120 MGD PLANT SERVICES LOADS

Location	Equipment	hp or kW	Volt	Ea	Ea	FLA Connected (480V Equiv)	FLA Demand	kVA Connected	kVA Demand	Comments
Raw Water Pump Power Panel 02-PP-1	*Air Conditioner Compressor*	23	480	1	27.66	28	28	23	23	VFD/PLC room air conditioning
	Ventilation Exhaust Fan 1	4	480	1	4.81	5	5	4	4	Ventilation System
	Ventilation Exhaust Fan 2	3	480	1	3.61	4	4	3	3	Ventilation System
	Screen Air Compressor	17	480	1	20.45	20	20	17	17	01-ME-05
	Crane	12	480	1	14.43	14	14	12	12	02-ME-01
	277V Lighting	5	480	1	7.52	8	8	6	6	277V Lighting @ 125%
	Lighting Panel Transformer	15	480	1	22.55	23	23	19	19	120V Small Power Supply @ 125%
	02-PP-01 Sub-Total					101	101	84	84	
UV Building No. 1 Main 480V SWBD-6	Filter Blowers	125	480	2	140.95	282	141	234	117	04-ME-01, 04-ME-02
	MCC1 Supply (Chemical Building)					339	264	271	209	From Load Figures Below
	MCC2 Supply (UV Building)					339	248	282	206	From Load Figures Below
	MCC2C/2D Supply (UV Building)					186	171	154	142	
	Admin Building SWBRD-11					557	557	463	463	From Load Figures Below
	Standby Switchboard					321	291	267	242	From Standby Load Sheet
	UV Power Panel 1 (06-PP-01)									
	UV Reactors 1&2	105	480	2	126.30	252.6	252.6	210.0	210.0	06-ME-01 & 06-ME-02
PHASE 1	UV Power Panel 2 (06-PP-02)									
	UV Reactors 3&4	105	480	2	126.30	252.6	126.3	210.0	105.0	06-ME-03 & 06-ME-04 (standby)
	Sub-T					2529	2052	2091	1694	
UV Building No. 2 Main 480V SWBD-7	Filter Blowers	200	480	2	225.53	451	451	375	375	Filter Air Blowers
	MCC3 Supply (UV Bldg. No. 2)					579	390	481	324	
	UV Power Panel 3 (206-PP-01)									
	UV Reactors 5&6	105	480	2	126.30	252.6	252.6	210.0	210.0	206-ME-01 & 206-ME-02
PHASE 2	UV Power Panel 4 (206-PP-02)									
	UV Reactors 7&8	105	480	2	126.30	252.6	126.3	210.0	105.0	206-ME-03 & 206-ME-04 (standby)
	Sub-T					1030	841	856	699	
SWBD-8 (Future for 120MGD)	Filter Blowers									
	Filter Power Panel									
	Sub-T					0	0	0	0	
Chemical Building MCC-1	Flash Mixing Pumps	25	480	2	28.19	56.4	28.2	46.9	23.4	03-P-08, 03-P-09
	Raw Water Sample Pump	1	480	2	1.80	3.6	1.8	3.0	1.5	03-P-07
	Hypochlorite Transfer Pump	7.5	480	1	8.46	8.5	8.5	7.0	7.0	14-P-43
	Hypochlorite Metering Pumps	1.5	480	4	2.71	10.8	8.1	9.0	6.8	14-P-30, 14-P-31, 14-P-32, 14-P-33
	Lime Slurry Mixing Pump	7.5	480	1	8.46	8.5	8.5	7.0	7.0	14-P-23
	Lime Slurry Metering Pumps	1	480	6	1.80	10.8	9.0	9.0	7.5	14-P-24, 25, 26, 27, 28 & 29
	Lime Bulk Tank Mixers	3	480	2	5.41	10.8	5.4	9.0	4.5	14-MX-01, 14-MX-02
	Coagulant Transfer Pumps	1	480	2	1.80	3.6	1.8	3.0	1.5	14-P-13, 14-P-14
	Coagulant Metering Pumps	0.5	480	2	0.90	1.8	0.9	1.5	0.8	14-P-08, 14-P-09
	Coag Aid Metering Pumps	0.25	480	2	0.45	0.9	0.5	0.8	0.4	14-P-11, 14-P-12
	Caustic Transfer Pumps	1	480	2	1.80	3.6	1.8	3.0	1.5	14-P-15, 14-P-16
	Caustic Metering Pumps	1	480	2	1.80	3.6	1.8	3.0	1.5	14-P-35, 14-P-36
	Flouride Transfer Pump	1.5	480	2	2.71	5.4	2.7	4.5	2.3	14-P-04, 14-P-05
	Flouride Metering Pump	0.5	480	2	0.90	1.8	0.9	1.5	0.8	14-P-06, 14-P-07
	Ammonia Transfer Pumps	1	480	2	1.80	3.6	1.8	3.0	1.5	14-P-39, 14-P-40
	Ammonia Metering Pumps	0.5	480	4	0.90	3.6	2.7	3.0	2.3	14-P-01, 14-P-02, 14-P-03, 14-P-38
	Floc/Sed De-watering	10	480	1	11.28	11.3	11.3	9.4	9.4	03-P-01 (At Floc/Sed)
