



Accessibility Statement

Project Title: Pygmy Possum Lodge - Alterations and Additions
Lot 108, DP 1242013 Charlotte Pass Village

Job Number: 22387

Date: 20th July 2023

Prepared For: Elouera Ski Club Ltd

Report Version: 22387_ARS_v1.1

1.0 PROJECT INFORMATION

This statement is provided in relation to the proposed modifications of the Pygmy Possum Lodge located at Lot 108, DP 1242013 Charlotte Pass Village.

It is understood the following Building Code of Australia 2019 building classification(s) apply to the subject building (to be confirmed by the BCA Consultant / PCA) –

Building/Level/Part	Building Classification	Use
Lodge	Class 3	Ski Lodge Accommodation

As members of the Access Consultants Association of Australia (ACAA), ABE Consulting use expert accessibility knowledge to ensure the project complies with the accessibility controls specified within this report.

2.0 REPORT SCOPE

Elouera Ski Club Ltd engaged the services of ABE Consulting as Accessibility Consultants for this project to undertake an assessment of the proposed design documentation in relation to the following accessibility related requirements –

- Part D3, Cl. E3.6 & Cl. F2.4 of the Building Code of Australia 2019 – Amendment 1.
- The Disability (Access to Premises - Buildings) Standards 2010.
- Australian Standards AS1428.1-2009 - Design for Access and Mobility - Part 1: General requirements for access - New building work.
- Australian Standards AS1428.4.1-2009 - Design for Access and Mobility - Part 4.1: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators.
- Australian/ New Zealand Standards AS2890.6-2009 – Off-street parking for people with disabilities.

This Accessibility statement is based on –

- DA proposal/summary - Refurbishment of Pygmy Possum Lodge, Charlotte Pass - [V20R – 09 July 2023 Barber] (attached).
- Architectural design documentation prepared by Precision Planning Pty Ltd, Project No. 220 - Set date 6 June 2023 (attached).

3.0 RELEVANT STAKEHOLDERS

This document has been developed based on information relating to the building and operations as provided by the client / project team. ABE Consulting accepts no liability on the accuracy of the information provided.

The relevant project stakeholders are listed below –

Role	Representative	Organisation
Certifier	TBC	TBC
Architect/Designer	-	Precision Planning Pty Ltd
Client	Jon Barber	Elouera Ski Club Ltd
Accessibility Consultant	Sam Freeman	ABE Consulting

4.0 PREMISES STANDARD & BCA REQUIREMENTS –

The Disability Discrimination Act (DDA - 1992) is a Federal Government legislation enacted in 1993 that seeks to ensure all new building infrastructure, refurbishments, services and transport projects provide functional, equitable and independent accessibility. The DDA is a complaints-based legislation, which is administered by the Australian Human Rights Commission (AHRC). For any built environment the key requirement of the DDA is to ensure functionality, equity and independence of movement by people with disabilities, their companions, family and carer givers.

A key component of compliance to the DDA is the use of the Disability (Access to Premises - Buildings) Standards 2010, Part D3, Clause E3.6 and Clause F2.4 of the Building Code of Australia 2019 (BCA) and the relevant referenced standards primarily being Australian Standards Suite AS1428 and Australian Standards AS2890.6 – Off-street parking for people with disabilities. The AS 1428 series details technical requirements related to design for access and mobility.

The Building Code of Australia has adopted key accessibility and DDA legislation since 2011, In particular, adherence to the Access to Premises Standard (2010); AS1428.1 2009; AS1428.4.1 2009 and AS2890.6 2009 has become mandatory.

The Disability (Access to Premises – Building) Standards 2010

The Disability (Access to Premises - Buildings) Standards 2010 (a.k.a. The Premises Standards) provides the prescriptive requirements set out regarding the upgrade of an existing building where works are being undertaken.

The Premises Standards apply to:

- a new building
- a new part of an existing building
- the *affected part* of an existing building.

The new parts of a building and any subsequent affected part are outlines as per the below extracts of The Disability (Access to Premises - Buildings) Standards 2010 –

New Part:

A part of a building is a ***New Part*** of the building if it is an extension to the building or a modified part of the building about which:

- *An application for approval for the building work is submitted, on or after 1 May 2011, to the competent authority in the state or territory where the building is located; or*
- *All of the following apply:*
 - i. *The building work is carried out for or on behalf of the Crown;*
 - ii. *The building work commences on or after 1 May 2011;*
 - iii. *No application for approval for the building work is submitted, before 1 May 2011, to the competent authority in the state or Territory where the building is located.*

Affected Part:

- *the principal pedestrian entrance of an existing building that contains a new part and*
- *any part of an existing building that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.*

Furthermore, Part 4 of The Disability (Access to Premises - Buildings) Standards 2010 sets out applicable exceptions and concessions.

Lessees:

If the lessee of a *new part* of a building submits an application for approval for the building work, the following people do not have to ensure that the *affected part* of the building complies with these Standards:

- The building Certifier;
- The building developer;
- The building manager.

It is understood that proposed works are on behalf of the building owner/operator. Stakeholders must ensure that the development achieves compliance with the relevant requirements.

National Construction Code 2019 (Building Code of Australia - BCA)

BCA 2019 Performance Requirement DP1 prescribes the following for accessible carparking -

DP1 Access for people with a disability

Access must be provided, to the degree necessary, to enable—

(a) people to—

(i) approach the building from the road boundary and from any accessible carparking spaces associated with the building; and

(ii) approach the building from any accessible associated building; and

(iii) access work and public spaces, accommodation and facilities for personal hygiene; and

(b) identification of accessways at appropriate locations which are easy to find

Performance Requirement DP1 is primarily satisfied by the application of The Deemed to Satisfy provisions of PART D3 - Access for people with a disability (refer to relevant extract below).

D3.1 General building access requirements

Buildings and parts of buildings must be accessible as required by Table D3.1, unless exempted by D3.4.

Table D3.1 Requirements for access for people with a disability

<i>Class of building</i>	<i>Access requirements</i>
<i>Class 3 (Common areas)</i>	<i>From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.</i> <i>To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.</i> <i>Where a ramp complying with AS 1428.1 or a passenger lift is installed—</i> <i>(a) to the entrance doorway of each sole-occupancy unit; and</i>

*(b) to and within rooms or spaces for use in common by the residents,
located on the levels served by the lift or ramp.*

5.0 ACCESSIBILITY RESPONSIBILITIES STATEMENT –

This statement has been provided in relation to the proposed building modifications outlined below.

- Removal of the existing cladding and replacement with steel cladding [Section 3].
- Installation of a fire sprinkler network on level 2, 3 and the ceiling cavity of the lodge [Section 4].
- Upgrade of all internal lodge doors to meet fire safety standards; this requires replacing the existing knob handles with lever handles [Section 5].
- Replacement of the balcony balustrades to meet the BCA 1000mm height and 150mm lower rail standards [Section 6].
- Re-establishing the west and east wing Level 2 rear fire exits [Section 7].
- Connecting the rear of lodge fire exits to the front roadway with a natural path on the east of the lodge. The path will have minimal impact on vegetation cover as it will be within the approved APZ. The path will be marked with winter ski poles and made passable in winter by regular walking and clearing as required. [Section 7].
- Completion of other works identified in the BCA survey [Section 8].

ABE Consulting believes that while there are works proposed to the building that require a building approval, the upgrade in question is not of sufficient significance to trigger an accessibility upgrade.

An accessibility upgrade under the BCA or Premises Standards would generally involve the modification/alteration/addition to the internal configuration of areas of the building commonly used by occupants, rather than the upgrade of fire protection systems, hardware or a stairway etc...

Should the current or future upgrades affect the internal configuration of the building, this statement will become void and trigger the building owner to review accessibility to and within.

ABE Consulting conveys that the Performance Requirement DP1 and the “affected part” are in essence, not applicable in this. ABE consulting does however advise that this interpretation may not be applicable should the nature of upgrade change.

