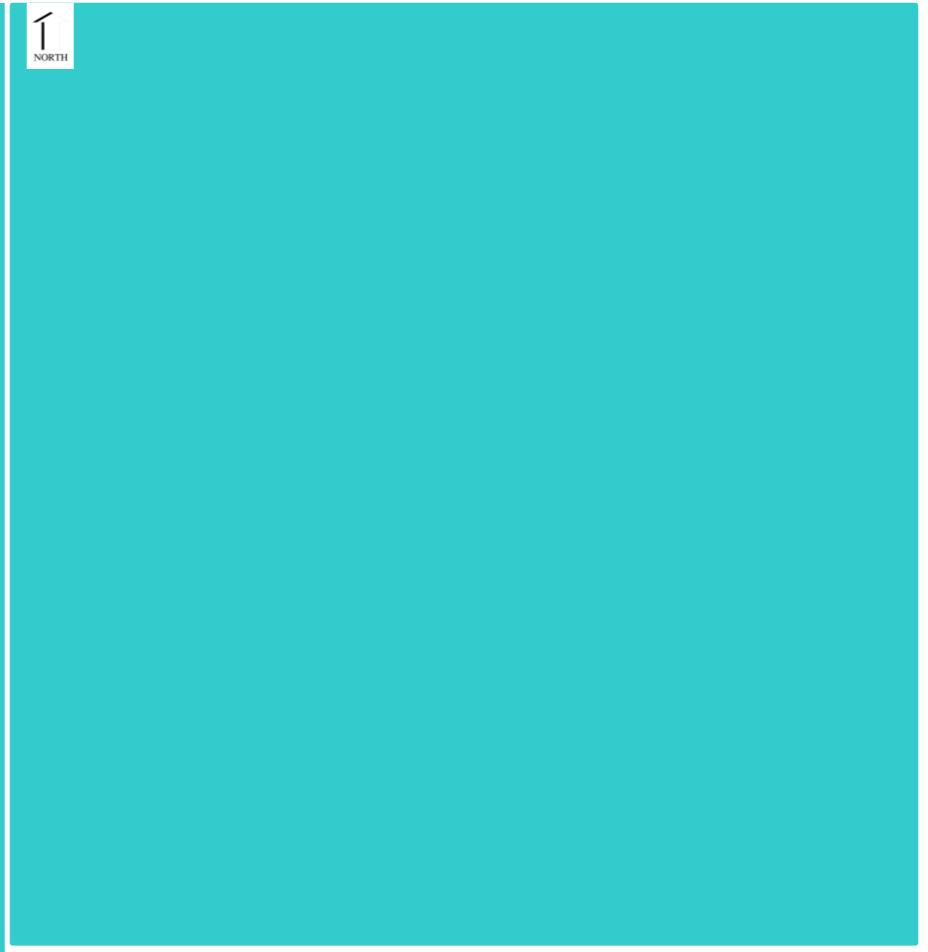




# CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD (CMWSSB)



## PMC FOR CHENNAI PERUR 400 MLD DESALINATION PLANT AND ALLIED WORKS

### Concept Design Report for 400 MLD Desalination Plant (CP1) at Perur

Reference No. Loan ID-P267

Contract No.: CNT/ CON/DESAL /ICB/Gol/016/2018-19

Submitted on 23 April 2021

### VOLUME – IV DRAWINGS

SMEC International Pty. Ltd. in consortium with  
NJS Engineers India Private Limited,  
TATA Consulting Engineers Limited,  
SMEC (India) Private Limited

#### PMC Chennai Office Address

B, 13<sup>th</sup> Floor,  
Puravankara Primus,  
No.236 Okkiyampet, Old Mahabalipuram Road,  
Thuraipakkam, Chennai 600 097,  
Tamil Nadu, India



**DOCUMENT CONTROL**

Document:	Concept Design Report for 400 MLD Desalination Plant (CP1) at Perur
File Location:	Chennai
Project Name:	<b>PMC FOR CHENNAI PERUR 400 MLD DESALINATION PLANT AND ALLIED WORKS</b>
Revision Number:	1

**REVISION HISTORY**

Revision No.	Date	Prepared by	Reviewed by	Approved for Issued by
0	8 July 2020	Dr.Ghulam Mustafa Mr.Michel Morillon	Dr.P.Dharmabalan	Dr.P.Dharmabalan
1	23 April 2021	Mr.Guilbert Z Gonzales & PMC team	& PMC team	

**ISSUE REGISTER**

Distribution List	Date Issued	Number of Copies
CMWSSB	8 July 2020	5 Copies
CMWSSB	23 April 2021	Soft Copy

**PMC DETAILS**

Approved by:	Dr. P. Dharmabalan		
Address:	PMC for Chennai Perur 400 MLD Desalination Project office  B, 13 <sup>th</sup> Floor, Puravankara Primus, No.236 Okkiyampet, Old Mahabalipuram Road, Thuraipakkam, Chennai 600 097, Tamil Nadu, India		
Tel:	+91 95607 02631 & +61419765881		
Email:	P.Dharma@sme.com	Website:	<a href="http://www.sme.com">www.sme.com</a>

The information within this document is and shall remain the property of:

SMEC and its project partners.

**IMPORTANT NOTICE**

This report is confidential and is provided solely for the purposes of briefing the Client on the planned activities to be undertaken by the Project Management Consultant ("PMC") during the course of the Consulting Services under the Chennai 400 MLD Desalination Plant project]. This report is provided pursuant to a Consultancy Agreement between PMC consisting of SMEC International Pty Ltd ("SMEC"), as lead consultant with Joint venture partners, consisting of TATA Consulting Engineers Ltd. (TCE), NJS Engineers India Pvt. Ltd. (NJSEI) and SMEC (India) Private Limited and CMWSSB, under which PMC undertook to perform a specific and limited task for CMWSSB.

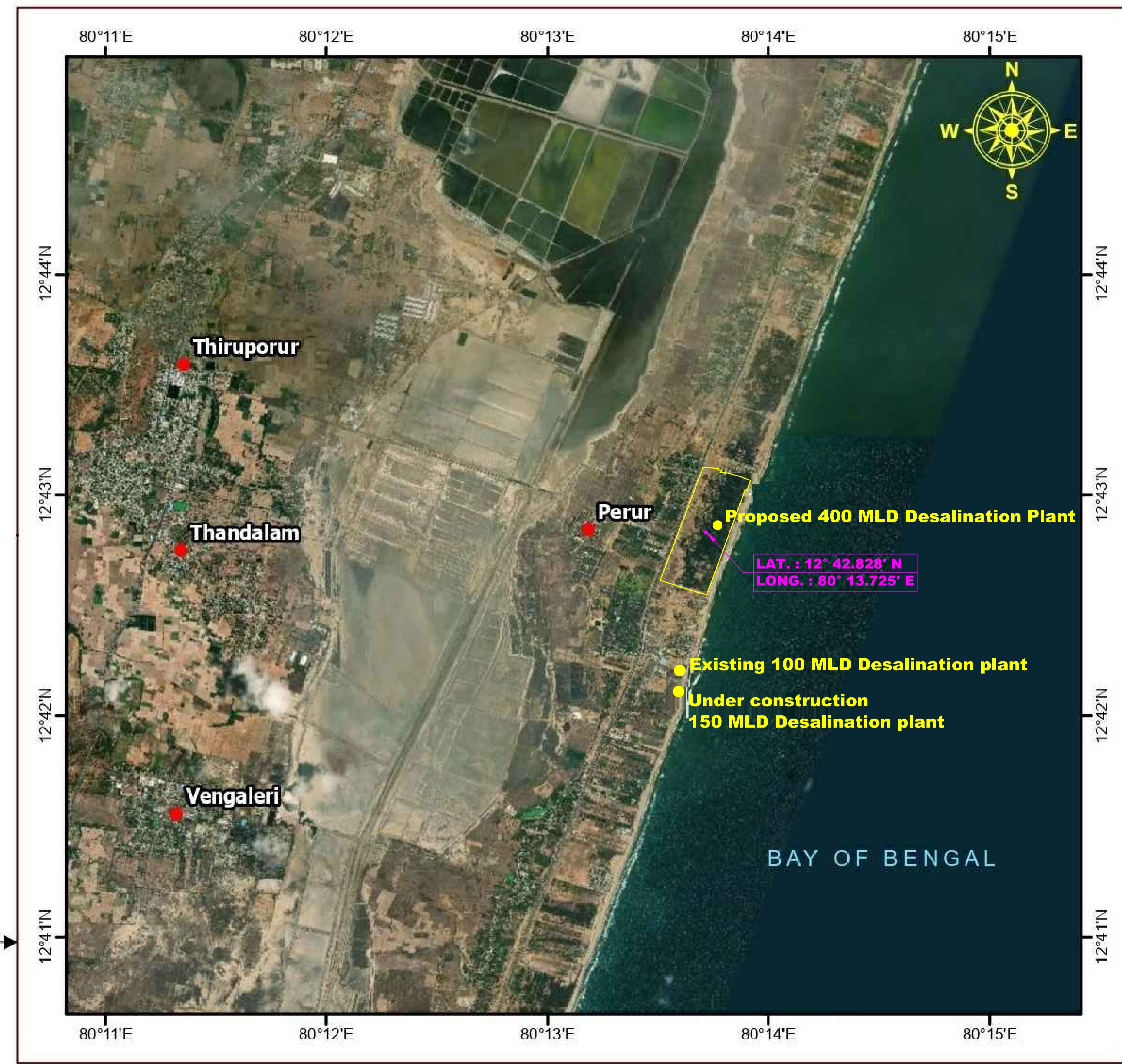
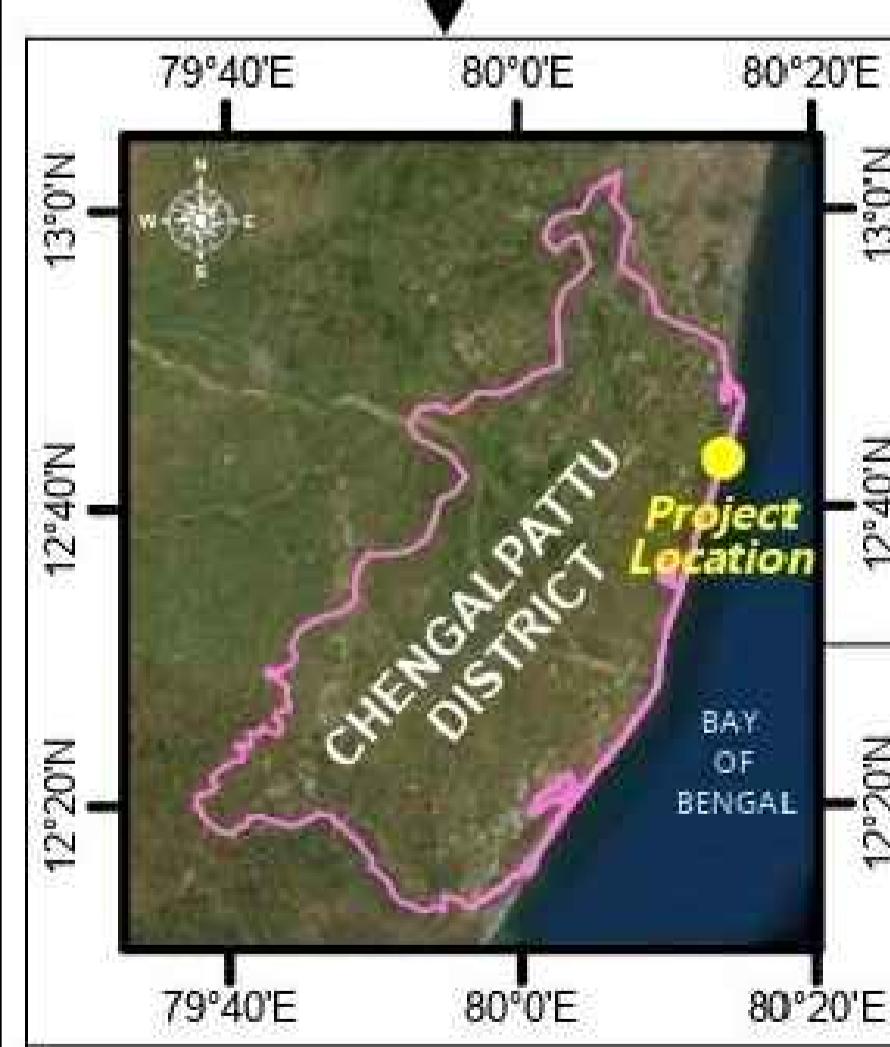
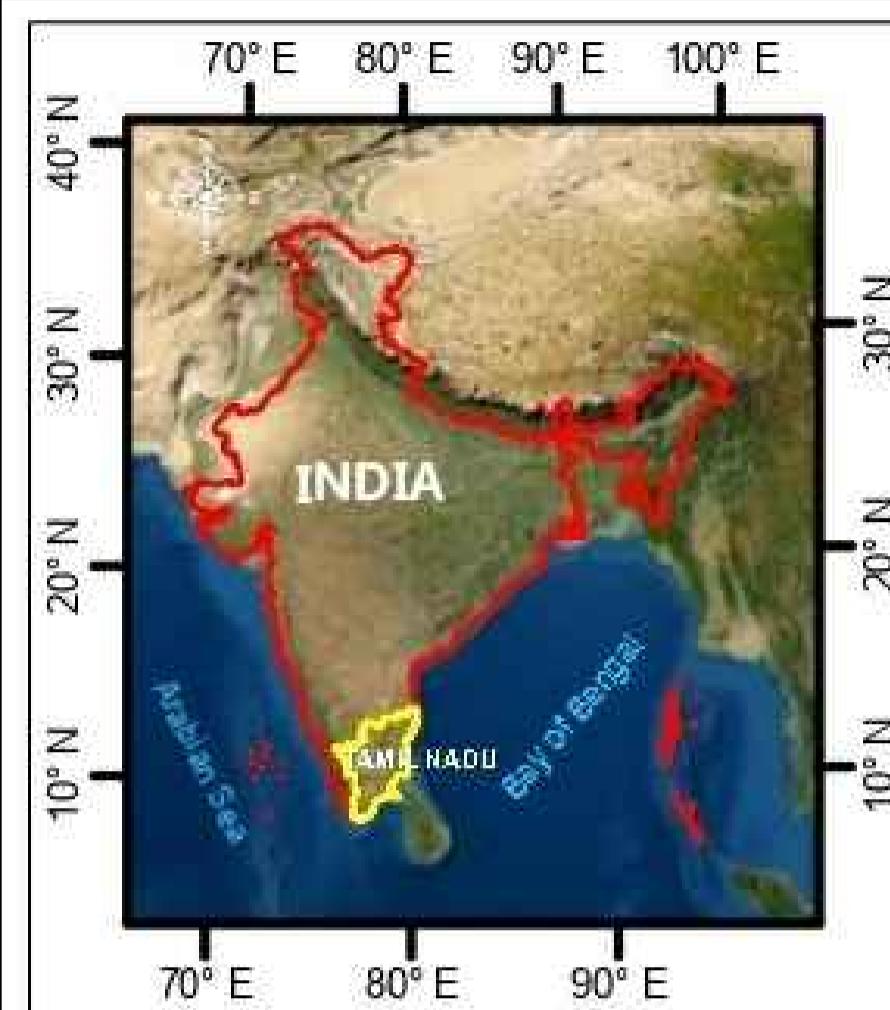
This report is strictly limited to the matters stated in it and subject to the various assumptions, qualifications and limitations in it and does not apply by implication to other matters. SMEC makes no representation that the scope, assumptions, qualifications and exclusions set out in this report will be suitable or sufficient for other purposes nor that the content of the report covers all matters which you may regard as material for your purposes.

## LIST OF DRAWINGS

<b>SL. NO.</b>	<b>DRAWING TITLE</b>	<b>DRAWING NUMBER</b>
<b>General Drawings</b>		
1	Location Map of Perur Desalination Plant	7061563/PMC400MLD/CP1/G/LOC/001
2	Site Photographs at Perur	7061563/PMC400MLD/CP1/G/PHO/004
3	Interface drawing between CP1 & CP2	7061563/PMC400MLD/CP1/G/INF/006
<b>Process Drawings</b>		
4	Process flow diagram for proposed 400 MLD Perur DSP	7061563/PMC400MLD/CP1/P/PFD/001
5	Plant Layout for 400 MLD Perur DSP	7061563/PMC400MLD/CP1/P/LAY/002
<b>Civil Drawings</b>		
6	Topographical survey drawing	7061563/PMC400MLD/CP1/C/TOP/002
7	Bathymetric survey drawing	7061563/PMC400MLD/CP1/C/BAT/003
8	Retaining Wall / Compound Wall Layout for 400MLD Perur DSP	7061563/PMC400MLD/CP1/C/RET/005
9	Architectural View of Gateway	7061563/PMC400MLD/CP1/C/ARC/007
10	General Arrangement Drawing for Administration Building (10 Sheets)	7061563/PMC400MLD/CP1/C/ABD/001
11	Typical Drawing – Construction of Roads & Strom Water Drains 400MLD Perur DSP	7061563/PMC400MLD/CP1/C/R&D/008
<b>Mechanical Drawings</b>		
12	General Arrangement Drawing for RO Building	7061563/PMC400MLD/CP1/M/ROB/002
<b>Electrical Drawings</b>		
13	Key Single Line Diagram 230/110kV Gas Insulated Substation	7061563/PMC400MLD/CP1/E/SLD/001
14	110kv Intake & 11kV Main SWGR for 400 MLD Perur Desalination Plant	7061563/PMC400MLD/CP1/E/SLD/002
15	11kV Main SWGR Feeder Details For 400 MLD Perur Desalination Plant	7061563/PMC400MLD/CP1/E/SLD/003
16	Seawater Intake Single Line Diagram for 400 MLD Perur Desalination Plant	7061563/PMC400MLD/CP1/E/SLD/004
17	Electrical Interface Diagram Between CP1 & CP2 for 400 MLD Perur Desalination Plant	7061563/PMC400MLD/CP1/E/SLD/022
18	Substation Automation System Architecture	7061563/PMC400MLD/CP1/E/SLD/023
19	General Arrangement Plan 230/110kV Gas Insulated Substation	7061563/PMC400MLD/CP1/E/GAD/001
<b>Instrumentation, Control, and Automation Drawings</b>		
20	Tentative DCS architecture & interface for 400 MLD Perur DSP	7061563/PMC400MLD/CP1/I/DCS/001
21	Critical Control Points (CCP) Flow Diagram for Proposed 400 MLD Perur DSP	7061563/PMC400MLD/CP1/I/CCP/002
22	Tentative Reporting System Architecture	7061563/PMC400MLD/CP1/I/RPS/003

**Discipline Codes:**

<b>Discipline</b>	<b>Code</b>
General	G
Process	P
Instrumentation, Control, and Automation	I
Civil	C
Electrical	E



R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM	SS / RS	PD
Rev	Date	Description	Drawn	Chkd	Appd
Project Management Consultant :					
 <b>SMEC</b>  <b>TATA</b>  <b>NJS</b>  <b>SMEC</b> SMEC International Pty Ltd, Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSI), SMEC India Pvt Ltd.					
Client:					
Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"					
Project Title: PMC for Chennai Perur 400 MLD Desalination Plant and allied works					
Project Code: Contract Package -1 (CP1)					
Drawing Title:					
LOCATION MAP OF PERUR DESALINATION PLANT					
Drawn :	NGM	Checked :	SS / RS		
Designed :	SMK	Approved :	PD		
Date :	APRIL 2021	Scale :	A1		
Drawing Number:	7061563/PMC400MLD/CP1/G/LOC/001	Sh.No	1 OF 1	Revision:	R0



