Griffith UNIVERSITY
Planning, Design & Construction, Campus Life

Pending Amendments to Clauses in the Griffith University Design Guidelines & Procedures Version 18

Edition 18.1

Note: Additional amendments to Version 18 not included in the previous Pending Amendments Edition are shown in 'green' text

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Section 1.00 Interpretation and Definitions

1.03 Australian Standards

Amend the first line of the second paragraph as follows;

Where a Standard is called upon by the Building Act, NCC or other relevant legislation.....

1.04 Mandatory requirement

Amend the second paragraph as follows;

..... for consideration and analysis by CLF and the appropriate technical divisions within the University.

1.06 Departures from the requirements of this document

Amend second line as follows;

..... , must be confirmed in writing by the Superintendent (Associate Director, Capital Works Campus Life), or the Superintendent's Representative.....

1.09 Abbreviations

Delete existing list of abbreviations and replace with the following;

GU	Griffith University
CLF	Campus Life (the element of University Administration responsible for campus development)
PD&C	Planning, Design & Construction Division, Campus Life
INS	Information Services
ITS	Information Technology Services (INS)
NCS	Network & Communications Services (INS)
PFS	Office of Planning & Financial Services
FPO	Fire Protection Officer, Campus Life
D&C	Design & Construct
NCC	National Construction Code Series (incorporating the BCA and PCA)
BCA	Building Code of Australia (a component of the NCC)
PCA	Plumbing Code of Australia (a component of the NCC)
AS	Australian Standard
WHS	Work, Health & Safety
SDF	Space Description Form

Section 2.00 Planning & Design Controls

2.01 Site Planning Controls

Delete the words Site Development Plans *in the first paragraph and replace with* Master Plans

2.05 Design for People with Disabilities

Delete existing paragraphs and replace with the following;

Buildings and external walkways shall be designed to provide access and use by people with disabilities in accordance with the requirements of AS 1428, Disability (Access to Premises – Buildings) Standards 2010, and the BCA.

For all new buildings and major campus works involving modifications to pedestrian travel and access through the campus, the services of a DDA Consultant shall be utilised to review and comment on the design solution for compliance with the foregoing Standards and Codes. GU may elect to appoint this consultant direct, or may instruct a design consultant to include this service as part their consultancy, or instruct a Contractor to include a DDA consultant in their design team.

Each new building shall incorporate at least one unisex toilet for people with disabilities (PWD) on each level. For major refurbishment projects comprising whole floors, consideration shall be given this requirement subject to available space and access to services. The door to the PWD toilet located on the main building entry level shall be fitted with an electrically operated DORMA ED100 Swing Door Operator system with push buttons, indicator lights and electromagnetic locking. This toilet shall also be fitted with a 'Tiltlock Safe-Assist' 850mm automatic locking folding grab rail adjacent to the pan.

The provision of car parking for people with disabilities is assessed on a campus wide basis taking into account the location of car parking areas and access roadways. The GU Traffic & Security Manager shall be consulted on the most suitable location for disabled car parks with compliant access for each building to meet the relevant Standards.

Tactile ground surface indicators (TGSIs) for sight impaired persons shall be incorporated into the design. Refer to Clause 6.06 of **Section 6.00** for full details of approved materials and manufacturers/suppliers of TGSIs.

Requirements for Braille and tactile signage are nominated in **Section 25.00**.

Lifts within and external to buildings shall conform to the requirements for people with disabilities.

2.06 Building Height

Delete the words Site Development Plan *and replace with* Master Plan.

2.10 Space Guidelines

Delete the last sentence in the second paragraph which reads 'The minimum room size shall be 10m$^{2'}$

Common Teaching & Learning Space

Amend table as follows;

Space Type	**GU Standard m^2 UFA**
Flat / sloping floor lecture theatre	1.30 m^2 per person + 5m^2 *See Notes (i) and (ii)*
Tiered floor lecture theatre	1.10 m^2 per person + 5m^2 *See Notes (i) and (ii)*
Interactive tiered floor lecture theatre	1.50 m^2 per person + 5m^2
Seminar/Tutorial rooms	2.00 m^2 per person + 5m^2
Student Collaborative Learning & Study Centres	3.00 m^2 per person

Laboratories and Other Spaces

Amend table as follows;

Space Type	GU Standard m2 UFA
Research Laboratory (incl. fume cupboard space, instrument rooms, storage, write-up space etc)	7.50 m^2 per workstation
Teaching Laboratory (incl. fume cupboard space, preparation, utility & instrument rooms, stores)	6.80 m^2 per workstation
Computer Teaching laboratories	3.50 m^2 per workstation
Building foyers	80 m^2
Book stacks	2.20 m^2 per double-sided shelving unit; 2.00 m^2 per 1,000 volumes

2.12 Toilets

Amend second sentence as follows:

All toilets, particularly in student areas, shall have 'maze' entries except for PWD toilets or in situations where noise may impact on adjacent spaces e.g. open plan offices, reception and waiting spaces.

2.19 *Change Clause title to* **Collaborative Learning & Study Centres**

Delete existing paragraphs and insert the following;

Collaborative Learning & Study Centres shall be located at ground level with good visibility and direct access from the main pedestrian circulation pathways past the building. Access to the Centre must be available outside normal hours without compromising the security of the building, therefore it should have its own entry separate from the main building foyer and which is capable of closure should it be required. If a separate entry is not possible, then it should be located as close as possible to the building's main entry to avoid students having to penetrate too deeply into the building to access the Centre. There shall be sufficient windows in the external walls to provide an adequate level of natural light and visibility to passing pedestrian traffic. The natural light levels provided should consider that large TV monitors will be present in some zones.

The Centre shall contain a number of distinct activity components, which are generally to be screened from but not totally segregated from the other components by solid walls or doors. Careful consideration shall be given to the acoustics within the Centre such that noise from one component does not become a problem to those using other components. The number of each component type will depend on the size and location of the Centre. The activity components are as follows.

Collaboration Zone (technology enabled) – a space where students can collaborate on the preparation and presentation of group projects and assignments. Each zone shall comprise fixed banquet seating in a 'U' form facing a wall on which large TV monitors are mounted to display individual project work for group discussion. The floor should be raised to facilitate data cable connections from the seating to the wall mounted monitors. There shall be ramped wheelchair access to the raised floor area.

Collaboration Booth (technology free) - a space where students are able to collaborate in a casual manner without a need to display information to all members of the group simultaneously. Each booth shall have lounge style seating with high backs and small loose tables. These spaces can also be utilised for quiet study.

Team Study Booth – booths shall be capable of accommodating four (4) to six (6) students. The end wall shall be a solid wall with a mounting panel for a large TV monitor. Screens between booths should contain a minimum of 50% glass for visual surveillance and transmission of natural light.

Individual Study Zone – this zone shall be located on the perimeter of the Centre and will comprise fixed computer wall benching to suit a minimum of twenty (20) desk top computers for casual use by students. The number of computers shall be determined by ITS.

Chill/Quiet Zone – a space for students to relax or socialise in a quiet space where group activity does not occur.

Lounge - a centrally located open area with a mix of fixed and loose furniture where students can work individually or in pairs using their own personal devices, and where they can wait to gain access to a collaboration zone, a booth or a common use computer.

Resource area – printing stations with control/pay unit and a lockable stationery store.

Examples of typical Collaborative Learning & Study Centres are located on Level 0 of the Patience Thoms (N06) building at the Nathan campus, and on Level 2 of the Learning Commons (G11) building at the Gold Coast campus

2.20 *Change clause title to* **Lecture Theatres, Auditoria & Other Teaching Spaces**

Delete existing paragraphs and insert the following;

The design of lecture theatres, auditoria and other teaching spaces shall incorporate the principles outlined in the current edition of the 'AETM Audio Visual Design Guidelines for Tertiary Teaching Spaces'.

The acoustic performance of lecture theatres and auditoria are fundamental to successful teaching and so special consideration shall be given to the design of these spaces with respect to acoustical performance. The requirements of Sections 6 & 7 of the AETM Design Guidelines shall apply.

The front wall of the theatre is used for projection and must accommodate a main picture size not less than 4m wide unless approved otherwise by ITS. The form of projection to be used in the space must be confirmed with ITS.

Lecture theatres with more than 250 seats may require a Projection Room/Bio Box. This must be confirmed with ITS

The design of the seating layout in lecture theatres and auditoria shall be governed by the requirements of Section 4 of the AETM Design Guidelines.

Refer to Sections 12, 13 & 14 of the AETM Design Guidelines for the technology requirements, including lighting, for large, medium and small teaching spaces and for meeting rooms.

2.21 Video Conferencing Rooms

Add to end of first paragraph;

Where windows are present and it is not practical to remove or block them out, then the video screen shall be located as far away as possible from the windows (e.g. opposite wall), and blinds shall be provided to reduce the level of natural light in the room to a level acceptable to ITS.

2.24 Waste Collection & Gas Bottle Storage

Amend last paragraph to read;

Adequate provision shall be made for the secure and ventilated storage of gas bottles whether located internally or externally of a building.

2.32 End of Trip Facilities

Insert new Clause 2.32;

Each new building project shall consider the requirements of the Queensland Development Code with respect to the provision of 'End of Trip' (EoT) facilities.

Rather than provide a EoT facility in each building, GU has adopted the principle of providing a facility which will service a number of buildings in close proximity. This shared facility may be 'stand-alone' or be incorporated into a building. A number of these shared facilities currently exist on GU campuses, and the CLF Principal Architect shall be consulted to establish if an existing facility is capable of servicing a new project, or whether a new EoT facility shall be provided to service the new building plus other existing and future buildings.

Section 3.00 Designing for Sustainability

No amendments

Section 4.00 Project Preliminaries

4.02 Terminology

Amend the meaning of following term;

Superintendent – The Associate Director, Capital Works or his/her Nominated Representative

4.03 Conditions of Contract

Delete existing paragraphs and replace with the following;

The Conditions of Contract for all Lump Sum Fixed Price 'Traditional' Contracts over $500,000 in value are the General Conditions of Contract AS 2124 – 1992, together with the 'Griffith University Amending Conditions of Contract modifying the Australian Standard Conditions of Contract AS 2124 – 1992' and dated July 2012.

For projects up to $500,000 in value, the GU Conditions of Contract for Minor Works shall generally be adopted. If the projects are complex or highly serviced, then AS 2124 – 1992 with Amending Conditions is preferred.

The Conditions of Contract for Design & Construction Management Contracts (Managing Contractor) are the 'Griffith University Standard Conditions of Contract for Design & Construct Projects (Based on AS 4300 – 1995)' Third Edition dated July 2013 (produced under License 1311-c113-3 from SAI Global Ltd). If the project is to be procured under a Lump Sum Fixed Price D&C (no savings participation) contractual arrangement, then the 'Griffith University Amending Conditions of Contract modifying the Standard Conditions of Contract for Design & Construct Projects' Third Edition dated July 2013, shall also be used.

The Conditions of Contract for Construction Management Contracts are the 'Griffith University Standard Conditions of Contract for Construction Management Projects (Based on AS 4917 – 2003)' First Edition dated February 2013 (produced under License 1311-c13-3 from SAI Global Ltd).

4.04 Conditions of Tendering

Delete first paragraph and replace with the following;

The 'Griffith University General Conditions of Tendering for Building Works' Version 2 dated April 2013 and the GU 'Form of Tender' shall be used for all Lump Sum Fixed Price 'Traditional' Tenders other than for Minor Works. These Conditions are contained in **Section 33.00** of this document. If the project is to be undertaken in stages, or may comprise or extend over multiple buildings, the Principal may require that a breakdown of the tender be provided to reflect the value of each stage or individual building utilising a 'Supplementary Tender Form' in conjunction with the Form of Tender.

4.05 Conditions of Submission of Proposals, D&C Projects

Delete existing paragraph and replace with the following;

The 'Griffith University Conditions for Submission of Proposals by Contractors for the Management of the Design & Construction of Projects' Eighth edition dated December 2011 shall be used on all D&C projects. For Lump Sum Fixed Price D&C Contracts, then the appropriate Conditions of Submission dated August 2013 shall be used.

4.20 Site Security

Add the following paragraph;

Griffith University employs a master key system for all door locks. Contractors and Consultants shall be responsible for any keys issued to them for access, and shall be liable for the replacement of keys lost or not returned to the Principal. The Contractor or Consultant shall also be liable for the replacement of all lock barrels affected by the loss or non-return of keys.

4.21 *Amend Clause title to* **Work, Health & Safety**

Delete words Workplace Health and Safety *from the first paragraph and replace with* Work, Health & Safety

4.31 Project Completion

Add the following paragraphs;

Following the granting of Practical Completion for the Works, the Contractor shall obtain all necessary DWG drawing files, specifications and the like from the Project Consultants for the preparation of 'As Constructed' drawings and associated documents.

When the Contractor has completed the 'As Constructed' drawings based on the information provided by its subcontractors, it shall submit the drawings to the relevant project consultant for checking and certification that the drawings reflect the Works as designed and constructed.

Following the certification of the 'As Constructed' drawings by the project consultants, the Contractor shall submit the drawings together with all operating and maintenance manuals for equipment installed under the Contract, to the Superintendent.

Section 5.00 Building Structure

5.02 Floor to Floor Heights

Add new second paragraph as follows;

The projection screen size in large teaching spaces must be considered when determining the floor to floor heights in a building where such spaces are required.

5.04 Slabs

Amend ninth paragraph to read;

If post tensioned slabs are installed, the location of all tendons must be clearly and permanently marked on the underside of the slab to ensure that any future core holes or penetrations cut in the slab do not intersect any stressing cables. In locating the permanent markers, consideration must be given to the possible concealment of the markings by ductwork, cable trays and the like.

Add new paragraph to end of clause;

Any requirement for in-slab floor boxes and conduits for cable access to lecterns or other equipment in teaching spaces, must be established with ITS early in the design process prior to slab thicknesses being finalised.

Section 6.00 Staircases & Ramps

No amendments

Section 7.00 Roofs

No amendments

Section 8.00 External Walls

8.03 In-situ Finishes

Delete first paragraph and replace with the following;

If untreated exposed concrete is proposed and approved by CLF, the surface finish shall be a minimum Class 2 'off-form' finish to comply with the requirements AS 3160 – 2010, with colour control in accordance with Clause 3.4. The tender and construction documentation shall clearly specify the requirements for surface finish in accordance with Table 3.3.1, and test panels shall be provided in accordance with Clause 3.5. The acceptable tonal range of the concrete surface shall not exceed five (5) tones.

8.04 Applied Finishes

Delete existing paragraphs and replace with the following;

Applied finish on external walls shall be a three coat roller applied membrane coating system comprising a primer and two finishing coats equivalent to the 'Rockcote Armour Flex' system.

Membrane coating on concrete masonry block walls shall be applied over a 6mm minimum thick cement render coat equivalent to 'Rockcote Q Render PM100 High Build'.

The render and membrane coating systems shall sourced from the same manufacturer and applied strictly in accordance with the relevant manufacturer's technical specifications by accredited applicators to ensure validity of the manufacturer's guarantees. The membrane coating and render system shall have a minimum ten (10) year unconditional guarantee.

Sprayed applied membrane coatings on external surfaces are not permitted.

Ceramic tiles may be used as a finish on walls not exposed to prolonged direct sunlight. Tiles shall be fixed using a rubberised flexible adhesive suitable for the application strictly in accordance with the manufacturer's technical specification and instructions, including surface preparation. Adequate expansion joints shall be provided.

Tiles shall not be adhesive fixed direct to concrete masonry walls. All masonry walls to receive tiling shall be rendered with a 12mm minimum thick cement and sand render with a wood float finish suitable to achieve maximum tile adhesion.

8.05 Colours

Add the following paragraph;

The external colour selections shall be in accordance with the colour palate contained in the campus Master Plan (if appropriate).

Section 9.00 Windows

9.05 Glazing

Delete existing clause and replace with the following;

All glass to windows shall be 'Viridian EVantage' laminated glass or an alternative of equal or greater performance which provides solar and thermal performance, subtle reflectivity and glare control. The selected glass type and colour is to be approved by the Superintendent.

The approved glass shall meet the following criteria;

- Solar control with low E
- Good light transmission with subtle reflectivity
- Low UV transmittance
- Neutral light transmittance which maintains toned glass colour and clarity

- Readily available with reasonable lead time.

Applied film on windows to achieve thermal and glare control shall only be used when refurbishing existing buildings and is subject to the approval of the Superintendent.

Maintenance of privacy shall be the overriding consideration in the selection of glass for windows in toilet areas.

Any frameless of fully glazed doors, sidelights, shopfronts or glazing which might be mistaken for a doorway or opening which do not incorporate a chair rail, handrail or transom, shall be clearly marked for the full width of the glass panels with a solid and non-transparent contrasting line not less than 75mm wide. The lower edge of the contrasting line shall be located between 900mm and 1000mm above the finished internal floor level. The contrasting line shall also provide a minimum of 30% luminance contrast when viewed against the floor surface/s within 2m of the of the glass when viewed from either side.

9.08 Window Curtains & Blinds

Delete first paragraph and replace with the following;

Curtains and blinds shall not be used as a substitute for external sun shading or screening of windows, or for general glare control where specialist glass is used.

Amend fourth paragraph as follows;

Teaching spaces and meeting rooms require controllable light conditions which enable the effective use of audio visual facilities. This may be achieved by fitting any windows with roller blinds having a selected fabric with sufficient opaqueness to achieve an appropriate light level within the space.

Delete fifth paragraph.