6.0 STATEMENT PROVIDED BY



Sam Freeman

Senior Accessibility Consultant

DISCLAIMER

This document has been prepared solely for the use of our client in accordance with our current professional standards and as per our agreement for providing compliance consulting services. Although all due care has been taken in the preparation of this document, no warranty is given, nor liability accepted (except that required by law) in relation to the information contained within this document. This document represents the opinions of ABE Consulting based on the facts and matters known at the time of preparation of this document. Opinions, judgments and recommendations detailed in this document, which are based on our understanding and interpretation of current statutory and regulatory obligations and standards, should not be construed as legal opinions.

Refurbishment of Pygmy Possum Lodge, Charlotte Pass

[V20R – 09 July 2023 Barber- the “R” Suffix notes some consultant & other costs are redacted to avoid open web display]

1. Executive Summary

Elouera Ski Club Pty Ltd (ACN: 002703988) is the owner operator of the Pygmy Possum Ski lodge at Charlotte Pass. The lodge operates under a 40-year sub-lease to the main lease holder Charlotte Pass Ski Resort. The Elouera Ski Club lease expires on 11 September 2058. The Pygmy Possum Lodge was constructed in 1984-5 with 24 SOUs and was expanded in 1992 with the addition of four SOUs. The 1992 expansion was undertaken to improve the fire exits at the rear of the lodge. This point requires further improvement and is addressed in this document. Under the lease the lodge accommodation is capped at 54 adults. The Pygmy Possum Lodge is now 37 years old and requires considerable refurbishing to provide a safe and viable accommodation to 2058 and beyond.

This document has been written to accompany a DA submission for this refurbishment. The purpose of the document is to inform the various approving parties such as CPSR, NPWS and NSW planning. E Elouera Ski Club operates with a continual rotation of volunteer members in executive and other roles consequently the document is important as a knowledge deposit for future club executives and members.

The major motivation for the DA is the recladding of the lodge in colour bond steel. The lodge is currently clad in western red cedar boards. There are three reasons supporting recladding these are:

1. the bushfire risk associated with the current external flammable cladding,
2. continual expensive maintenance at heights of the timber cladding and
3. the opportunity to inspect and repair the building frame while recladding.

Recladding in steel, will reduce the bushfire risk and reduce ongoing maintenance. These reasons are elaborated on in Section 3.

A BCA survey has identified facility and safety upgrades required to bring the lodge to current BCA standards. Implementation of these identified upgrades are included in this DA. Briefly the DA covers the following work:

1. Removal of the existing cladding and replacement with steel cladding [Section 3].
2. Installation of a fire sprinkler network on level 2, 3 and the ceiling cavity of the lodge [Section 4].
3. Upgrade of all internal lodge doors to meet fire safety standards; this requires replacing the existing knob handles with lever handles [Section 5].
4. Replacement of the balcony balustrades to meet the BCA 1000mm height and 150mm lower rail standards [Section 6].
5. Re-establishing the west and east wing Level 2 rear fire exits [Section 7].
6. Connecting the rear of lodge fire exits to the front roadway with a natural path on the east of the lodge. The path will have minimal impact on vegetation cover as it will be within the

approved APZ. The path will be marked with winter ski poles and made passable in winter by regular walking and clearing as required. [Section 7].

7. Completion of other works identified in the BCA survey [Section 8].

A staged approach is proposed which recognises the limited summer work periods and the need for the lodge to generate income to support this project. Staging is discussed in Section 2. Table 1 lists the budget for this work. All costs are exclusive of GST. The club is registered for GST and any GST expense in excess of the GST collected will be refunded. GST will impact on cash flow but not on the cost.

Table 1: Cost estimate for proposed work		
Description	Amount	Source
DA preparation work		Contracts paid & provisions
Cladding		Local builder quotation
Scaffolding		Covers 2 month; includes erect and remove
Frame Repairs		Club estimate
Sprinkler System		Design stage estimate
Water connection		Estimated based on distance
All door work		Holland supply quotation
Front Balustrades		Bright Balustrading quotation
L1 rear exits		Porticos, walkway exit path
Other works		Estimated by club
Sub total	\$661,000	
Contingency 15.1%	\$100,00	
Total	\$761,000	

To prepare this submission the following team have provided input:

1. Complete Town Planning have undertaken a Bushfire and Environmental Survey and acted as lead manager for the DA submission (Katy Murphy)
2. J² has completed a BCA survey report (James Alexander and Conner Riley). Their report has been updated to the 2022 BCA standards.
3. Alpine Fire Safety (Alex Machin) has been contracted to manage the design and budget estimation process for the sprinkler system. As part of this work Alpine Fire Safety have developed the DA documentation pertinent to the fire sprinkler system.
4. Complete Town Planning have been appointed to coordinate and submit the overall DA (Katy Murphy).
5. Camstruct has inspected the building frame and designed the structural work involved in the two fire exit porticos (Cameron Lee).

6. Douglas and Partners have provided geotechnical input and site inspection for the foundations of the fire exit porticos and provided geotechnical advice on the proposed fire exit paths (Michael Jones – Douglas and Partners Canberra).
7. Abe Consulting has provided an Accessibility Report. The works proposed do not impact on the lodge access from the main road and as such are deemed not to require access upgrading. The rear of lodge fire escape will in winter exit onto snow. A path will be marked with ski poles but this path will not be cleared. Even if this path was cleared of snow, its gradients preclude disability access.
8. David Woods provided a Flora and Fauna Assessment in regard to the proposed East Wing Fire Escape.
8. Elouera Ski Club President, Jon Barber, has acted as manager and coordinator of the above consultants. Jon has been assisted by Ken George, a licensed architect, who designed and supervised building of the Pygmy Possum Lodge. Ken George is a past director of Elouera Ski Club. Discussion with Holland (doors), Bright (Balustrades), various builders (cladding), has been managed by Barber.
9. Four club members all with past board roles and lodge experience, have provided a peer review of this document and their suggestions have been incorporated.

The consultant's work fees are listed in Table 2.

Table 2: Costs incurred in DA preparation		
Company or job	Description	Fee Paid ex GST
J Squared	BCA report	
Complete Town Planning	DA lodge, Environment report	
Complete Town Planning	Bush fire report	
Alpine Fire	Fire Sprinkler Design	
Alpine Fire	Fire Sprinkler DA docs	
Camstruct Consulting	Structural Engineering	
Douglas and Partners	Geotechnical Engineering	
Abe Consulting	Disability access	
Precision Drafting	DA architectural drawings	
Dave Woods	Flora and Fauna Assessment	
Contingency	Various overruns & updates	
Total		\$50,000

2. Implementation Schedule

Elouera Ski Club, in common with many Australian businesses has suffered significant COVID associated losses in the 2020 and 2021 snow season. In 2020 the lodge operated at 50% capacity due to COVID. The 2021 ski season revenue was impacted by multiple LGA shutdowns. To manage club cash flow, recognise the limited weather windows and recognise the scarcity of trades people the club proposed to stage refurbishment in two tranches.

Stage 1 will deliver most of the internal lodge works. As trades people are primarily working within the building, this stage can be done independently of the weather conditions and is not contingent on a specific DA approval date. This work could, for example, be done in October – November or April – May despite the potential for late or early snow falls respectively. Either date range allows the club to remain open across the high revenue Christmas period.

The stage 1 works will comprise:

1. Installation of the Fire sprinkler system.
2. Installation of lever door handles on all SOUs and other doors.
3. Upgrades to signage associated with fire exits and stairs.
4. Installation of fire rated doors, with associated smoke seals, on all four SOU corridors and both quiet lounges. The lodge contains two small lounges on Level 3. These are distant from the kitchen dining areas and are referred to as “quiet lounges”
5. Installation of gyprock cladding over the steel columns in the Level 1 entrance area.
6. Installation of the Promoseal collars on the level 1 plumbing outlets.
7. Installation of an intumescent panel in the level 2 and 3 bathrooms.

