

## **SCOPE OF WORK - MECHANICAL SERVICES GENERALLY**

### **NORTH DENILIQUIN**

Block B is currently served by a Bonaire 8000 CFM evaporative cooler located on ground level at west end of building. Replace this unit with an evaporative cooler capable of 3400 l/s @ 135 pa resistance.

Alter existing steel stand to accommodate new unit. Connect drain to nearest stormwater and re-connect water. Connect damper controlled outlet in roof space to serve new ceiling grille in room BR 0005 as shown on drawing.

### **BERRIGAN**

Block B Room BR 0007. Supply and install a high wall mounted split reverse cycle air con unit as shown on tender drawings. Condenser unit to be mounted on 50 x 50 Duragal frame suitably fixed to timber wall as shown. Height of frame to be at least 2.1 M from ground level.

### **BAROOGA**

Block A. The Bonaire unit serving rooms AR 0022, AR 0001 and AR 0017 is to be removed including ductwork in roof. Supply and install a new side discharge unit on steel stand as shown on drawing. Make up new internally acoustic lined bend to ductwork in roof space. Re-connect existing ceiling outlets and two new outlets in room AR 0013 and one in AR 0015 as shown.

## **01 - EXTENT OF WORK - MECHANICAL SERVICES GENERALLY**

### **REQUIREMENT:**

#### **Associated Miscellaneous Items:**

- Air diffusion equipment (Diffuses, Registers & Grilles) as shown on the tender drawings.
- Supply and installation of volume control dampers for balancing as required.
- Support bracing and hangers for ductwork, straddle purlins where applicable.
- Supply and installation of support stands "Duragal" for all plant, as shown on the tender drawings.
- Supply, installation and connection of water supply from suitable points adjacent each evaporative cooler complete with isolating valves. Contractor to visit site to determine suitable connection locations. All cold water pipes shall be insulated where exposed to weather.
- Supply of overflow drains from evaporative coolers to down pipes adjacent each unit.
- Supply and installation of condensate drains from high wall mounted fan coil units and condenser sets to downpipes adjacent.
- Supply and installation of electrical supply from EDB within the buildings being served, complete with isolators for each system as shown on the tender drawings. The contractor shall confirm appropriate electrical supply is available from within the board prior to commencement of any contractual work.
- Supply and installation of control wiring between all equipment and their associated control panels as required. i.e. All control and instrumentation. Locations shown on tender drawings are approximate only, the contractor shall liaise with end user for final suitable locations.
- Provide all over-flashings to all major roof and wall penetrations. Also provide dektite for minor pipe work penetrations.
- The contractor must allow for all associated works the "MAKE GOOD" the installation including any other associated works, such as plumbing, electrical, structural and cosmetic works etc...completing the installation.
- Provide painting to both interior and exterior ductwork, colours to be confirmed by the client prior to application. The Contractor shall ensure that all ductwork is adequately cleaned via washing down with "sugar soap", applying one coat of galvanised iron primer, then two coats of exterior acrylic equal to "Dulux Weather Shield".
- Supply and install ladder hitching brackets and harness hitching points as nominated on tender drawings.

## **01 - EXTENT OF WORK - MECHANICAL SERVICES GENERALLY (continued)**

- No shop drawings shall be required BUT the design drawings are general, the contractor shall allow to visit the site and adjust the design to suit the practical needs gathered during the site investigation.
- Air balancing and commissioning of plant.
- Preparation of operating and maintenance manuals.
- Warranty and maintenance during the 12 months defects liability period, commencing practical completion.
- If and where relevant all mechanical services components nominated herein shall be installed in accordance with all relevant authorities having jurisdiction over the site. The contractor shall comply with the Building Codes of Australia "BCA", Australian Standards / guidelines AS-1668 Part II and all other relevant guidelines.

### ***Important Note:***

**The above makes and model numbers have been noted for a guide only, it shall be the responsibility of the successful tenderer to ensure that the makes and models selected suit the intent of the design. Eg ensure that the resistance and airflow etc. are achievable. If the contractor finds that the makes and models do not match that of the duties nominated, the contractor shall have duties clarified or allow the more expensive option.**

## **02 - AIR GRILLES**

**GENERAL:** Manufacture: Provide proprietary grilles.

### **EVAPORATIVE SUPPLY AIR GRILLES:**

#### **Duct Mounted Registers**

- Double deflection "Air Grilles Model SH2" or similar 32 mm blades.
- Size as nominated on tender drawings.
- Painting Powder Coating. (Colour to be advised prior to ordering).

Note: Make and model numbers for grilles, diffusers etc. have been nominated for a guide only, the Mechanical Services Contractor shall confirm mounting details, of all air diffusion equipment prior to final selection and ordering.

**BAROOGA**

|   |   |                                     |
|---|---|-------------------------------------|
| Side discharge AR 0022, AR 0001,<br>AR 0017, AR 0015, AR 0013<br><br>Bonaire 900 C (or similar) | Cooling Air Volume - 7600 l/s<br>System Resistance - 160 pa estimate<br>Centrifugal Fan | Off/Vent/Cool<br>High/Low Fan Speed |
|---|---|-------------------------------------|

**BERRIGAN**

|   |  |   |
|---|--|---|
| High wall reverse cycle split Inverter<br>BR 0007<br>Fujitsu (or similar) | Capacity - 4.8 GTH<br>Capacity - 3.5 KW GTSH | Proprietary Controller<br>Operation Mode<br>Indicator |
|---|--|---|

**DENILIQUIN NORTH**

|   |   |                                     |
|---|---|-------------------------------------|
| Top discharge<br>BR 0011, BR 0005<br><br>Bonaire B33 (or similar) | Cooling Air Volume - 3600 l/s<br>System Resistance - 145 pa estimate<br>Centrifugal Fan | Off/Vent/Cool<br>High/Low Fan Speed |
|---|---|-------------------------------------|



### **03 - EXTENT OF ASSOCIATED WORK BY OTHER TRADES:**

#### **REQUIREMENT:**

The contractor must be aware that there are no other contractors associated with the works described herein.

The contractor must allow for all associated works that "Make Good" the installation including any other associated works, such as plumbing, electrical, structural and cosmetic works.

### **04 - GENERAL**

Generally this document is a "Brief" allowing Mechanical Services Contractor to price a "Scope of Works" for this project, NOT TO BE USED FOR CONSTRUCTION PURPOSES". A further review of both this Brief and the associated tender drawings shall be performed prior to the ordering of plant and / or the commencement of shop detail drawings.

### **05 - PERFORMANCE - MECHANICAL SERVICES GENERALLY**

#### **EQUIPMENT CONTROL:**

1. The primary control of all evaporative cooling plant shall be via proprietary type wall mounted Off / Vent / Cool, High / Low fan speed controllers located within each area being served. The mechanical contractor must co-ordinate the final location of the control points with the end user prior to installation.
2. The primary control of all reverse cycle plant shall be via proprietary type wall mounted controller located within the area being served.

### **06 - WIRING - MECHANICAL SERVICES GENERALLY**

#### **ELECTRICAL WIRING:**

To AS 3000 and AS 1688.1 Clause 4.10.2

#### *Requirement:*

- Power supply for each item of plant shall be provided from the distribution board within each area being served. A separate circuit shall supply, all circuit breakers shall be new and, where fitted to existing distribution boards, be selected to match existing equipment.