9.09 Video Conferencing Rooms

Delete existing Clause 9.09 (already covered by Clause 2.21) and substitute new clause 9.09 as follows

9.09 Teaching Spaces

Windows in teaching spaces shall be located so that no direct sunlight falls on projection surfaces. The extent of windows, the level of natural light entering the space and the potential for uncontrolled light through reflection off surfaces must be assessed and managed to ensure adequate contrast ratios are achieved on all screens. Consultation must be undertaken with ITS on the extent and location of proposed windows as this will also impact on the selection of projectors.

Section 10.00 Internal Walls & Partitions

10.02 Masonry Walls

Add the following to the end of the third paragraph;

If the concrete is untreated, then colour control of the concrete shall apply as previously outlined in **Section 8.00 Clause 8.03**.

10.03 Framed Partitions & Linings

Add new paragraphs at the end of the clause;

In the interests of future flexibility, consideration shall be given to using partitions which extend only from floor level to the underside of the suspended ceiling. If this approach is adopted, particular attention must be given to limiting the transmission of noise between spaces such as the use of seals between the partition capping and the ceiling tiles, insulation batts laid on top of the ceiling tiles over

the top of the partition, or the use of baffles in the ceiling spaces. Given the requirement for greater use of single glass in corridor walls for the penetration of natural light, and doors which are not fully acoustically sealed and are often left open, the acoustic integrity of spaces is compromised and therefore the acoustic requirements outlined in Section 2.00 Clause 2.28 are not achievable.

The use of ceiling height partitions shall be assessed on a case by case basis with CLF, but shall not apply to spaces where a high level of privacy or security is required e.g. interview, consulting and meeting rooms, and laboratories.

10.07 Projection Walls

Delete existing clause wording and substitute the following;

One wall of all teaching spaces, except laboratories, is to be used for projection. In Lecture Theatres and Auditoriums this shall be the front wall.

Projection walls shall be uniformly flat and perpendicular to the projector and audience. All projection walls shall be lined with plasterboard and the joints shall be carefully set to ensure that the projected image is clear of distortion.

Meeting and video conferencing rooms may also require projection walls which will be nominated in the SDFs.

10.09 Glazed Partitions & View Panels

Amend second paragraph to read;

The corridor wall to all academic and general staff offices shall be fully glazed from floor to ceiling including a glass highlight panel above the door. In instances where this is not possible or practical, the glazing shall at least comprise a 300mm minimum wide sidelight panel and/or a highlight panel over the door. In refurbishment projects where the existing corridor wall is stud framed and plasterboard lined, an opening is to be cut in the wall to accommodate a glazed panel adjacent to the door to allow the transmission of natural light into the corridor. This panel should extend from 150mm above floor level to door head height but does not need to abut the door frame, and the width should be to suit the wall stud centres.

Amend third paragraph to read;

All glazed walls and panels shall be installed in an anodised aluminium frame to the full perimeter. Door frames shall also be aluminium but reinforced if required to ensure that the frame jambs do not twist and prevent the door from sagging or the lock from latching. Glazed panels fitted into cut openings in stud partition walls in refurbishment projects may have timber frames.

Amend fifth paragraph to read;

Where no mid-rail exists in full height glazed partitions, each glass panel shall be clearly marked full width with a solid and non-transparent contrasting line not less than 75mm wide as previously outlined in **Section 9.00 Clause 9.05**.

Amend sixth paragraph to read;

Where the Superintendent and the Users determine that there are particular privacy requirements, frosted film shall be applied to the glass on the room side from 300mm above the floor level to 300mm below the head of the screen or panel. Solid frosting is discouraged and consideration shall be given to the use of a patterned film which allows a percentage of the filmed glass area to remain clear while preventing direct vision into the room from outside the room. The use of such frosting as ‘artwork’ and to create themes appropriate to the building function is encouraged.

Amend eighth paragraph to read;

Curtains or blinds shall not be installed to internal glass walls or panels except in special circumstances agreed to between the Users and the Superintendent.

10.10 Toilet Cubicle Partitions

Amend last sentence to read;

..... with privacy strips to doors.

Section 11.00 Doors & Hardware

1.01 Aluminium Framed & Glazed Doors

Add the following paragraph at end of clause;

Frameless hinged and sliding doors are permitted in certain circumstances, however any proposal to use this type of door must be presented to CLF for approval, particularly where access control is an issue. Any such doors must have a solid and non transparent contrasting line full width of the door panel/s as previously outlined in **Section 9 Clause 9.05**.

11.05 Frames

Amend first paragraph as follows;

All doors other than aluminium framed glazed doors and timber doors installed in glazed internal screens and partitions, shall be hung .....

11.15 Acoustic Seals

Delete existing first and second paragraphs and replace with the following;

Where acoustic seals are required to doors to achieve the acoustic performance of the wall in which they are installed, these seals shall be fitted as follows;

- Seals to the bottom edge of the door shall be surface mounted and not rebated into the face of the door
- Where heavy duty acoustic seals are required to the door perimeter, the door frames shall have plain jamb and head sections and the seals shall be planted on the frame to form the door stops

Add new clause as follows;

11.16 Special Door Operating Systems

Refer to **Section 2.00 Clause 2.05** for details of the special electric operating system required to the PWD toilet on the main entry level of each building.

Section 12.00 Wall Finishes

12.05 Paint Colours

Remove LES *from the second and third paragraphs and substitute* ITS

12.06 Ceramic Wall Tiles

Amend first paragraph as follows;

The use of ceramic wall tiles shall generally be limited to applications.....

12.08 Decorative Wall Finishes

Add new paragraphs;

Where timber finishes are used, there must be colour consistency in the timber panel veneers or battens used, particularly where different species are specified or detailed to create patterns or features.

If ceramic tiles are used as a decorative finish, then the requirements of **Clause 12.06** shall apply.

Section 13.00 Floor Finishes

13.01 Colours

Amend second paragraph to read;

Light and plain colours should generally not be used, particularly in high traffic areas or adjacent to external entries.

13.02 Carpet Finishes

Insert new third paragraph as follows;

Further to the constraint in noted Clause 13.01 regarding the use of light and plain colours in floor finishes, this also applies to the use of single colour carpet tiles in floor feature strips or panels. Where such features are proposed utilising bright colour for effect, the feature colour must be uniformly mottled with charcoal or black such that the feature colour does not exceed approx. 50% of the surface area of the carpet tile. Samples of the proposed feature carpet tile must be submitted to the Superintendent for approval.

13.03 Vinyl Finishes

Add the following to the end of the fifth paragraph;

Provide a separate continuous strip of vinyl up to 600mm wide under all urinals to facilitate easy replacement if floor staining becomes excessive. This strip does not need to be a different colour from the rest of the flooring.

Section 14.00 Ceilings

14.01 Generally

Add the following paragraphs;

Where ceilings with different types of drop-in tile occur within the building, the same grid suspension system should be used throughout, and shall be the grid utilised for the predominant ceiling system.

Suspension hanger rod fixing clips shall be anchor bolt fixed to concrete soffits or screw fixed to steel roof structure. The use of ‘shot’ fixings is strictly prohibited.

14.02 *Change clause title to* Mineral Fibre Tile Suspended Ceiling Systems

Delete existing Clause wording and replace with the following;

Mineral fibre tile suspended ceiling systems shall be Armstrong, USG or CSR systems including tiles and prefinished steel grid suspension system.

The ceiling tiles shall be equivalent to Armstrong Fine Fissured RH99 HumiGuard Plus 1200 x 600 x 16mm thick medium texture square edged board tiles suitable for both internal air conditioned and non air conditioned spaces. Any change to the ceiling tile type to suit particular acoustic requirements, must be approved by the Superintendent.

The suspension system shall be equivalent to the Armstrong PeakForm PRELUDE 24 XL^2 hot dipped galvanised steel two way exposed suspension system comprising main runners, cross tees and shadowline wall angles. The main runners shall be suspended and accurately levelled on 5mm dia. galvanised steel rod hangers, all in accordance with the manufacturers printed instructions and recommendations. Additional hangers shall be provided at all light fittings and air conditioning registers. Main and cross runners shall not be notched over the wall angle trim at the ceiling perimeter, but attached to the trim using the standard system purpose made clip. The wall angle trim shall be mechanically fixed to the wall framing or structure, not adhesive fixed to the wall lining.

The University requires a 30 year warranty from the manufacturer of the ceiling system against ceiling panel sagging and warping, and rusting of the grid components.

Where ceiling tiles are subject to uplift from wind or air flow from mechanical systems, they shall be secured by use of hold down clips. In these situations, the suspension system shall also incorporate down bracing to prevent movement of the grid.

14.03 *Change clause title to* **Vinyl Faced Fibre Cement Tile Suspended Ceilings**

Delete existing Clause wording and replace with the following;

Ceilings to all toilets, showers, food preparation kitchens (not tea making kitchenettes) and laboratories shall have 1200 x 600 x 6mm thick vinyl faced fibre cement ceiling tiles equivalent to those manufactured by APB Allboards.

If the suspension system is not the same as for the mineral fibre tile ceilings, then it shall be a 'Rondo' or approved equal prefinished exposed steel grid T bar system installed in accordance with the manufacturers written instructions and recommendations.

14.04 Flush Plasterboard Ceilings

Add the following paragraph;

The suspension system for flush ceilings shall be equal to the Rondo fully concealed system comprising top cross rails and furring channels clip fixed to the rails at centres nominated in the manufacturers printed instructions. Shadowline wall angle trims shall be provided to the ceiling perimeter. The suspension system shall be supported on 5mm min. dia. galvanised steel threaded rod hangers at centres to suit the weight of the ceiling. The use of spring clips on the hanger rods for adjustment purposes is strictly prohibited. The wall angle trim shall be mechanically fixed to the wall framing or structure, not adhesive fixed to the wall linings.

Insert new Clause as follows;

14.10 Timber Feature Ceilings

The use of timber in ceilings shall generally be limited to foyers, lift lobbies, reception areas and commercial tenancies. The use of proprietary modular perforated plywood or slat ceiling panels which are supported on standard suspension systems and which can be easily removed for the maintenance of services in the ceiling space, are preferred. The size and weight of ceiling panels should be limited to what can be handled by a single person standing on a step ladder.

Section 15.00 Fitments

15.02 Whiteboards & Pinboards

Amend second paragraph to read;

Whiteboards shall be 'Allboards Visual' or approved equal white vitreous porcelain finished steel sheet with a clear anodised 'Fineline' aluminium perimeter trim with mitred corners, a pen rail full width along bottom edge.

Amend fourth paragraph to read;

Pinboards shall be 'Allboards Visual' or approved equal 6mm Bulletin Board bonded onto MDF board backing, and shall have a full clear 'Fineline' anodised aluminium perimeter trim with mitred corners. The colour of the Bulletin Board shall be agreed with CLF, however all pinboards in corridors and foyers shall be consistent in colour.

Amend fifth paragraph to read;

All boards shall be mounted on concealed fixing brackets. Brackets shall be securely fixed using 'Ramset Hollow Wall' or 'Hilti Cavity' anchors, or screw fixed direct to studs. 'Wall Mate' fixings or plastic plugs in wall linings, are ***not*** permitted. Screw fixing through the perimeter frame or using adhesives to attache boards to walls is ***expressly forbidden.***

Amend schedule of board locations as follows;

Faculty/Admin Offices/Meeting Rooms:	Pinboard, 1200mm long. Whiteboard, 1200mm long. Noteboard 250mm x 300mm high outside room to be installed in conjunction with room sign (see Signage Manual)
Lecture Theatres/Seminar Rooms/ Computer Teaching:	Matte Finish whiteboard with no joints to maximum width of front teaching wall subject to projection requirements at 900mm above f.f.l. Noteboard 250mm x 300mm high outside room to be installed in conjunction with room sign (see Signage Manual)
Laboratories:	Whiteboards and pinboards to size and numbers as stated in the SDFs. Noteboard 250mm x 300mm high outside room to be installed in conjunction with room sign (see Signage Manual)
Common Rooms:	Pinboards to available walls internally (2 No. max.) Noteboard 250mm x 300mm high outside room to be installed in conjunction with room sign (see Signage Manual)
General Offices:	Whiteboards and pinboards internally as stated on the SDFs.
Lift Lobbies:	Pinboard 1200mm long (position to be agreed with CLF)
Learning Centres:	Whiteboard 1200mm long to each group Study Room Pinboard 1200mm long at or near the printers Noteboard 250mm x 300mm high outside room to be installed in conjunction with room sign (see Signage Manual)
Other Occupied Areas:	Noteboard 250mm x 300mm high outside room to be installed in conjunction with room sign (see Signage manual)

15.03 Bookshelves

Remove OFM *from the last paragraph and replace with* CLF.

Add the following new paragraph;

If partition walls to offices and other spaces which require shelving extend from floor level to the underside of the ceiling only, then keyhole wall strip support systems shall not be used, and all shelving shall be freestanding units unless the partition wall framing is specifically designed and certified by an engineer as capable of supporting the shelving.

15.05 Projection Screens

Amend second paragraph to read;

The screen shall be wide screen format (16:10) with a matt white finish. Install the screen.....

Remove LES *from the end of the last paragraph and replace with* ITS

15.06 Built-in Joinery Generally

Add the following paragraph;

Where joinery units are required to house audio visual equipment, they must be ventilated and provide secure access to the equipment enclosed. Where equipment racks are mounted in joinery, there shall be a 150mm space behind the rack for the provision of services and cable access. Refer to Section 10 of the AETM Design Guidelines.

15.07 Lecture Theatres

Remove OFM *from the end of the second paragraph and replace with* CLF.

Amend fourth paragraph as follows;

Teaching station – a Lectern/control console unit shall be provided to the front of all lecture theatres. If the unit is fixed, it shall be located on one side of the teaching wall. The design of the lectern unit shall be approved by ITS and shall be height adjustable. The unit shall house equipment for the AV system.

Add the following to the end of the fifth paragraph;

The location of the support shall be determined by ITS.

15.08 Seminar & Computer Teaching Rooms

Add the following to the end of the third paragraph;

The location of the mounting plate shall be determined by ITS.

15.09 Video Conferencing Rooms

Remove INS/LES *from the second paragraph and replace with* INS/ITS

15.10 *Change clause title to* **Collaborative Learning & Study Centres**

Delete all existing paragraphs and replace with the following;

Refer to **Section 2.00 Planning & Design Controls** for more information regarding the space and functional requirements for the Centres.

Furniture and fittings shall generally be proprietary loose items, however to maintain the integrity of each zone in the Centre, it may be necessary to utilise custom built-in fixed furniture or select loose furniture items which are capable of being fixed in position. This particularly applies where furniture items are intended to be used in conjunction with computing equipment which requires cable connections e.g. computer tables to the Individual Study Zone or Team Study Booths.

15.11 Kitchenettes & Tea Preparation Stations

Amend fourth paragraph to read;

Where the SDF requires a dishwasher to be installed, it shall be a first quality energy efficient and 4 Star WELS rated brand. All dishwashers shall be built-in.

Amend sixth paragraph to read;

Each kitchenette shall be provided with a fridge unit with freezer with an energy rating not less than 5. The size of the unit shall be commensurate with the number of building occupants who will use the facility. Each tea preparation station shall have a bar fridge with an energy rating of not less than 4 installed under the bench.

15.13 Monitor Brackets

Delete LES *at the end of the clause and replace with* ITS.

15.15 Toilets

Air-locks or hand wash areas:

Amend first dot point to read;

- Cantilevered vanity bench unit with full width mirror and lighting pelmet (in locations only where directed or approved by CLF)

Amend fourth dot point to read;

- Deb 2127 soap dispenser mounted over each basin

Toilet Cubicles and Urinals:

Amend second dot point to read;

- Regal DJRTDPSW dual roll toilet tissue dispenser

Unisex toilet for people with disabilities:

Amend fourth, sixth and seventh dot points respectively to read;

- Deb 2127 soap dispenser mounted over basin
- Regal CTDPSW paper towel dispenser
- Regal DJRTDPSW dual roll toilet tissue dispenser

15.16 Hand Wash Stations

Amend second and third dot points respectively to read:

- Regal CTDPSW paper towel dispenser
- Deb 2127 soap dispenser mounted .....

15.20 Waste & Recycle Bin Enclosures

Delete first two paragraphs.

Add the following paragraph after the existing third paragraph;

Refer to **Section 24.00 Clause 24.17 Outdoor Furniture** for details of external waste and recycle bin enclosures.

Section 16.00 Audio Visual Services

16.01 General

Amend the second paragraph to read;

..... the Head Consultant or Contractor to liaise with ITS, through CLF, to ensure*.....*

Add the following paragraph to end of clause;

Refer to the AETM Audio Visual Design Guidelines for Tertiary teaching Spaces (Second Edition) for the design of the AV systems to spaces nominated in the SDFs.

Section 17.00 Hydraulic Services

17.04 Sanitary Fixtures

Amend description for **Urinals** *in table as follows;*

'Uridan Cadet' water free wall mounted ceramic urinal with wall waste fitting, Model no. KHC-6

17.05.01 Standard Taps

Amend description for **Laboratory Tapware** *in table as follows;*

'Broen', 'Enware LF Series' or 'Galvin Engineering' taps, spouts and gas turrets to suit user requirements with chemical resistant coating. Handles shall be to International Colour Coding except for hot water.

Section 18.00 Mechanical Services

18.01.01 Generally

Delete the words 'or fan coil units' *from the second paragraph.*

*Delete the entire third paragraph commencing '*To achieve better control .....

*Insert the word '*in' *between the words* mounted *and* ceiling *in the first sentence of the ninth paragraph*

Add the following text to the end of the 10th paragraph;
... including but not limited to AS 1851*.*

18.01.02 Specific Requirements

*Delete the word '*mush' *from the last line of the first paragraph and replace with '*must'

Add the following to the end of the third paragraph;

In refurbishment projects, if a data room is already on a chilled water system, then consideration shall be given to maintaining that system and adding a DX system as a back-up.

