Alpha
Consulting Engineers Pte Ltd

2 ALEXANDRA ROAD, #03-03 DELTA HOUSE, SINGAPORE 159919
TEL: (65)6276 2228 FAX: (65)6276 9929 E-MAIL: ace@alpha.com.sg
WEBSITE: www.alpha.com.sg COMPANY REGN NO. 199407965N

Our Ref: OM-DO/008

8 March 2010

MEMORANDUM

To : Mechanical Engineers & Mechanical CAD

From : Andrew Loh

AMENDMENTS TO NOTES #7 OF THE PLUMBING INSTALLATION STANDARD NOTES

Please be informed that the above has been amended. For details, please refer to the scanned feedback form in **\Library\Feedback\Forms\131-080310(S)**.

ANDREW LOH

cc LFY/TLS/CCG/GSH

enc

GWL/hi

BCA ISO 14000 CERT NO.:2008/134 SS ISO 14001 : 2004
BCA ISO 9000 CERT NO.: 324 SS ISO 9001 : 2000
SAC ACCREDITED CERTIFICATION BODY Cert. No. QS-1997-07 Member of the IAF MLA for QMS

Alpha
Consulting Engineers Pte Ltd

FEEDBACK REPORT FORM

Ref No: 131-080310(S)

To: LCT From: GWL

Job No./Project: 6094 *(where applicable)*

Source of feedback: PUB

Scope of Feedback: * ☐ Quality ☐ Environmental ☐ Administrative ☐ Contractual ☐ Technical ☒ Specification ☐ Others

Section A : Problem & Cause

Constant flow regulators for use as water saving devices are no longer approved by PUB because users are able to tamper with these devices to increase the water flowrate.

Section B : Mitigating Action Taken, if any

Water products rated with as least 1 tick under PUB's mandatory water efficiency labeling scheme shall only be used.

Section C : Suggested Corrective Action

To delete the standard notes in the water services drawing: "Water saving ..... with constant flow regulators." and replace it with "Water products rated at least 1 tick under the PUB's mandatory water efficiency labeling scheme shall only be used."

Section D : Approved Corrective Action

Document Affected * : ☒ Yes ☐ No Affected Document : Standard notes on Plumbing drawings.

Approved By : Andrew Lee Date : 4/3/10

Section E : Action

Action By : RA

Targeted Completion : 10 MARCH 2010

Actual Completion : 10 MARCH 2010 Verified By : GWL

** Mark [X] where appropriate*

Distribution:

→ Circulated via memo (ref: OM-DO/008 dd. 8/3/10)

b. COLD/HOT WATER PIPE – 75mm DIAMETER AND ABOVE :
DUCTILE IRON PIPE AND FITTINGS TO BS EN 545
C/W CEMENT MORTAR LINING.

c. FOR WATER TANK DRAIN PIPES AND OVERFLOW PIPES :
UPVC PIPES IN ACCORDANCE WITH SS 141.

5. ALL COPPER ALLOY WATER FITTINGS, EXCEPT FOR EXPOSED TERMINAL FITTINGS, SHALL BE OF GUNMETAL, BRONZE OR DEZINCIFICATION RESISTANT (DZR) BRASS MATERIALS ONLY. FOR GUNMETAL OR BRONZE FITTINGS, THEY SHALL COMPLY WITH BS EN 1982 OR ANY OTHER STANDARDS AND REQUIREMENTS WHICH THE AUTHORITY MAY STIPULATE. DZR BRASS FITTINGS SHALL COMPLY WITH THE TESTS ON 'COMPOSITION' AND 'RESISTANCE TO DEZINCIFICATION' OF BS EN 1982 OR BS EN 12163 OR BS EN 12165 OR BS EN 12420 OR ANY OTHER STANDARDS AND REQUIREMENTS WHICH THE AUTHORITY MAY STIPULATE. SUCH DZR BRASS FITTINGS SHALL HAVE A MARKING OF 'DZR' OR 'CR' ON THEM.

6. ALL COLD/HOT WATER PIPEWORK SHALL BE CONCEALED IN WALLS/PARTITION OR RUN WITHIN FALSE CEILING SPACE UNLESS OTHERWISE STATED.

7. ~~WATER SAVING DEVICES STIPULATED IN SS CP48 SHALL BE PROVIDED. ALL PLUMBING FITTINGS (eg. TAPS, SHOWERS, SINKS, etc.) OTHER THAN SELF-CLOSING DELAY ACTION TAPS SHALL BE PROVIDED WITH CONSTANT FLOW REGULATORS.~~ WATER PRODUCT RATED WITH AT LEAST 1 TICK UNDER PUB's MANDATORY WATER EFFICIENCY LABELING SCHEME SHALL ONLY BE USED.

8. HOSE UNION TAPS AT PLANTING AREAS SHALL BE LOCATED AT A DISTANCE OF NOT LESS THAN 600mm ABOVE GROUND LEVEL AND COMPLETE WITH CAPS & LOCKS.

