

CWSS TO 295 HABITATIONS IN POLLACHI NORTH, POLLACHI SOUTH, KINATHUKADAVU AND  
GUDIMANGALAM UNIONS IN COIMBATORE DISTRICT.

SALIENT FEATURE

Estimate value Rs. 5470 lakhs.

A) HEAD WORKS

River Aliyar, at Ambarampalayam, Kolathur Village -

Location : Pollach Taluk

RAW WATER PUMP ROOM INCLUDING FOOT

B. BRIDGE :-

i) Size of Raw water pump room : 6 M x 6 M x 5 M

ii) Foot Bridge : 64 M x 2.0 M

C. RAW WATER PUMP SETS :

120 HP Vertical Turbine Pumpsets

i) ( 1 No. Standbye ) : 2 Nos.

Duty : 18068 Lpm x 20 M

a) 120 HP Motor ( Cromton Greaves ) : 2 Nos.

Pump 18068 Lpm x 20 M

b) M/s. Mother & Plate, Pune : 2 Nos.

Incoming cable from Transformer to MV Panel

3.5 Core 300 Sq.mm Aluminium Armoured Cable - 320

ii) @ RWPP ( V.G.C with 125mm A.C Pipe : M

iii) M V Panel to starter : 3.0 core 185 Sq.mm Aluminium

iv) Starter to motor : 3.0 core 50 Sq.mm Aluminium

ATS Starters ( M/s. R.M.H Controle System,

v) Chennai : 2 Nos.

vi) Digital Electro Magnetic Flow meter : 1 No. ( Range of 20,000 Lpm )

20 HP OWS Pumpset : 2 Nos ( 2000 LPM X 20 M)

D. RAW WATER PUMPING MAIN

700mm MS Inside Lining & outside coating with cement

RWPM : mortar - 85 M

AIR VALVE 150 mm CI DAV : 1 No.

E. AERATOR

Type : Cascade

Outer Dia : 8 M

Steps : 5 Nos.

Staging : 4 M

F. STILLING CHAMBER

Size : 6.5 M x 3.5 M

2 M, With scour arrangement upto downstream side of

Height of water column : about 120 M using 125 MM AC Pipe.

Size of scour valve : 100 mm CIDF Sluice valve

G. RAW WATER MEASURING CHANNEL

Length : 2 M

Width ( Supported by 4 columns ) : 1 M

Ventury flume having automatic Measuring Gauge

Measuring Arrangements : fitted at Top.

H. FLASH MIXER

Diameter : 2 M Dia  
 Water column : 3 M  
 Agitating motor with spindle, Fan  
 ( Make : M/s. Crompton Greevse ) : 2 HP - 1 No.  
 Lime, Alum, Pre chlorinated solution  
 connections are provided from chemical house,  
 through 63mm

OD PVC 6 KSC pipe.

I. DIVIDING CHAMBER

Diameter : 2.0 M  
 Water column : 3.0 M  
 Flash mixer and Dividing chamber are  
 interconnected with 600 mm Dia CI D/F Pipe  
 connections  
 Dividing chamber to Clariflocculator - I CI D/F  
 Sluice valve - 1 No. of 21.20 M : 600 mm Dia CI D/F Pipe with 600 mm  
 Dividing chamber to Clariflocculator - II CI D/F  
 Sluice valve - 1 No. of 81.40 M : 600 mm Dia CI D/F Pipe with 600 mm  
 Dividing Chamber to Clear Water Sump CI D/F  
 Sluice valve - 1 No. of 130 M : 600 mm Dia CI D/F Pipe with 600 mm  
 Leading Channel from Dividing negotiating both  
 Clariflocculator - I & II to Clarified to Filter  
 House of Size

J. CLARIFLOCCULATOR - I & II

Inner Diameter : 11.0 M  
 Outer Diameter : 25.0 M  
 Depth : 3.75 M  
 Clarifier Channel : 1.00 M x 0.75 M

Mechanical Arrangements steel Moving Bridge  
 with Paddles, rails with 3 Nos. of Motors