	Fluoride Vapour Blower	0.75	480	1	1.35	1.4	1.4	1.1	1.1	14-ME-03
	Hypochlorite Blowers	2	480	2	3.61	7.2	3.6	6.0	3.0	14-ME-01, 14-ME-02
	Ammonia Vapour Blower	0.75	480	1	1.35	1.4	1.4	1.1	1.1	14-ME-24
	MCC-1 Sub-Total					159	102	132	85	
	Unit Heaters	5	480	7	6.01	42.1	36.1	35.0	30.0	14-UH-01 to 14-UH-07
	Unit Heaters	10	480	7	12.03	84.2	72.2	70.0	60.0	14-UH-08 to 14-UH-14
	Lighting Panel	45	480	1	54.13	54	54	34	34	Lighting Panel (75% loading)
	Power Panel (14-PP-01) Sub-Total					180	162	139	124	
	Lighting Panel (14-LP-01)					-	-	-	-	
	PAC Volumetric Feeder	4.8	120	1	40.00	5.78	5.78	4.80	4.80	14-LCP-11
	Pot. Perm. Volumetric Feeder	4.8	120	1	40.00	5.78	5.78	4.80	4.80	14-LCP-10
	Filter Aid Polymer Feed	1.32	120	2	11.00	3.18	1.59	2.64	1.32	14-ME-18, 14-ME-19
	Fluoride Load Cell	0.25	120	1	2.08	0.30	0.30	0.25	0.25	14-WE-14103
	Floc Aid Polymer Feed	1.5	120	2	12.50	3.61	1.81	3.00	1.50	14-ME-20, 14-ME-21
	Instruments	5	120	1	41.67	6.02	6.02	5.00	5.00	
	Truck Unloading Panel	0.5	120	2	4.17	1.20	0.60	1.00	0.50	
	Exhaust Fans	0.5	120	4	4.17	2.41	1.81	2.00	1.50	14-EF-05 to 08
	Exhaust Fans	0.3	120	7	2.50	2.53	2.17	2.10	1.80	14-EF-01 to 04, 14-EF-09 to 11
	Louver/Damper	0.13	120	11	1.04	1.66	1.51	1.38	1.25	14-LD-01 to 11
	Lime Bulk Transfer Valves	0.2	120	2	1.67	0.48	0.24	0.40	0.20	14-V-06, 14-V-07
	Coagulant Bulk Transfer Valves	0.2	120	3	1.67	0.72	0.48	0.60	0.40	14-V-02, 14-V-03, 14-V-04
	Coag Aid Bulk Transfer Valve	0.2	120	1	1.67	0.24	0.24	0.20	0.20	14-V-05
	Caustic Bulk Transfer Valve	0.2	120	1	1.67	0.24	0.24	0.20	0.20	14-V-12
	Fluoride Bulk Transfer Valve	0.2	120	1	1.67	0.24	0.24	0.20	0.20	14-V-10
	Ammonia Bulk Transfer Valve	0.2	120	1	1.67	0.24	0.24	0.20	0.20	14-V-15
	Dilution Tank Makeup Valve	0.5	120	1	4.17	0.60	0.60	0.50	0.50	14-V-17
	PAC Hopper Vibrator	1	120	2	8.33	2.41	1.20	2.00	1.00	14-ME-09 ??
	Air Conditioner	3.6	230	1	15.65	4.34	4.34	3.60	3.60	14-WAC-01
	PLC Panel aux supply	0.5	120	2	4.17	1.20	0.60	1.00	0.50	
	20MGD Totals					112	87	89	69	Total amount included under SWBD6
	40MGD Totals					280	218	223	172	Total amount included under SWBD6
	60MGD Totals					339	264	271	209	Total amount included under SWBD6
	80MGD Totals					424	330	338	261	Total amount included under SWBD6
	120MGD Totals					508	396	406	313	Total amount included under SWBD6
	Sub-Total									
UV Building No. 1 MCC-2	Thickened Sludge Pump	5	480	2	9.02	18.0	9.0	15.0	7.5	09-P-01, 09-P-02
	Floc/Sed Sample Pumps	1	120	5	7.22	6.0	4.8	5.0	4.0	03-P-02 to 03-P-06
	UV Building Sample Pumps	1	120	1	7.22	1.2	1.2	1.0	1.0	06-P-01
	Process Basin Pumps	10	480	3	11.28	33.8	22.6	28.1	18.8	10-P-01, 10-P-02, 10-P-03
	Sludge Thickener Drives	1	480	2	1.80	3.6	1.8	3.0	1.5	09-ME-01, 09-ME-02
	Filter to Waste	40	480	2	45.11	90.2	45.1	75.0	37.5	04-P-03, 04-P-04
	Ground Dewatering Pump	3	480	2	5.41	10.8	5.4	9.0	4.5	17-P-01, 17-P-02
	UV Building Unit Heaters	10	480	4	12.03	48.1	36.1	40.0	30.0	Unit heaters 06-UH-01 to 04-UH-04
	UV Building Unit Heaters	5	480	1	6.01	6.0	6.0	5.0	5.0	Unit heater 06-UH-05
	HVAC - Air Handling Unit	2.2	480	1	3.97	2.6	2.6	2.2	2.2	06-AHU-01
	HVAC - Condenser Unit	18.8	480	1	21.20	22.6	22.6	18.8	18.8	06-CU-01
	MCC-2 Sub-Total					243	157	202	131	

