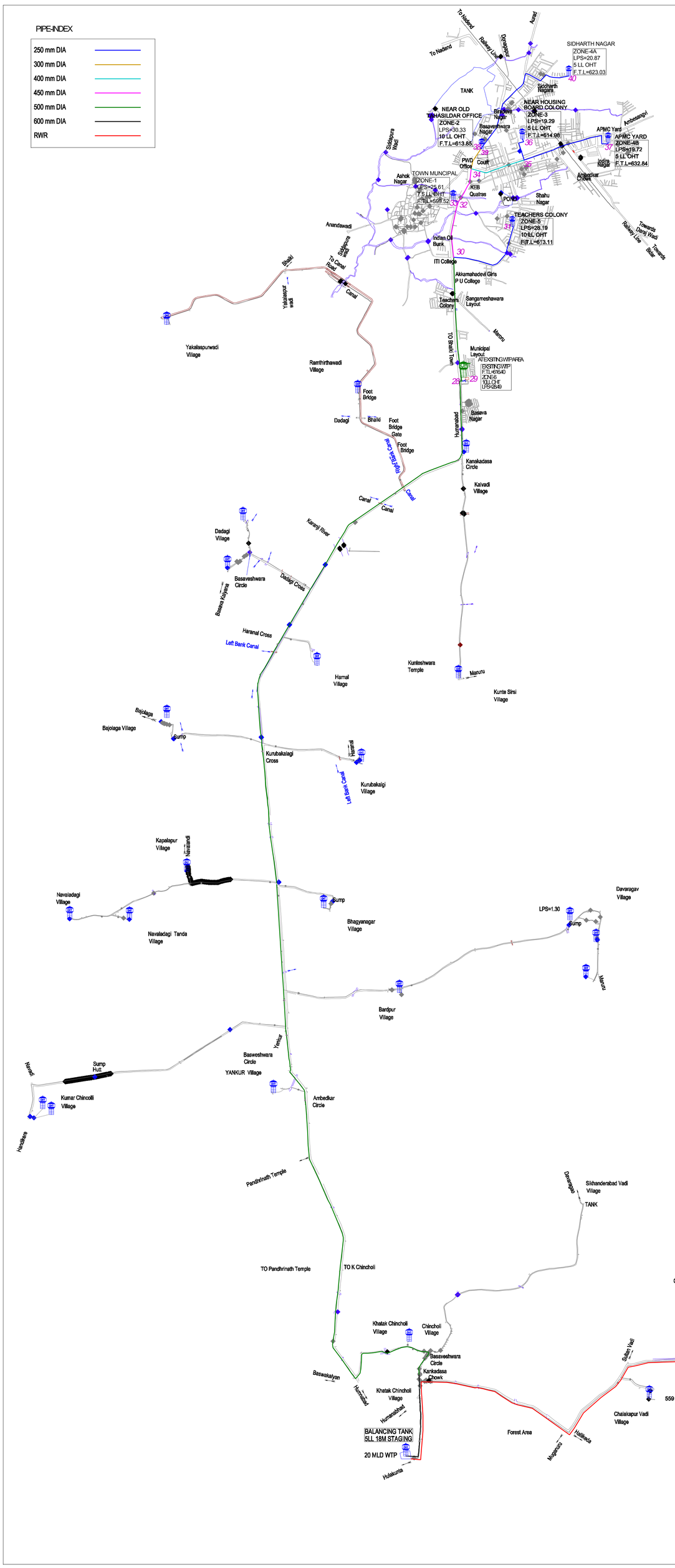
PRINTED ON 26.7.17 EACH 4 COPY

SIZE 600X740

PIPE-INDEX

- 250 mm DIA
- 300 mm DIA
- 400 mm DIA
- 450 mm DIA
- 500 mm DIA
- 600 mm DIA
- RWR



POPULATION AND WATER DEMAND (MLD) CONSIDERED FOR THE DESIGNS IN BHALKI TOWN & ENROUTE VILLAGES									
Sl. No.	Name of the town	Population for the present year 2015	Water demand - year 2015 (IN MLD)	Population for the Base year 2018	Water demand - Base year 2018 (IN MLD)	Intermediate population for the year 2033	Water demand - year 2033 (IN MLD)	Ultimate population for the year 2048	Water demand - year 2048 (IN MLD)
1	BHALKI TOWN:	45200		46000		60000		80000	
	Supply @135LPCD		6.10		6.21		8.10		10.80
	Add 15% losses for distribution		0.92		0.93		1.22		1.62
	Sub-Total		7.02		7.14		9.32		12.42
2	VILLAGES:	41200		43000		51500		61600	
	Supply @85LPCD		3.50		3.66		4.38		5.24
	Add 15% losses for distribution		0.53		0.55		0.66		0.79
	Sub-Total		4.03		4.21		5.04		6.03
	Demand-Bhalki/ Villages		11.05		11.35		14.36		18.45

NODES		
FR	TO	LENGTH
100	1	1176
1	28	16678
2	3	340
3	4	315
4	5	1046
5	6	709
6	7	270
7	8	1220
8	9	1692
9	10	243
10	11	368
11	12	362
28	29	80
28	30	1810
30	31	1266.8
30	32	803.8
32	33	80
32	34	511.7
34	35	799.7
35	36	356.6
35	37	1402.7
34	38	32.8
38	39	11
38	40	1936.6

