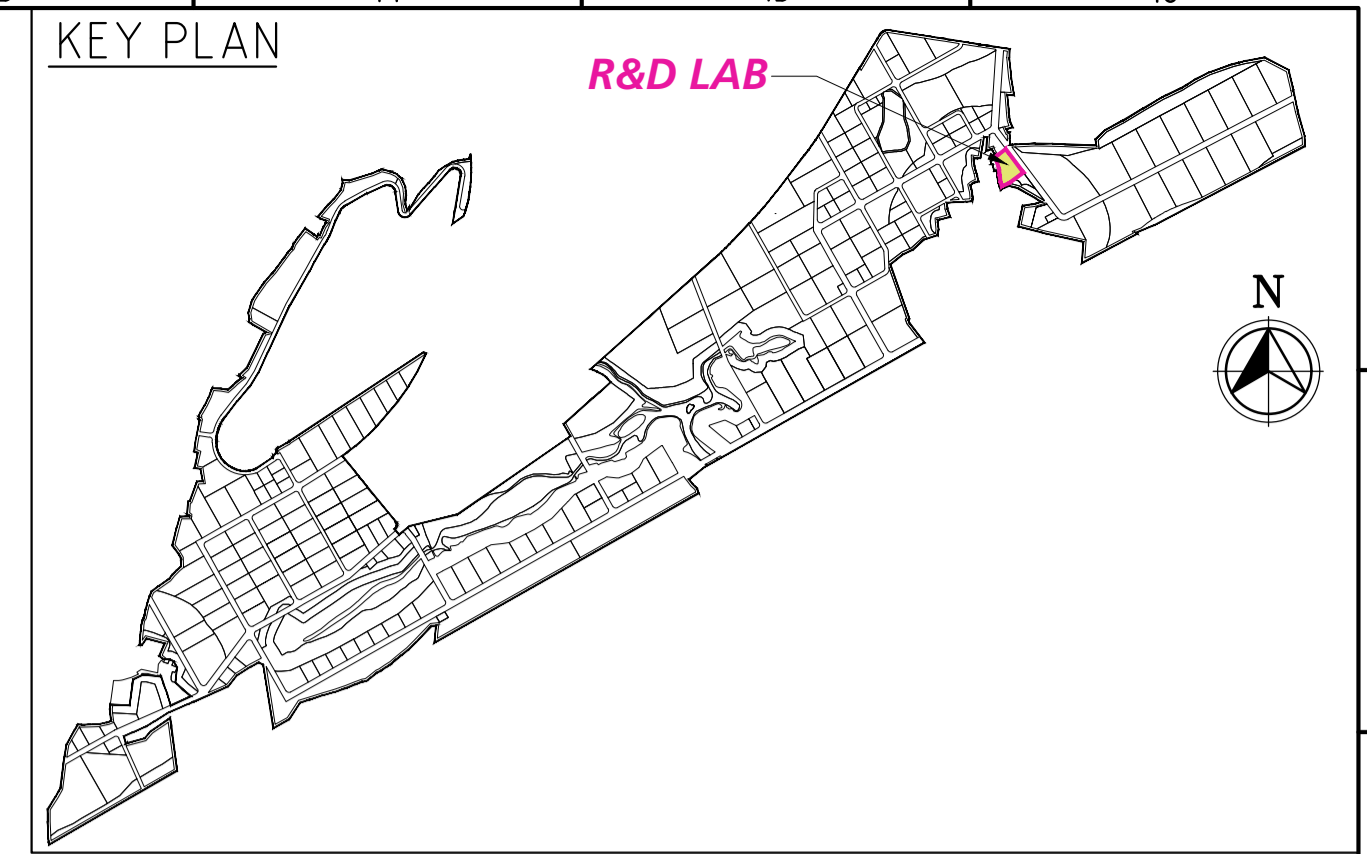
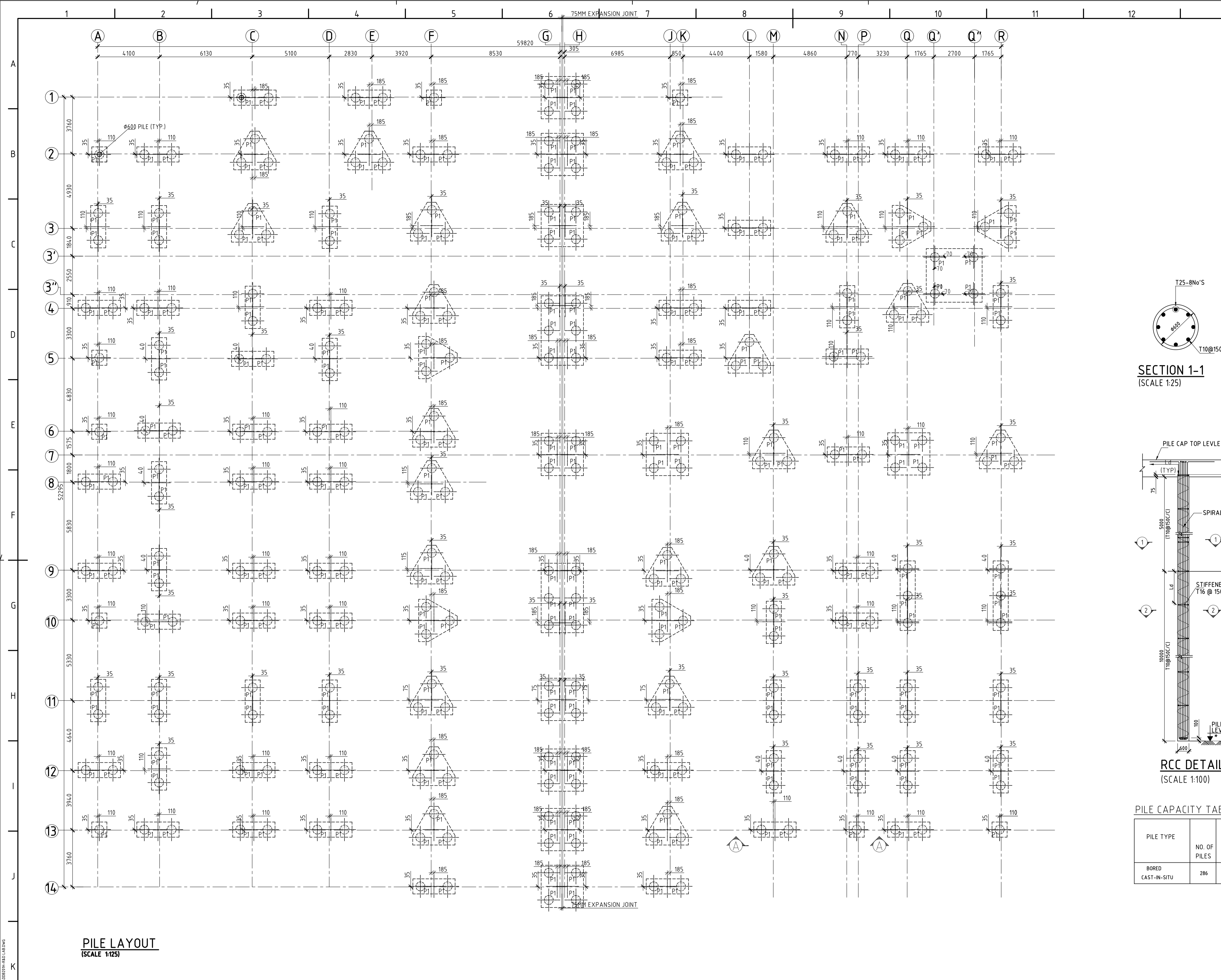
**L&T Infrastructure Engineering Ltd.**

**STATUS CODES:** 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: ...

**PLATE: REFER BOTTOM OF SIZE A2 LEFT CORNER OF THE DRAWING**

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**PILE CAPACITY TABLE:**

PILE TYPE	NO. OF PILES	PILE SIZE (mm)	PILE LENGTH(m)	PILE CAPACITY		
				COMPRESSION (kN)	LATERAL (FOR FIXED HEAD) (kN)	UPLIFT (kN)
BORED CAST-IN-SITU	286	600φ	15.0	400	40	100

**PILE LAYOUT**  
(SCALE 1:125)

**FOR TENDER PURPOSE ONLY**

**LEGEND:-**  
P - PILE  
PC - PILE CAP  
TYP. - TYPICAL  
MIN. - MINIMUM

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M30 AS PER IS:2911-(PART 1 & 2-2010) USING O.P.C./P.P.C.
  - MINIMUM CEMENT CONTENT SHALL BE 400kg/cu.m. HOWEVER, WITH PROPER MIX DESIGN AND USE OF PROPER ADMIXTURE, THE CEMENT CONTENT MAY BE REDUCED. BUT, IN NO CASE, THE CEMENT CONTENT SHALL BE LESS THAN 350kg/m<sup>3</sup>.
  - WATER CEMENT RATIO SHALL BE RESTRICTED TO 0.45 TO 0.5(MAX.).
  - CONCRETING SHALL BE DONE BY TREMIE METHOD.
  - CLEAR COVER TO REINFORCEMENT FOR PILE CAP=50mm, PILE=75mm. THE BEAM=45mm
  - REIN. BARS SHALL BE HYSD BARS OF F450 GRADE CONFORMING TO IS:1786 WITH MIN. ELONGATION OF 14.5%
  - LONGITUDINAL BARS SHALL BE TACK WELDED TO THE CIRCULAR HOOPS.
  - LAP LENGTH SHALL BE 46 TIMES OF DIA OF THE LARGER BAR.
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - INITIAL LOAD TEST SHALL BE AS PER IS:919-PART-4.
  - PILE CAPACITIES SHOWN IN THE TABLE ARE BASED ON SOIL INVESTIGATION REPORT AND SHALL BE ESTABLISHED AT SITE BY PILE LOAD TESTS.
  - SUITABLE PRECAUTIONS SHALL BE TAKEN AS PER STANDARD PRACTICE DURING UNDER-WATER CONCRETING.

DRAWING NO.	TITLE	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	AYR. SIGN.	BRT. APPROVED
0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT	
REVISIONS									
REV.	YYMMDD	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	AYR. SIGN.	BRT. APPROVED
REFERENCE DRAWINGS									
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....									

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB PILE LAYOUT & DETAIL

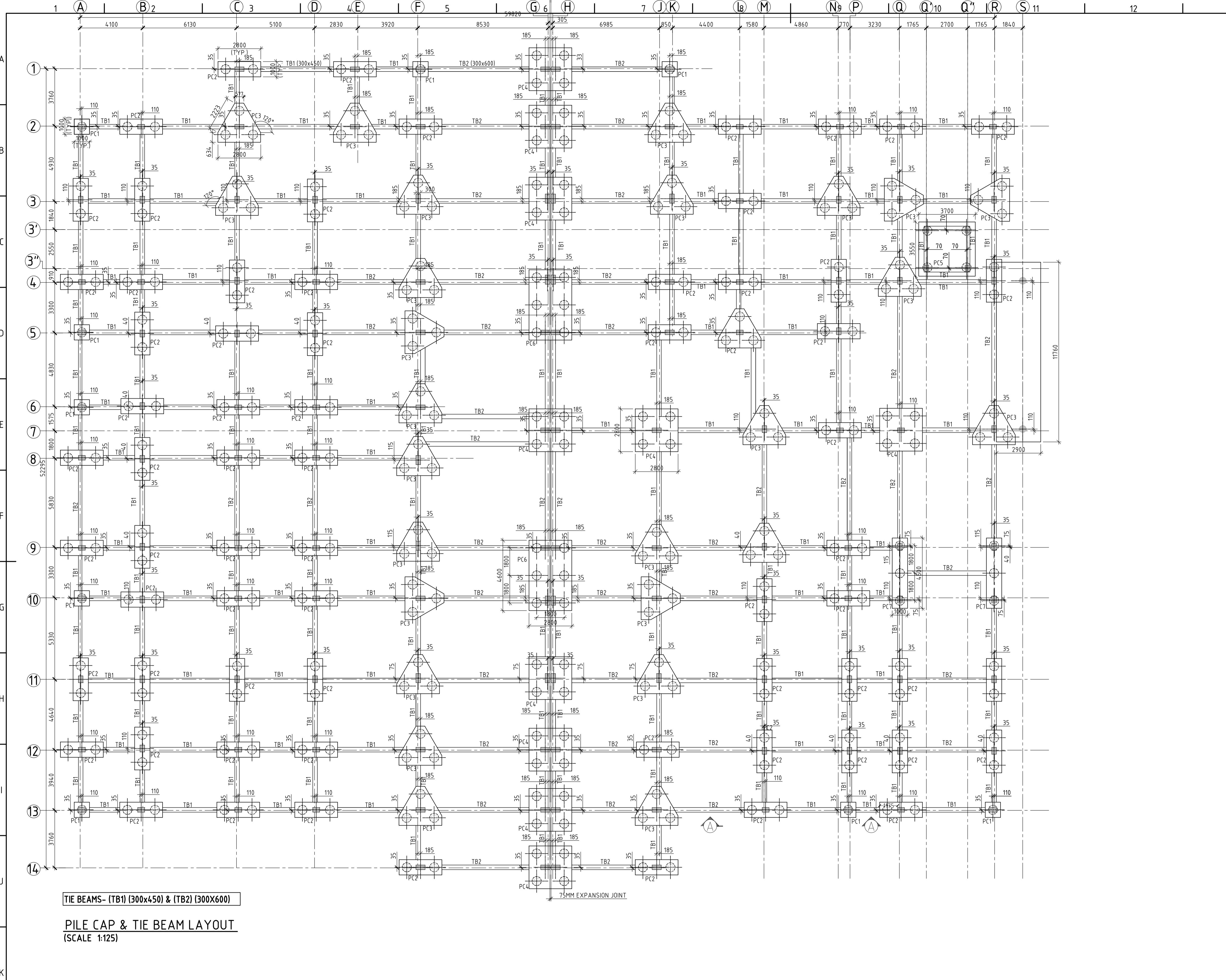
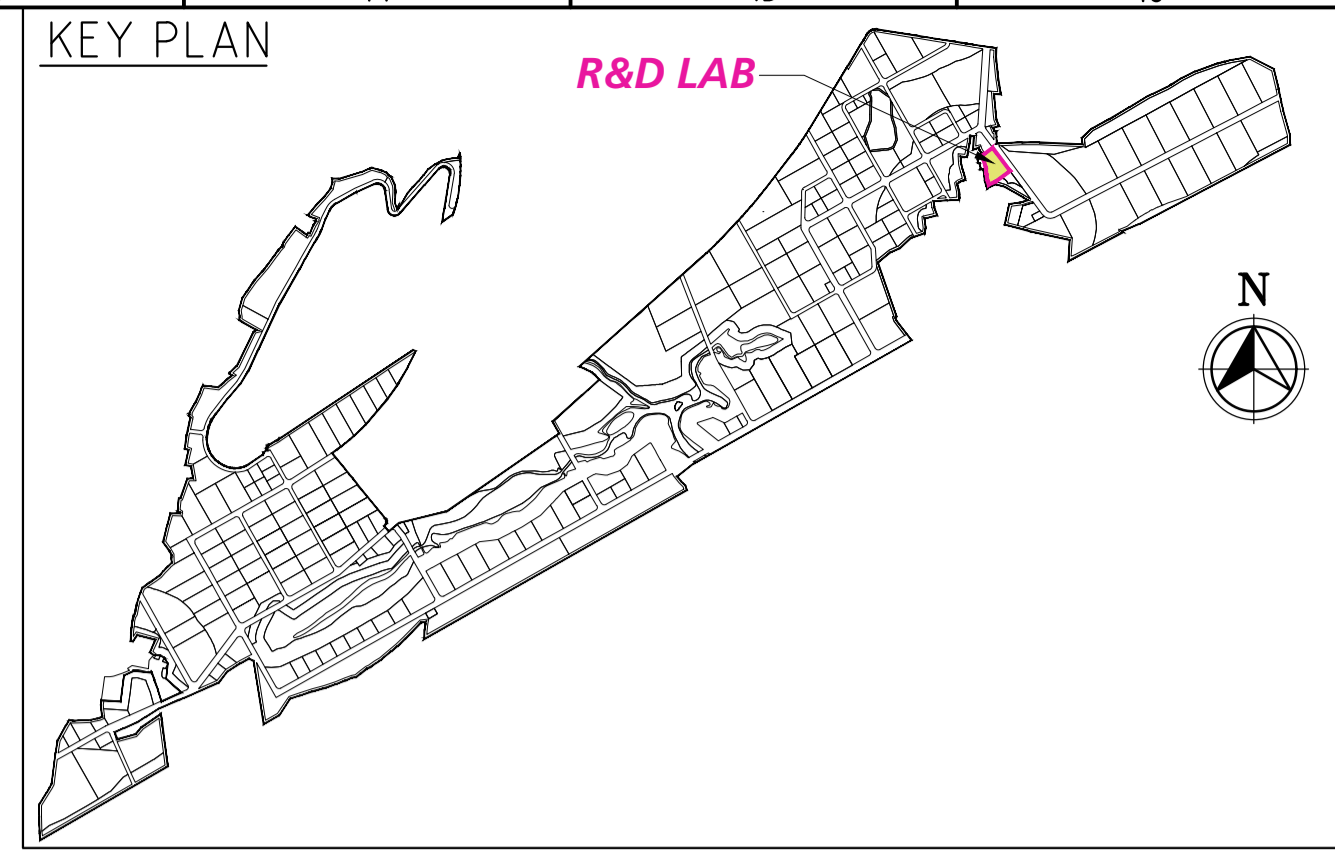
**PROJECT NO:** C1232704

**SCALE:** AS SHOWN

**DRAWING NO:** DDB201H10

**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**TIE BEAMS- (TB1 (300x450) & (TB2 (300x600)**

**PILE CAP & TIE BEAM LAYOUT**  
(SCALE 1:125)

LEGEND:-

P	- PILE	Ld	- DEVELOPMENT LENGTH
TB	- TIE BEAM	TYP	- TYPICAL
PC	- PILE CAP	EGL	- EXISTING GROUND LEVEL
ST	- STRAIGHT	E/F	- EACH FACE

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M30 AS PER IS:2911-PART 1/SEC 2-2010 USING O.P.C./P.P.C.
  - MINIMUM CEMENT CONTENT SHALL BE 400kg/cum. HOWEVER, WITH PROPER MIX DESIGN AND USE OF PROPER ADMIXTURE, THE CEMENT CONTENT MAY BE REDUCED. BUT, IN NO CASE, THE CEMENT CONTENT SHALL BE LESS THAN 350kg/m<sup>3</sup>.
  - WATER CEMENT RATIO SHALL BE RESTRICTED TO 0.45 TO 0.50 MAX.
  - CONCRETING SHALL BE DONE BY TREMIE METHOD.
  - CLEAR COVER TO REINFORCEMENT FOR PILE CAP=50mm, PILE= 75mm, TIE BEAM=45mm
  - REN. BARS SHALL BE HYSD BARS OF F660 GRADE CONFORMING TO IS:1786, WITH MIN. ELONGATION OF 14.5%
  - LONGITUDINAL BARS SHALL BE TACK WELDED TO THE CIRCULAR HOOPS.
  - LAP LENGTH SHALL BE 44 TIMES OF DIA OF THE LARGER BAR.
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - INITIAL LOAD TEST SHALL BE AS PER IS:2911-PART-4.
  - PILE CAPACITIES SHOWN IN THE TABLE ARE BASED ON SOIL INVESTIGATION REPORT AND SHALL BE ESTABLISHED AT SITE BY PILE LOAD TESTS.
  - SUITABLE PRECAUTIONS SHALL BE TAKEN AS PER STANDARD PRACTICE DURING UNDER-WATER CONCRETING.

DRAWING NO.	TITLE
	REFERENCE DRAWINGS

REV.	DATE	STATUS	DESCRIPTION
0	230830	1	FIRST SUBMISSION

REVISIONS		DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.

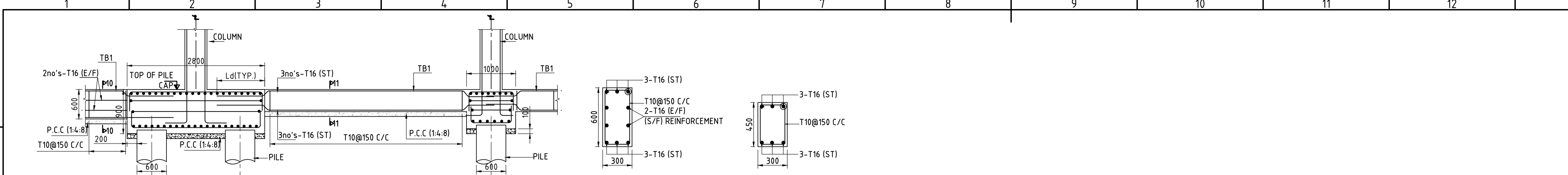
THIS DRAWING IS THE PROPERTY OF L&T INFRASTRUCTURE ENGINEERING LTD. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY MENTIONED HEREIN. ANY UNAUTHORIZED REPRODUCTION OR ALTERATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF L&T INFRASTRUCTURE ENGINEERING LTD. IS STRICTLY PROHIBITED.

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)	PROJECT NO: C1232704
PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH	COP: -
TITLE: R&D LAB PILE CAP AND TIE BAM LAYOUT & DETAILS	SCALE: AS SHOWN
DRAWING NO: DBB201H2.0	REV: 0

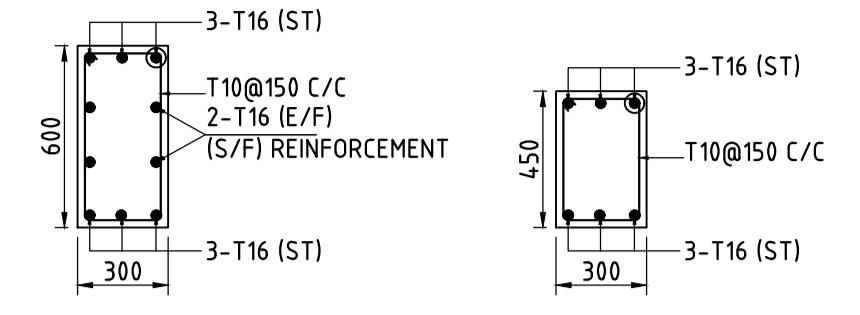
IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.



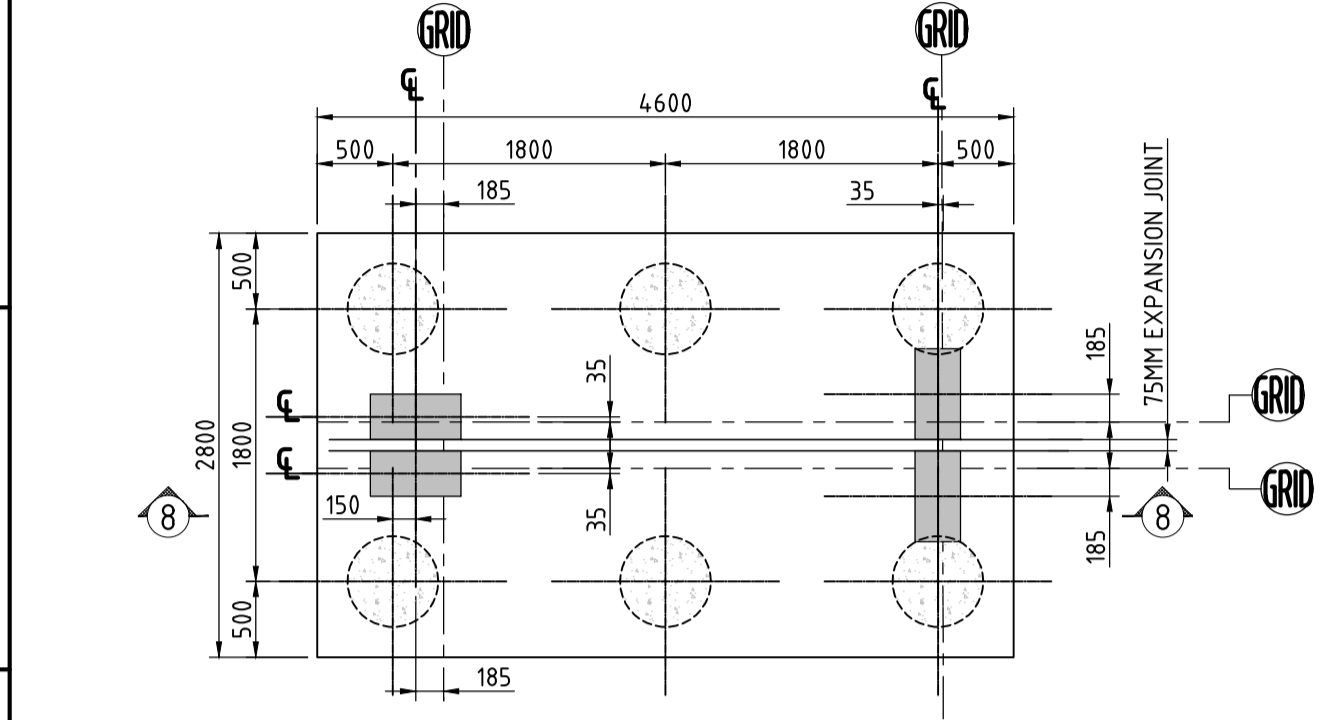
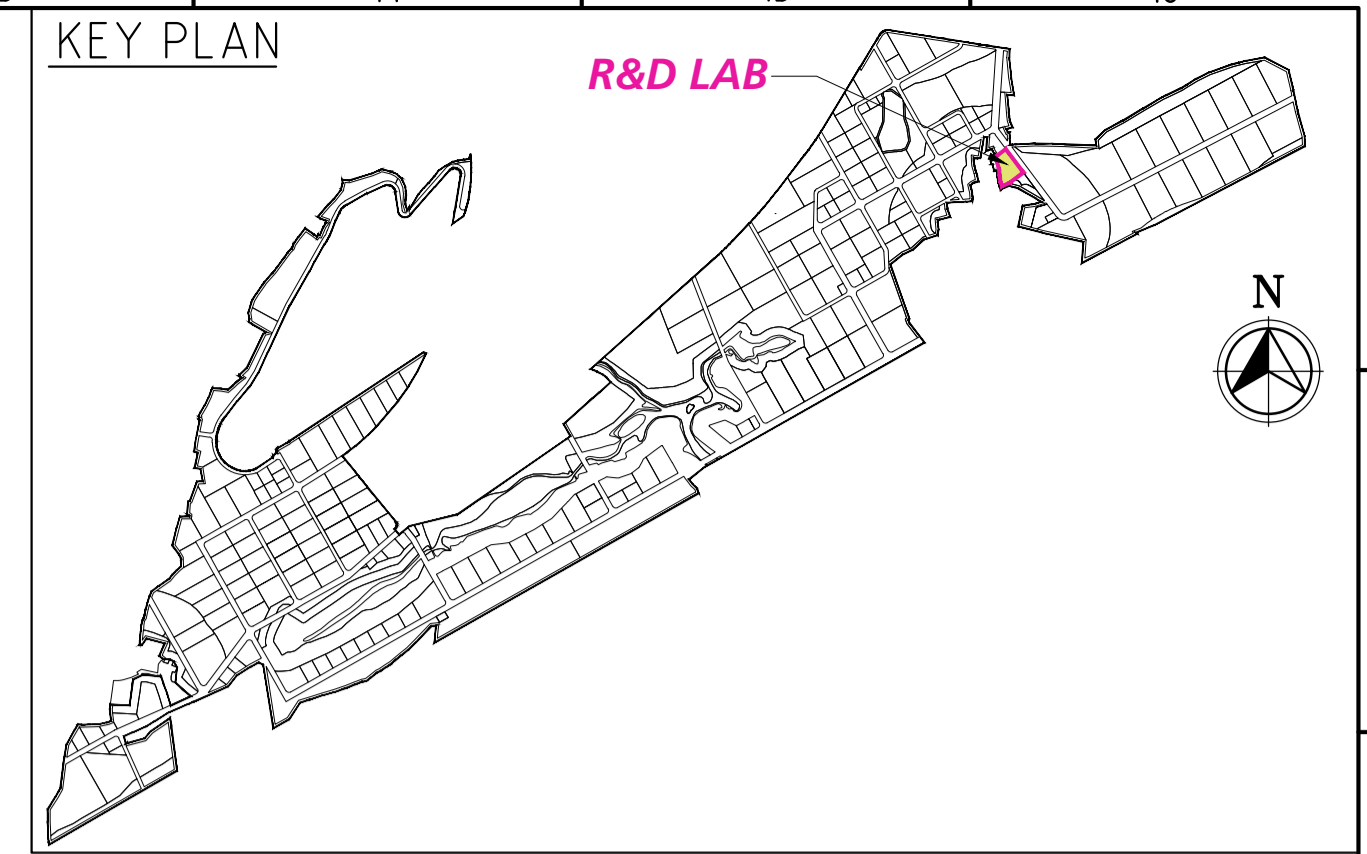


SECTION A-A  
(COLUMN REINFORCEMENT NOT SHOWN FOR CLARITY)  
(SCALE 1:50)

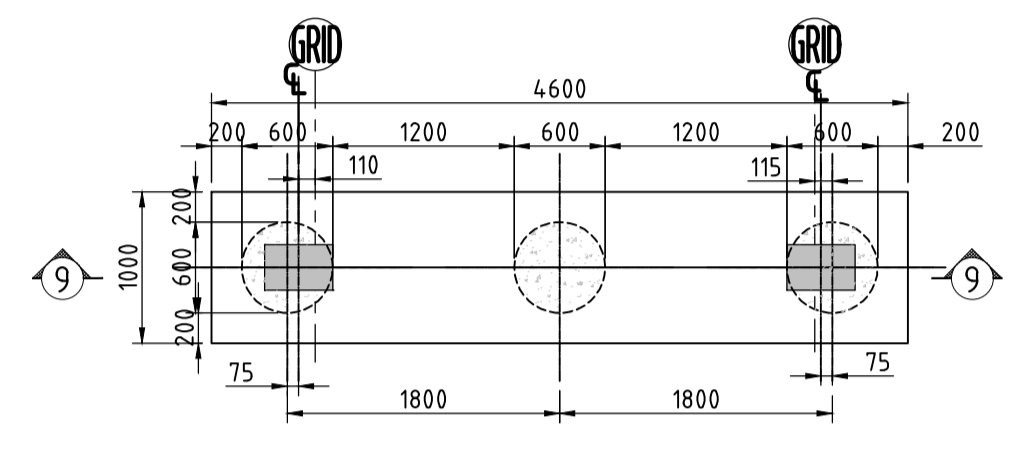


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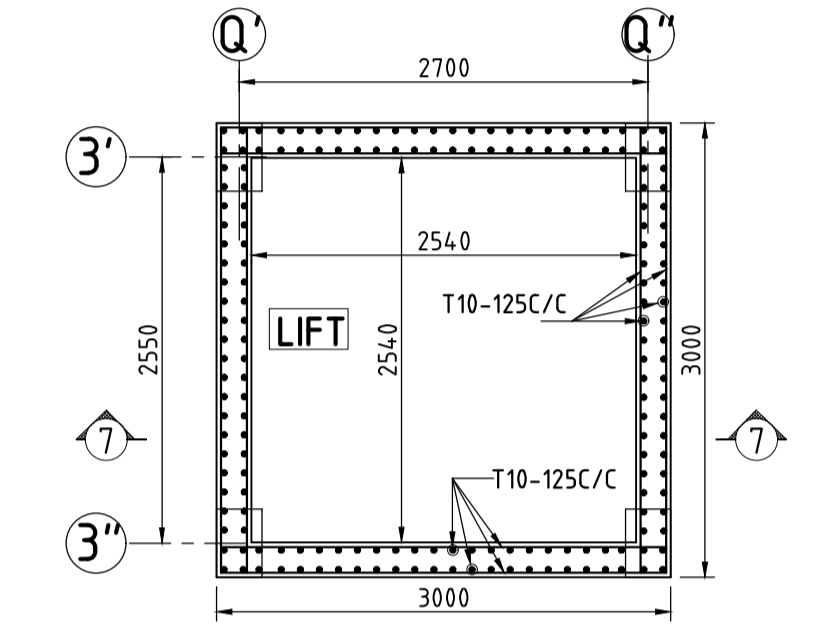
SECTION 11-11  
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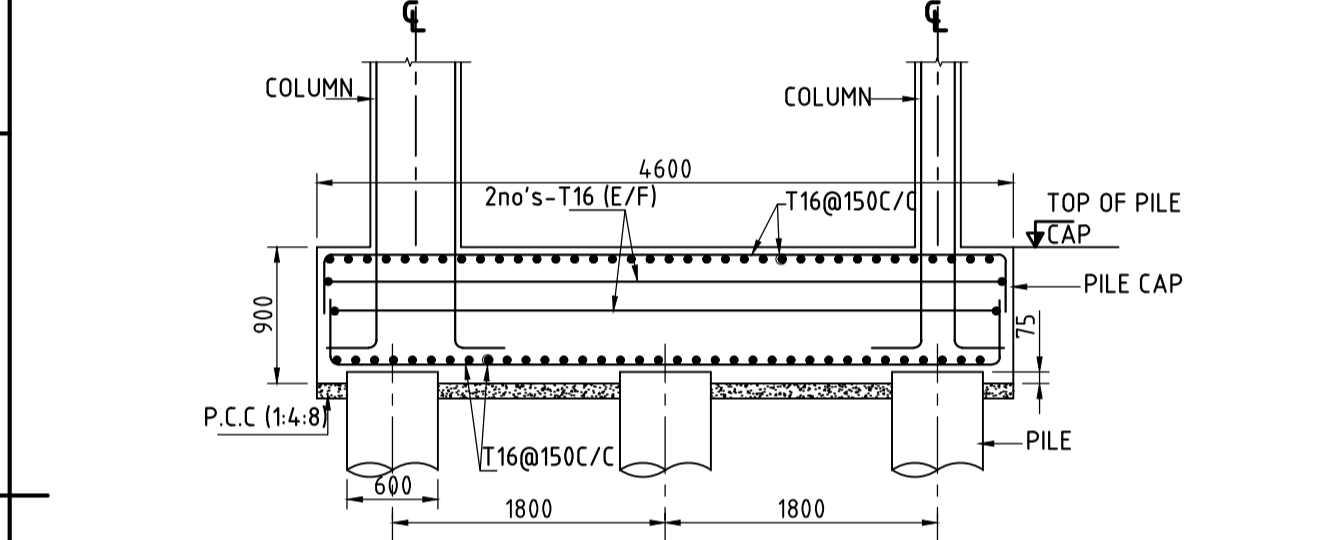
PILE CAP-PC6  
(SCALE 1:50)



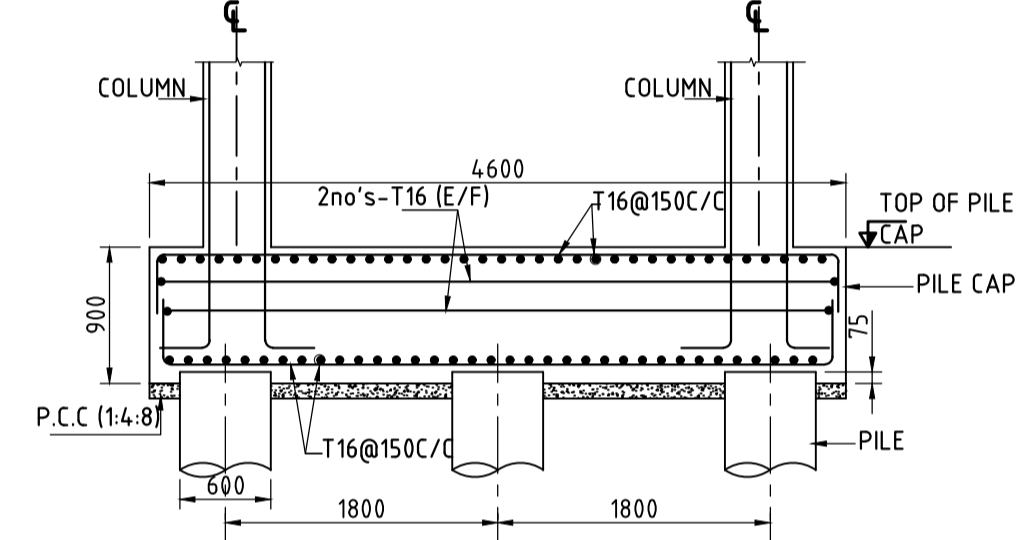
PILE CAP-PC7  
(SCALE 1:50)



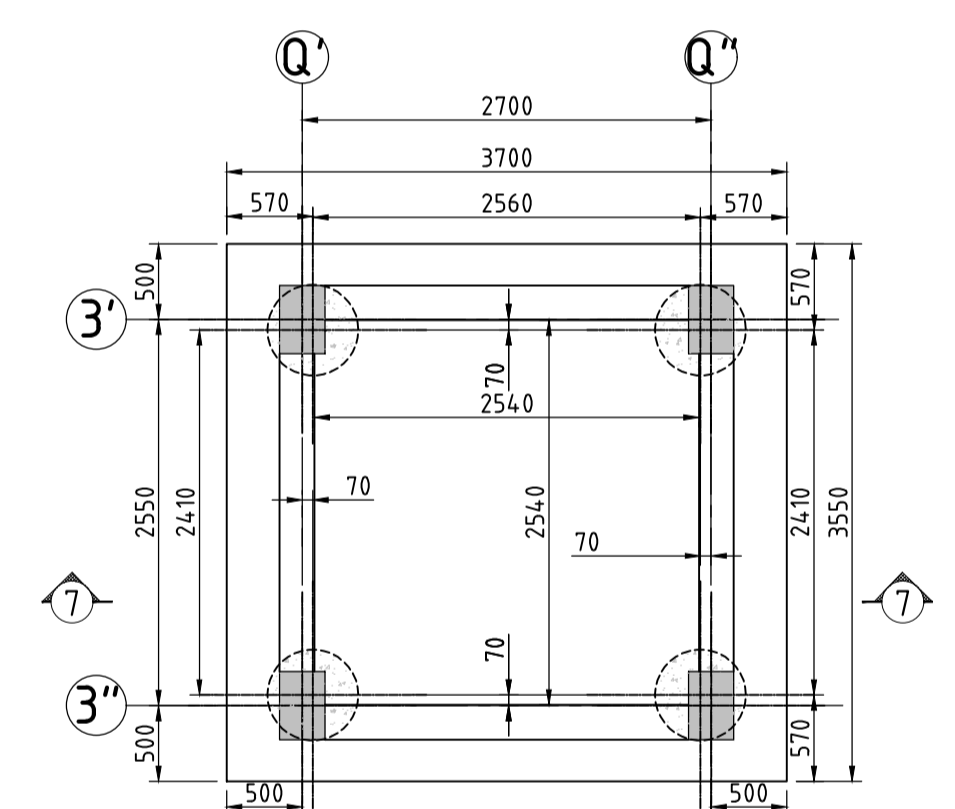
LIFT WALL REINF. DETAILS  
(SCALE 1:50)



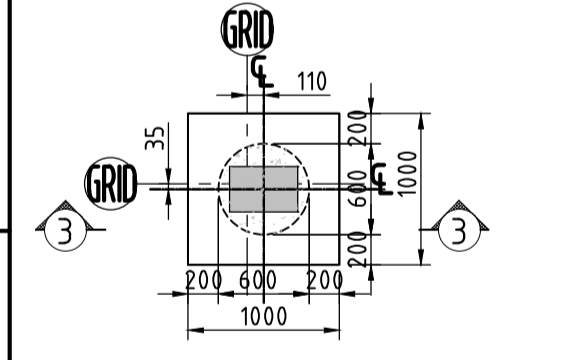
SECTION 8-8  
(SCALE 1:50)



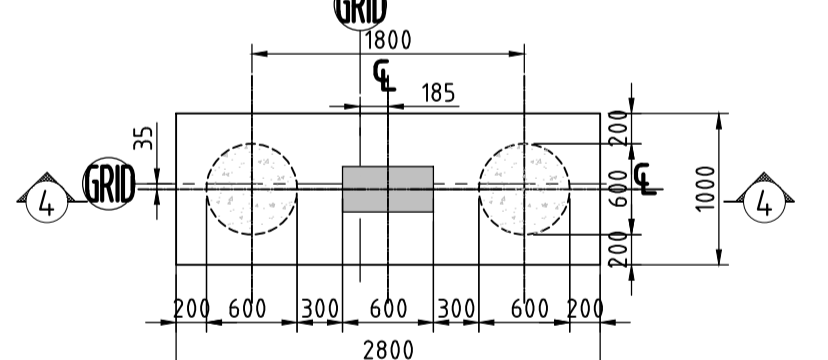
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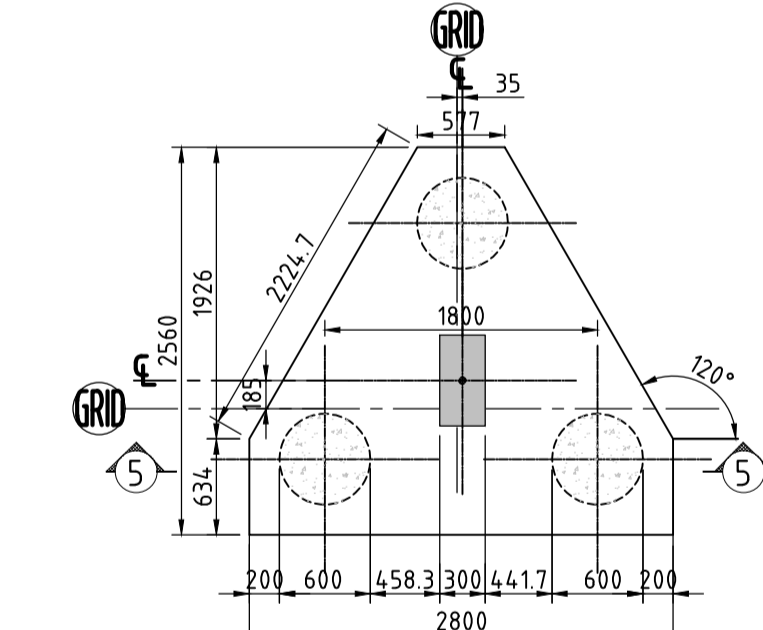
PILE CAP-PC5  
(SCALE 1:50)



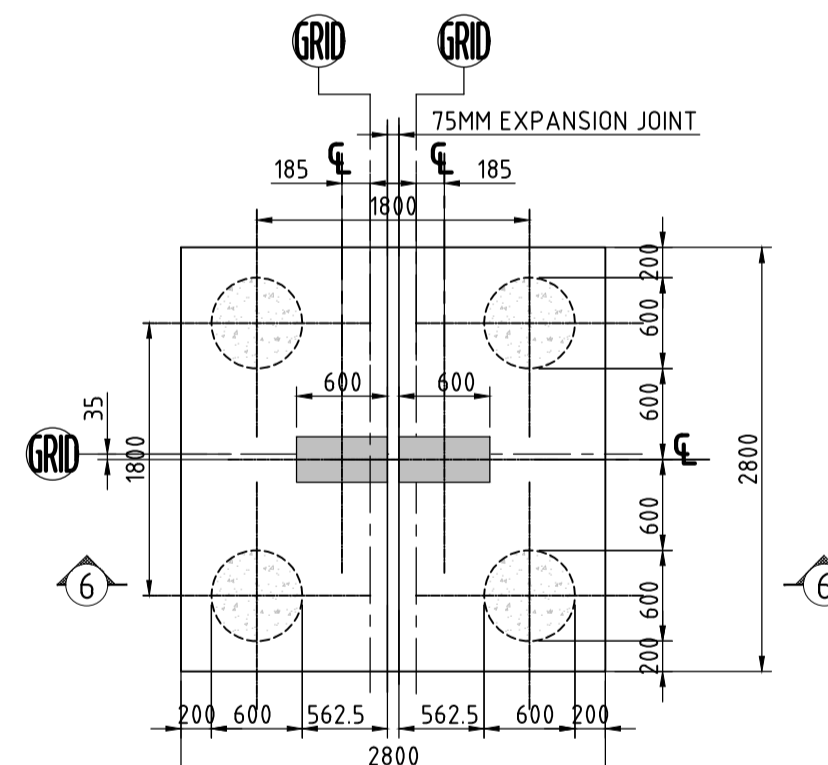
PILE CAP-PC1  
(SCALE 1:50)



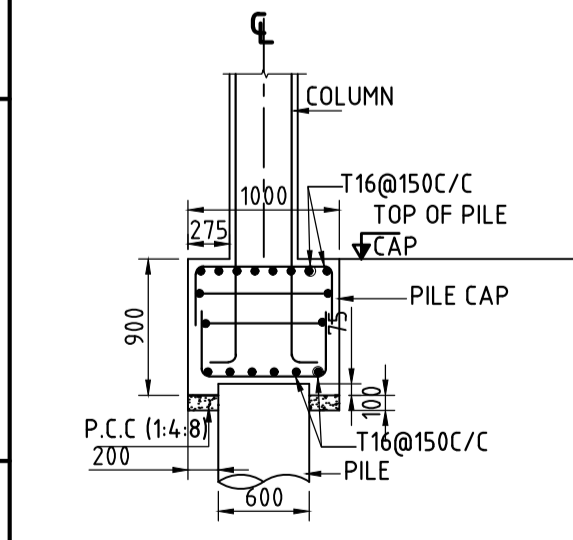
PILE CAP-PC2  
(SCALE 1:50)



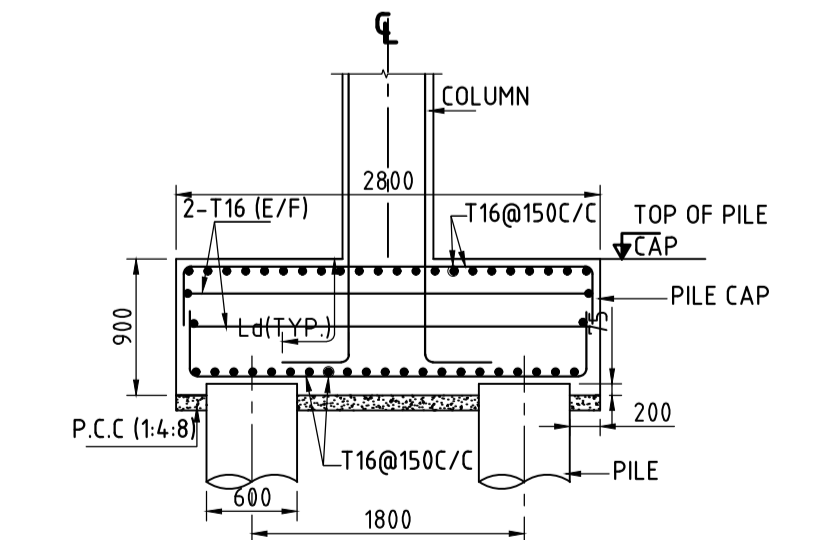
PILE CAP-PC3  
(SCALE 1:50)



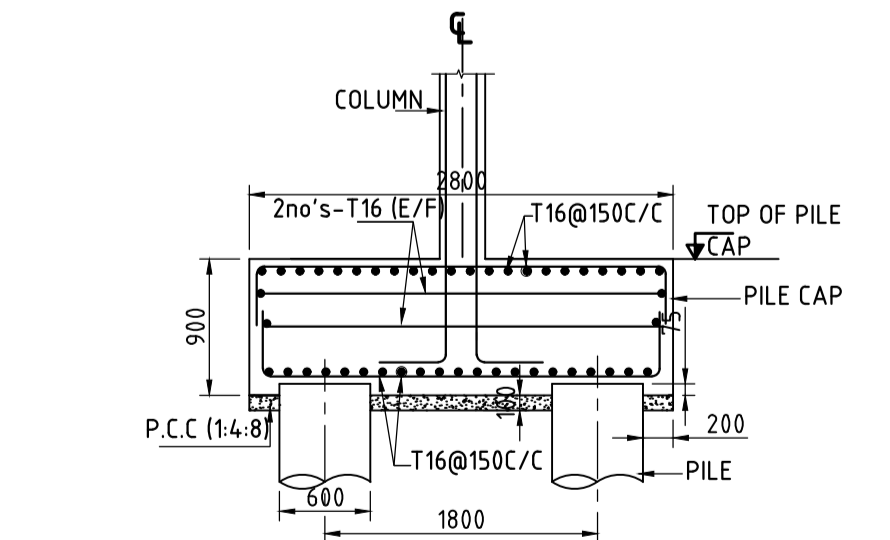
PILE CAP-PC4  
(SCALE 1:50)



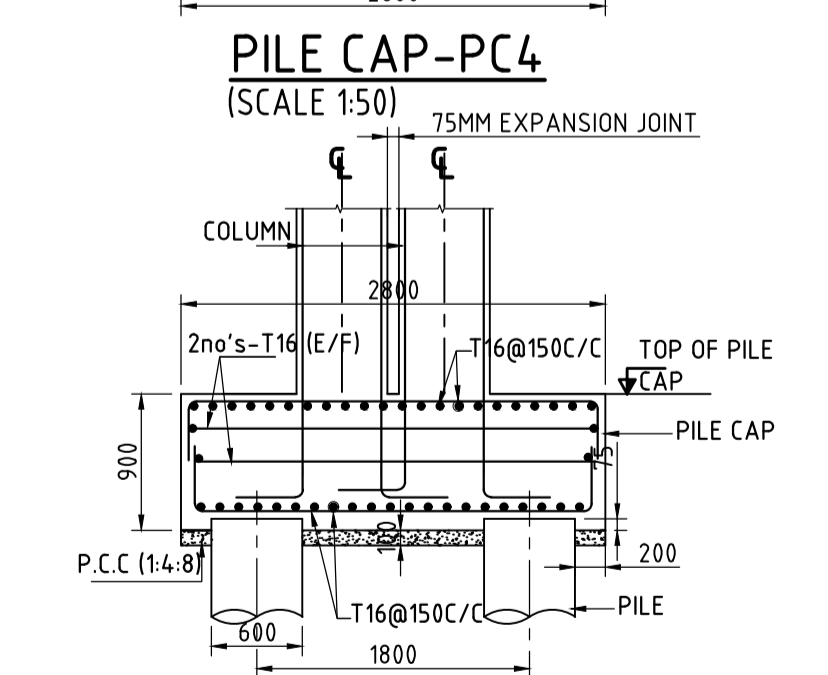
SECTION 3-3  
(SCALE 1:50)



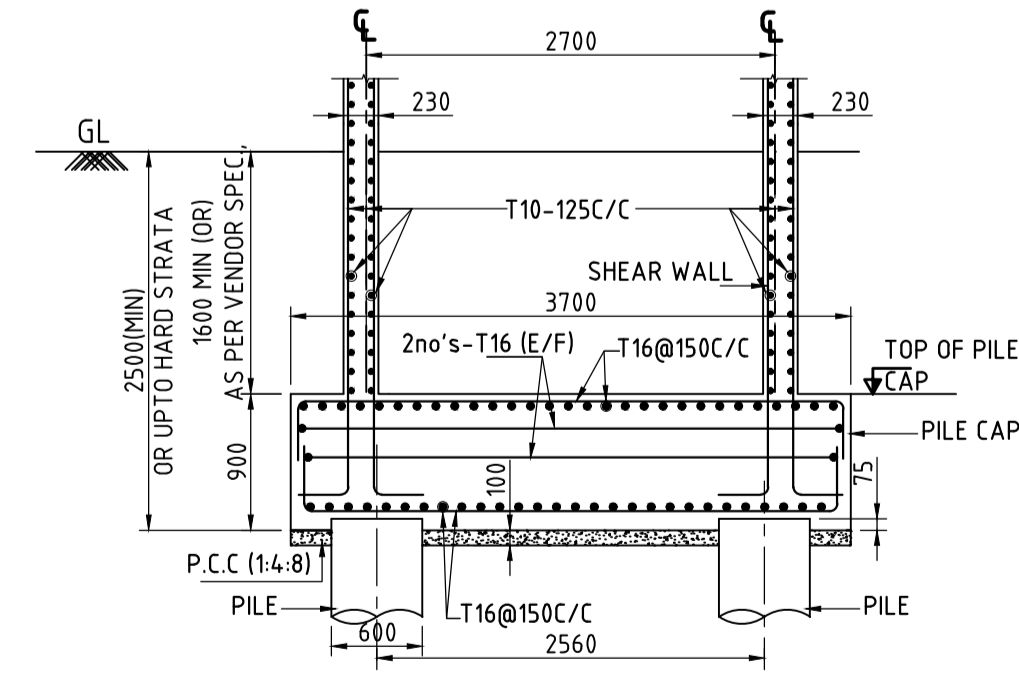
SECTION 4-4  
(SCALE 1:50)



SECTION 5-5  
(SCALE 1:50)



SECTION 6-6  
(SCALE 1:50)



SECTION 7-7  
(SCALE 1:50)

LEGEND:

P	- PILE	Ld	- DEVELOPMENT LENGTH
TB	- TIE BEAM	TYP	- TYPICAL
PC	- PILE CAP	ESL	- EXISTING GROUND LEVEL
ST	- STRAIGHT	E/F	- EACH FACE

FOR TENDER PURPOSE ONLY

- NOTES
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M30 AS PER IS-2911-PART 1/SEC 2-2010 USING O.P.C./P.P.C.
  - MINIMUM CEMENT CONTENT SHALL BE 400kg/m<sup>3</sup> HOWEVER, WITH PROPER MIX DESIGN AND USE OF PROPER ADMIXTURE, THE CEMENT CONTENT MAY BE REDUCED, BUT, IN NO CASE, THE CEMENT CONTENT SHALL BE LESS THAN 350kg/m<sup>3</sup>.
  - WATER CEMENT RATIO SHALL BE RESTRICTED TO 0.45 TO 0.5(MAX.)
  - CONCRETING SHALL BE DONE BY TRENCH METHOD.
  - CLEAR COVER TO REINFORCEMENT FOR  
PILE CAP=50mm, PILE=75mm, TIE BEAM=45mm
  - REN. BARS SHALL BE HYSD BARS OF F460 GRADE (CONFORMING TO IS:1786) WITH MIN. ELONGATION OF 14.5%
  - LONGITUDINAL BARS SHALL BE LAPPED WELDED TO THE CIRCULAR HOOPS.
  - LAP LENGTH SHALL BE 46 TIMES OF DIA OF THE LARGER BAR.
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - INITIAL LOAD TEST SHALL BE AS PER IS:2911-PART-4.
  - PILE CAPACITIES SHOWN IN THE TABLE ARE BASED ON SOIL INVESTIGATION REPORT AND SHALL BE ESTABLISHED AT SITE BY PILE LOAD TESTS.
  - SUITABLE PRECAUTIONS SHALL BE TAKEN AS PER STANDARD PRACTICE DURING UNDER WATER CONCRETING.

DRAWING NO.	TITLE	REV.	YYMMDD	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
		0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT		
REVISIONS							DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
STATUS CODES							1: PRELIMINARY	2: FOR APPROVAL	3: GOOD FOR CONSTRUCTION	4: .....		

