

FROM	UOM	ADMIN BUILDING	WORKSHOP	CLEANSING WW FROM OTHER AREAS & OVERFLOWS	LEACHATE PIT	ODOUR CONTROL	FIRST FLUSH WATER	VEHICLE WORKSHOP	TURBINE HALL	BERTH AREA	MECHANICAL TREATMENT	REFUSE CONTAINER WASHING	INLET SUMP PIT	FINE SCREEN COMMON CHAMBER	FINE SCREEN 1/2	FINE SCREEN OUTLET / DEGRITTER INLET COMMON CHAMBER	VORTEX GRIT SEPARATOR 1/2	GRIT CLASSIFIER 1/2	VORTEX GRIT SEPARATOR 1	DEGRITTER OUTLET / DAF INLET COMMON CHANNEL	DAF 1/2
TO		INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	INLET SUMP PIT	FINE SCREEN INLET COMMON CHAMBER	FINE SCREEN 1/2	FINE SCREEN OUTLET / DEGRITTER INLET COMMON CHAMBER	VORTEX GRIT SEPARATOR 1/2	GRIT CLASSIFIER 1/2	DEGRITTER OUTLET / DAF INLET COMMON CHANNEL	DEGRITTER OUTLET / DAF INLET COMMON CHANNEL	DAF 1/2	EQUALIZATION TANK
MEDIUM DESCRIPTION			SEWAGE	EMERGENCY OVERFLOWS	LEACHATE	ASH PIT LEACHATE	DRAINAGE	WASHWATER	WASHWATER	ASH CONTAINER WASHWATER	WASHWATER	REFUSE CONTAINER WASHWATER	RAW WASTEWATER	RAW WASTEWATER	SCREENED WASTEWATER	SCREENED WASTEWATER	AIRLIFT GRIT	WASH WATER DRAINAGE OF GRIT CLASSIFIER	DEGRITTED WASTEWATER	DEGRITTED WASTEWATER	DEGREASED WASTEWATER
FLOW ID		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
MAX FLOW (FTFT)	m ³ /h	0.63	0.16	1.63	25.00	3.66	1.25	0.16	0.31	0.16	0.63	9.38	37.38	37.38	37.38	37.38	1.12	1.12	37.38	37.38	37.37
AVERAGE FLOW	m ³ /d	10.00	2.50	10.00	360.00	47.15	0.00	1.00	5.00	2.50	10.00	150.00	598.15	598.15	598.15	598.13	17.94	17.94	598.12	598.12	597.91





FROM	UOM	EQUALIZATION TANK	EQUALIZATION TANK	EQUALIZATION TANK	pH NEUTRALIZATION TANK	SELF CLEANING FILTER	SELF CLEANING FILTER	INFLUENT RAS SPLITTER BOX	INFLUENT RAS SPLITTER BOX	BIOREACTOR SYSTEM A/B SPLITTER BOX	SYSTEM A/B TANK 1	SYSTEM A/B TANK 2	SYSTEM A/B TANK 3	SYSTEM A/B TANK 4	BIOREACTOR COMMON CHANNEL	MEMBRANE TANK 1 & 2	TREATED WATER TANK	TREATED WATER TANK	TREATED WATER TANK	RESUE WATER TANK	EMERGENCY OVERFLOW	OVERFLOW & DRAINAGE SUMP
TO		DAF TANK 1/2	EQUALIZATION TANK	pH NEUTRALIZATION TANK	SELF CLEANING FILTERS 1/2	INFLUENT RAS SPLITTER BOX	EQUALIZATION TANK	BIOREACTOR SYSTEM A SPLITTER BOX	BIOREACTOR SYSTEM B SPLITTER BOX	SYSTEM A/B TANK 1	SYSTEM A/B TANK 2	SYSTEM A/B TANK 3	SYSTEM A/B TANK 4	BIOREACTOR COMMON CHANNEL	MEMBRANE TANK 1/2	TREATED WATER TANK	MEMBRANE TANK 1/2	RESUE WATER TANK 1/2	EQUALIZATION TANK	TO POINT OF RESUE	OVERFLOW & DRAINAGE SUMP	EMERGENCY OVERFLOW TANK
MEDIUM DESCRIPTION		DAF RECYCLE	MIXING FLOW	PRE-TREATED WASTEWATER	NEUTRALIZED WASTEWATER	SCREENED WASTEWATER	WASHWATER	MIXED LIQUOR	MIXED LIQUOR	MIXED LIQUOR	MIXED LIQUOR	MIXED LIQUOR	MIXED LIQUOR	MIXED LIQUOR	MIXED LIQUOR	PERMEATE	MEMBRANE BACKWASH WATER	DISINFECTED EFFLUENT	OFF-SPEC TREATED EFFLUENT	TREATED EFFLUENT	OFF-SPEC TREATED EFFLUENT	TREATED EFFLUENT
FLOW ID		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
MAX FLOW (FTFT)	m ³ /h	11.21	56.05	26.22	26.23	24.92	1.31	136.49	136.49	136.49	136.49	136.49	136.49	136.49	136.49	25.60	25.60	24.32	24.32	24.32	2.50	2.50
AVERAGE FLOW	m ³ /d	298.95	896.86	629.38	629.62	598.15	31.47	3275.80	3275.80	3275.80	3275.80	3275.80	3275.80	3275.80	3275.80	614.31	30.72	583.60	0.00	583.60	0.00	0.00