9. ALL FLUSH VALVES SHALL BE COMPLETE WITH VACUUM BREAKERS THAT COMPLY WITH THE AMERICAN SOCIETY OF SANITARY ENGINEERING STANDARD NO. 1001 AND STOP VALVE TO SS75:1978.

10. THE RUBBER DIAPHRAGMS OF THE PNEUMATIC TANKS SHALL COMPLY WITH SS 375.

11. ALL VALVES ARE TO BE LOCATED SUCH THAT IT CAN BE READILY ACCESSED BY THE MAINTENANCE PERSONNEL.

12. ALL PIPES PASSING THROUGH RETAINING WALLS OR WATERTIGHT STRUCTURES SHALL BE MADE WATER-TIGHT WITH PUDDLE FLANGE AT THE POINT OF PENETRATION THROUGH STRUCTURES.

13. THE ESTIMATED DAILY WATER CONSUMPTION IS _____ cu.m

14. ALL DRAW-OFFS FROM WATER STORAGE TANK (applicable for gravity feed only.) SHALL BE PROVIDED WITH VERTICAL VENT PIPES OF 50mm DIA. (MINIMUM) TO BE TERMINATED AT TANK HEIGHT.

PART PRINT OF STD NOTES FOR BIDDED

✳ 4. TYPE OF PIPE:-

a. COLD/HOT WATER PIPE - 66.7mm DIAMETER AND BELOW :
i) UNDERGROUND - COPPER PIPES TO BS EN 1057 - HEAVY DUTY
ii) ABOVE GROUND - COPPER PIPES TO BS EN 1057 - LIGHT DUTY
iii) COPPER CAPILLARY FITTINGS TO BS EN 1254 PART 1 & PART 2.

b. COLD/HOT WATER PIPE - 75mm DIAMETER AND ABOVE :
DUCTILE IRON PIPE AND FITTINGS TO BS EN 545
C/W CEMENT MORTAR LINING.

c. FOR WATER TANK DRAIN PIPES AND OVERFLOW PIPES :
UPVC PIPES IN ACCORDANCE WITH SS 141.

5. ALL COPPER ALLOY WATER FITTINGS, EXCEPT FOR EXPOSED TERMINAL FITTINGS, SHALL BE OF GUNMETAL, BRONZE OR DEZINCIFICATION RESISTANT (DZR) BRASS MATERIALS ONLY. FOR GUNMETAL OR BRONZE FITTINGS, THEY SHALL COMPLY WITH BS EN 1982 OR ANY OTHER STANDARDS AND REQUIREMENTS WHICH THE AUTHORITY MAY STIPULATE. DZR BRASS FITTINGS SHALL COMPLY WITH THE TESTS ON 'COMPOSITION' AND 'RESISTANCE TO DEZINCIFICATION' OF BS EN 1982 OR BS EN 12163 OR BS EN 12165 OR BS EN 12420 OR ANY OTHER STANDARDS AND REQUIREMENTS WHICH THE AUTHORITY MAY STIPULATE. SUCH DZR BRASS FITTINGS SHALL HAVE A MARKING OF 'DZR' OR 'CR' ON THEM. ✳

6. ALL COLD/HOT WATER PIPEWORK SHALL BE CONCEALED IN WALLS/PARTITION OR RUN WITHIN FALSE CEILING SPACE UNLESS OTHERWISE STATED. ✳

7. WATER PRODUCTS RATED WITH AT LEAST 1 TICK UNDER PUB'S MANDATORY WATER EFFICIENCY LABELING SCHEME SHALL ONLY BE USED.

8. HOSE UNION TAPS AT PLANTING AREAS SHALL BE LOCATED AT A DISTANCE OF NOT LESS THAN 600mm ABOVE GROUND LEVEL AND COMPLETE WITH CAPS & LOCKS.

9. ALL FLUSH VALVES SHALL BE COMPLETE WITH VACUUM BREAKERS THAT COMPLY WITH THE AMERICAN SOCIETY OF SANITARY ENGINEERING STANDARD NO. 1001 AND STOP VALVE TO SS75:1978.

10. THE RUBBER DIAPHRAGMS OF THE PNEUMATIC TANKS SHALL COMPLY WITH SS 375.

11. ALL VALVES ARE TO BE LOCATED SUCH THAT IT CAN BE READILY ACCESSED BY THE MAINTENANCE PERSONNEL.

12. ALL PIPES PASSING THROUGH RETAINING WALLS OR WATERTIGHT STRUCTURES SHALL BE MADE WATER-TIGHT WITH PUDDLE FLANGE AT THE POINT OF PENETRATION THROUGH STRUCTURES.

13. THE ESTIMATED DAILY WATER CONSUMPTION IS _____ cu.m

14. ALL DRAW-OFFS FROM WATER STORAGE TANK (applicable for gravity feed only.) SHALL BE PROVIDED WITH VERTICAL VENT PIPES OF 50mm DIA. (MINIMUM) TO BE TERMINATED AT TANK HEIGHT.