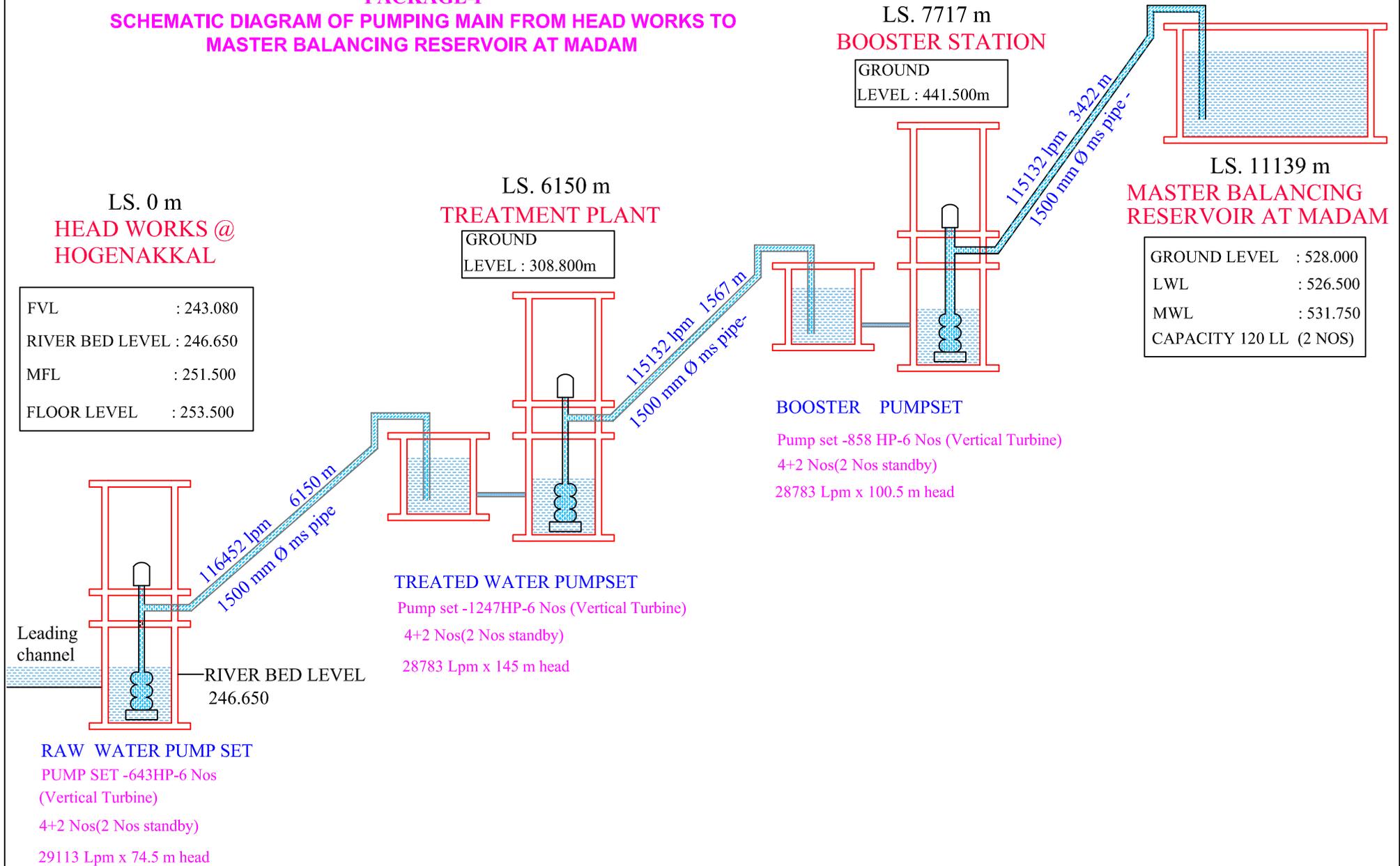
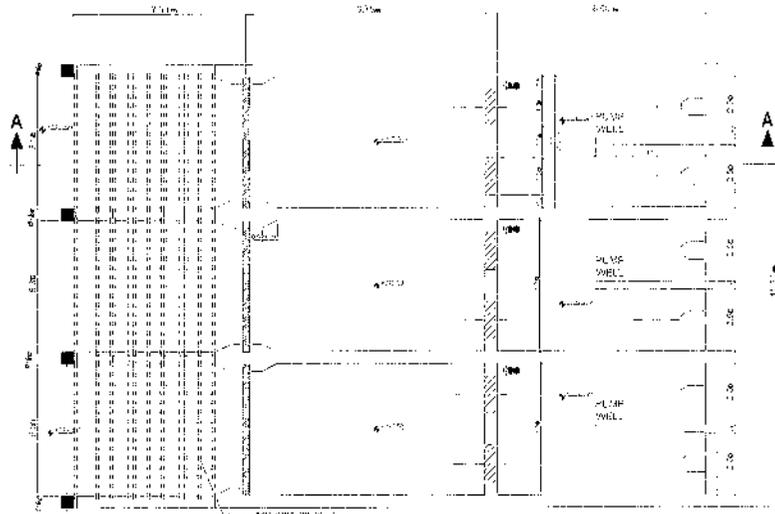


**HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT IN  
DHARMAPURI AND KRISHNAGIRI DISTRICTS  
PACKAGE-I**

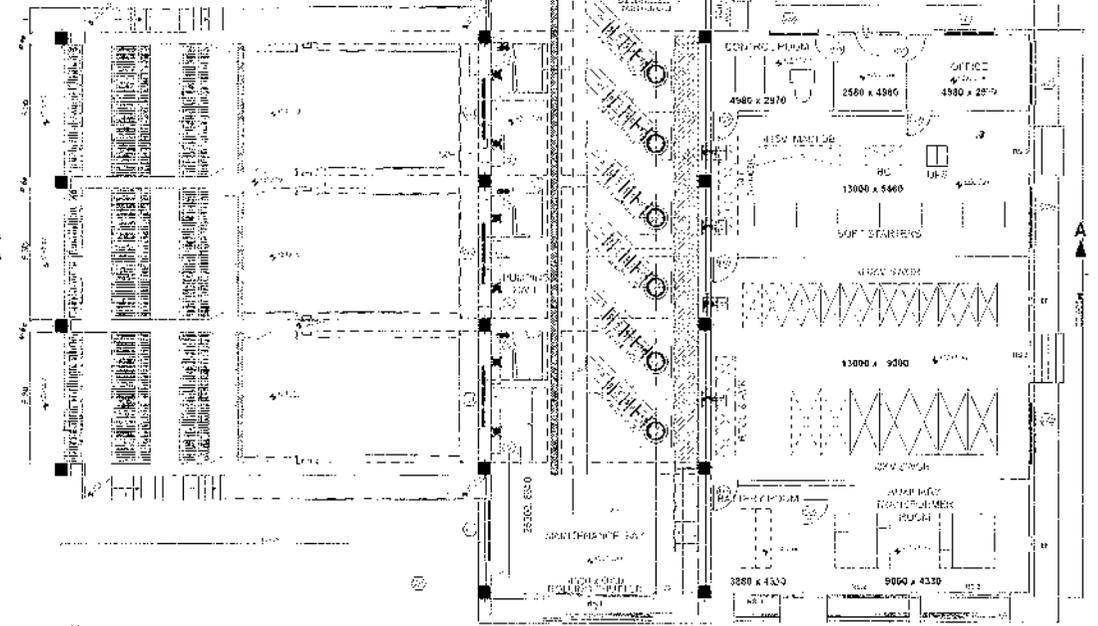
**SCHEMATIC DIAGRAM OF PUMPING MAIN FROM HEAD WORKS TO  
MASTER BALANCING RESERVOIR AT MADAM**





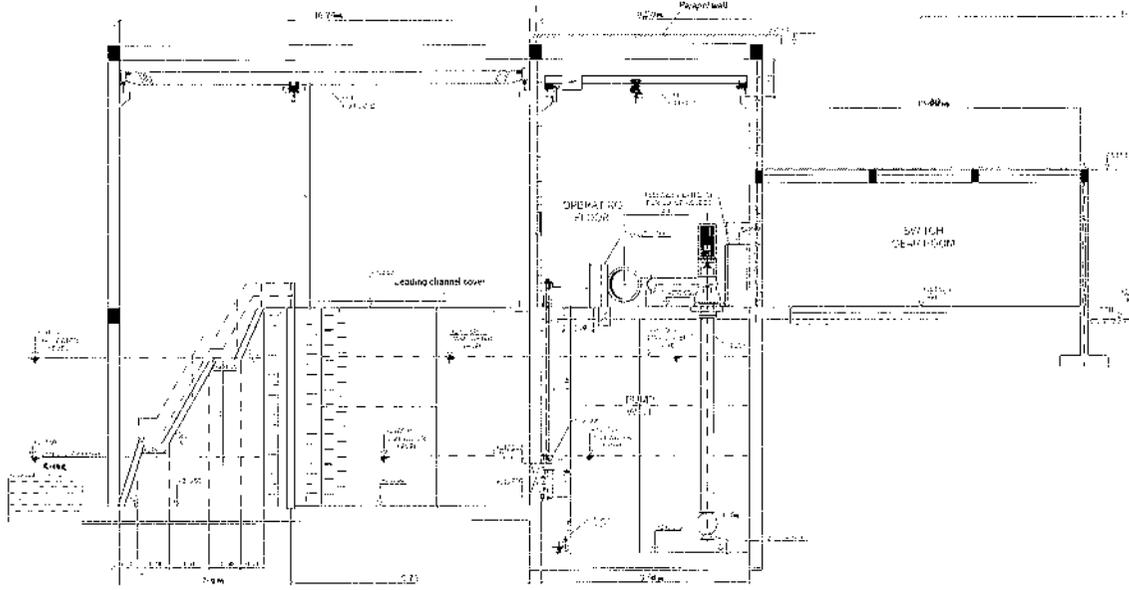


PLAN AT 245.500 LVL



PLAN AT 253.50 LVL

- SCHEMATIC**
- D1 - 1000x1050
  - D2 - 1000x1000
  - D3 - 500x4500
  - D4 - 2000x4500
  - D5 - 2000x4000



