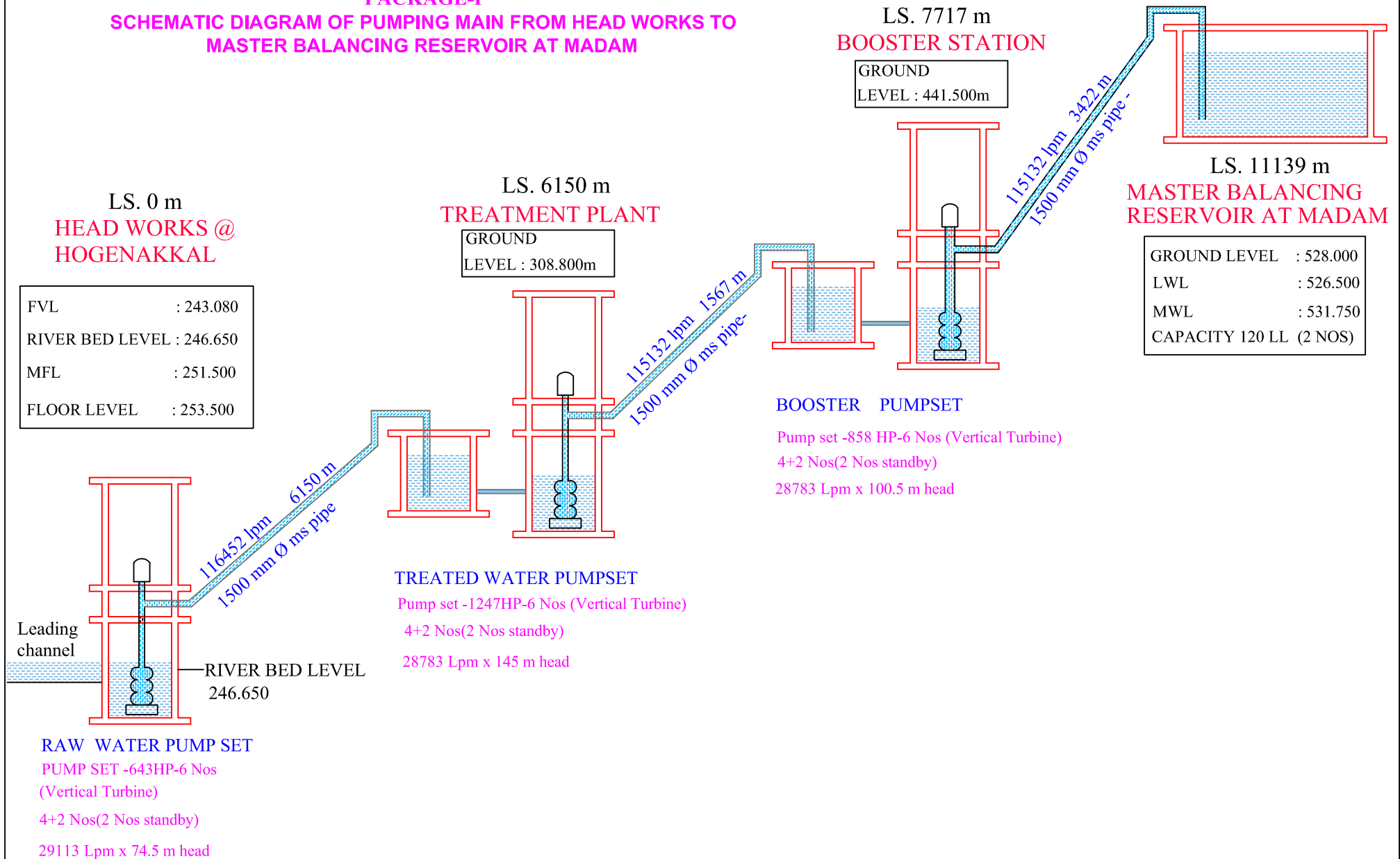
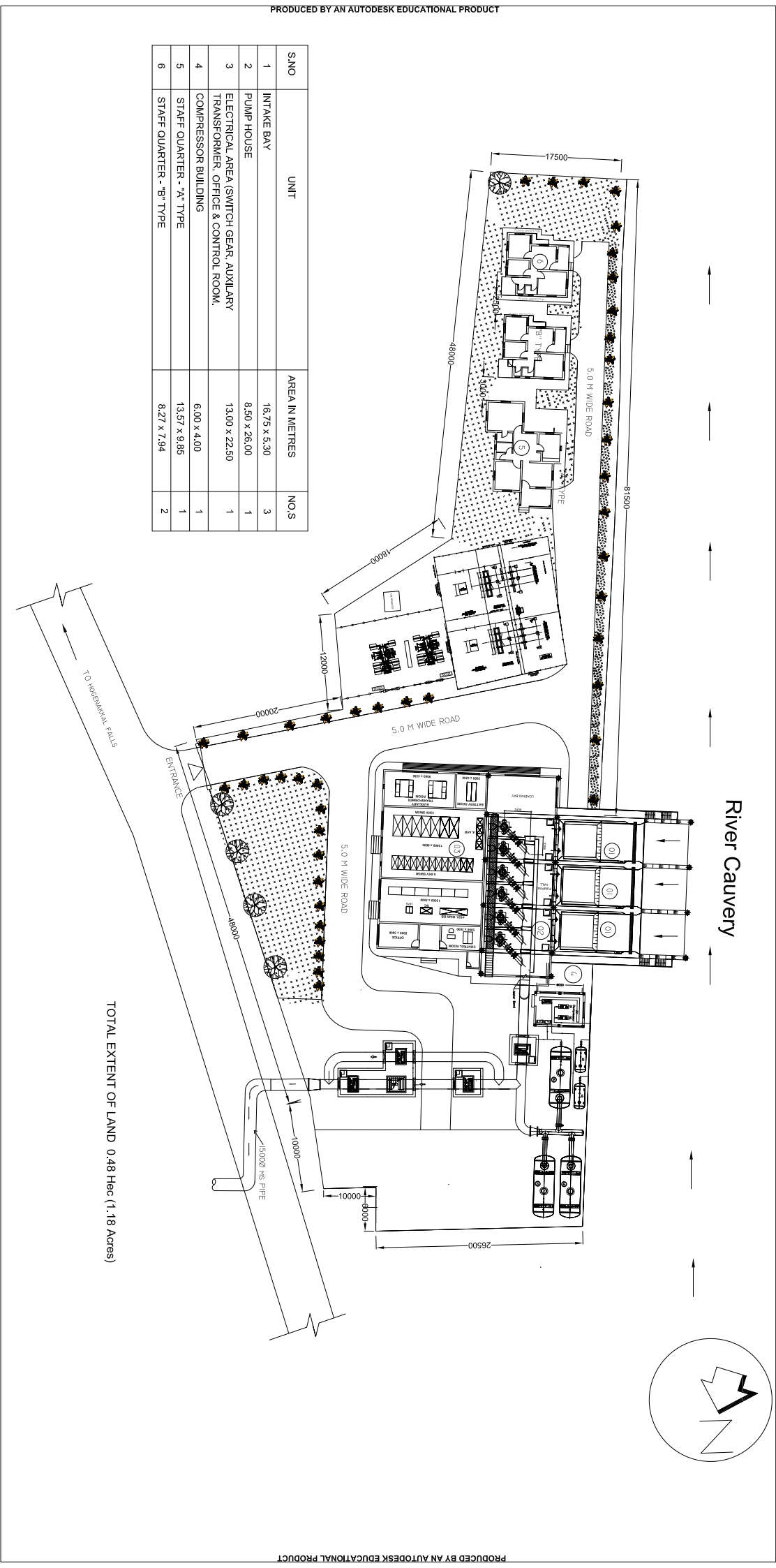
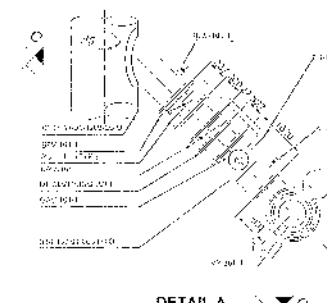
