



TENDER RESPONSE

A. GABRIELLI CONSTRUCTIONS PTY LTD

Cairns OTHF Data Centre
Methodology

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EXECUTIVE SUMMARY

AGC are well positioned regarding current and future work that would allow us if successful to commit significant resources to this project. The evidence we have provided both within the Schedules and within the Annexures of supporting documentation support our claims of having both the capacity to complete this project as well as the knowledge, resources and commitment to achieve the highest possible standards.

AGC recognize that there is an important issue of ensuring that the project is delivered in a timely matter and to the required construction standard and safety level that EQL expect of contractors.

Extensive Experience in EQL Projects

AGC have provided a historic cross-section of projects in Response Schedule 5.5.1, that involved similar activities as well as current work in progress to support our claim of capacity to undertake the project. We have previously undertaken several successful projects for EQL as well as D&C works for strategically important facilities in remote locations. The key to success in these environments in our experience is effective communication and consultation so that all stakeholders understand their roles and responsibilities and fully understand the position of the other stakeholders.

Project Personnel

AGC are a North Queensland local and we support local businesses with priority always going to local contractors. In our largest remote projects in Winton and Palm Island, we maximized local employment and training opportunities from the surrounding region ensuring that we are also supporting our local economy in general. Our recent project at Cannonvale had all 80% of contractors sourced from within 50km, with the remainder from Townsville and Mackay.

The Project Management team identified for this project is proven and have worked together on several large commercial projects including the Aurizon Stuart, Ergon Depot and Palm Island Retail Centre. The benefits of a complete and proven project team cannot be underestimated and their capacity to deliver a complex project on time and on budget is also proven. There will be no requirement for AGC to assemble a new team which will also allow us to focus on project performance of the works packages and the ongoing development and growth of our local contractors.

While most of our administration and project management is undertaken centrally in our Townsville office, we will have a locally based full-time Site Manager and Site Foreman. We maintain daily supervision from our regional head office via site cameras and facetime inspections. Our HSEQ Manager and Construction Manager undertake weekly site inspections and audits, and our external auditor Q Solutions audits all sites on a monthly basis for compliance with ISO and FSC standards.

Sustainability

AGC is committed to sustainable development. We undertake an Environmentally Sustainable Design assessment in our D&C projects to assist in identifying any additional opportunities to improve. Items that will apply to these works include electrical efficiency, irrigation and VOC paints.

Local Industry Support

We are committed to the support of our local industry across the regions in which we work. We provide sponsorship to a minimum of an arts, sports and community group in every town in which we work. For this project, we have been able to source around 60% of local industry from within 50km of Rockhampton. Where necessary, these are smaller local contractors engaged under a larger contractor experienced in EQL works.

Commitment to Apprentices and Trainees

We are committed to the employment and training of apprentices. We maintain an excellent annual record of apprentice work hours of >10%. We are currently on track to lift this to 15% for FY20. We anticipate involving 17 apprentices in these works.

Indigenous Engagement

We are proud to offer equal opportunity employment. We encourage our subcontractors to support indigenous employment and training and assist in placing aspiring indigenous apprentices from NRL Cowboys' House with our subcontractors. We also work with Clontarf to identify opportunities for placements. 10% of our direct labour workforce and 50% of our apprentices identify as Aboriginal or Torres Strait Islander, and in FY23 we have so far achieved 12% of our overall work hours for Indigenous & Torres Strait Islander workers, including two new apprentices.

Executive Summary Conclusion

As discussed throughout this Executive Summary and through the schedules we are perfectly positioned to work with EQL to deliver a successful project and have the proven capacity and capability. We have worked extensively to build a team and relevant resources to provide a rapid project start-up, knowledge delivery and high level of collaboration

SITE SPECIFIC CONSIDERATIONS

Site Area & Access

Access to the site must be in accordance with EQL requirements. AGC will work with EQL and Ergon Energy to agree on a site access route. We do not anticipate high volumes of traffic given the nature of the works, however our Traffic Management Plan (TMP) will limit interruptions from access to the site. Prior to commencing site works, a dilapidation report will be prepared to confirm the condition of the existing environs, extent of any existing services and identify trees that are to be maintained or possibly removed.

