# Attachment 1 – Draft Conditions

**GENERAL**

**1. Approved Plans**

Development being carried out generally in accordance with the plans and associated documentation lodged by, or on behalf of, the applicant, including:

| Plans prepared by | Drawing No. | Revision | Drawing Title | Dated |
|---|---|---|---|---|
| KO& Co Architecture | 000 | F | Cover Sheet | 27.03.2023 |
| KO& Co Architecture | 100 | K | Site Plan | 23.03.2023 |
| KO& Co Architecture | 180 | H | Demolition Plan – Level 0 | 17.03.2023 |
| KO& Co Architecture | 181 | D | Demolition Plan – Level 1 | 08.04.2022 |
| KO& Co Architecture | 200 | O | General Arrangement Plan – Level 0-Part A | 23.03.2023 |
| KO& Co Architecture | 201 | O | General Arrangement Plan – Level 0-Part B | 23.03.2023 |
| KO& Co Architecture | 202 | O | General Arrangement Plan – Level 1 | 23.03.2023 |
| KO& Co Architecture | 210 | H | Roof Plan – Part A | 27.03.2023 |
| KO& Co Architecture | 211 | H | Roof Plan – Part B | 27.03.2023 |
| KO& Co Architecture | 300 | J | Elevations – Sheet 1 | 17.03.2023 |
| KO& Co Architecture | 301 | K | Elevations – Sheet 2 | 17.03.2023 |
| KO& Co Architecture | 400 | I | Sections – Sheet 1 | 17.03.2023 |
| KO& Co Architecture | 401 | I | Sections – Sheet 2 | 17.03.2023 |
| KO& Co Architecture | 510 | C | Stair Details – Sheet 1 | 08.04.2022 |
| KO& Co Architecture | 511 | C | Stair Details – Sheet 2 | 08.04.2022 |
| KO& Co Architecture | 512 | C | Stair & Ramp Details | 08.04.2022 |
| KO& Co Architecture | 900 | G | Perspectives | 17.03.2023 |
| KO& Co Architecture | SK027 | B | External Wayfinding Signage – Sign Location Plan | 17.03.2023 |
| KO& Co Architecture | SK028 | B | External Wayfinding Signage – Key Signage Concepts | 17.03.2023 |

except as modified by any condition in this consent.

**2. Commencement of Use**

Occupation or use of the premises for the purposes authorised by this consent shall not commence until all conditions of consent have been complied with and a final occupation certificate has been issued by the Principal Certifier, unless alternative arrangements have been made with Council.

**3. NCC Compliance**

All building work is to comply with the requirements of the *National Construction Code* and relevant Australian Standards.

**4. Disabled Access**

Disabled access is to be provided in accordance with AS 1428.1-2009 to any new and affected parts of the building including through the principal pedestrian entrance and a continuous accessible path of travel, in accordance with, AS 1428.1, from the principal pedestrian entrance to any new or altered parts of the building.

**5. Demolition**
All demolition is to be carried out in accordance with AS 2601-2001 Demolition of Structures the SafeWork NSW Code of Practice for Demolition Work.

**6. Notice of Demolition Work**
The applicant or demolition contractor must give at least 2 days' notice in writing of the intention to commence the works to the owner or occupier of each dwelling that is situated within 20m of the lot on which the works will be carried out. The notice must state that the works may include the removal of asbestos and, if it does, it will be carried out by a licensed person in accordance with the requirements of the Occupational Health and Safety Regulation 2001.

**7. Acoustic Fencing**
The acoustic fencing as indicated in Figure 4 of the Noise Impact Assessment prepared by Palmer Acoustics dated 10 March 2023 is to reduce in height to 1.2m forward of the 4.6m building line.

**8. Building Code of Australia Upgrade**
The remaining parts of the existing building are to be brought into conformity with the Building Code of Australia in relation to parts C, D, E and F for fire separation and compartmentation, construction of exits, accessibility, emergency services and equipment and sanitary facilities.

**9. Asbestos Removal**
Where building or demolition work involves disturbance, removal or repair of friable or non friable (bonded) asbestos the following applies:

a) Work involving asbestos removal work (inclusive of repair or disturbance) that involves any amount of friable asbestos or non-friable asbestos (formerly known as bonded asbestos) that exceeds 10 square metres, must be undertaken only by a person who carries on a business of such removal work in accordance with the appropriate licence under Part 8.10 Division 1 of the Work Health and Safety Regulation 2017;

b) The person having the benefit of this consent must provide the Principal Certifier and/or consent authority with a copy of a signed contract with such a person before release of the Construction Certificate and or commencement of works;

c) Any such contract must indicate whether any friable or non- friable asbestos will be removed, and if so, must specify the approximate amount (m2) and the landfill site (that may lawfully receive asbestos) to which the friable or non-friable asbestos material is to be delivered. Note: Ballina Shire Council's Waste Facility does NOT currently accept any material containing asbestos;

d) In accordance with clause 79 of the *Protection of the Environment Operations (Waste) Regulation 2014* information relating to the movement of any load in NSW of more than $10m^2$ of asbestos sheeting, or 100 kilograms of asbestos waste must be provided to the EPA. To fulfil these requirements waste transporters must use *WasteLocate.* Receipts for disposal shall be retained as evidence of proper disposal;

e) Notification of asbestos removal work shall be provided to Council, NSW Safe Work and neighbours in the vicinity of the asbestos removal site;

f) The asbestos removal site shall be adequately fenced and signed prior to any asbestos repair, disturbance or removal; and

g) If more than 10 square metres of non-friable asbestos (formerly known as bonded asbestos) or any amount of friable asbestos is removed then a suitably qualified person is to undertake a clearance inspection following the asbestos removal work and have a clearance certificate issued in accordance with the requirements of section 473 and 474 of the Work Health & Safety Regulation 2017. A copy of the clearance certificate is to be provided to Public and Environmental Health Section of Council.

**10. Smoke Free Environment**

The developer and occupier of the premises are alerted to the requirements of the Smoke Free Environment Act 2000 which bans smoking within 4 metres of a pedestrian access point to a public building and in commercial outdoor dining areas.

Enquiries may be directed to the NSW Health Department and further information is available at Smoke-free laws - Tobacco and smoking (nsw.gov.au).

**11. Advertising Signs**

Other than the two wall signs and one awning fascia sign, no advertising sign(s) is to be erected or displayed without prior submission of a development application to, and approval from, Council, unless the proposed signage is consistent with the terms and conditions of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

**12. Vandalism and graffiti**

Where possible, the applicant should use vandal resistant or reducing materials and anti-graffiti treatment.

**13. Landscape Vegetation**

Landscape trees and shrubs should be native species endemic to the locality to encourage bird life and compensate for the trees to be removed.

**PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE (Building)**

*The following conditions in this section of the consent must be complied with prior to the issue of any Construction Certificate relating to the approved development.*

**14. Vehicular Information Sign**

Details of the Vehicular Information Sign (DR1) are to be provided and approved by Council prior to the issue of Construction Certificate. These details are to include size, colour scheme, location, and method of installation to ensure that the proposed signs are consistent with Section 3.4 Signage of Chapter 8 of the Ballina Development Control Plan 2012.

**15. Landscaping**

Prior to issue of a Construction Certificate, the developer must submit a plan to the Principal Certifier prepared by a suitably qualified person, to ensure that landscaping is provided at a minimum 20% if the site area.

**16. Administration/ inspection fees**

Where Council is not chosen as the Principal Certifying Authority, the relevant certificate registration fee and required sewer inspection fees are to be paid to Council in accordance with Council's Fee Schedule, prior to the issue of a Construction Certificate.

**17. Long Service Levy**

In accordance with Section 6.8 of the EP & A Act 1979, a Construction Certificate will not be issued with respect to the plans and specifications for construction works until any long service levy payable under section 34 of the Building and Construction Industry Long Service Payments Act 1986 has been paid. Currently this rate is 0.25% of the cost of the construction works costing $250,000 or more (including GST). Works less than $250,000 are not subject to the levy.

**18. Section 68 Application**

Prior to issue of a Construction Certificate an application is to be lodged with Council via the NSW Planning Portal and approved under Section 68 of the Local Government Act for all water, sewer, stormwater and any proposed fire service installations. Hydraulic details of all water, sewer and stormwater installations are to be submitted to Council with the Section 68 application. The plans are to be designed in accordance with AS3500 and NSW Code of Practice and other relevant Australian Standards.

**19. Trade Waste Application**

Prior to the issue of a Construction Certificate the developer is to submit a Classification A Trade Waste Application and pay the associated fee.

**20. Civil works**

Prior to the issue of the Construction Certificate, engineering design drawings shall be submitted to and approved by Council for civil works required by this consent. These drawings shall also include associated works required under Section 138 of the Roads Act 1993. Details are to be in accordance with the current Northern Rivers Local Government Development Design and Construction Manuals and/or in accordance with other design requirements from Austroads, Australian Standards and/or TfNSW (Roads & Maritime Services) where specified.

- **Car parking -** At the developer's expense, the provision of 18 car parking spaces (inclusive of two accessible spaces) shall be provided in accordance with AS2890.5:2020. The car parking spaces shall be installed in general accordance with the design plan by *Greg Alderson & Associates No. 20451-CO01 Rev B.* Details are to be submitted to and approved by Council prior to the issue of the Construction Certificate.

- **Commercial Road pavement line marking -** At the developer's expense, line marking for the car parking spaces and along Commercial Road shall be generally in accordance with the plan by *Greg Alderson & Associates No. 20451-CO01 Rev B* with the additional requirements as follows:
  - Commercial Road
    - Edge lines to be marked on both sides of Commercial Road from South Street to Park Avenue.
    - Centre line to be marked on Commercial Road from South Street to Park Avenue.
    - Remove median island near driveway entry on Commercial Road
    - Remove bollard in shared space (as it is located in the road reserve).

  Details are to be submitted to and approved by Council prior to the issue of the Construction Certificate.

- **Footpath -** The provision of a concrete footpath a minimum of 1.2 metres wide adjacent to the Commercial Road car parking area to connect with the new street level building entry. The footpath is to be designed and constructed in accordance with Standard Drawing R07 of the Northern Rivers Local Government Development Design and Construction Manuals. Details are to be submitted to and approved by Council prior to the issue of the Construction Certificate.

**21. Car parking for disabled**

The design of all accessible car parking spaces is to be in accordance with Australian Standard AS/NZS 2890.6: 2009. The spaces are to be generally in accordance with the plan by Greg Alderson & Assoc. No. 20451-CO01 Rev B. Design plans are to be certified by a suitably qualified professional and approved by the Principal Certifier prior to issue of the Construction Certificate.

**22. Bicycle parking**

Bicycle parks, compliant with AS2890.3, capable of supporting 16 bicycles is to be provided. Details are to be submitted to and approved by the Principal Certifier prior to issue of the Construction Certificate.

**23. Mobility scooter parking**

Three mobility scooter parking bays are to be provided. Details are to be submitted to and approved by the Principal Certifier prior to issue of the Construction Certificate.

**24. Stormwater management plan**

The provision of stormwater controls on site shall be in accordance with the Water Sensitive Design requirements of Council's Development Control Plan Chapter 2 – Section 3.9 - Stormwater Management and in accordance with the Site Stormwater Management Plan by Greg Alderson & Associates, Report: 20451-SWMP-B, dated 27 January 2022. Overland flow paths must be incorporated into the design directing overflows to the street or public drainage systems. Overland flow paths must not to be impeded by structures or landscaping. A detailed design must be submitted to and approved by the Principal Certifier prior to the issue of the Construction Certificate.

**25. Civil Inspection Fee, Section 138 Approval Fee & Construction Bond**

Prior to the issue of a Construction Certificate, a Section 138 application is to be made as well as the following fees and bond are to be paid to Council which includes the amount of Goods and Services Tax payable. The fees and bond are subject to review and may vary from the time of consent till time of payment. See Councils schedule of Fees and Charges for the current rates:

- Section 138 Fee
- Civil Inspection Fee
- Civil Construction Bond: Equal to 5% of the estimated cost of civil works (min $1,000)

The Civil Construction Bond is taken and may be used by Council to cover the cost of any damage to Council's assets (eg sewer systems, footpaths, kerb and guttering etc) arising from private development work. The bond will be refunded upon completion of the development should no such damage occur.

**26. Acoustic Certification**

A suitably qualified acoustic consultant must provide certification to the Principal Certifier and Council confirming construction plans and specifications incorporate all identified noise control measures included in the Noise Impact Assessment prepared by Palmer

Acoustics dated 10 March 2023 prior to issue of the Construction Certificate (except as modified by Condition 7 of this consent).

**27. Site Waste Minimisation Management**

A suitably qualified consultant must provide certification to the Principal Certifier and Council confirming construction plans and specifications incorporate all waste management measures for the waste storage area identified in the Site Waste Minimisation Management Plan (SWMMP) prepared by Timothy Bischof of ENV Solutions dated 10 March 2022 prior to issue of the Construction Certificate.

**28. Developer Charges**

Prior to issue of a Construction Certificate where building work is proposed, payment to council of non-refundable monetary charges shall be made towards the provision of bulk water supply, water reticulation and sewer infrastructure which are required as a result of the development in accordance with the charges set by Ballina Shire Council and Rous Water as water supply authorities under the Water Management Act 2000. The amount payable will be the assessed additional equivalent tenements generated by the development multiplied by the charge applicable at the time of payment.

Certificates of Compliance pursuant to Section 306 of the Water Management Act 2000 shall be deemed to have been issued where the required charges have been paid and all construction works required by the water supply authority for the development have been completed.

The charges are currently guided by the following development servicing plans:

| Water Supply Authority | Contribution Plan/Development Servicing Plan | Adopted |
|---|---|---|
| Ballina Shire Council | Ballina Shire Council Water Supply Infrastructure Development Servicing Plans | 27 February 2015 |
| Ballina Shire Council | Ballina Shire Council Sewerage Infrastructure Development Servicing Plans | 27 February 2015 |
| Rous Water | Development Servicing Plan for Bulk Water Supply | 15 June 2016 |

The Development Servicing Plans provide for the indexing of charges and are also subject to amendment and replacement. The charges payable are the charges set by the water supply authorities at the time payment is made. Copies of the Development Servicing Plans may be viewed at Council's Customer Service Centre, Cherry Street, Ballina or on Council's website www.ballina.nsw.gov.au.

It should be noted that Ballina Shire Council acts as Rous Water's agent in the collection of Rous Water Bulk Water Supply Charge for developments that are connected to the Ballina Shire water supply.

The charges applicable at the time this consent is issued are included in Schedule 1 **(attached)**.

**PRIOR TO CONSTRUCTION WORK COMMENCING**

*The following conditions in this section of the consent must be complied with prior to commencement of construction works relating to the approved development.*

**29. Construction Certificate**

Prior to construction of the approved development it is necessary to obtain a Construction Certificate. Either Council or an appropriately accredited certifier may issue a Construction Certificate. A separate application, complete with detailed plans and specifications, must be made to the Principal Certifier for a Construction Certificate.

**30. Sewer Condition Assessment**

A condition assessment (including CCTV) of the existing Council sewer main infrastructure through the property is to be provided to Council prior to construction works commencing to confirm the existing pipe is not damaged.

**31. Notice of Commencement and Appointment of Principal Certifier**

Where Council is not nominated as the Principal Certifier, the person having the benefit of this development consent is to submit to Council the following information:

- Written notification of the name and details of the Principal Certifier; and
- The date of commencement and details of the Development Consent and associated Construction Certificate.

The above information is to be submitted at least two (2) days prior to the commencement of any works, in accordance with the requirements of Section 6.6(2) of the Environmental Planning & Assessment Act 1979 (as amended).

**32. Building Waste Containment**

A suitable waste container capable of holding blowable type building waste must be made available on the building site during the course of construction. Building waste such as paper, plastic, cardboard, sarking etc. must be regularly cleaned up and placed in the waste container so that it cannot be blown off the building site and litter the locality.

**33. Builder's Toilet**

A suitable builder's toilet is to be provided on-site before building work commences. Such facility is to either connect to Council's sewer or a suitable approved chemical closet is to be provided.

**DURING CONSTRUCTION**

*The following conditions in this section of the consent must be complied with during the course of carrying out the construction works relating to the approved development.*

**34. Hours of Construction**

The hours of operation for any noise generating construction activity (including the delivery of materials to and from the site) on the proposed development are to be limited to within the following times:

| | |
|---|---|
| Monday to Friday | 7.00am to 6.00pm |
| Saturday | 8.00am to 1.00pm |

No noise generating construction activities are to take place on Sundays or public holidays.

**35. All Weather Access**

All weather accessways are to be provided on site that extend from the kerb to the building construction site. All construction vehicles are to enter and exit the site via these accessways so as to minimise erosion on site and prevent the movement of soil material onto surrounding roadways (if required provide a 'shake down' grid area for truck wheel washing). When necessary, roadways shall be swept and all drains and gutters cleaned

of sediment material. **Failure to comply with this requirement may result in an on-the-spot fine being issued by an Authorised Officer of Council.**

**36. No storage of materials on Council land**

There shall be no storage of building materials, plant or equipment on the road, footway or reserve areas without the prior written consent of Council.

**37. Revegetation of disturbed areas**

All disturbed and exposed areas are to be revegetated. Revegetation of such areas shall be implemented as soon as construction works end in each area of the development.

**38. Protection of existing vegetation**

Any trees or shrubs existing on the site and nominated for retention on the approved development application plan are to be protected during construction works. This includes the three trees identified within the Arboricultural Impact Assessment Report prepared by Northern Tree Care 14 March 2023. Recommendations in accordance with Section 8 of the report are to be complied with during construction.

**39. Food Safety Standards**

The applicant shall construct and fit-out the premises in accordance with the provisions of the Australian Food Safety Standards 3.1.1, 3.2.2 and 3.2.3. The applicant is responsible to ensure compliance with the Standards and Council will not accept responsibility at the time of final inspection for premises that are not in compliance with the Standards, regardless of the approved plans. Reference shall be made to the AS 4674 – 2004 "Design, Construction and Fit-Out of Food Premises" for guidance on construction of food premises.

**40. Resource Recovery Exemption**

Any material that is the subject of a resource recovery exemption and order received at the development site shall be accompanied by documentation as to the material's compliance with the exemption and order conditions and shall be provided to the Principal Certifier or the Council upon request.

**41. Servery Fit Out**

Amended fit out plans for the servery are to be provided to the Principal Certifier prior to the issue of a Construction Certificate. The servery hand washing facilities are to be relocated to ensure these wash facilities are readily accessible and food handlers are not required to travel more than 5 metres to access them from any place where exposed food is handled.

In addition, the hand washing facilities are required to be:

b) connected to a supply of warm running potable water dispensed from a single spout or mixer set;
c) of a size that allows easy and effective hand washing; and
d) clearly designated for the sole purpose of washing hands, arms and face.

**42. Food Standards Code and Food Safety Standard**

Prior to the issue of a Construction Certificate, detailed plans of all food and beverage preparation, serving and storage areas (including for perishable stock, waste, chemicals and personal belongings) must be prepared by a suitably qualified person.

The detailed plans must be prepared in accordance with the following editions in force on the date of determination and provided to the Principal Certifier:

a) Food Standards Code (Australia) and Food Safety Standard 3.2.3 – Food Premises and Equipment

**43. Contamination Information**

Any new information that becomes known during remediation, demolition or construction works which has the potential to alter previous conclusions about the site contamination must be immediately notified to the Council and the Principal Certifier.

**44. SafeWork Guidelines**

All demolition works are to be carried out in accordance with the SafeWork NSW Guidelines, Australian Standard 2601:2001 "The demolition of structures", the NSW Work Health and Safety Act 2011 and Regulations 2017 and guidelines for the removal of asbestos and lead based products.

**45. Clean Up Equipment**

Clean up equipment including suitable absorbent material shall be stored on site to effectively deal with liquid contaminates, such as oils and chemical, leaks or spills during the construction period.

**46. Pollution Incident**

In the event of a pollution incident on the premises, that has caused, is causing, or is likely to cause harm to the environment, the incident shall be reported in accordance with the requirements of section 148 of the Protection of the Environment Operations Act 1997.

**47. Noise Control**

All work, including demolition, excavation and building work shall comply with Australian Standard AS 2436:2010 *Guide to Noise Control on Construction, Maintenance and Demolition Sites* and *NSW Interim Construction Noise Guidelines* (DECC 2009).

**48. Construction Traffic**

All demolition and construction vehicles (including concrete agitator trucks) are not to arrive at the project site or surrounding residential areas prior to the approved start time of works for the day.

**49. Soil Erosion and Sediment Control**

Soil erosion and sediment control measures shall be designed, installed and maintained in accordance with Managing Urban Stormwater – Soils and Construction, LANDCOM, March 2004.

**50. Prevent Pollution of Waterways**

To prevent the pollution of waterways, the applicant/builder is to ensure adequate sediment and erosion control measures are in place prior to the commencement of works. These are to be maintained during the construction of the project until the site has been stabilised by permanent vegetation cover or a hard surface. This is to include:

- The prevention of soil erosion and the transportation of sediment material into any roadway, natural or constructed drainage systems, watercourse and or adjoining land
- Service trenches being backfilled as soon as practical
- Downpipes being connected as soon as practical or the use of temporary downpipes
- Buffer vegetation zones being retained on sites that adjoin roadways, drainage systems and or watercourses

- Sediment and erosion control measures are to be maintained throughout the construction process and beyond by the owner, where necessary.

**Failure to comply with this requirement may result in an on-the-spot fine being issued by an Authorised Officer of Council.**

**51. Dust Management**

Dust shall be managed using water suppression, re-establishment of vegetation cover, stockpile management, covering loads, preventing spoil tracking onto roads and halting works on site in extreme wind events.

**52. Covering Waste**

The body of any vehicle or trailer used to transport waste or excavation spoil shall be covered before leaving the premises to prevent any spillage or escape of any dust, waste or spoil. Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site shall be removed before leaving the premises.

**53. Site Waste Minimisation Management**

All demolition, construction or the like waste is to be managed in accordance with the Site Waste Minimisation Management Plan (SWMMP) prepared by Timothy Bischof of ENV Solutions dated 10 March 2022.

**54. Export/Import of Waste**

The export/import of waste (including fill or soil) to and from the site must be in accordance with:

a) the provisions of the *Protection of the Environment Operations Act* 1997, *Protection of the Environment Operations (Waste) Regulation* 2014 and the Environment Protection Authority 'Waste Classification Guidelines', which may require laboratory testing in accordance with NSW EPA and Council requirements; or
b) current Resource Recovery Orders and Exemptions.

**It is an offence to transport waste to a place that cannot lawfully be used as a waste facility.**

**55. Civil Works**

All civil construction works shall be completed in accordance with the minimum requirements of the Northern Rivers Local Government Development Construction Manuals (as current at the time of construction works commencing) and/or in accordance with other design requirements from Austroads, Australian Standards or Roads & Maritime Services where specified. Inspections and approval of the road, drainage, water & sewer works shall be required by Council's Engineer (or an approved certifying authority) in accordance with the Manual.

**56. Traffic Control**

All traffic control during construction shall be in accordance with the TfNSW (Roads and Maritime Services) - Traffic Control at Work Sites Manual and the certified traffic control plan. At least one person at the site must be qualified to "Apply Traffic Control Plans" (Yellow Card).

**57. Equipment Storage**

There shall be no storage of building materials, plant or equipment on the road, footway or reserve areas without prior written consent of Council.

**PRIOR TO ISSUE OF AN OCCUPATION CERTIFICATE**

*Unless otherwise stated all conditions referred to in other sections of this consent must be complied with together with the following conditions prior to occupation or use.*

**58. Occupation Certificate**

An Occupation Certificate is to be obtained prior to commencement of use or occupation of the premises. Where Council is not the Principal Certifier the applicant shall ensure that a Certificate of Occupation prepared by the Principal Certifier is submitted to Council prior to occupation of the building.

**59. Sewer Condition Assessment**

A condition assessment (including CCTV) of the existing Council sewer main infrastructure through the property is to be provided to Council prior to the issue of an Occupation Certificate to ensure the pipe has not been damaged. This is to be accompanied with the condition assessment provided under Condition 30.

**60. Signage**

Prior to the issue of an Occupation Certificate, the developer must provide confirmation to the Principal Certifier that:

- Proposed lighting is implemented safely and will minimise light spill effects onto adjoining properties in accordance with relevant Australian Standards.
- Proposed lighting is adjustable to ensure that impacts are not likely to adversely affect adjoining property owners and respond to concerns raised from neighbours.
- The signs are securely fastened to the walls and awning in which they will be attached.
- The signage are wholly on private land and so located as to not confuse traffic signage or instructions by traffic signals or other devices.
- The signs do not obscure sightlines to public areas and be of a scale that is small and clarify parking only.

**61. Fire Safety Certificate**

The owner of the building must provide Council with an annual Fire Safety Statement at least once in each twelve months certifying that the essential and statutory fire safety measures in the building have been inspected and tested by a competent person and were found to be capable of operating to the minimum standard required by the Fire Safety Schedule. A copy of the Annual Fire Safety Statement together with a copy of the Fire Safety Schedule are to be forwarded to the Commissioner, NSW Fire Brigades, and a copy of the Fire Statement and Schedule, prominently displayed in the building.

**62. Trade Waste Approval**

Prior to the issue of an Occupation Certificate, the developer must ensure that all pre-treatment equipment as outlined in the Trade Waste Approval is installed, inspected and commissioned. A pre-operation inspection is required by Council that demonstrates compliance with the requirements of the Trade Waste approval, prior to the issue of an Occupation Certificate.

**63. Landscaping to accord with plan**

All landscaping works shall be completed in accordance with the landscape plan approved as part of this development consent.

**64. Pest Control**

Written evidence shall be provided to Council's Environmental Health Officer that a pest control program has been implemented throughout the premises prior to the introduction of foods into the premises.

**65. Commercial Premises Register**

Trading must not commence until the premises has been inspected and approved by Council's Environmental Health Officer and an application has been made to Council to register the business on Council's "Commercial Premises Register" and the appropriate fee paid.

**66. Fit-Out Inspection**

A final inspection of the commercial premises fit-out by Council's Environmental Health Officer is to be conducted and the appropriate professional services fee is to be paid prior to the issuing of any Occupation Certificate.

**67. Noise Control Measures**

A suitably qualified acoustic consultant must provide certification to the Principal Certifier and Council confirming the development has incorporated all identified noise control measures included in the Noise Impact Assessment prepared by Palmer Acoustics dated 10 March 2023 prior to issue of the Occupation Certificate (except as modified by Condition 7 of this consent).

**68. Waste Management**

A suitably qualified consultant must provide certification to the Principal Certifier and Council confirming the development has incorporated all waste management measures identified in the Site Waste Minimisation Management Plan prepared by Timothy Bischof of ENV Solutions dated 10 March 2022 prior to issue of an Occupation Certificate.

**69. Stormwater Management**

All stormwater management devices must be constructed to ensure they comply with Ballina Shire Development Control Plan Chapter 2 Part 3.6 'Mosquito Management'.

**70. Civil works**

All civil works approved with the Construction Certificate and under Section 138 of the Roads Act 1993 and Section 68 of the Local Government Act 1993, are to be completed to the satisfaction of Council prior to issue of an Occupation Certificate. All works are to be completed in accordance with the Northern Rivers Local Government Development Design and Construction Manuals and/or in accordance with other design requirements from Austroads, Australian Standards or Roads & Maritime Services where specified.

**71. Car parking (standard)**

The construction of all on street car parking and vehicular accesses is to be in accordance with the approved Construction Plans and Australian Standard AS/NZS 2890.5:2020. All works are to be certified by a suitably qualified consultant prior to issue of the Occupation Certificate.

**72. Car parking (disabled)**

The construction of all accessible car parking spaces is to be in accordance with the approved Construction Plans and Australian Standard AS /NZS 2890.6: 2009. All works are to be certified by a suitably qualified consultant prior to issue of the Occupation Certificate.

**73. Works as executed (asset listing)**

Prior to the release of the Occupation Certificate and in connection with the 'Works-as Executed' drawings the proponent shall submit an electronic listing of all road, car parking and footpath assets generated by the development. Copies of the Asset spreadsheet are available from Council's website.

**74. Works as executed (drawings)**

After works are completed, the applicant shall submit to Council an electronic copy of the WAE information in AutoCAD and PDF format. All AutoCAD data is to be on MGA zone 56 coordinates and AHD for levels with separate layouts within the drawing for roads, car parking and footpaths. The applicant shall be deemed to have indemnified all persons using such drawings against any claim or action in respect of breach of copyright.

**75. Damage to Council Infrastructure**

Damage to any grass verge, footpath, kerb and guttering, utility services or road within the road reserve as a result of construction works related to the development shall be immediately reinstated to a satisfactory and safe condition. Council's Engineer must be contacted on telephone 1300 864 444 at the time any damage occurs to ensure appropriate reinstatement works are undertaken.

**CONDITIONS OF USE/DURING OCCUPATION**

*The following conditions in this section of the consent are to be complied with in the day-to-day use or operation of the approved development.*

**76. Loading and unloading**

All loading and unloading of goods are to be carried out off-street and wholly within the site.

**77. Site Management**

The site is to be managed in a clean and safe manner. This is to include graffiti and vandalism management which should be cleared and removed in a timely manner.

**78. Access**

Vehicular entry to and exit from the site shall be in forward direction.

**79. Noise Control Measures**

All noise control measures identified in the Noise Impact Assessment prepared by Palmer Acoustics dated 10 March 2023 must be maintained and updated when required to ensure they achieve the necessary noise mitigation goals.

**80. Site Waste Management**

All waste must be managed in accordance with the Site Waste Minimisation Management Plan prepared by Timothy Bischof of ENV Solutions dated 10 March 2022.

**81. Mosquito Management**

All stormwater management devices must be maintained to ensure they comply with Ballina Shire Development Control Plan Chapter 2 Part 3.6 'Mosquito Management'.

**82. Ongoing Amenity**

The land use on site shall not interfere with the amenity of the locality by reason of the emission of noise, vibration, odours, fumes, smoke, vapour, steam, dust, water, waste products and the like.

**83. External Lighting**

All external lighting to be installed and operated on site must comply with the AS 4282:2019 "Control of the obtrusive effects of outdoor lighting".

**84. Plant and Equipment**

All plant and equipment installed or used in or on the premises must be adequately maintained and operated in a proper and efficient manner at all times.

**85. Noise Control**

Use of the premises must comply with all applicable noise legislation and not give rise to the transmission of intrusive or offensive noise to any place of different occupancy in accordance with the NSW EPA's *Noise Policy for Industry 2017* and *The Protection of the Environment Operations Act 1997 (NSW).*

**PRESCRIBED CONDITIONS**

*Part 4 Division 2 of the Environmental Planning and Assessment Regulation 2021 prescribes the following conditions of consent:*

**69 Compliance with Building Code of Australia and insurance requirements under Home Building Act 1989**

(1) It is a condition of a development consent for development that involves building work that the work must be carried out in accordance with the requirements of the *Building Code of Australia*.

(2) It is a condition of a development consent for development that involves residential building work for which a contract of insurance is required under the *Home Building Act 1989*, Part 6 that a contract of insurance is in force before building work authorised to be carried out by the consent commences.

(3) It is a condition of a development consent for a temporary structure used as an entertainment venue that the temporary structure must comply with Part B1 and NSW Part H102 in Volume 1 of the *Building Code of Australia*.

(4) In subsection (1), a reference to the *Building Code of Australia* is a reference to the Building Code of Australia as in force on the relevant date.

(5) In subsection (3), a reference to the *Building Code of Australia* is a reference to the Building Code of Australia as in force on the day on which the application for development consent was made.

(6) This section does not apply—

(a) to the extent to which an exemption from a provision of the *Building Code of Australia* or a fire safety standard is in force under the *Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021*, or

(b) to the erection of a temporary building, other than a temporary structure to which subsection (3) applies.

(7) In this section—

***relevant date*** has the same meaning as in the *Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021*, section 19.

**70 Erection of signs**

(1) This section applies to a development consent for development involving building work, subdivision work or demolition work.

(2) It is a condition of the development consent that a sign must be erected in a prominent position on a site on which building work, subdivision work or demolition work is being carried out—

(a) showing the name, address and telephone number of the principal certifier for the work, and

(b) showing the name of the principal contractor, if any, for the building work and a telephone number on which the principal contractor may be contacted outside working hours, and

(c) stating that unauthorised entry to the work site is prohibited.

(3) The sign must be—
  (a) maintained while the building work, subdivision work or demolition work is being carried out, and
  (b) removed when the work has been completed.

(4) This section does not apply in relation to—
  (a) building work, subdivision work or demolition work carried out inside an existing building, if the work does not affect the external walls of the building, or
  (b) Crown building work certified to comply with the *Building Code of Australia* under the Act, Part 6.

**73 Maximum capacity signage**

(1) This section applies to a development consent, including an existing development consent, for the following uses of a building, if the development consent contains a condition specifying the maximum number of persons permitted in the building—
  (a) an entertainment venue,
  (b) a function centre,
  (c) a pub,
  (d) a registered club,
  (e) a restaurant or cafe.

(2) It is a condition of the development consent that a sign must be displayed in a prominent position in the building stating the maximum number of persons, as specified in the development consent, that are permitted in the building.

**74 Shoring and adequacy of adjoining property**

(1) This section applies to a development consent for development that involves excavation that extends below the level of the base of the footings of a building, structure or work on adjoining land, including a structure or work in a road or rail corridor.

(2) It is a condition of the development consent that the person having the benefit of the development consent must, at the person's own expense—
  (a) protect and support the building, structure or work on adjoining land from possible damage from the excavation, and
  (b) if necessary, underpin the building, structure or work on adjoining land to prevent damage from the excavation.

(3) This section does not apply if—
  (a) the person having the benefit of the development consent owns the adjoining land, or
  (b) the owner of the adjoining land gives written consent to the condition not applying.

**STATEMENT OF REASONS FOR DECISION AND IMPOSITION OF CONDITIONS**

1. The subject development is permissible with consent in the R2 Low Density Residential zone of the Ballina Local Environmental Plan 2012.

2. The subject development has been assessed against the relevant considerations under the Environmental Planning and Assessment Act 1979, including the provisions of all relevant Environmental Planning Instruments, the objectives of the Ballina Local Environmental Plan 2012 and the objectives of the R2 Low Density Residential zone. It has been determined that the site is suitable for the subject development and that the development is unlikely to have a significant adverse impact on the natural and built environments and is unlikely to have a significant adverse economic or social impact on the locality.

3. A variation to the development standard for building height has been granted in accordance with Clause 4.6 of the Ballina Local Environmental Plan 2012 as part of the assessment of the development. The proposed works are required to improve the function of the library with a two storey design and enabling provision of a lift for accessibility throughout the building. The non-compliant portion of the roof will not have unreasonable impacts in terms of overshadowing of neighbouring properties, will not add excessive bulk and will not impact upon views from any public places.

4. The application was not required to be placed on public exhibition in accordance with Environmental Planning and Assessment Act 1979 or Environmental Planning and Assessment Regulations 2000, an Environmental Planning Instrument or Local Exhibition Policy. The application was publicly notified in accordance with the Level 1 – Targeted Notification requirements of the Ballina Shire Community Participation Plan.

5. Three submissions were received raising concerns regarding the servery layout and provision of services throughout the building. These concerns have been addressed by way of conditions.

6. The application has been determined by the Northern Regional Planning Panel.

7. The approval of the development is in the public interest.

8. The reasons for the conditions listed in this determination notice are:
   - To ensure compliance with the requirements of the Environmental Planning & Assessment Act, 1979;
   - To ensure compliance with the objectives of the Ballina Local Environmental Plan 2012);
   - To ensure an appropriate level of amenities and services is available;
   - To protect the existing and likely future amenity of the locality;
   - To maintain, as far as practicable, the public interest;
   - To ensure compliance with the Building Code of Australia and relevant Australian Standards;
   - To ensure satisfactory compliance with relevant Council plans, codes and policies.

**ADVISORY MATTERS**

1. **Disability Discrimination Act 1992**
   The granting of this consent does not imply or confer compliance with the requirements of the Disability Discrimination Act 1992 (DDA). The applicant is advised to investigate any liability that may apply under that Act. Australian Standard AS 1428 – Design for Access and Mobility should be consulted for guidance. The prescriptive requirements of Part 1 of the Standard apply to certain buildings requiring development consent.
   Compliance with the BCA does not guarantee compliance with the DDA. The BCA provides important access provisions however:
   a) it does not cover all developments that are subject to the provisions of the DDA;
   b) it focuses primarily on access for people with disabilities which affect their mobility and does not address other disabilities, such as sensory disabilities; and
   c) while it mandates improved access for people with disabilities, it is not framed in terms of "equality of access."
   You are therefore advised to investigate your liability under the DDA with respect to any existing and proposed future works.

2. **Protection of the Environment**
   The development is to be operated in accordance with the provisions of the Protection of the Environment and Operations Act 1997 as it applies to issues of air quality, noise generation, water and wastewater quality.

3. **Noise Control**
   Use of the premises/services/equipment/ancillary fittings shall not give rise to an "offensive noise" as defined under the provisions of the Protection of the Environment & Operations Act 1997.

4. **Smoke Free Environment**
   As required by the Smoke-free Environment Act 2000 smoking is banned within 4 metres of the pedestrian entrance or exit of the building used for non-residential purposes. 'No smoking' signage is recommended to support public awareness of the smoking ban. On the spot fines may be issued to those who do not comply with the 4 metre requirement.

5. **Crime Prevention**
   Crime prevention measures shall be implemented throughout the site to ensure adequate surveillance such installation of Closed-Circuit Television (CCTV).

**Advisory Note:**
**The applicant is advised to take care in ensuring that no damage is done to or unauthorised modifications are carried out on either Council's or any other organisation's underground infrastructure assets. Any Council sewer, stormwater or water main or other organisation owned electricity supply or telecommunication facility is not to be damaged or altered in any way without the necessary approvals being obtained beforehand from the relevant server.**

**You are advised to contact the following:**

- **Council - for information on sewer, water supply & stormwater**
- **Rous Water - Water Supply for Rous Water Authority controlled areas**
- **"Dial Before You Dig" - for other service infrastructure**

**The information relating to your property is to be obtained prior to any works commencing.**

# SCHEDULE 1

| Contribution | Receipt Code | Contribution Unit | Rate per contribution Unit | Total Contribution Units Payable | TOTAL COST |
|---|---|---|---|---|---|
| OS&CF Plan 2022 - Local Open Spaces | 4311 | equivalent residential allotment | $3,912.00 | 0.0000 | $0.00 |
| OS&CF Plan 2022 - Regional Open Spaces (all areas except CURA-A / Kinvara) | 4311 | equivalent residential allotment | $1,293.00 | 0.0000 | $0.00 |
| OS&CF Plan 2022 - Local Community Facilities | 4216 | equivalent residential allotment | $1,528.00 | 0.0000 | $0.00 |
| OS&CF Plan 2022 - Regional Community Facilities (all areas except CURA-A / Kinvara) | 4216 | equivalent residential allotment | $1,034.00 | 0.0000 | $0.00 |
| OS&CF Plan 2022 - Administration (all areas except CURA-A / Kinvara) | 4219 | equivalent residential allotment | $116.00 | 0.0000 | $0.00 |
| Roads Contribution Plan V4.2 (2021) | 5208 | equivalent residential allotment | $12,817.00 | 0.0000 | $0.00 |
| Roads Administration V4.2 (2021) | 5209 | equivalent residential allotment | $192.00 | 0.0000 | $0.00 |
| No CURA A 7.11 Contribution Applicable | | | | | |
| Alstonville Wastewater Services (DSP Area E) | 3006 | equivalent tenement | $5,509.00 | 1.6040 | $8,836.44 |
| Alstonville Water Supply (DSP Area E) | 2006 | equivalent tenement | $3,599.00 | 0.9620 | $3,462.24 |
| Rous Water 2016 | 5001 | equivalent tenement | $9,256.00 | 0.9620 | $8,904.27 |
| No Car Parking Contribution Applicable | | | | | |
| TOTAL | | | | | **$21,202.95** |

# Attachment 2 – Peer Review Report

# 42-46 COMMERCIAL ROAD ALSTONVILLE PROPOSED ALTERATIONS AND ADDITIONS TO THE EXISTING ALSTONVILLE CULTURAL CENTRE

PREPARED FOR BALLINA SHIRE COUNCIL BY CHARLES HILL PLANNING

7 June 2023

## CONTENTS

**1.0 EXECUTIVE SUMMARY** 2

**2.0 THE SITE** 3

**3.0 THE PROPOSAL** 3

**4.0 KEY ISSUES** 4

**4.1 Regional Local Planning Panel** 4

**4.2 Public Submissions** 5

**5.0 REVIEW** 6

**5.1 Environmental Planning Instruments** 6

**5.2 Proposed Environmental Planning Instruments** 11

**5.3 Any Development Control Plans** 11

**5.4 Any Planning Agreements** 15

**5.5 The Regulations** 15

**5.6 The Likely Impacts** 16

**5.7 The Suitability of the Site** 16

**5.8 Any Submissions** 16

**5.9 The Public Interest** 17

**CONCLUSION** 17

## 1.0 EXECUTIVE SUMMARY

Charles Hill Planning has been engaged by Ballina Shire Council to provide a peer review in respect of the proposed alterations and additions to the existing Alstonville Community Centre, following the briefing of the Regional Planning Panel, and a recommendation by that Panel, that a peer review be undertaken, given Council interest in the proposal.

This review has been prepared having regard to the Statement of Environmental Effects (SEE) prepared by Newton Denny Chapelle on behalf of KO and CO Architecture Pty Ltd.(dated April 2022), the plans and documentation referred to in **Table 2** to the SEE, the Council Assessment Briefing report to the Northern Regional Planning Panel, the Record of that briefing to the Panel, the Council letter to the consultant requesting additional information dated 8 December 2022, the Consultant's response, and Council's final assessment report, including the additional information provided by Council being as follows:

- Architect Response to RFI
- NDC Cover Letter
- Updated Carpark Layout Plan
- Combined Landscape Plan
- Noise Impact Assessment
- Site Waste Management Plan
- Arborist Report
- Combined Architectural Plans

The site and surrounding locality has been visited, including the Showground, and a briefing provided by representatives of Ballina Shire Council, and the Manager of the Centre.

The application has been assessed having regard to the provisions of 4.15 of the Environmental Planning and Assessment Act 1979(As amended), and a variation to the development standard for building height is recommended in accordance with Clause 4.6 of the Ballina Local Environmental Plan 2012 as part of the assessment of the development.

It is the conclusion of this Peer Review that the application will have no significant adverse environmental impacts, is considered to be suitable for the subject land, and is in the public interest.

Accordingly approval is recommended subject to conditions contained in **Attachment 1** to Council's report, and as amended by this Peer review.

**RECOMMENDATION**

Pursuant to Clause 4.6 of Ballina Local Environmental Plan (BLEP) 2012, the written request proposing a variation to Clause 4.3 in relation to height of building is supported, as the requisite matters in Clause 4.6 (3) have been satisfied. I am of the opinion that granting of consent is in the public interest as the proposal is consistent with the objectives of the zone and the building height standard.

Pursuant to Sections 4.15 and 4.16 of the Environmental Planning and Assessment Act 1979(the Act), Development Application DA 2022/218 for alterations and additions to the

existing Alstonville Cultural Centre at 42-46 Commercial Road, Alstonville be approved subject to the draft conditions of consent at **Attachment 1** to the Council's assessment report, and the proposed additional conditions at **Appendix A** to this report.

## 2.0 THE SITE

The subject site is described in the SEE, as Lot 1 DP 611789, Parish of Tuckombil being located at 42-46 Commercial Road Alstonville.

The site contains an area of 5,168m2 and has an irregular configuration.

A location sketch of the subject property is indicated below.




**Source**: Statement of Environmental Effects: Prepared by Newton Denny Chapelle on behalf of KO &CO Architecture Pty Ltd dated April 2022.

The built form comprises a large older style building containing a sports court/hall, small library, theatre space and amenities. The building has a maximum building height of 10.7 metres at the existing sports hall.

## 3.0 THE PROPOSAL

It is noted that the proposal provides for:

Alterations and additions to the existing Community Facility (Alstonville Cultural Centre) comprising:

- *Demolition of existing entry foyer, library, amenities and outdoor patio area;*
- *Replacement of the existing roof and cladding to the sports hall, foyer and theatre;*
- *Erection of a new two-storey library, centralised amenities, accessible bathrooms, sports storage and umpires change room;*
- *Erection of a new office, reception and kitchenette;*
- *Erection of a new entrance foyer and servery;*
- *Extension to the existing sports hall; and*

*Associated earthworks, infrastructure works, vegetation management works and landscaping*

The proposed works are described in greater detail in the SEE, and Council's assessment report...

The proposed development also involves a variation to the building height standard, with an overall building height of 8.95m, being 5.28% above the maximum building height of 8.5m. In this regard, a clause 4.6 variation request has been provided to support the development application, which is addressed later in this report.

A boundary adjustment is also proposed in relation to an existing minor anomaly along the northern property boundary, in relation to a toilet block on the adjoining Alstonville Showground land. It is understood that this boundary adjustment will be the subject of a separate assessment.

## 4.0 KEY ISSUES

### 4.1 Regional Local Planning Panel

Following a briefing of the Northern Regional Planning Panel, the following key issues were identified:

- *Traffic and car parking – consideration for disabled accessible parking spaces to be located at ground level and provision of pedestrian pathways to cater for patrons accessing the site.*
- *Privacy for residential properties located to the north, with proposed DCP building envelope variation on northern elevation*
- *Signage – detailed information required*
- *Sewer main – confirmation of existing sewer main being decommissioned is required*
- *Noise impact assessment required, outlining the acoustic treatment proposed and additional courtyard areas*
- *Waste management to be identified*

In addition the Panel noted:

- *Exhibition completed with 3 submissions received(in favour)*
- *Minor height variation proposed (0.45m), noting existing sports hall exceedance*
- *Internal Referrals – Engineering & Public Health – additional information requested*

- *Building, Trade waste, Food, Plumbing and Drainage – outstanding*
- *External referral to NSW Police – pedestrian safety and need for crossing raised as a concern*

In particular the Panel noted that:

- *Pedestrian safety and benefits of pedestrian crossing noted, which would require Local Traffic Committee approval*
- *Parking for visiting teams to be identified.*
- *Noise impacts - additional information required to adequately identify potential impacts*
- *Potential for greater capacity and increased use as a result of the works- potential adverse impacts on neighbours and additional car parking to be considered*
- *Hours of operation to be identified.*

.**4.2 Public Submissions**

In addition it is noted that three submissions were received as a result of Council's public notification of the proposed development, supporting the proposed development.

However a number of concerns were raised in relation to the detailed internal design.

These matters are summarised below:

- This facility is the only public space in the Ballina Shire that can host any large indoor events and our concern is that the upgrade will diminish its capability.
- In that regard and in relation to the refurbishment of the Sports Hall it is noted that the new floor in the extensions will "match the existing". It is presumed that means the blue flooring that can be used for all functions, and not upgraded to a 'sports only' floor as is the case with the Ballina BISC
- Similarly, the smaller hall is referred to as a theatre, and it is not clear as to whether it is planned to have permanent theatre seating installed.
- The servery (kitchen?) is poorly planned. The sink in the corner does not allow a clean flow for dirty to clean either side.
- It is also in the doorway which is presumably where the outtake for rubbish would be.located.
- There appears to be no hand wash sink. The 'U' shaped bench is impractical for food preparation. A movable island bench would be more practical than the leg on the eastern side of the 'U'
- Investigate whether a cafe and EV charging stations could be provided, with the EV charging stations being either free for users via sponsorship by business/ council or user pay bring a new form of tourism to the area that shop and dine whilst their car charges.
- In relation to the servery area, ensure there is sufficient space in the U-area of the bench for two people to work back-to back.
- Check if work flow would be improved by placing the sink adjacent to the workbench area, rather than placing the sink in the corner.

- Ensure a double sink has a draining area on each side.

All these matters are addressed later in this report, together with those matters the subject of the request for further information.

**5.0 REVIEW**

Section 4.15 of the Environmental Planning Act (The Act) 1979 provides for the matters which Council must take into consideration when determining a development application.

For the purpose of this review, these matters can be summarised under the following headings:

**5.1 Environmental Planning Instruments (Section 4.15(1) (a) (i))**

The following environmental planning instruments have been identified, and addressed by the SEE:

- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Industry and Employment) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *Ballina Local Environmental Plan 2012*

It is noted that the relevant objectives of the ***Environmental Planning and Assessment Act 1979*****,** have not been specifically addressed by the SEE or Council's assessment report being Clauses:

1.3 (c) *to promote the orderly and economic use and development of land,*

1.3 (g) *to promote good design and amenity of the built environment*,

1.3 (h) *to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*

Notwithstanding the above, it is considered that the proposed development is consistent with these objectives in that the alterations and additions will enhance the useability of the existing community building, which is well designed within the existing built environment, providing for the upgrade and maintenance of the existing building structure and safety of those who would visit the community centre.

In respect of ***State Environmental Planning Policy*** **(Biodiversity and Conservation) 2021**, this policy is addressed against the provisions of Chapter 2A of the Ballina Development Control Plan (BDCP) later in this report.

In relation to ***State Environmental Planning Policy*** **(Industry and Employment) 2021**, it is noted that the proposed signage involves wall signs, one pole sign and an awning fascia sign.

It is noted in particular, that plans for the Vehicular Identification Sign to assist visitors to understand there is limited access for vehicles on site, have not been provided as an indication of the dimensions of this signage to be located at the front of the subject site.

However conditions should be applied requiring plans of the signs to be provided prior to the issue of a Construction Certificate.

Notwithstanding the above, it is agreed that the proposed signage will not impact on views, vistas, or the public domain, and the wall signs are suitably designed on the proposed building and front fencing blending with the proposed alterations and additions.

In relation to ***State Environmental Planning Policy (Planning Systems) 2021*** *('*Planning Systems SEPP'), it is noted that the Regional Planning Panel is the consent authority in accordance with Schedule 6 of State Environmental Planning Policy.

*Section 4.6 of* ***State Environmental Planning Policy (Resilience and Hazards) 2021,*** requires the consent authority to consider whether the subject land is contaminated and whether remediation works are required as part of the assessment of development applications.

In that regard it is noted that the site has been improved by the Alstonville Cultural Centre for over 40 years, and no concerns have been raised in relation to contamination. Council's Environmental Health Officer also has reviewed the application, and although the subject land is within the 200 metre buffer area for the *Alstonville cattle dip site, the Health Officer considers that the proposal does not involve a change of use, the proposed development site is considered suitable for the continual current use with minimal risk to human health or the environment.*

As indicated by the Council assessment report, the aim of ***State Environmental Planning Policy (Transport and Infrastructure) 2021*** is to facilitate the effective delivery of infrastructure across the State.

In that regard it is agreed that the proposed development is not likely to affect an electricity transmission or distribution network.

More specifically it is also noted that the proposed development satisfies the aims of the Ballina Council Local Environmental Plan (BLEP) 2012.

The subject land is zoned **R2 Low Density Residential in** accordance with BLEP 2012, and within which the proposed use is permissible with consent, and consistent with the relevant objectives of the zone.

The Council's assessment report has also satisfactorily addressed the relevant issues related to **Part 4 Principal Development Standards, Part 5 Miscellaneous Provisions,** and **Part 7 Additional Local Provisions**

In respect of **Heritage Conservation (Clause 5.10),** it is noted that the site does not contain, any heritage items, and is not located within a heritage conservation areas.

The site is however directly adjoining a local heritage item listed under Schedule 5 as I10 Alstonville Showground Memorial Gates, but it is agreed that the proposed development is well separated from the heritage item, and unlikely to have any impact upon this Heritage Item.

It is also noted that no Aboriginal sites or places have been recorded or declared within or near the subject site.



***Figure 11: Alstonville Showground Memorial Gates. Source: Site Inspection 31 January 2023***

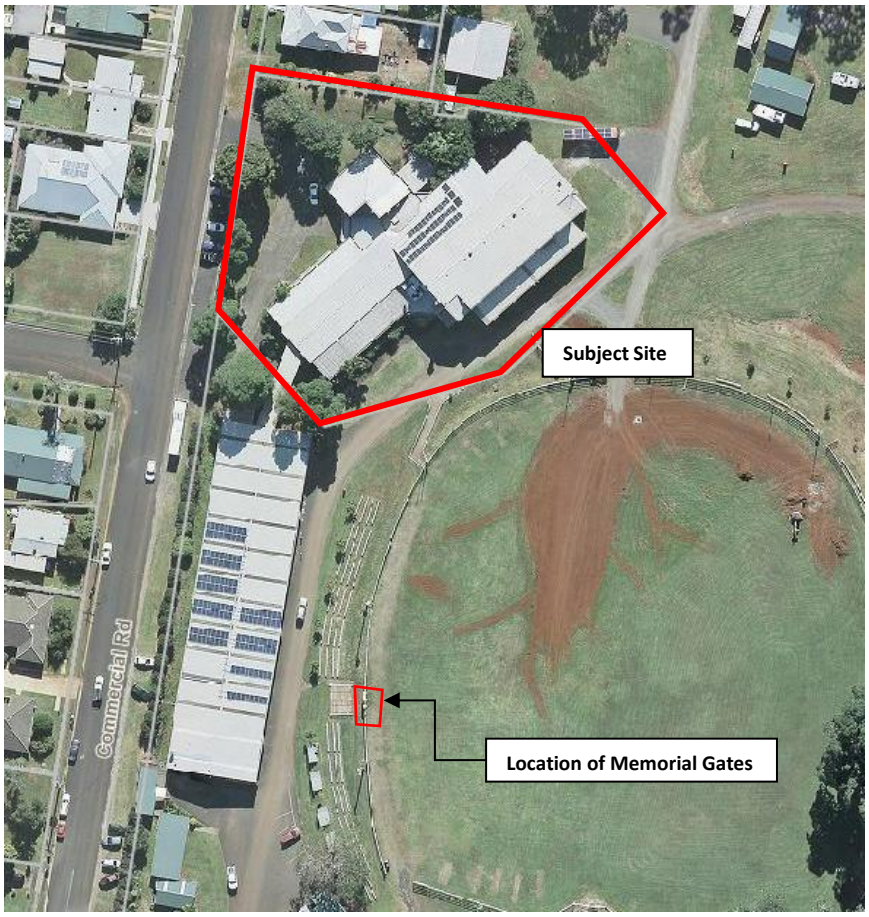



***Figure 12: Location of Memorial Gates. Source: Balling Shire Council GIS Mapping***

The Council assessment report has also satisfactorily addressed the issues related to *Earthworks* and *Essential Services.*

In that regard it is noted that earthworks are proposed on the site to facilitate the proposed development. This results in approximately 650m$^3$ of cut within the north-western corner of the site, and 50m$^3$ of fill immediately adjacent to the main entrance to the site.

However the subject land is not located within close proximity to any waterway, drinking water catchment or environmentally sensitive area, and is unlikely to create any adverse impacts upon any of these areas.

It is agreed with Council assessment report that conditions be applied in relation to sediment and erosion control measures which will ensure that the proposal will avoid, minimise and mitigate the impacts of the proposed development onto the surrounding properties.

Council also recommends that a condition be imposed requiring certification from a suitably qualified practicing geotechnical engineer to verify the site filling was completed in accordance with Level 1 geotechnical testing in accordance with the requirements of AS 2870 and AS 3798 and has adequate bearing facility for building construction. This certification is to be submitted to and approved by the Principal Certifier upon completion of site filling.

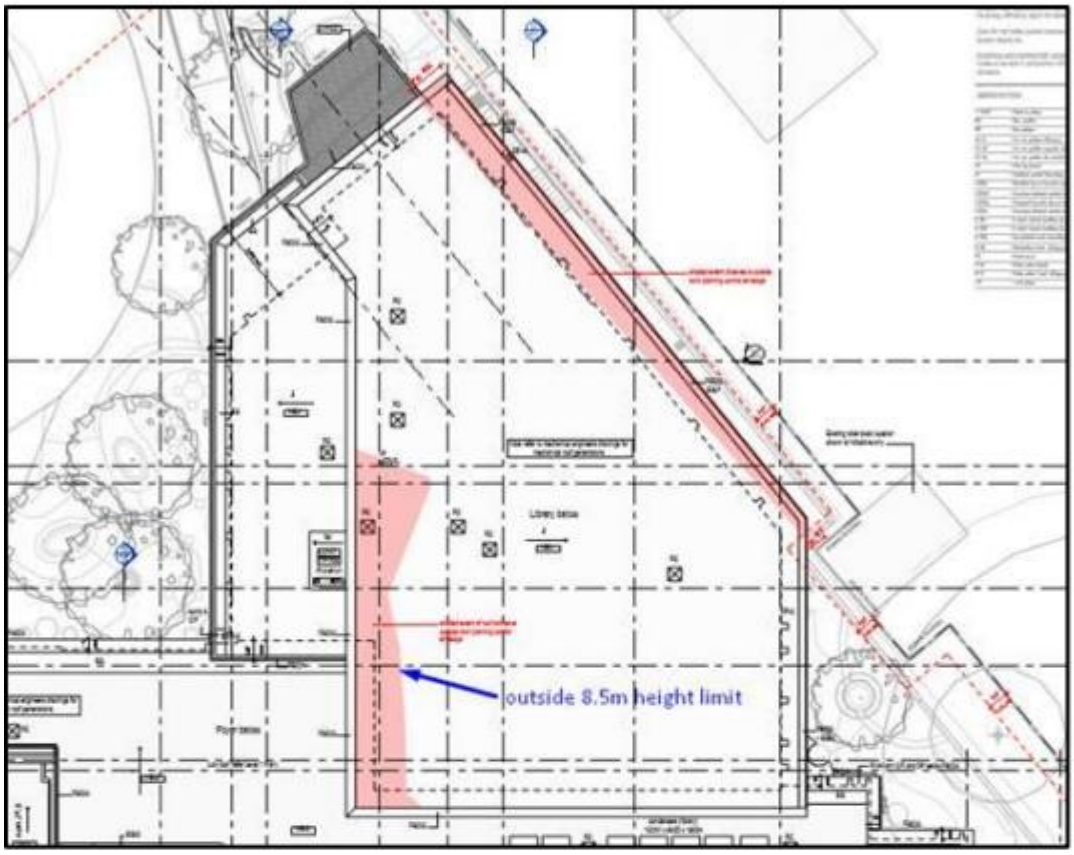
It is noted in particular, that the proposed development involves a portion of the library encroaching the building height with a maximum building height of 8.95m above the existing ground level , exceeding the height limit as defined by Clause 4.3 of BLEP (being 8.5 metres), by 450 mm ( a 5.28% variation).

An assessment against the relevant provisions of BLEP 2012, have been provided by the applicant, and images of the extent of variation identified below.

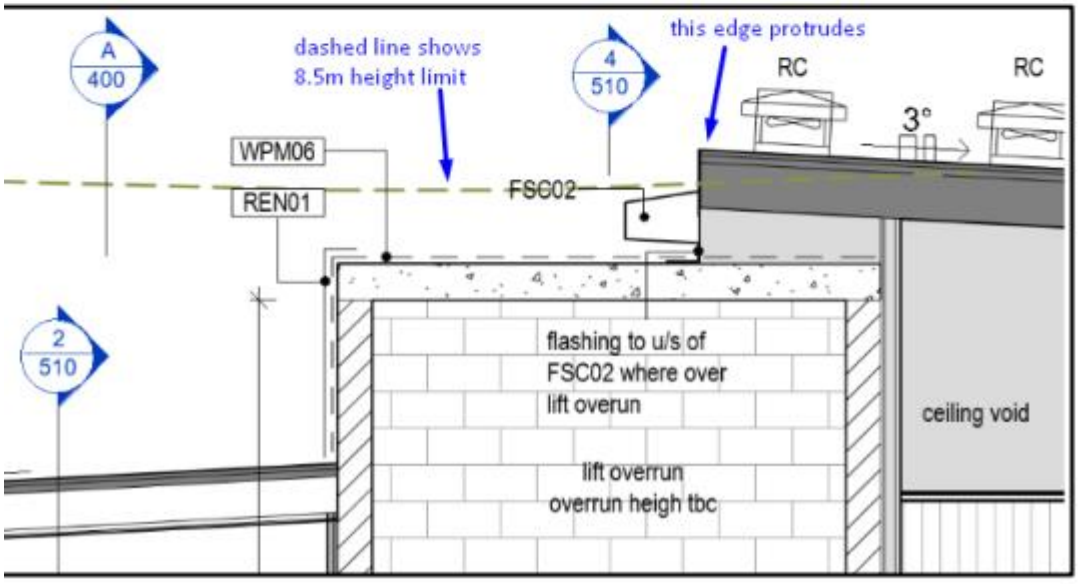
It is agreed that he Clause 4.6 Variation request is supported because the written explanation satisfactorily explains the reason for the breach (variation of the maximum height limit), and demonstrates how compliance with the standard is unnecessary and unreasonable in the circumstances of the particular application, and results in an improved environmental outcome.

It is also considered that the proposed variation is in the public interest.

**Building Height Variation - Plan View**




**Building Height Variation - Section View**




Source: Clause 4.6 Report to Vary Development Standard (Building Height) prepared by Newton Denny Chapelle dated 8 April 2022

## 5.2 Proposed Environmental Planning Instruments (Section 4.15 (1) (a) (ii))

There are no proposed environmental planning instruments affecting the subject land.

## 5.3 Any Development Control Plan (Section 4.15(1) (a) (iii))

The BDCP 2012 applies to the subject land.

The Council's assessment report has identified and satisfactorily addressed the relevant policies and guidelines related to the proposed development.

By way of comment however, it is also noted that the SEE and the Council's assessment report, do not address the objectives of the BDCP requirements

However, having reviewed these objectives, it is considered that the proposal is capable of meeting the objectives of the relevant BDCP 2012 controls, and in this report.

In particular, and in relation to **Waste Management**, *a Site Waste Minimisation Management Plan (SWMMP)* has been prepared by ENV Solutions dated 10 March 2022, and which estimates the needed waste storage types, volume and collection location as a result of the modifications to the Cultural Centre along with construction/demolition waste.

A **Stormwater Management Plan** prepared by Greg Alderson Associated dated 27 January 2022, has been considered by Council's Civil Services Division, and deemed to be generally acceptable, subject to conditions.

In relation to **Sediment and Erosion Control,** conditions are recommended to ensure appropriate sediment and erosion control measures are in place prior to the commencement of works on the site and maintained until the land has been stabilised.

The key **Crime Prevention through Environmental Design (**CTED) principles have been satisfactorily addressed in relation to the proposed development, by the Council's assessment report, subject to conditions.

Council's Civil Services Division have reviewed the proposed development in relation to **Car Parking and Access,** and advised as follows:

*The proposed number of car parking spaces (18 spaces inclusive of 2 accessible spaces) and the available on-street parking area adjacent to the showground is therefore considered acceptable to satisfy the parking requirements for this community centre.*

In respect of bus parking required for groups visiting the Centre or Showground events, it is noted that there is space along the Commercial road reserve that is a grassed verge, and which is capable of providing suitable on-street bus parking

Further to the above, it is noted that no concerns were raised in relation to the external roads and traffic generated.

However it is agreed with Council's assessment, that the existing car parking spaces and the portion of Commercial Road between High Street and Park Avenue will be required to be line

marked, with the centre and edge line marking being installed prior to the issue of an Occupation Certificate.