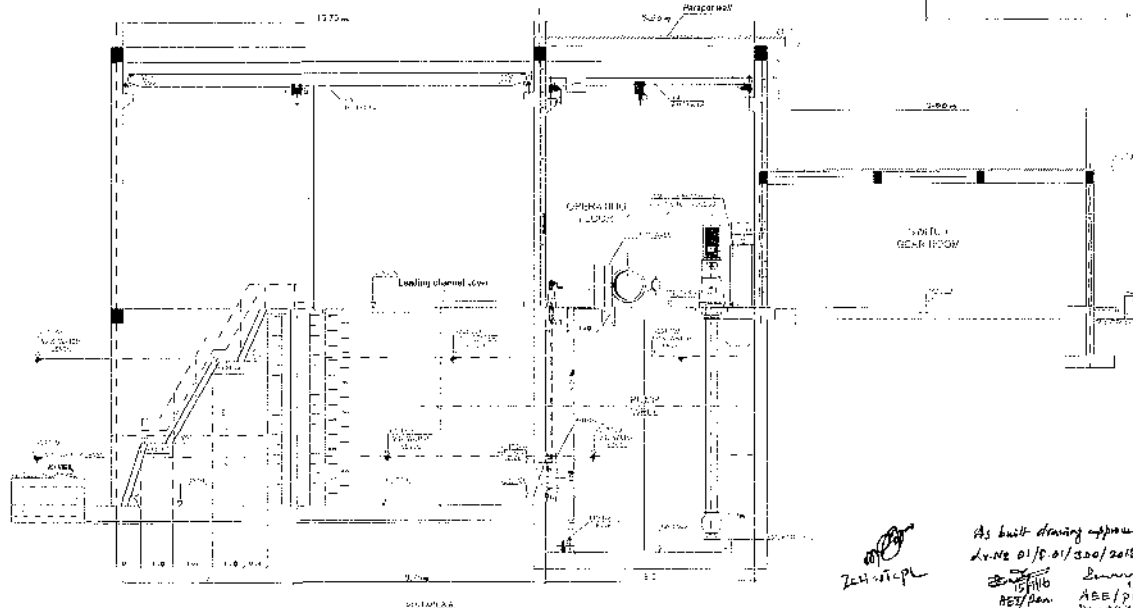
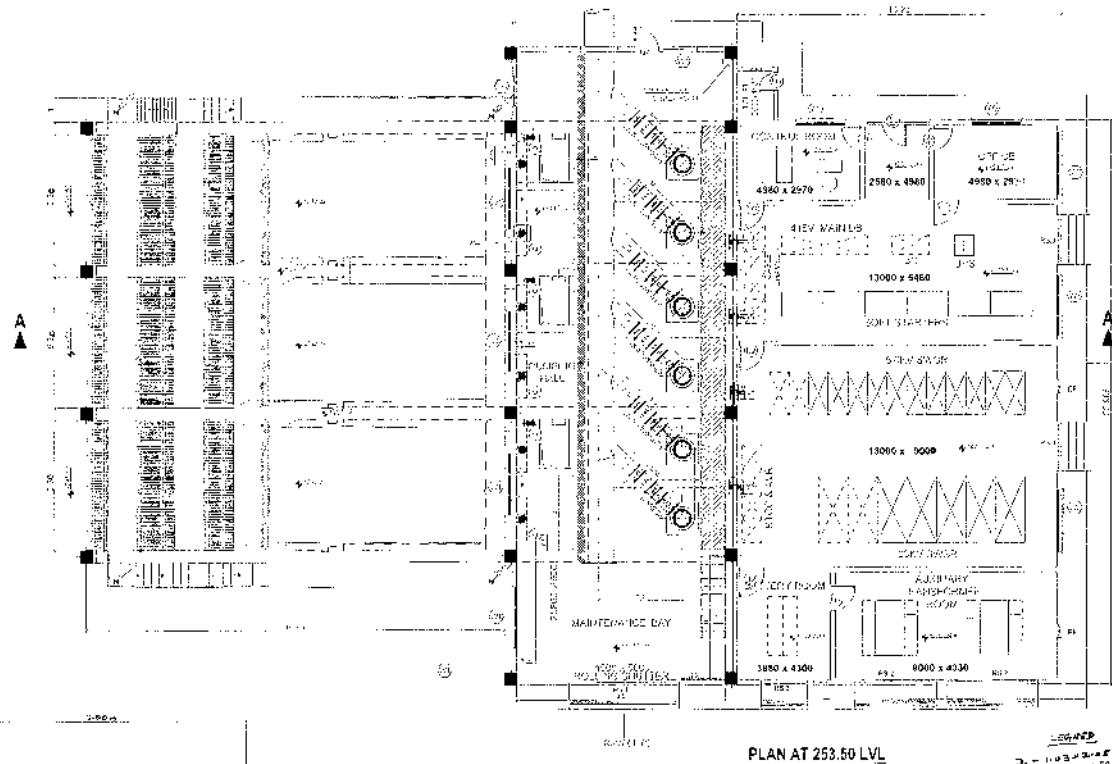
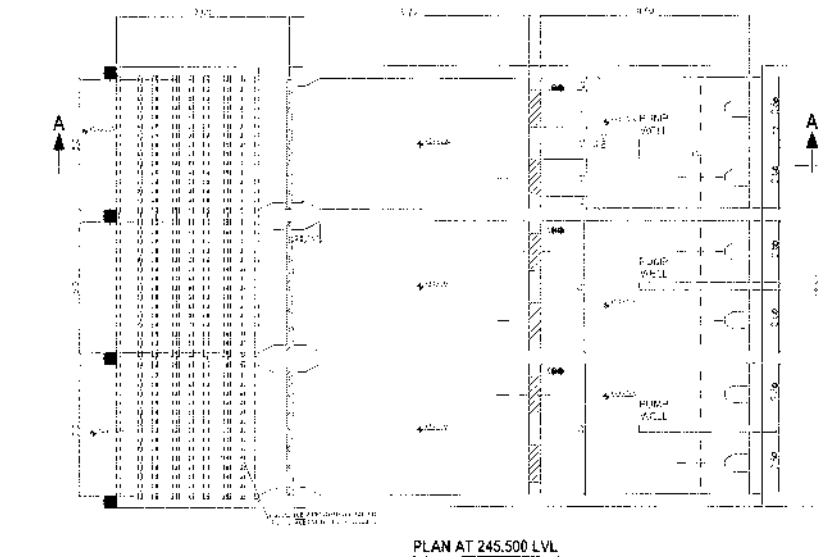


**HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT IN
DHARMAPURI AND KRISHNAGIRI DISTRICTS
PACKAGE-I**

**SCHEMATIC DIAGRAM OF PUMPING MAIN FROM HEAD WORKS TO
MASTER BALANCING RESERVOIR AT MADAM**







SECTION C-C

1. ALL DIMENSIONS AND LEVELS ARE IN METERS.

[illegible]

TAMIL NADU WATER SUPPLY & DRAINAGE BOARD

HOUSEHOLD WATER SUPPLY AND PHOSPHORUS FERTILIZATION PROJECT

Package I

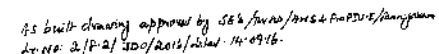
TAMIL NADU HOUSEHOLD WATER

TREATMENT COMPANY PVT. LTD.,

PROJECT NO. 1006

Sl. No.	Particulars	Unit	Quantity	Rate	Amount
1	As per Bill of Materials				
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100	As per Bill of Materials				

CH : from 0.00 to 1740.00



20/11/16
703/120.

2000
15/11/16
Aos (piv-f)
Pennsylvania

SE/PIN-T/Pengajaran

U	
RFV	DATE

FOR APPROVAL

Description

TAMIL NADU WATER SUPPLY &
DRAINAGE BOARD

**HOGENAKKAL WATER SUPPLY AND
FLUOROSIS MITIGATION PROJECT**
Package I

IVRCL-CADAGUA HOGENAKKAL WATER
TREATMENT COMPANY PVT. LTD.,

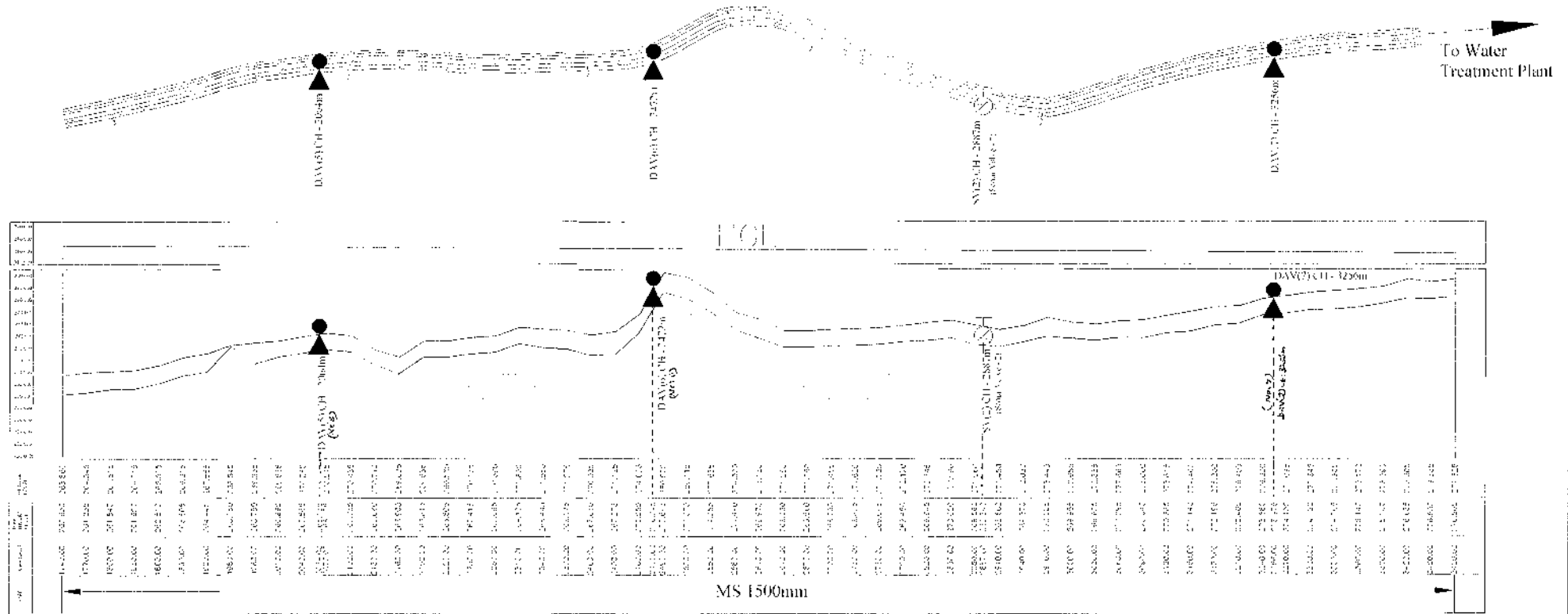
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AN BENT DRAWING FOR
PIPE LINE L-SECTION
FROM TAKE TO WY
CH: FROM 0.00m to 1240.00m

02600 TYPED PRINTING 0000

L-SECTION FROM RAW WATER INTAKE TO WATER TREATMENT PLANT

CH : from 1740.00 to 3480.00



As built drawing approval by SE/WRD/MS & FWD/S/Pennaguram
 Lr. No: 2/P.02/ JDO/2016/dated: 14.05.16.

[Handwritten signatures and initials]
 20/05/16
 20/05/16
 20/05/16



DAV
SV

Sl. No.	Particulars	Quantity	Unit	Rate	Amount
1	DAV	1.00	m	100.00	100.00
2	SV	1.00	m	100.00	100.00
3	DAV	1.00	m	100.00	100.00
4	SV	1.00	m	100.00	100.00

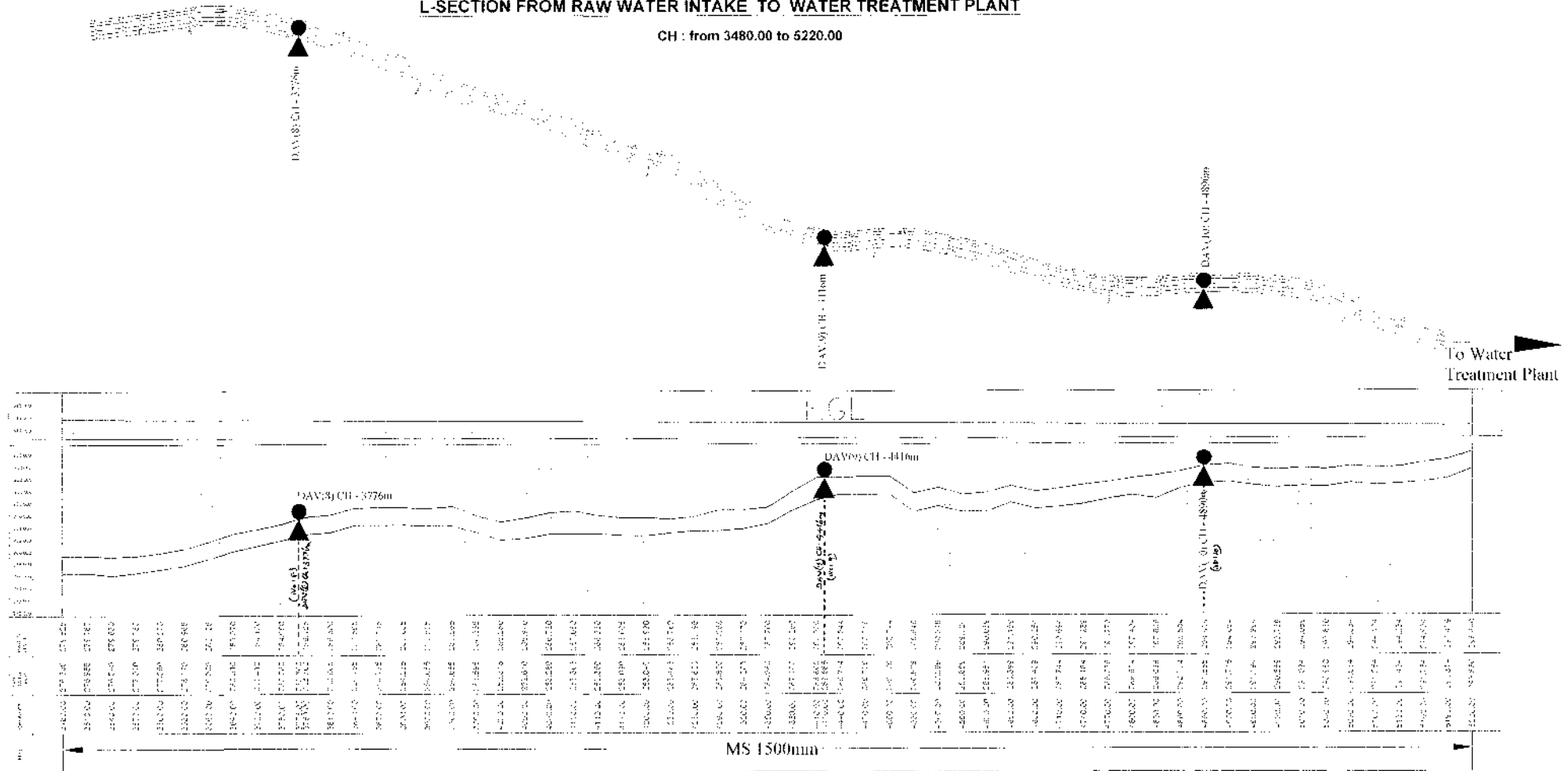
REV	DATE	DESCRIPTION
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FOR APPROVAL
Description:

TAMIL NADU WATER SUPPLY & DRAINAGE BOARD	
HOENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT Package I	
IVRCL, CADAGUA HOENAKKAL WATER TREATMENT COMPANY PVT. LTD.	
<div style="display: flex; justify-content: space-between;"> <div> <p>As Built Drawing For</p> <p>PHASE I L-SECTION</p> <p>FROM INTAKE TO WTP</p> <p>CH: From 1740.00 to 3480.00</p> </div> <div> <p>Scale: 1:100</p> <p>Sheet No: 1/1</p> </div> </div>	

L-SECTION FROM RAW WATER INTAKE TO WATER TREATMENT PLANT

CH : from 3480.00 to 5220.00



As built drawing approved by Sd/-/w/o/In-charge/Engineer
 Lr. No 2/P-2/300/2016/dated 14-09-16.

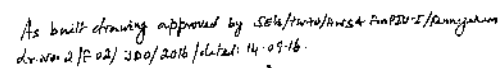
[Signature]
 Sd/-/w/o/In-charge/Engineer
 15/9/16
 ASE/PU-5/
 Pennaguram

[Signature]
 Sd/-/w/o/In-charge/Engineer
 15/9/16
 ASE/PU-2/
 Pennaguram

NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	15/9/16	As per drawing	ASE/PU-5	ASE/PU-5	ASE/PU-5
2	15/9/16	As per drawing	ASE/PU-2	ASE/PU-2	ASE/PU-2
3	15/9/16	As per drawing	ASE/PU-5	ASE/PU-5	ASE/PU-5

		TAMIL NADU WATER SUPPLY & DRAINAGE BOARD	
HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT Package 1		IVRCL CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.	
No. of sheets: 1 Sheet No: 1 of 1	Date: 15/9/16 By: ASE/PU-5 Checked: ASE/PU-2 Approved: ASE/PU-5	As built drawing for PIPE LINE - 1500mm From STAKE TO WTP 120 - from 3480.00m to 5220.00m	Scale: 1:100 Date: 15/9/16 By: ASE/PU-5 Checked: ASE/PU-2 Approved: ASE/PU-5

CH : from 5220.00 to 6167.00



15/11/2014

10/11/16
455 / 310-5/
P2000500000

SE / PIV-2 / penyusutan

$$\frac{DAV}{SV}$$

Model	Value	Value as a function of	Lower limit	Upper limit	95% Confidence Interval
1	Low	0.56	0.541	0.579	0.018
2	High	0.60	0.611	0.589	0.012

REV		DATE	Description
0			FOR APPROVAL

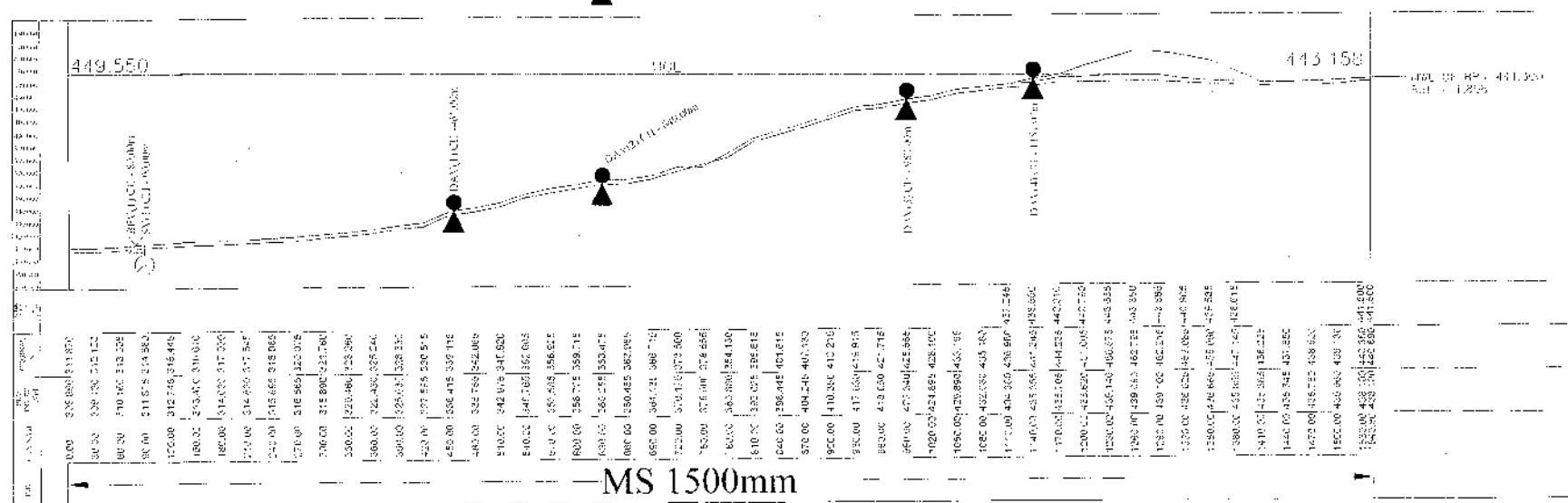
TAMIL NADU WATER SUPPLY & DRAINAGE BOARD	
PROJECT NAME HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT Package I	
CLIENT NAME IVRCL-CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.,	
PROJECT ADDRESS No. 84/1, Gentryway Pk PIPE LINE - 5527121N From 0+740.0 to 9+911.0 CH. from 5120.00m to 5145.00m	



Diagram illustrating the sewer line section from the Water Treatment Plant to the Booster Pumping Station. The sewer line is labeled "CH : from 0.00 to 1540.90". The diagram shows three manholes along the line:

- MANHOLE - 46+300
- MANHOLE - 58+000
- MANHOLE - 115+000

The diagram also shows the "WATER TREATMENT PLANT" and "BOOSTER PUMPING STATION".