*Delete the word '*mush' *from the third line of the fifth paragraph and replace with '*must'

Insert the following sentence in the last paragraph before the last sentence which commences on the eighth line;

The exhaust and air conditioning systems shall be linked via the BMS so that should the negative pressure within the laboratory spaces fail, then the air conditioning will shut down and an alarm will be generated.

18.01.06 Piping, Valves & Fittings

Amend the text of the first line of the first paragraph as follows;

All pipework internally within a building shall be.....

Add the following to the end of the first paragraph;

Where fixing brackets or clips to copper pipework are of a dissimilar metal, they shall be effectively isolated from the pipework with plastic tape or similar material to prevent corrosion. Paint finishes are not acceptable as an isolating medium.

Amend the text of first line of the second paragraph as follows;

Internal pipework shall be installed in service ducts, risers.....

Insert new third and fourth paragraphs as follows;

All the return chilled water pipes at the Chiller Plant shall be installed in such a way that allows for complete mixing of all return water before passing the Chiller staging sensor.

Pipework immediately prior to the inlet of any water meter, energy meter or any measuring device installed on the pipework, shall be in a straight length of not less than ten (10) times the pipe diameter.

Amend the text of the last line of the current tenth paragraph as follows;

Automatic air bleeds complete with an isolation valve and drain to nearest waste pipe, shall only be installed at the highest point of the chilled water reticulation system such as the top of vertical risers via a T junction and a short riser extension, and ***not*** on horizontal pipe runs.

Insert new paragraph after existing tenth paragraph;

Chilled water campus reticulation pipework between buildings etc, shall be buried in the ground and shall be 'Blue Brute' or 'HDPE'. Thrust blocks must be installed at all junctions and changes in direction. Where future buildings are planned, provide valved take-offs for future connections located in services pits located adjacent future building sites. Pipework shall be sized to accommodate future building as indicated on the campus Master Plan.

18.01.07 Ductwork & Registers

Amend the text of the second sentence of the second paragraph to read;

Flexible ductwork shall be supported by packaging straps, buckles and mesh saddles not less than 300mm long, to suit the duct diameter.

Insert new third paragraph as follows;

Supply air ductwork immediately prior to the inlet of a VAV box shall be in a straight length of not less than ten (10) times the width of the duct.

18.01.18 Insulation to Pipework

Delete existing first three paragraphs and replace with the following;

Insulation to chilled water pipework shall be 'Koolfoam Ultra' or approved equal sectional, preformed grey EPS insulation complying with AS1366 Part 3. Insulation shall be factory faced with 'Sisalation 450' (extra heavy duty grade) aluminium foil insulation. Insulation sections shall be adhered to the pipes and sealed at ends with 'Denso Vapourseal Primer' or approved equal non setting gel sealant applied strictly in accordance with the manufacturer's printed instructions in sufficient thickness to eliminate all air voids. All joints in the length and at the ends of sections shall be further sealed using 50mm reinforced aluminium foil self adhesive tape. Cut, trim and seal insulation around all bends, junctions and the like in a workmanlike manner.

The thickness of the insulation shall generally be as follows;

- 25mm thick for pipe up to 25mm dia.

- 40mm thick for pipe 32mm and 40mm dia.
- 50mm thick for pipe 50mm dia. or larger

If the ceiling space in existing buildings is restricted, it may not be possible to comply with the foregoing specification for insulation material thicknesses. In situations where this occurs, any change to thicknesses must be approved by the GU Mechanical Engineer and the Superintendent.

All spacer blocks at hangers and supports shall be inorganic closed cell high density polyurethane insulating blocks. Wood blocks are prohibited.

Delete existing sixth paragraph (content relocated to Clause 18.01.06).

18.01.09 Plant & Equipment

Insert the following new paragraph after the paragraph commencing with **Motors;**

Hot Water Heating Coils – Heating of air shall be by means of hot water coils fitted to Air Handling Units (AHU) or air Pre Conditioners located generally in plant rooms. Hot water shall be generated by heat pumps and circulated by an in-line pump with a controlled variable speed drive that varies the rate of circulation of the water through the coils depending on the amount of heat required.

Heat pumps for air heating shall be Quantum Titan or approved equal commercial range units located centrally in a separate plant room with cold air discharge to the outside of the building. If three or more units are required they shall be manifolded together to achieve an equal flow output.

Amend paragraph commencing **Heater Banks** *as follows;*

Electric Heater Banks - The use of electric heater banks shall only be considered if there is no alternative and is to be approved by CLF. Heater banks shall be located generally in plant rooms and shall be clearly identified using 'Safetyman' labels. Heater banks shall be of a physical size that gives maximum coverage to allow for effective heat transfer and to ensure that no air bypasses the heater bank. The HPT for duct heaters shall be generally positioned 250mm downstream from the heater bank. Heaters on fan coil units shall be of the low surface temperature type and sized to fit the full extent of the air outlet. Heater banks shall be fully balanced over all three phases. HPTs shall be 'Penn A25' type only, and shall be mounted in an easily accessible place no closer to the heaters than 200mm in horizontal ducts and 300mm in vertical ducts. 'Klixon' brand thermostats are **not** acceptable. There shall be a switch capable of acting as a 'lock-out' device located immediately adjacent to the heater bank to isolate all power feeding those heaters. Isolating the control circuit only is not acceptable.

Amend paragraph commencing **Chiller Sets** *as follows;*

- *Insert new sentence after end of first sentence*

Chiller Sets when installed on site shall be complete with a communications port for connection to the BMS, and shall conform to an open standard protocol e.g. Backnet (preferred), Lon, Mobus etc.

- *Amend current third sentence to read*

All chillers installed in a corrosive environment shall.....

Amend second last paragraph as follows;

- *Delete* Drop *from beginning of second sentence and insert* Drip

- *Insert the following new sentence before the last sentence*

Traps shall be easily removable by means of pressure barrel unions.

Amend first sentence of paragraph commencing **Equipment Location** *as follows;*

..... adequately sized plant rooms.....

18.01.10 Air Conditioning Electrical System

Add the following to the end of the sixth paragraph;

Refer to **Section 20.00 Clause 20.08** for further details of meter installation.

*Delete second last sentence from the eighth paragraph between .....*GSD-600) *and* For all VAV heater banks.....

Delete eleventh paragraph commencing Fan coil units located.....

Add the following sentence at the end of the thirteenth paragraph beginning with All mechanical boards with DDC control.....;

A triple RJ45 socket shall be installed within the DDC board in a location that is determined by the controls system installer to enable the board to be connected to the GU network.

18.01.14 Air Conditioning Controls

Insert new second paragraph;

All AHUs and FCUs which do not have a requirement for a Constant Temperature Set Point, shall have an Effective Set Points calculated by combining the sum of the Base Set Point +/- Global Offset +/- Local Offset + 5^0 C for cooling and – 5^0 C for heating. Should a Global Offset be applied due to a rise or fall in ambient temperature, then this must not alter the heating or cooling Effective Set Points.

Amend the text of the existing fifth paragraph as follows;

VAV controllers to individual areas within like spaces shall not be used without the specific approval of the Associate Director Capital Works CLF. If approved, the air handling fan shall have a variable speed drive controlled by a duct pressure sensor providing feedback on the drive speed.

18.01.15 Central Control & Monitoring System (CCMS)

Amend the first paragraph to read;

All new buildings and refurbishment or alteration of existing buildings, shall include for full connection to the GU existing CCMS system with exposure of points as directed via BacNet to the GU IP network. The existing CCMS system is a combination of Schneider Electric (formerly T.A.C. Pacific Pty Ltd) 'INet', 'Vista' and 'StruxtureWare' systems. All new buildings shall use 'StruxtureWare', or approved equal, as outlined later herein.

Delete the existing second paragraph and replace with the following;

When refurbishment or upgrade works are undertaken within an existing building, the existing CCMS system shall be extended or modified accordingly subject to the approval of CLF, unless the extent of work justifies the conversion of the whole building to the current preferred 'StruxtureWare' system. Older buildings and certain campuses are controlled using the 'T.A.C. INet' system, however no new 'INet' system or equipment is to be installed.

Amend the text of the third paragraph as follows;

....., with equivalent technical performance to the Schneider StuxtureWare system, may be considered. If an alternative system is approved following and evaluation by CLF, the system manufacturer shall.....

Amend the text of the fourth paragraph as follows;

The mechanical engineering consultant shall consult with CLF and the approved specialist CCMS provider to develop a functional brief for the air conditioning control strategy for all areas of a new building or a major refurbishment before design documentation is commenced. The functional brief shall.....

Add the following to the end of the sixth paragraph:

A triple RJ45 data port shall be installed within the DDC section of the MSB in a position determined by the control system installer.

Add a new sentence after the first sentence of the tenth paragraph as follows;
Laboratories and some other special areas shall be exempt.

Amend the first sentence of the eleventh paragraph as follows;

Provide a CLF approved UPS with power monitoring.....

18.01.16 Time Clock Requirements

Amend table as follows;

Air Handling Units
AHU-A1, AHU-B, AHU-C & AHU-D

18.01.18 Control – Ceiling Fan Coil Units

Delete existing paragraphs and replace with the following;

Provide time scheduled control of FUCs as follows;

FCU-A (Staff Offices) – Provide a wall mounted controller with three (3) fan speed settings plus an Auto speed function. Initial activation of the FCU is via a button on the controller and activation shall be maintained by a 360^0 ceiling mounted motion detector with a 20 minute (adjustable) minimum running period. The controller shall also have a local temperature adjustment which will allow the occupant to adjust their temperature setting by a maximum of 1.5^0 C either side of the set point. Temperature will be maintained by either chilled water cooling or electrical heating by modulating the chilled water valve to cycle with the heater.

FCU-B (e.g. Areas operating continuously) – Provide a daily time schedule to limit the operating hours of the unit. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the chilled water valve to cycle with the heater.

FCU-C (e.g. seminar rooms, laboratories and meeting/conference rooms) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit shall be via a motion detector, and the unit shall stop if no motion is detected after 20 minutes. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the chilled water valve to cycle with the heater.

FUC-D (e.g. General Areas) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit outside the scheduled hours shall be via a push button, and the unit shall run for a maximum period of 2 hours. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the chilled water valve to cycle with the heater.

18.01.19 Control – Variable Air volume Boxes (VAVs)

Delete existing paragraphs and replace with the following;

Provide time schedule control of VAVs as follows;

VAV-A (Staff Offices) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit shall be via a motion detector, and the unit shall stop if no motion is detected after 20 minutes. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the VAV damper between its minimum and maximum positions in cycle with heater activation.

VAV-B (e.g. Areas operating continuously) – Provide a daily time schedule to limit the operating hours of the unit. A sensor shall monitor the room temperature and the set point shall be maintained by

modulating the VAV damper between its minimum and maximum positions in cycle with heater activation.

VAV-C (e.g. Seminar Rooms, laboratories and meeting/conference rooms) - As for **VAV-A** above

VAV-D (e.g. General Areas) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit outside the scheduled hours shall be via a push button, and the unit shall run for a maximum period of 2 hours. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the VAV damper between its minimum and maximum positions in cycle with heater activation.

18.01.20 Control – Air Handling Units (AHUs)

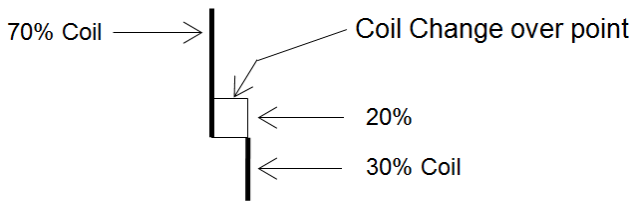
Delete existing paragraphs and replace with the following;

Provide control of AHUs where applicable as follows;

Supply Air – All AHUs shall have a temperature sensor fitted to the unit air supply.

Chilled Water Flow to Coils - Wherever possible, all AHUs shall be fitted with split coils in the ratio of 30% and 70%. Each coil shall be fitted with a chilled water supply valve controlled by the BMS. The control strategy for operation of the coils is as follows;

- The small coil shall be activated first and the valve shall modulate the CW flow to meet the cooling load
- When that load exceeds the 100% cooling capacity of the small coil for more than 5 minutes (adjustable), then the large coil shall be activated and its CW flow modulated to achieve the required air temperature while maintaining the small coil at full capacity
- If the load requires more than 100% the of cooling capacity of the small coil plus 20% of the capacity of the large coil, then the CW flow to the large coil shall be modulated upward to achieve 100% cooling capacity while the supply to the small coil is closed down (see Diagram 18.i)
- When the load exceeds the 100% capacity of the large coil for more than 5 minutes (adjustable), then the small coil shall be reactivated and the CW flow modulated to achieve the required temperature while maintaining the large coil at full capacity
- If the load requires less than 50% of the cooling capacity of the large coil and the small coil is closed down, then the small coil shall be reactivated and the CW flow to both coils modulated to decrease the capacity of the large coil and increase the capacity of the small coil
- When the load has once again exceeded the 100% cooling capacity of the small coil, then the CW flow control outlined above will commence a new cycle.



The object of this operating strategy is to achieve the maximum amount of cooling required for the minimum amount of the coil cooling capacity available. This will also de-humidify the air and provide the potential to maintain comfort levels while allowing the temperature set point to be raised, with a consequent saving in energy.

Economy Cycle – Air handling units within systems which utilise an economy mode shall have temperature and humidity sensors installed in the return air. The BMS shall be programmed to calculate the enthalpy of the return air. This enthalpy calculation shall be compared with the enthalpy reading at the campus wether station and the unit shall then be controlled to the most efficient mode.

Carbon Dioxide (CO_2) Control – Provide a CO_2 sensor in the return air to modulate the return and outside air dampers to maintain the CO_2 level between 600 and 900ppm using proportional control.

Economy Cycle and CO_2 Control – CO_2 control shall have precedence.

Provide time schedule control of AHUs as follows;

AHU-A1 (Single zone unit) – Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit outside the scheduled hours shall be via a push button, and the unit shall run for a maximum period of 2 hours. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the chilled water valve to cycle with the heater bank/coil.

AHU-A2 (Single zone unit) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit shall be via a motion detector, and the unit shall stop if no motion is detected after 20 minutes. A sensor shall monitor the room temperature and the set point shall be maintained by modulating the chilled water valve to cycle with the heater bank/coil.

AHU-B (VAV unit) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit outside the scheduled hours shall be via a push button, and the unit shall run for a maximum period of 2 hours. VAV cooling demand shall be determined by selecting the highest reading from multiple sensors and reset the supply air temperature set point between 12^0C and 20^0C as the maximum cooling demand varies from maximum to nil. The supply air temperature set point shall be maintained by modulating the chilled water valve to cycle with the heater bank/coil. Modulate the VSD to the supply fan to maintain supply air pressure at the set point.

AHU-C (Multi zone face and bypass unit) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit outside the scheduled hours shall be via a push button, and the unit shall run for a maximum period of 2 hours. Modulate the zone face and bypass dampers to cycle with the heaters to maintain the zone set point. Zone cooling demand shall be determined by selecting the highest reading from multiple sensors and reset the temperature set point of the supply air off the coils between 12^0C and 20^0C as the maximum cooling demand varies from maximum to nil. The control of the chilled water supply to the coils to maintain the off coil air temperature set point is described elsewhere in this clause. Bypass dampers shall adopt the full face position on the shutdown of the AHU.

AHU-D (Single zone DX unit) - Provide a daily time schedule to limit the operating hours of the unit. Activation of the unit outside the scheduled hours shall be via a push button, and the unit shall run for a maximum period of 2 hours. A sensor shall monitor the room temperature and the set point shall be maintained by cycling cooling and heating modes.

18.01.21 Control - Refrigeration

Delete the first paragraph and insert the following;

Primary Chilled Water System (Chillers) – The temperature sensor in the return line in the chilled water loop shall control the sequencing of the chiller units in a chilled water generation plant.

Step Up time shall be dynamic varying from thirty (30) minutes to two (2) minutes depending on the temperature differential between common return chilled water and the Step Up temperature set point.

Step Down time shall be dynamic varying from thirty (30) minutes to two (2) minutes depending on the temperature differential between common return chilled water and the Step Down temperature set point.

Settle time shall be dynamic varying from thirty (30) minutes to fifteen (15) minutes depending on the temperature differential between common return chilled water and the Step Up and Step Down temperature set points.

The following control/monitoring points shall be able to be forced with an indicator;

- Common entering return chilled water temperature
- Total Chiller load %
- Master cooling call

The following control points shall be changeable;

- Set Up temperature set point
- Step Down temperature set point
- Step Up load % set point
- Step Down load % set point
- Step Up time controller
- Step down time controller
- Settle time controller
- Chiller sequence

The following control points **shall not** be changeable from the graphics page and shall be dynamic;

- Set Up time
- Step Down time
- Settle time

Chiller Units Graphics Page – Each chiller unit shall have its own graphics page.

If a chiller is in fault or fails to start then a command to start shall be passed to the next chiller in available sequence.

The sequence in which the chillers are operating shall be highlighted on each chiller graphics page.

Chilled Water Reticulation Graphics Page – The sequence in which the chillers are operating shall be highlighted on the page.