Stage 2 work will primarily consist of the external works. This work will require a longer duration and is partly dependant on weather conditions. Ideally the work would be done in February to May. This four-month period will allow some float if weather necessitated.

The stage 2 works will comprise:

1. Removal of the existing cladding and replacement with steel cladding.
2. Construction of the two rear exit porticos.
3. Construction of the east fire exit path ways to the front of lodge roadway.
4. Replacement of the external balustrades. This work is best done while the cladding project is underway to maximise the usage of rental scaffolding.
5. Raising the internal stair balustrades to the BCA heights.
6. Raising the internal ceiling in stairways to 2000mm.

The proposed implementation schedule may be modified to suit contractor availability and weather conditions.

3. External Cladding in Colorbond

Pygmy Possum Lodge is currently clad with 14mm western red cedar over a timber frame. The cedar cladding has been maintained by club volunteers. Figure 1 shows part of the eastern wing of the lodge. The club wishes to replace the cedar cladding with steel colorbond. Recladding is justified on three grounds:

1. Following the 2019/20 bush fires the lodges insurance renewal provided minimal bushfire cover. A nominal cover of \$200,000 is provided with a \$100,000 excess. Effectively the lodge is uninsured against bushfire. The lodge insurance was renewed in November 2022, with the same minimal bushfire cover. The club board is of the opinion that the reinstatement of meaningful commercial bushfire insurance is unlikely. NSW or Australian government insurance underwriting is also, in our opinion, unlikely and certainly not immediate. Installation of colorbond cladding is unlikely to reinstate our bushfire cover, but it will mitigate the lodge's bush fire risk. The club has implemented an approved APZ (Asset Protection Zone). This has reduced the fuel load in the area adjacent to the lodge, however, the cedar cladding could be sparked from embers or from radiant heat.
2. The cedar cladding requires reasonably regular maintenance; repairs, caulking and repainting. This has traditionally been carried out by members using ladders and harnesses and is effectively limited to the safely accessible areas of the lodge. Professional repainting will require commercial scaffolding and has not been considered affordable. An estimated, 5-yearly commercial repainting and repair over the 36-year lease period will likely incur a similar or higher cost to that of steel cladding.
3. Inspection of the lodge frame, in May 2022, indicated some water ingress and development of mould. The inspected area was on the south east of the lodge. This area is naturally damper than the front of the lodge. The south side of the lodge is close to the natural ground level, is subject to longer snow burial and has low sun exposure. Regardless of this small sample and its location bias, we consider that all the cladding needs removal so the frame can be inspected and repaired. Figure 2 and 3 show the moisture in the existing frame (May 27, 2022). Removal of the cladding will allow for frame inspection, frame repair (as required), upgrading of the insulation and upgrading of the moisture membrane.

Recladding the lodge will include the following work:

1. Remove and safely dispose of all existing western red cedar.
2. On removal of the existing cladding, all frame damage will be photographed and forwarded to the appointed structural engineer prior to remediation. Where damage is minor the remediation will be done immediately. However, if the damage is significant then the area will be temporarily sealed and inspected by a structural engineer prior to further work in that area. Work will proceed on the next area if feasible. All major make good of frame damage will be subject to engineering inspections and approvals.
3. Replace all R2.5 insulation with new R2.7 insulation. The wall studs are 90mm and will accommodate a R2.7 batt.

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4. Install a water proof breathable membrane over the insulation. The Bradford Enviroseal ProctorWrap, is the preferred product as it meets the BCA Part 2.2 objective of managing condensation.
 5. Affix a vertical timber batten to the studs (30mm x 11mm H3 treated) over the Bradford Enviroseal ProctorWrap. This will stand the cladding 11mm proud of the Enviroseal and allow air circulation between the Enviroseal and the cladding. The cladding laid horizontally will have horizontal “ins” and “outs” in its shape. The “ins” if butted to the Enviroseal will potentially collect or pool moisture. The battens will allow ventilation and eliminate moisture buildup.
 6. Affix the Morclad timber look steel cladding. The Morclad product installed horizontally will mimic the existing timber look. Figure 4 shows an example of the Morclad product installed at Langlauf Lodge in Perisher. The Langlauf Lodge is clad in Manor Red; this colour is not suggested for Pygmy Possum. The Pygmy Possum colour will be Monument which is similar to the existing lodge colour.
 7. Finish all corners with a 65mm right angle in a Monument Colourbond material.
 8. Cover or replace all timber barge boards with a steel cover. A custom U-cover will be fabricated by Morclad to cover the barge boards. This material will be Colorbond Surfmist Matt. This colour will closely match the existing white paint.
 9. Infill all eaves with Miniorb (or similar) in Surfmist Matt. The current eaves are open with exposed timber beams.
 10. Infill in 2mm stainless mesh two ground areas where leaf litter accumulates. The west wing area of concern is shown in Figure 5; a similar area exists on the east wing.
 11. Work will be done in stages to minimise the area open to weather at any time.

On completion of this work nearly all external timber areas will be replaced or covered with a non-flammable material.

A cost estimate has been made for the cladding using a local building quotation (Ben Mawhinny-Mountain Metal Roofing) and an estimate by Barber for the repair of frame damage of \$25,000. Mawhinney has provided a scaffolding quotation of \$110,000.

Figure 1: Typical western red cedar panels on Pygmy Possum Lodge. Photo also highlights exposed timber in eaves and timber barge boards. APZ clearance is approximately 5m to east of lodge. APZ clearance highlighted by change in ground vegetation height.



Figure 2: Lodge frame below east wing rear exit stairs. This are was constructed in 1994 and is now 28 years old.



Figure3: Detail of same area highlighting moisture in frame.



Figure 4: Example horizontal cladding at Langlauf Lodge (Perisher Valley), highlighting “timber” look. Pygmy Possum colour will be in Colorbond Monument.



Figure 5: Minor areas requiring meshing with stainless steel 2mm aperture mesh to reduce fuel build-up. View is of the west side; a similar situation exists on the east side.



Mesh
this area

4. Internal Fire Sprinkler System

The lodge was constructed and approved in the mid 1980's, a four-bedroom extension was approved and added in 1993/94. At the time a fire sprinkler system was not required. This DA triggers an update of the lodge to current standards and a fire sprinkler system is recommended although not mandated. The club board is of the opinion that a fire sprinkler system should be installed as part of this refurbishment for guest and lodge safety. It is likely, in the boards opinion, that a fire sprinkler system will be mandated in the future. The National Construction Code (NCC) 2019 currently requires sprinklers in buildings over three stories. The difference between "over three" and "three" is minor.

The lodge is built in two wings, referred to as the east and west wing. Each wing has 14 SOUs¹, a kitchen and dining/lounge area. A large open "games room" completes the bar of the H-shaped design and joins the two wings. The residential and dining areas are on level 2 and 3. The ground or level 1 area is constructed of Besser brick and stone. Level 1 has a concrete ceiling. Level 1 contains storage areas, a laundry, a food store (non-perishable) and an east and west wing drying room. Level 1 is effectively non-flammable in the 60-minute time frame. Fire exits for each wing are via a central stair well to level 1 or via a set of fire stairs at the rear of the lodge.

A fire sprinkler system is proposed for both wings on levels 2 and 3. Fire sprinklers on Level 1 are not proposed. On Level 2 and 3, sprinklers will be installed in:

1. All 28 SOUs.
2. Both upstairs quiet lounges.
3. Bedroom corridors on both levels in both wings.
4. The east and west wing central stair wells.
5. The east and west wing rear exit stairs.
6. The lounge, dining and kitchen areas.
7. The central games room.
8. The ceiling or roof void above level 3 in both wings.

A total of 102 sprinklers will be installed. All pipework will be in copper and in the majority run exposed to minimize entry into gyprock walls and ceilings. All work will comply with Australian standards (AS2118.4-2012).