120 MGD PLANT SERVICES LOADS

Location	Equipment	hp or kW	Volt	Ea	Ea	FLA Connected (480V Equiv)	FLA Demand	kVA Connected	kVA Demand	Comments
04-PP01	*Filter Valves No.1*	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP1
	Filter Valves No.2	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP2
	Filter Valves No.3	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP1
	Filter Valves No.4	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP2
	Filter Valves No.5	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP1
	Filter Valves No.6	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP2
	Filter Valves No.7	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP1
	Filter Valves No.8	0.5	480	5	0.90	4.5	4.5	3.8	3.8	Supply from PP2
	Silencer Control Valve	0.5	480	1	0.90	0.9	0.9	0.8	0.8	04-V-43
	Filter Gallery Heaters	10	480	3	12.03	36.1	36.1	30.0	30.0	Filter gallery heaters 04-UH-01-
	Filter Gallery Heaters	5	480	2	6.01	12.0	12.0	10.0	10.0	Filter gallery heaters 04-UH-04,
	Filter Gallery Sump	3	480	2	5.41	10.8	5.4	9.0	4.5	04-P-01, 04-P-02
	Power Panel (04-PP-01) Sub-Total					96	91	80	75	
	MCC-2 Total					339	248	282	206	
UV Building No. 1 MCC-2C/2D	Flash Mixing Pumps	20	480	1	22.55	22.6	22.6	18.8	18.8	
	CO2 Water Booster Pump	25	480	1	28.19	28.2	28.2	23.4	23.4	
	CO2 System	50	480	1	56.38	56.4	56.4	46.9	46.9	
	Post UV Lime Feed Pumps	5	480	3	9.02	27.1	18.0	22.5	15.0	
	Post UV Lime Clarifier	1	480	1	1.80	1.8	1.8	1.5	1.5	
	Post Sed Flash Mix Pump	20	480	1	22.55	22.6	22.6	18.8	18.8	
	Post UV Tank Mixer	3	480	5	5.41	27.1	21.7	22.5	18.0	
	MCC-2C/2D Sub-Total					186	171	154	142	
UV Building No. 2 MCC-3	Flash Mixing Pumps	25	480	2	28.19	56.4	28.2	46.9	23.4	03-P-208, 03-P-209
	Sludge Feed Pumps	15	480	2	16.91	33.8	16.9	28.1	14.1	
	Filter to Waste Pumps	40	480	2	45.11	90.2	45.1	75.0	37.5	
	CO2 Water Booster Pump	25	480	1	28.19	28.2	28.2	23.4	23.4	
	Recycle Pumps	20	480	6	22.55	135.3	90.2	112.5	75.0	
	Post UV Lime Feed Pumps	30	480	2	33.83	67.7	33.8	56.3	28.1	
	Post UV Lime Recirc Pumps	5	480	3	9.02	27.1	18.0	22.5	15.0	
	Post Sed Flash Mix Pump	20	480	1	22.55	22.6	22.6	18.8	18.8	
	Post Sed Tank Mixer	3	480	1	5.41	5.4	5.4	4.5	4.5	
	Post UV Tank Mixer	3	480	3	5.41	16.2	10.8	13.5	9.0	
	MCC-3 Sub-Total					483	299	401	249	
	Filter Valves No.1	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.2	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.3	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.4	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.5	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.6	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.7	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Filter Valves No.8	0.5	480	5	0.90	4.5	4.5	3.8	3.8	
	Silencer Control Valve	0.5	480	1	0.90	0.9	0.9	0.8	0.8	04-V-43
	Filter Gallery Heaters	10	480	3	12.03	36.1	36.1	30.0	30.0	Filter gallery heaters 04-UH-01-