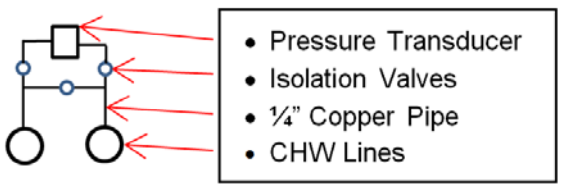
The following points shall be able to be forced with an indicator;

- Change lead chiller/pump
- Secondary chilled water pump start/stop
- Pump VSD speed
- Cooling call

If secondary chilled water pumps in a building on the chilled water loop are running, and the building return water temperature is greater than the Step Up temperature set point for more than ten (10) minutes and no chillers are running, then a signal shall be given to start the lead chiller.

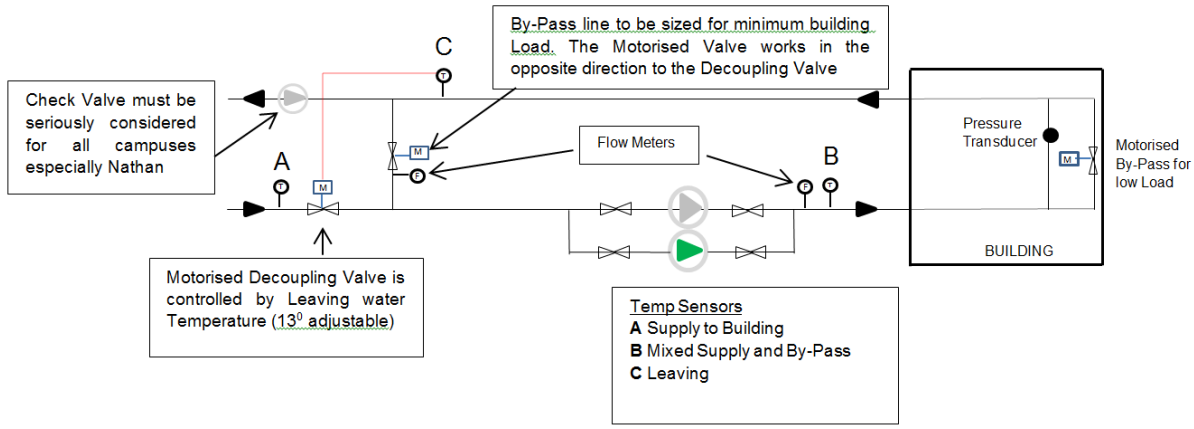
Insert the following at the end of the existing second paragraph;

The VSD of any secondary chilled water pump shall be controlled by a pressure transducer located in an easily accessible location at approximately two thirds (2/3) of the distance along the index chilled water pipe run. The pressure transducer pipework shall be configured as shown in the following Diagram 18.ii.



Insert following new paragraph between the existing fourth and fifth paragraphs;

Secondary Chilled Water Pipework Layout – The supply and return pipework within a building, shall incorporate the secondary pipework and control/monitoring valves and equipment as shown on the following Diagram 18.iii to maintain consistent water flows and temperature control throughout the building pipework system.



Amend text of existing sixth paragraph as follows;

..... until all fans are running at 50% speed, ...

18.01.26 Graphics Pages

Insert the following new paragraph between the existing first and second paragraphs;

An Alarm page shall be created and be located on the main Campus Directory page index. The alarms, whether in a new building or a refurbishment project, shall include but not be limited the following;

- Loss of compressed air pressure (Building No.)
- Loss of vacuum (Building No.)
- Demineralised water, fault/extra low level (Building No.)
- Sewer pump (Building No. or location)
- Oxygen level (Building No.)
- Power loss/fault - critical buildings (Building No.)

Some alarms will be critical and will need to dial out/SMS, others may not. This is to be determined in consultation with CLF and the space/equipment Users.

Amend existing second paragraph as follows;

- *Delete* mush *and insert* must. *Delete* par *and insert* part

B. For refurbishment projects

Delete text to second dot point and replace with the following;

- For minor refurbishment works, the control may remain on an existing INet system but this will need to be discussed with CLF on a case by case basis, however if this is approved the graphics shall be updated to reflect the latest standard.

Delete existing third dot point.

18.01.27 Energy Management

Insert the following new paragraph at the beginning of the clause;

All air conditioning system designs shall be assessed for the potential to introduce an Economy Mode. The mechanical consultant shall consult with CLF to establish which areas within a building are appropriate for utilising this Mode. Refer to **Subclause 18.01.20** for controls to be provided to operate this system feature.

Delete existing second paragraph and replace with the following;

Staff offices shall be fully air conditioned with individual controls as described in **Subclauses 18.01.18** and **18.01.19**.

Amend the text of the existing fifth paragraph;

..... use of enthalpy control and/or heat transfer systems.....

Amend the text of the existing sixth paragraph;

Electric heaters in..... program. Refer to **Subclause 18.01.09**.

Amend the text of the second sentence in the existing ninth paragraph;

.....switches on for two (2) hours (adjustable) through.....

Delete the abbreviation FCE *in the first line fourth paragraph and replace with* FCU

18.01.29 Design Requirements for VAV Air Conditioning Systems

Delete the abbreviation AGU *from the fourth line of the sixth dot point and replace with* AHU

Delete the last sentence of the sixth dot point and replace with the following;

If electric heaters are fitted to the AHU, then the unit fan shall be time delay switched so that it will continue to run on at low speed for a period of five (5) minutes after the shutdown of all VAV boxes in order to dissipate the residual heat from the heater bank.

Replace the word Fir *at the beginning of the second sentence of the eleventh paragraph with* For.

18.02.04 Fume Cupboard Services

Insert the words appropriately labelled *after* GPOs *in the first line of the third paragraph.*

18.02.07 Control Systems

Insert the following new paragraph after the existing second paragraph;

The fume cupboard control system shall incorporate terminals to enable connection of the BMS. These terminals shall provide 2 Volt free contacts for the BMS to monitor the fume cupboard status, and faults. The BMS is required to monitor the fume cupboard status so that the AHU serving the laboratory can be started and continue to run while the fume cupboard is in use even though the laboratory is unattended due to a prolonged experiment or reaction procedure.

18.03.02 Exhaust Unit

Replace the word tow *in the second line of the seventh paragraph with* two.

18.03.06 Electrical & Controls

Add the following text to the end of the third paragraph;

All GPOs must be labelled as per the requirements of **Section 20 Subclause 20.07.01**.

18.03.07 *Change clause title to* **Dangerous Goods & Safety Storage Cabinets**

Delete all existing text and diagram and replace with the following;

The venting of dangerous goods and safety cabinets, unless mandatory under Australian Standards, shall be subject to a risk and safety assessment to be undertaken in conjunction with CLF and the GU Health & Safety Advisor (Chemical & Radiation Safety).

Reference shall be made to the following Australian Standards with respect to the design of ventilation systems, duct materials and fan types;

- AS 1940 – The Storage & Handling of Flammable & Combustible Liquids
- AS/NZS 5026 – The Storage & Handling of Class 4 Dangerous Goods
- AS 4326 – The Storage & Handling of Oxidizing Agents
- AS 2414 – The Storage & Handling of Organic Peroxides
- AS/NZS 4452 – The Storing & Handling of Toxic Substances

18.04.02 Laboratory Gases

Delete existing text to the first paragraph and replace with the following;

It is preferable that gases be supplied from bottles located within a secure ventilated storage compound located external to the building and which is easily accessible from a service road. Where this is not possible or practical e.g. refurbishment projects, the bottles shall be stored internally in an appropriate secure, ventilated store room adjacent to the laboratory with readily accessible from the circulation corridors and the building lift for the replacement and removal of gas bottles.

18.04.03 Compressed Air

Delete the last sentence of the first paragraph and replace with the following;

Compressors shall from a manufacturer acceptable to CLF and shall be fitted with volt free contacts for connection of the BMS to monitor 'Common Fault' and 'Low Pressure'.

Insert 15% *between the words* with *and* silver *in the first line of the third paragraph*.

18.04.04 Vacuum

Add the following sentence to the end of the first paragraph;

The pump shall be fitted with volt free contacts for connection of the BMS to monitor 'Common Fault' and 'Loss of Vacuum'.

18.04.05 *Change clause title to* **Purified Water**

Delete existing text to the first paragraph and replace with the following;

Each laboratory building shall have a central water purification system, capable of delivering Type 3 pure water to all laboratories. If higher quality water (Type 2 or Type 3) is required in particular laboratories by the SDFs, then additional purification equipment shall be provided locally within the nominated spaces. Purified water quality shall comply with the following guideline specification;

Contaminant	Parameter & Unit	Type 3	Type 2	Type 1
Ions	Resistivity (MΩ·cm @ 25^0C)	>0.05	>1	>18
Organics	TOC (ppb)	<200	<50	<10
Pyrogens	(EU/mL)	NA	NA	<0.03
Particulates	Particulates > 0.2 µm (units/mL)	NA	NA	<1
Colloids	Silica (ppb)	<1000	<10	<10
Bacteria	Bacteria (cfu/mL)	<1000	<100	<1

The system shall be fitted with volt free contacts for connection of the BMS to monitor common faults. Conductivity meters shall be of the digital type

Delete the first sentence of the second paragraph and replace with the following;

Storage tanks shall be fabricated from Type 316 stainless steel.

Delete the fifth paragraph.

18.04.07 Outlets to Piped Services

Amend text to first sentence of the second paragraph to read;

..... shall be Broen, Enware LF Series or equal as approved by CLF.

18.04.09 CCMS Alarm Points

Amend last line of table as follows;

Water purification plant alarms	High and Low level alarms to tank Common fault from RO plant

18.05.01 Generally

Delete the word unit *between* undertaken *and* the Superintendent *in the last sentence of the second paragraph and replace with* until.

Appendix A – GRIFFITH UNIVERSITY STANDARD POINTS LIST

Add the following to the current Table;

Point Description	Type	DI	DO	AI	AO	Field Device	Comments
CEILING FAN COIL UNITS							
Motion Detector			1			Motion detector	
HEAT PUMP FOR HOT WATER HEATING							
Stop/Start			1				
Supply & return water temp			2			MSSB terminal strip	
Pump VSD, control & fault		1	1		1	VSD	
DECOUPLING							
Mixed Bypass/Supply temp				1		Pipe temp sensors	
Motorised decoupling valve					1	Valve actuator	
Motorised decoupling bypass valve					1	Valve actuator	
Flow meter, bypass & pump supply		2		2		Flow meter	
Low load motorised bypass					1		Located in building

Section 20.00 Electrical Services

No amendments

Section 21.00 Communication & Data Services

No amendments

Section 22.00 Security Services

No amendments

Section 23.00 Lifts

No amendments

Section 24.00 Landscaping

No amendments

Section 25.00 Signage

No amendments

26.00 Loose Furniture & Equipment

26.01 Generally

Delete last two paragraphs and replace with the following;

User requirements for furniture types shall be described in the project Space Description Forms.

Furniture purchased shall comply with the specifications contained in the Furniture Catalogue prepared by CLF. This catalogue is located on the Griffith Portal which is accessible only to GU employees, however the relevant specifications will be made available to Consultants and Contractors on written application to the Senior Architect, CLF (t.powell@griffith.edu.au).

Section 27.00 Post Construction Responsibilities of Consultants & Contractors

27.04 Operating & Maintenance Manuals

Delete all content of the existing clause and replace with the following;

Operating and Maintenance (O&M) manuals shall cover all aspects of the work undertaken in the project.

All Manuals shall have a Cover page providing the key project information as required by Standard Drawing GSD-001D.

Each Manual shall have a Contents page properly structured into Sections and indexed with page numbers.

The manuals shall be submitted to the Superintendent in electronic format, and they shall be grouped into a single PDF file for each discipline corresponding to the list provided on Standard Drawing GSD-001C. The PDF file shall be fully searchable and bookmarked according to the section index.

If hard copies of the O&M Manuals are requested by the Superintendent, they shall be structured in an identical form to, and submitted at the same time as the electronic version for review and approval.

The O&M manuals shall include but not be limited to the following;

- A general description of the scope of the project
- A list of all design consultants employed on the project whether by the Principal or the Contractor
- Details of all suppliers and subcontractors supplying goods or services to the project
- Finishes and colour identification schedules
- Operating instructions and technical schedules for all equipment and plant installed as component parts of the project
- Maintenance instructions including time schedules
- Control system and electrical layout plans complete with terminal numbers corresponding to wiring ferrules, with cross referencing as necessary
- Testing and commissioning dates, set points, flow rates, timer settings etc. including all testing evidence certificates
- An asset list of all maintainable equipment (CLF will provide a template which must be completed in full)
- All warranties and guarantees
- All statutory certificates and approvals

27.05 'As Constructed' Drawings

Add the following to the table of drawings to be provided;

Discipline	Content of Drawing
Signage	Sign location plan including type Structural engineers drawings for construction of major signs including footings etc. Electrical power supply drawings and installed electrical lighting equipment for illuminated signs

27.06 Post Construction Site Survey

Add the following text to the end of the first paragraph;

The new post construction survey undertaken must relate to the original site survey provided to the Consultant/Contractor by the Principal, and shall be merged, aligned and presented in layers which correspond with the overall existing campus CAD file survey record.

Amend the text of the second dot point in the second paragraph as follows;

- ..... showing the ground level contours at 0.25m (maximum) intervals.....

Delete all text after the words immediate vicinity *from the last dot point of the second paragraph*.

Delete the word paths *from the existing last dot point in the third paragraph and replace with* path

Add the following dot points to the third paragraph;

- Location and size of drains, columns, poles, sign posts, overhead structures, planters, steps, ramps and retaining walls
- Ground line markings for car parks and traffic, traffic islands, boom gates and traffic lights
- All building entry locations and levels
- All trees with a girth greater than 200mm measured at one (1) meter above surrounding ground level and exposed rocks greater than one (1) meter in any one dimension which occur within ten (10) meters of the building footprint
- Any other permanent site features

Section 28.00 Project Briefing & Procurement

No amendments

Section 29.00 Design Procedures for Consultants & Contractors

29.12 Documentation Format

Amend text of last paragraph as follows;

Specifications shall be provided to CLF in MS Word format,
and.....

29.13 Technical Requirements for CAD Drawings Issued in Electronic Format

Delete existing first paragraph and replace with the following;

Electronic files of all drawings shall be submitted in AutoCAD.dwg and PDF formats. If the Consultant or Contractor has utilised BIM capable software (e.g. Autodesk Revit, Graphisoft ArchiCAD, Bentley Microstation) in the documentation process, the model matching with the 'As Constructed' Drawings shall be submitted before the Practical Completion of the project. The model file should be cleaned to remove all extraneous 'scrap' or 'working space' layers, stories, abandoned designs, object creation and testing spaces, empty layers or other content typically produced in BIM production.

Section 30.00 Certification Under the Building Act at Griffith University

No amendments

Section 31.00 Standard Drawings

No amendments

32.00 Standard Forms

Delete existing Space Description Form template and replace with the following;

Insert current SDF template

Section 33.00 Conditions of Tendering & Conditions of Contract for Lump Sum Contracts

33.01 *Change heading to* **Conditions of Tendering & Form of Tender**

Delete the existing paragraphs and replace with the following;

The Griffith University 'General Conditions of Tendering for Building Works', Version 2 dated April 2013 and Form of Tender included in this Section apply only to all tenders for 'Traditional' Lump Sum Fixed Price Contracts unless the project is deemed to be Minor Works.

If a breakdown of the Tender Sum is required, then a Supplementary Tender Form shall also be issued to Tenderers.

The Head Consultant shall incorporate these General Conditions, Form of Tender and Supplementary Tender Form (if required) into the tender documentation without amendment other than project details.

33.02 Conditions of Contract

Delete the existing first paragraph and replace with following;

The Conditions of Contract to be used for 'Traditional' lump Sum Fixed Price Contracts as defined in **Section 4.00 Clause 4.03**, shall be the general Conditions of Contract (AS 2124-1992) together with the Griffith University Amending Conditions of Contract Modifying the General Conditions of Contract (AS 2124-1992) dated July 2012.

33.03 Minor Works Contracts

Amend the text of the first paragraph as follows;

For projects with a Contract Sum less than $500,000, the Griffith University Minor Works Contract may be used subject to **Clause 4.03** of **Section 4.00**. This document.....

General Conditions of Tendering for Building Works
(Version 2, July 2013)

1.00 In these conditions, unless the context otherwise indicates and requires, the following terms shall have the meanings respectively assigned to them;

'**Principal**' – Griffith University, Queensland 4111, a Body Corporate and Statutory Body within the meaning of the Financial Administration and Audit Act;

'Invitation' – The letter given to prospective Contractors indicating that Tenders will be received for the execution of work;

'**Tender**' – A response by a prospective Contractor to an Invitation;

'**Conditions**' – The General Conditions of Tendering for Building Works as outlined in this document.

'Contract' – The agreement between the Contractor and the Principal for the execution of work constituted by the;

- Invitation to Tender
- General Conditions of Tendering for Building Works
- Any Special Conditions of Tendering
- GU Amending Conditions of Contract Modifying the Australian Standard General Conditions of Contract (AS 2124-1992)
- Specifications, Plans or Drawings (where applicable)
- Griffith University Design Guidelines and Procedures (where applicable)
- Schedule of Quantities and Prices or Rates (where applicable)
- Completed Form of Tender
- Letter of Acceptance

'**Contractor**' – A person, business, partnership or company who has entered into a Contract with the Principal to perform the works;

'**State**' – The Crown in right of the State of Queensland;

'**Officer**' – An officer or employee of the Principal, or any other person engaged by the Principal in relation to a Contract or any part thereof, or any of the employees of that person;

'**Tenderer**' – Shall apply equally to all and each of the persons, businesses, partnerships, or companies, or to any single individual making a Tender.

2.00 These conditions shall apply to Lump Sum Fixed Price contracts, subject to any special conditions detailed in the Invitation.