As built drawing approved with Superintending Engineer, TWRD Bowd, HWS & FMP, PWD-I, Faramgatan
 LT.No. 2/F.2 / JDD/2016 /Dt 13-9-16

C. Digney
 24/9/16
 AEP/Am
 24/9/16
 AEP/Am
 Pannagaram
 SE/PV-2/Pannagaram

[illegible]

2	14 17:20:13
REV	CAT#

[illegible][illegible]



**TAMIL NADU WATER SUPPLY &
DRAINAGE BOARD**

**HOGENAKKAL WATER SUPPLY AND
FLUOROSIS MITIGATION PROJECT
Package I**

**INDIA-CAROLU HOGENAKKAL WATER
TREATMENT PLANT PVT. LTD.**

carolugate

**PS-521 DEERING P.O.
4/10/11 OF 2005/26
PUNNING STATION**

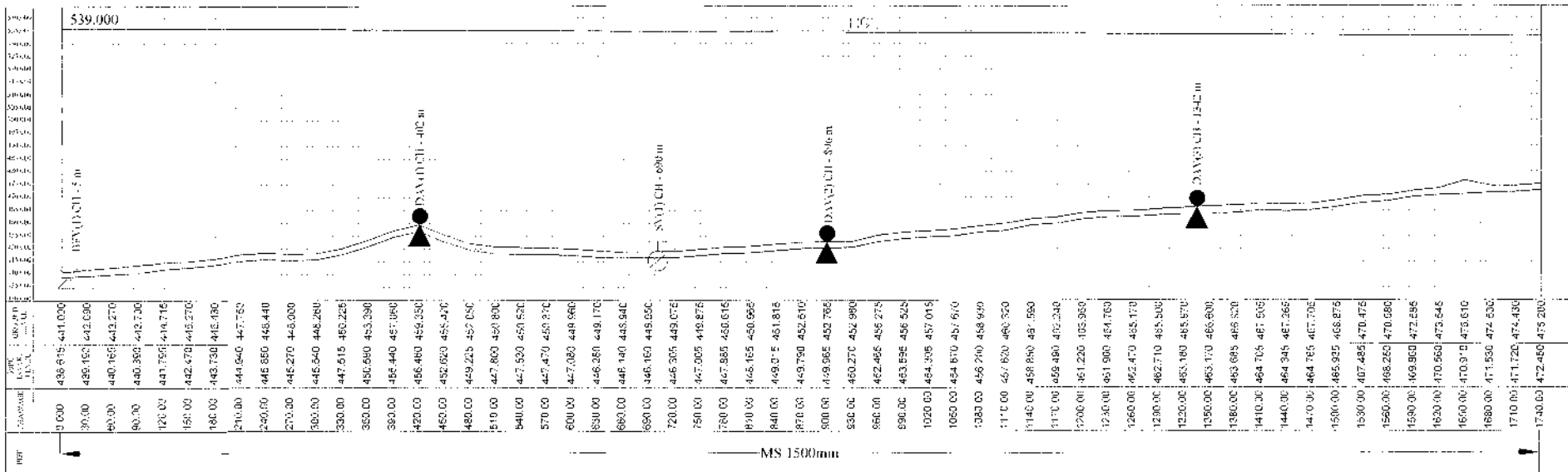
L-SECTION FROM BOOSTER PUMPING STATION TO MASTER BALANCING RESERVOIR

CH : from 0.00 to 1740.00



BOOSTER
PUMPING
STATION

TO MBR

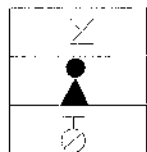


As built drawing approved vide Superintending Engineer, TWS&DB, PUV-I, Ponnaiyannur
Lr.No.2 152/700/2016/DT 14-9-2016

C. Prabhakaran
26/9/16
Asst (PUV-I)
Ponnaiyannur

L. S. S. S. S.
26/9/16
SE/PUV-I/
Ponnaiyannur

For Approval



BFV
DAV
SV

SL.NO	VALVE	TYPE	SIZE	DEPTH	LEVEL
1	DAV(1)	Gate	12" dia	2.00 m	73.50
2	SV(1)	Gate	12" dia	2.00 m	73.50
3	DAV(2)	Gate	12" dia	2.00 m	73.50
4	DAV(3)	Gate	12" dia	2.00 m	73.50

FOR APPROVAL

Description

TAMIL NADU WATER SUPPLY & DRAINAGE BOARD

HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT
Package I

IVRCL CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.

As Built Drawing For
PIPE LINE L SECTION
From 0.00 to 1740.00
CH : from 0.00 to 1740.00

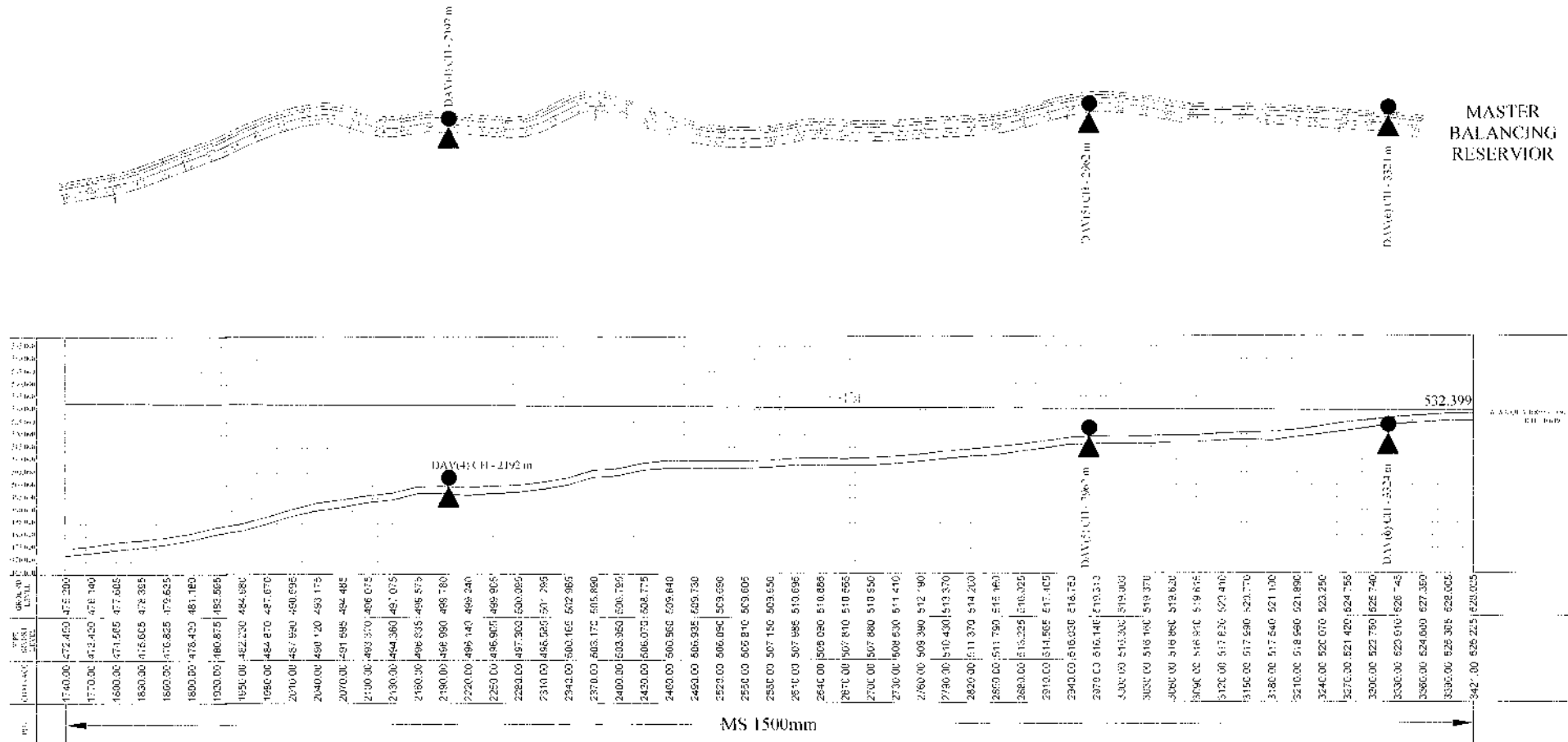
2250 (TWO-DIGIT) (WWS-100)

