

LIST I - "DESIGN AND BUILD" SETTING UP OF A NEW UV-OZONE SYSTEM AND MODIFICATION OF THE PIPE ARRANGEMENT FOR SWIMMING POOL AT UNIVERSITY

FINAL RESULT: WATER TREATMENT SHOULD COMPLY WITH RELATED HK SAR ORDINANCE/REGULATION FOR SWIMMING POOL. RESULT SHOULD BE ABOVE THE ORIGINAL WATER QUALITY STANDARD. NO ENVIRONMENTAL OPERATION NUISANCE SHOULD BE INCURRED BY OPERATION OF THIS SYSTEM. DETAIL INFORMATION AS BELOW:

WATER QUALITY PARAMETERS	PARAMETER VALUES	
	EXISTING SWIMMING POOL	HONG KONG WSD GUIDELINE
pH	7.23	7.23-8.8
APPEARANCE COLOUR (HAZID)	<5	<5
TURBIDITY (NTU)	0.01	≤3.0
FREE CHLORINE (ppm)	1.2	0.5-1.5
TOTAL CHLORINE (ppm)	1.57	NL
AMMONIA (ppm)	0.013	NL
E COLI (CFU/100ml)	0	0
TOTAL COLIFORM (CFU/100ml)	0	0

NOTE THAT:
WATER SAMPLING SHOULD BE TAKEN ONCE THE CONTRACT IS AWARDED AND BEFORE DETAILED DESIGN OF THE SYSTEM.

FINAL RESULT OF THE WATER QUALITY ANALYSIS REPORT AND SAMPLE FOR SWIMMING POOL PROVIDED BY CONTRACTOR SHOULD BE CONFIRMED BY NOTARY PUBLIC AND SUBMIT TO EMO

DESIGN FOCUS:
SET UP OF THE NEW SYSTEM IS ACCORDING TO THE EXISTING VOLUME OF THE SWIMMING POOL AND HK SAR REGULATION. ALL FACILITIES SHOULD BE UPGRADED FOR THE NEW SYSTEM, EXCEPT THE TWO EXISTING CIRCULATING DELIVERY PUMPS.

THE FACILITY/EQUIPMENT OF THE WHOLE SYSTEM IS LISTED AS BELOW:

- 1). SAND TANKS FOR RECYCLING-FILTERING OF THE WATER.
- 2). OZONE UNIT INCLUDES SATURATION ALARM.
- 3). CHEMICAL PUMPS FOR OZONE OPERATION.
- 4). CHEMICAL TANKS FOR HYDROCHLORIC AND SODIUM HYPOCHLORITE CONTAINER.
- 5). WATER TREATMENT UNIT FOR CHLORINE SYSTEM, INCLUDE STORAGE TANKS (HYDROCHLORIC ACID & SODIUM HYPOCHLORITE).
- 6). POWER SUPPLY UNIT FOR WHOLE SYSTEM INCLUDE LOW VOLTAGE SUPPLY FOR OZONE SYSTEM AND CHEMICAL UNIT OPERATION.
- 7). DRAINAGE SYSTEM C/W MAINFRAME CHANNEL AND ALL DISTRIBUTION PIPES.
- 8). VENTILATION SYSTEM C/W FAN SYSTEM AND WINDOW INSTALLATION FOR AIR RECHARGE.

SOUTH ELEVATION SECTION 'A-A' SHOWS THE FEATURE AT THE SWIMMING POOL

LAYOUT SHOWS A PLAN OF THE SWIMMING POOL

Sheet No.	
Part No.	
Title	NEL
Remarks	
Revision	
No.	Description
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Note:
Do not work without the approval of the Engineer and after that only the quantity of existing work to be detailed on site.

Drawing Title:
LAYOUT OF SWIMMING POOL AT BENJAMIN FRANKLIN CENTRE

Drawn by: MRC, K.L. JIU
Date: MARCH, 05

Checked by: MRC, K.L. POHNEY
Date: MARCH, 05

Scale: 1/4" = 1'-0"

Legend:

- EXISTING PIPE
- NEW PIPE
- EXISTING ELECTRICAL
- NEW ELECTRICAL
- EXISTING MECHANICAL
- NEW MECHANICAL

Legend:

- CHLORINE FILTER (DRINKING WATER POINT)
- CHLORINE FILTER (SWIMMING POOL)
- POOL PUMP
- LOWEST WATER LEVEL ABSORPTION INLET POINT
- JET WATER INLET POINT
- POOL LAMP
- CHAM

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NOTE:
ABSORPTION SYSTEM FOR THE LOWEST WATER LEVEL:
TO REBUILD A NEW SYSTEM FROM THE PUMP ROOM AT LOCATION A (DEFINED PLACE), PASSING THE THREE INTERNAL POINTS TO LOCATION B (EXISTING END POINT).

JET WATER PIPE SYSTEM:
TO REBUILD A NEW SYSTEM FROM THE PUMP ROOM AT LOCATION A (DEFINED PLACE), CONNECTING EXISTING FILTERS TO LOCATION C (EXISTING END POINTS). IN BETWEEN LOCATION A AND C, DISTRIBUTION PIPES TO BUILT INTO THE SWIMMING POOL AS JET OUTLETS WHICH HAVE TO BE SEALED WITH SHORTS COVERS.

ABSORPTION SYSTEM FOR HIGHEST WATER LEVEL:
TO REBUILD A NEW SYSTEM FROM THE PUMP ROOM AT LOCATION A (DEFINED PLACE), PASSING THE THREE STRAINERS/FILTERS/SKIMMER (EXISTING INTERNALS) TO LOCATION D (EXISTING END POINTS).

DRAINAGE PIPE ABSORPTION SYSTEM:
TO SUPPLY AND INSTALL A NEW 150mm PIPE OF DIAMETER 150mm FOR DRAINAGE FUNCTION. MAIN FRAME UNDER THE LOWEST POSITION FROM THE JOINT CONNECTIONS OF THE TWO POINTS:
1). LOCATION A=SWIMMING POOL TANK AND
2). INNER AREA OF THE TUNNEL, EXTENDED TO THE SEWER WELL (DEFINED PLACES) OUTSIDE THE SWIMMING POOL.

SOUTH ELEVATION SECTION 'A-A' SHOWS THE FEATURES AT THE SWIMMING POOL

LAYOUT SHOWS A SECTION OF THE WORKS OF THE PIPELINE FOR THE SWIMMING POOL

Sheet No.	
Part No.	
Title	
Remarks	
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Drawing Title:
PIPEWORK LAYOUT PLAN AT BENJAMIN FRANKLIN CENTRE

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Date: MARCH, 05

Checked by: MRC, K.L. POHNEY
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Scale: 1/4" = 1'-0"

Legend:

- EXISTING PIPE
- NEW PIPE
- EXISTING ELECTRICAL
- NEW ELECTRICAL
- EXISTING MECHANICAL
- NEW MECHANICAL

Legend:

- CHLORINE FILTER (DRINKING WATER POINT)
- CHLORINE FILTER (SWIMMING POOL)
- POOL PUMP
- LOWEST WATER LEVEL ABSORPTION INLET POINT
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