3.00 Tenders shall close and shall thereupon be opened in accordance with these conditions at the place, on the day, date and time shown on the Tender documents.

4.00 Every Tenderer shall state in the Tender;

- In the case of an individual, full Christian or given names, surname, and address;
- In the case of a business, the business name and address of the principal place of business;
- In the case of a company, the full name of the company and the address of the registered office of the company;
- Contact telephone and fax numbers
- The Australian Business Number (ABN) registration number
- Workers' Compensation Policy number
- Public Liability Policy number
- QBCC Licence number
- PQC Registration number

5.00 Unless otherwise stated in the Invitation every Tender shall be submitted in the format as supplied by the Principal;

- Appendix A, Supplementary Information to these General Conditions of Tendering; and
- Griffith University Form of Tender

6.00 Unless otherwise stated in the Invitation, Tenders shall:

- be sealed
- be endorsed on the front of the envelope with the Tender Name and Closing Date and Time
- not be submitted by facsimile or electronic means

7.00 Unless otherwise stated in the Invitation, **Tenders shall be lodged in the Tender Box at the Office of Planning & Financial Services, Sewell Building (N12), Griffith University, Nathan, 4111** before the time specified for the closing of Tenders. Any Tender not so lodged before the specified closing time shall not be considered unless there is satisfactory evidence that such Tender;

- was delivered to the office of the Principal before the specified closing time; or
- was despatched to the office of the Principal via a third party in sufficient time before the specified closing time to reach that office under normal circumstances but was still in the course of delivery at the specified closing time

8.00 The Principal at its discretion may reject a Tender delivered after the closing time for the receipt of Tenders no matter what the reason for the late delivery and in this regard;

- franking machine stamps will not be accepted as proof of the date of posting of a Tender received after the specified closing time for the receipt of Tenders

9.00 The type of contract shall be as stated in the Invitation.

10.00 Prices offered shall

- be in Australian currency
- be exclusive of GST (GST will be added to invoices and on payment of Progress Claims)
- include the GST component as a separate amount

11.00 Tenderers shall be deemed to have visited the site of the work and satisfied themselves of all local conditions and facilities.

12.00 Tenderers must furnish the technical data requested in the Technical Schedules included in the Specification.

13.00 The Principal reserves the right to accept one Tender for the whole or separate Tenders for any portion of the works as required in the Tender documents.

14.00 The Principal reserves the right to enter into negotiations post-tender with one or more tenderer if it wishes to reduce or increase the scope of work defined in the Tender Documents.

15.00 Section 67K of the Queensland Building Services Authority Act 1991 (as amended) implies conditions into building contracts as to limits retention amounts and security as follows;

At any time before practical completion of building work is reached, the total value of the following is not be more than 5% of the contract price for the contract:

- all retention amounts for the contract that are being withheld;
- all securities for the contract given and still held.

This Contract is not subject to those conditions and security will be withheld and/or retention deducted in accordance with clauses 5 and 42 of the Standard Conditions of Contract (AS 2124 – 1992).

16.00 Any Tender which does not comply in every respect with the requirements of the Invitation may be rejected.

17.00 The Principal shall not be bound by any oral advice given or information furnished in respect of the Invitation but shall be bound only by written advice or information furnished by the Principal.

18.00 Unless stated in the Invitation documents, Tenders will not be opened publicly.

Where Tenders are opened publicly, Tenderers or their representatives may be present at the opening of Tenders.

Information as to the names of Tenderers and their prices may thereupon be supplied to the extent and in the manner determined by the Principal.

19.00 The Principal shall reserve the right to accept a Tender with minor departures from the specified mandatory requirements where, after taking all factors into consideration, it is considered this Tender provides the best solution.

The Principal shall not be bound to accept the lowest nor any tender.

No Tender shall be deemed to be accepted until advice in writing of acceptance thereof has been given to the Tenderer by the Principal.

20.00 Unsuccessful Tenderers are entitled to full counselling and debriefing by the Principal.

21.00 No advertisement relating to the acceptance of any Tender shall be published in any advertising medium without the prior approval of the Principal.

Appendix A

Supplementary Information

The Project shall be known as:

Project name (Building No.), campus name campus

♦Clause 6.00

The envelope enclosing the tender shall be marked:

Tender for: **Project name (Building No.) campus name campus**

Tenders by facsimile will not be accepted

♦Clause 7.00

The closing date and time for the receipt of the tender is:

Time on the **Date**

at the

Tender Box
Office of Planning & Financial Services
Level 0
Sewell Building (N12), Griffith University, Nathan Campus, Queensland 4111

♦Clause 10.00

The Contract is a Lump Sum Fixed Price ***not*** subject to adjustment for Rise and Fall in costs.

FORM OF TENDER

I*/We* the undersigned, do hereby tender to Griffith University to provide all materials and labour and perform all works as Principal Contractor required in and about and in connection with the full and proper construction of;

(Insert Project Number & Name)
…… **campus**

This tender is strictly in accordance with the Tender Documents, and subject to the Griffith University Conditions of Tender & the General Conditions of Contract AS 2124 with Amendments issued by the Principal for the Fixed Lump Sum of;

- Tender Sum (excluding GST) $ .....
- GST applicable $ .....
- **Total Tender Sum** $ .....

I*/We* acknowledge receipt of the following Addenda to the Tender Documents and my/our tender includes allowance for their provisions:

- Addendum Nos. …….....…. *(List all, if none received state NIL).*

I*/We* elect to provide retention by way of **Cash*** / **Unconditional Bank Guarantee***. If no deletion is made then the Contractor shall be deemed to have elected to provide Cash retention.

I*/We* tender ….....% as the margin for off-site overheads and profit to be applied to variations under the Contract. If no figure given, then 7% (4% for overheads & 3% for profit) will apply.

I*/We* nominate the following Subcontractors (where applicable) to undertake the following trade works;

- Electronic Fire Detection ……
- Emergency Lighting ……
- Data & Communication Cabling ……
- Security & Access Control (Cardax) ……

Details of Individual / Company / Business submitting Tender:

Name: ..... **ABN:** .....

Address: .....

State: ..... **Postcode:** ..... **Phone:** ..... **Fax:** .....

QBCC License No.: ..... **PQC Registration No.:** .....

Public Liability Policy No.: ..... **Issuer:** ..... **Expiry Date:** ...../...../.....

Workers Compensation Policy No.: ..... **Expiry Date:** ...../...../.....

Signature: ..... **Name of Signatory:** .....

Capacity in which signing: .....

Witness to Signature: ..... **Name of Witness:** .....

Date: ...../...../.....

(delete whichever is not applicable)*

(Insert Project Number & Name)
***.....* campus**

SUPPLEMENTARY TENDER FORM

The Principal requires the Tender Sum (excluding GST) as stated on the Form of Tender to be broken down by Building/Stage* for Trade Works, plus the amount for On-site Overheads (Preliminaries), for the purposes of funding allocations and for Progress Payment purposes. The Principal intends to award a single Contract to undertake the work in all of the nominated Buildings/Stages* and will not award separate Contracts for individual Buildings/Stages* based on the individual amounts contained in this breakdown.

If the Principal considers that any individual amount provided for a Building/Stage* does not accurately reflect the value of the work to be undertaken in that building, then it reserves the right to negotiate an adjustment to that amount, providing that the Tender Sum remains unchanged after any adjustment.

Each amount provided, including that for On-site Overheads (Preliminaries), shall be inclusive of margins for off-site overheads and profit.

Building/Stage*:	**Amount (excluding GST)**
.....	**$** .....
.....	**$** .....
.....	**$** .....
.....	**$** .....
On-site Overheads (Preliminaries)	**$** .....
	_____
Tender Sum (excl. GST) - to Form of Tender	**$**.....

Details of Individual / Company / Business Submitting Tender:

Name: ..... **ABN:** .....

Address: .....

Signature: ..... **Name of Signatory:** .....

Capacity in which signing: .....

Witness to Signature: ..... **Name of Witness:** .....

Date: ...../...../ 2014

*(*Delete whichever is not applicable)*

Minor Works Contract

INVITATION TO SUBMIT A TENDER

You are invited to submit a Tender for the execution and completion of the works described below in accordance with the Drawings and Specification (if any) supplied herewith, the Griffith University Conditions of Tender & Conditions of Contract for 'Minor Works' herein, and any other information issued by the Principal for the purposes of tendering.

- Tenders shall close at:

  The Tender Box
  Office of Finance & Business Services
  Level 0, Sewell Building (N12)
  Griffith University, Nathan Qld 4111

- Closing date and time for the receipt of the tender is:

  Date: xxxxxx
  Time: 2.00 pm

- The sealed envelope enclosing the tender shall be marked:

  Tender for:

- The Contract is a Lump Sum Fixed Price not subject to adjustment for rise and fall in costs.
- Tenders shall remain valid for 30 calendar days.
- The tenders will not be opened publicly.
- Date for Practical Completion: within ..... weeks from acceptance or by ...../...../.....
- Liquidated Damages: $..... per day (Clause C13)
- Defects Liability period: ..... months from Practical Completion(Clause C14)
- Times for making payment claims: Monthly
- Retention: 10% of the value of work completed until 5% of the adjusted Contract Sum (including Variations) is held
- Amount of Retention to be held by Principal during Defects Liability period: 2.5% of the adjusted Contract Sum.

Any queries relating to the tender documents including drawings and specifications (if any) and requests for site access for an inspection, should be directed to the CLF Project Manager ..... , on Telephone 3735 ....., Mobile ....., or Facsimile 3735 7746.

Richard Kerr
Associate Director, Capital Works
Campus Life
Date: (...../...../.....)

FORM OF TENDER

I/We the undersigned, do hereby tender to Griffith University to provide all materials and labour and perform all works as Principal Contractor required in and about and in connection with the full and proper construction of -

Project No.:

Description of Works:

Campus:

This tender is strictly in accordance with the Tender Documents, and subject to the Griffith University Conditions of Tender & Conditions of Contract for Minor Works issued by the Principal for the Fixed Lump Sum of ;

- Tender Sum (excluding GST) $ .....
- GST applicable $ .....
  _____
- **Total Tender Sum** $ .....

I/We acknowledge receipt of the following Addenda to the Tender Documents and my/our tender includes allowance for their provisions:

- Addendum Nos. ……..... *(List all, if none received state NIL).*

I/We elect to provide retention by way of **Cash*** / **Unconditional Bank Guarantee*** *(*delete whichever not applicable)*. If no deletion is made then the Contractor shall be deemed to have elected to provide Cash retention.

I/We tender ….....% as the margin for off-site overheads, attendance and profit to be applied to variations under the Contract. If no figure given, then 10% will apply.

I/We nominate the following Subcontractors (where applicable) to undertake the following trade works;

- Electronic Fire Detection .....
- Emergency Lighting .....
- Data & Communication Cabling .....
- Security & Access Control (Cardax) .....

Details of Individual / Company / Business submitting Tender:

Name: ..... **ABN:** .....

Address: .....

State: ..... **Postcode:** ..... **Phone:** ..... **Fax:** .....

QBCC License No.: ..... **PQC Registration No.:** .....

Public Liability Policy No.: ..... **Issuer:** ..... **Expiry Date:** .../.../....

Workers Compensation Policy No.: ..... **Expiry Date:** ..../.../...

Signature: ..... **Name of Signatory:** .....

Capacity in which signing: .....

Witness to Signature: ..... **Name of Witness:** .....

Date: ...../...../.....

CONDITIONS OF TENDER FOR MINOR WORKS

1.0 Unless otherwise stated in the Invitation, the Tender shall be submitted in the format as supplied by the Principal, signed, fully priced where required and accompanied by any other documents such as technical data, required to be submitted. A Tender that does not comply with any requirement of the tender documents may be rejected.

2.0 The tender documents shall comprise the Form of Tender, these Conditions of Tender and the Conditions of Contract for Minor Works, and such Specifications, Drawings and any other information issued by the Principal for the purposes of tendering and which may be inspected or obtained at the Campus Life.

3.0 Unless otherwise stated in the Invitation, Tenders shall be enclosed in a sealed envelope, endorsed with the name of the Tender Name and Closing Date and Time. Tenders submitted by facsimile or electronic means shall not be considered.

4.0 The Principal at its discretion may reject a Tender delivered after the Closing Time for the receipt of Tenders no matter what the reason for the late delivery, and in this regard, franking machine stamps will not be accepted as proof of the date of posting of a Tender received after the nominated closing time.

5.0 The Tenderer is required to satisfy itself as to the correctness and sufficiency of its Tender. A Tender shall be deemed to be on the basis that the Tenderer has a full knowledge of all matters relating to the contract and has undertaken an inspection of the site and any existing structures or features thereon. Tenderers may submit a fully detailed offer for alternative technical or innovative solutions, however a Tender fully conforming with the tender documents must also be submitted.

6.0 The Principal shall not be bound by any oral advice or information furnished in respect of the Tender but shall be bound only by written advice or information given or furnished to it.

7.0 The Principal shall not be bound to accept the lowest or any tender. The Principal may accept a Tender which on consideration of all the circumstances appears to offer the best 'Value for Money' as defined by the Queensland Government State Purchasing policy, or the Principal may decline to accept any Tender. Unless otherwise stated in the Invitation, post-tender negotiations are a prospect. A Tender shall not be deemed to be accepted until the date of notification in writing to the Tenderer of such acceptance. The Contract shall commence from the date of granting possession of the site as nominated in the notification of acceptance.

8.0 The name of the Tenderer, the tendered sum and subsequent Contractor and Contract details including the Contract Sum, shall be subject to public disclosure under Freedom of Information legislation. Where any information is provided on a confidential basis, the Tenderer should clearly endorse such information 'In Confidence', and the principal may take this into account when deciding if this information is to be disclosed.

9.0 Unsuccessful Tenderers are entitled to full counselling and debriefing by the Principal.

CONDITIONS OF CONTRACT FOR MINOR WORKS

C01. Interpretation

In these Conditions, unless the context otherwise indicates or requires, the following words and expressions shall have the meanings respectively assigned to them:

'Contract' - The agreement in writing between the Principal and the Contractor for the execution of the work under the Contract, including documents or parts of documents to which reference may properly be made to ascertain the rights and obligations of the parties.

'Contractor' – The person, business, partnership or company who has entered into a Contract with the Principal to supply the goods or perform the services offered.

'Date for Practical Completion' – The date, or last day of the period of time, nominated in the Invitation or the letter of acceptance.

'Practical Completion' – When the work under the Contract is complete in accordance with the Contract except for latent or undiscovered defects and for minor omissions and defects which will not (and the rectification of which will not) prevent or impair the normal use and occupation of the Works.

'Principal' – Griffith University, Queensland 4111, a Body Corporate and Statutory Body within the meaning of the Financial Administration and Audit Act.

'Superintendent' – The Associate Director Capital Works, Campus Life shall exercise the functions of the Superintendent under the Contract. The Superintendent shall have the power to nominate from time to time a Superintendent's Representative to exercise any of the powers, duties, discretions and authorities conferred on the Superintendent by the Contract.

'Work under the Contract' – The work which the Contractor is or may be required to execute under the Contract including any variations.

'Works' – The whole of the work to be executed and completed in accordance with the Contract, including all variations provided for by the Contract, which by the Contract is to be handed over to the Principal.

C02. Execution and Completion of Works

The Contractor shall undertake the Work under the Contract as Principal Contractor in accordance with the Contract and any drawings, specifications and other documents issued by the Principal to the Contractor under the Contract. Unless otherwise provided for by the Contract, the Contractor shall be responsible for all things, including items not expressly mentioned in the Contract, necessary for the satisfactory completion and performance of the work under the Contract. The documents forming the Contract shall be taken as mutually explanatory and anything contained in one but not in another shall be equally binding as if contained in all.

The Contractor shall comply with the requirements of legislation and public or other authorities affecting the Works, and unless otherwise specified shall unless otherwise specified pay all fees, give all notices and obtain all necessary consents.

C03. Assignment and Sub-contracting

The Contractor shall not assign or subcontract the Work under the Contract, or any part thereof or any payment there under without the prior written approval of the Superintendent. The Contractor shall not, without the prior written approval of the Superintendent, allow a subcontractor to subcontract the Work under the Contract. The Superintendent may, in its entire discretion and without giving reasons, reject any request for approval by the Contractor pursuant of this clause

C04. Work Health and Safety Act 2011

For the purpose of this clause the words 'Principal Contractor', 'construction workplace', 'serious bodily injury', 'work caused illness' and 'work injury' have the meanings assigned to them by the *Work Health and Safety Act 2011* ('the Act').

If the Work under the Contract is construction work performed at a workplace, upon acceptance by the Principal of the Contractor's tender:-

(a) the Principal shall be deemed to have appointed the Contractor to be the Principal Contractor pursuant to Section 20 of the Act which provides for a person conducting a business or undertaking (PCBU) with management or control of the workplace or workplace fixtures, fittings and plant.
(b) the Contractor shall be deemed to have accepted the appointment; and
(c) the Contractor shall, in respect of the works to be executed under the Contract, be responsible for the performance of the functions and obligations of the Principal Contractor within the meaning of the Act and Associated Regulation in force under the Act.

Such appointment as Principal Contractor under the Act shall be in force during the continuance of the Contract unless sooner revoked by the Principal giving twenty-one (21) days notice in writing to the Contractor of its revocation of by the Principal taking over or cancelling the Contract pursuant to any provision of the Contract or according to Law.

The Contractor shall indemnify and keep indemnified the Principal against liabilities which may arise out of the enforcement of any Section of the Act or Regulations.

The Contractor shall notify the Superintendent of every work caused illness, work injury, serious bodily injury and dangerous event which occur on site as soon as possible but not later than twelve (12) hours after such occurrence.