Traffic Management

AGC will complete a TMP for review and approval by the client with specific consideration to any deliveries and construction activities not impeding access or compromising the day to day operations of EQL, availability of lay-down areas, and any potential conflict with the existing traffic and site stakeholders' access within or throughout the site. The TMP will also include the extent of site fencing. In developing the TMP we will be conscious, allowing any provisions

required for the high pedestrian traffic area adjacent to the project associated with the OCCS. The extent of fencing and signage will need to make allowance for any higher volume of pedestrian traffic at peak times from those areas.

Waste management

A waste management strategy will be developed during the pre-commencement period. This strategy will be incorporated within all trade contractor orders. Initially the waste from the demolition will be discarded of immediately with no stockpiling on site. AGC and our demolition contractor will aim towards separating waste materials for recycling wherever practicable. The construction waste will be loaded into skip bins or trucks and will be transported off site regularly to ensure a clean and debris free jobsite.

Site facilities, storage and handling

We will mobilise our site office, crib hut and ablution block to site in readiness of construction works commencing. The contractor's site area will also provide the storage for all plant and materials delivered to site. Materials will be stored within the site area. Site fences will be intact, neat & tidy always. We will set up the following temporary installations for the duration of the project:

- Lunchrooms;
- Site office;
- Lay down area;
- Estimated 2 site subcontractor storage containers; and
- Designated carparking.

The final location of the temporary offices is subject to engineer and client approval.

PROJECT MANAGEMENT

Communication Management

This Communications Management Plan has been developed by A. Gabrielli Constructions' Pty Ltd to document the management framework to identify and manage all risks associated with the communication, document storage and transmittal for construction works undertaken by A. Gabrielli Constructions' Pty Ltd as the principal contractor.

The Communications Management Plan defines the following:

- What information will be communicated—to include the level of detail and format;
- How the information will be communicated—in meetings, email, telephone, web portal, etc;
- When information will be distributed—the frequency of project communications both formal and informal;
- Who is responsible for communicating project information;
- Communication requirements for all project stakeholders;
- What resources the project allocates for communication;
- How any sensitive or confidential information is communicated and who must authorize this;
- How changes in communication or the communication process are managed;
- The flow of project communications;
- Any constraints, internal or external, which affect project communications;

- Any standard templates, formats, or documents the project must use for communicating; and
- An escalation process for resolving any communication-based conflicts or issues;

The plan provides a communication direction for the project team and the contractor to ensure a steady flow of accurate and timely information, engage stakeholders in the planning and design stages, and to reduce incorrect information from other sources.

Key risks that this Plan is attended to address include:

- Continuity of document and communications records regardless of any staff turnover or changes;
- Permanently available document archive;
- Monitoring of timely actioning of priority items; and
- Ensure all Key Stakeholders are well informed on key decisions, scope, and impacts for the project.

Detailed below are the responsibilities of various roles for the project. Individuals nominated to these roles are required to sign Responsibility Statements acknowledging and accepting these responsibilities are part of the Site Induction and Training process.

Principal/Project Sponsor - The project sponsor is the champion of the project and has authorized the project by signing the project charter. This person is responsible for the funding of the project and is ultimately responsible for its success. Since the Project Sponsor is at the executive level communications should be presented in summary format unless the Project Sponsor requests more detailed communications.

Principal/Program Manager - The Program Manager oversees the project at the portfolio level and owns most of the resources assigned to the project. The Program Manager is responsible for overall program costs and profitability as such they require more detailed communications than the Project Sponsor.

Principal/Project Manager - The Project Manager oversees the project at the daily and weekly works level. The Program Manager is responsible for the project outcomes and require the most detailed level of communications.

Principal/Superintendent Representative - The Superintendent or Principal's Representative administers the contract. They are involved in daily communications and manage responses to RFIs.