This will assist will assist with traffic movements by defining travel lanes along Commercial Road. Conditions have been recommended to reflect this requirement.

It is noted that the subject application was not referred to the Local Traffic Committee**.**

In that regard it is understood that this crossing was a suggestion from the NSW Police and discussed during the initial meeting with the Panel.

However as a pedestrian crossing is not proposed as part of this application, there was no trigger or requirement to refer the matter to the Local Traffic Committee.

In relation to covered disabled car parking the architects have advised as follows:

- *Due to the steep nature of the site, it is not safe nor practical to provide pedestrian access between the street and the ground level foyer, so the main building entry has been deliberately relocated to Level 1 as part of the proposed renovation.*
  *The main building entrance comprises a ramped walkway that provides direct, equitable access between the carparks and the building, and a stronger connection between the Cultural Centre and the surrounding community is also facilitated by the main entrance being at street level.*
- *The doors at ground level near the van loading bay provide direct access to the lower foyer, however from an operational perspective, this is a secondary entry that is likely to be locked when only the library is in use.*
- *It is not appropriate to provide a covered structure within the road reserve above the proposed PWD car parking, and we also believe it is not appropriate to provide a covered PWD carpark at ground level (near the proposed 'van loading' area) when the main building entry is on Level 1. If a PWD carpark is incorporated at ground level, the equitable access into the facility will be comprised, as anyone using the PWD carpark would be entering the Cultural Centre via a back door rather than via the primary building entry. We believe this is discriminatory.*
- *We understand the Ballina DCP requires accessible car spaces to be covered, however we note that this is not required under the Australian Standard. There is currently one uncovered PWD carpark that services the Cultural Centre, however two PWD carparks will be provided as part of the refurbishment, which is an improvement on the existing conditions. The footpath described in Item 1(b) will also significantly improve the safety and amenity of the car parking that is provided as part of the refurbishment.*
- *A covered PWD carpark at ground level will result in separate entries for visitors, and we believe this to be more discriminatory that providing two uncovered PWD carparks. We believe the proposed car parking configuration will provide the best outcome for the community, as the refurbishment significantly improves the amenity for all visitors, and provides safe, equitable and legible access to the Cultural Centre, while also working with a steep existing site.*

Whilst additional information was sought by Council, as to how **pedestrian access** could be improved along Commercial Road, it is noted that inclusion of a pedestrian path cannot be accommodated on the site due to existing vegetation and steep slope.

As a result the proposal now provides for a pedestrian footpath extending the length of the car parking area along the Commercial Road site frontage, to the pedestrian ramp to enter the building.

In respect of site **Access, Internal Driveways and Parking Design,** it is intended that the existing site access off Commercial Road and its internal driveway be maintained, and including the parking design, which is to be formalised through a section 138 application under the *Roads Act 1993,* to provide disabled car parking spaces, and ensure 18 compliant ~~ce~~ car parking spaces are provided with pedestrian access into the facility, while providing overflow parking in front of the Alstonville Showground site.

In relation to the **Provisions for Service and Delivery Vehicles,** the proposed development has indicated a van loading space off the existing internal driveway, providing suitable servicing and delivery to the subject land.

As indicated by Council's assessment report, the plans of the proposed development, have also been amended to include bicycle racks along the external western corner of the building and mobility scooter parking within the facility.

Further to the above clarification was sought in relation to the SEE submission in relation to Vegetation Management (**Section 4.34 of SEE related to Chapter 2A** of **(**BDCP 2012).

It is noted that this chapter of the BDCP is for the purposes of the **Section 2.9 set out in *SEPP (Biodiversity and Conservation) 2021*.** This chapter identifies Council's requirements relating to the management of vegetation on urban land within Ballina Shire which includes the R2 Low Density Residential zone.

The proposed development involves vegetation management works including removal of five trees as identified below.

- Two African Tulip Trees (*Spathodea campanulate*)
- One *Ficus Hillii*
- One *Jagera Pseudorhus*
- One small unidentified landscape tree

A landscape plan has been provided to support the application, and includes areas of revegetation associated with the proposed development, and the retention of the three trees along the front boundary of the subject land.

An Arboriculture Report has been provided to support the application, including recommendations in relation to retention of these trees

It is considered that the Council's assessment report has satisfactorily addressed the requirements of Chapter 2A of the DCP.

Chapter 8 refers to **Other Uses,** in particular signage.

It is considered that the Council's assessment report has identified and satisfactorily addressed the relevant requirements of this Section of BDCP.

The following conditions are however recommended in relation to signage.

- *Ensure that lighting is implemented safely and will minimise light spill effects onto adjoining properties in accordance with relevant Australian Standards.*

- *The lighting to be adjustable to ensure that impacts are not likely to affect adjoining property owners and respond to concerns raised from neighbours*.
- *Ensure that the signs are securely fastened to the walls and awning in which they will be attached.*
- *The signage will be wholly on private land and therefore and so located as to not confuse traffic signage or instructions by traffic signals or other devices.*
- *The signs will not obscure sightlines to public areas as they will be fixed to walls and be of a scale that is small and clarify parking only*.

Chapter 4 of DCP relates to **Other Developments**, particularly in Residential zones

It is considered that Council has satisfactorily addressed the objectives of this Chapter, and agree that in relation to minimising conflict between land uses, the proposed alterations and additions maintain the existing land uses within the community facility, and the proposed alterations and additions are unlikely to result in any additional conflicts

The various element requirements, including but not necessarily limited to, building height, floor space ratios, building envelope and building lines, landscape and open space, vehicular access and parking, overlooking and privacy, solar access etc., have been satisfactorily addressed by the Council's assessment report

The proposed development complies with the building line designation of 4.6m providing a 13.92m setback from the building wall.

The applicant has however requested a variation to the designated building envelope.

It is agreed that the variation is minor, and the applicant request for a variation is satisfactory, and justifies the variation requested.

The breach of the building height is addressed elsewhere in this report.

The applicant has indicated that the gross floor area will result in a site coverage of 46.4%, which is less than the Council requirement of a maximum 60% coverage...

The landscaping proposed is considered to be appropriate for the site and the proposed use of the building. Conditions are however recommended to ensure that the landscaping is to be provided at a minimum 20%, and plans approved prior to the Construction Certificate.

It is agreed that the proposed development has had regard for the surrounding development in terms of height, bulk and scale, and it is considered that the proposed alterations and additions should not adversely impact on that development.

Council's Environmental Health Officer has considered the **Noise Report** provided by the applicant in response to the request for additional information in relation to potential noise impacts, and advised that *the assessment* is considered adequate subject to conditions, including the need for an acoustic consultant to certify the plans prior to issue of Construction Certificate and construction prior to issue of Occupation Certificate.

The recommendations of the Assessment for noise control measures to ensure compliance with the project specific noise criteria and therefore the Noise Policy for Industry included the following:

- *:Hours of operation are limited to 6:00am – 12:00am mid-night*
- *The library's level 1 front courtyard and ground floor side courtyard be limited to operate between 7am to 6pm daytime hours.*

- *A 1.8m high acoustic barrier (above the front courtyard RL) be constructed as per Figure 4.*
- *A 1.8m high acoustic barrier (above the natural ground RL) be constructed as per Figure 5.*
- *The rooftop plant deck walls install with outdoor sound absorptive material (refer to Figure 7).*
- *The plant room walls and ceiling be upgraded to Rw40 (refer to Figure 8), and ventilation intake and exhaust ducts be attenuated with a minimum transmission loss of 30dB, i.e. attenuators or equivalent. Mechanical plant noise detail be assessed at the detail design stage.*
- Mechanical plant must be engineered to ensure noise emissions are below *40dB (A) during the day, 36dB (A) Evening and 35dB (A) night at the nearest residence.*

Section 64 Contributions are applicable to the proposed development, and are included within the draft conditions for consent.

### 5.4 Any Planning Agreement (Section 4.15 (1) (a) (iii a) e

There are no Planning Agreements**.**

### 5.5 The Regulations (Section 4.15 (1) (a) (IV)

The following regulations are relevant to the consideration of this application:

Part 4, Division 2 of the EP&A Regulation 2021 requires the consent authority to consider "Prescribed conditions" of development consent. These matters are addressed via a condition of consent.

Sections 36 and 94 of the EP&A Regulation 2021 allow Council to request additional information.

On 8 December 2022, Council issued a Request for Information (RFI) letter to the applicant, which included a raft of new information that was required, and changes that were required to the design.

In summary, the RFI requested the following information: details in relation to traffic and parking, particularly in respect of bicycle and mobility scooter parking, pedestrian access, covered disabled car parking and EV charging location; confirmation that the existing sewer main under existing building has been decommissioned; preparation of a noise impact statement; additional information in relation to waste management; additional details in relation to proposed signage; review details related to proposed lift to ensure compliance with relevant standards; further information required in relation to proposed servery, and address concerns contained in the public submissions relating to future capacity of the available public space within the building.

The request also required changes to the height of windows along the first floor northern elevation of the library facing towards adjoining residential property to the north.

The consultant provided information addressing the above issues in May 2023, and that information has been acknowledged in the preparation of Council's assessment report, and this report.

Section 61 of the EP&A Regulation 2021 requires the consent authority to consider AS 2601 - 1991: The Demolition of Structures. This matter is addressed via a condition of consent.

Section 62 (consideration of fire safety) and Section 64 (consent authority may require upgrade of buildings) of the 2021 EP&A Regulation are relevant to the proposal. In this regard, conditions will be recommended in relation to the fire safety requirements.

These provisions of the 2021 EP&A Regulation have been considered and are addressed in the recommended draft conditions (where necessary).

Section 69 of the EP&A Regulation 2021 requires the consent authority to consider the provisions of the Building Code of Australia (BCA). A BCA report is provided at **Attachment 1** of the SEE)

### 5.6 The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality, (Section 4.15(1) (b)

It is considered that the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality, have been satisfactorily addressed.by the Council's assessment report.

### 5.7 The suitability of the site for the development Section 4.15((1) (c)

It is considered that the suitability of the site for the proposed development has been satisfactorily addressed by the Council's assessment report.

### 5.8 Any submissions made in accordance with this Act or the regulations (Section 4.15 (1) (d)).

Three submissions were made in response to the Council's public notification period.

Although all were in favour of the proposed development, a number of issues have been raised and which have been addressed in this report, and where appropriate, the plans have been amended, or conditions recommended to address the issues raised.

It is noted in particular however that:

- No EV charging stations will be provided, and has been removed from the drawings.
- There is an existing sewer line located below the existing theatre, which according to the architects is still in use. Further as the existing theatre is being retained, the existing sewer line below the theatre will also be retained in the current location. However prior to commencing work on site, the existing location, depth and condition of the sewer line will have to be accurately confirmed. A condition is recommended to give effect to this requirement prior to the issue of a Construction Certificate.
- In relation to potential overlooking, it is noted that the window dimensions have been adjusted to the northern library windows, preventing overlooking to the neighbour adjacent. On ground level, windows L0/w01 – L0/w04 have a sill height of 2100mm, and on Level 1 windows L1/w01 – L1/w04 have a sill height of 1800mm. The

proportion of window GS03 has also been adjusted, and frosted glazing will be provided to this window.

- A condition is recommended requiring that the proposed facility will be documented to comply with AS1428.1 and AS 1735.
- The layout of the servery has also been revised in response to the feedback received.

In that regard it is noted that, the workflow in the back-of-house area has been reviewed, and the layout has been reconfigured accordingly. A designated 'wash' area is located along the eastern side of the room, and a double sink with drainers on both sides can also be accommodated. The U-shaped bench has been removed, nominal dimensions have also been added to the drawings for clarity, and the overall servery has been separated into front-of-house and back-of-house areas to maintain visual amenity from the foyer.

- A café is not proposed as part of the refurbishment.
- It is also noted that the sports hall will be refurbished with plastic flooring, which it is understood to be similar to the type of flooring in the existing sports hall, and it will not have a timber floor like the Ballina Indoor Sports Centre.

In that regard it is understood that this floor is used in multipurpose school halls for assemblies, functions and concerts.

It is further understood, that following the refurbishment, the intention is that the theatre will be a multi-purpose space. There will be a fixed stage at the front of the theatre, and all seating will be removable.

### 5.9 The public interest (Section 4.15(1) (e))

It is agreed that the proposal is in the public interest, providing for alterations and additions to improve the functions of the existing community facility.

More importantly it is consistent with the relevant objects of the Environmental Planning and Assessment Act 1979, the relevant provisions of the Ballina Local Environmental Plan 2012 and Development Control Plan, promotes the economic and social welfare of the community and facilitates good design and amenity within the building environment.

## CONCLUSION

The application has been assessed having regard to the provisions of 4.15 of the Environmental Planning and Assessment Act 1979 (As amended).

In addition the Council's assessment report, and this Peer review, has addressed those matters raised by the Planning Panel and issues raised in the submissions, and taken into consideration the responses provided by the consultants to the request by Council for additional information.

It is the conclusion of this Peer Review that, the application will have no significant adverse environmental impacts, is considered to be suitable for the subject land, and is in the public interest.

Accordingly approval is recommended, subject to the draft conditions prepared by Council at **Attachment 1**, and as amended by the proposed additional conditions at **Appendix A** to this report.

## APPENDIX A

**PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE**

Prior to issue of Construction Certificate, the developer must submit a plan to the Principal Certifier prepared by a suitably qualified person, to ensure that landscaping is provided at a minimum 20% of the site area.

**PRIOR TO ISSUE OF AN OCCUPATION CERTIFICATE**

Prior to the issue of an Occupation Certificate, the developer must provide confirmation to the Principal Certifier that:

- Proposed lighting is implemented safely and will minimise light spill effects onto adjoining properties in accordance with relevant Australian Standards.
- Proposed lighting is adjustable to ensure that impacts are not likely to adversely affect adjoining property owners and respond to concerns raised from neighbours.
- The signs are securely fastened to the walls and awning in which they will be attached.
- The signage are wholly on private land and so located as to not confuse traffic signage or instructions by traffic signals or other devices.
- The signs do not obscure sightlines to public areas as they will be fixed to walls and be of a scale that is small and clarify parking only.

# Attachment 3 – Architectural Design Plans

# ALSTONVILLE CULTURAL CENTRE 42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW




**ARCHITECTURAL DRAWINGS**

| | | |
|---|---|---|
| 000 | COVER SHEET | |
| 100 | SITE PLAN | |
| 180 | DEMOLITION PLAN | LEVEL 0 |
| 181 | DEMOLITION PLAN | LEVEL 1 |
| 200 | GENERAL ARRANGEMENT PLAN | LEVEL 0 - PART A |
| 201 | GENERAL ARRANGEMENT PLAN | LEVEL 0 - PART B |
| 202 | GENERAL ARRANGEMENT PLAN | LEVEL 1 |
| 210 | ROOF PLAN | PART A |
| 211 | ROOF PLAN | PART B |
| 250 | FIRE DIAGRAMS | |
| 251 | ACOUSTIC DIAGRAMS | |
| 252 | AREA DIAGRAMS | |
| 260 | REFLECTED CEILING PLAN | LEVEL 0 - PART A |
| 261 | REFLECTED CEILING PLAN | LEVEL 0 - PART B |
| 262 | REFLECTED CEILING PLAN | LEVEL 1 |
| 300 | ELEVATIONS | SHEET 1 |
| 301 | ELEVATIONS | SHEET 2 |
| 400 | SECTIONS | SHEET 1 |
| 401 | SECTIONS | SHEET 2 |
| 510 | STAIR DETAILS | SHEET 1 |
| 511 | STAIR DETAILS | SHEET 2 |
| 512 | STAIR & RAMP DETAILS | |
| 710 | GLAZING ELEVATIONS | SHEET 1 |
| 711 | GLAZING ELEVATIONS | SHEET 2 |
| 712 | GLAZING ELEVATIONS | SHEET 3 |
| 720 | WINDOW SCHEDULE | SHEET 1 |
| 730 | DOOR SCHEDULE | SHEET 1 |
| 809 | INTERIOR DETAILS | SERVERY |
| 900 | PERSPECTIVES | |
| SK027 | EXTERNAL WAYFINDING SIGNAGE | SIGN LOCATION PLAN |
| SK028 | EXTERNAL WAYFINDING SIGNAGE | KEY SIGNAGE CONCEPTS |

Grand total: 31

**CONSTRUCTION NOTES:**

- Copyright held by Ballina Shire council
- Verify all dimensions on site before commencing work or shop drawings.
- Do not scale from drawings. Confirm all dimensions on site prior to commencement of relevant works and report any discrepancies to architect.
- Any discrepancies in levels on site shall be reported to the architect
- Drawings shall be read in conjunction with structural engineer's drawings, computations and all structure specified by the structural engineer.
- Drawings shall be read in conjunction with all architectural materials, finishes, fixtures and fittings schedules.
- All work must comply with SEPP legislation, National Construction Code, Australian Standards, and all other relevant by laws and authority requirements. No work shall be undertaken prior to approval by a registered Certifier.
- All work practices must be safe for workers and visitors on the site and the general public.
- During construction, any existing structures should be maintained in a stable condition and any adjacent structures should not be damaged or compromised.
- No footing, or wall to encroach the title boundary.
- Contractor to arrange all inspections by structural engineer or certifier as required. Inspection certificates or notices to be sent to the superintendent upon completion.
- All services shall be concealed in walls or ducts unless noted otherwise and must be confirmed with architect if not on drawings.
- Provide articulation joints to comply with structural engineer's requirements
- Steps to be provided where fall from building exceeds 190mm.
- The contractor shall carry out works in accordance with the signed drawings and schedules and anything reasonably inferred, and with the Conditions of Contract, and in accordance with the directions and to the satisfaction of the Superintendent, whose interpretation of the contract documents shall be final.
- Plumbing to be carried by a licensed plumber and in accordance with the requirement of local authorities.
- The contractor shall be responsible for all permits and approvals.
- Any new or amended driveway and crossover must be approved by Council. The contractor shall be responsible for obtaining all permits and approvals.
- All products to be installed to manufacturers' requirements for suitable exposure levels
- Termite treatment to be carried out in accordance with AS 3660.1-2014 Builder to provide certificates of installation in accordance with NCC BCA-NSW 3.1.4.2 and must confirm preferred system with architect prior to selection or installation.
- Toilets and bathrooms to be provided with lift off hinges where the distance between the leading edge of the door when fully open and the W.C. pan is less than 1.2m
- Stair construction and balustrades in accordance with part 3.9.1 of the NCC BCA
- Contractor to provide all certificates as requested by Certifier at completion of construction
- All rubbish, excess building materials and debris to be removed from site prior to handover to owner
- If in doubt, ask!

**GENERAL NOTES:**

- Certification of this building has been undertaken using NCC BCA 2019
- All drawings must be printed in colour for clarity

**PART J:**

- Combined roof and ceiling construction must equal or exceed total R value of **R3.7** in accordance with NCC BCA 2019
- Minimum total R value for walls is **R1.4**
- Drawings to be read in conjunction with Part J report prepared by Built Environment Collective Pty Ltd

**SOUND INSULATION:**

- Best practice insulation has been provided to all new partitions. No specific requirements exist under BCA 2019.

**ACCESSIBILITY:**

- Drawings to be read in conjunction with NCC report prepared by Mackie Construction Consultants

**FIRE ENGINEERING:**

- Building will be subject to a fire engineered solution, currently in progress

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 20.06.2020 | Concept Design Issue | KF | KO |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 21.01.2022 | Issue for cost estimate | SR | CM |
| D | 04.02.2022 | Issue for client review | SR | CM |
| E | 08.04.2022 | Development Application | SR | CM |
| F | 27.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
COVER SHEET

100mm LINE @ A1 10mm scale NTS at plot 11

PROJECT NO. 2010 A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 000 | F |

**Legend**

- new tree
- existing tree to be retained & protected. TPZ shown dashed
- Existing stormwater manhole
- SW(e) — SW(e) Existing stormwater line
- S(e) — S(e) Existing sewer line
- SW — SW New stormwater line
- -S — S- New sanitary drainage line
- -W — W- New water supply line
- Outline of existing building for reference only

**Notes:**

| | |
|---|---|
| Site Address: | 42-46 Commercial Road, Alstonville |
| RP Description: | Lot 1 DP611789 |
| Local Government Area: | Ballina Shire Council |
| FFL(existing lower level): | 138.92m AHD |
| Site Area: | 5168m² |
| Existing Building Area: | 1841m² |
| Existing Site Cover: | 35.6% |
| **New library area:** | **753m²** |
| **Proposed Gross Floor Area:** | **2850m²** |
| **Proposed Building Footprint:** | **2399m²** (excluding awnings / overhangs) |
| Proposed Site Cover: | 46.4% (excluding awnings / overhangs) |

**FIXTURES AND FINISHES - refer to *SCH01 for details***

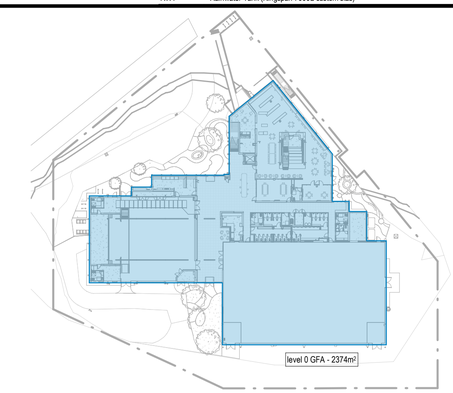
| | |
|---|---|
| BOL | - Bollard |
| CK-HC | - Hose cock |
| FH | - Fire hydrant |
| FN03 | - Acoustic fence |
| FN-EX | - Existing fence |
| GD | - Grated drain |
| MS02 | - Metal sheet roofing (type 2) |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |

**NOTE**
**padmount transformer to be located along the Commercial Road boundary if required – location TBC**

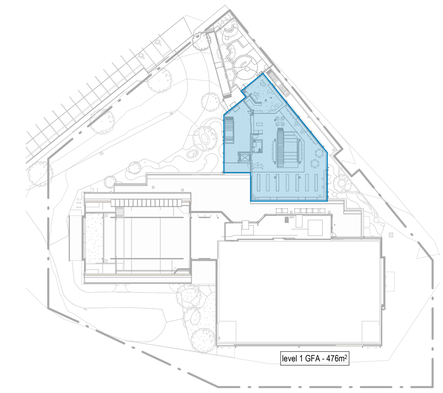
COMMERCIAL ROAD
ENTRY
EXIT
50 Single storey dwelling
48 Single storey dwelling
Melaes and bounds subject
11000 nom
ensure crossover is constructed to BSC standard drawings. Builder is responsible for obtaining any vehicle crossover permits
new on-street parking between driveway crossovers
existing stormwater drainage line, extent tbc
existing stormwater pit
electrical pits
existing water services stop valve
relocated water connection
underbore along blue line for water line and services - refer to arborist report for details
new footpath, refer civil engineers drawings for details
existing fish drain
existing hydrant
existing timber fence shown dashed
new water meter & check valve
new landscape - refer to landscape architect's drawings
new stand guide with post - refer to civil drawings for details
new footpath, refer civil engineers drawings for details
bike racks (x4)
new pavt carparks
existing fish drain
existing battered garden
existing driveway (narrowed)
Van loading
New Foyer below
New library below
Existing foyer below
Existing theatre below
Existing sports hall below
Lift overrun
AC condensers
Line of existing building
solar panels shown indicatively, extent tbc
existing sewer line to be retained
extent of sewer line tbc
bin store below
existing driveway
new landscape - refer to landscape architect's drawings
existing sewer line shown approximately, exact location tbc
existing manhole shown approximately, exact location tbc
existing stormwater manhole
existing stormwater easment
extention to sports hall
existing fence and gate
connect new stormwater to existing stormwater drainage
connect to existing stormwater drain
existing showgrounds pavillion is shown indicatively only
Existing toilet block location shown is indicative only
new landscape - refer to landscape architect's drawings
Single storey large showgrounds shed
Note: small encroachment of water and drainage services lines into stormwater easement
Note - Survey information is not available for neighbouring sites or properties. Houses and property boundaries are shown indicatively only.
Red hatch indicates small extent of new library eave (north) which projects outside town planning building envelope.
Red hatch indicates extent of existing sports hall which is outside of town planning building envelope (height at ridgeline is 10.7m)

53.540 8°58'23"
40.780 99°09'22"
2.455 172°26'17"
6.140 97°43'43"
2.305 7°30'43"
26.617 99°09'22"
34.150 318°14'43"
42.805 253°09'43"
49.000 228°14'43"
29.005 138°45'02"

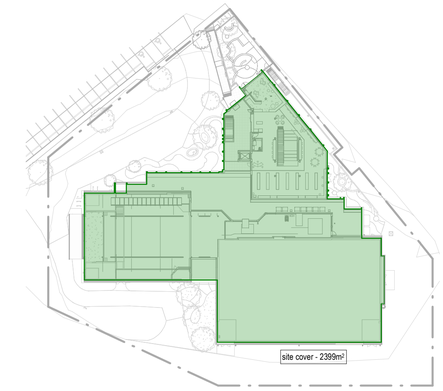
1 Site Plan
SCALE @ A1 1 : 200




2 Diagram - GFA - Level 0
SCALE @ A1 1 : 700




3 Diagram - GFA - Level 1
SCALE @ A1 1 : 700




4 Diagram - Site Cover
SCALE @ A1 1 : 700

100mm LINE @ A1 — 10mm — scale : As indicated

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV. | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.08.2020 | For coordination | KF | KO |
| B | 20.08.2020 | Concept Design Issue | KF | KO |
| C | 06.11.2021 | Preliminary consultant issue | CM | KO |
| D | 03.12.2021 | Issued for client review | SR | CM |
| E | 31.01.2022 | Issue for cost estimate | SR | CM |
| F | 04.02.2022 | Issue for client review | SR | CM |
| G | 08.04.2022 | Development Application | SR | CM |
| H | 28.02.2023 | DA RFI drawings for review | CM | KO |
| I | 16.03.2023 | Plans for SWMMP | CM | KO |
| J | 17.03.2023 | drawings for DA RFI response | CM | KO |
| K | 23.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
SITE PLAN

PROJECT NO: 2010 — A1

| PHASE | DWG. No. | REV. |
|---|---|---|
| DD | 100 | K |

# DESIGN DEVELOPMENT

**LEGEND**

- Property boundary
- Exising building shown grey
- Demolition shown red
- Existing floor finishes to be demolished shown blue, with existing slab to be retained and protected

**DEMOLITION NOTES**

1. To be read in conjunction with services consultant reports and drawings.
2. Sports hall and theatre hall exterior wall and roof cladding is to be replaced. Structure (existing portal frames) is to be retained.
3. Decommission & remove existing solar PV system & inverter, and existing solar hot water system. Refer to electrical engineer's report/drawings for details.
4. Existing commercial kitchen to be removed, including exhaust system & grease trap.
5. All existing gutters & downpipes to theatre, foyer & sports hall are to be removed and replaced.
6. Remove all high level louvres & attenuators to sports hall. Refer to drawings and schedules for replacement details.
7. Decommision & remove all existing mechanical ductwork to sports hall. Refer to mechanical engineer's documents for details.
8. All services not being relocated must be protected. All redundant services are to be removed and capped appropriately before demolition works commence.
**9. If the builder suspects asbestos may be present, All suspect material must be tested prior to commencment of demolition.**
10.Make good to all ITmes adjacent areas of demolition (floors, walls, ceilings, roofs, penetrations etc).
11. Contractor to conduct inspection for dilapidation report prior to commencement of construction.
12. All demolition work is to be carried out in accordance with AS 2601.
**13. Refer to services drawings for extension and demolition of existing services.**
14. A sign is to be displayed immediately outside the work area noting that this is a construction site and advising on restriction of access and protective footwear requirements.
**15. Contractor to inform the client immediately if any hazardous materials or conditions are found on site excluding that which may be outlined when apparent.**
16. Contractor to ensure when that all existing structure including steel and footings are to be protected during the demolition process.
17. Existing in ground services are shown indicately. All inground services are to be confirmed on site before any demolition works are to begin.
18. Planting to existing gardens against the building are to be removed typically. Refer to landscape architect's drawings for new landscape works.

**ITEMS TO BE RETAINED**

1. Where existing brickwork is demolished, bricks are to be retained for re-use.
2. Client to confirm if existing solar hot water system is to be re-used.
3. Terrazzo from existing toilet & shower partitions is to be removed & retained for re-use.
4. Existing roof access ladder to be retained & re-installed

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.09.2020 | For coordination | KF | KO |
| B | 28.09.2020 | Concept Design Issue | KF | KO |
| C | 08.11.2021 | Preliminary consultant issue | CM | KO |
| D | 03.12.2021 | Issued for client review | SR | CM |
| E | 21.01.2022 | Issue for cost estimate | SR | CM |
| F | 04.02.2022 | Issue for client review | SR | CM |
| G | 08.04.2022 | Development Application | SR | CM |
| H | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
DEMOLITION PLAN
LEVEL 0

100mm LINE @ A1 — 10mm — scale: 1 : 200

PROJECT NO: 2010 — at size 11 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 180 | H |

# DESIGN DEVELOPMENT

**LEGEND**

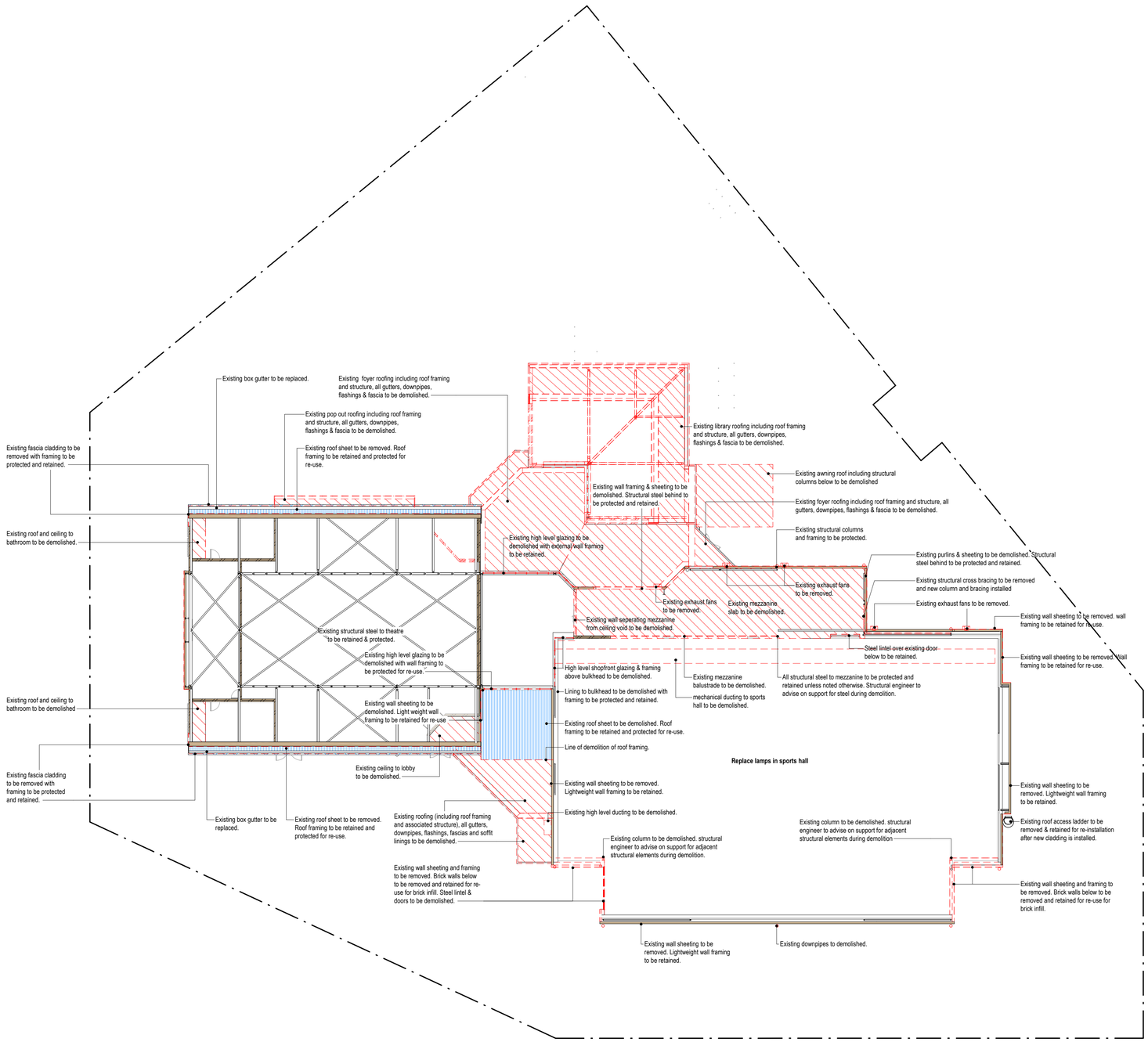
- Property boundary
- Exising building shown grey
- Demolition shown red
- Existing floor finishes to be demolished shown blue, with existing slab to be retained and protected

**DEMOLITION NOTES**

1. To be read in conjunction with services consultant reports and drawings.
2. Sports hall and theatre hall exterior wall and roof cladding is to be replaced. Structure (existing portal frames) is to be retained.
3. Decommission & remove existing solar PV system & inverter, and existing solar hot water system. Refer to electrical engineer's report/drawings for details.
4. Existing commercial kitchen to be removed, including exhaust system & grease trap.
5. All existing gutters & downpipes to theatre, foyer & sports hall are to be removed and replaced.
6. Remove all high level louvres & attenuators to sports hall. Refer to drawings and schedules for replacement details.
7. Decommision & remove all existing mechancial ductwork to sports hall. Refer to mechanical engineer's documents for details.
8. All services not being relocated must be protected. All redundant services are to be removed and capped appropriately before demolition works commence.
**9. If the builder suspects asbestos may be present, All suspect material must be tested prior to commencment of demolition.**
10.Make good to all ilmes adjacent areas of demolition (floors, walls, ceilings, roofs, penetrations etc).
11. Contractor to conduct inspection for dilapidation report prior to commencement of construction.
12. All demolition work is to be carried out in accordance with AS 2601.
**13. Refer to services drawings for extension and demolition of existing services.**
14. A sign is to be displayed immediately outside the work area noting that this is a construction site and advising on restriction of access and protective footwear requirements.
**15. Contractor to inform the client immediately if any hazardous materials or conditions are found on site excluding that which may be outlined when apparent.**
16. Contractor to ensure when that all existing structure including steel and footings are to be protected during the demolition process.
17. Existing in ground services are shown indicately. All inground services are to be confirmed on site before any demolition works are to begin.
18. Planting to existing gardens against the building are to be removed typically. Refer to landscape architect's drawings for new landscape works.

**ITEMS TO BE RETAINED**

1. Where existing brickwork is demolished, bricks are to be retained for re-use.
2. Client to confirm if existing solar hot water system is to be re-used.
3. Terrazzo from existing toilet & shower partitions is to be removed & retained for re-use.
4. Existing roof access ladder to be retained & re-installed




KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 03.12.2021 | Issued for client review | SR | CM |
| B | 21.01.2022 | Issue for cost estimate | SR | CM |
| C | 04.02.2022 | Issue for client review | SR | CM |
| D | 08.04.2022 | Development Application | SR | CM |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
DEMOLITION PLAN
LEVEL 1

100mm LINE @ A1 | 10mm | scale: 1 : 200

PROJECT NO: 2010 | at psz t:1 | A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 181 | D |

# DESIGN DEVELOPMENT

**NOTES**

1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

**ABBREVIATIONS**

| | |
|---|---|
| hd | hand dryer |
| hwu | hot water unit |
| rh | robe hook |
| shr | shower |
| snk | sink |
| ur | urinal |
| vb | vanity basin |
| wc | toilet |

**INSULATION TO WALLS**
Total R value of wall construction to equal or exceed NCC BCA 2019 Section J. Refer to energy efficiency report & architectural documents for details.

**TERMITE MANAGEMENT**
Termite management system to builder's selection - Termimesh, Kordon or equivalent system. System must be in accordance with NCC BCA Part 3.1.3 and AS3660.1.

**LEGEND**

- existing building shown beige
- new blockwork wall
- new stud frame
- new brickwork
- new concrete columns & brick piers
- tree protection zone
- LV / W13 — window number - refer to schedule
- L1 / 401 — door number - refer to schedule
- FFL / TIM02 — floor finish & finished floor level
- LIN01 — wall / lining type - refer to 240 and 300 series
- flush floor finishes
- curtain
- DB — distribution board
- floor box (recessed in slab)
- new tree, refer to landscape architects drawings
- existing tree to be retained & protecte. tpz shown dashed
- GSXX — glazing suit type, refer to 710 series drawings

**FIXTURES AND FINISHES - refer to *SCH01* for details**

| | |
|---|---|
| BCT | - Baby change table |
| BLK02 | - Blockwork feature (ribbed) |
| BLK03 | - Blockwork feature (smooth) |
| BOL | - Bollard |
| CK-HC | - Hose cock |
| COL | - Structural column |
| COM | - Comms equipment |
| CON02 | - Broom finish concrete |
| CON03 | - Polished concrete |
| CON04 | - Coloured concrete |
| CPT01 | - Carpet |
| CWR | - Cold water riser |
| DB | - Distribution board |
| DP | - Downpipe |
| EPR | - Elevated pipework riser |
| EPX01 | - Epoxy floor system |
| FH | - Fire hydrant |
| FHR | - Fire hose reel |
| FN03 | - Acoustic fence |
| FSR | - Fire sprinkler riser |
| GD | - Grated drain |
| HR01 | - Stair / ramp handrail |
| HR02 | - Stair handrail |
| HWU | - Hot water system |
| IOS | - Inspection outlet - refer hydraulic docs |
| MSB | - Main switchboard |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RAL | - Roof access ladder |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |
| SI | - Solar inverter |
| SSF01 | - Marmoleum |
| SSF02 | - Seamless sheet vinyl |
| SSF03 | - Seamless sheet vinyl |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TGSI | - Tactile indicators |
| TIL01 | - Floor tile (internal) |
| TIL02 | - Floor and wall tile (colour A) |
| TIL03 | - Floor and wall tile (colour B) |
| TIL04 | - Floor and wall tile (colour C) |
| TIM01 | - Timber floor |
| TIM03 | - Timer floor (parquetry) |
| TIM-EX | - Existing timber floor |
| TV | - smart TV |
| VP | - Vent pipe |

CONTINUATION OF PLAN ON SD-201

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 03.12.2021 | Issued for client review | SR | CM |
| G | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| H | 07.01.2022 | Issue for services coordination | SR | CM |
| I | 21.01.2022 | Issue for cost estimate | SR | CM |
| J | 04.02.2022 | Issue for client review | SR | CM |
| K | 08.04.2022 | Development Application | SR | CM |
| L | 28.02.2023 | DA RFI drawings for review | CM | KO |
| M | 10.03.2023 | Plans for SWMMP | CM | KO |
| N | 17.03.2023 | drawings for DA RFI response | CM | KO |
| O | 23.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GENERAL ARRANGEMENT PLAN
LEVEL 0 - PART A

PROJECT NO: 2010 — at size: A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 200 | O |

100mm LINE @ A1 — 10mm — scale: 1 : 100

# DESIGN DEVELOPMENT

**NOTES**

1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

**ABBREVIATIONS**

| | |
|---|---|
| hd | hand dryer |
| hwu | hot water unit |
| rh | robe hook |
| shr | shower |
| snk | sink |
| ur | urinal |
| vb | vanity basin |
| wc | toilet |

**INSULATION TO WALLS**
Total R value of wall construction to equal or exceed NCC BCA 2019 Section J. Refer to energy efficiency report & architectural documents for details.

**TERMITE MANAGEMENT**
Termite management system to builder's selection - Termimesh, Kordon or equivalent system. System must be in accordance with NCC BCA Part 3.1.3 and AS3660.1.

**LEGEND**

- existing building shown beige
- new blockwork wall
- new stud frame
- new brickwork
- new concrete columns & brick piers
- tree protection zone
- LV / W13 — window number - refer to schedule
- L1 / d01 — door number - refer to schedule
- FFL / TIM02 — floor finish & finished floor level
- LIN01 — wall / lining type - refer to 240 and 300 series
- flush floor finishes
- curtain
- DB — distribution board
- floor box (recessed in slab)
- new tree, refer to landscape architects drawings
- existing tree to be retained & protecte. tpz shown dashed
- GSXX — glazing suit type, refer to 710 series drawings

**FIXTURES AND FINISHES - refer to *SCH01 for details***

| | |
|---|---|
| AGO | |
| CK-HC | - Hose cock |
| CON02 | - Broom finish concrete |
| CON04 | - Coloured concrete |
| DB | - Distribution board |
| DP | - Downpipe |
| FHR | - Fire hose reel |
| FMT01 | - Recessed floor mat |
| io | - Inspection outlet - refer hydraulic docs |
| IOS | - Inspection outlet - refer hydraulic docs |
| SSF01 | - Marmoleum |
| SSF02 | - Seamless sheet vinyl |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TIL01 | - Floor tile (internal) |
| TIL04 | - Floor and wall tile (colour C) |
| TIM-EX | - Existing timber floor |
| VNL01 | - Vinyl / rubber sports floor |
| VNL02 | - Vinyl / rubber sports floor |
| WC01 | - Toilet (standard) |

CONTINUATION OF PLAN ON SD-200

Theatre
Backstage/ store 46 m²
Unisex Dressing 17 m²
PWD 06 7 m²
Elec 9 m²
Ceiling 4.32m AFFL
Foyer 189 m²
store
Female 28 m²
Male 25 m²
Umpire 9 m²
seat
Sports storage 23 m²
Sports Hall 851 m²
platform lift
bike racks (x4)
line of cladding above
line of roof above
curtain, refer SCH01
line of wall cladding over shown dashed
existing external concrete slab
line of wall cladding over shown dashed
Existing roof access ladder
existing asphalt driveway
existing asphalt driveway
turf
existing stormwater pit
existing stormwater line
existing stormwater easement
existing sewer line shown approximately, exact location tbc
Basketball (white line)
Netball (red line)
new floor to match existing
new floor to match existing
spectator scoreboard & team bench zone
Basketball runoff zone
Netball runoff zone
3000 Netball runoff zone
2000 Basketball runoff zone
2000 Basketball runoff zone
3000 Netball runoff zone
2000 Basketball runoff zone
3000 Netball runoff zone
300 setback
900 setback
PROPERTY BOUNDARY
PROPERTY BOUNDARY
GS21
GS27 over
GS08
GS07
GS23
GS24
138.73
138.78

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 03.12.2021 | Issued for client review | SR | CM |
| G | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| H | 07.01.2022 | Issue for services coordination | SR | CM |
| I | 21.01.2022 | Issue for cost estimate | SR | CM |
| J | 04.02.2022 | Issue for client review | SR | CM |
| K | 08.04.2022 | Development Application | SR | CM |
| L | 28.02.2023 | DA RFI drawings for review | CM | KO |
| M | 16.03.2023 | Plans for SWMMP | CM | KO |
| N | 17.03.2023 | drawings for DA RFI response | CM | KO |
| O | 23.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GENERAL ARRANGEMENT PLAN
LEVEL 0 - PART B

100mm LINE @ A1 — 10mm — scale : 1 : 100

PROJECT NO: 2010 at plot 11 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 201 | O |

# DESIGN DEVELOPMENT

**NOTES**

1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

**ABBREVIATIONS**

| | |
|---|---|
| hd | hand dryer |
| hwu | hot water unit |
| rh | robe hook |
| shr | shower |
| snk | sink |
| ur | urinal |
| vb | vanity basin |
| wc | toilet |

**INSULATION TO WALLS**

Total R value of wall construction to equal or exceed NCC BCA 2019 Section J. Refer to energy efficiency report & architectural documents for details.

**TERMITE MANAGEMENT**

Termite management system to builder's selection - Termimesh, Kordon or equivalent system. System must be in accordance with NCC BCA Part 3.1.3 and AS3660.1.

**LEGEND**

- existing building shown beige
- new blockwork wall
- new stud frame
- new brickwork
- new concrete columns & brick piers
- tree protection zone
- L1 W13 — window number - refer to schedule
- L1 d07 — door number - refer to schedule
- FFL TIM02 — floor finish & finished floor level
- WN01 — wall / lining type - refer to 240 and 300 series
- flush floor finishes
- curtain
- DB — distribution board
- floor box (recessed in slab)
- new tree, refer to landscape architects drawings
- 8 — existing tree to be retained & protecte. tpz shown dashed
- GSXX — glazing suit type, refer to 710 series drawings

**FIXTURES AND FINISHES - refer to *SCH01* for details**

| | |
|---|---|
| AC | - AC condenser unit |
| AWN01 | - Window awning |
| BAL01 | - Steel flat bar balustrade |
| BAL02 | - Timber balustrade |
| BCT | - Baby change table |
| BG | - Box gutter |
| BG02 | - Box gutter |
| BOL | - Bollard |
| CK-HC | - Hose cock |
| COL | - Structural column |
| CON02 | - Broom finish concrete |
| CPT01 | - Carpet |
| CWR | - Cold water riser |
| DB | - Distribution board |
| DP | - Downpipe |
| FH | - Fire hydrant |
| FHR | - Fire hose reel |
| FMT01 | - Recessed floor mat |
| FN03 | - Acoustic fence |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| FW01 | - Floor waste (linear drain) |
| GD | - Grated drain |
| HR01 | - Stair / ramp handrail |
| HR02 | - Stair handrail |
| HWU | - Hot water system |
| MS02 | - Metal sheet roofing (type 2) |
| MSSB | - Mechanical services switchboard |
| OFC | - Off-form concrete - min. class 2 finish |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RC | - Roof cowl |
| RWH | - Rainwater head |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |
| SSF01 | - Marmoleum |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TGSI | - Tactile indicators |
| TIL01 | - Floor tile (internal) |
| TIL02 | - Floor and wall tile (colour A) |
| TIL05 | - Floor tile (external) |
| TIM01 | - Timber floor |
| VP | - Vent pipe |


KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au



Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.


| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 03.12.2021 | Issued for client review | SR | CM |
| G | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| H | 07.01.2022 | Issue for services coordination | SR | CM |
| I | 21.01.2022 | Issue for cost estimate | SR | CM |
| J | 04.02.2022 | Issue for client review | SR | CM |
| K | 08.04.2022 | Development Application | SR | CM |
| L | 28.02.2023 | DA RFI drawings for review | CM | KO |
| M | 10.03.2023 | Plans for SWMMP | CM | KO |
| N | 17.03.2023 | drawings for DA RFI response | CM | KO |
| O | 23.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GENERAL ARRANGEMENT PLAN
LEVEL 1

PROJECT NO: 2010 — at plot 11 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 202 | O |

100mm LINE @ A1 — 10mm — scale : 1 : 100

# DESIGN DEVELOPMENT

**Notes**

MS-EX — roof material - refer to material and finishes schedule

L1 W13 — window number - refer to schedule

new tree, refer to landscape architects drawings

existing tree to be retained & protecte. tpz shown dashed

**INSULATION TO ROOF AND CEILING**
Total R value of roof and ceiling construction to equal meet requirements of NCC BCA 2019 Section J. Refer to the energy efficiency report for details.

Allow for roof safety system accross the whole cultural centre facility. System details tbc.

**ROOFING AND RAINWATER GOODS & ABBREVIATIONS**
Codes to be read in conjunction with *SCH-01-Materials and Finishes Schedule*

**ABBREVIATIONS**

| | |
|---|---|
| AC | - AC condenser unit |
| AWN02 | - Roof awning |
| BG | - Box gutter |
| BG02 | - Box gutter |
| CK-HC | - Hose cock |
| DP | - Downpipe |
| EG01 | - Eaves gutter (library) |
| EG02 | - Eaves gutter (sports hall) |
| FH | - Fire hydrant |
| FL | - Folded metal flashing |
| FN03 | - Acoustic fence |
| FSC01 | - Double layer fascia (upper foyer) |
| FSC02 | - Custom folded metal fascia (library foyer) |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| MS01 | - Metal sheet roofing (type 1) |
| MS02 | - Metal sheet roofing (type 2) |
| MS03 | - Insulated roof sheeting |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RC | - Roof cowl |
| RWH | - Rainwater head |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |
| VP | - Vent pipe |

48
Single storey dwelling

property boundary
undefined
existing timber fence shown dashed
existing water services stop valve
T1
T2
T3
R 9000
R 7300
900 setback
CK-HC
FH
existing stormwater drainage line
existing stormwater pit
new water meter & check valve
relocated water connection
Existing driveway below
bikes below (x4)
line of building under shown dashed
bin store below
solar panels shown indicatively, extent tbc
Foyer below
Low roof (refer Level 1 Plan)
Theatre below
Theatre ridge
Library below
Sports hall below
Note: refer to mechanical engineers drawings for mechanical roof penetrations
shaded extent of eaves is outside town planning control envelope
shaded extent of roof and eave outside town planning control envelope
Existing toilet block location shown is indicative only
mechanical ducting tbc
condensers (library)
RWH with O/F and DP below FSC03
nom 1800
nom 850
nom 3900
nom 27.5°
nom 3°
3700 nom
1175 nom
1126 nom
158 nom
328 nom
448 nom
572 nom
867 nom
300 nom
400 nom
FN03
FSC01
FSC02
FSC03
FSC04
BG
BG02
EG01
EG02
MS01
MS02
MS03
RC
AC
OSD
RWT
VP
DP
DP x2
FL
AWN02
CON01
WPM06
lift overrun
SSL 146820
fall
sump & O/F
RWH
O/F
3° 301
A 400
B 400
C 400
D 401
3 SK023
3 SK021
E1
E2
E3
E5
E6
E7
E8
E9
E10
E11
E12
A
B
EG
EC
ED
EE
EF
EJ
T1
T2
T3

**CONTINUATION OF PLAN ON SD-211**

100mm LINE @ A1 — 10mm — scale : 1 : 100

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.08.2020 | For coordination | KF | KO |
| B | 20.08.2020 | Concept Design Issue | KF | KO |
| C | 08.11.2021 | Preliminary consultant issue | CM | KO |
| D | 03.12.2021 | Issued for client review | SR | CM |
| E | 21.01.2022 | Issue for cost estimate | SR | CM |
| F | 04.02.2022 | Issue for client review | SR | CM |
| G | 08.04.2022 | Development Application | SR | CM |
| H | 27.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
ROOF PLAN
PART A

PROJECT NO: 2010 — at plot 11

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 210 | H |

A1

# DESIGN DEVELOPMENT

**Notes**

MS-EX — roof material - refer to material and finishes schedule

L1 w13 — window number - refer to schedule

new tree, refer to landscape architects drawings

existing tree to be retained & protecte. tpz shown dashed

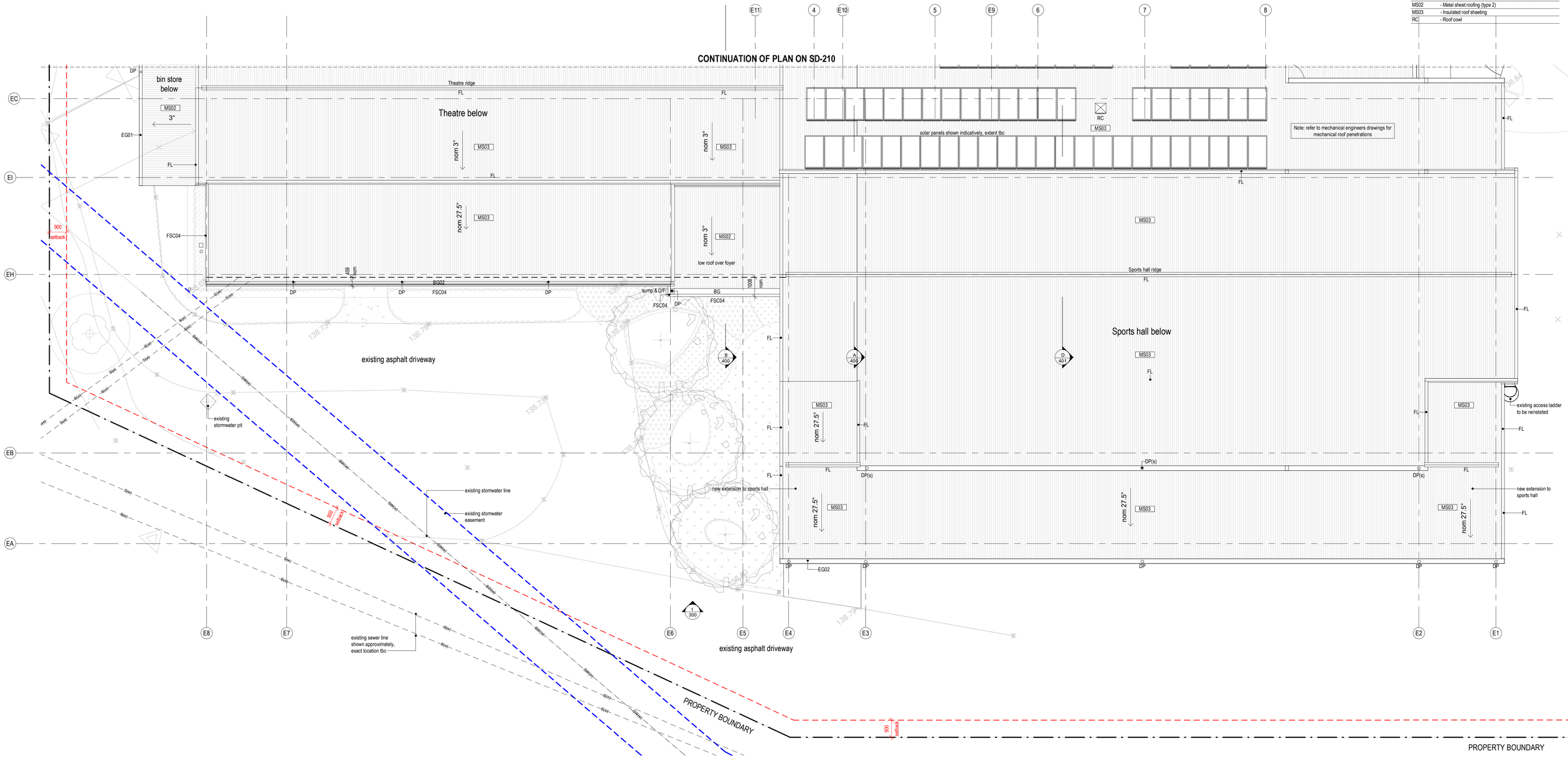
**INSULATION TO ROOF AND CEILING**
Total R value of roof and ceiling construction to equal meet requirements of NCC BCA 2019 Section J. Refer to the energy efficiency report for details.

Allow for roof safety system accross the whole cultural centre facility. System details tbc.

**ROOFING AND RAINWATER GOODS & ABBREVIATIONS**
Codes to be read in conjunction with *SCH-01-Materials and Finishes Schedule*

**ABBREVIATIONS**

| | |
|---|---|
| BG | - Box gutter |
| BG02 | - Box gutter |
| DP | - Downpipe |
| DP(s) | - Downpipe with spreader |
| EG01 | - Eaves gutter (library) |
| EG02 | - Eaves gutter (sports hall) |
| FL | - Folded metal flashing |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| MS02 | - Metal sheet roofing (type 2) |
| MS03 | - Insulated roof sheeting |
| RC | - Roof cowl |




| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 13.08.2020 | For coordination | KF | KO |
| B | 20.08.2020 | Concept Design Issue | KF | KO |
| C | 08.11.2021 | Preliminary consultant issue | CM | KO |
| D | 03.12.2021 | Issued for client review | SR | CM |
| E | 21.01.2022 | Issue for cost estimate | SR | CM |
| F | 04.02.2022 | Issue for client review | SR | CM |
| G | 08.04.2022 | Development Application | SR | CM |
| H | 27.03.2023 | Drawings for DA RFI response | CM | KO |

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

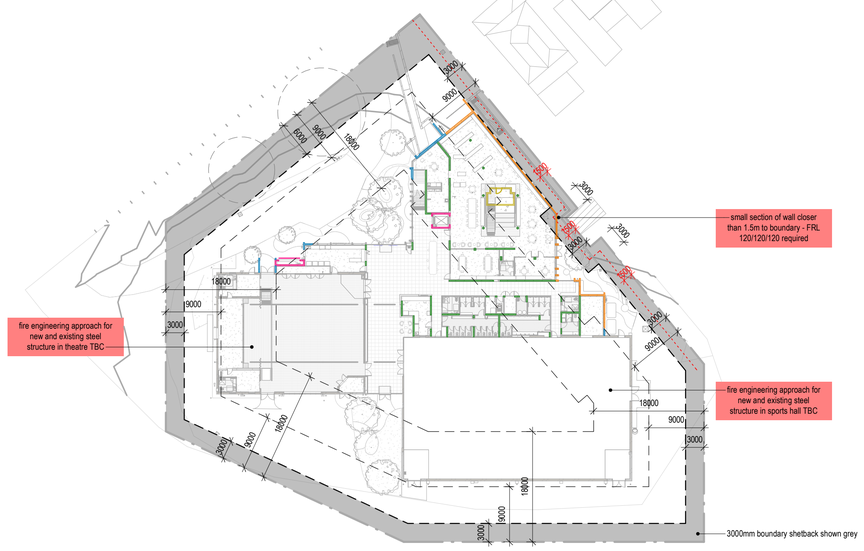
CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
ROOF PLAN
PART B

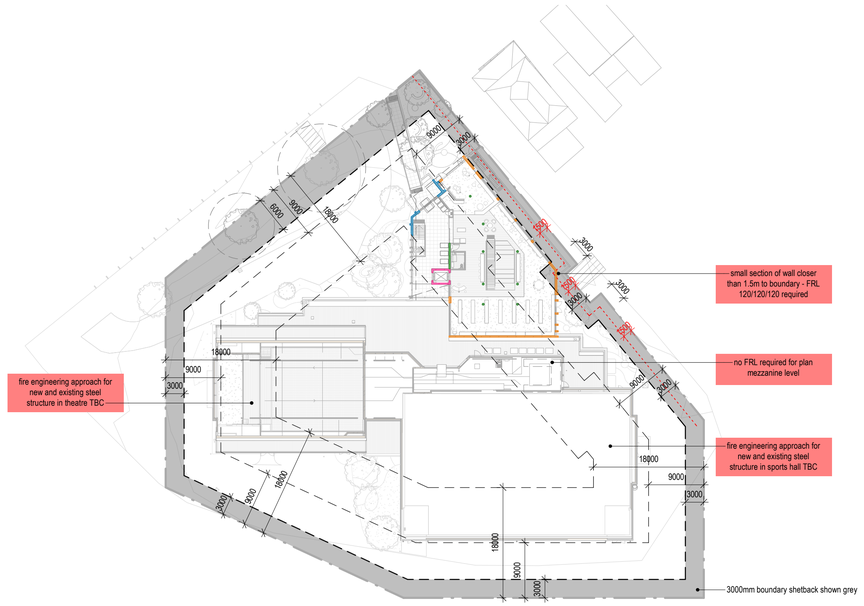
100mm LINE @ A1 — 10mm — scale: 1 : 100

PROJECT NO. 2010 at plot 1:1 — A1

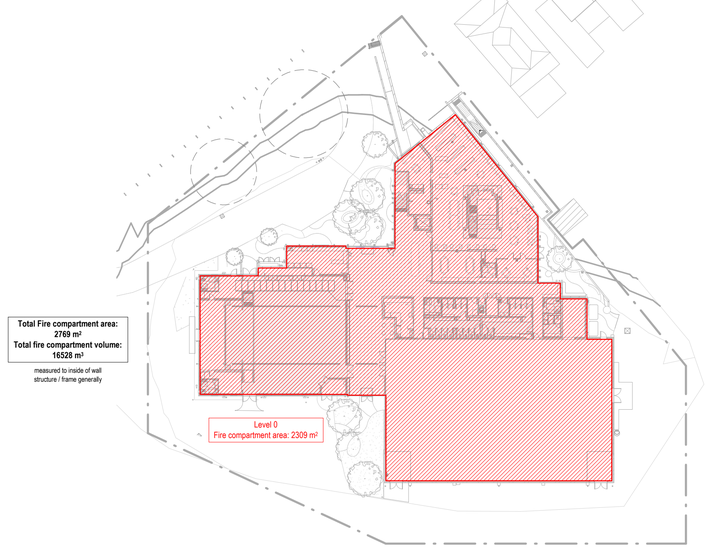
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 211 | H |



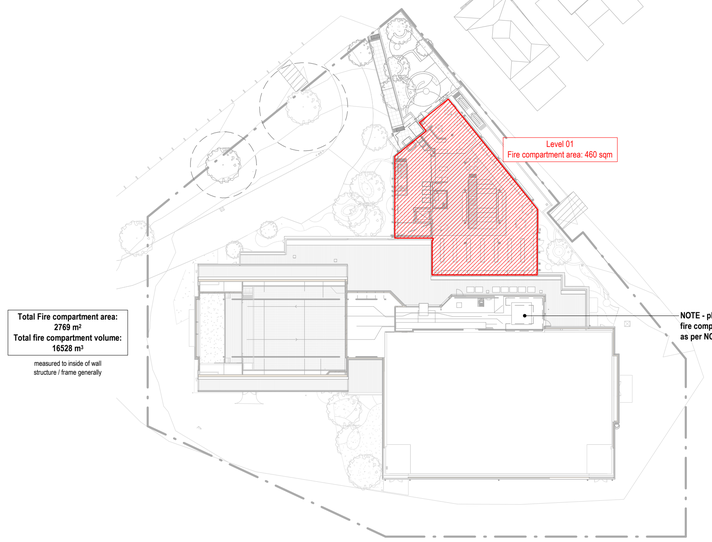

2 Diagram - Fire - Level 0 - FRL requirements
SCALE @ A1 1 : 500



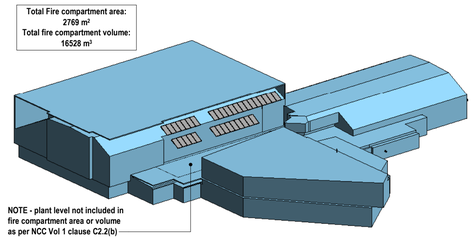

3 Diagram - Fire - Level 1 - FRL requirements
SCALE @ A1 1 : 500




5 Diagram - Fire - Level 0 - Compartments
SCALE @ A1 1 : 500




6 Diagram - Fire - Level 1 - Compartments
SCALE @ A1 1 : 500




4 Fire compartment volume
SCALE @ A1

NTS

## DESIGN DEVELOPMENT

**diagram legend | FIRE**

| | |
|---|---|
| 120/30/30 | Type B Construction (external loadbearing wall or column, 3-9m from site boundary) |
| 120 / 30 / - | Type B Construction (external loadbearing wall or column, 9-18m from site boundary) |
| 120/120/120 | internal loadbearing lift shafts switchboard sustaining emergency equipment |
| - / 120 / 30 | self-closing fire rated roller shutter |
| 120 / - / - | Type B Construction (internal loadbearing walls bounding public corridors / lobbies) |
| 60 / 60 / 60 | enclosure of space under stairs |
| - / 60 / 30 | self-closing fire doors |

**NOTES**

- building classification: 9b
- construction type: Type B
- refer to NCC report prepared by Mackie Construction Consultants and Fire Engineering Brief prepared by Walkerbai Fire Engineers for further details

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 09.11.2021 | Diagrams for review | CM | KO |
| B | 17.01.2022 | Issue for review | SR | CM |
| C | 21.01.2022 | Issue for cost estimate | SR | CM |
| D | 04.02.2022 | Issue for client review | SR | CM |
| E | 08.04.2022 | Development Application | SR | CM |

100mm LINE @ A1 — 10mm — scale : 1 : 500

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
FIRE DIAGRAMS

PROJECT NO: 2010 — at psz 1:1 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 250 | E |

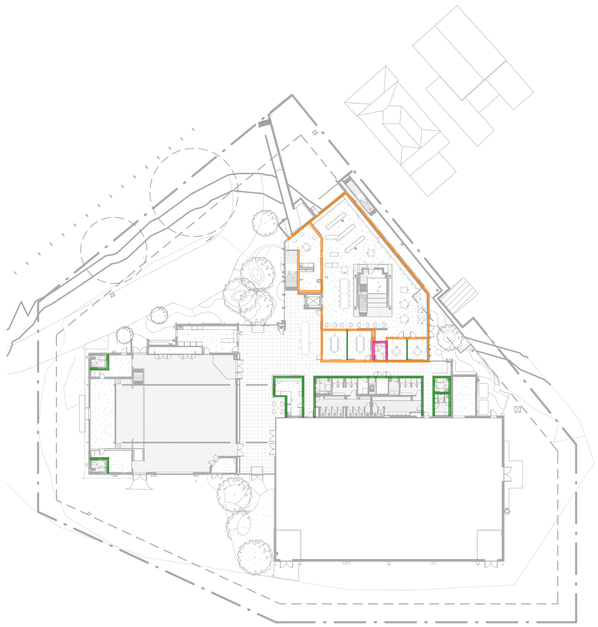
# DESIGN DEVELOPMENT

diagram legend | ACOUSTIC

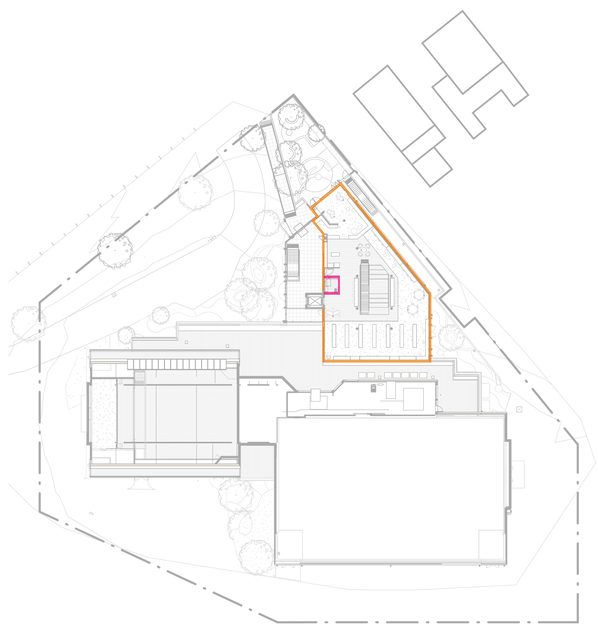
the following Rw ratings are proposed for the new facilities:

- min Rw 50 targeted
- min Rw+Ctr 50 targeted
- min Rw 45 targeted

note, any glazed openings will achieve lower Rw ratings than those noted above, refer to 700 series glazing schedules for glazing details.