As built drawing approved by SE/IA/100/1102/A/Punnam  
 Dr. NE. 01/10-01/200/2016/10-09-16

*Signature: Jeyanthan*  
 Jeyanthan  
 15/11/16  
 AEB/100/5/  
 Punnam

*Signature: S. Prasad*  
 S. Prasad  
 15/11/16  
 SC/100/3/  
 Punnam

**NOTES:**

**1. ALL DIMENSIONS AND LEVELS ARE IN METERS.**

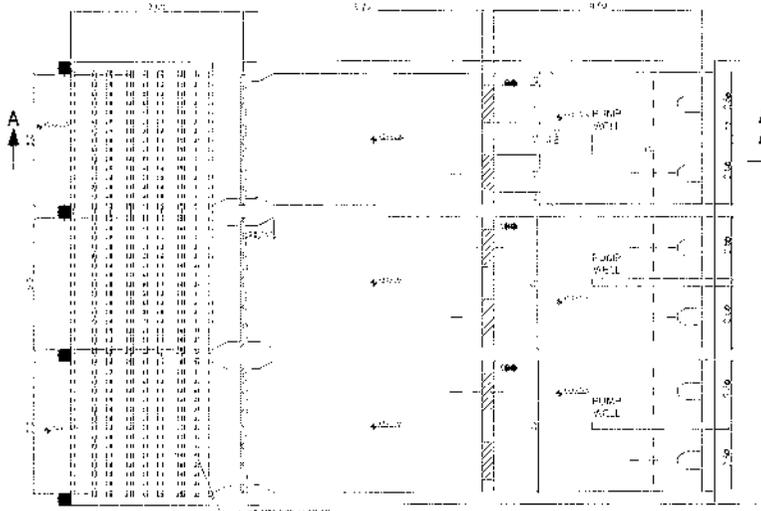
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**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

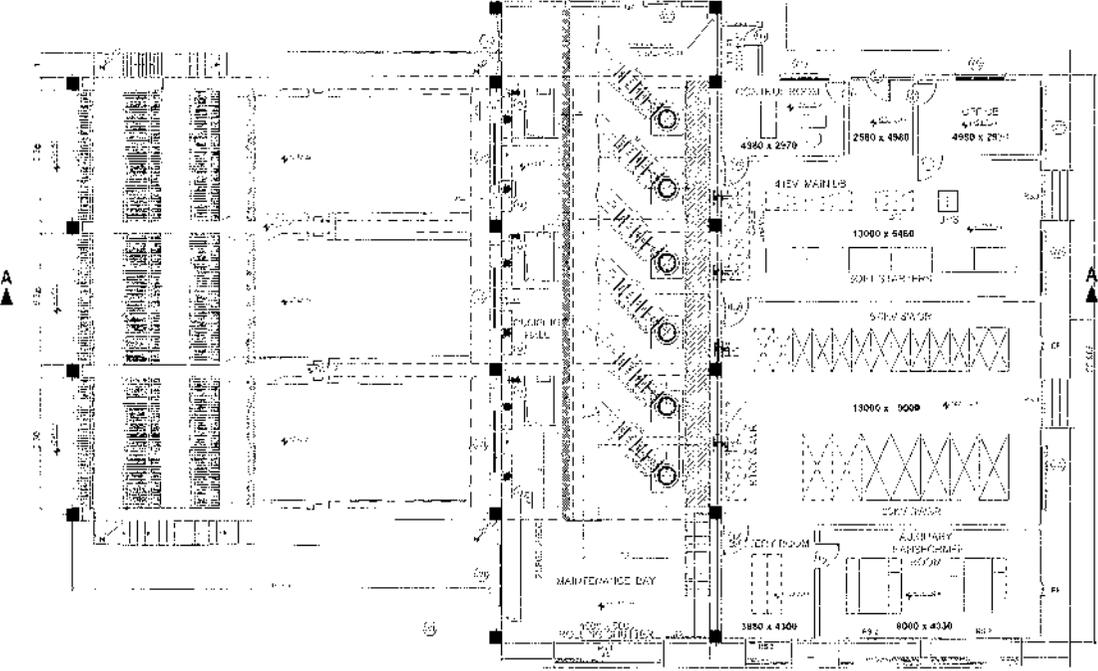
MULNARAI WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT  
 Package 1

MULNARAI TREATMENT PLANT WATER TREATMENT COMPANY PVT. LTD.

AS BUILT DRAWING FOR  
 SANITARY FACILITIES

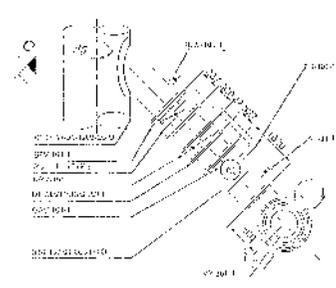
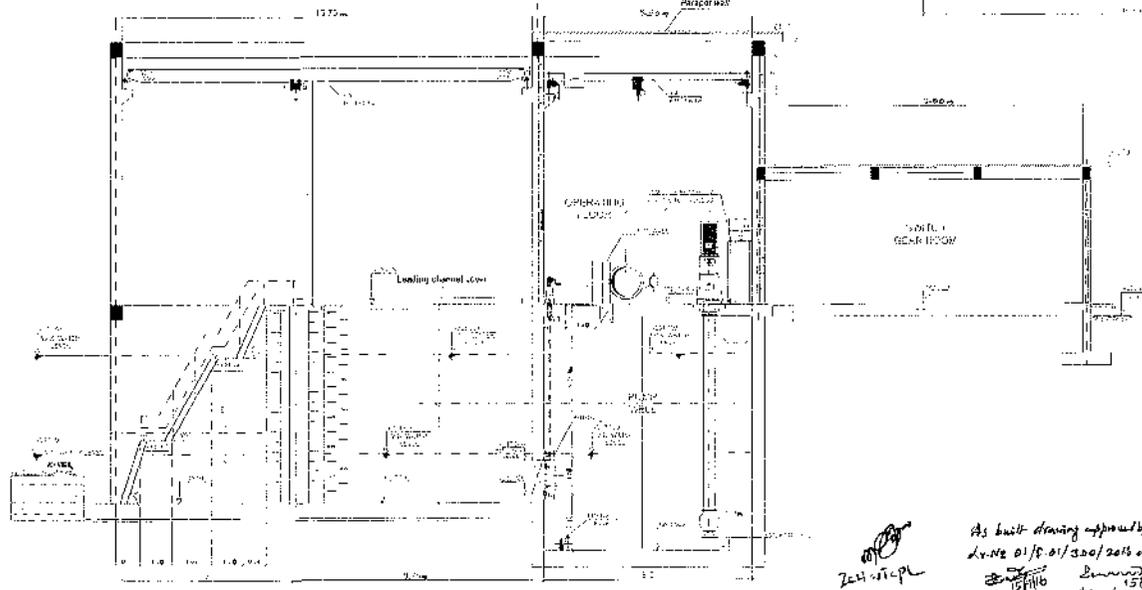


PLAN AT 245.500 LVL

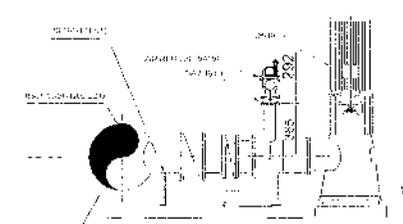


PLAN AT 253.50 LVL

10000  
 D1 - 10000 x 10000  
 D2 - 10000 x 10000  
 D3 - 10000 x 10000  
 D4 - 10000 x 10000  
 D5 - 10000 x 10000  
 D6 - 10000 x 10000  
 D7 - 10000 x 10000  
 D8 - 10000 x 10000  
 D9 - 10000 x 10000  
 D10 - 10000 x 10000



DETAIL A



SECTION C-C

ZH/PL

As built drawing approved by S&S/Trusmi/BUK & S&S/Perumahan  
 dx. No 01/0.01/300/2015 dated 14.09.16  
 S&S/Perumahan  
 S&S/Perumahan  
 S&S/Perumahan