1.VIEW OF PROJECT SITE FROM  
EAST COAST ROAD -1



2.VIEW OF PROJECT SITE FROM  
EAST COAST ROAD -2



3.VIEW OF PROJECT SITE FROM  
EAST COAST ROAD -3



4.VIEW OF PROJECT SITE



5.BOAT BERTHING AREA ON  
NORTHEAST AREA OF PLOT



6.VIEW OF CREMATORIES ON  
THE NORTHWEST AREA OF PLOT



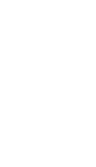
7.VIEW OF BURIAL GROUND ON  
THE NORTHWEST AREA OF PLOT

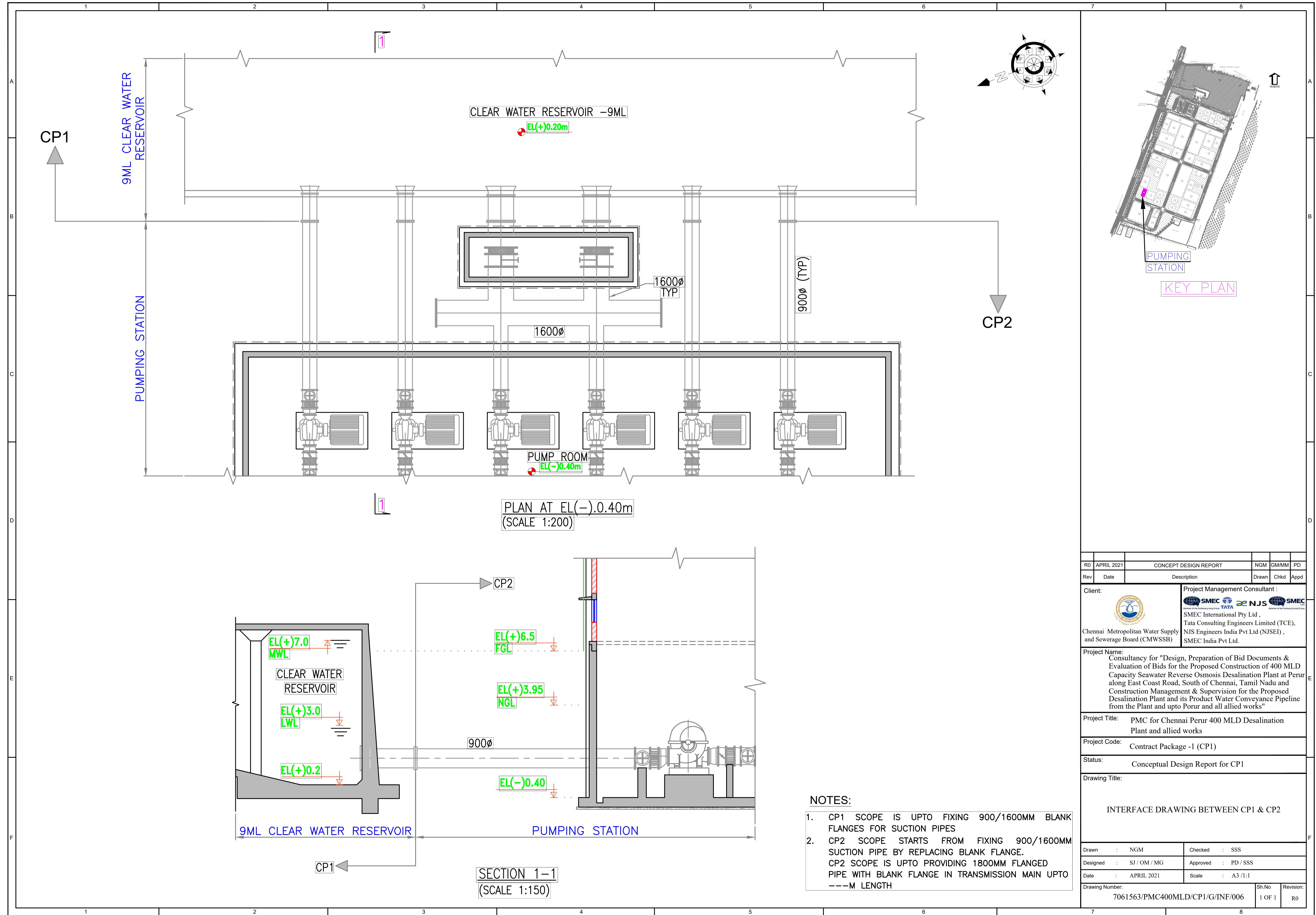


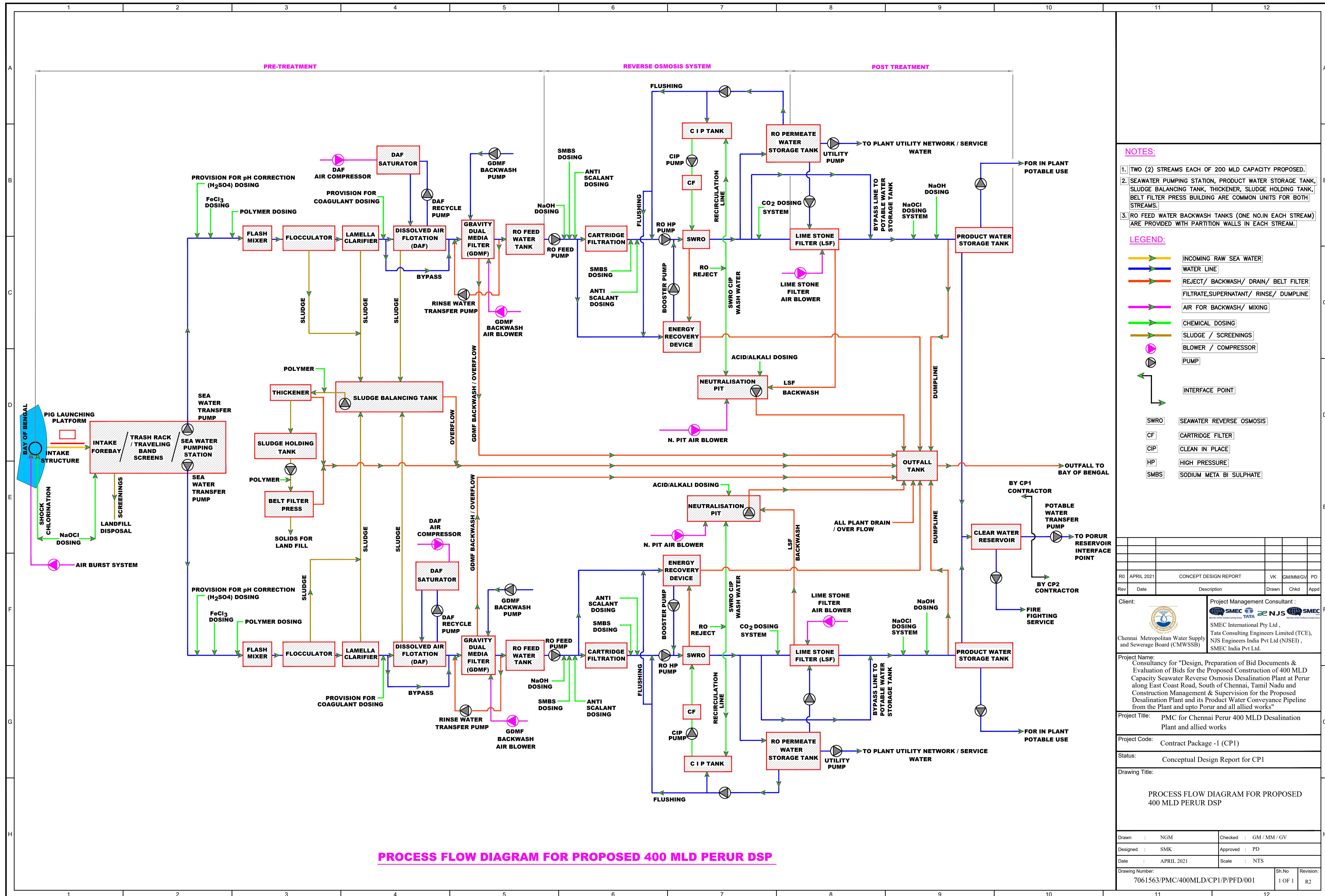
8.VIEW OF BURIAL GROUNDS ON  
THE SOUTHEAST AREA SIDE OF PLOT



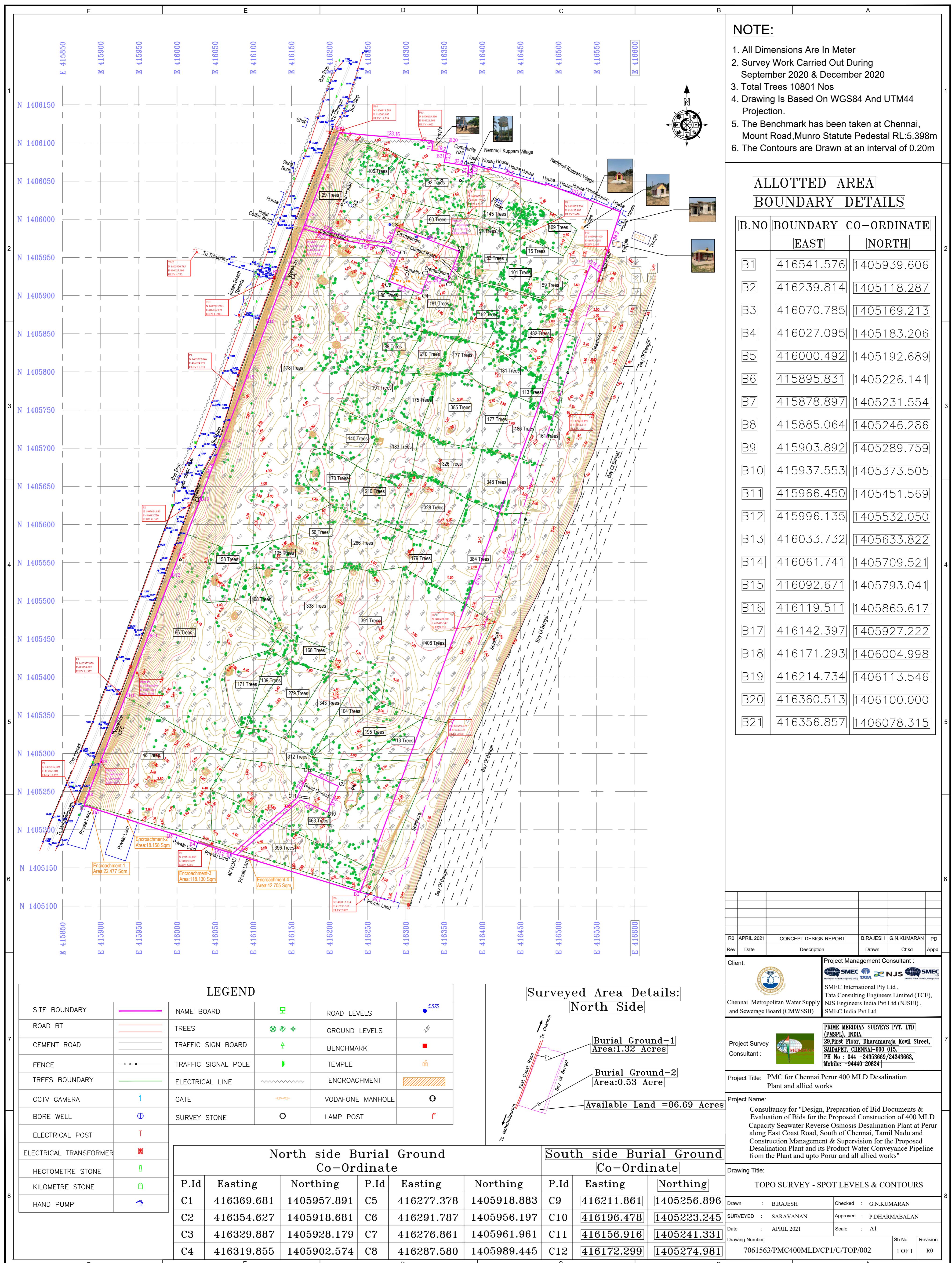
9.SIGN BOARD INDICATING LAND OWNERSHIP DETAILS –  
M/S. ARULMIGU ALAVANDAR NAYAKKAR TRUST

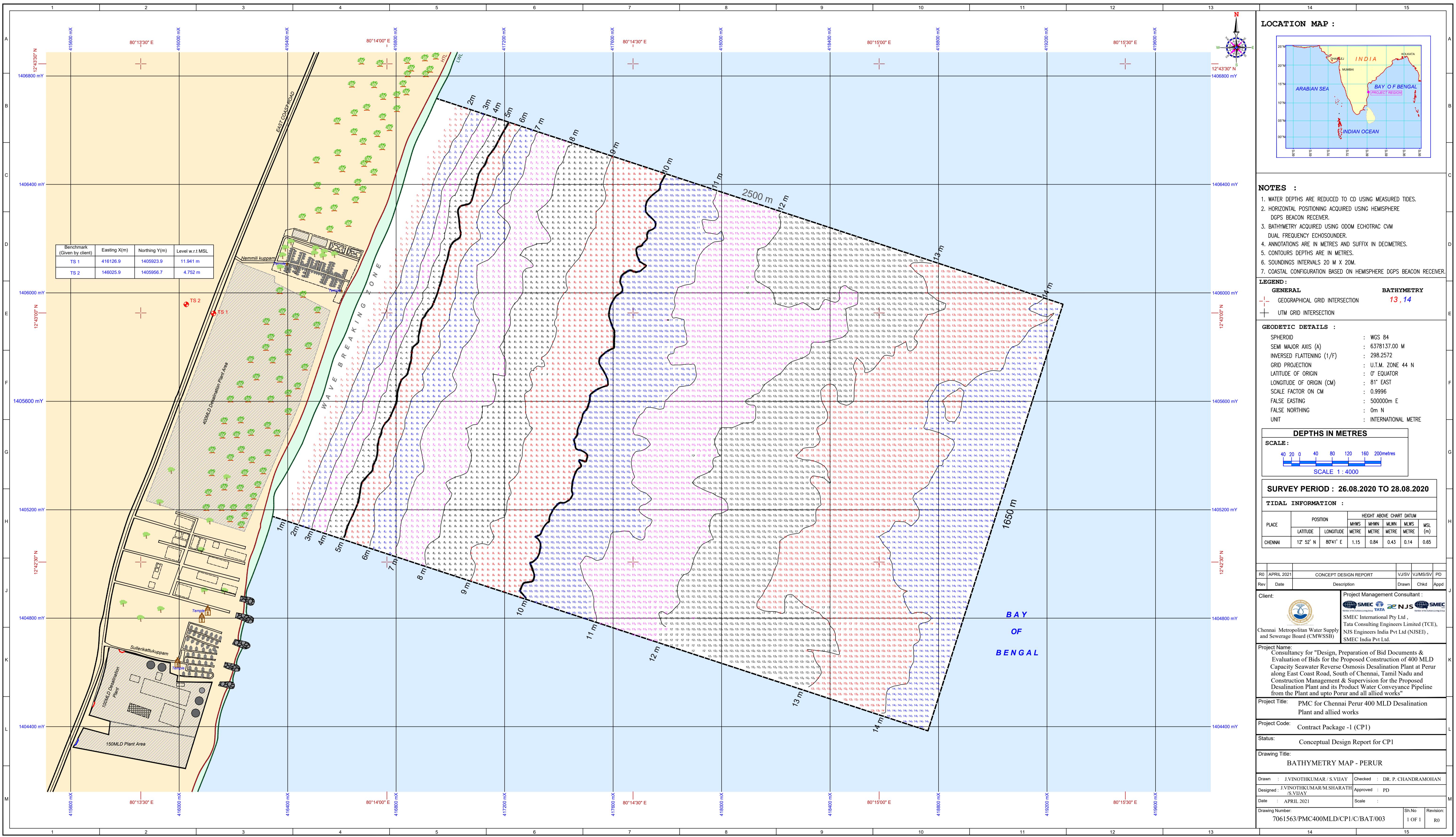
R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM
Rev	Date	Description	Drawn Chkd Appd
Client:	Project Management Consultant :	     Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)	    SMEC International Pty Ltd , Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI) , SMEC India Pvt Ltd.
Project Name:	Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"		
Project Title:	PMC for Chennai Perur 400 MLD Desalination Plant and allied works		
Project Code:	Contract Package -1 (CP1)		
Status:	Conceptual Design Report for CP1		
Drawing Title:	SITE PHOTOGRAPHS AT PERUR		
Drawn :	NGM	Checked :	
Designed :		Approved :	
Date :	APRIL 2021	Scale :	A1
Drawing Number:	7061563/PMC400MLD/CP1/G/PHO/004	Sh.No	Revision: R0 1 OF 1











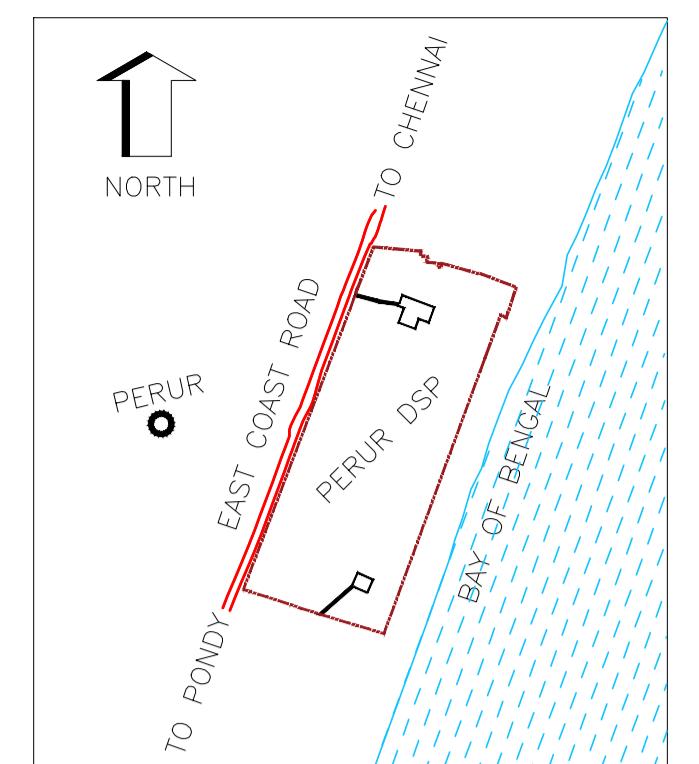


NORTH



NORTH SIDE BURIAL GROUND CO-ORDINATES		SOUTH SIDE BURIAL GROUND CO-ORDINATES			
P.ID	EASTING	NORTHING	P.ID	EASTING	NORTHING
B1	416541.576	1405939.606			
C1	416369.681	1405957.891	C9	416211.861	1405256.896
C2	416354.627	1405918.681	C10	416196.478	1405223.245
C3	416329.887	1405928.179	C11	416156.916	1405241.331
C4	416319.855	1405902.574	C12	416172.299	1405274.981
C5	416277.378	1405918.883			
C6	416291.787	1405956.197			
C7	416276.861	1405961.961			
C8	416287.580	1405989.445			
B21	416356.857	1406078.315			

BOUNDARY DETAILS	
B.NO	BOUNDARY CO-ORDINATE
	EASTING NORTHING
B1	416541.576 1405939.606
C1	416369.681 1405957.891
C2	416354.627 1405918.681
C3	416329.887 1405928.179
C4	416319.855 1405902.574
C5	416277.378 1405918.883
C6	416291.787 1405956.197
C7	416276.861 1405961.961
C8	416287.580 1405989.445
B21	416356.857 1406078.315