The fire sprinkler system will:

1. Increase the time available for all guests to safely exit the lodge
2. Maintain the safety of multiple exit paths.
3. Provide improved asset protection by reducing the risk of a fire spreading.

A known local downside to the sprinkler system is poor water security at Charlotte Pass. In approximately every third or fourth summer the Charlotte Pass area is irregularly closed for accommodation due to inadequate potable water. This issue is considered mute. If there is no water there are no guests and the sprinkler system has no role in guest safety. However, in dry periods the asset security benefit will be lost. This risk could be mitigated with the installation of dedicated water tank(s) behind the lodge. Installation of water storage tank(s) is not proposed in this DA.

¹ The Single Occupancy Unit (SOU) term has been used in the BCA inspection report. The SOU acronym has been retained in this document. However, most lodge rooms accommodate two or, in the family rooms, more people.

The cost of this work including design and installation is \$85,000. This work doesn't allow for connecting the lodge fire system to the existing fire reticulation piping at Charlotte Pass. An allowance of \$25,000 for excavation and reticulation is included as a separate item in Table 1.

The existing internal fire reel system in each lounge room is connected with a 4-inch water supply. This 4-inch supply may be adequate for the fire sprinkler system. The BCA report has identified that this internal fire reel is not required under current building standards and it will be removed as part of this project. The fire reel system will be replaced with extinguishers when the fire sprinkler system is complete.

Figures 6 and 7 show examples of an exposed sprinkler system in the YCA Thredbo.

Figure 6: Example exposed copper sprinkler installation in YCA Thredbo. Glass rod breaks at 55-77°C. The glass colour indicates the temperature range. Red is a low temperature range. All joints are pressure crimps, this reduces install costs as no welding or soldering is involved



Figure 7: Installation in YCA Thredbo.



A set of drawings covering the fire sprinkler system is included in the DA submission. These drawings will be followed in the installation of the proposed system.

5. Internal doors, seals and door handles

All SOU corridor access doors (28) are solid core and are fitted with knob or circular handles. These knob handles don't comply with D2.21 of the BCA. Another six doors (stair access and quiet lounge) are fitted with non-fire proof safety glass. Upgrades are proposed to bring all doors to current BCA standards, the following work is proposed:

1. Corridor Exit Doors opening onto stairs. The Level 2 and Level 3, bedroom corridors lead north to the front of lodge main stairs or south to the rear of lodge exit stairs. It is proposed that all 8 doors (2 wings x 2 levels x front + back) be upgraded to fire-resistant door sets with a FRL -/60/30 rating. The door set proposed is a MDF 45mm door with a maple veneer. The maple veneer finish will allow for a wood grain varnish finish in keeping with the current lodge ambience. All 8 doors will be factory fitted with a fire-resistant glass panel. The glass panels will be 200mm x 3000mm in size. These glass panels will therefore provide adequate vision and meet the FRL-/60/30 requirement. All doors will be provided by Holland Fire Doors and Windows. <https://www.hollandfiredoors-srp.com.au/>
 2. Corridor Exit Doors opening onto stairs. The same eight doors will be fitted with a spring-loaded smoke seal on the base edge and a compression seal on the side and top edges. On the lower or floor edge, the Lorient 8009 system, as shown in Figure 8 will be installed. According to the manufacturer web site the system meets the *"medium temperature smoke approvals for use on AS6905 compliant smoke door assemblies and conforms with BCA Specification C3.4 smoke sealing requirements"*.
<https://www.stylefinishdesign.com.au/products/8009-automatic-door-bottom-seal>
- The door perimeters will be sealed with the Kilargo IS7087 seal (Figure 9). This seal has a screw adjustment that allows fine tuning of the seal pressure.
3. Quiet Lounge Doors. The doors on these lounges currently incorporate a non-fire-resistant glass panel and do not comply with BCA C1.1. These two doors will be replaced with the same door set as noted immediately above in point 1 (FRL -/60/30 rating). The glass will be of approximately 200mm x 300mm and will allow checking if the room is occupied while maintaining the FRL -/60/30 requirement. Smoke seals will not be required on these doors as they are "inside" the smoke seals provided by the stair doors.
 4. Door handles. All door handles are currently circular or knob handles. These will be replaced with lever handles. This replacement applies to the 28 SOUs, the two rear exit doors, the three games room doors and the two kitchen exit doors; a total of 35 doors. The handles will be provided by Holland with a master key system. The corridor to stairs doors and quiet lounge doors do not have handles. The SOU bathroom doors (28) will be fitted with same lever action handle but will not be lockable. This work will result in compliance with D2.21 of the BCA.
 5. Installation costs are estimated at 10 doors, 4 hours/door at \$600/day= \$3,000. All new doors will be varnished by club members in a working bee.
 6. The two doors, on level 2, between the lounge-dining and the SOU corridors have an asymmetrical saloon door setup. This is illustrated in Figure 10. The smaller hinged 303mm wide door, will be replaced with a new stud wall covered with two layers of 16mm firecheck plasterboard on both the kitchen and SOU side. This will ensure that the effectiveness of the new FRL-/60/30 door set is not compromised.

Figure 8: Lorient 8009 bottom smoke seal



Figure 9: Kilargo IS7087si perimeter door seal.

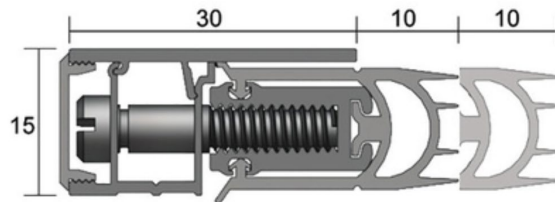


Figure 10: Saloon type door set up in east and west wing leading to the Level 2 SOU corridors.



Table 3 sets out the material and installation costs for the door upgrade work.

Table 3: Fire Resistant Doors and hardware			
Description	Number	Unit \$	Extended \$
Smoke seal Lorient 8009 (door base)	8	\$157.58	\$1,261
Lorient end plate (door base)	8	\$113.25	\$906
Kilargo IS7087si 1000mm (door top)	8	\$79.00	\$632
Kilargo IS7087si 2050mm (door sides)	8	\$159.00	\$1,272
Doors and Frame sets (Corridor and Q lounge)	10	\$824	\$8,240
Specification: Doors 2040 x 820 x 45mm MDF			\$0
Maple Finish (Corridor and Q Lounge)	10	\$280	\$2,800
Door and Frame set – Rear Exit (refer Section 7)	2	\$824	\$1,648
SS Hinges (Corridor and Q Lounge)	24	\$5	\$120
Dorma Surface mounted closers (Corridor and Q Lounge)	12	\$68	\$816
Vision Panels factory fitted (Corridor and Q Lounge)	12	\$296	\$3,552
G2 lever handset with key (SOU doors)	30	\$98	\$2,940
G2 lever handset no key (SOU bath room)	30	\$98	\$2,940
G2 lever handset button lock (fire exits)	6	\$99	\$594
Stub walls in downstairs corridors east wing (1) west (1)	2	\$1,000	\$2,000
Installation 10 door sets (man days)	5	\$600	\$3,000
Installation 8 door smoke seals (man days)	2	\$600	\$1,200
Total ex GST			\$33,921
Rounded			\$34,000