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB PILE CAP AND TIE BEM LAYOUT & DETAILS

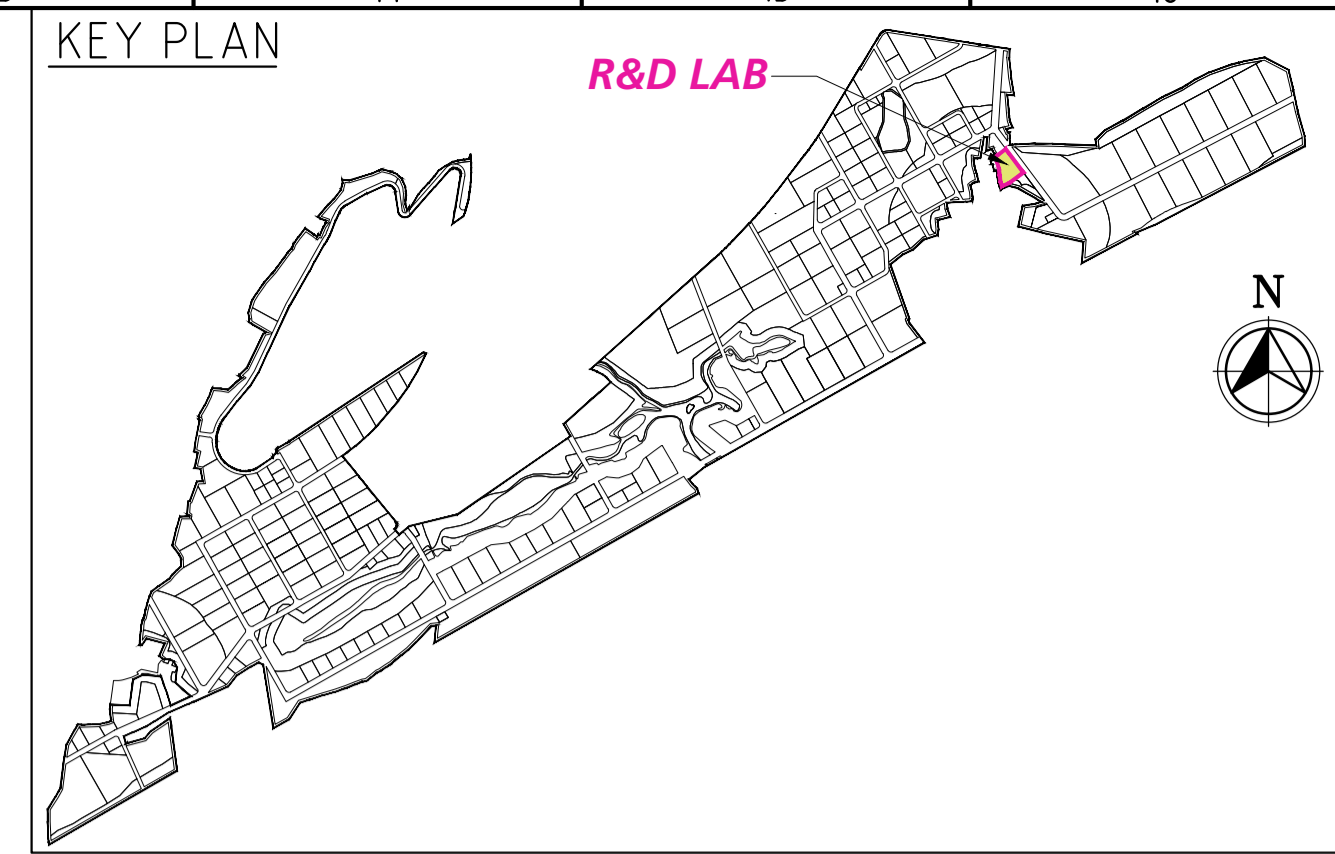
PROJECT NO: C1232704

SCALE: AS SHOWN

DRAWING NO: DDB201H3

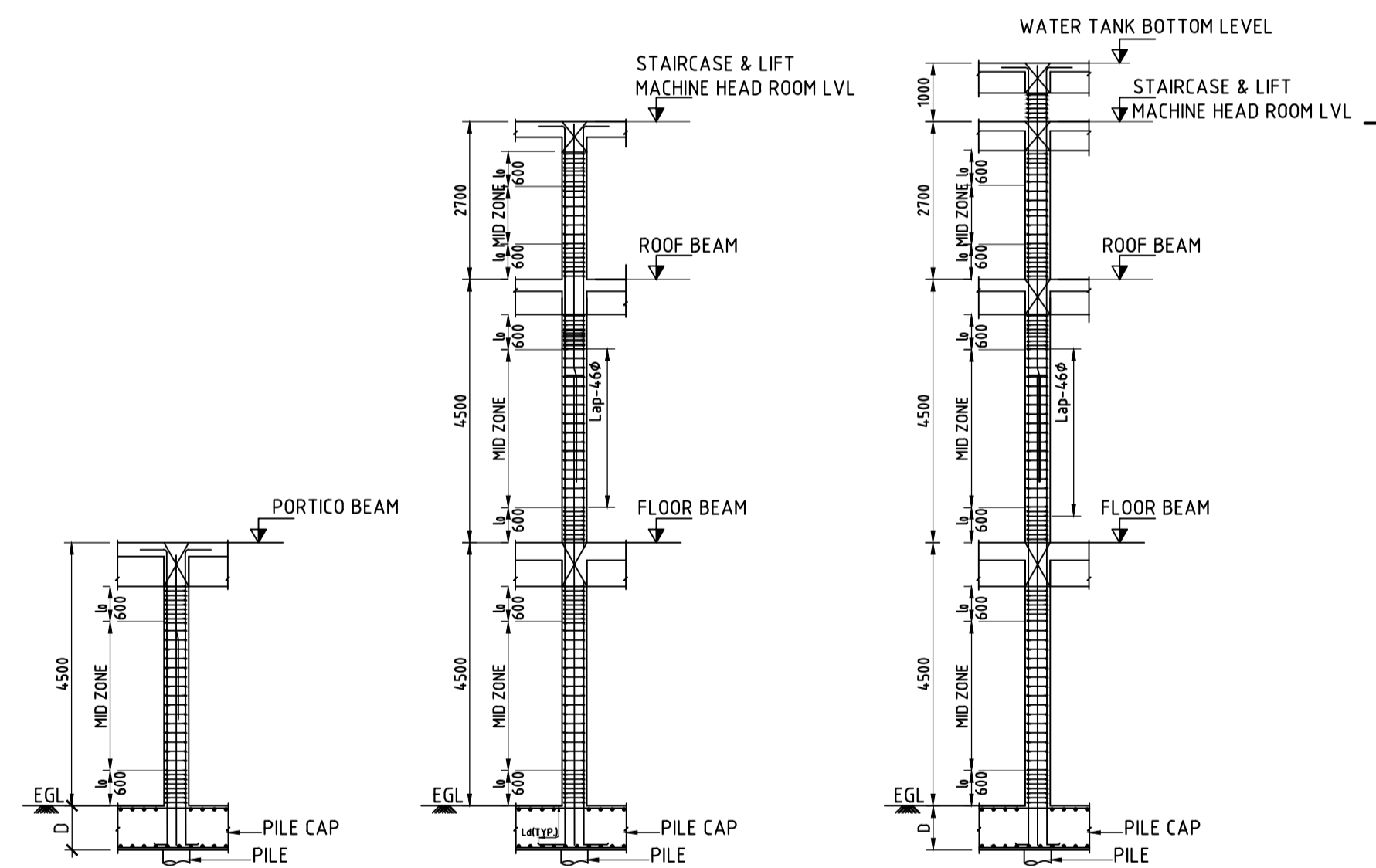
REV: 0

L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**SCHEDULE OF COLUMNS:-**

S.No.	TYPE	No.s	SIZE	COLUMN DETAILS	TIE DETAILS	TIE SPACING		
						S1 ZONE	S2 ZONE	LAP ZONE
1	C1		300x450			T8-100 c/c	T8-200 c/c	T8-100 c/c
2	C2		300x600			T8-100 c/c	T8-200 C/C	T8-100 c/c
3	C3	2	Ø450			T8-100 c/c	T8-200 C/C	T8-100 c/c



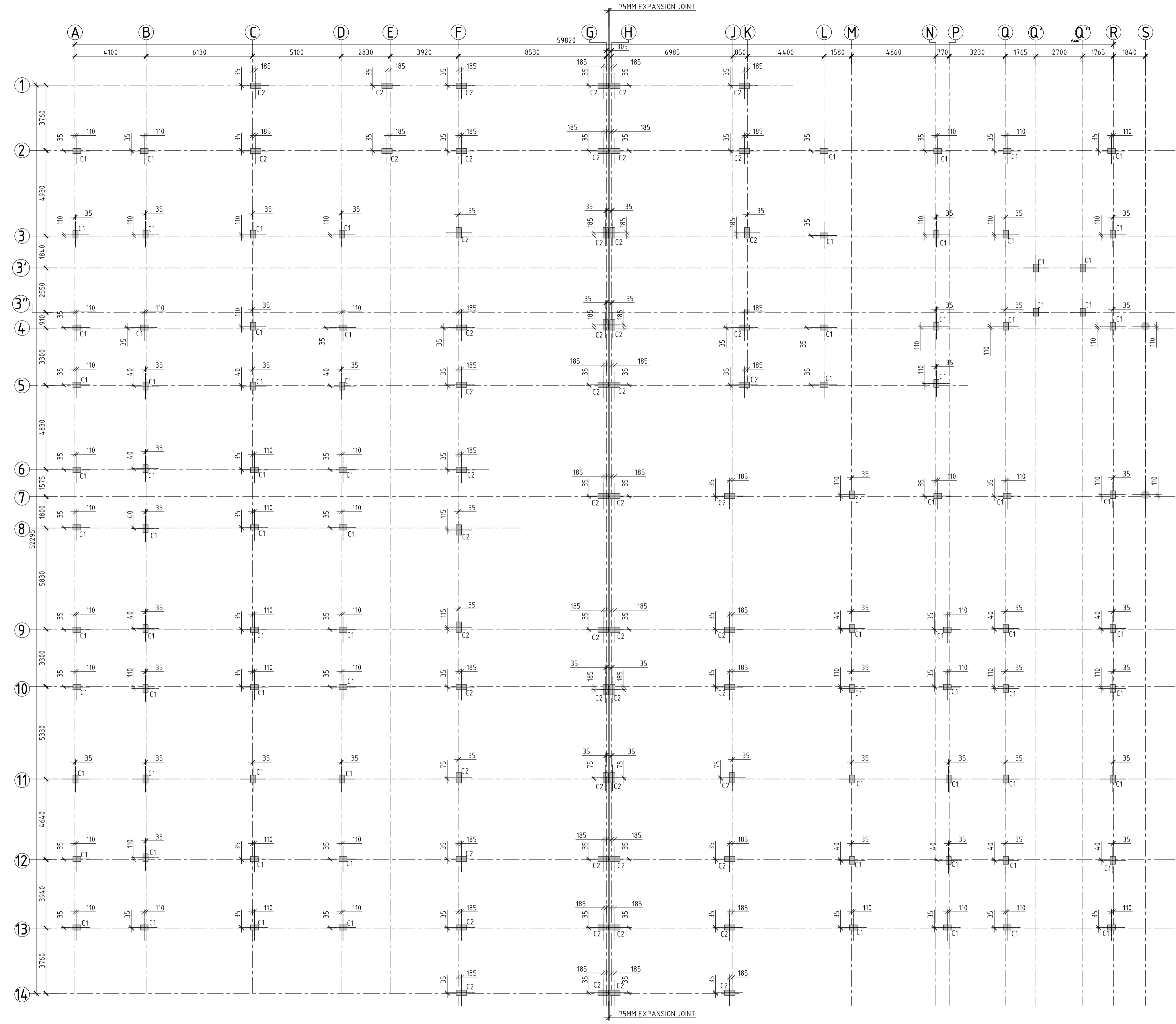
TYPICAL COLUMN ELEVATION (SCALE 1:100)

LEGEND:-

- GRID LINE
- C --- COLUMN
- EXIS. --- EXISTING
- LVL --- LEVEL
- NGL --- NATURAL GROUND Lvl.,

**FOR TENDER PURPOSE ONLY**

**COLUMN CENTER LINE PLAN (SCALE 1:125)**



- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED. DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:1920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:1920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25 MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE BEFORE EXECUTION.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - POUNDING OF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.
  - REIN. BARS SHALL BE HYSD BARS OF FE500D GRADE CONFORMING TO IS:1786 WITH MIN. ELONGATION OF 11.5%.

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	
		0	230830	1	FIRST SUBMISSION	BKU	PPI	AYR	BRT	
REVISIONS						1: PRELIMINARY	2: FOR APPROVAL	3: GOOD FOR CONSTRUCTION	4: .....	
REFERENCE DRAWINGS						STATUS CODES				

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB COLUMN CENTER LINE LAYOUT & DETAIL

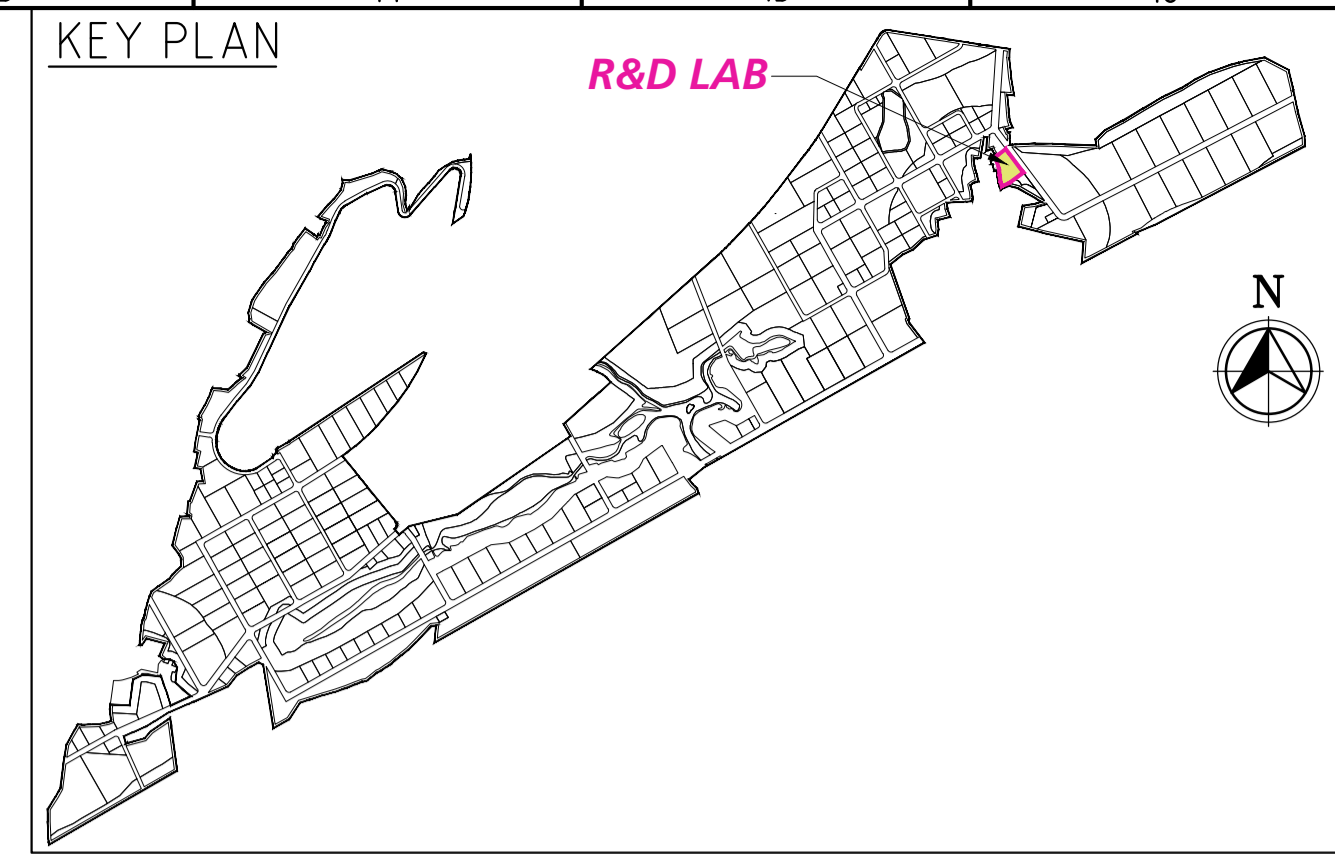
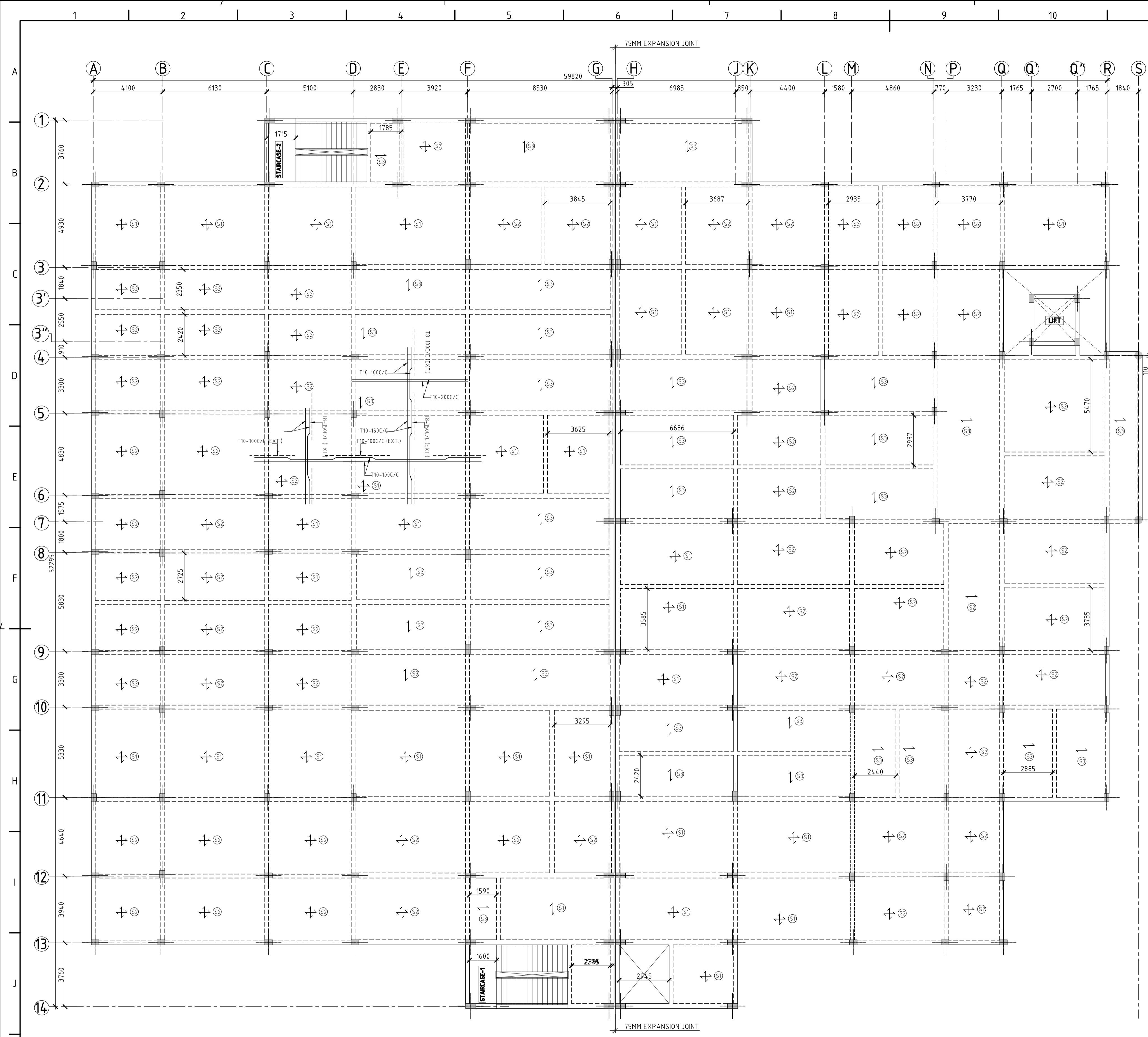
PROJECT NO: C1232704

SCALE: AS SHOWN

DRAWING NO: DDB201H4 0

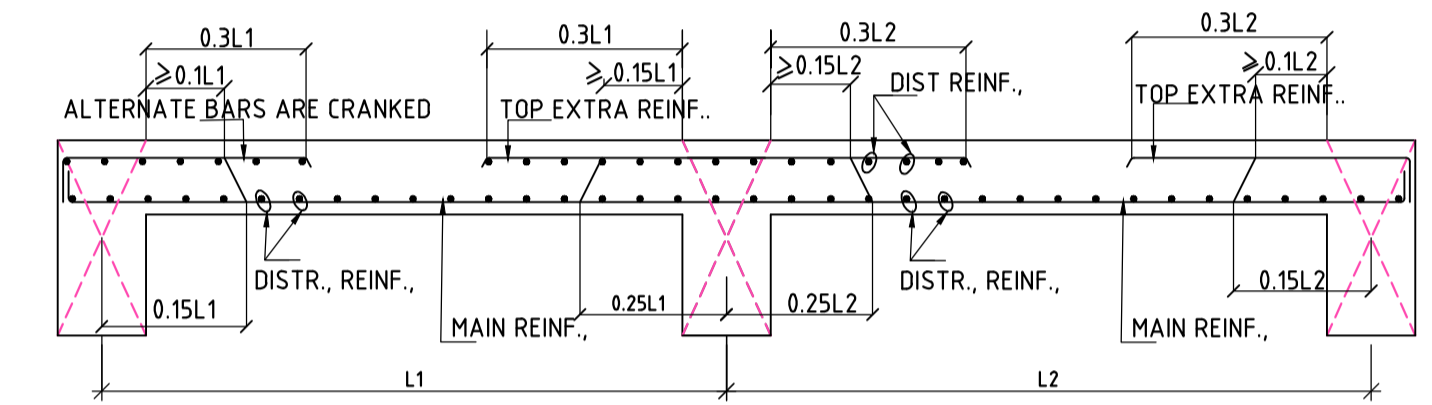
IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.



**SLAB SCHEDULE:-**

S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1	↔	150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C
2	S2	↔	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T8-100C/C (ALT., CRANK)	T8-150C/C
3	S3	↕	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T18-200C/C (ALT., CRANK)	-



**TYPICAL DETAILS OF SLAB REINFORCEMENT**

**LEGEND:-**

- - GRID LINE
- PB - PLINTH BEAM
- MP - MASONRY PEDESTAL
- CRS - COURSED RUBBLE STONE
- NGL - NATURAL GROUND Lvl.
- PCC - PLAIN CEMENT CONCRETE
- REINF. - REINFORCEMENT

**FLOOR SLAB LAYOUT AT (+) 5.10M LVL**  
(SCALE 1:125)

**FOR TENDER PURPOSE ONLY**

**NOTES**

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED. DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
- M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
- ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:13920
- FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:13920 AND S.P.34, SHALL BE REFERRED.
- CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25MM FOR SLABS.
- DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
- AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
- THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
- ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE.
- ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
- BOUNDING OF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
		0	230830	1	FIRST SUBMISSION	BKU	PPI	AYR	BRT		
<b>REVISIONS</b>											
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....											
<b>REFERENCE DRAWINGS</b>											

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB FLOOR SLAB LAYOUT & DETAILS @ (+) 5.10M LVL

PROJECT NO: C1232704

CDP: -

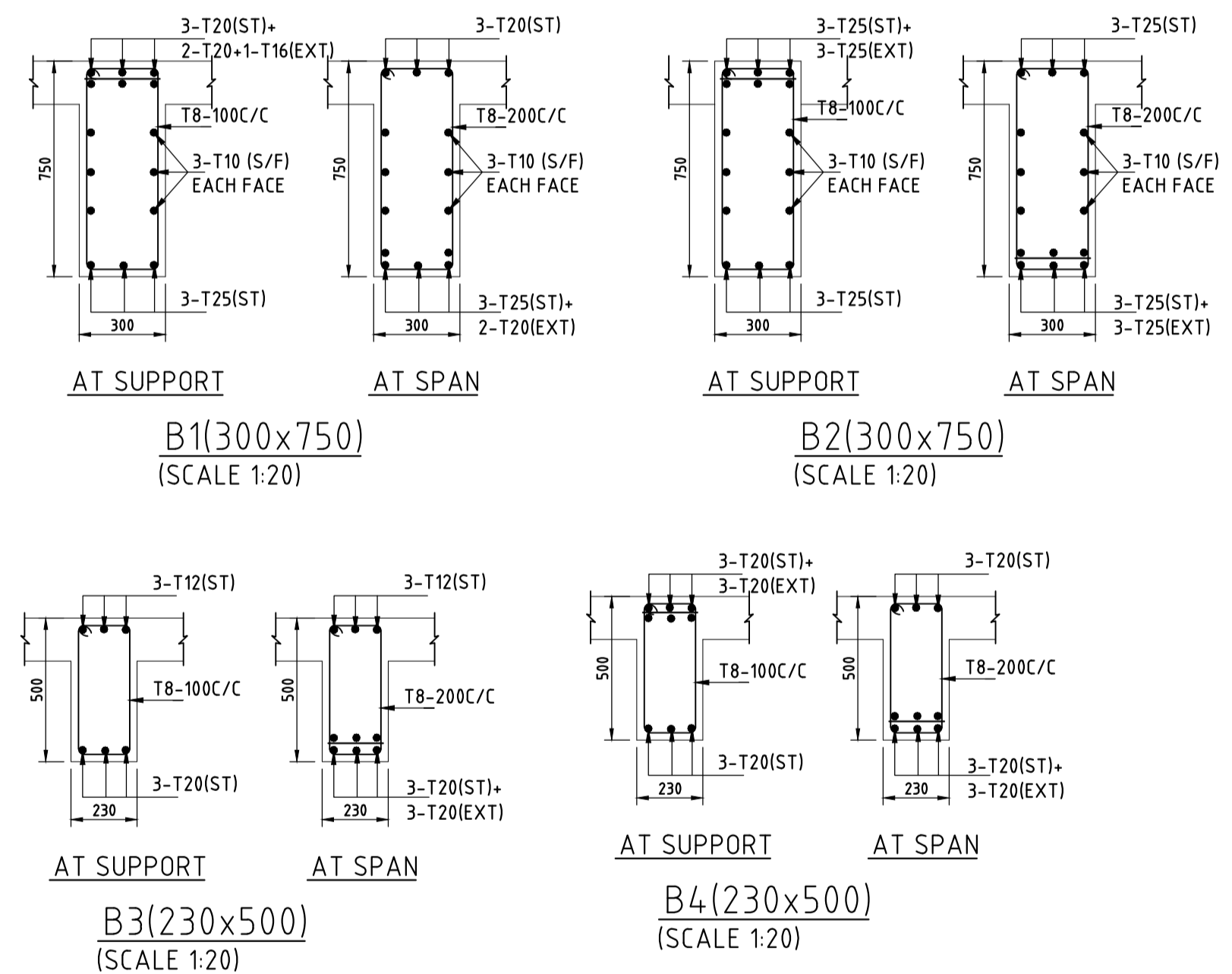
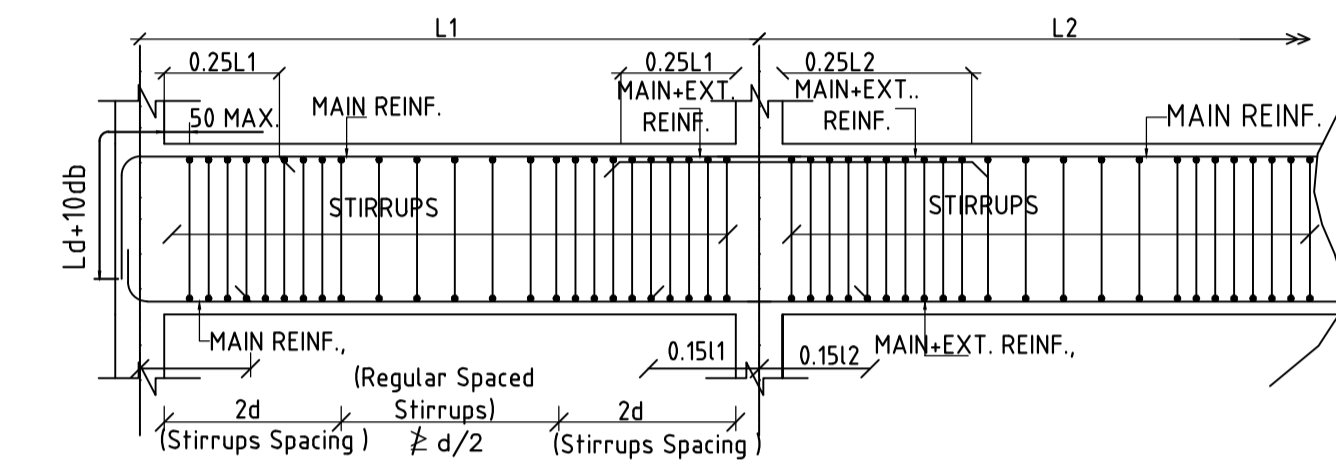
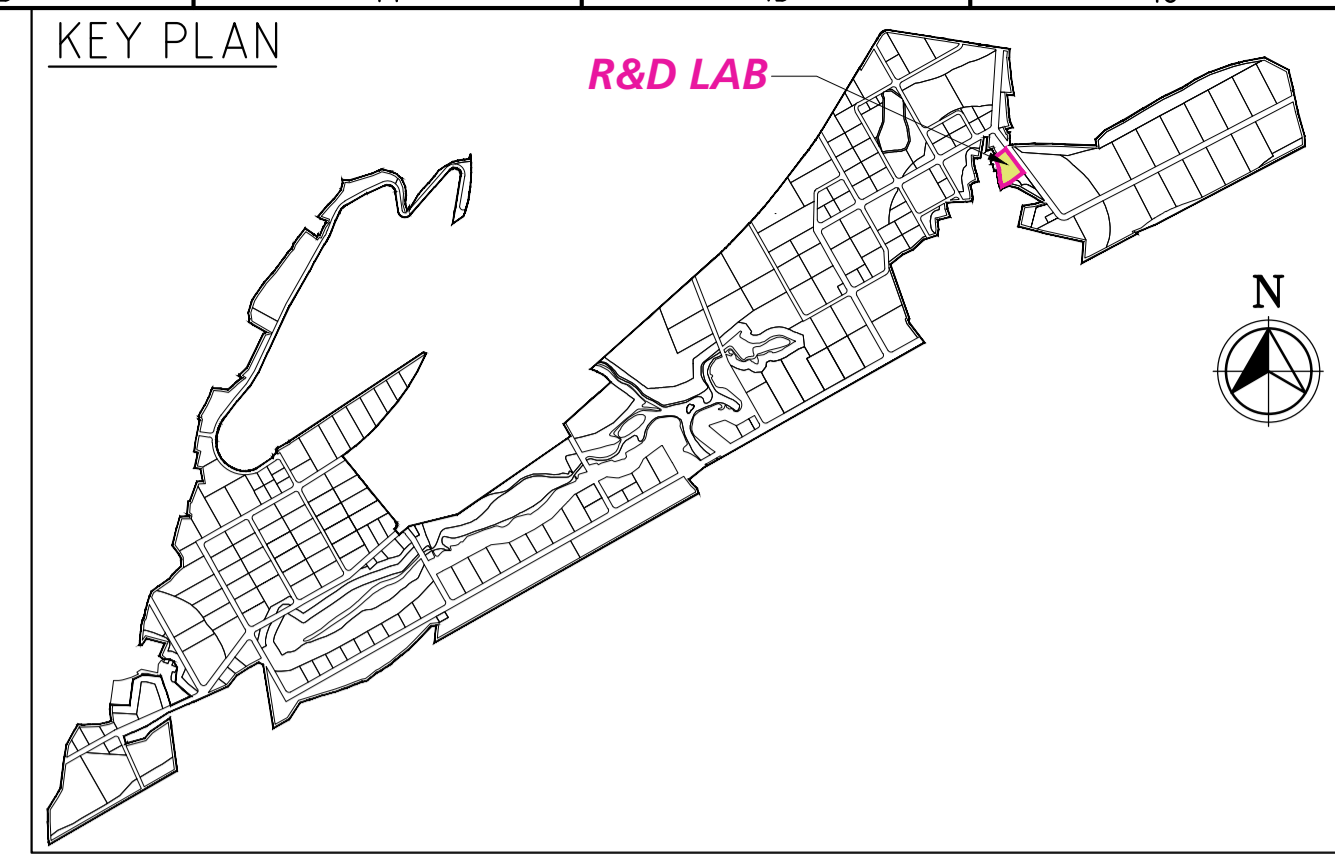
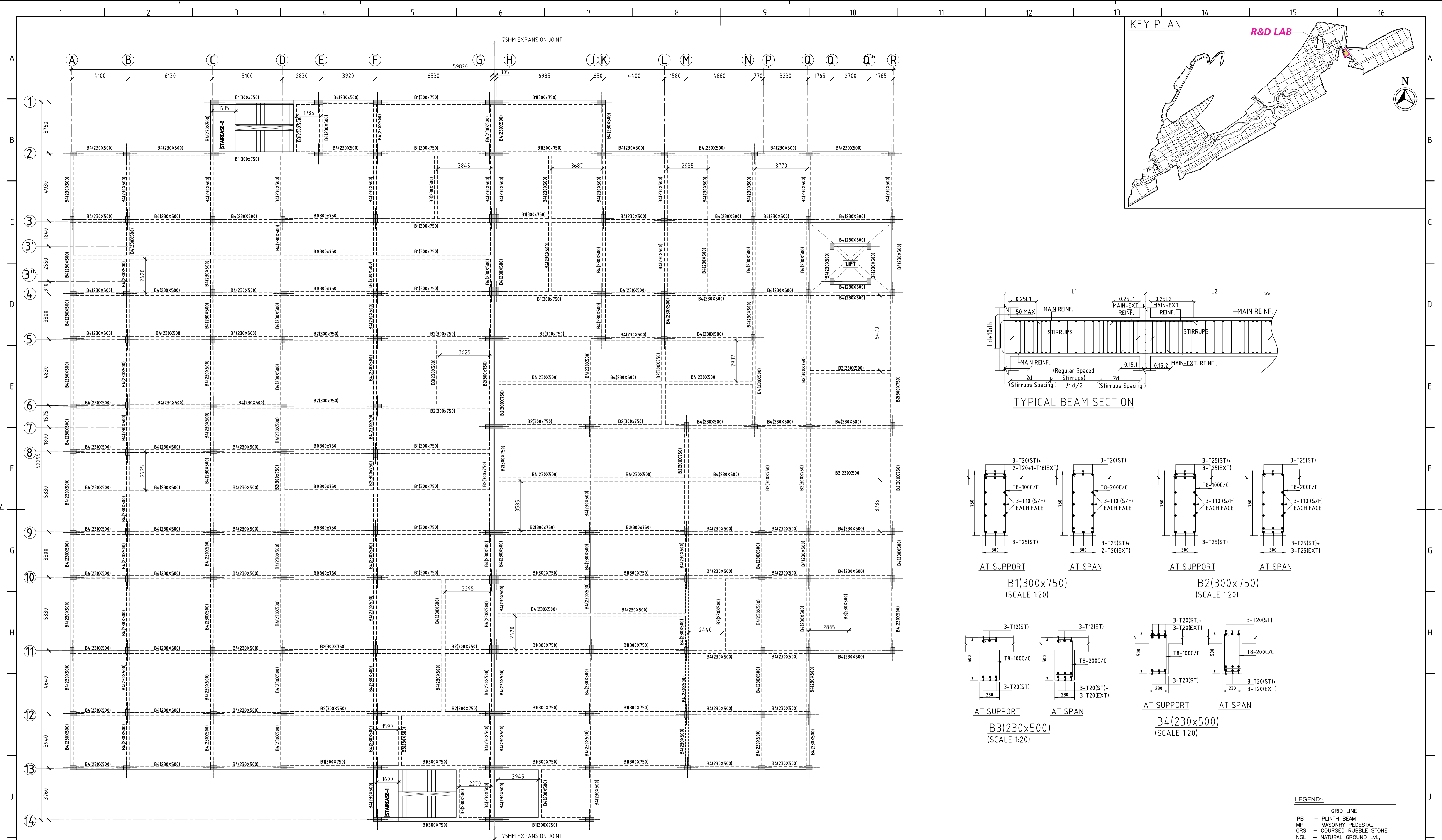
SCALE: AS SHOWN

DRAWING NO: DDB201H5

REV: 0

IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.



LEGEND:-

- GRID LINE
- PB - PLINTH BEAM
- MP - MASONRY PEDESTAL
- CRS - COURSED RUBBLE STONE
- NGL - NATURAL GROUND LVL.
- PCC - PLAIN CEMENT CONCRETE
- REINF. - REINFORCEMENT

**ROOF BEAM LAYOUT AT(+).9.60M LVL**  
(SCALE 1:25)

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
  - DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FES500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:13920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:13920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - ROUNDING OFF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.

DRAWING NO.	TITLE	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT		
REVISIONS					STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....					
REFERENCE DRAWINGS										

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB ROOF BEAM LAYOUT & DETAILS @ (+).9.60M LVL

PROJECT NO: C1232704

COP: -

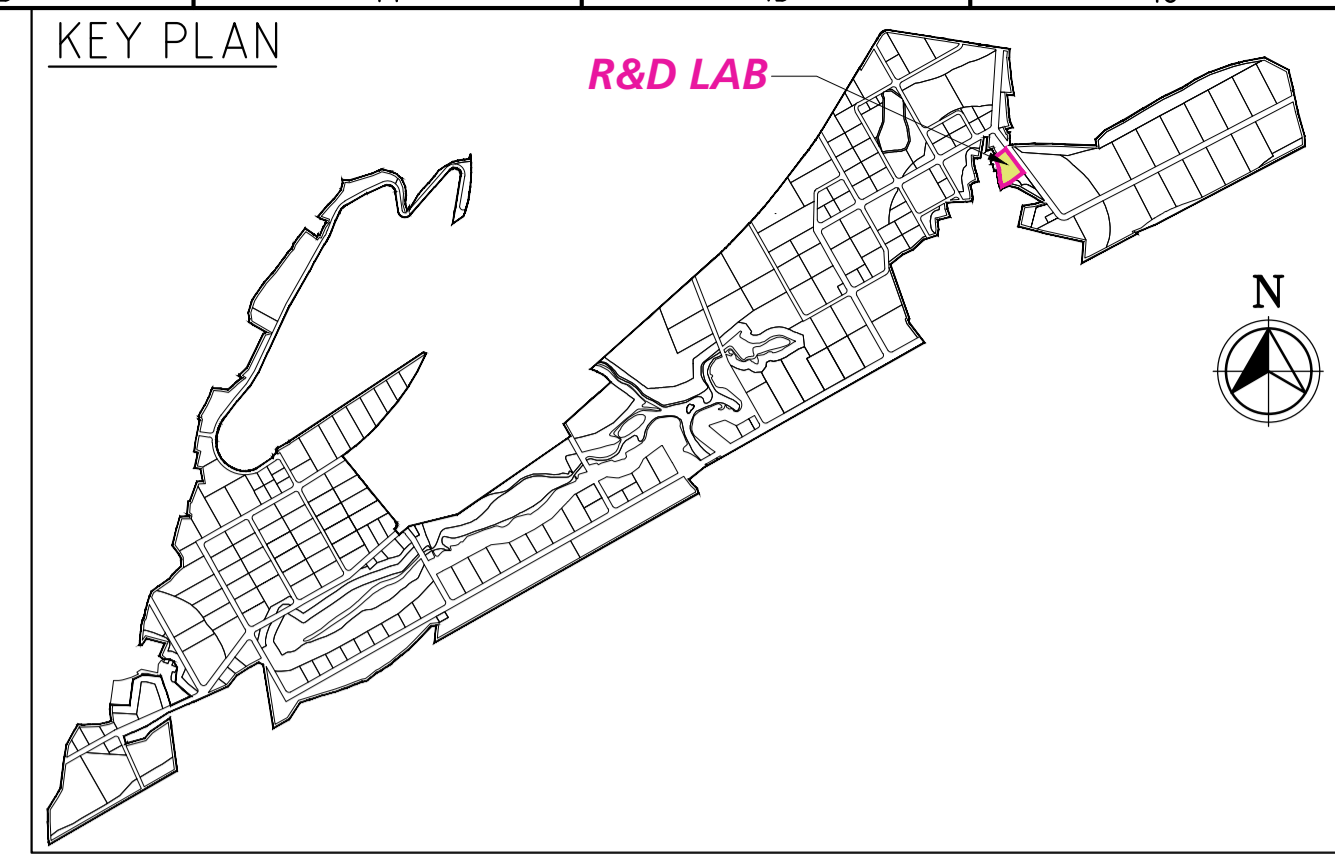
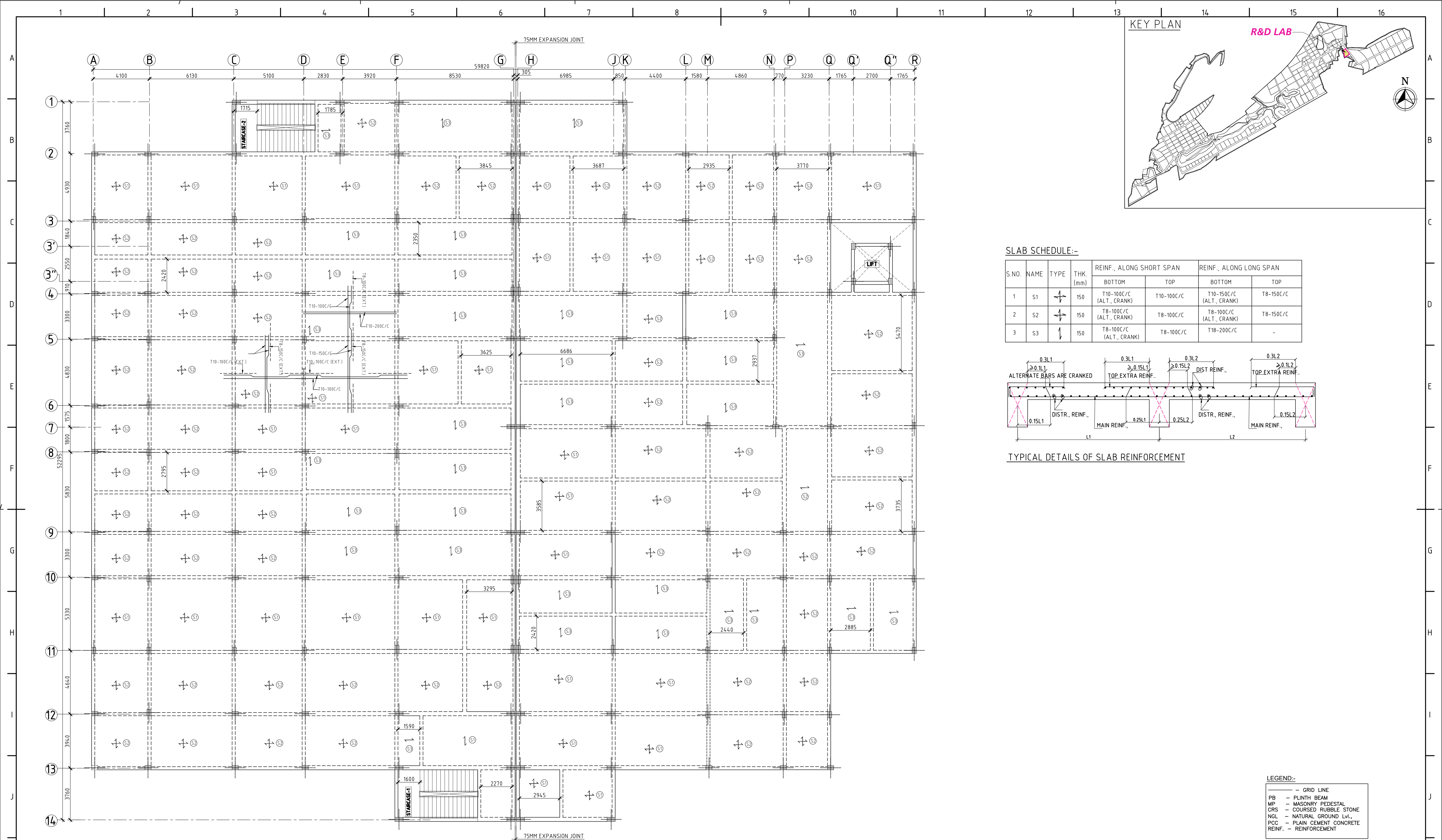
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REV: 0

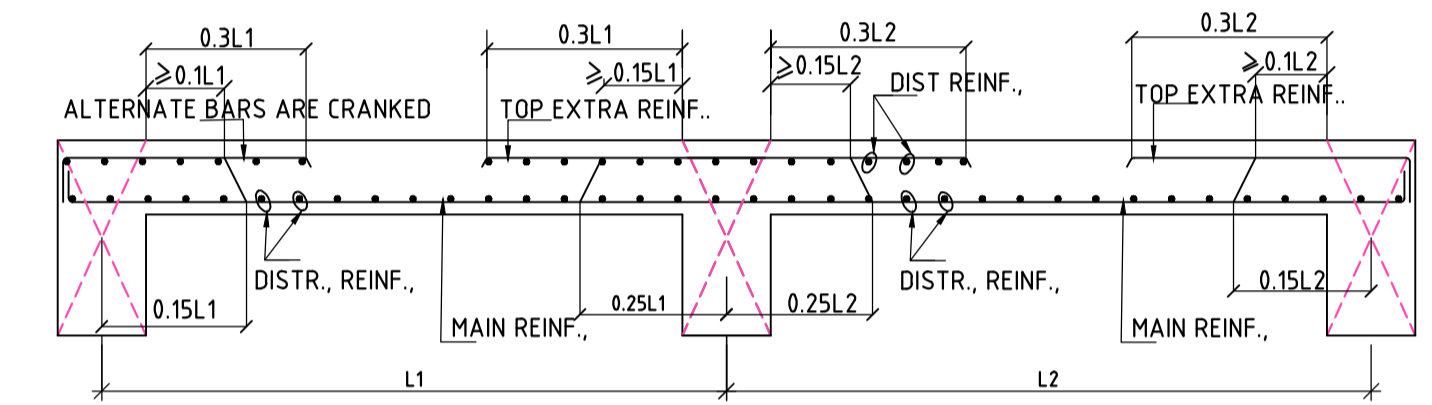
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ASSYSTEM L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**SLAB SCHEDULE:-**

S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1	↔	150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C
2	S2	↔	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T8-100C/C (ALT., CRANK)	T8-150C/C
3	S3	↕	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T18-200C/C	-



**TYPICAL DETAILS OF SLAB REINFORCEMENT**

**LEGEND:-**

- — GRID LINE
- PB — PLINTH BEAM
- MP — MASONRY PEDESTAL
- CRS — COURSED RUBBLE STONE
- NGL — NATURAL GROUND LVL.
- PCC — PLAIN CEMENT CONCRETE
- REINF. — REINFORCEMENT

**ROOF SLAB LAYOUT AT (+) 9.60M LVL**  
(SCALE 1:125)

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
  - DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:13920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, I.S.5525, IS:13920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25 MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - POUNDING OF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.

DRAWING NO.	TITLE	STATUS	DATE	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT		
<b>REVISIONS</b>										
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....										
<b>REFERENCE DRAWINGS</b>										

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB ROOF SLAB LAYOUT & DETAILS @+9.60M LVL

**PROJECT NO:** C1232704

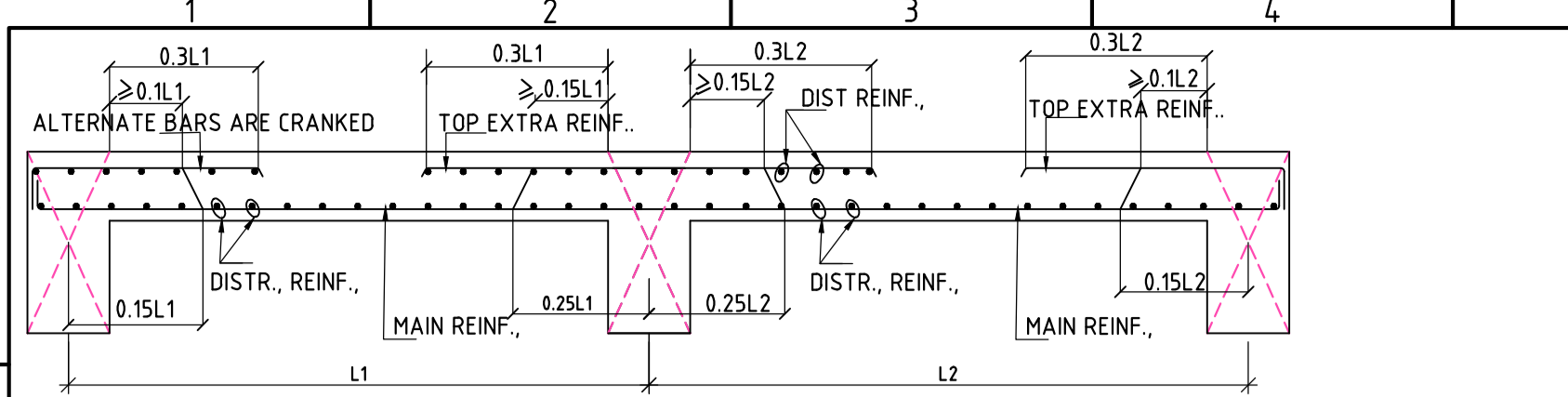
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**SCALE:** AS SHOWN

**DRAWING NO.:** DDB201H7

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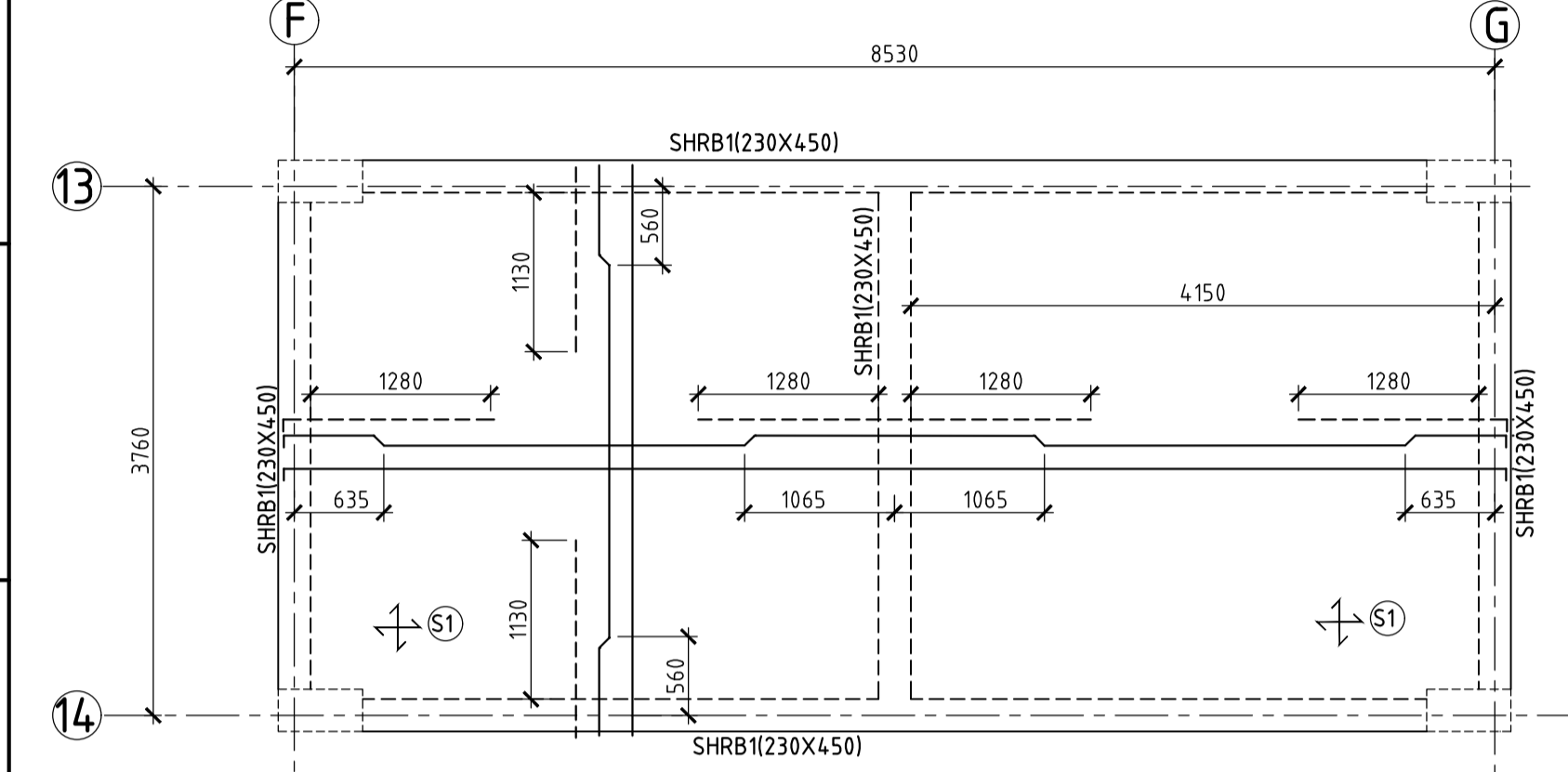
**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



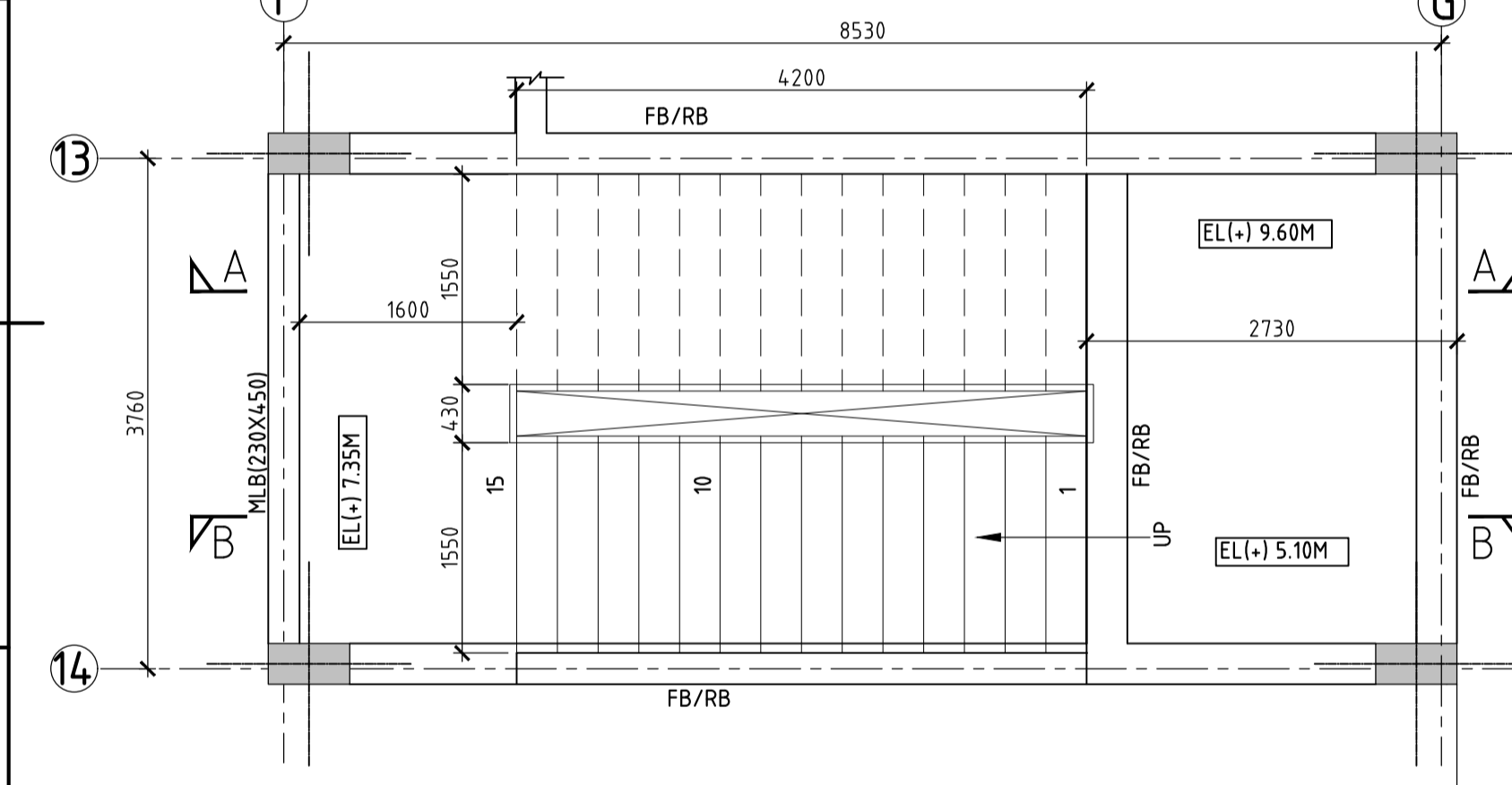
**TYPICAL DETAILS OF SLAB REINFORCEMENT**

**SLAB SCHEDULE:-**

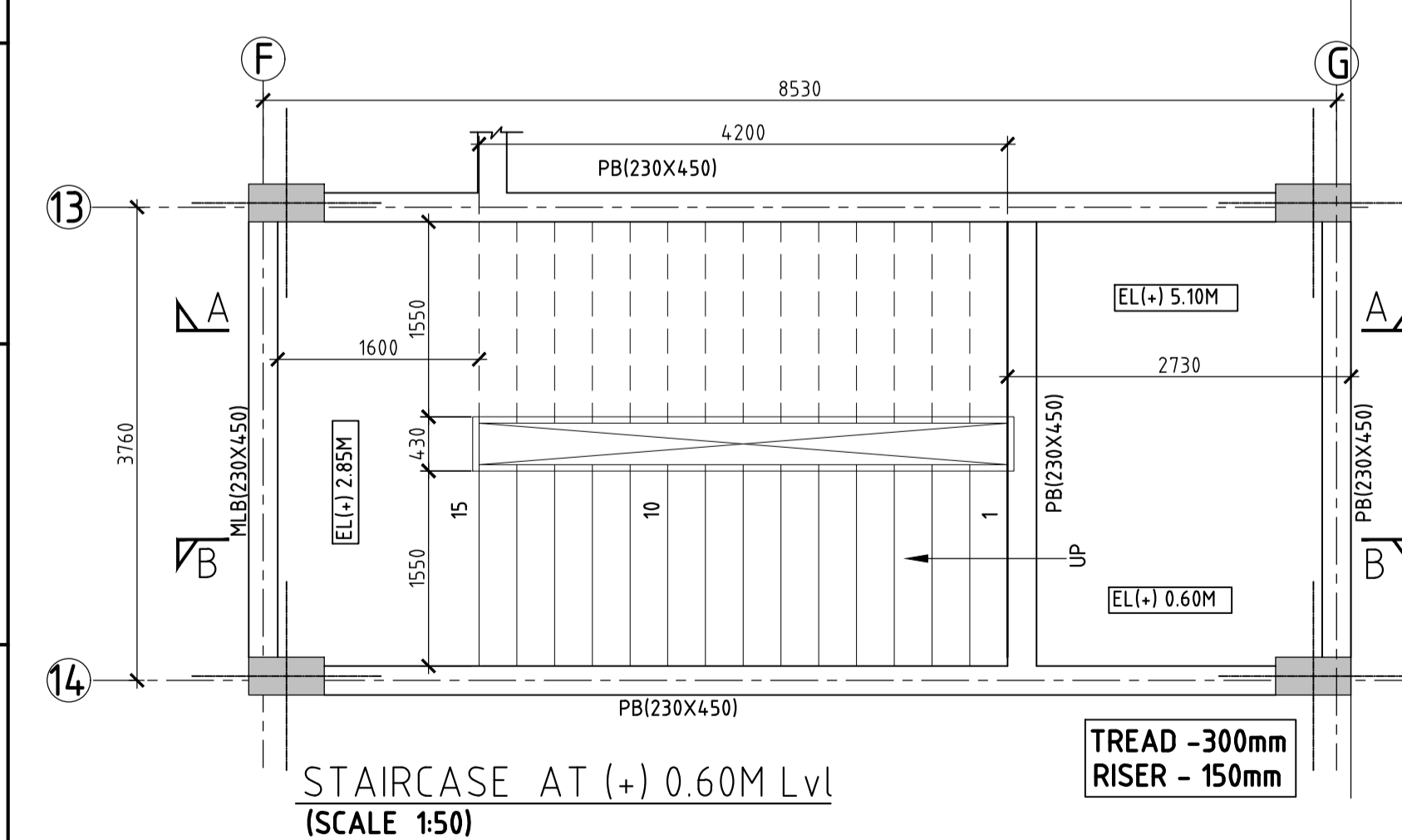
S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1		150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C