FROM	UOM	FINE SCREEN 1/2	GRIT CLASSIFIER 1/2	DAF SCUM TROUGH	MEMBRANE TANK 1 & 2	MEMBRANE TANK 1 & 2	SLUDGE STORAGE TANK	DEWATERING CENTRIFUGE 1	CENTRIFUGE 1/2	CENTRATE SUMP	SLUDGE TANK
TO		FINE SCREEN SKIP 1/2	GRIT SKIP 1/2	SLUDGE TANK	INFLUENT & RAS SPLITTER BOX	SLUDGE STORAGE TANK	DEWATERING CENTRIFUGE 1/2	SLUDGE SKIP 1	CENTRATE SUMP	INFLUENT RAS SPLITTER BOX	CENTRATE SUMP
MEDIUM DESCRIPTION		SCREENING S	GRIT	SCUM	RAS	WAS	SLUDGE	SLUDGE CAKE	CENTRATE SUMP	CENTRATE	EMERGENCY OVERFLOW
FLOW ID		41	42	43	44	45	46	47	48	49	50
MAX FLOW (FTFT)	m ³ /h	0.0007	0.0002	0.0116	231.25	17.42	17.43	0.63	16.81	16.81	8.40
AVERAGE FLOW	m ³ /d	0.018	0.004	0.2795	5550.00	418.00	418.40	15.00	403.40	403.40	0.00

FROM	UOM	INLET PUMP SUMP	FINE SCREEN	GRIT SEPARATOR	PRE-TREATMENT WORKS COLLECTION HEADER	DAF TANK 1 & 2	EQUALIZATION TANK	pH NEUTRALIZATION TANK	INFLUENT & RAS SPLITTER BOX	BIOREACTOR SYSTEM A/B TANK 1	BIOREACTOR SYSTEM A/B TANK 2	BIOREACTOR SYSTEM A/B TANK 3	BIOREACTOR SYSTEM A/B TANK 4	BIOREACTOR SYSTEM A/B MAIN HEADER	MEMBRANE TANK AREA 1 & 2	TREATED WATER TANK	SLUDGE STORAGE TANK	SUPERNATANT & CENTRATE SUMP	OVERFLOW & DRAINAGE SUMP	EMERGENCY OVERFLOW TANK	ODOUR EXTRACTION SYSTEM MAIN HEADER
TO		PRE-TREATMENT WORKS COLLECTION HEADER	PRE-TREATMENT WORKS COLLECTION HEADER	PRE-TREATMENT WORKS COLLECTION HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	BIOREACTOR SYSTEM A/B MAIN HEADER	BIOREACTOR SYSTEM A/B MAIN HEADER	BIOREACTOR SYSTEM A/B MAIN HEADER	BIOREACTOR SYSTEM A/B MAIN HEADER	BIOREACTOR SYSTEM A/B MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER	ODOUR EXTRACTION SYSTEM MAIN HEADER
MEDIUM DESCRIPTION		ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR	ODOUROUS AIR
FLOW ID		51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	67
MAX FLOW (FTFT)	Sm ³ /h	136.55	109.25	113.6	359.4	114	576.5	101	10	1210	6961.6	10442.4	3480.8	22094.8	9180	0	185	80	70	70	32840.7
AVERAGE FLOW	Sm ³ /h	136.55	109.25	113.6	359.4	114	576.5	101	10	1210	1210	10442.4	3480.8	16343.2	9180	0	185	80	70	70	27089.1