6. Front of Lodge External Balustrades

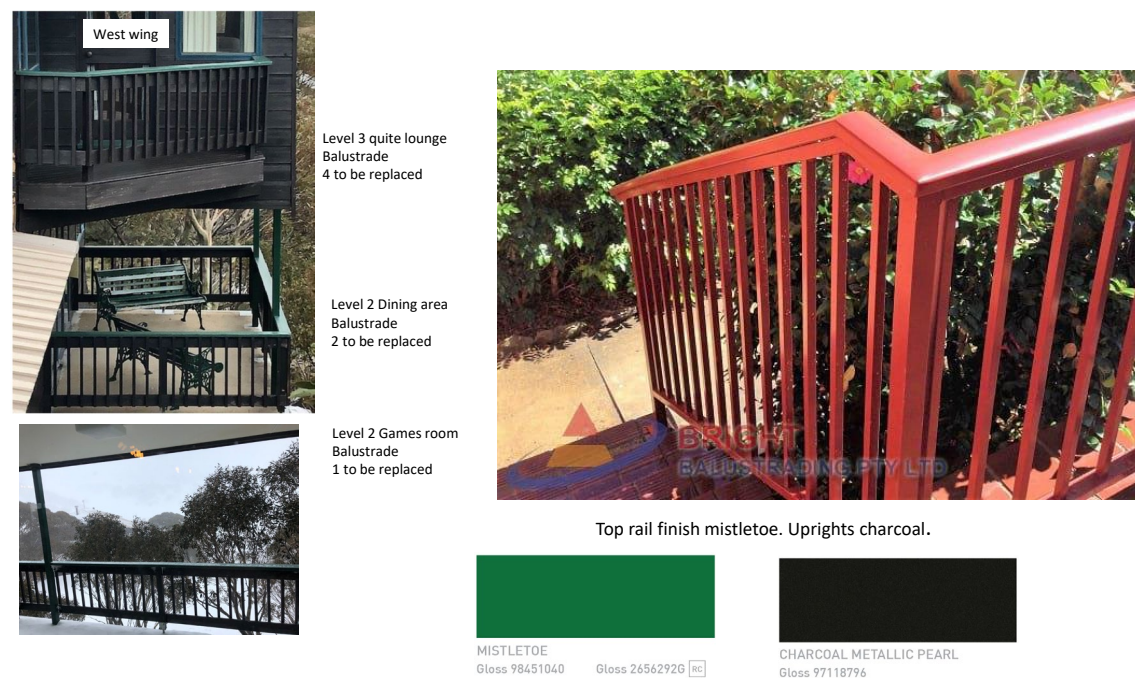
All balustrades on the lodge frontage are of timber construction with a top rail at 900mm and a lower rung at 270mm above ground. The BCA standards D2.16, of 1000mm (minimum height) and 150mm (maximum climbing rung) are not complied with currently. All external front of lodge balustrades are more than 1m above ground level. Extending the top rail by 100mm is feasible but will not resolve the lower rung height issue. In addition, the timber construction presents an ongoing maintenance issue. It is proposed that the existing balustrades be replaced with aluminum powder coated balustrades. The top-rails will be finished in Dulux powder coat Mistletoe, the verticals will be finished in Dulux charcoal. This colour scheme matches the existing lodge colours. The work will be done by Bright Balustrading of Sydney with fabrication and installation priced at \$xx. Figure 11 shows the existing and the proposed alternate. All work meets the Australian standards.

The Bright Balustrading proposal includes:

1. A visit to the lodge (one man) to do a detailed pre-manufacture measure of the required balustrades. The current estimate is based on a linear measure of 46m of balustrades.
2. Manufacturing and powder coating will be done in Sydney.
3. Bright Balustrading will then install the new balustrades on site.

The work proposed will meet D2.16 of the BCA.

Figure 11: External front of lodge balustrades.



7. Rear of Lodge Fire Exits

In 1993/94 the lodge was extended to the south to improve the rear fire exits. The 1993 approval submission stated:

“An emergency exit for the Pygmy Possum Lodge is provided at the rear of the lodge. This position is on the uphill side of the lodge and is sheltered from the winter sun, with the result that snow accumulates at the exit door. This snow is cleared manually, but there is not a reliable method of clearing, and a large amount of snow can accumulate following a heavy overnight snowfall or if the lodge has been unoccupied for an extended period.”

“The accumulation of snow under circumstances when it is impracticable to clear it is considered by the directors of the Club to create an unsafe situation.”

The 1993 approved proposal involved:

“Constructing a new internal staircase to serve as a fire escape with an external steel grill landing at the upper level of the extensions and steps leading down to the slope behind the lodge”.²

The 1993 rationale remains valid. However, neither of the rear exits are 100% satisfactory and neither exit provides a reasonable exit path to the front roadway. Figure 12 shows the rear west and rear east exits after the June 2022 snow falls (approximately 1m cumulatively) and after some melt.

Figure 12: Rear exits on June 14 2022 showing snow build-up, particularly on east of lodge.



² Extensions to the Pygmy Possum Lodge Charlotte Pass Village Review of Environmental factors prepared by David Hogg November 1993 and approved under File 406 22 December 1993 by NPWS as part of the Development Approval”.

While the roof lines don't slope immediately into or onto the exits it appears that the upper stairs are catching snow from the roof and the lower exit is then buried under this same snow or wind-blown snow. All four existing exits, but particularly the lower exits are in a re-entrant area (GF4.1) and are prone to deep snow build up. To make these exits safe a new roof structure would need to cover both the east and west exits to allow people to exit without having snow fall on them. The problem identified in 1993 of "*large snow accumulation*" remains. Building these covering structures is considered complex and unsightly and is not proposed.

The proposed alternate is construction of two covered porticos; one at the rear of the west wing and one at the rear of the east wing. These porticos would be accessed with a new door on each wing. People exiting the building would enter a covered portico or "tunnel" which will shelter them from lodge roof snow falls. These two fire exits have been geotechnically reviewed by Douglas Partners in regard to the foundations and designed by Camstruct in regard to the structures. The Camstruct design incorporates three 100mm x 100mm x 3mm RHS galvanized steel columns and is a 100% steel construction. The exterior of the structure will be clad with vertical cladding. This vertical alignment will provide better structural integrity to snow loads as compared to a horizontal cladding and will readily shed snow.

The new fire exit doors will be located partway between Level 2 and Level 3 such that the door exits slightly above natural ground level. The porticos will be fitted with an expanded mesh walkway and suitable steps or ramps to natural ground level. All existing exits will be closed and the existing steel stairs will be removed. The two existing upper-level doors, visible at the top of Figure 11, will be replaced with internal gyprock, timber framing, R2.7 insulation and steel cladding. Ambient natural light is adequately provided on this level from an existing window. The two lower-level doorways will be replaced with gyprock, timber framing, R2.7 insulation and steel cladding to approximately 1200mm height. The top section of these doors will be replaced with an 800mm x 800mm double glazed window. These two new windows will be covered with 2mm aperture stainless steel mesh. The existing west wing lower-level doorway is visible in Figure 12 (left). The existing east wing lower-level doorway is snow covered in Figure 12 (right).

The proposed porticos offer advantages as compared to improving or making good the existing exits:

1. The new structures (east and west) are a simple wall and will read as part of the building.
2. Retrofitting roof structures on the existing two exits will be more complex to design and is likely to be aesthetically less pleasing. It is likely that such structures will not read as part of the building.
3. To "make safe" the existing lower exit will need a snow protection structure that projects outside the building line. The main lodge roof slopes to the west or east respectively. This main roof slope, along with the re-entrant corner, is part of the reason these lower exits are snow bound.
4. The new portico will exit up hill and is well clear of the main roof. Snow falling from the exit roof, which slopes south, will accumulate against the new portico wall. However, the exit door within the portico will remain clear of snow.

Figure 13 shows the location of the proposed new door on the west wing. Figure 14 shows the new west wing portico design. The concept on the east side is similar and is not shown here; both sides are detailed in the architectural plans and the Camstruct structural plans.

All work on these two new porticos and the associated exit path and stair (to access the roadway) will comply with G4.5 of the BCA. For reference G4.5 of the BCA is included in the following text box.

Text Box: G4.5 of BCA on external trafficable structures.

G4.5 External trafficable structures

External stairways, ramps, access bridges or other trafficable structures serving the building must—

- (a) have a floor surface that consists of expanded mesh if it is used as a means of egress; and
- (b) have any *required* barrier designed so that its sides are not less than 75% open; and
- (c) for a stairway have, *goings* (G), *risers* (R) and slope relationship quantity (2R + G) in accordance with—
 - (i) *Table D2.13*; or
 - (ii) *Table G4.5*; and
- (d) for a ramp serving as an *exit* and not serving as an *accessible* ramp, have a gradient not steeper than 1:12; and
- (e) where a ramp is also serving as an *accessible* ramp under *Part D3*, be in accordance with AS 1428.1.