**NOTES:**

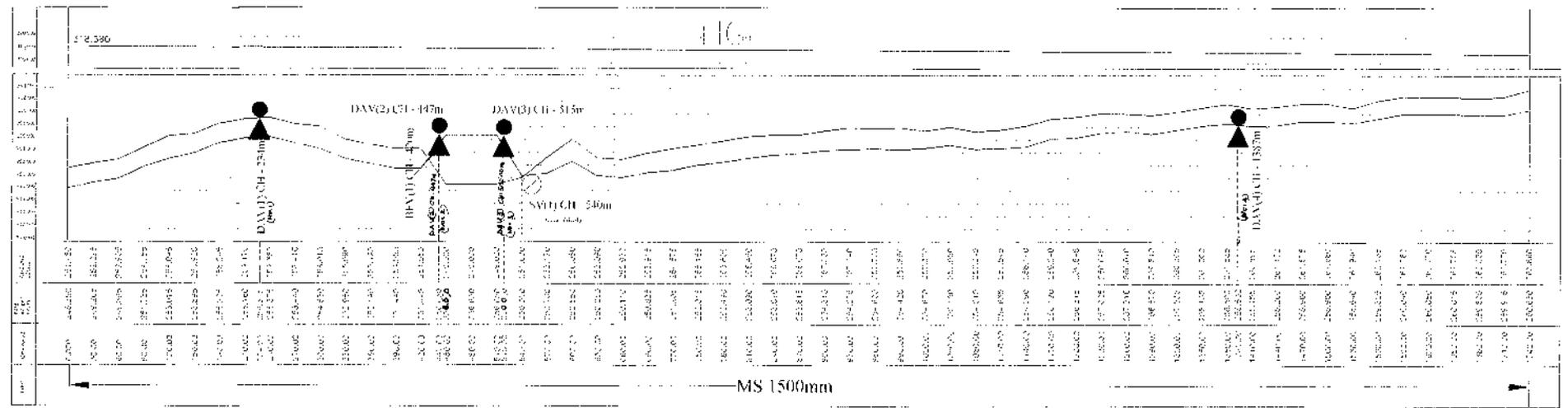
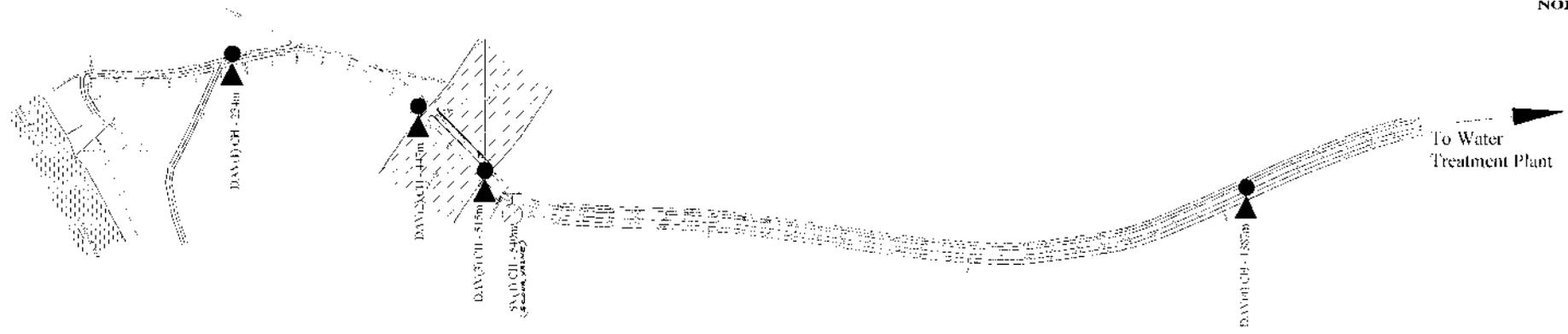
**1. ALL DIMENSIONS AND LEVELS ARE IN METERS.**

NO	REVISION	DATE	BY	CHECKED
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**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**  
 HOUSERAKAL WATER SUPPLY AND DRAINAGE PROJECT  
 Package 1  
 WASTEWATER TREATMENT PLANT  
 TREATMENT COMPANY PVT. LTD.  
 ASHUTOSH KUMAR  
 CIVIL ENGINEER  
 PROJECT ENGINEER

L-SECTION FROM RAW WATER INTAKE TO WATER TREATMENT PLANT

CH : from 0.00 to 1740.00



As built drawing approved by SE&P/WD/MS&P/SD/2/Punguam  
 No: 2/P-2/100/2016/214/14/09/16

*[Handwritten signatures and initials]*  
 10/1/16  
 10/1/16  
 10/1/16  
 SE/P/10-1/Punguam

Symbol	Code	Material	Quantity	Unit	Remarks
	BFV	BRICK	1000	m <sup>3</sup>	For manhole
	DAV	PIPE	1000	m	For valve
	SV	PIPE	1000	m	For valve

FOR APPROVAL  
 Description

**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

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

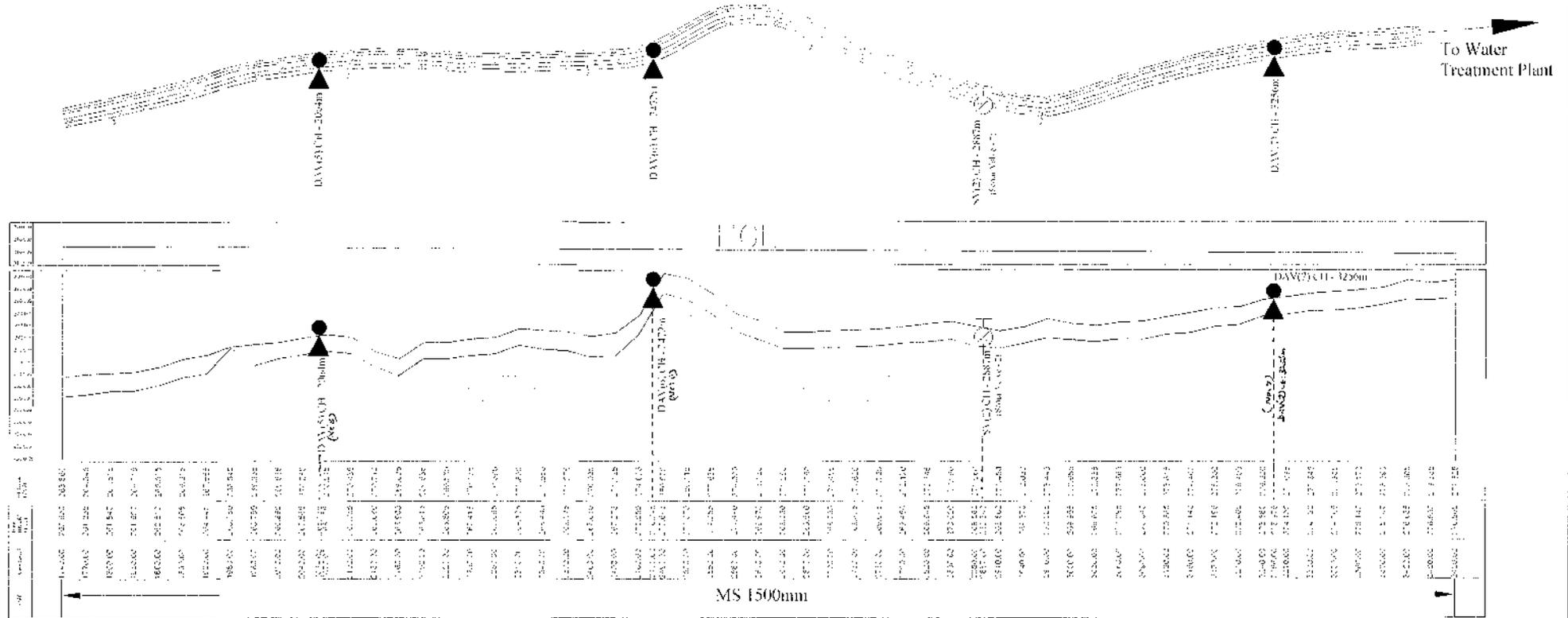
**IVRCL-CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.**

As Built Drawing For PIPE LINE L-SECTION From Raw Water Intake To Water Treatment Plant  
 CH : From 0.00m to 1740.00m

02500 TYPICAL P1 16 DWG 0000

L-SECTION FROM RAW WATER INTAKE TO WATER TREATMENT PLANT

CH : from 1740.00 to 3480.00



As built drawing approval by SE/WR/MS & F/PSV/Pennagur  
 Lr.No: 2/P.02/100/2016/dated:14.05.16.