**K E Y P L A N**

**NOTES :**

- ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED.
- TOTAL ALLOTTED AREA (EXCLUDING BURIAL GROUNDS) = 86.69 Acres (3,50,852.00 SQ.M).
- NORTH SIDE BURIAL GROUND AREA (INCLUDING ROAD) = 1.32 Acres (5361.9 SQ.M).
- SOUTH SIDE BURIAL GROUND AREA (INCLUDING ROAD) = 0.53 Acres (2163.5 SQ.M).
- THE BENCHMARK HAS BEEN TAKEN AT CHENNAI,MOUNT ROAD, MUNRO STATUTE PEDESTAL RL:5.398M

**LEGEND :**

- RETAINING WALL
- COMPOUND WALL
- AREA RESERVED FOR CONSTRUCTION

R0 APRIL 2021 CONCEPT DESIGN REPORT JN SSS PD  
Rev Date Description Drawn Chkd Appd

Client: Project Management Consultant :  
 SMEC International Pty Ltd, Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NSEI), SMEC India Pvt Ltd.  
Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)

Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Perur and all allied works"

Project Title: PMC for Chennai Perur 400 MLD Desalination Plant and allied works

Project Code: Contract Package -1 (CP1)

Status: Conceptual Design Report for CP1

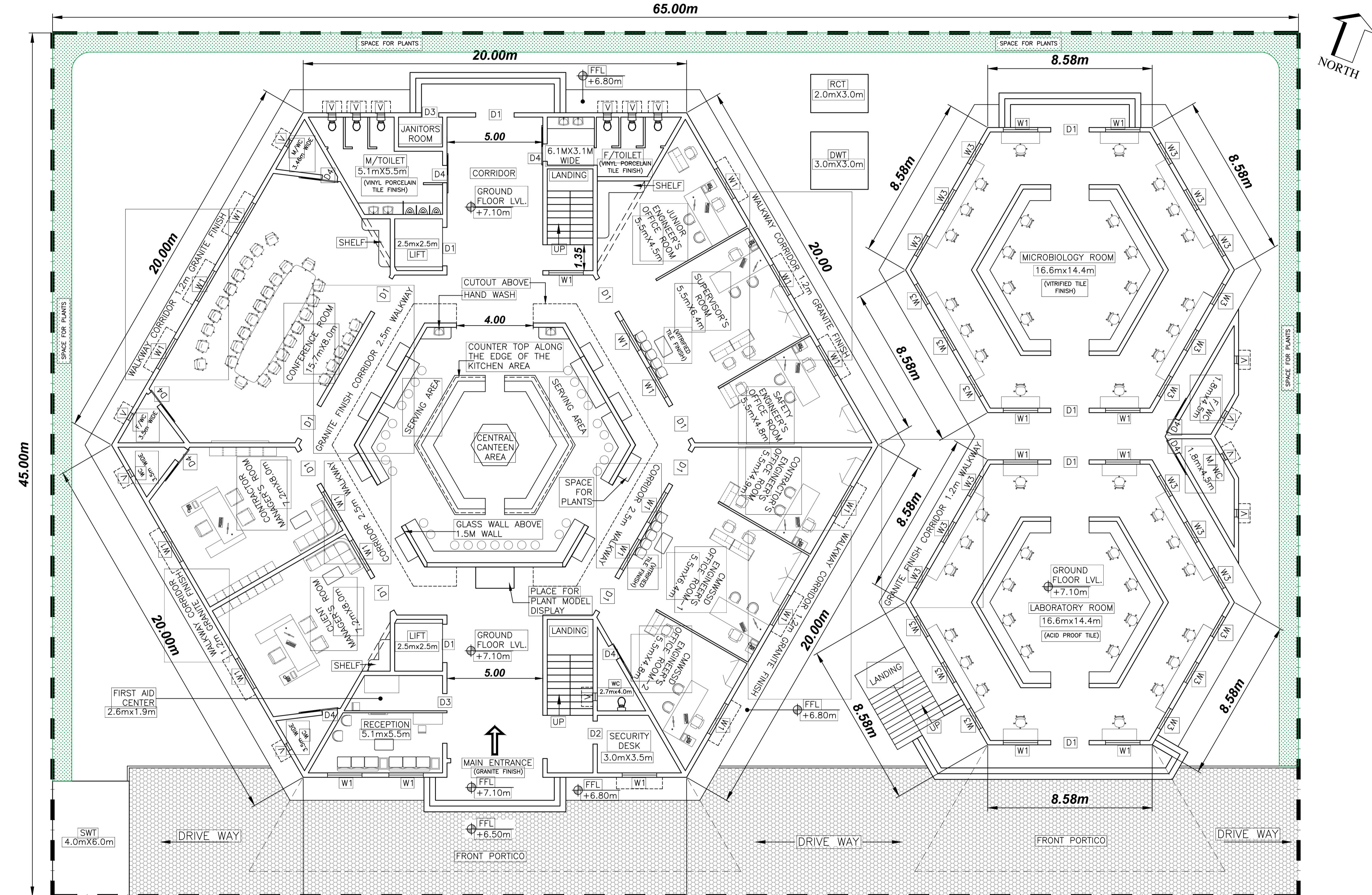
Drawing Title:

RETAINING WALL / COMPOUND WALL LAYOUT FOR 400 MLD PERUR DSP

Drawn : JN Checked : SSS  
Designed : SJ Approved : PD  
Date : APRIL 2021 Scale : 1:1  
Drawing Number: 7061563/PMC400MLD/CP1/C/RET/005 Sh.No: 1 OF 1 Revision: R0



R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM GM PD		
Rev	Date	Description	Drawn Chkd Appd		
<b>Client:</b>					
	Project Management Consultant :	   			
SMEC International Pty Ltd , Tata Consulting Engineers Limited (TCE) , NJS Engineers India Pvt Ltd (NJSEI) , SMEC India Pvt Ltd.					
<b>Project Name:</b> Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"					
<b>Project Title:</b> PMC for Chennai Perur 400 MLD Desalination Plant and allied works					
<b>Project Code:</b> Contract Package -1 (CP1)					
<b>Status:</b> Conceptual Design Report for CP1					
<b>Drawing Title:</b>					
ARCHITECTURAL VIEW OF GATEWAY TO 400 MLD PERUR DSP					
<b>Drawn :</b> NGM <b>Checked :</b> GM					
<b>Designed :</b> RS <b>Approved :</b> PD					
<b>Date :</b> APRIL 2021 <b>Scale :</b> A2 /1:1					
<b>Drawing Number:</b> 7061563/PMC400MLD/CP1/C/ARC/007 <b>Sh.No</b> 1 OF 1 <b>Revision:</b> R0					



**NOTES:**

- ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED.
- PROPOSED AREA (2925 Sq.M) FOR ADMIN & MICROBIOLOGY IS 65mX45m.
- JICA RL (+)6.5m. (TO BE APPROVED FROM CMWSSB.)
- REFERENCE LEVEL(RL) IS ASSUMED TO BE (+)6.5m  
ALL LEVEL'S TO BE CONFORMED FROM CMWSSB.
- ALL FFL TO BE CONFIRMED BY CMWSSB.

**LEGEND:**

- D1 – 2.0mx2.0m
- D2 – 1.2mx2.0m
- D3 – 0.9mx2.0m
- D4 – 0.8mx1.8m
- W1 – 1.8mx1.2m
- W2 – 2.5mx2.5m
- W3 – 1.2mx1.2m
- V – 0.4mx0.5m
- RCT – RAIN WATER COLLECTION TANK
- SWT – SEWAGE WATER TANK
- DWT – DRINKING WATER TANK

**FLOOR FINISH**

- VITRIFIED TILE, CERAMIC
- GRANITE
- VINYL PORCELAIN TILE FINISH

**LEGEND:**

[Small Plant]

R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM	PD	GM
Rev	Date	Description	Drawn	Chkd	Appd

**Client:**  Project Management Consultant :  
**SMEC International Pty Ltd., Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSI), SMEC India Pvt Ltd.**

**Project Name:** Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"

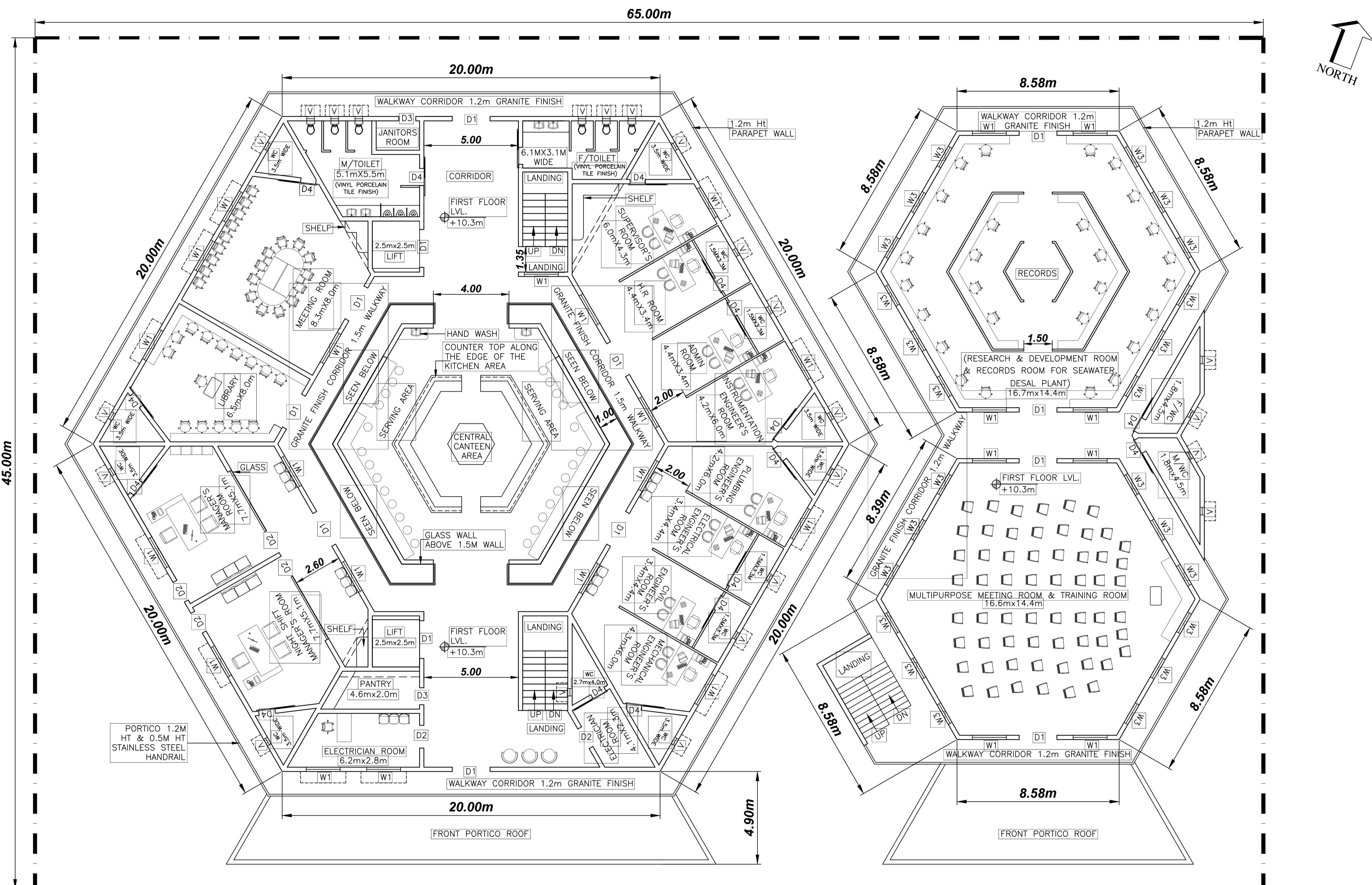
**Project Title:** PMC for Chennai Perur 400 MLD Desalination Plant and allied works

**Project Code:** Contract Package -1 (CP1)

**Drawing Title:**

PROPOSED GROUND FLOOR DRAWING FOR ADMINISTRATION BUILDING, (CANTEEN, CONFERENCE ROOM, GUEST HOUSE) & MICROBIOLOGY, LABORATORY BUILDING 400 MLD PERUR DSP.

Drawn :	NGM	Checked :	PD
Designed :	Dr.ELAN	Approved :	GM
Date :	APRIL 2021	Scale :	A4 /1:1
Drawing Number:	7061563/PMC400MLD/CP1/C/ABD/001	Sh.No	1 OF 10 R0



**PROPOSED FIRST FLOOR ADMINISTRATION BUILDING  
(ENGINEERS/SUPPORTING STAFFS/MEETING/PLANT MANAGERS ROOM)-(1200 Sq,M)**

# PROPOSED FIRST FLOOR R&D RECORDS ROOM, & MULTIPURPOSE MEETING ROOM -(564Sq,M)

## NOTES:

1. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED.
  2. PROPOSED AREA (2925SqM) FOR ADMIN & MICROBIOLOGY IS 65mX45m.
  3. JICA RL(+)6.5m.(TO BE APPROVED FROM CMWSSB.)
  4. REFERENCE LEVEL(RL) IS ASSUMED TO BE (+)7.0m  
ALL LEVEL'S TO BE CONFIRMED FROM CMWSSB.
  5. ALL FFL TO BE CONFIRMED BY CMWSSB.

## LEGEND:

1. D1 - 2.0mx2.0m
  2. D2 - 1.2mx2.0m
  3. D3 - 0.9mx2.0m
  4. D4 - 0.8mx1.8m
  5. W1 - 1.8mx1.2m
  6. W2 - 2.5mx2.5m
  7. W3 - 1.2mx1.2m
  8. V - 0.4mx0.5m

## FLOOR FINISH

- 1.VITRIFIED TILE,CERAMIC,ACID PROOF
  - 2.GRANITE
  - 3.VINYL PORCELAIN TILE FINISH

R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM	PD	GM
Rev	Date	Description	Drawn	Chkd	Appd
Client:		Project Management Consultant :			

**Project Name:** Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"

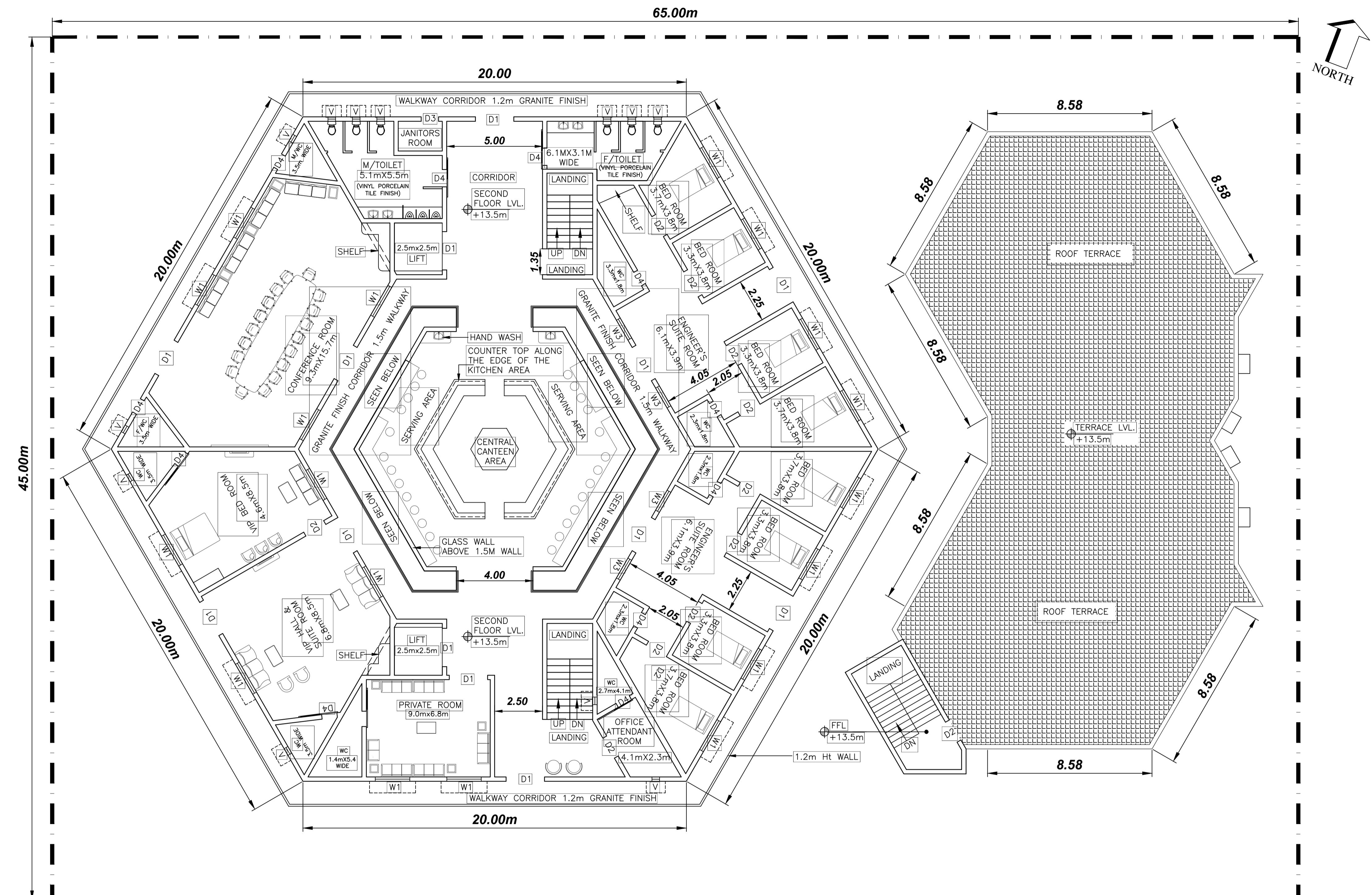
**Project Title:** PMC for Chennai Perur 400 MLD Desalination Plant and allied works

Project Code: Contract Package -1 (CP1)

Drawing Title:

# **PROPOSED FIRST FLOOR DRAWING FOR ADMINISTRATION BUILDING,(CANTEEN, CONFERENCE ROOM,GUEST HOUSE)& MICROBIOLOGY, LABORATORY BUILDING 400 MLD PERUR DSP.**

Drawn : NGM	Checked : PD
Designed : Dr.ELAN	Approved : GM
Date : APRIL 2021	Scale : A4 /1:1
Drawing Number: 7061563/PMC400MLD/CP1/C/ABD/001	Sh.No 2 OF 10



**NOTES:**

- ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED.
- PROPOSED AREA (2925 Sq.M) FOR ADMIN & MICROBIOLOGY IS 65mX45m.
- JICA RL (+6.5m. TO BE APPROVED FROM CMWSSB.)
- REFERENCE LEVEL(RL) IS ASSUMED TO BE (+)7.0m ALL LEVEL'S TO BE CONFORMED FROM CMWSSB.
- ALL FFL TO BE CONFIRMED BY CMWSSB.

**LEGEND:**

- D1-2.0mx2.0m
- D2-1.2mx2.0m
- D3-0.9mx2.0m
- D4-0.8mx1.8m
- W1-1.8mx1.2m
- W2-2.5mx2.5m
- W3-1.2mx1.2m
- V-0.4mx0.5m

**FLOOR FINISH**

- VITRIFIED TILE,CERAMIC
- GRANITE
- VINYL PORCELAIN TILE FINISH

R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM	PD	GM
Rev	Date	Description	Drawn	Chkd	Appd
Client:		Project Management Consultant :			
 SMEC  NJS 	SMEC International Pty Ltd , Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI) , SMEC India Pvt Ltd.				