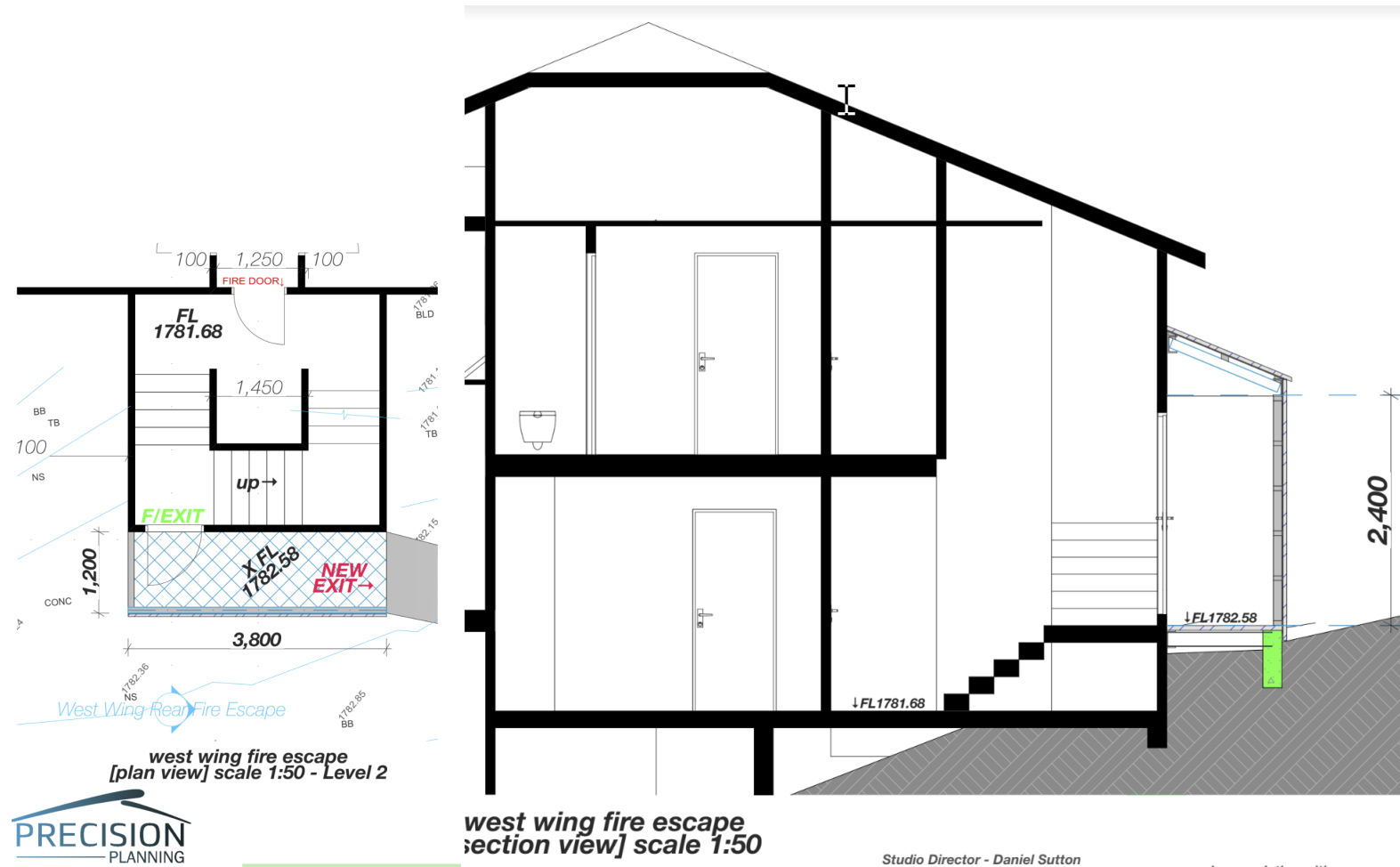
Table G4.5 Alternate stair riser and going dimensions (mm)

Riser (R)		Going (G)		Slope relationship (2R + G)	
Max	Min	Max	Min	Max	Min
150	115	375	355	675	605

Figure 13: Proposed new door location west wing. Left photo shows existing glass door at lower exit and location of new door. Right photo shows the outside location of the new door. Steel tape marks the foot of the new door.



Figure 14: Plan and section of west wing fire exit



Rear of Lodge Exit Path – East Side

A component of the new rear portico exits is establishing an exit path to the roadway. The exit path alignment is shown in Figure 15. Figure 15 highlights that the Lot 108 boundary is very close to the west edge of the lodge. Maintaining a 3m clearance between the building and the path is near impossible unless the path is positioned outside Lot 108. The south west corner of Lot 108 encroaches on the Biodiversity Values Map (BVM) and for these two reasons a west exit path is not proposed.

The east side exit path is discussed below:

1. On the east side of the lodge, the Lot 108 boundary is 5m from the lodge, allowing a +3m gap between the building and the proposed exit path. Therefore, the proposed path can be positioned outside the 3m radiant heat zone and clear of falling roof snow.
2. The gradients along this path are reasonable. The fall is 7.5m over a length of 31m or an average gradient of 24.2% or 13.6°. [This gradient is measured from the drain at the SE corner of the path to the top of the stair at the roadway.] Steps of stone or timber are proposed in two local areas. These will slightly reduce the “on path” gradients. Any such steps will use natural materials, such as hardwood sleepers, granite flagstones. Crushed granite or similar will be avoided as it is subject to erosion. In most areas the “path” will not disturb the natural vegetation. The path is within Lot 108, except where the path meets the road.
3. A steel expanded mesh stair will be required near the lodge frontage (i.e. near the road).
4. This stair will lead to an expanded mesh walkway. This area near the road is permanently wet and is best traversed with a walkway. The walkway will terminate at the road. The walkway will be 200mm above local ground to minimize the need for continual snow clearing. Levels will be confirmed during construction.
5. Reflective snow poles on transition points will provide night and winter orientation. When occupied, the path will be kept clear of deep snow by a combination of shovel clearance and tramping.
6. Figure 15 shows the overview plan of the east path.
7. Figures 16 to 19 show the pathway in more detail. The captions on Figures 16 to 19 detail specifics for each photo.
8. A small walkway will connect the west portico with the east portico and east path. This path will also be marked with ski poles as required. When occupied, the path will be kept clear of deep snow by a combination of shovel clearance and tramping. Figures 20 and 21 show the path area.

The cost of the work involved in the two exits is listed in Table 4.

Table 4: Estimated cost for rear fire exits including landscaping.			
Option	East	West	Comment
Remove existing exit stairs	\$500	\$500	
Construct new false wall	\$15,000	\$15,000	
Steel expanded mesh work	\$2,000	\$2,000	
New exit doors	\$0	\$0	Included in Table 2
New windows 800mm x 800mm	\$2,000	\$2,000	
Path landscaping and stair	\$20,000		
Total		\$59,000	

Figure 16: Path at rear of east wing. Dashed blue line shows edge of portico structure.



Figure 17: Path down east side of lodge. Path is well clear of lodge and within Lot 108. Granite flagstones will be required in some areas.