AGC Project Manager - The Project Manager has overall responsibility for the execution of the project. The Project Manager manages day to day resources, provides project guidance and monitors and reports on the projects metrics as defined in the Project Management Plan. As the person responsible for the execution of the project, the Project Manager is the primary communicator for the project distributing information according to this Communications Management Plan. In order to meet the general responsibilities outlined above, Project Managers should:

- Set clear expectations for how and when updates will be shared; and
 - Manage all proposed and approved changes to the communications management plan. Once the change is approved, the project manager will update the plan and supporting documentation and will distribute the updates to the project team and all stakeholders.

AGC Design Manager - The Design Manager is designated to be responsible for ensuring that all technical aspects of the project are addressed and that the project is implemented in a technically sound manner. The Technical Lead is

responsible for all technical designs, overseeing the implementation of the designs and developing as-build documentation. The Technical Lead requires close communications with the Project Manager and the Project Team.

AGC Construction Manager - The Construction Manager oversees the construction of the project, providing strategic and high-level input and guidance to the site project team. They will take a proactive role in ensuring effective communications on this project between the site and office staff.

AGC Contract Administrator - The Contract Administrator is responsible for managing all project communications, including:

- Maintaining and distributing project registers (Drawings, RFI, Variations, Delays, Non-conformances);

AGC Project Site Team - The Project Team is comprised of all persons who have a role performing work on the project. The project team needs to have a clear understanding of the work to be completed and the framework in which the project is to be executed. Since the Project Team is responsible for completing the work for the project, they played a key role in creating the Project Plan including defining its schedule and work packages. The Project Team requires a detailed level of communications which is achieved through day to day interactions with the Project Manager and other team members along with weekly team meetings.

Communication Strategy

Phase	Client-AGC system	AGC-Subcontractors system
Project start-up	Outlook email	Outlook email
Design	Aconex	Aconex
Construction	Aconex	Aconex
DLP	Outlook email	Outlook email

Meeting Schedule

Detail	Frequency	Organiser	Attendees	Responsible for providing information	Responsible for distributing information
Start-up meeting	Once	Principal	AGC Principal	Principal	Principal
Design Meetings during design period	Weekly	AGC	Subcontractors Design consultants	AGC	AGC Principal
Project meetings during construction	Fortnightly	Principal	AGC Principal	AGC	Principal

Guidelines for Meetings

Meeting Agenda will be distributed minimum 3 business days in advance of the meeting. The Agenda should identify the presenter for each topic along with a time limit for that topic. The first item in the agenda should be a review of action items from the previous meeting.

Meeting minutes will be distributed within 2 business days following the meeting. Meeting minutes will include the status of all items from the agenda along with new action items and the Parking Lot list.

Action Items are recorded in both the meeting agenda and minutes. Action items will include both the action item along with the owner of the action item. Meetings will start with a review of the status of all action items from previous meetings and end with a review of all new action items resulting from the meeting. The review of the new action items will include identifying the owner for each action item.

The Chairperson is responsible for distributing the meeting agenda, facilitating the meeting and distributing the meeting minutes. The Chairperson will ensure that the meeting starts and ends on time and that all presenters adhere to their allocated time frames.

The Note Taker is responsible for documenting the status of all meeting items, maintaining a Parking Lot item list and taking notes of anything else of importance during the meeting. The Note Taker will give a copy of their notes to the Chairperson at the end of the meeting as the Chairperson will use the notes to create the Meeting Minutes.