1 Diagram - Acoustic - Level 0
SCALE @ A1 1 : 500



2 Diagram - Acoustic - Level 1
SCALE @ A1 1 : 500

KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 09.11.2021 | Diagrams for review | CM | KO |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 21.01.2022 | Issue for cost estimate | SR | CM |
| D | 04.02.2022 | Issue for client review | SR | CM |
| E | 08.04.2022 | Development Application | SR | CM |

100mm LINE @ A1 — 10mm — scale : 1 : 500

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

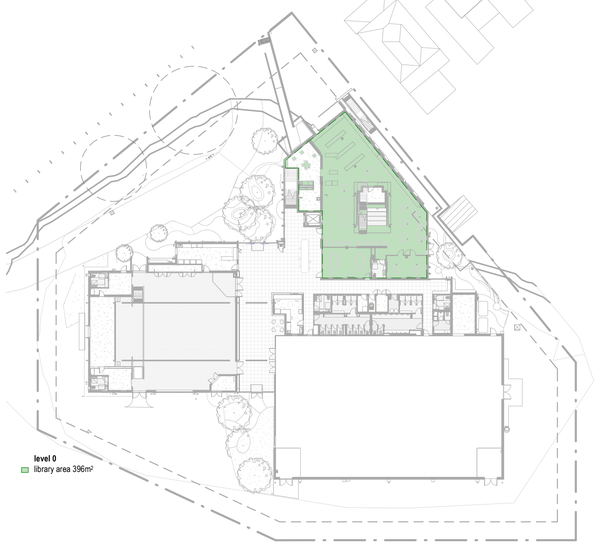
CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

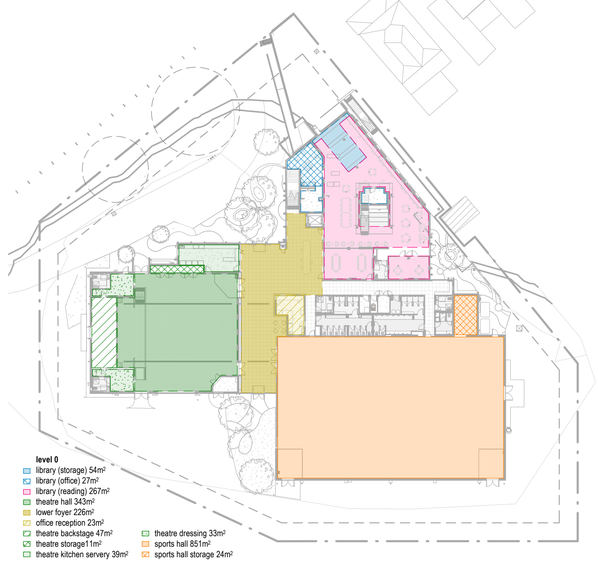
DRAWING NAME
ACOUSTIC DIAGRAMS

PROJECT NO: 2010 at ant t t **A1**

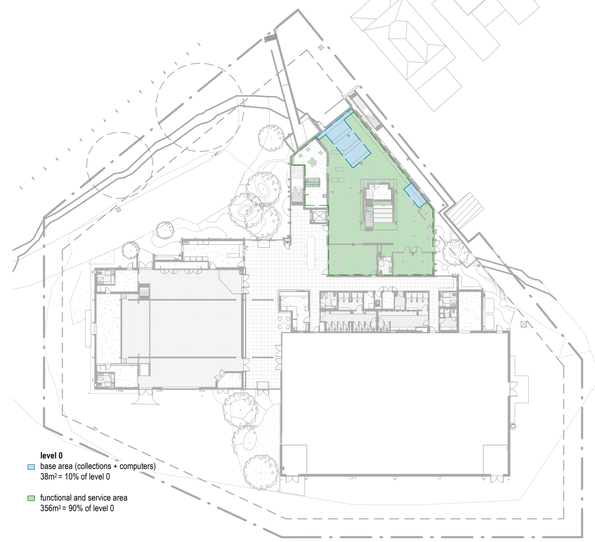
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 251 | E |



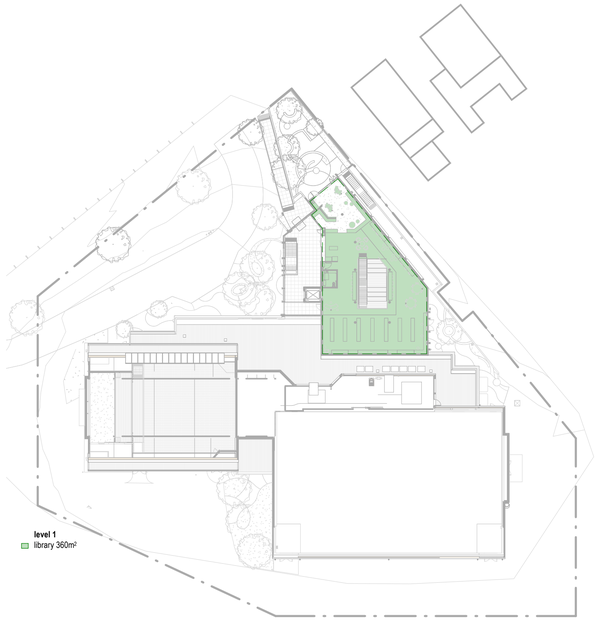

1 Diagram - Library Area - Level 0
SCALE @ A1 1 : 500



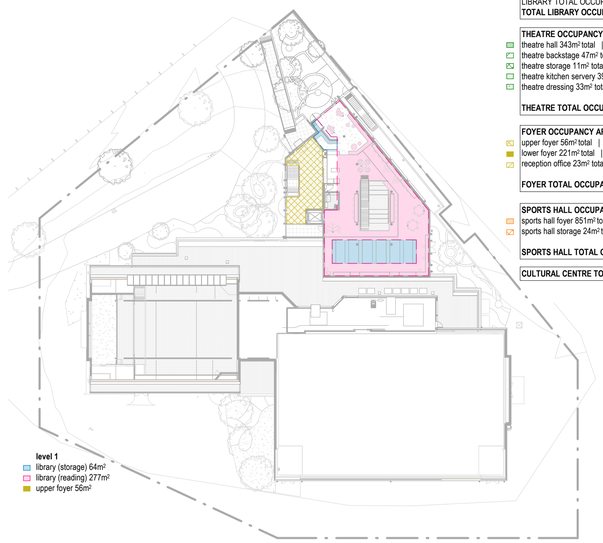

3 Diagram - Library Area & Occupancy - Level 0
SCALE @ A1 1 : 500




5 Diagram - Internal Areas - Level 0
SCALE @ A1 1 : 500




2 Diagram - Library Area - Level 1
SCALE @ A1 1 : 500




**LIBRARY OCCUPANCY AREAS**
library (storage) 118m² total | 30m² per person = 4 people
library (office) 27m² total | 10m² per person = 3 people
library (reading) 544m² total | 2m² per person = 272 people

LIBRARY TOTAL OCCUPANCY (based on NCC area calculations) | 279
**TOTAL LIBRARY OCCUPANCY (client estimations) | 100 (initially) - 200 (with future growth)**

**THEATRE OCCUPANCY AREAS**
theatre hall 343m² total | 1m² per person = 343 people
theatre backstage 47m² total | 4m² per person = 12 people
theatre storage 11m² total | 30m² per person = 1 person
theatre kitchen servery 39m² total | 10m² per person = 4 people
theatre dressing 33m² total | 4m² per person = 9 people

**THEATRE TOTAL OCCUPANCY (based on NCC area calculations) | 369**

**FOYER OCCUPANCY AREAS**
upper foyer 56m² total | 1m² per person = 56 people
lower foyer 221m² total | 1m² per person = 226 people
reception office 23m² total | 10m² per person = 3 people

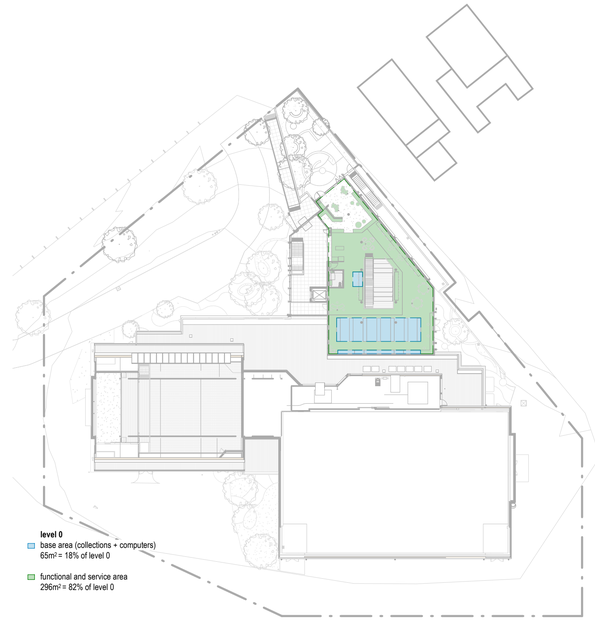
**FOYER TOTAL OCCUPANCY (based on NCC area calculations) | 285**

**SPORTS HALL OCCUPANCY AREAS**
sports hall foyer 851m² total | 3m² per person = 284 people
sports hall storage 24m² total | 30m² per person = 1 people

**SPORTS HALL TOTAL OCCUPANCY (based on NCC area calculations) | 285**

**CULTURAL CENTRE TOTAL OCCUPANCY (based on NCC area calculations) | 1218**

4 Diagram - Library Area & Occupancy - Level 1
SCALE @ A1 1 : 500




**LIBRARY FUNCTIONAL AREAS**
total base area (collections + computers)
103m² = 14% of library

total functional and service area
652m² = 86% of library

6 Diagram - Internal Areas - Level 1
SCALE @ A1 1 : 500

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 25.11.2021 | Library Area Diagrams | CM | KO |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 17.01.2022 | Issue for review | SR | CM |
| D | 21.01.2022 | Issue for cost estimate | SR | CM |
| E | 04.02.2022 | Issue for client review | SR | CM |
| F | 08.04.2022 | Development Application | SR | CM |

100mm LINE @ A1 — 10mm — scale : 1 : 500

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
AREA DIAGRAMS

PROJECT NO: 2010 — at psz 11 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 252 | F |

# DESIGN DEVELOPMENT

**LEGEND**

| | |
|---|---|
| 2700 / CL0x / CT0x | finished ceiling height (above FFL) ceiling finish, ceiling type |
| raking | direction of ceiling rake |
| U/S | Underside |

**MECHANICAL LEGEND - refer to engineers drawings.**

| | |
|---|---|
| SA | Supply air casette unit |
| EXH | Exhaust grille |
| SA | Supply air grille |
| TA | Transfer air grille |
| RA | Return air grille |
| A / P | Access panel |
| SA | Supply air wall grille |
| RA | Return air wall grille |

**ELECTRICAL LEGEND**
Generic light types shown only - refer to electrical drawings for details.

| | |
|---|---|
| LM | lighting motion sensor |
| TL | recessed track lighting |
| LE | linear extrusion - suspended (internal / external version where required) |
| LER | linear extrusion - recessed |
| LF1 | downlight |
| LF2 | can light |
| LF3 | surface linear extrusion |
| SL | recessed led strip light |
| WL | wall light |
| EX | emergency exit sign |

**GENERAL LEGEND** refer to SCH01 for details

| | |
|---|---|
| COM | comms cupboard |
| DB | distribution board |
| DP | downpipe |
| AWN01 | awning type 01 |
| AWN02 | awning type 02 |
| FSC01 | fascia type 01 |
| FSC02 | fascia type 02 |
| FSC03 | fascia type 03 |

**NOTES**

- new switches located at 1000AFFL
- setout of all drawings to be coordinated with services drawings
- all light fittings, switches or electrical outlets located on exposed masonry walls / soffits (blockwork or concrete) are to have all conduits cast in
- **no services / fixtures other than suspended linear extrusion lights to be installed on CL03**
- refer to electrical engineer docs for switching details - lighting layout only shown on architectural drawings
- refer to electrical engineer docs for all sensors, detectors etc.
- refer to mechanical engineer docs for details on all mechanical systems, outlets and exhaust fans
- contractor to ensure smoke detectors are installed as Australian Standards and NSW government legislation requirements

**INSULATION**
Combined roof and ceiling construction must equal or exceed total R value requirements in accordance with NCC BCA 2019 Section J & the JV3 Report by **Built Environment Collective**.

**NOTE**
refer to electrical engineer drawings for all external lighting

PROPERTY BOUNDARY

PROPERTY BOUNDARY

Staff Work Rm
Study/Reading
stair opening (open above)
kitchenette
Store 01
Store 02
Lift
Foyer
open above
Servery
MSB cupboard
storage
PWD 05
Unisex Dressing
Backstage/ store
underside of MS03
existing exposed beams
raking down
Meeting Rm
Meeting Rm TV
unisex PWD 02
Amenities Corridor
Unisex PWD 03
Female SHR
Comms
Store 03
Cleaner
Male SHR
Unisex PWD 04
Sports storage
Female
Male
Umpire
bulkhead
refer to level 1 plan for ceiling height

**CONTINUATION OF PLAN ON SD-261**

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 06.11.2021 | Preliminary consultant issue | CM | KO |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 16.12.2021 | Issued for cost Quantity surveyor (not Issued) | SR | CM |
| D | 13.12.2021 | Reflected ceiling plans for coordination | SR | CM |
| E | 07.01.2022 | Issue for services coordination | SR | CM |
| F | 21.01.2022 | Issue for cost estimate | SR | CM |
| G | 04.02.2022 | Issue for client review | SR | CM |
| H | 08.04.2022 | Development Application | SR | CM |

100mm LINE @ A1 — 10mm — scale : 1 : 100

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

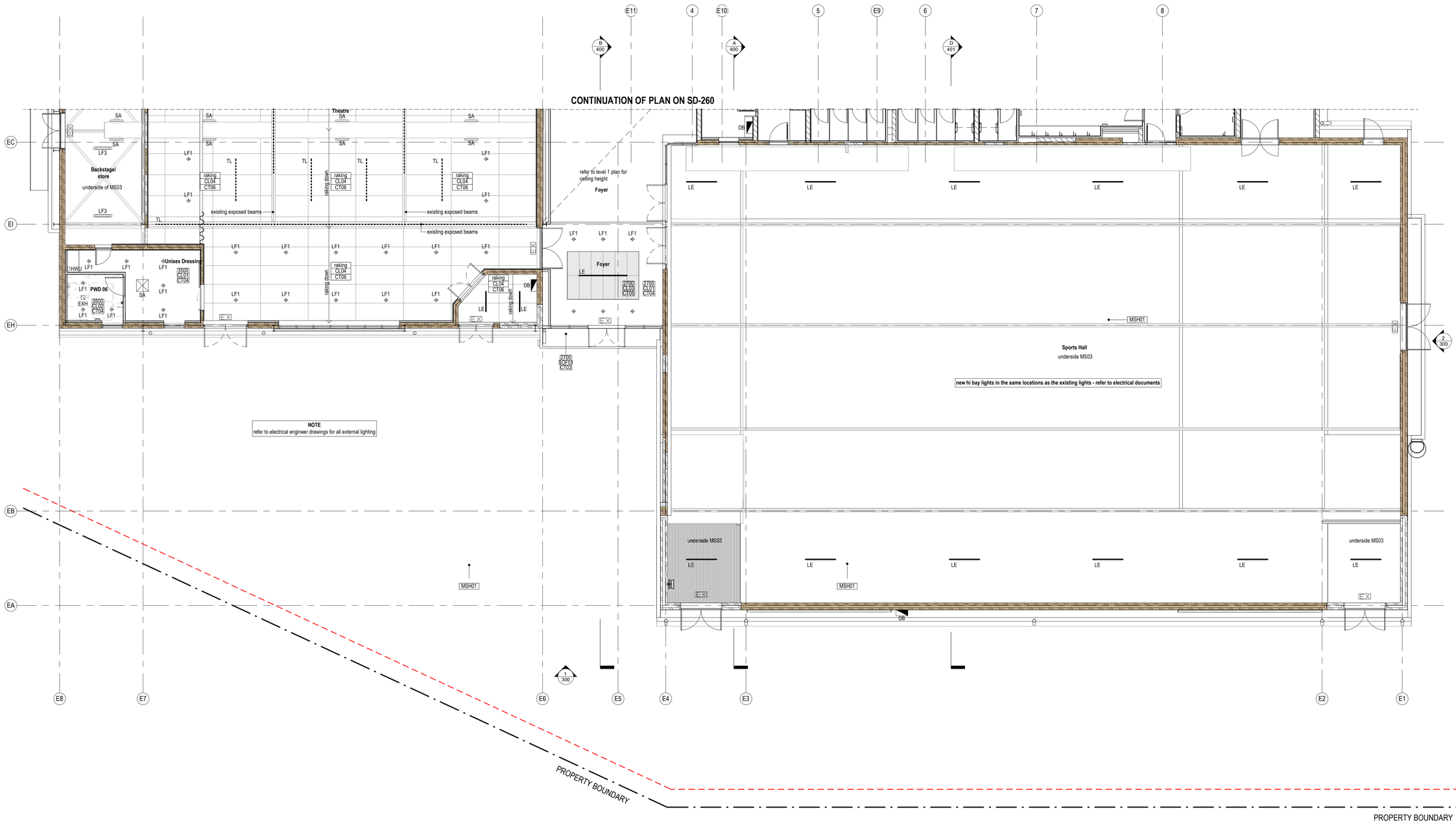
CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
REFLECTED CEILING PLAN
LEVEL 0 - PART A

PROJECT NO: 2010 — at size 1:1 — **A1**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 260 | H |

# DESIGN DEVELOPMENT




**LEGEND**

| | |
|---|---|
| 2700 / CL0x / CT0x | finished ceiling height (above FFL) / ceiling finish, ceiling type |
| raking | direction of ceiling rake |
| U/S | Underside |

**MECHANICAL LEGEND - refer to engineers drawings.**

| | |
|---|---|
| SA | Supply air casette unit |
| EXH | Exhaust grille |
| SA | Supply air grille |
| TA | Transfer air grille |
| RA | Return air grille |
| A / P | Access panel |
| SA | Supply air wall grille |
| RA | Return air wall grille |

**ELECTRICAL LEGEND**
Generic light types shown only - refer to electrical drawings for details.

| | |
|---|---|
| LM | lighting motion sensor |
| TL | recessed track lighting |
| LE | linear extrusion - suspended (internal / external version where required) |
| LER | linear extrusion - recessed |
| LF1 | downlight |
| LF2 | can light |
| LF3 | surface linear extrusion |
| SL | recessed led strip light |
| WL | wall light |
| EX | emergency exit sign |

**GENERAL LEGEND** refer to SCH01 for details

| | |
|---|---|
| COM | comms cupboard |
| DB | distribution board |
| DP | downpipe |
| AWN01 | awning type 01 |
| AWN02 | awning type 02 |
| FSC01 | fascia type 01 |
| FSC02 | fascia type 02 |
| FSC03 | fascia type 03 |

**NOTES**

- new switches located at 1000AFFL
- setout of all drawings to be coordinated with services drawings
- all light fittings, switches or electrical outlets located on exposed masonry walls / soffits (blockwork or concrete) are to have all conduits cast in
- **no services / fixtures other than suspended linear extrusion lights to be installed on CL03**
- refer to electrical engineer docs for switching details - lighting layout only shown on architectural drawings
- refer to electrical engineer docs for all sensors, detectors etc.
- refer to mechanical engineer docs for details on all mechanical systems, outlets and exhaust fans
- contractor to ensure smoke detectors are installed as Australian Standards and NSW government legislation requirements

**INSULATION**
Combined roof and ceiling construction must equal or exceed total *R* value requirements in accordance with NCC BCA 2019 Section J & the JV3 Report by **Built Environment Collective**.


KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au



Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.


| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 08.11.2021 | Preliminary consultant issue | CM | KO |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| D | 13.12.2021 | Reflected ceiling plans for coordination | SR | CM |
| E | 07.01.2022 | Issue for services coordination | SR | CM |
| F | 21.01.2022 | Issue for cost estimate | SR | CM |
| G | 04.02.2022 | Issue for client review | SR | CM |
| H | 08.04.2022 | Development Application | SR | CM |

100mm LINE @ A1 — 10mm — scale : 1 : 100

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
REFLECTED CEILING PLAN
LEVEL 0 - PART B

PROJECT NO: 2010 — at plot t t — **A1**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 261 | H |

# DESIGN DEVELOPMENT

**LEGEND**

| | |
|---|---|
| 2700 CL0x CT0x | finished ceiling height (above FFL) ceiling finish, ceiling type |
| raking | direction of ceiling rake |
| U/S | Underside |

**MECHANICAL LEGEND - refer to engineers drawings.**

| | |
|---|---|
| SA | Supply air casette unit |
| EXH | Exhaust grille |
| SA | Supply air grille |
| TA | Transfer air grille |
| RA | Return air grille |
| A P | Access panel |
| SA | Supply air wall grille |
| RA | Return air wall grille |

**ELECTRICAL LEGEND**
Generic light types shown only - refer to electrical drawings for details.

| | |
|---|---|
| LM | lighting motion sensor |
| TL | recessed track lighting |
| LE | linear extrusion - suspended (internal / external version where required) |
| LER | linear extrusion - recessed |
| LF1 | downlight |
| LF2 | can light |
| LF3 | surface linear extrusion |
| SL | recessed led strip light |
| WL | wall light |
| EX | emergency exit sign |

**GENERAL LEGEND** refer to SCH01 for details

| | |
|---|---|
| COM | comms cupboard |
| DB | distribution board |
| DP | downpipe |
| AWN01 | awning type 01 |
| AWN02 | awning type 02 |
| FSC01 | fascia type 01 |
| FSC02 | fascia type 02 |
| FSC03 | fascia type 03 |

**NOTES**

- new switches located at 1000AFFL
- setout of all drawings to be coordinated with services drawings
- all light fittings, switches or electrical outlets located on exposed masonry walls / soffits (blockwork or concrete) are to have all conduits cast in
- **no services / fixtures other than suspended linear extrusion lights to be installed on CL03**
- refer to electrical engineer docs for switching details - lighting layout only shown on architectural drawings
- refer to electrical engineer docs for all sensors, detectors etc.
- refer to mechanical engineer docs for details on all mechanical systems, outlets and exhaust fans
- contractor to ensure smoke detectors are installed as Australian Standards and NSW government legislation requirements

**INSULATION**
Combined roof and ceiling construction must equal or exceed total R value requirements in accordance with NCC BCA 2019 Section J & the JV3 Report by **Built Environment Collective**.

**NOTE**
refer to electrical engineer drawings for all external lighting

PROPERTY BOUNDARY

Children's Area
Library Entry
Upper Foyer
unisex PWD 01
Lift
Foyer
Collection
Theatre
refer to drawing 260 and 261 for theatre RCP details generally
Foyer
Plant room
underside MS03
Sports hall
refer to drawing 260 and 261 for theatre RCP details generally
ceiling void u/s of MS03
ceiling void u/s of existing roof over
mechanical duct
curtain, refer SCH01 for details
raking soffit
soffit raking down
ceiling raking down
raking down

100mm LINE @ A1 — 10mm — scale: 1 : 100

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 08.11.2021 | Preliminary consultant issue | CM | KO |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| D | 13.12.2021 | Reflected ceiling plans for coordination | SR | CM |
| E | 07.01.2022 | Issue for services coordination | SR | CM |
| F | 21.01.2022 | Issue for cost estimate | SR | CM |
| G | 04.02.2022 | Issue for client review | SR | CM |
| H | 08.04.2022 | Development Application | SR | CM |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
REFLECTED CEILING PLAN
LEVEL 1

PROJECT NO: 2010 — at psz t:1 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 262 | H |

# DESIGN DEVELOPMENT

**LEGEND**

L1 / w13 — window number - refer to window schedule

L1 / d07 — door number - refer to door schedule

GSXX — glazing suit type, refer to 710 series drawings

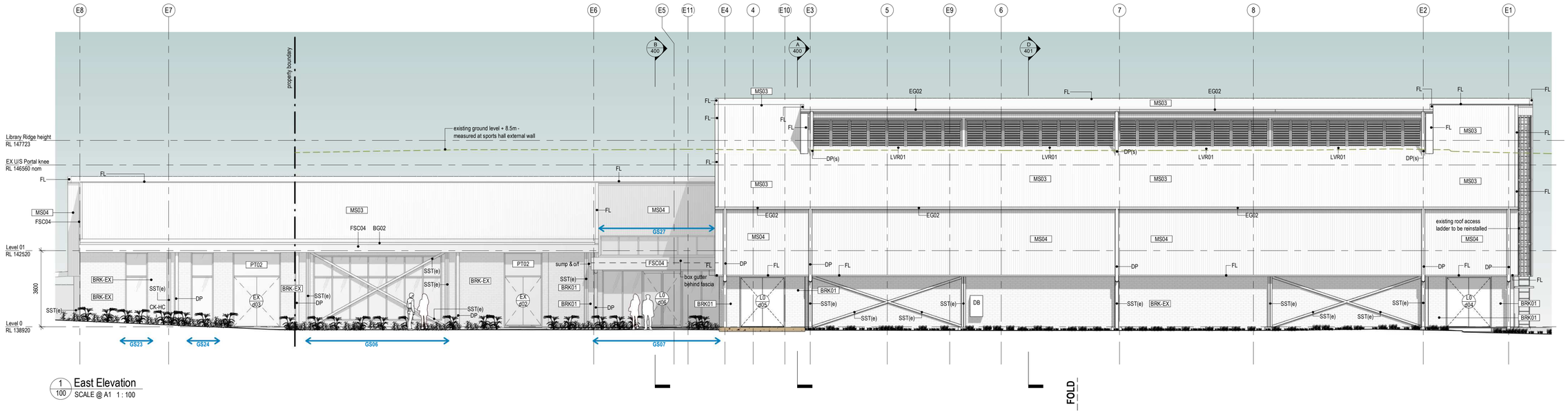
ag — Agricultural drain, refer to hydraulic engineer's drawings

**Notes**

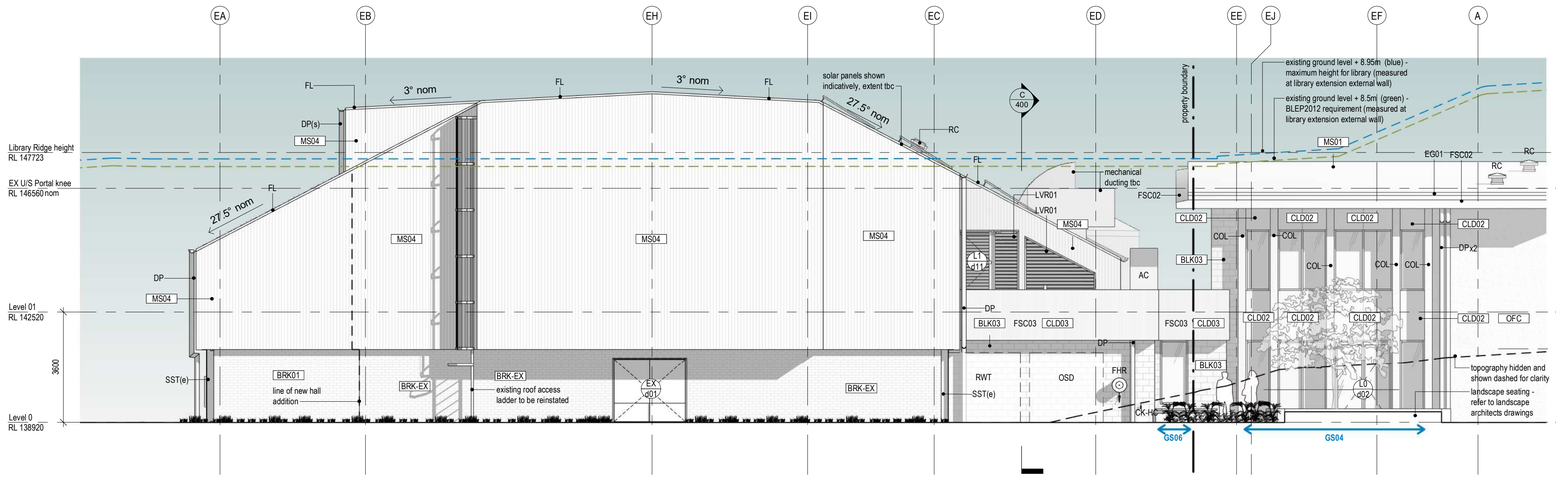
1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

ABBREVIATIONS & EXTERNAL MATERIALS LEGEND
Codes to be read in conjunction with
***SCH01-Materials and finishes schedule***

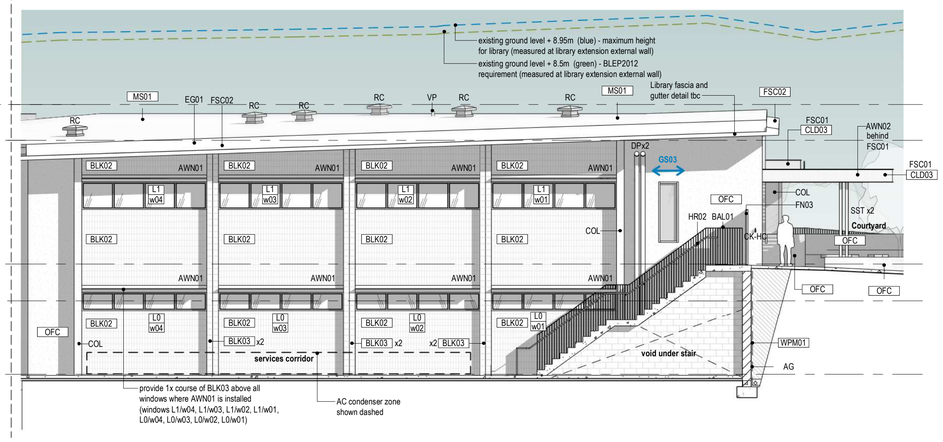
| | |
|---|---|
| AC | - AC condenser unit |
| AG | - Ag line drainage |
| AWN01 | - Window awning |
| AWN02 | - Roof awning |
| BAL01 | - Steel flat bar balustrade |
| BG02 | - Box gutter |
| BLK02 | - Blockwork feature (ribbed) |
| BLK03 | - Blockwork feature (smooth) |
| BRK01 | - Brick type 01 |
| BRK-EX | - Existing brick |
| CK-HC | - Hose cock |
| CLD02 | - Prefinished CFC cladding (dark) |
| CLD03 | - Prefinished CFC cladding (white) |
| COL | - Structural column |
| DB | - Distribution board |
| DP | - Downpipe |
| DP(s) | - Downpipe with spreader |
| EG01 | - Eaves gutter (library) |
| EG02 | - Eaves gutter (sports hall) |
| FHR | - Fire hose reel |
| FL | - Folded metal flashing |
| FN03 | - Acoustic fence |
| FSC01 | - Double layer fascia (upper foyer) |
| FSC02 | - Custom folded metal fascia (library foyer) |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| HR02 | - Stair handrail |
| LVR01 | - Louvres - fixed 2 stage aluminium, vermin proofed |
| MS01 | - Metal sheet roofing (type 1) |
| MS03 | - Insulated roof sheeting |
| MS04 | - Insulated wall sheeting |
| OFC | - Off-form concrete - min. class 2 finish |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| PT02 | - Paint colour |
| RC | - Roof cowl |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| VP | - Vent pipe |
| WPM01 | - Waterproof membrane, refer SCH01 |




1/100 East Elevation
SCALE @ A1 1 : 100




2/100 North Elevation
SCALE @ A1 1 : 100




FOLD

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.09.2020 | For coordination | KF | KO |
| B | 20.09.2020 | Concept Design Issue | KF | KO |
| C | 08.11.2021 | Preliminary consultant issue | CM | KO |
| D | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| E | 03.12.2021 | Issued for client review | SR | CM |
| F | 21.01.2022 | Issue for cost estimate | SR | CM |
| G | 04.02.2022 | Issue for client review | SR | CM |
| H | 08.04.2022 | Development Application | SR | CM |
| I | 28.02.2023 | DA RFI drawings for review | CM | KO |
| J | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
ELEVATIONS
SHEET 1

100mm LINE @ A1 — 10mm — scale: 1 : 100

PROJECT NO: 2010 — at size 1:1 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 300 | J |

# DESIGN DEVELOPMENT

**LEGEND**

L1 / w13 — window number - refer to window schedule

L1 / d01 — door number - refer to door schedule

GSXX — glazing suit type, refer to 710 series drawings

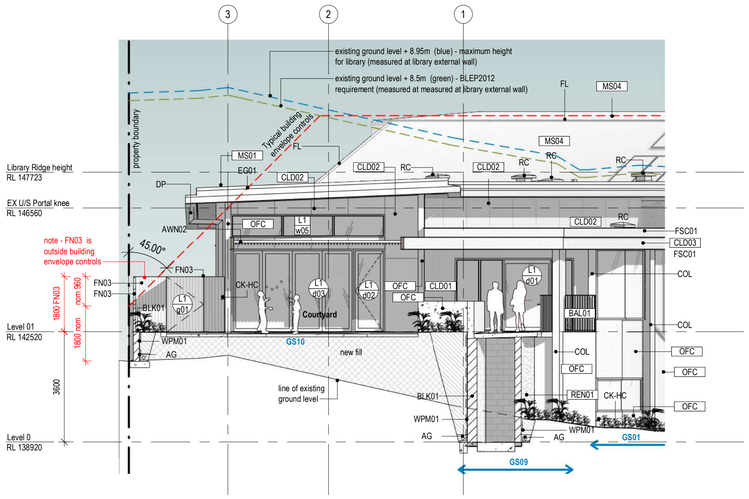
ag — Agricultural drain, refer to hydraulic engineer's drawings

**Notes**

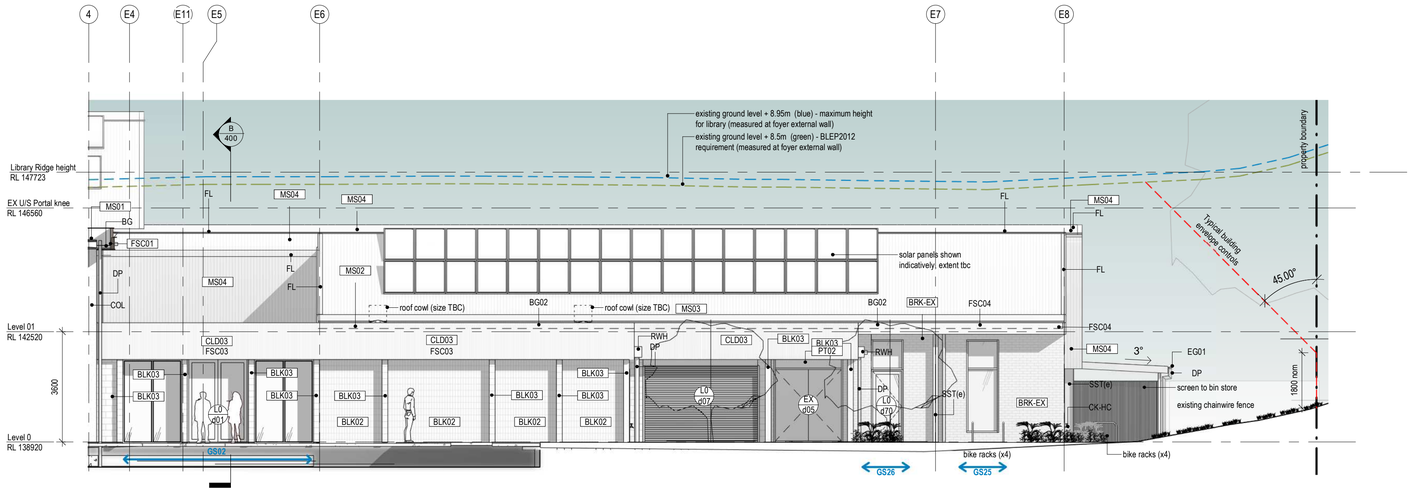
1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

ABBREVIATIONS & EXTERNAL MATERIALS LEGEND
Codes to be read in conjunction with
***SCH01-Materials and finishes schedule***

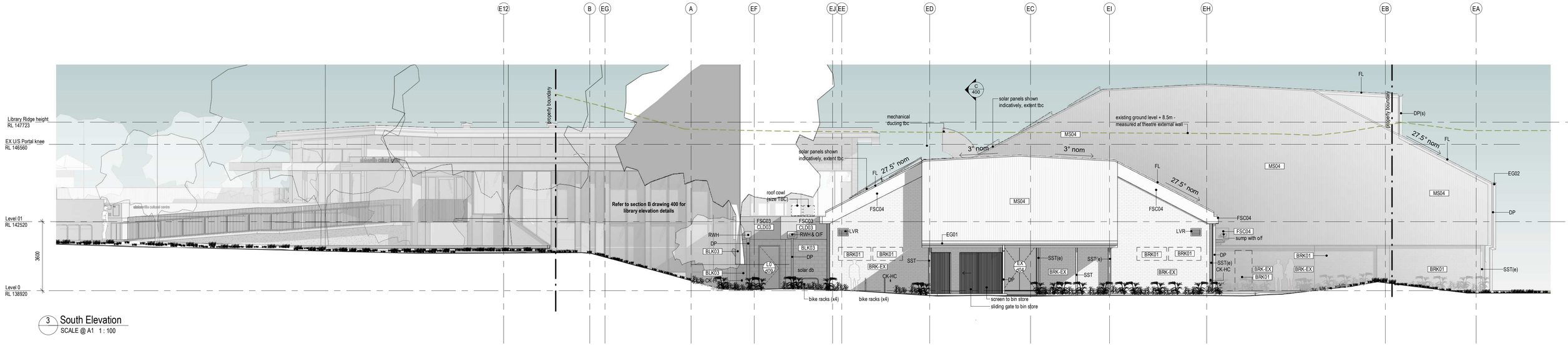
| | |
|---|---|
| AG | - Ag line drainage |
| AWN02 | - Roof awning |
| BAL01 | - Steel flat bar balustrade |
| BG | - Box gutter |
| BG02 | - Box gutter |
| BLK01 | - Blockwork standard |
| BLK02 | - Blockwork feature (ribbed) |
| BLK03 | - Blockwork feature (smooth) |
| BRK01 | - Brick type 01 |
| BRK-EX | - Existing brick |
| CK-HC | - Hose cock |
| CLD01 | - Prefinished CFC cladding (green) |
| CLD02 | - Prefinished CFC cladding (dark) |
| CLD03 | - Prefinished CFC cladding (white) |
| COL | - Structural column |
| DP | - Downpipe |
| DP(s) | - Downpipe with spreader |
| EG01 | - Eaves gutter (library) |
| EG02 | - Eaves gutter (sports hall) |
| FL | - Folded metal flashing |
| FN03 | - Acoustic fence |
| FSC01 | - Double layer fascia (upper foyer) |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| LVR | - Mechanical Louvre |
| MS01 | - Metal sheet roofing (type 1) |
| MS02 | - Metal sheet roofing (type 2) |
| MS03 | - Insulated roof sheeting |
| MS04 | - Insulated wall sheeting |
| OFC | - Off-form concrete - min. class 2 finish |
| PT02 | - Paint colour |
| RC | - Roof cowl |
| REN01 | - Textured paint finish |
| RWH | - Rainwater head |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| WPM01 | - Waterproof membrane, refer SCH01 |




1 West Elevation - part 01
SCALE @ A1 1 : 100




2 West Elevation - part 2
SCALE @ A3 1 : 100




3 South Elevation
SCALE @ A1 1 : 100


KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au



Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.


| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.08.2020 | For coordination | KF | KO |
| B | 30.08.2020 | Concept Design Issue | KF | KO |
| C | 27.08.2020 | Concept Design Issue | KF | KO |
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 23.12.2021 | Issue For client review | SR | CM |
| G | 21.01.2022 | Issue for cost estimate | SR | CM |
| H | 04.02.2022 | Issue for client review | SR | CM |
| I | 08.04.2022 | Development Application | SR | CM |
| J | 28.03.2023 | DA RFI drawings for review | CM | KO |
| K | 17.03.2023 | Drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
ELEVATIONS
SHEET 2

100mm LINE @ A1 — 10mm — scale : 1 : 100

PROJECT NO: 2010 — at size 1:1 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 301 | K |

# DESIGN DEVELOPMENT

**LEGEND**

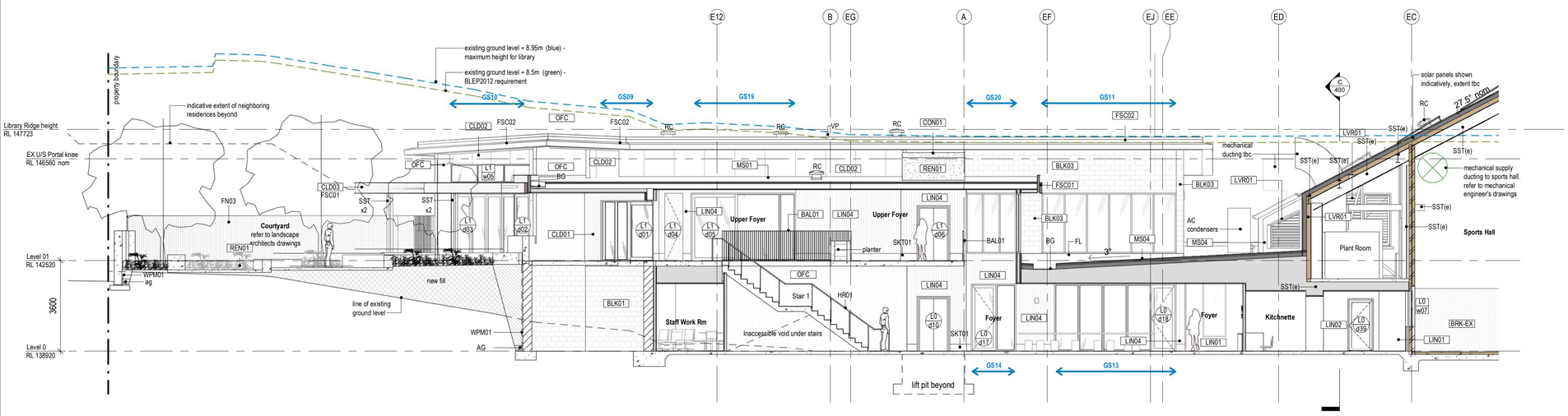
- L1 / w13 — window number - refer to window schedule
- L1 / d01 — door number - refer to door schedule
- GSXX — glazing suit type, refer to 710 series drawings
- ag — Agricultural drain, refer to hydraulic engineer's drawings

**Notes**

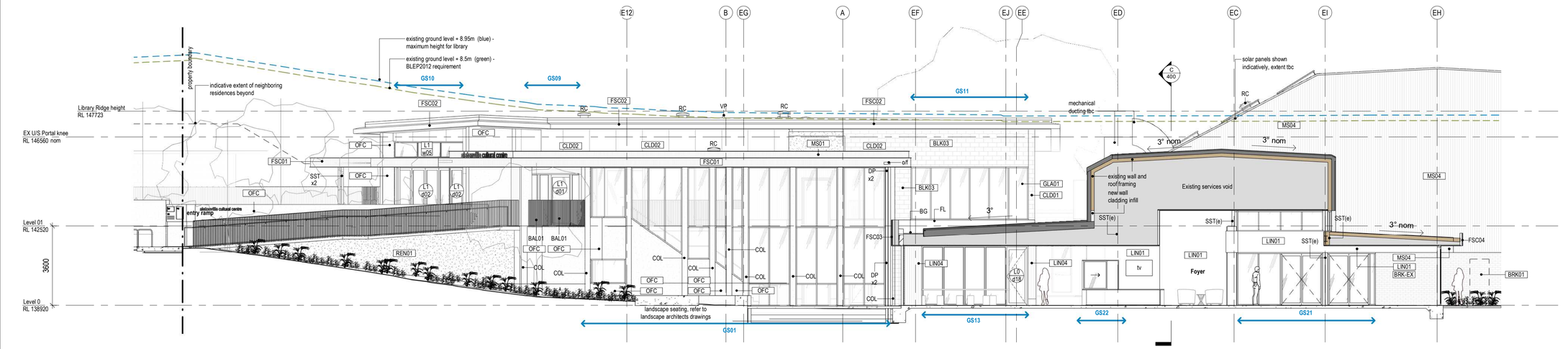
1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

ABBREVIATIONS & INTERNAL MATERIALS LEGEND
Codes to be read in conjunction with
***SCH01-Materials and finishes schedule***

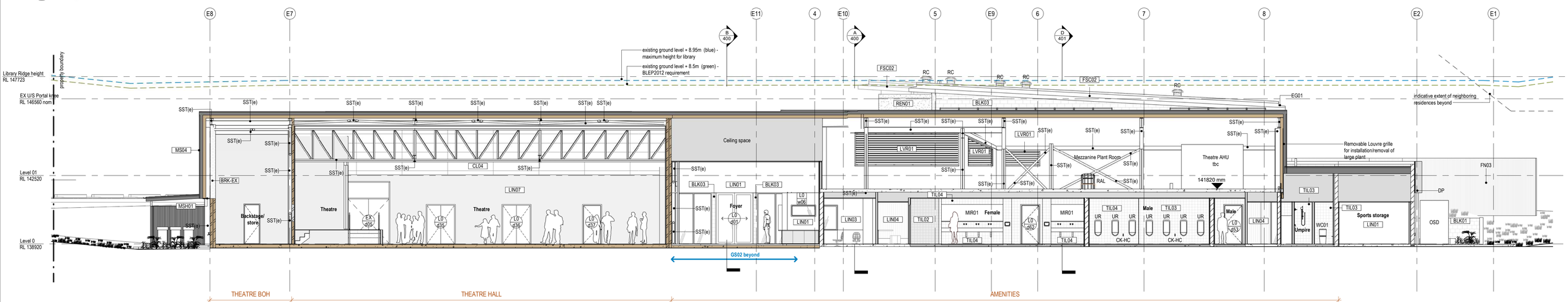
| | |
|---|---|
| AG | - Ag line drainage |
| BAL01 | - Steel flat bar balustrade |
| BG | - Box gutter |
| BLK01 | - Blockwork standard |
| BLK03 | - Blockwork feature (smooth) |
| BRK01 | - Brick type 01 |
| BRK-EX | - Existing brick |
| CK-HC | - Hose cock |
| CL04 | - Ceiling linings - timber |
| CLD01 | - Prefinished CFC cladding (green) |
| CLD02 | - Prefinished CFC cladding (dark) |
| CLD03 | - Prefinished CFC cladding (white) |
| COL | - Structural column |
| CON01 | - Hand or machine trowelled concrete |
| DP | - Downpipe |
| EG01 | - Eaves gutter (library) |
| FN03 | - Acoustic fence |
| FSC01 | - Double layer fascia (upper foyer) |
| FSC02 | - Custom folded metal fascia (library foyer) |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| GLA01 | - Glazing (type 1) |
| HR01 | - Stair / ramp handrail |
| LIN01 | - Wall linings (Gyprock Impact PB) |
| LIN02 | - Wall linings (Gyprock Standard PB) |
| LIN03 | - Wall linings (Gyprock Aquachek PB) |
| LIN04 | - Wall linings (Supawood Veneer) |
| LIN07 | - Wall linings (Supawood acoustic lining) |
| LVR01 | - Louvres - fixed 2 stage aluminium, vermin proofed |
| MIR01 | - Mirror |
| MS01 | - Metal sheet roofing (type 1) |
| MS04 | - Insulated wall sheeting |
| MSH01 | - Expanded mesh soffit |
| OFC | - Off-form concrete - min. class 2 finish |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RAL | - Roof access ladder |
| RC | - Roof cowl |
| REN01 | - Textured paint finish |
| SKT01 | - Skirting |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TIL02 | - Floor and wall tile (colour A) |
| TIL03 | - Floor and wall tile (colour B) |
| TIL04 | - Floor and wall tile (colour C) |
| UR | - Urinal |
| VP | - Vent pipe |
| WC01 | - Toilet (standard) |
| WPM01 | - Waterproof membrane, refer SCH01 |




A Section A
SCALE @ A1 1 : 100




B Section B
SCALE @ A1 1 : 100




C Section C
SCALE @ A1 1 : 100

KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.06.2020 | For coordination | KF | KO |
| B | 20.08.2020 | Concept Design Issue | KF | KO |
| C | 08.11.2021 | Preliminary consultant issue | CM | KO |
| D | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| E | 03.12.2021 | Issued for client review | SR | CM |
| F | 21.01.2022 | Issue for cost estimate | SR | CM |
| G | 04.02.2022 | Issue for client review | SR | CM |
| H | 08.04.2022 | Development Application | SR | CM |
| I | 17.03.2023 | drawings for DA RFI response | CM | KO |

100mm LINE @ A1 — 10mm — scale : 1 : 100

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
SECTIONS
SHEET 1

PROJECT NO: 2010 — at plot 11 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 400 | I |

**LEGEND**

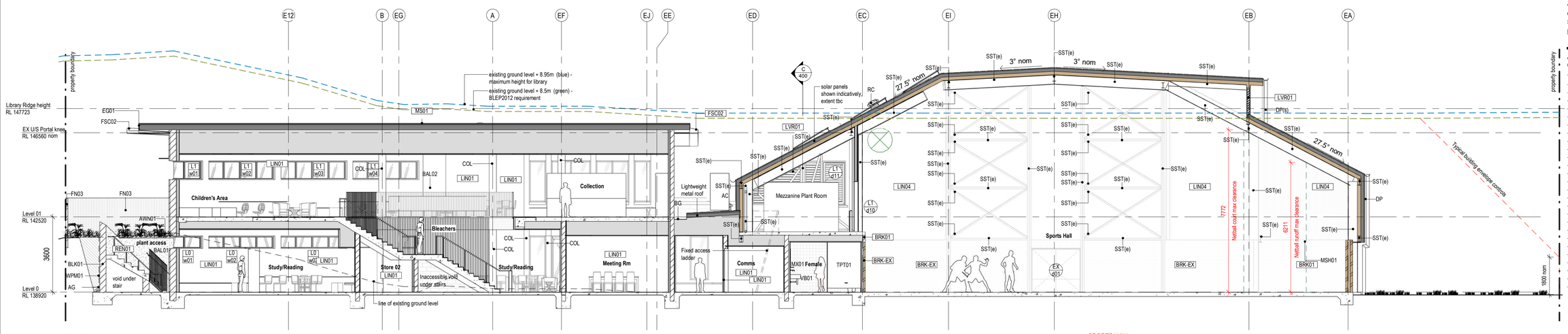
- L1 / w13 — window number - refer to window schedule
- L1 / d01 — door number - refer to door schedule
- GSXX — glazing suit type, refer to 710 series drawings
- ag — Agricultural drain, refer to hydraulic engineer's drawings

**Notes**

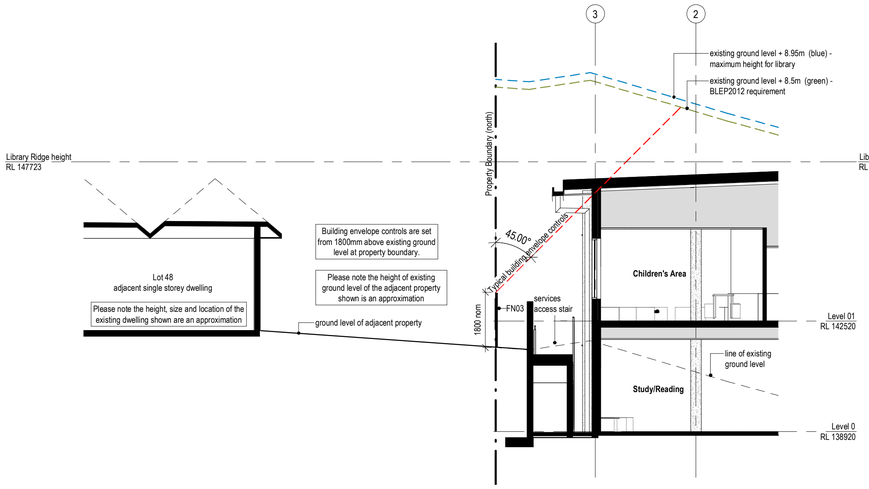
1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

ABBREVIATIONS & INTERNAL MATERIALS LEGEND
Codes to be read in conjunction with ***SCH01-Materials and finishes schedule***

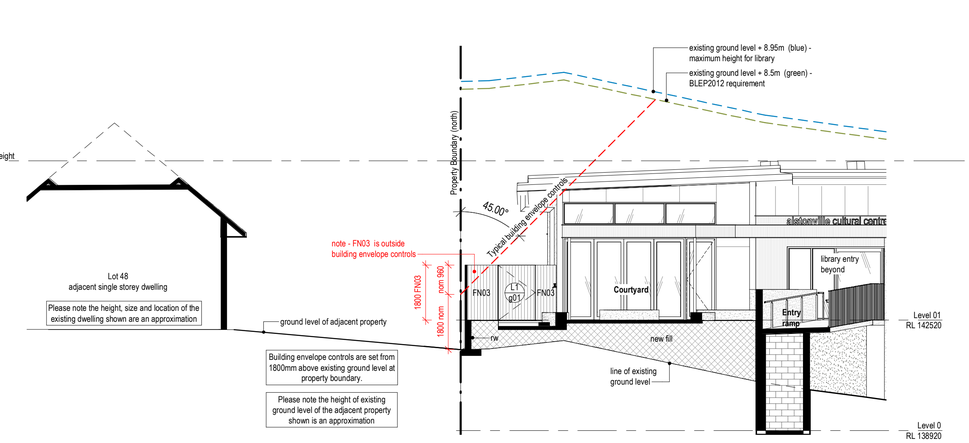
| | |
|---|---|
| AG | - Ag line drainage |
| AWN01 | - Window awning |
| BAL01 | - Steel flat bar balustrade |
| BAL02 | - Timber balustrade |
| BG | - Box gutter |
| BLK01 | - Blockwork standard |
| BRK01 | - Brick type 01 |
| BRK-EX | - Existing brick |
| COL | - Structural column |
| DP | - Downpipe |
| DP(s) | - Downpipe with spreader |
| EG01 | - Eaves gutter (library) |
| FN03 | - Acoustic fence |
| FSC02 | - Custom folded metal fascia (library foyer) |
| LIN01 | - Wall linings (Gyprock Impact PB) |
| LVR01 | - Louvres - fixed 2 stage aluminium, vermin proofed |
| MS01 | - Metal sheet roofing (type 1) |
| MSH01 | - Expanded mesh soffit |
| MX01 | - Basin mixer (sensor) |
| RC | - Roof cowl |
| REN01 | - Textured paint finish |
| SST(e) | - Existing Structural steel |
| TPT01 | - Toilet partition system |
| VB01 | - Vanity basin (custom moulded acrylic wash plane) |
| WPM01 | - Waterproof membrane, refer SCH01 |




D Section D
SCALE @ A1 1 : 100




01 Northern adjacent property - Detail section 01
SCALE @ A1 1 : 100




2 Northern adjacent property - Detail section 02
SCALE @ A1 1 : 100

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.08.2020 | For coordination | KF | KO |
| B | 28.08.2020 | Concept Design Issue | KF | KO |
| C | 08.11.2021 | Preliminary consultant issue | CM | KO |
| D | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| E | 03.12.2021 | Issued for client review | SR | CM |
| F | 21.01.2022 | Issue for cost estimate | SR | CM |
| G | 04.02.2022 | Issue for client review | SR | CM |
| H | 08.04.2022 | Development Application | SR | CM |
| I | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
SECTIONS
SHEET 2

100mm LINE @ A1 — 10mm — scale : 1 : 100

PROJECT NO: 2010 — at print: A1

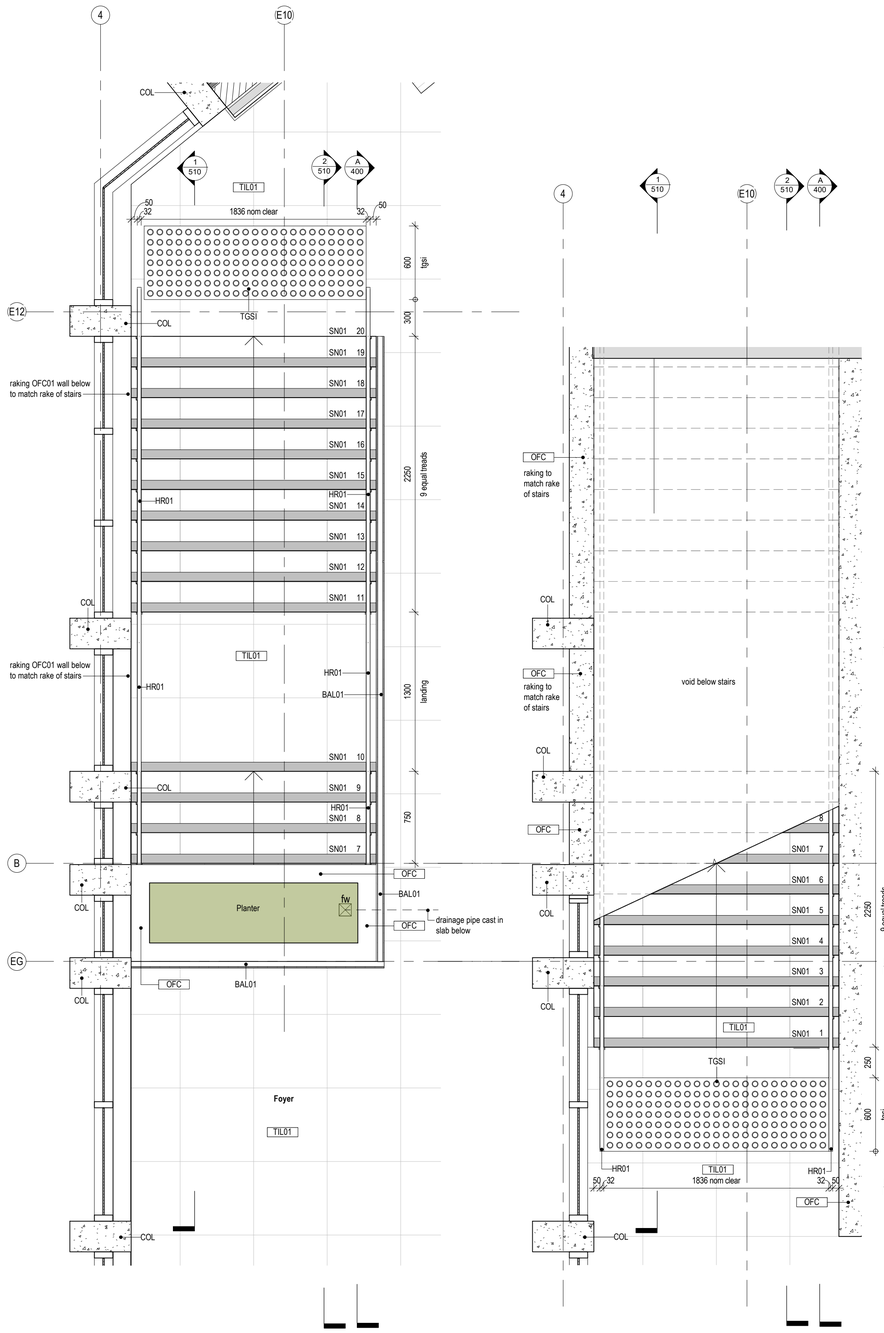
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 401 | I |

# DESIGN DEVELOPMENT

**LEGEND**
1. To be read in conjunction with SCH01 Materials Schedule.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.

