PLUMBING & SANITARY INSTALLATION

SCHEDULE 4 - SCHEDULE OF RATES

Prior approval must be obtained from the Head of Project Group before any alterations are made to this preamble. This preamble is common for all the M & E services and any alterations to this preamble for one service shall also be applicable to all the other M&E services.
30/11/95

Preamble

The prices (in S$) as entered in the Schedule of Rates for the various works as detailed hereinafter will be used for any variation which may constitute adjustment (addition or subtraction) to the Sub-Contract Sum.

The rates quoted shall be for the 'Supply and Fixing' and shall cover all works to comply fully with the Sub-Contract (i.e. specifications, drawings, Conditions of Sub-Contract, etc.) and shall include all costs for incidental work, e.g. administration, project supervision, design, etc. and profits. The rates quoted shall deem to cover all associated items necessary for the completeness of the works inclusive of any wastages, etc.

(a) Prices for pipework shall include hangers, supports, union flanges, reducers, guides, anchors, elbows, tees, sleeves, etc.

(b) Prices for valves, strainers, couplings shall include matching flanges and all accessories.

(c) Prices for cables shall include also conduit, trunking or tray, where appropriate, cable boxes, glands, lugs, earth wire, jointings and connections, etc.

(d) Prices for ductwork shall include hangers, supports, bracing, flanges, bends, offsets, turning vanes, splitter dampers for branch take-off, transformation, flexible connections, sleeves, etc.

S4.1 Pipework: supplied and installed price ($) per metre run measured as total linear length inclusive of elbows, tees, painting, etc.

Type of Pipe	Pipe Diameter (mm)											
	15	20	25	32	40	50	65	80	100	150	200	255
Sanitary Pipe												
Hubless Cast IronPipe to CISPI : 301, CISPI : 310												
Ductile Iron Pipe to BS EN 598 (Tyton Joint)												
Ductile Iron Pipe to BS EN 598 (Flanged Joint)												
UPVC Pipe to SS 213												
Vitrified Clay Pipe to BS 65 and BS 540												
Domestic Water Pipe												
Ductile Iron Pipe (cement-lined) to BS EN 545 (Flanged Joint)												
Copper Pipe to BS EN 1057												
Polyethylene (PE or PG-X) Pipe to BS 7291												
Polybutylene (PB) Pipe to BS 7291												
Polypropylene (PP) Pipe to DIN 8077, DIN 8088 and DIN 16962 Part 1 to 13												
Stainless Steel Grade 304 Pipe to BS 3605 Part 1 and Part 2												
UPVC Pipe to SS 141												

……..
Official Stamp & Authorised Signature of Tenderer

S4.1 Pipework: supplied and installed price ($) per metre run measured as total linear length inclusive of elbows, tees, painting, etc. (cont'd)

Type of Pipe	Pipe Diameter (mm)											
	15	20	25	32	40	50	65	80	100	150	200	255
Gas Pipe												
Ductile Iron Pipe to BS EN 969												
Galvanised Iron Pipe to BS 1387 Class 'C'												
Galvanised Iron Pipe to BS 1387 Class 'C' wrapped with petroleum tape at 50% overlap												
Steel Pipe to API 5L Grade B												
Polyethylene Pipe to BS EN 12007-2												

……..
Official Stamp & Authorised Signature of Tenderer

S4.2 Valves, Strainers, Anti-Vibration Coupling, etc.: supplied and installed price (S$) per piece inclusive of painting, etc.

Type of Valve	Pipe Diameter (mm)											
	15	20	25	32	40	50	65	80	100	150	200	255
Gate Valve												
Globe Valve												
Butterfly Valve												
Strainer												
Anti Vibration Couplings												
Ball Valve												
Check Valve												
Air Relief Valve												
Pressure Reducing Valve												
Vertical Float Operated Valve												
Ball Type Float Operated Valve												
Gas Solenoid Valve												
Motorised Actuator for Valves												

……..
Official Stamp & Authorised Signature of Tenderer

S4.3 **Water Storage Tank**: supplied and installed price (S$) per panel inclusive of painting, bolts and nuts, sealant, stay etc.

(a) FRP type $ ……

(b) Stainless Steel 304 type $ ……

(c) Mild Steel type $ ……

S4.4 **Control Panels**: supplied and installed price (S$) inclusive of all items as specified.

Designation of Control Panel	Description	Unit Rate

S4.5 **Level Controller**: supplied and installed price (S$) per unit inclusive of all items as specified

$ ……

S4.6 **Constant Flow Regulator**: supplied and installed price (S$) per unit inclusive of painting, etc.

Capacity (Litres/min)	Unit Rate
2.0	
4.0	
6.0	
8.0	
12.0	

S4.7 **Double Pole Fire Hydrant**: supplied and installed price (S$) per unit inclusive of valves, D/Foot Bend, painting, etc.

$ ……

S4.8 **Trenching**: supplied and installed per metre length of pipe inclusive of concrete bedding and 150mm all round pipe, back-filling and ramp.