Main Drive Motor : 1.0 HP ( Make : M/s. Crompton Greaves )  
 Agitator Motors : 1.5 HP ( Make : M/s. Crompton Greaves )  
 Sludge Well ( common )  
 Diameter : 3.0 M  
 Depth : 4.5 M  
 Sludge Outlets from Clariflocculator - I & II upto  
 Sludge well

300 mm CI D/F Sluice Valve - 2 Nos. Sludge well  
 to Collection Chamber 600 mm Dia PSC Pipe :

25

Collection well to Downside of Headworks 300  
 mm Dia AC Pipe Line ( Triple line ) : 200 M x 3 Nos.

K. FILTER HOUSE CUM CHEMICAL HOUSE

Filter beds ( 2 Nos. Stand by ) Filter Media : 10 Nos. each 6.0 x 4.5 M  
 65 mm to 38 mm pebbles : 15 cm  
 38 mm to 20 mm pebbles : 9 cm

20 mm to 12 mm pebbles	: 9 cm
12 mm to 5 mm pebbles	: 6 cm
5 mm to 2 mm pebbles	: 6 cm
Total	: 45 cm

Fine Sand 1 mm to 2 mm uniformit coefficient  
not excedding 1.7 mm and not less then 1.3  
mm effective size 0.45 mm to 0.70 mm

Rate of Filtration : 100 lpm/sqm/min

Filter bed controlling deivces to control and  
operate individually each bed - 10 Nos.

a) Rate of Flow Controller

b) Rate of Flow Indicator

c) Loss of Head Guage

d) Wash Water Control and Control Valves

Inlet Valves

300 mm dia CI D/F Sluice Valves : 10 Nos.

Back wash channel valves form OHT

300 mm dia CI D/F Sluice Valve : 10 Nos.

Outlet valves

350 mm dia CI D/F Sluice Valve : 10 Nos.

Control chamber ( After filtration )

250 mm dia CI D/F Sluice Valve : 10 Nos.

Alum Solution Tank : 3 Nos. ( 1.9 m x 1.9 m x 1.5 m )

Alum Solution Agitation Motor : 1 HP - 3 Nos. ( make Crompton Greaves )

Lime Solution Tank : 3 Nos. ( 1.9 m x 1.9 m x 1.5 m )

Lime Solution Agitation Motor : 1 HP - 3 Nos. ( make Crompton Greaves )

Chlorinator

Type : Gravity feed Type

Feeding Capacity : 0 - 5 Kg. / Hour

Post Chlorinator & Pre Chlorinator arrangement: 1 Set

No. of Chlorine Cylinder : 4 Nos. ( 2 Nos. Stand bye )

Capacity : 1 MT

Flow Meter :

Raw water, Clear Water Alignment I & II  
flow measuring devise ( Entry & Existing,  
Consisting of computer, Addon Card,  
Transmitter, necessary Software, Printer  
including flow measuring device instant and  
cumulative and the histroy of folw of row

#### L. LABORATORY

Laboratory equipped for testing  
turbidity, PH, residual chlorine test with Jar  
Test apparatus with chemical balance, Photo  
electric calorimeter with sampling working  
tables.

## Chemical Storage room

For lime and Alum Storage, a storage room is provided with 1 MT capacity portable weighing machine.

## Air Compressor

An Air Compressor of 20 HP Capacity with necessary air blower mechanism erected at Air blower room in Ground Floor

### M. BACKWASH ARRANGEMENTS

Wash Water Tank Cap : 4.0 L.L. Capacity  
Staging height : 12.0 M  
20 HP Capacity - 2Nos. ( One Stand by ) with starters  
Wash Water Pumpset erected at C.W.P. room : - 2 Nos.