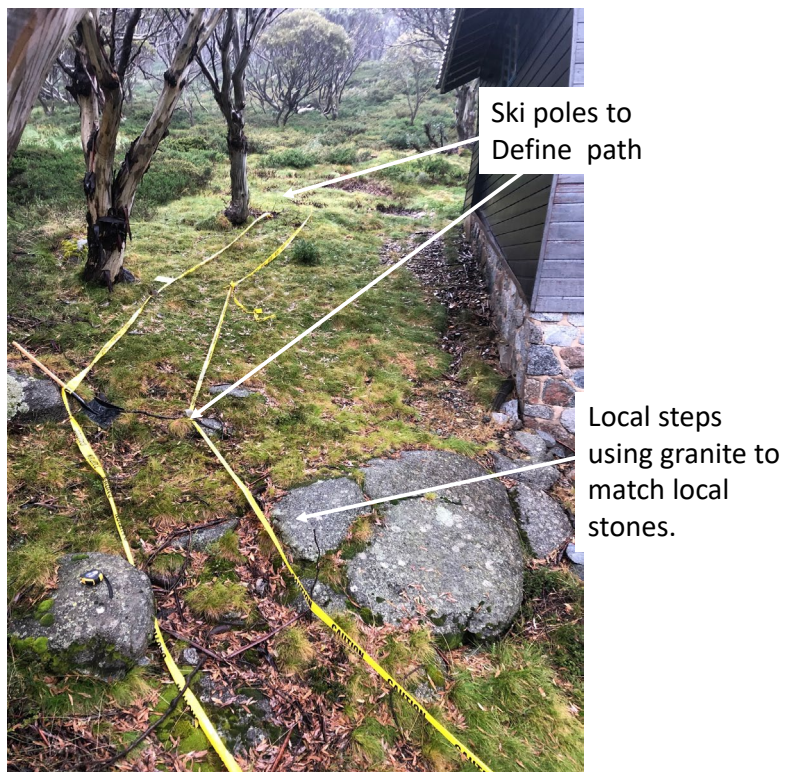


Figure 18: Path on east side of lodge in road area. This water course is semi-permanent and will be crossed with a steel expanded mesh walkway approximately 200mm above the drain. This walkway will daylight on the road edge.



Road access area.

1. Path travels to low spot, immediately east of large boulder.
2. Expanded mesh platform with three stairs to NW
3. Platform supported with rock bolts to boulder & steel posts
4. Hand rail on lower side
5. Mesh path & steps as required to road



Figure 19: Path connecting west portico to east portico and east path. Width indicated by tape is approximately 1m.



Figure 20: Continuation of path between west and east wings.



Two ski poles to define path



8. Other Work noted in BCA report by J²

The J² BCA report (2244-Rev C) lists issues within the building which are not compliant with current BCA provisions. A table in the J² report from page 19 to page 27 lists these items and references them to the current BCA Clause. Some of these items are covered in the major work outlined in Sections 3 to 7 of this report (e.g. cladding, fire sprinklers, doors). For completeness, this section of this report lists all the BCA Clauses itemized by J². A large number of the items are minor in cost and complexity and are deliverable via one or more club working bees. All work will be inspected under the required compliance inspection process.

8.1 BCA Clause C1.9 Non-Combustible buildings elements (J² page 19)

The installation of non-combustible cladding will address this issue. This is detailed in Section 3 of this report.

8.2 BCA Clause C2.6 Vertical Separation of openings in external walls (J² page 19)

The vertical separation between adjoining levels is less than 900mm. This has been addressed with a sprinkler system. This is detailed in Section 4.

8.3 BCA Clause C3.2 Protection of Openings (J² page 19)

The distance between buildings, that is between the Pygmy Possum Lodge and other lodges is greater than 6m and this is considered acceptable.

8.4 BCA Clause C3.11 Bounding Construction (J² page 19-20)

Three issues are listed by J² in relation to BCA Clause C3.11. These are:

1. The SOU doors are solid core but not fire resistant. This issue is considered covered sufficiently by installation of the AS2118.4-2012 fire sprinkler system. Sprinklers are discussed in Section 4.
2. Exhaust duct fans in all SOU bathrooms and the two upstairs women's toilets are penetrating the ceiling plasterboard. The SOU bathrooms are vented with an exhaust fan into the ceiling, the exhaust ducting penetrates the ceiling of two 13mm plasterboard layers and compromises its fire safety integrity. The vents will be retrofitted with an Integrated intumescent fire damper. All 28 bathrooms and the two upstairs toilets have ducted exhausts. The cost are estimated at \$500/bathroom including labour or \$14,000.
3. The existing quiet Lounge doors do not satisfy the requirements of C3.11 given that the door incorporates a glazed panel and is not a fire-resistant door set. These doors will be replaced with fire resistant door sets FRL -/60/60, including fire resistant glass. This is described with costs in Section 5.

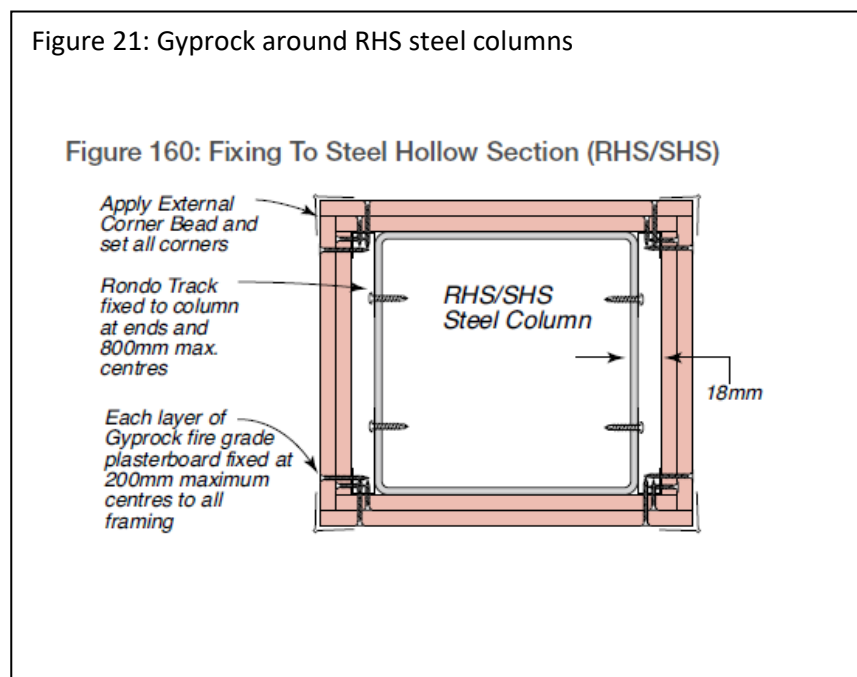
8.5 BCA Clause C3.12 Opening to Floor and Ceilings for Services (J² page 21)

The ground floor PVC service pipes, generally carrying waste water, will be sealed with Promoseal collars. It is estimated that there are ten pipes to install at \$100 each (parts total \$1,000). The fire resistance level of the collars will be FRL -/90/90. This work will be done by a local plumber. Labour is estimated at \$2,000 for a total of \$3,000.

8.6 BCA Clause C1.1 Fire-Resisting Construction (J² page 21)

The structural steel posts on the ground floor will be contained in two layers of 16mm plasterboard. This work will be contacted to a local builder and inspected mid project for compliance before sealing. Estimated cost is \$2,000. The fitment will follow Figure 21. This figure is from *gyprock-548-commercial_installation_guide_201809.pdf*

Figure 21: Gyprock around RHS steel columns



8.7 BCA Clause D1.2 Number of exits (J² page 21).

The existing rear fire exit doors are snow bound in winter. Two new portico structures will be built on the rear of the two wings. This is described in Section 7. Section 7 identifies an additional exit from each wing which satisfies the requirements of D1.2 of the BCA. His work will be to AS/NZS 2293.1-2018 requirements.

8.8 BCA Clause D1.2 Exit Signage (J² page 21).

This point is made in the same table cell as 8.7. All fire exit signage will be altered to comply to AS/NZS 2293.1-2018. The cost is estimated at \$1000.

8.9 BCA Clause D1.3 Fire Isolated stairway (J² page 21-22).

This item is addressed via installation of a fire sprinkler system as described in Section 4.