*(Signature)* 20/05/16  
 SE/WR/MS  
 Pennagur

*(Signature)* 15/05/16  
 AOs/PV-3  
 Pennagur

*(Signature)* 15/05/16  
 SE/PV-3  
 Pennagur



DAV  
SV

Sl. No.	Rev.	Description	Date
1	1	As per drawing	14.05.16
2	2	As per drawing	14.05.16
3	3	As per drawing	14.05.16
4	4	As per drawing	14.05.16

REV	DATE	DESCRIPTION

FOR APPROVAL  
Description:

**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT  
Package I

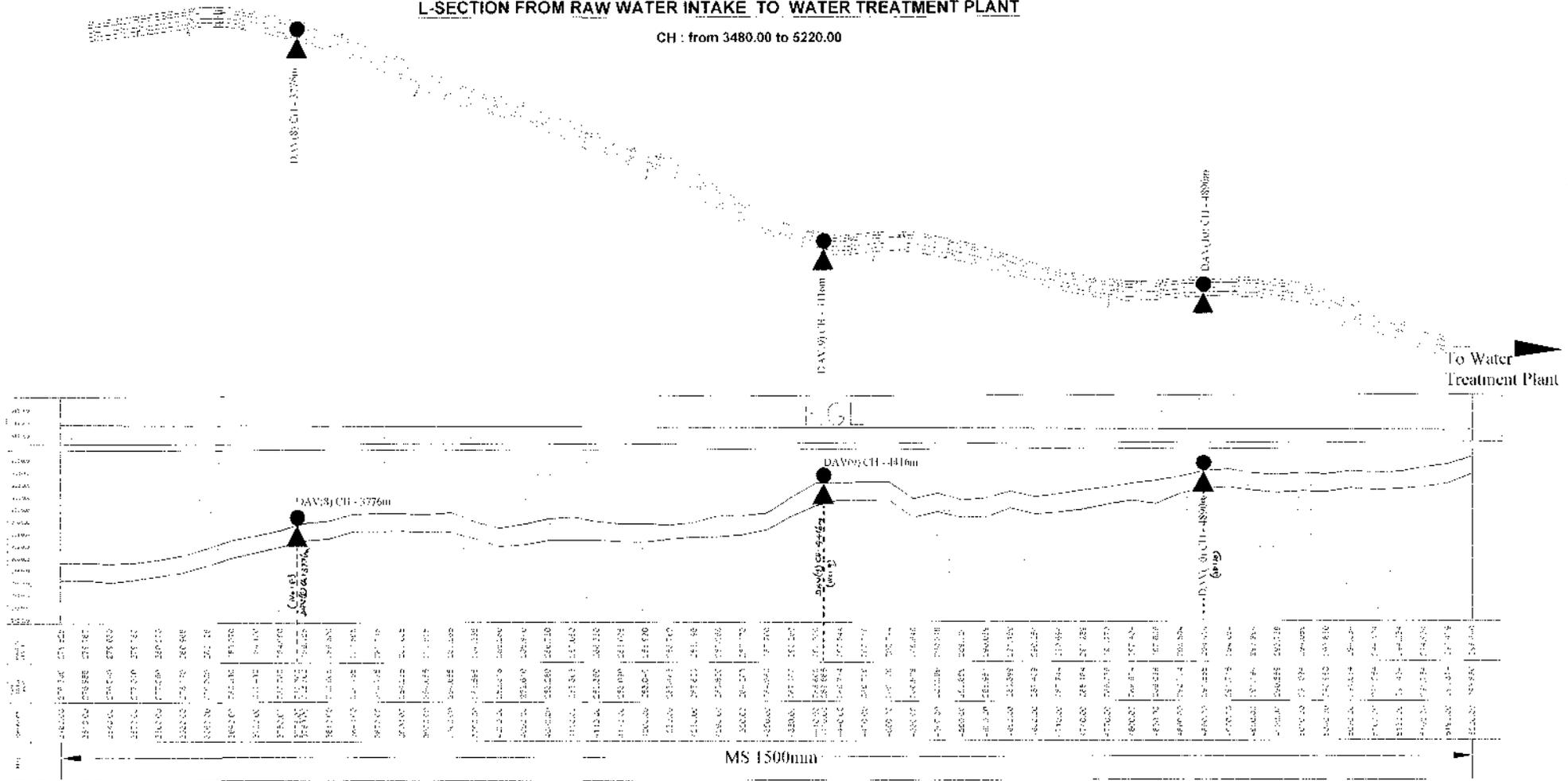
IVRCL CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.

As Built Drawing For PIPE LINE L-SECTION FROM INTAKE TO WITH CUT FROM 1740.00 TO 3480.00m

DATE: 14.05.16

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/Asst. Engr/Sr. Engr/Asst. Engr  
 Lr. No 2/P.2/300/2016/dated 14.09.16.

*[Handwritten signatures and initials]*  
 Sd/-/Asst. Engr/Asst. Engr  
 Sd/-/Asst. Engr/Asst. Engr  
 Sd/-/Asst. Engr/Asst. Engr

	DAV	MANHOLE	CH	3776	3776	3776
	SV	MANHOLE	CH	4116	4116	4116
	SV	MANHOLE	CH	4896	4896	4896

REV	DATE	DESCRIPTION
0		

**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

**HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT**  
 Package 1

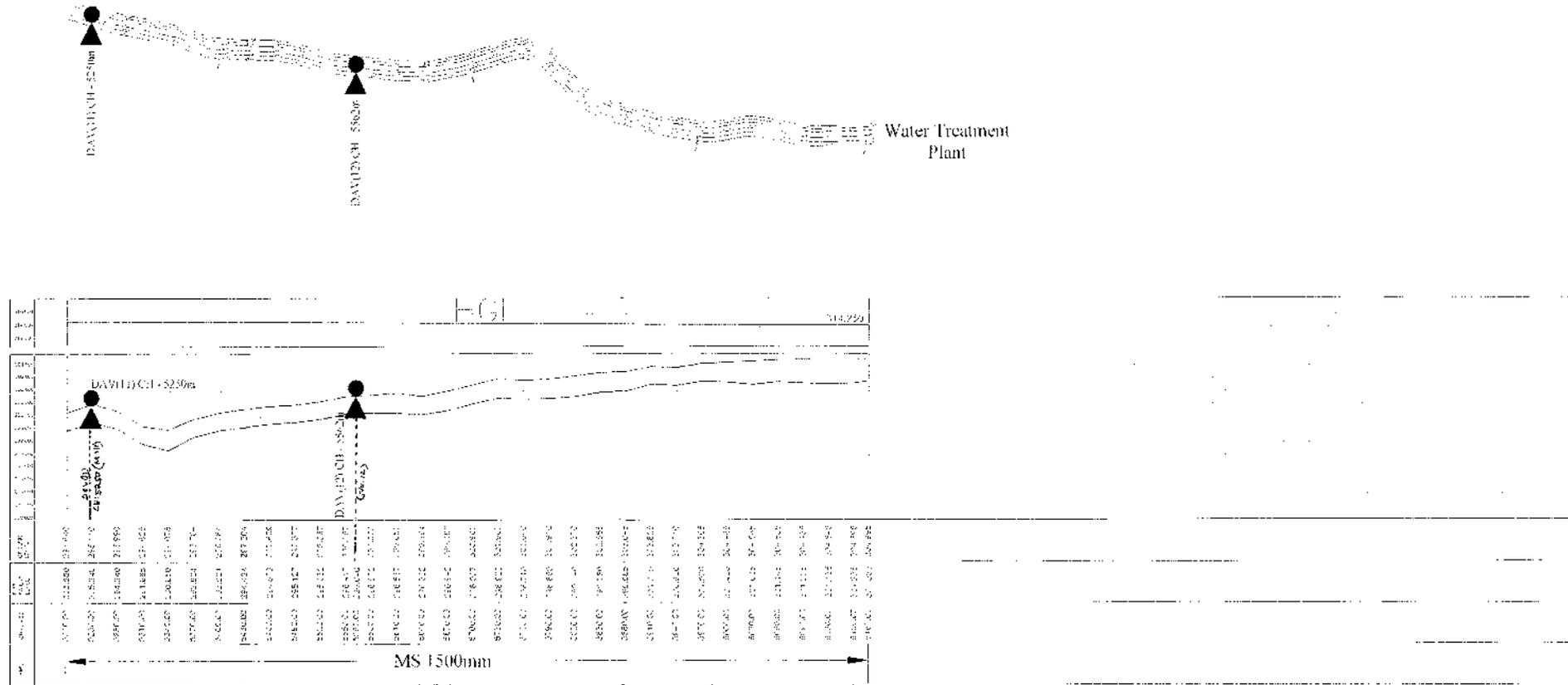
**IVRCL CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.**

As built drawing for PIPE LINE & MANHOLE FROM INTAKE TO WTP (CH: from 3480.00m to 5220.00m)

DATE: 14/09/2016

L-SECTION FROM RAW WATER INTAKE TO WATER TREATMENT PLANT

CH : from 5220.00 to 6167.00



As built drawing approved by Sd/1/2016/MS&D PWD-I/Pennayam  
 dt: 20/12/2016 / 20/12/2016 / dt: 14-05-16

*[Handwritten signatures and initials]*  
 Sd/1/2016/MS&D PWD-I/Pennayam  
 Sd/1/2016/MS&D PWD-I/Pennayam  
 Sd/1/2016/MS&D PWD-I/Pennayam