	Filter Gallery Heaters	5	480	2	6.01	12.0	12.0	10.0	10.0	Filter gallery heaters 04-UH-04,
	Filter Gallery Sump	3	480	2	5.41	10.8	5.4	9.0	4.5	04-P-01, 04-P-02
	Power Panel (204-PP-01)					96	91	80	75	
	MCC-3 Total					579	390	481	324	
Administration Bldg SWBD-11	*Lighting*	37.2	480	1	55.86	56	56	46	46	See Admin Dwg E5.1
	Receptacles (@ 180VA each)	51	480	1	61.34	61	61	51	51	See Admin Dwg E5.1
	Other	208	480	1	250.19	250	250	208	208	See Admin Dwg E5.1
	HVAC	156	480	1	187.64	188	188	156	156	See Admin Dwg E5.1
	25% of Largest Motor	8	480	1	2.41	2	2	2	2	See Admin Dwg E5.1
	SWBD-11 Sub-Total					557	557	463	463	
Miscellaneous	*Street Lighting*	0.6	480	25	0.72	18	17	15	14	Supplied from various lighting
	Sub-T					18	17	15	14	
	40MGD Totals					2276	1925	1881	1589	
	80MGD Totals					2614	2496	2159	1746	
	120MGD Totals					3204	2563	2646	2113	
	40MGD Totals					2276	1925	1881	1589	
	80MGD Totals					2614	2496	2159	1746	
	120MGD Totals					3204	2563	2646	2113	

SWITCHBOARD & MCC LOADS

Location	Equipment	40 MGD Connected (kVA)	40 MGD Demand (kVA)	40 MGD Demand (kW)	80MGD Connected (kVA)	80MGD Demand (kVA)	80MGD Demand (kW)	120 MGD Connected (kVA)	120 MGD Demand (kVA)	120 MGD Demand (kW)
Raw Water Pump Station SWBD-5	Plant Equipment Loads	84	62	56	126	93	84	126	93	84
	Pump Loads	900	417	398	1500	884	796	1500	884	796
	SWBD-5 TOTAL	984	479	454	1626	977	879	1626	977	879
SWBD-6 Phase 1	SWBD-11 (Admin)	463	341	307	463	341	307	463	341	307
	Air Scour Blower 125 HP (117kVA)	234	172	155	234	172	155	234	172	155
	UV Reactor 105kVA	315	315	284	315	315	284	315	315	284
	Transfer Pump Loads (400 HP)	1200	556	500	1200	556	500	1200	556	500
	SWBD-6 TOTAL	2212	1385	1246	2212	1385	1246	2212	1385	1246
SWBD-7 Phase 2	Air Scour Blower 200 HP (187kVA)				375	261	235	375	261	235
	UV Reactor 105kW				315	315	284	315	315	284
	Transfer Pump Loads (400 HP)				1200	556	500	1200	556	500
	SWBD-7 TOTAL	0	0	0	1890	1132	1019	1890	1132	1019
High Service Pump Station	Lighting	4	5	4	4	5	4	4	5	4
	Pump Loads (800 HP)	2400	1179	1061	4800	2358	2122	5600	3537	3183
	MCC-MV-1 TOTAL	2404	1184	1065	4804	2363	2126	5604	3542	3187
Chemical Building MCC-1A/1B	Plant Equipment Loads	223	127	114	338	192	173	338	192	173
	MCC-1 TOTAL	223	127	114	338	192	173	338	192	173
UV Building 1 MCC-2A/2B	Plant Equipment Loads	282	152	137	282	152	137	282	152	137
	MCC-2 TOTAL	282	152	137	282	152	137	282	152	137
UV Building 1 MCC-2C/2D	Plant Equipment Loads	154	105	94	0	105	94	0	105	94
	MCC-2 TOTAL	154	105	94	0	105	94	0	105	94
UV Building 2 MCC-3A/3B	Plant Equipment Loads				401	183	165	401	183	165
	MCC-3 TOTAL	0	0	0	401	183	165	401	183	165
Miscellaneous	Street Lighting	15	15	14	19	19	18	19	19	18
	MISCELLANEOUS TOTAL	15	15	14	19	19	18	19	19	18
Standby SwBd	Standby Supplies	267	178	160	333	223	200	333	223	200
	SWBD-STDBY TOTAL	267	178	160	333	223	200	333	223	200
SITE TOTALS	40MGD	6387	3519	3190						
	80MGD				11905	6625	5963			
	120MGD							12705	7803	7024