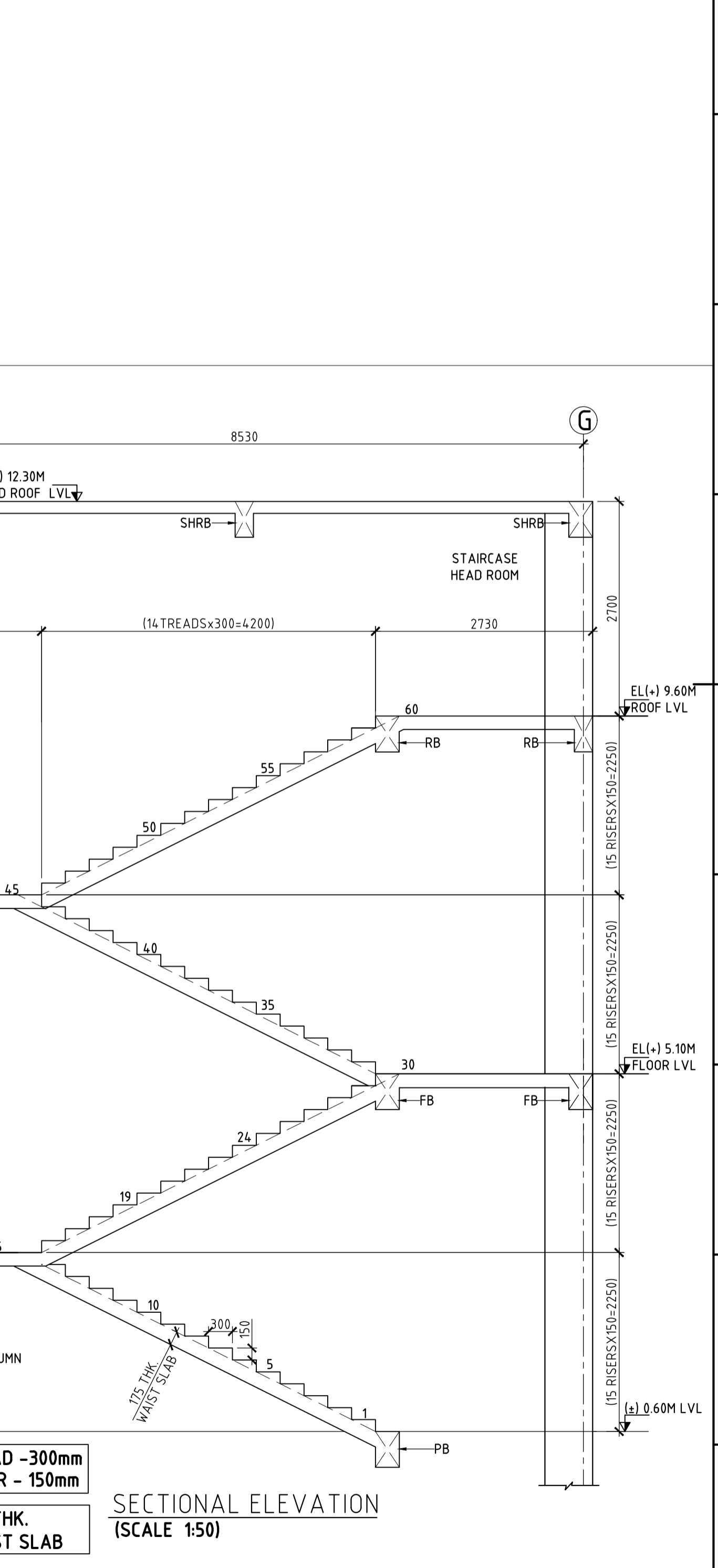
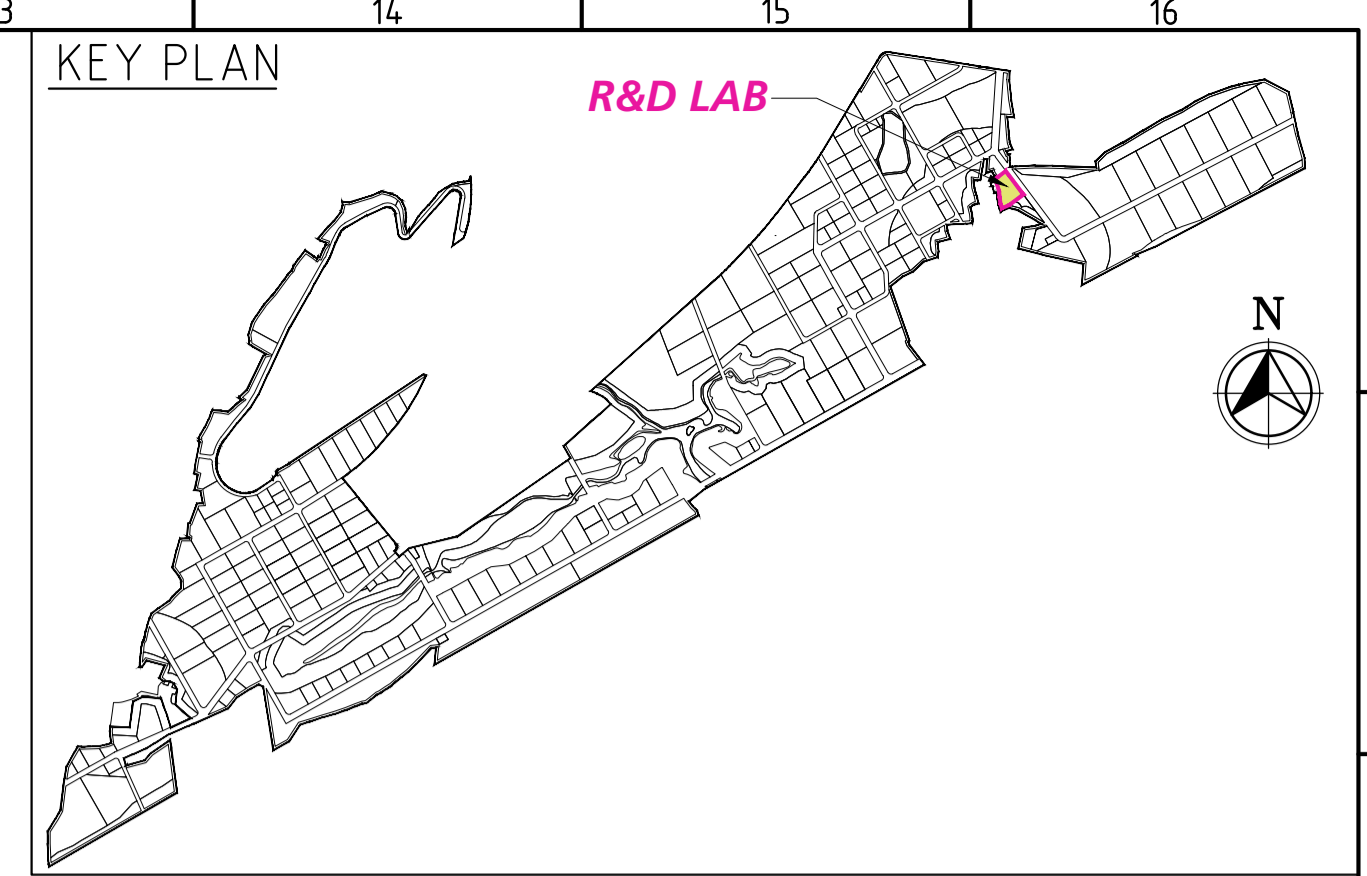
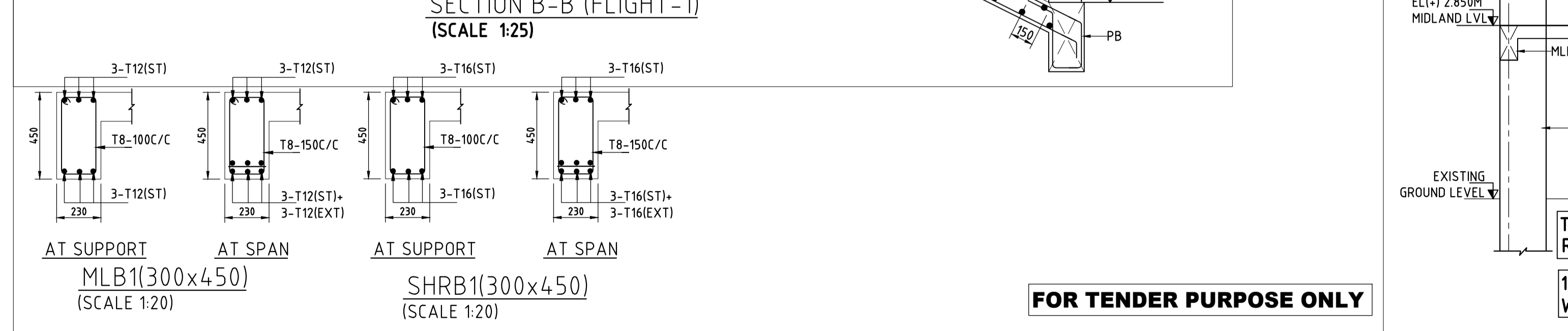
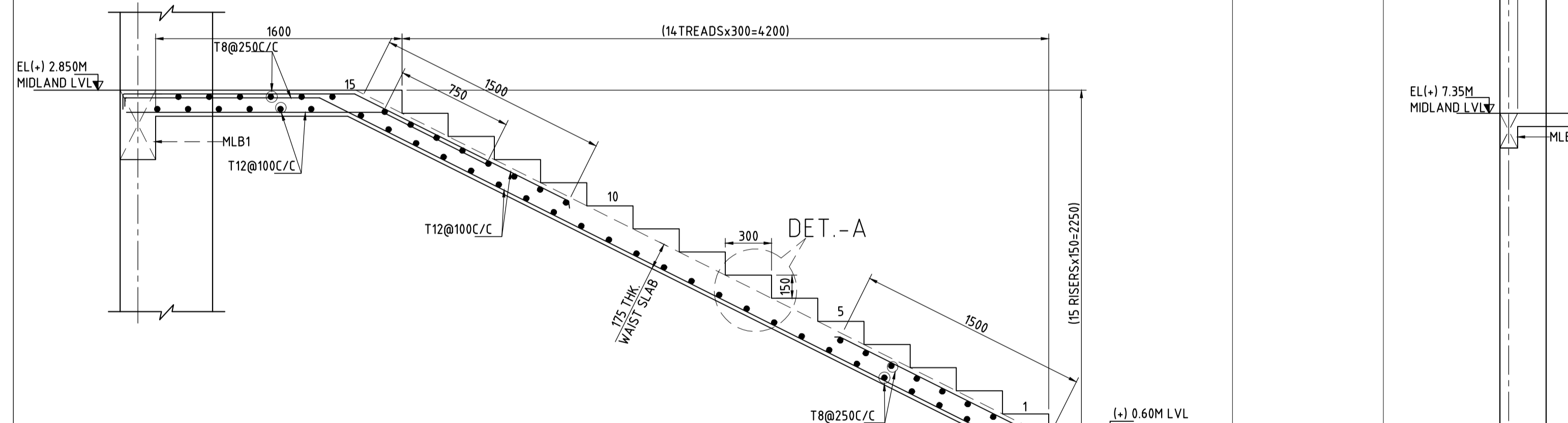
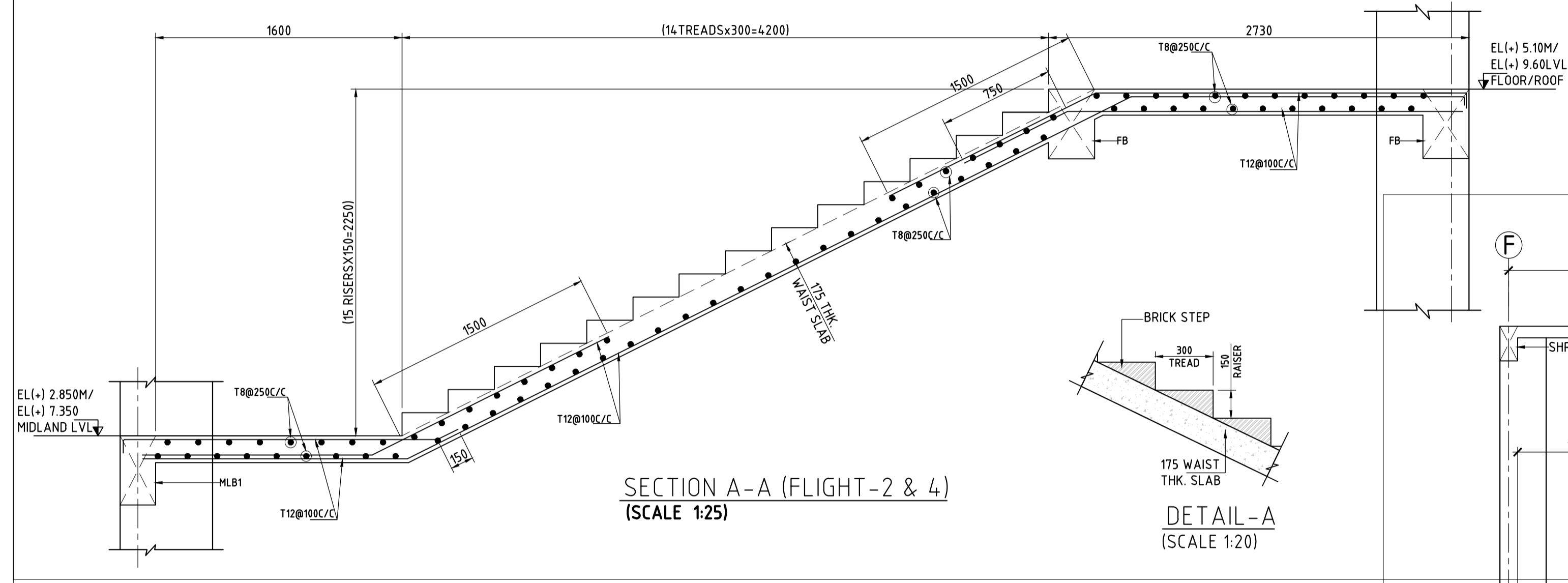
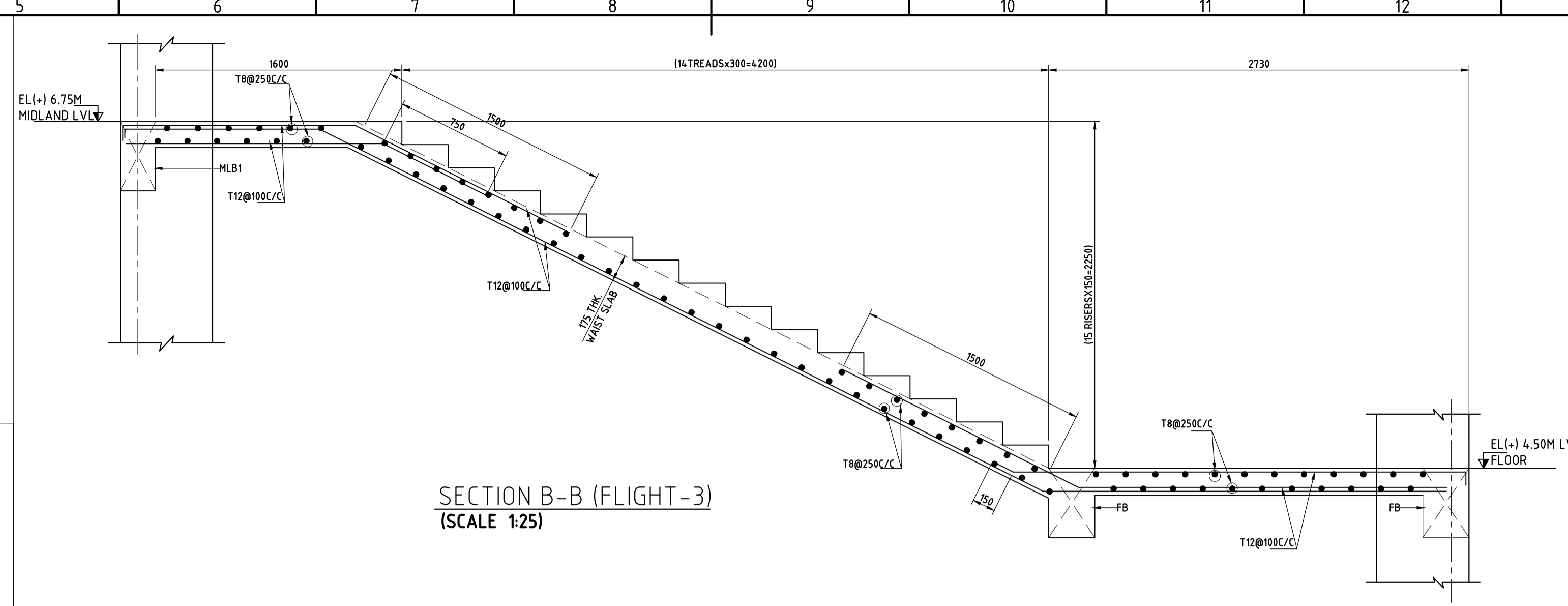
**STAIRCASE HEAD ROOF BEAM LAYOUT AT (+) 12.30M LVL (SCALE 1:50)**



**STAIRCASE AT (+) 5.10M LVL (SCALE 1:50)**



**STAIRCASE AT (+) 0.60M LVL (SCALE 1:50)**



**NOTES**

- ALL DIMENSIONS ARE IN MM AND ALL LEVEL ARE IN M UNLESS NOTED OTHERWISE.
- DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
- CONCRETE GRADE SHALL BE M25.
- GRADE OF STEEL - Fe500D.
- CLEAR COVER FOR MAIN REINFORCEMENT
- WAIST SLAB-25
- LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWING.
- DUCTILE DETAILING AS PER CODE IS1920.
- WE ARE NOT RESPONSIBLE FOR QUALITY OR STANDARDS OF CONSTRUCTION.

REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
0	230830	1	FIRST SUBMISSION	BKU	PPI	AYR	BRT

**FOR TENDER PURPOSE ONLY**

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB STAIRCASE-1 LAYOUT & DETAILS

**PROJECT NO:** C1232704

**SCALE:** AS SHOWN

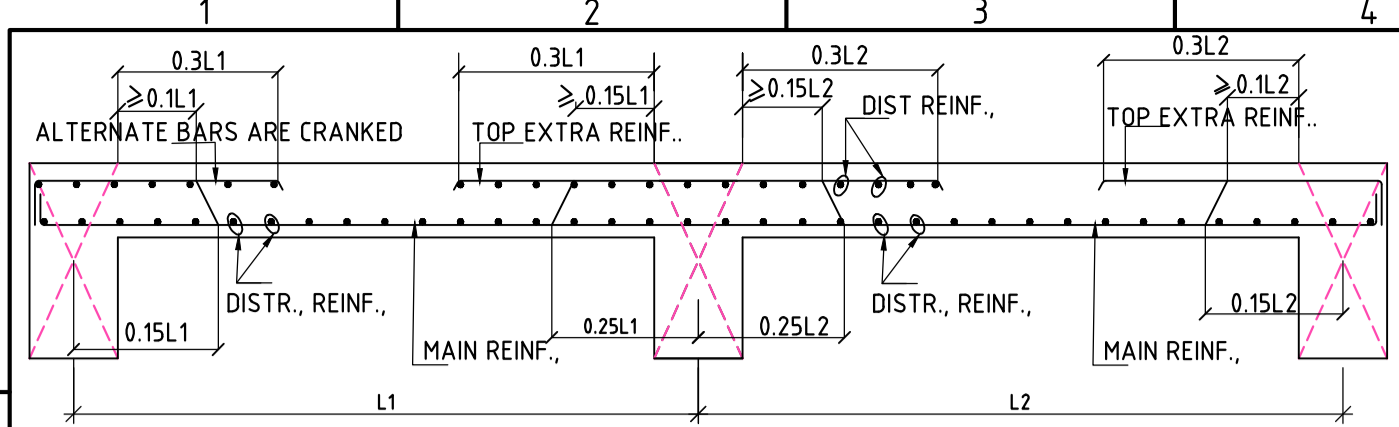
**DRAWING NO:** DDB201H8

**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



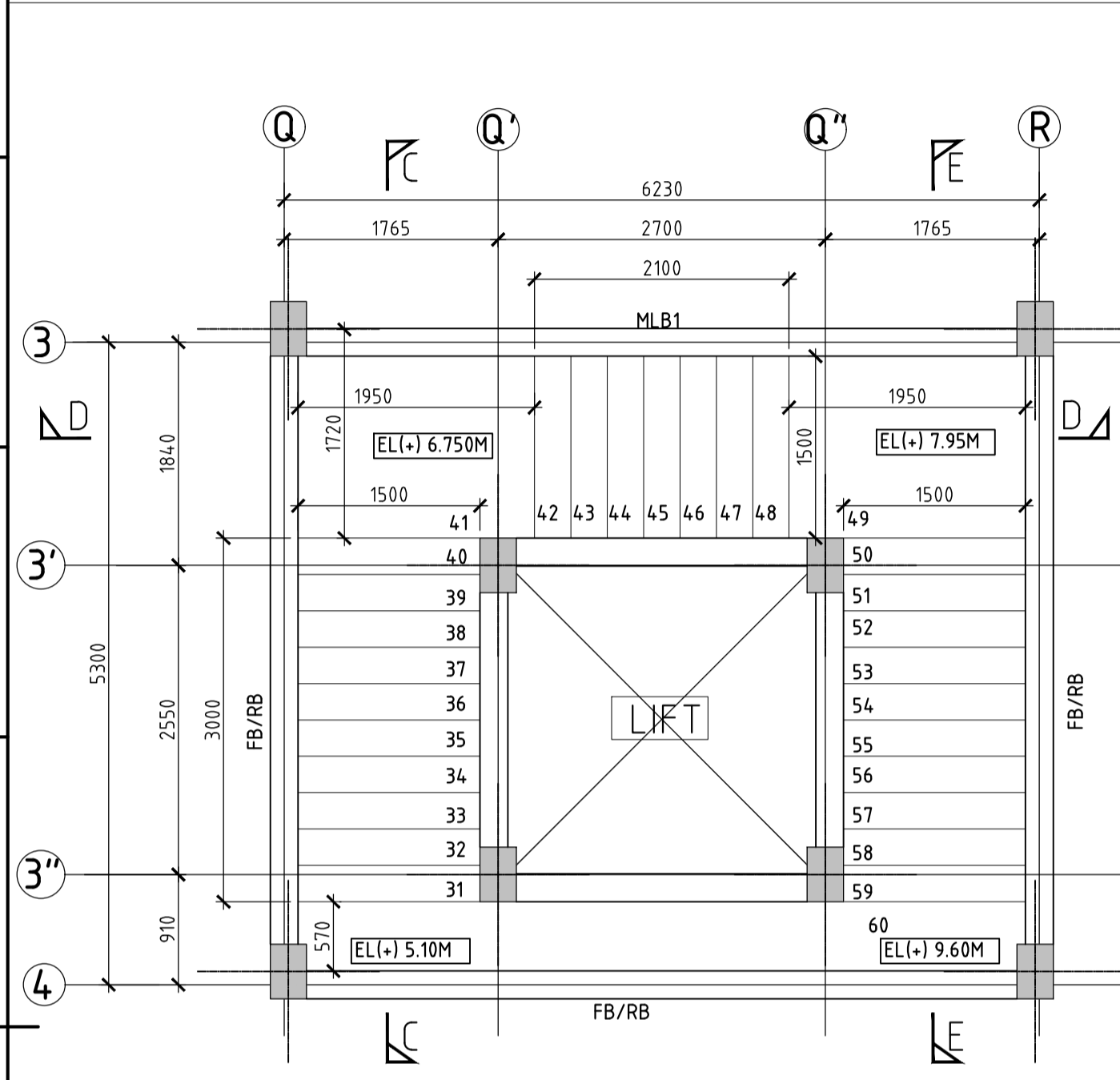
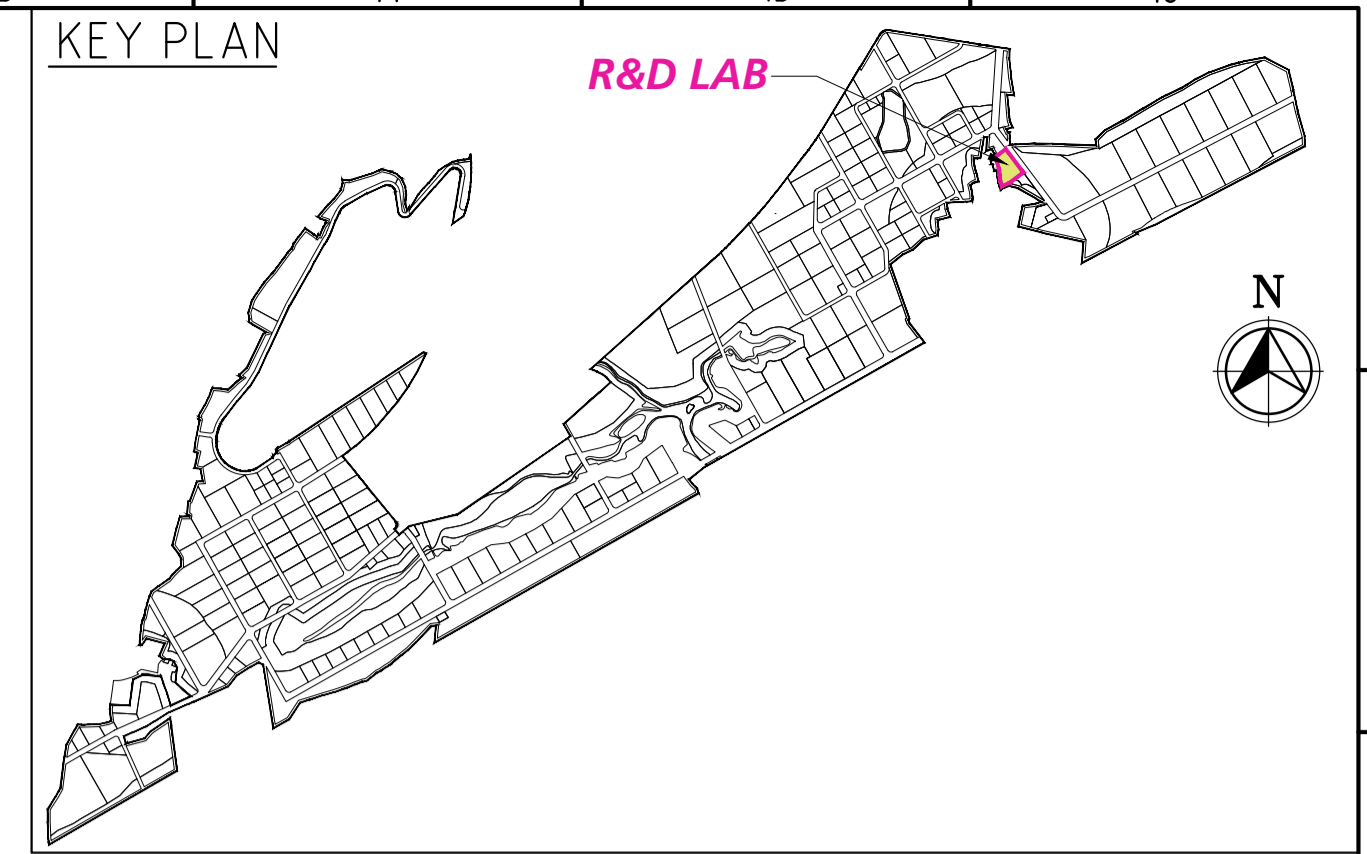




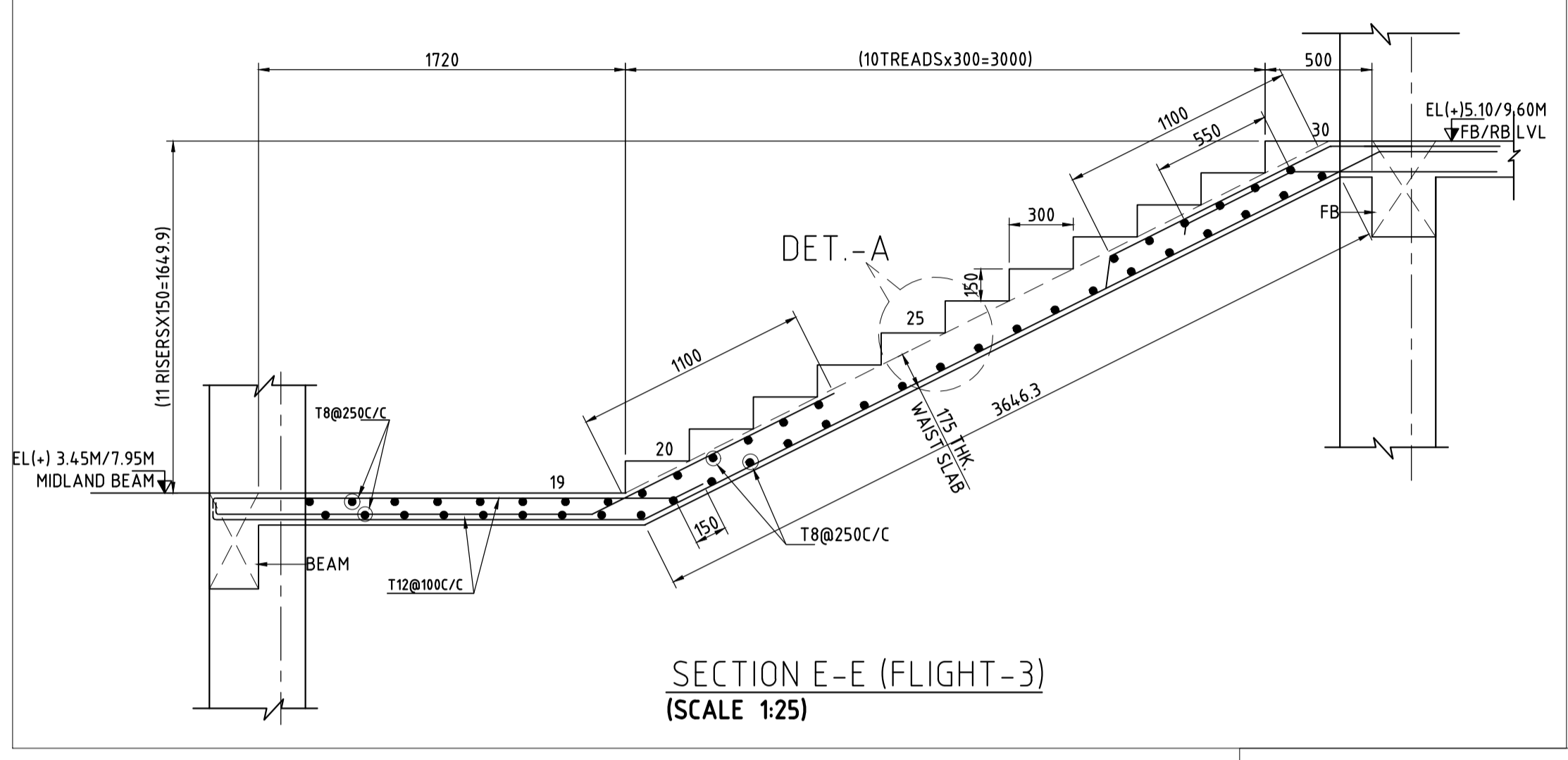
TYPICAL DETAILS OF SLAB REINFORCEMENT

SLAB SCHEDULE:-

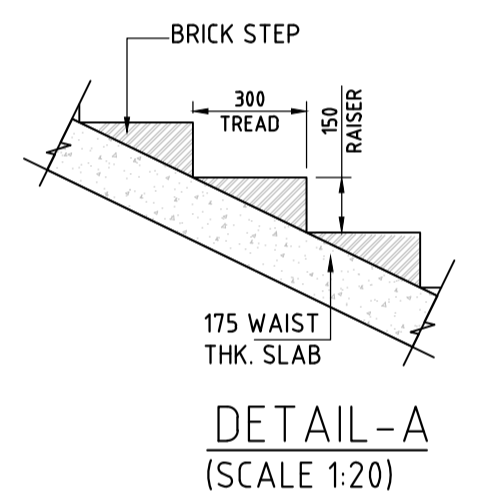
S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1		150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C



STAIRCASE AT (+) 4.50M LVL (SCALE 1:50)



SECTION E-E (FLIGHT-3) (SCALE 1:25)

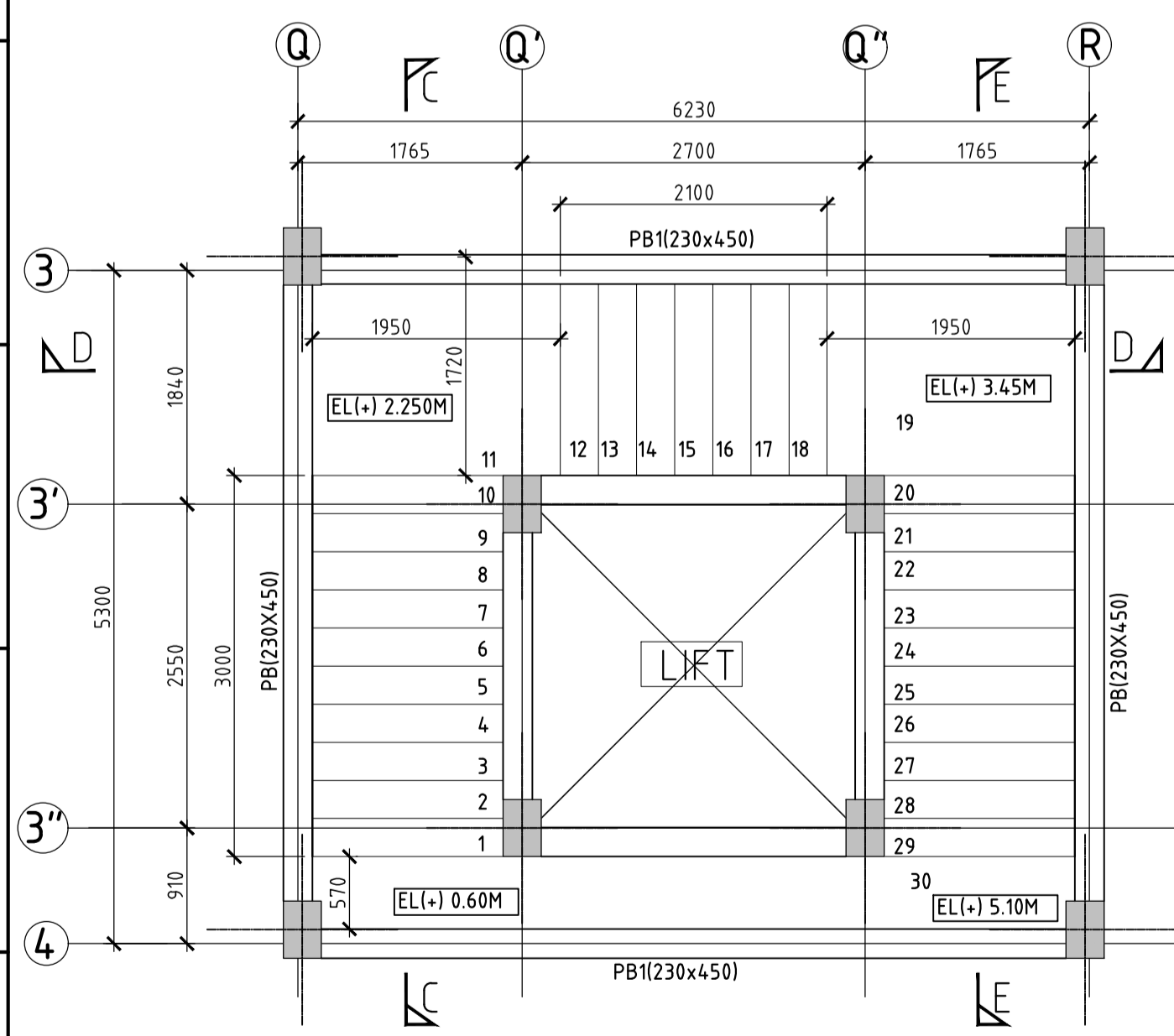


DETAIL-A (SCALE 1:20)



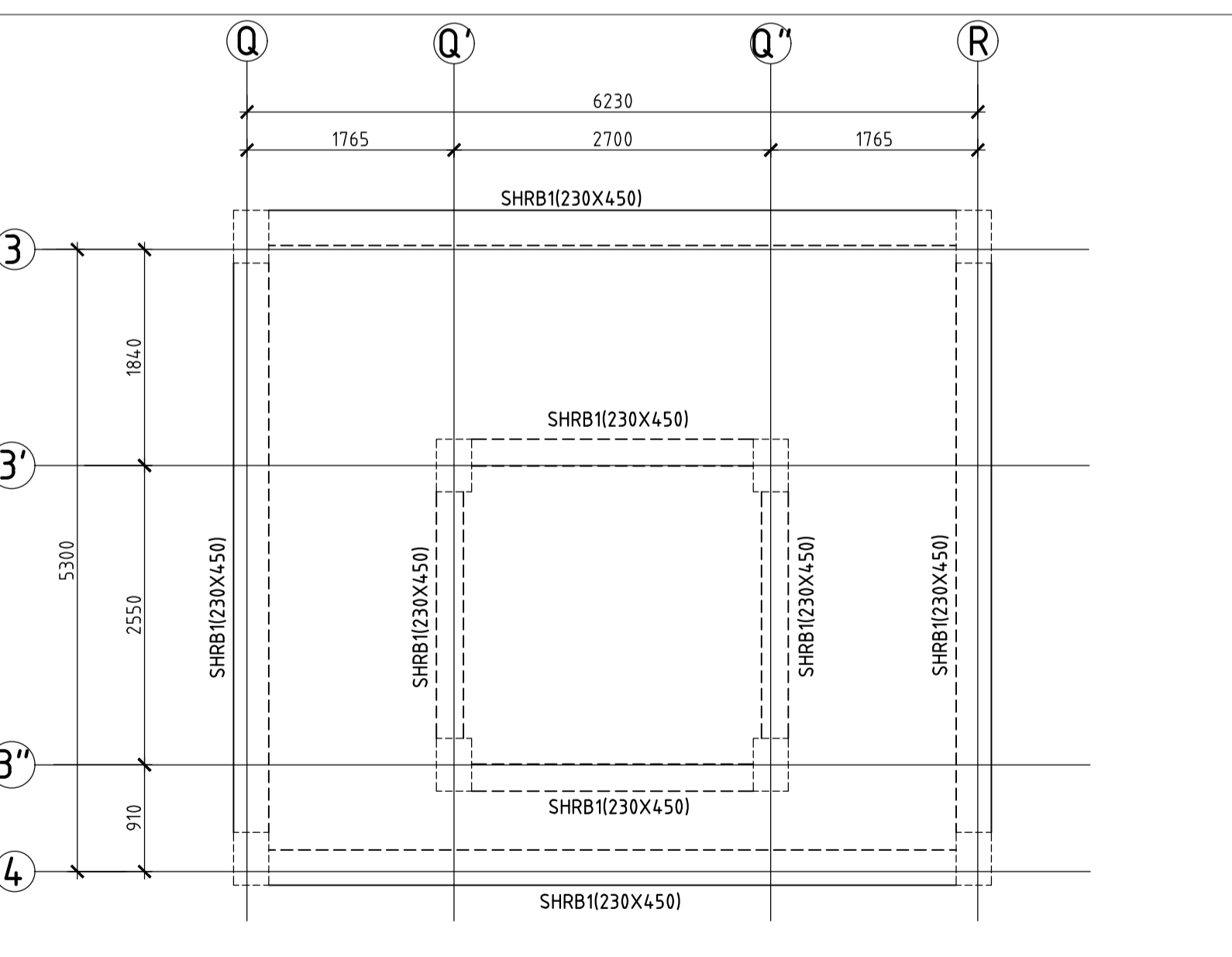
AT SUPPORT  
MLB1(300x450)  
(SCALE 1:20)

AT SPAN  
SHRB1(300x450)  
(SCALE 1:20)

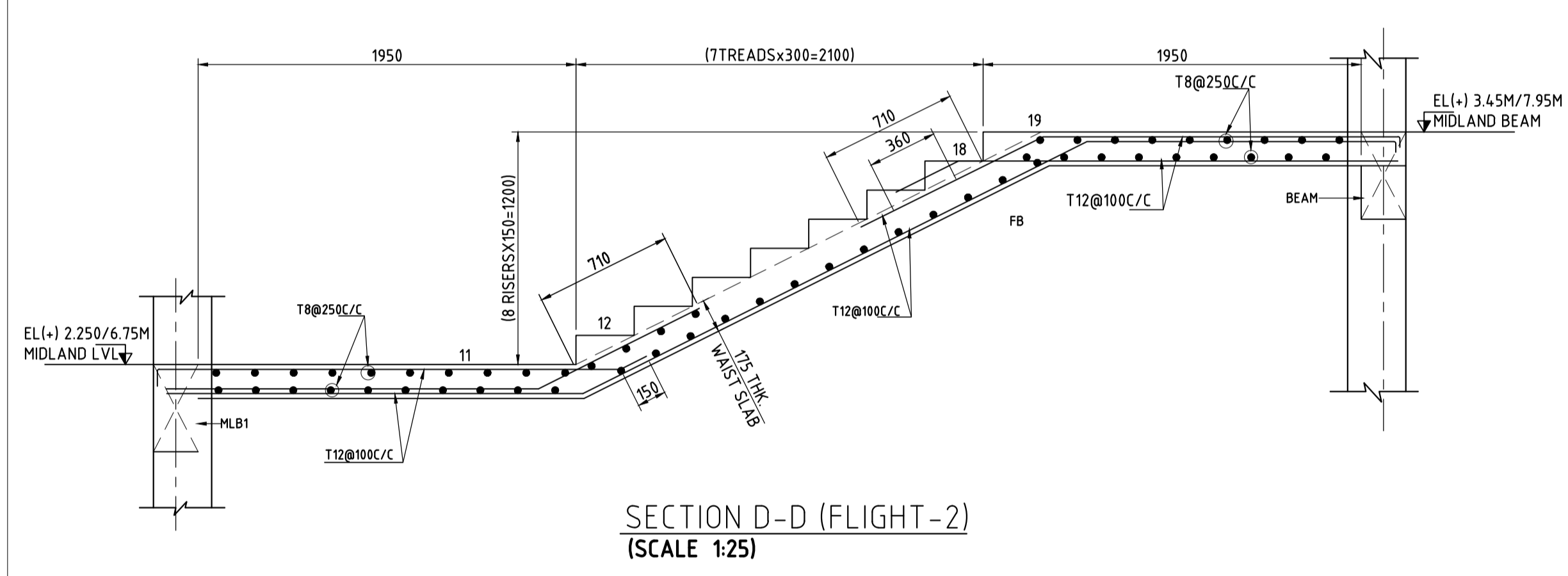


STAIRCASE AT (+) 0.60M LVL (SCALE 1:50)

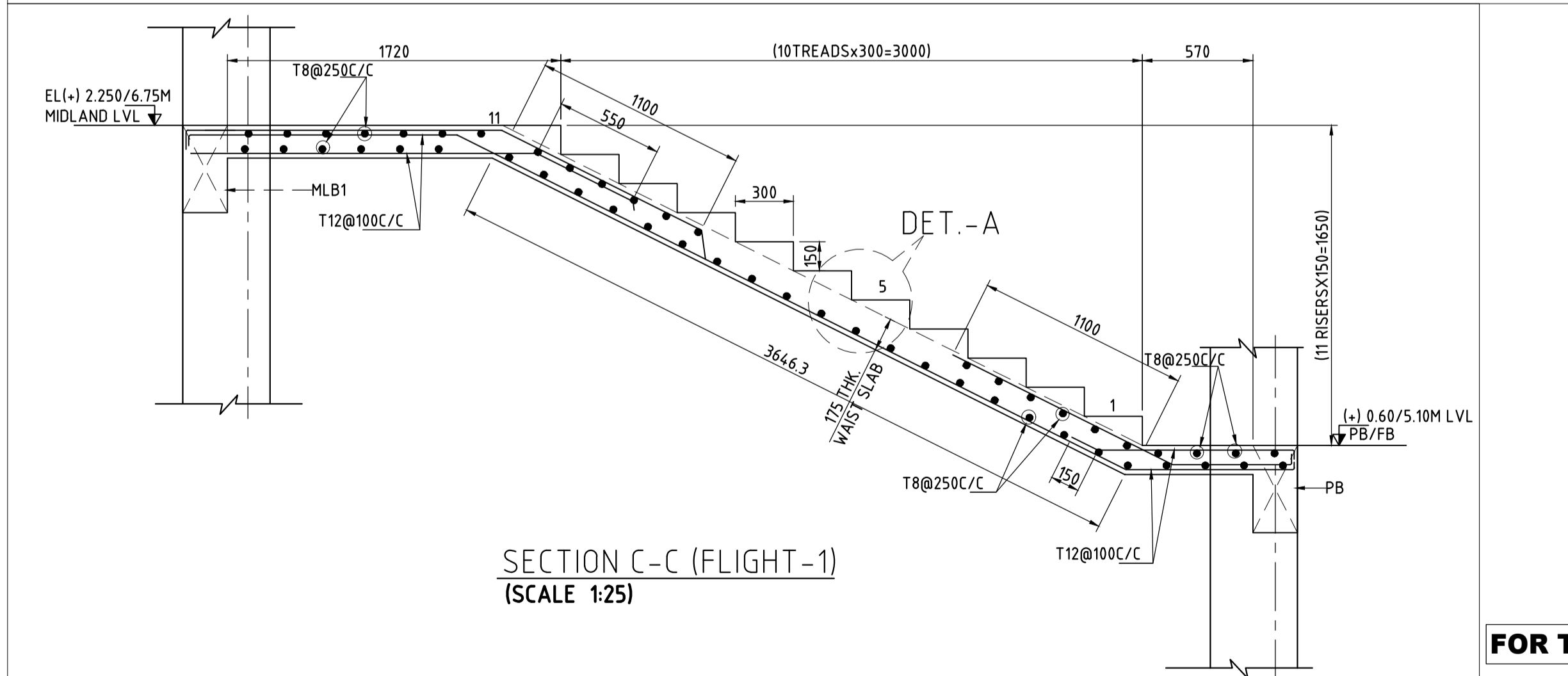
TREAD - 300mm  
RISER - 150mm



STAIRCASE & LIFT HEAD ROOF BEAM LAYOUT AT (+) 12.30M LVL (SCALE 1:50)



SECTION D-D (FLIGHT-2) (SCALE 1:25)



SECTION C-C (FLIGHT-1) (SCALE 1:25)

FOR TENDER PURPOSE ONLY

- NOTES
- ALL DIMENSIONS ARE IN MM AND ALL LEVEL ARE IN M UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M25.
  - GRADE OF STEEL - F4500D.
  - CLEAR COVER FOR MAIN REINFORCEMENT
    - a) WAIST SLAB - 25
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWING.
  - DUCTILE DETAILING AS PER CODE IS1920.
  - WE ARE NOT RESPONSIBLE FOR QUALITY OR STANDARDS OF CONSTRUCTION.

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
		0	230830	1	FIRST SUBMISSION						
REVISIONS STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....											
REFERENCE DRAWINGS											

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB STAIRCASE-1 LAYOUT & DETAILS

PROJECT NO: C1232704

CDP: -

SCALE: AS SHOWN

DRAWING NO: DBB201H10

REV: 0

PATH: REFER BOTTOM LEFT CORNER OF THE DRAWING

ASSYSTEM L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**Nodal Agency**

**Andhra Pradesh Industrial Infrastructure Corporation Limited**

**Implementing Agency**

**AP Bulk Drug Infrastructure Corp. Ltd**

**APIIC Towers, 9<sup>th</sup> Floor, IT Park, Mangalagiri, Guntur District- 522 503  
Andhra Pradesh**



**Department of Pharmaceuticals**  
Ministry of Chemicals and Fertilizers  
Government of India

**AP BULK DRUG PARK  
NAKKAPALLI, ANDHRA PRADESH**

**BIDDING DOCUMENTS**

**(Tender Drawings)**

JANUARY 2024

**SUBMITTED BY**



**Government of Andhra Pradesh**

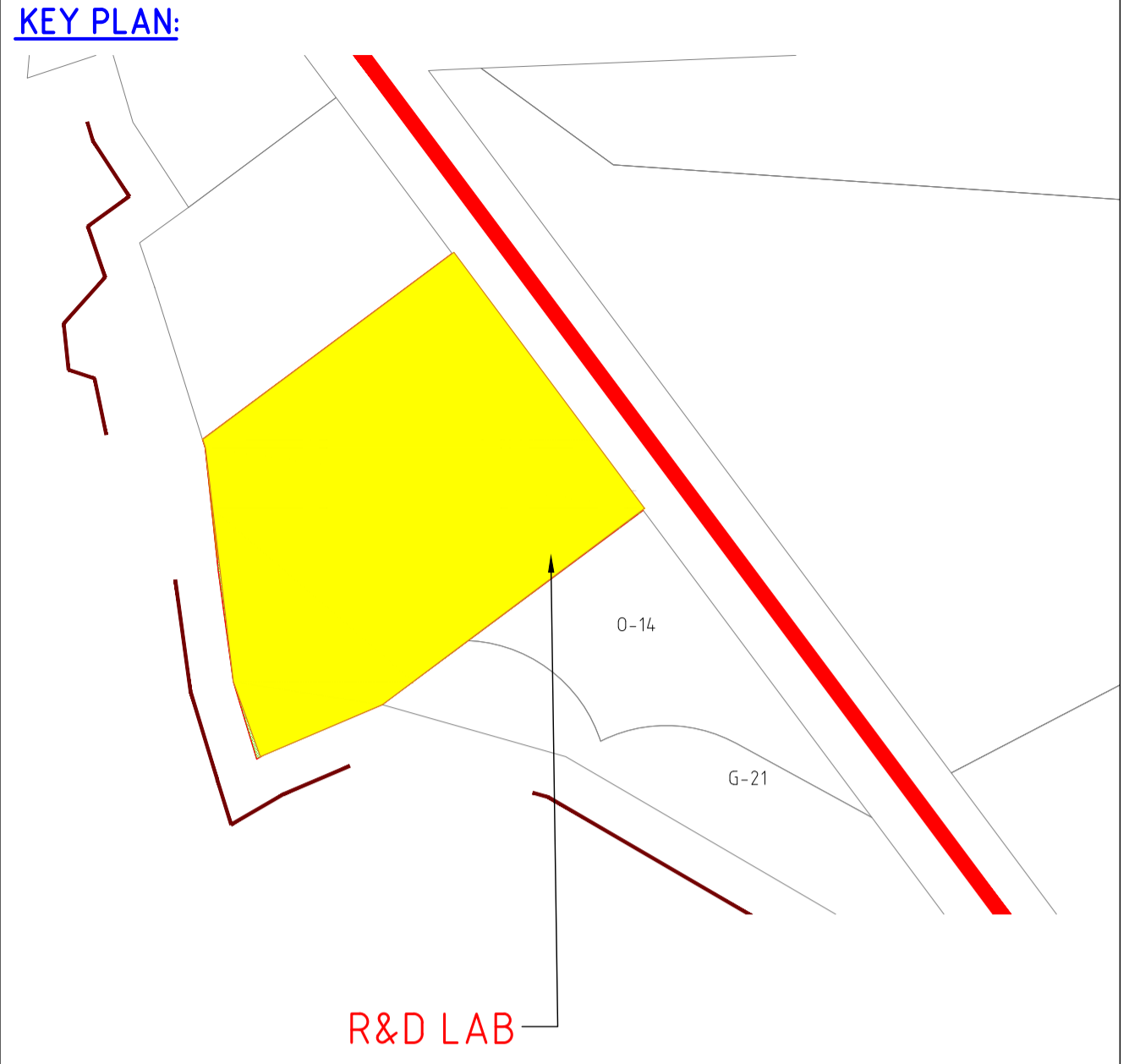
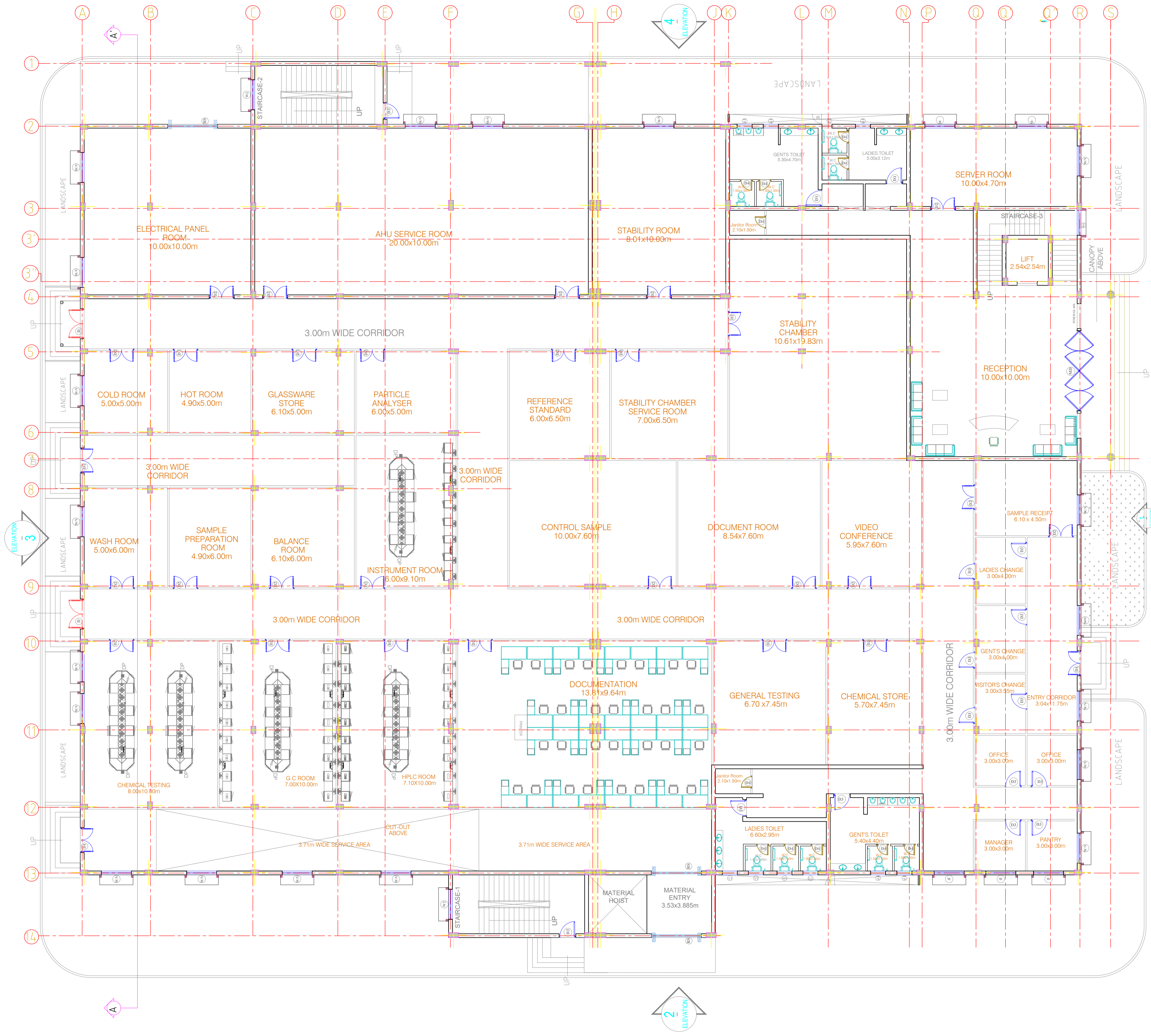
**Nodal Agency**

**Andhra Pradesh Industrial Infrastructure Corporation Limited**

**Implementing Agency**

**AP Bulk Drug Infrastructure Corp. Ltd.**

**VOLUME –II (J) CENTRE OF EXCELLENCE  
DRAWINGS**



SCHEDULE OF OPENINGS							
S.no	TYPE	SIZE	SILL LINTEL	S.no	TYPE	SIZE	SILL LINTEL
<b>DOOR</b>				<b>WINDOW</b>			
01	MD	4.80x2.10	- 2.10	01	W/V	1.50x1.20	0.90 2.10
02	D	1.80x2.10	- 2.10			1.50x0.60	VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	- 2.10	02	W1	1.50x1.20	FROM BEAM BOTTOM
04	D2	1.50x2.10	- 2.10	03	W2	1.80x1.20	FROM BEAM BOTTOM
05	D3	1.00x2.10	- 2.10	<b>VENTILATOR</b>			
06	D4	0.75x2.10	- 2.10	01	V1	0.90x0.45	1.65 2.10
07	RS	3.00x2.40	- 2.40	02	V2	0.60x0.45	1.65 2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.							

**FOR TENDER PURPOSE ONLY**

**NOTES**  
1. -  
2. -

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
		0	231128	2	FIRST SUBMISSION	GVD	GVD	SLI	BRT
<b>REVISIONS</b>									
STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- .....									
<b>REFERENCE DRAWINGS</b>									

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB GROUND FLOOR PLAN

**PROJECT NO:** C1232704

**COP:** -

**SCALE:** -

**DRAWING NO.:** DDA201A1

**REV:** 0

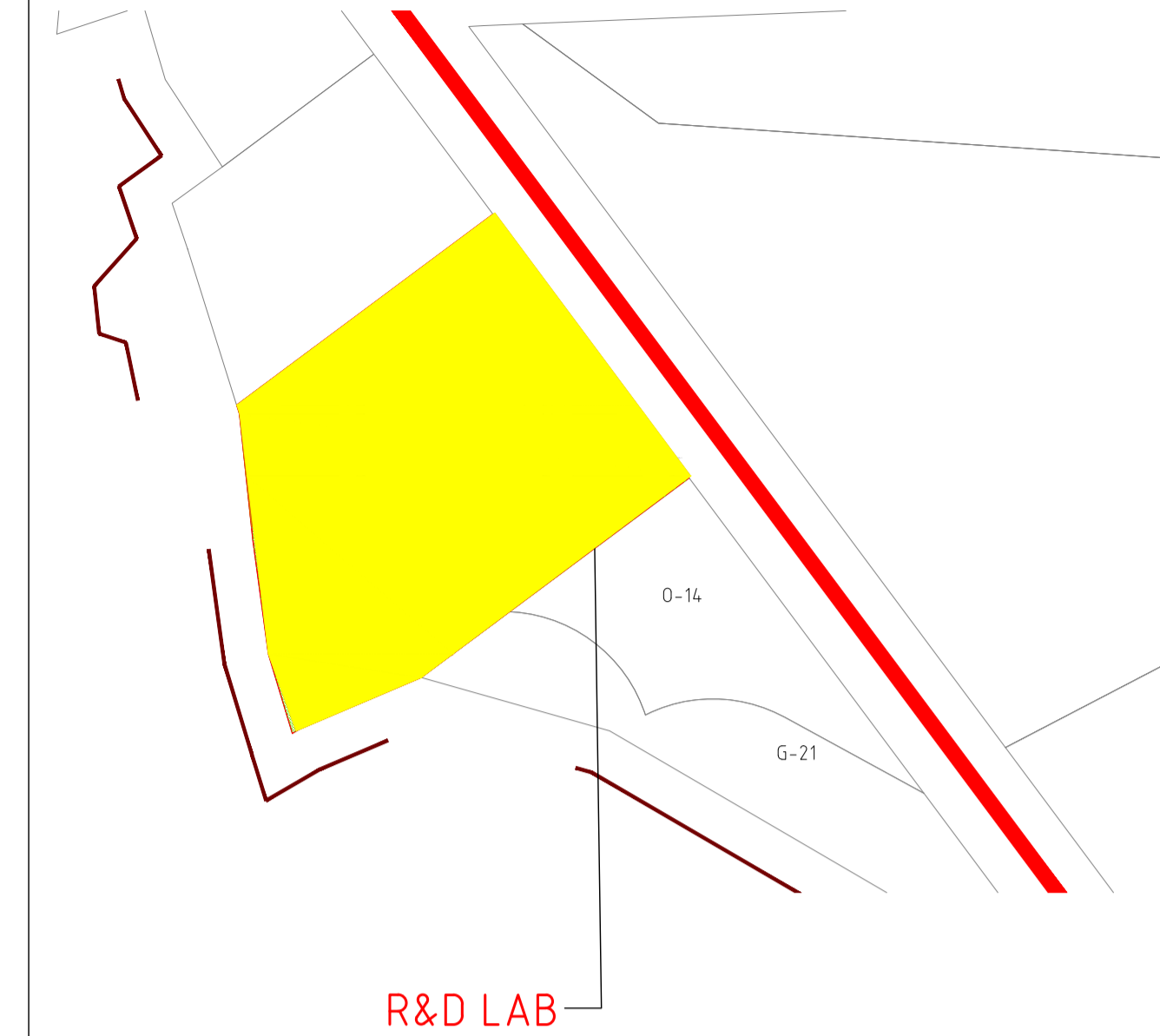
**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

**PATH: REFER BOTTOM ORIGINAL SIZE: A1**

**LEFT CORNER OF THE DRAWING**

**plot scale:** 1:50m

**KEY PLAN:**



**R&D LAB**

SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
<b>DOOR</b>					<b>WINDOW</b>				
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	<b>VENTILATOR</b>				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.									

