



QC³ Consulting Report

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1 Executive Summary

QC³Consulting has been engaged to undertake a 'high level' review of the potential to provide aircraft Hangars at the Flinders Island airport for the use of commercial and private operators and provide options and recommendations for the consideration of Flinders Council.

This high level review has encompassed interviews with commercial and private operators, discussions with other airport operators and users, costings including buildings and foundations and with reference to the Flinders Island Airport Master plan 2012 and the Flinders Island Structure plan 2016 (currently under review).

This report has identified that there is a desire by both commercial and private operators to have insitu aircraft hangars at the Flinders Island airport. From a commercial perspective the hangars would promote business growth through improved brand exposure and marketing opportunities, professionalism and improved customer experiences, asset protection and ease of access to other local facilities; from a private perspective, an opportunity to protect valuable assets.

The benefits to Flinders Council would be active compliance with the applicable precepts detailed in the Flinders Island Airport Master plan 2012 and the Flinders Island Structure plan 2016 (currently under review).

The key to the successful establishment of aircraft hangars at the Flinders Island airport would be the implementation of a suitable commercial model that provides a 'win – win' to both the Flinders Council and the Commercial and private operators keen to participate with this development opportunity.

The two key models discussed and explored are either a Flinders Council land lease with operators designing, constructing and owning the hangars or with Flinders Council designing, constructing and owning the hangars and leasing to prospective lessees.

The option with the least cost impact for Flinders Council is the option to subdivide and lease land for the operators to supply suitable buildings based on Flinders Council planning requirements. Uptake with this proposal was universal from the operators perspective and attractive to the Council with minimal up front expenditure and the opportunity to generate a long term finance stream through the establishment of a suitable commercial lease arrangement.

The alternative option where Flinders Council design build and lease hangars has merit from the perspectives of owning appreciating assets, being completely in control of the outcome and having the ability to develop and implement a number of leasing opportunities to maximise potential income streams.

It is recommended, subject to general approval with the information contained within this report, that further works be undertaken specifically in review of the commercial models to develop a business case to assist with appropriate decision making.



2 Background

Flinders Island Airport is a certified Airport owned and operated by the Flinders Council. The Flinders Island Airport is located on the west coast of Flinders Island approximately 3km north of the Whitemark town centre. The airport site has a total area of approximately 134 hectares.

The primary aviation facilities at Flinders Island Airport consist of two sealed runways, a sealed taxiway, a sealed apron, a grassed apron and a fuel storage facility.

The primary use of Flinders Island Airport is for Regular Public Transport (RPT) services operated by Sharp Airlines which offers services to and from Melbourne (Essendon) and Launceston. The airport is also used for charter and freight services, emergency services and private/recreational flying.

Currently there is only one small hangar on the airport which is located on the opposite (north) side of Runway 05/23. This hangar is used for the storage of a private aircraft.

The Flinders Island Airport Master Plan 2012 proposes that a “Commercial General Aviation” hangar area be provided to the west of the sealed apron and terminal building (See Hangar layout drawing Appendix 1) or in an area designated as the General Aviation Hangar Development Precinct (See Appendix 2).

Hangars constructed in the Commercial GA Hangar Area will need to be limited in size and carefully located so as not to affect the operation of the airside area and airport terminal zone.

In the GA Hangar Development Precinct there is space available to build many more new hangars. Hangars in this precinct should be constructed side-by-side with their aircraft access doors facing the airside area and with landside access from the rear via the secondary access road off Palana Road (as is the case with the existing hangar in this precinct).

Resonance Consulting (Tim Phillips) undertook some research into hangar development during 2014 and 2015 and where relevant findings have been integrated into this report.

3 Report Objectives

The primary objectives of this report are to:

- Review the current operation and infrastructure with reference to the Flinders Island Airport Master Plan 2012.
- Identify and engage with key Commercial and interested stakeholders in seeking information regarding the development of new aircraft hangars.
- Engage with appropriate Flinders Council stakeholders.
- Review and comment on the possible hangar ownership models and provide recommendations.
- Table findings and present recommendations including likely costs where applicable.
- Complete the review efficiently, professionally and cost effectively.



4 Flinders Island Airport Vision and Objectives

In developing this report with respect to the provision of aircraft hangars the Flinders Island Airport Vision and Key objectives were referenced to ensure compliance.

Vision

Flinders Island Airport is a critical transport hub servicing Flinders Island which will continue to be maintained, enhanced and protected to support the sustainable growth and development of the community and economy of the island.