SWITCHBOARD & MCC LOADS

Location	Equipment	20 MGD Connected (kVA)	20 MGD Demand (kVA)	20 MGD Demand (kW)	60 MGD Connected (kVA)	60 MGD Demand (kVA)	60 MGD Demand (kW)
Raw Water Pump Station SWBD-5	Plant Equipment Loads	84	62	56	126	93	84
	Pump Loads 300HP	600	211	189	1200	632	568
	SWBD-5 TOTAL	684	272	245	1326	724	652
SWBD-6	SWBD-11 (Admin)	463	341	307	463	341	307
	Air Scour Blower 125 HP (117kVA)	117	86	78	234	172	155
	UV Reactor 105kVA	210	210	189	315	315	284
	Transfer Pump Loads (400 HP)	800	278	250	800	278	250
	SWBD-6 TOTAL	1590	915	824	1812	1107	996
SWBD-7	Air Scour Blower 200 HP (187kVA)				187	138	124
	UV Reactor 105kW				210	210	189
	Transfer Pump Loads (400 HP)				1200	556	500
	SWBD-7 TOTAL	0	0	0	1597	904	813
High Service Pump Station	Lighting	4	5	4	4	5	4
	Pump Loads 800 HP	1600	589	530	3200	1768	1591
	MCC-MV-1 TOTAL	1604	594	534	3204	1773	1595
Chemical Building MCC-1A/1B	Plant Equipment Loads	89	51	46	271	154	138
	MCC-1 TOTAL	89	51	46	271	154	138
UV Building 1 MCC-2A/2B	Plant Equipment Loads	141	76	68	282	152	137
	MCC-2 TOTAL	141	76	68	282	152	137
UV Building 1 MCC-2C/2D	Plant Equipment Loads	77	52	47	154	105	94
	MCC-2 TOTAL	77	52	47	154	105	94
UV Building 2 MCC-3A/3B	Plant Equipment Loads				401	183	165
	MCC-3 TOTAL	0	0	0	401	183	165
Standby SwBd	Standby Supplies	267	178	160	333	223	200
	SWBD-STDBY TOTAL	267	178	160	333	223	200
Miscellaneous	Street Lighting	15	15	14	19	19	18
	MISCELLANEOUS TOTAL	15	15	14	19	19	18
SITE TOTALS	20MGD	4467	2154	1939			
	60MGD				9399	5343	4809