DRAWING NO.	TITLE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
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REV.	YYMMDD	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
				CHECKED		CHECKED		APPROVED	

**FOR TENDER PURPOSE ONLY**

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB FIRST FLOOR PLAN

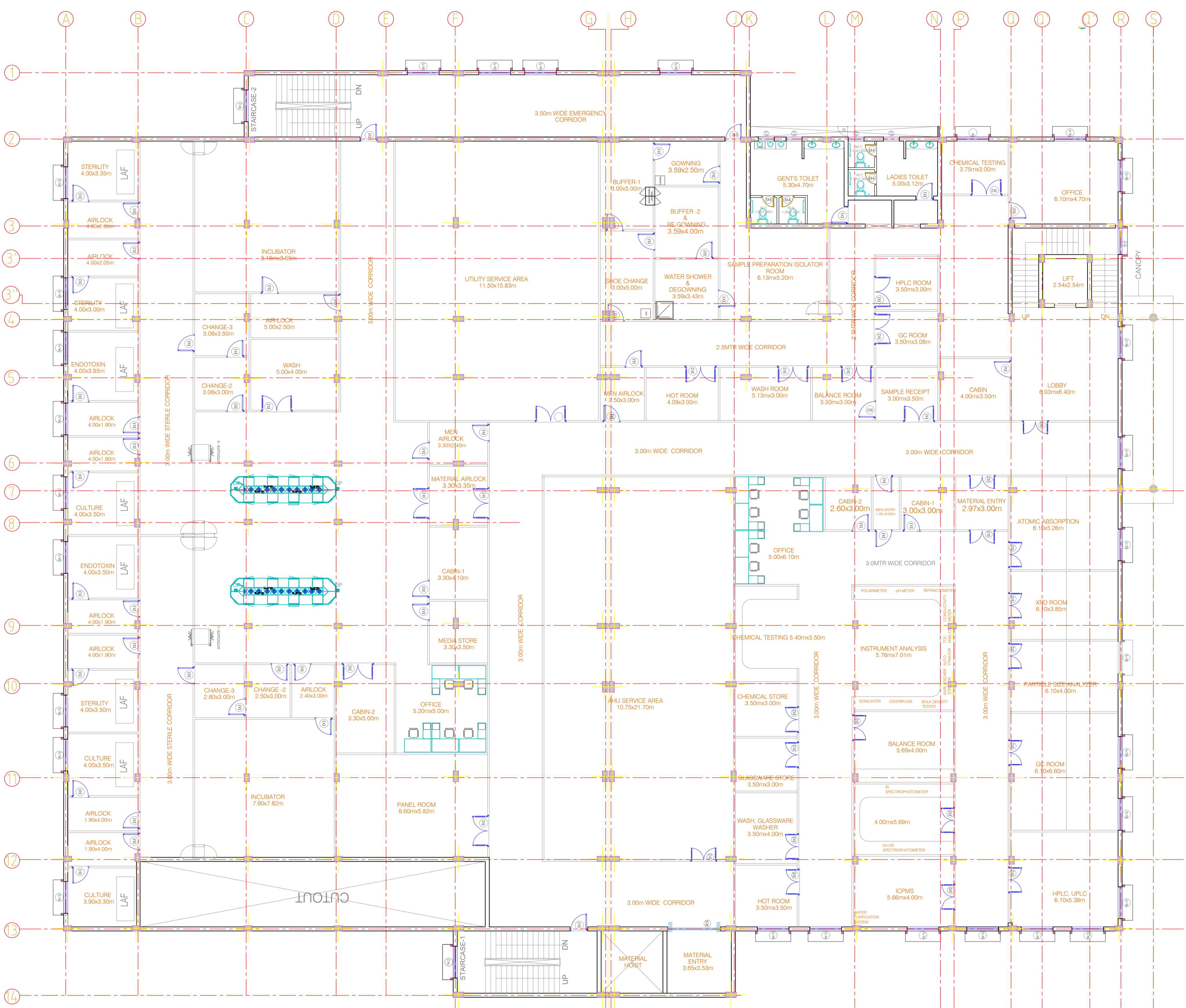
**PROJECT NO:** C1232704

**SCALE:** -

**DRAWING NO.:** DDA201A2

**REV:** 0

**COMPANY:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**NOTES**

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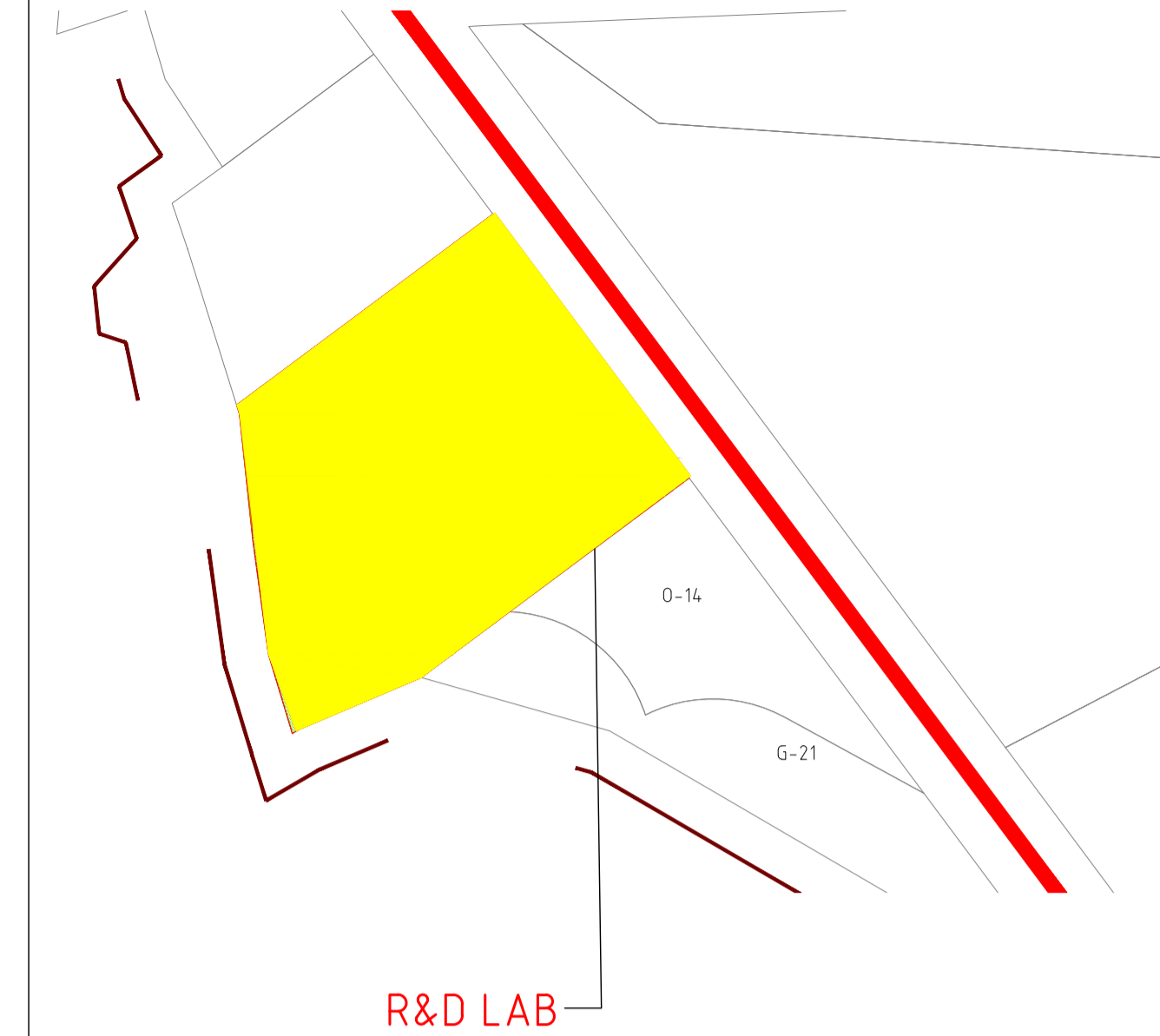
DRAWING NO.	TITLE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
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REV.	YYMMDD	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
				CHECKED		CHECKED		APPROVED	

**REFERENCE DRAWINGS**

NO.	DESCRIPTION
1	PRELIMINARY
2	FOR APPROVAL
3	GOOD FOR CONSTRUCTION
4	

**STATUS CODES** 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- ...

**KEY PLAN:**



SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
<b>DOOR</b>					<b>WINDOW</b>				
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	<b>VENTILATOR</b>				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.									

**FOR TENDER PURPOSE ONLY**

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB TERRACE PLAN

PROJECT NO: C1232704

COP: -

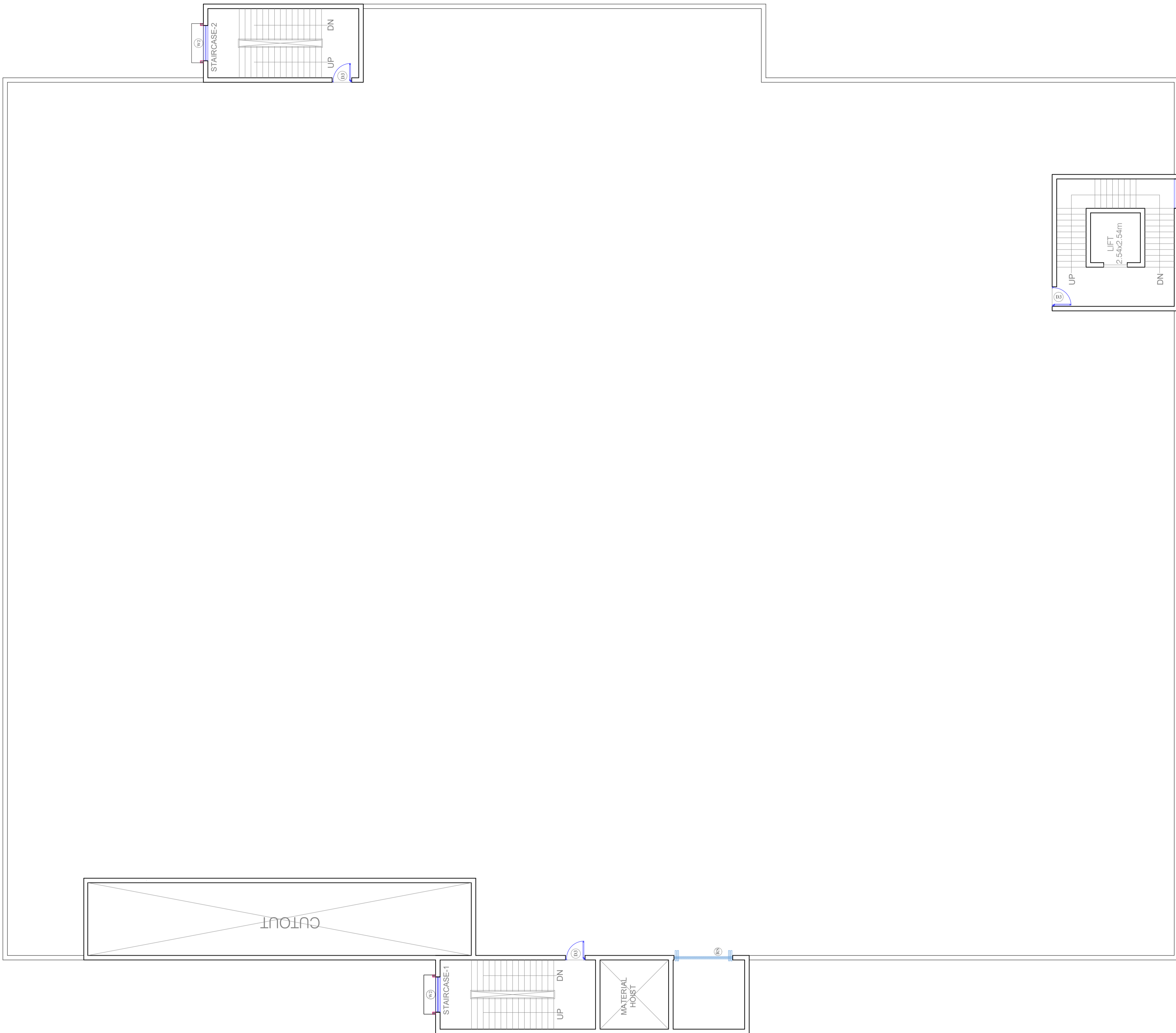
SCALE: -

DRAWING NO: DDA201A3

REV: 0

IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.



**NOTES**

- 
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REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
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STATUS CODES 1 - PRELIMINARY 2 - FOR APPROVAL 3 - GOOD FOR CONSTRUCTION 4 -

REFERENCE DRAWINGS

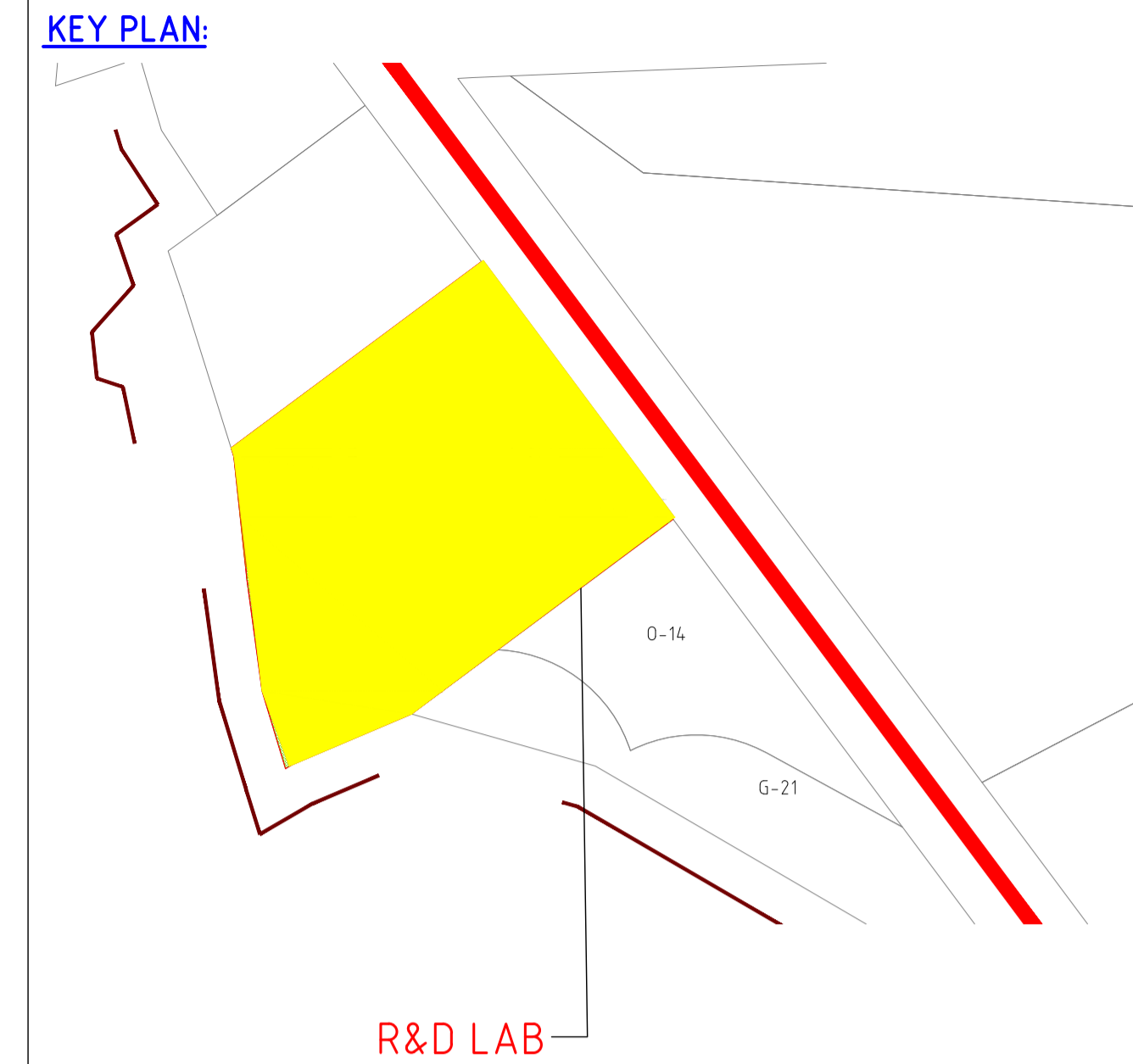
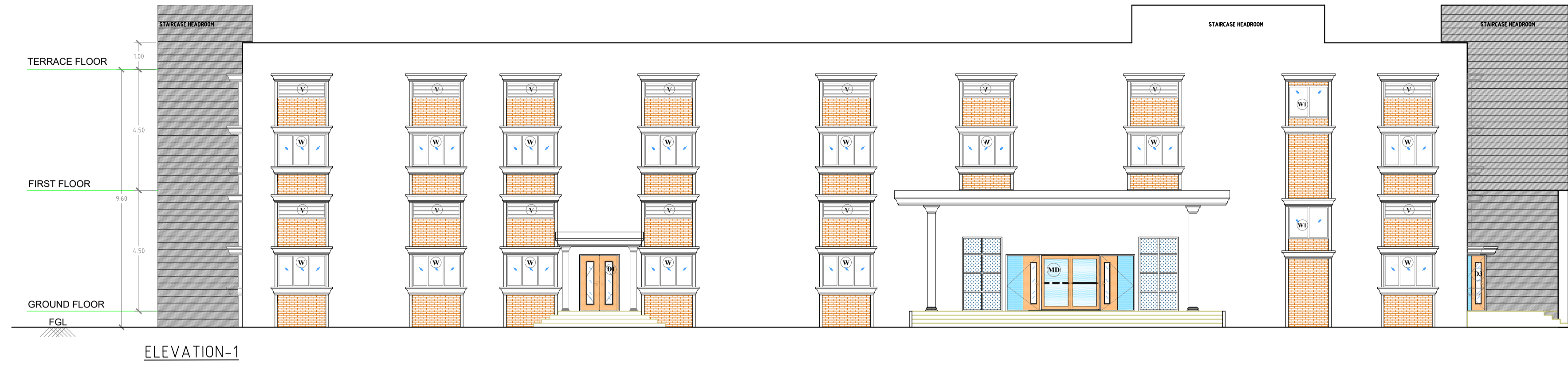
LEFT CORNER OF THE DRAWING

RIGHT CORNER OF THE DRAWING

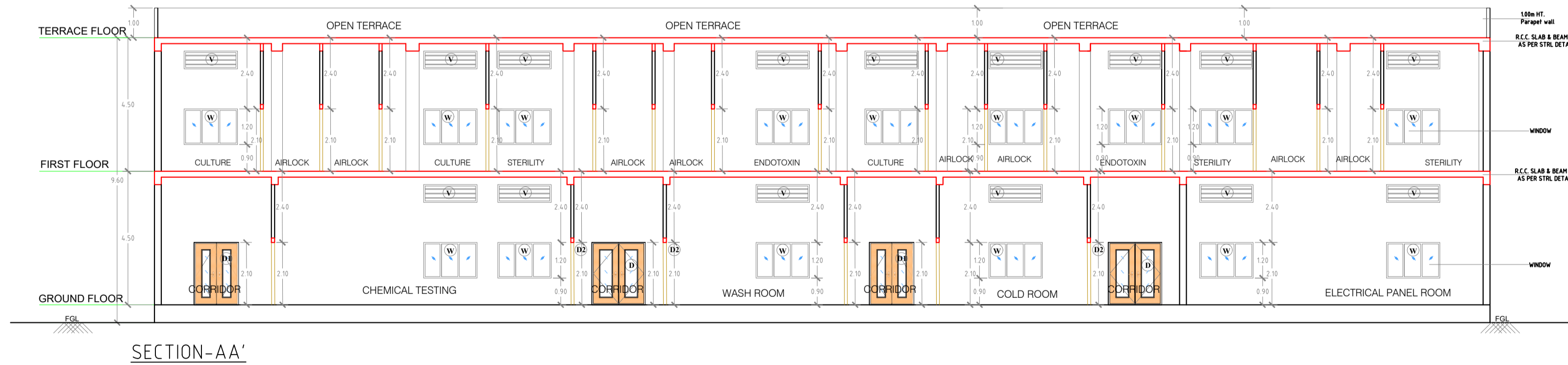
TOP CORNER OF THE DRAWING

BOTTOM CORNER OF THE DRAWING

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SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
<b>DOOR</b>				<b>WINDOW</b>					
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	<b>VENTILATOR</b>				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.									



**FOR TENDER PURPOSE ONLY**

**NOTES**

- 
- 

E																			
D																			
C																			
B																			
A																			
0	231128	2	FIRST SUBMISSION							GVD	GVD	SLI	BRT						
REV.	YYMMDD	DATE	STATUS							DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.				
												CHECKED	APPROVED						
DRAWING NO.	TITLE			REVISIONS															
	REFERENCE DRAWINGS			STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- .....															

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PATH: REFER BOTTOM ORIGINAL SIZE: A1 LEFT CORNER OF THE DRAWING

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB SECTION-AA & ELEVATION-1 & 2

**PROJECT NO:** C1232704

**COP:** -

**SCALE:** -

**DRAWING NO.:** DDA201B1

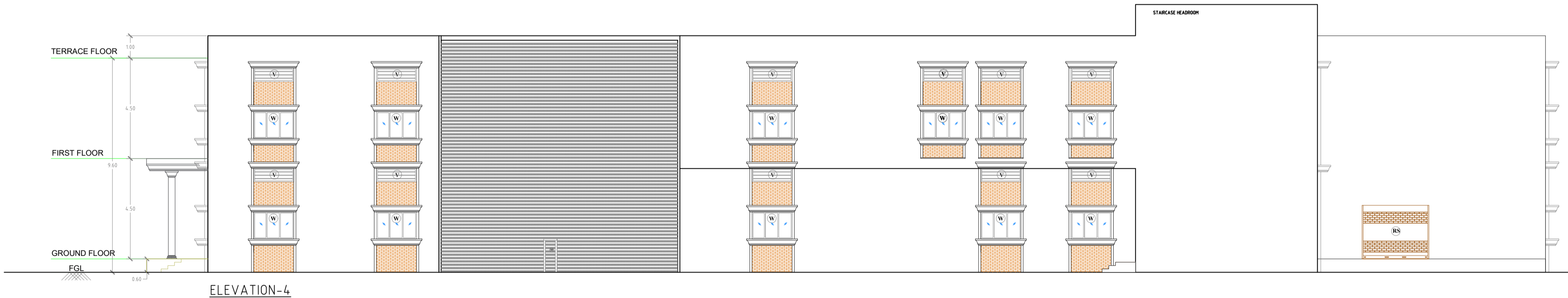
**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

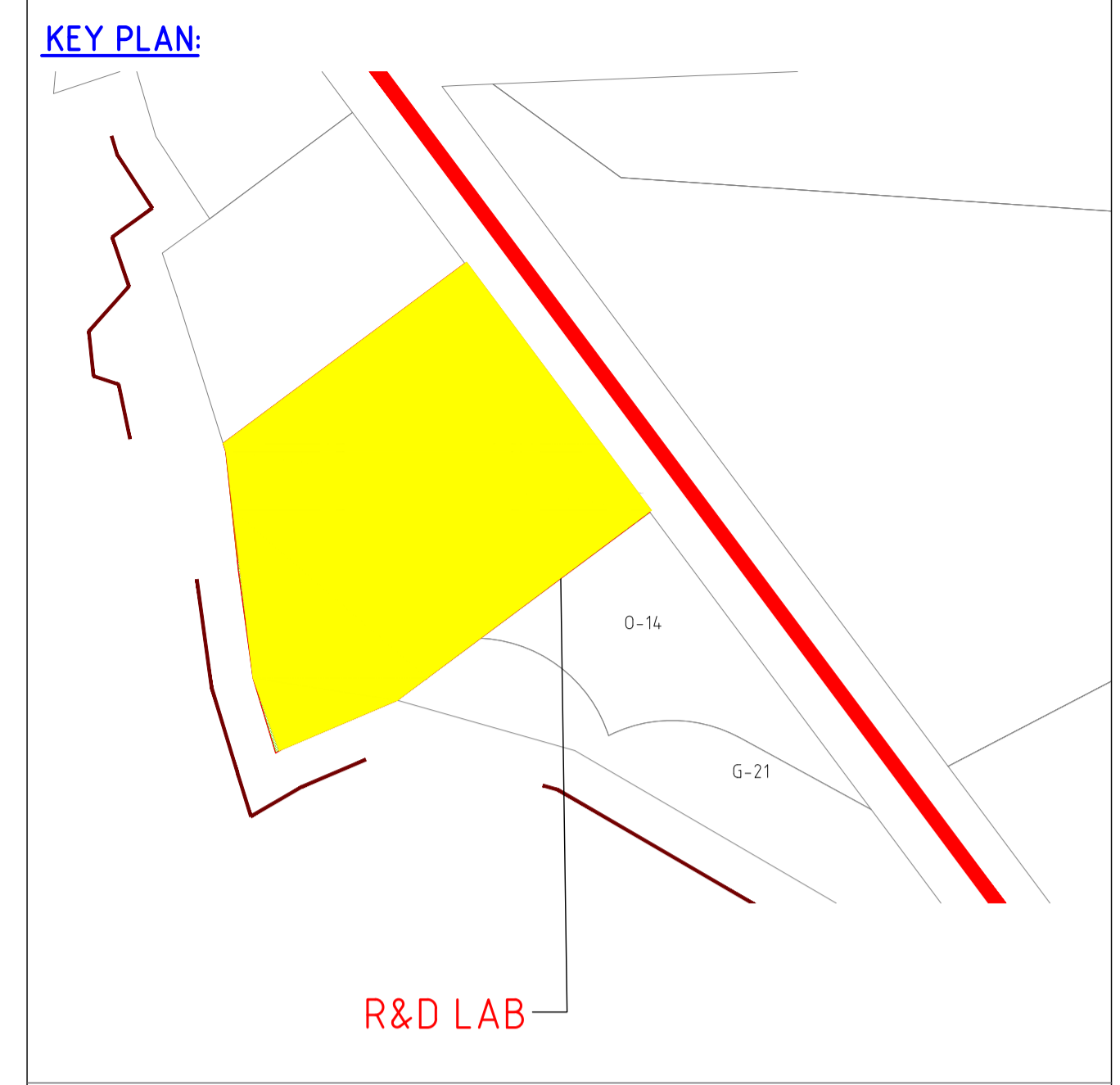




ELEVATION-3



ELEVATION-4



SCHEDULE OF OPENINGS									
S.no	TYPE	SIZE	SILL	LINTEL	S.no	TYPE	SIZE	SILL	LINTEL
DOOR				WINDOW					
01	MD	4.80x2.10	-	2.10	01	W/V	1.50x1.20	0.90	2.10
02	D	1.80x2.10	-	2.10			1.50x0.60		VENTILATOR FROM BEAM BOTTOM
03	D1	1.50x2.10	-	2.10	02	W1	1.50x1.20		FROM BEAM BOTTOM
04	D2	1.50x2.10	-	2.10	03	W2	1.80x1.20		FROM BEAM BOTTOM
05	D3	1.00x2.10	-	2.10	VENTILATOR				
06	D4	0.75x2.10	-	2.10	01	V1	0.90x0.45	1.65	2.10
07	RS	3.00x2.40	-	2.40	02	V2	0.60x0.45	1.65	2.10
*NOTE ALL DIMENSIONS ARE FROM FFL.									

NOTES

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REV.	YYMMDD	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	CHECKED	INIT.	SIGN.	APPROVED
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<p style="text-align: center;">REVISIONS</p> <p style="text-align: center;">STATUS CODES 1 - PRELIMINARY 2 - FOR APPROVAL 3 - GOOD FOR CONSTRUCTION 4 -</p>												
DRAWING NO.		TITLE										
-		REFERENCE DRAWINGS										

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**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB ELEVATION-3 & 4

**PROJECT NO:** C1232704

**CDP:** -

**SCALE:** -

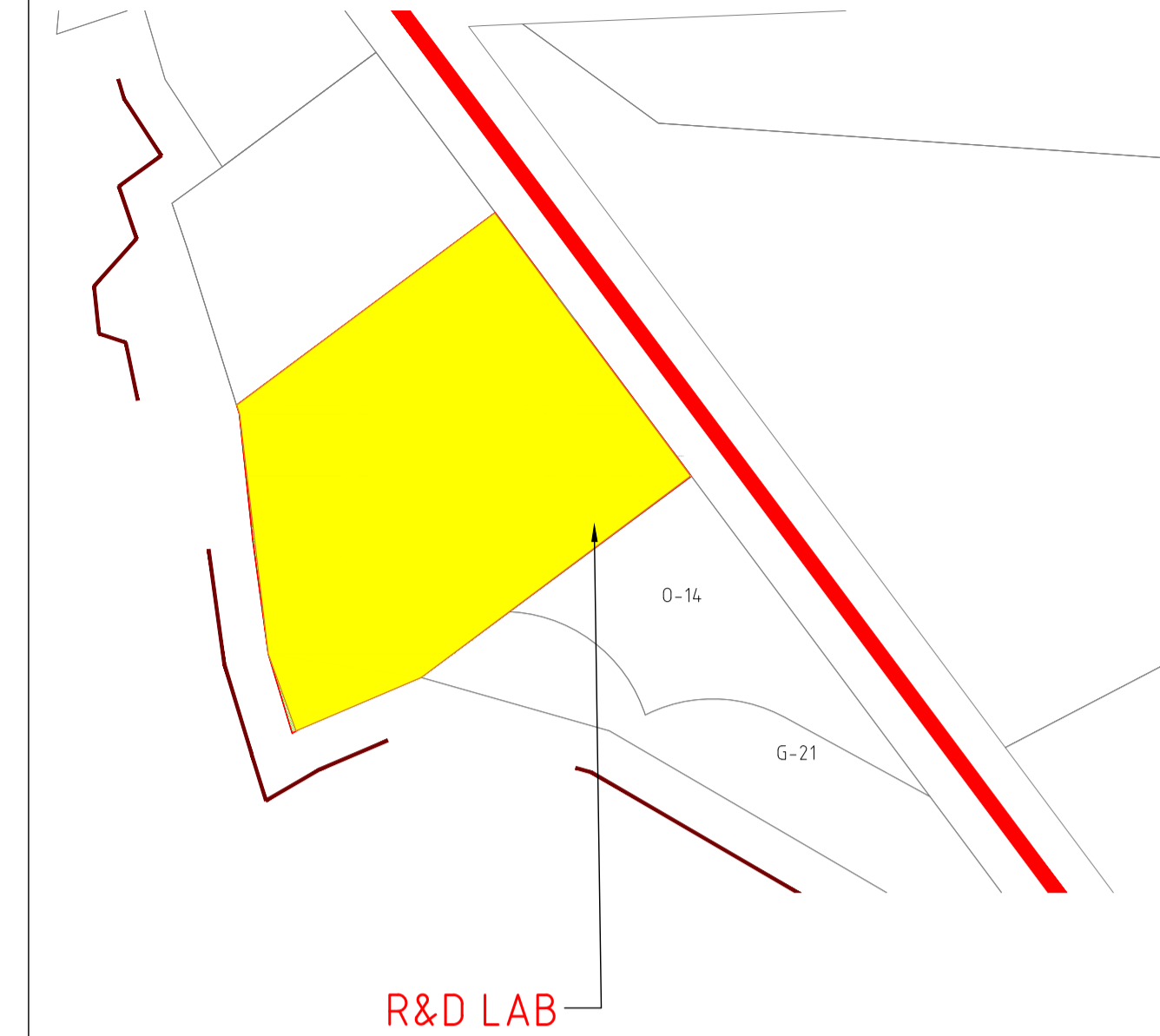
**DRAWING NO.:** DDA201B2

**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

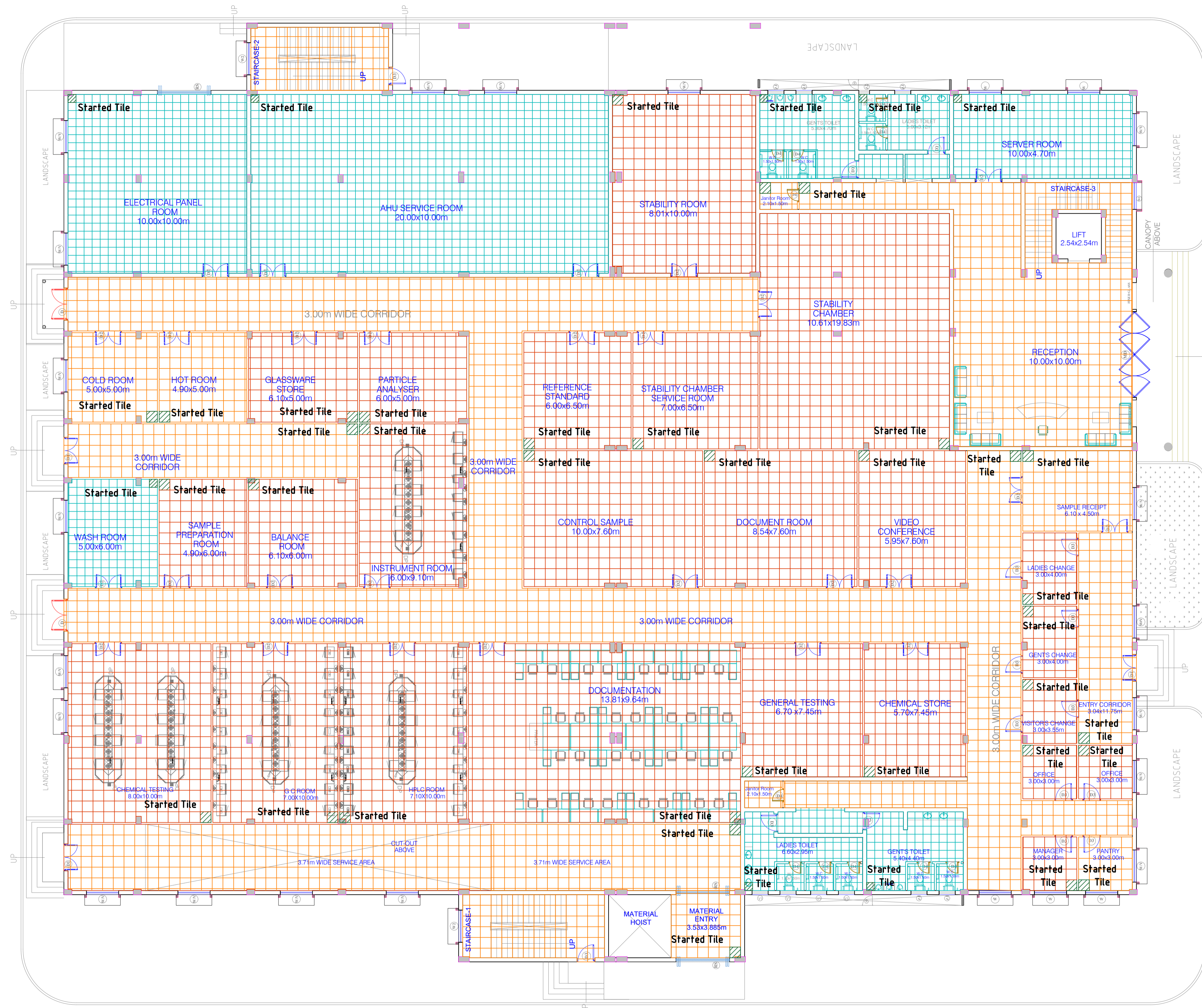
**FOR TENDER PURPOSE ONLY**

**KEY PLAN:**



**LEGEND:**

- GRANITE (600X600)
- VITRIFIED TILE (600X600)
- CERAMIC TILE (450X450)
- STARTED TILE



**FOR TENDER PURPOSE ONLY**

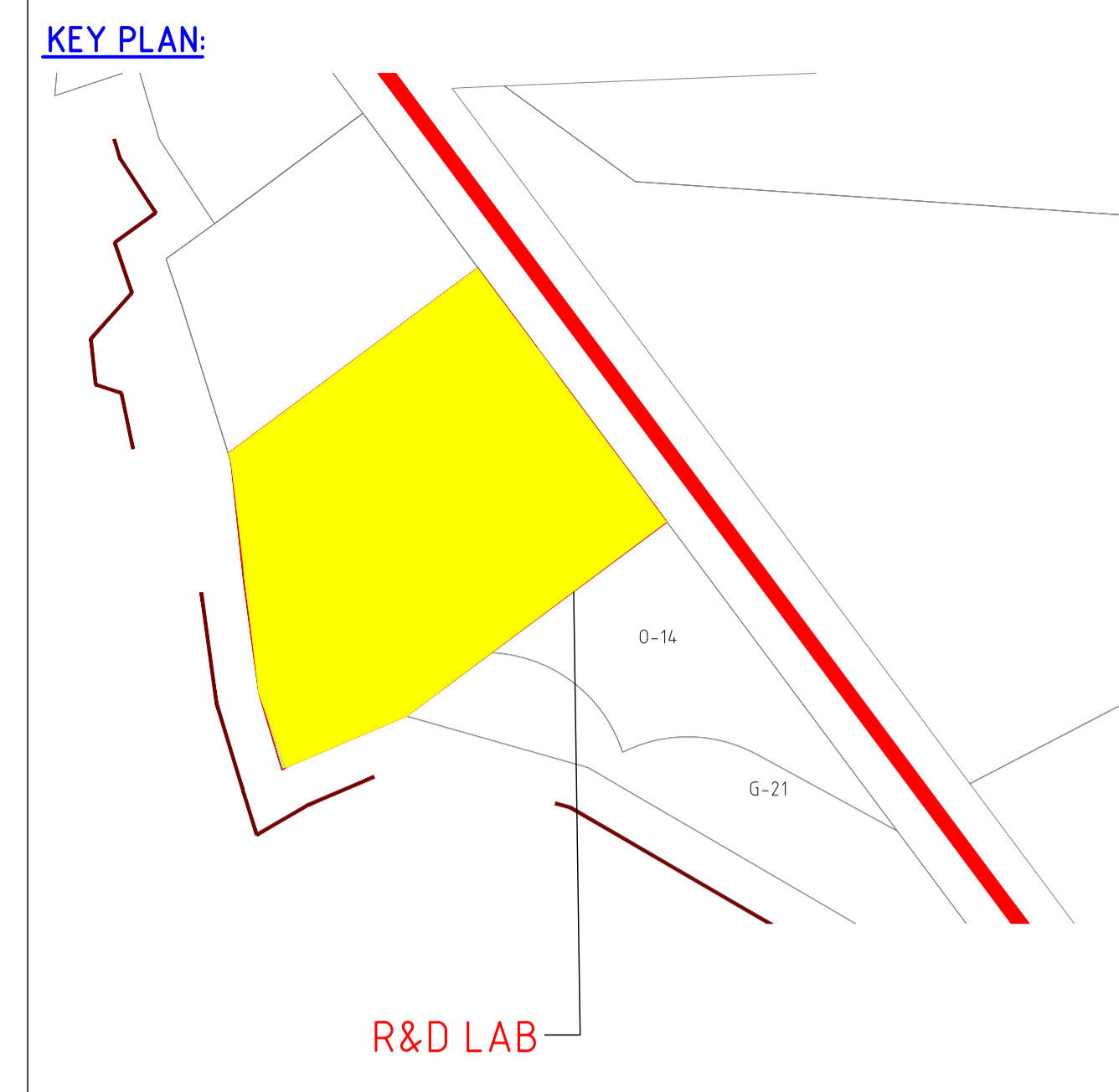
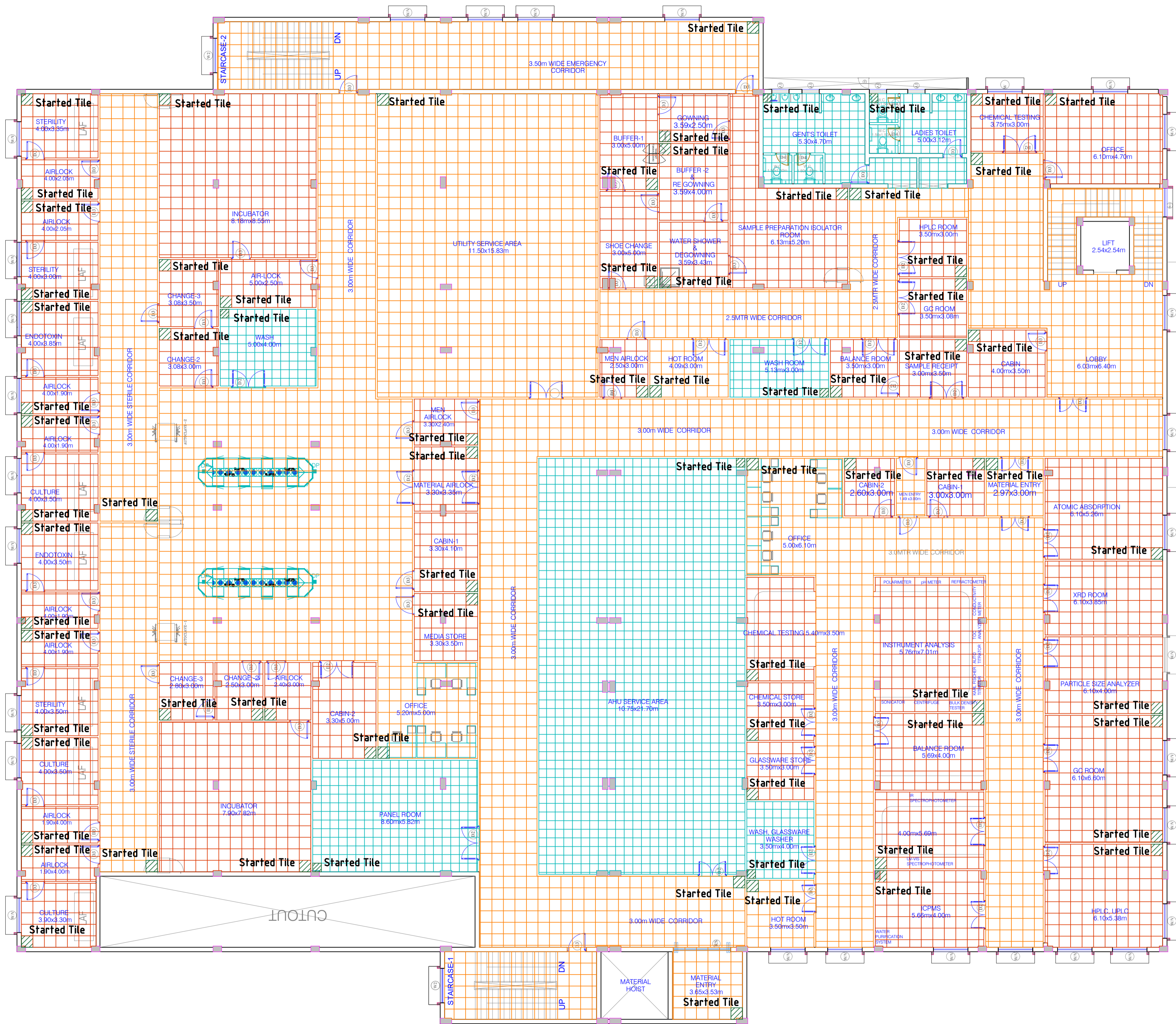
**NOTES**

1. -
2. -

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	CHECKED	APPROVED
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<b>REVISIONS</b>											
STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- .....											
<b>REFERENCE DRAWINGS</b>											

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<b>CLIENT:</b> ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)		<b>PROJECT NO:</b> C1232704
<b>PROJECT:</b> SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH		<b>COP:</b> - <b>SCALE:</b> -
<b>TITLE:</b> R&D LAB GROUND FLOOR FINISHES		<b>DRAWING NO:</b> DDA201C1
		<b>REV:</b> 0
IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)		



- LEGEND:**
- GRANITE (600X600)
  - VITRIFIED TILE (600X600)
  - CERAMIC TILE (450X450)
  - STARTED TILE

**FOR TENDER PURPOSE ONLY**

**NOTES**  
1. -  
2. -

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	GVD	GVD	SLI	BRT
-	-	0	231128	2	FIRST SUBMISSION					
<b>REVISIONS</b>										
STATUS CODES 1- PRELIMINARY 2- FOR APPROVAL 3- GOOD FOR CONSTRUCTION 4- _____										
<b>REFERENCE DRAWINGS</b>										

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB FIRST FLOOR FINISHES

**PROJECT NO:** C1232704

**COP:** -

**SCALE:** -

**DRAWING NO:** DDA201C2

**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



Legend:

S.No	Symbols	Description
1	LDB	Lighting Distribution Board
2	PDB	Power Distribution Board
3	UPS	Uninterrupted Power Supply
4	1 ph 5 Amp socket outlet with switch	
5	1 ph 5 Amp socket outlet with switch for UPS	
6	1 ph 5/15 Amp socket outlet with switch	
7	1 ph 20 Amp socket outlet with MCB for 1.5 TON AC	

Legend:

S.No	Symbols	Description
1	ELPDB	Emergency Lighting Power distribution board
2	LDB	Lighting distribution board
3	PDB	Power distribution board
4	36 W LED light fitting	
5	18W EL LED light fitting (for UPS backup)	
6	18 W LED light fitting	
7	18W EL LED light fitting (for UPS backup)	
8	24W LED light fitting	
9	24W EL LED light fitting (for UPS backup)	
10	2X20W LED light fitting	
11	2x20W EL LED light fitting (for UPS backup)	
12	Mirror light	
13	Ceiling fan	
14	Exhaust fan	
15	Switch board with 5 amps socket	

Ground Floor Plan

**FOR TENDER PURPOSE ONLY**

**NOTES:**

DRAWING NO.	TITLE	REV.	YYMMDD	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.

CLIENT: **ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)**

PROJECT: **SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH.**

TITLE: **R&D LAB - LIGHTING AND SMALL POWER LAYOUT GROUND FLOOR**

PROJECT NO: **C1232704**

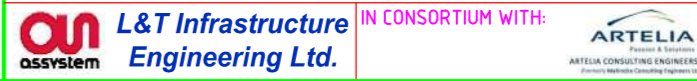
COP: **NTS@A2**

DRAWING NO: **DDA201D1**

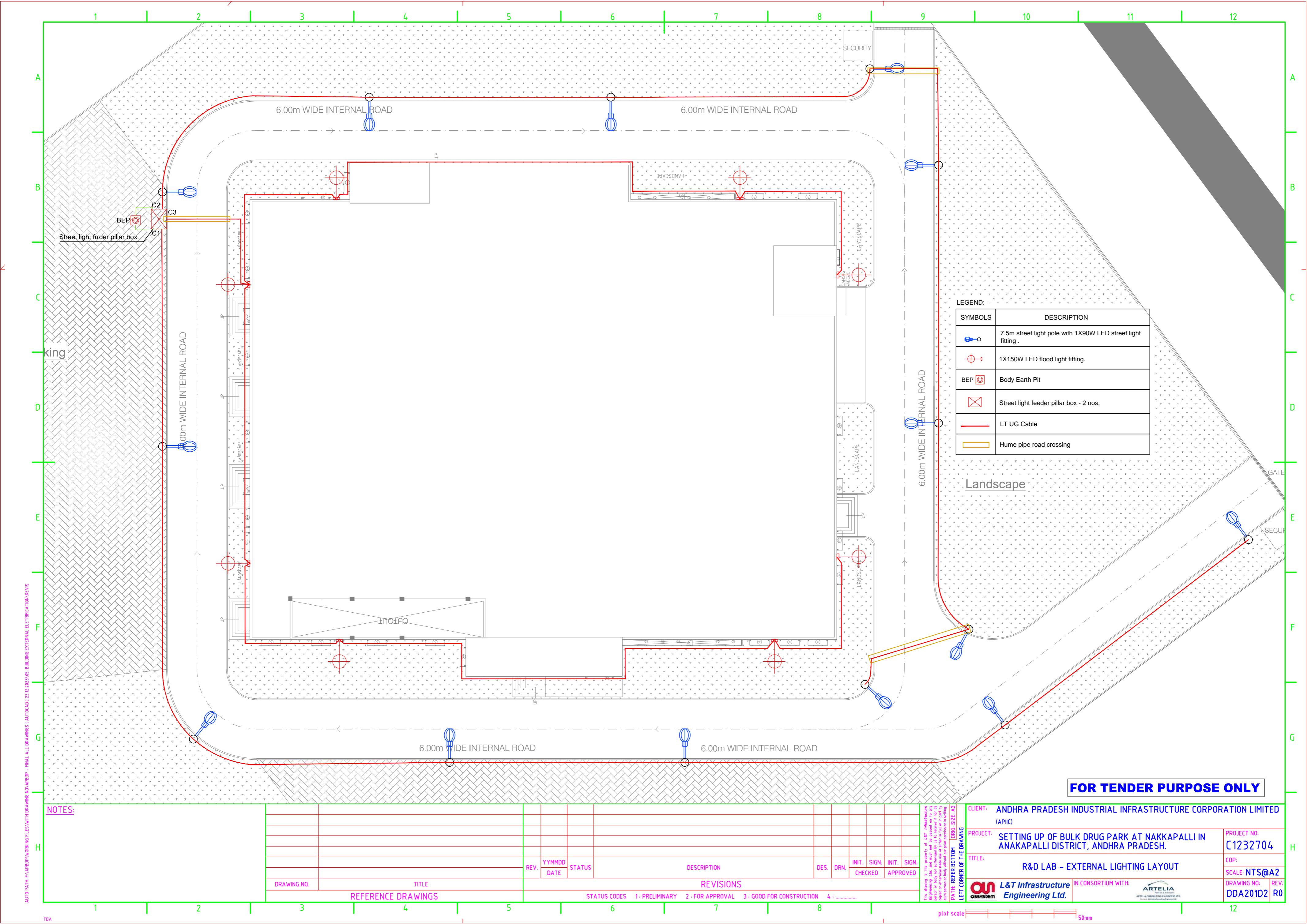
REV: **R0**

Scale: 50mm

Plot scale: 50mm



AUTO PATH: F:\ARBDP\WORKING FILES WITH DRAWING NO\ARBDP - FINAL ALL DRAWINGS / AUTOCAD / 23.02.2023\ARBDP - BUILDING INTERNAL ELECTRIFICATION\REVIS



LEGEND:

SYMBOLS	DESCRIPTION
	7.5m street light pole with 1X90W LED street light fitting .
	1X150W LED flood light fitting.
	Body Earth Pit
	Street light feeder pillar box - 2 nos.
	LT UG Cable
	Hume pipe road crossing

**FOR TENDER PURPOSE ONLY**

NOTES:

DRAWING NO.	TITLE	REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
	REFERENCE DRAWINGS								

STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH.

TITLE: R&D LAB - EXTERNAL LIGHTING LAYOUT

PROJECT NO: C1232704

COP: SCALE: NTS@A2

DRAWING NO: DDA201D2 REV: R0

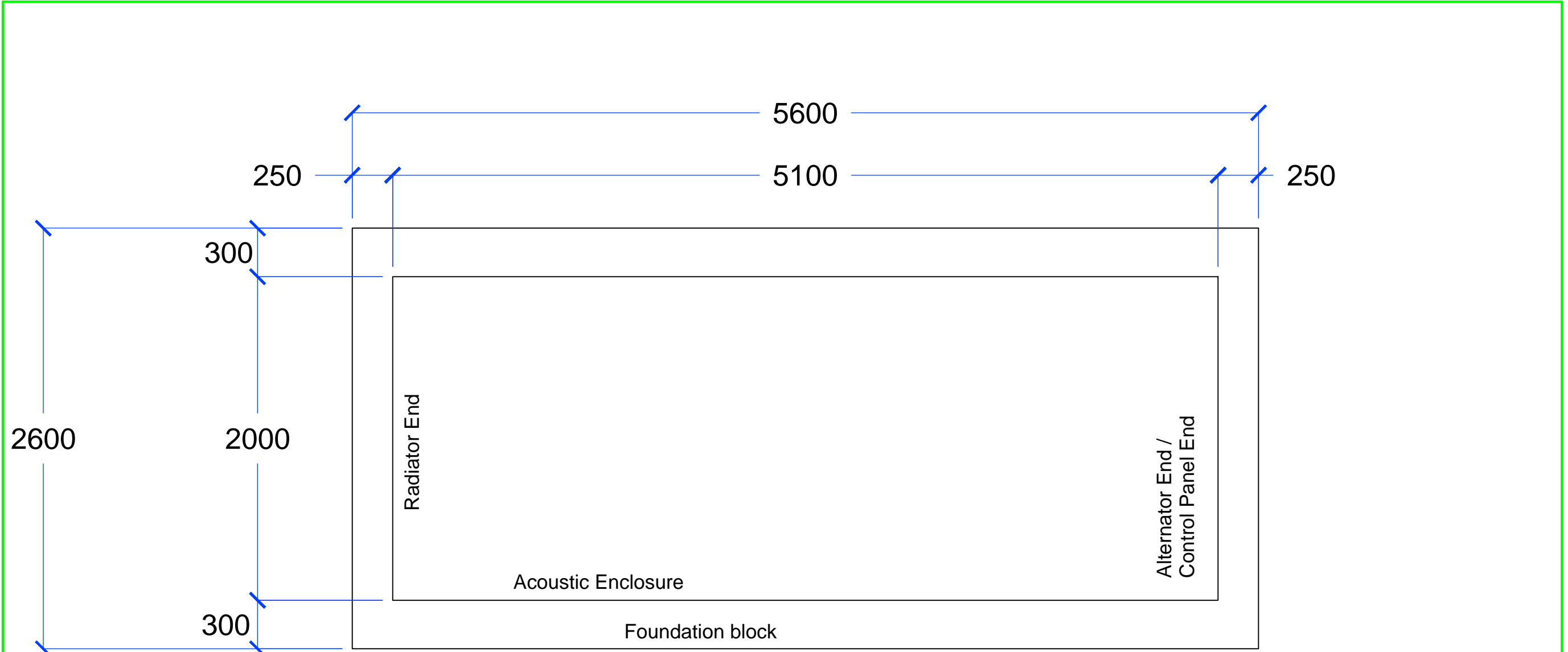
L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA

plot scale 50mm

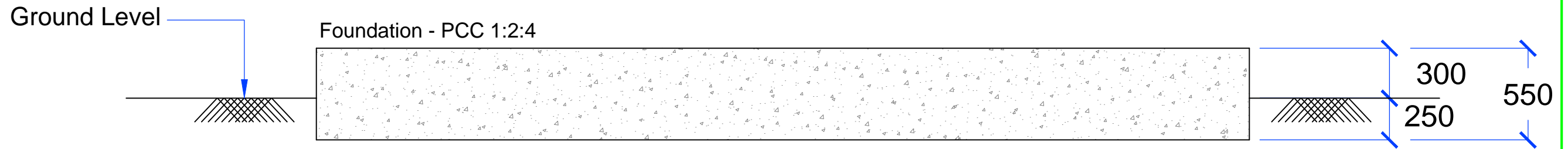
AUTO PATH FILE/ARBP/WORKING FILES WITH DRAWING NO/ARBP/ - FINAL ALL DRAWINGS / AUTOCAD / 23.12.2023/VS BUILDING EXTERNAL ELECTRIFICATION/REVIS

TBA

AUTO PATH: F:\APBDP\WORKING FILES\WITH DRAWING NO\APBDP - FINAL ALL DRAWINGS ( AUTOCAD ) 23.12.2023\04. TYPICAL FOUNDATION DETAILS OF DG SET\T



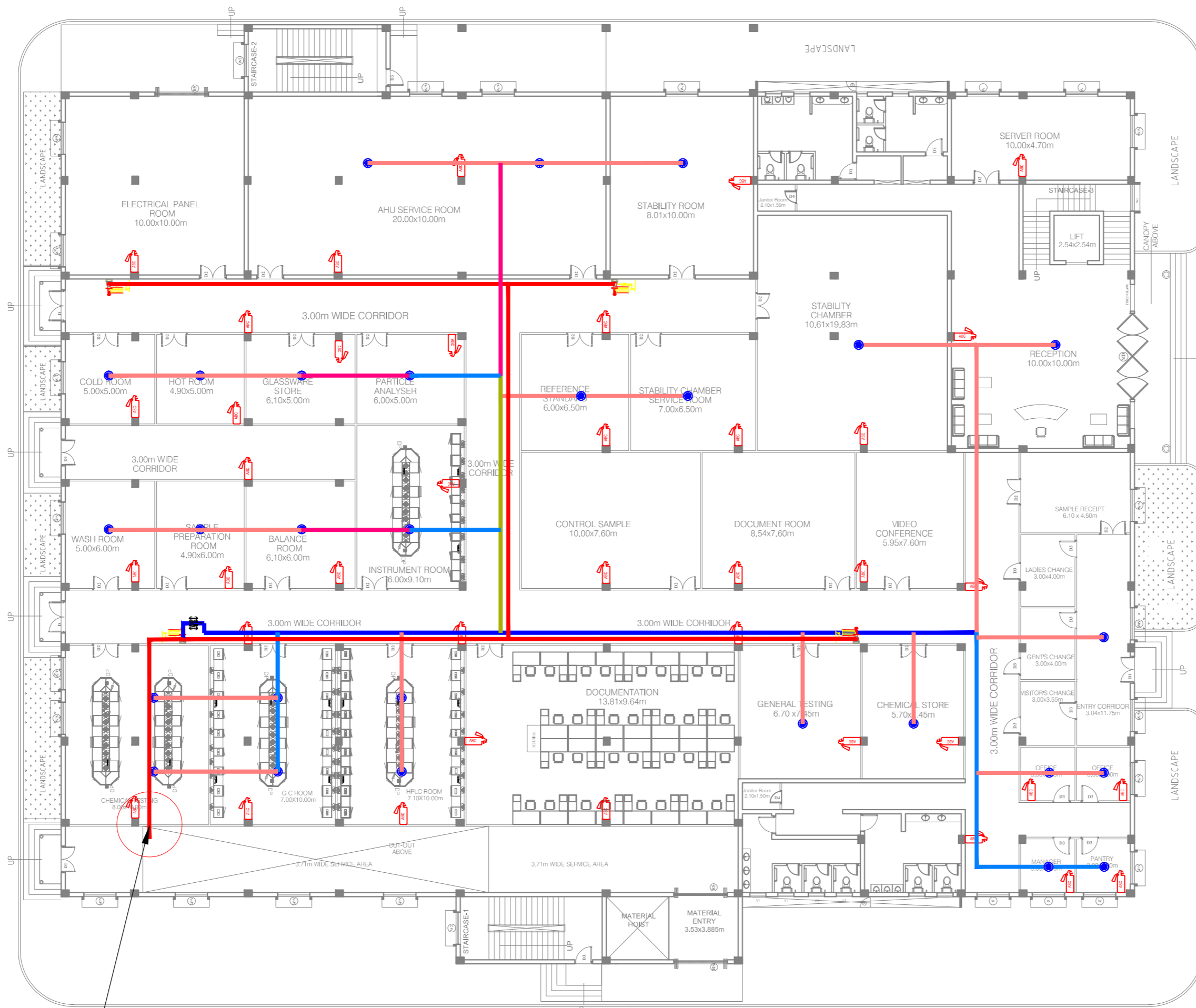
**FLOOR PLAN FOR 320KVA DG**



**CROSS - SECTION ELEV. (FDN)**

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	TITLE: TYPICAL FOUNDATION DETAILS OF 320 KVA DG SET ( SHEET 1 OF 5 )	DATE: MADE:
	L&T Infrastructure Engineering Ltd.	IN CONSORTIUM WITH: ARTELIA CONSULTING ENGINEERS LTD.
		REV: R0



- LEGENDS:**
- INTERNAL HYDRANT WITH HOSE REEL
  - ABC FIRE EXTINGUISHER
  - PENDENT SPRINKLER 68 deg,C
  - BUTTERFLY VALVE
  - 100Ø MM, DIA - MS PIPE (FOR INTERNAL HYDRANT)
  - 80Ø MM, DIA - MS PIPE
  - 65Ø MM, DIA - MS PIPE
  - 50Ø MM, DIA - MS PIPE
  - 40Ø MM, DIA - MS PIPE
  - 32Ø MM, DIA - MS PIPE
  - 25Ø MM, DIA - MS PIPE

S.No	Items	Size(mm)	Quantity	Unit
1	MS pipe	Ø100	150	RM
		Ø80	6	RM
		Ø65	25	RM
		Ø50	30	RM
		Ø40	40	RM
		Ø25	280	RM
2	Butterfly valve(BFV)	Ø100	5	Nos
		Ø50	1	Nos
3	Internal Hydrant with hose reel	-	4	Nos
4	Pendent Sprinkler	-	28	Nos
5	Extinguisher(ABC)	-	39	Nos

Connected to terrace pump with tank (10Cum)  
Flow of 450 LPM at 35 Mtr

# Ground Floor Plan

**FOR TENDER PURPOSE ONLY**

**NOTES:**

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
DRAWING NO.	TITLE		REVISIONS				
	REFERENCE DRAWINGS		STATUS CODES 1 : PRELIMINARY 2 : FOR APPROVAL 3 : GOOD FOR CONSTRUCTION 4 : .....				