Key Deliverables and Notifications

Detail	To be provided to	Timing	Responsible for providing information	Responsible for distributing information
Commencement of construction	All stakeholders	Fourteen (14) days written notification	AGC	Principal
Notice of site possession	Principal	14 days in advance	AGC	Principal
Monthly Update on Construction activities	Architect/designer Principal Subcontractors	One per month	AGC	AGC
Construction activities extending outside of normal working hours.	All stakeholders	Seven (7) days written notification.	AGC	Principal
Notice of ITP Witness or Hold Points	Principal	Ten (10) days written notification.	AGC	Principal
Notice of power interruptions <2 hrs	Principal	Two (7) days written notification.	AGC	Principal
Notice of power interruptions >2 hrs	Principal	Seven (7) days written notification.	AGC	Principal
Temporary change to site access or impacts to parking	All stakeholders	Seven (7) days written notification	AGC	Principal
Notifications associated with onsite construction activities under the relevant construction Work Health and Safety Plan	Principal	48 Hours' notice.	AGC	Not required.
Completing works, Contractor demobilising from site.	Principal	Fourteen (14) days written notification to key stakeholders.	AGC	Principal

Aconex Project Management System

AGC have a structured and common approach to the management of all projects through the utilisation of formalised and documented processes and supporting enablers including:

- Aconex;
- Bid Contender;
- MS Project; and
- Various supporting software tools and systems.

Our systems have been developed so that they not only function in large cities with considerable infrastructure but work effectively and efficiently in remote and isolated regions. The application of these integrated systems, and the management practices aligned to the systems have ensured and continue to ensure that AGC deliver all projects effectively and efficiently with a focus on exceeding all client expectations.

Aconex is a cloud-based software that has enabled AGC to become far more efficient in managing our projects. The software enables AGC to compress timelines and optimise budgets due to being able to control information and processes across the entire organisation on our projects.

The project management platform provides transparency and control from the moment a project is conceived through to completion, handover and operations. The management of formal project correspondence between teams is delivered in real time thanks to the control of documents and the distribution aspects of the software. The software ensures a single point of reference, accountability and data capture.

Due to the real-time handling of documents Aconex minimises delays with accurate information being shared to all parties working on the project. There is also a permanent archive that allows for a precise audit trail thus cancelling out any disputes.

Aconex Field is also an app available on a mobile platform which acts as a cloud-based checklist and punch list to capture, distribute and tracking of defects, safety, and other issues in real time. This app also ensures HSEQ requirements on site are accurately and timely recorded in line with AGC's IBMS system.

Reporting and searching for information are far easier due to the set parameters designed specifically for the project at hand. The system allows an accelerated turnaround by reducing administrative delays from review and approval cycles.

Aconex is free to use for our suppliers, sub-contractors and clients, including the provision of the Project Archive files at project completion. We now have the majority of our suppliers and sub- contractors using Aconex and finding the benefits of using such a transparent real time software package has aided their own business' time management.

Aconex teamed with the use of Microsoft Project and our accounting package allows AGC to effectively track and manage expenses, disbursements throughout the project and ensures transparency across the project delivery period.

All these software and systems are beneficial to our clients ensuring that the communication process is clear and immediate. This in turn ensures delays are minimised and document control has a clear line of processing. We help and support our clients to use this software throughout the project.

Defects Management

The strategy of the AGC defects management system is to achieve minimal defects at practical completion. The elimination of defects arising during construction, or at the very least a reliable process for their timely resolution prior

to completion requires the application of superior processes that are designed to identify and resolve defects as they arise through construction.

The system AGC applies to the management and control of quality issues and defects is designed to;

- Ensure that tradesmen and their direct line supervisors see quality as their responsibility to enable quality issues to be resolved at the lowest possible level;
- Ensure defects and quality issues are not allowed to accumulate;
- Ensure inspections are carried out at the workface and that links are established with the company's existing;
- Quality Assurance systems; and
- Motivate and facilitate a cultural change in attitude in accepting quality issues and defects not as being the 'norm'.

To reduce the occurrence of defects and to ensure their appropriate and timely management and rectification, AGC have adopted a system, which complements our Quality Management and Assurance Processes. We prefer to provide our site supervisors with an Aconex-enabled smartphone.

The app Aconex Field is used to record and assign defects, note work remaining, and raise non-conformances throughout the build, and is made available to the Client to do so as well.