Key Objectives

- Protect the airport's primary function for aviation.
- Recognise the airport as a valuable community and economic asset.
- Create positive gains for the community and economy.
- Support the growth of RPT and charter activities.
- Support aviation-related development on the site.
- Support the growth of tourist passenger traffic.
- Support the ongoing use by emergency services.
- Ensure that appropriate infrastructure is provided.
- Allow appropriate development of surplus land.
- Ensure compliance with CASA standards and requirements.
- Ensure that future development occurs in a planned and orderly manner in accordance with the long term vision for the airport.

5 Flinders Island Structure Plan

The Flinders Council has issued a new 'Structure Plan' for general public review and comment. An area has been identified for light industrial development (Palana road/Memana Road intersection). This area will be in preference to an area identified adjacent to the existing Flinders Island Airport as detailed in the Flinders Island Airport Master Plan.

The addition of aircraft hangars at the airport will support the precepts detailed in the Structure plan in relation to economic development.

6 Commercial Operators

Currently there are two commercial operators who have expressed an interest in having access to an aircraft hangar at the Flinders Island airport to support and grow their commercial operations and to house and protect their key assets (aircraft):

Flinders Island Aviation (PB).



Flinders Island Air Charters (FW).

A questionnaire was developed as a basis of discussion to gather information to ascertain the interest in hangar development.

| Question | Response |
|---|---|
| Would you use a hangar based at Flinders airport? | Yes, dependant on commercial proposition and business case – (FW) Yes, dependant on commercial proposition and business case. Currently have lease commitments at existing Flinders Island airport(Lady Barron) but keen to explore opportunity at Whitemark – (PW) |
| What are the benefits to your operation? | Both operators expressed interest in: <ul style="list-style-type: none"> • Business growth. • Improved brand exposure and access to other facilities. • Asset protection (Aircraft). • Improved customer experience. • Marketing opportunities. |
| Are there benefits to Flinders Council? | Both operators noted that business growth supports the socio-economic benefits as detailed in the Flinders Island Airport Master Plan (discussions) and the Flinders Island tourism strategy (generally) |
| What type of Commercial model would work for you? I. Council constructs and own the hangars & the commercial operators would enter into a multi-year lease II. Commercial operators lease the land and construct and own the hangars themselves III. Council constructs and owns the hangars which are leased on a casual basis (daily/weekly/monthly) | Final model depends on costs (Has to be agreeable to both the Commercial Operator and Flinders Council.) Landing fees to form part of the deal. - (FW) Preference to lease Council land (long term lease) and build a hangar and associated infrastructure at own cost in conformance to Council requirements (size, colour etc). – (PB) |
| What are the preferred dimensions of a hangar? (Assume the commercial hangars would all be the same size?) | General agreement that a 20m x 20m x 6m high would suffice as a basis for preliminary discussion |
| Would there be other rooms required in the design (office/ablutions)? | No other rooms required – (FW) Yes, office/reception/waiting room/toilets would be preferred – (PB) <i>NB There is currently no reticulated sewerage system at the Flinders Airport. Wastewater from the main terminal building is treated via an on-site septic tank system. The existing septic tank system is located immediately to the west of the terminal building. The preference will be for all</i> |



| Question | Response |
|---|--|
| | <i>airport visitors to utilise this facility. If there is a preference to have separate toilet facilities a separate treatment/storage system will be required. (Or an overall revised sewage management strategy)</i> |
| Type of foundation? | Concrete |
| Type of access from existing apron? | Compacted fine crushed rock (FCR) would be acceptable |
| The preference will be for the existing main terminal building to be utilised for all passenger transfers, will that work for your operation? | Agreed, including use of toilets etc but would prefer that passengers embark and disembark at the hangar –(FW) Happy for customers to visit terminal but preference will be to manage all aspects of the operation from the hangar-(PB) |

7 Private Operators

Currently there are two private operators who have expressed an interest in having access to an aircraft hangar at the Flinders Island airport to facilitate their recreational activities and to house and protect their key assets (aircraft):

The same questionnaire was utilised as a basis of discussion to gather information to ascertain the interest in hangar development.