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB FIRE FIGHTING SYSTEM GROUND FLOOR

PROJECT NO: C1232704

COP: SCALE: NTS@A2

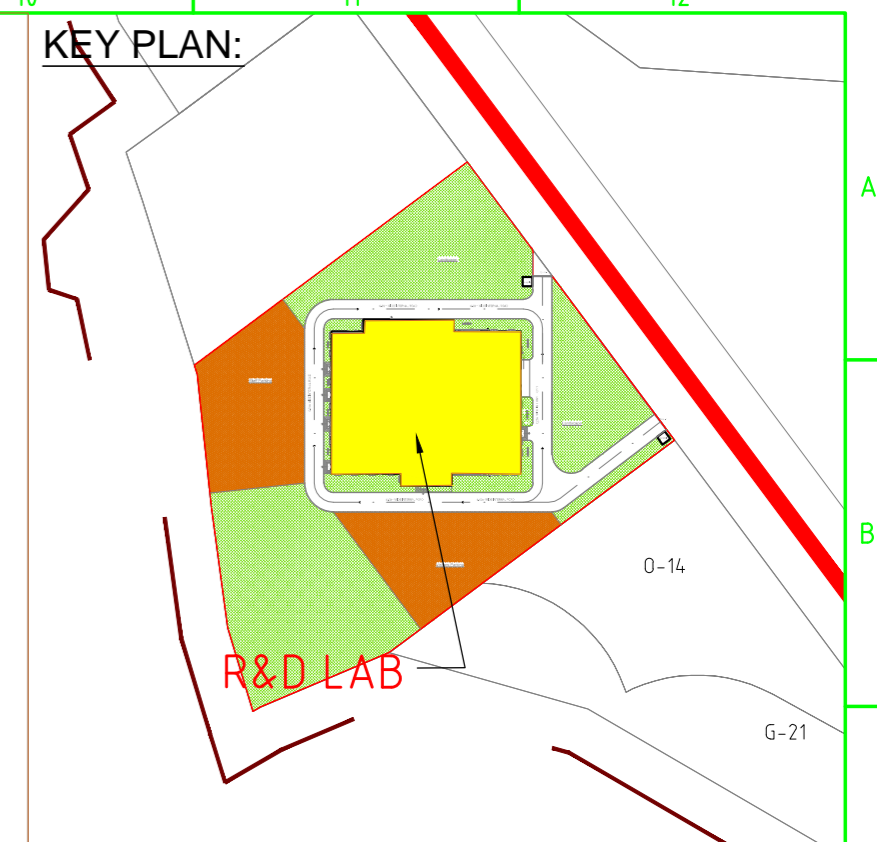
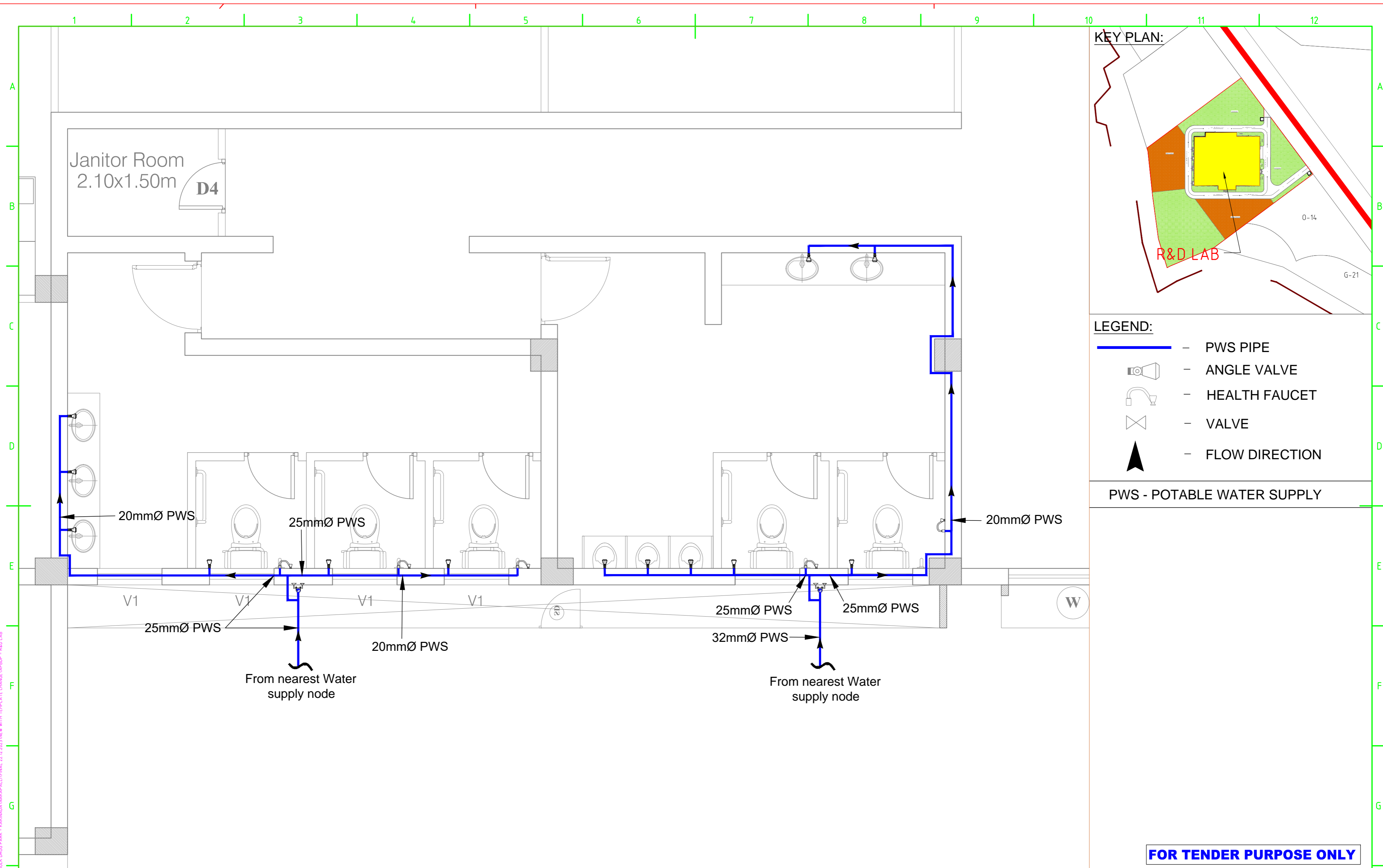
DRAWING NO: DDA201E1 R0

IN CONSORTIUM WITH: **ARTELIA** CONSULTING ENGINEERS LTD.

**L&T Infrastructure Engineering Ltd.**

plot scale 50mm

AUTO PATH E:\M\ANI FILES\PROJECTS\APR20\2022\DRAWINGS\FINAL DRAWINGS\27102023\WORKING FILE\BPC\CAD DRAWINGS\3\REP BUILDINGS\3\RD LAB-FIRE WATER SUPPLY GROUND FLOOR.DWG



- LEGEND:**
- PWS PIPE
  - ANGLE VALVE
  - HEALTH FAUCET
  - VALVE
  - FLOW DIRECTION

**PWS - POTABLE WATER SUPPLY**

**FOR TENDER PURPOSE ONLY**

**NOTES:**

1. All work to be done in accordance with the specifications and standards mentioned in the drawing.

2. The contractor shall be responsible for obtaining all necessary permits and approvals from the local authorities.

3. The contractor shall ensure that the water supply system is tested and certified before handover.

4. The contractor shall maintain access to all existing services and structures.

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT. CHECKED	SIGN. APPROVED

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB - INTERNAL WATER SUPPLY LAYOUT - GROUND FLOOR (SHEET 1 OF 2)

**PROJECT NO.:** C1232704

**SCALE:** NTS

**DRAWING NO.:** DDA201F1

**REV.:** R0

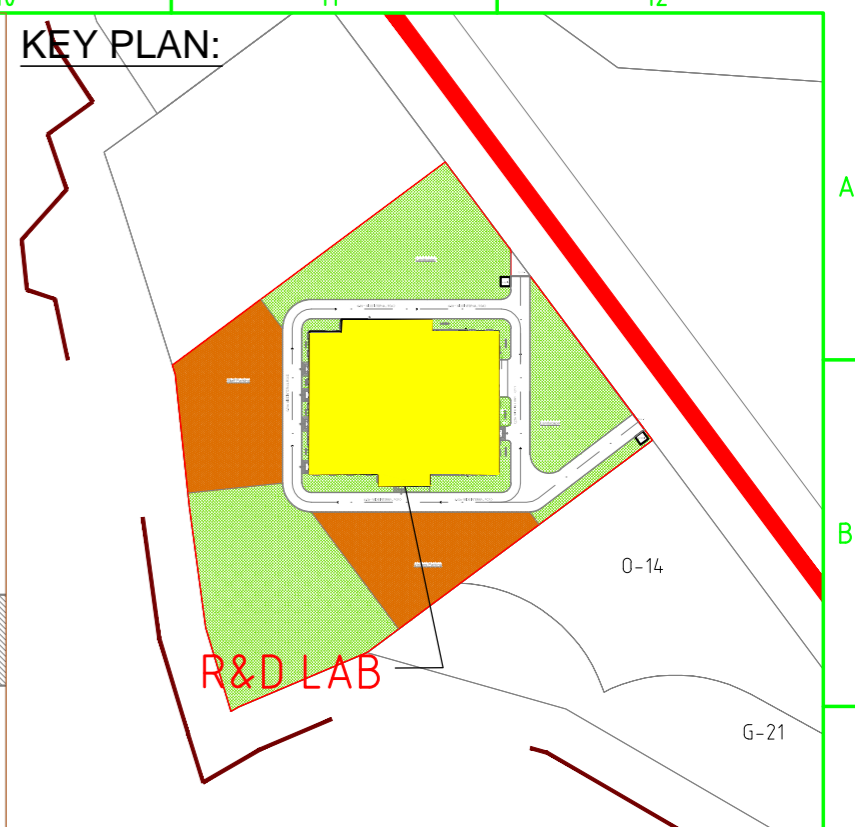
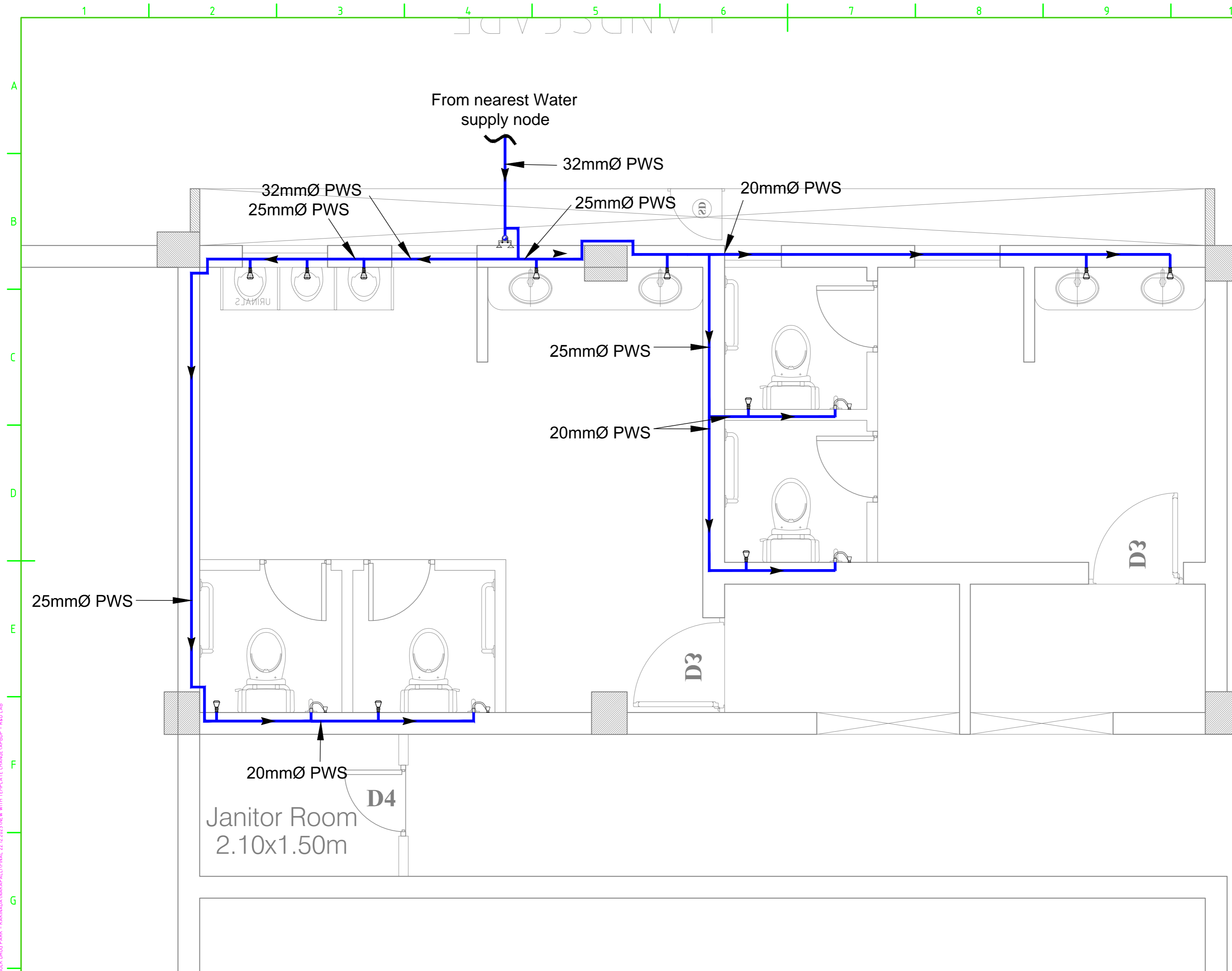
**IN CONSORTIUM WITH:** ARTELIA

**L&T Infrastructure Engineering Ltd.**

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PLATE: REFER BOTTOM OF SIZE A2 LEFT CORNER OF THE DRAWING





- LEGEND:**
- - PWS PIPE
  - ANGLE VALVE
  - HEALTH FAUCET
  - VALVE
  - FLOW DIRECTION

PWS - POTABLE WATER SUPPLY

**FOR TENDER PURPOSE ONLY**

**NOTES:**

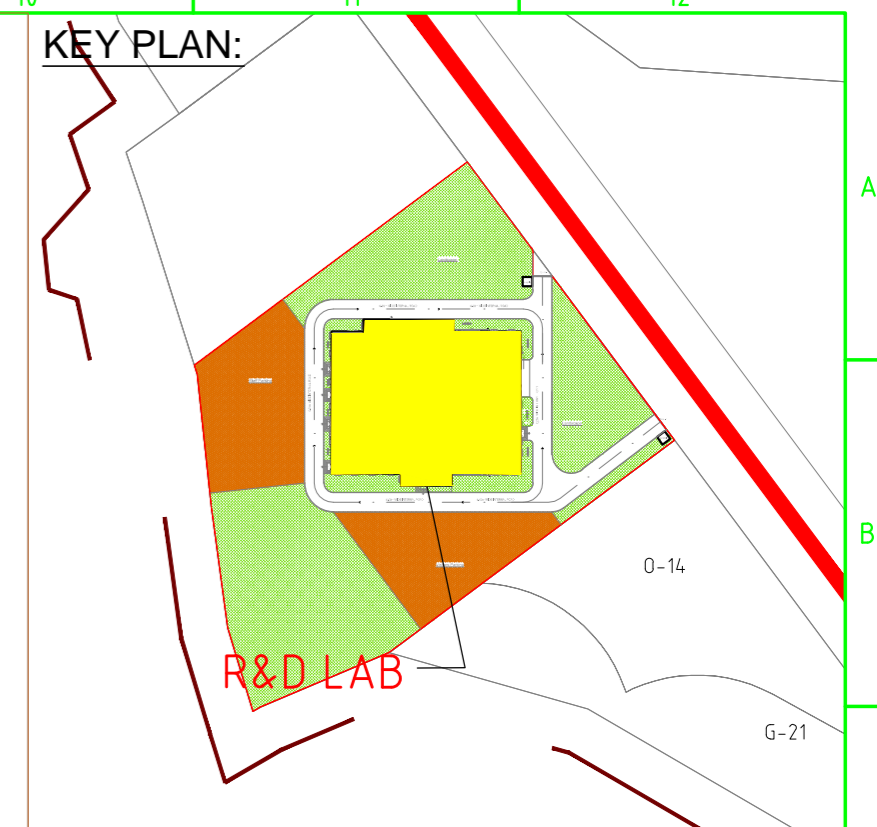
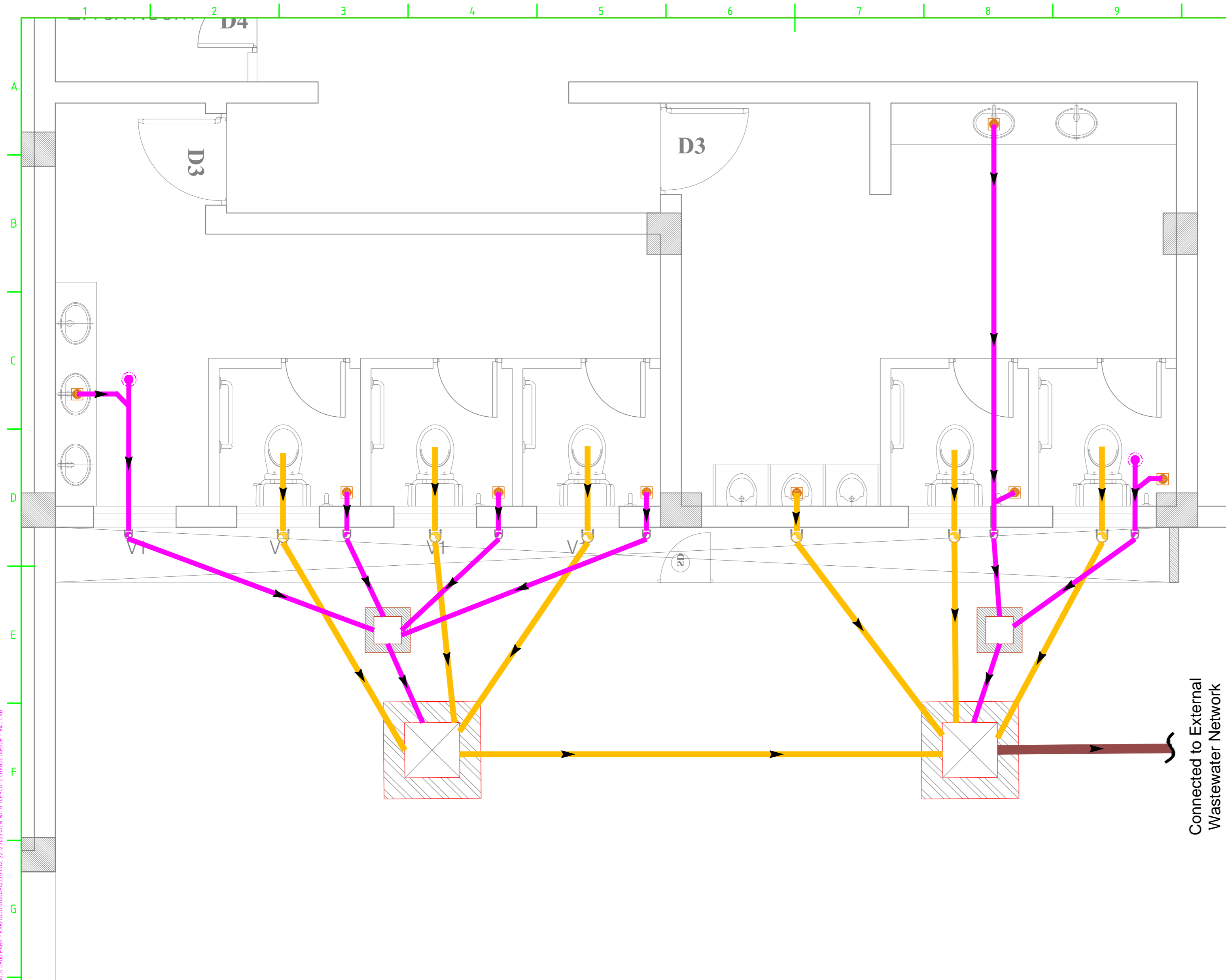

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT.	SIGN.

DRAWING NO.	TITLE	STATUS CODES
	REFERENCE DRAWINGS	1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

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CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)  
 PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH  
 TITLE: R&D LAB - INTERNAL WATER SUPPLY LAYOUT - GROUND FLOOR (SHEET 2 OF 2)  
 PROJECT NO: C1232704  
 SCALE: NTS  
 DRAWING NO: DDA201F2  
 REV: R0





- LEGEND:**
- 110Ø SOIL PIPE
  - 75Ø WASTE PIPE
  - 150Ø SOIL PIPE
  - 75Ø CLEAN OUT PLUG
  - 110Ø CLEAN OUT PLUG
  - FLOOR TRAP
  - FLOW DIRECTION
  - INSPECTION CHAMBER
  - GULLY TRAP

Connected to External Wastewater Network

**FOR TENDER PURPOSE ONLY**

**NOTES:**

- 
- 
- 
- 

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT. SIGN.	SIGN. APPROVED

**REVISIONS**

DRAWING NO.	TITLE	STATUS CODES
		1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

**REFERENCE DRAWINGS**

DRAWING NO.	TITLE

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB - INTERNAL SEWER LAYOUT - GROUND FLOOR

**PROJECT NO.:** C1232704

**SCALE:** NTS

**DRAWING NO.:** DDA201G1

**REV.:** R0

**IN CONSORTIUM WITH:** ARTELIA

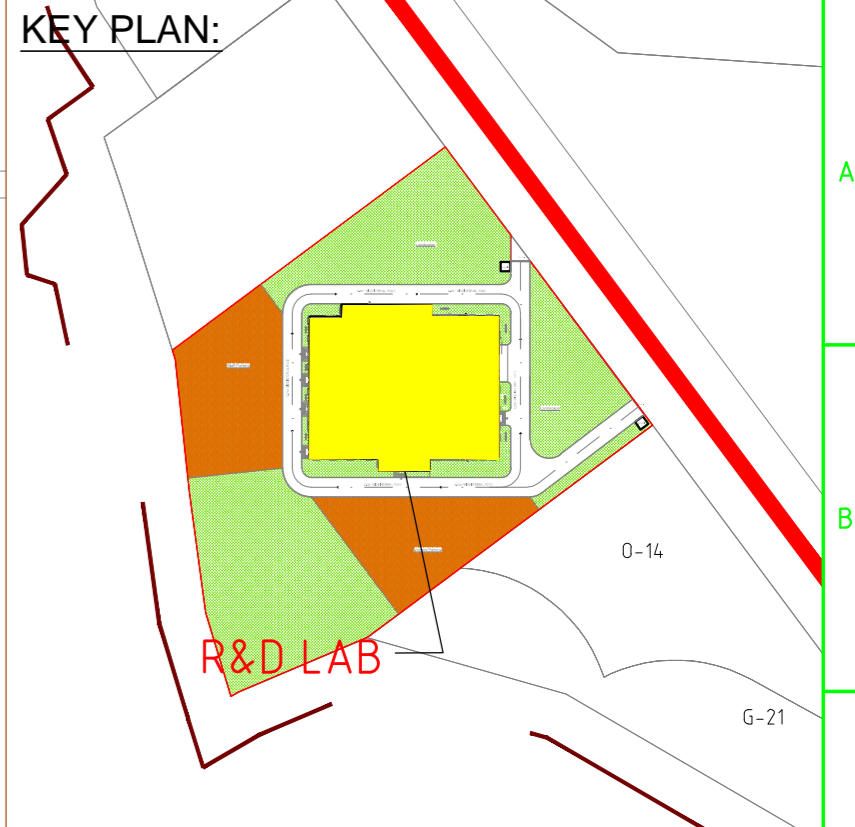
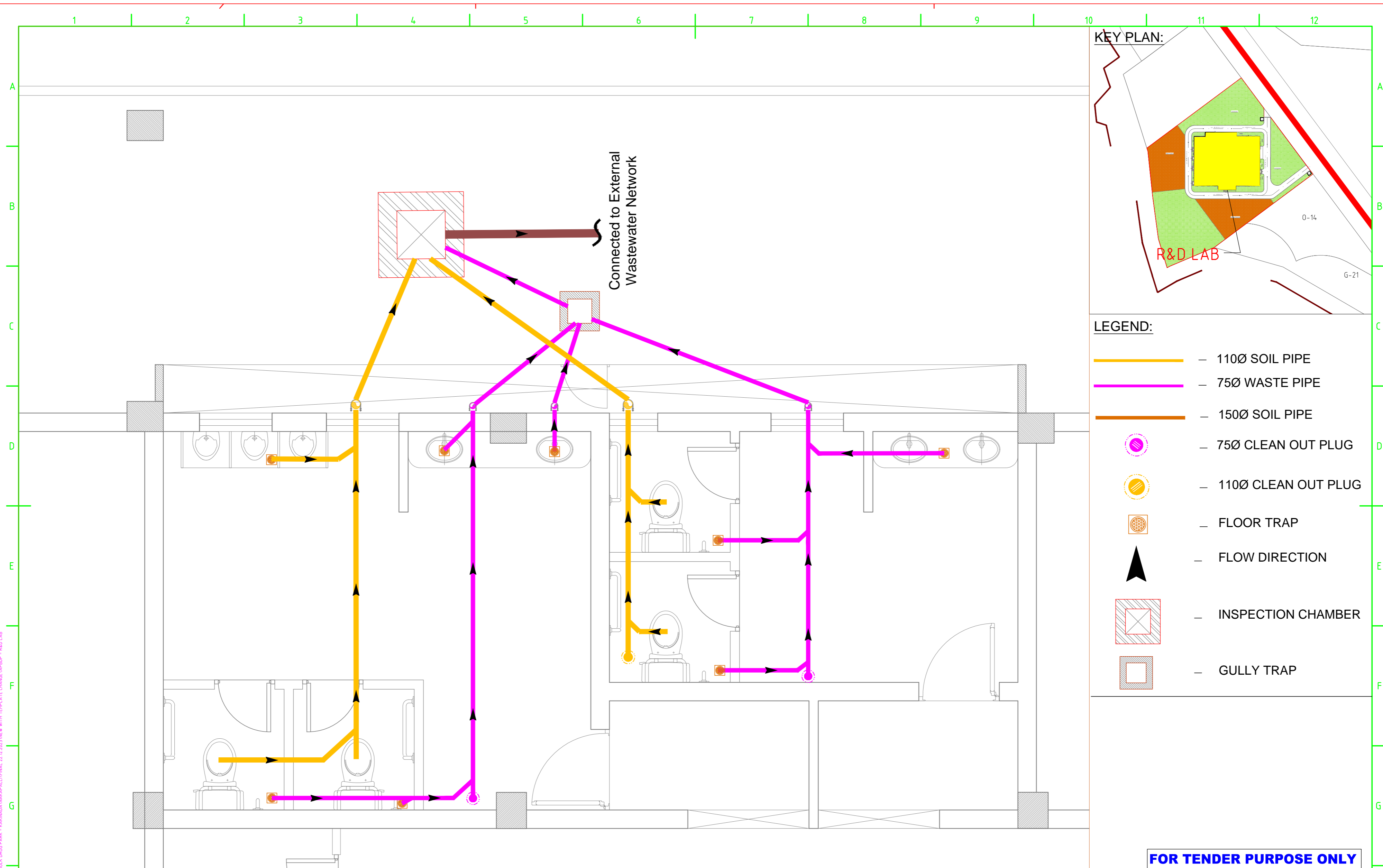
**L&T Infrastructure Engineering Ltd.**

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PLATE: REFER BOTTOM OF SIZE A2 LEFT CORNER OF THE DRAWING

plot scale

AUTO PATH: C:\ADHYA\FILES\TOUR\NIBHARAPIC - BULK DRUG PARK - KAKINDANAKAPALLI\FINAL 22 02 2025\DWG WITH TEMPLATE CHANGE\ARBP - R&D LAB



- LEGEND:**
- 1100 SOIL PIPE
  - 750 WASTE PIPE
  - 1500 SOIL PIPE
  - 750 CLEAN OUT PLUG
  - 1100 CLEAN OUT PLUG
  - FLOOR TRAP
  - FLOW DIRECTION
  - INSPECTION CHAMBER
  - GULLY TRAP

**FOR TENDER PURPOSE ONLY**

**NOTES:**

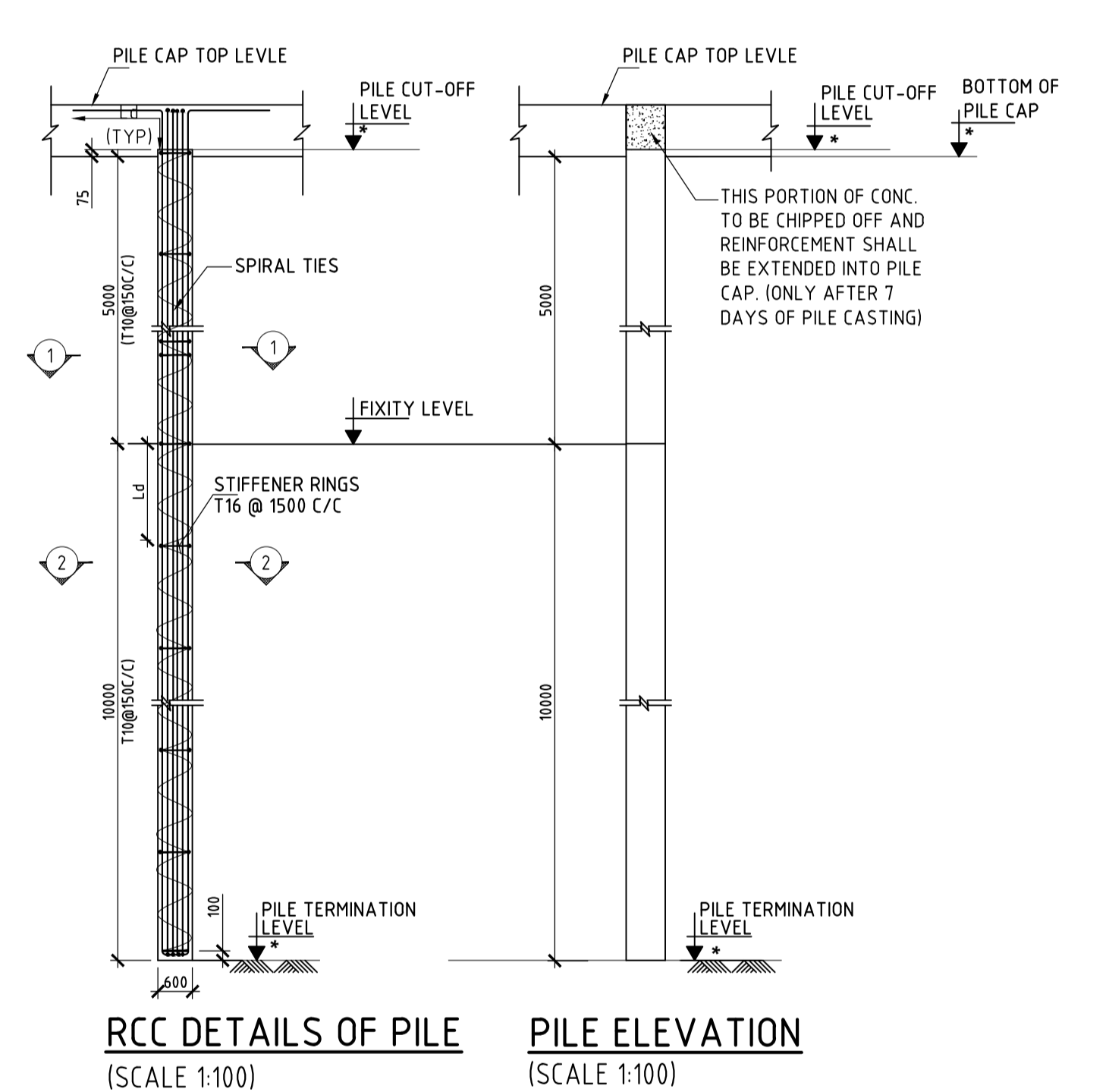
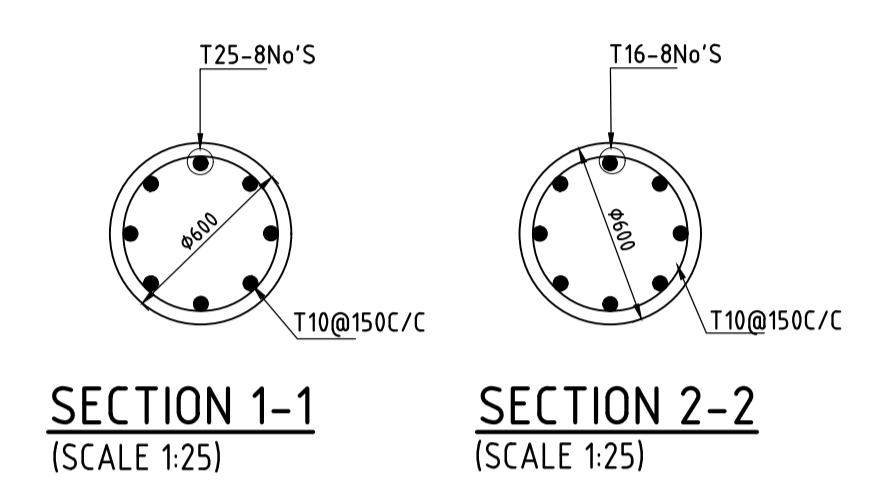
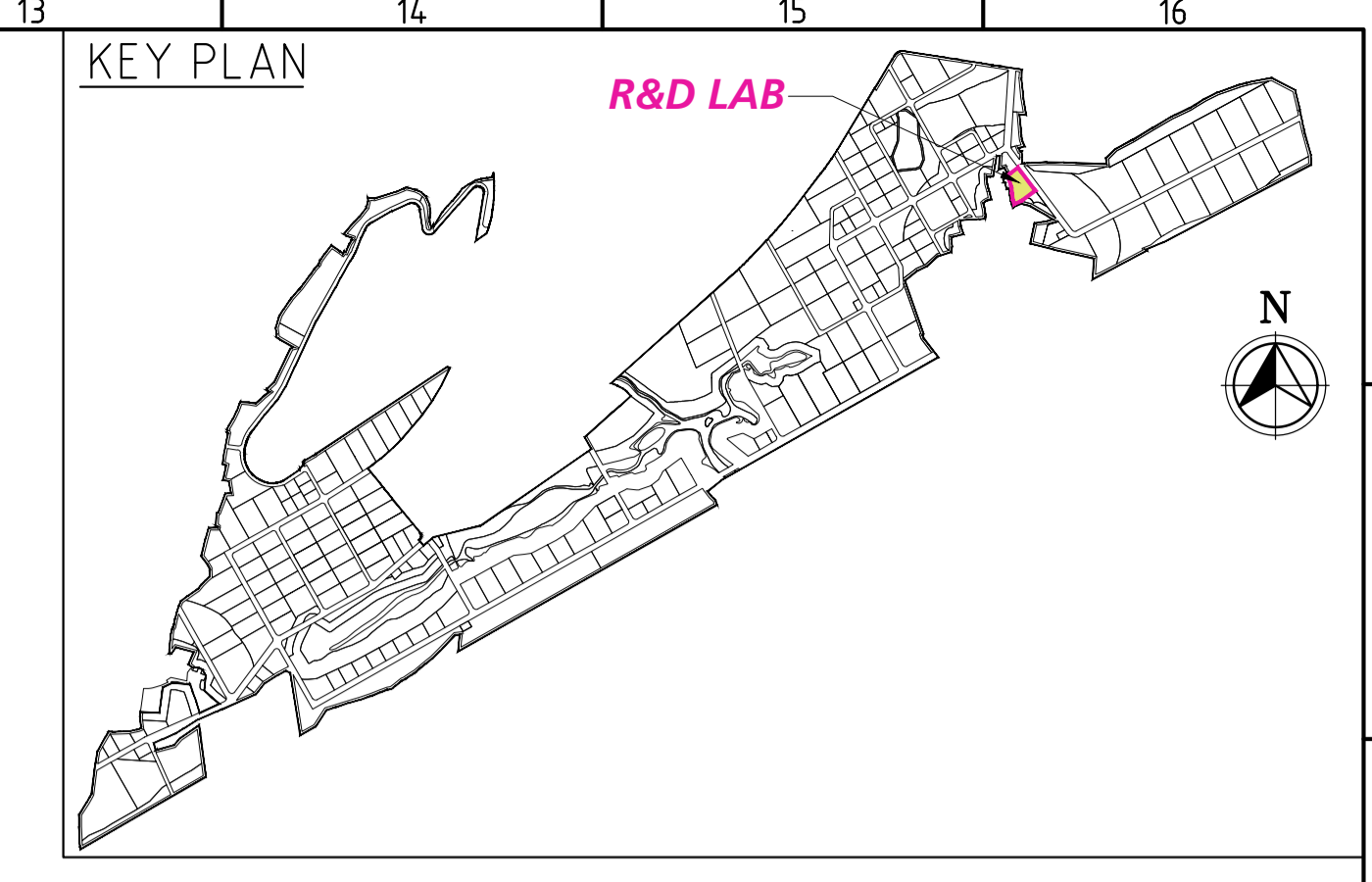
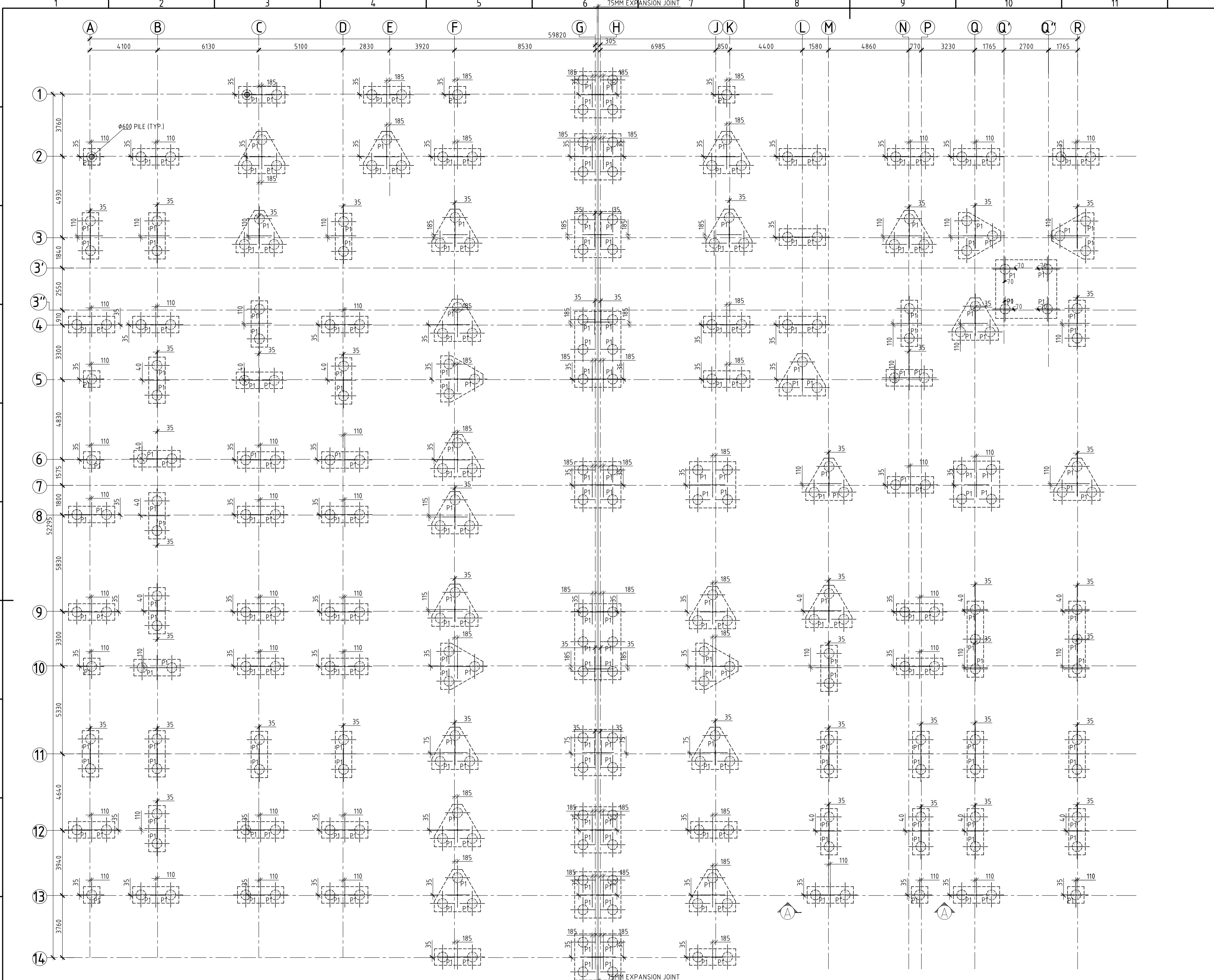

REV.	YYMMDD DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	INIT.	SIGN.

DRAWING NO.	TITLE	STATUS CODES	1: PRELIMINARY	2: FOR APPROVAL	3: GOOD FOR CONSTRUCTION	4: .....
	REFERENCE DRAWINGS					

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CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)  
 PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH  
 TITLE: R&D LAB - INTERNAL SEWER LAYOUT - GROUND FLOOR  
 PROJECT NO: C1232704  
 SCALE: NTS  
 DRAWING NO: DDA201G2  
 REV: R0

IN CONSORTIUM WITH:



**PILE CAPACITY TABLE:**

PILE TYPE	NO. OF PILES	PILE SIZE (mm)	PILE LENGTH(m)	PILE CAPACITY		
				COMPRESSION (kN)	LATERAL (FOR FIXED HEAD) (kN)	UPLIFT (kN)
BORED CAST-IN-SITU	286	600φ	15.0	400	40	100

**PILE LAYOUT**  
(SCALE 1:125)

**RCC DETAILS OF PILE**  
(SCALE 1:100)

**PILE ELEVATION**  
(SCALE 1:100)

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M30 AS PER IS:2911-(PART 1 & 2-2010) USING O.P.C./P.P.C.
  - MINIMUM CEMENT CONTENT SHALL BE 400kg/cu.m. HOWEVER, WITH PROPER MIX DESIGN AND USE OF PROPER ADMIXTURE, THE CEMENT CONTENT MAY BE REDUCED. BUT, IN NO CASE, THE CEMENT CONTENT SHALL BE LESS THAN 350kg/m<sup>3</sup>.
  - WATER CEMENT RATIO SHALL BE RESTRICTED TO 0.45 TO 0.5(MAX.).
  - CONCRETING SHALL BE DONE BY TREMIE METHOD.
  - CLEAR COVER TO REINFORCEMENT FOR PILE CAP=50mm, PILE=75mm. THE BEAM=45mm.
  - REIN. BARS SHALL BE HYSD BARS OF F450 GRADE CONFORMING TO IS:1786 WITH MIN. ELONGATION OF 14.5%.
  - LONGITUDINAL BARS SHALL BE TACK WELDED TO THE CIRCULAR HOOPS.
  - LAP LENGTH SHALL BE 46 TIMES OF DIA OF THE LARGER BAR.
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - INITIAL LOAD TEST SHALL BE AS PER IS:919-PART-4.
  - PILE CAPACITIES SHOWN IN THE TABLE ARE BASED ON SOIL INVESTIGATION REPORT AND SHALL BE ESTABLISHED AT SITE BY PILE LOAD TESTS.
  - SUITABLE PRECAUTIONS SHALL BE TAKEN AS PER STANDARD PRACTICE DURING UNDER-WATER CONCRETING.

DRAWING NO.	TITLE	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	AYR. SIGN.	BRT. APPROVED
0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT	
REVISIONS									
REV.	YYMMDD	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	
REFERENCE DRAWINGS									
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....									

**FOR TENDER PURPOSE ONLY**

**LEGEND:-**  
P - PILE  
PC - PILE CAP  
TYP. - TYPICAL  
MIN. - MINIMUM

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

PROJECT NO: C1232704

COP: -

SCALE: AS SHOWN

TITLE: R&D LAB PILE LAYOUT & DETAIL

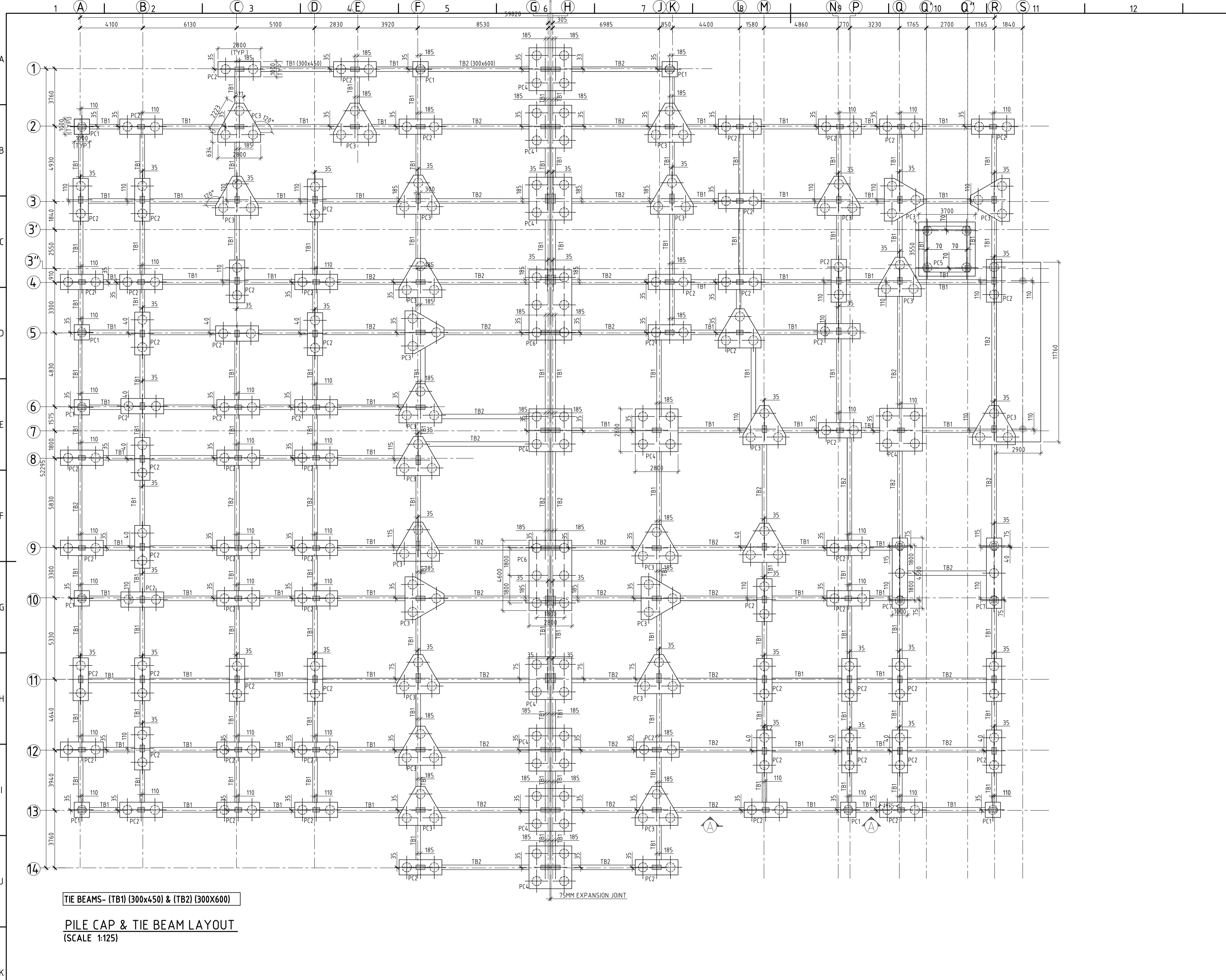
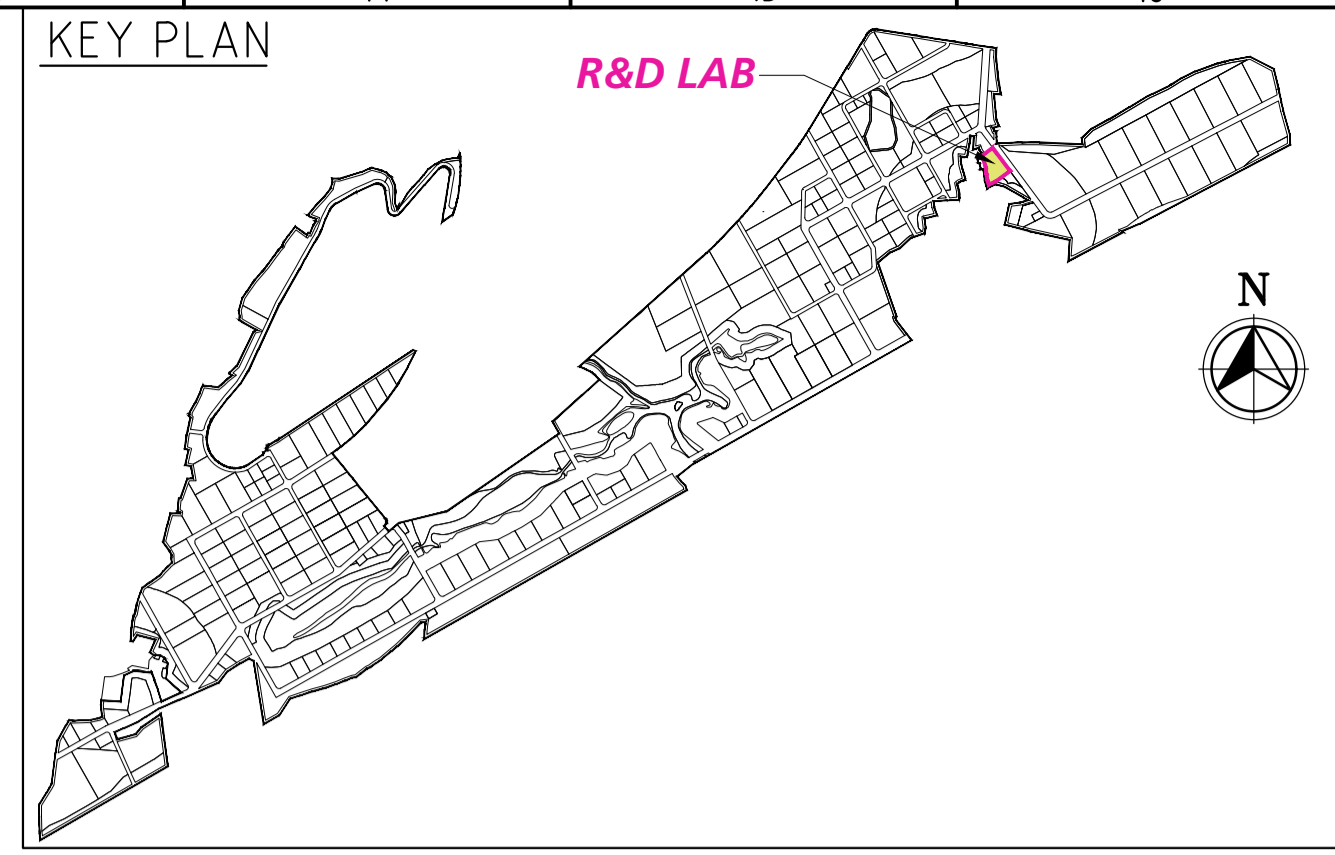
DRAWING NO: DDB201H1

REV: 0

IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.

ARTELIA



**TIE BEAMS- (TB1 (300x450) & (TB2 (300x600)**

**PILE CAP & TIE BEAM LAYOUT**  
(SCALE 1:125)

LEGEND:-

P	- PILE	Ld	- DEVELOPMENT LENGTH
TB	- TIE BEAM	TYP	- TYPICAL
PC	- PILE CAP	EGL	- EXISTING GROUND LEVEL
ST	- STRAIGHT	E/F	- EACH FACE

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M30 AS PER IS:2911-PART 1/SEC 2-2010 USING O.P.C./P.P.C.
  - MINIMUM CEMENT CONTENT SHALL BE 400kg/cum. HOWEVER, WITH PROPER MIX DESIGN AND USE OF PROPER ADMIXTURE, THE CEMENT CONTENT MAY BE REDUCED. BUT, IN NO CASE, THE CEMENT CONTENT SHALL BE LESS THAN 350kg/m<sup>3</sup>.
  - WATER CEMENT RATIO SHALL BE RESTRICTED TO 0.45 TO 0.50 MAX.
  - CONCRETING SHALL BE DONE BY TRENCH METHOD.
  - CLEAR COVER TO REINFORCEMENT FOR  
PILE CAP=50mm, PILE= 75mm, TIE BEAM=45mm
  - REN. BARS SHALL BE HYSD BARS OF F660 GRADE CONFORMING TO IS:1786, WITH MIN. ELONGATION OF 14.5%
  - LONGITUDINAL BARS SHALL BE TACK WELDED TO THE CIRCULAR HOOPS.
  - LAP LENGTH SHALL BE 44 TIMES OF DIA OF THE LARGER BAR.
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - INITIAL LOAD TEST SHALL BE AS PER IS:2911-PART-4.
  - PILE CAPACITIES SHOWN IN THE TABLE ARE BASED ON SOIL INVESTIGATION REPORT AND SHALL BE ESTABLISHED AT SITE BY PILE LOAD TESTS.
  - SUITABLE PRECAUTIONS SHALL BE TAKEN AS PER STANDARD PRACTICE DURING UNDER-WATER CONCRETING.

DRAWING NO.	TITLE
	REFERENCE DRAWINGS

REV.	DATE	STATUS	DESCRIPTION
0	230830	1	FIRST SUBMISSION

REVISIONS		DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
		BKU	PPI	AYR	BRT		
		DES.	DRN.	CHECKED	APPROVED		

Plot scale: 1:125

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB PILE CAP AND TIE BAM LAYOUT & DETAILS

PROJECT NO: C1232704

COP: -

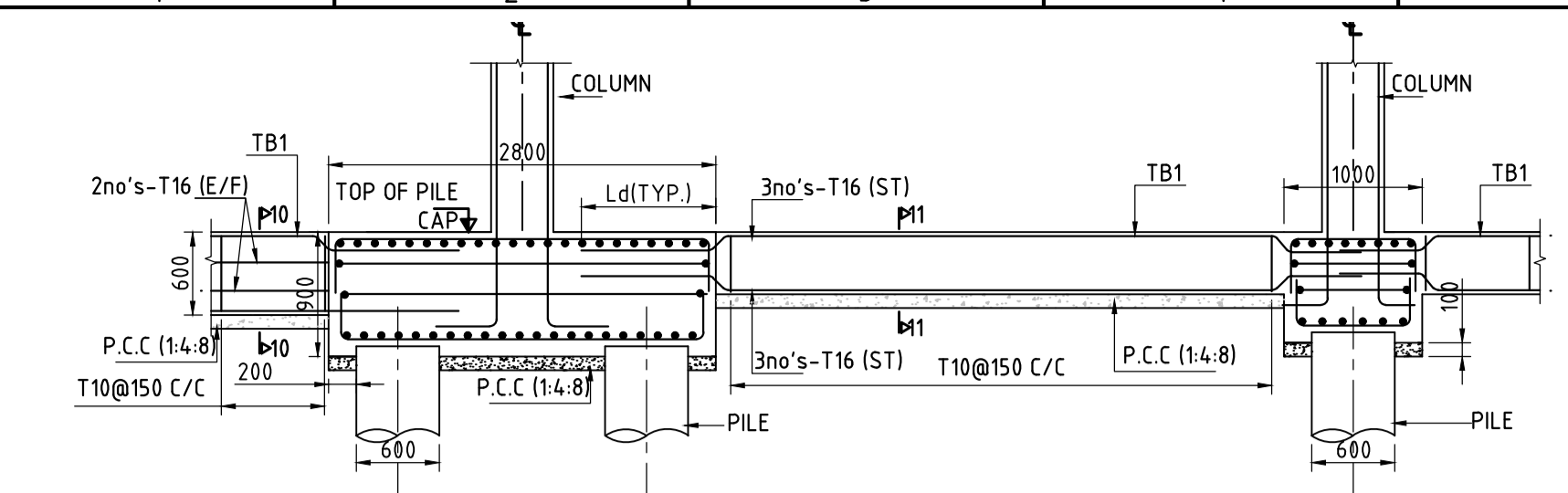
SCALE: AS SHOWN

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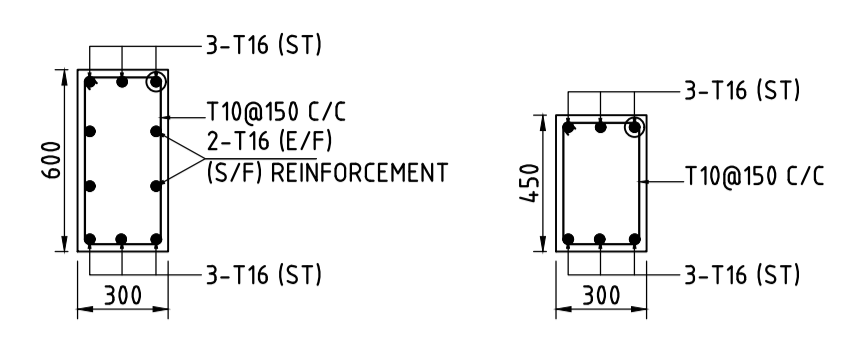
REV: 0

IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

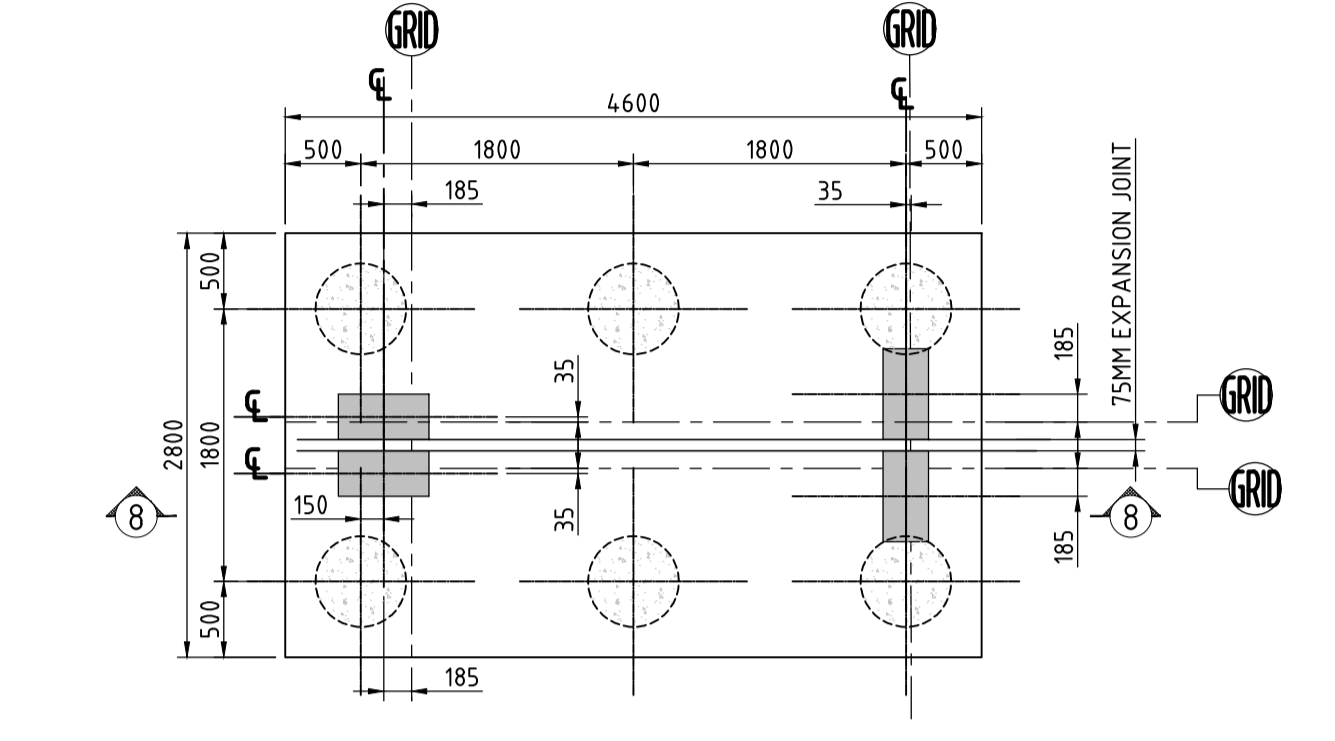
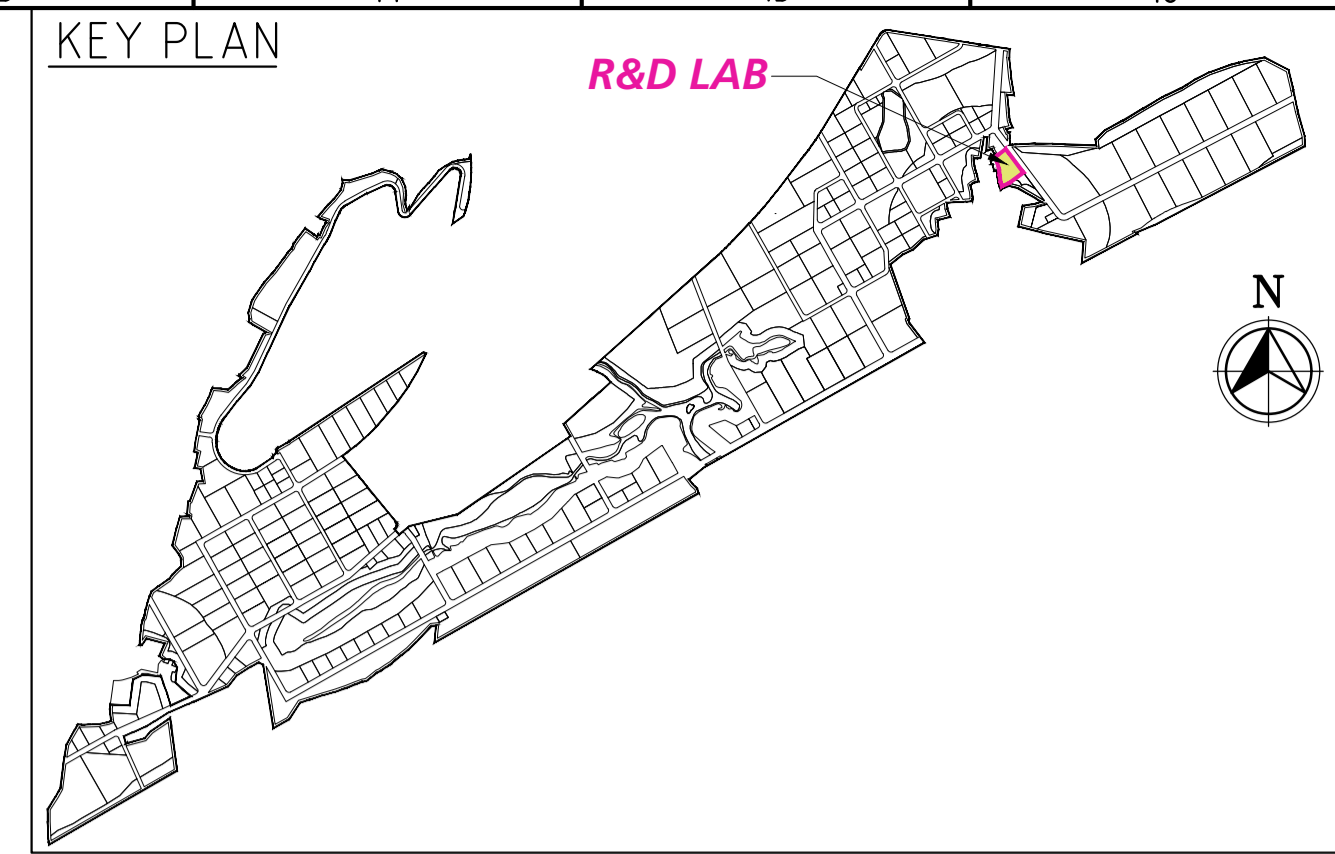
L&T Infrastructure Engineering Ltd.