(a) 1 metre deep $ ……

(b) 1.5 metre deep $ ……

(c) 2.0 metre deep $ ……

(d) 2.5 metre deep $ ……

(e) 3.0 metre deep $ ……

……..
Official Stamp & Authorised Signature of Tenderer

S4.9 Fixing of Sanitary Wares, Fittings and Accessories

Price for fixing shall include taking delivery from the Main Contractor's site store, protection, breakage, temporary storage, labour, tools and materials necessary for fixing the sanitary wares, fittings and accessories in the final location.

Item	Price for fixing per piece (S$)
Bath Tub c/w Mixer, Faucet & Shower Head	
Shower Head c/w Mixer	
Wash Basin c/w Mixer & Faucet	
Wash Basin c/w Manual/Time-Delayed Faucet	
Wash Basin c/w Sensor Tap	
Bidet c/w Mixer & Faucet	
Urinal c/w Flush Valve & Sensor	
Urinal c/w Manual Flush Valve	
Pedestal Water Closet c/w Cistern	
Pedestal Water Closet c/w Flush Valve & Sensor	
Pedestal Water Closet c/w Manual Flush Valve	
Squatting Water Closet c/w Cistern	
Squatting Water Closet c/w Flush Valve & Sensor	
Squatting Water Closet c/w Manual Flush Valve	
Kitchen Sink c/w Mixer & Faucet	
Kitchen Sink c/w Manual Faucet	

Item	Price for supply & fixing per piece (S$)
Bib Tap/Hose Union Tap	
2-way Tap c/w Flexible Connector & Shower Head/Spring Loaded Nozzle	

……..
Official Stamp & Authorised Signature of Tenderer

S4.10 Hot Water Storage Heater (Fixing, Installation & Connection Only)

Storage Capacity	Heating Element	
	1.5kW	3 kW
22 litre		
38 litre		
56 litre		
90 litre		

S4.11 **Miscellaneous**: supplied and installed price ($) per piece

(a) Floor Trap – Cast Iron Type $ .....

Floor Trap – UPVC Type $ .....

(b) Gully Trap – Cast Iron Type $ .....

Gully Trap – Cast Iron Type c/w Strainer $ .....

Gully Trap – Cast Iron Garage Type c/w Strainer $ .....

(c) Floor Waste – Cast Iron Type $ .....

Floor Waste – UPVC Type $ .....

(d) Floor Grating – Stainless Steel Type $ .....

Floor Grating – UPVC Type $ .....

(e) Petrol & Oil Interceptor for Car Park $ .....

(f) Circular Grease Trap for Restaurants – 1.2m Dia. Type $ .....

Circular Grease Trap for Restaurants – 1.8m Dia. Type $ .....

(g) Inspection Chamber:

(i) 1.0 metre deep $ .....

(ii) 1.5 metres deep $ .....

(iii) 2.0 metres deep $ .....

(iv) 2.5 metres deep $ .....

(v) 3.0 metre deep $ .....

(vi) 3.5 metres deep $ .....

.....

Official Stamp & Authorised Signature of Tenderer

(vii) 4.0 metres deep $ ……

(viii) 4.5 metres deep $ ……

(ix) 5.0 metre deep $ ……

(x) 5.5 metres deep $ ……

(xi) 6.0 metres deep $ ……

(h) Bakau Piles:

(i) 2.0 metres length $ ……

(ii) 3.0 metres length $ ……

(iii) 4.0 metres length $ ……

(iv) 5.0 metres length $ ……

(v) 6.0 metres length $ ……

S4.12 Electric Motors & Starters: supplied and installed price ($) per piece as per Specification.

Rating		Electric	Type of Starter				
kW	Hp	TEFC Motor	D.O.L.	Star/Delta	Auto Transformer	Soft Starter	Frequency Converter
0.75	1						
1.1	1.5						
1.5	2						
2.2	3						
4	5						
5.5	7.5						
7.5	10						
11	15						
15	20						
18.5	25						
22	30						
30	40						
37	50						
45	60						
55	75						

……..
Official Stamp & Authorised Signature of Tenderer

S4.13 Electrical Wiring - supplied and installed price (S$) per metre run.

(a) 450/750 volt grade PVC cables in GI conduit/trunking run on surface or concealed inclusive of conduit/trunking accessories, earth wire, terminations, etc.

2 x 1.5mm^2/1C	$ ……
2 x 2.5mm^2/1C	$ ……
3 x 2.5mm^2/1C	$ ……
2 x 4.0mm^2/1C	$ ……
3 x 4.0mm^2/1C	$ ……
2 x 6.0mm^2/1C	$ ……
3 x 6.0mm^2/1C	$ ……
2 x 10mm^2/1C	$ ……
3 x 10mm^2/1C	$ ……
3 x 16mm^2/1C	$ ……
3 x 25mm^2/1C	$ ……
3 x 50mm^2/1C	$ ……

(b) 600/1000 volt grade FR cables on vertical/horizontal cable tray or in GI conduit/trunking run on surface or concealed inclusive of supporting brackets, tray, fixing cleats, cable lugs, terminations, jointing and accessories, earth wire etc.

3 x 25mm^2/1C	$ ……
3 x 35mm^2/1C	$ ……
3 x 50mm$_2$/1C	$ ……
3 x 70mm^2/1C	$ ……

……..
Official Stamp & Authorised Signature of Tenderer