Long Lead Time Items

The high-quality specification of a number of items designed into the Project will be a challenge in terms of timely procurement to meet the constraints of the construction program. We have already commenced notifying some of the suppliers the possibility of requiring supply of these items, however there are several items for this project that may have long lead times:

- UPS systems (AC and DC);
- Power Distribution Units (PDUs) and rack sub-circuit dual power supply;
- Mechanical Systems; and
- Fire Systems

AGC ensures that with our highly experienced procurement team that all items required that have long lead time will be procured to allow adequate time for delivery to the project so not to impact on the construction program.

Management Systems

Safety, environmental and quality management are critical considerations in the daily operations of every project. AGC has developed detailed management systems for implementing and controlling construction safety, environmental, and quality assurance programs. These systems have been independently certified and regular internal and external auditing ensures system adherence.

These plans are coordinated with the overall management of the project in our various Project Management Plans, which defines all stakeholders, describes these roles and responsibility of the team members and integrates aspects of project delivery such as design and procurement with, for example, the safety and quality plans.

Each project team has a dedicated Project Coordinator, who is responsible for maintaining the management systems.

CONSTRUCTION METHODOLOGY

Project Design Phase

1. AGC intend to engage consultants that are familiar with Energy Queensland specification requirements and have a working relationship with AGC, this will help expediate project timeline and provide clear understanding of Principals Project Requirements.
2. Design Startup Workshop (client, stakeholders, consultants etc) to discuss.
 - a. Project Definition & Scope Confirmation – Finalise Technical Criteria & Principals Project requirements
 - b. Submission Timelines and priorities
 - c. Safety In Design – Develop a risk register with potential project risks
 - d. Confirm construction sequencing and methodology including Security measures to be implemented.
3. Site Visit
 - a. At early stages of design, a site visit will be conducted to
 - b. Survey, investigate and inspect the existing services and conditions in the area and allow for connection, redirection etc.
 - c. ii. Discuss access and egress
4. Concept Design (40%)
 - a. Submission of Concept Design Documentation (60% Design Completed) (Drawings, Schedules, etc)
 - b. Building Certifier Initial Assessment
 - c. Concentrating on Long Lead Time items to allow procurement to proceed.
 - d. Outline general intent of design
5. EQL Review Period and Approval (2 weeks)
 - a. Concept Design Review Workshop with all relevant personnel (client, stakeholders, consultants etc)
 - b. Principal Review Period and return of documents with acceptance or noted comments.
6. Schematic Design (60%)
 - e. Advanced documents from Concept Design (60% Design Completed) (Drawings, Schedules, etc)
 - f. Draft Specifications and layouts.
7. EQL Review Period and Approval (1 week)
 - c. Concept Design Review Workshop with all relevant personnel (client, stakeholders, consultants etc)
 - d. Principal Review Period and return of documents with acceptance or noted comments.
8. Detail Design Phase (80%)
 - a. Submission of Detailed Design Documentation (Drawings, Schedules, Specifications etc)
 - b. Sufficient to commence procurement of materials
 - c. Safety In Design Risk Register
9. EQL Review Period and Approval (1 week)
 - a. Detailed Design Review Workshop with all relevant personnel (client, stakeholders, consultants etc)
 - b. Principal Review Period and return of documents with acceptance or noted comments.
10. For Construction Documentation (100% Design) incorporating comments from detailed design.

Preliminaries and Site Mobilisation

1. Preliminaries
 - a. Contractor to submit for approval all WHSEQ management plans including sub-plans and obtain approval prior to mobilisation
 - b. Contractor to provide adequate number of experienced EQL-Trained Work-Crew to dutifully fulfill the responsibility of the provision, allocation and application of Trained Safety Observers for all Civil Construction undertakings and for attendance to any Non-EQL-Trained Subcontractors and visitors, within both the Civil Construction site and the greater energized Substation.
2. Site Mobilisation

- a. Establish and mobilise site office and amenities, including access to electricity and water.
 - b. Establish work zone, access, and traffic (install fence, barriers & signage)
3. WHS Requirements
 - a. Identify known services
 - b. Isolate services as required.
 - c. Traffic Management and Work Area Delineation
4. Environmental Controls including,
 - a. Install Dust and silt suppression control
 - b. Install erosion & sediment control
5. Submission of QA and material tech data sheet for review and approval
 - a. Submission of ITPs and relevant lot plans of Civil, concrete, hydraulics, and blockwork.
 - b. Submission of tech data sheet: imported fills, structural, mechanical, electrical and interior equipment.
6. Preliminary works
 - a. Complete all personnel Energy Queensland training
 - b. Set up survey controls.
 - c. Locate unknown underground services.