FROM	UOM	AERATION BLOWERS 1, 2 & 3 COMMON HEADER	AERATION BLOWERS 1, 2 & 3 COMMON HEADER	AERATION BLOWERS 1, 2 & 3 COMMON HEADER	AERATION BLOWERS 1, 2 & 3 COMMON HEADER	MEMBRANE BLOWERS 1 & 2	SLUDGE TANK BLOWERS
TO		SYSTEM A/B TANK 2	SYSTEM A/B TANK 3	SYSTEM A/B TANK 4	AERATION BLOWERS 1, 2 & 3 COMMON HEADER	MEMBRANE TANK 1/2	SLUDGE TANK
MEDIUM DESCRIPTION		AIR	AIR	AIR	AIR	AIR	AIR
FLOW ID		71	72	73	74	75	76
MAX FLOW (FTFT)	Sm ³ /h	7800	11400	3800	22800	260	185
AVERAGE FLOW	Sm ³ /h	0	11400	3800	15200	185	185

FROM	UOM	FeCl3 STORAGE TANK	NaOH STORAGE TANK	50% H2SO4 SOLUTION	NaOH STORAGE TANK	50% H2SO4 SOLUTION	NaOH STORAGE TANK	50% H2SO4 SOLUTION	100% UREA	100% KPO4	100% UREA	100% KPO4	NaOCl STORAGE TANK	50% CITRIC ACID SOLUTION	NaOCl STORAGE TANK	POLYMER SOLUTION
TO		DAF TANK 1/2	pH NEUTRALIZATION TANK 1	pH NEUTRALIZATION TANK 1	pH NEUTRALIZATION TANK 2	pH NEUTRALIZATION TANK 2	INFLUENT RAS SPLITTER BOX	INFLUENT RAS SPLITTER BOX	BIOREACTOR SYSTEM A SPLITTER BOX	BIOREACTOR SYSTEM A SPLITTER BOX	BIOREACTOR SYSTEM B SPLITTER BOX	BIOREACTOR SYSTEM B SPLITTER BOX	BACKWASH WASH STREAM	BACKWASH WASH STREAM	TREATED WATER TANK	DEWATERING CENTRIFUGE 1/2
MEDIUM DESCRIPTION		40% FeCl3 SOLUTION	50% NaOH SOLUTION	50% H2SO4 SOLUTION	50% NaOH SOLUTION	50% H2SO4 SOLUTION	50% NaOH SOLUTION	50% H2SO4 SOLUTION	100% UREA	100% KPO4	100% UREA	100% KPO4	12% NaOCl SOLUTION	50% CITRIC ACID SOLUTION	12% NaOCl SOLUTION	POLYMER SOLUTION
FLOW ID		81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
MAX FLOW (FTFT)	L/h	3.96	6.62	1.06	6.62	1.06	4.41	0.71					0.40	0.14	0.45	7.51
AVERAGE FLOW	L/d	63.38	105.88	16.95	105.88	16.95	70.59	11.30					6.45	2.18	7.21	120.09
MAX FLOW (FTFT)	kg/h								10.94	9.13	10.94	9.13				
AVERAGE FLOW	kg/d								175.0	146.0	175.0	146.0				

No.	Date	Drawn by	Checked by	Approved by
REV1	13AUG18	RKS	TYH	GCA
Remarks				
Employer				
 環境保護署 Environmental Protection Department				
Supervising Officer				
 Main Contractor				
 吉寶西格斯 - 振華聯營公司 KEPPEL SEGHERS - ZHEN HUA JOINT VENTURE				
Designers				
				
Certification				
Project Name				
Contract No. EP/SP/66/12				
Integrated Waste Management				
Facilities Phase 1				
Design Package				
Drawing Title				
PROCESS FLOW DIAGRAM - TABLE				
WASTEWATER TREATMENT PLANT				
OVERALL				
Drawing Number				Revision
IWMF1_02-531_231_000004				1
Date	20APR2018	Scale (at A2)	Format	
Drawn by	RKS	NTS	A2	
Checked by	TYH			Status
Approved by	GOH CHIN AIK			PRE