L-SECTION FROM BOOSTER PUMPING STATION TO MASTER BALANCING RESERVOIR

CH : from 1740.00 to 3421.00



MASTER
BALANCING
RESERVOIR



As built drawing approved Under Superintending Engineer, TWS Board, HWS at MP, PUV-2, Penruyannam
 Lx No. 2 P. 2 / 300 / 2016 / dt 14.9.2016

C. Pragasam
26/9/16
Asst. Engineer
26/9/16
Asst. Engineer
26/9/16
Asst. Engineer

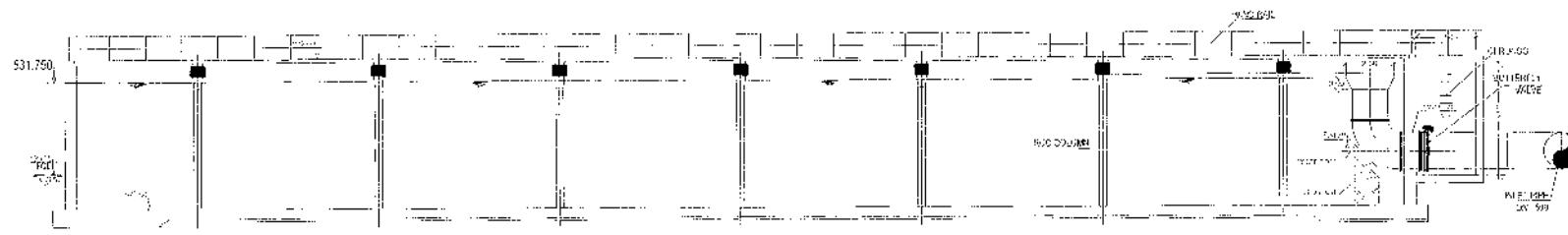
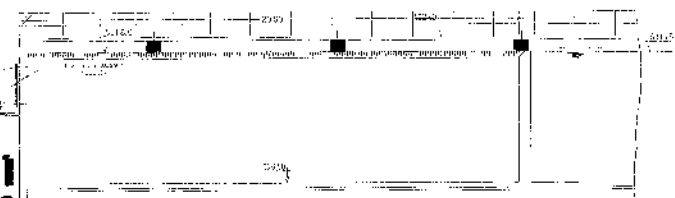
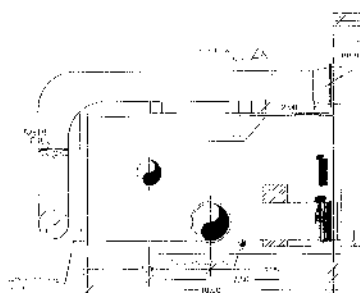
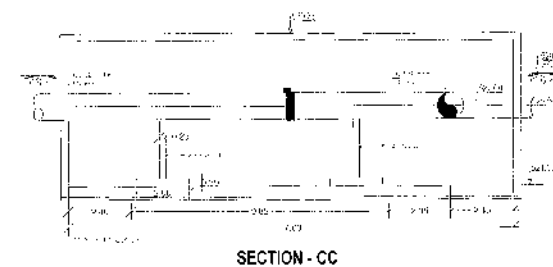
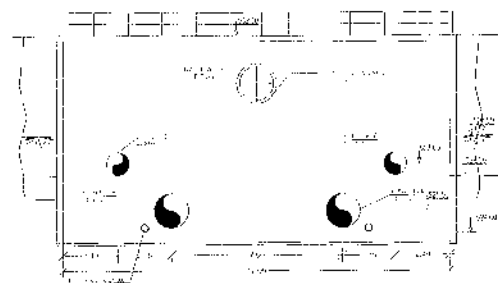
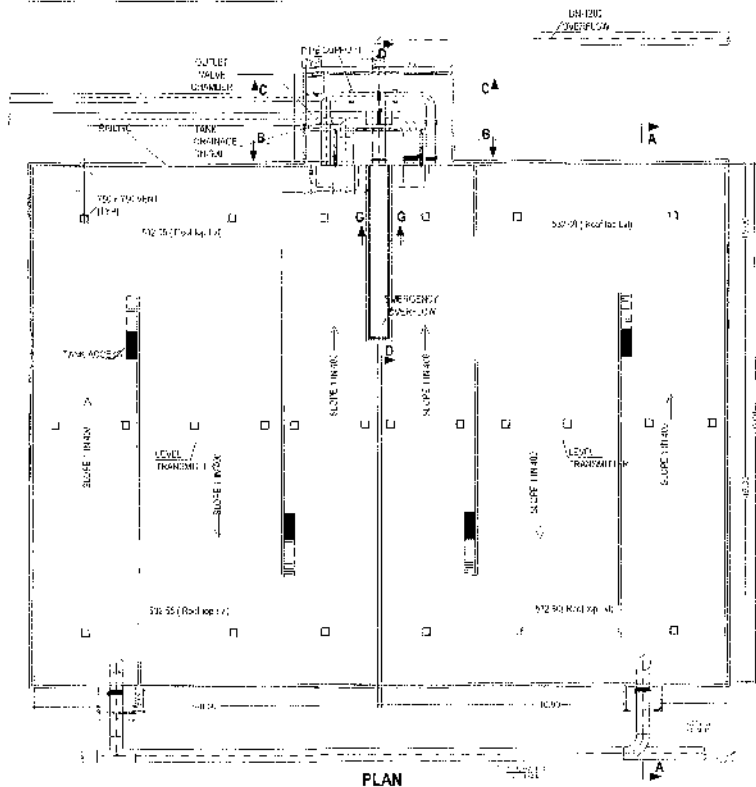
MECH
26/9/16

NO.	REVISION	DATE	BY	CHKD.
1	AS BUILT	26/9/16	MECH	MECH
2	AS BUILT	26/9/16	MECH	MECH
3	AS BUILT	26/9/16	MECH	MECH

REV	DATE	DESCRIPTION
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FOR APPROVAL

TAMIL NADU WATER SUPPLY & DRAINAGE BOARD	
HOENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT Package I	
IVROCL CADAGUA HOENAKKAL WATER TREATMENT COMPANY PVT. LTD.	
As Built Drawing for PIPE LINE L-SECTION From 1740.00m to 3421.00m	Scale: 1:100
02/2016 TWSB-P1-01-02/2016-1702	Page: 1 of 1



As built drawing Approved by Superintending Engineer, Tamil Nadu
 HWS & FWP, PUD-I, Perungudi - No. 1 / F-1 / Package-I / 200 / 2016
 dt: 21.11.2016

C. D. Raju 21/11/16
ABE/Perungudi
21/11/16
ABE/Perungudi
21/11/16
SE/PUD-I/Perungudi

NOTES:
 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

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TAMIL NADU WATER SUPPLY & DRAINAGE BOARD