Construction Phase



Civil Works

- Prepare ground for building pad, setup include
 1. Strip Vegetation
 2. Cut and fill existing site to designed level
 3. Subgrade and base preparation.
 4. Proof roll and lot closeout of installed material.
- Underground Services
 1. Electrical Conduits
 2. Stormwater Drainage
 3. Hydraulics

4. Earthing Mat

Building works

1. Sub Floor Footings
 - Details excavation,
 - Ground preparation
 - Placing reinforcement,
 - Formworks, Pour
2. Sub-Floor Block Installation
3. Ground Floor – Suspended Slab
 - Details excavation
 - Install rebated trench for fuel line
 - Install all in-slab services
 - Placing reinforcement and form works
 - Pour and Sawcut where specified
4. Block wall works
 - Allow for 7 days for concrete to cure before commencing work
 - Place block
 - Install all in-block wall services
 - Place reinforcement
 - Pour
5. Structural
 - Roof Trusses
 - Roof framing
 - Structural Steel
6. External Linings and Facades
 - Install metal orb roof sheeting
 - Install roof plumbing
 - Install external Doors
7. Ceiling works
 - Install ceiling framing
 - Install internal fire rated ceiling lining
8. Install internal louver
9. Epoxy floor covering
10. Install generator
 - Electrical connections
 - Dry commissioning of generator
11. Install diesel fuel tank as specified
 - Dry commission of fuel tank
12. Install BMS infrastructure
13. Services fit off as specified within the scope provided
 - Electrical
 - Mechanical
 - Fire
 - Hydraulics
14. Install fence perimeter to match existing, including
 - Fence post

- Concrete foundation
 - Mowing strip
 - 1x person access gate
 - 1x double gate
 - Fence perimeter
15. For option 2 location, Install a stair access

Critical Services

1. Once all architectural trades are completed for the internal building works, AGC will commence installation of the critical infrastructure.
2. The target is to have all mechanical systems and fire systems installed ready to commission prior to installation of critical communications equipment.
3. Fit out of the new building includes (But not limited to); data racks, cable trays, communication cabling, DC Battery racks and rectifiers, split air-conditioning units, gas suppression systems including cylinders, generator.
4. Mechanical Works
 - Clean Room – will be designed to accommodate heat load requirements pre-design of 56kWhr (28 racks (potential) @ average of 2Kw).
 - UPS Room – Provision for expected heated load N+1 Eaton DC rectifier (standard Ergon solution) and future heat load N+1 UPS equipment (vertiv Liebert APM-90, fully populated with 3 x 30KVA modules).
 - Clean Room – Provision for expected load area and space for human inhabitants.
 - All rooms shall be positively pressurized to prevent dust contamination from other sources. It is expected that the differential air-flow between the pressure and exhaust is no more than 5%. External air intake volume must be kept to a minimum to ensure that the environmental conditions as indicated in the room design section are met and shall also be coordinated with the requirements of the barometric dampers.
5. Fire Detection & Suppression Systems
 - Automatic Pre-action fire suppression system
 - Automatic fire detection and alarm system
 - VESDA Smoke detection system
 - All detection system shall be supported by UPS (DC battery) backup
 - Portable Fire Extinguishers
6. Standby Diesel Generator
 - Provision of one diesel powered emergency standby generator sized for max determined load capacity of the site, with 20% float capacity for future growth.
 - EQL will 'free issue' Atlas Copco QES 105 or similar
7. Electrical
 - The power rooms are dedicated to house all electrical components as per tender document, specifically batteries, switch gear, switch board, power distribution units, 48DC units and Main Line Feed termination.
 - The UPS room will be equipped accordingly and will be Air conditioned to accommodate any proposed active equipment.
 - Main Line feed (Generators and/or main substations) will be terminated as appropriate within the Plant Deck on an appropriate power distribution panels and with appropriate power panels.