| Question | Response |
|---|---|
| Would you use a hangar based at Flinders airport? | Both operators agreed wholeheartedly the desire to have access to a hangar at Flinders Island airport |
| What are the benefits to your operation? | Both operators expressed interest in: <ul style="list-style-type: none"> • Aircraft are expensive to maintain and storing out of the weather reduces exposure and costs. • To be able to land and hangar the plane in a safe and weatherproof environment to remove concerns about inclement weather damaging aircraft. • Would be beneficial to store vehicle when not on the Island. |
| Are there benefits to Flinders Council? | The operators noted: <ul style="list-style-type: none"> • The provision of an income stream. • Attractive for other operators/pilots to visit Flinders Island. • To promote Flinders Island as a 'General Aviation' (GA) friendly airport. • Safe parking (aircraft) for an extended period with the provision of a 'hassle free' experience. |
| What type of Commercial model would work for you? I. Council constructs and own the hangars & the commercial operators would enter into a multi-year lease | Both operators expressed a preference to lease Council land (long term lease) and build a hangar and associated infrastructure at own cost in conformance to Council requirements (size, colour etc). |



| Question | Response |
|---|---|
| <p>II. Commercial operators lease the land and construct and own the hangars themselves</p> <p>III. Council constructs and owns the hangars which are leased on a casual basis (daily/weekly/monthly)</p> | <p>Interest in ensuring that landing fees* to be wrapped up into a lease agreement.</p> <p><i>*(Note that at Echuca on the Victorian/NSW border it is free to fly in there and is used regularly by any number of GA pilots, it is a short taxi ride to town for a Sunday lunch at a nice restaurant or pub and then fly home. Even though the council has missed out on a landing fee, which obviously has administration costs attached to it, the Echuca business district benefits from several hundred dollars if not thousands, being spent over any given weekend. Flinders Island has the potential to generate this sort of tourism, as there is already a number of B&B's and other types of accommodation on the island, together with car hire and taxi's available</i></p> |
| What are the preferred dimensions of a hangar? (Assume the commercial hangars would all be the same size?) | General agreement that a circa 170m ² x 5-6m high footprint would suffice as a basis for preliminary discussion. The hangar could be larger under a shared ownership model housing 2 or 3 aircraft. |
| Would there be other rooms required in the design (office/ablutions)? | No other rooms required. Access to power and water would be required |
| Type of foundation? | Concrete |
| Type of access from existing apron? | Compacted fine crushed rock (FCR) would be acceptable |
| The preference will be for the existing main terminal building to be utilised for all passenger transfers, will that work for your operation? | Agreed, noting however that the preference would be to have the hangars in the same locale as the commercial operators to provide ease of access to vehicles, hire cars and other facilities at the main terminal. |

8 Costings

An approach was made to Bison constructions based in Scottsdale to provide a preliminary design solution for the provision of an aircraft hangar based on a 20m x 20m x 6m high building (See appendices)

Generally the buildings are designed with a 20 year life and foundations 50 years, however with good maintenance practices this period can be extended considerably.

| COMMERCIAL HANGAR | COST (Ex GST) |
|--|---------------------|
| Commercial Aircraft Hangar (21m x 20m x 6m)* ¹ | \$71,900.00 |
| Concrete foundation* ² – 84m ³ (21m x 20m x 0.2m) x \$700/m ³ | \$58,800.00 |
| Allowance for utilities (power/water) | \$5,000.00 |
| Allowance for surveying | \$1,200.00 |
| Allowance for Council Fees | \$2,500.00 |
| Total Estimate | \$139,400.00 |

*¹ No allowance for other rooms (Office/waiting room/Toilet)

*²Current estimate for foundation provided by local builder



| PRIVATE HANGAR | COST (Ex GST) |
|---|---------------------------|
| Private Aircraft Hangar (14m x 12m x 6m) | \$28,762.00* ¹ |
| Concrete foundation* – 33.6m ³ (14m x 12m x 0.2m) x \$700/m ³ | \$23,520.00* ² |
| Allowance for utilities (power/water) | \$5,000.00* ³ |
| Allowance for surveying | \$1,200.00 |
| Allowance for Council Fees | \$2,500.00 |
| Total Estimate | \$60,982.00 |

*¹ Extrapolation

*² Current estimate for foundation provided by local builder

*³ Based on hangar adjacent to Commercial hangars

9 Commercial Models

In discussions with both commercial and private operators the preference is to lease Council land and to build their own facilities subject to Flinders Council planning conditions including type and size of buildings.