WATER PLANT PUMP LOADS

	Location	HP	Volt	Ea	Ea	FLA Connected	FLA Demand	HP Connected	HP Demand	Comments
Raw Water Pump Station	40MGD	300	480	3	360	1080	720	900	600	2-300 hp pumps operating, 1-300 hp pump standby.
	80MGD	300	480	5	360	1800	1440	1500	1200	4-300 hp pumps operating, 1-300 hp pump standby.
	120MGD	500	480	5	573	2865	2292	2400	2000	4-500 hp pumps operating, 1-500 hp pump standby.
Transfer Pump Station	40MGD	400	480	3	480	1440	960	1200	800	2-400 hp pumps operating, 1-400 hp pump standby.
	80MGD	400	480	6	480	2880	1920	2400	1600	4-400 hp pumps operating, 2-400 hp pump standby.
	120MGD	400	480	9	480	4320	2880	3600	2400	6-400 hp pumps operating, 3-400 hp pump standby.
High Service Pump Station	40MGD	800	4160	3	112	336	224	2400	1600	Up to 3-800 hp pumps operating to provide a 60MGD peak, 1-800 hp pump standby.
	80MGD	800	4160	5	112	560	448	4800	3200	Up to 5-800 hp pumps operating to provide a 120MGD peak, 1-800 hp pump standby.
	120MGD	800	4160	7	112	784	672	5600	4800	Up to 7-800 hp pumps operating to provide a 140MGD peak, 1-800 hp pump standby.
Pump Totals	40MGD					2856	1904	4500	3000	
	80MGD					5240	3808	8700	6000	
	120MGD					7969	5844	11600	9200	

WATER PLANT PUMP LOADS

	Location	HP	Volt	Ea	Ea	FLA Connected	FLA Demand	HP Connected	HP Demand	Comments
Raw Water Pump Station	20MGD	300	480	2	360	720	360	600	300	1-300 hp pumps operating, 1-300 hp pump standby.
	60MGD	300	480	4	360	1440	1080	1200	900	3-300 hp pumps operating, 1-300 hp pump standby.
Transfer Pump Station	20MGD	400	480	2	480	960	480	800	400	1-400 hp pumps operating, 1-400 hp pump standby.
	60MGD	400	480	4	480	1920	1440	1600	1200	3-400 hp pumps operating,1-400 hp pump standby.
High Service Pump Station	20MGD	800	4160	2	112	224	112	1600	800	Up to 1-800 hp pumps operating to provide a 60MGD peak, 1-800 hp pump standby.
	60MGD	800	4160	4	112	448	336	3200	2400	Up to 3-800 hp pumps operating to provide a 120MGD peak, 1-800 hp pump standby.
Pump Totals	20MGD					1904	952	3000	1500	
	60MGD					3808	2856	6000	4500	