**FIXTURES AND FINISHES**

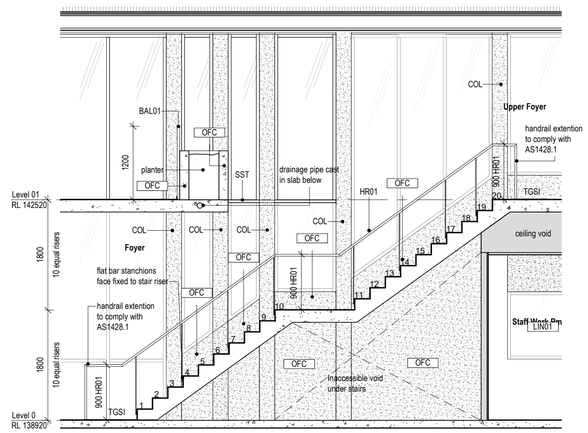
| | |
|---|---|
| AG | - Ag line drainage |
| BAL01 | - Steel flat bar balustrade |
| BG | - Box gutter |
| BLK01 | - Blockwork standard |
| BLK03 | - Blockwork feature (smooth) |
| CLD02 | - Prefinished CFC cladding (dark) |
| COL | - Structural column |
| CON01 | - Hand or machine trowelled concrete |
| FSC01 | - Double layer fascia (upper foyer) |
| FSC02 | - Custom folded metal fascia (library foyer) |
| HR01 | - Stair / ramp handrail |
| LIN01 | - Wall linings (Gyprock Impact PB) |
| LIN04 | - Wall linings (Supawood Veneer) |
| OFC | - Off-form concrete - min. class 2 finish |
| RC | - Roof cowl |
| SKT01 | - Skirting |
| SN01 | - Stair nosing |
| SOF01 | - Soffit lining |
| SST | - Structural steel |
| TGSI | - Tactile indicators |
| TIL01 | - Floor tile (internal) |
| WL | - Wall light |
| WPM05 | - Waterproof membrane, refer SCH01 |



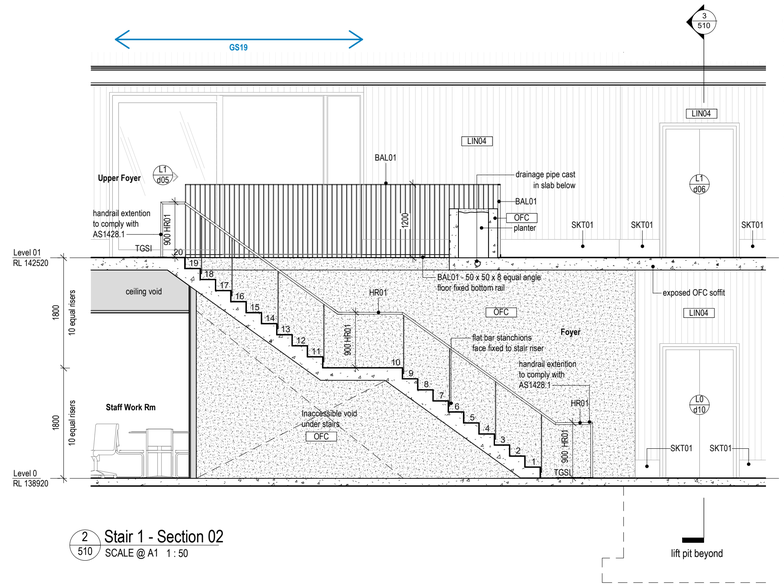

A Stair 1 - Level 01 - Floor Plan
SCALE @ A1 1 : 25



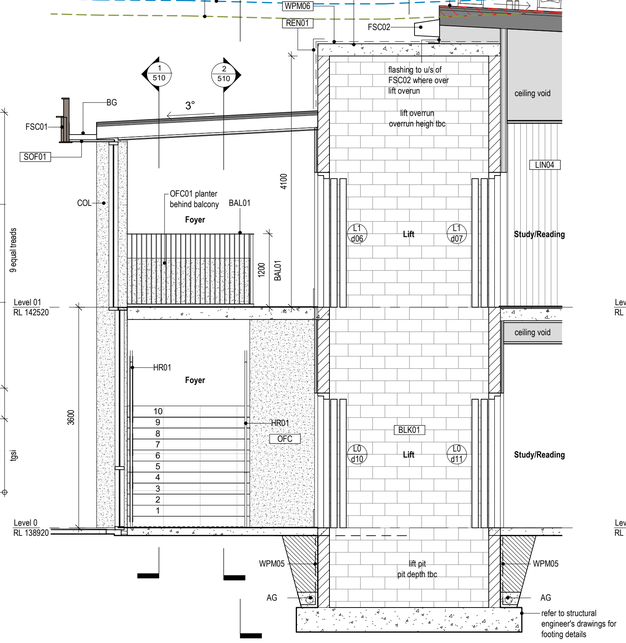

B Stair 1 - Level 0 - Floor Plan
SCALE @ A1 1 : 25



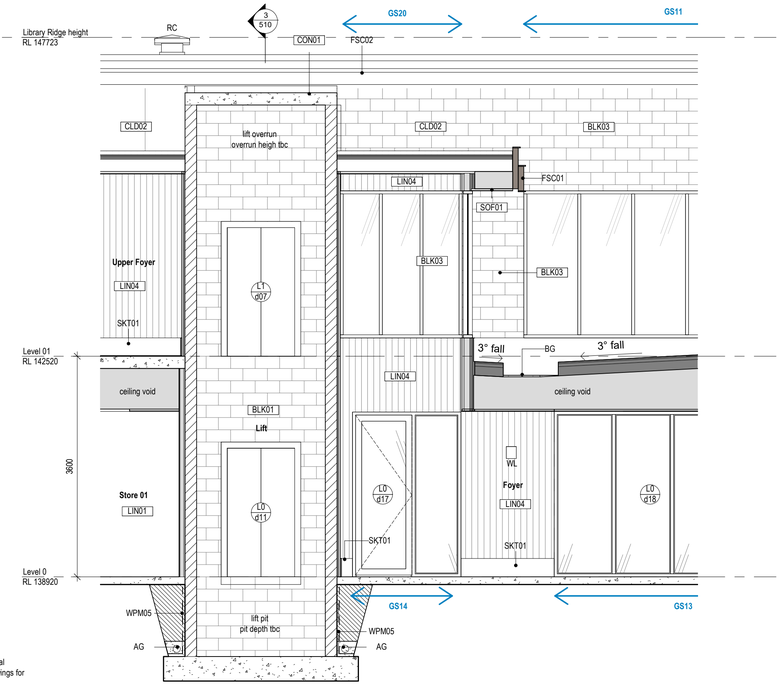

1 510 Stair 1 - Section 01
SCALE @ A1 1 : 50




2 510 Stair 1 - Section 02
SCALE @ A1 1 : 50




3 510 Stair 1 - Lift Section 03
SCALE @ A1 1 : 50




4 510 Lift - Section 04
SCALE @ A1 1 : 50

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 31.01.2022 | Issue for cost estimate | SR | CM |
| B | 04.02.2022 | Issue for client review | SR | CM |
| C | 08.04.2022 | Development Application | SR | CM |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

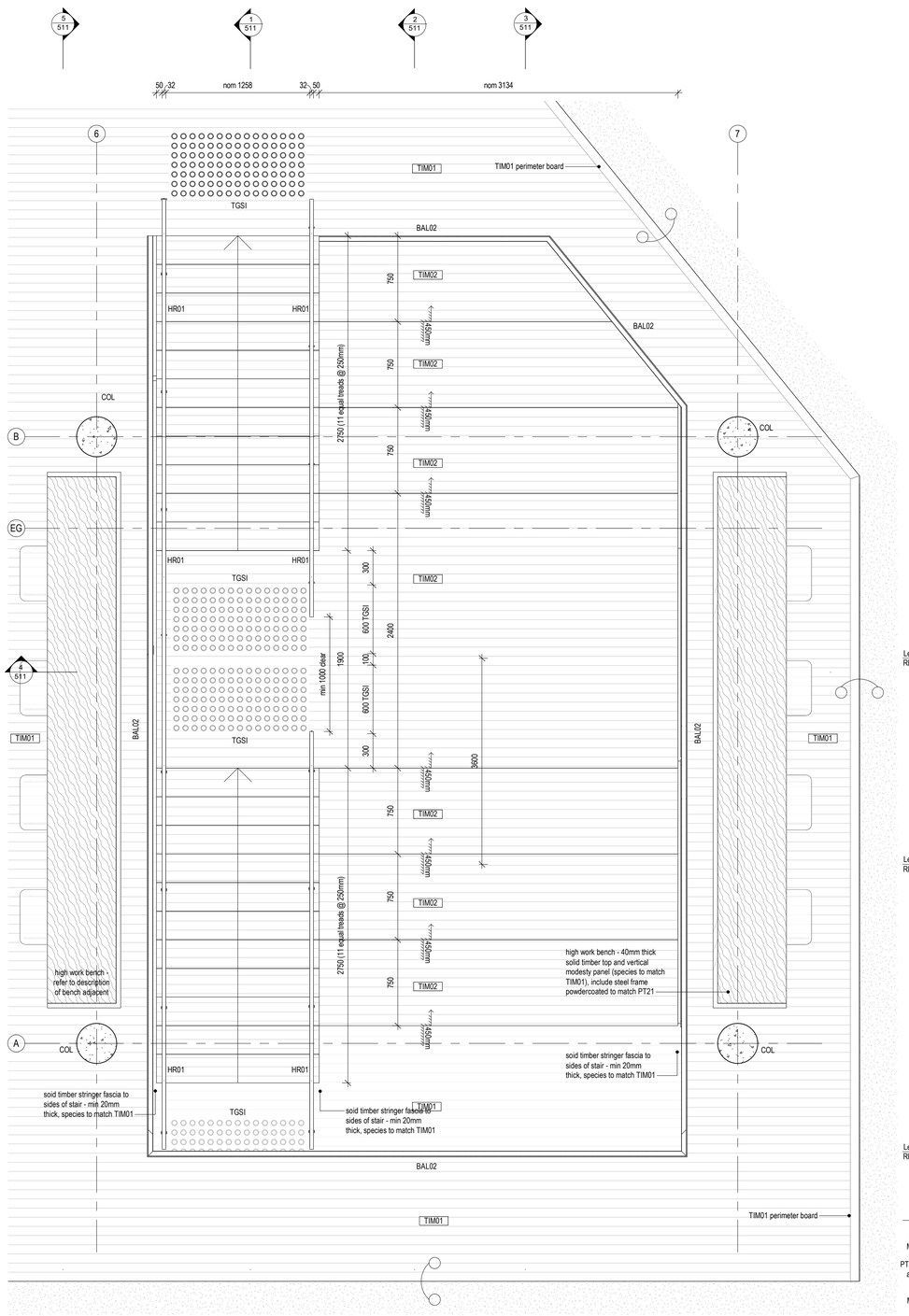
CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
STAIR DETAILS
SHEET 1

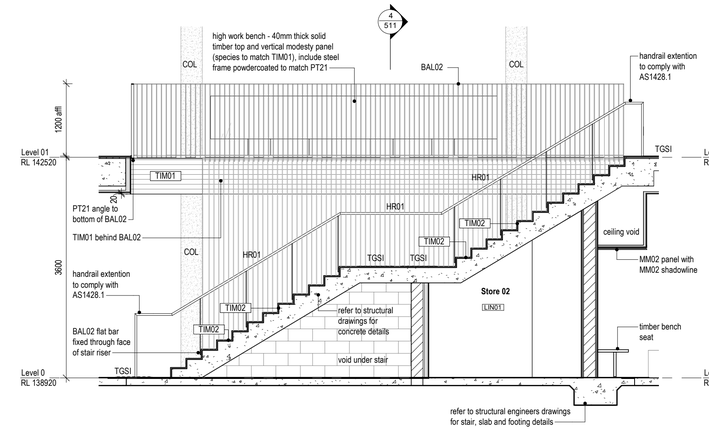
100mm LINE @ A1 — 10mm — scale : As indicated

PROJECT NO: 2010 at psd 1:1 — A1

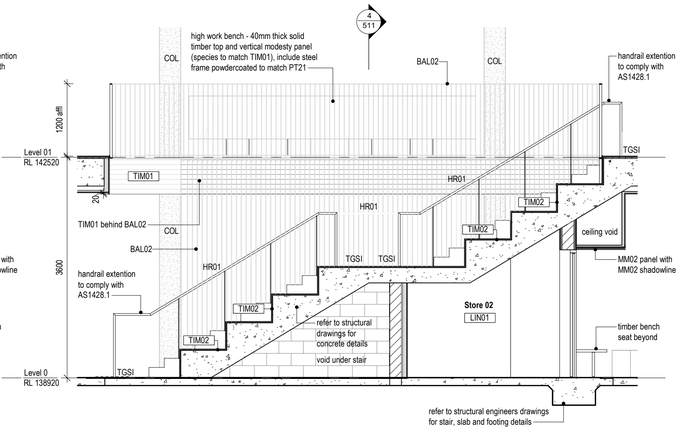
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 510 | C |



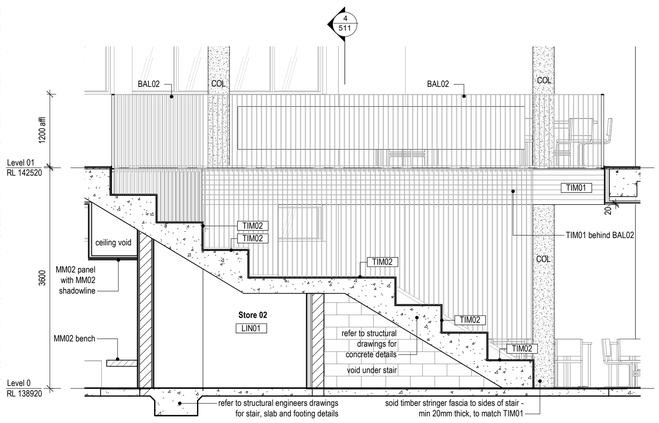

A Stair 2 - Floor Plan
SCALE @ A1 1 : 25



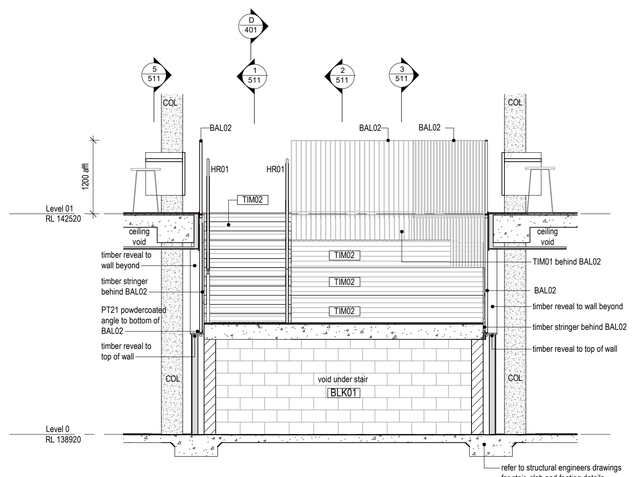

1 511 Stair 2 - Section 01
SCALE @ A1 1 : 50



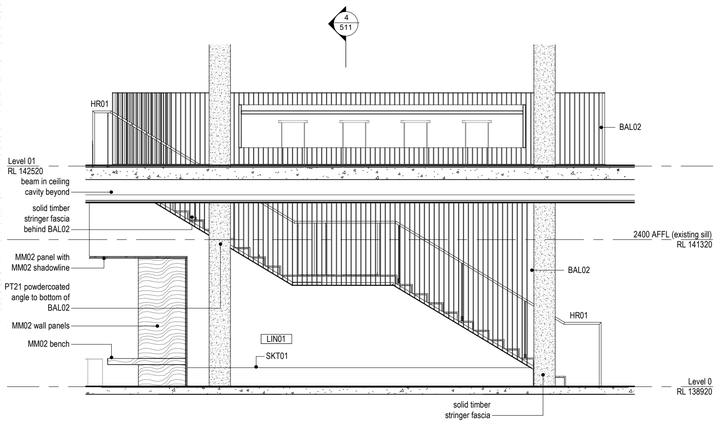

2 511 Stair 2 - Section 02
SCALE @ A1 1 : 50




3 511 Stair 2 - Section 03
SCALE @ A1 1 : 50




4 511 Stair 2 - Section 04
SCALE @ A1 1 : 50




5 Stair 2 - Section 05
SCALE @ A1 1 : 50

## DESIGN DEVELOPMENT

**LEGEND**

1. To be read in conjunction with SCH01 Materials Schedule.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.

**FIXTURES AND FINISHES**

| | |
|---|---|
| BAL02 | - Timber balustrade |
| BLK01 | - Blockwork standard |
| COL | - Structural column |
| HR01 | - Stair / ramp handrail |
| LIN01 | - Wall linings (Gyprock Impact PB) |
| TGSI | - Tactile indicators |
| TIM01 | - Timber floor |
| TIM02 | - Timber stairs |

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 21.01.2022 | Issue for cost estimate | SR | CM |
| B | 04.02.2022 | Issue for client review | SR | CM |
| C | 08.04.2022 | Development Application | SR | CM |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
STAIR DETAILS
SHEET 2

100mm LINE @ A1 — 10mm — scale : As indicated

PROJECT NO: 2010 — at psd 1:1 — A1

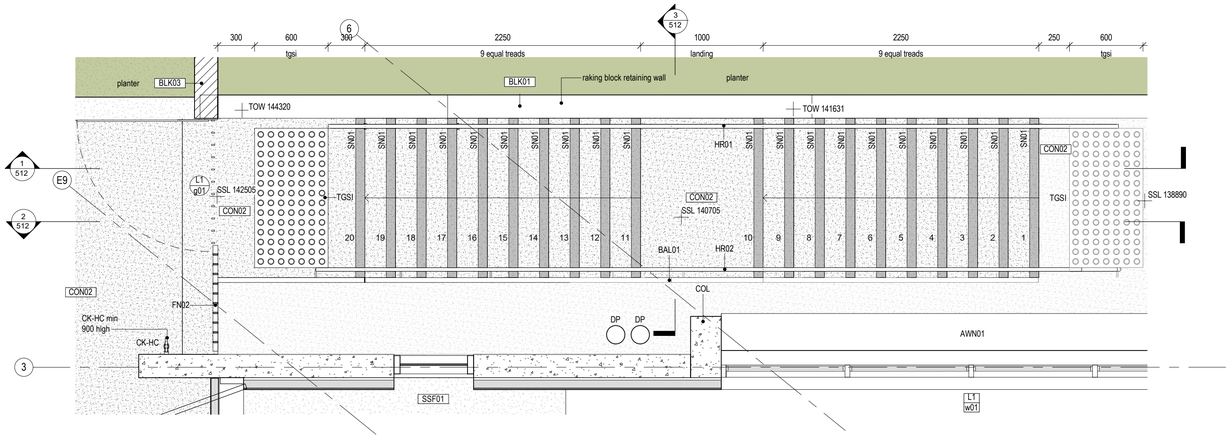
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 511 | C |

# DESIGN DEVELOPMENT

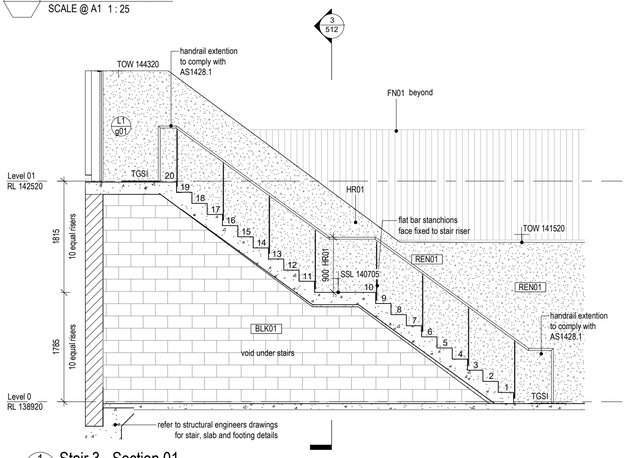
**LEGEND**
1. To be read in conjunction with SCH01 Materials Schedule.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.

**FIXTURES AND FINISHES**

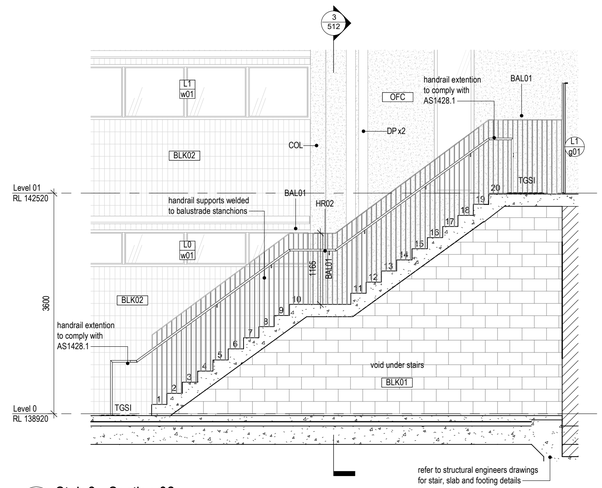
| | |
|---|---|
| AWN01 | - Window awning |
| BAL01 | - Steel flat bar balustrade |
| BLK01 | - Blockwork standard |
| BLK02 | - Blockwork feature (ribbed) |
| BLK03 | - Blockwork feature (smooth) |
| CK-HC | - Hose cock |
| COL | - Structural column |
| CON02 | - Broom finish concrete |
| DP | - Downpipe |
| FN01 | - Timber fence |
| FN02 | - Batten fence |
| HR01 | - Stair / ramp handrail |
| HR02 | - Stair handrail |
| OFC | - Off-form concrete - min. class 2 finish |
| REN01 | - Textured paint finish |
| SN01 | - Stair nosing |
| SSF01 | - Marmoleum |
| TGSI | - Tactile indicators |
| TIL05 | - Floor tile (external) |



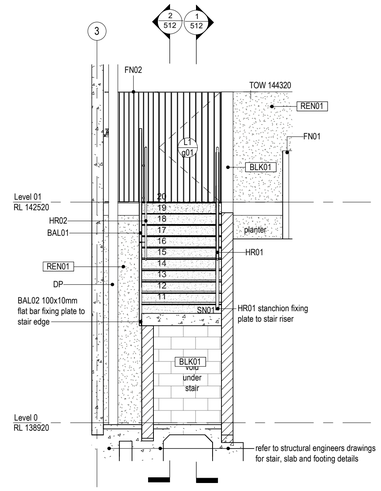

A Stair 3 - Floor Plan
SCALE @ A1 1 : 25



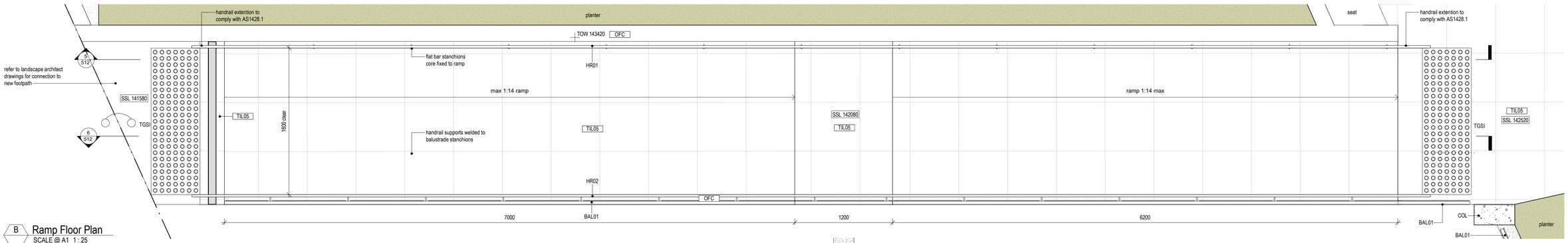

1 512 Stair 3 - Section 01
SCALE @ A1 1 : 50



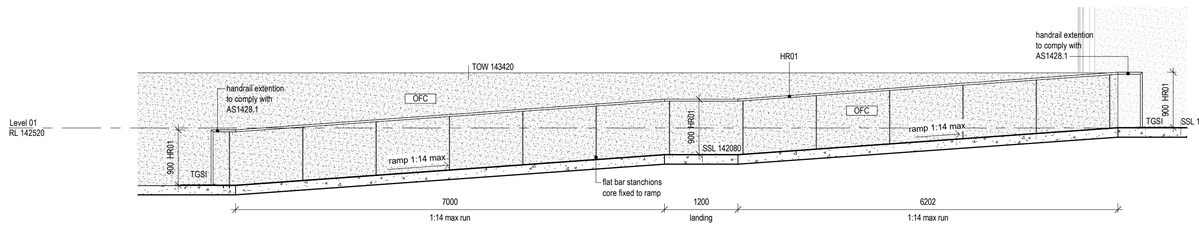

2 512 Stair 3 - Section 02
SCALE @ A1 1 : 50



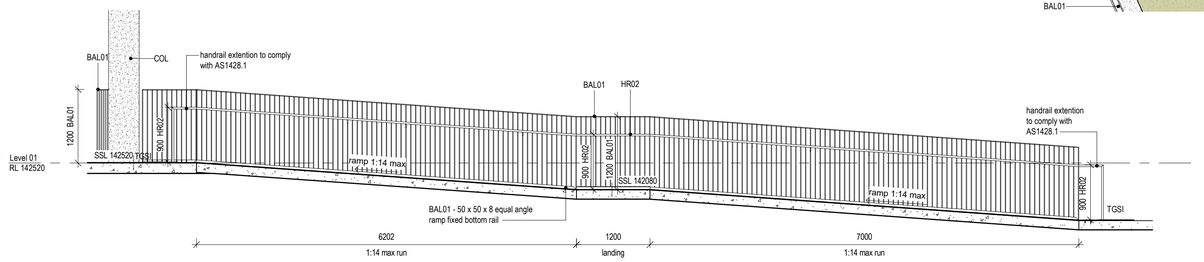

3 512 Stair 3 - Section 03
SCALE @ A1 1 : 50




B Ramp Floor Plan
SCALE @ A1 1 : 25




5 512 Ramp - Section 05
SCALE @ A1 1 : 50




6 512 Ramp - Section 06
SCALE @ A1 1 : 50

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 21.01.2022 | Issue for cost estimate | SR | CM |
| B | 04.02.2022 | Issue for client review | SR | CM |
| C | 08.04.2022 | Development Application | SR | CM |

100mm LINE @ A1 — 10mm — scale : As indicated

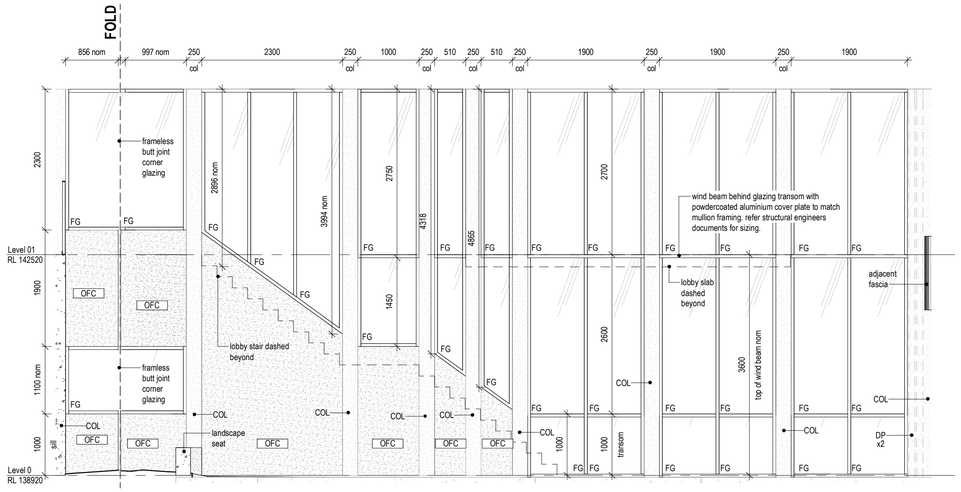
PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

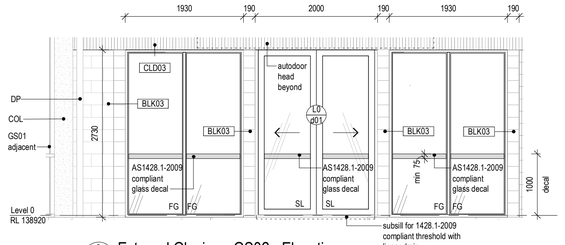
DRAWING NAME
STAIR & RAMP DETAILS

PROJECT NO: 2010 — at size | 1:1 — A1

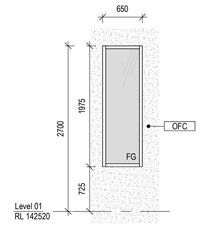
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 512 | C |




1 External Glazing - GS01 - Elevation
SCALE @ A1 1 : 50

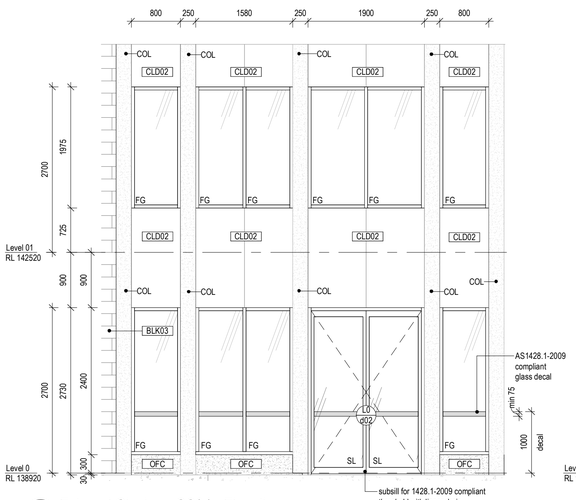



2 External Glazing - GS02 - Elevation
SCALE @ A1 1 : 50



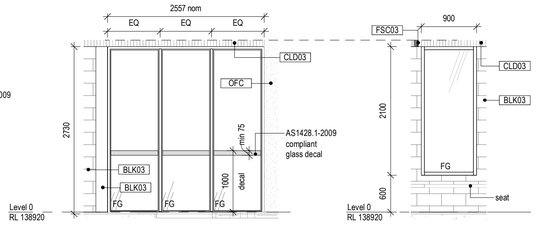

3 External Glazing - GS03 - Elevation
SCALE @ A1 1 : 50

| Location | South western external glazing to staff work room & lobby | North eastern external glazing to foyer | North external glazing at external services stair |
|---|---|---|---|
| Proprietary System | ALSPEC McArthur EVO 150mm centre pocket frame | ALSPEC McArthur EVO 150mm centre pocket frame with double sliding door | ALSPEC McArthur EVO 101.6mm centre pocket frame |
| Frame | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium |
| Glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass - frosted |
| Reveals | tbc | tbc | tbc |
| Blinds | Locations **tbc** | Locations **tbc** | Locations **tbc** |
| Screen | n/a | n/a | n/a |
| Hardware | n/a | Automatic door head to sliding door with locking mechanism and emergency exit function | n/a |
| Acoustic rating | n/a | n/a | minimum RW32 |
| Subhead and subsills | commercial subhead and subsill required | commercial subhead and subsill required - flush threshold with linear drain required at sliding door to comply with AS1428.1 - 2009 | commercial subhead and subsill required |
| U-Value | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 |
| SHGC Value | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 |
| Notes | | | |




4 External Glazing - GS04 - Elevation
SCALE @ A1 1 : 50

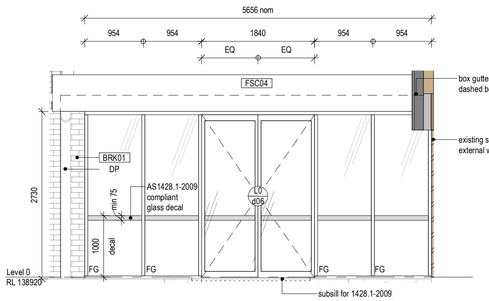
All ground level external glazing setdown 30mm from internal SSL to assist with waterproofing.



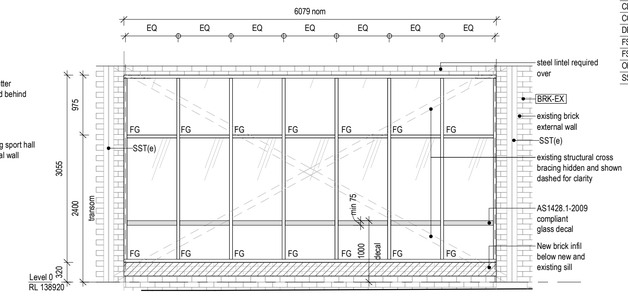

5 External Glazing - GS05 - Elevation
SCALE @ A1 1 : 50




6 External Glazing - GS06 - Elevation
SCALE @ A1 1 : 50




7 External Glazing - GS07 - Elevation
SCALE @ A1 1 : 50




8 External Glazing - GS08 - Elevation
SCALE @ A1 1 : 50

| Location | North east external glazing at ground level rear courtyard | North external glazing at amentities corridor | North eastern external glazing at amentities corridor | South eastern external glazing to rear foyer entrance | South eastern glazing to theatre |
|---|---|---|---|---|---|
| System | ALSPEC McArthur EVO 101.6mm centre pocket frame with swan evo swing doors | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame with swan evo swing doors | ALSPEC McArthur EVO 101.6mm centre pocket frame |
| Frame | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium |
| Glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass |
| Reveals | tbc | tbc | tbc | tbc | tbc |
| Blinds | Locations **tbc** | Locations **tbc** | Locations **tbc** | Locations **tbc** | Locations **tbc** |
| Screen | n/a | n/a | n/a | n/a | n/a |
| Hardware | n/a | n/a | n/a | n/a | n/a |
| Minimum acoustic requirements | minimum RW32 | n/a | n/a | n/a | minimum RW30 |
| Subhead and subsills | commercial subhead and subsill required - flush threshold with linear drain required at swing door to comply with AS1428.1 - 2009 | commercial subhead and subsill required | commercial subhead and subsill required | commercial subhead and subsill required - flush threshold with linear drain required at swing door to comply with AS1428.1 - 2009 | commercial subhead and subsill required |
| U-Value | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 |
| SHGC Value | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 |
| Notes | | | | | |

# DESIGN DEVELOPMENT

NOTES
- All windows elevated from outside
- All dimensions should be confirmed on site following completion of structure
- Nominated glass thickness and type is required to meet AS3959-2009
- Direction of all sliding doors and windows to be confirmed on elevations
- FG denotes fixed glass
- All frosted glass to be acid etched, Matelux or white translucent
- Install window flashing to all windows
- Any discrepancies should be brought to the attention of the architect
- The window system shall be manufactured to comply with the requirements of AS2047 and AS1288 in particular the Wind performance, Water penetration and Air Infiltration performance requirement of AS2047
- Glazing system to comply with energy efficiciency requirements in section J report prepared by Built Environment Collective.
- All glazed hinged doors to comply with AS1428.1-2021 requirements including sill/thresholds, size, clearance, weight etc.
- All dimensions of glazing in existing walls are nominal and subject to confirmation of existing structural and walls on site

**WINDOW LEGEND**
Refer to ***Fixtures and Fittings Schedule*** for details on window hardware
FG Fixed glass
SL Sliding window/door

**FINISHES**
Refer to ***Materials and Finishes Schedule*** for paint colour
- Aluminium frames: Powdercoat
Colour: **tbc**

**HARDWARE**
- Windows to be fitted with key locks where noted

**DRAWING TO BE READ IN CONJUNCTION WITH**
- 200 series drawings for general arrangement plans
- 220 series drawings for structural setout
- 230 series drawings for blockwork setout plans
- 300 series drawings for elevations
- 400 series drawings for building sections
- 610 series drawings for wall types and sections
- 620 for ceiling types
- 710 for glazing elevations
- 720 for window schedule
- 730 for door schedule
- 800 series drawings for internal elevations

**REQUIRED EXTERNAL GLAZING PERFORMANCE**

All new external glazing that form the thermal envelope:
U-Value: **5.9 or less**
SHGC: **0.8**
All new internal glazing that form the thermal envelope:
U-Value: **7.0 or less**
SHGC: **0.99**

MATERIALS LEGEND
To be read in conjunction with *SCH01-Materials schedule*

| | |
|---|---|
| BLK03 | - Blockwork feature (smooth) |
| BRK01 | - Brick type 01 |
| BRK-EX | - Existing brick |
| CLD02 | - Prefinished CFC cladding (dark) |
| CLD03 | - Prefinished CFC cladding (white) |
| COL | - Structural column |
| DP | - Downpipe |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| OFC | - Off-form concrete - min. class 2 finish |
| SST(e) | - Existing Structural steel |

KO AND CO ARCHITECTURE
KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 31.01.2022 | Issue for cost estimate | SR | CM |
| D | 04.02.2022 | Issue for client review | SR | CM |
| E | 08.04.2022 | Development Application | SR | CM |
| F | 17.03.2023 | drawings for DA RFI response | CM | KO |

100mm LINE @ A1 — 10mm — scale : As indicated

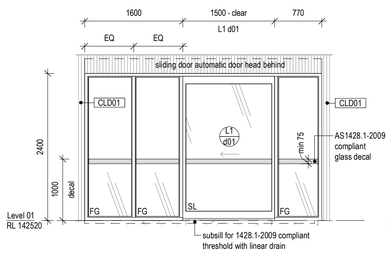
PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

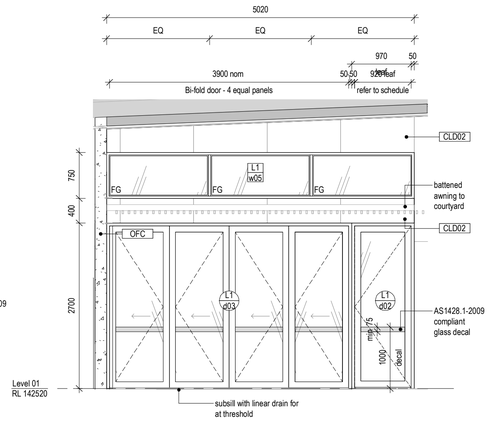
DRAWING NAME
GLAZING ELEVATIONS
SHEET 1

PROJECT NO: 2010 at plot 1:1 — **A1**

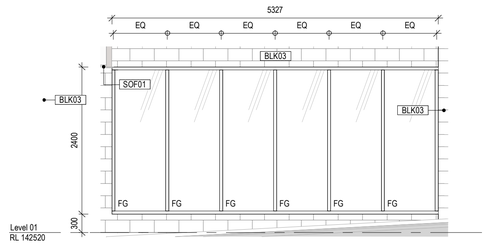
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 710 | F |



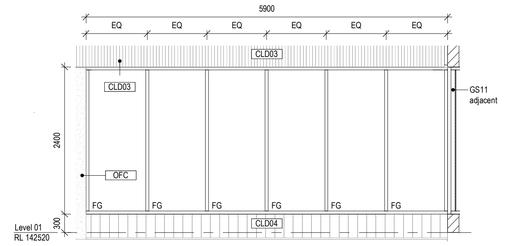

1 External Glazing - GS09 - Elevation
SCALE @ A1 1 : 50




2 External Glazing - GS10 - Elevation
SCALE @ A1 1 : 50

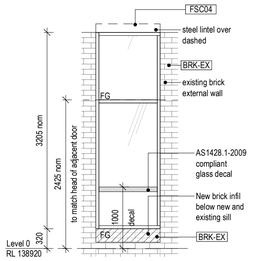



3 External Glazing - GS11 - Elevation
SCALE @ A1 1 : 50

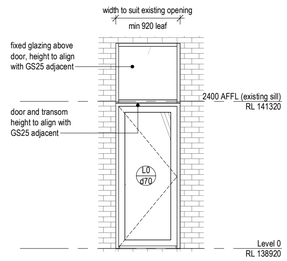



4 External Glazing - GS12 - Elevation
SCALE @ A1 1 : 50

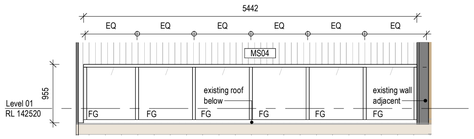
| | | | | |
|---|---|---|---|---|
| Location | North western external glazing to library entry | North western external glazing to childrens area | North eastern external glazing to foyer | North external glazing at external services stair |
| Proprietary system | ALSPEC McArthur EVO 150mm centre pocket frame with sliding auto door | ALSPEC Hawkesbury multi fold door coupled to swan evo swing door | McArthur EVO 101.6mm centre pocket frame | McArthur EVO 101.6mm centre pocket frame |
| Frame | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium |
| Glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus translucent (frosted) glass | 6.38mm comfort plus translucent (frosted) glass |
| Reveals | tbc | tbc | tbc | tbc |
| Blinds | Locations **tbc** | Locations **tbc** | Locations **tbc** | Locations **tbc** |
| Hardware | Automatic door head to sliding door with locking mechanism and emergency exit function | n/a | n/a | n/a |
| Minimum acoustic requirements | minimum RW32 | minimum RW32 | RW32 targeted | n/a |
| Subhead and subsills | commercial subhead and subsill required - flush threshold with linear drain required at sliding door to comply with AS1428.1 - 2009 | commercial subhead and subsill required - flush threshold with linear drain required to comply with AS1428.1 - 2009 | commercial subhead and subsill required - flush threshold with linear drain required at sliding door to comply with AS1428.1 - 2009 | commercial subhead and subsill required |
| U-Value | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 |
| SHGC Value | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 |
| Notes | | | | |




5 External Glazing - GS23 - Elevation
SCALE @ A1 1 : 50 GS24, GS25 similar




7 External Glazing - GS26 - Elevation
SCALE @ A1 1 : 50




6 External Glazing - GS27 - Elevation
SCALE @ A1 1 : 50

| | | | |
|---|---|---|---|
| Location | Full height glazing to dressing rooms & stage stairs adjacent | Western dressing room | North eastern high level glazing to replacement existing in existing foyer |
| System | McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame with swan evo swing door | McArthur EVO 101.6mm centre pocket frame |
| Frame | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium |
| Glass | 6.38mm comfort plus grey glass | 6.38mm comfort plus grey **opaque** glass | 6.38mm comfort plus grey glass |
| Reveals | tbc | tbc | tbc |
| Blinds | Locations **tbc** | Locations **tbc** | Locations **tbc** |
| Screen | n/a | n/a | n/a |
| Hardware | n/a | n/a | n/a |
| Minimum acoustic requirements | minimum RW30 | minimum RW30 | n/a |
| Subhead and subsills | commercial subhead and subsill required | commercial subhead and subsill required - flush threshold to comply with AS1428.1 - 2009 | commercial subhead and subsill required |
| U-Value | ≤ 5.9 | ≤ 5.9 | ≤ 5.9 |
| SHGC Value | ≤ 0.8 | ≤ 0.8 | ≤ 0.8 |
| Notes | | | |

# DESIGN DEVELOPMENT

NOTES
- All windows elevated from outside
- All dimensions should be confirmed on site following completion of structure
- Nominated glass thickness and type is required to meet AS3959-2009
- Direction of all sliding doors and windows to be confirmed on elevations
- FG denotes fixed glass
- All frosted glass to be acid etched, Matelux or white translucent
- Install window flashing to all windows
- Any discrepancies should be brought to the attention of the architect
- The window system shall be manufactured to comply with the requirements of AS2047 and AS1288 in particular the Wind performance, Water penetration and Air Infiltration performance requirement of AS2047
- Glazing system to comply with energy efficiciency requirements in section J report prepared by Built Environment Collective.
- All glazed hinged doors to comply with AS1428.1-2021 requirements including sill/thresholds, size, clearance, weight etc.
- All dimensions of glazing in existing walls are nominal and subject to confirmation of existing structural and walls on site

**WINDOW LEGEND**
Refer to ***Fixtures and Fittings Schedule*** for details on window hardware
FG Fixed glass
SL Sliding window/door

**FINISHES**
Refer to ***Materials and Finishes Schedule*** for paint colour
- Alluminium frames: Powdercoat
Colour: **ttbc**

**HARDWARE**
- Windows to be fitted with key locks where noted

**DRAWING TO BE READ IN CONJUNCTION WITH**
- 200 series drawings for general arrangement plans
- 220 series drawings for structural setout
- 230 series drawings for blockwork setout plans
- 300 series drawings for elevations
- 400 series drawings for building sections
- 610 series drawings for wall types and sections
- 620 for ceiling types
- 710 for glazing elevations
- 720 for window schedule
- 730 for door schedule
- 800 series drawings for internal elevations

**REQUIRED EXTERNAL GLAZING PERFORMANCE**

All new external glazing that form the thermal envelope:
U-Value: **5.9 or less**
SHGC: **0.8**
All new internal glazing that form the thermal envelope:
U-Value: **7.0 or less**
SHGC: **0.99**

MATERIALS LEGEND
To be read in conjunction with *SCH01-Materials schedule*

| | |
|---|---|
| BLK03 | - Blockwork feature (smooth) |
| BRK-EX | - Existing brick |
| CLD01 | - Prefinished CFC cladding (green) |
| CLD02 | - Prefinished CFC cladding (dark) |
| CLD03 | - Prefinished CFC cladding (white) |
| CLD04 | - Metal Sheet (type 01) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| MS04 | - Insulated wall sheeting |
| OFC | - Off-form concrete - min. class 2 finish |
| SOF01 | - Soffit lining |

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 21.01.2022 | Issue for cost estimate | SR | CM |
| D | 04.02.2022 | Issue for client review | SR | CM |
| E | 08.04.2022 | Development Application | SR | CM |
| F | 17.03.2023 | drawings for DA RFI response | CM | KO |

100mm LINE @ A1 | 10mm | scale : As indicated

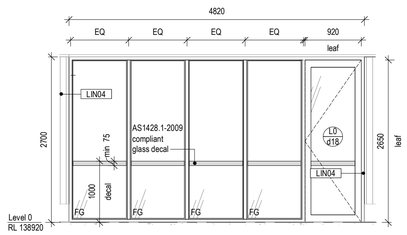
PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

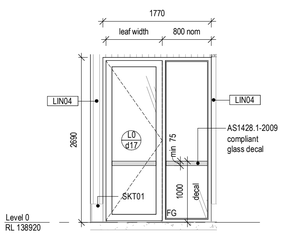
DRAWING NAME
GLAZING ELEVATIONS
SHEET 2

PROJECT NO: 2010 at scale 1:1 **A1**

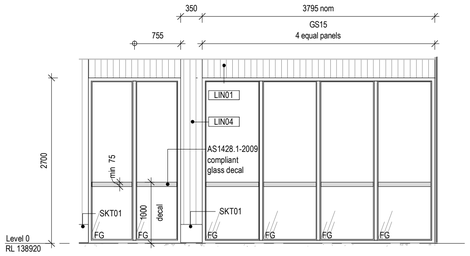
| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 711 | F |



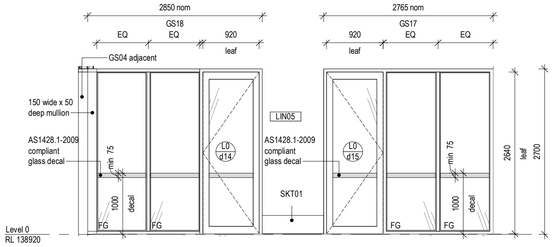

1 Internal Glazing - GS13 - Elevation
SCALE @ A1 1 : 50



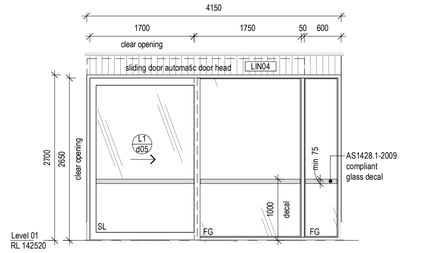

2 Internal Glazing - GS14 - Elevation
SCALE @ A1 1 : 50




3 Internal Glazing - GS15 & 16 - Elevation
SCALE @ A1 1 : 50

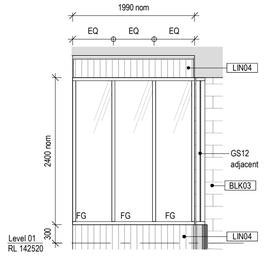



4 Internal Glazing - GS17 & 18 - Elevation
SCALE @ A1 1 : 50

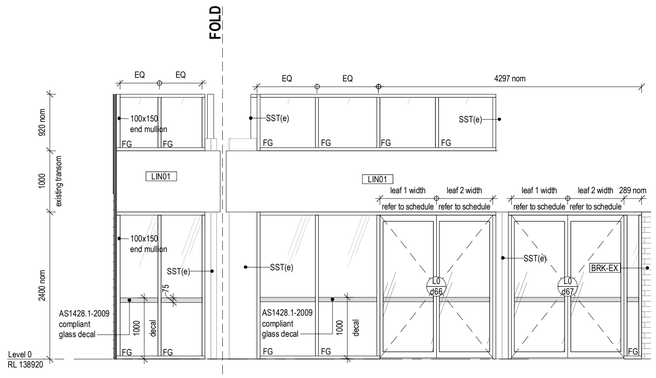



5 Internal Glazing - GS19 - Elevation
811 SCALE @ A1 1 : 50

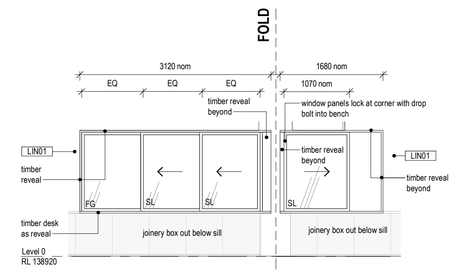
| Location | Glazing to Meeting room / Atrium | Glazing to Library / Atrium | Glazing to Library / meeting room | Glazing to Library / meeting room | Level 01 library entry from foyer |
|---|---|---|---|---|---|
| Proprietary system | ALSPEC McArthur EVO 101.6mm centre pocket frame with swan evo swing door | ALSPEC McArthur EVO 101.6mm centre pocket frame with swan evo swing door | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame with swan evo swing door | ALSPEC McArthur EVO 101.6mm centre pocket frame with sliding auto door |
| Frame | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium |
| Glass | Clear 12.5mm VLAM hush glass | Clear 12.5mm VLAM hush glass | Clear 12.5mm VLAM hush glass | Clear 12.5mm VLAM hush glass | Clear 12.5mm VLAM hush glass |
| Reveals | tbc | tbc | tbc | tbc | tbc |
| Blinds | Locations **tbc** | Locations **tbc** | Locations **tbc** | Locations **tbc** | Locations **tbc** |
| Hardware | n/a | n/a | n/a | n/a | Automatic door head to sliding door with locking mechanism and emergency exit function |
| Minimum acoustic requirements | RW35 targeted | RW35 targeted | RW35 targeted | RW35 targeted | RW35 targeted |
| Subhead and subsills | commercial subhead required | commercial subhead required | commercial subhead required | commercial subhead required | commercial subhead required |
| U-Value | ≤ 7.0 | ≤ 7.0 | ≤ 7.0 | ≤ 7.0 | ≤ 7.0 |
| SHGC Value | ≤ 0.99 | ≤ 0.99 | ≤ 0.99 | ≤ 0.99 | ≤ 0.99 |
| Notes | | | | | |




6 Internal Glazing - GS20 - Elevation
811 SCALE @ A1 1 : 50




7 Internal Glazing - GS21 - Elevation
SCALE @ A1 1 : 50




8 Internal Glazing - GS22 - Elevation
SCALE @ A1 1 : 50

| Location | Level 01 glazing between library & foyer void | Level 01 glazing between existing foyer and sports hall | Level 0 reception corner window |
|---|---|---|---|
| System | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame | Custom timber framed window |
| Frame | Powder coated aluminium | Powder coated aluminium | Hardwood timber - tbc |
| Glass | Clear 12.5mm VLAM hush glass | Clear glass | Clear glass |
| Reveals | tbc | tbc | Hardwood timber to match frame |
| Blinds | Locations **tbc** | Locations **tbc** | n/a |
| Screen | n/a | n/a | n/a |
| Hardware | n/a | n/a | tbc |
| Minimum acoustic requirements | RW35 targeted | n/a | RW35 targeted |
| Subhead and subsills | commercial subhead required | commercial subhead required | n/a |
| U-Value | ≤ 7.0 | ≤ 7.0 | ≤ 7.0 |
| SHGC Value | ≤ 0.99 | ≤ 0.99 | ≤ 0.99 |
| Notes | | | |

# DESIGN DEVELOPMENT

NOTES
- All windows elevated from outside
- All dimensions should be confirmed on site following completion of structure
- Nominated glass thickness and type is required to meet AS3959-2009
- Direction of all sliding doors and windows to be confirmed on elevations
- FG denotes fixed glass
- All frosted glass to be acid etched, Matelux or white translucent
- Install window flashing to all windows
- Any discrepancies should be brought to the attention of the architect
- The window system shall be manufactured to comply with the requirements of AS2047 and AS1288 in particular the Wind performance, Water penetration and Air Infiltration performance requirement of AS2047
- Glazing system to comply with energy efficiciency requirements in section J report prepared by Built Environment Collective.
- All glazed hinged doors to comply with AS1428.1-2021 requirements including sill/thresholds, size, clearance, weight etc.
- All dimensions of glazing in existing walls are nominal and subject to confirmation of existing structural and walls on site

**WINDOW LEGEND**
Refer to ***Fixtures and Fittings Schedule*** for details on window hardware
FG Fixed glass
SL Sliding window/door

**FINISHES**
Refer to ***Materials and Finishes Schedule*** for paint colour
- Aluminium frames: Powdercoat
Colour: **tbc**

**HARDWARE**
- Windows to be fitted with key locks where noted

**DRAWING TO BE READ IN CONJUNCTION WITH**
- 200 series drawings for general arrangement plans
- 220 series drawings for structural setout
- 230 series drawings for blockwork setout plans
- 300 series drawings for elevations
- 400 series drawings for building sections
- 610 series drawings for wall types and sections
- 620 for ceiling types
- 710 for glazing elevations
- 720 for window schedule
- 730 for door schedule
- 800 series drawings for internal elevations

**REQUIRED EXTERNAL GLAZING PERFORMANCE**

All new external glazing that form the thermal envelope:
U-Value: **5.9 or less**
SHGC: **0.8**
All new internal glazing that form the thermal envelope:
U-Value: **7.0 or less**
SHGC: **0.99**

MATERIALS LEGEND
To be read in conjunction with *SCH01-Materials schedule*

| | |
|---|---|
| BLK03 | - Blockwork feature (smooth) |
| BRK-EX | - Existing brick |
| LIN01 | - Wall linings (Gyprock Impact PB) |
| LIN04 | - Wall linings (Supawood Veneer) |
| LIN05 | - Wall linings (Gyprock Impact MR PB) |
| SKT01 | - Skirting |
| SST(e) | - Existing Structural steel |

KO AND CO ARCHITECTURE
KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 03.12.2021 | Issued for client review | SR | CM |
| B | 31.01.2022 | Issue for cost estimate | SR | CM |
| C | 04.02.2022 | Issue for client review | SR | CM |
| D | 08.04.2022 | Development Application | SR | CM |
| E | 17.03.2023 | Drawings for DA RFI response | CM | KO |

100mm LINE @ A1 10mm scale : As indicated

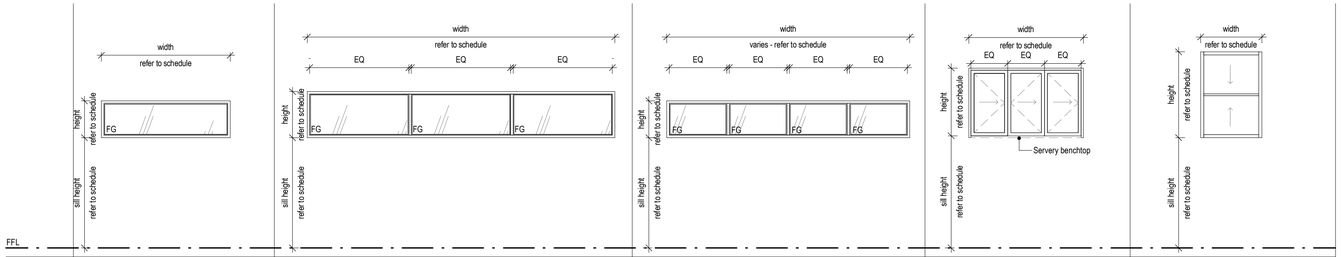
PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GLAZING ELEVATIONS
SHEET 3

PROJECT NO: 2010 at size 1:1 **A1**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 712 | E |




| | | | | | |
|---|---|---|---|---|---|
| Type | **Window Type 1 (WIN01)**<br>Aluminium framed single bay fixed window | **Window Type 2 (WIN02)**<br>Aluminium framed 3 bay fixed window | **Window Type 3 (WIN03)**<br>Aluminium framed 4 bay fixed window | **Window Type 4 (WIN04)**<br>Aluminium framed 2 panel bifold window | **Window Type 5 (WIN05)**<br>Aluminium framed double hung window |
| Proprietary system | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC McArthur EVO 101.6mm centre pocket frame | ALSPEC Hawkesbury multi fold door | ALSPEC Evo plus double hung |
| Frame | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium | Powder coated aluminium |
| Glass | Clear 12.5mm VLAM hush glass | Clear 12.5mm VLAM hush glass | Clear 12.5mm VLAM hush glass | Clear glass | Clear glass |
| Reveals | **tbc** | **tbc** | **tbc** | **tbc** | **tbc** |
| Blinds | Refer to SCH02 for blind type, locations **tbc** | Refer to SCH02 for blind type, locations **tbc** | Refer to SCH02 for blind type, locations **tbc** | Refer to SCH02 for blind type, locations **tbc** | Refer to SCH02 for blind type, locations **tbc** |
| Hardware | n/a | n/a | n/a | n/a | n/a |
| Subhead and subsills | subhead and subsill required where located externally | subhead and subsill required | subhead and subsill required | subhead required | subhead required |
| U-Value | **n/a** | ≤ 5.9 | ≤ 5.9 | **n/a** | **n/a** |
| SHGC Value | **n/a** | ≤ 0.8 | ≤ 0.8 | **n/a** | **n/a** |
| Notes | | | | | |

## Window Schedule

| Window Number | Room | Type Mark | Sill Height | Width | Height | Head Height | Min Acoustic requirements | Notes |
|---|---|---|---|---|---|---|---|---|
| Level 0 | | | | | | | | |
| L0 w01 | Study/Reading | WIN03 | 2100 | 4080 | 600 | 2700 | minimum RW32 | |
| L0 w02 | Study/Reading | WIN03 | 2100 | 4080 | 600 | 2700 | minimum RW32 | |
| L0 w03 | Study/Reading | WIN03 | 2100 | 4080 | 600 | 2700 | minimum RW32 | |
| L0 w04 | Study/Reading | WIN03 | 2100 | 4080 | 600 | 2700 | minimum RW32 | |
| L0 w05 | Servery | WIN04 | 900 | 1800 | 1100 | 2000 | n/a | |
| L0 w06 | Reception / Office | WIN01 | 1460 | 1300 | 600 | 2060 | RW35 targeted | |
| L0 w07 | Reception / Office | WIN05 | 1000 | 1000 | 1400 | 2400 | RW35 targeted | |
| Level 01 | | | | | | | | |
| L1 w01 | Children's Area | WIN03 | 1800 | 4080 | 900 | 2700 | minimum RW32 | |
| L1 w02 | Study/Reading | WIN03 | 1800 | 4080 | 900 | 2700 | minimum RW32 | |
| L1 w03 | Study/Reading | WIN03 | 1800 | 4080 | 900 | 2700 | minimum RW32 | |
| L1 w04 | Study/Reading | WIN03 | 1800 | 4080 | 900 | 2700 | minimum RW32 | |
| L1 w05 | Children's Area | WIN02 | 3100 | 5020 | 750 | 3850 | minimum RW32 | |

# DESIGN DEVELOPMENT

NOTES
- All windows elevated from outside
- All dimensions should be confirmed on site following completion of structure
- Nominated glass thickness and type is required to meet AS3959-2009
- Direction of all sliding doors and windows to be confirmed on elevations
- FG denotes fixed glass
- All frosted glass to be acid etched, Matelux or white translucent
- Install window flashing to all windows
- Any discrepancies should be brought to the attention of the architect
- The window system shall be manufactured to comply with the requirements of AS2047 and AS1288 in particular the Wind performance, Water penetration and Air Infiltration performance requirement of AS2047
- Glazing system to comply with energy efficiciency requirements in section J report prepared by Built Environment Collective.
- All glazed hinged doors to comply with AS1428.1-2021 requirements including sill/thresholds, size, clearance, weight etc.
- All dimensions of glazing in existing walls are nominal and subject to confirmation of existing structural and walls on site

**WINDOW LEGEND**
Refer to ***Fixtures and Fittings Schedule*** for details on window hardware
FG Fixed glass
SL Sliding window/door

**FINISHES**
Refer to ***Materials and Finishes Schedule*** for paint colour
- Aluminium frames: Powdercoat
  Colour: **tbc**

**HARDWARE**
- Windows to be fitted with key locks where noted

**DRAWING TO BE READ IN CONJUNCTION WITH**
- 200 series drawings for general arrangement plans
- 220 series drawings for structural setout
- 230 series drawings for blockwork setout plans
- 300 series drawings for elevations
- 400 series drawings for building sections
- 610 series drawings for wall types and sections
- 620 for ceiling types
- 710 for glazing elevations
- 720 for window schedule
- 730 for door schedule
- 800 series drawings for internal elevations

**REQUIRED EXTERNAL GLAZING PERFORMANCE**

All new external glazing that form the thermal envelope:
U-Value: **5.9 or less**
SHGC: **0.8**
All new internal glazing that form the thermal envelope:
U-Value: **7.0 or less**
SHGC: **0.99**

MATERIALS LEGEND
To be read in conjunction with *SCH01-Materials schedule*

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| B | 03.12.2021 | Issued for client review | SR | CM |
| C | 21.01.2022 | Issue for cost estimate | SR | CM |
| D | 04.02.2022 | Issue for client review | SR | CM |
| E | 08.04.2022 | Development Application | SR | CM |
| F | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
WINDOW SCHEDULE
SHEET 1

100mm LINE @ A1 | 10mm | scale : As indicated

PROJECT NO: 2010 | at size 11 | **A1**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 720 | F |

# DESIGN DEVELOPMENT

**DOOR NOTES**

1. Refer to fire engineering brief
2. Schedule to be read in conjunction with plans and elevations including glazing elevations.
3. All dimensions should be confirmed on site following completion of structure
4. Frosted glass to be acid etched, Matelux or white translucent
5. Nominated glass thickness and type is required to meet AS3959-2009
6. Direction of all sliding doors to be confirmed on plans and elevations
7. Direction of hinged door opening to be confirmed on plans
8. Provide heavy duty stainless steel hinges to all hinge doors, minimum 3 hinges per door
9. Provide lift off hinges to all bathroom doors
10. All lever sets to be positioned at 1000mm AFFL
11. Any discrepancies should be brought to the attention of the architect
12. All paint colours to be confirmed with architect
13. Size of window reveal must be suitable for wall type (e.g. double stud or brick veneer walls require increased reveal sizes)
14. All glazing and window systems are to comply with SHGC and U value requirements noted in the energy efficiency report by Built Environment Collective
15. All doors to common areas to be compliant with AS1428.1-2009
16. - All glazed hinged doors to comply with AS1428.1-2021 requirements including sill/thresholds, size, clearance, weight etc.