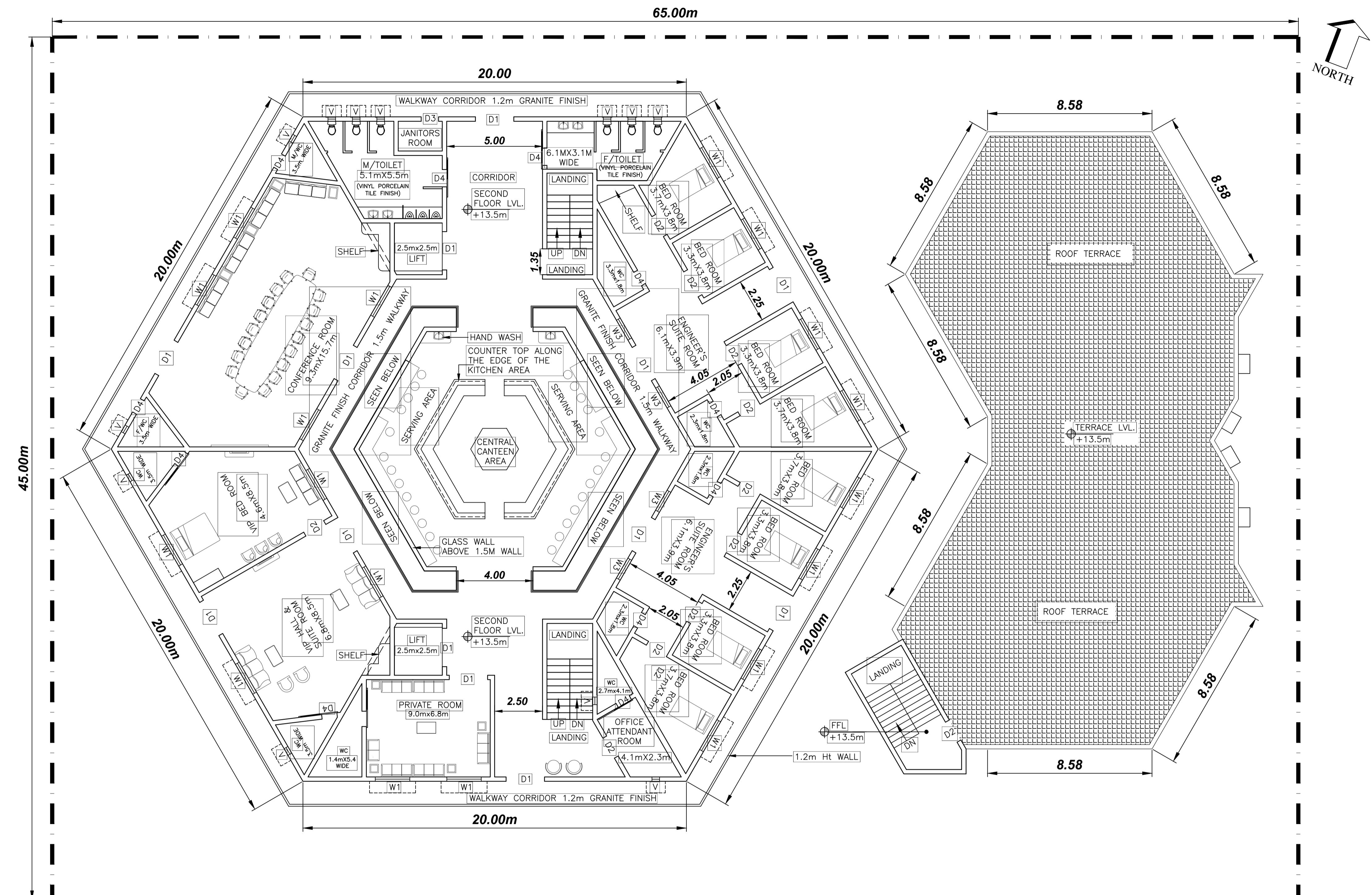
**Project Name:**  
Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"

**Project Title:** PMC for Chennai Perur 400 MLD Desalination Plant and allied works

**Project Code:** Contract Package -1 (CP1)

**Drawing Title:**  
PROPOSED SECOND FLOOR DRAWING FOR ADMINISTRATION BUILDING,(CANTEEN, CONFERENCE ROOM,GUEST HOUSE)& MICROBIOLOGY, LABORATORY BUILDING 400 MLD PERUR DSP.

Drawn :	NGM	Checked :	PD
Designed :	Dr.ELAN	Approved :	GM
Date :	APRIL 2021	Scale :	A4 /1:1
Drawing Number:	7061563/PMC400MLD/CP1/C/ABD/001	Sh.No	Revision: 3 of 10 R0



**NOTES:**

- ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED.
- PROPOSED AREA (2925 Sq.M) FOR ADMIN & MICROBIOLOGY IS 65mX45m.
- JICA RL (+6.5m. TO BE APPROVED FROM CMWSSB.)
- REFERENCE LEVEL(RL) IS ASSUMED TO BE (+)7.0m ALL LEVEL'S TO BE CONFORMED FROM CMWSSB.
- ALL FFL TO BE CONFIRMED BY CMWSSB.

**LEGEND:**

- D1-2.0mx2.0m
- D2-1.2mx2.0m
- D3-0.9mx2.0m
- D4-0.8mx1.8m
- W1-1.8mx1.2m
- W2-2.5mx2.5m
- W3-1.2mx1.2m
- V-0.4mx0.5m

**FLOOR FINISH**

- VITRIFIED TILE,CERAMIC
- GRANITE
- VINYL PORCELAIN TILE FINISH

R0	APRIL 2021	CONCEPT DESIGN REPORT	NGM	PD	GM
Rev	Date	Description	Drawn	Chkd	Appd
Client:		Project Management Consultant :			
 SMEC  NJS 	SMEC International Pty Ltd , Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI) , SMEC India Pvt Ltd.				

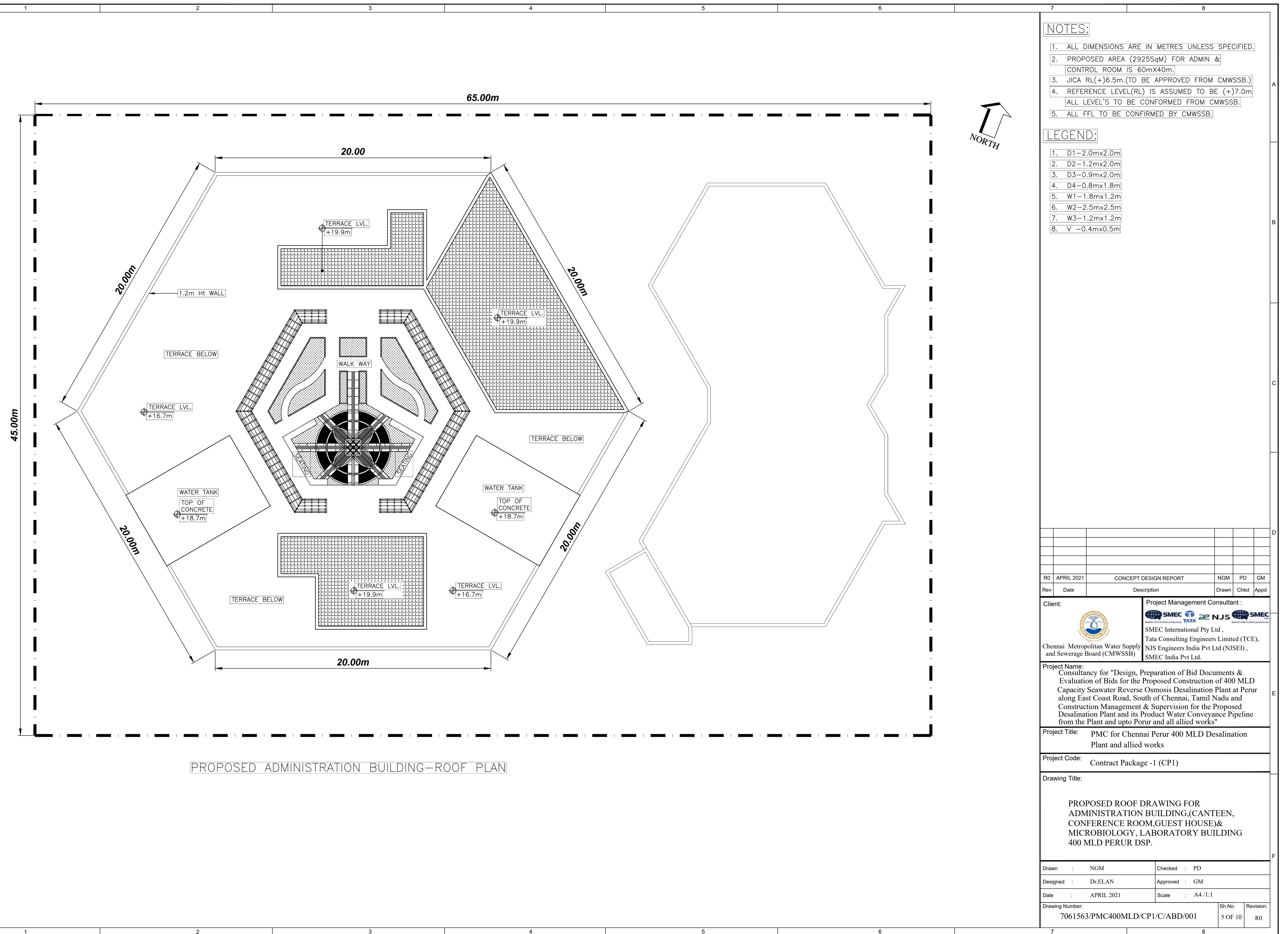
**Project Name:**  
Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"

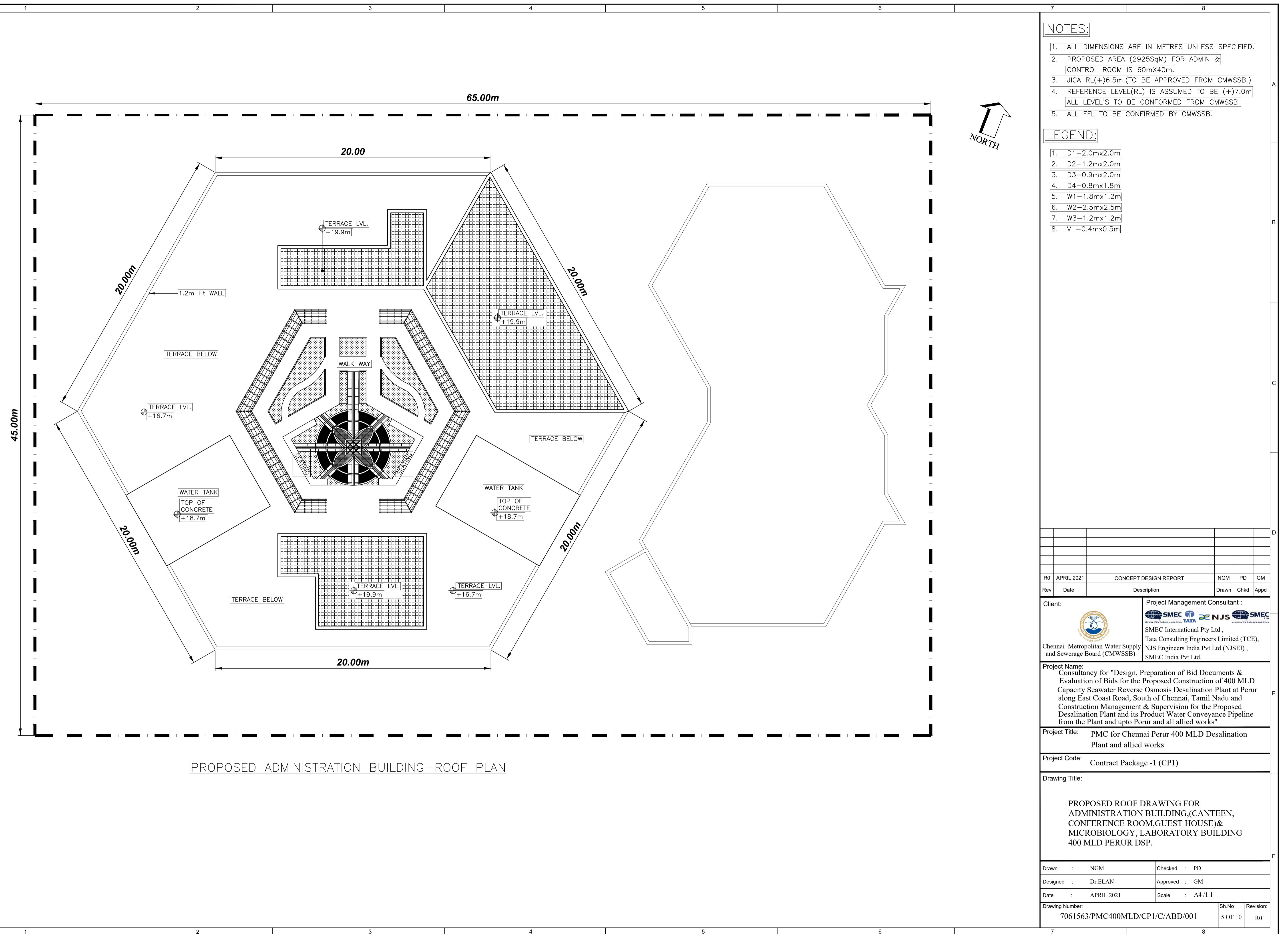
**Project Title:** PMC for Chennai Perur 400 MLD Desalination Plant and allied works

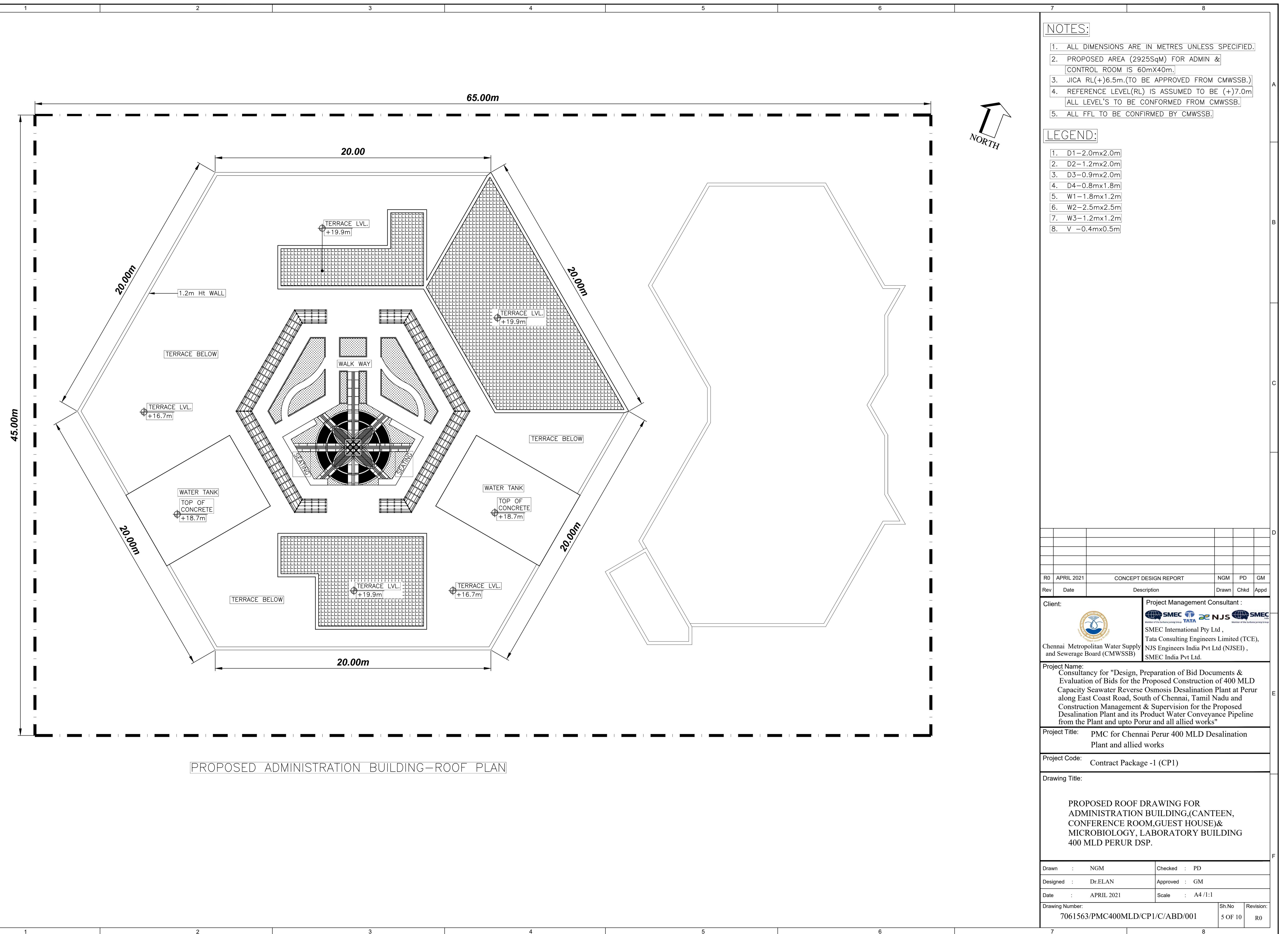
**Project Code:** Contract Package -1 (CP1)

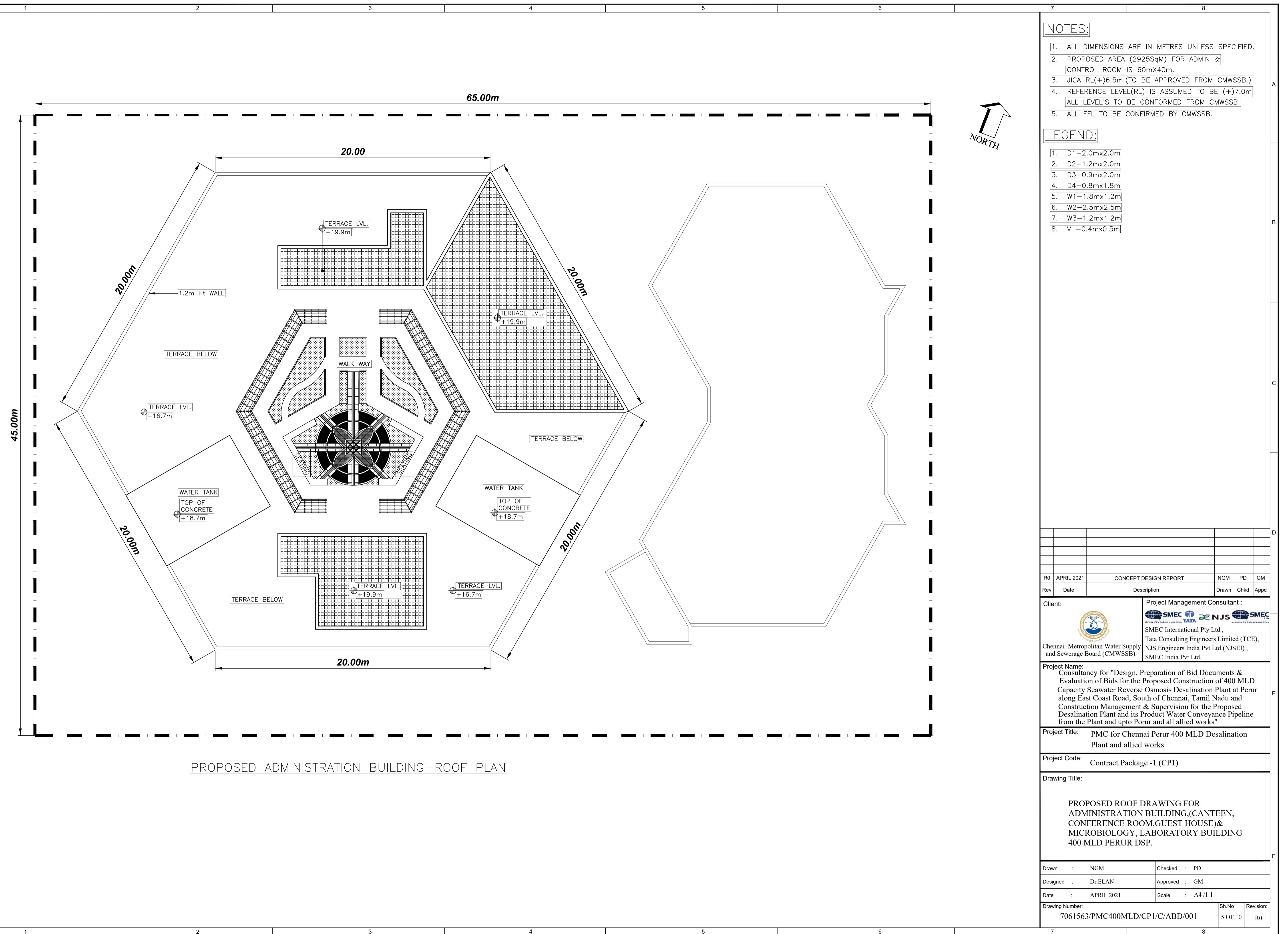
**Drawing Title:**  
PROPOSED SECOND FLOOR DRAWING FOR ADMINISTRATION BUILDING,(CANTEEN, CONFERENCE ROOM,GUEST HOUSE)& MICROBIOLOGY, LABORATORY BUILDING 400 MLD PERUR DSP.