PLANT STANDBY POWER LOADS

Location	Equipment	hp or kW	Volt	Ea	Ea	FLA Connected (480V Equiv)	FLA Demand	kVA Connected	kVA Demand	Comments
High Service Pump Station Standby Loads	*Lighting Panel (08-STDBY-LP01)*	30	480	1	36.08	36.1	36.1	30.0	30.0	Lighting (see loads below)
	Control Power	5	480	1	6.01	6	6	5	5	MCC and PLC AC Control Power
	Surge Tank Air Compressor	15	480	2	18.04	36	18	30	15	08-ME-01, 08-ME-02
	Bypass Control Valve	1	480	1	1.80	2	2	2	2	08-V-38
	Overhead Crane	10	480	1	11.28	11	11	9	9	08-ME-01
	08-ST					91	73	76	61	
	Lighting Panel (08-STDBY-LP01)					-	-	-	-	
	Instruments	2	120	1	16.67	2.4	2.4	2.0	2.0	
	Ventilation Exhaust Fans	3	120	2	25.00	7.2	3.6	6.0	3.0	
	Ventilation Louvers	0.13	120	2	1.04	0.3	0.2	0.3	0.1	
	Small power	5	120	1	41.67	6.0	6.0	5.0	5.0	
	Exterior Lighting	5	120	1	41.67	6.0	6.0	5.0	5.0	Exterior lighting
	Surge Tank	2	120	1	16.67	2.4	2.4	2.0	2.0	Surge tank control panel
UV Building Standby Loads	*Lighting Panel (06-STDBY-LP01)*	40	480	1	48.11	48.2	48.2	40.0	40.0	Lighting (see loads below)
	Polymer Blending Pump	0.13	480	1	0.23	0.2	0.2	0.1	0.1	Pump 06-ME-04
	Filter Backwash Valve	0.5	480	1	0.90	0.9	0.9	0.8	0.8	06-V-13
	UV Reactor Inlet Valves	0.5	480	3	0.90	2.7	2.7	2.3	2.3	06-V-01, 06-V-02, 06-V-03
	Sludge Channel Gates Actuator	1.5	480	5	2.71	13.5	10.8	11.3	9.0	03-G-09 to 03-G-13 (At Floc/Sed)
	Sanitary Lift Station	5	480	2	9.02	18.0	9.0	15.0	7.5	16-LCP-01
	UV Building Sub-Total					84	72	69	60	
	Lighting Panel (06-STBY_LP01)					-	-	-	-	
	Remote Access RTU	2	120	1	16.67	2.41	2.41	2.00	2.00	RTU system UPS
	Instrumentation	2	120	1	16.67	2.41	2.41	2.00	2.00	PLC panel UPS
	UV Building Exhaust Fans	0.33	120	2	2.75	0.8	0.4	0.7	0.3	06-EF-01, 06-EF-02
	UV Building Exhaust Fans	0.13	120	2	1.04	0.3	0.2	0.3	0.1	06-EF-03, 06-EF-04
	UV Building Louvers	0.13	120	3	1.04	0.4	0.3	0.4	0.3	06-LD-01, 06-LD-02, 06-LD-03
	Floc/Sed Siphon Drive Units	0.25	120	5	1.80	1.5	1.2	1.3	1.0	03-ME-01 to 03-ME-05
	PLC & Controls	5	120	1	41.67	6.0	6.0	5.0	5.0	
	Exterior Lighting	5	120	1	41.67	6.0	6.0	5.0	5.0	Lighting supplied from standby
	Lighting Panel (14-STDBY-LP01)	30	480	1	36.08	36.1	36.1	30.0	30.0	Lighting (see loads below)
	Chem Building Sub-Total					36	36	30	30	
Chemical Building Standby Loads	Lighting Panel (14-STDBY-LP01)					-	-	-	-	
	Control System UPS	5	120	1	41.67	6.0	6.0	5.0	5.0	UPS for Instruments, truck panel etc.
	PLC UPS Supply	2	120	1	16.67	2.4	2.4	2.0	2.0	PLC system UPS
	Exterior Lighting	5	120	1	41.67	6.0	6.0	5.0	5.0	Standby lighting
	Chemical Leak Detection Systems	2	120	1	16.67	2.4	2.4	2.0	2.0	
Filter Building Standby Loads	*Filter Effluent Control Valves*	0.5	480	5	0.90	5	5	4	4	04-V-09 to 04-V-16
	Lighting Panel (04-STDBY-LP01)	20	480	1	24.06	24.1	24.1	20.0	20.0	Lighting (see loads below)
	Filter Gallery Sub-Total					29	29	24	24	
	Lighting Panel (04-STDBY-LP01)									
	Instruments	2	120	1	16.67	2.4	2.4	2.0	2.0	
	Lighting	5	120	1	41.67	6.0	6.0	5.0	5.0	
	Filter Gallery Exhaust Fans	0.33	120	2	2.75	0.8	0.4	0.7	0.3	04-EF-01, 04-EF-02
	Filter Gallery Lovers	0.13	120	2	1.04	0.3	0.2	0.3	0.1	04-LD-01, 04-LD-02
Administration Bldg SWBD-STBY	*Lighting*	4	480	1	6.01	6	6	5	5	See Admin Dwg E5.1
	Receptacles (@ 180VA each)	25.7	480	1	30.91	31	31	26	26	See Admin Dwg E5.1
	Other	20	480	1	24.06	24	24	20	20	See Admin Dwg E5.1
	HVAC	15.8	480	1	19.00	19	19	16	16	See Admin Dwg E5.1
	25% of Largest Motor	4	480	1	1.20	1	1	1	1	See Admin Dwg E5.1
	SWBD-					81	81	68	68	
STANDBY SYSTEM TOTAL						321	291	267	242	

3 (revision triangle)

The Seal appearing on this document was authorized by Robert E. Abordo, P.E. 84147, on Date Indicated.

STATE OF TEXAS ROBERT E. ABORDO 84147 REGISTERED PROFESSIONAL ENGINEER

REV	DATE	BY	DESCRIPTION
3	11-8-2005	DYN	RECORD DRAWING
2	2-13-2004	SMP	RECORD DRAWING
1	7-29-2002	GD	ISSUED FOR CONSTRUCTION
0	2-15-2002	GD	COH BUILDING PERMIT DEPARTMENT

SCALE: NONE

WARNING: 0 ½ 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED J. KOLKMAN
DRAWN L. PHELPS
CHECKED R. ABORDO

SUBMITTED BY
(RECOMMENDED) LICENSE NO. DATE
LICENSE NO. DATE

MWH MONTGOMERY WATSON HARZA
5100 Westheimer, Suite 580
Houston, TX 77056

Houston Area Water Corporation

LOAD SUMMARY SCHEDULE

SHEET GE-18