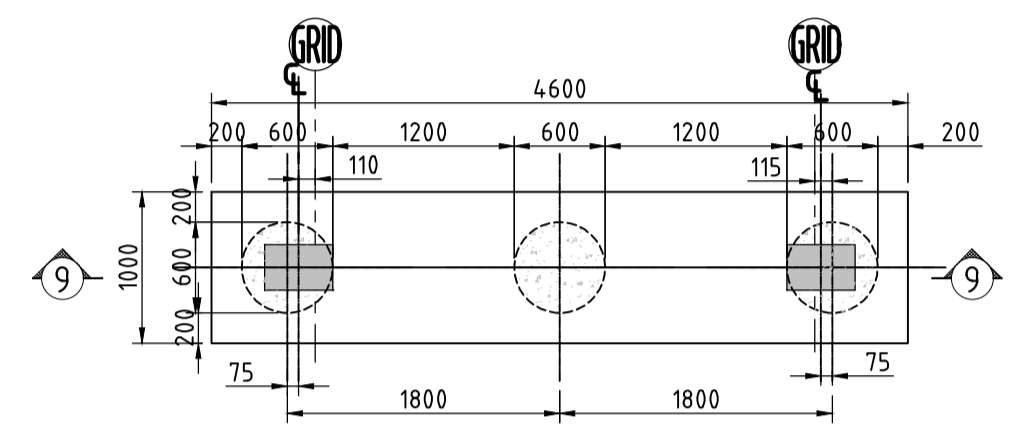
**SECTION A-A**  
(COLUMN REINFORCEMENT NOT SHOWN FOR CLARITY)  
(SCALE 1:50)



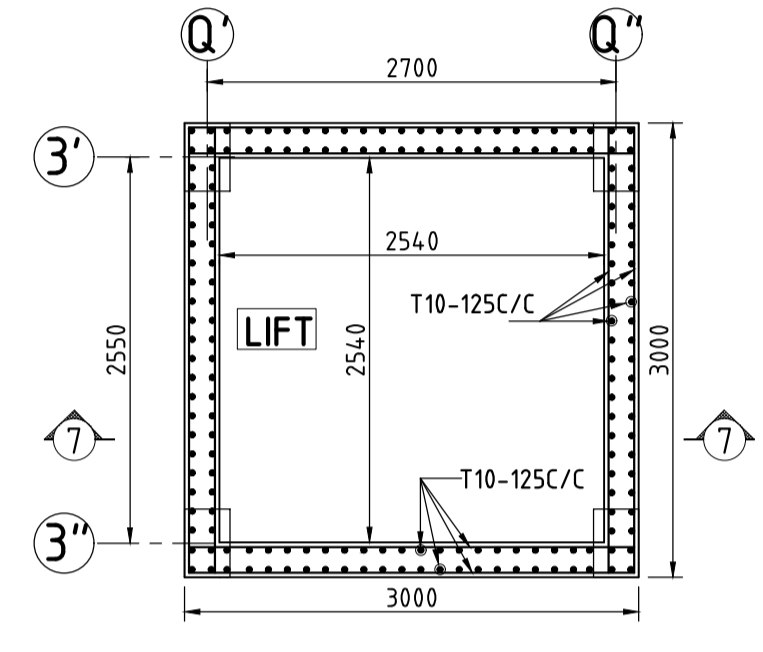
**SECTION 10-10**  
(SCALE 1:25)      **SECTION 11-11**  
(SCALE 1:25)



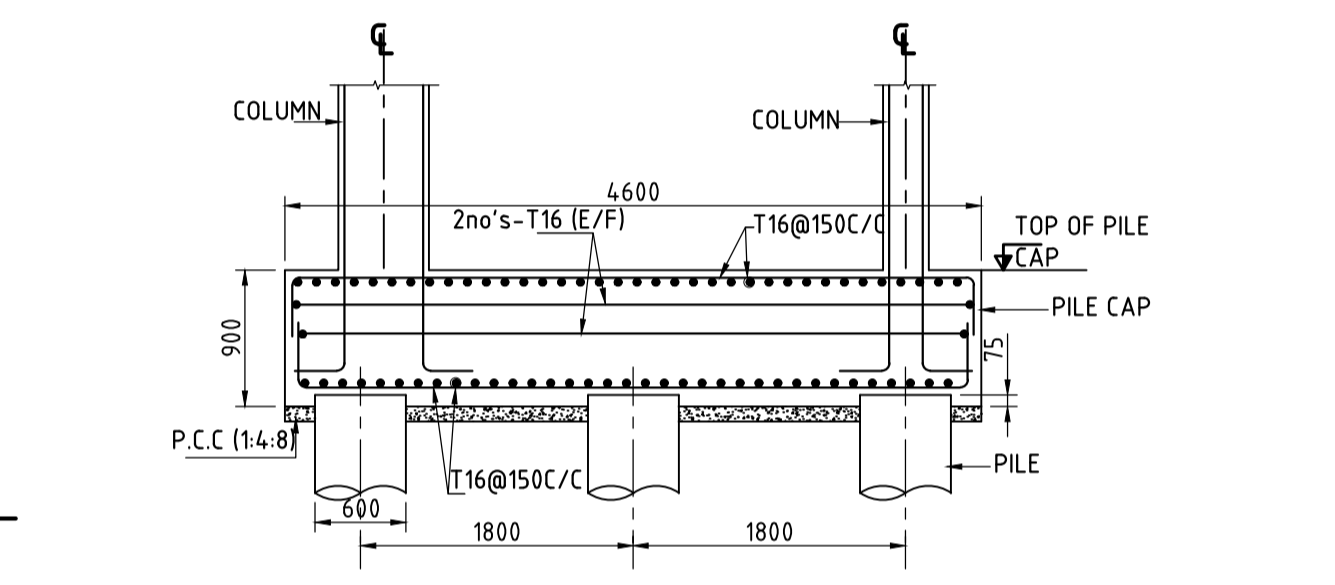
**PILE CAP-PC6**  
(SCALE 1:50)



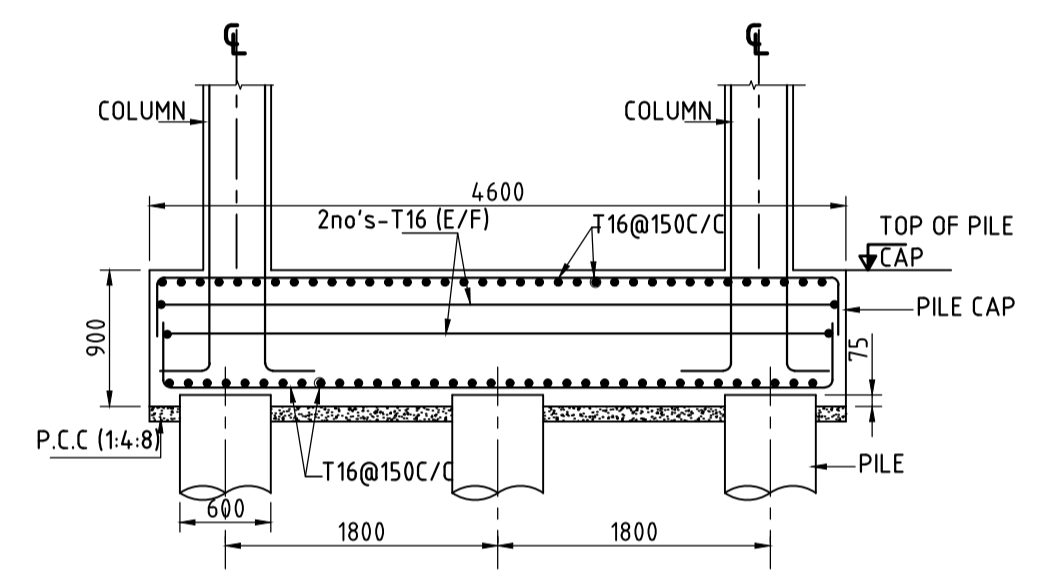
**PILE CAP-PC7**  
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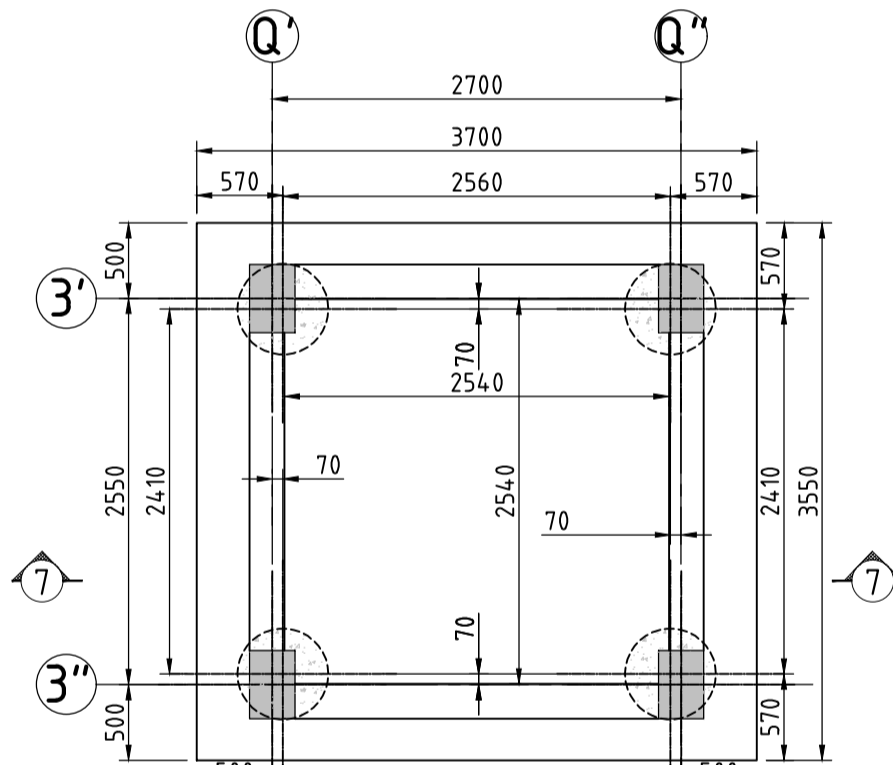
**LIFT WALL REINF. DETAILS**  
(SCALE 1:50)



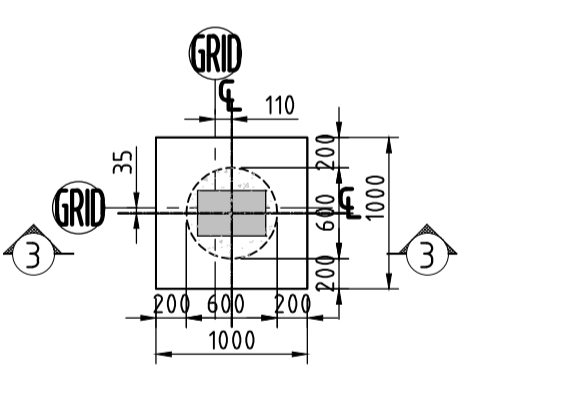
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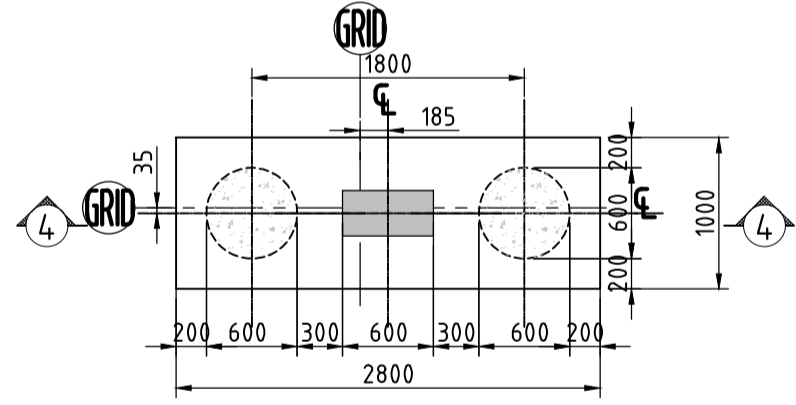
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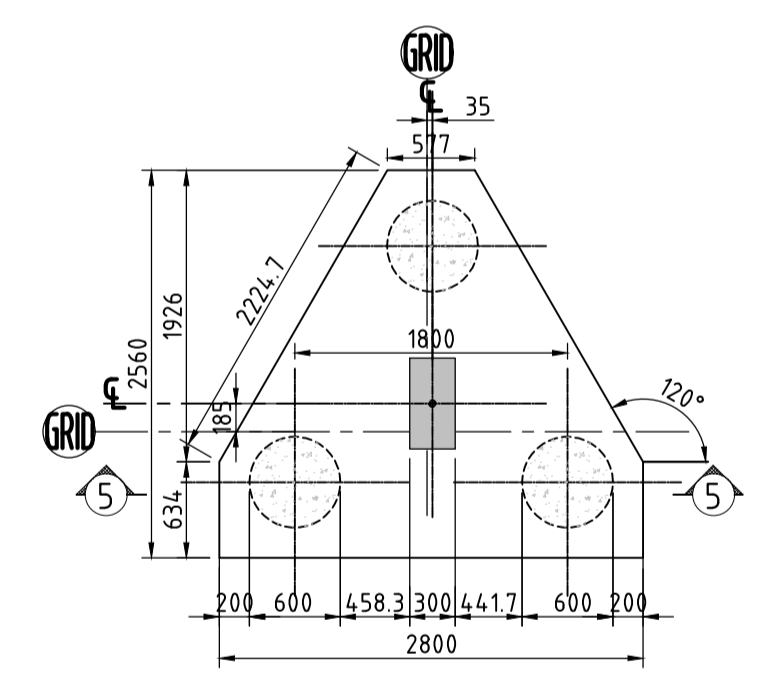
**PILE CAP-PC5**  
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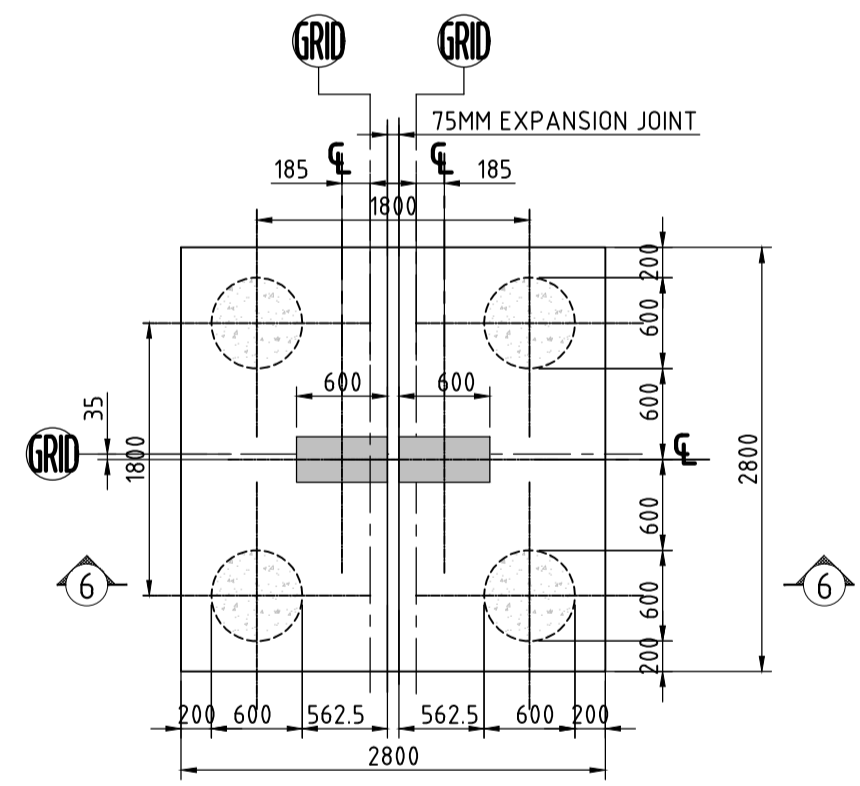
**PILE CAP-PC1**  
(SCALE 1:50)



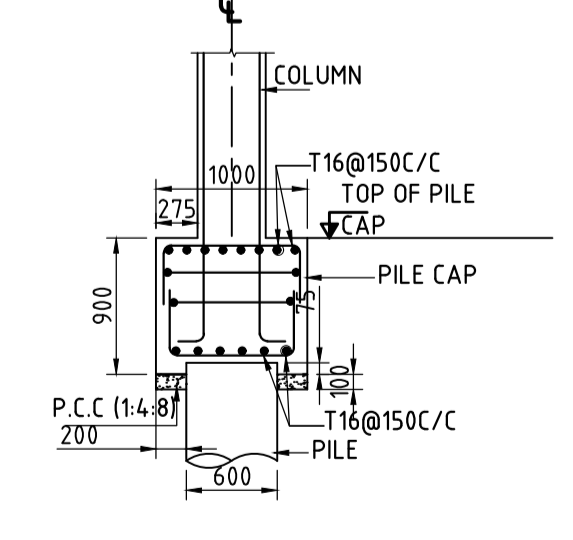
**PILE CAP-PC2**  
(SCALE 1:50)



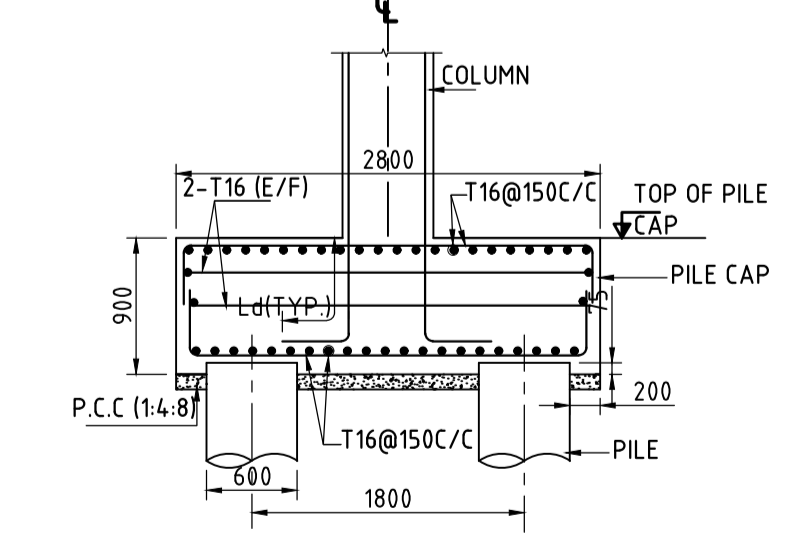
**PILE CAP-PC3**  
(SCALE 1:50)



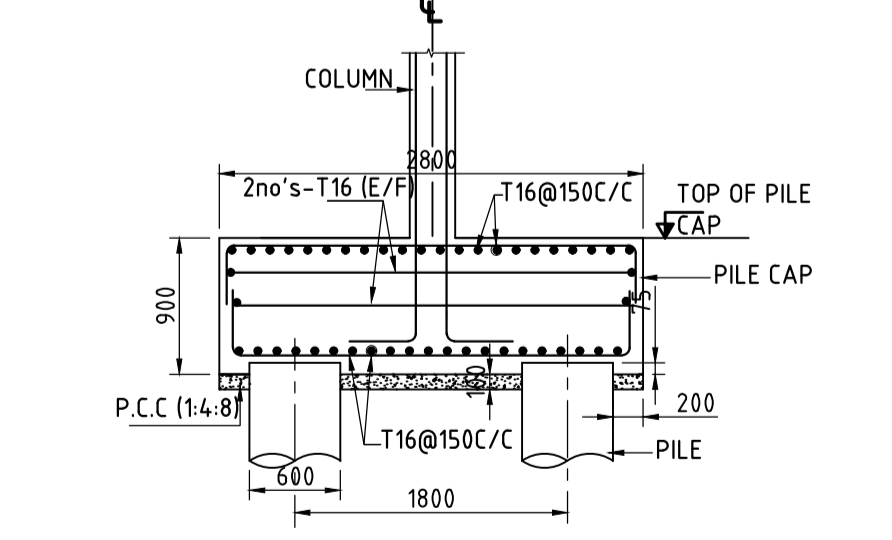
**PILE CAP-PC4**  
(SCALE 1:50)



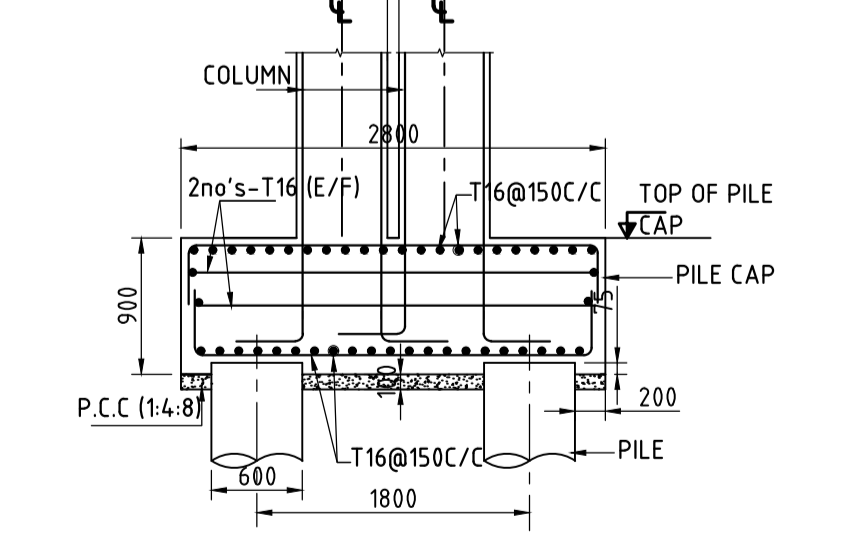
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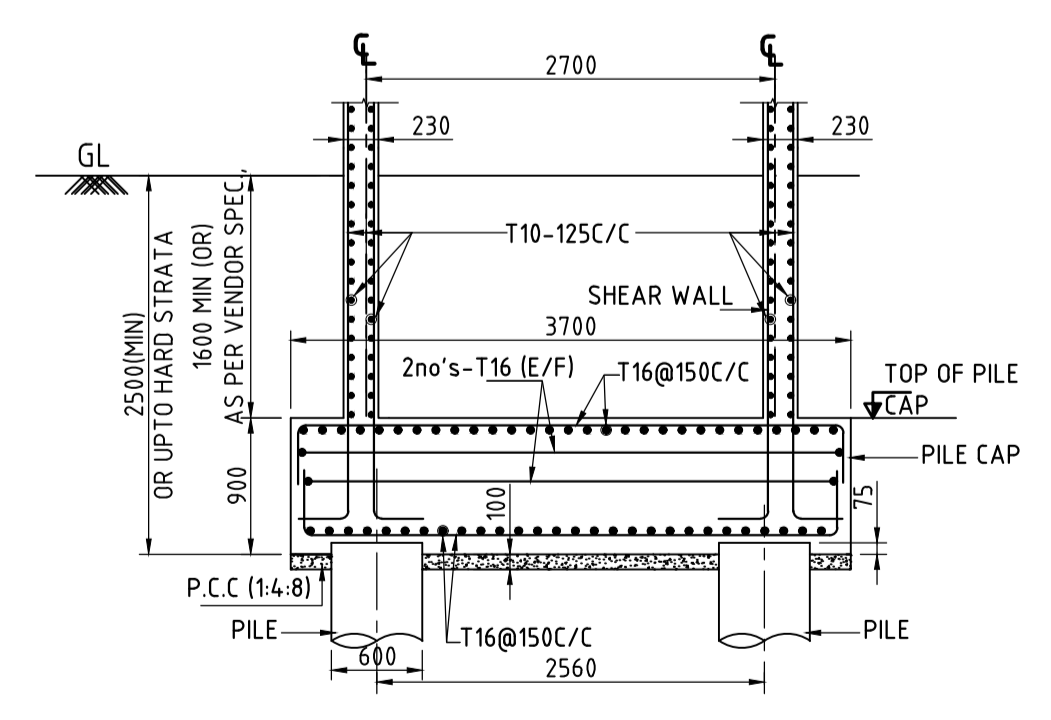
**SECTION 4-4**  
(SCALE 1:50)



**SECTION 5-5**  
(SCALE 1:50)



**SECTION 6-6**  
(SCALE 1:50)



**SECTION 7-7**  
(SCALE 1:50)

**LEGEND:**

P	- PILE	Ld	- DEVELOPMENT LENGTH
TB	- TIE BEAM	TYP	- TYPICAL
PC	- PILE CAP	ESL	- EXISTING GROUND LEVEL
ST	- STRAIGHT	E/F	- EACH FACE

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M30 AS PER IS:2911-PART 1/SEC 2-2010 USING O.P.C./P.P.C.
  - MINIMUM CEMENT CONTENT SHALL BE 400kg/m<sup>3</sup> HOWEVER, WITH PROPER MIX DESIGN AND USE OF PROPER ADMIXTURE, THE CEMENT CONTENT MAY BE REDUCED. BUT, IN NO CASE, THE CEMENT CONTENT SHALL BE LESS THAN 350kg/m<sup>3</sup>.
  - WATER CEMENT RATIO SHALL BE RESTRICTED TO 0.45 TO 0.5(MAX.)
  - CONCRETING SHALL BE DONE BY TRENCH METHOD.
  - CLEAR COVER TO REINFORCEMENT FOR:  
PILE CAP=50mm, PILE=75mm, TIE BEAM=45mm
  - REIN. BARS SHALL BE HYSD BARS OF F690 GRADE (CONFORMING TO IS:1786 WITH MIN. ELONGATION OF 14.5%)
  - LONGITUDINAL BARS SHALL BE LAPPED WELDED TO THE CIRCULAR HOOPS.
  - LAP LENGTH SHALL BE 44 TIMES OF DIA OF THE LARGER BAR.
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - INITIAL LOAD TEST SHALL BE AS PER IS:2911-PART-4.
  - PILE CAPACITIES SHOWN IN THE TABLE ARE BASED ON SOIL INVESTIGATION REPORT AND SHALL BE ESTABLISHED AT SITE BY PILE LOAD TESTS.
  - SUITABLE PRECAUTIONS SHALL BE TAKEN AS PER STANDARD PRACTICE DURING UNDER-WATER CONCRETING.

DRAWING NO.	TITLE	REV.	YYMMDD	DATE	STATUS	DESCRIPTION	REVISIONS				
							DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	
							BKU	PPI	AYR	BRT	
							DES.	DRN.	INIT. CHECKED	SIGN. APPROVED	

**STATUS CODES** 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB PILE CAP AND TIE BARS LAYOUT & DETAILS

**PROJECT NO:** C1232704

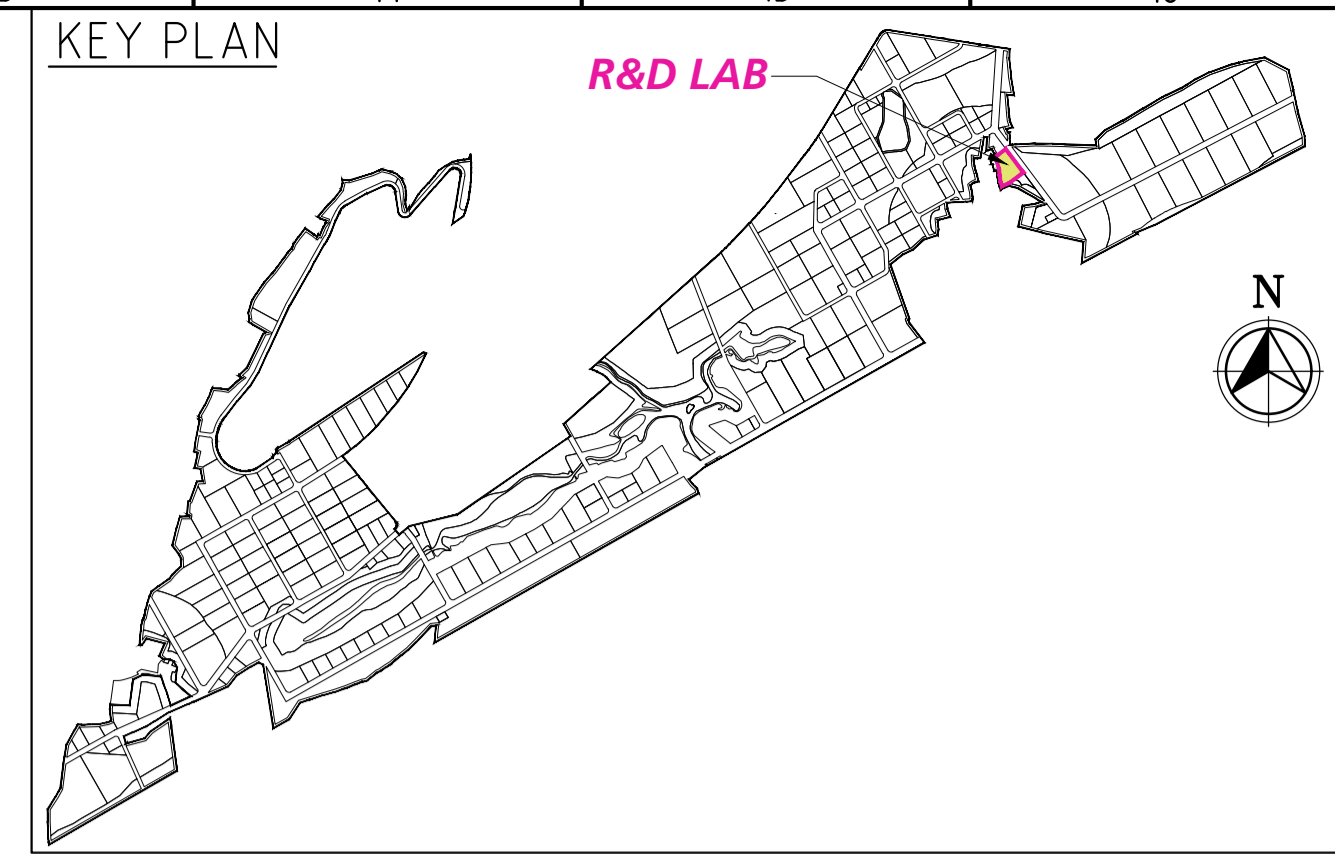
**COP:** -

**SCALE:** AS SHOWN

**DRAWING NO.:** DDB201H3

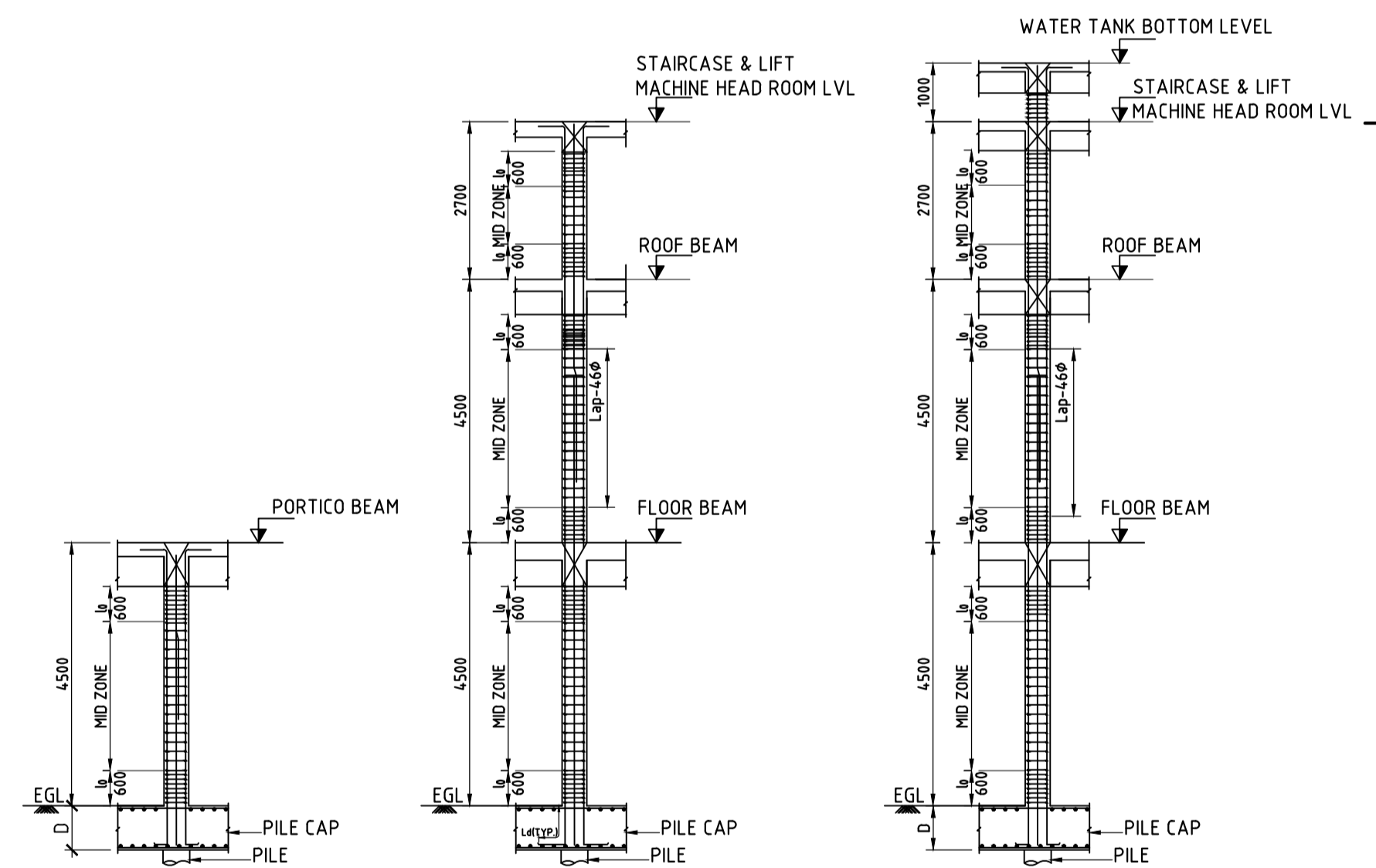
**REV.:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**SCHEDULE OF COLUMNS:-**

S.No.	TYPE	No.s	SIZE	COLUMN DETAILS	TIE DETAILS	TIE SPACING		
						S1 ZONE	S2 ZONE	LAP ZONE
1	C1		300x450			T8-100 c/c	T8-200 c/c	T8-100 c/c
2	C2		300x600			T8-100 c/c	T8-200 C/C	T8-100 c/c
3	C3	2	Ø450			T8-100 c/c	T8-200 C/C	T8-100 c/c

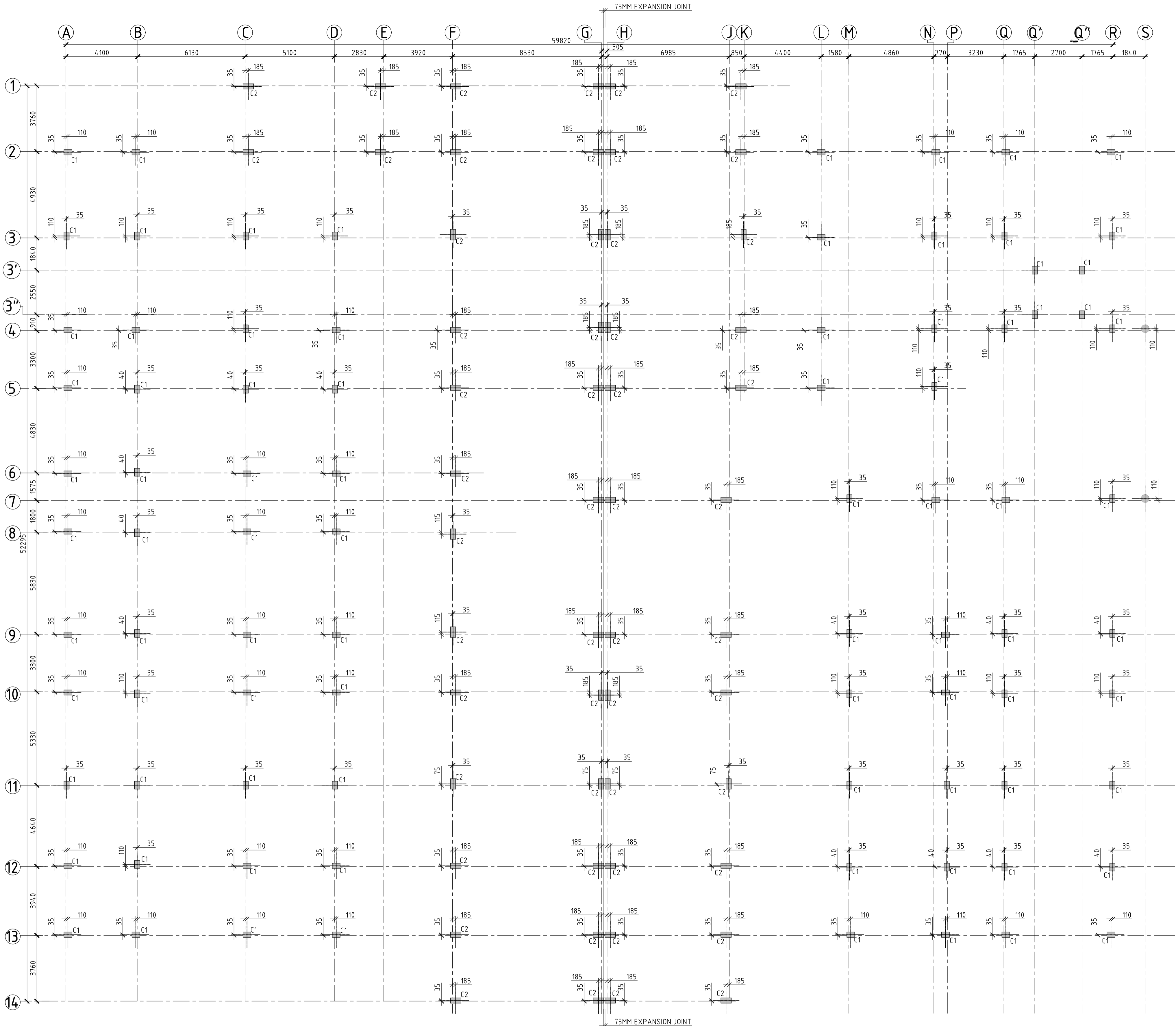


TYPICAL COLUMN ELEVATION (SCALE 1:100)

LEGEND:-

- - - GRID LINE
- C - COLUMN
- EXIS. - EXISTING
- LVL - LEVEL
- NGL - NATURAL GROUND Lvl.

**FOR TENDER PURPOSE ONLY**



COLUMN CENTER LINE PLAN (SCALE 1:125)

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED. DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:19920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:19920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25 MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE BEFORE EXECUTION.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - POUNDING OF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.
  - REIN. BARS SHALL BE HYSD BARS OF FE500D GRADE CONFORMING TO IS:1786 WITH MIN. ELONGATION OF 11.5%.

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
		0	230830	1	FIRST SUBMISSION	BKU	PPI	AYR	BRT
REVISIONS									
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....									
REFERENCE DRAWINGS									

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB COLUMN CENTER LINE LAYOUT & DETAIL

PROJECT NO: C1232704

SCALE: AS SHOWN

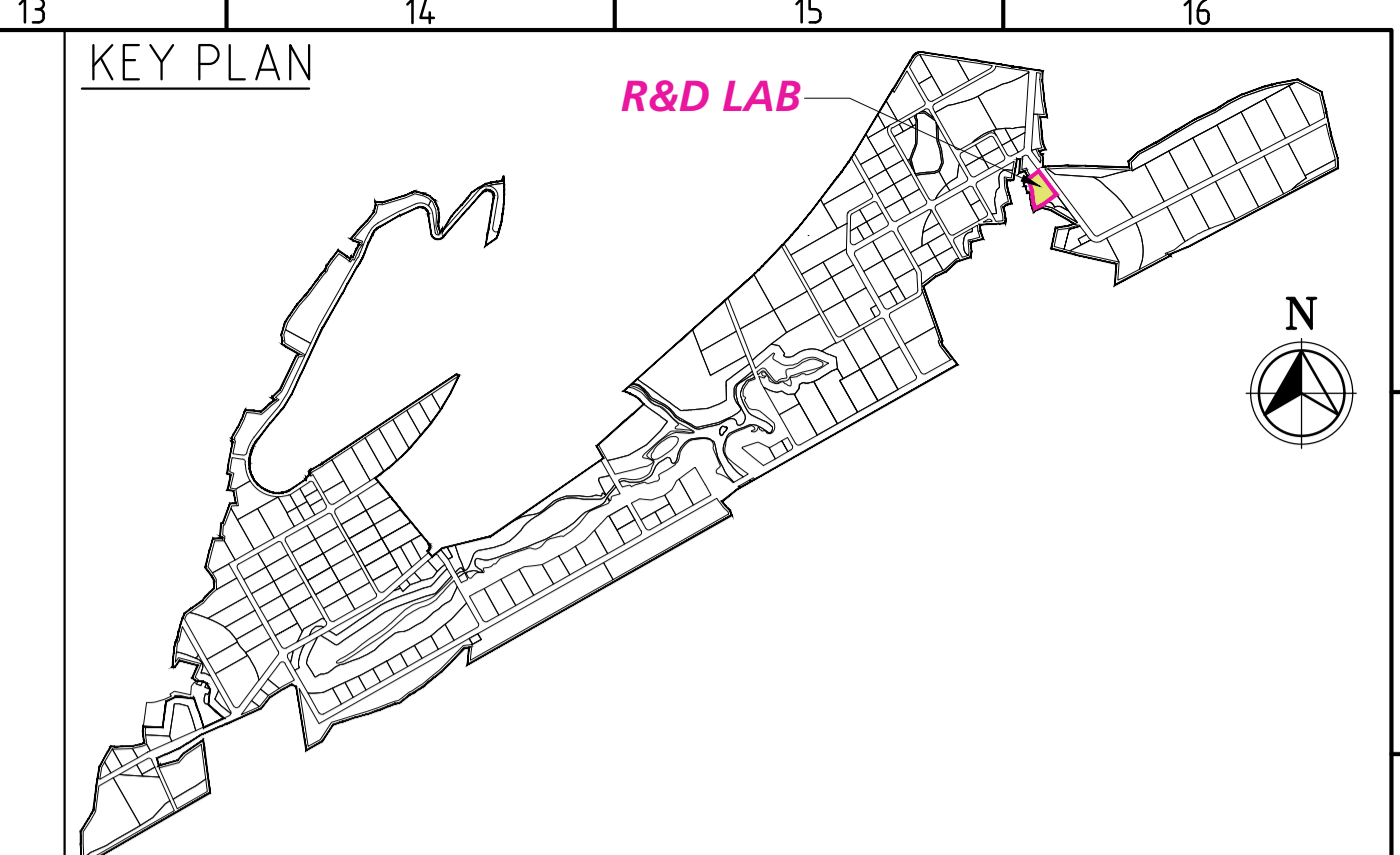
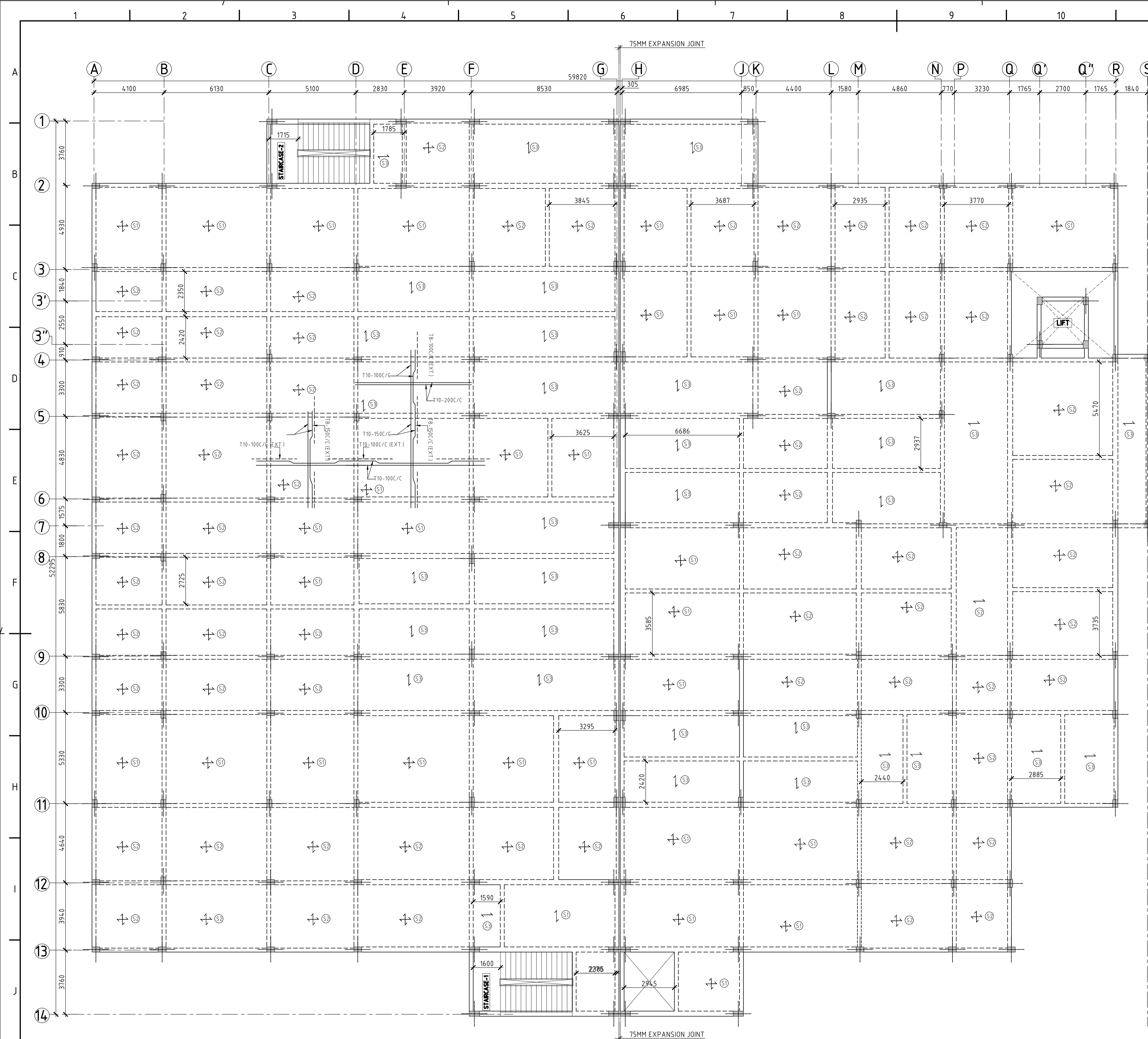
DRAWING NO: DDB201H4 0

IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.

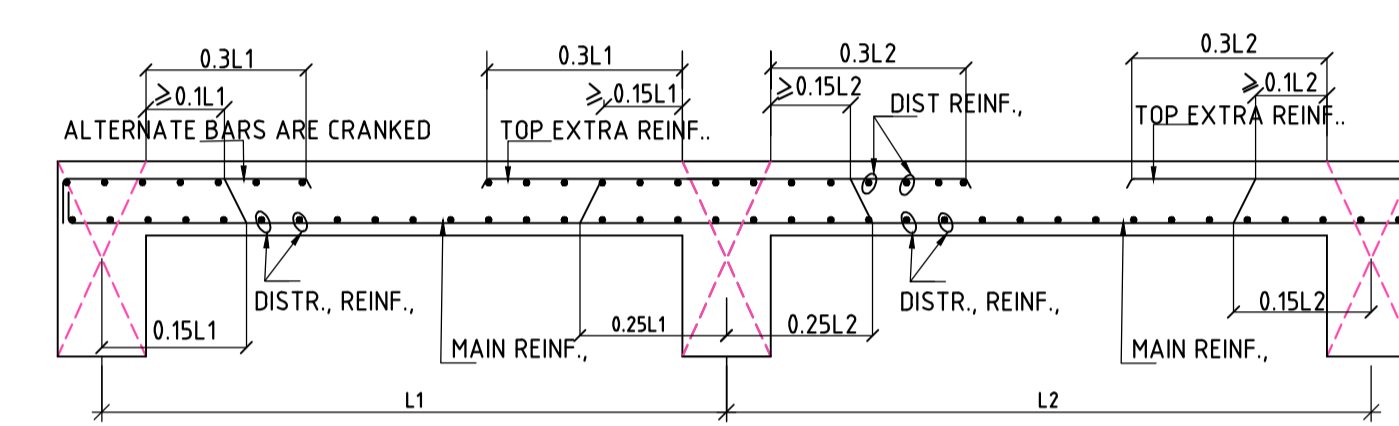
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Original Size: A1



**SLAB SCHEDULE:-**

S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1	↔	150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C
2	S2	↔	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T8-100C/C (ALT., CRANK)	T8-150C/C
3	S3	↕	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T18-200C/C (ALT., CRANK)	-



TYPICAL DETAILS OF SLAB REINFORCEMENT

**LEGEND:-**

- - GRID LINE
- PB - PLINTH BEAM
- MP - MASONRY PEDESTAL
- CRS - COURSED RUBBLE STONE
- NGL - NATURAL GROUND Lvl.
- PCC - PLAIN CEMENT CONCRETE
- REINF. - REINFORCEMENT

**FLOOR SLAB LAYOUT AT (+) 5.10M LVL**  
(SCALE 1:125)

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED. DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:13920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:13920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - BOUNDING OF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.

REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
0	230830	1	FIRST SUBMISSION	BKU	PPI	AYR	BRT

**REVISIONS**

STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....