	DAV	AL. CH	DATE	NO. OF CONNECTIONS	DAV. CH	CONNECTION NO. (CH)	NO. OF CONNECTIONS
	SV	5230	15/05/16	1	5820	14/05/16	1

REV	DATE	Description
1	14-05-16	As built drawing

**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

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

**IVRCL-CADAGUA HOGENAKKAL WATER TREATMENT COMPANY PV1, LTD.**

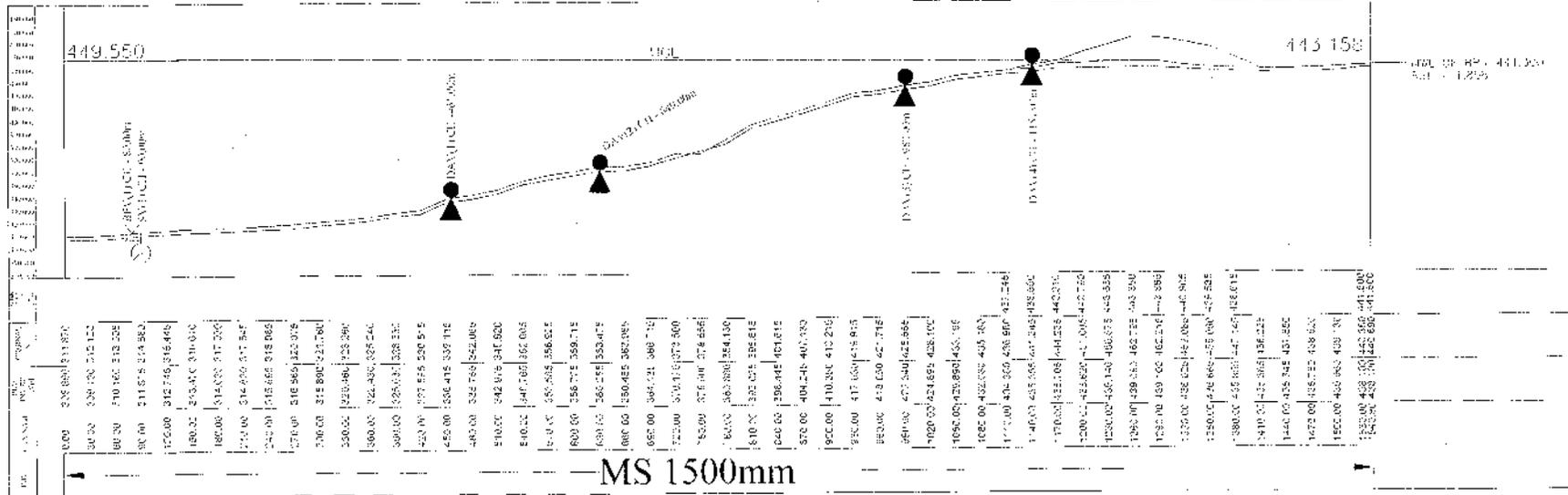
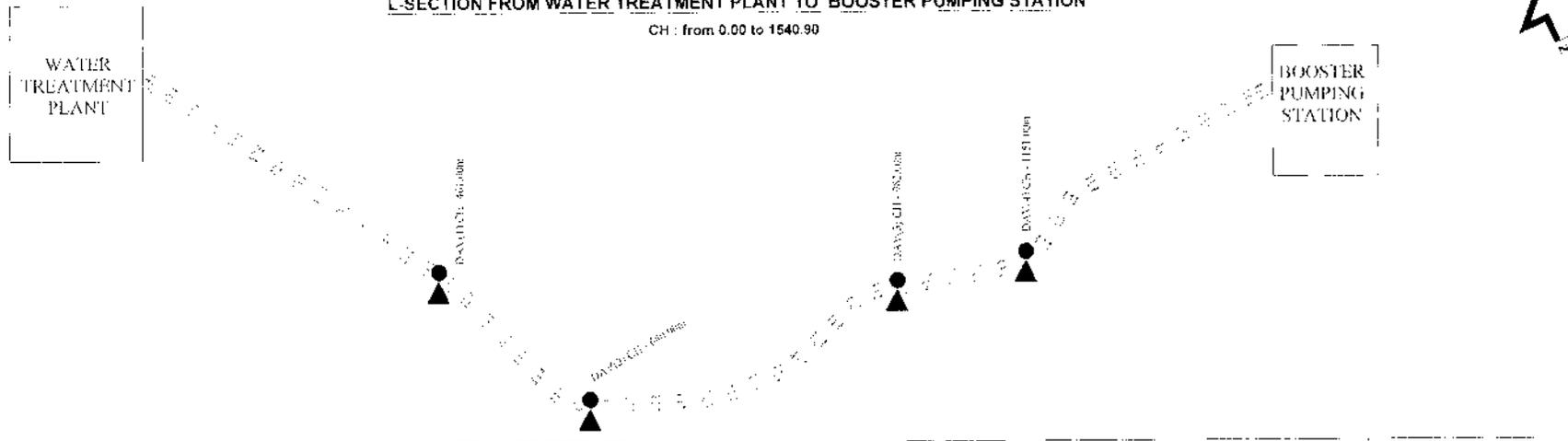
As Built Drawing For  
 PIPE LINE L-SECTION  
 From 5220.00 to 6167.00  
 CH : from 5220.00 to 6167.00

0/100-1/2016-11-14-2016-2016



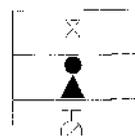
**L-SECTION FROM WATER TREATMENT PLANT TO BOOSTER PUMPING STATION**

CH : from 0.00 to 1540.90



As built drawing approved vide Superintending Engineer, TWS&D, HUS & EMP, PU-I, Ponnagaram  
 Lt.No. 2/F.2/1000/2016/DT 14-9-16  
 C.Original 24/9/16  
 A.P.P. 24/9/16  
 Inm 24/9/16  
 A.P.P. PU-I Ponnagaram  
 24/9/16  
 SE/PU-I Ponnagaram

*M. R. S.*  
 JCHW/PL



NO	DATE	DESCRIPTION	BY	CHKD	APPD
1	14.12.2012	ISSUED FOR TENDERS	JCHW/PL		
2	14.12.2012	AS BUILT DRAWING	JCHW/PL		
3	14.12.2012	REVISION	JCHW/PL		

REV	DATE	DESCRIPTION
1	14.12.2012	ISSUED FOR TENDERS
2	14.12.2012	AS BUILT DRAWING
3	14.12.2012	REVISION

**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

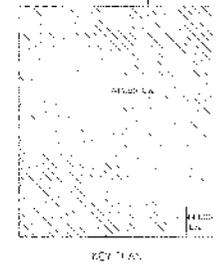
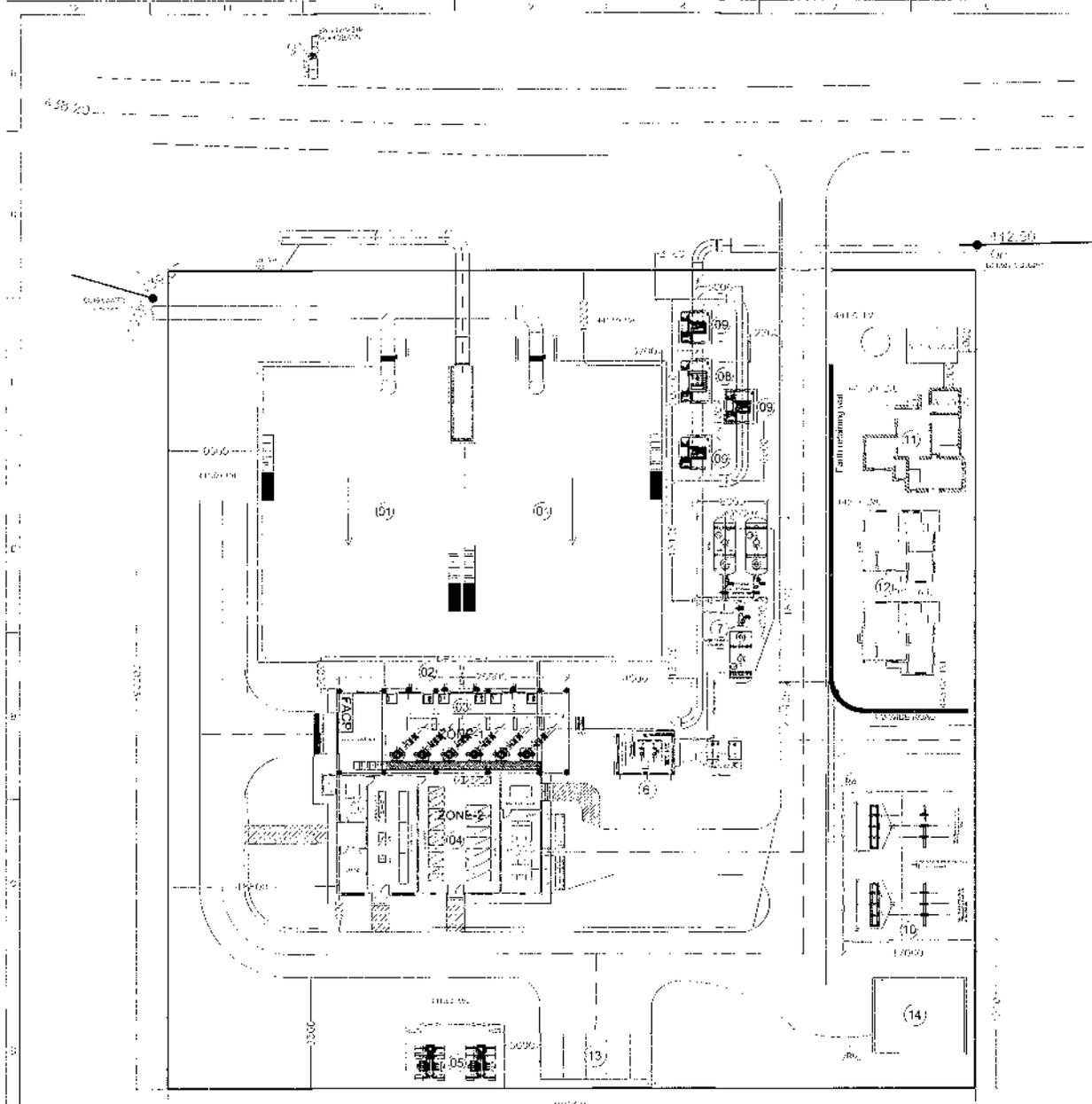
HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT  
 Package 1

IVREL - GUDAGUR HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.

