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DJRD
64 Rose Street
Chippendale NSW 2008

Attention: Jacqui Collingwood

Dear Jacqui,

RE: UTS Graduate School of Health | Low Energy Technologies

JOB NO: 180160

The Low Energy Technologies being proposed within the tenancy fitout of UTS Graduate School of Health are listed below:

- Mechanical system:
 - Appropriate zoning and controls; the mechanical design will take into account the zoning of the air conditioning system based on the floor usage. Ensuring that mechanical equipment is used only when required, either through localised controls or time scheduling by the BMS.
 - Dedicate FCU to any specific functional space / thermal zone.
 - Utilising high efficient EC fan motors.
 - Minimising ductwork resistance to reduce fan power consumption.
 - Implementation of night purge cycle.
 - Utilising ceiling mounted jet pod fans to induce the internal air circulation, de-stratification and to minimise distribution ductwork within the space. This however will only be efficient to an open floor space.
- Energy efficient LED lighting solution will be targeted.
- Lighting control system will be employed throughout all spaces with dimmable fittings specified where appropriate.
- Water efficient equipment, fixtures and fittings to minimise hot water consumption and subsequently reduce energy demand. The table below gives the recommended WELS rating and associated water consumption for the various fittings and fixtures to be used in this development:

FIXTURE	WELS RATING LITRES PER MINUTE OR FLUSH	STAR RATING
Staff Sinks (Breakout)	6.0 to 7.5	4 Star
Wash hand Basin	4.5 to 6.0	5 Star
Accessible Basin	4.5 to 6.0	5 Star
*Accessible Shower	7.5 to 9.0	3 Star
WC Pan	4.5 to 6.0	5 Star

- All main reticulation piping systems shall be insulated with a minimum thickness of 25mm with a proprietary thermal insulation to reduce heat losses and energy costs.
- Continuous electric hot water heaters with no hot water storage to eliminate standing heat losses and reduce energy cost.
- Energy efficient appliances will be specified throughout as appropriate (typically targeting one star less than highest star rating available for an appliance, e.g. highest Fridge/Freezer star rating available on the market is 5.5 star, so the project will target Fridge/Freezer with minimum 4.5 star).