Except as stated in the Contract documents, if any material which may contain asbestos or any other hazardous material or substance is discovered, the Contractor shall not disturb the material or substance and shall inform the Superintendent who shall direct the action to be taken.

C05. Protection of Persons and Property

The Contractor shall take all measures necessary to protect people and property, avoid unnecessary interference with the passage of people and vehicles, prevent nuisance, unreasonable noise and disturbance. If the Contractor damages any property on or adjacent to the site, the Contractor shall provide temporary protection for and shall repair and reinstate the damaged property at its cost.

C06. Care of Works and reinstatement of damage

The Contractor shall be responsible for the care of the whole of the Work under the Contract. If loss or damage occurs to the Work under the Contract, the Contractor shall at the Contractor's cost rectify such loss or damage except loss or damage caused by the negligent act or omission of the Principal, or employees or agents of the principal, or caused by defects in the design of the Work under the Contract.

C07. Indemnity by Contractor

The Contractor indemnifies the Principal against:-
(a) loss of or damage to the Principal's property; and
(b) claims by any person in respect of personal injury or death or loss of or damage to any property;
resulting from or in any way connected with the Contractor carrying out the Work under the Contract, but the Contractor's liability to indemnify the Principal shall be reduced proportionally to the extent that the act or omission of the Principal or employees or agents of the Principal may have contributed to the loss, damage, death or injury.

C08. Insurance of the Works and Public Liability Insurance

Before commencing work under the Contract, the Contractor shall take out insurance sufficient to indemnify the Principal against loss or damage to the Works or to property of the Principal including existing property in or on which the Work under the Contract is being carried out.

The Contractor shall have public liability insurance for an amount not less than $10 million to cover the Contractors liability for loss of or damage to property and death or injury to any person.

The Contractor shall maintain such insurances for the duration of the Contract and provide evidence of such insurances prior to commencing the Work.

C09. Insurance of Employees (WorkCover)

Before commencing work the Contractor shall insure against liability for death of or injury to persons employed by the Contractor. Where the Contractor is a self employed person, The Contractor shall maintain an equivalent insurance policy for itself. The Contractor shall maintain the insurance for the duration of the Contract and shall produce evidence of the insurance prior to commencing work. The Contractor shall ensure that every sub-contractor is similarly insured.

C10. Materials and Workmanship

All materials used in any Work under the Contract and the standards of workmanship shall be in conformity with the provisions of the Contract. In the absence of such provisions in the Contract the material or standard of workmanship as the case may be shall be of a kind which is suitable for its purpose and is consistent with the nature and character of the Works. Unless otherwise specified in the Contract documents, all materials shall be new, and workmanship shall be in accordance with the relevant manufacturer's recommendations or, if none, the relevant Australian Standard where applicable. Apart from any tests specified, the Superintendent may at any time direct that any materials or work shall be examined and/or tested.

The Contractor shall comply with any direction of the Superintendent to remedy any work not in accordance with the Contract within the period of time stipulated in writing by the Superintendent. If the Contractor fails to comply with such a direction to carry out rectification work within the time stipulated, the Principal may have the rectification work the subject of the direction carried out by others at the Contractor's expense or may accept the work at a reduced value. The Principal may deduct the estimated cost of rectification work from payments until such time as the principal has incurred the cost of the rectification

C11. Time for Commencement

The Contractor shall commence work under the Contract within the time stated in the letter of acceptance and shall, unless otherwise permitted, give at least two (2) days' notice to the Superintendent prior to the commencement of work.

C12. Time for Completion

The Contractor shall execute the Works to Practical Completion by the Date for Practical Completion or within any extended time agreed by the Principal. The Contractor shall not be entitled to an extension of time for delays caused by it whether occurring before or after the time for completion nor for delays due to inclement weather or industrial conditions occurring after the Date for Practical Completion. The Superintendent may extend the time for completion for any reason.

C13. Liquidated Damages

If the Contractor fails to complete the Works by the Date for Practical Completion together with any extensions of time granted by the Superintendent, the Contractor shall be liable to the Principal for liquidated damages in the amount stated in the Invitation for every day after that date until Practical Completion has been achieved or the Contract terminated, whichever is sooner.

C14. Defects Liability Period

The Contractor shall promptly rectify all defects and omissions notified to the Contractor during the defects liability period stated in the Invitation. If the Contractor fails to do so the Principal may have the omission or defect remedied by other persons and the cost so incurred shall be a debt due to the Principal which may be deducted from payments.

C15. Cleaning of Site

The Contractor shall keep the site and the Works clean and tidy and regularly remove from the site rubbish and surplus material arising from the execution of the Works. On completion of the Works the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind.

C16. Variations

The Superintendent may direct in writing a variation to any Work under the Contract and the Contractor shall promptly comply with that direction. The Contractor shall submit to the Superintendent a detailed price for the variation within 14 days of the direction. The variation shall be valued by mutual agreement between the Contractor and the Superintendent or failing agreement, by the Superintendent, and the Contract price adjusted accordingly. The margin for off-site overheads, attendance and profit shall be that nominated by the Contractor in its Tender. No payment for additional work shall be made unless the additional work is authorised in writing by the Superintendent.

C17. Latent Conditions

If the Contractor discovers physical conditions on the site or its surroundings, excluding weather conditions, which differ materially from those which should reasonably have been anticipated at the time of tender if it had:

a) examined all information made available in writing by the principal to the Contractor for the purpose of tendering; and
b) examined all information relevant to the risks, contingencies and other circumstances having an effect on the tender and obtainable by the making of reasonable enquiries; and
c) inspected the site and its surroundings,

the Contractor shall immediately notify the Superintendent in writing and may request that a variation be directed pursuant to Clause C16.

The Superintendent may issue a direction in respect of the latent condition, and the Contractor shall be entitled to claim an extension of time for delays, and may be entitled to reimbursement of costs incurred as a consequence of the latent condition and directions issued in respect thereof.

C18. Payment

At the times stated in the Invitation, the Contractor shall give the Superintendent a detailed payment claim supported by information the Superintendent may reasonably require. Subject to the provisions of Clause C19, payment will be made as follows:

a) where this contract is a 'building contract' as that term is defined in the *Queensland Building & Construction Commission Act 1991*, payment will be made within 15 business days of receipt of a valid claim; and
b) in all other cases , payment will be made within 22 business days of receipt of a valid claim.

Payment shall take into account the deduction of retention moneys (if any) and any other amount which the Principal may be entitled to deduct or which is due and payable by the Contractor to the Principal whether under the Contract, any other contract or independent of contract. If the moneys to be deducted are

insufficient to discharge the liability of the Contractor, the Principal may have recourse to retention moneys or unconditional undertakings provided in lieu of retention.

Payment of moneys to the Contractor shall not be evidence of the value of work or an admission of liability or evidence that work has been executed satisfactorily but shall be a payment on account only. The Superintendent may, in a later payment certificate correct an error in a previous payment certificate. Nothing in this Contract shall oblige the Principal to pay for work that is not in accordance with the Contract, or for plant or materials not incorporated in the works on site.

For the purposes of the *Building and Construction Industry Payments Act 2004*, the Superintendent is authorised to receive payment claims and issue payment schedules on behalf of the principal.

C19. Default of Contractor

a) Subject to Clause C19(c), if the Contractor fails to commence the work under the Contract within the time stated in the tender, or fails to proceed with the work at a reasonable rate of progress or commits any substantial breach of the Contract or indicates that it is unable or unwilling to complete the Works, the Principal may, by written notice, require the Contractor to show cause by the date specified in the notice, which shall not be less than five (5) days, why the Principal should not exercise a right under Clause C19(b).
b) If the Contractor fails to show reasonable cause by the date specified by the Principal, then the principal shall have the power upon notice in writing to the Contractor to terminate the Contract or suspend payment and take the work remaining to be completed wholly or partly out of hands of the Contractor without prejudice to any rights of the Principal under the Contract or at common law.
c) If the Contractor:
   (i) fails to hold a current licence required to perform the Work under the Contract; or
   (ii) becomes insolvent or bankrupt, or being a company goes into liquidation, or takes or has instituted against it any action or proceedings which has as an object or may result in bankruptcy or liquidation; or
   (iii) enters into a debt agreement, a deed of assignment or a deed of arrangement with its creditors, or an administrator or controller is appointed; or
   (iv) has a receiver or a receiver and manager appointed or a mortgagee goes into possession of any of its assets,

   the Principal may, without giving notice to show cause, exercise a right under Clause C19(b)

d) In the event that the Principal takes work out of the hands of the Contractor, the Principal may itself or by means of other persons complete the whole or any part of that work and may without payment of compensation take possession of the constructional plant and other things on or in the vicinity of the site as are owned by the Contractor. If the cost incurred by the Principal in completing the work is greater than the amount which would have been paid to the Contractor if the Contractor had completed the work, the difference shall be a debt due from the Contractor to the Principal, otherwise any difference shall be a debt due from the Principal to the Contractor.

C20. Settlement of Disputes

Within 14 days of a dispute arising either party may refer it to the Superintendent. Within 28 days of receiving notice of the dispute the Superintendent shall give its written decision to each party. If the Superintendent fails to give a written decision on the dispute, or if either party is dissatisfied with the decision of the Superintendent the parties shall, within 14 days of the date of receipt of the decision, or the date upon which the decision should have been given, confer at least once to attempt to resolve the dispute.

C21. GST and PAYG

(a) *GST included in Price* – payments for any taxable supplies under the Contract include GST.
(b) *Tax Invoices* – The Contractor must issue the Principal with a tax invoice or adjustment note (as the case may require) within five (5) business days after each of the following occurring in relation to that taxable supply:
   (i) the Contractor submitting a claim for payment that is not in the form of a valid tax invoice;
   (ii) the Superintendent certifying an amount for payment different to the amount claimed;
   (iii) the amount for payment being otherwise determined to be different to the amount claimed or (if applicable) certified.
(c) *PAYG Withholding* – Whenever the principal reasonably considers itself bound by law to do so, the principal shall be entitled to withhold from any payment otherwise due to the Contractor, amounts calculated and to be withheld in accordance with the law.

GRIFFITH UNIVERSITY

Amending Conditions of Contract

Modifying the Australian Standard

General Conditions of Contract

AS 2124 - 1992

for use on Griffith University projects.

July 2012

CONDITIONS OF CONTRACT

CLAUSE 1 GENERAL

The Conditions of Contract are the Australian Standard General Conditions of Contract AS 2124 - 1992 as amended herein.

CLAUSE 2 INTERPRETATION

INSERT the following:

"Adjudicator" means person who shall act as the Adjudicator pursuant to Clause 47;

“Adjusted Contract Sum” means the Contract Sum adjusted to include all agreed Variations pursuant to Clause 40

"Claim" includes any claim, demand, action, proceeding or suit which the Contractor may make or bring against the Principal or its employees relating to the interpretation of the Contract or as to any fact, matter or thing arising out of or in connection with the Contract or at law;

"Installation" means every item of apparatus, machinery or service (whether gaseous, liquid or electrical) or any such service attached to such apparatus or machinery, supplied to, forming part of or comprising the Works together with all necessary and appropriate requisites for the proper functioning, as stipulated in the Specification, of any such apparatus, machinery or service.

In addition to the requirements for the stage of Practical Completion under the General Conditions of Contract, the stage of Practical Completion shall not have been reached until:-

(i) all relevant Statutory Requirements have been complied with and the relevant Statutory Authority Certificates have been obtained by the Contractor and copies delivered to the Principal; and

(ii) warranties, guarantees, certificates, operating and maintenance manuals, as built drawings and other documents or information required to be provided by the Contractor to the Principal under the Contract have been provided; and

(iii) the keys and other security devices have been delivered to the Superintendent; and

(iv) the whole of the engineering services installation satisfies the various operational modes and performance requisites (i.e. to ensure that all service systems are capable of operating effectively individually and in unison) including but not limited to the following:-

- Performance achievement shall be demonstrated after all routine testing, adjusting, commissioning, approvals and building work associated with the contract is completed.
- Emergency/fire modes shall be simulated in the presence of the Superintendent
- As a minimum requirement, the following operational modes shall be demonstrated and in particular the effective transition from one mode to the other:

(a) The normal automatic mode (i.e. the condition the building will normally operate in when occupied).

(b) Ordinary essential mode (i.e. when a loss of supply authority power occurs).

(c) Fire essential mode (i.e. the occurrence of a fire alarm during the ordinary essential mode which shall be demonstrated by inserting smoke into the air conditioning air handling system at an appropriate point).

(d) Five alarm mode (i.e. the occurrence of a fire alarm during the normal automatic mode which is to be demonstrated as for (c) above).

(e) The various after hours call up operational mode (i.e. single floor after hours air conditioning and the like).

(f) The manual call up modes (i.e. the start up on each engineering services installation as a whole on a manual basis).

(g) The manual call up of major equipment items e.g.:

- each air handling point

- each chiller set

- each standby generator set

(h) The operation of the Building Management System in all of the modes listed above and the interfacing with all other systems nominated in the documents. This shall include all required formats for screen and printouts.

- The above operational modes shall be demonstrated in the order nominated.

- Notwithstanding the normal warranty/performance guarantees the whole of the engineering services systems shall operate in unison and in a normal automatic mode for seven consecutive days to demonstrate that satisfactory operation can be maintained before the installation can be considered to have attained practical completion. (Note: This shall be performed after the above operational modes have been satisfactorily demonstrated.)

- Failure to satisfy the above shall be deemed to be a defect to be rectified after Practical Completion.

- The Principal will not be liable for any fuel, energy or other costs incurred to demonstrate performance achievement of engineering services.

"working day" means a calendar day excluding Saturdays, Sundays, Statutory or Public Holidays and other non working days as provided under the relevant industrial award.

CLAUSE 3 NATURE OF CONTRACT

ADD new subclause 3.4 as follows:

3.4 Goods and Services Tax (GST)

The Principal shall pay GST on all goods and services provided by the Contractor. All invoices/progress claims shall be in the form of a Tax Invoice and shall include the GST component shown as a separate item.

CLAUSE 4 BILL OF QUANTITIES

No amendments in respect of Clause 4.

CLAUSE 5 SECURITY RETENTION MONEYS AND PERFORMANCE UNDERTAKINGS

Clause 5.2 Provision of Security

ADD the following:

The Contractor shall provide security to the Principal in the amount determined in accordance with the following scale.

Contract Sum	Amount of Security
Above $100,000	2% of the Accepted Tender

Clause 5.3 Form of Security

ADD the following:

Only a bank trading in Australia that has lender of last resort facilities is approved by the Principal for the purpose of providing an unconditional undertaking for security and retention.

The form of unconditional undertaking included (if any) in the Contract is approved.

Clause 5.4

Clause 5.5

Clause 5.6

Clause 5.7

Clause 5.8

Clause 5.9

No amendments to Clauses 5.4 to 5.9 inclusive.

Clause 5.10 Deed of Guarantee, Undertaking and Substitution

ADD the following:

Where the Contractor is a corporation referred to in Clause 5.10 of the General Conditions of Contract the Principal will require a Deed of Guarantee, Undertaking and Substitution in the format required by the Principal.

CLAUSE 6 EVIDENCE OF CONTRACT

DELETE from the first paragraph of Clause 6.2 the following words and punctuation:

", within 28 days after the date of acceptance of tender."

ADD new last paragraph to Clause 6.2:

The Formal Instrument of Agreement when required shall be in the form included in the Contract (if any).

ADD new subclause 6.3 as follows:

6.3 Collusive Arrangements

The Contractor warrants and represents to the Principal and agrees with the Principal that it is a condition precedent to the agreement between itself and the Principal that:

(a) it had no knowledge of the tender price of any other tenderer for the work under the Contract at time of its submission of tender;

(b) except as disclosed in its tender, it has not entered into any contract, arrangement or understanding to pay or allow any money directly or indirectly to a trade or industry association (above the published standard fee) or to or on behalf of any other tenderer in relation to this tender or any contract to be entered into consequent thereon, nor paid or allowed any money on that account, nor will it pay or allow any money on that account;

(c) except by prior agreement with the Principal it has not paid or allowed or entered into any contract, arrangement or understanding to pay or allow any money directly or indirectly to or on behalf of any other tenderer nor received any money or allowance from or on behalf of any other tenderer in relation to its tender or this contract entered into consequent thereon, nor will it pay or allow or receive any money as aforesaid;

(d) in the event of the Contractor paying or allowing to or on behalf of a trade or industry association or another tenderer any money in breach of these conditions, such money shall be held on trust for and become immediately payable to the Principal. The Principal shall be entitled to withhold from any payment due to the Contractor on any account an equivalent sum as liquidated damages.

CLAUSE 7 SERVICE OF NOTICES

ADD the following:

Notwithstanding Clause 7 of the General Conditions of Contract any document sent by electronic facsimile to the number last communicated by the receiver shall be deemed to have been issued or given to or served upon the Contractor, or the Principal or the Superintendent upon receipt of the activity report by the sender.

CLAUSE 8 CONTRACT DOCUMENTS

ADD to Clause 8.1 the following:

If the Contract provides for particular documents to take precedence over other documents then notwithstanding any other provisions of the Contract, in interpreting the Contract preference shall be given to the provisions relating to precedence of documents.

ADD to Clause 8.4 the following:

Notwithstanding Clauses 8 and 23 of the General Conditions of Contract any comments made by the Superintendent in respect of documents supplied by the Contractor (other than by a specific direction designated as such by the Superintendent) shall not constitute a direction under the Contract.

The Superintendent may make such comments but these comments shall not remove or affect the Contractor's obligations under the Contract. In particular the submission of documents by the Contractor and any such comments by the Superintendent shall have no effect on the Contractor's obligations as to progress of the Works or to not vary the work under the Contract without the direction of the Superintendent.