**REQUIRED GLAZING PERFORMANCE**

**Refer to 710 series glazing elevation drawings and JV3 report prepared by Built Environment collective for external glazing performance**

**LEGEND**

| | |
|---|---|
| DT* | Door Type |
| SL | Sliding glass door |
| GL | Glazed swing door panel |
| GD | Glazed door as part of internal or external glazing suite. refer to 710 series drawing for suite details. |

**FINISHES**

Refer to ***Materials and Finishes Schedule*** for paint colour
- Aluminium frames: Powdercoat
Colour: **TBC**

**SIGNAGE**

Refer to SCH01 for signage details

**DOOR HARDWARE**

**Door access control hardware has been noted only, all other hardware types are TBC, allow for a provisional allowance.**

| | |
|---|---|
| CR | Proximity swipe card access, refer electrical docs |
| KL | Key lock |
| HO | Hold open device |
| DS | Magnetic door stops |
| PS | Privacy snib |
| PI | Privacy indicator |

## Door Schedule

| Door number | Room | Door type | Leaf Dimensions Height | Leaf 1 Width | Leaf 2 Width | Clear opening width | Clear opening height | Fire Rating | Acoustic Rating | Hardware | Door Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Level 0 | | | | | | | | | | | |
| L0 d01 | Foyer | GD | | | | 1900 | 2700 | n/a | n/a | CR | Exit door, Emergency exit function, Forms part of GS02 Refer to 710 series glazing elevations for details |
| L0 d02 | Study/Reading | GD | 2660 | 900 | 900 | | | n/a | min Rw 32 targeted | CR | Exit door, Emergency exit function, Forms part of GS04 Refer to 710 series glazing elevations for details. FOB access after hours externally only |
| L0 d03 | Sports Hall | DT03 | 2040 | 970 | | | | n/a | n/a | CR | Exit door |
| L0 d04 | Sports Hall | DT06 | 2340 | 1020 | 1020 | | | n/a | n/a | CR, HO | Exit door |
| L0 d05 | Sports Hall | DT06 | 2340 | 1020 | 1020 | | | n/a | n/a | CR, HO | Exit door |
| L0 d06 | Foyer | GD | 2660 | 920 | 920 | | | n/a | n/a | CR | Exit door, CR securtity for after hours, Forms part of GS07 Refer to 710 series glazing elevations for details |
| L0 d07 | MSB cupboard | DT13 | | | | 3700 | 2500 | -/120/30 | n/a | CR | |
| L0 d09 | Servery | DT03 | 2340 | 1020 | | | | n/a | n/a | CR, HO, | Exit door, CR access to outside only |
| L0 d10 | Lift | DT15 | | | | 1100 | 2100 | n/a | n/a | | Stainless Steel, by lift manufacturer |
| L0 d11 | Lift | DT15 | | | | 1100 | 2100 | n/a | n/a | | Stainless Steel, by lift manufacturer |
| L0 d12 | Staff Work Rm | DT10 | 2340 | 1200 | | | | n/a | min Rw 35 targeted | CR | |
| L0 d13 | Store 02 | DT11 | 2040 | 920 | | | | -/60/30 | n/a | CR, HO | |
| L0 d14 | Meeting Rm | GD | 2640 | 920 | | | | n/a | min Rw 35 targeted | CR | Exit door, Forms part of GS18 Refer to 710 series glazing elevations for details |
| L0 d15 | Meeting Rm | GD | 2640 | 920 | | | | n/a | min Rw 35 targeted | CR | Exit door, Forms part of GS17 Refer to 710 series glazing elevations for details |
| L0 d16 | unisex PWD 02 | DT01 | 2040 | 970 | | | | n/a | Rw+Ctr 50 targeted | PS, PI | Door grille required, refer mechanical engineers drawings |
| L0 d17 | Foyer | GD | 2640 | 920 | | | | n/a | min Rw 35 targeted | CR | Exit door, Refer to 710 series glazing elevations for details |
| L0 d18 | Foyer | GD | 2650 | 920 | | | | n/a | min Rw 35 targeted | CR | Exit door, Forms part of GS13 Refer to 710 series glazing elevations for details |
| L0 d19 | Comms | DT12 | 2040 | 920 | | | | n/a | min Rw 45 targeted | CR | |
| L0 d20 | Meeting Rm | DT07 | 2340 | 920 | | | | n/a | min Rw 35 targeted | CR, DS | |
| L0 d21 | Store 03 | DT04 | 2040 | 720 | 720 | | | n/a | min Rw 45 targeted | CR | |
| L0 d22 | Cleaner | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | CR | |
| L0 d23 | Unisex PWD 04 | DT01 | 2040 | 970 | | | | n/a | min Rw 45 targeted | PS, PI | Door grille required, refer mechanical engineers drawings |
| L0 d24 | Umpire | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | PS, PI | Door grille required, refer mechanical engineers drawings |
| L0 d25 | Sports storage | DT05 | 2040 | 920 | 920 | | | n/a | n/a | CR, DS | |
| L0 d26 | Amenities Corridor | DT07 | 2040 | 920 | | | | n/a | n/a | | |
| L0 d27 | Male | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | | Door grille required, refer mechanical engineers drawings |
| L0 d28 | Female | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | | Door grille required, refer mechanical engineers drawings |
| L0 d29 | Foyer | DT07 | 2040 | 920 | | | | n/a | n/a | | |
| L0 d30 | Unisex PWD 03 | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | PS, PI | Door grille required, refer mechanical engineers drawings |
| L0 d31 | Unisex Dressing | DT17 | 2375 | 1200 | | | | n/a | n/a | CR | Exit door |
| L0 d32 | PWD 06 | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | PS, PI | |
| L0 d33 | Unisex Dressing | DT17 | 2375 | 1200 | | | | n/a | n/a | CR | Exit door |

## Door Schedule

| Door number | Room | Door type | Leaf Dimensions Height | Leaf 1 Width | Leaf 2 Width | Clear opening width | Clear opening height | Fire Rating | Acoustic Rating | Hardware | Door Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L0 d34 | PWD 05 | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | PS, PI | |
| L0 d35 | Theatre | DT04 | 2040 | 720 | 720 | | | n/a | n/a | KL, DS | |
| L0 d36 | Theatre | DT04 | 2040 | 720 | 720 | | | n/a | n/a | KL, DS | |
| L0 d37 | Servery | DT01 | 2040 | 920 | | | | n/a | n/a | CR | Exit door |
| L0 d38 | Servery | DT07 | 2040 | 920 | | | | n/a | n/a | CR | |
| L0 d39 | Reception / Office | DT07 | 2040 | 920 | | | | n/a | min Rw 35 targeted | CR | |
| L0 d41 | Meeting Rm | DT09 | | | | 4800 | 2040 | n/a | min Rw 45 targeted | | |
| L0 d42 | Meeting Rm | DT09 | | | | 3212 | 2040 | n/a | min Rw 45 targeted | | |
| L0 d43 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d44 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d45 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d46 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d47 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d48 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d49 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d50 | Female | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | opens out, ambulant, Refer to 800 series drawings, by toilet partition contractor |
| L0 d51 | Male | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | opens out, ambulant, Refer to 800 series drawings, by toilet |
| L0 d52 | Male | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d53 | Male SHR | DT01 | 2040 | 920 | | | | n/a | n/a | | Door grille required, refer mechanical engineers drawings |
| L0 d54 | Male SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d55 | Male SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d56 | Male SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d57 | Male SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d58 | Female SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d59 | Female SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d60 | Female SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d61 | Female SHR | DT14 | 2000 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d62 | Female SHR | DT01 | 2040 | 920 | | | | n/a | n/a | | Door grille required, refer mechanical engineers drawings |
| L0 d63 | RAL | DT01 | 2040 | 920 | | | | n/a | min Rw 45 targeted | CR | Door grille required, refer mechanical engineers drawings |
| L0 d64 | Foyer | DT08 | 2040 | 1020 | 1020 | | | n/a | n/a | CR, HO, | Exit door |
| L0 d65 | Foyer | DT07 | 2040 | 920 | | | | n/a | n/a | CR, HO, | Exit door, Coupled to L0d65 |
| L0 d66 | Foyer | GD | 2330 | 920 | 920 | | | n/a | n/a | HO | Exit door, Forms part of GS21 Refer to 710 series glazing elevations for details |
| L0 d67 | Foyer | GD | 2330 | 920 | 920 | | | n/a | n/a | HO | Exit door, Forms part of GS21 Refer to 710 series glazing elevations for details |
| L0 d68 | Umpire | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d69 | Umpire | DT14 | 2200 | 700 | | | | n/a | n/a | PS, PI | Refer to 800 series drawings, by toilet partition contractor |
| L0 d70 | Unisex Dressing | GD | 2300 | 950 | | | | n/a | n/a | CR | Exit door, dimensions nominal, refer to 711 glazing elevations |
| L0 d72 | Foyer | DT02 | 2040 | 670 | | | | n/a | n/a | KL | Invisible EZ concept invisible/flush access door with LIN04 |

## Door Schedule

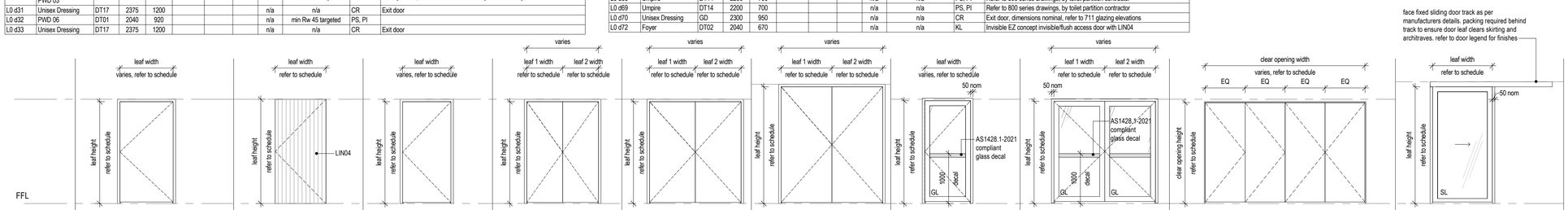
| Door number | Room | Door type | Leaf Dimensions Height | Leaf 1 Width | Leaf 2 Width | Clear opening width | Clear opening height | Fire Rating | Acoustic Rating | Hardware | Door Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L0 d73 | Theatre | DT28 | | | | | | | | | |
| L0 d75 | Theatre | DT28 | | | | | | | | | |
| Level 01 | | | | | | | | | | | |
| L1 d01 | Upper Foyer | GD | | | | 1500 | 2320 | n/a | n/a | CR | Exit door, Automated with fob security for after hours, Forms part of GS09 Refer to 710 series glazing elevations for details |
| L1 d02 | Children's Area | GD | 2640 | 920 | | | | n/a | min Rw 32 targeted | KL | Forms part of GS10 Refer to 710 series glazing elevations for details |
| L1 d03 | Children's Area | GD | | | | 3900 | 2700 | n/a | min Rw 32 targeted | KL | Forms part of GS10 Refer to 710 series glazing elevations for details |
| L1 d04 | Upper Foyer | DT02 | 2640 | 620 | | | | n/a | min Rw 50 targeted | KL | Invisible EZ concept invisible/flush access door with LIN04 |
| L1 d05 | Library Entry | GD | | | | 1700 | 2640 | n/a | min Rw 35 targeted | CR | Exit door, Forms part of GS19 Refer to 710 series glazing elevations for details |
| L1 d06 | Lift | DT15 | | | | 1100 | 2100 | n/a | n/a | | Stainless Steel, by lift manufacturer |
| L1 d07 | Lift | DT15 | | | | 1100 | 2100 | n/a | n/a | | Stainless Steel, by lift manufacturer |
| L1 d09 | Comms | DT02 | 2040 | 920 | | | | n/a | min Rw 50 targeted | KL | Invisible EZ concept invisible/flush access door with LIN04 |
| L1 d10 | Plant mezzanine | DT17 | | | | 2500 | 2400 | n/a | tbc | KL | Key lock to mezzanine side, Door size tbc pending mechanical equipment sizing |
| L1 d11 | Plant mezzanine | DT16 | 2040 | 1020 | | | | n/a | tbc | KL | Key lock internal and external |

## Existing Door schedule

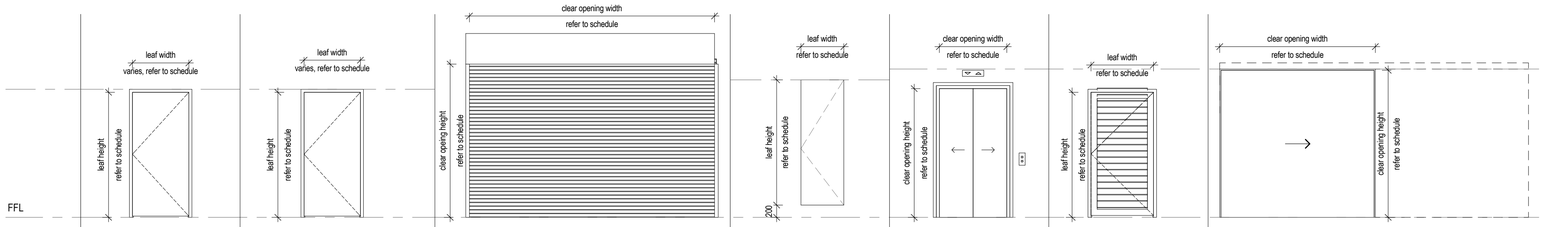
| Door number | Location | Hardware upgrade | Door Comments |
|---|---|---|---|
| Level 0 | | | |
| EX d01 | Sports Hall | CR, HO | Exit door |
| EX d02 | Elec | CR, HO | CR access to outside only |
| EX d03 | Theatre | CR, HO | Exit door, CR access to outside only |
| EX d04 | Backstage/ store | CR | Exit door |
| EX d05 | Theatre | CR, HO | Exit door, CR access to outside only |
| EX d08 | Foyer | KL, HO, | Exit door |
| EX d09 | Elec | CR | |
| EX d10 | Unisex Dressing | | |
| EX d12 | Unisex Dressing | | |

**NOTE**

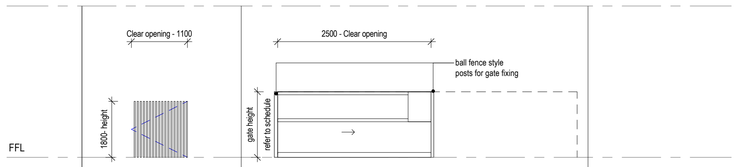
Doors designated 'GD' door type in the schedule are glazed doors that form part of internal or external glazing suites. refer to 710 series drawing for suite details.




| Type | DT01 - Door Type 1<br>Internal hinged single swing solid core door | DT02 - Door Type 2<br>Internal hinged single swing solid core door to match LIN04 | DT03 - Door Type 3<br>External hinged single swing exit door (high moisture resistance) | DT04 - Door Type 4<br>Internal hinged double swing solid cord door with kick to inside face | DT05 - Door Type 5<br>Internal hinged 180 swing double swing solid core door with kick | DT06 - Door Type 6<br>External hinged double swing exit door (high moisture resistance) | DT07 - Door Type 7<br>Internal hinged single swing glazed door | DT08 - Door Type 8<br>Internal hinged double swing glazed door | DT09 - Door Type 9<br>Internal acoustic operable wall | DT10 - Door Type 10<br>Internal face sliding glazed door |
|---|---|---|---|---|---|---|---|---|---|---|
| Frame | Powdercoated aluminium frame | Proprietary frame | Pressed steel door frame | Powdercoated aluminium frame | Powdercoated aluminium frame | Pressed steel door frame | Powdercoated aluminium frame | Powdercoated aluminium frame | Side stack system | Powdercoated aluminium frame |
| Proprietary system | n/a | EZ concept Accessdor | n/a | n/a | n/a | n/a | Alspec swan evo hinged door | Alspec swan evo hinged door | Lotus 100 series | CS Cavity sliders WallMountTrack |
| Infill | Solid core door leaf | Door panel to match LIN04 | External Solid core door leaf | Solid core door leaf | Solid core door leaf | External Solid core door leaf | 10.5mm Vlam Hush glass panel typically Door L0 D39 to be frosted | 10.5mm Vlam Hush glass panel | Overlay panel junction with spotted gum timber veneer finish and full height door panel closure - ensure door panel is AS1428.1-2009 compliant. | Opaque glazed, aluminium framed door panel |
| Hardware | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Hardware by manufacturer - matt black typically<br>Provide seals required to achieve min Rw rating. | Refer to schedule for door access control, all other hardware tbc |
| Threshold | Flush | Flush | n/a | Flush | Flush | Flush | Flush | Flush | n/a | Flush |
| Rw value | refer to schedule | refer to schedule | refer to schedule | refer to schedule | refer to schedule | refer to schedule | refer to schedule | refer to schedule | refer to schedule | refer to schedule |
| Kick | n/a | n/a | kick to L0 d09 serverside only | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Door grille | refer to schedule | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Notes | | Concealed hinges | | | | | | | Ensure structural steel is provided above the central track and the side stacking track. | Sofstop closer option |




| Type | DT11 - Door Type 11<br>1 hour Fire rated hinged single swing door | DT12 - Door Type 12<br>Internal hinged single swing smoke sealed door to comms room | DT13 - Door Type 13<br>2 hour Fire rated roller shutter to MSB | DT14 - Door Type 14<br>Hinged single swing toilet partition | DT15 - Door Type 15<br>Lift door | DT16 - Door Type 16<br>Louvred plant room door | DT17 - Door Type 17<br>Face sliding top hung track door |
|---|---|---|---|---|---|---|---|
| Frame | Fire rated steel door frame | Powdercoated aluminium frame | Proprietary steel frame | tbc | Stainless steel, by lift manufacturer | Powdercoated aluminium frame | Powdercoated aluminium top track - colour tbc |
| Proprietary system | tbc | n/a | Mirage S100 fire rated roller shutter | Polytec toilet partition system | Otis premier 5 lift | tbc | tbc |
| Infill | 1 hour fire rated solid core door leaf | Solid core door leaf | steel interlocking slats, powedercoat finish, colourTBC | Compact laminate, colour tbc | Satin finish stainless steel doors & car | Powdercoated Aluminium louvered door to mechanical engineer's air flow requirements | Solid core door leaf |
| Hardware | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc<br>Electric operation, ensure connection to building FIP | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc | Refer to schedule for door access control, all other hardware tbc |
| Threshold | Flush | Flush | n/a | n/a | Flush | n/a | Flush |
| Rw value | refer to schedule | refer to schedule | n/a | refer to schedule | refer to schedule | refer to schedule | refer to schedule |
| Kick | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Door grille | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Notes | | | FRL - / 120 / 30 required<br>drum size 219mm diameter | | | | custom folded steel pelmet to sliding door track - for theatre stage doors only |




| Type | GT01 - Gate Type 01 - L1 g01<br>Aluminium swing gate to match FN02 | GT02 - Gate Type 02 - L1 g02<br>Mezzanine "Ball fence roller gate " |
|---|---|---|
| Frame | to match FN02 | Aluminium |
| Infill | to match FN02 | n/a |
| Hardware | tbc | Proprietary |
| Minimum door clearance required | 1000mm | 2500mm |
| Notes | | Proprietary "Ball fence roller gate" from trafffic safety systems<br>Code: SKU: BFRG2500-MFA |

KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright. The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 03.12.2021 | Issued for client review | SR | CM |
| B | 31.01.2022 | Issue for cost estimate | SR | CM |
| C | 04.02.2022 | Issue for client review | SR | CM |
| D | 08.04.2022 | Development Application | SR | CM |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
DOOR SCHEDULE
SHEET 1

100mm LINE @ A1 | 10mm | scale : 1 : 50

PROJECT NO: 2010 | at size | A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 730 | D |

# DESIGN DEVELOPMENT

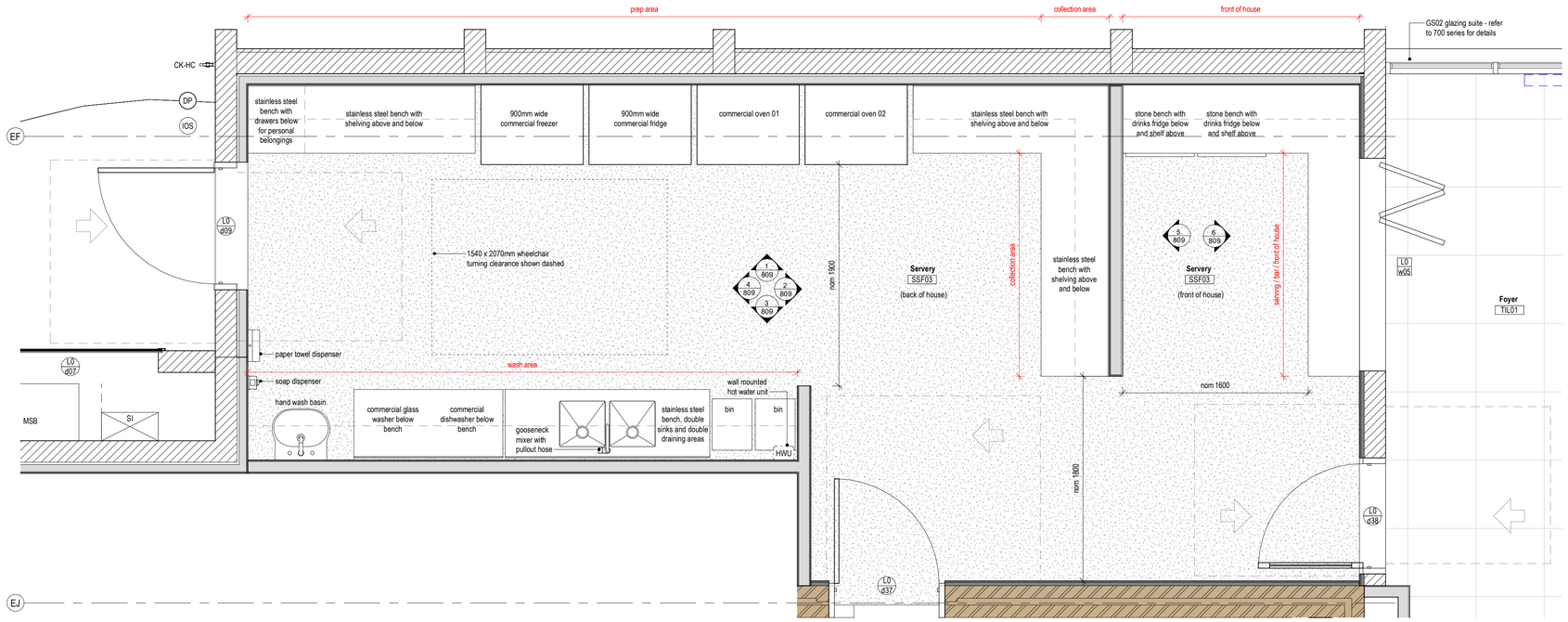
**NOTES**
- adj denotes adjustable shelf
- all doors and drawer fronts to be MRMDF
- all carcasses to be HMRPB
- all drawer runners to have soft close mechanisms with a minimum 40kg capacity and 500mm minimum, 600mm where possible, extension opening. Runners to be Blum, Hafele, Hettich or similar smooth operating type
- all high drawers to have high sides or side rails above standard drawer height
- if additional gables will be visible compared to gables shown on drawings, please advise architect to discuss detail options
- builder to provide adequate support and noggins in wall for all wall hung fixtures, accessories and cabinets

**FINISHES**
Finishes aredescribed generally in the legend below - please refer to *SCH01-Materials and Finishes Schedule* for details on all finishes.

**FIXTURES & ACCESSORIES**
Items are described generally in the legend below. Please refer to attached Tradelink Fixtures & Equipment Schedule for details on all sanitary fixtures.

**CODES / ABBREVIATIONS**

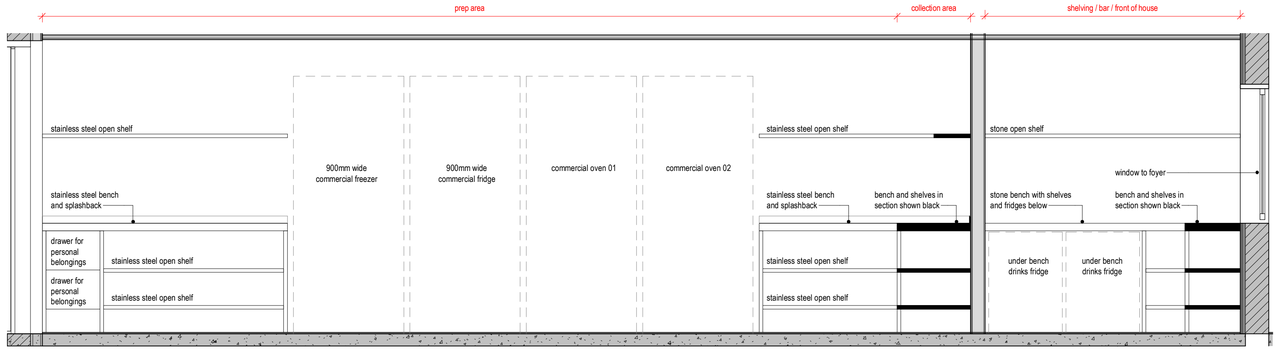
| | |
|---|---|
| CK-HC | - Hose cock |
| DP | - Downpipe |
| HWU | - Hot water system |
| IOS | - Inspection outlet - refer hydraulic docs |
| MSB | - Main switchboard |
| SI | - Solar inverter |
| SSF03 | - Seamless sheet vinyl |
| TIL01 | - Floor tile (internal) |



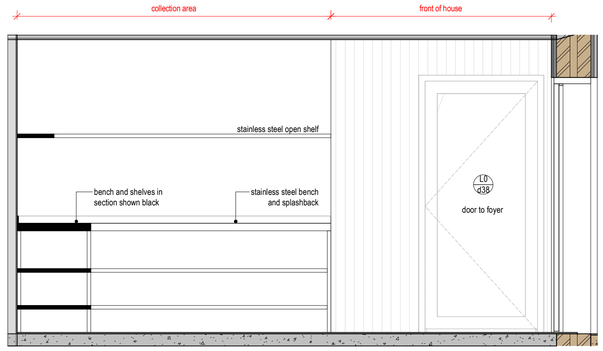

A Servery Floor Plan
SCALE @ A1 1 : 25

NOTES

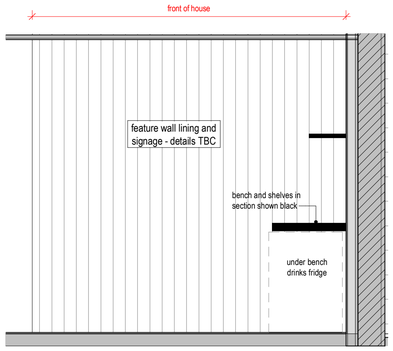
**servery**
- layout is shown indicatively only
- full height WVYL wall vinyl to all walls in 'back of house' area, feature wall lining to all walls in 'front of house' area
- plasterboard ceiling generally
- SKT02 coved skirting to all walls with wall vinyl
- allow for the following appliances / fixtures:
  - 1 x 900mm wide commercial fridge
  - 1 x 900mm wide commercial freezer
  - 2 x commercial under bench drinks fridges
  - stainless steel benching and shelving as shown
  - 2 x stainless steel sinks with drainers to both sides
  - 1 x commercial dishwasher
  - 1 x commercial glass washer
  - 2 x commercial ovens
  - 1 x hand wash basin and mixer as shown



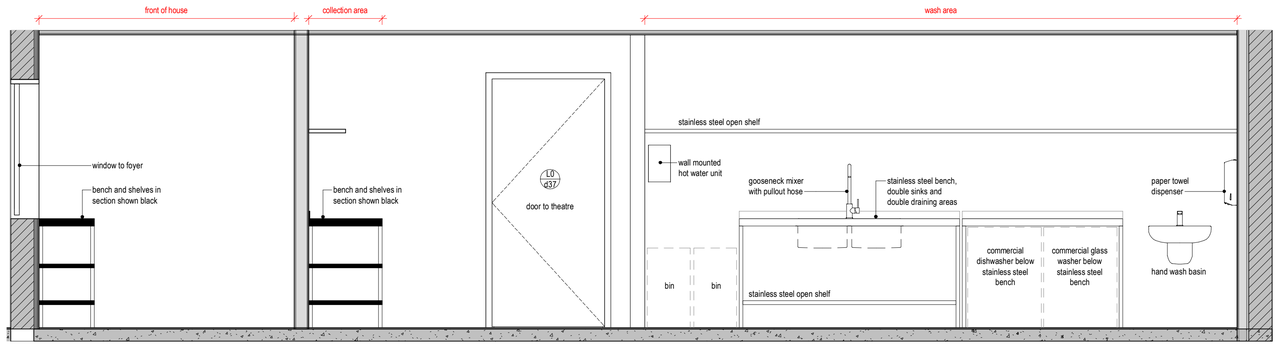

1 Servery - Detailed Elevation 1
SCALE @ A1 1 : 25



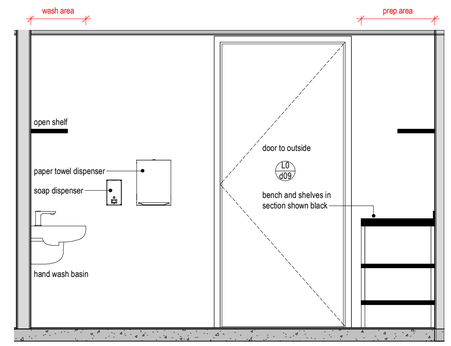

2 Servery - Detailed Elevation 2
SCALE @ A1 1 : 25



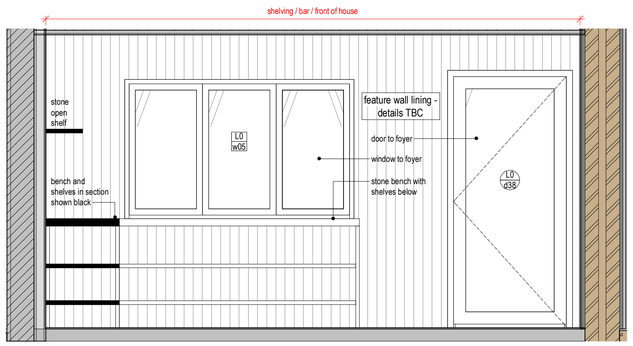

5 Servery - Detailed Elevation 5
SCALE @ A1 1 : 25




3 Servery - Detailed Elevation 3
SCALE @ A1 1 : 25




4 Servery - Detailed Elevation 4
SCALE @ A1 1 : 25




6 Servery - Detailed Elevation 6
SCALE @ A1 1 : 25

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 21.01.2022 | Issue for cost estimate | SR | CM |
| B | 04.02.2022 | Issue for client review | SR | CM |
| C | 28.02.2023 | DA RFI drawings for review | CM | KO |
| D | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
INTERIOR DETAILS
SERVERY

100mm LINE @ A1 | 10mm | scale : 1 : 25

PROJECT NO: 2010 | at plot 1:1 | A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 809 | D |



perspective 01 | ground level courtyard entry




perspective 02 | level 1 library entry



perspective 03 | northern library courtyard

KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 06.12.2021 | Perspectives for client review | SR | CM |
| B | 21.01.2022 | Issue for cost estimate | SR | CM |
| C | 04.02.2022 | Issue for client review | SR | CM |
| D | 08.04.2022 | Development Application | SR | CM |
| E | 28.02.2023 | DA RFI drawings for review | CM | KO |
| F | 01.03.2023 | DA RFI perspectives for review | CM | KO |
| G | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

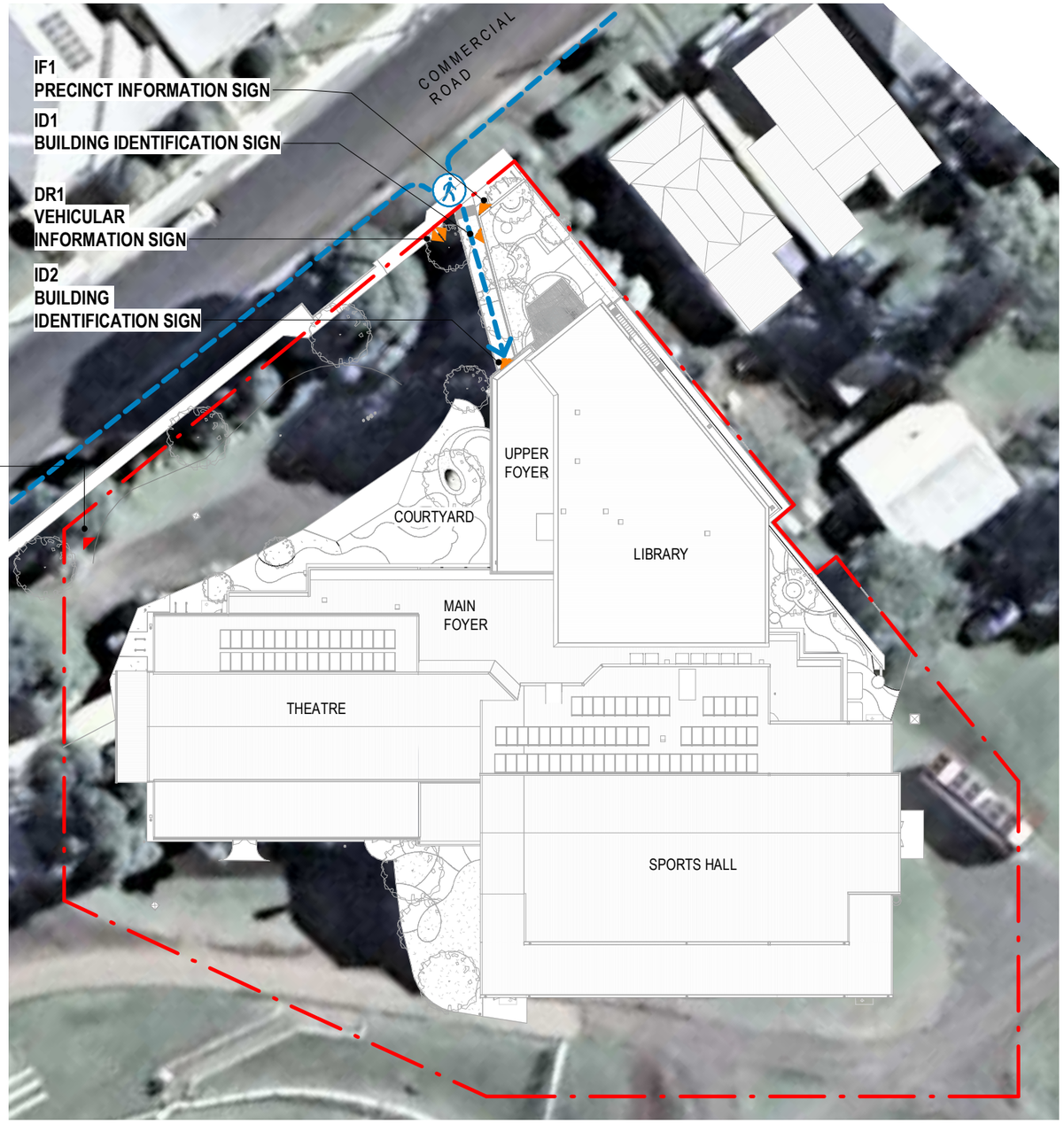
DRAWING NAME
PERSPECTIVES

100mm LINE @ A1 | 10mm | scale :

PROJECT NO: 2010 at plot 1:1 **A1**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 900 | G |

## SIGN LOCATION PLAN




NOTES

- concepts are shown for preliminary external wayfinding signage only, project scope tbc
- signage concepts subject to further design consultation for colour, font and materiality
- refer to landscape architect drawings for landscape layout - layout is shown indicative only on architectural drawings
- ongoing development of signage to align with relevant requirements outlined within Section 3.4 of the Ballina Shire Development Control Plan 2012

## DESTINATION HIERARCHY

The pedestrain visitor experience starts at Commercial Road.

With no on site car parking, the majority of visitors will access the building via a complaint access ramp access directs users to the upper foyer and circulation hub.

Users will need to identify when they have arrived at the precinct and then gather information at the entry point.

Key sign types will include:

IF1 - PRECINCT INFORMATION SIGN
Information sign at precinct entry

ID1 - BUILDING IDENTIFICATION SIGN
Building sign at precinct entry - along library entry ramp

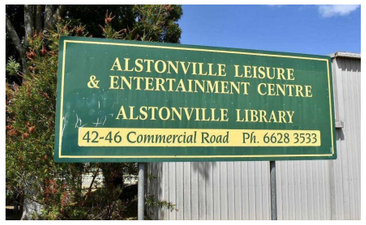
ID2 - BUILDING IDENTIFICATION SIGN
Building sign to upper foyer roof

For vehiles that may access the site off Commercial Rd, there may be some signage included to provide directions to approaching traffic (DR1)

There is currently no consideration for advertising signage at this site however this may be considered in further project briefing ie temporary signage for events

## EXISTING SIGNAGE

All existing signage to be removed.
All new precinct signage to support new precinct identity and naming conventions.
There is no advertising signage on site currently.










## BRANDING AND LOGO

Development of signage and wayfinding will consider Ballina Shire Council branding requirements, logo and colours, to support the precinct identity and establish a clear graphic strategy for the cultural centre.

community spaces

ballina shire council

KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 28.02.2023 | DA RFI drawings for review | CM | KO |
| B | 17.03.2023 | drawings for DA RFI response | CM | KO |

100mm LINE @ A3 — 10mm — scale : 1 : 500

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
EXTERNAL WAYFINDING SIGNAGE
SIGN LOCATION PLAN

PROJECT NO: 2010 at plot 1:1 **A3**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | SK027 | B |

# DESIGN DEVELOPMENT

## KEY SIGNAGE CONCEPTS

IF1 PRECINCT IDENTIFICATION SIGN - 1:50

- Identifies precinct and provides entry information
- Approx 600mm wide x 1600mm high, mounted at 300affl
- May contain precinct information outlining amenities (library, theatre, sports hall) and map
- May contain facility opening hours
- Can incorporate interactive screen for events information and/or advertising
- Can be integrated as part of architectural wall or offset as a freestanding feature
- Powdercoated aluminimium sign face with laser cut graphics applied
- Illuminated to provide entry beacon
- QR code to provide additional precinct information
- Branding and colours tbc
- Materials palette to be complimentary to architectural features and finishes

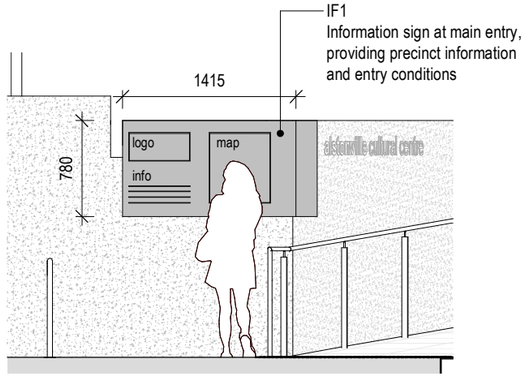
ID1 BUILDING IDENTIFICATION SIGN - 1:50

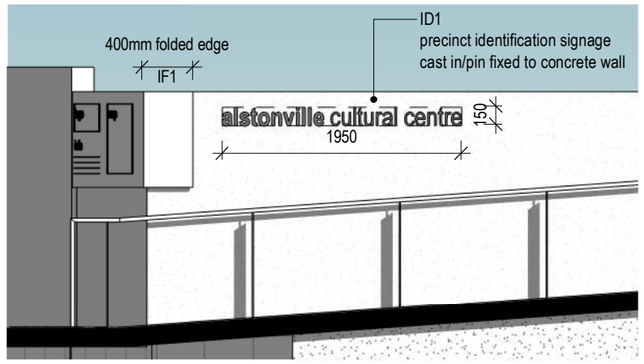
- Identifies precinct along main pedestrian entry
- Approx 1950mm wide x 150mm high
- Sign can be cast into concrete wall or metal signage pin-fixed off face of wall
- Identification to be further reviewed as part of the wayfinding strategy
- Branding and colours tbc

ID2 BUILDING IDENTIFICATION SIGN - 1:100

- Identifies precinct amenity
- Approx 3300mm wide x 250mm high
- Powdercoated aluminimium sign fixed to rail along leading edge of roof fascia
- Fascia lit (during operation and events) to provide back lighting or signage is illuminated - TBC
- Identification to be further reviewed as part of the wayfinding strategy
- Branding and colours tbc

## DETAIL

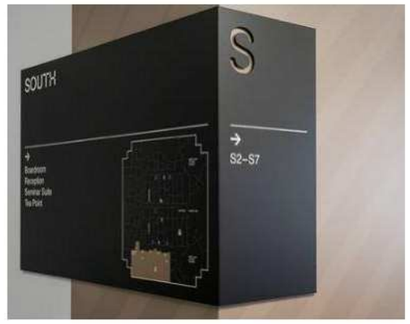






## REFERENCE IMAGES















## INFORMATION SIGNAGE FOR VEHICLES

Vehicle signage nominated on the plan aims to assist visitors to understand that there is limited access for vehicles on site.

Branding and colours tbc, reference image below shown for information only.




## OTHER WAYFINDING OPPORTUNITIES

Other external wayfinding opportunties may be explored to support the overall precinct.

These include environmental graphics such as inset text/graphics to architectural elements (such as concrete) and graphics applied to glazing.







100mm LINE @ A3 — 10mm — scale : 1 : 50

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 28.02.2023 | DA RFI drawings for review | CM | KO |
| B | 17.03.2023 | drawings for DA RFI response | CM | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
EXTERNAL WAYFINDING SIGNAGE
KEY SIGNAGE CONCEPTS

PROJECT NO: 2010 at plot 1:1 **A3**

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | SK028 | B |

# Attachment 4 – Clause 4.6 Variation

Newton Denny Chapelle
SURVEYORS PLANNERS ENGINEERS

# CLAUSE 4.6 REQUEST TO VARY DEVELOPMENT STANDARD (BUILDING HEIGHT) (REV 1)

## A. DETAILS

| | |
|---|---|
| **Applicant Name:** | Newton Denny Chapelle for and on behalf of KO&CO Architecture Pty Ltd |
| **Property Details:** | 42-46 Commercial Road, Alstonville<br>Lot 1 DP 611789 |
| **Project:** | Alterations and additions to Alstonville Cultural Centre |

## B. INTRODUCTION

### B.1. Proposed Development

Newton Denny Chapelle (NDC) has been engaged, by KO & CO Architecture Pty Ltd to act as Town Planning Consultants with respect to the preparation and lodgement of a Development Application for proposed alterations and additions to the Alstonville Cultural Centre located at 42-46 Commercial Road, Alstonville (Lot 1 DP611789).

The former Alstonville Leisure and Entertainment Centre was originally built 1980s and provides a multi-purpose indoor sports hall, multi-purpose hall and small regional library for the township. The current application involves a significant refurbishment and expansion of the facility. In this regard, the sports hall, multi-purpose hall and amenities will be refurbished and refreshed, and a new two storey library will be built at the entrance of the site.

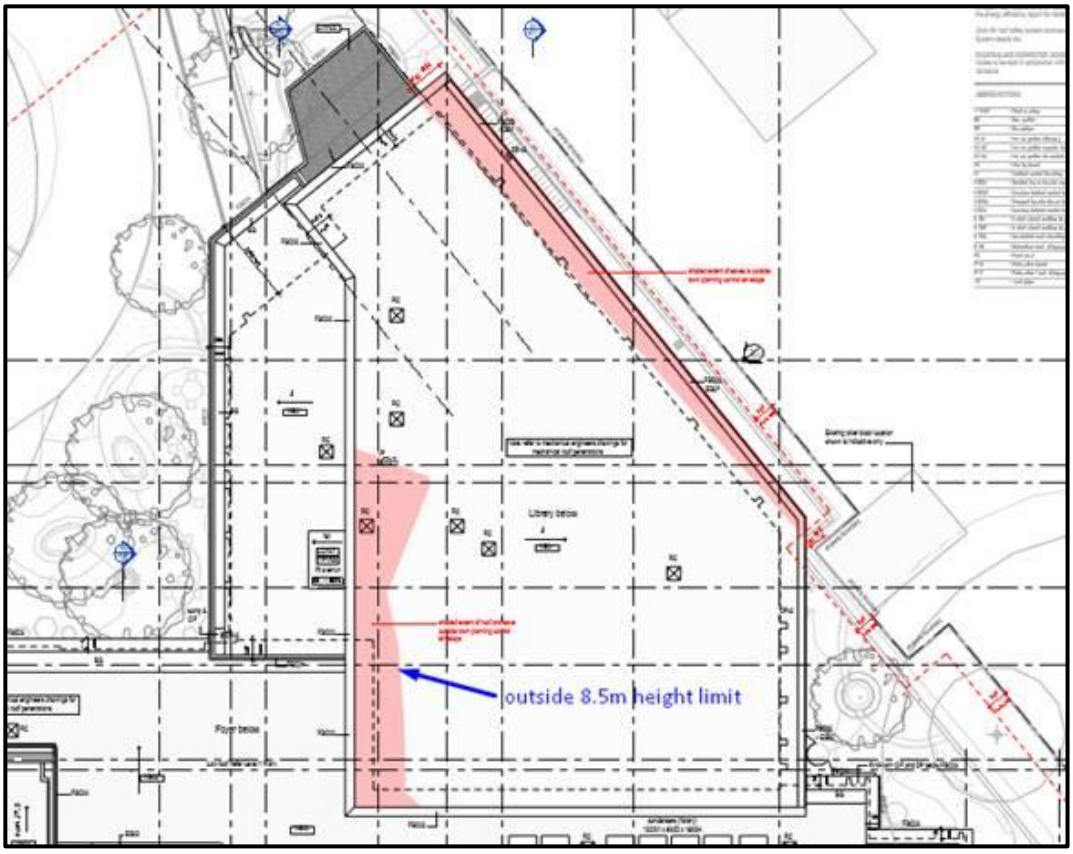
The proposal seeks consent for the following components:

- Demolition of existing entry foyer, library, amenities, outdoor patio area and associated slabs.
- Replacement of the existing roof and cladding to the sports hall, foyer and theatre.
- Construction of new two-storey library comprising:
  - Ground floor:
    - Staff work room
    - Storage
    - Four (4) meeting rooms
    - Library display & workspaces
    - Accessible bathroom
  - First floor:
    - Children's area
    - Accessible toilet
    - Library display & workspaces
- Construction of new central amenities, accessible bathrooms, sports storage and umpires changeroom.
- Construction of new office, reception, and kitchenette.
- Construction of new entrance foyer and servery.
- Extension to existing sports hall.

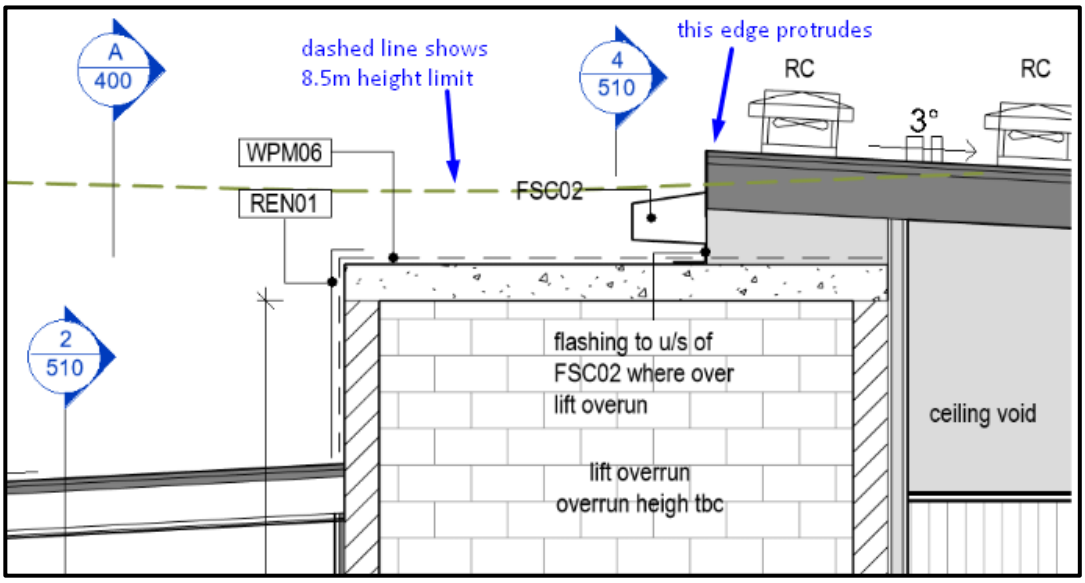
JOHN NEWTON B. Surv; M.I.S. Aust. TONY DENNY B. Surv: (Hons); M.I.S. Aust. DAMIAN CHAPELLE BTP. CPP
Office: Suite 1, 31 Carrington Street, Lismore, Postal Address: PO Box 1138 Lismore NSW 2480
Phone (02) 6622 1011 Fax (02) 6622 4088 Email office@newtondennychapelle.com.au
Also at: Cassino Court, 100 Barker Street, Casino NSW 2470 Phone/Fax (02) 6662 5000
ABN 18 094 689 845

The proposed building incorporates a minor encroachment into the 8.5m building height limitation for the site. The following plates illustrate the extent of the breach. The maximum building height is 8.95m.

**Building Height Variation - Plan View**




**Building Height Variation - Section View**



**B.2. What is the name of the Environmental Planning Instrument (EPI) that applies to the land?**
**Comment:** Ballina Local Environmental Plan 2012 (BLEP2012) applies to the land.

**B.3. What is the zoning of the land & What are the objectives of the zone?**
**Comment:** The subject site is zoned R2 – Low Density Residential pursuant to the BLEP2012. The planning objectives for the R2 Zone are provided below.

***Zone R2 – Low Density Residential***
*The primary objectives are:*

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To provide for development that is compatible with the character and amenity of the surrounding neighbourhood.*
- *To provide for development that meets the social and cultural needs of the community.*
- *To encourage development that achieves the efficient use of resources such as energy and water.*

**B.4. What is the Development Standard being varied?**
**Comment:** The development standard being varied is the Height of Buildings control as specified within Clause 4.3 of BLEP.

**B.5. What is the numeric value of the Development Standard in the relevant LEP?**
**B.6. What is the proposed numeric value of the Development Standard in your Development Application?**
**B.7. What is the percentage variation (between your proposal and the relevant LEP)?**
**Comment:** The numerical standard is 8.5m (as measured from the natural surface level to the highest point of the building).

The proposed library building incorporates a small portion with an overall building height of 8.95m. This equates to a 5.28% variation on the applicable development standard.

The building height variation applies to a minor proportion of the proposed built form.

We note that the existing sports hall has a maximum building height of 10.7m. No changes are proposed to the height of this part of the building.

**B.8. Is the Planning Control a Development Standard?**
**Comment:** The maximum height of building control prescribed under Clause 4.3 of the BLEP 2012 is a development standard capable of being varied under Clause 4.6 of the LEP.

**B.9. What is the Underlying Object or Purpose of the Standard?**

**Comment:** The objectives of the height standard as per BLEP 2012 are as follows:

> ***4.3 Height of buildings***
>
> *(1) The objectives of this clause are as follows—*
>
> - *to ensure that the height of buildings is compatible with the bulk, scale and character of the locality,*
> - *to minimise adverse impacts on existing or future amenity of adjoining properties and the scenic or landscape quality of the locality,*
> - *to protect significant views from public places.*

The underlying object or purpose of the development standard is therefore to provide a built form that is compatible with the site, the scale and character of surrounding development and avoids detrimental impacts on the amenity of the locality.

**C. Cl 4.6 BLEP CONSIDERATION**

**C.1. Clause 4.6(3)(a) – Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case**

**Comment:** Strict compliance with the maximum height of building standard is unreasonable and unnecessary in the circumstances of the application based on the following:

- The proposal involves alterations and additions to the existing Alstonville Cultural Centre. The building already represents a significant building form within the streetscape, which does not comply with the building height controls under the BLEP.
- The proposed variation can reasonably be considered minor having regard to the scale of the existing and proposed development on the land.
- The location of the height variation within the building form is such that it will not result in overshadowing, overlooking or privacy concerns relative to the dwelling located immediately to the north of the development.
- The proposal meets the objectives of the development standard as provided in clause 4.3 of the BLEP 2012 – refer to Table 2 below.
- The building height variation will not adversely impact upon the public domain.

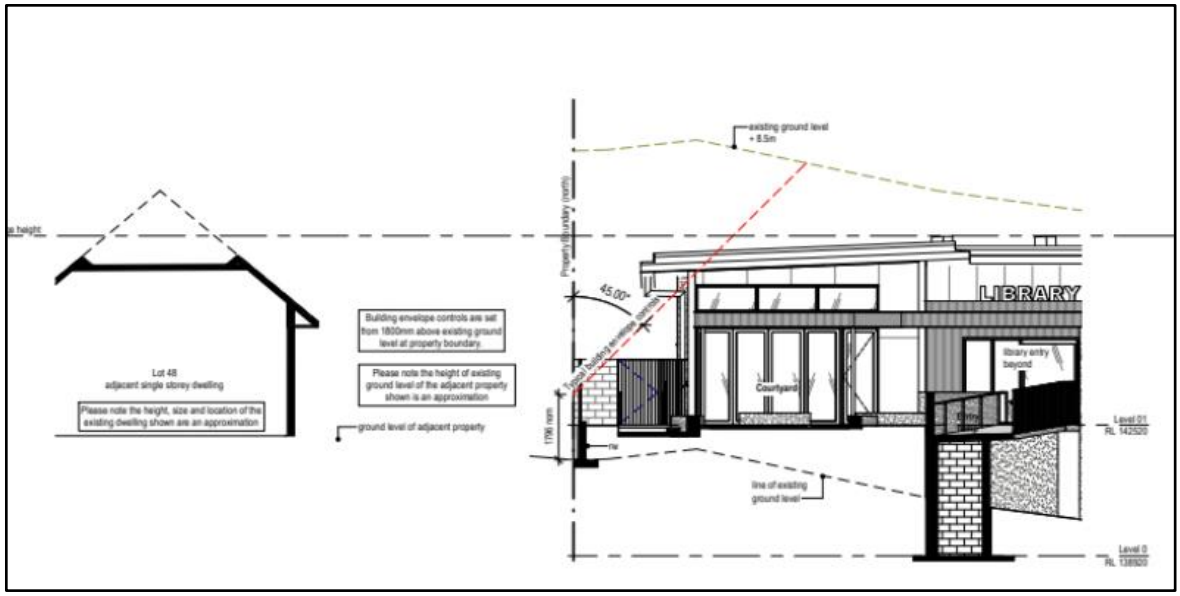
Considering the above, in the circumstances of this application, it is neither reasonable nor necessary to require compliance with the height of building standard under the BLEP

Each of the matters listed within the 'five-part test' outlined in *Wehbe v Pittwater [2007] NSWLEC 827* and *Varying Development Standards: A Guide* is listed and responded to as follows:

**1. The objectives of the standard are achieved notwithstanding non-compliance with the standard**

**Comment:** The underlying objectives of the building height control as listed within Clause 4.3 of the BLEP 2012 have been achieved as summarised in **Table 2** below.

**Table 2: Assessment of Consistency with Development Standard Objectives**

| Objective | Comment |
|---|---|
| (a) to ensure that the height of buildings is compatible with the bulk, scale and character of the locality, | Noted.<br><br>The existing sports hall on the site has a height of 10.7m which significantly exceeds the building height control for the land.<br><br>The site context is such that there are already structures on the land which significantly exceed the 8.5m building height control. These structures were approved and constructed prior to the introduction of BLEP2012. |
| (b) to minimise adverse impacts on existing or future amenity of adjoining properties and the scenic or landscape quality of the locality, | The existing building form is somewhat dated in appearance and incongruous with the broader streetscape. The proposed building extensions will provide a quality, contemporary presentation to the street and represents an improvement on the existing structures.<br><br>The proposed built form is designed to reflect the form and function of the proposed library extensions. Given the preferred floor to ceiling heights for community buildings of this kind and the span lengths for the roof, a minor exceedance results to the building height for part of the building. This part of the building will still be substantially lower that the existing sports hall on the site.<br><br>The proposed design will reinforce a positive streetscape character and meets the broad objectives established under this building height objective.<br><br>The development is located to the south of adjoining residential properties. As such, no concerns arise with respect to potential overshadowing.<br><br>As illustrated in the plate below, the topography of the site and architectural form are such that an appropriate interface is provided with the dwelling immediately adjoining the site. The proposed building height exceedance is removed from this dwelling. |
|  | |

| | |
|---|---|
| (c) to protect significant views from public places. | The proposed library building incorporates a small portion with an overall building height of 8.95m. The building height variation applies to a minor proportion of the proposed built form. The existing sports hall has a maximum building height of 10.7m. No changes are proposed to the height of this part of the building.<br><br>The site is located within an established urban context and physically removed from areas with particular visual or scenic values.<br><br>Closer views from the Showgrounds (looking west and north) are already dominated by the existing community centre building as are the views from Commercial Road looking east. As such, no adverse impacts on views are expected to result from the minor variation to the development standard relating to building height controls. |

**2. The underlying objective or purpose of the standard is not relevant to the development and therefore compliance is unnecessary**

**Comment:** This test is not applicable in the circumstances of the case. The objectives of the development standard are relevant to the development.

**3. The underlying object or purpose would be defeated or thwarted if compliance was required and therefore compliance is unreasonable**

**Comment:** The BLEP includes objectives for the R2 Medium Density Residential zone. These objectives are identified in **Table 3**. This table demonstrates that the variation is consistent with the objectives of the zone. Strict compliance with the building height development standard would not be antipathetic to the achievement of these objectives

**Table 3: Assessment of Consistency with R3 Zone Objectives**

| Objective | Comment |
|---|---|
| *To provide for the housing needs of the community within a low-density residential environment.* | The current proposal involves alterations and additions to the existing Alstonville Cultural Centre. The site is currently not utilised for residential purposes and this will not change as a result of the current application. |
| *To enable other land uses that provide facilities or services to meet the day to day needs of residents.* | The proposed alterations and additions will provide substantially improved community facilities for the Alstonville township. |
| *To provide for development that is compatible with the character and amenity of the surrounding neighbourhood.* | The existing building form on the land is substantially larger than the residential dwellings in the locality.<br><br>The existing building form is somewhat dated in appearance and incongruous with the broader streetscape. The proposed building extensions will provide a quality, contemporary presentation to the street and represents an improvement on the existing structures.<br><br>The topography of the site and architectural form are such that an appropriate interface is provided with the dwelling immediately adjoining the site. The proposed building height exceedance is removed from this dwelling. |

| | |
|---|---|
| *To provide for development that meets the social and cultural needs of the community.* | The proposed alterations and additions will provide substantially improved community facilities for the Alstonville township. |
| *To encourage development that achieves the efficient use of resources such as energy and water.* | The project is accompanied by a Section J assessment relating to energy and water efficiency. |

**4. The development standard has been virtually abandoned or destroyed by the council's own actions in granting consents departing from the standard and hence compliance with the standard is unnecessary and unreasonable**

**Comment:** Ballina Shire Council has previously supported Clause 4.6 variations, where contraventions of the building height standard were demonstrated to be reasonable having regard to the circumstances of the case.

**5. The compliance with development standard is unreasonable or inappropriate due to existing use of land and current environmental character of the particular parcel of land. That is, the particular parcel of land should not have been included in the zone.**

**Comment:** The existing building on the land substantially exceeds the building height control for the site. The minor variation associated with the proposed library redevelopment is therefore considered reasonable in the circumstances.

**C.2. 6.1.2. Clause 4.6(3)(b) – Are there sufficient environmental planning grounds to justify contravening the development standard?**

The proposed development is supportable on environmental planning grounds for the following reasons:

- The proposal is consistent with the objectives of the development standard as provided in clause 4.3 of the BLEP 2012.
- The minor non-compliance does not result in consequential environmental impacts. The height difference has an inconsequential shadowing impact at mid-winter to any adjoining buildings and no impact upon the public domain.
- No other amenity impacts (privacy, views or outlook) will arise from the additional height proposed.
- The proposed building is in keeping with the scale of building already existing on the site. It is noted however that the proposed architectural form represents a substantial improvement on that already existing on the site.
- The building design provided for an appropriate transition in building scale to the dwelling located to the north of the property.

Given the above, the variation to the development standard is supportable on environmental planning grounds.

**C.4. Clause 4.6(5)(b) – Is there a public benefit of maintaining the development standard?**

The proposed development achieves the objectives of the building height development standard and the land use zoning objectives despite the non-compliance. It has been demonstrated that the proposed variation arises from the desired floor to ceiling heights for community buildings of this kind combined with the required length of roof span. Furthermore, the proposed alterations and additions need to fit within

the context of the existing structures on the site and the design has been developed to ensure that an appropriate interface occurs with the dwelling located immediately adjoin the site.

Overall, it is considered that the strict maintenance of the standard in this instance is not in the public interest as the current proposal will result in the delivery of a high-quality community facility to serve the needs of the local community. The minor variation to the building height control is considered reasonable in the context of the site and will not result in unreasonable amenity impacts in the locality. As such, there would be no public benefit in maintaining the development standard in this case.

**C.5. Clause 4.6(5)(c) – Are there any other matters required to be taken into consideration by the Secretary before granting concurrence?**

Concurrence can be assumed. Nevertheless, there are no additional matters that need to be considered within the assessment of the Clause 4.6 Request and prior to granting concurrence, should it be required.

**D. CONCLUSION**

The above information demonstrates that, given the planning context and proposed use of the building, the proposed building height represents a suitable building form for the site. Strict compliance with the height development standard is unreasonable and/or unnecessary in the circumstances of the case.

Based on the reasons outlined in this document it is concluded that the request is well founded and that the circumstances of the case warrant flexibility in the application of the development standard within the framework afforded by Clause 4.6 of BLEP.

Accordingly, it is considered that the proposed variation to the height of buildings development standard is considered appropriate and well founded and can be supported under the provisions of Clause 4.6 Exceptions to development standards.



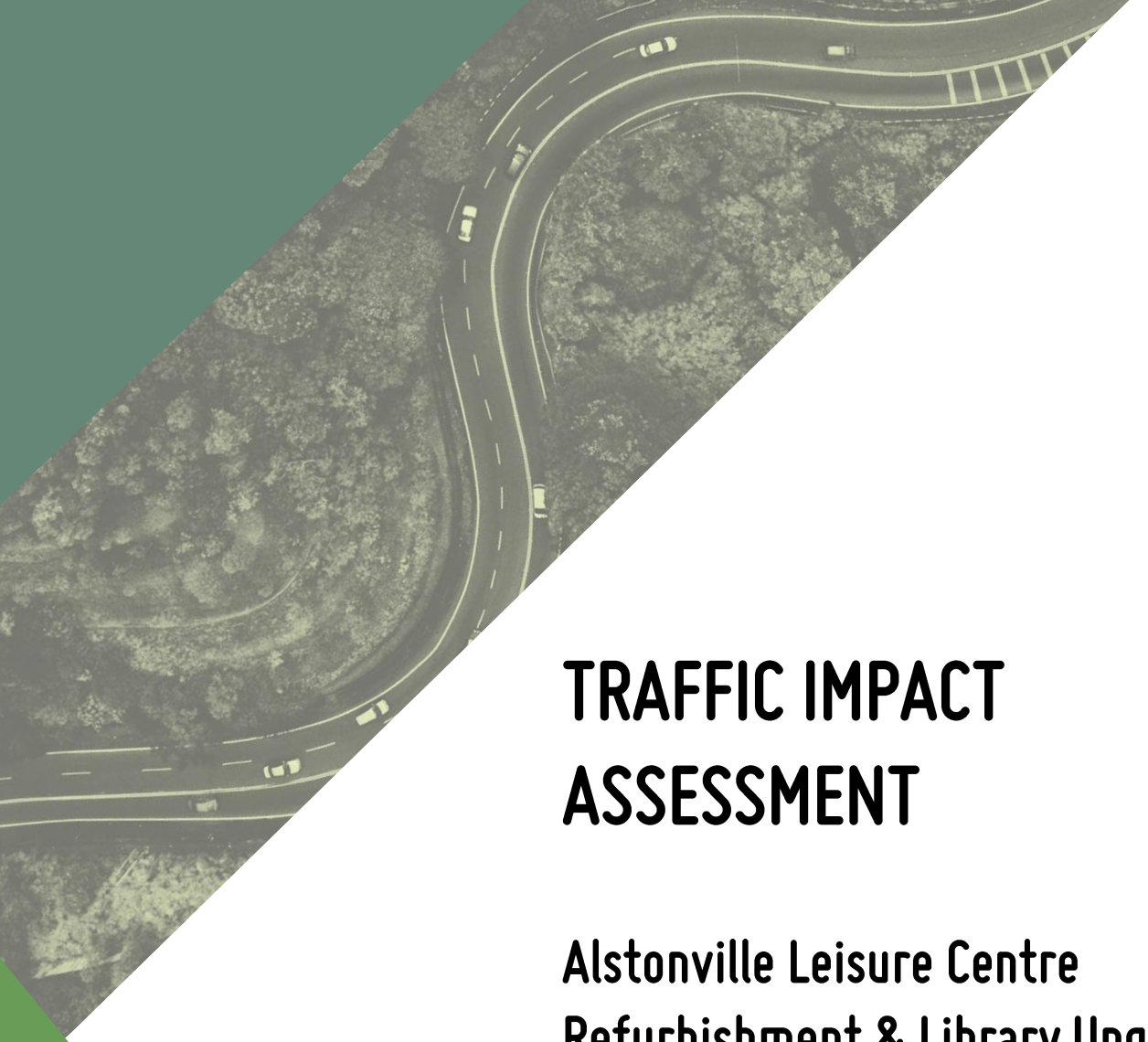
…….