The following SWOT analysis explores this commercial model.

| | |
|---|--|
| <p>Strengths</p> <ul style="list-style-type: none"> Low cost option for Flinders Council. Minimal capital outlay. Long term lease generating income. Ownership by operators supporting business growth opportunities. Maintenance by operators. Council dictate size, type, colour etc of structures. Appreciating assets. Increasing the appeal of Flinders Island Airport. | <p>Weaknesses</p> <ul style="list-style-type: none"> Capital outlay by operators. Key risks managed by operators. Limited market to 'on sell', therefore long commitment for operators. Potential requirement to improve wastewater/sewage management. Costs and management of subdivision for Flinders Council. |
| <p>Opportunities</p> <ul style="list-style-type: none"> Ownership could revert to Council after 'x' number of years. Shared ownership/partnership model. Collaboration towards growth and development. Incorporate landing fees into lease. | <p>Threats</p> <ul style="list-style-type: none"> Financial viability of operators, potential debt reversion to Council. Future ownership of airport. Planned growth expectations not realised. |



The alternate model proposed is for Flinders Council to build the hangars and explore lease options.

| | |
|--|---|
| <p>Strengths</p> <ul style="list-style-type: none"> Flinders Council owned asset. Potential Long term lease generating income. Possible short term lease options for peak periods (short duration but higher return) Low cost option for operators, facilitating uptake. Council dictate size, type, colour etc of structures. Appreciating assets. Increasing the appeal of Flinders Island Airport. Ability to continue to pursue landing fees. Eliminates costs of subdivision. | <p>Weaknesses</p> <ul style="list-style-type: none"> High cost option for Flinders Council. Large capital outlay potentially unfunded by grants. Cost of funding promotes high lease costs minimising desire buy operators to enter into long lease arrangements. Variable cost of funding (attractive now but could change) Maintenance responsibility by Flinders Council. Limited market to 'on sell', therefore long commitment by Flinders Council. Potential requirement to improve wastewater and sewage management. |
| <p>Opportunities</p> <ul style="list-style-type: none"> Shared ownership/partnership model. Collaboration towards growth and development. | <p>Threats</p> <ul style="list-style-type: none"> Financial viability of operators, potential debt reversion to Council. Future ownership of airport. Planned growth expectations not realised. Inability to attract lessees. |

The Flinders Council leased land, operator building owned model presents benefits for both parties, the low capital cost and low risk option for Flinders Council and the ability for the operators to build and own an appreciating asset.

This report recommends further analysis through business case development to 'flesh out' both options.

Ideally, which ever option is pursued it should be on the basis of a 'win-win' outcome for both Flinders Council and the operators.

10 Landing fees

The proposed landing fee rates for 2016-17

| 2016 - 17 Airport Charges | Rate |
|---|---------------|
| Commercial Flights (Maximum 'Take Off' Weight (MTOW)) | \$20.50/tonne |
| Private Flights (per engine & per landing if paid on site) | \$13.00 |
| Private Flight (per engine & per landing if NOT paid on site) | \$26.50 |
| Helicopters (per landing if paid on site) | \$13.00 |
| Helicopters (per landing if NOT paid on site) | \$26.50 |
| Ultra-Lights (per landing if paid on site) | \$13.00 |



| | |
|---|----------------|
| Ultra-Lights (per landing if NOT paid on site) | \$26.50 |
| Locally Based Charter Operators – Annual fee Negotiable | TBC |
| Regular Passenger Transport (RPT) Landings – MTOW | \$9.35/tonne |
| Passenger Tax (per leg) – | \$9.00/person |
| Passenger Tax – Charter flights (7 tone & over) | \$10.80/person |
| Royal Flying Doctor Service (RFDS) – Call out fee per landing | \$195.00 |
| Annual Hire Car Parking Licence Fee | \$265.00 |

Currently the local commercial operators do not pay passenger tax.

The Flinders Island Council is currently reviewing the viability of introducing an annual fixed fee for the local commercial operators. The fixed fee would reduce the administrative burden for both Flinders Council and the Commercial operator and would include:

- Landing fees for the use of Flinders Island Airport (Whitemark)
- Own Parking Space including tie-down blocks for up to 2 aircraft (GA Apron)
- Access to water for aircraft wash-down
- Airside vehicle access (Key to be issued)
- Access to Main Terminal building for customers
- Possible reserved car parking space/s

11 Land subdivision

The Flinders Council owns and operates the Flinders Island airport.