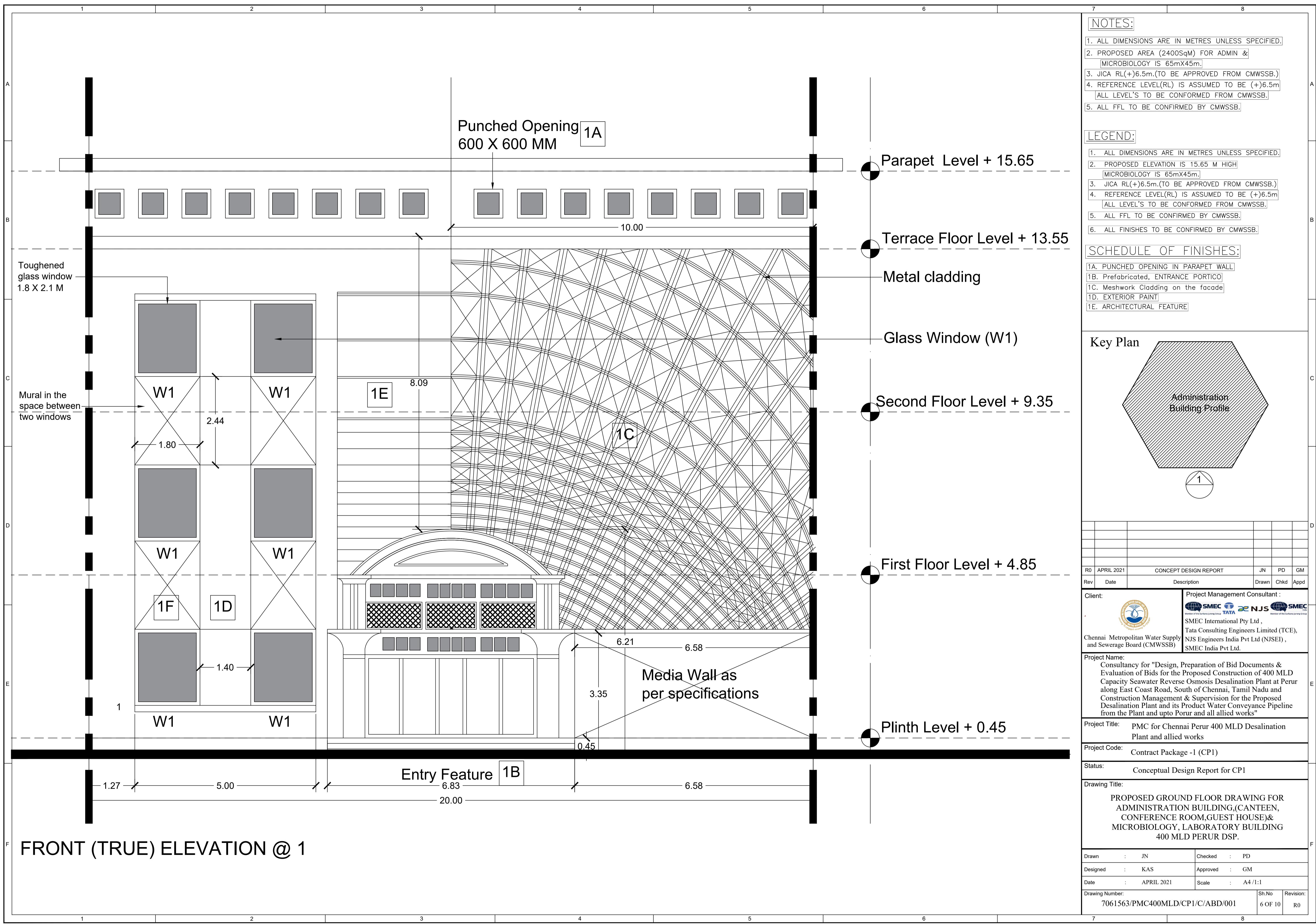
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Designed :	Dr.ELAN	Approved :	GM
Date :	APRIL 2021	Scale :	A4 /1:1
Drawing Number:	7061563/PMC400MLD/CP1/C/ABD/001	Sh.No	Revision: 3 of 10 R0