**KARINA VIKSTROM**

Town Planner. BTP.

Date: 8th May 2023 (Rev 1)

# Attachment 5 – Traffic Impact Assessment



# TRAFFIC IMPACT ASSESSMENT

## Alstonville Leisure Centre Refurbishment & Library Upgrade

## 42-46 Commercial Rd Alstonville NSW 2477

For: KO & Co ARCHITECTURE
Report no: 20451-TIA-C
Date: 19-Jan-22

Greg Alderson Associates

Greg Alderson Associates

## Contact Information

43 Main Street,

Clunes NSW 2480

Telephone: 02 6629 1552

office@aldersonassociates.com.au
www.aldersonassociates.com.au

## Document Information

| | |
|---|---|
| Project name | Alstonville Leisure Centre Refurbishment & Library Upgrade |
| Reference | 20451-TIA-C |
| Revision Summary | Rev C |

© Greg Alderson & Associates. Copyright in the whole and every part of the document belongs to Greg Alderson & Associates and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form in or on any media to any person other than by agreement with Greg Alderson & Associates. This document is produced by Greg Alderson & Associates solely for the benefit and use by the client in accordance with the terms of the engagement. Greg Alderson & Associates does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document

# CONTENTS

1. Introduction ..... 4
1.1 Development Summary ..... 4
1.2 Scope ..... 5
2. Existing Traffic Conditions ..... 6
2.1 Commercial Road ..... 6
2.2 Traffic Load ..... 6
2.3 Site Traffic Generation ..... 6
2.3.1 Existing Traffic ..... 6
2.3.2 Development Generated Traffic ..... 7
2.3.3 Traffic Impact ..... 8
3. Proposed Access AS2890 Compliance ..... 9
3.1 Access Driveway Position ..... 9
3.2 Access Width ..... 9
3.3 Access Sight Distance ..... 9
3.4 Pedestrian Sight Lines ..... 10
3.5 Parking ..... 10
3.6 Swept Path Analysis ..... 10
4. Conclusion ..... 11
Appendix A – Site Plan ..... 12
Appendix B – Traffic Count Data ..... 13
Appendix C – Swept Path Analysis ..... 14

# LIST OF FIGURES

Figure 1 – Site locality (SIX Maps, 2021) ..... 4
Figure 2 – Proposed site plan (KO & Co ARCHITECTURE, 2021) ..... 5

# LIST OF TABLES

Table 1 – SSD Summary for proposed access using AS2890.1 ..... 9

# 1. Introduction

Greg Alderson and Associates have been engaged by KO & Co ARCHITECTURE to prepare a Traffic Impact Assessment (TIA) for the proposed refurbishment and library upgrade at the Alstonville Leisure Centre at 42–46 Commercial Rd, Alstonville NSW. A locality plan of the subject site can be seen below in Figure 1.

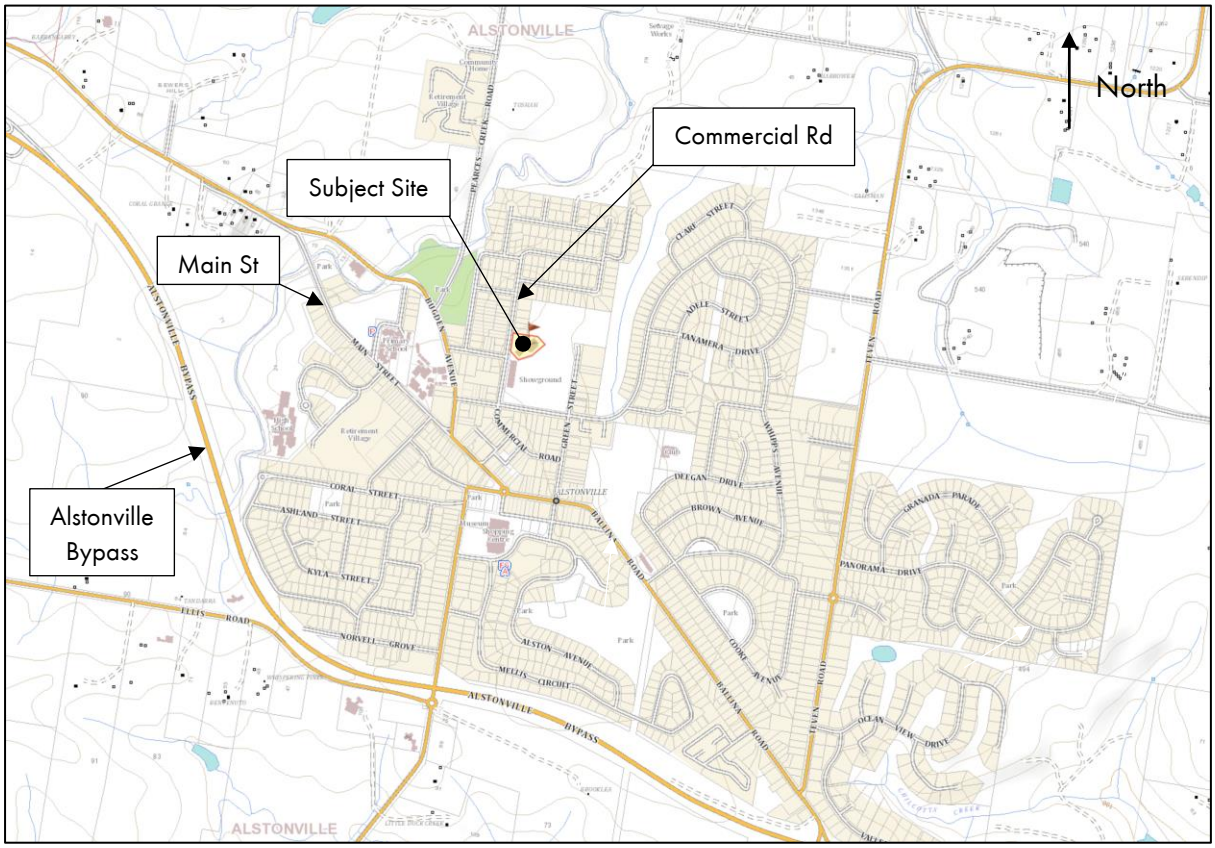



Figure 1 – Site locality (SIX Maps, 2021)

## 1.1 Development Summary

The proposed development comprises the following:

- Refurbishments and library upgrade at the Alstonville Leisure Centre
- Upgrade to the infrastructure surrounding the facility (access driveway, landscaping, etc.)

The proposed site plan is shown in Figure 2, showing the location of the existing buildings and infrastructure as well as the proposed refurbishments, extensions and upgrades. A larger version of the proposed site plan is also attached as Appendix A of this report.

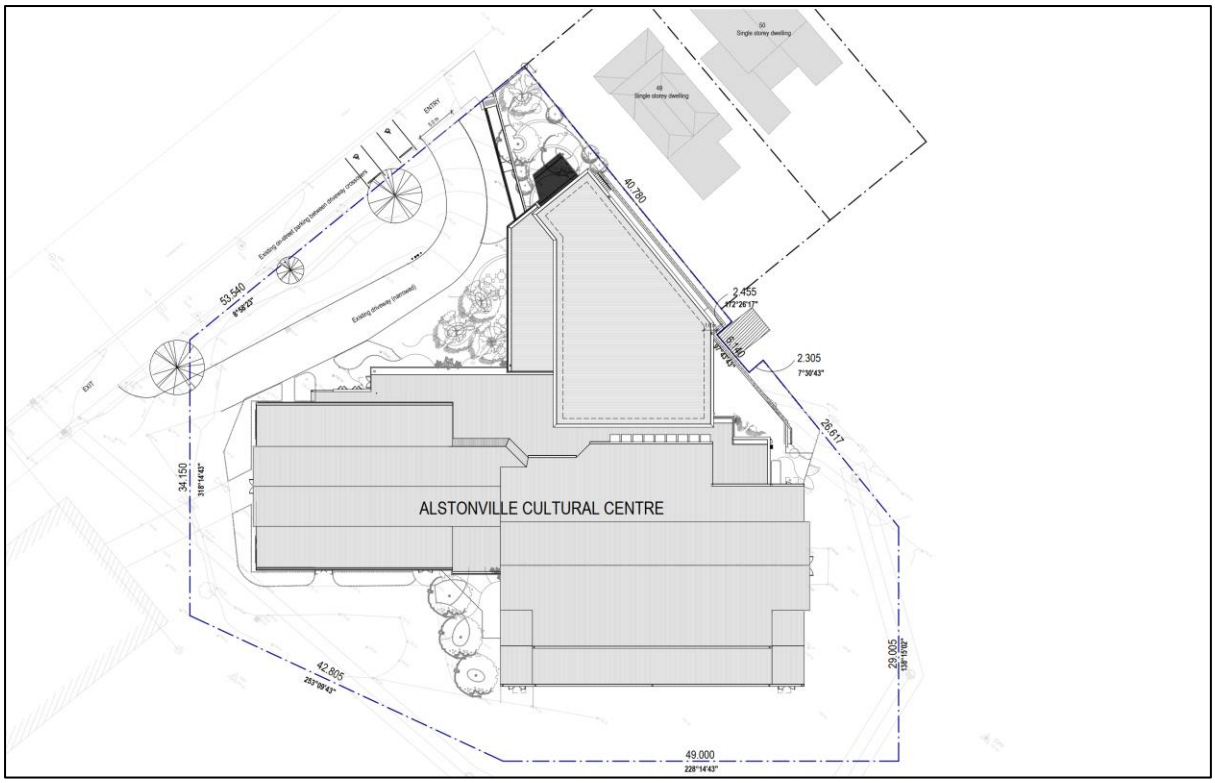



Figure 2 – Proposed site plan (KO & Co ARCHITECTURE, 2021)

## 1.2 Scope

This report is scoped as a TIA in accordance with the 2012 Ballina Shire Council Development Control Plan (DCP). As such, it assesses the following:

- Proposed access driveway position
- Vehicle sight distances and sight lines to pedestrians
- Potential traffic generated resulting from the proposed development
- Parking requirements
- Swept path analysis

The assessments above will be undertaken with reference to the requirements of the following policies and guidelines:

- 2012 Ballina Shire Council DCP
- RTA Guide to Traffic Generating Developments
- Austroads Guide to Road Design Part 4: Geometric Design
- NRLG Development Design Specification: Geometric Road Design

# 2. Existing Traffic Conditions

## 2.1 Commercial Road

According to Table D.1.5 of the *NRLG Development Design Specification: Geometric Road Design*, Commercial Road has the characteristics of local / collector street as the carriageway width is between 9–11 m wide. It is noted that as Commercial Road has the characteristics of a local / collector street, Table D.1.5 also indicates that the maximum traffic volume along Commercial Road is 2,000–3,000 vpd. The speed limit along Commercial Road is generally 50km/h.

The portion of Commercial Road pertaining to the subject site is generally in good condition, with shoulders on both sides of the road. The site's Commercial Road frontage is relatively flat and has formalised drainage, with a kerb and gutter system spanning the site's entire street frontage.

## 2.2 Traffic Load

One classified traffic counter was installed on Commercial Road approximately 30m north of the High Street & Commercial Road junction. The traffic counter recorded the traffic data along Commercial Road from December 14–20, 2020 (6 days).

The full traffic count data report can be found in Appendix B of this report. The traffic count data has been summarised as follows:

- 6-day ADT: 880 vpd
- AM Peak: 78.8 vph
- PM Peak: 87.1 vph
- 85th Percentile Speed – Combined: 52.9 km/h
- 85th Percentile Speed – Northbound: 51.5 km/h
- 85th Percentile Speed – Southbound: 54.4 km/h
- % Heavy Vehicles: 5.6 %

## 2.3 Site Traffic Generation

### 2.3.1 Existing Traffic

The potential development related traffic generation from the development has been determined using the traffic generation rates provided in RTA Guide to Traffic Generating Developments (GTGD).

The Alstonville Leisure Centre currently has three main areas:

- Library
- Sports hall
- Theatre

Library

The existing library has an approximate gross floor area (GFA) of 420 $m^2$ (including the foyer and meeting room areas).

Advice received from library staff indicates that the library currently experiences the following number of visitors:

- Maximum: 300 visitors per day
- Average: 120 visitors per day
- Peak: 12 visitors per hour

It is understood that the mode of transport to and from the library is split between driving and walking, with approximate 50% of visitors driving and 50% of visitors walking. Based on an average of 2 people per vehicle, this breakdown equates to the following vehicle generation rates:

- Peak hour traffic: (12 x 0.5) / 2 = 3 vph
- ADT: (300 x 0.5) / 2 = 75 vpd

Sports Hall & Theatre

It is proposed that there is a slight increase in the GFA of the sports hall and theatre for additional storage and the increase court runoff zone. As this proposed increase in GFA is minor, any change to the traffic generation from these changes is nil.

It is understood that the theatre experiences peak traffic flows during large events such as school dances or community events, and that these peak traffic flows do not coincide with the library or sports hall peak traffic flows.

Further, during large events, it is understood that vehicles utilise on-street parking on Commercial Road and surrounding streets or overflow parking in the showground where appropriate.

### 2.3.2 Development Generated Traffic

Library

The proposed library has an approximate GFA of 756 $m^2$ and has been designed for a maximum future capacity of 200 people. It is predicted that the number of patrons visiting the library will increase at a rate proportional to the increase in GFA as well as an additional 25% increase based on the inclusion of newer technology, meeting rooms, and so on. Thus, it is estimated that the proposed library will experience the following number of visitors after the refurbishment:

- Maximum: 300 x (756 / 420) x 1.25 = 630 visitors per day
- Average: 120 x (756 / 420) x 1.25 = 252 visitors per day
- Peak: 12 x (756 / 420) x 1.25 = 25.2 visitors per hour

The mode of transport for visitors travelling to and from the library is expected to remain the same as existing modes of transport, with approximately 50% of visitors driving and 50% of visitors

walking. Based on an average of 2 people per vehicle, the refurbished library is estimated to experience the following number of daily and peak hour vehicle trips:

- Peak hour traffic: (25.2 x 0.5) / 2 = 6.3 vph
- ADT: (630 x 0.5) / 2 = 157.5 vpd

The increase in traffic resulting from the refurbished library is therefore estimated as follows:

- Peak hour traffic: 6.3 – 3 = 3.3 vph
- ADT: 157.5 – 75 = 82.5 vpd

Therefore, the total traffic along Commercial Road after the library refurbishment and proposed development has been estimated using the 6-day ADT and PM peak as recorded using the classified traffic counters and is as follows:

- Peak hour traffic: 87.1 + 3.3 = 90.4 vph
- ADT: 880 + 82.5 = 962.5 vpd

### 2.3.3 Traffic Impact

While the proposed development is predicted to increase the peak hour and daily traffic loads along Commercial Road, the predicted traffic loads on Commercial Road remain well below the maximum traffic volume of 2,000–3,000 vpd as given in Table D.1.5 of the *NRLG Development Design Specification: Geometric Road Design*.

Given that the capacity of Commercial Road is far in excess of the estimated post-development traffic loads, it is concluded that there will be no significant adverse impacts experienced by road users along Commercial Road resulting from the increased traffic loads.

# 3. Proposed Access AS2890 Compliance

## 3.1 Access Driveway Position

The position of the proposed access driveway position will not change from the position of the existing access driveway; thus, the position of the access driveway is not included in this assessment.

## 3.2 Access Width

The development's access width requirements from AS2890.1 are summarised as follows:

- The access driveway has a User Class of 2 (AS2890.1 Table 1.1).
- Commercial Road is a local road and the number of proposed parking spaces is less than 25 spaces. Thus, the development is classified as a Category 2 facility (AS2890.1 Table 3.1).
- The entry and exit for the access are to be separate as per the existing arrangement, with a width between 3–5.5m (AS2890.1 Table 3.2).

## 3.3 Access Sight Distance

As the position of the proposed access driveway position will not change from the position of the existing access driveway, the sight distance along Commercial Road will not change from the existing sight distance along Commercial Road.

From the proposed access driveway is shown in Figure 3.2 of AS2890.1. The sight distance available in each direction along Commercial Road was measured in accordance with AS2890.1. The minimum SSD, desirable 5-second gap and available sight distances for each direction along Commercial Road are shown below in Table 1.

Table 1 – SSD Summary for proposed access using AS2890.1

| Direction along Commercial Road | Minimum SSD (m) | Desirable 5s gap (m) | Available SSD (m) |
|---|---|---|---|
| Northbound | 45 | 69 | > 100 |
| Southbound | 45 | 69 | > 100 |

As seen above, the sight distance from the proposed access driveway complies with the minimum SSD and desirable 5s gap in both the northbound and southbound directions along Commercial Road.

It is noted that any vegetation surrounding the proposed entry and exit points should be maintained to ensure adequate sight distance is maintained along Commercial Road.

## 3.4 Pedestrian Sight Lines

Pedestrian sight lines have been assessed in accordance with Figure 3.3 of AS2890.1, which requires vehicles approaching the road along the driveway to have clear sight lines to any pedestrians crossing or about to cross the driveway.

The sight lines were confirmed as acceptable in accordance with AS2890.1 and no obstructions are anticipated as part of the development.

## 3.5 Parking

Parking bay dimensions are to be in accordance with AS2890.1, which states that 90-degree parking spaces in Category 2 facilities are to be 2.5m wide x 5.4m long where overhang over a kerb is not available or 2.5m wide x 4.8m long where a 600mm overhang over a low kerb is available. The accessible parking spaces are to be 2.4m wide x 5.4m long, with the shared area also to be 2.4m wide x 5.4m long.

The area between the driveway entry and exit is currently used as on-site parking. This distance measures approximately 47.5m, with capacity for 18 parking spaces (inclusive of two accessible parking spaces and a shared space as shown in Figure 2 and Appendix A). The proposed parking spaces and accessible parking spaces are to be in accordance with AS2890.1 and AS2890.6 respectively.

As the site's existing parking has a low kerb that allows for some overhang over the garden between the kerb and the existing fence, the 5.4m parking bay length is to be measured from the fence and is to finish before the end of the dish drain (shall not extend into the carriageway of Commercial Road).

Given that vehicles utilise on-street parking on Commercial Road and surrounding streets or overflow parking in the showground where appropriate during large events, the 18 parking spaces for the Alstonville Leisure Centre provided between the entry and exit is considered appropriate for the development.

It is also proposed that a loading bay is provided approximately 25m into the driveway out the front of the Alstonville Leisure Centre. Refer to Appendix C for details.

## 3.6 Swept Path Analysis

The swept path analysis for vehicles entering and exiting the site is included as Appendix C of this report. As shown in Appendix C, the proposed driveway arrangement is suitable for vehicles to enter and exit the facility. It is understood that the driveway will be wider at the proposed loading bay, allowing vehicles to circulate through the access driveway while the loading bay is occupied.

# 4. Conclusion

The proposed development at the Alstonville Leisure Centre comprises the following:

- Refurbishments and library upgrade
- Upgrade to the infrastructure surrounding the facility (access driveway, landscaping, etc.)

The classified traffic counter installed along Commercial Road between December 14–20, 2020 recorded the following:

- 6-day ADT: 880 vpd
- AM Peak: 78.8 vph
- PM Peak: 87.1 vph
- 85th Percentile Speed – Combined: 52.9 km/h
- % Heavy Vehicles: 5.6%

The proposed library upgrade is predicted to result in the following increase in traffic load along Commercial Road:

- Peak hour traffic: 3.3 vph
- ADT: 82.5 vpd

Thus, the estimated total traffic along Commercial Road after the proposed extension and refurbishments is estimated as follows:

- Peak hour traffic: 90.4 vph
- ADT: 962.5 vpd

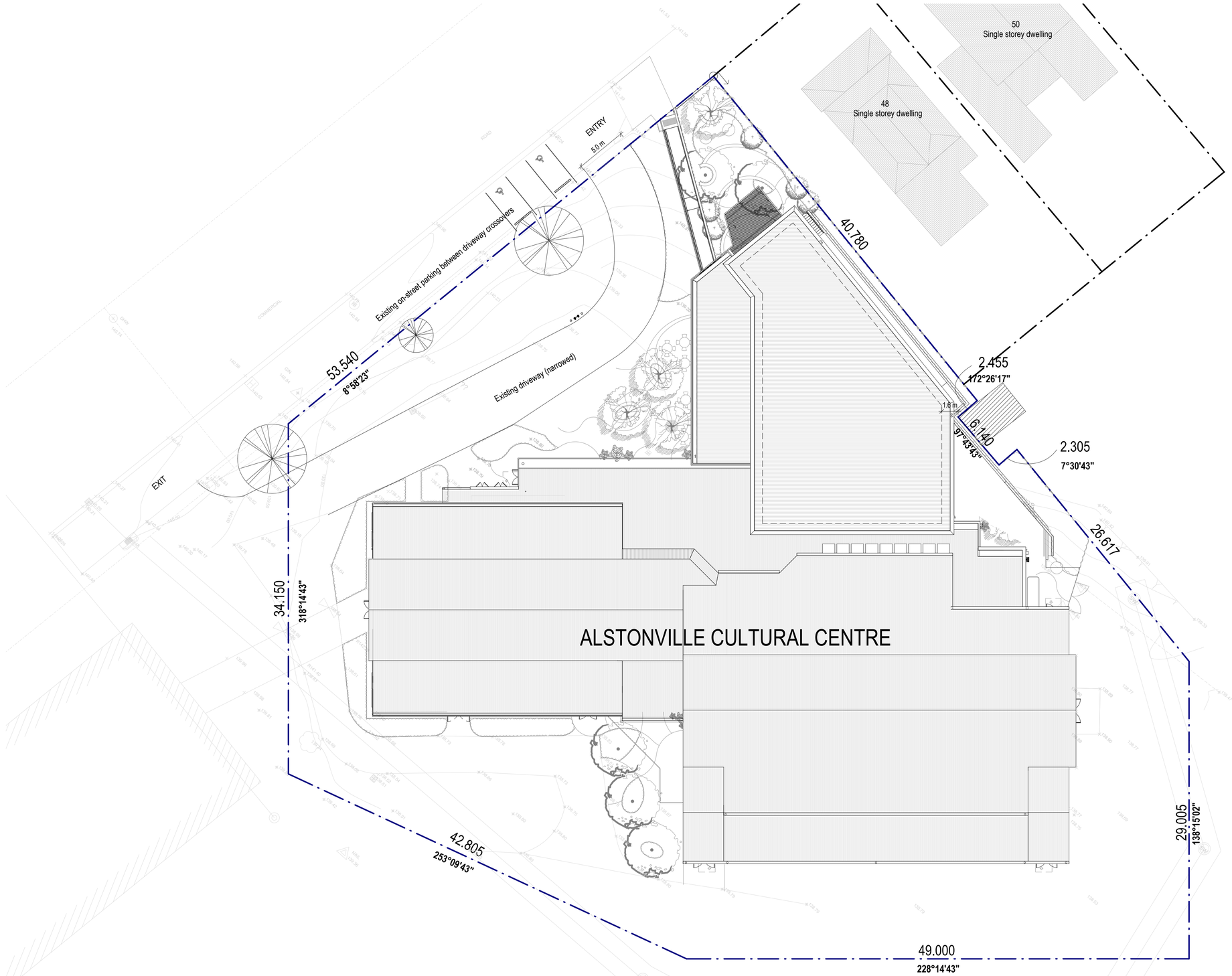
Given that the estimated capacity of Commercial Road (2,000–3,000 vpd) is far in excess of the estimated post-development traffic loads, there will be no significant adverse impacts experienced by road users along Commercial Road resulting from the increased traffic loads.

The proposed access driveway complies with the requirements of AS2890.1. The entry and exit of the proposed driveway are to be separate as per the existing arrangement, with a width between 3–5.5m. There is adequate sight distance available from the proposed driveway in both directions along Commercial Road.

Given that vehicles utilise on-street parking on Commercial Road and surrounding streets or overflow parking in the showground where appropriate during large events, the 18 parking spaces for the Alstonville Leisure Centre provided between the entry and exit is considered appropriate for the development.

Parking bay dimensions are to be in accordance with AS2890.1, which states that 90-degree parking spaces in Category 2 facilities are to be 2.5m wide x 5.4m long (see Section 3.5). The proposed parking spaces and accessible parking spaces are to be in accordance with AS2890.1 and AS2890.6 respectively. It is also proposed that a loading bay is provided approximately 25m into the driveway out the front of the Alstonville Leisure Centre. Refer to Appendix C for details.

# Appendix A – Site Plan




1 Site Plan
SCALE @ A1 1 : 200

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| A | 12.08.2020 | For coordination | KF | KO |
| B | 20.08.2020 | Concept Design Issue | KF | KO |
| C | 05.11.2021 | Preliminary consultant issue | CM | KO |

100mm LINE @ A1 — 10mm — scale : 1 : 200

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
SITE PLAN

PROJECT NO: 2010 at psz 1:1 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 100 | C |

# Appendix B — Traffic Count Data

Greg Alderson Associates

43 Main St, Clunes, NSW 2480
Phone: (02) 6629 1552
Email: office@aldersonassociates.com.au

# Traffic Summary Report

**Site: Commercial Rd, Alstonville** (Commercial Rd, Alstonville - approx. 40m north of High St junction <50>)

Date: 0:00 Tuesday, 14 December 2021 to 0:00 Monday, 20 December 2021 (6 days)

***Posted speed limit (PSL) = 50 km/h***

## Average Daily Traffic (ADT)

| | ADT | AWDT (weekdays) | AWET (weekend) |
|---|---|---|---|
| **Passenger Vehicles Classes 1 to 2 - Light** | 824 (93.52%) | 882 (92.65%) | 707 (96.05%) |
| **Rigid Vehicles Classes 3 to 5 - Medium** | 12 (1.364%) | 16 (1.576%) | 5 (0.680%) |
| **Articulated Vehicles Classes 6 to 12** | 38 (4.205%) | 46 (4.727%) | 21 (2.857%) |
| **Total (All classes)** | 880 | 952 | 736 |
| **Days** | 6 | 4 | 2 |

## Traffic Speed *km/h*

| | All Days | Weekdays | Weekend |
|---|---|---|---|
| **Average Speed** | 41.6 | 40.8 | 43.9 |
| **85% Speed - Combined** | 52.9 | 52.4 | 54.0 |
| **85% Speed – North** | 51.5 | 50.9 | 52.6 |
| **85% Speed – South** | 54.4 | 53.6 | 53.6 |
| **Min Speed** | 10.2 | 10.2 | 10.8 |
| **Max Speed** | 84.0 | 83.6 | 84.0 |
| **% Exceeding PSL** | 24.17 % | 21.79 % | 30.32 % |

## Total Traffic Volume

| | All Days | Weekdays | Weekend |
|---|---|---|---|
| **Both Directions (Total Vehicles)** | 5280 | 3809 | 1471 |
| **North Direction Only** | 2742 | 1997 | 745 |
| **South Direction Only** | 2538 | 1812 | 726 |
| **Passenger Vehicles Classes 1 to 2 - Light** | 4942 | 3529 | 1413 |
| **Rigid Vehicles Classes 3 to 5 - Medium** | 73 | 63 | 10 |
| **Articulated Vehicles Classes 6 to 12** | 225 | 183 | 42 |

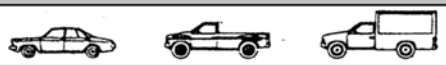
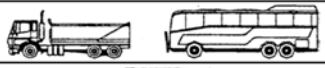
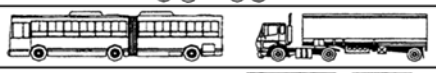
## Average Daily Volume

| | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
|---|---|---|---|---|---|---|---|
| **AM Pk North** | - | 40 | 32 | 36 | 44 | 33 | 38 |
| **PM Pk North** | - | 56 | 56 | 58 | 49 | 37 | 42 |
| **AM Pk South** | - | 47 | 46 | 53 | 39 | 36 | 29 |
| **PM Pk South** | - | 33 | 44 | 39 | 41 | 35 | 33 |
| **Days** | - | 1 | 1 | 1 | 1 | 1 | 1 |

| Class | | | | |
|---|---|---|---|---|
| **Class (*AustRoads94*)** | **All Days** | **%** | **Weekdays** | **Weekend** |
| **1 - SV** | 4942 | 93.60% | 3529 | 1413 |
| **2 - SVT** | 73 | 1.383% | 63 | 10 |
| **3 - TB2** | 225 | 4.261% | 183 | 42 |
| **4 - TB3** | 20 | 0.379% | 16 | 4 |
| **5 - T4** | 7 | 0.133% | 7 | 0 |
| **6 - ART3** | 6 | 0.114% | 4 | 2 |
| **7 - ART4** | 7 | 0.133% | 7 | 0 |
| **8 - ART5** | 0 | 0.000% | 0 | 0 |
| **9 - ART6** | 0 | 0.000% | 0 | 0 |
| **10 - BD** | 0 | 0.000% | 0 | 0 |
| **11 - DRT** | 0 | 0.000% | 0 | 0 |
| **12 - TRT** | 0 | 0.000% | 0 | 0 |

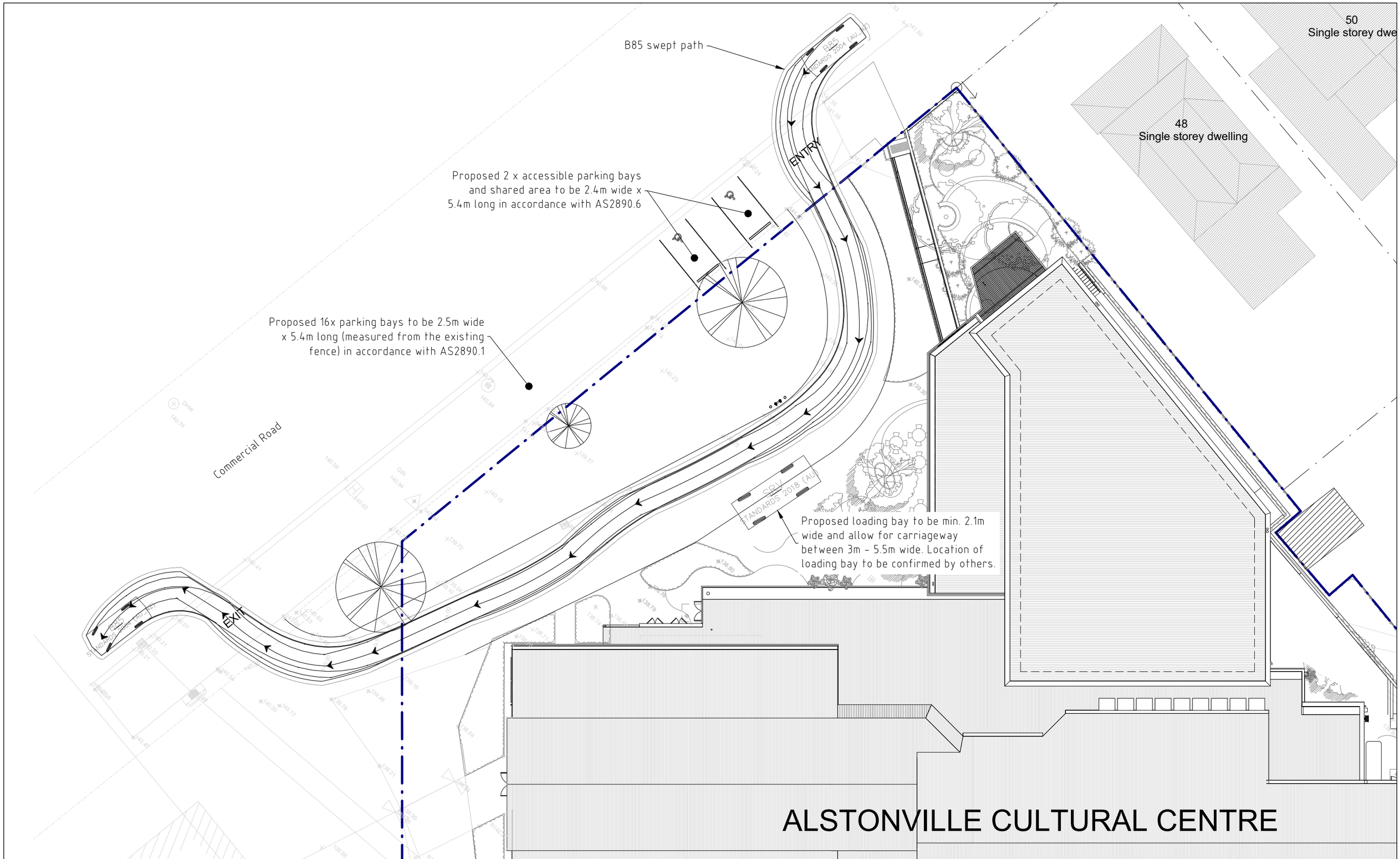
*Class scheme = AustRoads94*
*Report created 12:05 Monday, 20 December 2021 using MTE version 5.0.6.0 - Template not certified by MetroCount*

## AUSTROADS Vehicle Classification System

| Level 1 Length (indicative) Type | Level 2 Axles and Axle Groups Axles | Groups | Level 3 Vehicle Type Typical Description | AUSTROADS Classification Class | Parameters | Typical Configuration |
|---|---|---|---|---|---|---|
| | | | **LIGHT VEHICLES** | | | |
| **Short** up to 5.5m | | 1 or 2 | **Short** Sedan, Wagon, 4WD, Utility, Light Van, Bicycle, Motorcycle, etc | 1 | d(1) ≤ 3.2m and axles = 2 |  |
| | 3, 4 or 5 | 3 | **Short - Towing** Trailer, Caravan, Boat, etc | 2 | groups = 3 d(1) ≥ 2.1m, d(1) ≤ 3.2m, d(2) ≥ 2.1m and axles = 3, 4 or 5 |  |
| | | | **HEAVY VEHICLES** | | | |
| **Medium** 5.5m to 14.5m | 2 | 2 | **Two Axle Truck or Bus** | 3 | d(1) > 3.2m and axles = 2 |  |
| | 3 | 2 | **Three Axle Truck or Bus** | 4 | axles = 3 and groups = 2 |  |
| | > 3 | 2 | **Four Axle Truck** | 5 | axles > 3 and groups = 2 |  |
| **Long** 11.5m to 19.0m | 3 | 3 | **Three Axle Articulated** Three axle articulated vehicle, or Rigid vehicle and trailer | 6 | d(1) > 3.2m, axles = 3 and groups = 3 |  |
| | 4 | > 2 | **Four Axle Articulated** Four axle articulated vehicle, or Rigid vehicle and trailer | 7 | d(2) < 2.1m or d(1) < 2.1m or d(1) > 3.2m axles = 4 and groups > 2 |  |
| | 5 | > 2 | **Five Axle Articulated** Five axle articulated vehicle, or Rigid vehicle and trailer | 8 | d(2) < 2.1m or d(1) < 2.1m or d(1) > 3.2m axles = 5 and groups > 2 |  |
| | ≥ 6 | > 2 | **Six Axle Articulated** Six axle articulated vehicle, or Rigid vehicle and trailer | 9 | axles = 6 and groups > 2 or axles > 6 and groups = 3 |  |
| **Medium Combination** 17.5m to 36.5m | > 6 | 4 | **B Double** B Double, or Heavy truck and trailer | 10 | groups = 4 and axles > 6 |  |
| | > 6 | 5 or 6 | **Double Road Train** Double road train, or Medium articulated vehicle and one dog trailer (M.A.D.) | 11 | groups = 5 or 6 and axles > 6 |  |
| **Large Combination** Over 33.0m | > 6 | > 6 | **Triple Road Train** Triple road train, or Heavy truck and three trailers | 12 | groups > 6 and axles > 6 |  |

**Definitions:**
Group: Axle group, where adjacent axles are less than 2.1m apart
Groups: Number of axle groups
Axles: Number of axles (maximum axle spacing of 10.0m)
d(1): Distance between first and second axle
d(2): Distance between second and third axle

# Appendix C — Swept Path Analysis




# ALSTONVILLE CULTURAL CENTRE

| Rev | Revision Description | BY | DATE |
|---|---|---|---|
| A | FOR INFORMATION | AB | 21/12/2021 |
| B | UPDATED NOTES | AB | 14/01/2022 |

THIS DRAWING IS CONFIDENTIAL AND IS THE PROPERTY OF GREG ALDERSON AND ASSOCIATES. IT MUST NOT BE DISCLOSED TO A THIRD PARTY, REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR.

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS

REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE

Z:\JOBS\20\20451 - KO & Co - Alstonville Leisure and Entertainment Centre\CIVIL\CAD\20451-TP-A.dwg

**GREG ALDERSON & ASSOCIATES**
ABN 58 594 160 789
43 Main Street CLUNES NSW 2480
Ph: 02 6629 1552
E: office@aldersonassociates.com.au
Web: aldersonassociates.com.au

Client: KO & CO ARCHITECTURE

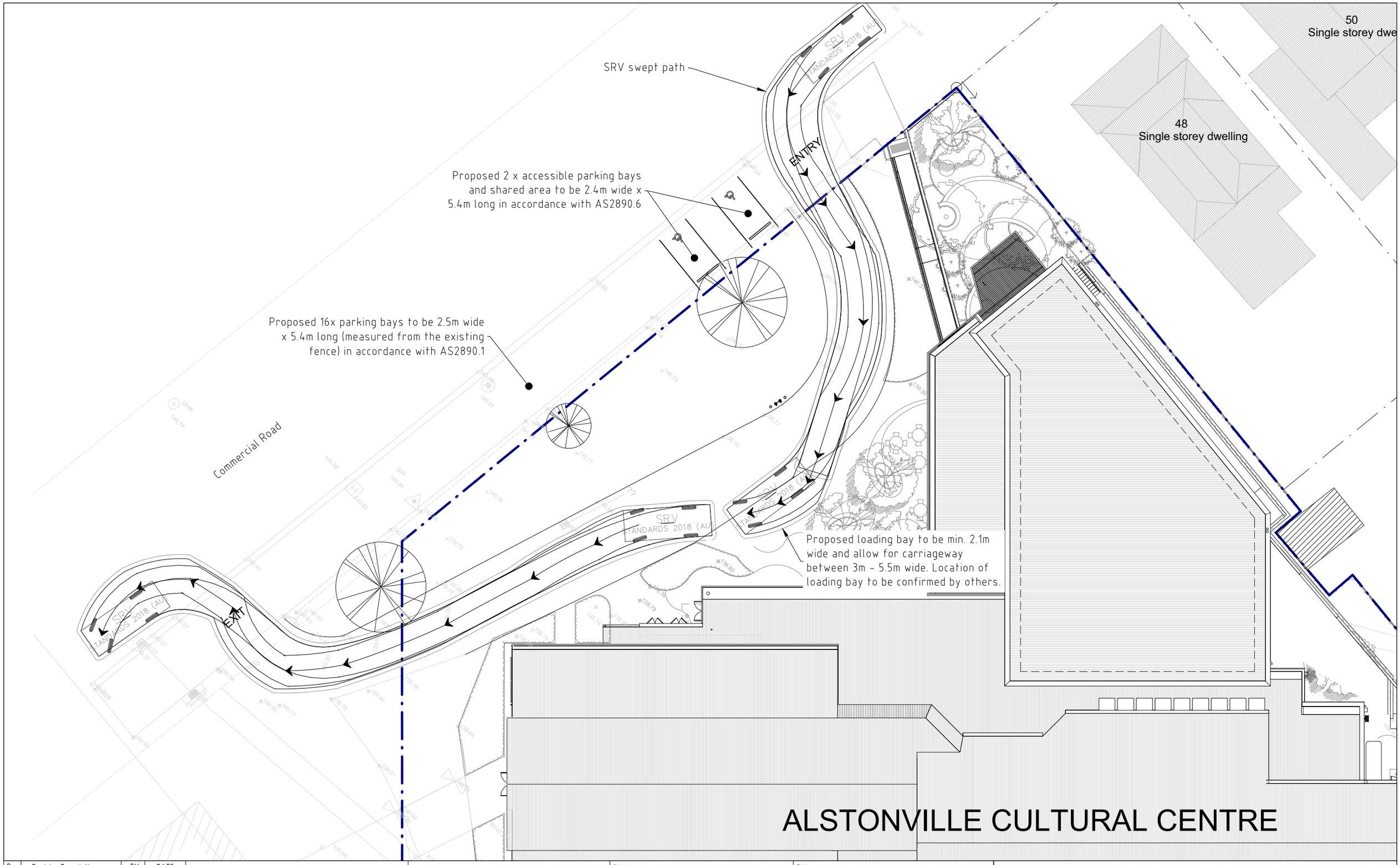
Site address: 42-46 COMMERCIAL ROAD ALSTONVILLE NSW 2477

Title: SWEPT PATH ANALYSIS B85 VEHICLE

Project: ALSTONVILLE LEISURE CENTRE UPGRADE

FOR INFORMATION

| Drawn: | Scale: | | Checked: | Date: |
|---|---|---|---|---|
| AB | 1:250 | | | 14/01/2022 |
| Checked: | Original Size: | No. in set: | | Revision: |
| AE | A3 | 01 of 02 | | B |
| Job Number: | Drawing Number: | | | |
| 20451 | 20451-TP-01 | | | |




# ALSTONVILLE CULTURAL CENTRE

| Rev | Revision Description | BY | DATE |
|---|---|---|---|
| A | FOR INFORMATION | AB | 21/12/2021 |
| B | UPDATED NOTES | AB | 14/01/2022 |

THIS DRAWING IS CONFIDENTIAL AND IS THE PROPERTY OF GREG ALDERSON AND ASSOCIATES. IT MUST NOT BE DISCLOSED TO A THIRD PARTY, REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR.

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS

REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE

Z:\JOBS\20\20451 - KO & Co - Alstonville Leisure and Entertainment Centre\CIVIL\CAD\20451-TP-A.dwg

**GREG ALDERSON & ASSOCIATES**
ABN 58 594 160 789
43 Main Street CLUNES NSW 2480
Ph: 02 6629 1552
E: office@aldersonassociates.com.au
Web: aldersonassociates.com.au

Client: KO & CO ARCHITECTURE

Site address: 42-46 COMMERCIAL ROAD ALSTONVILLE NSW 2477

Title: SWEPT PATH ANALYSIS SRV

Project: ALSTONVILLE LEISURE CENTRE UPGRADE

FOR INFORMATION

| | | | |
|---|---|---|---|
| Drawn: AB | Scale: 1:250 | | Checked: |
| Checked: AE | Original Size: A3 | No. in set: 02 of 02 | Date: 14/01/2022 |
| Job Number: 20451 | Drawing Number: 20451-TP-02 | | Revision: B |

# Greg Alderson Associates


Greg Alderson and Associates

ABN 58 594 160 789

43 Main Street

Clunes NSW 2480

T +61 2 6629 1552

office@aldersonassociates.com.au




## Civil Engineering

Roads
Driveways
Stormwater
Flooding
Traffic
Earthworks



## Structural Engineering

New Structures
Additions and Alterations
Foundations
Wind Bracing & Tie Down
Framing
Retaining Walls

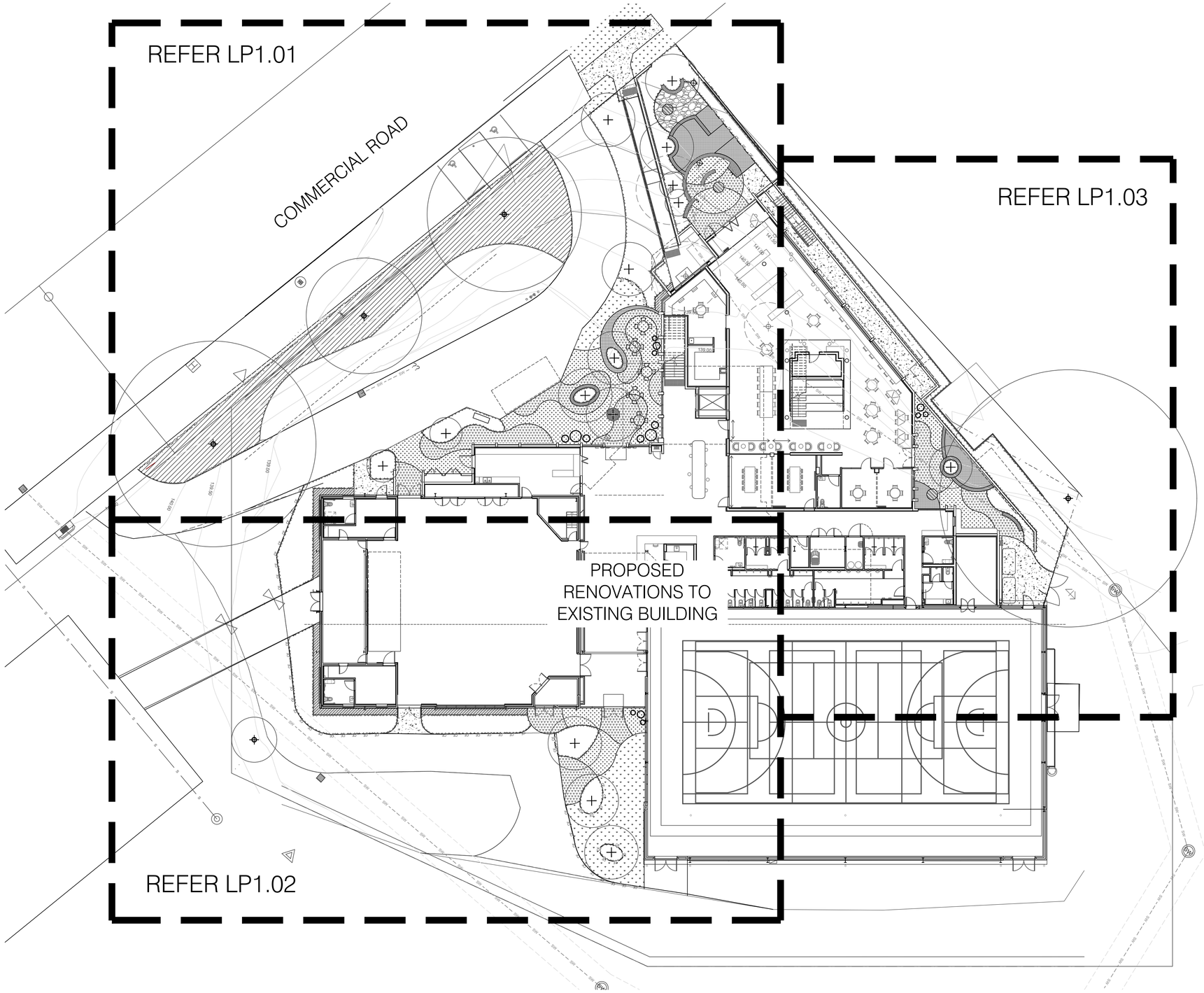
House Plan Drafting
BASIX Certificates



## Environmental

Contaminated Land (SEPP 55)
Acoustics & Noise
Wastewater Management
Acid Sulfate Soil
Water Quality
Ecology

# Attachment 6 – Landscape Design Plans




## LEGEND

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING SURFACE LEVELS (×00.00)
- PROPOSED FINISHED SURFACE LEVELS (●00.00)
- EXISTING PLANTING TO BE RETAINED
- PLANTING BEDS AS SPEC.
- TURFED AREA AS SPEC.
- ARTIFICIAL GRASS AS SPEC.
- PLAIN GREY CONCRETE AS SPEC.
- COLOURED CONCRETE AS SPEC.
- EXPOSED AGGREGATE CONCRETE AS SPEC.
- RANDOM STONE PAVING AS SPEC.
- CE CONCRETE EDGE AS SPEC.
- 600mm CONCRETE EDGE STRIP AS SPEC.
- FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- FEATURE FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- ARTIFICIAL GRASS COVERED CONCRETE SEATING PLATFORM AS SPEC.
- TREE GRATE AS SPEC.
- P1 P2 MOVABLE PLANTERS AS SPEC.
- AG AG SUBSOIL DRAINAGE AS SPEC.
- FALLS AS SPEC.
- ADJACENT SURFACES FLUSH AS SPEC.
- DS DRAINAGE SUMPS REFER ENGINEERS DRAWINGS
- TREE PLANTING AS SPEC.

FIGURED DIMENSIONS TAKE PREFERENCE TO SCALE.
VERIFY AND CHECK ALL DIMENSIONS ON SITE.
Copyright by Jeremy Ferrier Landscape Architects. This drawing may not be reproduced for any purpose without the consent of Jeremy Ferrier Landscape Architects.

JEREMY FERRIER
LANDSCAPE ARCHITECT
72 Vulture Street,
West End QLD 4101
Telephone: (07) 3844 0700
Facsimile: (07) 3844 0722
Email: jeremy@jeremyferrier.com.au

CLIENT:
BALLINA SHIRE COUNCIL

PROJECT:
ALSTONVILLE COMMUNITY CENTRE

DRAWING:
LANDSCAPE WORKS - KEY PLAN; LEGEND & NOTES

SITE:
42-46 COMMERCIAL ROAD, ALSTONVILLE

DATE: JANUARY 2022

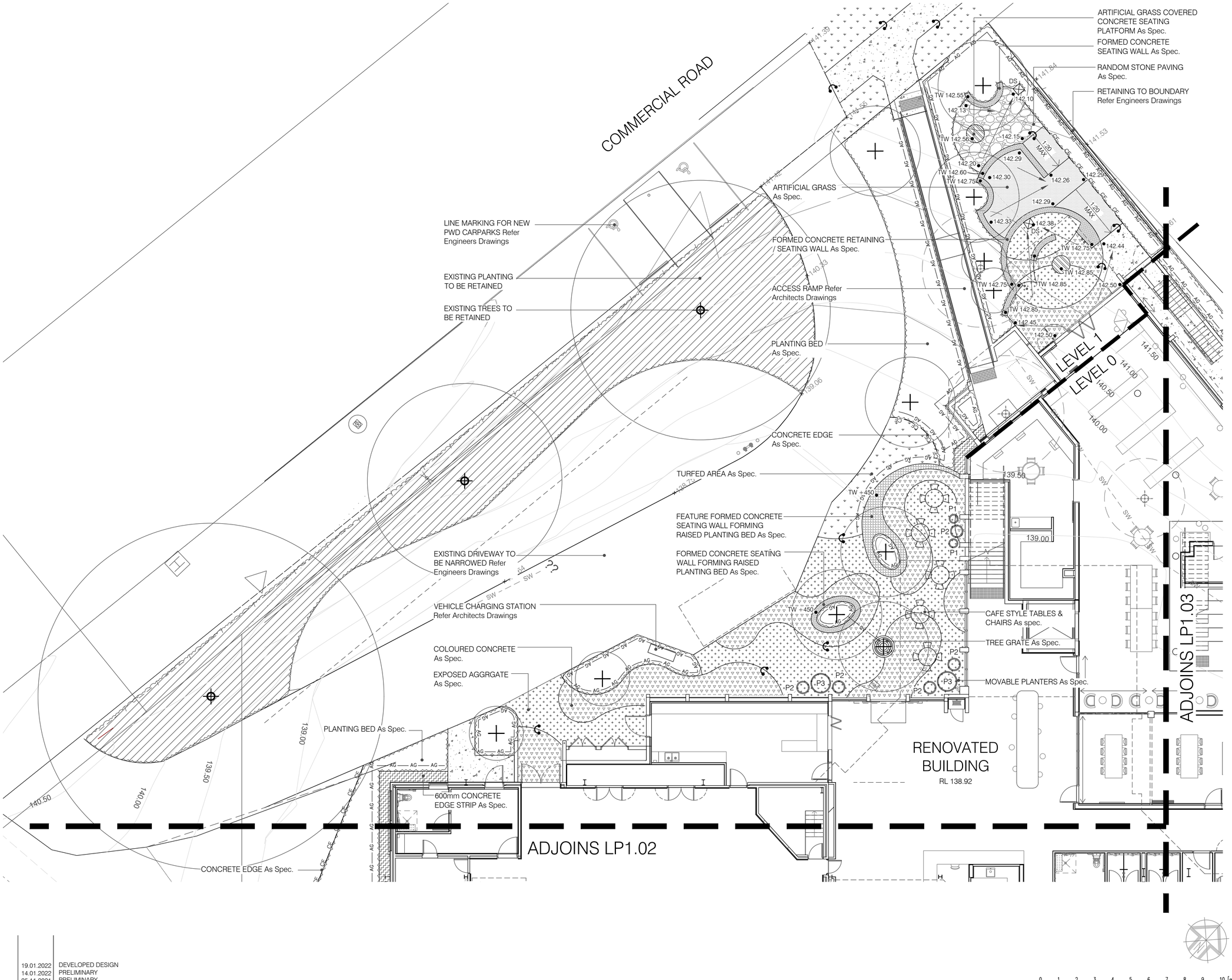
SCALE: 1:200 @ A1; 1:400 @ A3

DRAWN: RM | APPROVED: JF

| PROJECT NO: | DWG NO: | ISSUE: |
|---|---|---|
| 2020.052 | LP0.01 | P3 |

| ISSUE: | DATE: | AMENDMENT: |
|---|---|---|
| P3 | 19.01.2022 | DEVELOPED DESIGN |
| P2 | 14.01.2022 | PRELIMINARY |
| P1 | 25.11.2021 | PRELIMINARY |

0 2 4 6 8 10 12 14 16 18 20 [m]
SCALE 1:200 @ A1




## LEGEND

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING SURFACE LEVELS
- PROPOSED FINISHED SURFACE LEVELS
- EXISTING PLANTING TO BE RETAINED
- PLANTING BEDS AS SPEC.
- TURFED AREA AS SPEC.
- ARTIFICIAL GRASS AS SPEC.
- PLAIN GREY CONCRETE AS SPEC.
- COLOURED CONCRETE AS SPEC.
- EXPOSED AGGREGATE CONCRETE AS SPEC.
- RANDOM STONE PAVING AS SPEC.
- CONCRETE EDGE AS SPEC.
- 600mm CONCRETE EDGE STRIP AS SPEC.
- FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- FEATURE FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- ARTIFICIAL GRASS COVERED CONCRETE SEATING PLATFORM AS SPEC.
- TREE GRATE AS SPEC.
- MOVABLE PLANTERS AS SPEC.
- SUBSOIL DRAINAGE AS SPEC.
- FALLS AS SPEC.
- ADJACENT SURFACES FLUSH AS SPEC.
- DRAINAGE SUMPS REFER ENGINEERS DRAWINGS
- TREE PLANTING AS SPEC.

FIGURED DIMENSIONS TAKE PREFERENCE TO SCALE.
VERIFY AND CHECK ALL DIMENSIONS ON SITE.
Copyright by Jeremy Ferrier Landscape Architects. This drawing may not be reproduced for any purpose without the consent of Jeremy Ferrier Landscape Architects.

| ISSUE: | DATE: | AMENDMENT: |
|---|---|---|
| P3 | 19.01.2022 | DEVELOPED DESIGN |
| P2 | 14.01.2022 | PRELIMINARY |
| P1 | 25.11.2021 | PRELIMINARY |

JEREMY FERRIER
LANDSCAPE ARCHITECT
72 Vulture Street,
West End QLD 4101
Telephone: (07) 3844 0700
Facsimile: (07) 3844 0722
Email: jeremy@jeremyferrier.com.au

CLIENT:
BALLINA SHIRE COUNCIL

PROJECT:
ALSTONVILLE COMMUNITY CENTRE

DRAWING:
LANDSCAPE WORKS - GRADING & FINISHES PLAN

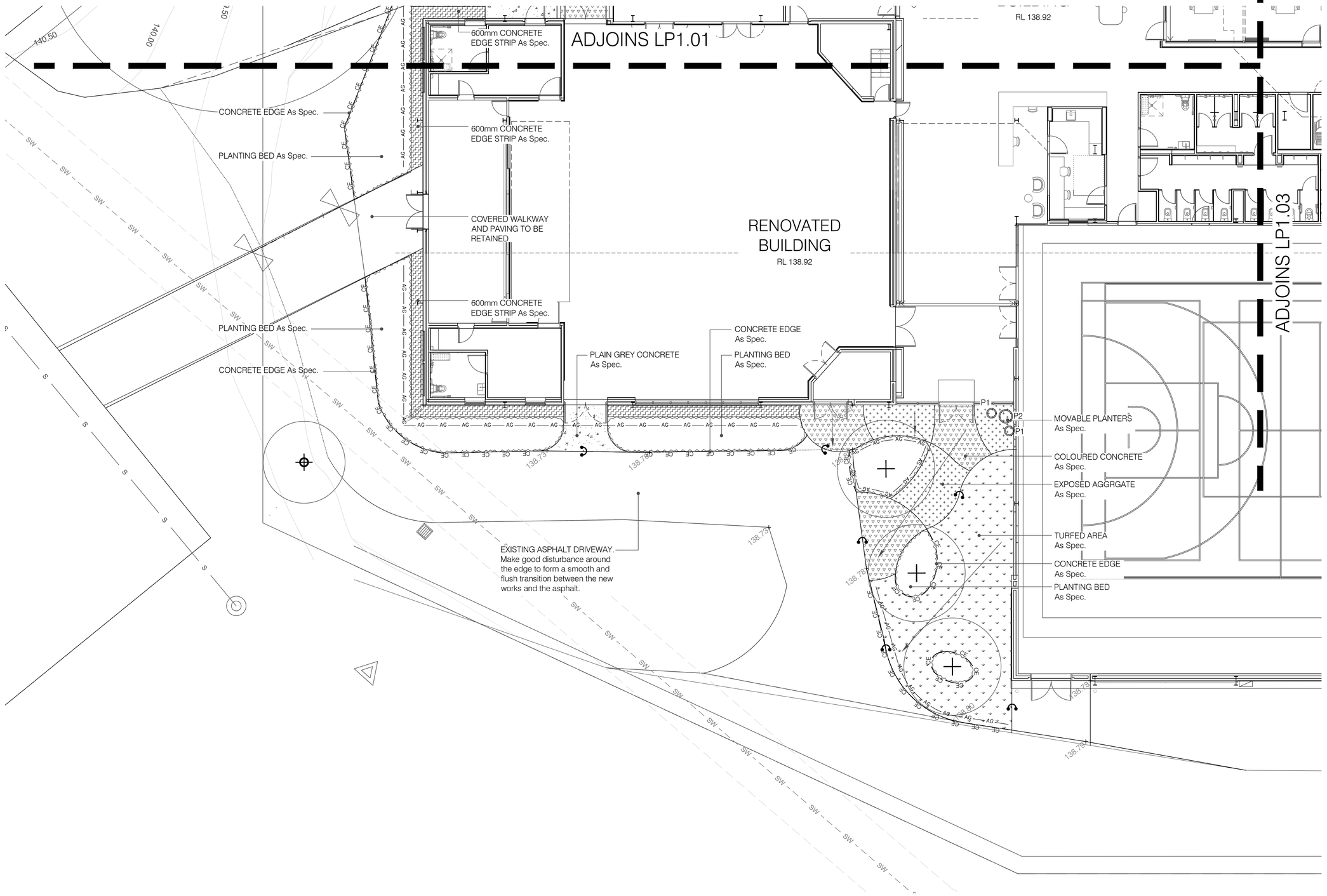
SITE:
42-46 COMMERCIAL ROAD, ALSTONVILLE

DATE: JANUARY 2022

SCALE: 1:100 @ A1; 1:200 @ A3

DRAWN: RM | APPROVED: JF

| PROJECT NO: | DWG NO: | ISSUE: |
|---|---|---|
| 2020.052 | LP1.01 | P3 |




## LEGEND

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING SURFACE LEVELS (+00.00)
- PROPOSED FINISHED SURFACE LEVELS (00.00)
- EXISTING PLANTING TO BE RETAINED
- PLANTING BEDS AS SPEC.
- TURFED AREA AS SPEC.
- ARTIFICIAL GRASS AS SPEC.
- PLAIN GREY CONCRETE AS SPEC.
- COLOURED CONCRETE AS SPEC.
- EXPOSED AGGREGATE CONCRETE AS SPEC.
- RANDOM STONE PAVING AS SPEC.
- CONCRETE EDGE AS SPEC. (CE)
- 600mm CONCRETE EDGE STRIP AS SPEC.
- FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- FEATURE FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- ARTIFICIAL GRASS COVERED CONCRETE SEATING PLATFORM AS SPEC.
- TREE GRATE AS SPEC.
- MOVABLE PLANTERS AS SPEC. (P1 P2)
- SUBSOIL DRAINAGE AS SPEC. (AG)
- FALLS AS SPEC.
- ADJACENT SURFACES FLUSH AS SPEC.
- DRAINAGE SUMPS REFER ENGINEERS DRAWINGS (DS)
- TREE PLANTING AS SPEC.

FIGURED DIMENSIONS TAKE PREFERENCE TO SCALE.
VERIFY AND CHECK ALL DIMENSIONS ON SITE.
Copyright by Jeremy Ferrier Landscape Architects. This drawing may not be reproduced for any purpose without the consent of Jeremy Ferrier Landscape Architects.