DATE: 14.12.2012

FOR APPROVAL

DESCRIPTION



**DESCRIPTION**

S.NO	UNIT	AREA IN METRES	NO.S
1	INLET SUMP	32.0 x 22.00	2
2	COMMON SUMP	16.9 x 3.0	1
3	PUMP HOUSE	8.50 x 25.50	1
4	ELECTRICAL AREA (SWITCH GEAR, AUX. TRANSFORMER, OFFICE & CONTROL ROOM)	13.0 x 22.50	1
5	MAIN TRANSFORMER YARD	13.251 X 9.650	1
6	COMPRESSOR BUILDING	7.0 x 3.0	1
7	ANTI WATER-HAMMER DEVICE (SURGE VESSEL)	3.5 x 6.0	1
8	FLOW METER CHAMBER	3.50 x 3.0	1
9	VALVE CHAMBER	2.0 x 3.0	3
10	TNEB SWITCHGEAR BUILDING	18.00 x 20.00	1
11	STAFF QUARTER - "A" TYPE	11.49 x 10.96	1
12	STAFF QUARTER "B" TYPE	8.035 x 6.005	2
13	CAR PARKING	5.0 x 2.50	5
14	WORK SHOP WITH WASH ROOM	10.0 x 8.0	1

As built drawing approved vide Superintending Engineer,  
 TWAo Board, HWS & FMP, PIU-I, Pennaguram  
 Lr No. 1 / F-1 / Package-I / JDO / 2014 / Dt 21.11.2019

*(Handwritten signatures and dates)*  
 20/11/19  
 21/11/19  
 Add/Pennaguram  
 SE/PIU-2/Pennaguram

**NOTES:**  
 1. ALL DIMENSIONS ARE IN M.  
 2. OPER. OF GATES, VALVES AND OTHER P&ID JOINTS RESPONSIBILITY SHALL BE UPON THE DEPTTY.

This drawing and the design is done under the priority of TWSL - 02549274, under the priority of the contract for the execution of the project in accordance with the contract number TWSL/02549274.

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**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT (Package-I)

TRICAL ENGINEERING HOGENAKKAL WATER TREATMENT COMPANY PVT. LTD.

Project No: **017**

DATE: 21/11/2019

SCALE: DRAWING FOR P&ID OF COMMON PARKING SECTION

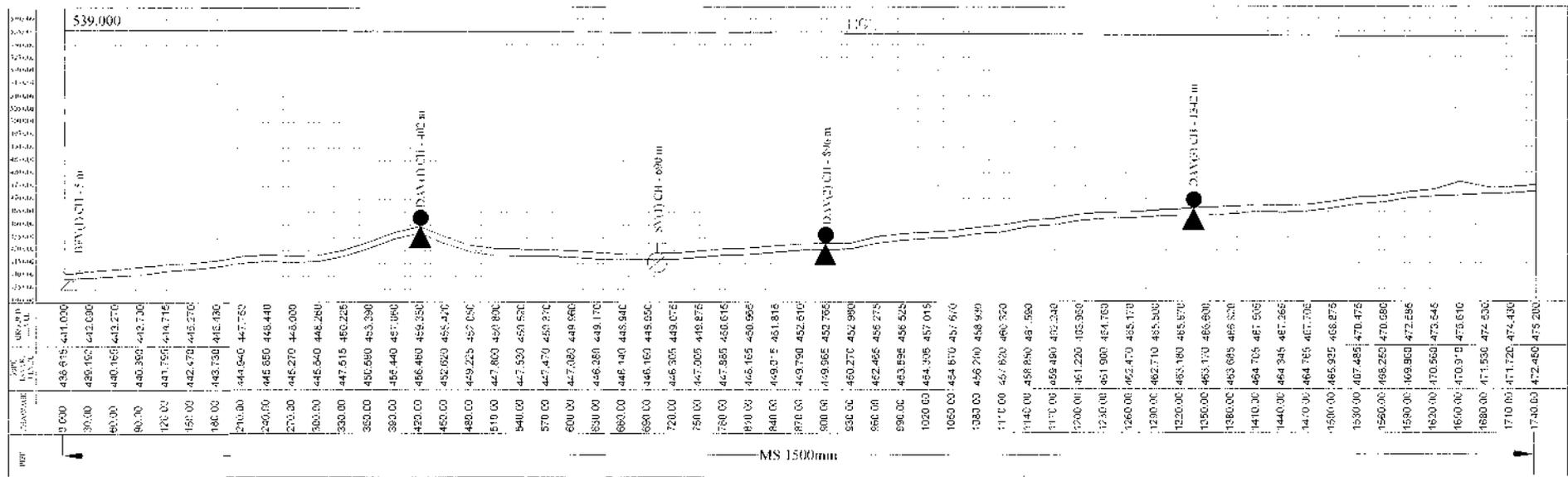
L-SECTION FROM BOOSTER PUMPING STATION TO MASTER BALANCING RESERVOIR

CH : from 0.00 to 1740.00



BOOSTER PUMPING STATION

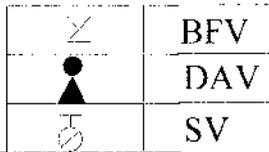
TO MBR



As built drawing approved vide Superintending Engineer, T.W.D Board, HWS R&MP, PIU-3, Perambalur  
 Lr.No.2 152/700/2016/DT 14-9-2016

*C. Pragasam* 26/11/16  
*Aras* 26/11/16  
*S. S. Srinivasan* SE/PIU-3/Perambalur

*M. S. Srinivasan*



SL.NO	DATE	BY	CHKD	APPD	LEVEL DIFFERENCE
1	26/11/16	Aras	Aras	Aras	23.52
2	26/11/16	Aras	Aras	Aras	15.22
3	26/11/16	Aras	Aras	Aras	4.31
4	26/11/16	Aras	Aras	Aras	14.29

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 1740.00m CH : from 0.00 to 1740.00m