LPS Calculation for Feedermains to Bhalki CWSS		
Intermediate Population =	60000	2033
Ultimate Population =	80000	2048
Rate of Supply (135Lpcd) with 15%	155.25	Lpcd
Qty of water Required =	9315000	Ltrs
Capacity of OHTs @ 1/2 requirement for Intermediate Stage	4050000	Litres
Qty of water Required =	40.50	LL
Say	41.00	LL
Existing Capacity of Tanks(2Nos 5LL + 1Nos 7.50LL+ 2Nos 10.0LL= 37.50LL)	37.50	LL
Required OHT Capacity=	3.50	LL
Proposed OHT 1Nos 5LL & 1Nos 10LL how ever based on the development it is propsoed.	15.00	LL
LPS Required for Intermediate Stage for pumping=	129.38	LPS
LPS Required for Ultimate Stage Feedermain with 20Hr =	172.5	LPS

SlNo	Zone	Capacity of OHT	LPS for each Zone OHT @ ULT for 20Hr	Status	POP-INT	POP-ULT	Area Located at	OHT FOR 100% STORAGE IN LL	OHT FOR 1/2 STORAGE IN LL
1	1	7.5	25.61	Ex-OHT	8975	11875	TOWN MUNCIPAL	12.12	6.1
2	2	10	30.33	Ex-OHT	10865	14068	NEAR OLD TAHASILDAR OFFICE	14.67	7.3
3	3	5	19.29	Ex-OHT	6425	8945	NEAR HOUSINGBOARD COLONY	8.67	4.3
4	4A	5	20.87	Pro-OHT	6675	9680	SIDHARTH NAGAR	9.01	4.5
5	4B	5	19.72	Ex-OHT	6985	9145	APMC YARD	9.43	4.7
6	5	10	28.19	Ex-OHT	9957	13075	TEACHERS COLONY	13.44	6.7
7	6	10	28.49	Pro-OHT	10118	13212	AT EXISTING WTP AREA	13.66	6.8
Total		52.5	172.5	172.5	60000	80000			40.4

DISCHARGE CALCULATION FROM RESERVOIRS FOR DISTRIBUTION SYSTEM TO BHALKI TOWN		
Intermediate Population =	60000	2033
Ultimate Population =	80000	2048
Rate of Supply (135Lpcd) with 15%	155.25	Lpcd
Qty of water Required =	9315000	Ltrs
Capacity of OHTs @ 1/2 requirement for Intermediate Stage	4050000	Litres
Qty of water Required =	40.50	LL
Say	41.00	LL
Existing Capacity of Tanks(2Nos 5LL + 1Nos 7.50LL+ 2Nos 10.0LL= 37.50LL)	37.50	LL
Required OHT Capacity=	3.50	LL
Proposed OHT 1Nos 5LL & 1Nos 10LL how ever based on the development it is propsoed.	15.00	LL
LPS Required for Ultimate Stage Distribution with 24Hr =	143.75	LPS

SlNo	Zone	Capacity of OHT	Discharge from OHT AT-ULT	Status	POP-INT	POP-ULT	OHT FOR 100% STORAGE IN LL	OHT FOR 1/2 STORAGE IN LL
1	1	7.5	21.34	Ex-OHT	8975	11875	12.12	6.1
2	2	10	25.28	Ex-OHT	10865	14068	14.67	7.3
3	3	5	16.07	Ex-OHT	6425	8945	8.67	4.3
4	4A	5	17.39	Pro-OHT	6675	9680	9.01	4.5
5	4B	5	16.43	Ex-OHT	6985	9145	9.43	4.7
6	5	10	23.49	Ex-OHT	9957	13075	13.44	6.7
7	6	10	23.74	Pro-OHT	10118	13212	13.66	6.8
Total		52.5	143.74	143.74	60000	80000		40.4

CLIENT:
KARNATAKA URBAN WATER SUPPLY AND DRAINAGE BOARD-BANGALORE

SURVEY CONSULTANTS:
AIRCON CONSULTANTS
(Survey & Civil Engineering Project Consultants)
1st Floor, Wari Complex, Behind Ayodhya Darshini.
Opp: HDMC, Lamington Road-Hubli-20.
E-Mail : aircon hubli@gmail.com & CellNo:9845341475.

PROJECT: WATER SUPPLY SCHEME TO BHALKI TOWN & ENROUTE VILLAGES WITH KARANJA DAM AS SOURCE

TITLE: COMPLETE SCHEMATIC

DRAWN	SHASHI	DATE	20.7.17	SCALE: A1
CHECK	RAJESH	DATE		DRAWING NO
APPVD		DATE		
AIR DRG NO.	KWB/AIR/BHALKI/COMPL SCH			Revision R - 0

PROPOSED JACKWELL
10m Dia Jack well &
14m Dia Pump House
FL Pt=588.00 FLJWL=569.48
Suction Lvl=569.98
PM DETAILS
2 NO 600 HP DWT Pump Sets
Discharge =257 LPS
Head of 116m