JEREMY FERRIER
LANDSCAPE ARCHITECT
72 Vulture Street,
West End QLD 4101
Telephone: (07) 3844 0700
Facsimile: (07) 3844 0722
Email: jeremy@jeremyferrier.com.au

CLIENT:
BALLINA SHIRE COUNCIL

PROJECT:
ALSTONVILLE COMMUNITY CENTRE

DRAWING:
LANDSCAPE WORKS - GRADING & FINISHES PLAN

SITE:
42-46 COMMERCIAL ROAD, ALSTONVILLE

DATE: JANUARY 2022

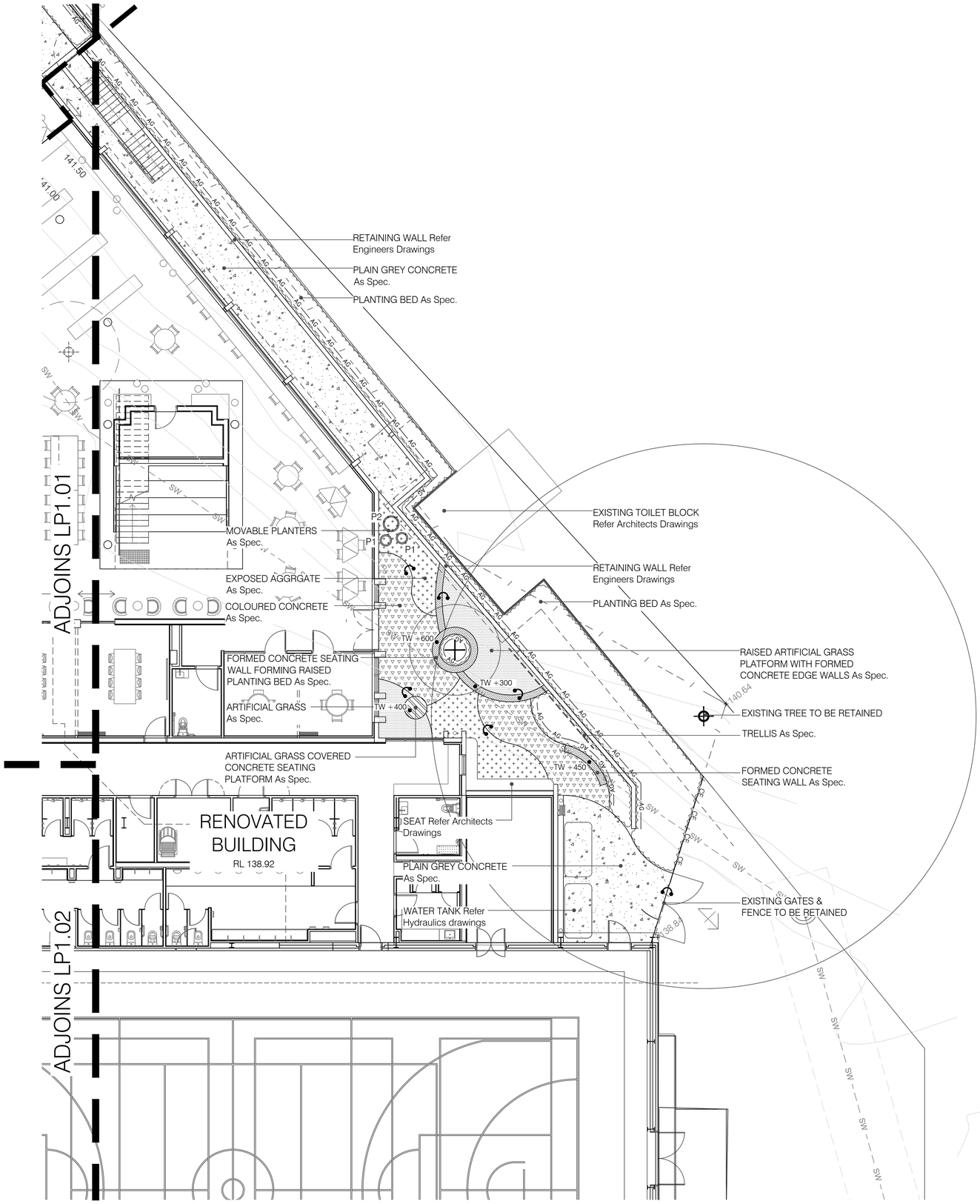
SCALE: 1:100 @ A1; 1:200 @ A3

DRAWN: RM | APPROVED: JF

| PROJECT NO: | DWG NO: | ISSUE: |
|---|---|---|
| 2020.052 | LP1.02 | P3 |

| ISSUE: | DATE: | AMENDMENT: |
|---|---|---|
| P3 | 19.01.2022 | DEVELOPED DESIGN |
| P2 | 14.01.2022 | PRELIMINARY |
| P1 | 25.11.2021 | PRELIMINARY |

0 1 2 3 4 5 6 7 8 9 10 [m]
SCALE 1:100 @ A1




## LEGEND

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING SURFACE LEVELS (+00.00)
- PROPOSED FINISHED SURFACE LEVELS (00.00)
- EXISTING PLANTING TO BE RETAINED
- PLANTING BEDS AS SPEC.
- TURFED AREA AS SPEC.
- ARTIFICIAL GRASS AS SPEC.
- PLAIN GREY CONCRETE AS SPEC.
- COLOURED CONCRETE AS SPEC.
- EXPOSED AGGREGATE CONCRETE AS SPEC.
- RANDOM STONE PAVING AS SPEC.
- CONCRETE EDGE (CE) AS SPEC.
- 600mm CONCRETE EDGE STRIP AS SPEC.
- FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- FEATURE FORMED CONCRETE LOW SEAT / WALL AS SPEC.
- ARTIFICIAL GRASS COVERED CONCRETE SEATING PLATFORM AS SPEC.
- TREE GRATE AS SPEC.
- MOVABLE PLANTERS (P1, P2) AS SPEC.
- SUBSOIL DRAINAGE (AG) AS SPEC.
- FALLS AS SPEC.
- ADJACENT SURFACES FLUSH AS SPEC.
- DRAINAGE SUMPS (DS) REFER ENGINEERS DRAWINGS
- TREE PLANTING AS SPEC.

FIGURED DIMENSIONS TAKE PREFERENCE TO SCALE.
VERIFY AND CHECK ALL DIMENSIONS ON SITE.
Copyright by Jeremy Ferrier Landscape Architects. This drawing may not be reproduced for any purpose without the consent of Jeremy Ferrier Landscape Architects.

JEREMY FERRIER
LANDSCAPE ARCHITECT
72 Vulture Street,
West End QLD 4101
Telephone: (07) 3844 0700
Facsimile: (07) 3844 0722
Email: jeremy@jeremyferrier.com.au

CLIENT:
BALLINA SHIRE COUNCIL

PROJECT:
ALSTONVILLE COMMUNITY CENTRE

DRAWING:
LANDSCAPE WORKS - GRADING & FINISHES PLAN

SITE:
42-46 COMMERCIAL ROAD, ALSTONVILLE

DATE: JANUARY 2022

SCALE: 1:100 @ A1; 1:200 @ A3

DRAWN: RM | APPROVED: JF

PROJECT NO: 2020.052 | DWG NO: LP1.03 | ISSUE: P3

| ISSUE: | DATE: | AMENDMENT: |
|---|---|---|
| P3 | 19.01.2022 | DEVELOPED DESIGN |
| P2 | 14.01.2022 | PRELIMINARY |
| P1 | 25.11.2021 | PRELIMINARY |

0 1 2 3 4 5 6 7 8 9 10 [m]
SCALE 1:100 @ A1

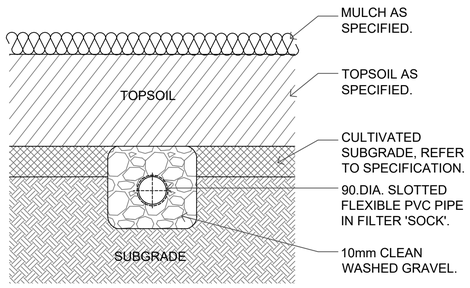
NOTES

1. CONNECT: Connect all subsoil drains to stormwater.

2. FALLS: Fall all pipes at a minimum of 1:60 or as indicated on drawings.

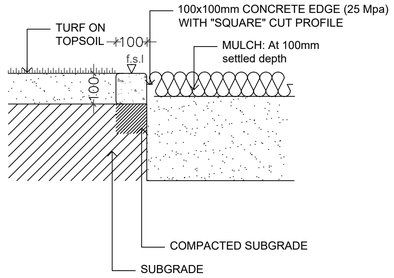
3. CONDUITS: Join drains to 100mm dia UPVC conduits when placing drains under paving areas.

4. GEOTEXTILE: Bidim A12 or similar




## DETAIL LD001 - Subsoil Drainage

SCALE - 1:10 @ A1; 1:20 @ A3




GENERAL NOTES:

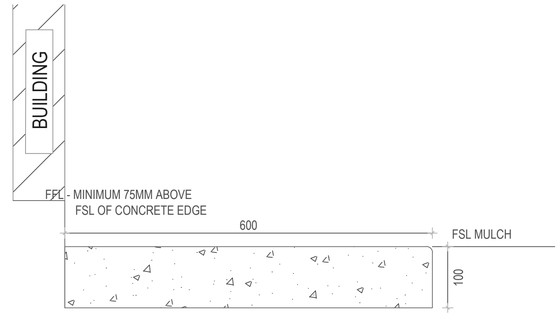
- ENSURE MOWN HEIGHT OF GRASS (TURF) AREAS FINISHES FLUSH WITH EDGING.
- ENSURE GARDEN AREAS (MULCH) FINISHES 25mm BELOW ADJACENT F.S.L'S OF PATHS AND PAVEMENT AREAS, AND FLUSH WITH TIMBER OR CONCRETE GARDEN EDGING.

NOTE:

- ALL MACHINE PLACE CONCRETE TO BE GRADE S32.INSTALL CONTRACTION JOINTS AT 4m INTERVALS BY FORMING GROOVES 40mm DEEP BY 6mm WIDE TO ALL EXPOSED SURFACES NORMAL TO THE ALIGNMENT OF THE KERB.
- ALL CONCRETE FOR HAUNCHES UNDER PAVERS TO BE GRADE N25.
- ALL PATHS/ PAVEMENT AREA TO HAVE 1:100 MINIMUM CROSS-FALL
- PATHS & PAVEMENTS TO COMPLY WITH AUSTRALIAN STANDARDS AND COUNCIL REQUIREMENTS FOR ACCESS & MOBILITY (AS 1428)

## DETAIL LD002 - Concrete Edge

SCALE - 1:10 @ A1; 1:20 @ A3

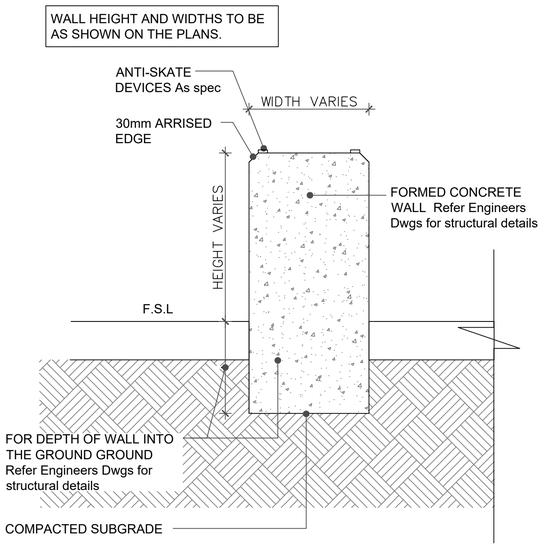



NOTE:
F.S.L. = FINISHED SURFACE LEVEL OF MULCH OR TURF.
POSITION CONSTRUCTION JOINTS AT MAX 5000MM CENTRES AND TOOLED CONTRACTION JOINTS AT MAX 1800MM CENTRES AND / OR AT CHANGES OF DIRECTION.
ALL JOINTS TO BE AT RIGHT ANGLES TO DIRECTION OF EDGING.
CONSTRUCT EDGE ON COMPACTED SUBGRADE.

## DETAIL LD003 - 600mm Concrete Edge Strip

SCALE - 1:5 @ A1; 1:10 @ A3

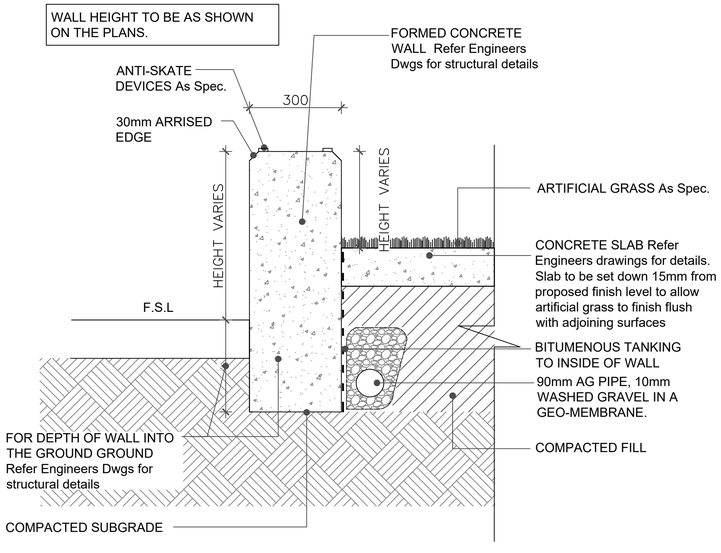
WALL HEIGHT AND WIDTHS TO BE AS SHOWN ON THE PLANS.




## DETAIL LD004 - Feature Formed Concrete Seat / Wall

SCALE - 1:10 @ A1; 1:20 @ A3

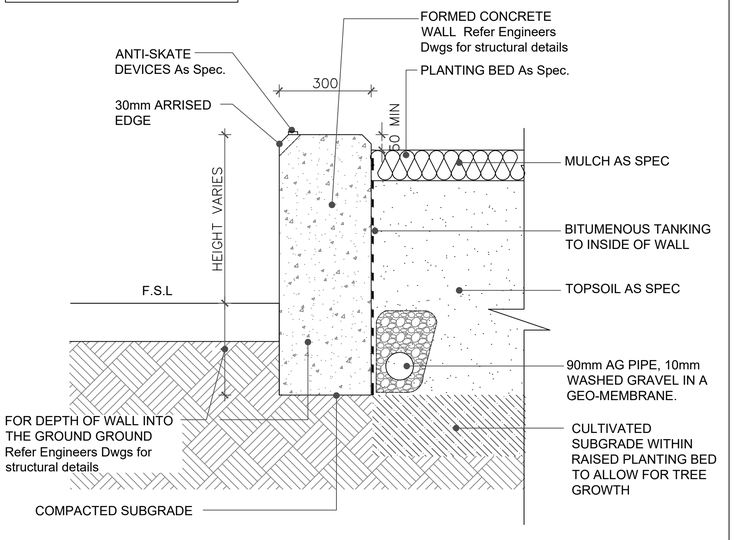
WALL HEIGHT TO BE AS SHOWN ON THE PLANS.




## DETAIL LD005 - Formed Concrete Seat / Wall

SCALE - 1:10 @ A1; 1:20 @ A3

WALL HEIGHT TO BE AS SHOWN ON THE PLANS.




## DETAIL LD006 - Formed Concrete Seat / Wall Forming a Raised Planting Bed

SCALE - 1:10 @ A1; 1:20 @ A3

| ISSUE: | DATE: | AMENDMENT: |
|---|---|---|
| P2 | 19.01.2022 | DEVELOPED DESIGN |
| P1 | 14.01.2022 | PRELIMINARY |

FIGURED DIMENSIONS TAKE PREFERENCE TO SCALE.
VERIFY AND CHECK ALL DIMENSIONS ON SITE.
Copyright by Jeremy Ferrier Landscape Architects. This drawing may not be reproduced for any purpose without the consent of Jeremy Ferrier Landscape Architects.

JEREMY FERRIER
LANDSCAPE ARCHITECT
72 Vulture Street,
West End QLD 4101
Telephone: (07) 3844 0700
Facsimile: (07) 3844 0722
Email: jeremy@jeremyferrier.com.au

CLIENT:
BALLINA SHIRE COUNCIL

PROJECT:
ALSTONVILLE COMMUNITY CENTRE

DRAWING:
LANDSCAPE WORKS - LANDSCAPE DETAILS

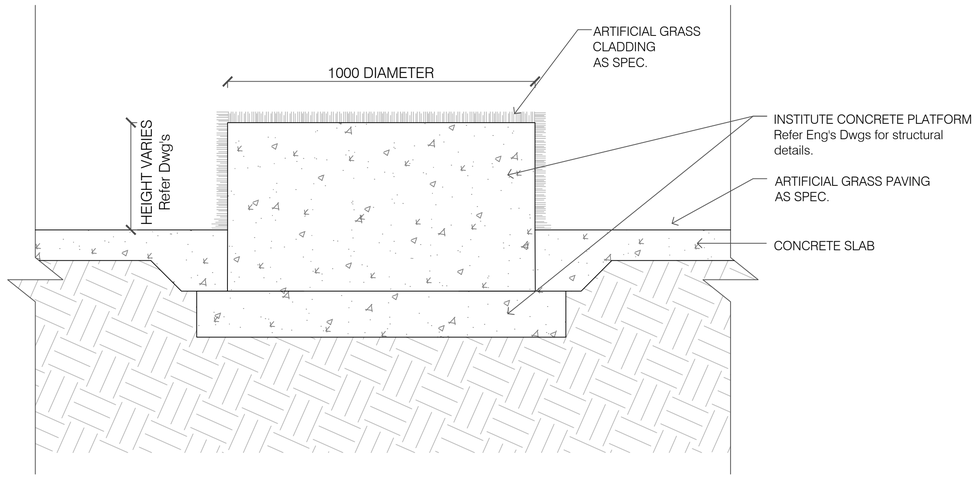
SITE:
42-46 COMMERCIAL ROAD, ALSTONVILLE

DATE: JANUARY 2022

SCALE: AS SHOWN

| DRAWN: | APPROVED: |
|---|---|
| RM | JF |

| PROJECT NO: | DWG NO: | ISSUE: |
|---|---|---|
| 2020.052 | LP4.01 | P2 |



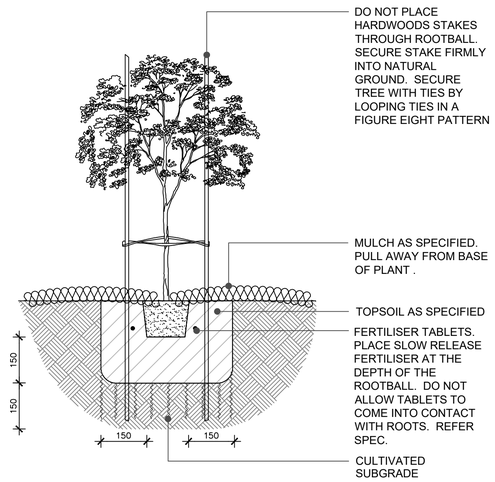

## DETAIL LD007 - Artificial Grass Covered Seating Platform

SCALE - 1:10 @ A1; 1:20 @ A3

TABLE GUIDE

| PLANT SIZE | STAKE SIZE |
|---|---|
| 450 - 600 | 900x25x25 |
| 600 - 900 | 1200x25x25 |
| 900 - 1200 | 1500x25x25 |
| 1200 - 1500 | 1800x25x25 |
| 1500 - 1800 | 2100x38x38 |
| 1800 - 2400 | 2400x38x38 |

NOTES
- STAKING TO BE CARRIED OUT PRIOR TO BACKFILLING PLANTING HOLE
- POSITION STAKES AWAY FROM ROOTBALL STAKES TO BE ROUGH SAWN HWD TO SIZES AS SPECIFIED
- TIES SHALL BE NON-ABRASIVE, HEAVY DUTY POLYTHENE STRIPS LOOSELY TIED ARO9ND STEM IN A FIGURE EIGHT
- CONFIGURATION
TIES SHALL BE ATTACHED TO STAKES WITH GALV. WIRE STAPLES.




## DETAIL LD008 - Typical Tree Planting & Staking

SCALE - nts

| ISSUE: | DATE: | AMENDMENT: |
|---|---|---|
| P2 | 19.01.2022 | DEVELOPED DESIGN |
| P1 | 14.01.2022 | PRELIMINARY |

FIGURED DIMENSIONS TAKE PREFERENCE TO SCALE.
VERIFY AND CHECK ALL DIMENSIONS ON SITE.
Copyright by Jeremy Ferrier Landscape Architects. This drawing may not be reproduced for any purpose without the consent of Jeremy Ferrier Landscape Architects.

JEREMY FERRIER
LANDSCAPE ARCHITECT
72 Vulture Street,
West End QLD 4101
Telephone: (07) 3844 0700
Facsimile: (07) 3844 0722
Email: jeremy@jeremyferrier.com.au

CLIENT:
BALLINA SHIRE COUNCIL

PROJECT:
ALSTONVILLE COMMUNITY CENTRE

DRAWING:
LANDSCAPE WORKS - LANDSCAPE DETAILS

SITE:
42-46 COMMERCIAL ROAD, ALSTONVILLE

DATE: JANUARY 2022

SCALE: AS SHOWN

DRAWN: RM | APPROVED: JF

| PROJECT NO: | DWG NO: | ISSUE: |
|---|---|---|
| 2020.052 | LP4.02 | P2 |

# INDICATIVE PLANT PALETTE

## SHADE TREES



CUPANIOPSIS
anacardioides



HARPULLIA
pendula



TRISTANIOPSIS
laurina

## FEATURE TREES



BRACHYCHITON
acerifolius



TABEBUIA
palmerii

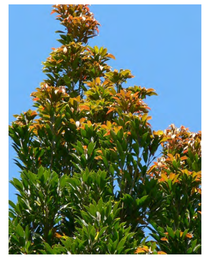


XANTHOSTEMON
chrysanthus

## UPRIGHT / SMALL TREES



BUCKINGHAMIA
celsissima



ELAEOCARPUS
eumundi

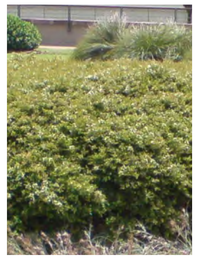


RANDIA
fitzalanii



SYZYGIUM
leuhmannii

## SHRUBS



BABINGTONIA
Howie's Sweet Midet



BANKSIA
robur



CALLISTEMON
Great Balls of Fire



IXORA
species



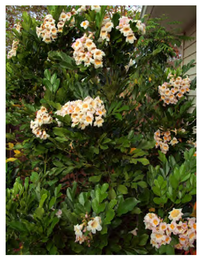
MELALEUCA
Claret Tops



PHILODENDRON
Xanadu



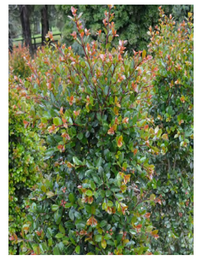
PITTOSPORUM
Miss Muffet



RADERMACHERA
Summerscent



RHAPIS
excelsa



SYZYGIUM
species

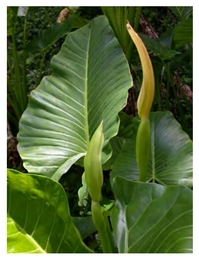


WESTRINGIA
Jervis Gem

## CLUMPING PLANTS/ GRASSES



ALCANTAREA
rubra



ALOCASIA
brisbanensis



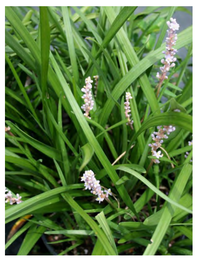
ALPINIA
variegata



HYMENOCALLIS
littoralis



LAVANDULA
dentata



LIRIOPE
Evergreen Giant



LIRIOPE
Stripey White



LOMANDRA
Shara



NEOREGELIA
Bossa Nova



ROSEMARINUS
officinalis



ZAMIA
furfuracea

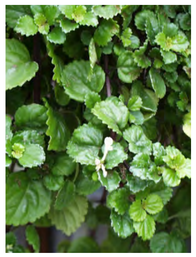
## GROUNDCOVERS / CLIMBERS



CASUARINA
Cousin It



MYOPORUM
ellepticum



PLECTRANTHUS
australis



TRACHELOSPERMUM
jasminoides

# ALSTONVILLE COMMUNITY CENTRE - Landscape Concept

CLIENT BALLINA SHIRE COUNCIL
SCALE nts
DATE AUGUST 2020
DRAWING 2020.052 SK05
ISSUE [A]

JEREMY FERRIER
LANDSCAPE ARCHITECT

P: 07 3844 0700
E: jeremy@jeremyferrier.com.au

# Attachment 7 – Site Waste Minimisation and Management Plan

# Site Waste Minimisation and Management Plan (SWMMP)

## Alstonville Library Redevelopment, 42-46 Commercial Road, Alstonville, NSW

| *Applicant and Project Details (All Developments)* | |
|---|---|
| **Applicant Details** | |
| Application No. | |
| Name | Ballina Shire Council |
| Address | 42-46 Commercial Road, Alstonville, NSW, 2477 |
| Phone number(s) | (02) 6628 5527 |
| Email | alstonville@rtrl.nsw.gov.au |
| **Project Details** | |
| Address of development | 42-46 Commercial Road, Alstonville, NSW, 2477 (Lot 1 DP611789) |
| Existing buildings and other structures currently on the site | 1 x freestanding library building with theatre and sports area attached. |
| Description of proposed development | 1 x freestanding newly refurbished and extended library building with theatre and sports area attached. |
| *This development achieves the waste objectives set out in the DCP. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as council, EPA or SafeWork NSW.* | |
| Name | Timothy Bischof – Environmental Scientist |
| Signature | TCB |
| Date | 10/03/2023 |
| Name and telephone contact for principal person nominated for implementation of SWMMP (if different to above) | Name: Alstonville Library<br><br>Telephone Contact: 02 6628 5527 |

## Demolition

**Address of development:** 42-46 Commercial Road, Alstonville, NSW

***Most favourable*** ← ***Least favourable***

| *Item* | *Reuse* | *Recycling* | *Disposal* | |
|---|---|---|---|---|
| **Type of waste generated** | **Estimate Volume ($m^3$) or Weight (t)** | **Estimate Volume ($m^3$) or Weight (t)** | **Estimate Volume ($m^3$) or Weight (t)** | **Specify method of on-site reuse, contractor and recycling outlet and /or waste depot to be used** |
| Excavation material | 650$m^3$ | | 650$m^3$ | A total of 650$m^3$ of soil is to be cut. Reuse onsite in garden beds and landscaping if suitable soil. Reuse offsite under the conditions of the NSW EPA Order and Exemption for Excavated Natural Material.<br>OR<br>Soil disposed at a suitably licenced facility following waste classification in accordance with NSW EPA Waste Classification Guidelines (2014). |
| Timber | <1t | <5t | | Re-use as formwork during construction, where possible.<br>Alternatively, recycle at nearby recycling timber yard. |
| Concrete | | 30t | | Recycle at nearby concrete recyclers (e.g. North Coast Recycling, Wollongbar or Richmond Waste) or classify as Recovered Aggregate and beneficially re-use off-site. |
| Bricks/pavers/tiles | | <15 t | | Recycle at nearby recycling facility (e.g. North Coast Recycling, Wollongbar or Richmond Waste) or classify as Recovered Aggregate and beneficially re-use off-site. |
| Metal (piping, roof, frames) | | <15 t | | Recycle (e.g. North Coast Recycling, Wollongbar or Richmond Waste). |
| Glass | | <5t | | Recycle (e.g. North Coast Recycling, Wollongbar or Richmond Waste). |
| Fixtures and fittings | | <1t | | Recycle (e.g. North Coast Recycling, Wollongbar, Richmond Waste, North Coast Recycled Materials, Mullumbimby).<br>Alternatively, dispose to Ballina Waste Management Centre. |
| Floor coverings | | <2t | <1t | Tiles and timber to be recycled. Carpets, vinyl, and lino to be disposed to Ballina Waste Management Centre. |
| Garden organics | <10 m3 | | <10 m3 | Mulch trees for reuse in landscaping if possible. Dispose to Ballina Waste Management Centre as Green Waste. |
| Internal linings and insultation | | | <5t | Dispose to Ballina Waste Management Centre as Construction and Demolition Waste. |
| Solar panels | <2t | | <2t | Re-use on the new roof if suitable. If in good working order, send to Ballina Waste Management Centre for potential reuse from the tip shop or disposal. |

| *Item* | *Reuse* | *Recycling* | *Disposal* | |
|---|---|---|---|---|
| ***Type of waste generated*** | ***Estimate Volume (m3) or Weight (t)*** | ***Estimate Volume (m3) or Weight (t)*** | ***Estimate Volume (m3) or Weight (t)*** | ***Specify method of on-site reuse, contractor and recycling outlet and /or waste depot to be used*** |
| PVC | | | <1t | Dispose to Ballina Waste Management Centre as Construction and Demolition Waste. |
| Copper piping and wiring | | <2t | | Recycle (e.g. North Coast Recycling, Wollongbar or Richmond Waste) |
| Residual waste (e.g. general refuse from site activities and workers) | | | 1 t | Dispose to Ballina Waste Management Centre as General Solid Waste. |
| Hazardous/asbestos waste (specify) | | | | None expected. If asbestos is detected or suspected, it must be removed in accordance with the NSW Work Health and Safety Act (2011) and Regulation (2017), as well as applicable SafeWork NSW requirements. |
| Asphalt | | | <5t | Dispose to a suitably licensed facility. |

**Address of development:** 42-46 Commercial Road, Alstonville, NSW

***Most favourable*** ← ***Least favourable***

| *Item* | *Reuse* | *Recycling* | *Disposal* | |
|---|---|---|---|---|
| **Type of waste generated** | **Estimate Volume (m3) or Weight (t)** | **Estimate Volume (m3) or Weight (t)** | **Estimate Volume (m3) or Weight (t)** | **Specify method of on-site reuse, contractor and recycling outlet and/or waste depot to be used** |
| Excavation material (e.g. for construction of underground services) | $10m^3$ | | $10m^3$ | Limited excavation material is expected during construction. If soil is to be removed, reuse onsite in garden beds and landscaping if suitable soil. Reuse offsite under the conditions of the NSW EPA Order and Exemption for Excavated Natural Material.<br>OR<br>Soil disposed at a suitably licenced facility following waste classification in accordance with NSW EPA Waste Classification Guidelines (2014). |
| Timber | <1t | <5t | | Re-use as formwork during construction, where possible. Alternatively, recycle at nearby recycling timber yard. |
| Concrete | | <5t | | Recycle at nearby concrete recyclers (e.g. North Coast Recycling, Wollongbar). |
| Bricks | 1t | 1t | | Reuse on other projects. Recycle at nearby recyclers (e.g. North Coast Recycling, Wollongbar) or classify as Recovered Aggregate and beneficially re-use off-site. |
| Insulated Cladding | <1t | | <2t | Reuse offcuts throughout the project. Dispose of unsuitable cladding to Ballina Waste Management Centre as Construction and Demolition Waste. |
| Tiles | <1t | <1t | | Reuse on other projects. Recycle at nearby recyclers (e.g. North Coast Recycling, Wollongbar) or classify as Recovered Aggregate and beneficially re-use off-site. |
| Metal:<br>E.g. gutter, roofing off cuts, railing offcuts, frame | <1t | <2t | | Reuse offcuts on other sites or recycle (e.g. Richmond Waste). |
| Glass | | | <1t | Dispose to Ballina Waste Management Centre. |
| Plasterboard (offcuts) | | | <2t | Dispose to Ballina Waste Management Centre. |
| Fixtures and fittings | <1t | | <1t | Reuse on other projects or dispose to Ballina Waste Management Centre. |
| Packaging (used pallets, pallet wrap from delivery of construction materials) | <2 t | <2 t | <1 t | Reuse (return to supplier)<br>Recycle (e.g. Richmond Waste)<br>Dispose to Ballina Waste Management Centre. |

| Item | Reuse | Recycling | Disposal | |
|---|---|---|---|---|
| **Type of waste generated** | **Estimate Volume (m3) or Weight (t)** | **Estimate Volume (m3) or Weight (t)** | **Estimate Volume (m3) or Weight (t)** | **Specify method of on-site reuse, contractor and recycling outlet and/or waste depot to be used** |
| Residual waste (e.g. general refuse from site activities and workers) | | | <5 t | Dispose to Ballina Waste Management Centre. |
| Paper/cardboard | | <1 t | | Recycle (Richmond Waste). |
| Hazardous/special waste (specify) | | | | None expected. |

## Waste Generation (Ongoing Commercial)

**Address of development:** 42-46 Commercial Road, Alstonville, NSW

The waste generation data requirements set out in the table below are based on waste generation information provided by the Ballina Shire Council (BSC) in the document entitled "Waste Management for Multi-Unit Developments". For the purposes of this Plan, the development has been classified as an office with a waste generation of 10L/100m$^2$/day. However, due to the nature of the development being a public library where there is minimal staff working in the building, this Plan has assumed the waste generation of the building to be 25% of the normal waste generation of a standard office. Furthermore, the basketball court area has been excluded from the waste calculations as waste is not anticipated to be generated in this area. The reduction in waste generation is guided by the current waste storage of two x 240L general waste and 2 x 240L recycling bins. The library staff have advised ENV that the current bins are not overfilled and if large events take place, additional skip bins are utilised. Waste calculations have assumed a conservative waste generation assuming 6-day trading as per the Library's current opening times.

| *Item* | *Recyclables* | *Compostables* | *Residual waste* |
|---|---|---|---|
| | *Paper/Cardboard/Metals/Plastics/Glass (co-mingled recycling)* | | |
| **Amount generated (L per day)[1]** | 57 | 11 | 57 |
| **Amount generated (L per week)[1]** | 344 | 69 | 344 |
| **Any reduction due to on-site compacting equipment[2]** | No | No | No |
| **Frequency of collections (per week)** | Fortnightly | Weekly | Fortnightly |
| **Number and size of storage bins required** | **3 x 240L MGB** | **1 x 240L MGB** | **3 x 240L MGB** |
| **Floor area required for storage bins (m$^2$)** | 1.29 | 0.43 | 1.29 |
| **Total floor area required for manoeuvrability/accessibility (m$^2$)[3]** | 1.94 | 0.65 | 1.94 |
| **Internal Waste Storage Room Height required for manoeuvrability (m)** | 2.4 | 2.4 | 2.4 |
| **Waste collection area height required for vehicle access (m)** | N/A | N/A | N/A |

1 Waste generation rates have been drawn from Appendix B of Ballina Shire Council's "Ballina Development Control Plan - General and Environmental Considerations" (2012). Assumes waste generation of a 6 day week.

2 No on-site compaction (compaction will occur in the collection truck).

3 The area allowed for manoeuvrability/accessibility is an additional 50% of the floor area required for bin placement and storage.

| *Item* | *Recyclables* | *Compostables* | *Residual waste* |
|---|---|---|---|
| | *Paper/Cardboard/Metals/Plastics/Glass (co-mingled recycling)* | | |
| **Total floor area required ($m^2$)** | **4.53** | | |
| **Floor area provided (refer to Figures)** | **8.6** | | |
| **Provision for the temporary storage of bulky goods** | Provision for bulky goods is not required for developments under four storeys. | | |

**Construction and Demolition Waste Collection Process and Management**

- All demolition wastes to be either direct loaded onto trucks (minimising stockpiling), placed directly into skip bins or be stockpiled in a manner which effectively segregates different material types for later pick up. Figure 1 presents the proposed location for waste (skip) bins during the construction and demolition program. Any stockpiling of materials, if required, will occur on the western portion of the site, with ready access for trucks to enter the site from Commercial Road through the driveway. The locations of the skip bins may change during demolition and construction. All bulk waste bins are to be placed in a safe and accessible location as specified by the project manager.

- In consideration of the material types created by demolition (principally concrete, metals, plasterboard and timber), it is likely that only metal pieces and timber would be stockpiled pending truck pick up. Other materials will be placed directly into skip bins (or be direct loaded into trucks).

- Materials likely to be stockpiled (metals and timber) have a negligible potential to cause adverse environmental effects while stockpiled. Notwithstanding, any stockpiles of materials created will be effectively prevented from causing run-off to external areas, generating fugitive dust and causing offensive odours. These preventative measures must be detailed in the Demolition Contractor's Environmental Management Plan (EMP) – refer below. Measures considered should include, as a minimum; effective bunding around stockpiled material which prevents run-off from the materials onto adjacent land (and run-on) and covering of the materials if they contain any inclusions with the potential to be windborne. If soil is to be stockpiled, a site-specific Erosion and Sediment Control Plan may be required.

- Planning should be undertaken by the Demolition Contractor to ensure that clear truck and plant access routes to work areas are maintained to Commercial Road during demolition activities. This will be effectively undertaken by erecting signs on site which warn site workers not to park vehicles and machinery within or close to the truck and plant access routes to and from the site. This information should be reinforced at daily site (toolbox) meetings. Designated vehicle parking areas will also be established by the Demolition Contractor. These areas will be clearly signed. There is sufficient parking on Commercial Road for contractors and tradesman to park to easily access the site.

- Skip bins will be available within the storage area during the demolition program (refer to Figure A). A total of 3 bins will be available, for recyclables created by the construction activities (steel and concrete – 2 x bins) and mixed waste created from the construction activities (including refuse created by workers on-site) – 1 x bin, as follows:

    - One (1) x 10 m3 bin: for concrete pieces = collection as required (estimated 2-3 collections in total).

    - One (1) x 10 m3 bin: for metal pieces = collection as required (estimated 1-2 collections in total).

    - One (1) x 10 m3 bin: for mixed wastes = collection as required (estimated 2-3 collections in total).

    - One (1) x 10 m3 bin: for mixed recycling = collection as required (estimated 1-2 collections in total).

- The skip bins will be accessible for emptying via the main entrance driveway from Commercial Road.

- General refuse and recyclables created by on-site workers during the demolition program are expected to be small, relative to demolition waste quantities, given the short duration of the demolition program. The waste materials and recyclables will be placed by workers into the mixed waste skip provided within the waste storage area.

- Signs/stickers are to be placed on all bins to reinforce materials which are appropriate to be placed in certain waste bins, and those which should be excluded. The signs will include a picture and description of wastes which can be placed into the bins and those materials which should be excluded. The signs will be large enough to be read easily by all on-site staff. Information relating to appropriate waste deposition by on-site workers should be reinforced regularly at on-site (toolbox) meetings.

- The Demolition contractor will retain all records demonstrating lawful disposal of waste and keep them readily accessible for inspection by regulatory and planning authorities such as Council, SafeWork NSW and the NSW EPA.

- The Demolition contractor will work in accordance with a Demolition and Construction EMP. The EMP will provide the following details, as a minimum:
    - Location of waste storage areas (refer also to Figure 1).
    - Environmental controls for stockpiling of materials (if required). Refer also to above discussion points.
    - Environmental controls for dust emissions, stormwater runoff and noise, as a minimum.
    - Environmental controls to prevent refuse from leaving site (wind-blown, stormwater run-off, etc).

- The EMP should be prepared by a suitably qualified environmental professional.

- The Demolition contractor will conduct regular inspections of the site perimeter and all on-site surfaces, to ensure that waste materials are not leaving the designated waste storage area(s) and entering adjacent land.

- Asbestos removal (if any) will occur before any other demolition works begin. Asbestos will be removed by suitably qualified professionals and all potentially containing asbestos material will be placed in a skip bin lined with plastic wrapping (x 2 layers) and sealed for transport to a suitably licensed facility.

**Construction Waste Minimisation Strategies**

The following strategies are to be implemented to reduce the construction waste for the development:

- Accurate construction material quantities are to be ordered to reduce excessive building material.
- Offcuts are to be reused where practically possible.
- If practically possible, material is to be ordered to length, to reduce offcuts onsite.
- All site personnel are to be educated on the SWMMP to reduce unnecessary waste.
- Materials removed from the building during the demolition process that are suitable for reuse shall be used as much as practically possible.

**Ongoing Waste Collection Process**

The waste collection process is described as follows:

- 3 x 240L general waste bins, 3 x 240L co-mingled recycling bins and 1 x 240L organics bin will be stored in the designated waste storage area on the western side of the building illustrated in Figure 2.
- The three bin types will comprise general refuse (‘red’ bin), recycling (‘yellow’ bin) and organics (‘green’ bin).
- The waste storage room will be provided with sufficient internal space for the storage of each of the waste types (i.e. space for bins or tubs storing general refuse, recyclables and organics). The library will prepare an environmental management system to ensure all waste streams are adequately separated. This will include appropriate signage on all internal and external bins to ensure proper waste separation.
- The cleaners will empty internal bins into the bulk waste bins in the designated waste storage area. Alternatively, workers may dispose of waste directly into the bulk waste bins.

- As per the Ballina Shire Council website, the Alstonville area kerbside waste collection occurs every Thursday. Organics waste is collected weekly and recycling and general waste is collected fortnightly. Recycling and general waste collection is alternated between weeks.
- Every Wednesday afternoon, or early Thursday morning (before the waste collection begins in Alstonville), the organics and either the recycling or general waste is collected from the waste room and transported to the street for kerbside collection by the building manager or the library staff. See Figure 1 for an indicative location for the storage of the bins on the kerbside for collection.
- After the waste has been collected, bins are to be transported back to the waste storage area by by the building manager or the library staff.
- Every three months, or sooner if required, the organics bin will be rinsed out with potable water, left to dry and replaced in the storage area by the Site Manager.
- Every six months, or sooner if required, the general waste and recycling bins will rinsed out with potable water, left to dry and replaced in the storage area by the Site Manager. Water from the bins is to enter the dedicated bin sewerage drainage system and shall not enter the stormwater system.

**Proposed Waste Storage Area Details**

The designated waste storage areas will be constructed with the following features:

- The areas will have a concrete base and a self-contained drainage system that will connect to the sewerage system. No runoff is to enter the stormwater system.
- Provide adequate lighting for disposal of waste safely at night time.
- Provide water and drainage facilities for cleaning and maintenance.
- Designed to minimise the potential for noise and odour issues.
- In so far as is practicable, vermin must be prevented from entering waste areas and bins.
- Waste storage areas must be screened from public view including passing vehicle and pedestrian traffic external to the site, or inhabitants of neighboring properties.
- As operational waste streams include putrescible and food waste, the waste storage area must be appropriately roofed and connected to the sewer.
- The waste storage area is to be constructed as per the requirements set out in Section 8.2 of the Ballina Shire Council – Waste Management for Multi-Unit Developments Policy.

**Summary of Collection Frequencies**

- *General refuse*: 1 collection per fortnight. 3 x 240L MGB required to be collected from the waste room and moved to the kerb to be picked up for the Council kerbside collection.
- *Recyclables*: 1 collection per fortnight. 3 x 240L MGB required to be collected from the waste room and moved to the kerb to be picked up for the Council kerbside collection.
- *Organics*: 1 collection per week. 1 x 240L MGB required to be collected from the waste room and moved to the kerb to be picked up for the Council kerbside collection.

**Required Ongoing Site Management Commitments**

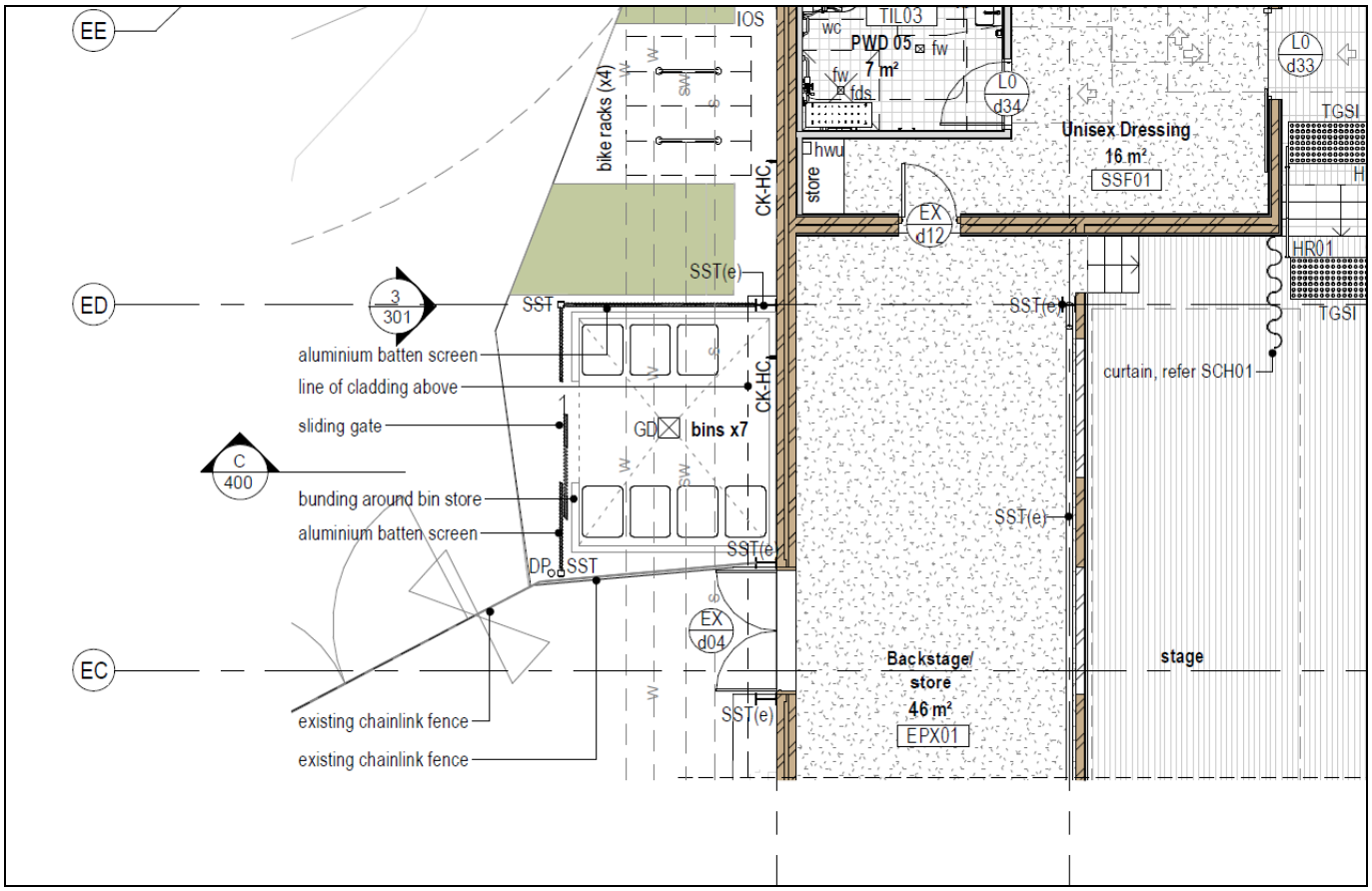
- TOTAL ESTIMATED TIME REQUIREMENT):
  - Once per week: 10 minutes to place and retrieve bins at kerbside.
  - Once per 3 months: 30 minutes to rinse organics bins and leave dry/replace.
  - Twice per year: 1 hour to rinse general refuse and recyclables bins and leave dry/replace.

## Potential Future Waste Generation

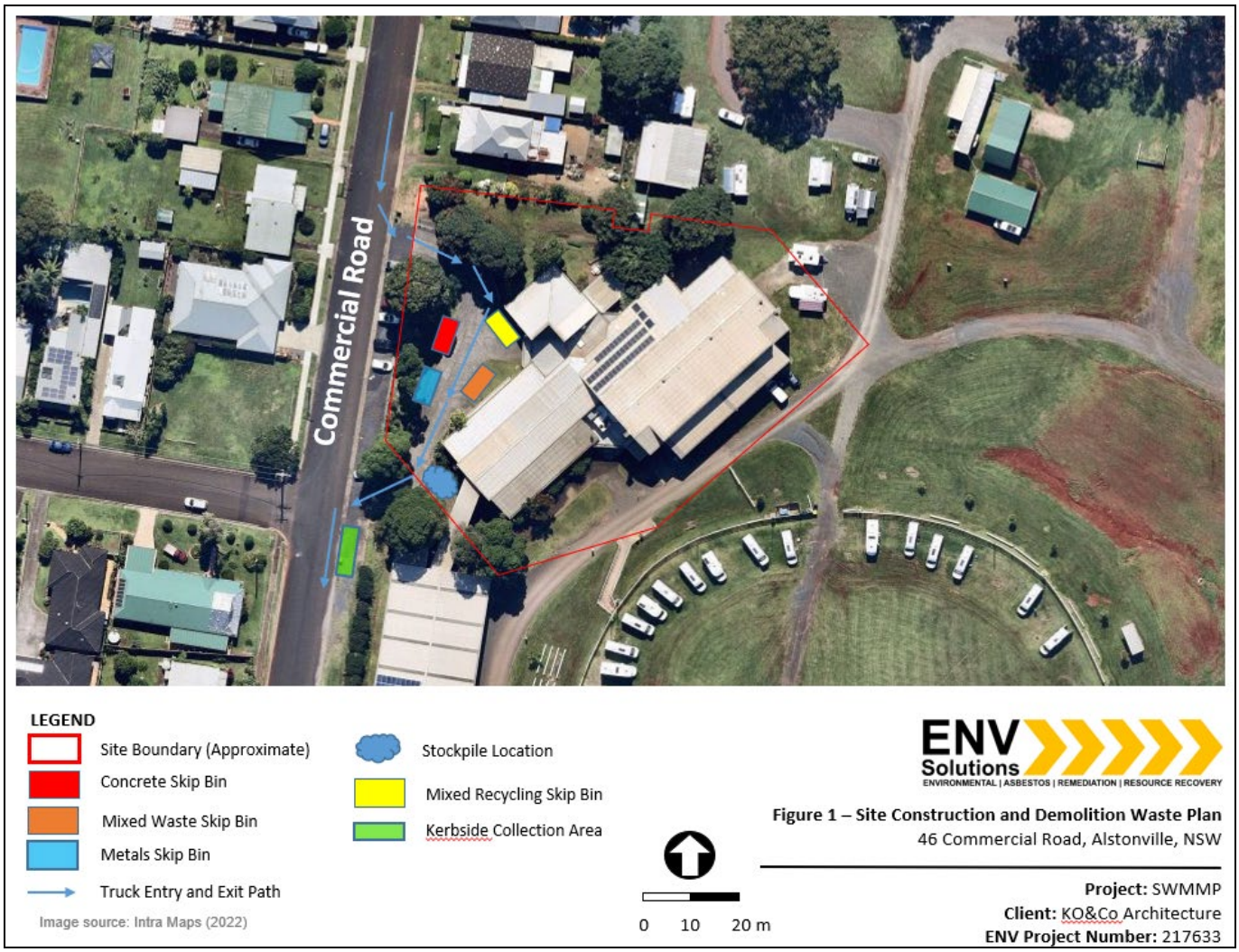
The waste storage room has been designed to accommodate future waste generation. The initial assessed waste storage requirements total an area of 4.53m$^2$ (including manoeuvring room allowance of 50%). The waste storage room is 8.6m$^2$ indicating approximately 6 additional 240L bins may be stored in the waste storage room if needed.

## Figures

### Figure 1 – Waste Storeroom Details



## Figure 2 – Construction and Demolition Waste Area and Vehicle Tracking Paths



## Attachment 1 – Waste Generation Calculations and Storage Requirements

| | | | Ballina DCP Rates | Conversion From DCP rates to L Waste Week/m2 | | |
|---|---|---|---|---|---|---|
| **Building Type** | **Number** | **TOTAL Floor Area (m2)** | **General Waste Generation Rate - Waste per Week (L)** | **Waste Generation** | **Waste Per Week Floor Area** | **Waste Generation Rate - L waste a week/m2** |
| Ground Floor - Shop | 1 | 2291 | 60 per 100 m2 | 60 | 100 | 0.60 |
| | | | | | | |

[1]Organics waste generation rates adopted on a premise-by-premise basis (none provided in Ballina DCP). Office = 20% of refuse.

| Ballina DCP Rates | Conversion From DCP rates to L Waste Week/m2 | | | Ballina DCP Rates | Conversion From DCP rates to L Waste Week/m2 | | |
|---|---|---|---|---|---|---|---|
| Recycling Waste Generation Rate - Recycling per Week(L) | Waste Per Week Floor Area | Waste Generation Rate - L waste a week/m2 | Waste Generation Rate - L waste a week/m2 | Organics Waste Generation Rate - Organics per Week (L)[1] | Waste Per Week Floor Area | Waste Generation Rate - L waste a week/m2 | Waste Generation Rate - L waste a week/m2 |
| 60 per 100 m2 | 60 | 100 | 0.60 | 12 per 100 m2 | 12 | 100 | 0.12 |
| | | | | | | | |

**Office Totals**

**Adjusted Totals (25%)**

| Totals (Litres) | | |
|---|---|---|
| **Total General Waste Generated - (L) per week** | **Total Recycling Generated - (L) per week** | **Total Organics Generated - (L) per week** |
| 1375 | 1375 | 275 |
| **1375** | **1375** | **275** |
| **344** | **344** | **69** |

WASTE CALCULATIONS - BIN SIZES AND PROJECT REQUIREMENTS

**Bin Sizes (Sourced from Byron DCP and Richmond Waste)**

| Bin Type (L) | Bin Type ($m^3$) | Height (mm) | Depth (mm) | Width (mm) | Area ($m^2$) | 50% for Manoeuvring Room Total ($m^2$) |
|---|---|---|---|---|---|---|
| 240 | 0.24 | 1060 | 730 | 585 | 0.43 | 0.21 |

**Project Requirements (L/week)**

| | General | Recycling | Green |
|---|---|---|---|
| Commercial | 344 | 344 | 69 |

**Project Requirements (L/day)**

| | General | Recycling | Green |
|---|---|---|---|
| Commercial | 57 | 57 | 11 |

| Bin Type | Bin Combination | Quantity of Bins | Pickup Frequency | Litres/Week |
|---|---|---|---|---|
| Commercial | 240 | 3 | 0.5 | 360 |
| Commercial | 240 | 3 | 0.5 | 360 |
| Commercial | 240 | 1 | 1 | 240 |

**Commercial**

| Bin Size | No.of Bins | Area Per Bin ($m^2$) | Manoeuvring Room Per Bin ($m^2$) | Total Manoeuvring Room ($m^2$) | Total Bin Area ($m^2$) | Bin Area + Manoeuvring Room ($m^2$) | Area Required ($m^2$) | Area Available ($m^2$) |
|---|---|---|---|---|---|---|---|---|
| 240 | 7 | 0.43 | 0.21 | 1.47 | 3.01 | 4.48 | | |
| **Total** | | | | **1.47** | **3.01** | **4.48** | **4.48** | **8.64** |

## Attachment 2 – Floor Plans

**Legend**

- new tree
- existing tree to be retained & protected. TPZ shown dashed
- Existing stormwater manhole
- SW(ex)—SW(e) Existing stormwater line
- S(e)—S(e) Existing sewer line
- SW—SW New stormwater line
- -S—S- New sanitary drainage line
- -W—W- New water supply line
- Outline of existing building for reference only

**Notes:**

| | |
|---|---|
| Site Address: | 42-46 Commercial Road, Alstonville |
| RP Description: | Lot 1 DP611789 |
| Local Government Area: | Ballina Shire Council |
| FFL(existing lower level): | 138.92m AHD |
| Site Area: | 5168m² |
| Existing Building Area: | 1841m² |
| Existing Site Cover: | 35.6% |
| **New library area:** | **753m²** |
| **Proposed Gross Floor Area:** | **2850m²** |
| **Proposed Building Footprint:** | **2399m²** (excluding awnings / overhangs) |
| Proposed Site Cover: | 46.4% (excluding awnings / overhangs) |

**FIXTURES AND FINISHES - refer to *SCH01 for details***

| | |
|---|---|
| BOL | - Bollard |
| CK-HC | - Hose cock |
| FH | - Fire hydrant |
| FN01 | - Timber fence |
| FN-EX | |
| GD | |
| MS02 | - Metal sheet roofing (type 2) |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |

NOTE
padmount transformer to be located along the Commercial Road boundary if required – location TBC

COMMERCIAL ROAD
ENTRY
EXIT
50 Single storey dwelling
48 Single storey dwelling
Single storey large showgrounds shed
Note - Survey information is not available for neighbouring sites or properties. Houses and property boundaries are shown indicatively only.
Red hatch indicates small extent of new library eave (north) which projects outside town planning building envelope.
Existing showgrounds pavillion is shown indicatively only
Existing toilet block location shown is indicative only
Red hatch indicates extent of existing sports hall which is outside of town planning building envelope (height at ridgeline is 10.7m)
Note: small encroachment of water and drainage services lines into stormwater easement
Existing battered garden
Existing driveway (narrowed)
Existing foyer below
New Foyer below
New library below
Existing theatre below
Existing sports hall below
AC condensers
Van loading
Lift overrun
Line of existing building
existing driveway
new landscape - refer to landscape architect's drawings
existing fence and gate
existing sewer line shown approximately, exact location tbc
existing manhole shown approximately, exact location tbc
existing stormwater manhole
existing stormwater easment
existing stormwater pit
existing stormwater drainage line, extent tbc
electrical pits
existing water meter & check valve
existing water connection
existing water services stop valve
existing timber fence shown dashed
existing road channel
existing hydrant
new footpath, refer civil engineer drawings for details
new on-street parking between driveway crossovers
ensure crossover is constructed to BSC standard drawings. Builder is responsible for obtaining any vehicle crossover permits
legal change to be feathered
regrade existing surface to PWD parking area (max 1:40)
new kerb guide with post
bike racks (x4)
bin store below
solar panels shown indicatively, extent tbc
connect to existing stormwater drain
connect new stormwater to existing stormwater drainage
extention to sports hall
extent of sewer line tbc
existing sewer line to be retained
Melges and bounds setout
11000 nom
1900 nom
40.780 99°09'22"
2.455 172°26'17"
6.140 97°43'43"
2.305 7°30'43"
26.617 99°09'22"
42.805 253°09'43"
34.150 318°14'43"
49.000 228°14'43"
29.005 138°45'02"
11545 nom
R 7300
R 10600
R 9000
1590
1888
1200
900
600
3° nom 3900
27.5° nom
3° nom
1:14
1:4
FN01
GD
OSD
RWT
FN-EX
MS02
BOL
FH
CK-HC
T1
T2
T3
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40

# DESIGN DEVELOPMENT

**NOTES**

1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

**ABBREVIATIONS**

| | |
|---|---|
| hd | hand dryer |
| hwu | hot water unit |
| rh | robe hook |
| shr | shower |
| snk | sink |
| ur | urinal |
| vb | vanity basin |
| wc | toilet |

**INSULATION TO WALLS**
Total R value of wall construction to equal or exceed NCC BCA 2019 Section J. Refer to energy efficiency report & architectural documents for details.

**TERMITE MANAGEMENT**
Termite management system to builder's selection - Termimesh, Kordon or equivalent system. System must be in accordance with NCC BCA Part 3.1.3 and AS3660.1.

**LEGEND**

- existing building shown beige
- new blockwork wall
- new stud frame
- new brickwork
- new concrete columns & brick piers
- tree protection zone
- window number - refer to schedule
- door number - refer to schedule
- floor finish & finished floor level
- wall / lining type - refer to 240 and 300 series
- flush floor finishes
- curtain
- distribution board
- floor box (recessed in slab)
- new tree, refer to landscape architects drawings
- existing tree to be retained & protecte. tpz shown dashed
- glazing suit type, refer to 710 series drawings

**FIXTURES AND FINISHES - refer to *SCH01* for details**

| | |
|---|---|
| BCT | - Baby change table |
| BLK02 | - Blockwork feature (ribbed) |
| BLK03 | - Blockwork feature (smooth) |
| BOL | - Bollard |
| CK-HC | - Hose cock |
| COL | - Structural column |
| COM | - Comms equipment |
| CON02 | - Broom finish concrete |
| CON03 | - Polished concrete |
| CON04 | |
| CPT01 | - Carpet |
| CWR | - Cold water riser |
| DB | - Distribution board |
| DP | - Downpipe |
| EPR | |
| EPX01 | - Epoxy floor system |
| FH | - Fire hydrant |
| FHR | - Fire hose reel |
| FSR | |
| GD | |
| HR01 | - Stair / ramp handrail |
| HR02 | - Stair handrail |
| HWU | - Hot water system |
| IOS | - Inspection outlet - refer hydraulic docs |
| MSB | - Main switchboard |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RAL | - Roof access ladder |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |
| SI | - Solar inverter |
| SSF01 | - Marmoleum |
| SSF02 | - Seamless sheet vinyl |
| SSF03 | - Seamless sheet vinyl |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TGSI | - Tactile indicators |
| TIL01 | - Floor tile (internal) |
| TIL02 | - Floor and wall tile (colour A) |
| TIL03 | - Floor and wall tile (colour B) |
| TIL04 | - Floor and wall tile (colour C) |
| TIM01 | - Timber floor |
| TIM03 | - Timer floor (parquetry) |
| TIM-EX | - Existing timber floor |
| TV | - smart TV |
| VP | - Vent pipe |

COMMERCIAL ROAD
PROPERTY BOUNDARY
new on-street parking between driveway crossovers (linemarking as per SCH01)
new water meter & check valve
existing water connection
existing water services stop valve
new footpath, refer civil engineer drawings for details
4500 setback
regrade existing surface to PWD parking area maximum 1:40 crossfall
kerb change to be feathered across ramps 03 and 04
existing road channel
new PWD carparks with shared zone (linemarking as per SCH01)
shared zone
max 1:40 fall
existing timber fence shown dashed
existing battered lawn / garden
existing driveway
existing stormwater drainage line, extent tbc
existing stormwater pit
Van loading
Refer to landscape drawings for courtyard details
Edge of ramp over
extent of existing sewer line tbc
joint between existing and new slab
existing sewer line to be retained and protected
line of ceiling over
glazing over
steel lintel to operable wall over
floor box below table
emergency exit door only
void over
retaining wall
artificial grass platform
artificial grass seat
existing sewer line shown approximately, exact location tbc
Existing toilet block location shown is indicative only
rainwater pump in secure enclosure, refer hydraulic engineers drawings
existing gate & fenceline retained
bike racks (x4)
aluminium batten screen
line of cladding above
sliding gate
bunding around bin store
existing chainlink fence
curtain, refer SCH01
full height books
decorative seating
service counter
glass seating
AWN01 hood over
Staff Work Rm 26 m² SSF01
Study/Reading 259 m² CPT01
Store 01 14 m² SSF01
Store 02 9 m² SSF02
Store 03 5 m² SSF02
Servery 37 m² SSF03
Store 04 SSF02
Foyer 71 m² TIL01
Foyer 189 m² TIL01 SSL 138855
Meeting Rm 12 m² CPT01
Meeting Rm 19 m² CPT01
Meeting Rm 18 m² CPT01
Meeting Rm 12 m² CPT01
Unisex PWD 05 7 m² TIL03
Unisex Dressing 16 m² SSF01
Backstage/ store 46 m² EPX01
Theatre TIM-EX
Unisex PWD 03 8 m² TIL04
Female SHR 11 m² TIL04
Female 28 m² TIL04
Comms 4 m² SSF02
Cleaner 5 m² TIL02
Male SHR 11 m² TIL03
Male 25 m² TIL02
Amenities Corridor 59 m² TIL01
Unisex PWD 04 7 m² TIL03
Umpire 9 m² TIL02
Sports storage 23 m² EPX01
Courtyard CON03
Unisex PWD 02 6 m² TIL04
Meeting Rm 12 m² CPT01
Meeting Rm 12 m² CPT01
SSL 138920 CPT01
TIM02 Stair 2
TGSI Stair 1
lift
sump
reception
desk
printer
storage below
kitchenette
kitchenette
bench
freezer
fridge
oven
oven
bench
fridge x2 below
bench
dish washer x2
sink
bin/pn
MSB cupboard
OSD
RWT
CONTINUATION OF PLAN ON SD-201

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| B | 05.08.2020 | Concept Design Issue | KF | KO |
| C | 13.10.2021 | Concept Design Workshop Updates | CM | KO |
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 03.12.2021 | Issued for client review | SR | CM |
| G | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| H | 07.01.2022 | Issue for services coordination | SR | CM |
| I | 21.01.2022 | Issue for cost estimate | SR | CM |
| J | 04.02.2022 | Issue for client review | SR | CM |
| K | 08.04.2022 | Development Application | SR | CM |
| L | 28.02.2023 | DA RFI drawings for review | CM | KO |
| M | 10.03.2023 | Plans for SWMMP | C< | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE
REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL
42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GENERAL ARRANGEMENT PLAN
LEVEL 0 - PART A

PROJECT NO: 2010 | A1
PHASE: DD | DWG No.: 200 | REV.: M

100mm LINE @ A1 | 10mm | scale: 1 : 100

**NOTES**

1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

**ABBREVIATIONS**

| | |
|---|---|
| hd | hand dryer |
| hwu | hot water unit |
| rh | robe hook |
| shr | shower |
| snk | sink |
| ur | urinal |
| vb | vanity basin |
| wc | toilet |

**INSULATION TO WALLS**
Total R value of wall construction to equal or exceed NCC BCA 2019 Section J. Refer to energy efficiency report & architectural documents for details.

