



AWCS – Recommendations & Additional Information

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1. Introduction

This document has been developed outside our scope to assist Sunshine Coast Council in their future work of the project when tendering. The document is intended to work as a recommendation document.

2. General

2.1. Quality of Materials and Workmanship

Materials used in the Works and standards of workmanship shall:

- a) Be in conformity with the provisions of the SOW
- b) All materials shall be new
- c) Be, where applicable, in accordance with the latest relevant Australian Standard
- d) Comply with the requirements of relevant regulations and controlling authorities i.e. QBCC

2.2. Performance Guarantee

Equipment and components shall be come with a minimum 12-month warranty from date of installation.

3. Building Work

3.1. Quality Assurance

The Waste Chute Contractor (WCC) and the Builder shall carry out Quality Assurance reviews throughout the project inclusive of the shop drawing, fabrication, installation and commissioning phases of the project.

3.2. Work to be completed by Subcontractors

Electrical Subcontractor

Power supply for:

- Exhaust fans at the top of each waste chute
- Control boxes for chute door interlocks
- Provision of wiring for electronic signal and interface from the Envac system to each waste chute control box to enable lock out of chute doors when the discharge valve is opened
- Provision of wiring for electronic signal and interface from the Envac system to each exhaust fan at the top of each chute to enable shut down of the exhaust fans when the discharge valve is opened. The discharge valve opening signal is used to deactivate the fans.

Mechanical Subcontractor

- General waste room ventilation and air conditioning
- Waste chute room exhaust

Fire Services Subcontractor

Connection of water supply to fire sprinklers.

Acoustic

Acoustic treatment to the waste chute is to conform with the Acoustic Specification provided by the project Acoustic Consultant.

3.3. Installation

Erection

The WCC shall assemble the chutes in place, align and anchor as required. The chute shall be mechanically anchored and isolated at each floor level using a 3mm galvanised steel mounting plate and NRD isolation mounts. A slip joint shall be incorporated between floor levels to enable vertical expansion and contraction of the chute and minor variations in the heights of finished floor levels. Chute intake door frames shall be set square and flush with the finished wall face after the walls are constructed.

The process below outlines necessary steps and material required to assemble the parts together:

1. Affix Embelton NRD isolation mounts to floor mount using bolts
2. Apply adhesive to base of each Embelton NRD isolation mount
3. Apply 10mm bead of adhesive to top of floor mount
4. Remove penetration cover and ensure area is free of dust and debris around floor penetration
5. Place floor mount over floor penetration
6. Apply 10mm bread of adhesive to the top flange of the slip chute and drop the slip chute through the floor mount
7. Fit the throat to the slip chute top flange. Ensure throat chute is set square to surrounding walls, and level.
8. Install ten screws at consistent spacings through the bottom flange of the throat chute, through the slip chute flange and into the floor mount
9. Apply 10mm bread of adhesive to the top flange of the throat chute and place the transition chute on top of the throat chute
10. Install ten screws at consistent spacings through the bottom flange of the transition chute into the top flange of the throat chute

Acoustic Mounts

Four Embelton NRD isolation mounts are to be installed under each of the four corners of the mounting plate to ensure the chute is adequately isolated from the building structure to prevent the transfer of noise and vibration to the building. Additional acoustic treatment to the waste chute may be necessary due to the fact that the chute is not a sealed system. To be confirmed by the project Acoustic Consultant.

3.4. Testing & Commissioning

All tests shall be carefully pre-planned and scheduled to ensure that they are co-ordinated with the work of and/or other relevant trades involved. All tests shall be carried out in a safe and efficient manner with the minimum of inconvenience to all concerned. Where the work is being carried out in an occupied building, the management of the building shall be advised regarding the nature of the tests and the tests shall be co-ordinated with the building occupants to minimise any possible hazards or inconvenience that may arise.

Testing

After completion of the installation, the WCC shall carry out the following tests witnessed by the Builder and/or Developer's Representative:

- Drop a full household general waste bag down the waste chute from the top level to confirm the chute is free of obstructions
- Drop a minimum 20 litres of typical household recyclables down the recycling chute from the top level to confirm the chute is free of obstructions
- Demonstrate each chute door interlocks and prevents more than one door being opened at any given time
- Demonstrate each chute door locks out when the discharge valve is opened
- Demonstrate exhaust fan shut down when the discharge valve is opened

Commissioning

Commissioning tests shall be carried out including all testing, checking and adjustments to demonstrate that the capacity of the installed equipment and system complies with the Specification and Drawings.

All such commissioning and testing shall be completed prior to the certification of Practical Completion.

3.5. Maintenance

The responsibility of operating and maintaining the plant is the responsibility of the Building Operator. The WCC shall submit a proposal for annual maintenance and servicing of the waste chutes.

Recommended 6-monthly Maintenance Schedule for Chute Doors:

1. Check operation of all loading doors
2. Check door handle operation
3. Clean all door hinges
4. Check door mountings
5. Clean external and internal surfaces of doors (excludes chute)
6. Lubricate all door hinges and springs
7. Test all springs and struts if applicable
8. Check operation of discharge fire door (where applicable)
9. Check discharge fire door fusible link (where applicable)
10. Inspect all chute throat sections below loading doors for damage
11. Lubricate all pulleys and hinges of discharge fire door (where applicable)
12. Inspect all loading doors and discharge deflector for general cleanliness

Recommended Maintenance Schedule of the Chute:

Water wash down of the chutes via a flushing nozzle is not permitted due to the discharge valve not being compatible with water as per Envac advice. The building operator will need to make alternative arrangements for cleaning of the chute. The building manager may contact a specialist company who can clean chutes without the use of water.

A cleaning brush system can be used provided it is a soft bristle type with no steel wire in it that can score the chute inner surface.