The area designated as the potential location of the aircraft hangars for commercial operators as shown in Appendix 1 - Proposed Commercial General Aviation Hangar Area, is outside the boundary of the 'airside area of operations and therefore the process of subdivision will potentially be straightforward.

Subdivision will enable parcels of land to be developed for aircraft hangars either as Council owned leased blocks or as blocks of land to sell.

The process and cost of subdivision is currently unknown and will require further investigation at business case stage.

The area designated as the potential location of the aircraft hangars for private operators as shown in Appendix 2 – Proposed Commercial General Aviation Hangar Development Precinct, is within the 'airside' area of operation and therefore the process of subdivision will be challenging and the preference may be not to subdivide but for Flinders Council to build and lease the private hangars.



12 Other operations

In determining an acceptable outcome with regards the viability of providing aircraft hangars, limited research was undertaken with respect to what happens at other airports of similar size in Australia.

With respect to Commercial operations the ability for a commercial operator to have their own facilities allows for business growth through increased business exposure and professionalism, improved image and branding and the provision of an enhanced customer experience. (Moving away from a perceived 'backyard operation')

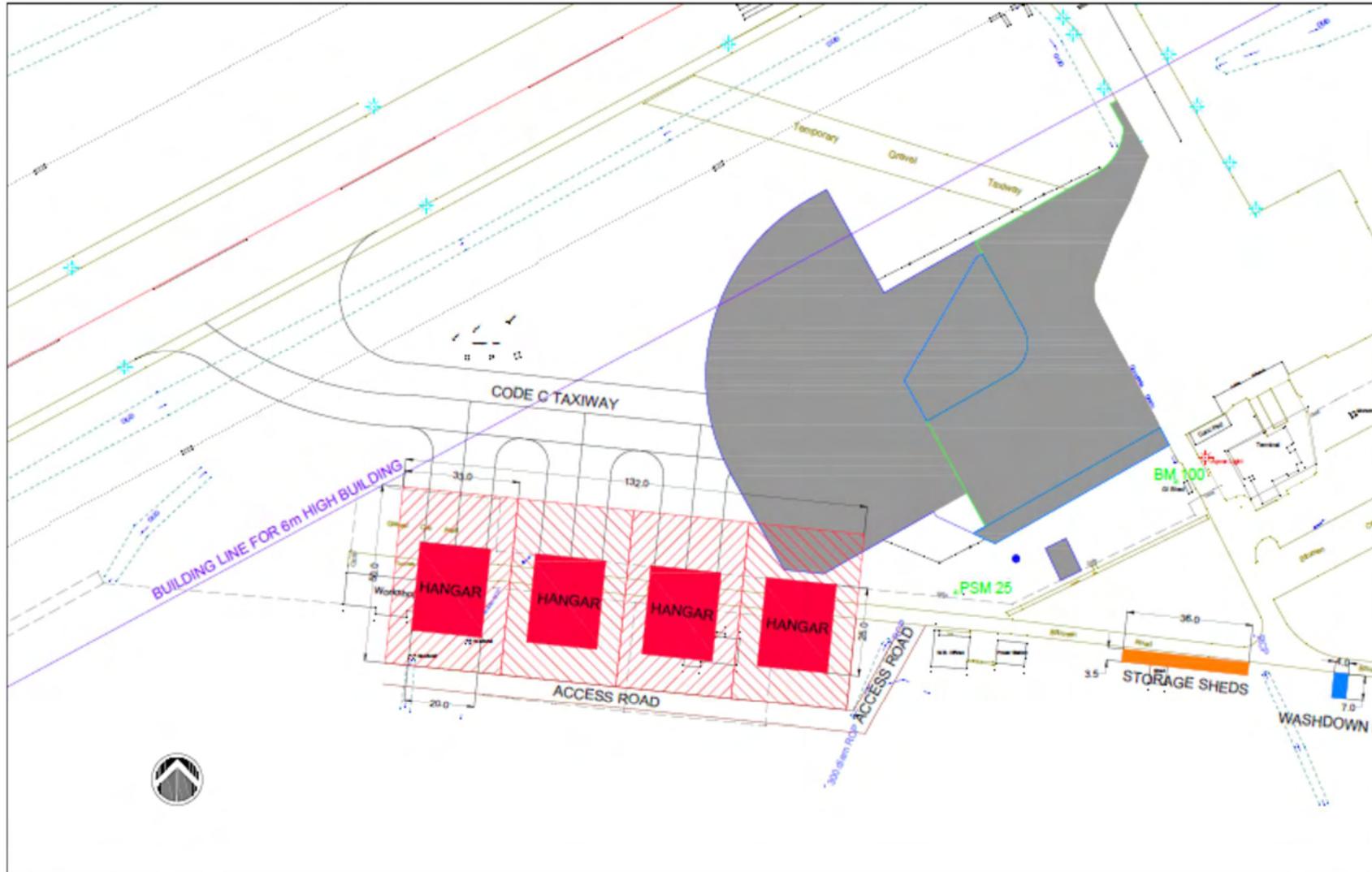
It is apparent, with respect to private operators, that there is considerable growth with recreational flying throughout Australia. In discussions with private operators travelling to Flinders Island the appeal of visiting an airport is to have minimal or no landing fees with the local economic benefits generated by visitors utilising hire cars, restaurants, accommodation and other facilities/activities associated with tourism.