### N. CLEAR WATER SUMP

i. Capacity : 11.0 L.L. Capacity  
ii. Over flow arrangements : 600 mm CI - 22 M  
inlet arrangements ( from Control Chamber's Filt : 2.50 M

### O. CLEAR WATER PUMP HOUSE

i. Size : 2.0 M x 8.0 M ( Inner )  
ii. Pannel board room size : 5.0 M x 4.0 M  
iii. Office room : 5.0 M x 4.0 M  
iv. 5.0 Ton Capacity tow way overhead traveling : 1 Set  
v. Tools : As per list enclosed

### P. CLEAR WATER PUMPSETS

Alignment - I Pumpset details	Capa	Alignment - II Pumpset details	Cap
ii. M.V. Panel board	:	1 Set	
iii. Mixed die electric capacitor ( 200 KVR )	:	1 Set	
iv. Fully automatic floor mounted air brake auto	:	4 Nos. ( for 4 Pumpsets )	
Motors	:	Make : Kirloskar, Hubli	
Pumpset	:	Make : Becon-weir	
Cables			
i. From Transformer to M.V. Panal Board 3.5 Cor	:	365 M	
ii. From M.V. Panel Board to Starter & Motors 3	:	130 M	
iii. From M.V. Panel Board to Capacitor 3 Core 4C	:	20 M	
Water Meter			
i. Digital Electro Magnetic Flow Meter	:	2 Sets ( Fixed in Algn. I & II )	
Range 0 - 12000 LPM		Make Adapt Fluidyne Pvt. Ltd., Pune	

### Q. TRANSFORMER YARD

i) 600 KVA 22-11 KV / 433 Volts - 3 Ph. 50 Hz. Tra : 2 Sets  
ii) 6 Pole structure for 22 KV line : 1 Set  
iii) Providing fencing around transformer yard, g : 1 Set  
Transformer make : Indo-tech Transformers, Chennai

### R. QUARTERS

B type ( Twin Type ) quarters for electrical super : 2 Nos.  
C type ( Twin Type ) quarters for Watchman & O : 2 Nos.

The all 4 quarters have constructed at western side of raw water pump room with all sanitary arrangements with pipe connection etc., completed.

S. COMPOUND WALL :

Barbed wire fencing arrangements with RR Masonry short wall to erect RCC fencing post were constructed around treatment works site boundary with entrance gate & exit gate

T. LAND DETAILS

Construction of Treatment Plant in around 2.75 Acres with S.F. No. 10/2 Kulathur village

- U. DATE OF TAKEN OVER : 25.02.2006  
W. CONTRACTOR MAINTENANCE PERIOD : 12 Months (From 15.2.2005 to 14.2.2006)  
X. SUMP : 9 Nos.

1) Aval Chinnampalayam Sump

From Avalchinnampalayam to Anupparpalayam

- Sump 3.00 LL Capacity : 1 No.  
Pump room 12 X 8 m : 1 No.  
Booster Pumpsets (to Anupparpalayam) : 8014 lpm x 89 m head 240 HP  
HSC Centrifugal, 100% standby.

2) Aval Chinnampalayam Sump

From Avalchinnampalayam to Mamarathupatti

- Sump 3.00 LL Capacity : 1 No.  
Pump room 12 X 8 m : 1 No.  
Booster Pumpsets (to Mamarathupatti) : 1337 lpm x 104 m head 60 HP  
HSC Centrifugal, 100% standby.

3) Anupparpalayam Sump

From Anupparpalayam to Koolanaickanpatti

- Sump 2.00 LL Capacity : 1 No.  
Pump room 12 X 8 m : 1 No.  
Booster Pumpsets : 1621 lpm x 112 m head 60 HP  
HSC Centrifugal, 100% standby.

4) Anupparpalayam Sump

From Anupparpalayam to A.Nagoor

- Sump 2.00 LL Capacity : 1 No.  
Pump room 12 X 8 m : 1 No.  
Booster Pumpsets : 5150 lpm x 54 m head 100 HP  
HSC Centrifugal, 100% standby.

5) R.Ponnapuram Sump

From R.Ponnapuram to Kuppiandipillaipudur

- Sump 0.30 LL Capacity : 1 No.  
Pump room 6 X 4 m : 1 No.  
Booster Pumpsets (to Kuppiandipillaipudur SR) : 710 lpm x 78 m head 30 HP  
HSC Centrifugal, 100% standby.