DELETE the following words from Clause 8.7:

"which approval shall not be unreasonably withheld."

CLAUSE 9 ASSIGNMENT AND SUBCONTRACTING

No amendments.

CLAUSE 10 SELECTED AND NOMINATED SUBCONTRACTORS

DELETE Clause 10.5 of the General Conditions of Contract.

CLAUSE 11 PROVISIONAL SUMS

No amendments.

CLAUSE 12 LATENT CONDITIONS

DELETE Clause 12 of the General Conditions of Contract and SUBSTITUTE the following:

12 LATENT CONDITIONS

12.1 No Warranty

The Principal does not warrant, give or make any guarantee nor make any representation with respect to and the Contractor warrants that it has not placed any reliance upon the accuracy or adequacy of any information or data made available or provided to the Contractor as to the site or sub-surface conditions except any such information shown on the drawings or specifications prepared by the Principal specifically and exclusively for the Works.

Without limiting the generality of the foregoing the Contractor shall not be entitled to make a Claim for or receive compensation in respect of any fact, matter or thing arising out of or in any way connected with the information or data (including but not limited to site investigation reports) provided or failed to be provided to the Contractor by the Principal, his agents or employees except the information or data shown on the drawings or specifications prepared by the Principal specifically and exclusively for the Works.

12.2 Site Information

No information (including but not limited to site investigation reports), except the information or data shown on the drawings or specifications prepared by the Principal specifically and exclusively for the Works, in respect of the site or sub-surface conditions which is provided to the Contractor by the Principal, the Superintendent or their respective consultants, employees or agents shall form part of the drawings, the specification or of the Contract.

12.3 Contractor to Inform Itself

The Contractor warrants that it has and shall be deemed to have among other things:

(a) examined carefully and to have acquired actual knowledge of the contents of the Drawings, Specifications, Conditions of Tendering, the General Conditions of Contract and the Amending Conditions (if any), and any other information made available in writing by the Principal or any other person on the Principal's behalf to the Contractor for the purpose of submitting its offer for the Works;

(b) examined all information relevant to the risks, contingencies and other circumstances which could affect its offer for the Works and which the Contractor could have obtained by making detailed enquires;

(c) visited and examined the site and its surroundings and informed itself fully as to the physical conditions or obstructions upon and below the surface of the site, and the local conditions, including but not limited to, climatic and hydrologic at near or relevant to the site, or any other condition or characteristic of the site affecting or which may affect its performance of the Contract and obtained all necessary information as to risks, contingencies and other circumstances which could have an effect on the performance and cost of executing the Works;

(d) informed itself completely of the nature of the work and materials necessary for the execution of the Works and the means of access to and facilities at the site and transport facilities for deliveries to or from the site;

(e) informed itself as to the availability and cost of labour including, without limitation, the costs of complying with obligations imposed by any agreement between the relevant building industry unions and employers relating to the execution of construction and building work nationally and in the State or Territory in which the Works are situated and the materials required;

(f) satisfied itself as to the correctness and sufficiency of its tender for the Works and that the tender covers the cost of complying with all its obligations under the Contract and of all matters and things necessary for the due and proper performance and completion of the Contract;

(g) informed itself of the requirements of any Governmental Body or Authority in relation to the Works generally and, without limiting the generality of the foregoing in relation to measures necessary to protect the environment from any adverse effect or damage arising from execution of the Works; and

(h) obtained all appropriate professional and technical advice on all matters and circumstances in respect of matters referred to in sub-paragraphs (a) - (g) hereof prior to submitting its offer for the Works.

12.4 Notification of Differing Conditions

If during the execution of the work under the Contract, the Contractor becomes aware of a physical condition on or adjacent to the Site that differs from any physical conditions expressly stated in the contract documents, the Contractor shall before the physical conditions are disturbed and in any event within three (3) days of becoming aware of the differing condition, give written notice thereof to the Superintendent.

Within seven (7) days of giving such written notice, the Contractor shall provide the Superintendent with a statement in writing specifying:

(a) the physical conditions encountered and in what respect they differ materially;

(b) any change in the method of working, work or resources which the Contractor estimates to be necessary to deal with the physical conditions;

(c) the time the Contractor anticipates will be required to deal with the physical conditions and the expected delay in achieving practical completion; and

(d) the Contractor's estimate of the cost of the measures necessary to deal with the physical conditions.

Thereafter the Superintendent may request the Contractor to provide such other details as the superintendent may reasonably require and the Contractor shall provide such details within a reasonable time.

12.5 Extensions of Time and Cost

If encountering differing physical conditions as described in the clause causes the Contractor to:

(a) carry out more or less work;

(b) use more or less materials or constructional plant; or

(c) incur more or less cost (including but not limited to the cost of delay or disruption);

which differs from that necessary to deal with the physical conditions expressly stated in the contract documents, an adjustment shall be made to the Contract Sum valued in accordance with Clause 40.2.

Differing physical conditions as described by this clause may entitle the Contractor to an extension of time.

12.6 Time Bar

Notwithstanding anything to the contrary in the Contract, if the Contractor fails to provide the notices required by Clause 12.4 within the times specified, the Contractor shall not be entitled to any variation, compensation or extension of time that it might otherwise be entitled to in respect of conditions that differ as described in Clause 12.4.

CLAUSE 13 PATENTS COPYRIGHT AND OTHER INTELLECTUAL PROPERTY

No amendments.

CLAUSE 14 STATUTORY REQUIREMENTS

No amendments to Clause 14.1.

Clause 14.2 Payment where there is No Variation

DELETE Clause 14.2 of the General Conditions of Contract.

Clause 14.3 Notices and Fees

DELETE the third paragraph of Clause 14.3 of the General Conditions of Contract.

ADD New Clause 14.5 as follows:

Clause 14.5 Work Health and Safety Act 2011

For the purpose of this clause the words "Principal Contractor", "serious bodily injury", "work caused illness" and "work injury" have the meanings assigned to them by the Work Health and Safety Act 2011 ("the Act").

Upon acceptance by the Principal of the Contractor's offer:

(i) the Principal shall be deemed to have appointed the Contractor to be the Principal Contractor pursuant to Section 20 of the Act which provides for a person conducting a business or undertaking (PCBU) with management or control of the workplace or workplace fixtures, fittings and plant.

(ii) the Contractor shall be deemed to have accepted the appointment; and

(iii) the Contractor shall, in respect of the Works to be executed under the Contract, be responsible for the performance of the functions and obligations of the Principal Contractor within the meaning of the Act and Regulations in force under the Act.

Such appointment as Principal Contractor under the Act shall be in force during the continuance of the Contract unless sooner revoked by the Principal giving twenty-one (21) days notice in writing to the Contractor of is revocation of by the Principal taking over or cancelling the Contract pursuant to any provision of the Contract or according to Law.

The Contractor shall indemnify and keep indemnified the Principal against all liabilities which may be imposed under or which may arise out of enforcement of any section of the Act or Regulations.

The Contractor shall notify the Superintendent of every work caused illness or work injury and of every serious bodily injury which occurs on site as soon as possible but no later that twelve (12) hours after such occurrence.

CLAUSE 15 PROTECTION OF PEOPLE AND PROPERTY

CLAUSE 16 CARE OF THE WORK AND REINSTATEMENT OF DAMAGE

CLAUSE 17 DAMAGE TO PERSONS AND PROPERTY OTHER THAN THE WORKS

CLAUSE 18 INSURANCE OF THE WORKS

CLAUSE 19 PUBLIC LIABILITY INSURANCE

CLAUSE 20 INSURANCE OF EMPLOYEES

CLAUSE 21 INSPECTION AND PROVISION OF INSURANCE POLICIES

CLAUSE 22 CLERK OF WORKS AND INSPECTIONS

No amendments in respect of Clauses 15 to 22.

CLAUSE 23 SUPERINTENDENT

Clause 23 is amended as follows:

The word "permission" is DELETED from the third paragraph of Clause 23 of the General Conditions of Contract. Permission given by the Superintendent or Superintendent's Representatives does not constitute a direction under the Contract.

No direction by the Superintendent with respect of the Works or any part thereof, shall amount to or be deemed to amount to an acceptance by him of any workmanship or materials which is not strictly in accordance with the Contract or which is otherwise defective and any such direction shall not relieve the Contractor of any of its obligations under the Contract.

Without limiting the generality of the foregoing, the Superintendent has no authority to alter or waive any terms of the Contract, nor authority to discharge or release the Contractor from any of its obligations pursuant to the Contract.

CLAUSE 24 SUPERINTENDENT'S REPRESENTATIVE

CLAUSE 25 CONTRACTOR'S REPRESENTATIVE

CLAUSE 26 CONTROL OF CONTRACTOR'S EMPLOYEES AND SUBCONTRACTORS

No amendments in respect of Clauses 24 to 26 inclusive.

CLAUSE 27 SITE

ADD to Clause 27.2:

Entry to the Site and Griffith University is at all times subject to the Statutes and Rules of Griffith University. The Contractor shall make itself familiar with relevant Statutes and Rules affecting the Contractor's operations and incorporate similar provisions in Subcontracts.

The Contractor, his employees, agents and subcontractors shall be permitted to park only in prescribed general parking areas and in accordance with the relevant Traffic and Parking Statute.

ADD new Clause 27.6 as follows:

27.6 Extra Land Required by Contractor

The Contractor shall procure for himself at his own cost the occupation or use of or relevant rights over any land in addition to the site which he may deem requisite or necessary for the execution of the work under the contract or for the purposes of the contract and shall, as a condition precedent to the issue of the Final Certificate, if so required by the Superintendent, provide a properly executed release from all claims or demands (whether for damages or otherwise howsoever) from the owner or occupier of and from other persons having an interest in such land. Any such release shall be in a form approved by the Principal.

CLAUSE 28 SETTING OUT THE WORKS

No amendments in respect of Clause 28.

CLAUSE 29 MATERIALS, LABOUR AND CONSTRUCTIONAL PLANT

ADD new subclause 29.4 as follows:

29.4 Apprentice/Training Requirements

The Contractor, in the execution of the work under the Contract, must employ on the site of the works either directly or indirectly through subcontractors, apprentices/trainees for a number of labour hours no less than 10% of the total hours of the remainder of the labour employed on site. In this regard -

(i) this requirement excludes any consideration in respect of mechanical and electrical trades;

(ii) the Contractor must submit to the Principal within seven (7) days after the issue of the Certificate of Practical Completion (or after the issue of the last Certificate of Practical Completion where the Contract is to be completed in separable parts) or termination of the Contract pursuant to Clause 44 herein a return in the Form attached to these Conditions. Without prejudice to any other rights under the Contract or otherwise, the Principal may suspend payment and return of security and retention monies (whether or not held in alternative form) to the Contractor until the return is received.

(iii) the Contractor acknowledges that failure to comply with this requirement for employment of apprentices/trainees will be a factor that may be taken into account in the award of future Contracts by the Principal.

CLAUSE 30 MATERIALS AND WORK

ADD to Clause 30.1 the following:

The Contractor may propose alternative materials, designs or methods of working to those required by the Contract. Where such proposals are made by the Contractor, the Contractor shall specify with the proposal any effect the execution of the proposal would have on the quality, time or cost requirements of the Contract together with sufficient supporting data to substantiate the said effects.

Permission for the Contractor to undertake the proposal shall be entirely at the discretion of the Principal. If the Principal gives written permission for the Contractor to undertake the proposal the Contractor shall do so upon such terms and conditions as the Principal permits. The value of the proposal shall be valued under Clause 40.5 but in any case the Contractor shall be responsible for the consequences of the implementation of the proposal including but not limited to design suitability and construction.

ADD to Clause 30.2 the following:

The Contractor shall plan, establish and maintain a quality system that conforms in all respects with an appropriate Quality System so described in Australian Standard AS 2990 Quality Systems for Engineering and Construction Projects the Specification and to the satisfaction of the Superintendent.

The category of quality system which shall apply is Category B.

DELETE the words "increase or" from the third last line of Clause 30.5.

CLAUSE 31 EXAMINATION AND TESTING

No amendments in respect of Clause 31.

CLAUSE 32 WORKING HOURS

ADD to Clause 32:

The working hours shall be between 7:00 am and 6:00 pm and the working days shall be as defined in Clause 2.

DELETE the last paragraph of Clause 32 of the General Conditions of Contract and add:

If the Contractor works or intends to work outside the working hours or working days provided by this Clause, the Contractor accepts the responsibility and risk for all extra costs, damages and losses, (including the Principal's increased costs of supervision of the Contractor's work) which may arise out of such work.

CLAUSE 33 PROGRESS AND PROGRAMMING OF THE WORKS

ADD to Clause 33.2 the following:

Within fourteen (14) days of the date of acceptance of Tender, the Contractor shall submit to the Superintendent the Contractor's construction programme as described in this clause for the whole of the Works.

will be On the last day of every month or whenever the duration of critical activities change by more than two (2) weeks (whichever is the less) the Contractor shall submit revised construction programmes to the Superintendent. The revised construction programmes shall be in the same form as the original programme and shall incorporate in a similar format the activities already completed as they were constructed by the Contractor to a date not earlier than five (5) working days prior to the date of submission together with details of the planned future work.

The format of the construction programme shall be a detailed graphic programme consisting of an activity oriented critical path network drawn to a daily time scale for contracts to be completed within eight (8) weeks and a weekly time scale for contracts to be completed within a time greater than eight (8) weeks. The construction programme shall be in an arrow and node format satisfactory to the Superintendent and showing at least the following:

(a) the methods, duration and sequence of, and the dependencies between the planned activities which comprise the Works;

(b) at least one activity for each item of work identifying the critical path and the logic of the construction programme, and no activity shall exceed three (3) weeks in time;

(c) each separable part of the Works and the whole of the Works finishing on the due dates for Practical Completion of the separable part and the whole of the Works;

(d) lead times for the supply of information or materials by the Principal or his agents;

(e) lead times for significant off-site activities to be incorporated into the Works;

(f) periods of extensions of time granted to the Contractor and the delays to which those extensions of time relate;

The programme shall also show prior to Practical Completion the duration and dates of the following activities:

(a) Commissioning of all plant and equipment;

(b) Consultants hand over inspections;

(c) University acceptance inspections and defect identification.

If the Contractor fails to meet the starting and completion dates of any critical activity, they shall immediately undertake and continue such emergency measures as are necessary, including the working of over-time and/or shift work, until the lag in progress has been recovered and the works as a whole are progressing according to programme.

Should any Subcontractor’s work be more than ten working days behind schedule, the Superintendent reserves the right to direct the Contractor to employ additional subcontractors as may be necessary to make up the time lag.

Similar directions may be given where goods or fabricated parts are behind schedule.

Any such emergency measures shall be at the Contractor’s expense and no extras will be allowed on account of such work.

Failure of the Contractor to maintain a rate of progress in accordance with the program or otherwise to comply with requirements of the Principal under this clause, sufficient cause for the Superintendent to withhold the issue of any progress certificate.

The provisions of this clause shall in no way relieve the Contractor's entire responsibility for completion of the work within the contract period.

CLAUSE 34 SUSPENSION OF THE WORKS

No amendment.

CLAUSE 35 TIMES FOR COMMENCEMENT AND PRACTICAL COMPLETION

INSERT after the words "the claim is based," on the fourth line of the third paragraph of Clause 35.5 the following:

.....explanation and supporting evidence of how the critical activities on the program have been affected by the delay and the steps which the Contractor has taken and will take to alleviate and otherwise deal with the delay,

DELETE Sub-clauses 35.5 (b) (ii) and (vi).

REPLACE the full stop at the end of the sixth paragraph of Clause 35.5 with a semicolon and ADD the following:

; delays that do not affect activities on the critical path of the construction programme or revised construction programme under Clause 33 current at the time the cause of the delay arose.

DELETE Clause 35.8.

CLAUSE 36 DELAY OR DISRUPTION COSTS

CLAUSE 37 DEFECTS LIABILITY

ADD to Clause 37:

The Contractor shall allow for the performance of regular preventative maintenance and servicing of the works during the period of the defects liability period. Such maintenance shall be in accordance with the manufacturer's instructions and the requirements of the Workplace Health and Safety Legislation, Australian Standards or other applicable regulations, legislation or advisory standards. With respect to any mechanical or electrical service, fire alarms, hydraulic systems, lifts etc, maintenance shall be carried out not less frequently than monthly. The Contractor shall provide a maintenance service schedule for all equipment for the first 12 months.

A written report shall be provided to the Principal through the Campus Facilities Manager immediately after each monthly service is performed. The report shall detail all work done, defects identified and repaired, and general comments on overall performance.

The Certificate of Final Completion will not be issued until such time as all preventative maintenance requirements have been completed.

CLAUSE 38 CLEANING UP

CLAUSE 39 URGENT PROTECTION

No amendments in respect of Clauses 36, 38 and 39.

CLAUSE 40 VARIATIONS

DELETE the last paragraph of Clause 40.2 and INSERT in lieu the following:

The Contractor shall not be entitled to reimbursement of any additional expense or loss incurred in complying with the requirements of Clause 40.2.