The provision of hangars ensures a safe and weather proof structure to protect and store aircraft. Where a local private operator owns or leases a hangar it is generally expected that landing fees are incorporated within the lease costs and conditions. (Notable exceptions include Moorabbin)

Some airports provide large hangars to store larger numbers of aircraft and the daily or weekly lease again incorporates any landing fees.

13 Appendices

- Appendix 1 - Proposed Commercial General Aviation Hangar Area.
- Appendix 2 – Proposed Commercial General Aviation Hangar Development Precinct.
- Appendix 3 – Bison constructions Hangar cost and illustration.



Appendix 1 – Proposed Commercial General Aviation Hangar Area



Appendix 2 – Area C = General Aviation Hangar Development Precinct

**BUILDING DETAILS**

| | |
|--------------------------|---|
| BUILDING CATEGORY | Commercial Aircraft Hangers Commercial to suit 'Wind Region A = 45m/s' |
| FRAME DETAILS | |
| Column: | Hot dip Galv, 360UB45 |
| End Wall Mullions: | Hot dip Galv, 310UB40 |
| Truss: | Bison Web Truss |
| Roof Pitch: | 7,5 Gable |
| Roof Purlins: | C200 / 15 |
| Side Wall Girts: | C150 / 15 |
| End Wall Girts: | C150 / 15 |
| Girder Trusses: | |
| Concrete Panels: | |
| SIZE | |
| Width: | 20,0 m |
| Length: | 20,0 m |
| Total floor area: | 400 m ² |
| No of Bays & Width: | 3 @ 6,67 m |
| Eave Height: | 6,00 m |
| WALLS | |
| Enclosed sides: | 2 |
| Enclosed ends: | 2 |
| Internal Walls: | |
| FLASHINGS | |
| Ridge: | Colorbond |
| Ridge Vent: | - |
| Barge: | Colorbond |
| Corner: | Colorbond |
| Gutter: | Easyflow Gutter Colorbond |
| Downpipes: | PVC Included [to ground level] |
| CLADDING | |
| Roof Sheeting: | 0,42 BMT Trimdek Colorbond |
| Wall Sheeting: | 0,42 BMT Trimdek Colorbond |
| Clear Sheet (Roof): | 1 run per bay |
| Fibreglass (Walls): | - |

Hanger Doors on one end

| | |
|--|-------------------------------|
| ACCESS & WINDOWS | |
| Large doors: | |
| Sliding Doors: | 2 x 5mW x 5mH - Sliding Doors |
| Access door: | 1 x 2040x920 Solid Core Door |
| Windows: | |
| INSULATION | |
| Included: | Roof Mesh & Sisalation |
| | Walls - |
| FOOTINGS | |
| Hold down bolts: | By Bison Constructions |
| Concrete: | By Client |
| Excavation: | By Client |
| Concrete Floor: | |
| ADDITIONAL ITEMS | |
|  | |
|  This option is for Sliding Doors on one end only. | |
|  This will create an opening of 10m. | |
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| This estimation is subject to final engineer's plans, computations and Site inspection. Quote based on a clear level site and normal subsoil. | |
| Council fees: | By Client |
| Council lodgement: | By Client |
| Plans & Comps: | By Bison Constructions |
| Delivered to site: | Ex Bridport Warf |
| Unloading: | By Client |

[Excludes Erection]

| | |
|------------------------|--------------------|
| COMPLETE SUPPLY PRICE: | \$71,900,00 |
| GST: | \$7,190,00 |
| TOTAL inc GST: | \$79,090,00 |