- Building power supply and associated transformers are considered to be fit for purpose for this scope of work.
- 8. Data Cabling Systems
 - Comms rack will host SRA racks, minimum standard cabinet shall be 45SRU, 800mm x 1050mm.
 - Cabinet fitted with vented front and back doors, top cover with provision for cable access, solid side panels.
 - All equipment racks are to be mechanically fixed to the floor to prevent movement to themselves and the cables.
 - Install Cable Trays and cable patch ways
 - Installed Data Racks
 - Install data cabling
 - Install UPS

Final Handover of Works

- Functional Testing and Commissioning.
- Final Clean of all construction site
- Final Inspections & Defect Walkthrough – Client / Consultants
- Close out defects
- Submission of QA Documentation and Final Building Certification
 - ITP's , Commissioning Documentation
 - Design Certification
 - Building Certificate of Compliance
 - Operation and Maintenance Manuals
 - Warranty information
- Practical Completion.

PROJECT RISKS AND POTENTIAL SOLUTIONS

AGC have completed a full review of tender / contract documentation and identified a number of items that provide risks to the success of the project. Following is a high level breakdown of some potential problems and solutions that AGC have incorporated to their task methodology.

- Working within Operational Energy Queensland Facility
 - AGC have experience working within Energy Queensland facilities and along with Ergon spotters during high risk activities and understand the processes that need to be in place and the importance of following / conforming to all processes.
 - During initial site mobilisation, AGC will delineate the main works area with Temporary fence (clamped) to clearly identify site location.
 - All personnel will be site inducted where it will be clearly outlined that no personnel are to venture outside the delineated work area with prior approval.
 - AGC site foreman will undertake EQL training Work-Crew to dutifully fulfill the responsibility of the provision, allocation and application of Trained Safety Observers for all Civil Construction undertakings and for attendance to any Non-EQL-Trained Subcontractors and visitors, within both the Civil Construction site and the greater energized Substation.
- Long Lead time items
 - Procurement of Materials is very volatile in the current market, with both price and lead time changing rapidly. AGC have a long standing relationship with local suppliers and subcontractors and are confident these items will not be an issue for procurement. Immediately upon award and in

conjunction with design consultants, AGC will place orders for all long lead time items. The items generally at risk are as follows

- Steel Items – Structural Steel, Roof Sheeting, steel reinforcement
- Mechanical Items
- Electrical distribution boards
- PVC pipework and Electrical Conduit
- Electrical Cable
- Diesel Fuel Tank

AGC see that solutions to the majority problems are through early identification, planning and clear communication with all relevant parties. AGC recognises the importance of positive communication and consultation.

Arrangements for discussions and regular meetings are established at the commencement of each project, as this forms part of our Construction Project Management Checklist (CON00-FORM-01).

All on-site communication and consultation are outlined in the Communications and Consultation Matrix. (QSE08-REG-01). The matrix articulates what consultation is to occur, on what frequency and who is involved.

AGC shall ensure that regular consultation is undertaken on-site. Methods include but are not limited to:

- Site inductions.
- Hazard reporting.
- Hazard alerts.
- Daily pre-start meetings.
- Toolbox talks.
- Health and safety committee meetings.
- Site progress meetings.
- Client meetings.

AGC have summarised some more general project problems that may arise in the table below, on-site the specific high risks are listed within the risk register to include the controls and mitigation methods.