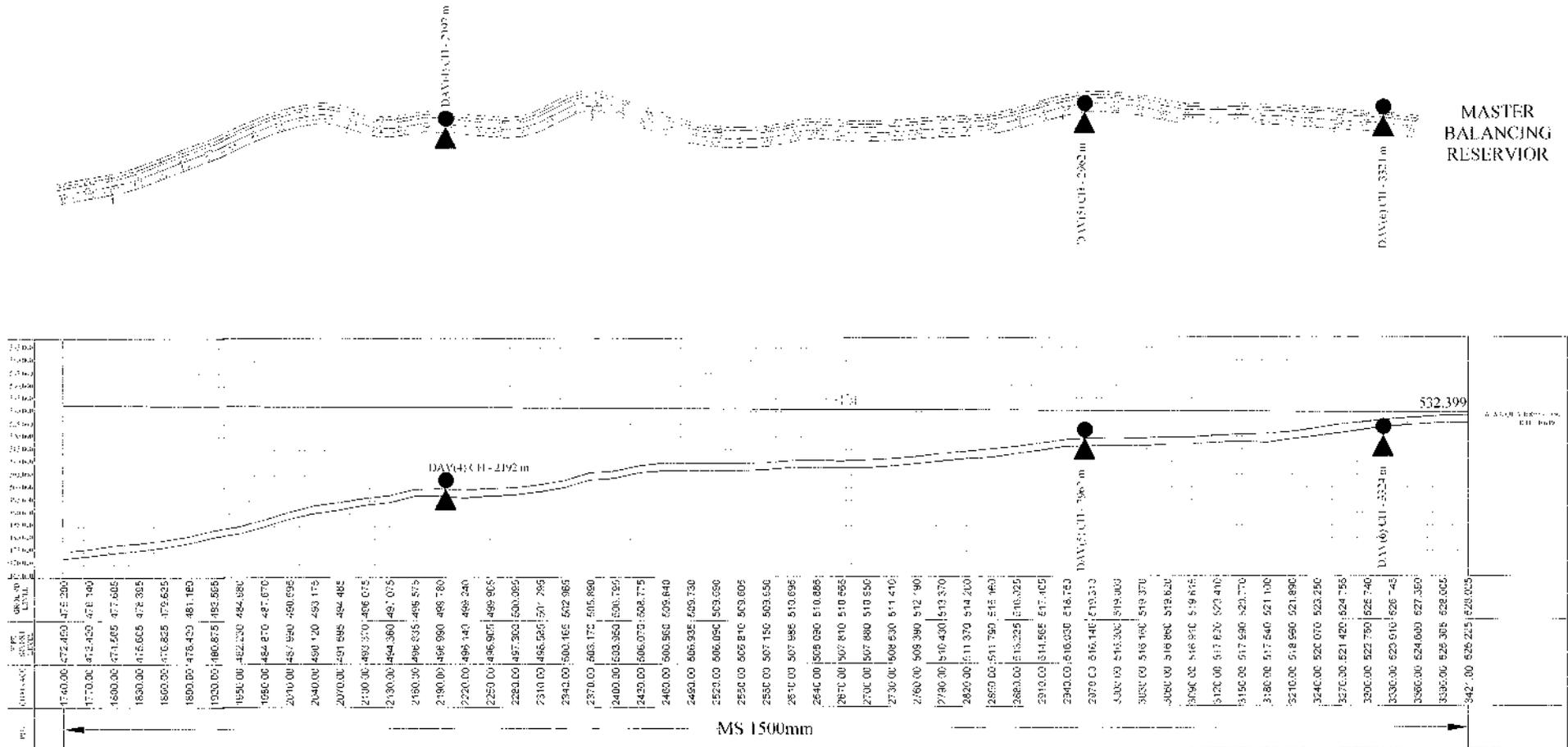
22/08/2016

L-SECTION FROM BOOSTER PUMPING STATION TO MASTER BALANCING RESERVOIR

CH : from 1740.00 to 3421.00



MASTER  
BALANCING  
RESERVOIR



As built drawing approved with Superintending Engineer, TWS Board, HWS at MP, PIV-2, Penninganm  
 Lx No. 2 P. 2 / 300 / 2016 / dt 14.9.2016

*C. Anjaneyan*  
 26/11/16  
 Asst. Engr  
 HWS/PIV-2/  
 Penninganm

*Ima*  
 26/11/16  
 Asst. Engr  
 HWS/PIV-2/  
 Penninganm

*Ima*  
 26/11/16  
 Asst. Engr  
 HWS/PIV-2/  
 Penninganm

*meen*  
 26/11/16

	<p><b>DAV</b> <b>SV</b></p>	1. BSV 1	10%	10%	10%	10%
		2. BSV 2	10%	10%	10%	10%
		3. BSV 3	10%	10%	10%	10%

0	FOR APPROVAL	
REF	DATE	Description

**TAMIL NADU WATER SUPPLY & DRAINAGE BOARD**

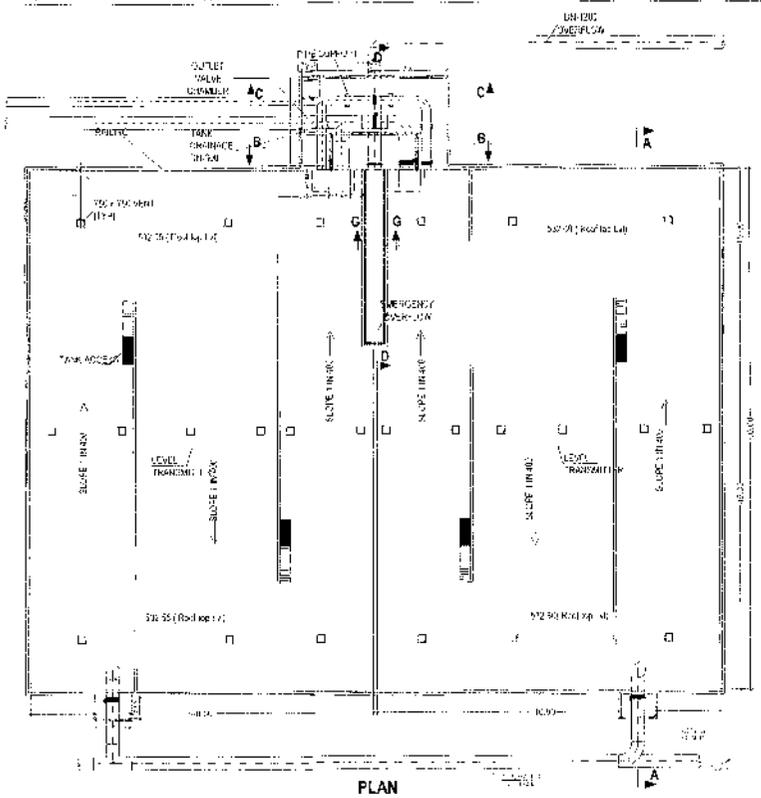
**HOGENAKKAL WATER SUPPLY AND FLUOROSIS MITIGATION PROJECT**  
 Package I

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

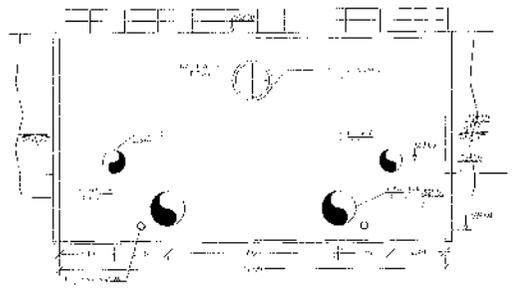
As Built Drawing for  
 PIPE LINE L-SECTION  
 CH : from 1740.00m to 3421.00m

02400 TWS&D-P1-04-0205-1303

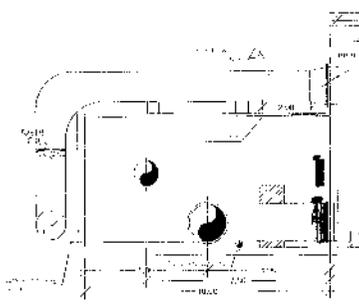




PLAN



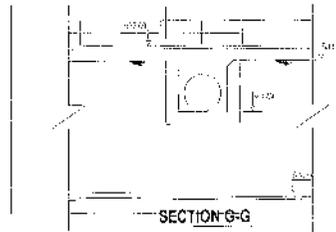
SECTION - CC



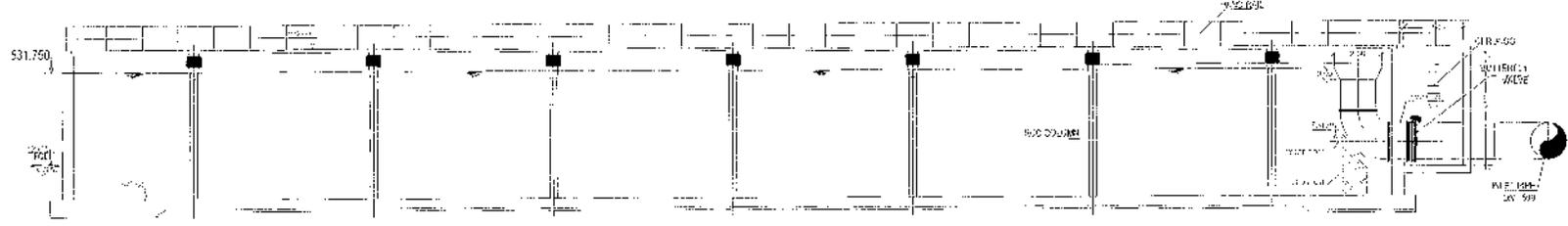
SECTION D-D

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

*C. Pragasam* 21/11/16  
 PE, Penngaganam  
*2000* 6/19/16  
 AE / Penngaganam  
*For 3rd Edition*  
 SE / PUD-I / Penngaganam