DELETE paragraphs (c), (d), (e) and (f) of subclause 40.5 and INSERT in lieu the following:

(c) to the extent that neither Clause 40.5 (a) or 40.5 (b) apply, reasonable rates or prices shall be used in any valuation made by the Superintendent. Only the actual cost of on site overheads as substantiated by the

Contractor with written evidence shall be taken into account. Off-site overheads and profit shall be applied at the rates stated in Annexure A;

(d) in determining the deduction to be made for work which is taken out of the Contract, the deduction shall include an amount for profit and off-site overheads of 5% of the price of the variation otherwise;

(e) if the valuation is of an increase or decrease in a fee or charge or is a new fee or charge under Clause 14.3, the value shall be the actual increase or decrease or the actual amount of the new fee or charge without regard to off-site overheads or profit;

(f) if the valuation relates to extra costs incurred by the Contractor for delay or disruption, the valuation shall include the actual cost incurred for on site overheads and an amount calculated at the rate in Annexure A for off-site overheads substantiated by written evidence but shall not include profit or loss of profit;

DELETE all the words after "cost" in the second line of the last paragraph of Clause 40.5 and INSERT in lieu the following:

"the cost of doing so shall be deemed to be included in the Contract Sum and the Contractor shall not be entitled to any additional cost or loss so incurred."

CLAUSE 41 DAYWORK

No amendments in respect of Clause 41.

CLAUSE 42 CERTIFICATES AND PAYMENTS

DELETE Clause 42.1 and INSERT in lieu the following:

42.1 Payment Claims, Certificates, Calculations and Time for Payment

To accord with the times for payment claims stated in the Annexure or at the expiration of the Defects Liability Period, the Contractor shall provide to the Superintendent as agent for the Principal, progress payment calculations for review and agreement by the Superintendent. The progress payment calculations shall include the value of work carried out by the Contractor in the performance of the Contract to that time together with all amounts then due to the Contractor arising out of or in connection with the Contract and shall be supported by any documentary evidence or other information reasonably required by the Superintendent. Claims for any alleged breach of Contract including the costs of delays caused by breach shall not be submitted as part of a regular progress payment but shall be lodged as a separate claim in accordance with the relevant provisions of the contract.

On agreement between the Superintendent and the Contractor on the amount of payment to be made by the Principal to the Contractor, or by the Contractor to the Principal, the Superintendent shall issue to the Principal and the Contractor a payment certificate stating the agreed amount. The Superintendent shall allow in any payment certificate issued pursuant to this Clause 42.1 or any Final Certificate issued pursuant to Clause 42.8 or a certificate issued pursuant to Clause 44.6, amounts paid under the Contract and amounts otherwise due from the Principal to the Contractor and /or due from the Contractor to the Principal arising out of or in connection with the Contract including but not limited to any amount due or to be credited under any provision of the Contract. The Superintendent shall issue a separate payment certificate in respect of amounts due for breach of Contract.

On receipt of the payment certificate from the Superintendent, the Contractor shall lodge with the Principal, or the Principal shall lodge with the Contractor, a Tax Invoice corresponding to the agreed amount stated on the payment certificate issued by the Superintendent.

Subject to the provisions of the Contract, and except in respect of claims for breach of Contract, within 15 working days of providing the progress payment calculation for agreement by the Superintendent, the Principal shall pay the Contractor or the Contractor shall pay the Principal, an amount not less than the amount shown in the Certificate as due to the Contractor or the Principal as the case may be.

Despite any other provision of the Contract, the principal shall not be obliged to pay the Contractor, or the Contractor pay the Principal, any amount certified by the Superintendent as due to the Contractor or due to the Principal, as the case may be, until five (5) business days after the Contractor provides to the Principal, or the Principal provides to the Contractor as the case may be, a Tax Invoice in respect of the claim for payment.

In respect of claims for breach of Contract, within 10 working days after issue by the Superintendent of the relevant payment certificate, the Principal shall pay to the Contractor or the Contractor shall pay to the Principal, an amount not less than the amount shown in the certificate as due to the Contractor or to the Principal as the case may be.

A payment made pursuant to this Clause shall not prejudice the right of either party to dispute under Clause 47 whether the amount so paid is the amount properly due and payable and on determination (whether under Clause 47 or as otherwise agreed) of the amount so properly due and payable, the Principal or Contractor, as the case

may be, shall be liable to pay the difference between the amount of such payment and the amount so properly due and payable.

Payment of monies shall not be evidence of the value of work or an admission of liability or evidence that work has been executed satisfactorily but shall be a payment on account only, except as provided by Clause 42.8.

Except as provided in the Contract and where listed in the Annexure, the Principal shall not be obliged to pay for any item of unfixed plant or materials which is not incorporated into the works.

ADD to the first sentence of the first paragraph of Clause 42.8:

"or give to the Contractor and the Principal in writing the reasons for not issuing the certificate."

DELETE subclause 42.10 and INSERT in lieu the following:

42.10 General Right of Set Off

Without limiting the Principal's rights under any other provision in the contract and notwithstanding the provision of or the issue of a certificate by the Superintendent under Clause 42.1, the Principal may deduct from any monies due to the Contractor any sum which is due and payable by the Contractor to the Principal whether or not the Principal's right to payment arises by way of damages debt restitution or otherwise and whether or not the factual basis giving rise to the Principal's right to payment arises out of this contract, any other contract, or is independent of any contract. If the monies payable to the Contractor are insufficient to discharge the liability of the Contractor to pay such sum to the Principal, the Principal may have recourse to retention monies, and if they are insufficient, to security provided under Clause 5.2 of the contract and if that security is insufficient to any security provided under Clause 5.11 of the contract but in respect thereof only after satisfaction of all Subcontractors Charges. Nothing in this clause shall affect the right of the Principal to recover from the Contractor the whole of such monies or any balance that remains owing.

CLAUSE 43 PAYMENT OF WORKERS AND SUBCONTRACTORS

No amendment in respect of Clause 43.

CLAUSE 44 DEFAULT OR INSOLVENCY

ADD to Clause 44.2:

(h) failing to comply in any respect with the requirements of Clause 5.

DELETE from subclause 44.3 (d) the words and punctuation:

"(which time shall not be less than 6 clear days after the notice is given to the Contractor)"

DELETE Clause 44.10 and INSERT in lieu the following:

44.10 Rights of the Parties on Termination

If the Contract is terminated under Clause 44.4 (b) or Clause 44.9 or under any other provision of the Contract it shall be deemed terminated as from the date when notice of termination in writing is served upon the relevant party.

On such termination of the Contract all or any sums of money which may be in the hands of the Principal or the Contractor in respect of the Contract and are not then payable to the Contractor or the Principal under or pursuant to any provision of the Contract, and the whole or part of any security, including cash lodged or retained for the due and proper performance of the Contract and all or any sums of money named in the Contract as liquidated damages which have accrued due to the Principal or the Contractor may be declared by the Principal or the Contractor to be forfeited and all sums and the whole or part of any security that are so declared to be forfeited shall be forfeited and shall be retained by or become payable to or vested in the Principal or the Contractor as the case may be, only to the extent required to complete the works and/or recover any damages.

On such termination of the Contract all moneys which have been previously paid together with all moneys then payable under or pursuant to any provision of the Contract to the Contractor or the Principal shall be deemed to be in full satisfaction of all claims of the Contractor and of the Principal of any kind or description whatsoever under or in respect of the Contract.

CLAUSE 45 TERMINATION BY FRUSTRATION

CLAUSE 46 TIME FOR NOTIFICATION OF CLAIMS

No amendments in respect of Clauses 45 and 46.

CLAUSE 47 DISPUTE RESOLUTION

DELETE Clause 47.2 and insert in lieu the following:

47.2 Further Steps Required Before Proceeding:

Within fourteen (14) days after service of a notice of dispute, the parties shall confer at least once, and at the option of either party and provided the Superintendent so agrees, in the presence of the Superintendent, to attempt to resolve the dispute and failing resolution of the dispute to explore and if possible agree on methods of resolving the dispute by other means. At any such conference each party shall be represented by a person having authority to agree to a resolution of the dispute.

In the event that the dispute has not been so resolved within twenty-eight (28) days after the first conference of the parties, or if at any time either party considers that the other party is not making reasonable efforts to resolve the dispute, either party may by notice in writing delivered by hand or sent by certified mail to the other party refer such dispute to an Adjudicator selected by the Principal who has not been involved with the design of the Works or administration of the Contract.

The reference shall be in writing stating both parties opinions as to the facts, relevant legal provisions of the Contract or at law, the relevant supporting documents and the way in which the matter should be decided. The Adjudicator shall confer with the parties and give a decision on the matter to both parties within twenty-eight (28) days of receiving the reference unless extended by agreement of the parties.

The parties shall abide by the Adjudicator's decision until at least Practical Completion has been reached after which either party may refer the matter to arbitration or litigation.

ADD to the first line of Clause 47.3 after the words "who shall be", the words "agreed by the parties or failing agreement within fourteen (14) days after reference of the dispute to arbitration".

CLAUSE 48 WAIVER OF CONDITIONS

No amendments in respect of Clause 48.

CLAUSE 49 RISE AND FALL

INSERT new Clause 49 as follows:

Where it is stated elsewhere that the Contract shall be subject to adjustment for rise and fall in costs, then the provisions of Annexure 2 shall apply.

CLAUSE 50 RATES OF WAGES AND CONDITIONS OF EMPLOYMENT

INSERT new Clause 50 as follows:

Unless the Contract otherwise provides, the Contractor shall not be entitled to reimbursement over and above the Contract Sum for any costs or losses suffered by the Contractor in respect of rates of wages and conditions of employment of workmen including but not limited to in respect of Site Allowances, Site Agreements, adjustments to any Award to compensate for over-award payments or actual or proposed improvements in productivity or efficiency or any costs in respect of redundancy, portable long service leave or any building industry superannuation scheme.

CLAUSE 51 RECORDS AND ACCESS TO RECORDS

INSERT new Clause 51 as follows:

51.1 The Contractor shall make and keep and shall ensure all Subcontractors make and keep accurate records of their tenders and of the work under the Contract including but not limited to all documents referred to in

these General Conditions of Contract, and the Specification, design calculations, tender estimates, calculations and make ups, records as to progress of the works, diary records of daily tasks, complete photographic records, quality system documents and records, manning and equipment records, results of the examination and testing of any work or materials, quality assurance records and reports, cost to date records, costs to complete calculations, time records, all cost records relating in any way to delays, variations and day works, all consultants' reports and opinions obtained by the Contractor in relation to the matters referred to in this clause and all necessary supporting documents, invoices, records and related financial statements whether in writing or stored on any other medium whatsoever.

51.2 The Superintendent shall have the right to inspect and to copy at any time any record referred to in Clause 51.1, notwithstanding anything to the contrary contained herein, and may defer any determination until after such inspection is permitted by the Contractor. In the case of any records referred to in Clause 51.1 stored on a medium other than in writing, the Contractor shall make available forthwith upon request such facilities as may be necessary to enable a legible reproduction thereof to be provided to the Principal.

51.3 The Contractor shall not be entitled to refuse inspection of any record referred to in Clause 51.1 on any basis whatsoever.

51.4 The records referred to in Clause 51.1 shall not be destroyed without the prior written approval of the Principal and a copy shall, if so required by the Superintendent be handed over to the Principal at the end of the defects liability period.

PART A

ANNEXURE to the Australian Standard
General Conditions of Contract AS 2124 – 1992
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This Annexure shall be issued as part of the tender documents and is to be attached to the General Conditions of Contract and shall be read as part of the Contract.

The law applicable is that of the State or Territory of: (Clause 1)	**Queensland**
Payments under the Contract shall be made at: (Clause 1)	**Griffith University** **Nathan, Brisbane, QUEENSLAND**
The Principal: (Clause 2)	**Griffith University**
The address of the Principal:	**c/- Associate Director, Capital Works** **Campus Life** **Griffith University, NATHAN QLD 4111**
The Superintendent: (Clause 2)	**Associate Director, Capital Works** **Campus Life** **Griffith University, NATHAN QLD 4111**
The address of the Superintendent:	**Facilities Management Building (N23)** **Nathan campus, Griffith University** **170 Kessels Road** **NATHAN QLD 4111**
Limits of accuracy applying to quantities for which the Principal accepted a rate or rates: (Clause 3.3(b))	**The lower and upper limits are 75% and 125% respectively of total stated contract quantity**
Bill of Quantities - the alternative applying: (Clause 4.1)	**Alternative 1**
The time for lodgement of the priced copy of the Bill of Quantities: (Clause 4.2)	**Not Applicable**
Contractor shall provide security in the amount of: (Clause 5.2)	**The amount provided by Clause 5.2 of the Conditions of Contract plus retention monies Under Clause 42.3**
Principal shall provide security in the amount of: (Clause 5.2)	**NIL**
The period of notice required of a party's intention to have recourse to retention moneys and/or to convert security: (Clause 5.5)	**No Prior notice required**
The percentage to which the entitlement to security and retention moneys is reduced: (Clause 5.7)	**50%**

Interest on retention moneys and security - the alternative applying: (Clause 5.9)	**Alternative 2**
The number of copies to be supplied by the Principal: (Clause 8.3)	**Three (3) copies**
The number of copies to be supplied by the Contractor: (Clause 8.4)	**Three (3) copies**
The time within which the Superintendent must give a direction as to the suitability and return the Contractor's copies: (Clause 8.4)	**Ten (10) working days for each individual document (including but not limited to drawing, specification manual or part thereof) submitted. Where more than ten (10) documents are submitted on any one day than an additional day shall apply for each additional document and the period for giving a decision shall not commence to run for documents submitted at a later date until the expiration of the time for giving a decision for documents submitted previously**
Work which cannot be subcontracted without approval: (Clause 9.2)	**Any work under the Contract**
The percentage of profit and attendance: (Clause 11)	**5%**
Insurance of the Works - the alternative applying: (Clause 18)	**Alternative 1**
The assessment for insurance purposes of the costs of demolition and removal of debris: (Clause 18(ii))	**10% of the Contract Sum**
The assessment for insurance purposes of consultants' fees: (Clause 18(iii))	**2.5% of the Contract Sum**
The value of materials to be supplied by the Principal (Clause 18(iv))	**Not Applicable**
The additional amount or percentage: (Clause 18(v)	**Not Applicable**
Public Liability Insurance - the alternative applying: (Clause 19)	**Alternative 1**
The amount of Public Liability Insurance shall be not less than: (Clause 19)	**$10 Million**
The time for giving possession of the Site: (Clause 27.1)	**14 days**
The Date for Practical Completion: (Clause 35.2)	
Liquidated Damages per day: (Clause 35.6)	**$**

Limit of Liquidated Damages: (Clause 35.7)	**$**
Bonus per day for early Practical Completion: (Clause 35.8)	**Not Applicable**
Limit of bonus: (Clause 35.8)	**Not Applicable**
Extra costs for Delay or Disruption: (Clause 36)	**Not Applicable**
The Defects Liability Period: (Clause 37)	**Twelve (12) months**
Percentages for off-site overheads or profit: (Clauses 40.5 (c) and (f))	**Off-site overheads 3%** **Profit 4%**
The Charge for overheads, profit, etc. of Daywork: (Clause 41(f))	**In respect of Clauses 41(a), 41(b), 41(c) and 41(e) - 10% and in respect of Clause 41(d) - 5% of the value otherwise**
Times for payment claims: (Clause 42.1)	**At a date to be mutually agreed but not less than 30 days after acceptance of the tender and thereafter at monthly intervals unless otherwise permitted by the Principal**
Unfixed plant and materials for which payment claims may be made notwithstanding that they are not incorporated in the Works: (Clause 42.1)	**Not Applicable** .
Retention Moneys on: (Clause 42.3)	**Adjusted Contract Sum** **(a) work incorporated in the Works and any work items for which a different amount of retention is not provided, 10% of the value until 5% of the Adjusted Contract Sum is held;** **(b) items on Site but not yet incorporated in the Works, 100%;** **(c) items off Site but in Australia, 100%;** **(d) items not in Australia, 100%;** **(e) disbursements incurred by the Contractor or customs duties, freight, marine insurance, primage, landing and transport in respect of the work under the Contract, 100%.**
Unfixed Plant or Materials - the alternative applying: (Clause 42.4)	**Alternative 3**
The rate of interest on overdue payments: (Clause 42.9)	**As per Clause 67P of the QBSA Act 1991**
The delay in giving possession of the Site which shall be a substantial breach: (Clause 44.7)	**Three (3) months**
Dispute Resolution - the alternative applying:	**Not applicable**

(Clause 47.2)

The person to nominate an arbitrator: (Clause 47.3)	**Director, Campus Life, Griffith University, NATHAN QLD 4111**
Location of arbitration: (Clause 47.3)	**Brisbane Queensland Australia**
Contract to be subject to Adjustment for Rise and Fall in Costs: (Clause 49 and Annexure 2)	**No**

NOTE: This table is intended for easy reference to clauses that may have been deleted, amended or added to Australian Standard 2124 - 1992.

1. The following Clauses have been DELETED from the General Conditions in AS 2124 - 1992:

   Clauses DELETED include:

Clause 10.5	- Direct Payment of Nominated Subcontractor
Clause 14.2	- Payments where there is no Variation
Sub-clause 35.5(b)(ii)&(vi)	-
Clause 35.8	- Bonus for Early Practical Completion
Clause 47.2	- Further Steps required before Proceedings

2. The following Clauses have been amended and differ from the corresponding Clauses in AS 2124 - 1992:

   Clauses amended include:

   Clauses 1, 2, 5.2, 5.3, 5.10, 6.2, 7, 8.1, 8.4, 8.7, 12, 14.3, 23, 27.2, 30.1, 30.2, 30.5, 32, 33.2, 35.5, 37, 40.2, 40.5, 42.1, 42.8, 42.10, 44.2, 44.3, 44.10, 47.2 &, 47.3.

3. The following Clauses have been added to those of AS 2124 - 1992:

   Clauses added including in respect of Clauses 3.4, 6.3, 14.5, 27.6, 29.4, ~~44~~, 49, 50 & 51.