CHALLENGES	MITIGATION/COMMENT
Project schedule	AGC have undertaken a complete review of the proposed tender schedule and have developed a detailed project schedule including milestones and consider the schedule both realistic and achievable based upon our capacity and resources allocated to the project.
High performance/quality expectations	- AGC have established our own internal expectations regarding quality which are fully compliant to the requirements of ISO 9001:2015. These high standards also directly translate into a limited occurrence of defects during the defect liability period and in the Whole of Life costs of our completed projects. AGC's high standard of the final project is evident through the numerous awards over the past several years throughout North and Central Queensland, including: 2020 - Excellence in Energy Efficiency and Environmental Management – Bwgcolman Retail Precinct (Palm Island)

	• 2019 - Project of the Year - Ergon Energy Garbutt Depot Stage 2 (Garbutt) • 2019 - Education Facilities up to \$5 million - Calvary Christian College Performing Arts (Mount Louisa) • 2019 - Project of the Year - Winton Shire Council - Waltzing Matilda Centre (Winton) • 2019 - Tourism and Leisure Facilities over \$10 million - Winton Shire Council - Waltzing Matilda Centre (Winton) • 2019 - Industrial Building over \$5 million - Ergon Energy Garbutt Depot Stage 2 (Garbutt) • 2018 Community Service Facilities – Calvary Leadership College Building One (Mount Louisa) • 2017 - Industrial Building – Stuart Yard Consolidation Project
Inadequate program scheduling	• AGC's proposed project team have completed similar projects together and as such have an ongoing working collaboration to fulfilment. • The capacity to manage a number of concurrent projects is proven and as shown within this tender response AGC are currently achieving this. • AGC's project team work together in the development of the initial project schedule and program to ensure that all project team members are fully aware of the requirements.
Managing a project in an operational facility	• AGC's experience of undertaking projects within operational environments where we ensure adjacent facilities or shared infrastructure is not impeded by construction work. • AGC have a proven track record in Defence projects where daily interaction of base operations takes place. • AGC have defined roles and responsibilities to ensure that effective communication and consultation with all the stakeholders takes place on all projects.
Management of subcontractors/ suppliers	• AGC have worked in the region for over 50 years and have a dedicated and competent subcontractor pool and approved supplier list that we have used extensively. • Our approach to subcontractors and suppliers has grown and matured to ensure that they too have grown and matured as a result of a strong working relationship. • Our subcontractor and suppliers' competency are proven and in the case of new suppliers being invited to price this tender they all undergo both a formal review process involving reference and credit checks as well as a formal review of their quality management systems and safe methods of work.
Coordination between project participants	• We have programmed formal meetings and the monthly reports to ensure all stakeholders maintain an accurate understanding of the project. • Internal weekly progress meetings with our senior management and project team will occur. • Daily prestart meetings of all workers (staff and subcontractors) ensure coordination is maintained throughout the program.
Key Personnel leaving the project.	• The proposed AGC team are all long-term employees who have worked in the Townsville region and are settled.

	• AGC will ensure that a reserve with comparable experience and abilities is available for each member of the team should a personal event require extended absence from the project. This is achieved through having Key on-site and off-site personnel allocated to this project to ensure consistency throughout the project where substitution if required. • Although not required in this tender, a substitute team member is highlighted in this tender response to ensure all contingencies are considered prior to commencement of the project.
Defect procedures and presence in the region.	• AGC are a local company with a permanent presence in Townsville and so during the defect liability period, AGC will provide the Client with a contact number which is reachable at any time. AGC will organise any emergency repairs to be undertaken immediately upon receipt of advice from the Client. • Detailed procedures for ensuring the scheduled maintenance within the defect's liability period is undertaken in timely manner will be contained in the HOTO Plan.
Programming of the works to advise others of upcoming activities.	• AGC will prepare a Project Master Program. This allows people to understand with a high level of confidence what activities are happening, about to happen and then assess the interaction with others.
Clear lines of communication and control.	• AGC has a clear level of responsibility for each level of management in the company. Each person from the Project Director down to the site staff understand their level of authority and can communicate confidently at that level. These responsibilities are enunciated in their position descriptions. By allowing this our employees understand what level of information can be acted on and advised to others on or around the site.
Materials demands due to increased competition from projects in the region.	• AGC has been long term customers to many of the local suppliers and as such local suppliers tend to work with us on supply and deliver issues.