

## STP LOAD CLACULATIONS

### BEILIDHOO SEWERAGE

item no.	Description	Unit	Qty
	CIVIL WORKS		
1	STP Capacity ( 30years design Horizon)	m3/day	350
2	15 years design horizon capacity	m3/day	280
3	Civil construction works (for 30 years)		
3.1	Grit Channel		
	350/24/60	m3/min	0.24
3.2	O/G Seperator (30 min retention)		
	(350/24) x 0.5	m3	4 x 2
3.3	Equalization tank (1 hr retention)		
	350/24	m3	7.3 x 2
3.4	Areation Tank (18hr holding cap)	m3	132 x 2
3.5	Clarifier tank (4 hrs of AWWF)	m3	29.1 X 2
3.6	Clear Water tank ( No size Requirement), 1 hr	m3	14.6
3.7	Sludge Holding tank (no size requirement)	m3	5 x 2
3.8	Sludge drying beds ( 42.3 sqm)	m2	14.3 x 3

**EQUIPMENT (FOR 15 YEARS DESIGN HORIZON)**

item no.	Description	Unit	Head,M	Capacity Needed	Quantity needed		
4.1	Aeration blowers	m3/min	0.4 kg/m2	2.45	2	SL065,1750 rpm, (KFM)	3.7kw
4.2	Fine bubble areators (EPDM)	nos	3	44	2		
4.3	Pumps EQT - AT. 350/24/60 X 4.78 /2 x 0.8( 15yrs)	m3/min	6	0.46	2	SEV.80.80.40.4.51D	4.9 kw
4.4	Pumps Sea Outfall	m3/min	18	0.46	2	SEV.80.80.40.4.51D	4.9 kw
4.5	Pumps SHT - SDB 0. 1m3/min	m3/min	6	0.1	2	SEG.40.09.2.50B	1.4kw
4.6	Pumps for effluent recovery from SDB - AT	m3/min	6	0.1	2	SEG.40.09.2.50B	1.4kw