6) Sulakkal Sump

- Sump 1.00 LL Capacity : 1 No.  
Pump room 12 X 8 m : 1 No.

Booster Pumpsets : 1283 lpm x 104 m head 60 HP  
HSC Centrifugal, 100% standby.

7) Sulakkal Sump

From Sulakkal to Kappalankarai

Sump 1.00 LL Capacity : 1 No.

Pump room 10 X 8 m	: 1 No.
Booster Pumpsets	: 2182 lpm x 122 m head 120 HP HSC Centrifugal, 100% standby.

#### 8) Kappalankarai Sump

From Kappalankarai to Karacheri & Kattampatti

Sump 0.50 LL Capacity	: 1 No.
Pump room 10 X 8 m	: 1 No.
Booster Pumpsets	: 1709 lpm x 99 m head 73 HP HSC Centrifugal, 100% standby.

#### 9) Quarry (Vadapudur) Sump

From Quarry to Kumarapalayam

Sump 0.15 LL Capacity	: 1 No.
Pump room 6 X 4 m	: 1 No.
Booster Pumpsets	: 496 lpm x 78 m head 20 HP HSC Centrifugal, 100% standby.

#### 10) Illuppanagaram Sump

From Illuppanagaram to Arasur

Sump 0.30 LL Capacity	: 1 No.
Pump room 6 X 4 m	: 1 No.
Booster Pumpsets	: 1019 lpm x 74 m head 40 HP HSC Centrifugal, 100% standby.

#### 11) Chinnanegamam Sump

From Chinna negamam to Salaipudur

Sump 0.10 LL Capacity	: 1 No.
Pump room 6 X 4 m	: 1 No.
Booster Pumpsets	: 249 lpm x 40 m head 5 HP HSC Centrifugal, 100% standby.

#### 12) Latchumapuram Sump

Sump 1.60 LL Capacity	: 1 No.
Pump room 6 X 4 m	: 1 No.
Booster Pumpsets	: 249 lpm x 40 m head 5 HP

#### 13) Panikkampatti Sump

Sump 0.85 LL Capacity	: 1 No.
Pump room 6 X 4 m	: 1 No.
Booster Pumpsets	: 249 lpm x 50 m head 7.50 HP

#### 14) Vadachithur Sump

Sump 2.50 LL Capacity	: 1 No.
Pump room 6 X 4 m	: 1 No.
Booster Pumpsets	: 5 HP & 10 HP Ows 100 % standby

Total pumping and Br. Pumping main	574.20 km
Total distribution length	7.483 km + 21.181 km ( 28.664 km )

SERVICE RESERVOIRS AND D-SYSTEM OF ALIGNMENT - I

Y. IN POLLACHI NORTH, POLLACHI SOUTH & GUDIMANGALAM UNION  
IN COIMBATORE DISTRICT.

- |   |             |
|---|-------------|
| 1) 10,000 liter. Capacity OHT             | : 4 Nos.    |
| 2) 30,000 liter. Capacity OHT             | : 10 Nos.   |
| 3) 60,000 liter. Capacity OHT             | : 5 Nos.    |
| 4) 1,00,000 liter. Capacity OHT           | : 2 Nos.    |
| 5) "D" Systems - 63 mm Dia. PVC ( 4 Ksc.) | : 7483 mtr. |
| 6) Public Fountains                       | : 20 Nos.   |

SERVICE RESERVOIRS AND D-SYSTEM OF ALIGNMENT - II

Z. IN POLLACHI NORTH, POLLACHI SOUTH & KINATHUKADAVU UNION  
IN COIMBATORE DISTRICT.

- |   |              |
|---|--------------|
| 1) 10,000 liter. Capacity OHT             | : 4 Nos.     |
| 2) 30,000 liter. Capacity OHT             | : 16 Nos.    |
| 3) 60,000 liter. Capacity OHT             | : 9 Nos.     |
| 4) "D" Systems - 63 mm Dia. PVC ( 4 Ksc.) | : 21181 mtr. |
| 5) Public Fountains                       | : 112 Nos.   |