**REFERENCE DRAWINGS**

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB FLOOR SLAB LAYOUT & DETAILS @ (+) 5.10M LVL

**PROJECT NO:** C1232704

**CDP:** -

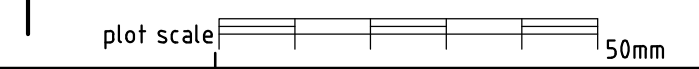
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**DRAWING NO:** DDB201H5

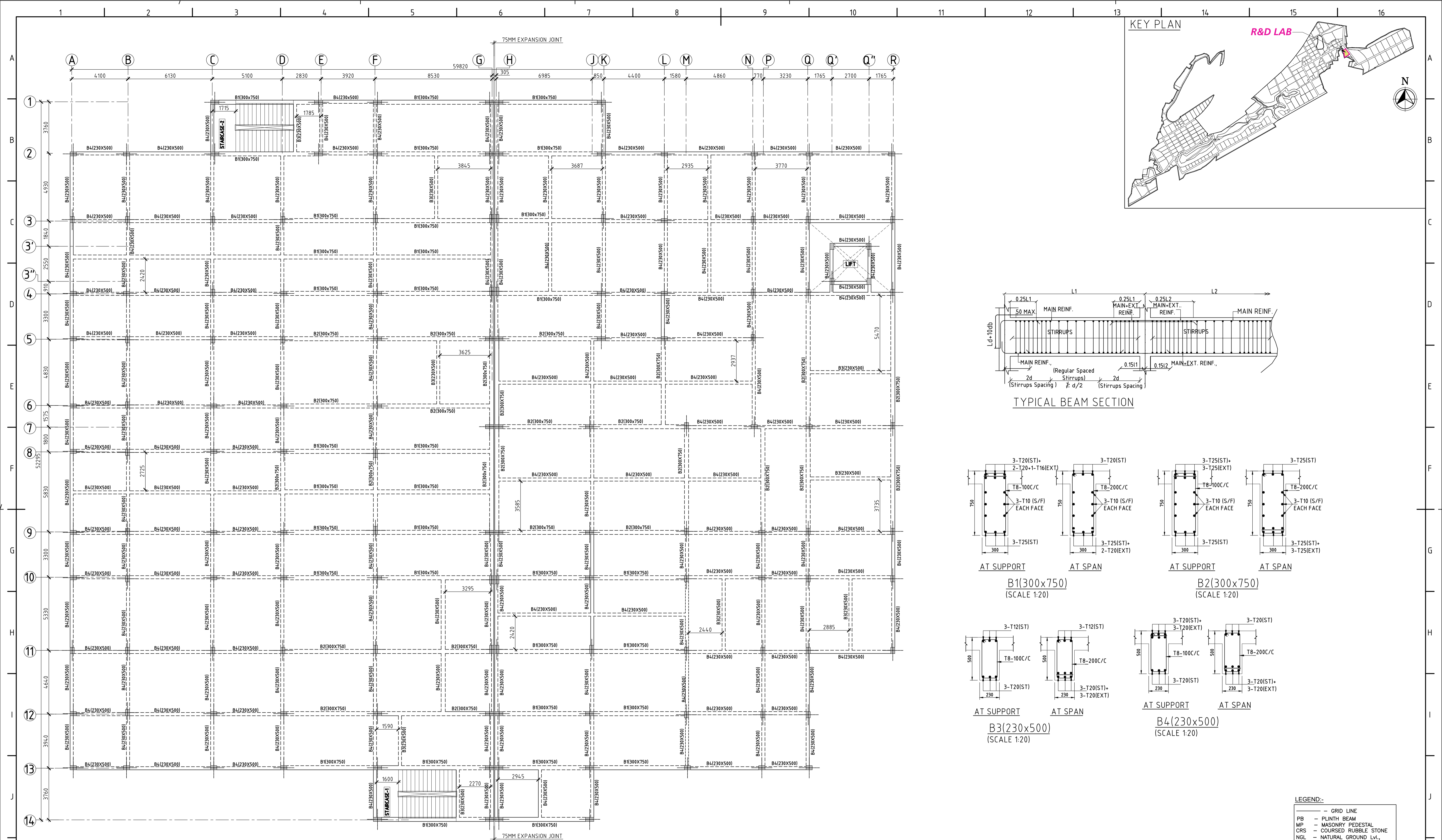
**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

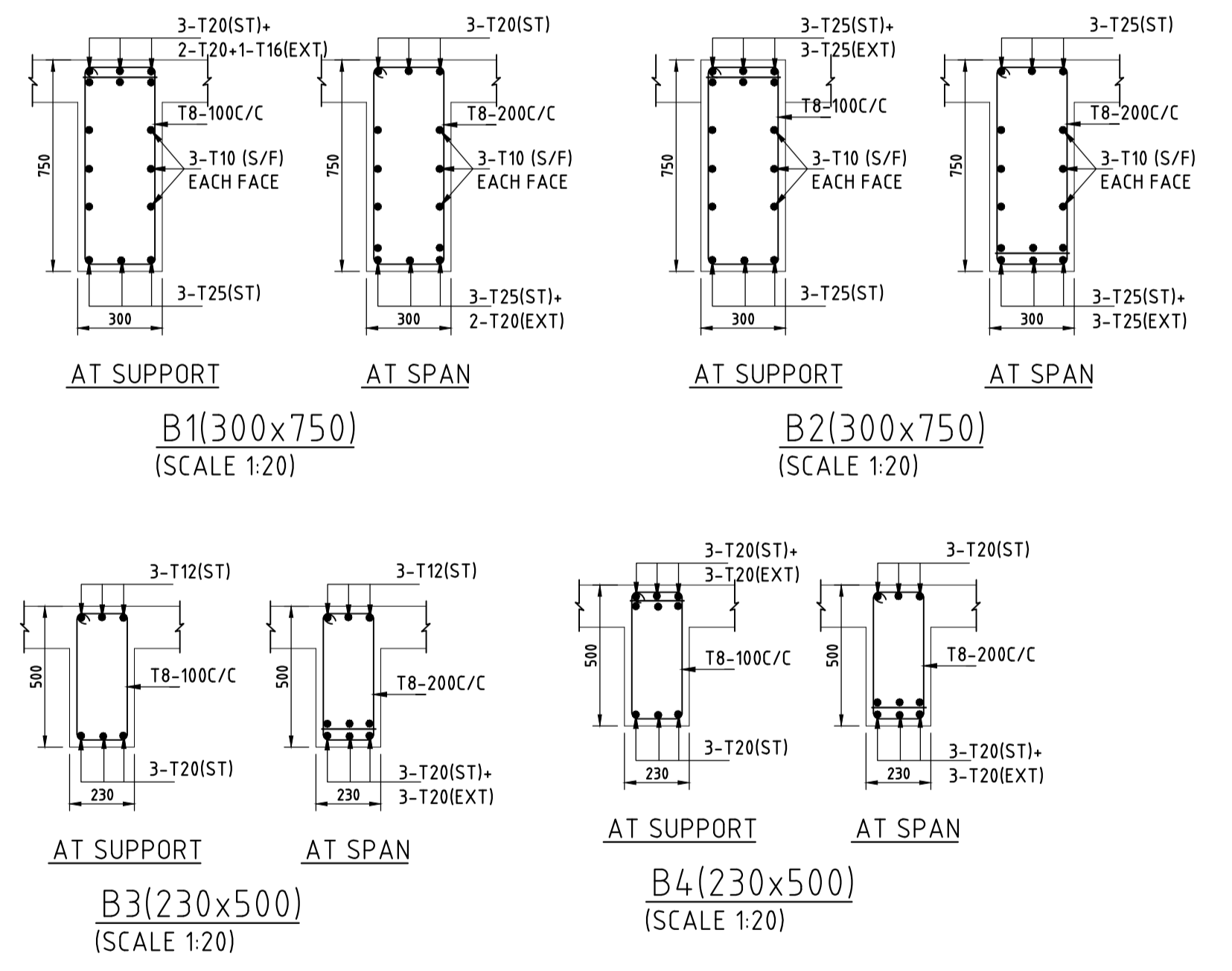
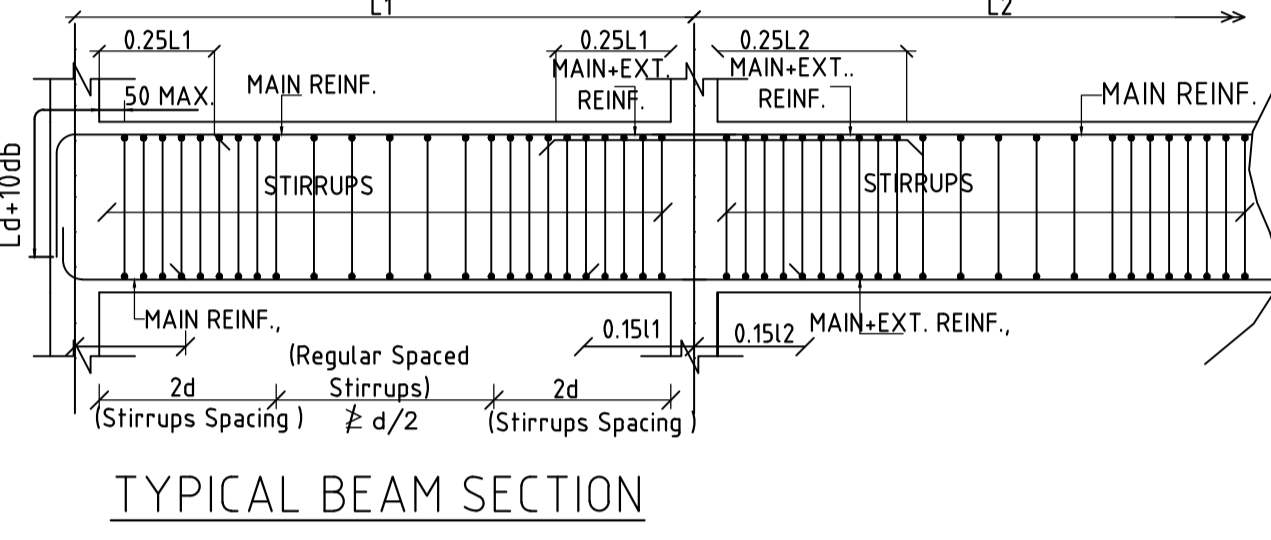
**FOR TENDER PURPOSE ONLY**







**ROOF BEAM LAYOUT AT (+) 9.60M LVL**  
(SCALE 1:25)



**LEGEND:-**

- GRID LINE
- PB - PLINTH BEAM
- MP - MASONRY PEDESTAL
- CRS - COURSED RUBBLE STONE
- NGL - NATURAL GROUND LVL.
- PCC - PLAIN CEMENT CONCRETE
- REINF. - REINFORCEMENT

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
  - DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:13920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:13920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - ROUNDING OFF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.

DRAWING NO.	TITLE	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT		
REVISIONS					STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....					
REFERENCE DRAWINGS										

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB ROOF BEAM LAYOUT & DETAILS @ (+)9.60M LVL

**PROJECT NO:** C1232704

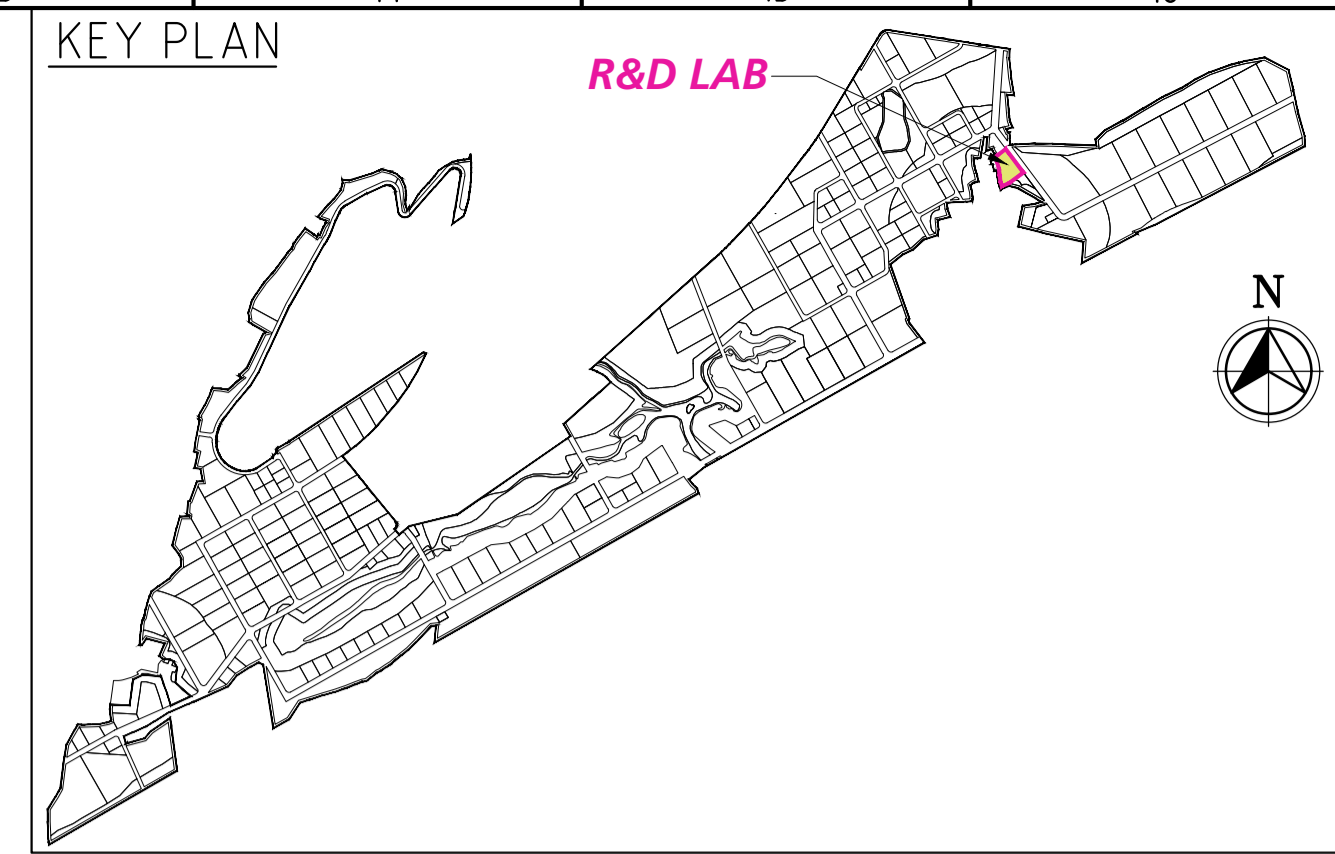
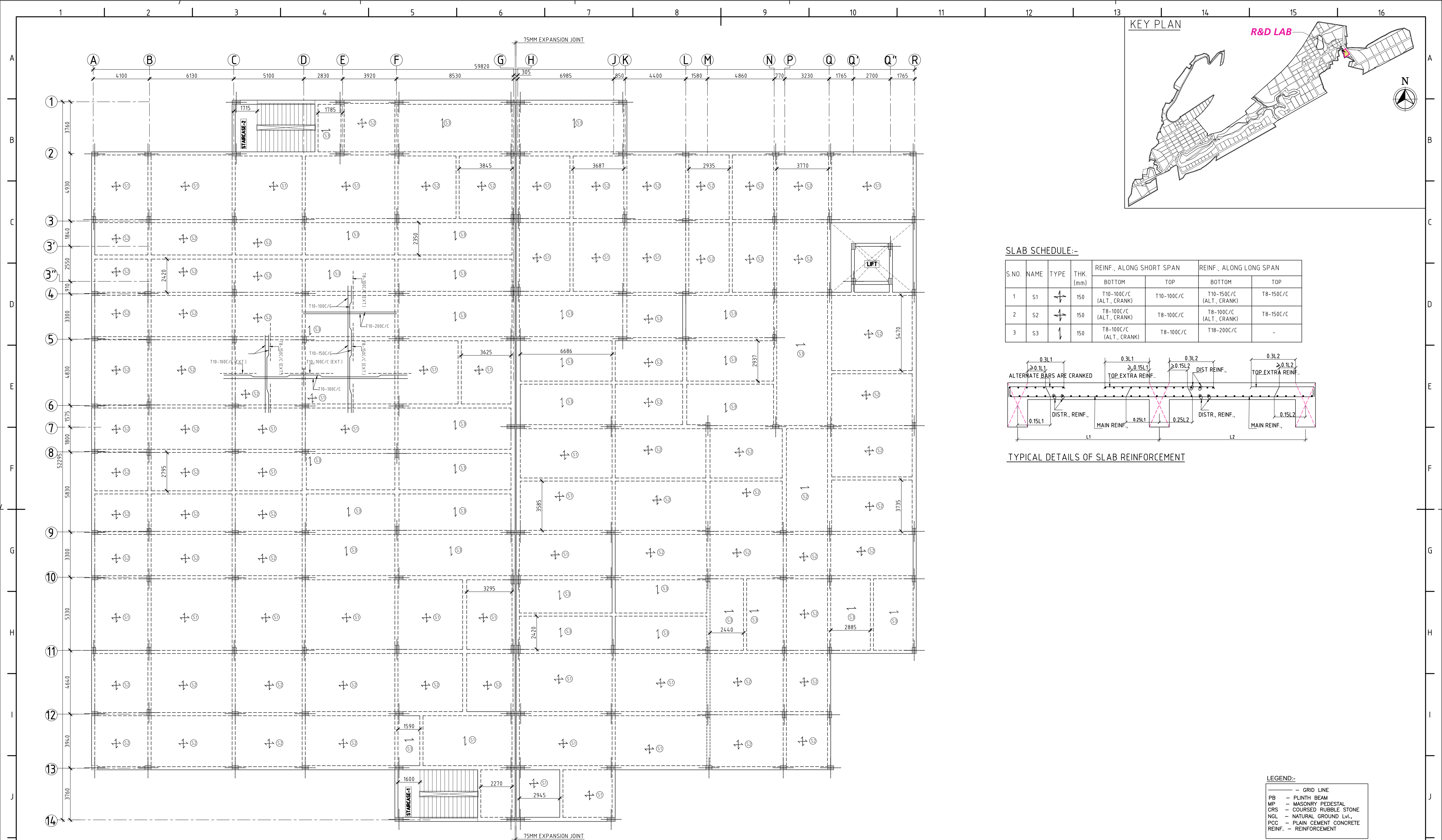
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**SCALE:** AS SHOWN

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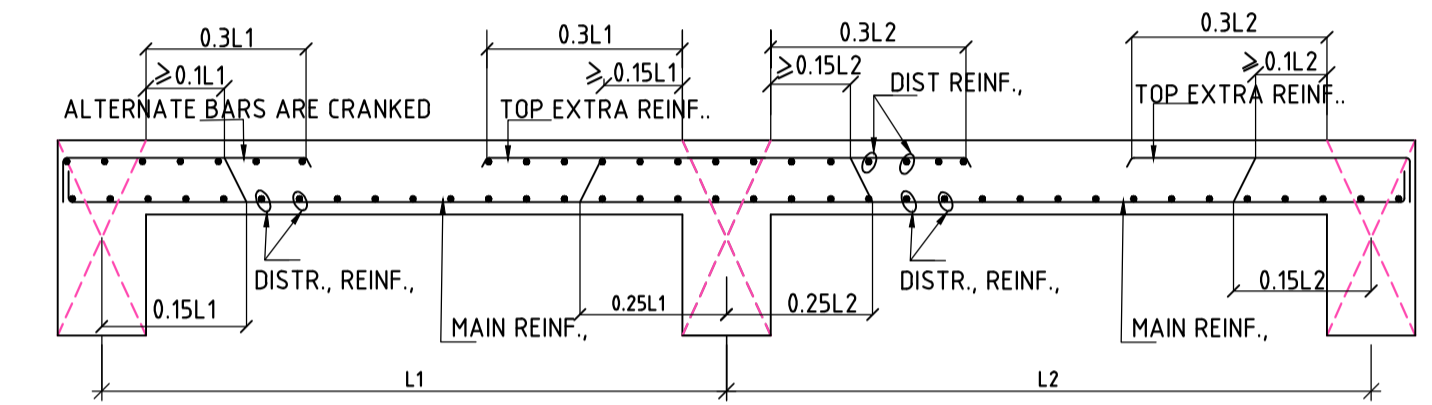
**REV:** 0

**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**SLAB SCHEDULE:-**

S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1	↕	150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C
2	S2	↔	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T8-100C/C (ALT., CRANK)	T8-150C/C
3	S3	↕	150	T8-100C/C (ALT., CRANK)	T8-100C/C	T18-200C/C	-



**TYPICAL DETAILS OF SLAB REINFORCEMENT**

**ROOF SLAB LAYOUT AT (+) 9.60M LVL**  
(SCALE 1:125)

**FOR TENDER PURPOSE ONLY**

- NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
  - DO NOT SCALE THE DRAWING WRITTEN DIMENSIONS SHALL ONLY BE FOLLOWED.
  - M30 GRADE FOR ALL THE RCC, REINFORCEMENT GRADE FE500D HYSD BARS SHALL BE ADOPTED.
  - ALL CONCRETE PLAIN AND REINFORCEMENT SHALL CONFORM TO IS:456-2000 & IS:13920
  - FOR DETAILING OF REINFORCEMENT, S.P.16, IS:5525, IS:13920 AND S.P.34, SHALL BE REFERRED.
  - CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 40MM FOR COLUMNS, 30MM FOR FLOOR BEAMS & 25 MM FOR SLABS.
  - DEVELOPMENT LENGTH (Ld) OF REINFORCEMENT 46 TIMES DIA. OF BARS.
  - AT THE COLUMN LAPPING ZONE, TIES SHOULD BE SPACED NOT GREATER THAN 150MM.
  - THE SURFACE DRAINS IN THE BUILDING AND AROUND THE BUILDING SHALL BE SO PLANNED THAT WATER IS DRAINED AWAY FROM THE BUILDING.
  - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED AT SITE.
  - ALL DRAWINGS SHALL BE READ IN CONNECTION WITH RELEVANT ARCHITECTURAL & SERVICES DRAWING.
  - POUNDING OF WATER SHOULD BE AVOIDED AROUND THE STRUCTURE.

DRAWING NO.	TITLE	STATUS	DATE	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
			230830	FIRST SUBMISSION	BKU	PPI	AYR	BRT		
<b>REVISIONS</b>										
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....										
<b>REFERENCE DRAWINGS</b>										

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB ROOF SLAB LAYOUT & DETAILS @+9.60M LVL

**PROJECT NO:** C1232704

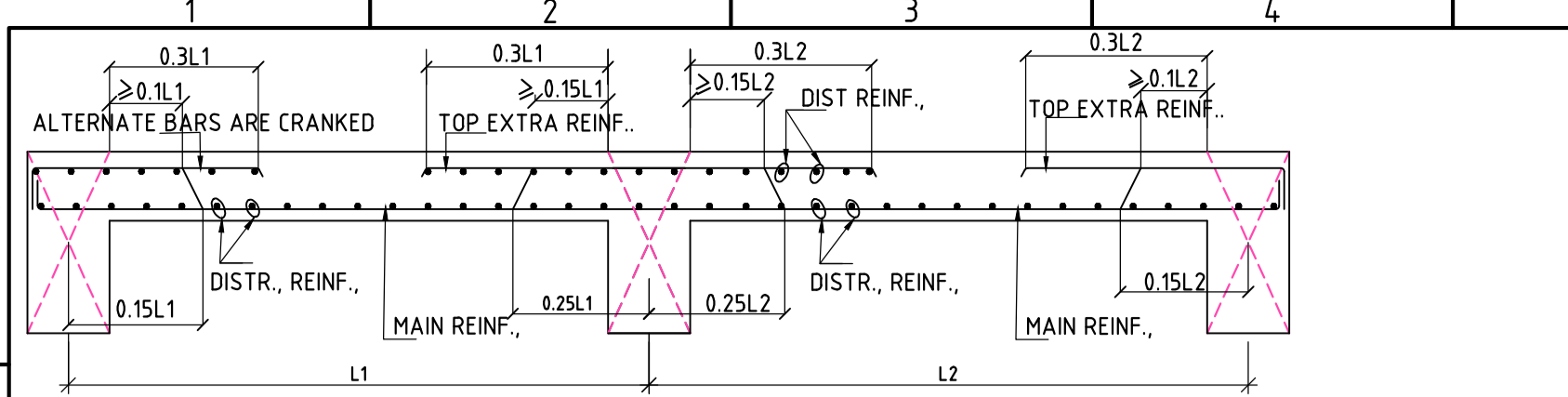
**CDP:** -

**SCALE:** AS SHOWN

**DRAWING NO:** DDB201H7

**REV:** 0

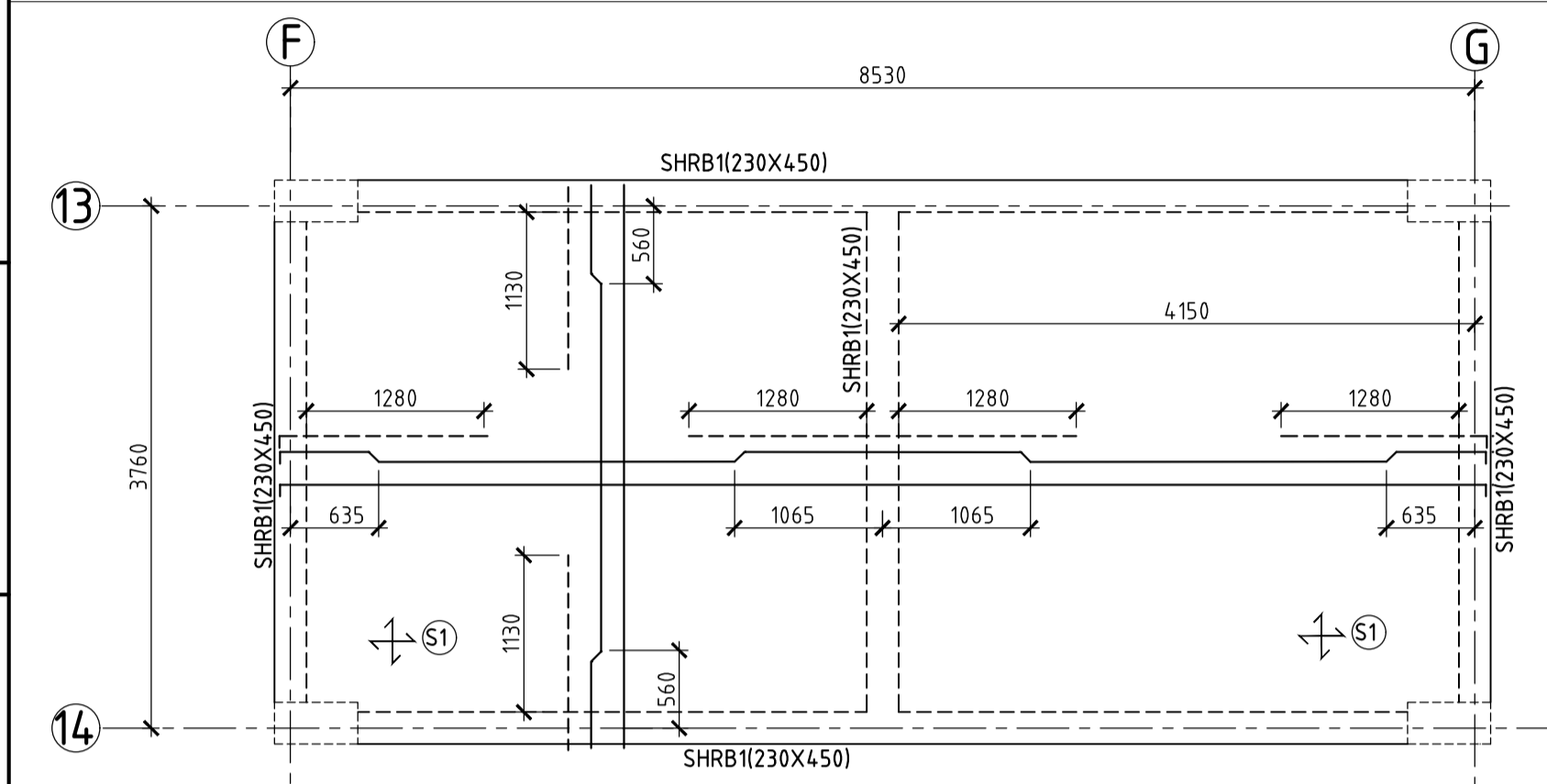
**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



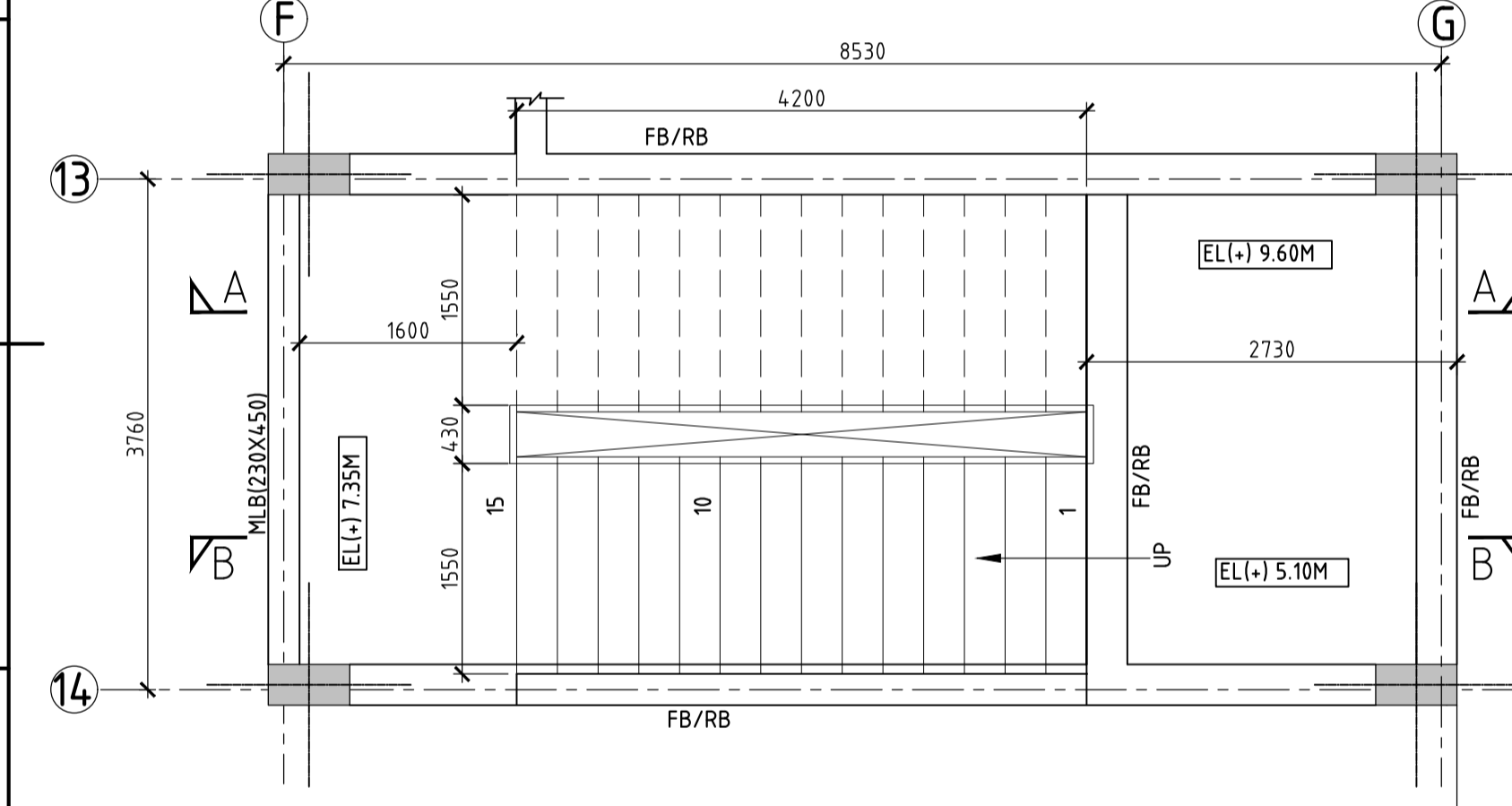
**TYPICAL DETAILS OF SLAB REINFORCEMENT**

**SLAB SCHEDULE:-**

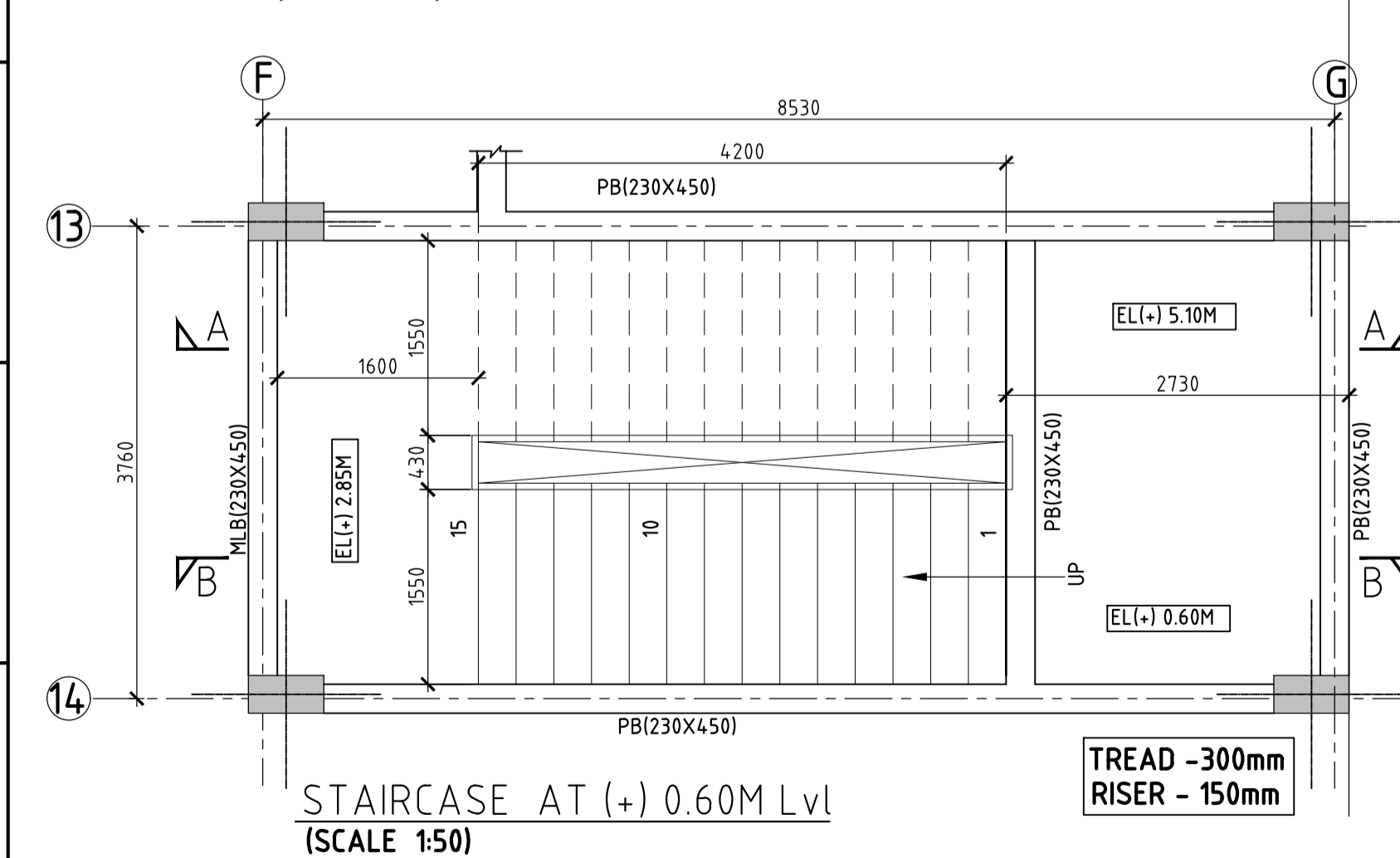
S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1		150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C



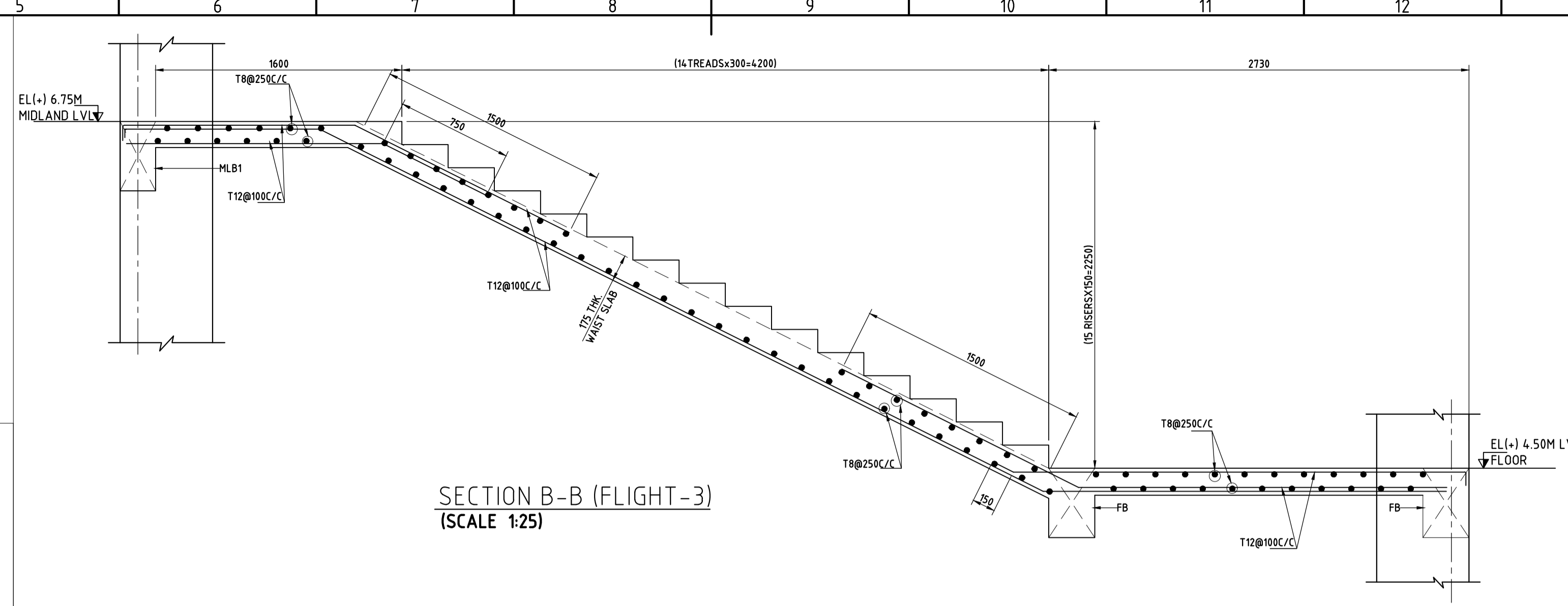
**STAIRCASE HEAD ROOF BEAM LAYOUT AT (+) 12.30M LVL**  
(SCALE 1:50)



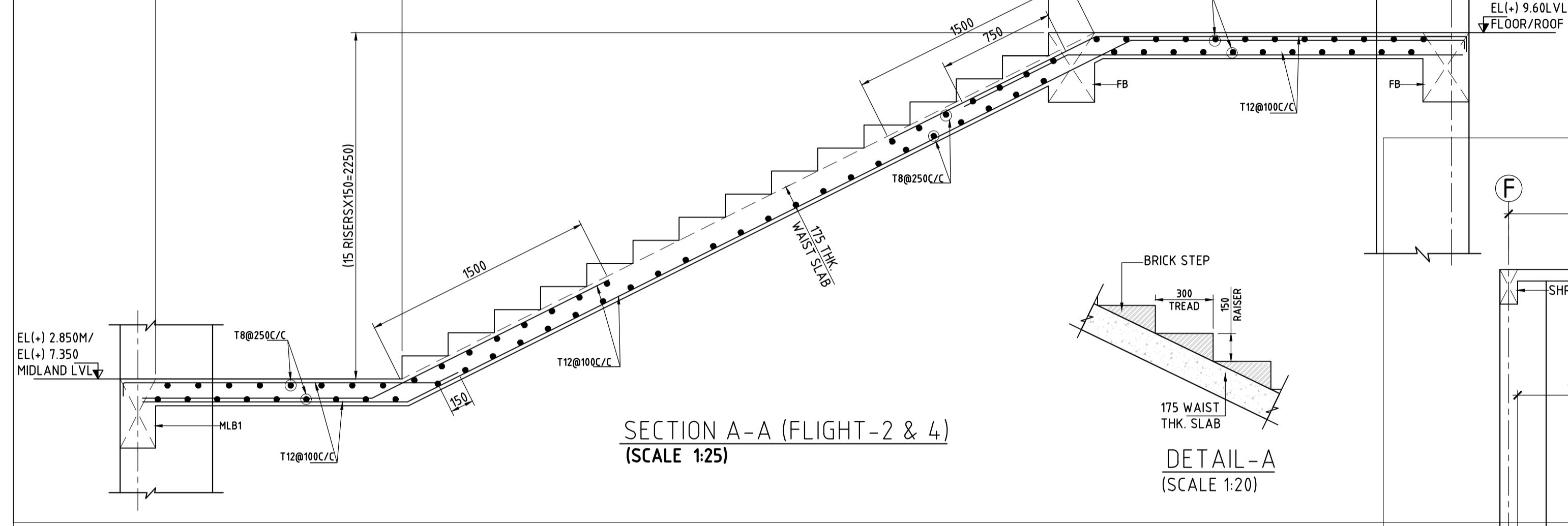
**STAIRCASE AT (+) 5.10M LVL**  
(SCALE 1:50)



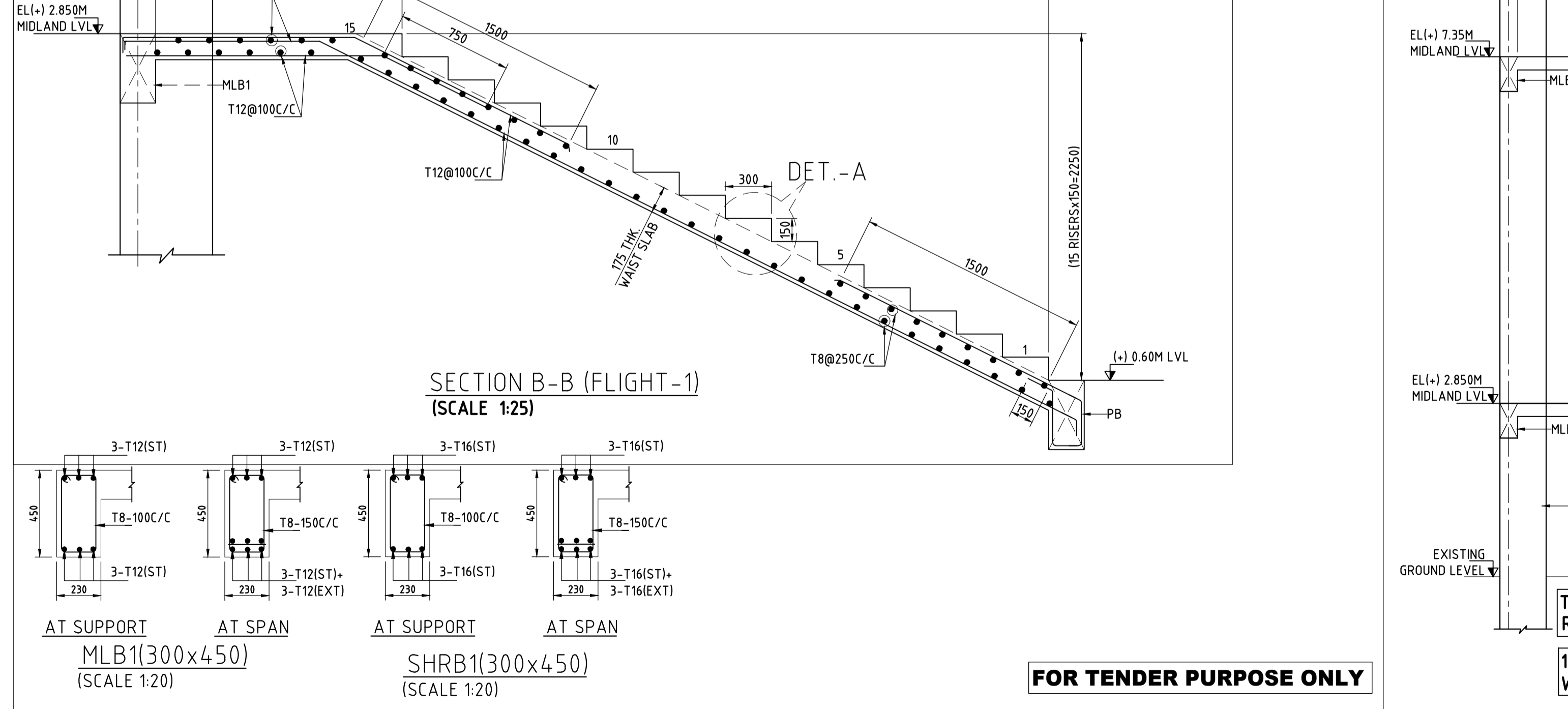
**STAIRCASE AT (+) 0.60M LVL**  
(SCALE 1:50)



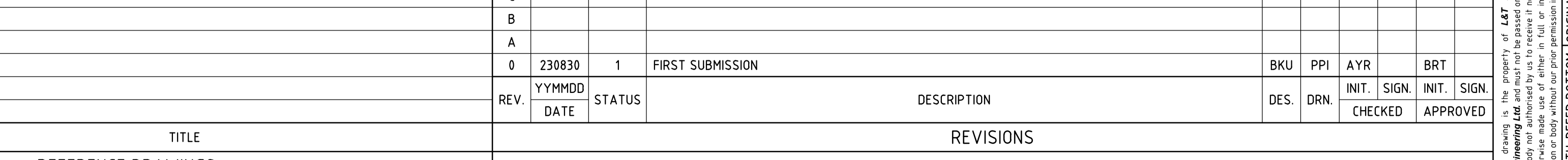
**SECTION B-B (FLIGHT-3)**  
(SCALE 1:25)



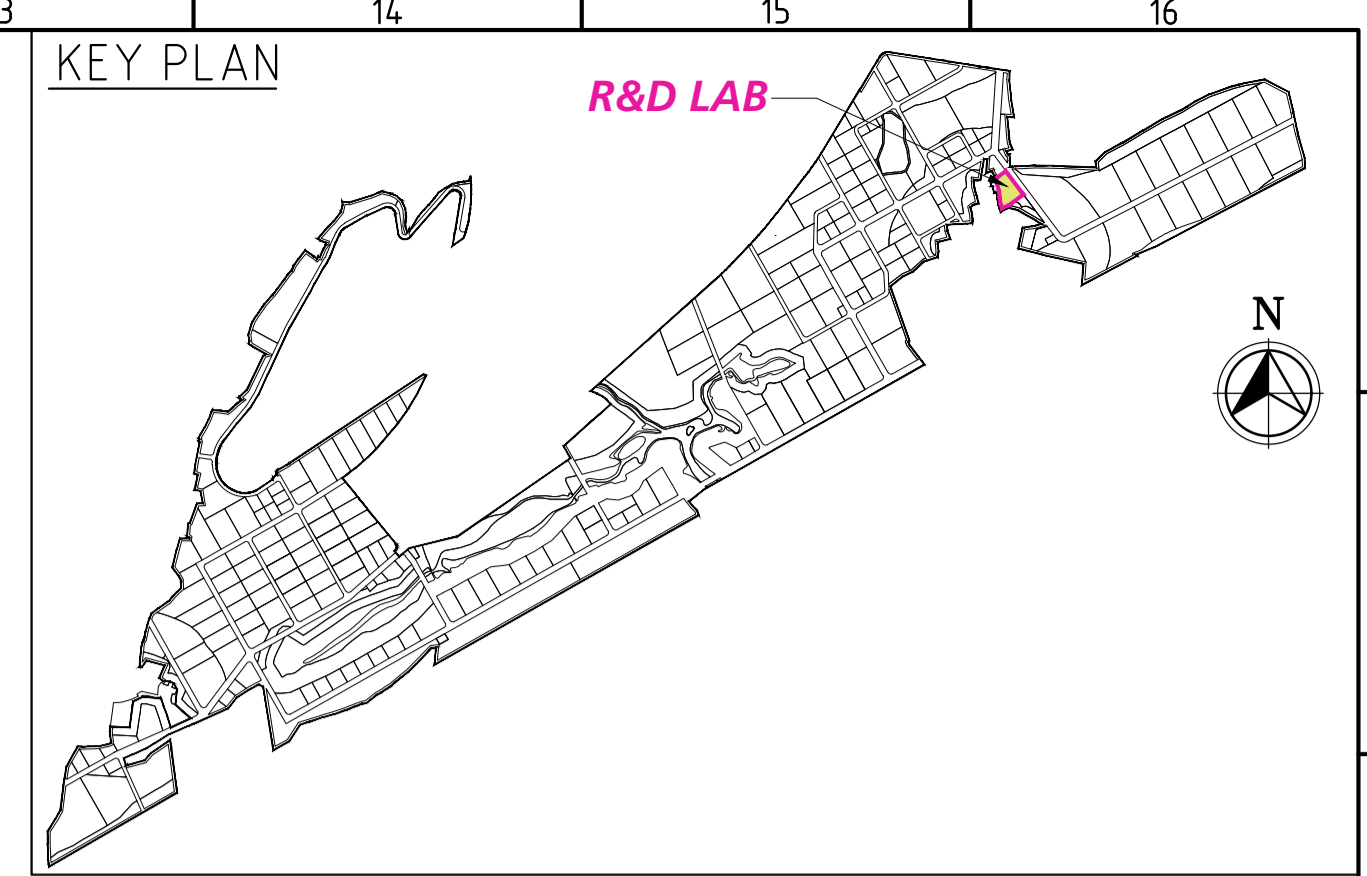
**SECTION A-A (FLIGHT-2 & 4)**  
(SCALE 1:25)



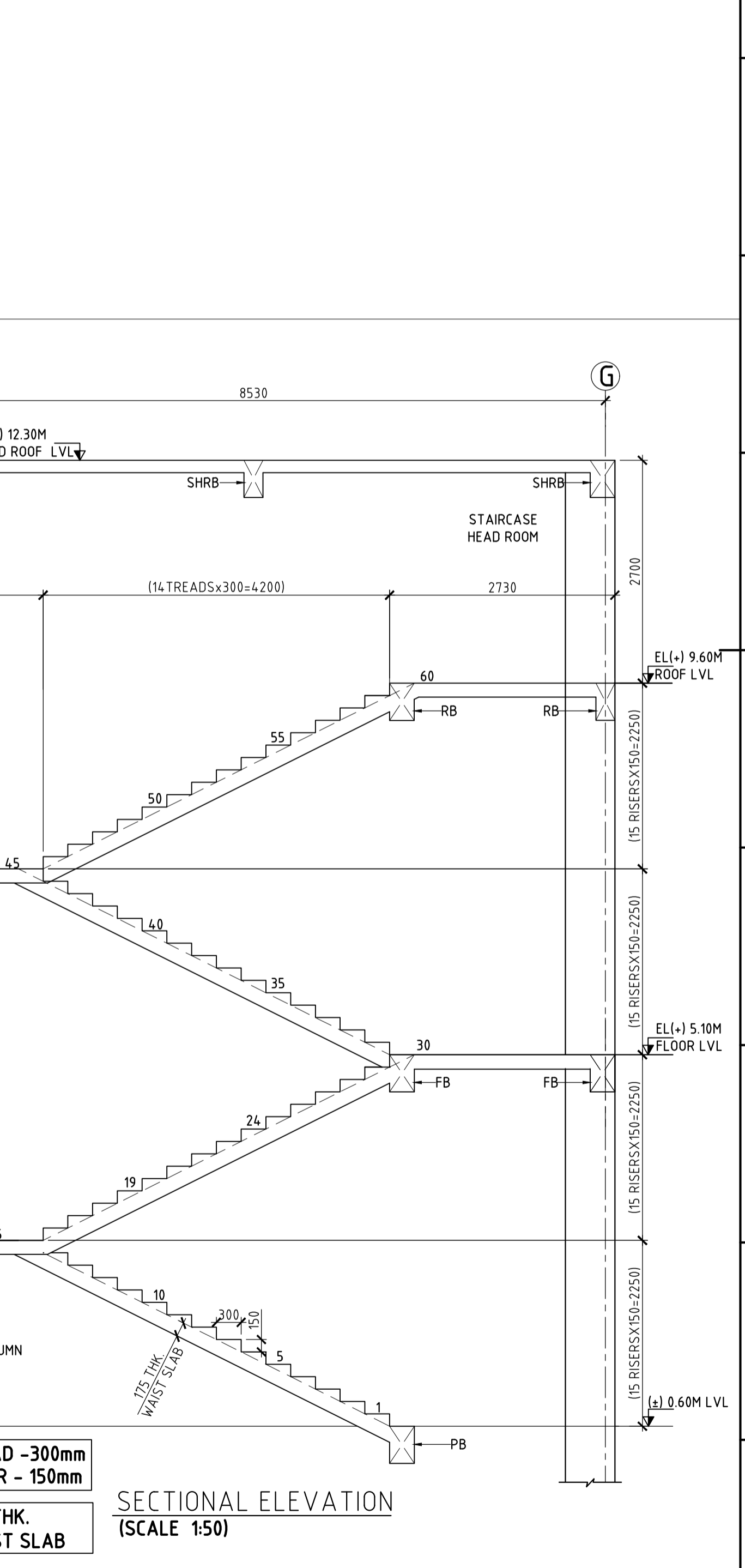
**SECTION B-B (FLIGHT-1)**  
(SCALE 1:25)



**DETAIL-A**  
(SCALE 1:20)



**KEY PLAN**



**SECTIONAL ELEVATION**  
(SCALE 1:50)

- NOTES**
- ALL DIMENSIONS ARE IN MM AND ALL LEVEL ARE IN M UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M25.
  - GRADE OF STEEL - Fe500D.
  - CLEAR COVER FOR MAIN REINFORCEMENT
  - WAIST SLAB-25
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWING.
  - DUCTILE DETAILING AS PER CODE IS1920.
  - WE ARE NOT RESPONSIBLE FOR QUALITY OR STANDARDS OF CONSTRUCTION.

REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
0	230830	1	FIRST SUBMISSION			BKU	PPI	AYR	BRT
<p><b>REVISIONS</b></p> <p>STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....</p>									

**CLIENT:** ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

**PROJECT:** SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

**TITLE:** R&D LAB STAIRCASE-1 LAYOUT & DETAILS

**PROJECT NO:** C1232704

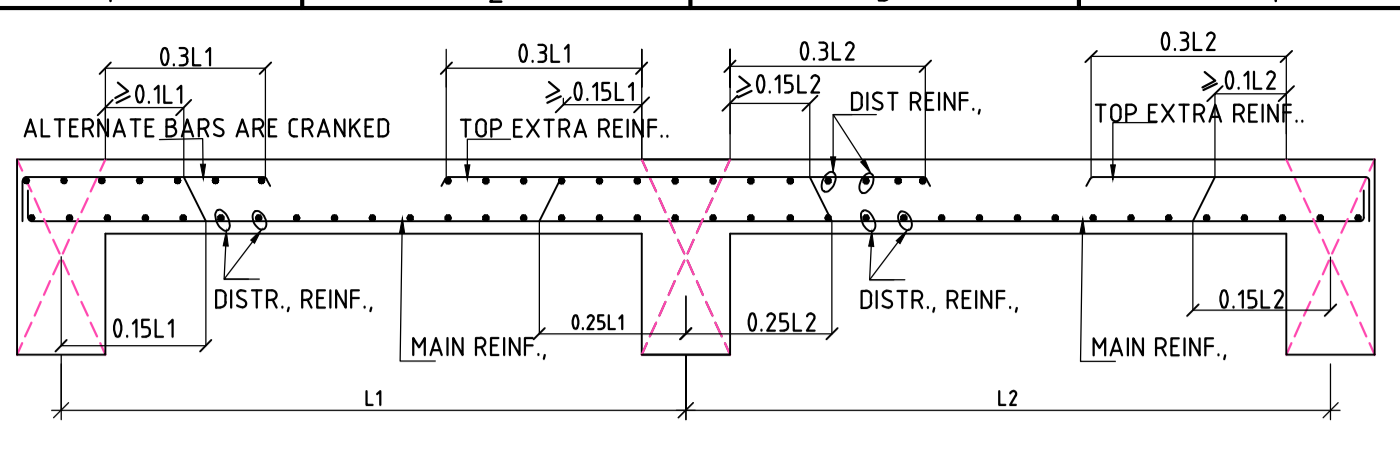
**COP:** -

**SCALE:** AS SHOWN

**DRAWING NO:** DDB201H8

**REV:** 0

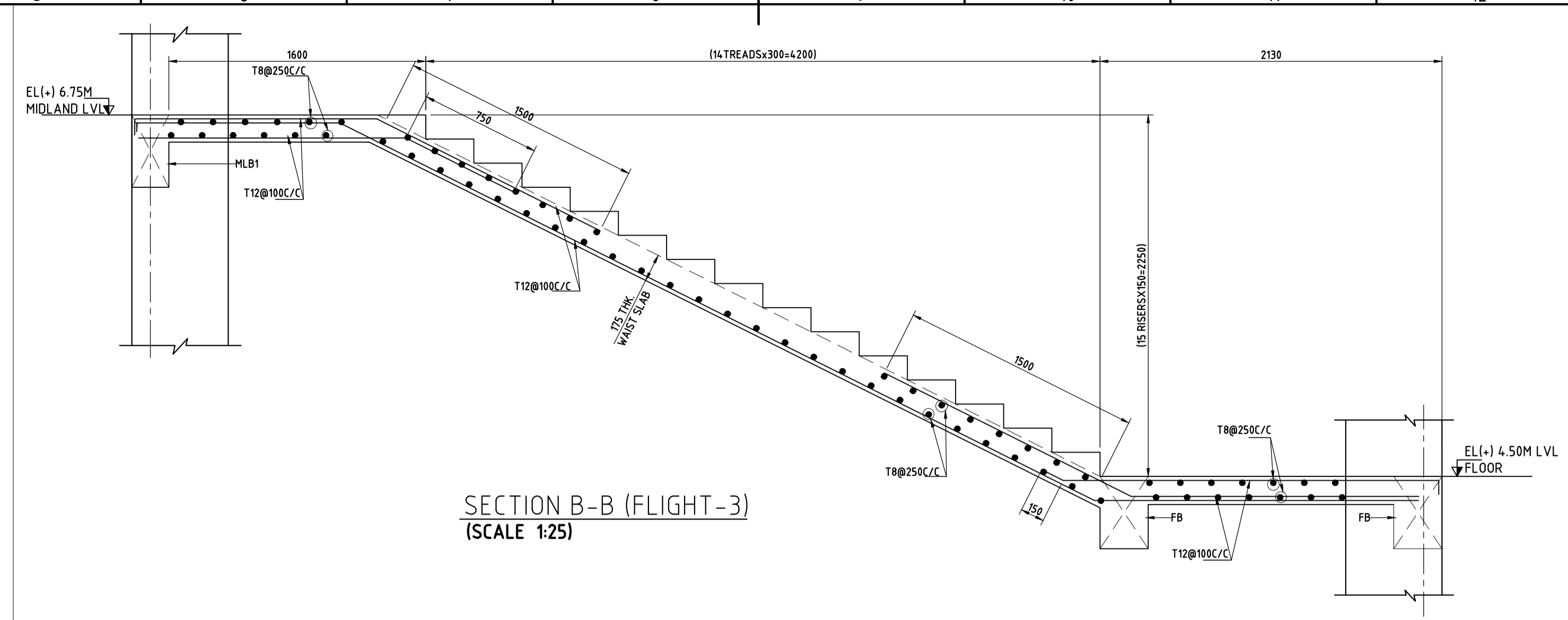
**COMPANIES:** L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



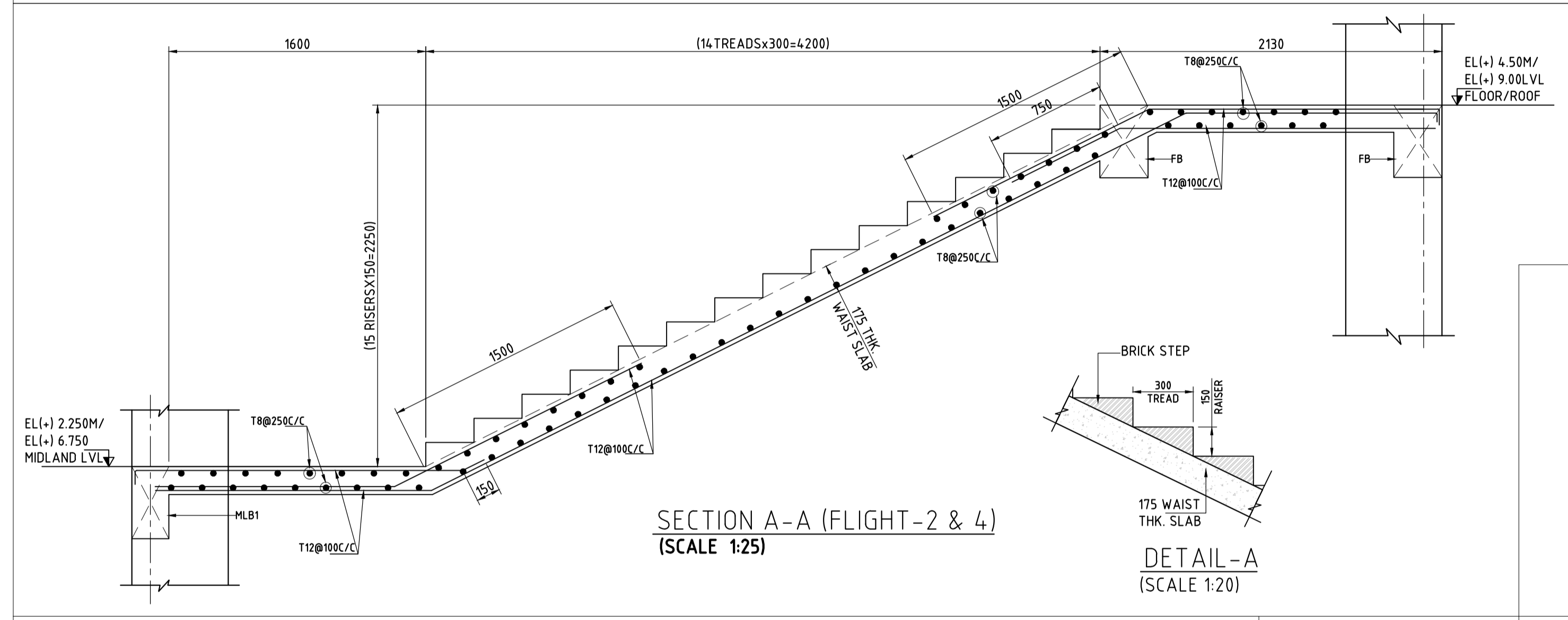
TYPICAL DETAILS OF SLAB REINFORCEMENT

SLAB SCHEDULE:-

S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1		150	T10-100C/C (ALT., CRANK)	T10-100C/C	T8-150C/C (ALT., CRANK)	T8-150C/C