HOBENAKKAL WATER SUPPLY AND FI DOROSIS MITIGATION PROJECT
 Package-I

PRELIMINARY HOBENAKKAL WATER TREATMENT PLANT-PV1 LTD.

cadacorp

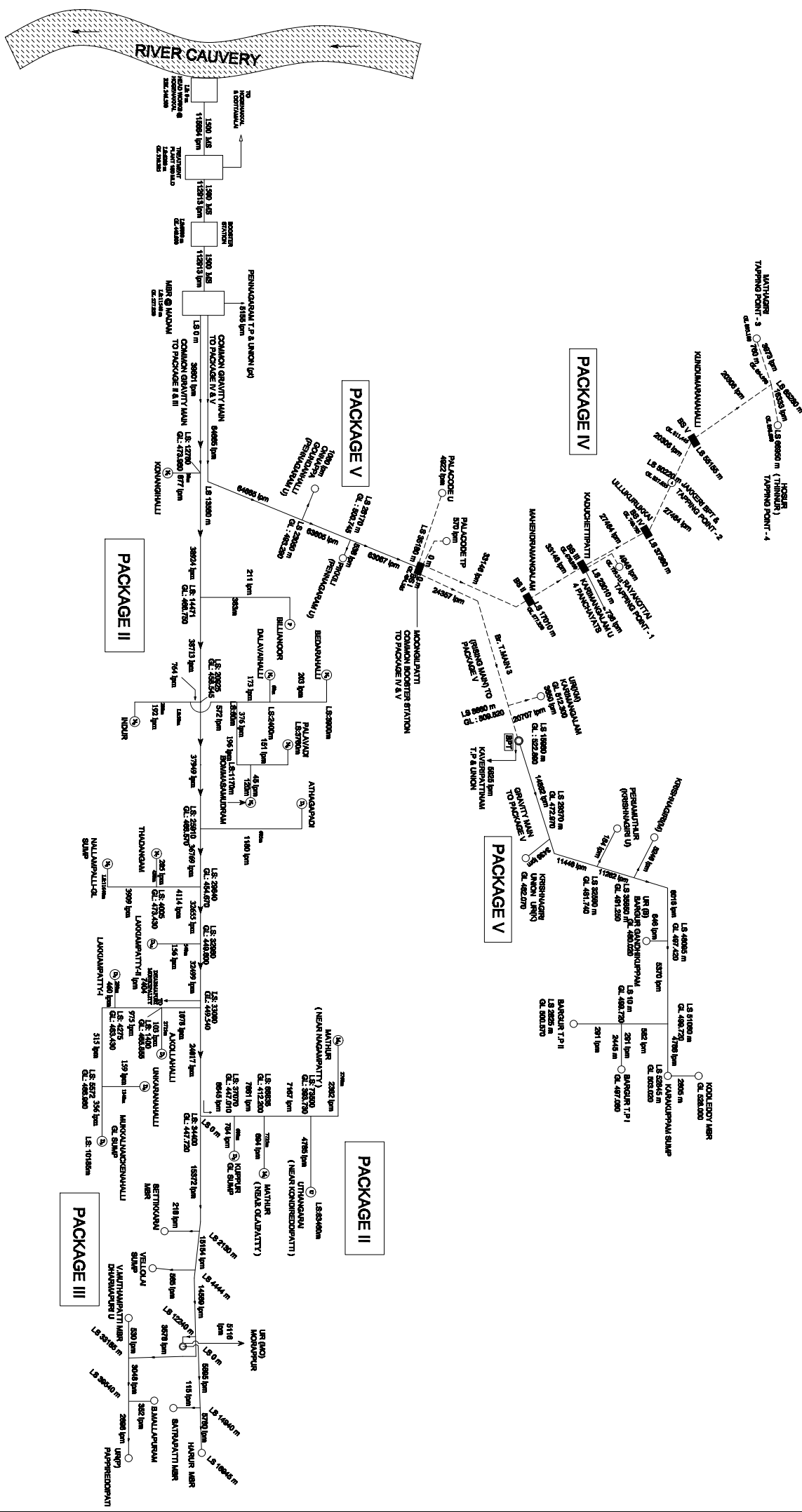
AS BUILT DRAWING FOR GENERAL ARRANGEMENT OF WATER SAVING RESERVOIR

FOR APPROVAL

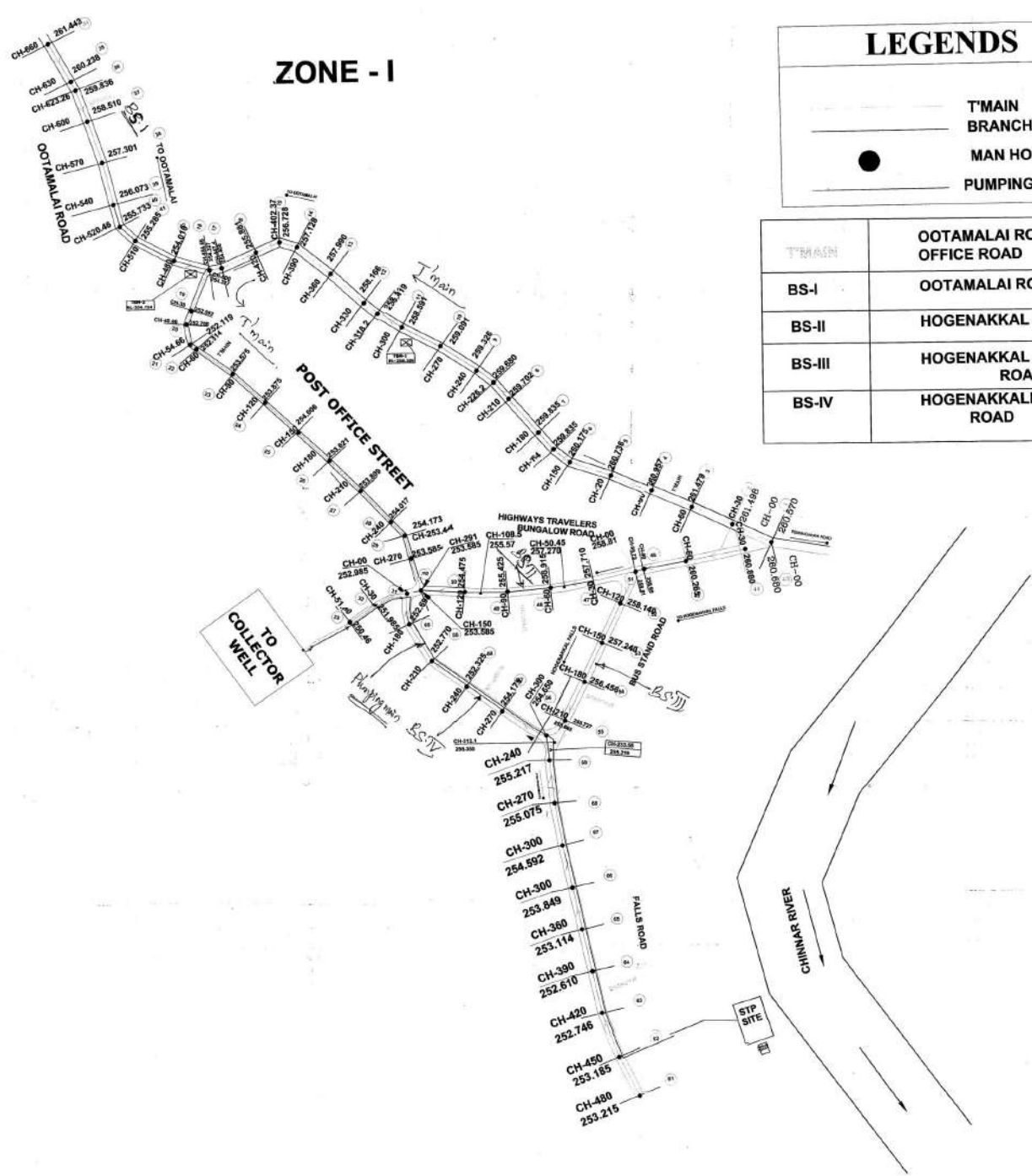
Description

HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT IN DHARMAPURI AND KRISHNAGIRI DISTRICTS

TRANSMISSION MAIN FLOW DIAGRAM FOR PACKAGES I TO V



ZONE - I



LEGENDS

- T'MAIN
BRANCH MAIN
MAN HOLE
PUMPING MAIN

TRAIN	OOTAMALAI ROAD & POST OFFICE ROAD
BS-I	OOTAMALAI ROAD
BS-II	HOGENAKKAL ROAD
BS-III	HOGENAKKAL BUS STAND ROAD
BS-IV	HOGENAKKALFALLS ROAD

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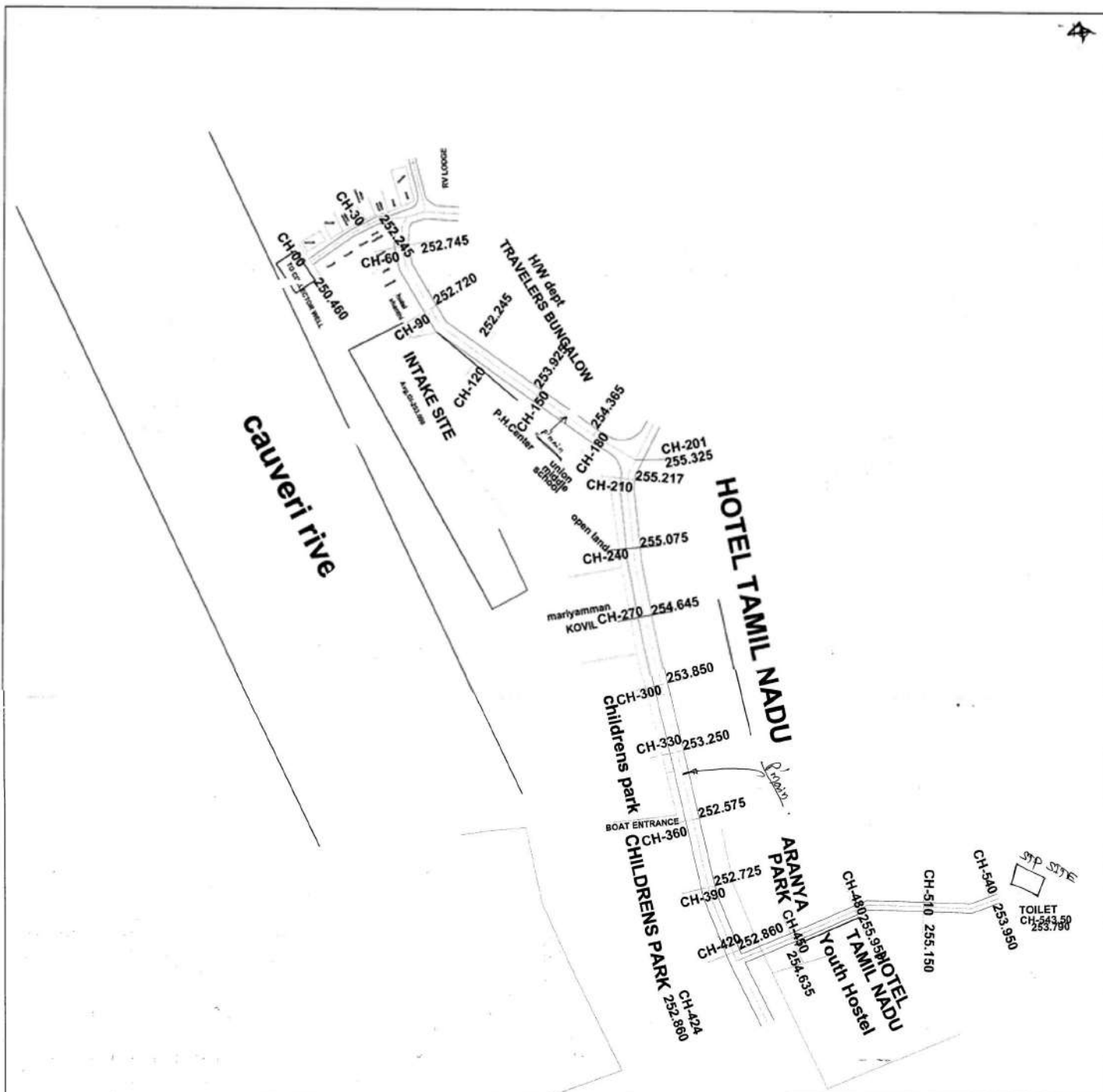
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05			
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02			
01	05.10.2011		
00	04.07.2011		
Rev.	Date	Description	



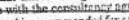
CLIENT **TAMIL NADU WATER SUPPLY &
DRAINAGE BOARD**

PROJECT NAME **HOGENAKKAL**
UNDER GROUND SEWERAGE SCHEME

**IVRCL-CADAGUA HOGENAKKAL WATER SUPPLY
TREATMENT COMPANY PVT. LTD.,**

					
Name _____		Signature _____		Title LAYOUT OF HOGENAKKAL UNDER GROUND SEWERAGE SCHEME IN HOGENAKKAL VILLAGE	