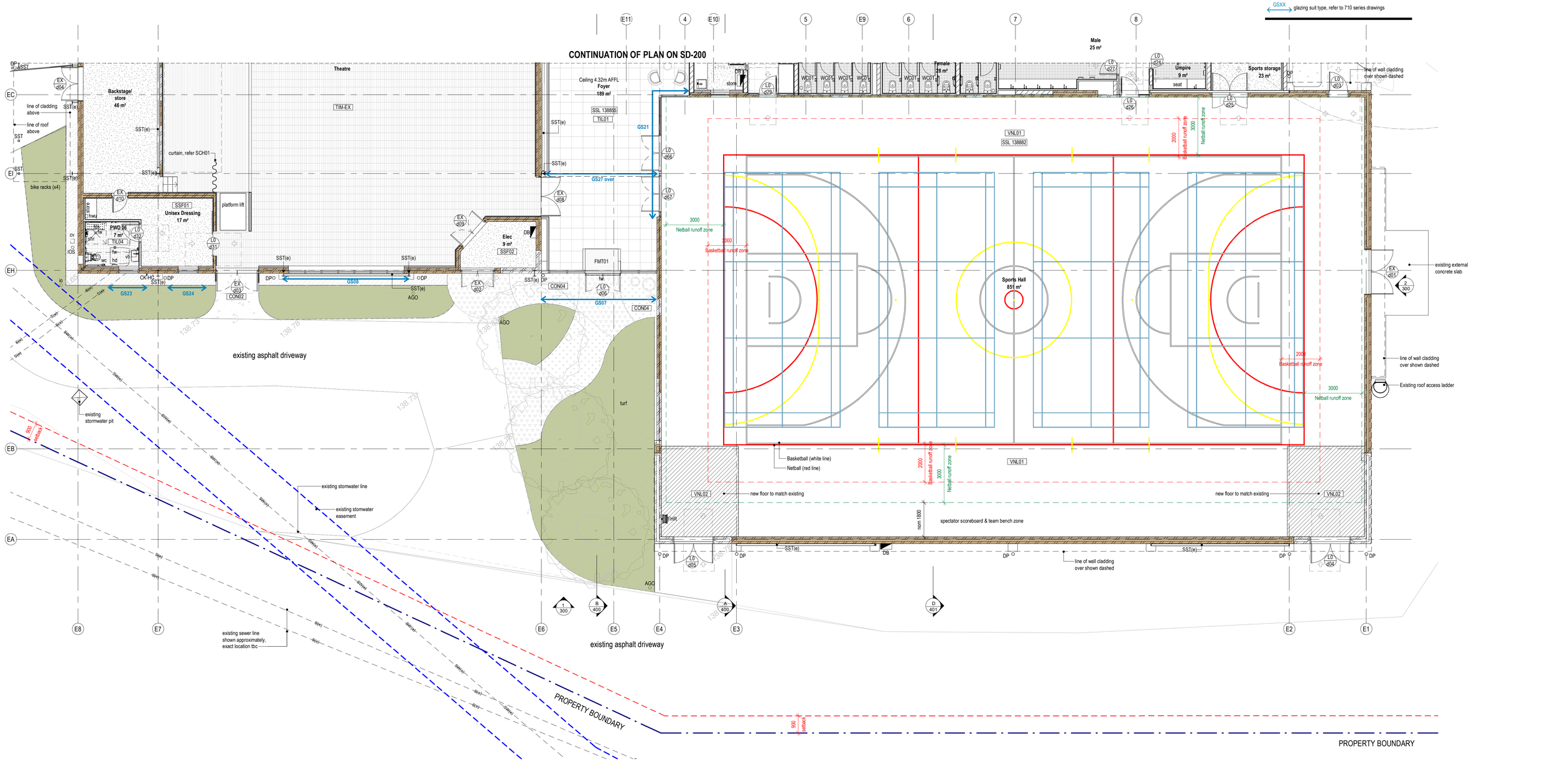
**TERMITE MANAGEMENT**
Termite management system to builder's selection - Termimesh, Kordon or equivalent system. System must be in accordance with NCC BCA Part 3.1.3 and AS3660.1.

**LEGEND**

- existing building shown beige
- new blockwork wall
- new stud frame
- new brickwork
- new concrete columns & brick piers
- tree protection zone
- window number - refer to schedule
- door number - refer to schedule
- floor finish & finished floor level
- wall / lining type - refer to 240 and 300 series
- flush floor finishes
- curtain
- distribution board
- floor box (recessed in slab)
- new tree, refer to landscape architects drawings
- existing tree to be retained & protecte. tpz shown dashed
- glazing suit type, refer to 710 series drawings

**FIXTURES AND FINISHES - refer to *SCH01 for details***

| | |
|---|---|
| AGO | |
| CK-HC | - Hose cock |
| CON02 | - Broom finish concrete |
| CON04 | |
| DB | - Distribution board |
| DP | - Downpipe |
| FHR | - Fire hose reel |
| FMT01 | |
| io | |
| IOS | - Inspection outlet - refer hydraulic docs |
| SSF01 | - Marmoleum |
| SSF02 | - Seamless sheet vinyl |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TIL01 | - Floor tile (internal) |
| TIL04 | - Floor and wall tile (colour C) |
| TIM-EX | - Existing timber floor |
| VNL01 | - Vinyl / rubber sports floor |
| VNL02 | - Vinyl / rubber sports floor |
| WC01 | - Toilet (standard) |




KO AND CO ARCHITECTURE

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| B | 20.09.2020 | Concept Design Issue | KF | KO |
| C | 13.10.2021 | Concept Design Workshop Updates | CM | KO |
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 03.12.2021 | Issued for client review | SR | CM |
| G | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| H | 07.01.2022 | Issue for services coordination | SR | CM |
| I | 21.01.2022 | Issue for cost estimate | SR | CM |
| J | 04.02.2022 | Issue for client review | SR | CM |
| K | 08.04.2022 | Development Application | SR | CM |
| L | 28.02.2023 | DA RFI drawings for review | CM | KO |
| M | 18.03.2023 | Plans for SWMMP | CH | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GENERAL ARRANGEMENT PLAN
LEVEL 0 - PART B

100mm LINE @ A1 | 10mm | scale : 1 : 100

PROJECT NO: 2010 at plot 11 | A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 201 | M |

# DESIGN DEVELOPMENT

**NOTES**

1. To be read in conjunction with ***SCH01-Materials and Finishes***.
2. To be read in conjunction with services consultant reports and drawings.
3. Refer structural engineering drawings for details and sizing of structural members.
4. Refer to landscape architect's documents for landscape details.
5. All services not being relocated must be retained and protected.

**ABBREVIATIONS**

| | |
|---|---|
| hd | hand dryer |
| hwu | hot water unit |
| rh | robe hook |
| shr | shower |
| snk | sink |
| ur | urinal |
| vb | vanity basin |
| wc | toilet |

**INSULATION TO WALLS**

Total R value of wall construction to equal or exceed NCC BCA 2019 Section J. Refer to energy efficiency report & architectural documents for details.

**TERMITE MANAGEMENT**

Termite management system to builder's selection - Termimesh, Kordon or equivalent system. System must be in accordance with NCC BCA Part 3.1.3 and AS3660.1.

**LEGEND**

- existing building shown beige
- new blockwork wall
- new stud frame
- new brickwork
- new concrete columns & brick piers
- tree protection zone
- L1 w13 — window number - refer to schedule
- L1 d07 — door number - refer to schedule
- FFL TIM02 — floor finish & finished floor level
- FN01 — wall / lining type - refer to 240 and 300 series
- flush floor finishes
- curtain
- DB — distribution board
- floor box (recessed in slab)
- new tree, refer to landscape architects drawings
- 8 — existing tree to be retained & protecte. tpz shown dashed
- GSXX — glazing suit type, refer to 710 series drawings

**FIXTURES AND FINISHES - refer to *SCH01* for details**

| | |
|---|---|
| AC | - AC condenser unit |
| AWN01 | - Window awning |
| BAL01 | - Steel flat bar balustrade |
| BAL02 | - Timber balustrade |
| BCT | - Baby change table |
| BG | - Box gutter |
| BG02 | - Box gutter |
| BOL | - Bollard |
| CK-HC | - Hose cock |
| COL | - Structural column |
| CON02 | - Broom finish concrete |
| CPT01 | - Carpet |
| CWR | - Cold water riser |
| DB | - Distribution board |
| DP | - Downpipe |
| FH | - Fire hydrant |
| FHR | - Fire hose reel |
| FMT01 | |
| FN01 | - Timber fence |
| FN02 | - Batten fence |
| FSC03 | - Parapet fascia (lower foyer) |
| FSC04 | - Custom folded metal fascia (theatre / sports hall) |
| FW01 | - Floor waste (linear drain) |
| GD | |
| HR01 | - Stair / ramp handrail |
| HR02 | - Stair handrail |
| HWU | - Hot water system |
| MS02 | - Metal sheet roofing (type 2) |
| MSSB | - Mechanical services switchboard |
| OFC | - Off-form concrete - min. class 2 finish |
| OSD | - Detention tank (Kingspan 7000L custom size) |
| RC | - Roof cowl |
| RWH | - Rainwater head |
| RWT | - Rainwater Tank (Kingspan 7000L custom size) |
| SSF01 | - Marmoleum |
| SST | - Structural steel |
| SST(e) | - Existing Structural steel |
| TGSI | - Tactile indicators |
| TIL01 | - Floor tile (internal) |
| TIL02 | - Floor and wall tile (colour A) |
| TIL05 | - Floor tile (external) |
| TIM01 | - Timber floor |
| VP | - Vent pipe |

KO&CoArchitecture Pty Ltd | PO Box 490 Red Hill Q 4059 | P: 07 3367 1878
E: mail@koandcompany.com.au | W: koandcompany.com.au

Copyright: The concepts and information contained in this document are the copyright of KO&CoArchitecture Pty Ltd. Using or copying the information in whole or in part without written permission from KO&CoArchitecture Pty Ltd constitutes an infringement of copyright.

Do not scale from drawings. Dimensions are to be checked on site prior to commencement of work. Discrepancies to be brought to the attention of the author.

| REV | DATE | ISSUE | DRAWN | CHECK |
|---|---|---|---|---|
| B | 28.08.2020 | Concept Design Issue | KF | KO |
| C | 13.10.2021 | Concept Design Workshop Updates | CM | KO |
| D | 08.11.2021 | Preliminary consultant issue | CM | KO |
| E | 12.11.2021 | Prelim for energy efficiency | SR | CM |
| F | 03.12.2021 | Issued for client review | SR | CM |
| G | 16.12.2021 | Issued for cost Quantity surveyor (not issued) | SR | CM |
| H | 07.01.2022 | Issue for services coordination | SR | CM |
| I | 21.01.2022 | Issue for cost estimate | SR | CM |
| J | 04.02.2022 | Issue for client review | SR | CM |
| K | 08.04.2022 | Development Application | SR | CM |
| L | 28.02.2023 | DA RFI drawings for review | CM | KO |
| M | 10.03.2023 | Plans for SWMMP | C< | KO |

PROJECT
ALSTONVILLE CULTURAL CENTRE

REFURBISHMENT AND LIBRARY EXTENSION

CLIENT
BALLINA SHIRE COUNCIL

42-46 COMMERCIAL ROAD, ALSTONVILLE, NSW

DRAWING NAME
GENERAL ARRANGEMENT PLAN
LEVEL 1

PROJECT NO: 2010 — at plot 11 — A1

| PHASE | DWG No. | REV. |
|---|---|---|
| DD | 202 | M |

100mm LINE @ A1 — 10mm — scale : 1 : 100

# Attachment 8 – Acoustic Report

palmer acoustics AU, TH & VN
Acoustics and Audio Visual – Consulting Engineers

# ALSTONVILLE CULTURE CENTRE EXTENSION

# 42-46 COMMERCIAL ROAD, ALSTONVILLE NSW




# NOISE IMPACT ASSESSMENT REPORT

| | |
|---|---|
| **Commissioned by:** | KO&Co Architecture |
| **Date:** | 10 March 2023 |
| **Project number:** | 5707 |
| **Version:** | v.3 |
| **Author:** | Eric Huang |

24 Mexicanus Drive PO Box 790 Park Ridge Queensland 4118 Australia p. +61 7 3802 2155 eric@palmeracoustics.com www.palmeracoustics.com

| DOCUMENT INFORMATION | | | |
|---|---|---|---|
| **Author**: | Eric Huang | **Reviewed by**: | Ross Palmer |
| **Date**: | 10 March 2023 | **Date**: | 10 March 2023 |

| VERSION HISTORY | | | | |
|---|---|---|---|---|
| **Version** | **Description** | **Date** | **Author** | **Approved by** |
| V.0 | Draft | 18/02/23 | Eric Huang | Ross Palmer |
| V.1 | Draft | 23/02/23 | EH | RP |
| V.2 | Draft – Mechanical plant noise | 08/03/23 | EH | RP |
| V.3 | Final | 10/03/23 | EH | RP |
| | | | | |
| | | | | |

| DOCUMENT DISTRIBUTION | | | |
|---|---|---|---|
| **Copy** | **Name/Company** | **Hard Copy** | **Electronic Copy** |
| 01 | KO&Co Architecture | ☐ | ☑ |
| 02 | | ☐ | ☐ |
| 03 | | ☐ | ☐ |
| 04 | | ☐ | ☐ |
| 05 | | ☐ | ☐ |

## EXECUTIVE SUMMARY

The Alstonville Cultural Centre C/O KO&Co Architecture is undergoing a development application extension and renovation. The upgrade is to the existing Alstonville Cultural Centre site at 42-46 Commercial Road, Alstonville NSW. The site is shown in Figure 1 . Palmer Acoustics (Australia) Pty Ltd has been commissioned to conduct a noise impact assessment on this building upgrade.

The intent of the development is to provide additional floor area and upgraded facilities for the existing library, sports hall, theatre and foyers. The major upgrade to the floor area is the library, closest to an adjacent residence.

This report addresses:

- Noise from the new upper and lower library courtyards noise, and sports hall noise onto nearby residential dwellings.
- Noise from the rooftop mechanical plant onto nearby residential dwellings.
- Noise control measures as required to ensure compliance with the Ballina Shire Council (BSC) noise criteria and Noise Policy for Industry (NPfL).

Based on the results presented, the following conclusions can be drawn:

- Noise emissions from inside the library (open façade), sports hall (open louvre facing southeast façade) and theatre (fully closed façade) comply with day and night time limits at the nearby residences.
- The library staff manages the loud conversation at the level 1 front library courtyard.
- Noise from the library's courtyard (fronting the road) exceed the day time limit. An acoustic barrier is required at the northern property boundary.
- Noise emission from the sum of all on-site activities complies with day and night time limits.
- The noise from the mechanical plant and equipment comply with the day and night time limits with the acoustic upgrade to plant room and plant deck.

To ensure compliance with the Noise Policy for Industry requirements, we recommended:

- Hours of operation are limited to 6:00am – 12:00am mid-night
- The library's level 1 front courtyard and ground floor side courtyard be limited to operate between 7am to 6pm daytime hours.
- A 1.8m high acoustic barrier (above the front courtyard RL) be constructed as per Figure 4.
- A 1.8m high acoustic barrier (above the natural ground RL) be constructed as per Figure 5.
- The rooftop plant deck walls install with outdoor sound absorptive material (refer to Figure 7).
- The plant room walls and ceiling be upgraded to Rw40 (refer to Figure 8), and ventilation intake and exhaust ducts be attenuated with a minimum transmission loss of 30dB, i.e. attenuators or equivalent. Mechanical plant noise detail be assessed at the detail design stage.
- Mechanical plant must be engineered to ensure noise emissions are below 40dB(A) during the day, 36dB(A) Evening and 35dB(A) night at the nearest residence.

## CONTENTS

**1.0 INTRODUCTION ..... 1**

1.1 Existing site and surroundings ..... 2
1.2 The Proposed Development ..... 2
1.3 Ballina Shire Council ..... 3

**2.0 EQUIPMENT AND MEASURED NOISE LEVELS ..... 4**

2.1 Logging Results ..... 4
2.2 Instrumentation ..... 5

**3.0 NOISE POLICY FOR INDUSTRY ..... 5**

3.1 Intrusive noise ..... 5
3.2 Amenity criteria ..... 6
3.3 Sleep disturbance ..... 6
3.4 Trigger levels ..... 6

**4.0 NOISE EMISSION – INTERMITTENT AND FLUCTUATING NOISE ASSESSMENT ..... 7**

4.1 Noise source ..... 7
4.2 Level 1 Front Library Courtyard Noise Assessment ..... 8
4.3 Ground floor Side Library Courtyard Noise Assessment ..... 9
4.4 Library Noise Assessment ..... 10
4.5 Sports Hall Noise Assessment ..... 11
4.6 Theatre Noise Assessment – R2 ..... 12
4.7 Sum of all activities Noise Assessment ..... 13

**5.0 NOISE EMISSION – CONTINUOUS NOISE ASSESSMENT ..... 15**

5.1 Noise Emission Criteria ..... 16
5.2 Assessment ..... 16

**6.0 CONCLUSIONS AND RECOMMENDATIONS ..... 19**

## 1.0 INTRODUCTION

The Alstonville Cultural Centre C/O KO&Co Architecture is undergoing a development application extension and renovation. The upgrade is to the existing Alstonville Cultural Centre site at 42-46 Commercial Road, Alstonville NSW. The site is shown in Figure 1 . Palmer Acoustics (Australia) Pty Ltd has been commissioned to conduct a noise impact assessment on this building upgrade.

The intent of the development is to provide additional floor area and upgraded facilitiesfor the existing library, sports hall, theatre and foyers. The major upgrade to the floor area is the library, closest to the adjacent residence.

This report addresses:

- Noise from the new upper and lower library courtyards noise, and sports hall noise onto nearby residential dwellings.
- Noise from the rooftop mechanical plant onto nearby residential dwellings.
- Noise control measures as required to ensure compliance with the Ballina Shire Council (BSC) noise criteria and Noise Policy for Industry (NPFI).




Figure 1: Site location

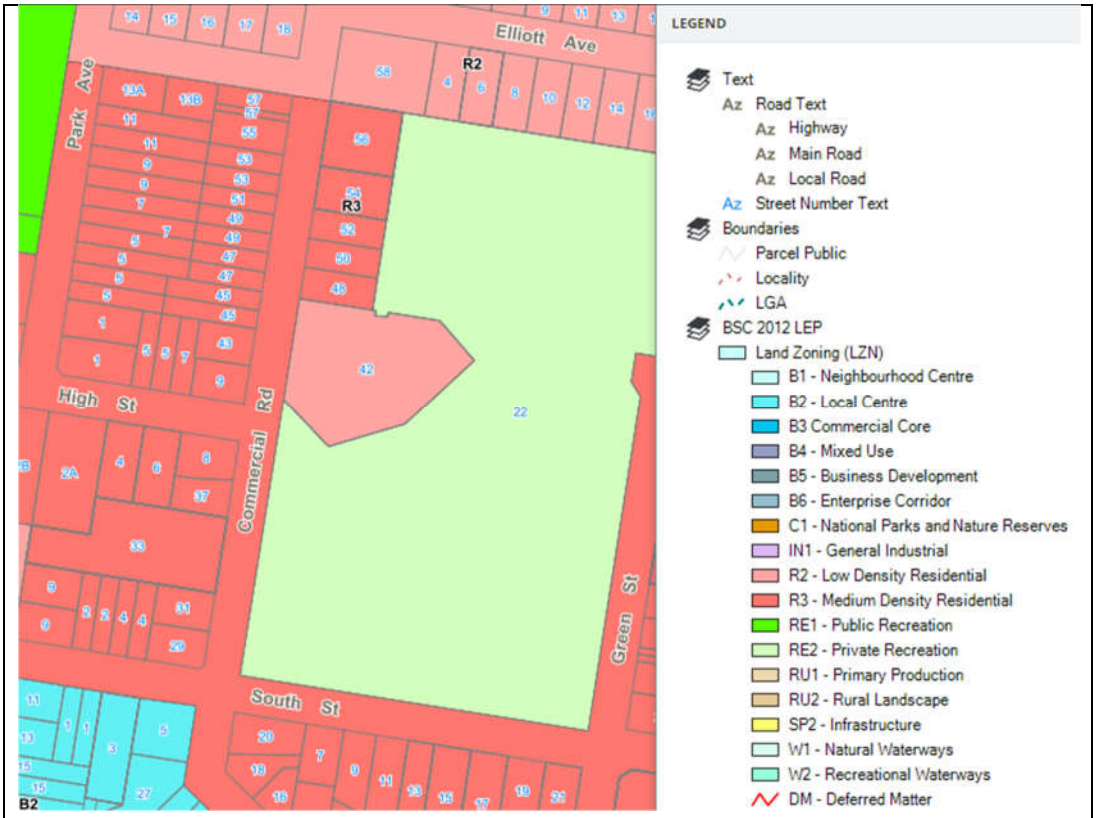


Figure 2: BSC Planning zone

## 1.1 Existing site and surroundings

The site is in the low density residential zone. A medium density residential zone surrounds the site on western (across Commercial Road) and part of northern property boundaries, and private recreation zone (Alstonville Showground) on the southern, eastern and part of northern property boundaries. The closest residential building (R1) is fronting the road approx. 6m away from the property boundary.

The Alstonville Cultural Centre operating hours as follows:

- 6am – 11pm Sun – Thu and 6am – 12.00am (midnight) Fri – Sat

The operating hours for the library are 6 days a week from 9am to 5pm, except for Saturday from 9am to 12noon and closed on Sunday.

## 1.2 The Proposed Development

The proposed upgrade is as follows:

- The existing single-storey library will be demolished and a new two-storey library will be constructed. The library building is located towards the northern front property

boundary with new external façades, internal layout, mechanical plant (on ground and rooftop) and amenities.

- Re-locate the front entry foyer from the ground to level 1.
- Minor upgrade to the theatre, sports hall extended foyer/lobby, new meeting rooms and new library external courtyards.

After the upgrade, the operating hours of the library, theatre and sports hall will remain the same.

### 1.3 Ballina Shire Council

Ballina Shire Council issued an information request on the 8th of December, 2022 as below.

> ***3. Noise***
> *The provided application documentation does not outline how the proposed alterations and additions to the existing facility will impact on the acoustic characteristics of the building use and impacts on nearby sensitive receivers. The proposed increase in intensity of the use of the facility and amended design has the potential to generate noise of a level or character that may negatively impact on nearby sensitive receivers and generate offensive or intrusive noise. A noise impact assessment prepared by a suitably qualified person is requested to assess the noise generating use of the building as a result of the alternations and additions.*

## 2.0 EQUIPMENT AND MEASURED NOISE LEVELS

### 2.1 Logging Results

Environmental noise levels were measured over 7 days commencing Wednesday, 25 January 2023. The measurement location is shown as ML1 in Figure 1. The results of the logging are presented in Figure 3 below. The typical average ambient noise levels measured at ML1 are presented in Table 1.

**Table 1: Measured Ambient Noise Levels ML1**

| Time | Measured Average Noise Levels[1] dB(A)[2] | | | | | |
|---|---|---|---|---|---|---|
| | $L_{Amax}$[3] | $L_{A01}$[4] | $L_{A10}$[5] | $L_{Aeq}$[6] | $L_{A90}$[7] | RBL[8] |
| Day: 7 am to 6 pm | 73 | 65 | 53 | 52 | 37 | 35 |
| Evening: 6 pm to 10 pm | 68 | 58 | 45 | 47 | 33 | 31 |
| Night: 10 pm to 7 am | 60 | 49 | 38 | 40 | 29 | 28 |

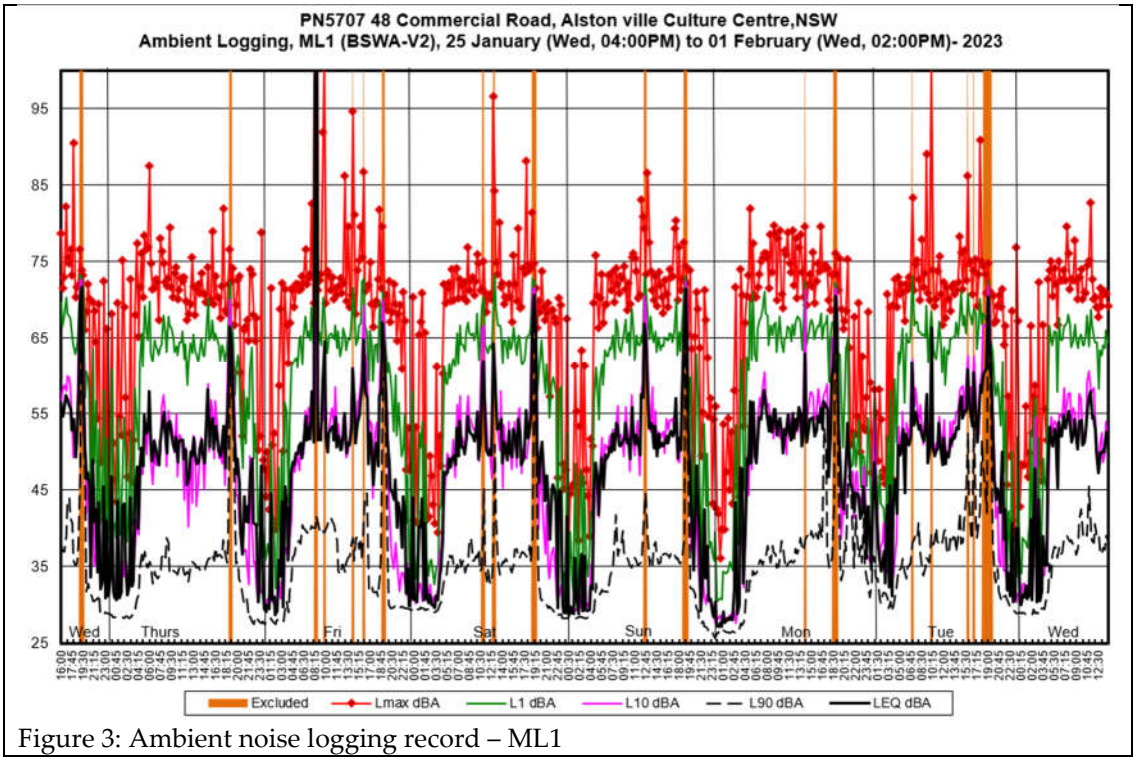


Figure 3: Ambient noise logging record – ML1

[1] *Average noise levels throughout the period, with the exception of $L_{A90}$ which is the average below the median noise levels for the period.*
[2] *dB(A) decibels, A-weighted*
[3] *$L_{Amax}$ refers to the average maximum a-weighted sound pressure level occurring during the sampling period*
[4] *$L_{A01}$ for a specified time interval, means the A-weighted sound pressure level that is equalled or exceeded for 1% of the interval*
[5] *$L_{A10}$ for a specified time interval, means the A-weighted sound pressure level that is equalled or exceeded for 10% of the interval*
[6] *$L_{Aeq}$ for a specified time interval, means the time average A-weighted sound pressure level, within the meaning given by AS1055.1 for the interval*
[7] *$L_{A90}$ refers to the noise level exceeded 90% of the time period, commonly referred to as the background noise level (L90 average below median)*
[8] *RBL refers to the rating background noise level*

The logger was set to record 15-minute statistics. The weather during the logging was predominately fine. Rain periods between Friday to Sunday were excluded from the RBL calculations.

### 2.2 Instrumentation

The following instruments were used to measure the ambient noise levels:

- BSWA 309 Noise Logger #3 (serial number: 560542)
- B&K 4230 Calibrator #2 (serial number 1638750)

The operation of the sound level measuring equipment was field calibrated before and after each measurement session and was found to be within 0.3dB of the reference signal. The calibrator and noise logger used in this assessment has a current calibration certificate from a certified NATA calibration laboratory.

## 3.0 NOISE POLICY FOR INDUSTRY

The Noise Policy for Industry (NPFI) established trigger levels which, if reached, required noise mitigation measures to be considered. The levels are:

- Intrusive noise; and
- Amenity noise

The RBL for the daytime, evening and night period were determined in

**Table 2: Rating background noise levels**

| Time of day | RBL, dB(A) |
|---|---|
| Day | 35* (Actual 35) |
| Evening | 31 (Actual 31) |
| Night | 30* (Actual 28) |

* Actual RBLs are below the assumed policy minimums; therefore we adopt the assumed minimums.

### 3.1 Intrusive noise

The intrusiveness of an industrial noise source may generally be considered acceptable if the level of noise from the source (represented by the $L_{Aeq}$ descriptor), measured over a 15-minute period, does not exceed the background noise level (presented in Table 2) by more than 5 dB when beyond a minimum threshold.

### 3.2 Amenity criteria

From Tables 2.2 and 2.3 of the NPFI amenity criteria, ANL, are assessed for Rural Residential category. Project amenity noise level is Rural ANL minus 5dB(A) plus 3 dB(A) to covert from a period level to a 15 minute level.

### 3.3 Sleep disturbance

Section 2.5 of the NPfI states that sleep disturbance from maximum noise level events from premises during the nighttime period needs to be considered. Where the subject development night time noise levels at a residential location exceed:

- $L_{Aeq,15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or
- $L_{AFmax}$ 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,

A detailed maximum noise level event assessment is presented in Table 3.

**Table 3: Maximum noise levels**

| Time of day | $L_{Aeq,15min}$, dB(A) | $L_{Amax}$, dB(A) |
|---|---|---|
| Night | **40**dB(A) or 28+5=33dB(A) whichever is the greater. | **52**dB(A) or 28+15=43dB(A) whichever is the greater |

### 3.4 Trigger levels

**Table 4: NPFI trigger levels**

| Receiver | Time of day | ANL | dB(A) | | Project trigger noise levels, dB(A) | | |
|---|---|---|---|---|---|---|---|
| | | Rural | RBL $L_{A90\ 15\ min}$ | Existing $L_{Aeq\ 15\ min}$ | Intrusive $L_{Aeq\ 15\ minute}$ | Amenity $L_{Aeq\ 15\ minute}$ | $L_{Amax}$ |
| Residential | Day | 50 | 35 | 52 | 35+5=**40** | 50-5+3=48 | |
| | Evening | 45 | 31 | 47 | 31+5=**36** | 45-5+3=43 | |
| | Night | 40 | 30 | 40 | 30+5=**35** | 40-5+3=38 | 52 |

Therefore the project trigger levels are highlighted Table 4, above and presented below:

- Day: $L_{Aeq,15min}$ 40dB(A)
- Evening: $L_{Aeq,15min}$ 36dB(A)
- Night: $L_{Aeq,15min}$ 35dB(A) and $L_{Amax}$ 52dB(A)

## 4.0 NOISE EMISSION – INTERMITTENT AND FLUCTUATING NOISE ASSESSMENT

Noise from the site includes the following sources:

- Noise from the front library courtyard to the adjacent residence
- Noise from the side library courtyard to the adjacent residence
- Noise from inside the library to the adjacent residence
- Noise from inside the sports hall to the nearby residences
- Noise from inside the theatre to the nearby residences
- Sum of above noise levels.

### 4.1 Noise source

The noise levels associated with conversation activity, taken from our database, are presented in Table 5.

**Table 5: Typical maximum measured noise levels from conversation activity**

| Source | Source Sound Power Level LW, dB, $L_{Amax}$ | Predicted Source Sound Power Level LW, dB, $L_{Aeq}$ |
|---|---|---|
| Loud conversation | 85 | 82 |
| Normal conversation | 79 | 75 |
| Low conversation | 66 | 63 |

Measurements of typical major noise sources inside the multipurpose sports hall have been conducted by this office and are presented in Table 6. The measurements were conducted at the centre of the hall in a reverberant space.

**Table 6: Typical maximum measured noise levels from inside the sports hall**

| **Source** | **Noise Level dB(A)** | |
|---|---|---|
| | **$L_{A10,}$*** | **$L_{Aeq,}$** |
| Assembly / Awards Presentation / PA Speech centre of the hall | 77 dB(A) | 74 dB(A) |
| Physical Education | 80 dB(A) | 76 dB(A) |
| Basketball game noise with whistle | 80 dB(A) | 78 dB(A) |

* $L_{A10}$ is equivalent to the average $L_{Aamx}$ noise level.

Measurements of typical amplified music have been conducted by this office and are presented in Table 7—noise assessment for theatre.

**Table 7: Typical maximum measured noise levels 3m from speakers**

| **Source – individual event** | **Noise Level at 3m from Speakers** | | |
|---|---|---|---|
| | **$L_{C10}$** | **$L_{Amax}$** | **$L_{Aeq}$** |
| Amplified music (inside a venue) | 91 dB(A) | 86 dB(A) | 85dB(A) |

## 4.2 Level 1 Front Library Courtyard Noise Assessment

The library staff could manage the noise level in the proposed level 1 front library courtyard (facing Commercial Road). No loud noise occurred in the outdoor courtyard. The distance from the centre of the courtyard to the northern residence is approx. 10m. This courtyard is part of the library and operates during daytime hours.

**Table 8: Outdoor Level 1 front courtyard source noise levels**

| Source Noise | Sound power level | Noise Level dB(A) | |
|---|---|---|---|
| | | Assumed operation (min/15) Leq derating | R1 @ 10m |
| Normal Conversation | 75 | -2dB (10min) | 47(source @10m)- 2dB (Leq derating) = 45dB |

Table 8 presents the predicted noise level at the northern residence and conversation noise in the front courtyard exceeds the day time 40dB(A) limit. To comply with the daytime noise limit, a 1.8m high acoustic barrier (above courtyard RL) along the northern property boundary is required.

**Table 9: Outdoor level 1 front courtyard source noise levels with 1.8m high acoustic barrier**

| Source Noise | Sound power level | Noise Level dB(A) | |
|---|---|---|---|
| | | Assumed operation (min/15) Leq derating | R1 @ 10m |
| Normal Conversation | 75 | -2dB (10min) | 47(source @10m)- 2dB (Leq derating) – 10 dB (1.8m barrier) = 35dB |

Table 9 indicates that the predicted conversation noise in the courtyard complies with the daytime limit with a 1.8m high acoustic barrier (refer to Figure 4 for barrier location).

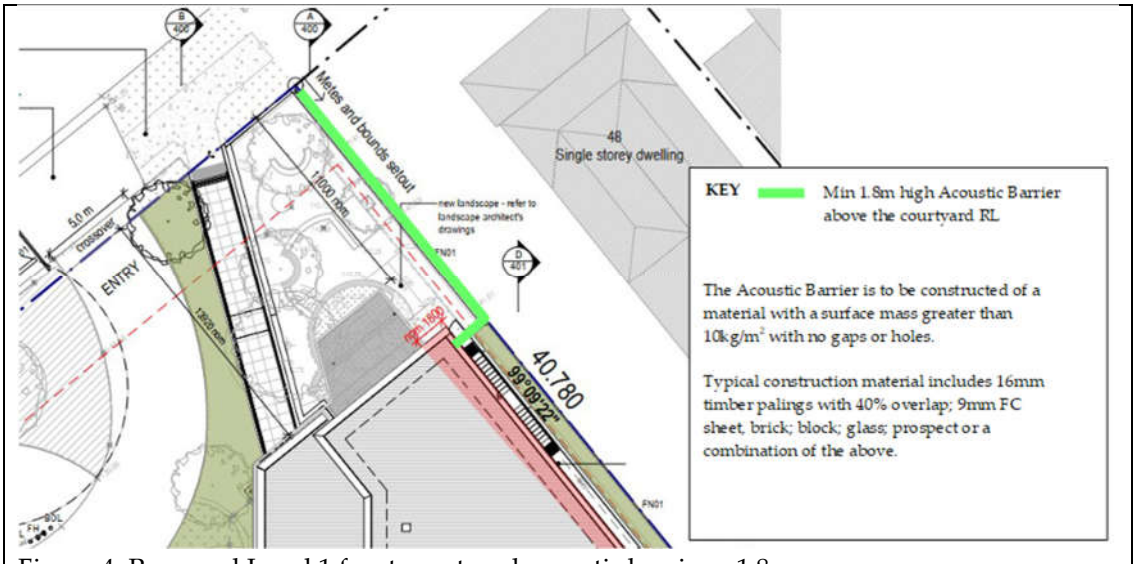


Figure 4: Proposed Level 1 front courtyard acoustic barrier – 1.8m

### 4.3 Ground floor Side Library Courtyard Noise Assessment

The proposed ground floor side library courtyard could potentially impact adjacent residence. The distance from the centre of the courtyard to the northern residence is approx. 20m. This courtyard is part of the library and operates during daytime hours. The side courtyard is located in a cutting from the northern residence with up to 2.1m high retaining wall on the northern boundary.

**Table 10: Outdoor ground floor side courtyard source noise levels**

| Source Noise | Sound power level | Noise Level dB(A) | |
|---|---|---|---|
| | | Assumed operation (min/15) Leq derating | R1 @ 20m |
| Loud Conversation | 82 | -2dB (10min) | 48(source @20m)- 2dB (Leq derating) – 5dB (retaining wall) = 41dB |

Table 10 presents the predicted noise level at the northern residence and conversation noise in the ground floor side courtyard exceeds the day time 40dB(A) limit. To comply with the daytime noise limit, a 1.8m high acoustic barrier, on top of the retaining wall along the northern property boundary is required.

**Table 11: Outdoor ground floor side courtyard source noise levels with 1.8m high acoustic barrier on top of the retaining wall**

| Source Noise | Sound power level | Noise Level dB(A) | |
|---|---|---|---|
| | | Assumed operation (min/15) Leq derating | R1 @ 10m |
| Loud Conversation | 82 | -2dB (10min) | 48(source @20m)- 2dB (Leq derating) – 15 dB (retaining wall & barrier) = 31dB |

Table 11 indicates that the predicted conversation noise in the ground floor courtyard complies with the daytime limit with 1.8m high acoustic barrier above the retaining wall (refer to Figure 5 for barrier location).

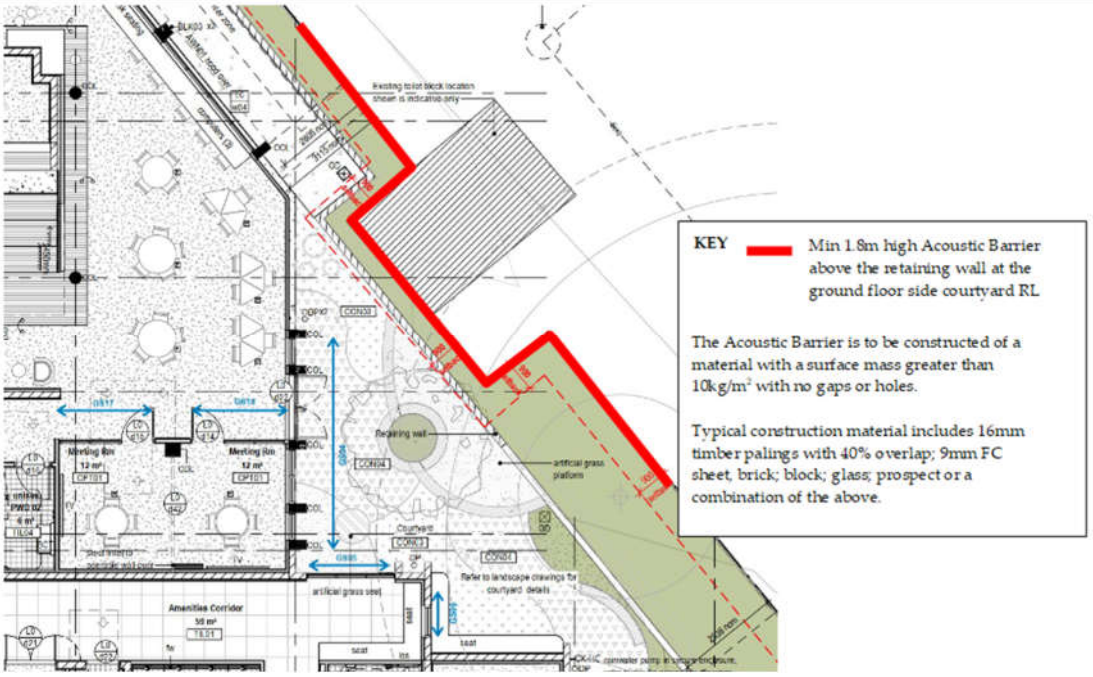



Figure 5: Proposed ground floor side courtyard acoustic barrier

## 4.4 Library Noise Assessment

The proposed northern façade (facing residence R1) be constructed with blockwork and high-level windows. The predicted sound reduction index (Rw) rating as follows:

- Blockwork 190mm core filled (min Rw 50),
- External glazing windows (6.38mm laminated glass) and bi-fold doors (min Rw32),

The predicted noise levels from inside the library low conversation to the sensitive receiver through the building façade (open and closed situations) are presented in Table 12. The presented calculation is based on the following:

- distance attenuation of 6 dB per doubling of distance,
- inside to outside correction min -6dB.
- The transmission loss from the closed glazing to the residences is min -26dB.
- The transmission loss from the open glazing to the residences is min -10dB.
- $L_{Aeq}$ energy averaging for 10min of 15min.

**Table 12: Inside library source noise levels (both open and closed façade)**

| Source Noise | Sound power level | Noise Level dB(A) | |
|---|---|---|---|
| | | Assumed operation (min/15) Leq derating | R1 @ 10m |
| Low Conversation (closed façade ) | 63 | -2dB (10min) | 41(source @10m)- 2dB (Leq derating) – 6dB (inside to outside correction) – 26dB (Glazing TL) = 7dB |
| Low Conversation (open façade ) | 63 | -2dB (10min) | 41(source @10m)- 2dB (Leq derating) – 6dB (inside to outside correction) – 10dB (open façade) = 23dB |

Table 12 indicates that the predicted low conversation noise inside the library complies with the day and night time limits with an open facade.

## 4.5 Sports Hall Noise Assessment

Using the above noise source data for sports hall activities to determine the following possible impacts. There are minimum openings on the northwest, northeast and southwest. The main openings are the high-level louvres facing the southeast façade. The existing building is constructed with a double-brick (from ground to 2.5m) and the new insulated panels (from 2.5m and up) wall. The new roof/ceiling is constructed with insulated panels. Access to the hall (main entry) is via internal doors through the new ground foyer. The predicted sound reduction index (Rw) rating as follows (different external elements):

- Double-brick wall (Rw45)
- 120mm thick insulated panel (Rw 26),
- High-level louvre windows (open Rw5),
- External Doors (closed) (Rw30).

The predicted noise levels from inside the hall (sports activities) to the sensitive receiver R1 through all sides of the building façades (open louvre situation) are presented in Table 13. The presented calculation is based on the following:

- SPL2 = SPL1 - R + 10 log Sp - 20 log r - 14dB (Woods P76)
- R – overall reduction of the façade with different element area.
- Sp – total façade surface area.
- r – distance to the northern residence (40m west façade and 65m east façade)
- Open louvre windows on the southeastern façade of the hall (1.2m x 28m) with all external doors closed.
- Transmission loss of different external element areas
- Directivity of each façade (-3dB at 90 degrees and -8dB at 180 degrees)
- Sum 5 façade surfaces transmission loss (4 walls and roof)
- $L_{Aeq}$ energy averaging for 10min of 15min ($L_{eq}$ derating of -2dB).

Table 13 shows the overall attenuation from the existing sports hall to the nearest northern residence with open louvre windows and closed doors.

**Table 13: Predicted sports activities noise impacts into R1 (with open louvre windows)**

| Source ($L_{A10}$/ $L_{Aeq}$) | Attenuation of distance, building façades & directivity | Noise Level dB(A) at Northern residence | | Complies With Noise Limits 40 Day / 36 Evening 35 Night? |
|---|---|---|---|---|
| | | $L_{Amax}$ | $L_{Aeq}$ with $L_{eq}$ derating | |
| Assembly / Awards Presentation / PA Speech (77/70dBA) | -42 dB | 35 dB(A) | 26 dB(A) | Yes/Yes/Yes |
| Physical Education (80/76dBA) | -42 dB | 38 dB(A) | 32 dB(A) | Yes/Yes/Yes |
| Basketball game noise with a whistle (80/78dBA) | -42 dB | 38 dB(A) | 34 dB(A) | Yes/Yes/Yes |

Table 13 indicates that the predicted sports activities inside the Sports Hall (open louvre windows) comply with day and night time limits.

## 4.6 Theatre Noise Assessment – R2

Using the above noise source data for amplified music activity inside the theatre to determine the following possible impacts. The theatre will be fully air-conditioned with closed façades. The main entry to the theatre will be via the ground-floor foyer. The theatre can also be accessed directly from the street side, via level 1 foyer. The existing building is constructed with a double-brick (from ground to 3.6m). The new roof/ceiling be construct with insulated roof panels with acoustic ceiling tiles with a ceiling void. The predicted sound reduction index (Rw) rating as follows (different element):

- Double-brick wall (Rw45)
- 120mm thick insulated roof panel with sound absorptive ceiling tile (Rw 30),
- External Doors (closed) (Rw30).

The predicted noise levels from inside the theatre (amplified music) to the sensitive receiver (western residence) R2 through all sides of the building façades (fully closed situation) are presented in Table 14. The presented calculation is based on the following:

- SPL2 = SPL1 - R + 10 log Sp - 20 log r - 14dB (Woods P76)
- R – overall reduction of the façade with different element area.
- Sp – total façade surface area.
- r – distance to the western residence (40m west façade and 60m east façade)
- distances between the venue and R1 & R2 are similar.
- closed external windows and doors.
- Transmission loss of different external wall areas
- Directivity of each façade (-3dB at 90 degrees and -8dB at 180 degrees)

- Sum 4 façade surfaces transmission loss (3 walls and roof). One wall is connected to the foyer (will have a high transmission rating through a double wall system).
- $L_{Aeq}$ energy averaging for 7min of 15min ($L_{eq}$ derating of -3dB).

Table 14 shows the overall attenuation from the theatre to the nearest western residence with closed windows and doors.

**Table 14: Predicted theatre noise impacts into R2 (fully closed façade)**

| Source ($L_{A10}$/ $L_{Aeq}$) | Attenuation of distance, building façades & directivity | Noise Level dB(A) at Western residence | | Complies With Noise Limits 40 Day / 36 Evening 35 Night? |
|---|---|---|---|---|
| | | $L_{Amax}$ | $L_{Aeq}$ with $L_{eq}$ derating | |
| Amplified music (86/85dBA) | -52 dB | 34 dB(A) | 30 dB(A) | Yes/Yes/Yes |

Table 14 indicates that the predicted amplified music activities inside the theatre (closed façades) comply with day and night time limits.

## 4.7 Sum of all activities Noise Assessment

Table 15 presents the sum from the predicted level in Table 9 to Table 14.

**Table 15: Predicted noise impacts – Noise sum at Northern residence**

| Source | $L_{Aeq}$ dB(A) Day/Evening/ Night time | $L_{Amax}$ dB(A) Night time | Complies With Noise Limits $L_{Aeq}$ 40/36/35dB(A) | Complies With night Noise Limits $L_{Amax}$ 52dB(A) |
|---|---|---|---|---|
| Level 1 Front Courtyard noise with barrier | 35/-/- | - | Yes/-/- | Not operating at night |
| Ground floor Side courtyard with barrier | 31/-/- | - | Yes/-/- | Not operating at night |
| Library with open doors | 23/-/- | - | Yes/-/- | Not operating at night |
| Sports hall with open louvres | 34/34/34 | 38 | Yes/Yes/Yes | Yes |
| Theatre closed façades | 30/30/30 | 34 | Yes/Yes/Yes | Yes |

| Source | $L_{Aeq}$ dB(A) Day/Evening/ Night time | $L_{Amax}$ dB(A) Night time | Complies With Noise Limits $L_{Aeq}$ 40/36/35dB(A) | Complies With night Noise Limits $L_{Amax}$ 52dB(A) |
|---|---|---|---|---|
| Sum | **40/35/35** | **39** | **Yes/Yes/Yes** | **Yes** |

Table 15 indicates that the predicted noise emissions from all the activities comply with the Policy day, evening and night time limits at the northern residential residence R1. Therefore no further acoustic treatment be required.

## 5.0 NOISE EMISSION – CONTINUOUS NOISE ASSESSMENT

Selections for the mechanical plant for the Library, Sports Hall and Theatre have been made. The major plant will be located on the rooftop behind the level 1 Library building and inside the plant room. The noise source levels were provided and are presented in Table 16.

**Table 16: Outdoor mechanical plant noise levels**

| Source – individual plant | Noise Level (Day time mode) |
|---|---|
| | $L_{Aeq}$ |
| PAC-1 (Theatre) inside plant room | 81 dB(A) @ 3m |
| PAC-2 (Foyer) inside plant room | 71 dB(A) @ 3m |
| CU-1 (Gnd Library) | 64 dB(A) @ 3m |
| CU-2 (Gnd Comms Room) | 48 dB(A) @ 3m |
| CU-3 (Gnd Meeting rooms) | 48 dB(A) @ 3m |
| CU-5 (L1 Library foyer) | 68 dB(A) @ 3m |
| HSF-1 (Sports hall ) inside plant room | 67 dB(A) @ 3m |
| HSF-2 (Sports hall)inside plant room | 67 dB(A) @ 3m |

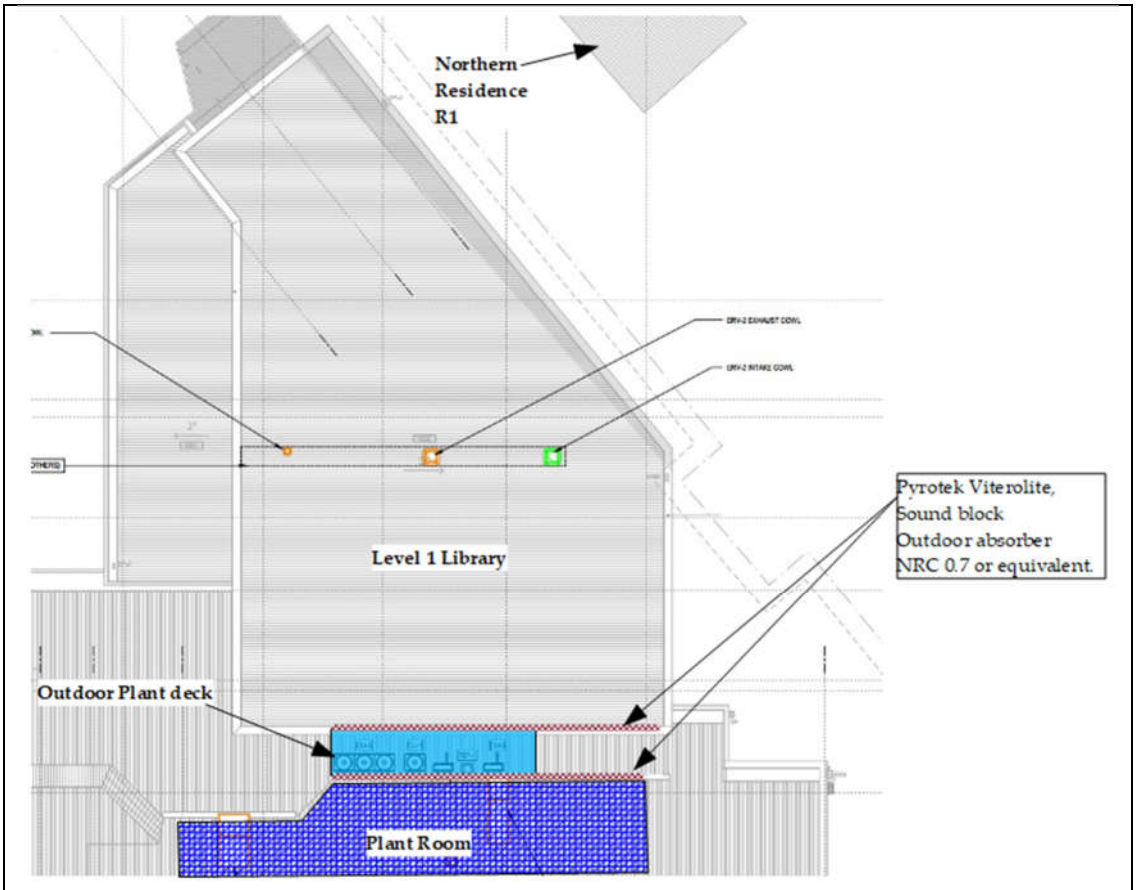



Figure 6: Proposed plant room and deck locations

## 5.1 Noise Emission Criteria

The Noise Policy for Industry requires that noise emissions for mechanical plant be limited to 40dB(A) $L_{Aeq}$ Day, 36dB(A) $L_{Aeq}$ Evening and 35dB(A) at night time for the preservation of residential amenity (refer to Table 4). When plant is selected emissions will be required to be kept below these limits at the nearest residence R1.

## 5.2 Assessment

We predict mechanical plant noise emissions from the plant deck and plant room are presented in Table 17 below. The distance from the plant deck to the R1 is approx 30m. Based on a distance attenuation calculation, 6dB per doubling of distance, building shielding/barrier effect, sound absorptive material on the plant deck wall (refer to Figure 7), and the noise breakout from the plant room (insulated panel, Rw30), the predicted noise level at the residential R1 is presented in Table 17.

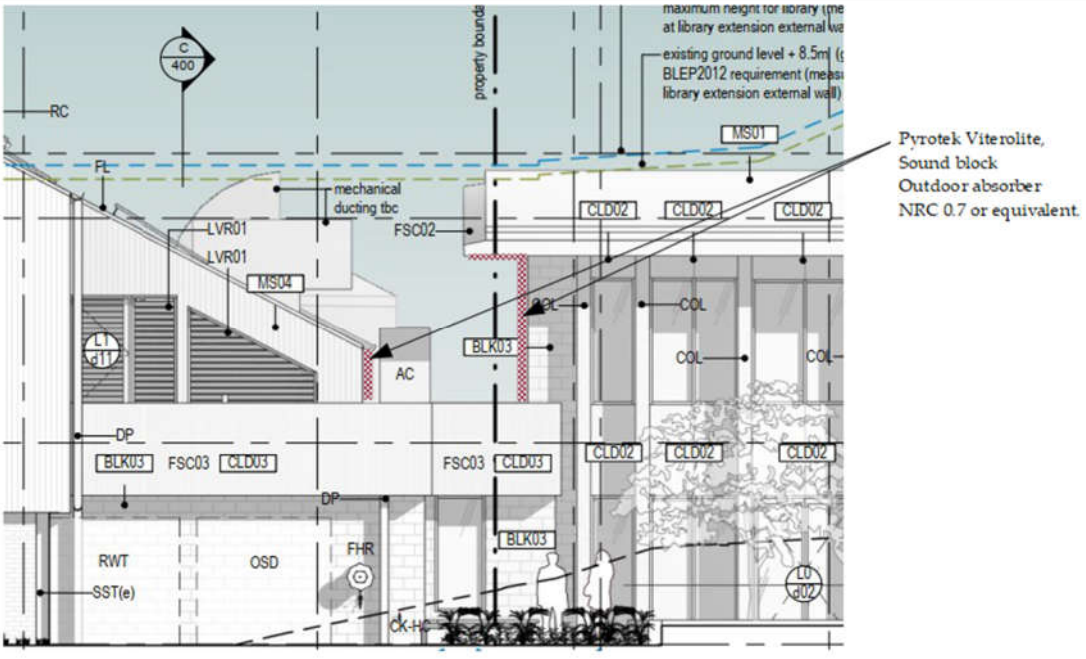


Figure 7: Proposed rooftop plant deck sound absorptive treatment

**Table 17: Predicted plant noise impacts to nearby residences R1**

| Details | $L_{Aeq}$ Noise Level | Distance Attenuation | Barrier Attenuation / building shielding effect / sound directivities | Plant room wall | Noise Level dB(A) at Residences R1 | Complies With Noise Limits 40 Day / 36 Evening 35 Night? |
|---|---|---|---|---|---|---|
| PAC-1 | 81dB @ 3m | -20 dB (3m to 30m) | 0dB | -24dB | 37/37/37dB | Yes/No/No |
| PAC-2 | 71dB @ 3m | -22 dB (3m to 36) | 0dB | -24dB | 25/25/25dB | Yes for all |

| Details | $L_{Aeq}$ Noise Level | Distance Attenuation | Barrier Attenuation / building shielding effect / sound directivities | Plant room wall | Noise Level dB(A) at Residences R1 | Complies With Noise Limits 40 Day / 36 Evening 35 Night? |
|---|---|---|---|---|---|---|
| CU-1 | 64 dB @ 3m | -20 dB (3m to 30m) | -15dB | 0dB | 29/29/-dB | Yes/Yes/- |
| CU-2 | 48 dB @ 3m | -20 dB (3m to 30m) | -15dB | 0dB | 13/13/13dB | Yes for all |
| CU-3 | 48 dB @ 3m | -20 dB (3m to 29m) | -15dB | 0dB | 13/13/-dB | Yes/Yes/- |
| CU-5 | 68 dB @ 3m | -20 dB (3m to 31m) | -15dB | 0dB | 33/33/-dB | Yes/Yes/- |
| HSF-1 | 67 dB @ 3m | -20 dB (3m to 30m) | 0dB | -24dB | 23/23/- | Yes/Yes/- |
| HSF-1 | 67 dB @ 3m | -20 dB (3m to 30m) | 0dB | -24dB | 23/23/- | Yes/Yes/- |
| TOTAL | | | | | 39/39/37dB | Yes/No/No |

Table 17 indicated that PAC-1 noise breakout from the plant room exceeded the evening and night time limits. The sum of all the mechanical plant noise exceeds the evening and night time limits.

To comply with evening and night time noise limits, the plant room wall and ceiling be upgraded to minimum Rw40 with internal sound absorptive material (refer to Figure 8). The predicted mechanical noise levels are presented in Table 18. Ventilation intake and exhaust ducts from the PACs and HSFs be attenuated with a minimum transmission loss of 30dB, i.e. attenuators or equivalent. Further acoustic design on the mechanical plant and equipment must be conducted at the detail design stage.

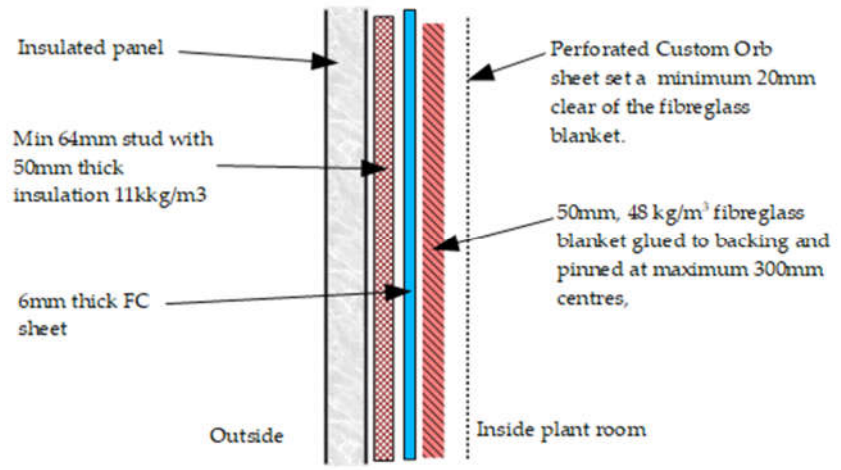



Figure 8: Proposed Rw40 plant room walls and ceiling

**Table 18: Predicted plant noise impacts to nearby residences R1 with acoustic upgrade**

| Details | $L_{Aeq}$ Noise Level | Distance Attenuation | Barrier Attenuation / building shielding effect / sound directivities | Plant room wall | Noise Level dB(A) at Residences R1 | Complies With Noise Limits 40 Day / 36 Evening 35 Night? |
|---|---|---|---|---|---|---|
| PAC-1 | 81dB @ 3m | -20 dB (3m to 30m) | 0dB | -30dB | 31/31/31dB | Yes for all |
| PAC-2 | 71dB @ 3m | -22 dB (3m to 36) | 0dB | -30dB | 19/19/19dB | Yes for all |
| CU-1 | 64 dB @ 3m | -20 dB (3m to 30m) | -15dB | 0dB | 29/29/-dB | Yes/Yes/- |
| CU-2 | 48 dB @ 3m | -20 dB (3m to 30m) | -15dB | 0dB | 13/13/13dB | Yes for all |
| CU-3 | 48 dB @ 3m | -20 dB (3m to 29m) | -15dB | 0dB | 13/13/-dB | Yes/Yes/- |
| CU-5 | 68 dB @ 3m | -20 dB (3m to 31m) | -15dB | 0dB | 33/33/-dB | Yes/Yes/- |
| HSF-1 | 67 dB @ 3m | -20 dB (3m to 30m) | 0dB | -30dB | 17/17/-dB | Yes/Yes/- |
| HSF-1 | 67 dB @ 3m | -20 dB (3m to 30m) | 0dB | -30dB | 17/17/-dB | Yes/Yes/- |
| TOTAL | | | | | 36/36/31dB | Yes/Yes/Yes |

The mechanical plant noise complies with the day and night time limits. Therefore no further treatment will be required.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results presented, we conclude:

- Noise from inside the library (open façade), sports hall (open louvre facing southeast façade) and theatre (fully closed façade) complies with day and night time limits at the nearby residences.
- The library staff is to manage the loud conversation at the level 1 front library courtyard.
- Noise from the library's courtyard ( level 1 and ground floor) exceeds the day time limit. An acoustic barrier is required at the northern property boundary.
- Noise emission from the sum of all on-site activities complies with day and night time limits.
- The noise from the mechanical plant and equipment comply with the day and night time limits with the acoustic upgrade to plant room and plant deck.

To ensure compliance with the Noise Policy for Industry requirements for the control of noise from the Alstonville Culture Centre upgrade, we recommended:

- Hours of operation are limited to 6:00am – 12:00am mid-night
- The library's level 1 front courtyard and ground floor side courtyard be limited to operate between 7am to 6pm daytime hours.
- A 1.8m high acoustic barrier (above the front courtyard RL) be constructed as per Figure 4
- A 1.8m high acoustic barrier (above the natural ground RL) be constructed as per Figure 5.
- The rooftop plant deck walls install with outdoor sound absorptive material (refer to Figure 7).
- The plant room walls and ceiling be upgraded to Rw40 (refer to Figure 8), and ventilation intake and exhaust ducts be attenuated with a minimum transmission loss of 30dB, i.e. attenuators or equivalent. Mechanical plant noise detail be assessed at the detail design stage.
- Mechanical plant must be engineered to ensure noise emissions are below 40dB(A) during the day, 36dB(A) Evening and 35dB(A) night at the nearest residence.

Author:



**ERIC HUANG** CPEng RPEQ
Senior Engineer

Reviewed by:



**ROSS H. PALMER** CPEng RPEQ 3534
Principal