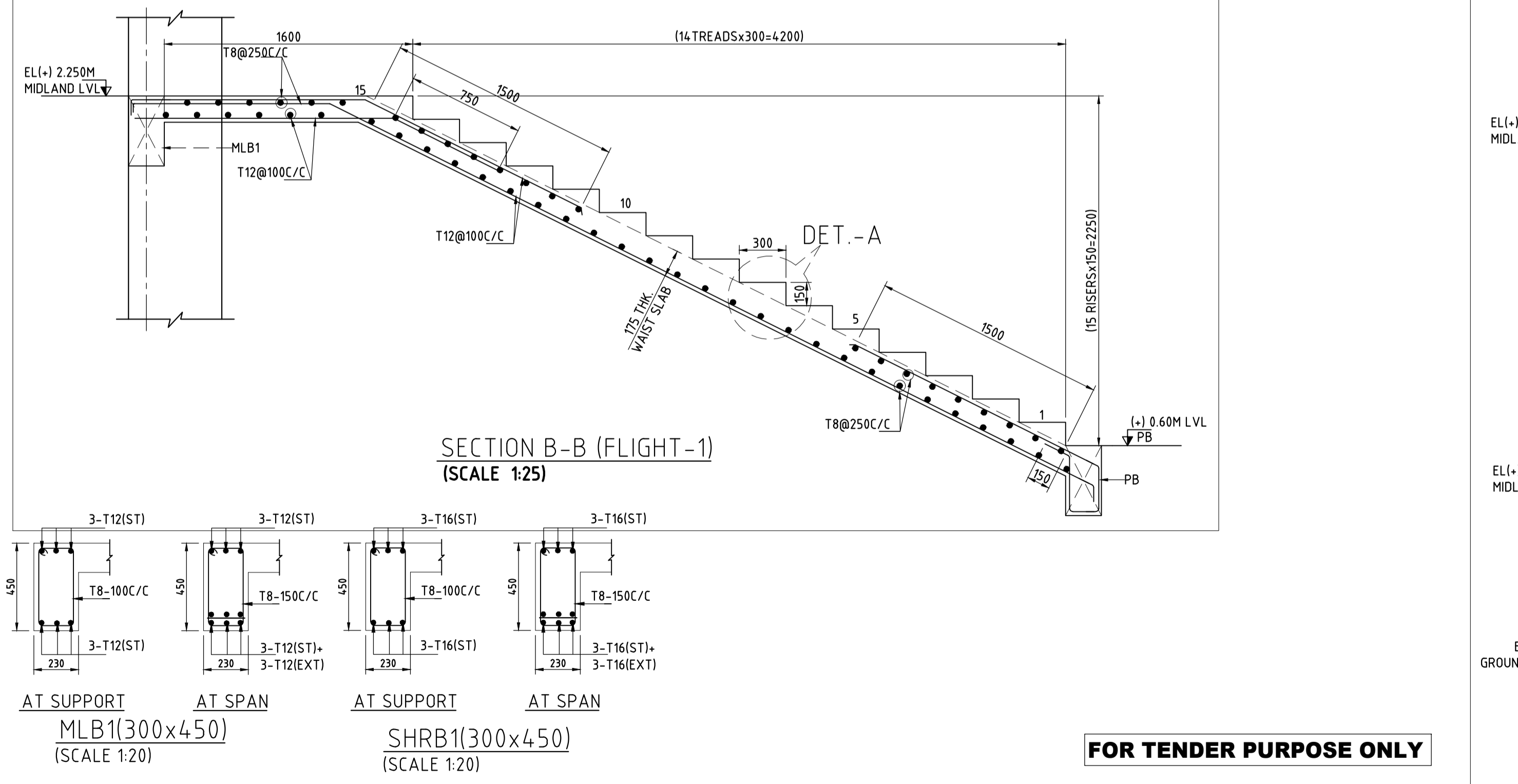


SECTION B-B (FLIGHT-3)  
(SCALE 1:25)

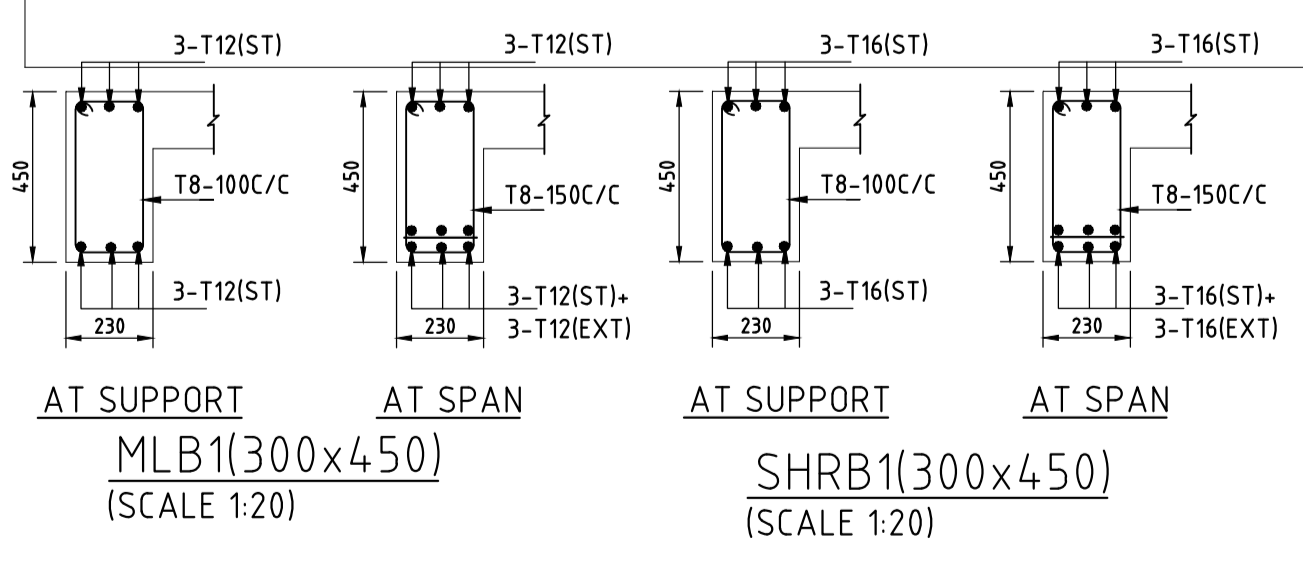


SECTION A-A (FLIGHT-2 & 4)  
(SCALE 1:25)

DETAIL-A  
(SCALE 1:20)

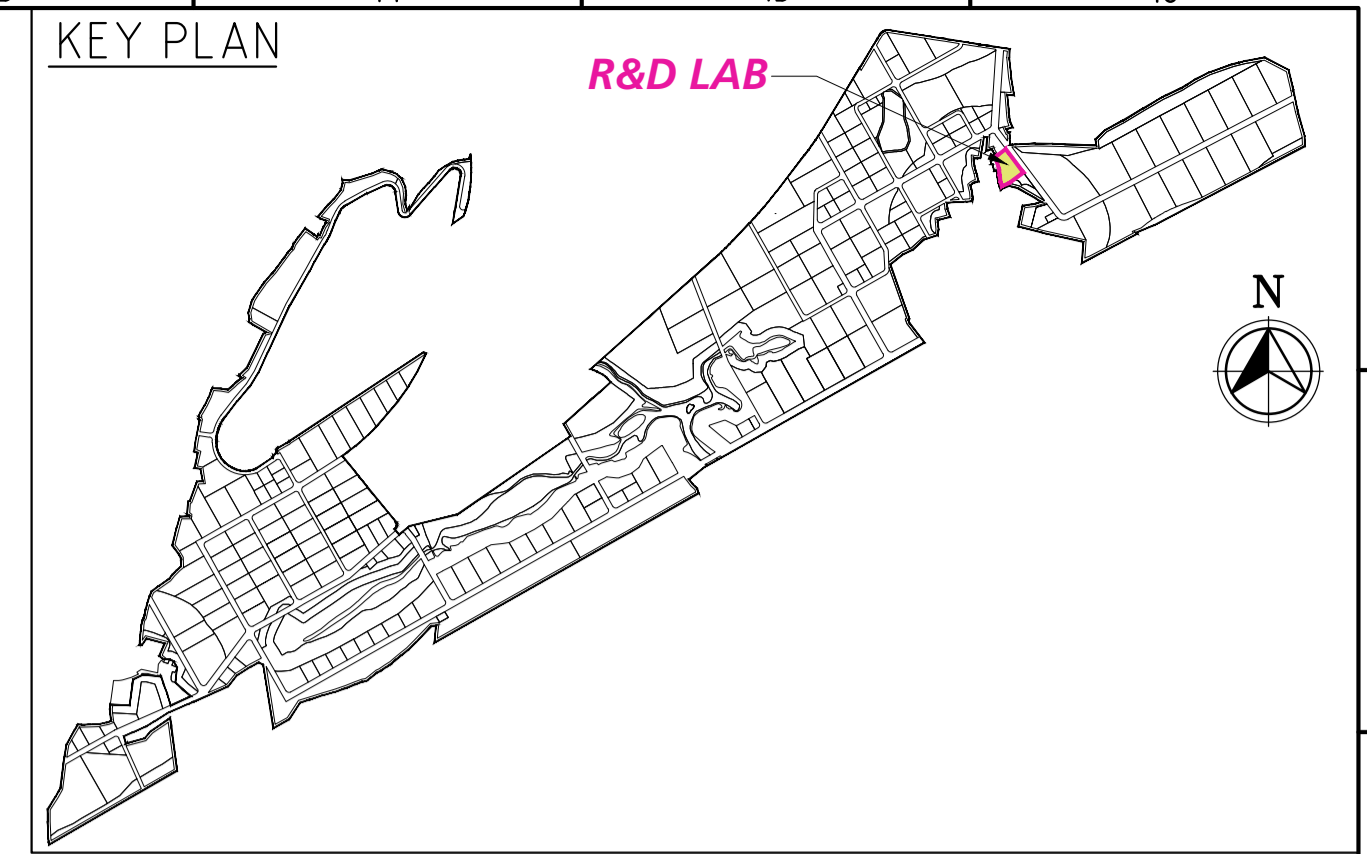


SECTION B-B (FLIGHT-1)  
(SCALE 1:25)



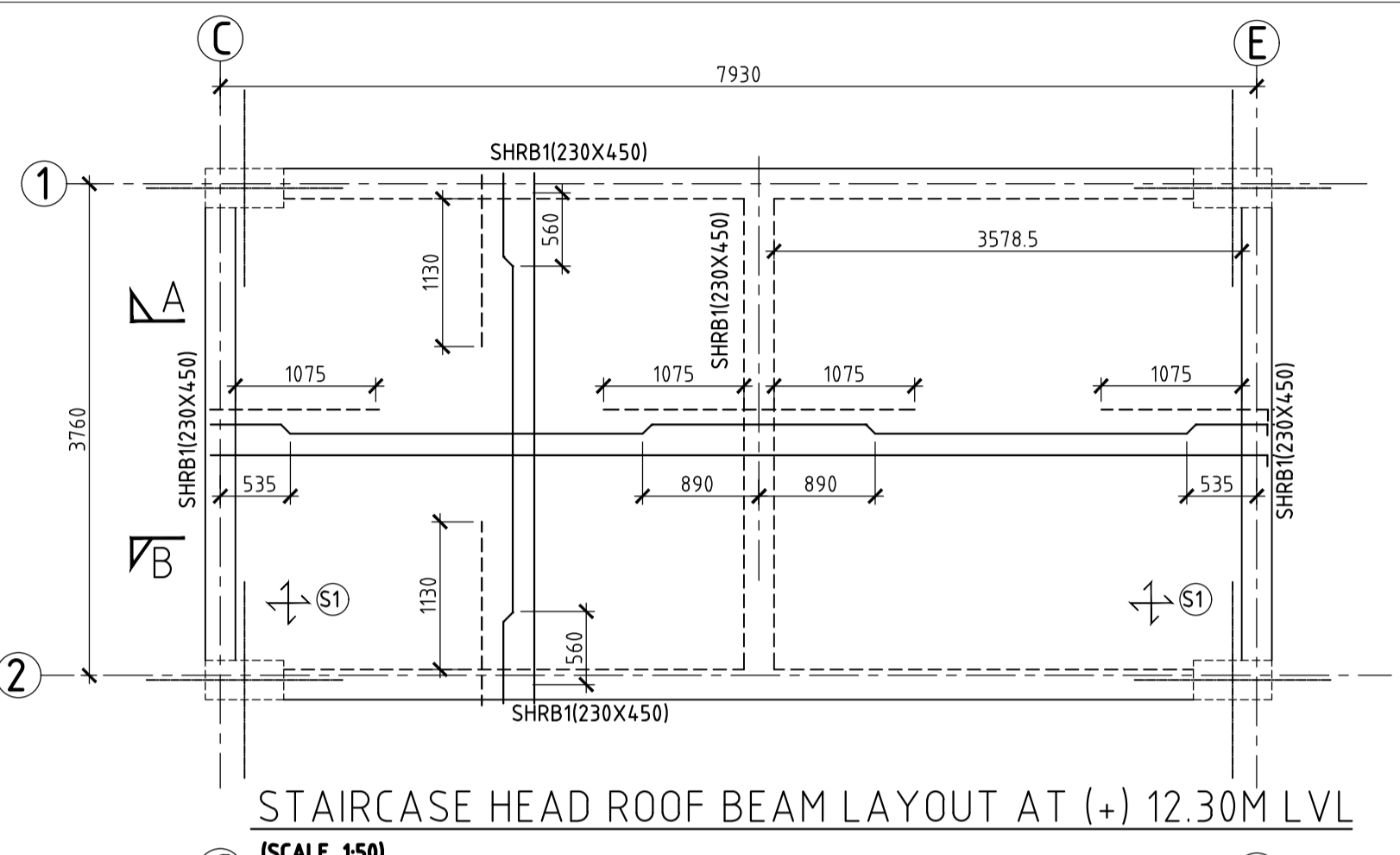
AT SUPPORT  
MLB1(300x450)  
(SCALE 1:20)

AT SPAN  
SHRB1(300x450)  
(SCALE 1:20)

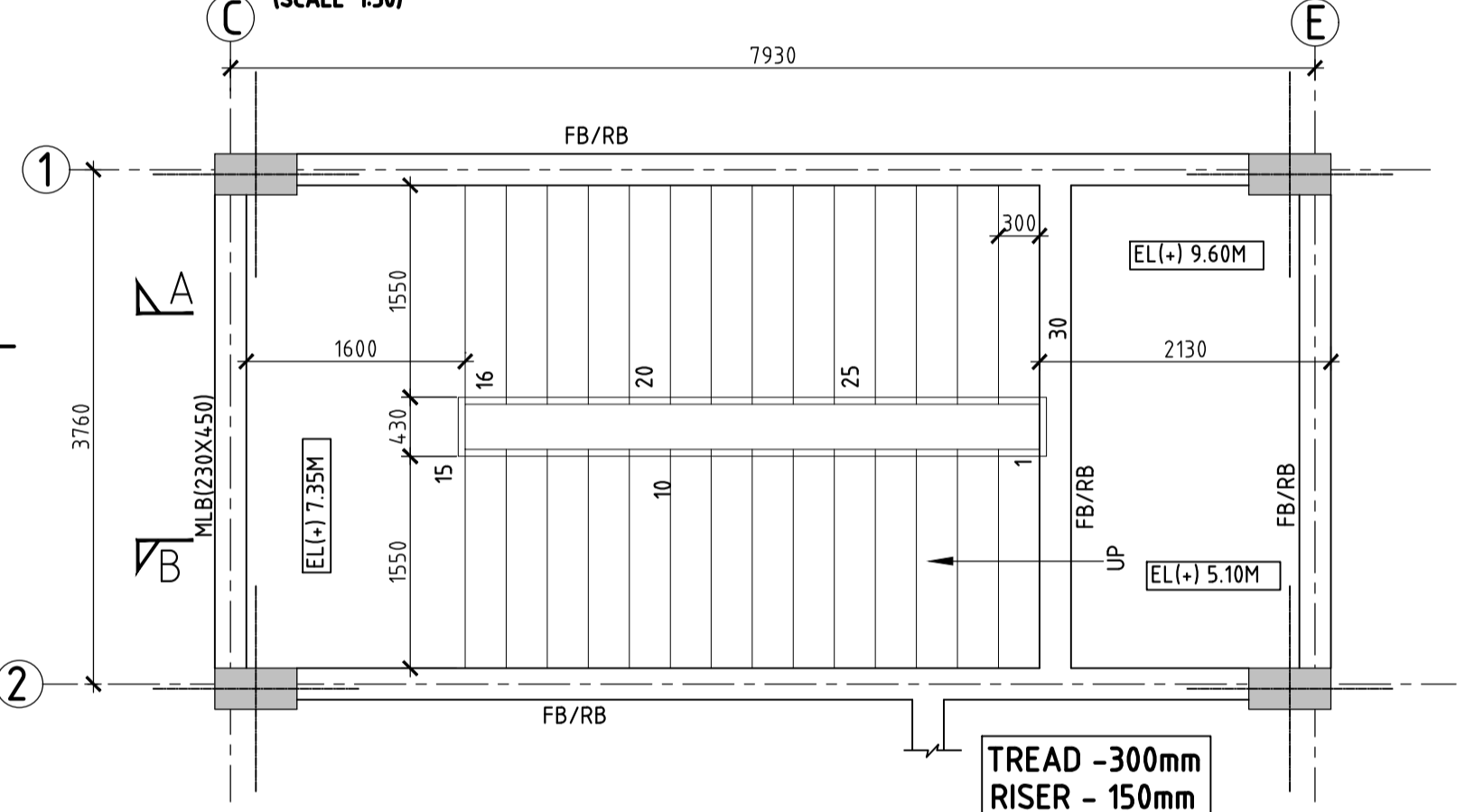


KEY PLAN

R&D LAB

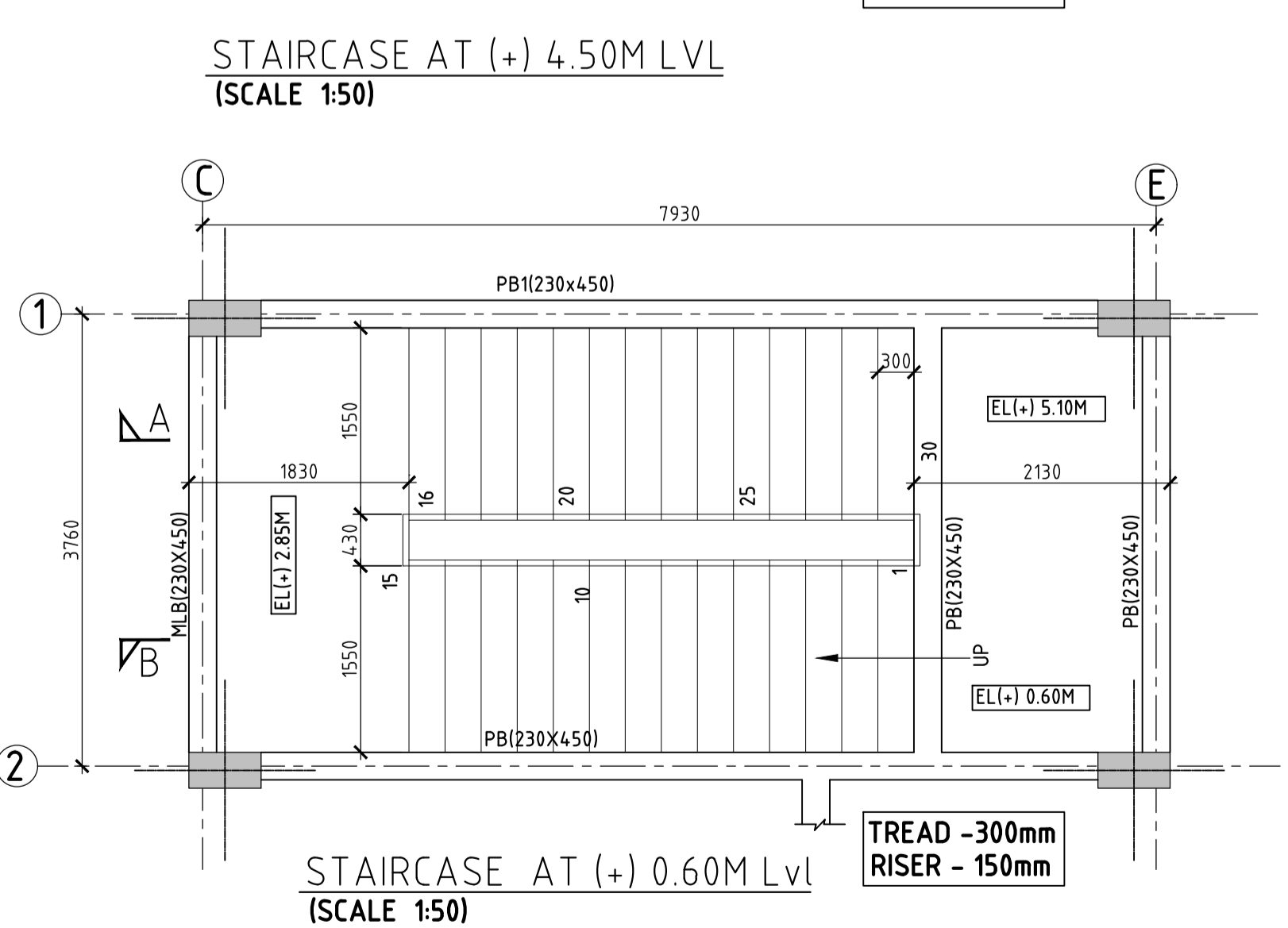


STAIRCASE HEAD ROOF BEAM LAYOUT AT (+) 12.30M LVL  
(SCALE 1:50)



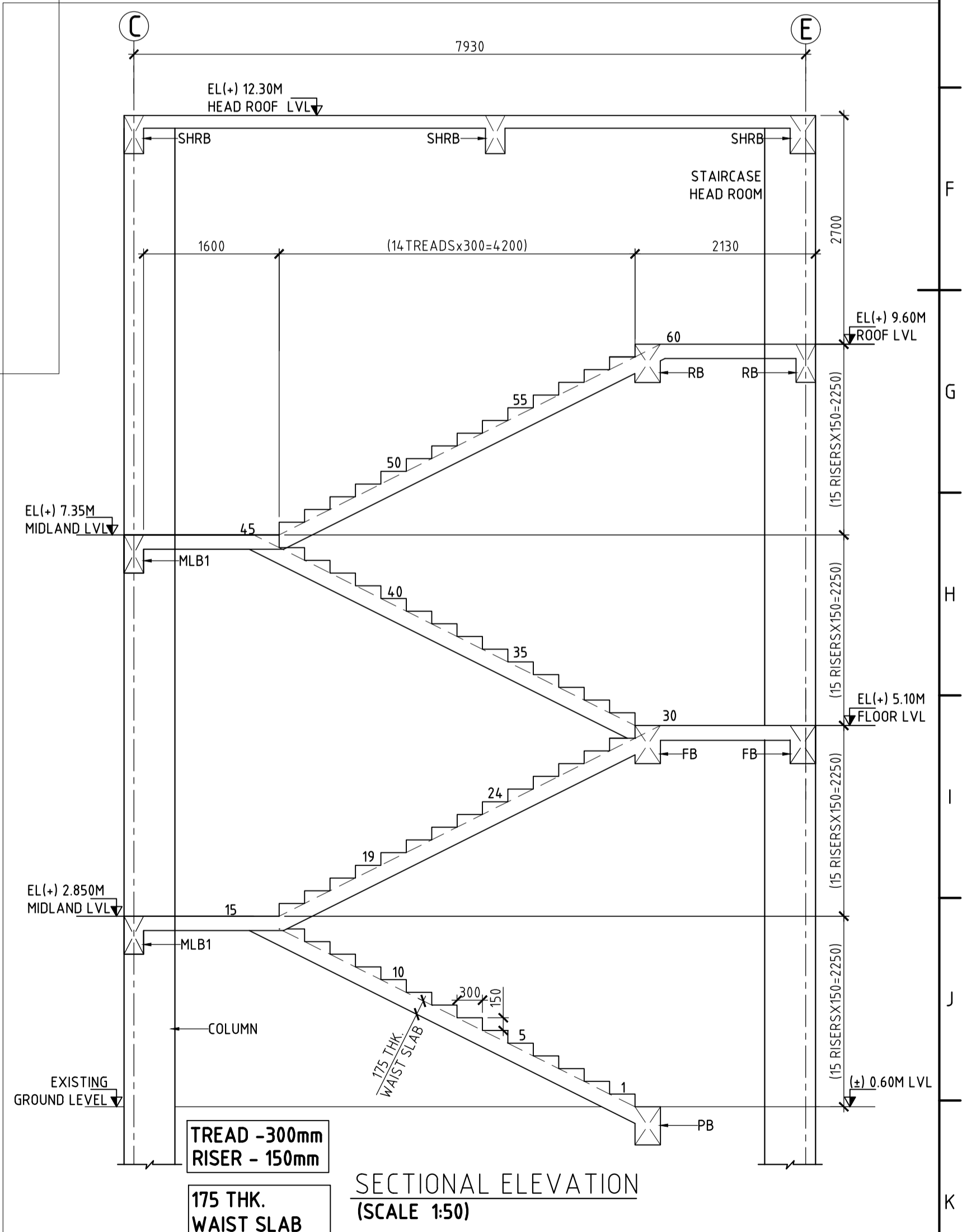
STAIRCASE AT (+) 4.50M LVL  
(SCALE 1:50)

TREAD - 300mm  
RISER - 150mm



STAIRCASE AT (+) 0.60M LVL  
(SCALE 1:50)

TREAD - 300mm  
RISER - 150mm



SECTIONAL ELEVATION  
(SCALE 1:50)

TREAD - 300mm  
RISER - 150mm

175 THK.  
WAIST SLAB

FOR TENDER PURPOSE ONLY

- NOTES
- ALL DIMENSIONS ARE IN MM AND ALL LEVEL ARE IN M UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M25.
  - GRADE OF STEEL - Fe500D.
  - CLEAR COVER FOR MAIN REINFORCEMENT
  - WAIST SLAB-25
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWING.
  - DUCTILE DETAILING AS PER CODE IS13920.
  - WE ARE NOT RESPONSIBLE FOR QUALITY OR STANDARDS OF CONSTRUCTION.

DRAWING NO.	TITLE	DATE	STATUS	DESCRIPTION	REVISIONS			
					DES.	DRN.	INIT. CHECKED	SIGN. APPROVED
0	230830	1	FIRST SUBMISSION		BKU	PPI	AYR	BRT
STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....								

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB STAIRCASE -2 LAYOUT & DETAILS

PROJECT NO: C1232704

SCALE: AS SHOWN

DRAWING NO: DDB201H9

REV: 0

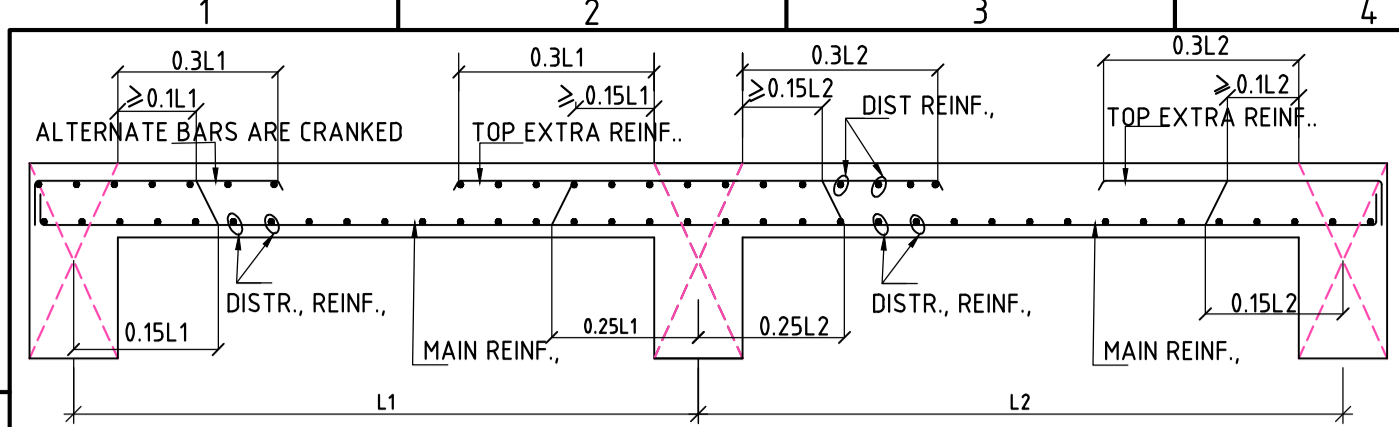
Engineering Ltd and must not be passed on to any person without the written consent of the Engineer in Charge. The Engineer in Charge shall not be liable for any loss or damage caused by the use of this drawing without the prior permission in writing.

ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)

L&T Infrastructure Engineering Ltd.

IN CONSORTIUM WITH:

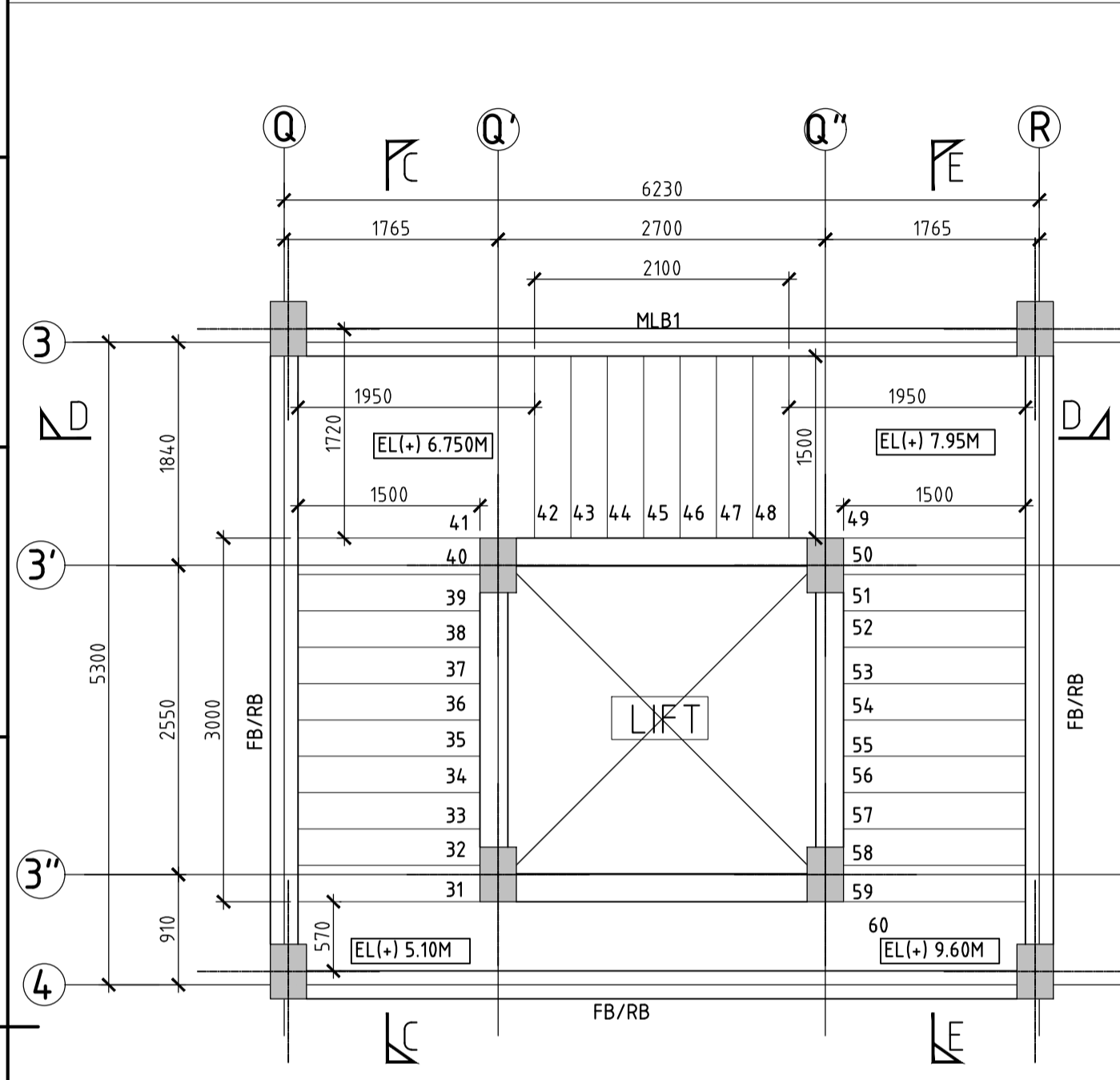
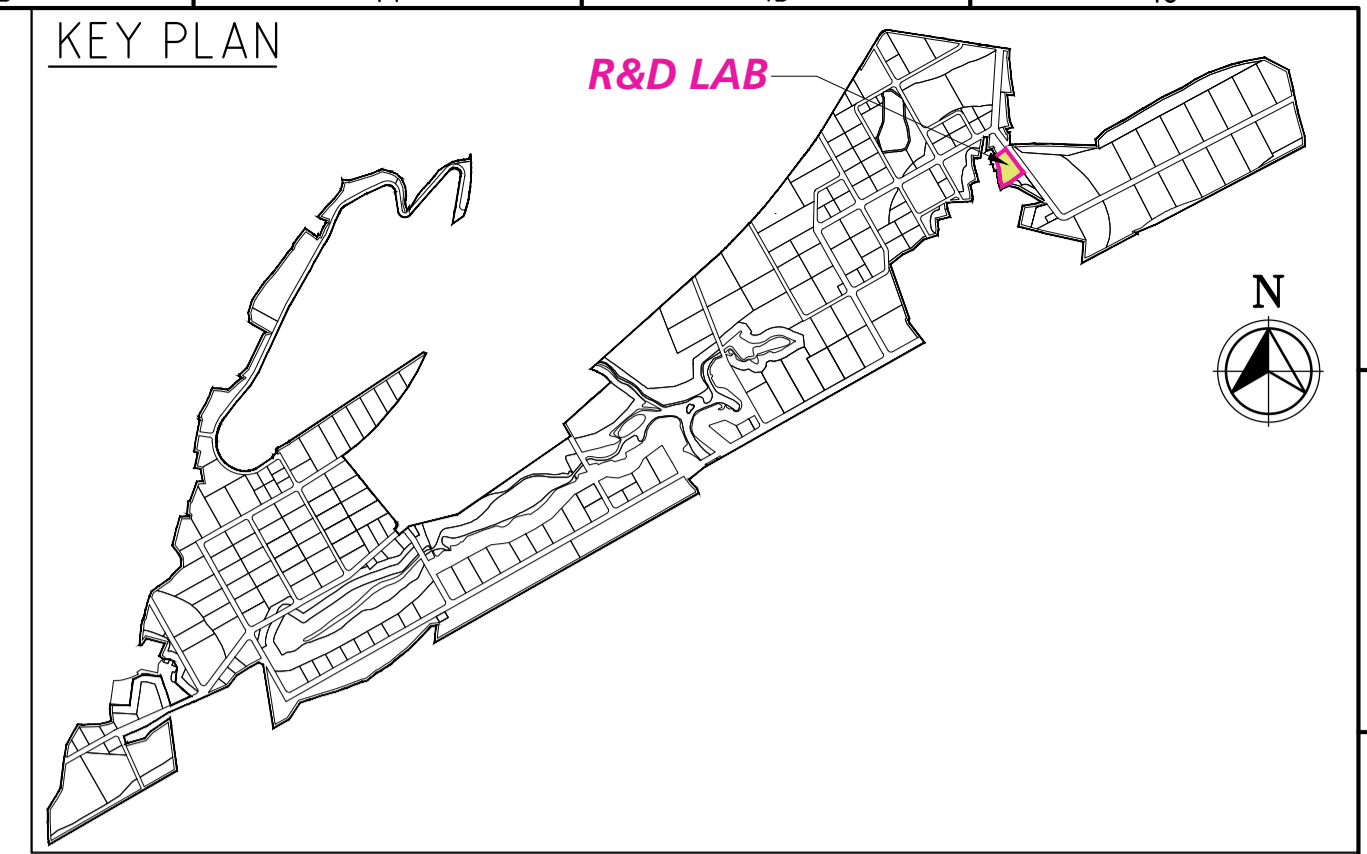
plot scale 1:50m



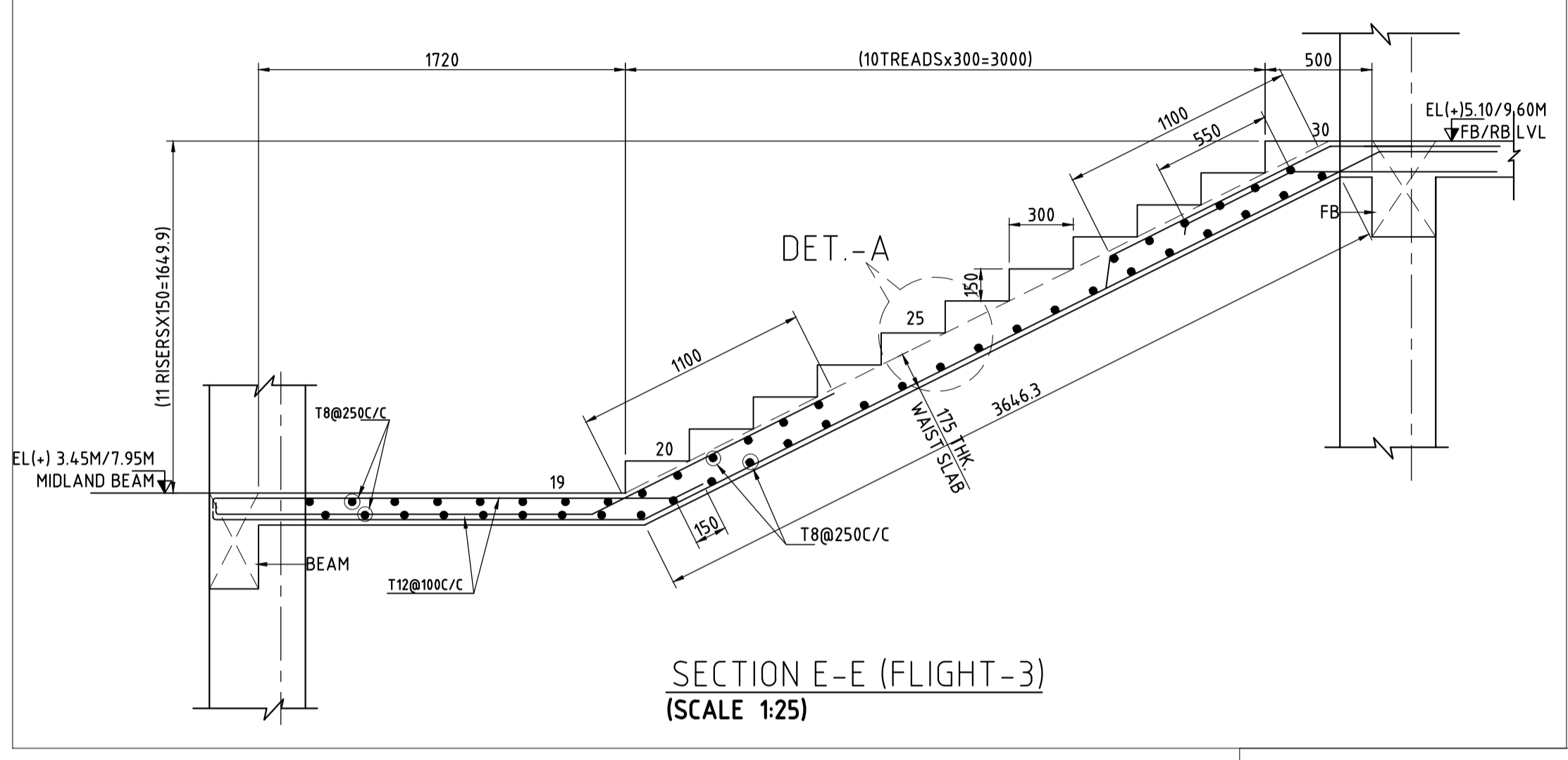
TYPICAL DETAILS OF SLAB REINFORCEMENT

SLAB SCHEDULE:-

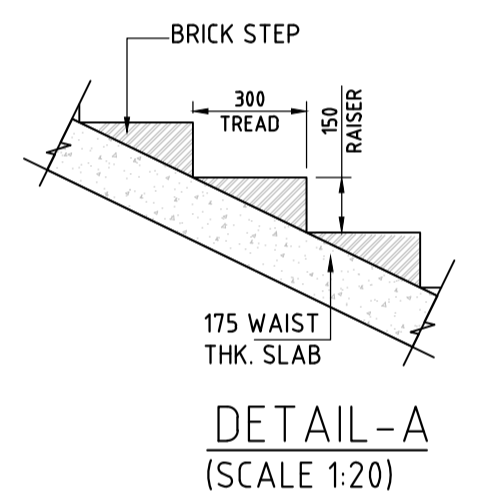
S.NO.	NAME	TYPE	THK. (mm)	REINF., ALONG SHORT SPAN		REINF., ALONG LONG SPAN	
				BOTTOM	TOP	BOTTOM	TOP
1	S1		150	T10-100C/C (ALT., CRANK)	T10-100C/C	T10-150C/C (ALT., CRANK)	T8-150C/C



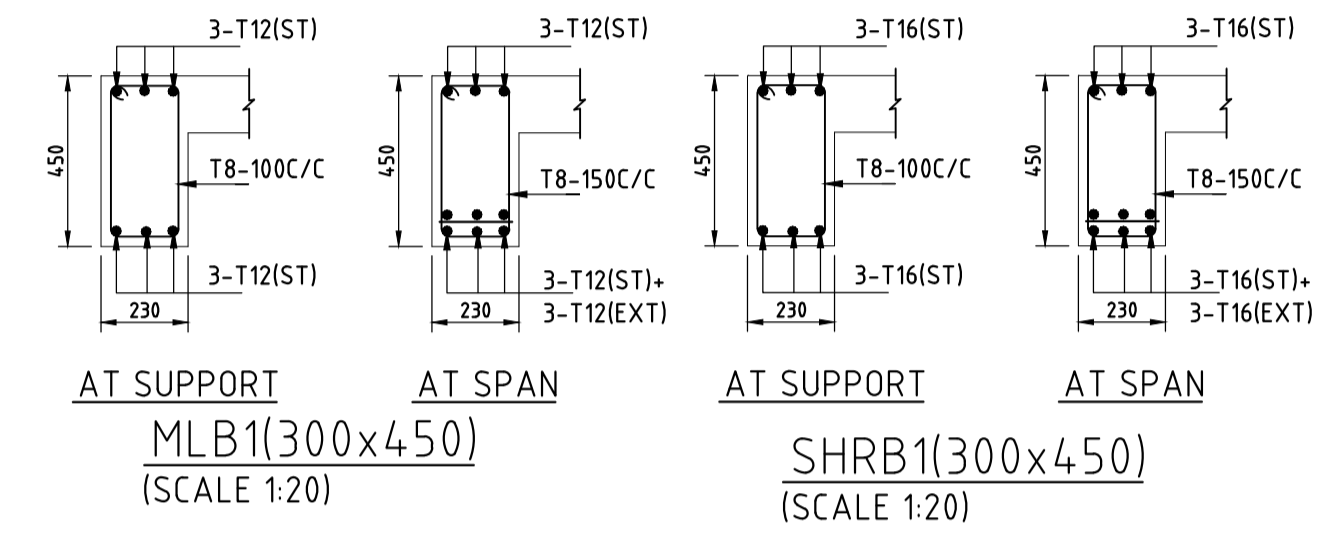
STAIRCASE AT (+) 4.50M LVL (SCALE 1:50)



SECTION E-E (FLIGHT-3) (SCALE 1:25)

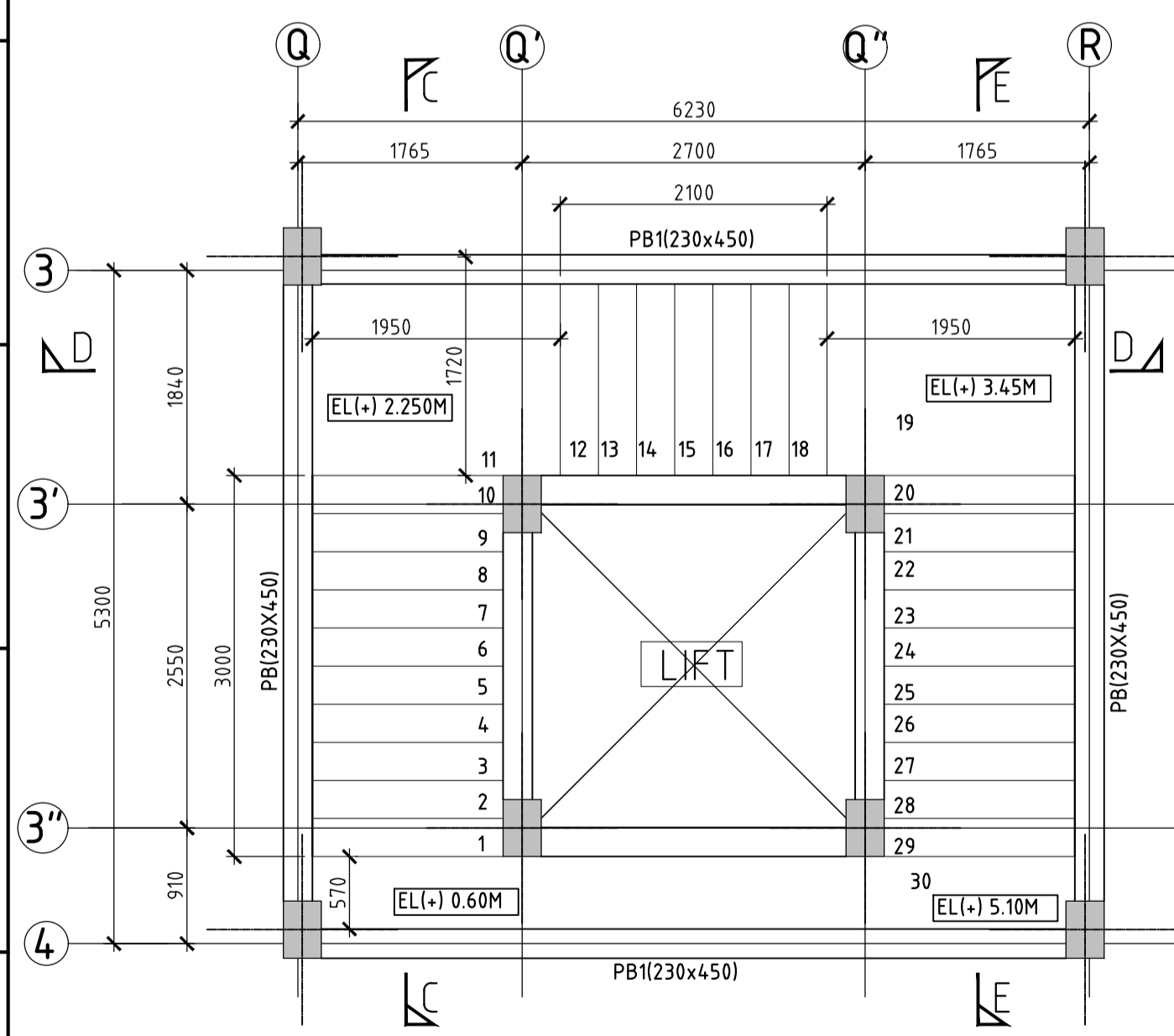


DETAIL-A (SCALE 1:20)



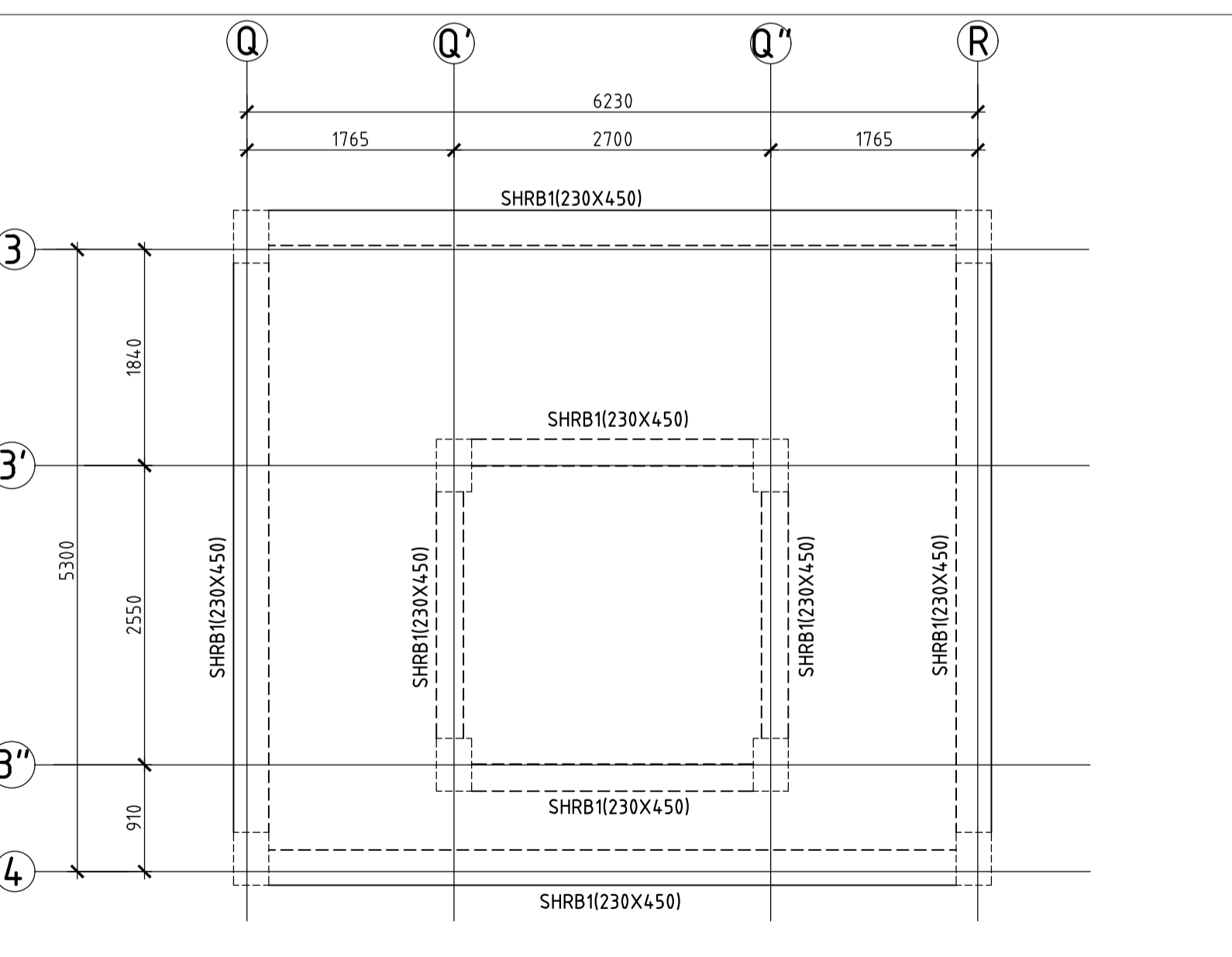
AT SUPPORT  
MLB1(300x450)  
(SCALE 1:20)

AT SPAN  
SHRB1(300x450)  
(SCALE 1:20)

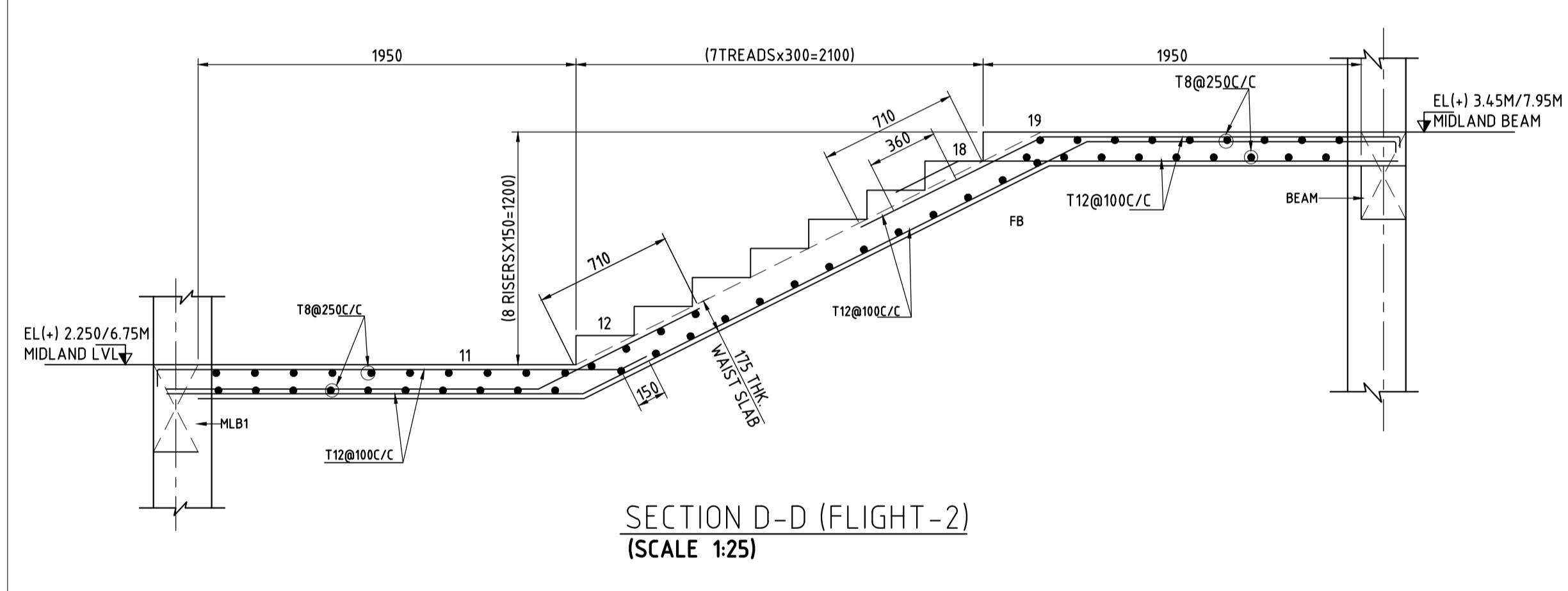


STAIRCASE AT (+) 0.60M LVL (SCALE 1:50)

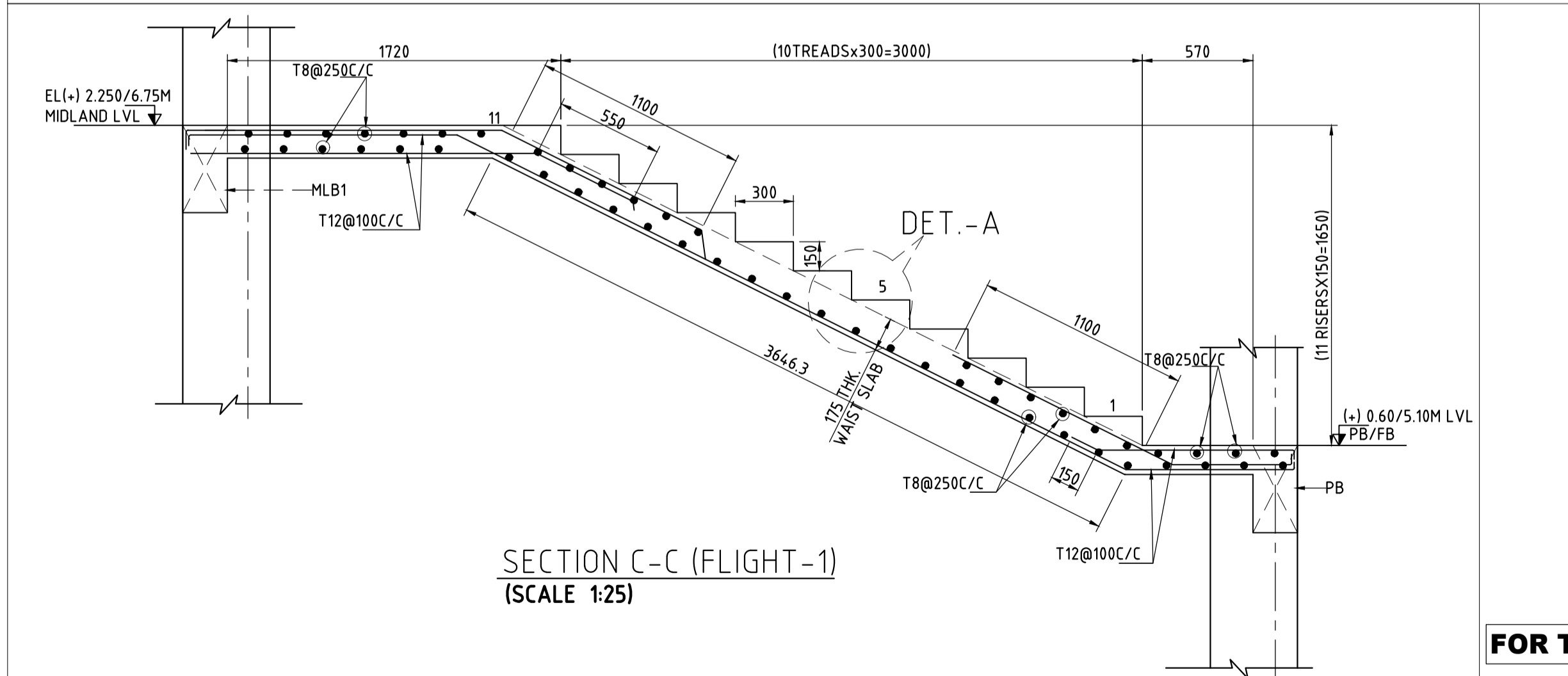
TREAD - 300mm  
RISER - 150mm



STAIRCASE & LIFT HEAD ROOF BEAM LAYOUT AT (+) 12.30M LVL (SCALE 1:50)



SECTION D-D (FLIGHT-2) (SCALE 1:25)



SECTION C-C (FLIGHT-1) (SCALE 1:25)

FOR TENDER PURPOSE ONLY

- NOTES
- ALL DIMENSIONS ARE IN MM AND ALL LEVEL ARE IN M UNLESS NOTED OTHERWISE.
  - DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
  - CONCRETE GRADE SHALL BE M25.
  - GRADE OF STEEL - F4500D.
  - CLEAR COVER FOR MAIN REINFORCEMENT
    - a) WAIST SLAB - 25
  - LAPS SHALL BE STAGGERED & NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED AT ANY LOCATION.
  - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWING.
  - DUCTILE DETAILING AS PER CODE IS1920.
  - WE ARE NOT RESPONSIBLE FOR QUALITY OR STANDARDS OF CONSTRUCTION.

DRAWING NO.	TITLE	REV.	DATE	STATUS	DESCRIPTION	DES.	DRN.	INIT.	SIGN.	INIT.	SIGN.
		0	230830	1	FIRST SUBMISSION						
REVISIONS STATUS CODES 1: PRELIMINARY 2: FOR APPROVAL 3: GOOD FOR CONSTRUCTION 4: .....											
REFERENCE DRAWINGS											

CLIENT: ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED (APIC)

PROJECT: SETTING UP OF BULK DRUG PARK AT NAKKAPALLI IN ANAKAPALLI DISTRICT, ANDHRA PRADESH

TITLE: R&D LAB STAIRCASE-1 LAYOUT & DETAILS

PROJECT NO: C1232704

CDP: -

SCALE: AS SHOWN

DRAWING NO: DBB201H10

REV: 0

PATH: REFER BOTTOM LEFT CORNER OF THE DRAWING

ASSYSTEM L&T Infrastructure Engineering Ltd. IN CONSORTIUM WITH: ARTELIA Consulting Engineers Ltd. (Formerly Mahindra Consulting Engineers Ltd.)



**Nodal Agency**

**Andhra Pradesh Industrial Infrastructure Corporation Limited**

**Implementing Agency**

**AP Bulk Drug Infrastructure Corp. Ltd**

**APIIC Towers, 9<sup>th</sup> Floor, IT Park, Mangalagiri, Guntur District- 522 503  
Andhra Pradesh**