Designed by _____		Date 04.07.2011		_____	
Drawn by _____		Date 04.07.2011		_____	
Checked by _____		Date 04.07.2011		_____	
Approved by _____		Date 04.07.2011		DWG:0260-TWAD-P1-HSWS -ZONE - I - 091	



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06			Certified that this drawing is reviewed in accordance with the consultancy agreement conditions and is recommended for approval.		PROJECT NAME			
05					HOGENAKKAL			
04		 ASSISTANT ENGINEER, TWD Hogenakkal Water Supply & Drainage Board, PENNAGARAM, Dharmapuri Dist.	 ASST. EXECUTIVE ENGINEER, TWD BOARD, HWS & EMPILU - I / L, PENNAGARAM.	 PROJECT MANAGER PMC - HWS & EMPILU - I, Dharmapuri - 1.	UNDER GROUND SEWERAGE SCHEME			
03					EPC CONTRACTOR			
02					IVRCL - CADAGUA HOGENAKKAL WATER SUPPLY & DRAINAGE BOARD PVT. LTD.			
01	05.10.2011	REVISED AS PER PMC/EE COMMENTS						
00	04.07.2011	FOR APPROVAL						
Rev.	Date	Description						
			Name		Signature	Date		
			Designed by			24.07.2011		
			Drawn by			24.07.2011		
			Checked by			24.07.2011		
			Approved by			24.07.2011		
			Title		LAYOUT OF HOGENAKKAL UNDER GROUND SEWERAGE SCHEME IN PUMPING MAIN IN HOGENAKKAL			
			Scale		1:35			
			Sheet		2			
			Format		A/I			
			DWG no		02005-TWAD-P1-HWS - ZONE - 1 - 002			