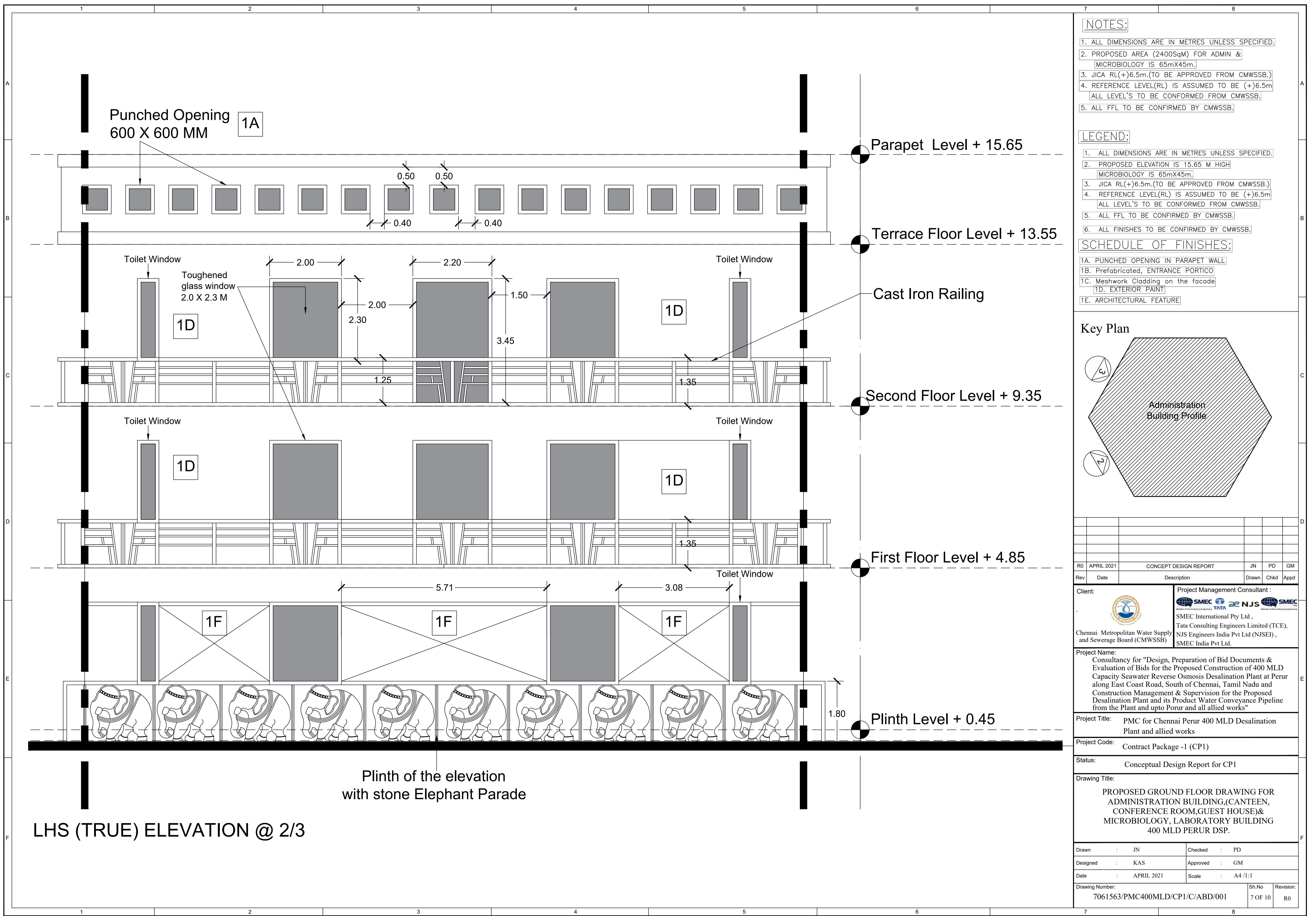


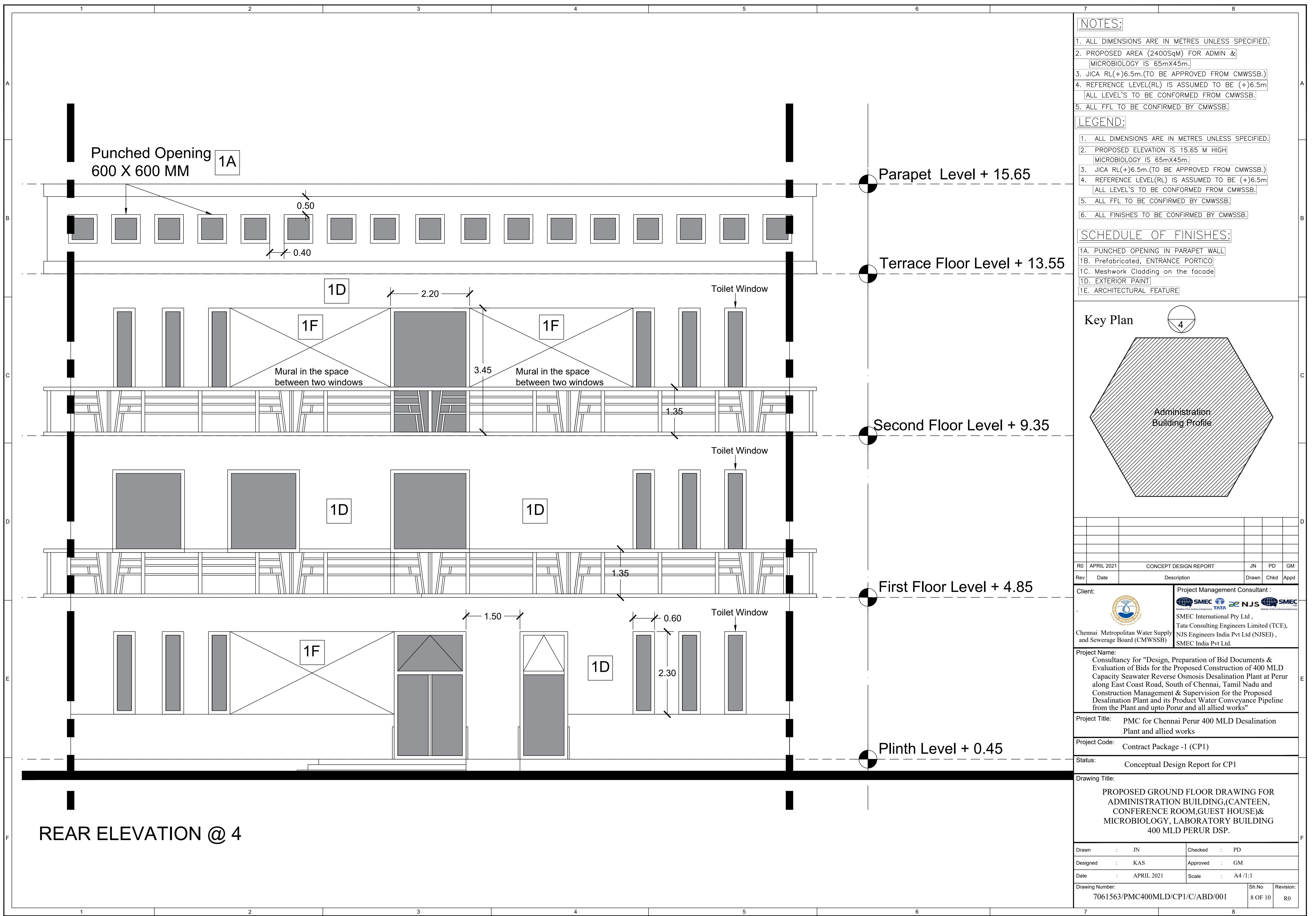


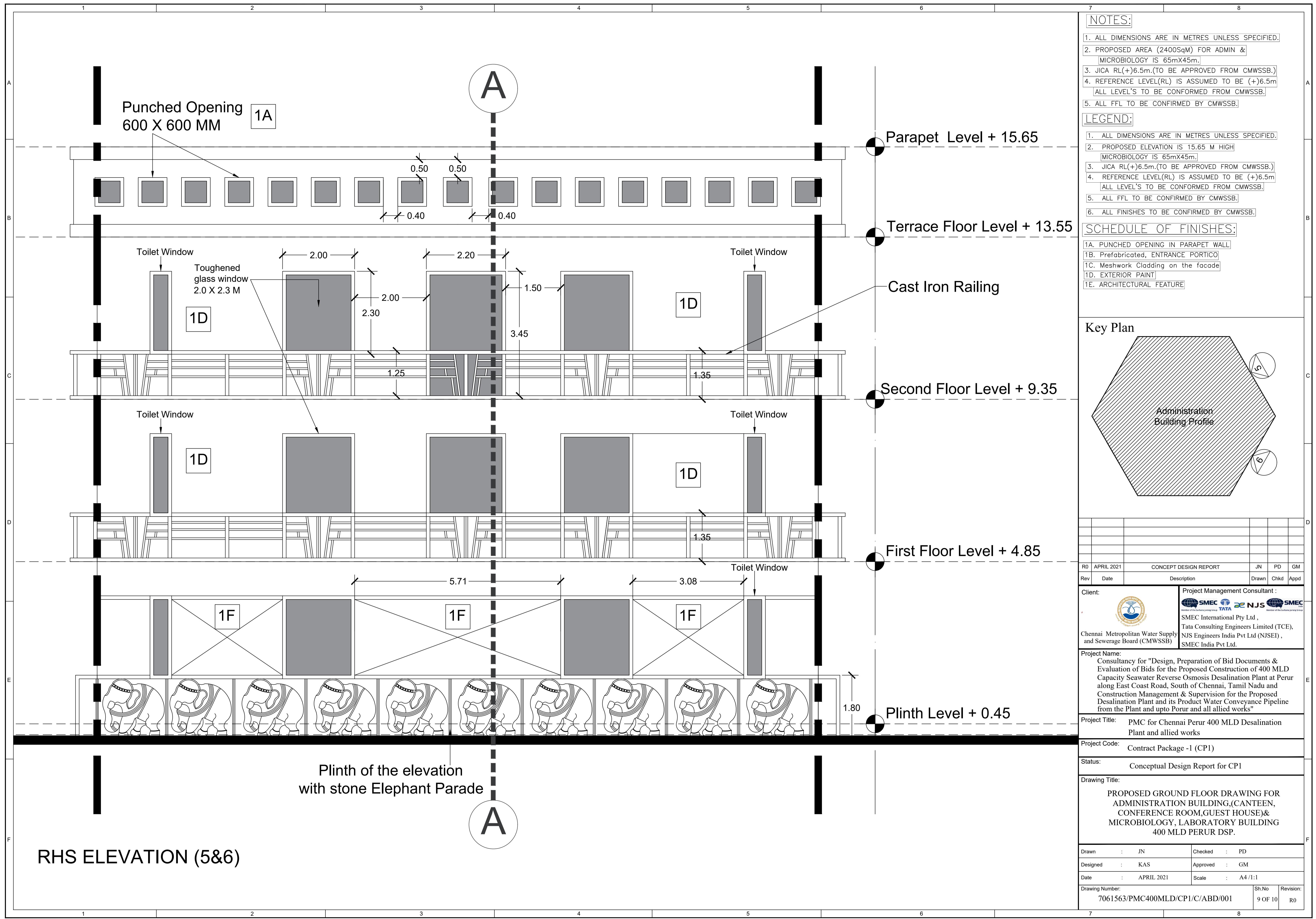


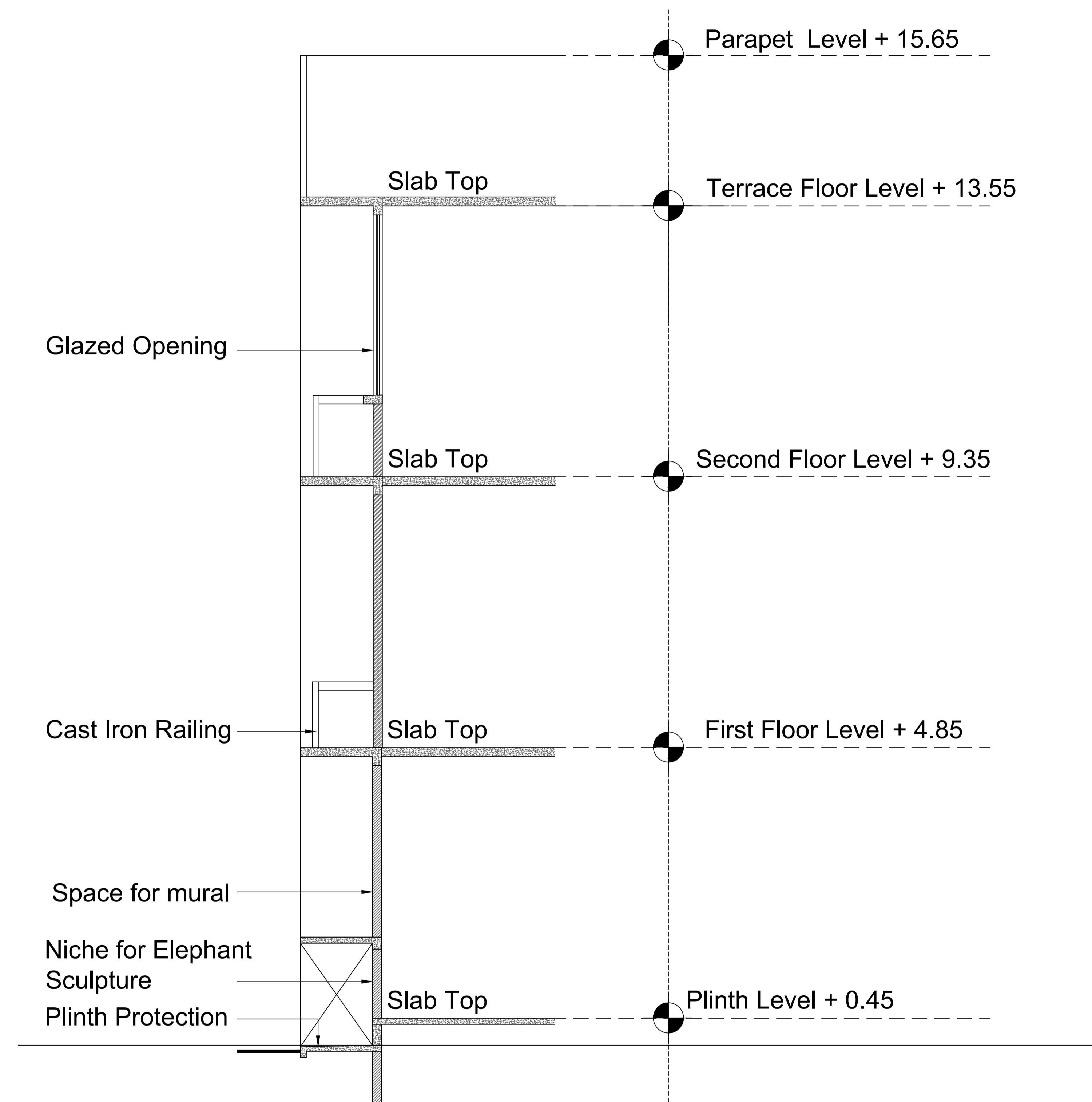






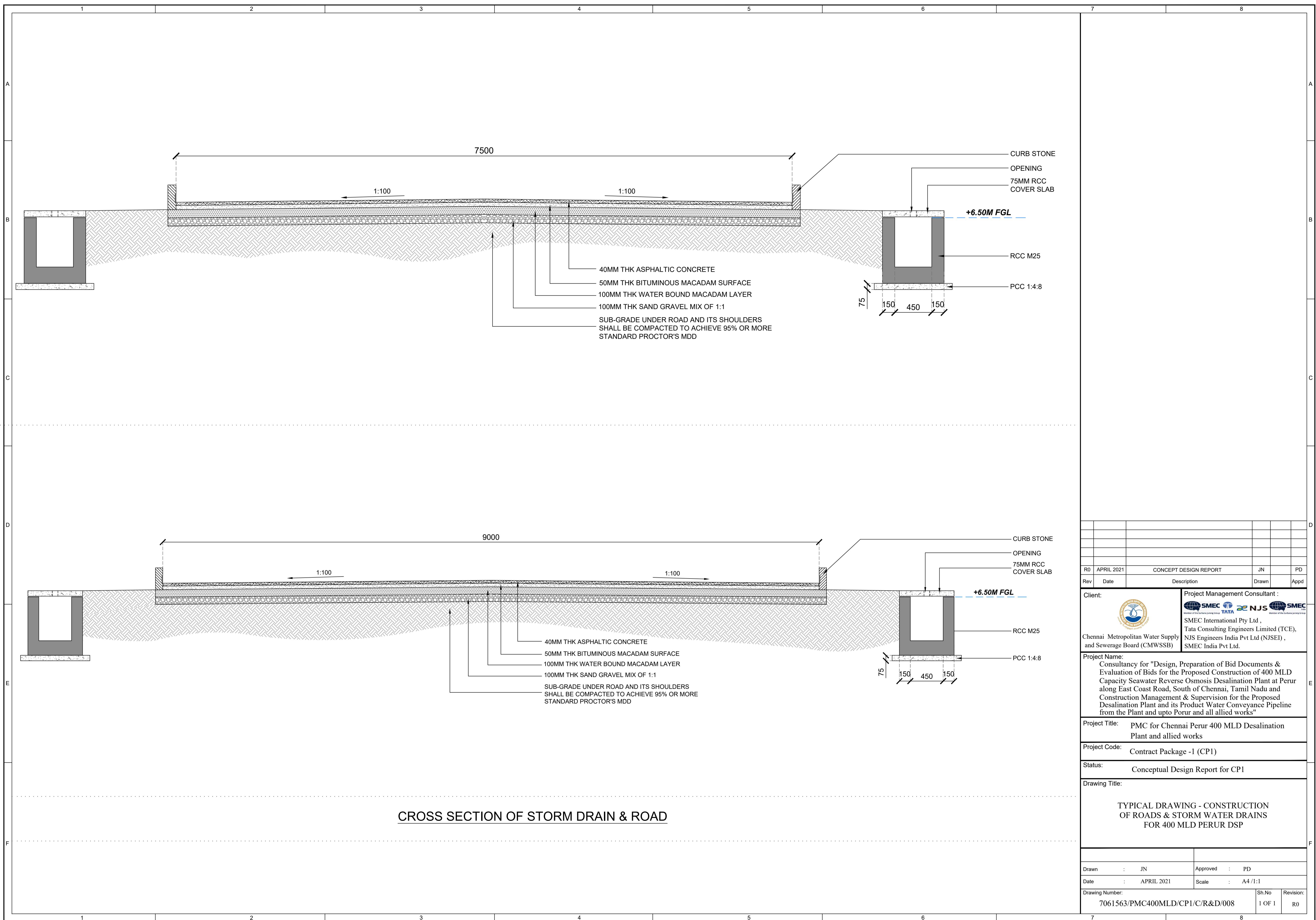


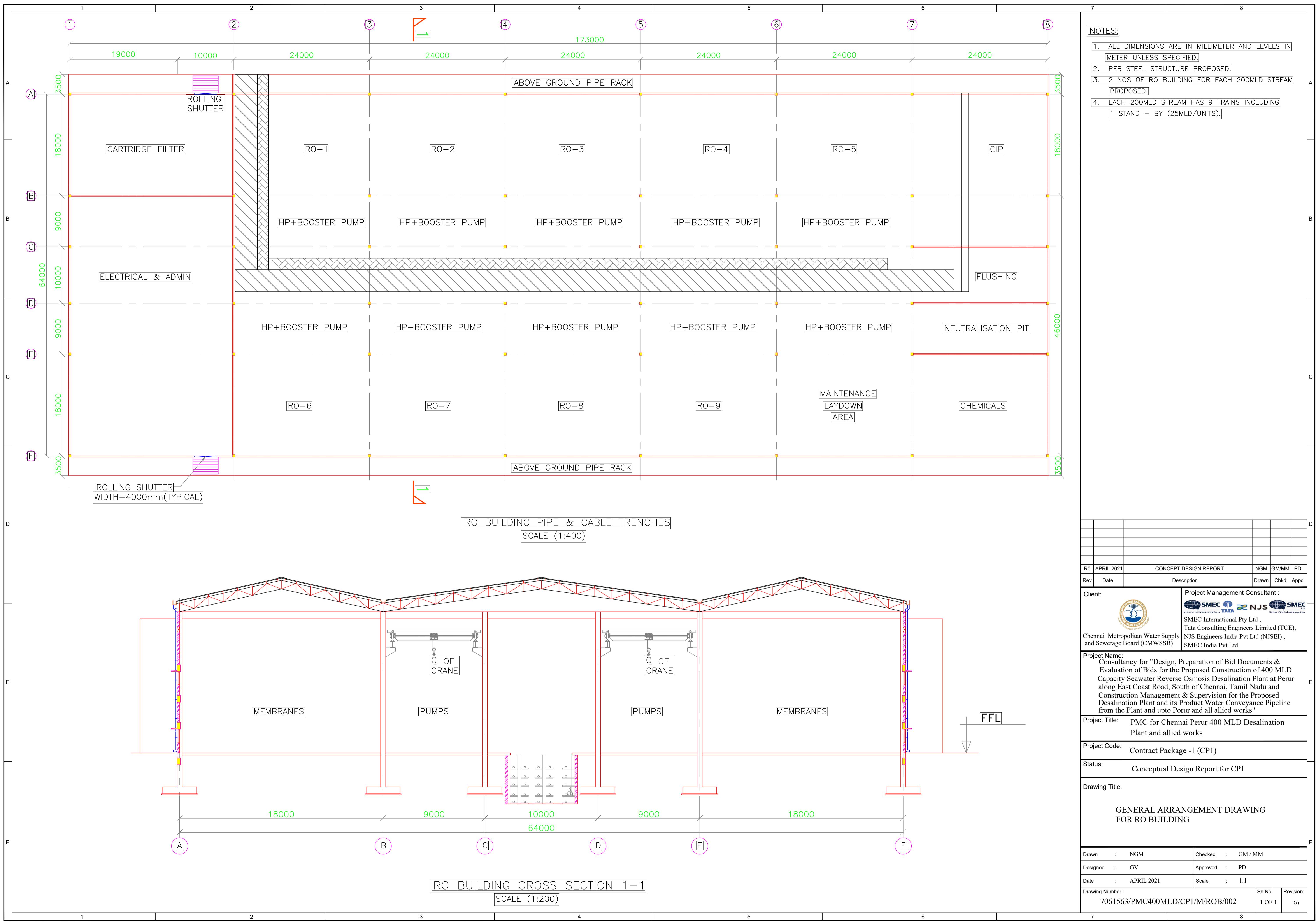


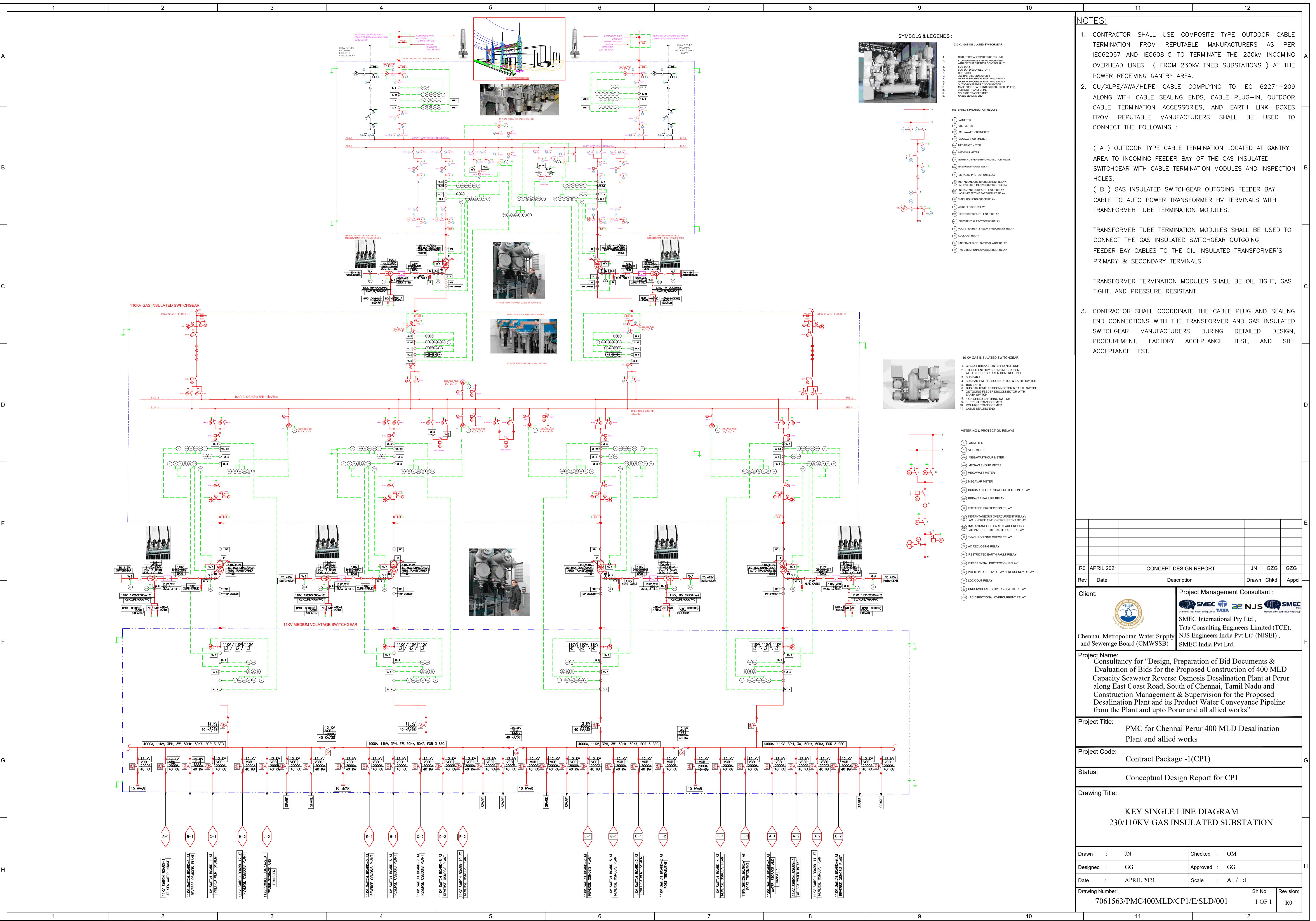


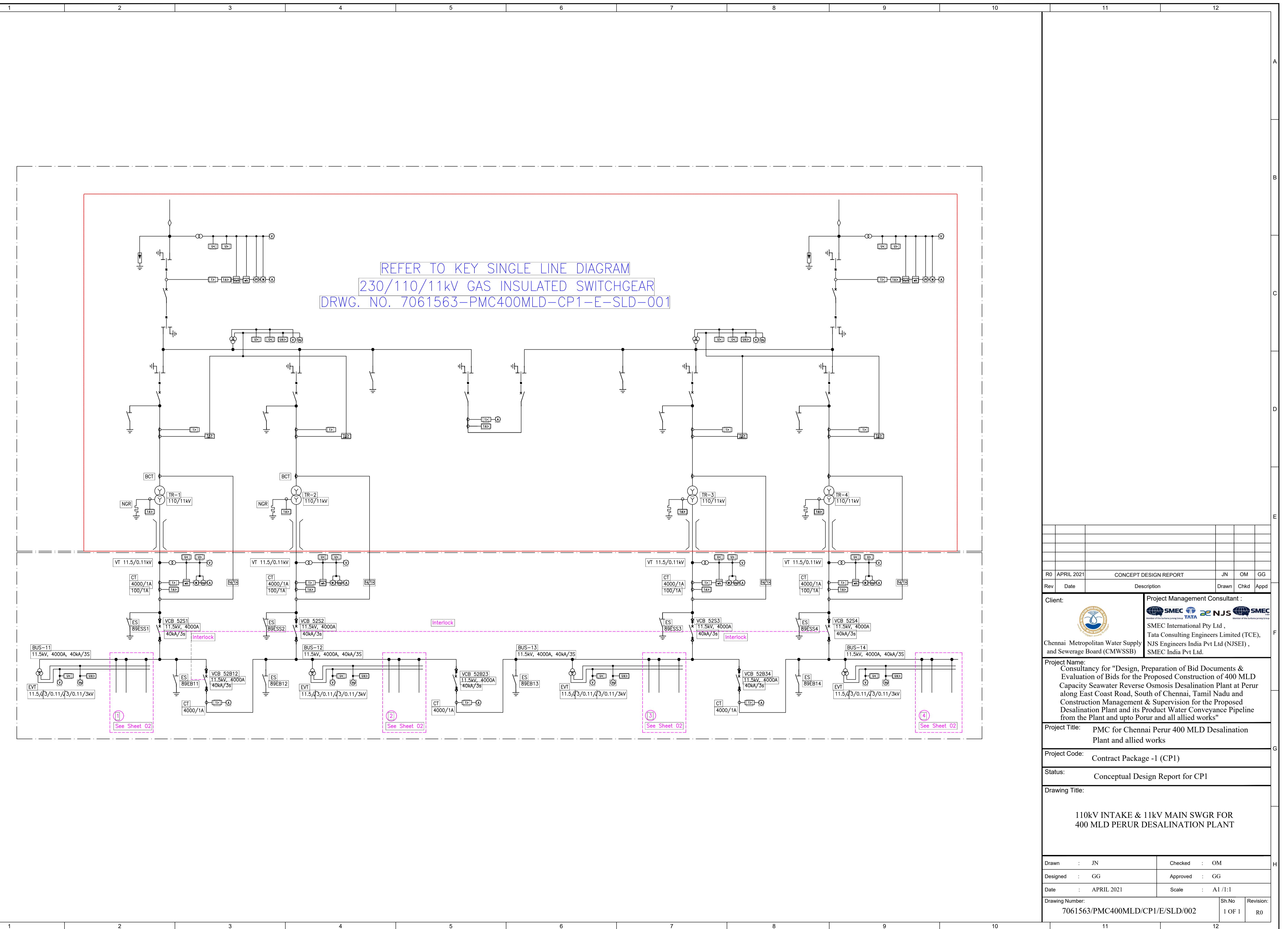
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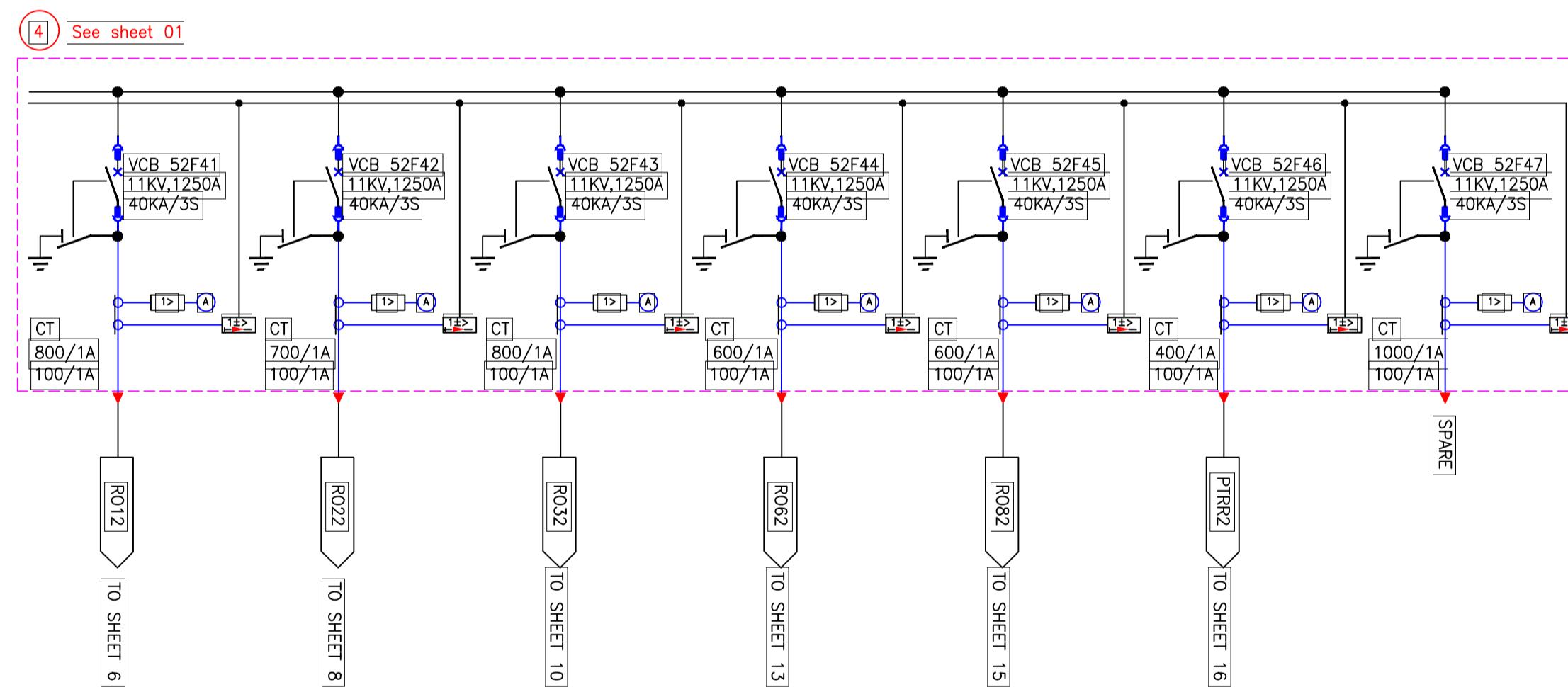
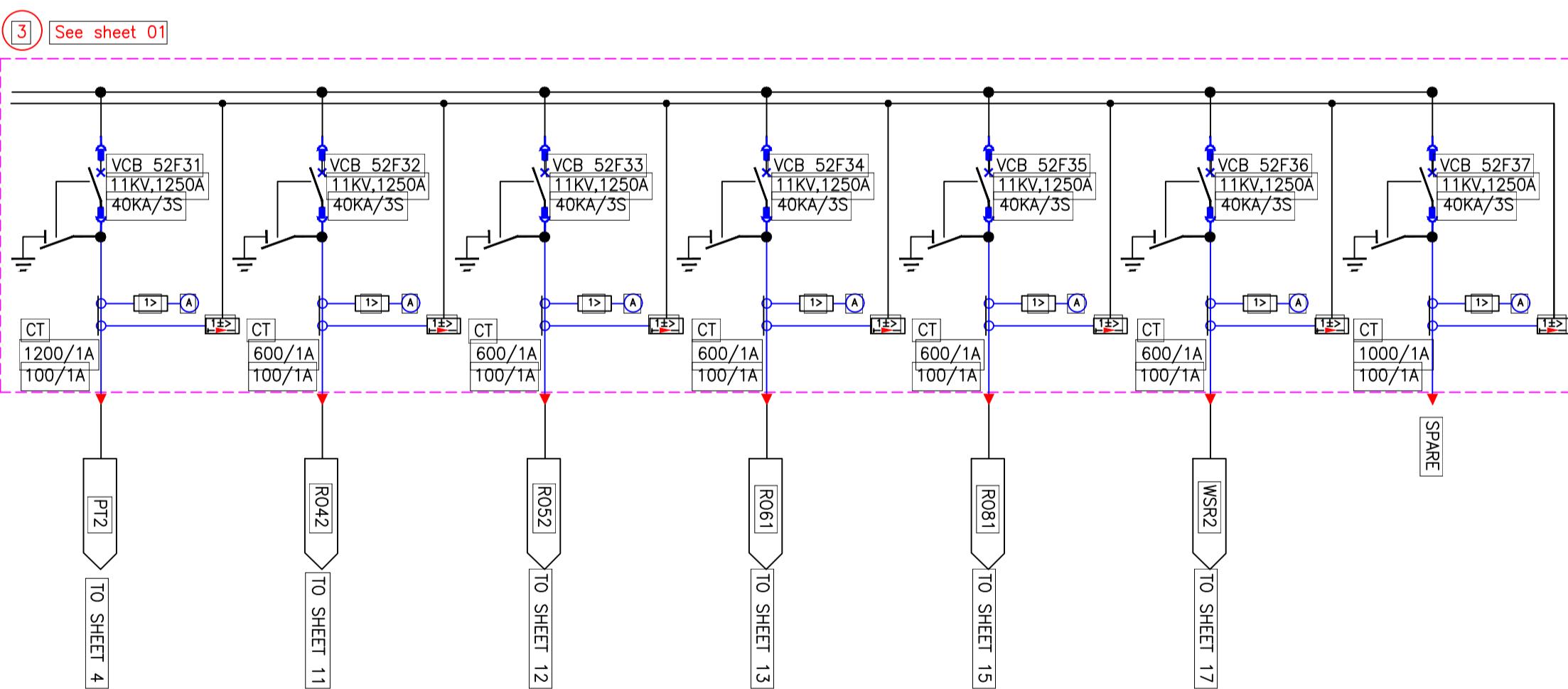
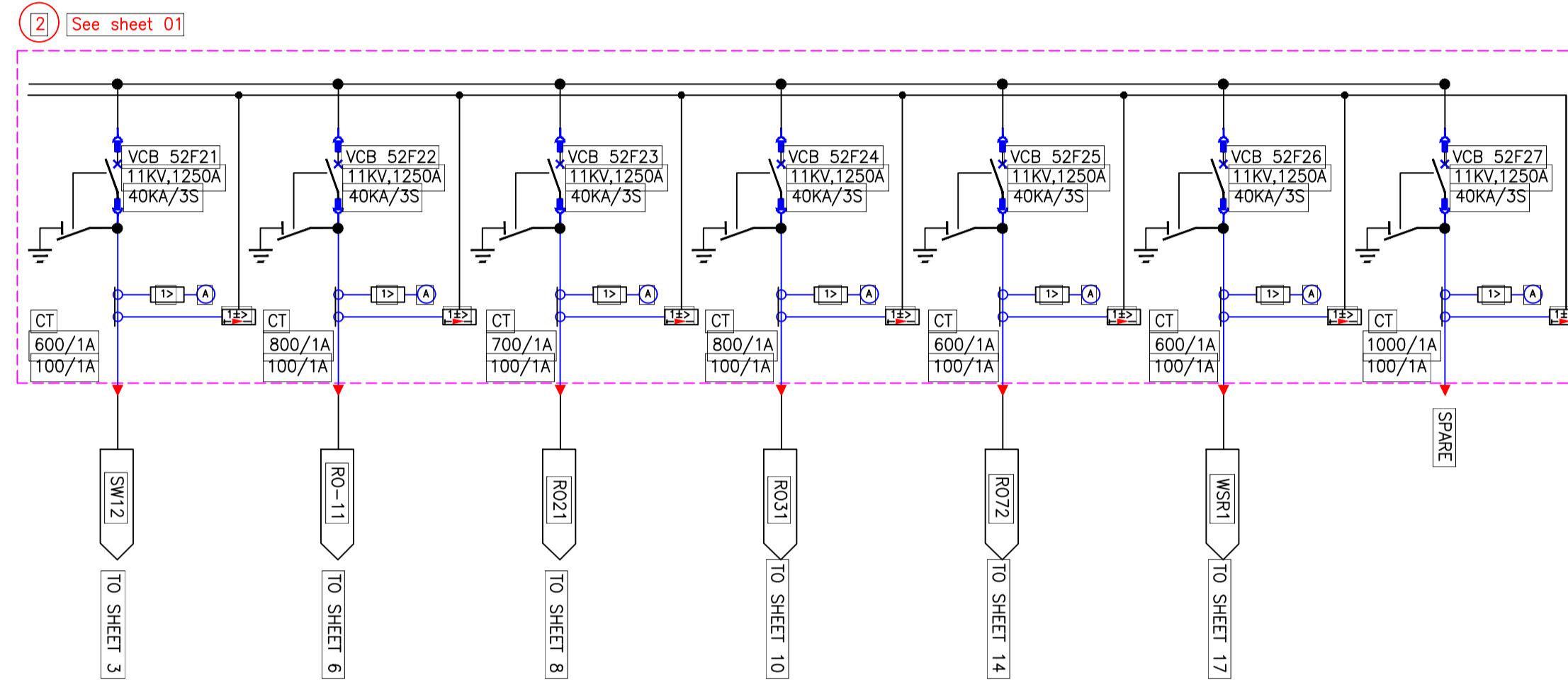
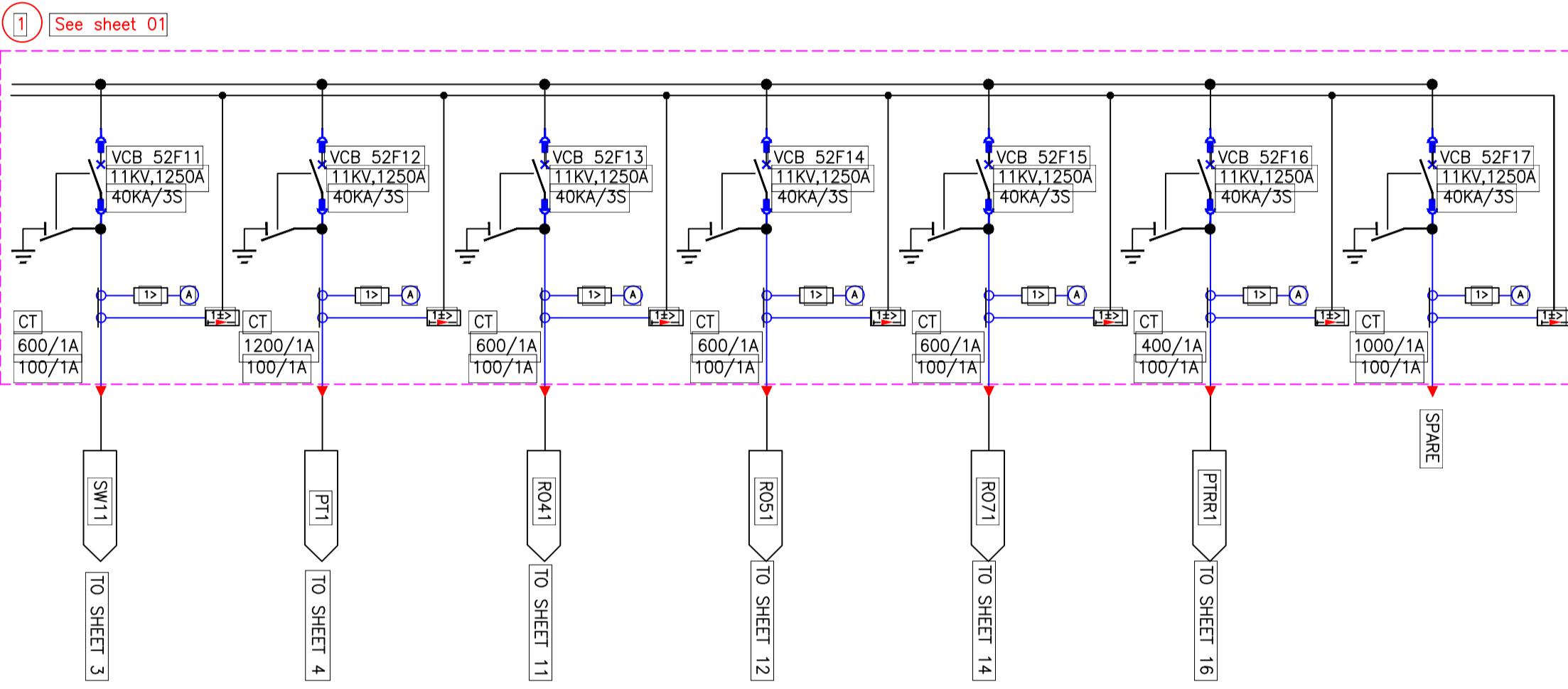
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Rev	Date	Description	Drawn	Chkd	Appd
Client:	Project Management Consultant :				
 SMEC  NJS 	Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI), SMEC India Pvt Ltd.				
Project Name:	Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Perur and all allied works"				
Project Title:	PMC for Chennai Perur 400 MLD Desalination Plant and allied works				
Project Code:	Contract Package -1 (CP1)				
Status:	Conceptual Design Report for CP1				
Drawing Title:	PROPOSED GROUND FLOOR DRAWING FOR ADMINISTRATION BUILDING,(CANTEEN, CONFERENCE ROOM,GUEST HOUSE)& MICROBIOLOGY, LABORATORY BUILDING 400 MLD PERUR DSP.				
Drawn :	JN	Checked :	PD		
Designed :	KAS	Approved :	GM		
Date :	APRIL 2021	Scale :	A4 /1:1		
Drawing Number:	7061563/PMC400MLD/CP1/C/ABD/001	Sh.No	Revision:		
		10 OF 10	R0		