SECTION G-G



SECTION - AA

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

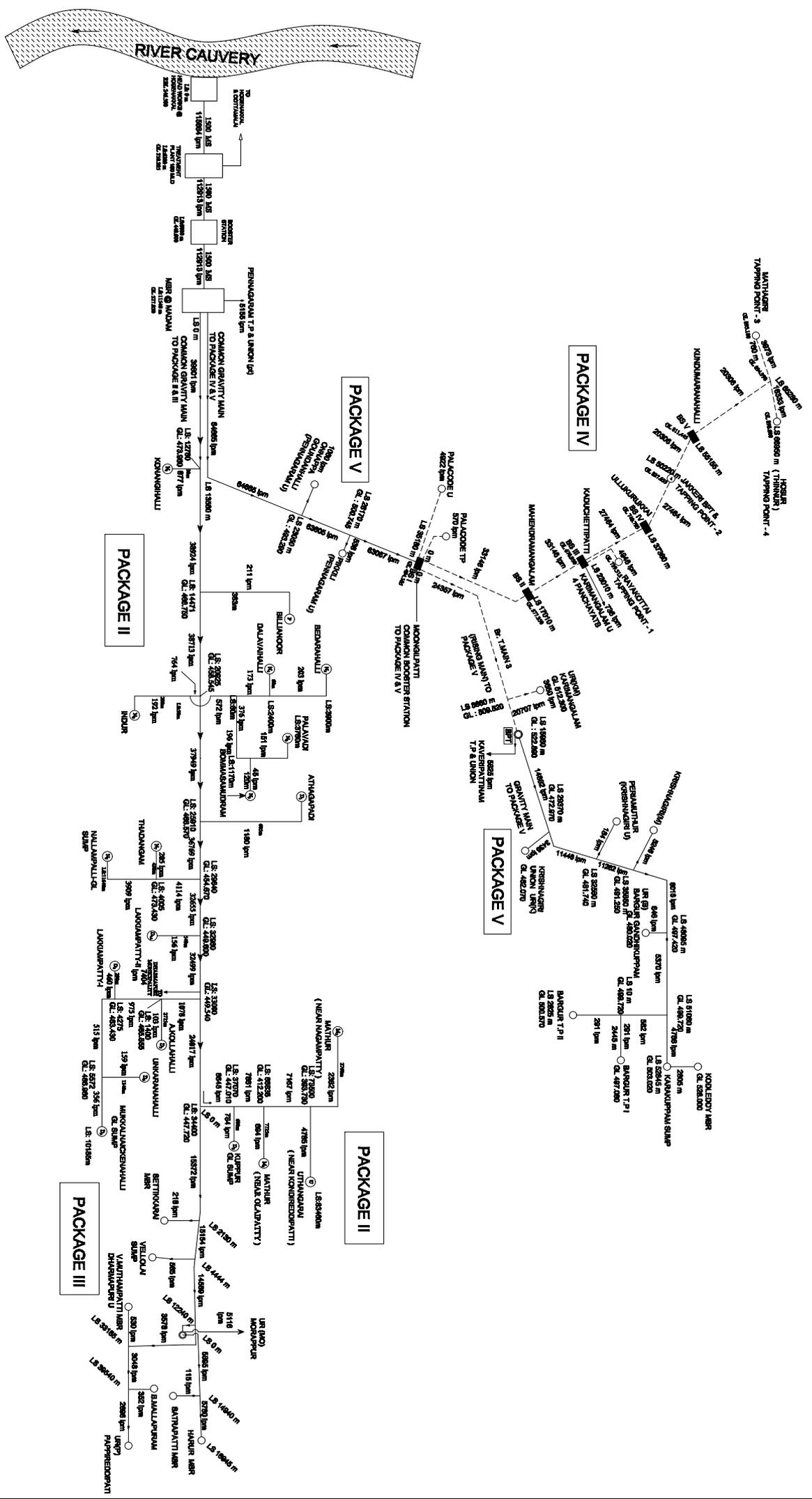
PREPARED BY: CADALQUAN & B  
 GENERAL MANAGER OF WATER SUPPLY AND DRAINAGE BOARD

DATE: 21.11.2016

FOR APPROVAL: \_\_\_\_\_  
 Description: \_\_\_\_\_

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

## TRANSMISSION MAIN FLOW DIAGRAM FOR PACKAGES I TO V



--- PUMPING  
 --- GRAVITY



**ZONE - I**

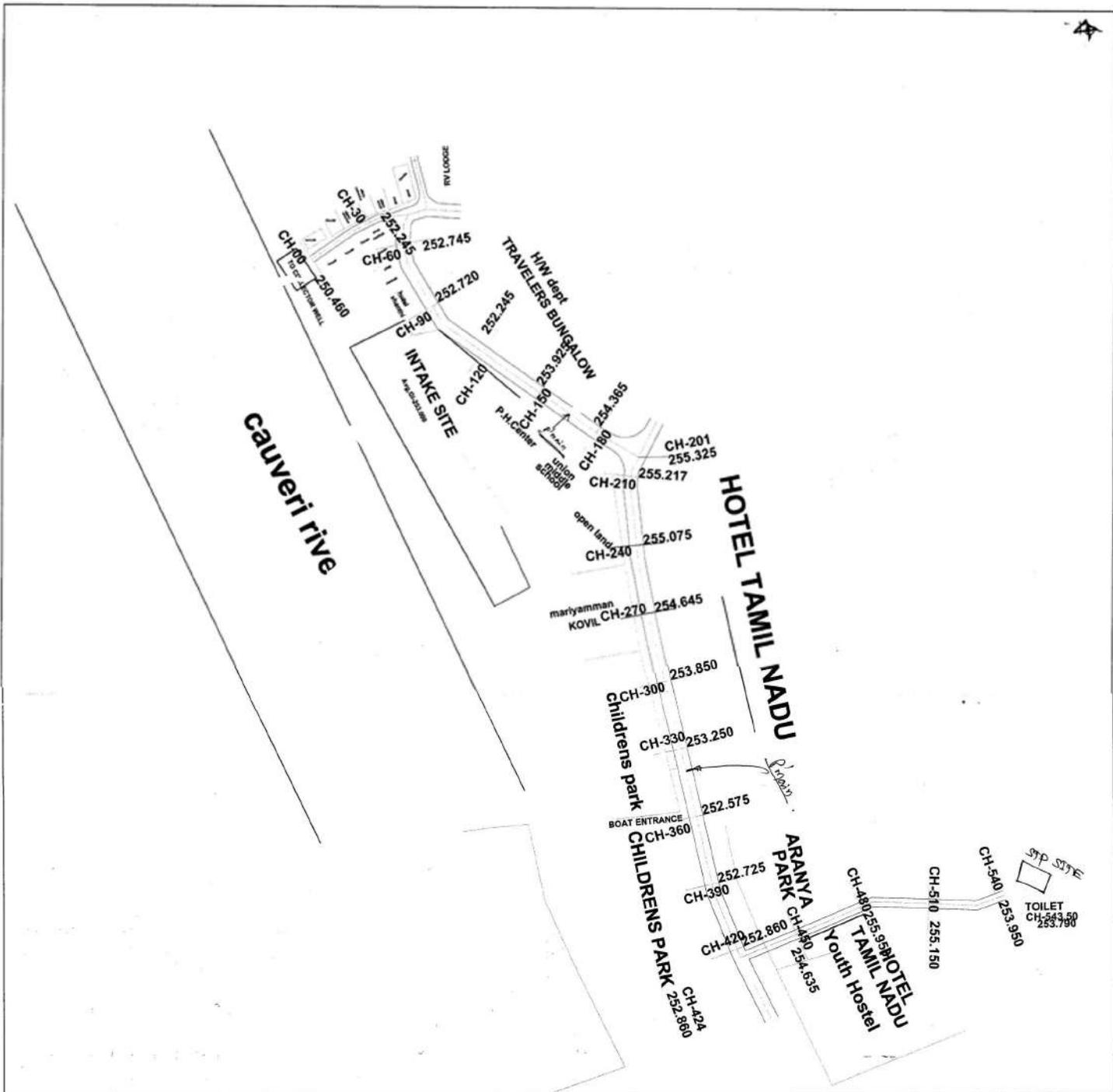
LEGENDS	
	T MAIN
	BRANCH MAIN
	MAN HOLE
	PUMPING MAIN

T MAIN	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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03		<p><i>[Signature]</i>                  Executives Engineer, TWAD Board,                  TWS &amp; FWP PIU-I                  PENNAGARAM-630 810</p>
02		<p><i>[Signature]</i>                  Asst. Executive Engineer,                  TWAD BOARD,                  TWS &amp; FWP PIU-I                  PENNAGARAM</p>
01	05.10.2011	REVISED AS PER PMC /EE COMMENTS
00	04.07.2011	FOR APPROVAL
Rev.	Date	Description

CLIENT	<b>TAMIL NADU WATER SUPPLY &amp; DRAINAGE BOARD</b>		
PROJECT NAME	<b>HOGENAKKAL UNDER GROUND SEWERAGE SCHEME</b>		
PROJECT CONTRACTOR	IVRCL - CADAGUA HOGENAKKAL WATER SUPPLY TREATMENT COMPANY PVT. LTD.		
DESIGNED BY	NAME	SIGNATURE	DATE
DRAWN BY			04.07.2011
CHECKED BY			04.07.2011
APPROVED BY			04.07.2011
TITLE	LAYOUT OF HOGENAKKAL UNDER GROUND SEWERAGE SCHEME IN HOGENAKKAL VILLAGE		Scale: 1:50
FORM NO.	DWG-02600-TWAD-P1-HSWS-ZONE-I-001		Sheet: 1
			Form: A-1



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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				<b>HOGENAKKAL</b>
04				<b>UNDER GROUND SEWERAGE SCHEME</b>
03		ASSISTANT ENGINEER, TWAD Hogenakkal Water, Zone-1 Pennagaram, Dharmapuri Dt.	ASST. EXECUTIVE ENGINEER, TWAD BOARD, HWS & EMPH - I / I, PENNAGARAM.	PROJECT MANAGER, PMC - HWS & F&E Dharmapuri - 1.
02				EPC CONTRACTOR IVRCL - CADAGUA HOGENAKKAL WATER SUPPLY TREATMENT COMPANY PVT. LTD.
01	05.10.2011	REVISED AS PER PMC/EE COMMENTS		Scale: 1:35 Title: LAYOUT OF HOGENAKKAL UNDER GROUND SEWERAGE SCHEME IN PUMPING MAIN IN HOGENAKKAL
00	04.07.2011	FOR APPROVAL		Drawn by: 24.07.2011 Checked by: 24.07.2011 Approved by: 24.07.2011
Rev.	Date	Description		Format: 2 A-1 DWG no:02600-TWAD-P1-HWS -ZONE -1-002