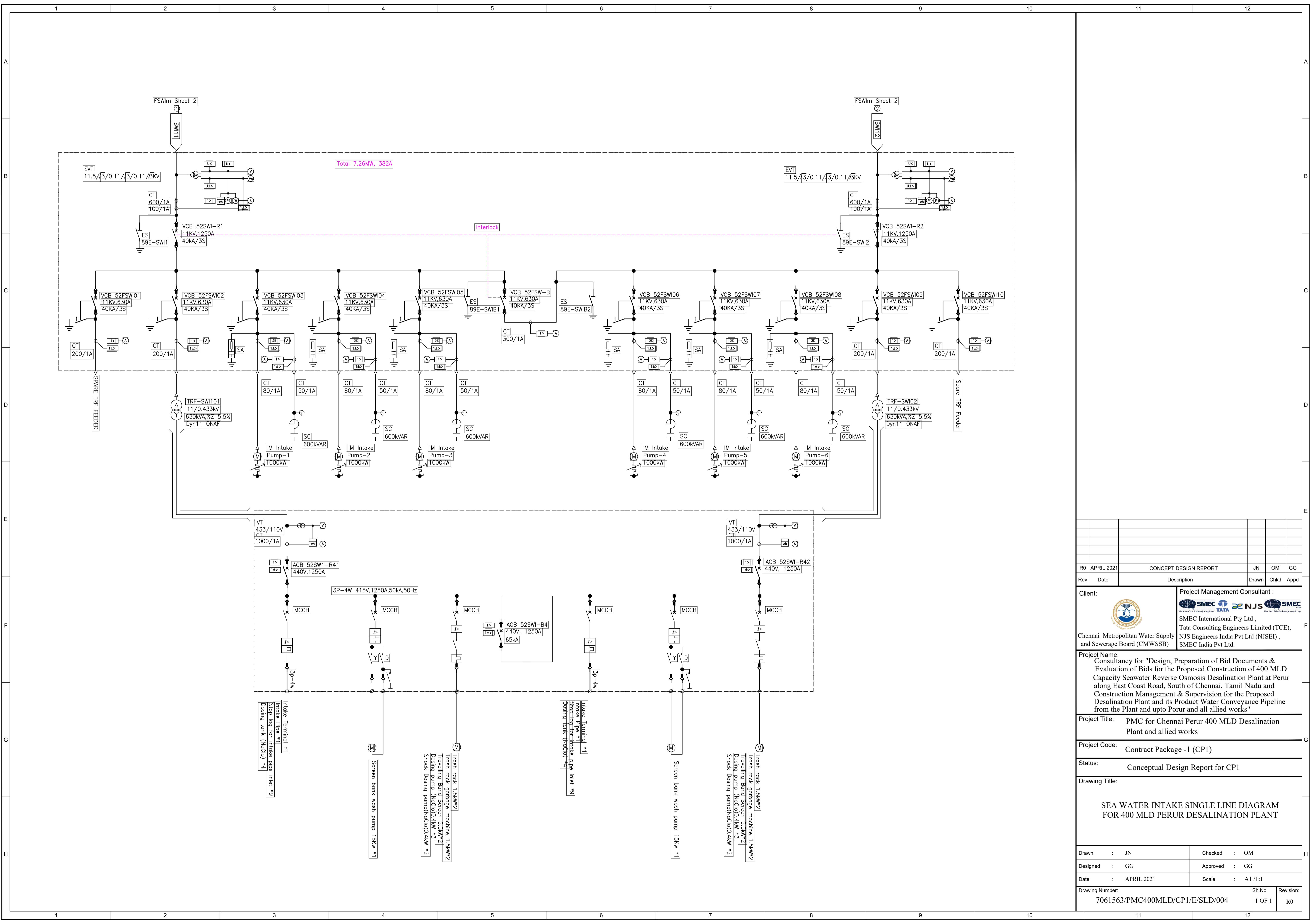


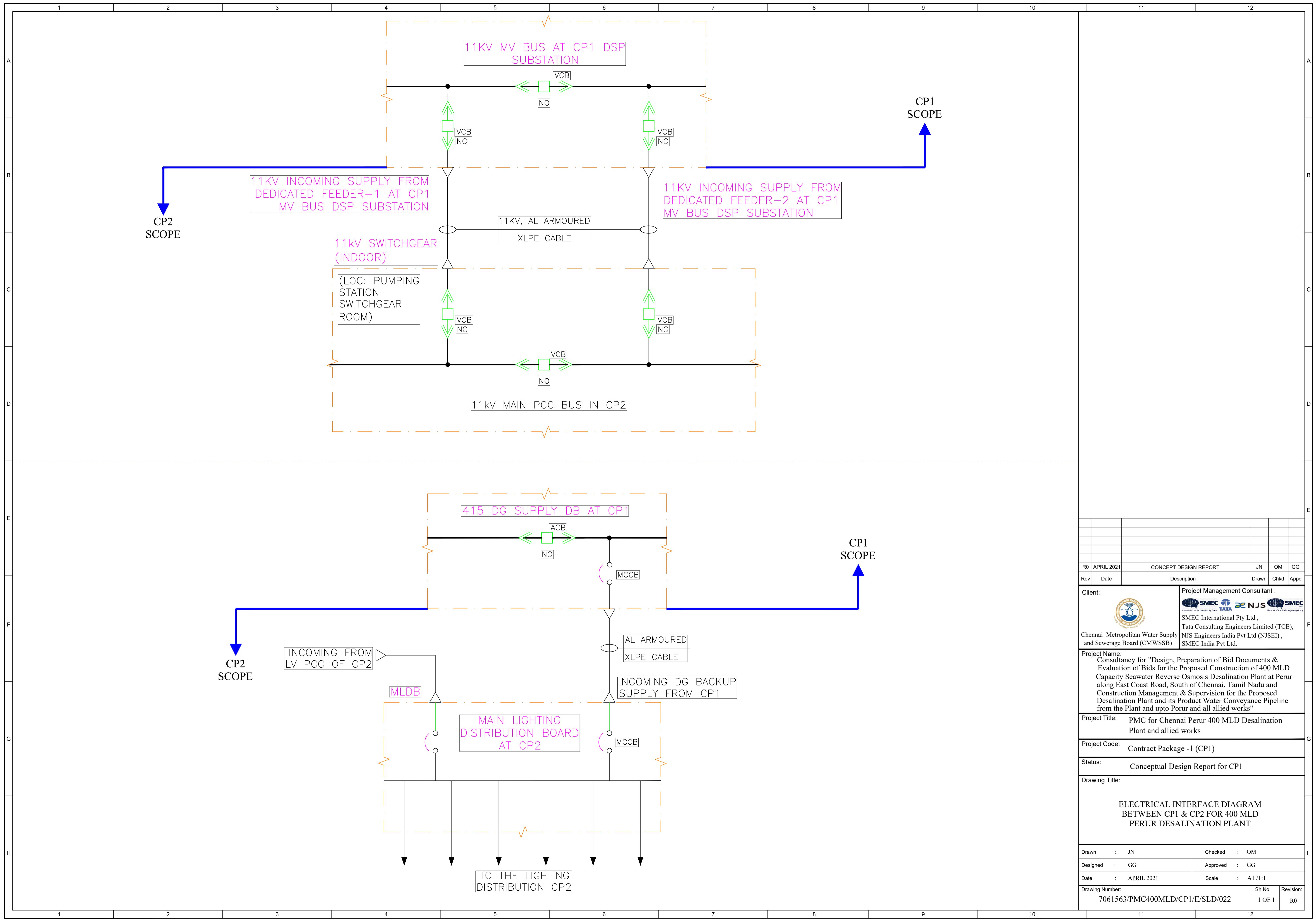


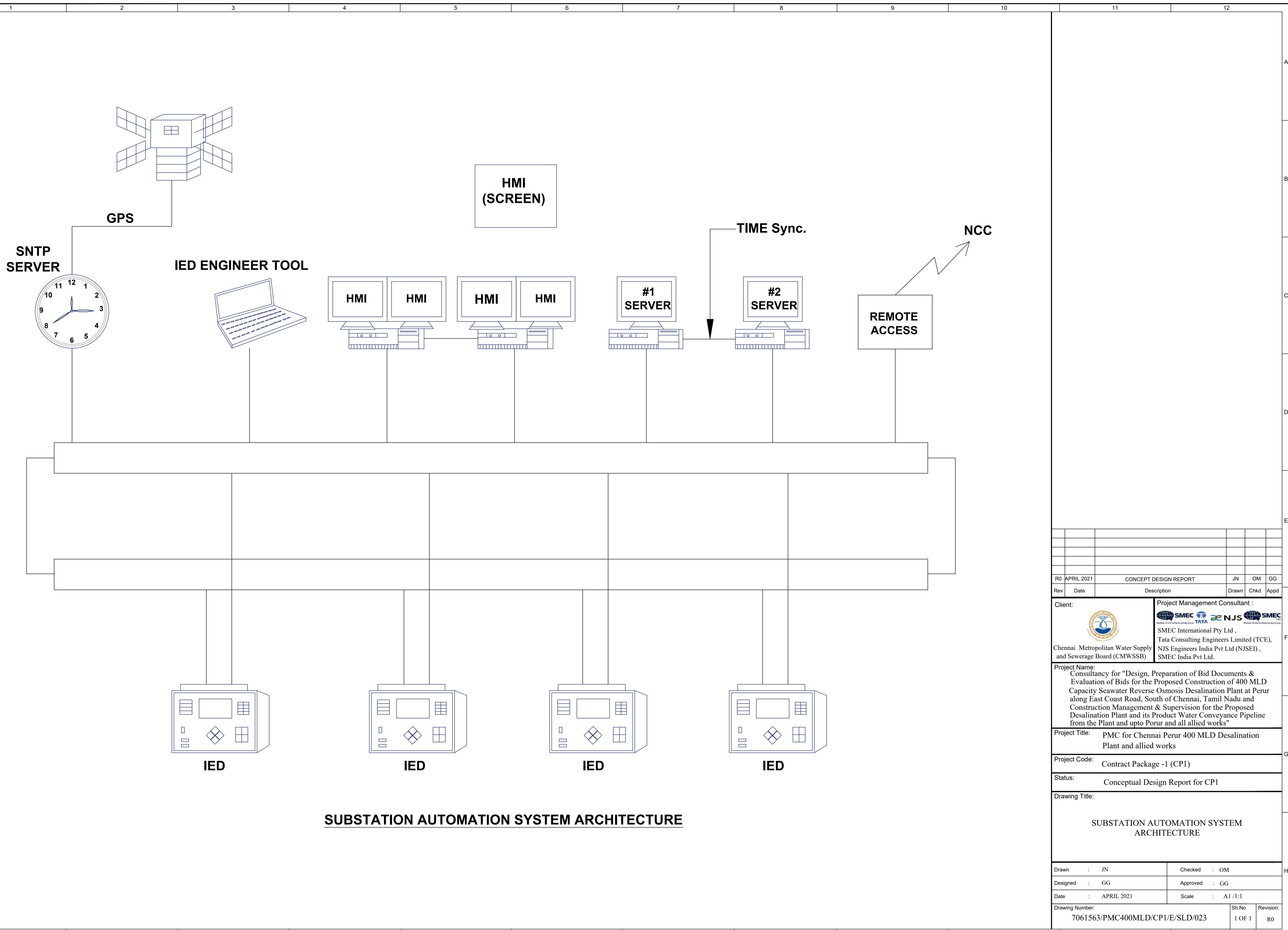




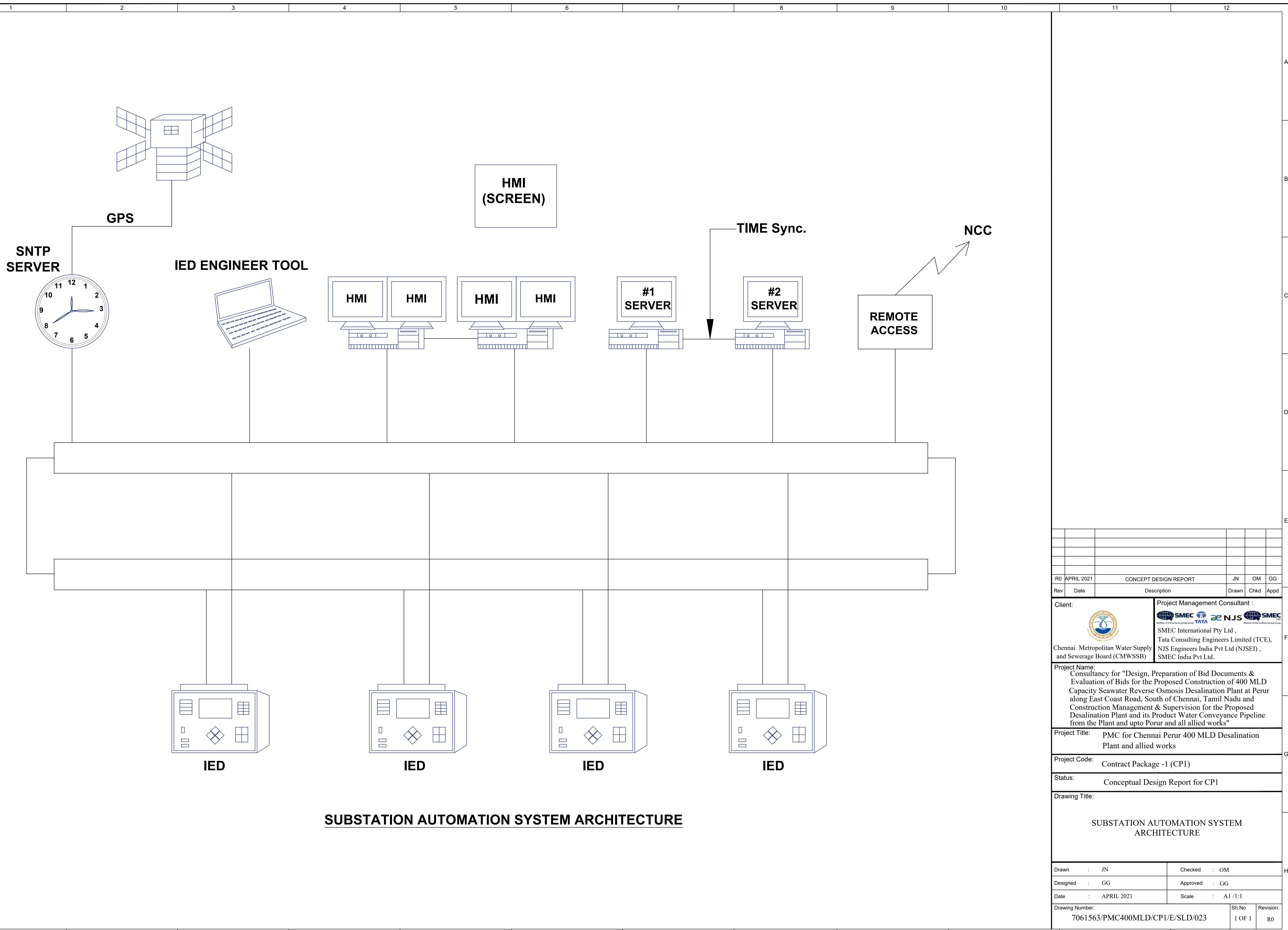
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Rev	Date	Description	Drawn	Chkd	Appd				
Client:		Project Management Consultant :							
 Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)		    Member of the Surbana Jurong Group							
Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"									
Project Title:		PMC for Chennai Perur 400 MLD Desalination Plant and allied works							
Project Code:		Contract Package -1 (CP1)							
Status:		Conceptual Design Report for CP1							
Drawing Title:									
11kV MAIN SWGR FEEDER DETAILS FOR 400 MLD PERUR DESALINATION PLANT									
Drawn : JN		Checked : OM							
Designed : GG		Approved : GG							
Date : APRIL 2021		Scale : A1 /1:1							
Drawing Number:		Sh.No		Revision:					
7061563/PMC400MLD/CP1/E/SLD/003			1 OF 1	R0					



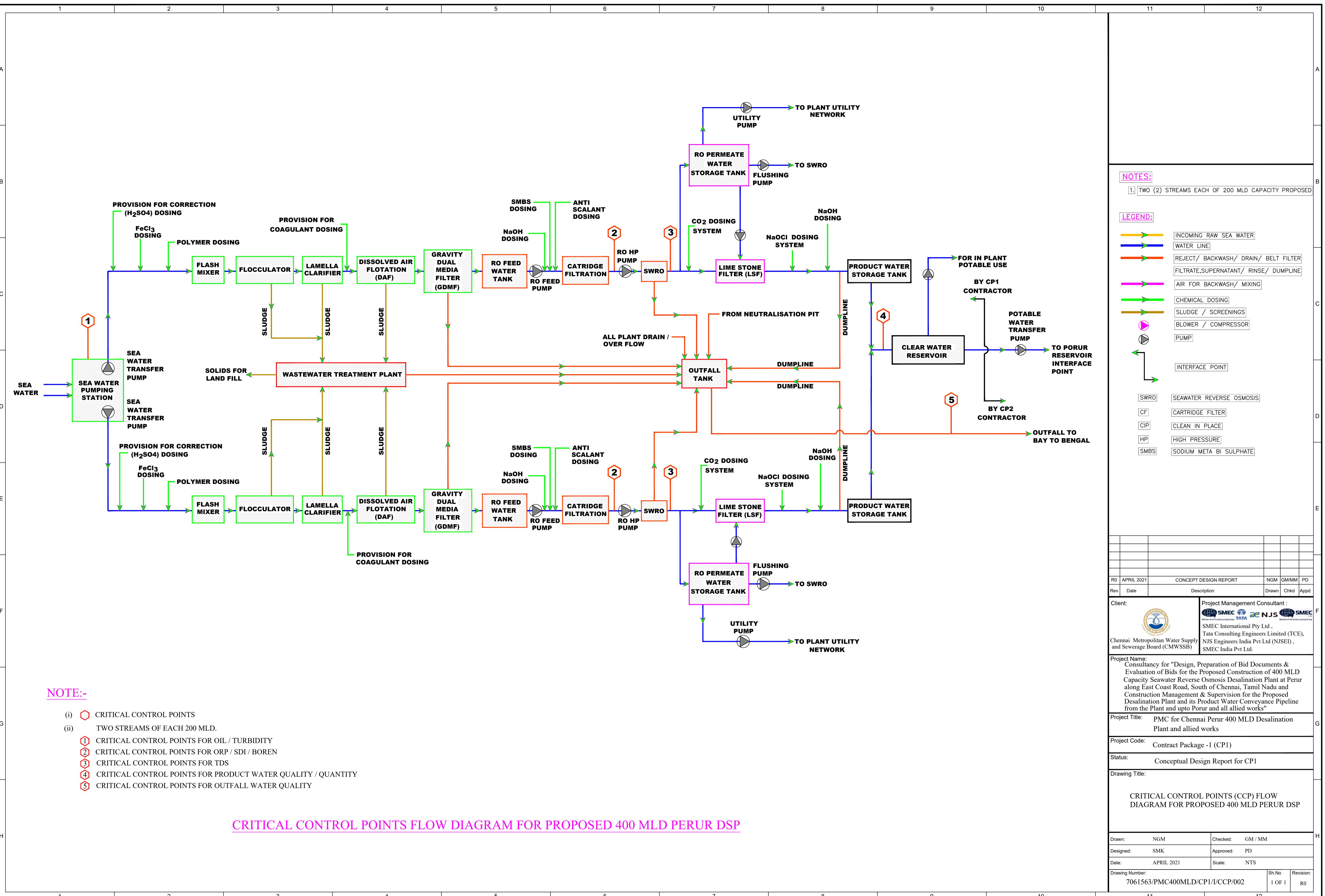




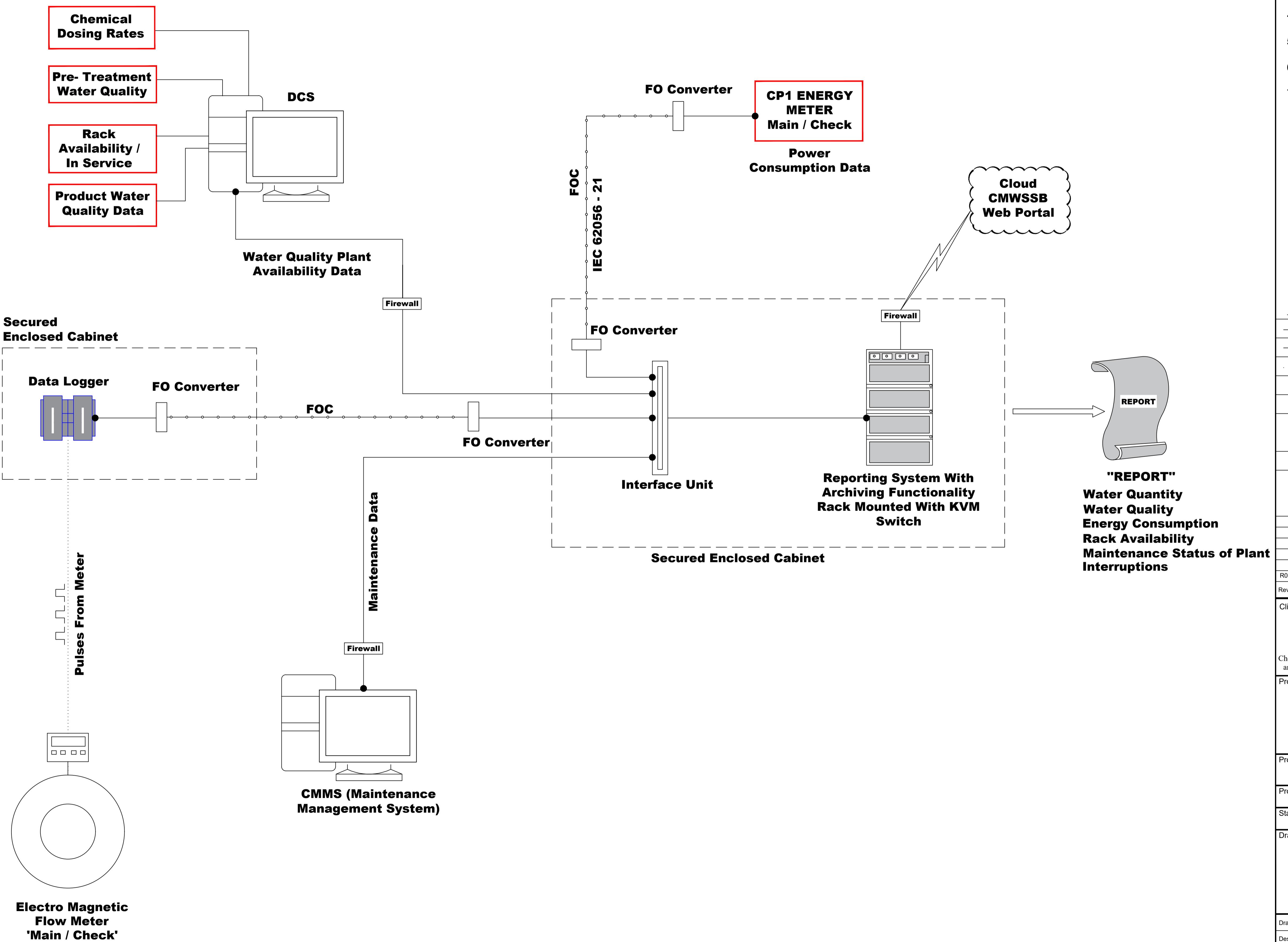
R0	APRIL 2021	CONCEPT DESIGN REPORT	JN	OM	GG				
Rev	Date	Description	Drawn	Chkd	Appd				
Client:		Project Management Consultant :							
    SMEC International Pty Ltd , Tata Consulting Engineers Limited (TCE) , NJS Engineers India Pvt Ltd (NJSEI) , SMEC India Pvt Ltd .									
Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Perur and all allied works"									
Project Title: PMC for Chennai Perur 400 MLD Desalination Plant and allied works									
Project Code: Contract Package -1 (CP1)									
Status: Conceptual Design Report for CP1									
Drawing Title:  SUBSTATION AUTOMATION SYSTEM ARCHITECTURE									
Drawn :	JN	Checked :	OM						
Designed :	GG	Approved :	GG						
Date :	APRIL 2021	Scale :	A1 /1:1						
Drawing Number:	7061563/PMC400MLD/CP1/E/SLD/023	Sh.No	Revision:	1 OF 1	R0				



R0	APRIL 2021	CONCEPT DESIGN REPORT	JN	OM	GG				
Rev	Date	Description	Drawn	Chkd	Appd				
Client:		Project Management Consultant :							
    SMEC International Pty Ltd , Tata Consulting Engineers Limited (TCE) , NJS Engineers India Pvt Ltd (NJSEI) , SMEC India Pvt Ltd .									
Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Perur and all allied works"									
Project Title: PMC for Chennai Perur 400 MLD Desalination Plant and allied works									
Project Code: Contract Package -1 (CP1)									
Status: Conceptual Design Report for CP1									
Drawing Title:  SUBSTATION AUTOMATION SYSTEM ARCHITECTURE									
Drawn :	JN	Checked :	OM						
Designed :	GG	Approved :	GG						
Date :	APRIL 2021	Scale :	A1 /1:1						
Drawing Number:	7061563/PMC400MLD/CP1/E/SLD/023	Sh.No	Revision:	1 OF 1	R0				



## REPORTING SYSTEM



### Notes:

1. Reporting Resolution Available Monthly / Daily / Hourly.
2. All External Interfaces From (or) To The System Should Be Through Firewall.
3. Chemical Dosing Rates Calculated From Dosing Pumps Operation.
4. Rack Availability / Rack In Service Data Provides Capacity Data Of The Plant.
5. Energy Meter Data Provides Power Consumption Of The Plant.
6. DCS Interface To Provide The GPS Time To The Reporting System.
7. Pre-Treatment Water Quality To Include SDI / and TDS.

### Legend:

—○—○—	Fibre Optic Communication
————	Communication Interface Hard Wired
.....	Pulse Interface
□□□□□	Pulse Output From The Flow Meter
KVM	Keyboard, Video, Mouse
CMMS	Computerized Maintenance Management System
FOC	Fiber Optic Cable

R0	APRIL 2021	CONCEPT DESIGN REPORT	JN	AAL/GM	PD
Rev	Date	Description	Drawn	Chkd	Appd
Client:		Project Management Consultant :			

SMEC International Pty Ltd.,  
Tata Consulting Engineers Limited (TCE),  
NJS Engineers India Pvt Ltd (NJSEI),  
SMEC India Pvt Ltd.

Project Name:  
Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"

Project Title: PMC for Chennai Perur 400 MLD Desalination Plant and allied works

Project Code: Contract Package -1 (CP1)

Status: MFS DRAWING

Drawing Title:

TENTATIVE REPORTING SYSTEM  
ARCHITECTURE

Drawn : JN	Checked : AAL / GM	
Designed : AAL	Approved : PD	
Date : APRIL 2021	Scale : A3	
Drawing Number: 7061563/PMC400MLD/CP1/I/RPS/003	Sh.No 1 OF 1	Revision: R0

The CHENNAI 400 MLD DESALINATION PLANT is a Project being delivered by the Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB) with the assistance of an Official Development Assistance (ODA) loan from the Japan International Cooperation Agency (JICA).

The Project Management Consultant (PMC) for the Chennai 400 MLD Desalination Plant project is a consortium led by SMEC International Pty Ltd in partnership with Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI) and SMEC India Pvt Ltd.



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