In addition, all four doors connecting the SOU corridors with the lounge/dining/kitchen areas will be replaced with doors including fire resistant glazed panels and Kilago medium temperature smoke seals on all door edges. Four doors (two on the east wing and two on the west wing) will be upgraded. This door topic is detailed in Section 5.

8.10 BCA Clause D1.6 Dimensions of Exit and paths of travel (J² page 22)

While this stairway is 970mm wide compared to 1000mm it is under the Performance Solution considered sufficient.

8.11 BCA Clause D1.7 Travel via fire-isolated exits (J² page 22)

This item is covered by the inclusion of a fire sprinkler system as described in Section 4.

In addition, all four doors connecting the SOU corridors with the lounge/dining/kitchen areas will be replaced doors including fire resistant glazed panels and Kilago medium temperature smoke seals on all four sides. Four doors (two east wing, two east wing) will be upgraded. This door topic is addressed in Section 5.

8.12 BCA Clause D2.7 Electricity Board Shielding (J² page 23)

The electrical boards will be covered with a steel cover fitted with smoke proof seals. This work will be done locally by a Cooma or Jindabyne fabricator. This work will comply with D2.7 of the BCA. Costs are estimated at \$2,000.

8.13 BCA Clause D2.13 Goings and Risers (J² page 23)

This item will be addressed with contrast strips and signage. This work will be done on site by club members and maintained by the club. The work will be inspected by the certifying authority. Costs are estimated at \$200.

8.14 BCA Clause D2.16 Barriers to prevent falls (J² page 23-24)

The internal stair balustrade will be raised from 825mm (measured) to 865mm. This work will be done by the club members on a working bee and inspected for compliance by the compliance authority. This change will comply with D2.16 of the BCA. Costs are estimated at \$4,000.

The external balustrades are listed under the same BCA D2.16 item. These external balustrades will be replaced and will comply with D2.16 of the BCA. This is discussed in Section 6.

8.15 BCA Clause D2.21 Operation of Latch (J² page 24-25)

Replacement of all door knobs with door latches is discussed and budgeted for in Section 5. This, as noted in Section 4, applies to all SOU bathroom doors, SOU corridor doors and all exit doors. All doors are effectively part of an individual's exit route and all doors will be fitted with lever handles. The proposed work will result in compliance with D2.21 of the BCA.

8.16 BCA Clause E1.3 and G4.8 Fire Hydrants (J² page 25)

Compliance certifications will be provided during the fire sprinkler installation process. The current certificates show compliance. The hydrants will be re-certified as part of the fire sprinkler system.

8.17 BCA Clause E1.4 and G4.8 Fire hose reels (J² page 25)

This work involves removal of the internal fire hose reels and replacement with extinguishers. This work is best done on completion of, the fire sprinkler system. The current BCA does not allow fire hose reels which are not located within 4m of exit doors. As such the existing fire hose reels will be decommissioned and replaced with applicable portable fire extinguishers in accordance with AS2444-2001. The cost of additional extinguishers is estimated at \$2,000. This work will be done by Alpine Fire Services.

8.18 BCA Clause E1.6 Relocate existing extinguishers to satisfy AS 2444-2001 (J² page 25)

This work will be done by an Alpine Fire Services on completion of the sprinkler system. The cost is estimated at \$1,000.

8.19 BCA Clause E2.2 and G4.8 Smoke Detection and Alarms (J² page 25-26)

Currently the lodge is inspected for fire safety on a 6-month basis. Following installation of the fire sprinklers the detection coverage will be reviewed and updated as required. An allowance of \$2000 is included for any additional work.

8.20 BCA Clause E4.2 Emergency Lighting Requirements (J² page 26)

The two new rear exits will have emergency lighting installed within the building and externally. This lighting will comply with AS/NZS 2293.1-2018. Spitfire lighting is proposed for all levels. It is proposed that 23 lights be installed over the three levels. An allowance is made for 25 at \$50 each (\$1,250) with installation at \$2,500; total \$3,750. The spitfire lighting system will also comply with AS/NZS 2293-2018.

8.21 BCA Clause E4.5 Exit Signs (J² page 26)

Exit signage will be installed for the new rear exit doors. The signage will satisfy BCA E4.5.

8.22 BCA Clause E3.1 Height of rooms and other spaces (J² page 26)

This ceiling work requires investigation, if the work is entirely plasterboard related then it will be done by the club members. However, if inspection show it to involve structural members more work will be required and this will be contacted to a local builder. The work is assumed to be plasterboard only

and costs are estimated at \$4,000. However, if this work requires structural changes the costs will escalate. This work will comply with F3.1 of the BCA.

8.23 BCA Clause G4.3 External Doors (J² page 26-27)

All external opening doors need "OPEN INWARDS" signage in 75mm minimum letter height. This work will be done by the club using commercial signs to meet the requirements of G4.3. Eight doors are involved at a cost of \$100/door or \$800.

8.24 BCA Clause G4.8 Fire Fighting Services (J² page 27)

Strobe type visual alarm will be added on the front entrance to comply with AS1670.1-2018. This work will be done by a local Jindabyne electrician. Costs are estimated at \$1,000.

8.25 BCA Clause G4.9 Fire Orders (J² page 27)

This work involves upgrade of fire orders to include location of PFE and FHR. This work will be done as part of and on completion of the fire sprinkler system. This work will be compliance with G4.9 of the BCA. Costs are \$500.

Table 5 shows the estimated costs for the work listed in Section 8. Item numbers are the same as the text above. The amount is rounded to \$45,000.

Table 5: Cost for items not covered in Sections 3 to 6.			
Item	Description	Cost incl.	Other Costs
8.1	Non-Combustible buildings elements (Section 4)	3	
8.2	Vertical separation of openings in external walls	3	
8.3	Protection of openings	3	0
8.4	Bounding construction		
	PVC Duct Boxes to be fitted with Integrated intumescent fire damper. [\$500 per bathroom]		\$14,000
	Quiet Room doors (Section 5)	5	
8.5	Opening to floor and ceilings for services (Promoseals)		\$3,000
8.6	Fire-resisting construction (Steel columns)		\$2,000
8.7	Number of exits (section 7)	7	0
8.8	Exit signage		\$1,000
8.9	Fire isolated stairway (refer Section 4 and 5)	4	0
8.10	Dimensions of exit and paths of travel		0
8.11	Travel via fire-isolated exits	4	0
8.12	Electricity board shielding		\$2,000
8.13	Goings and risers		\$200
8.14	Barriers to prevent falls (also refer Section 6)		\$4,000
8.15	Operation of latch (refer Section 4)	5	0
8.16	Fire hydrants	4	0
8.17	Fire hose reels		\$2,000
8.18	Relocate existing extinguishers to satisfy AS 2444		\$1,000
8.19	Smoke detection and alarms		\$2,000
8.20	Emergency lighting requirements (spitfire)		\$3,750
8.21	Exit signs		\$500
8.22	Height of rooms and other spaces		\$4,000
8.23	External doors (open inwards)		\$800
8.24	Fire fighting services (inc. strobe light)		\$1,000
8.25	Fire orders		500
	Total		\$41,750
	Rounded		\$45,000

Appendix A: Lodge Cladding Proposal

An estimate of the cladding cost is presented in this appendix. The external dimensions of the lodge are shown in Figures A1 to A4. The areas of cladding are taken from these figures and are highlighted in Figures A1 to A4 as red rectangles. Some areas have been duplicated to the east and west wings and or front to rear. Areas include windows and doors. Thus, the area of cladding is overstated. However, the labour involved around windows and the detailing of cladding in areas is considered to compensate for this over statement. The cladding cost is estimated at \$125/sq metre including insulation but not including frame damage or scaffolding. This \$125/sqm figure was provided by Mountain Metal Roofing. Using this \$125/sqm cost the cladding cost is estimated at \$150,000. However, a verbal quotation from Mountain Metal Roofing of \$175,000 is used as it is considered more current. The areas and costs are then summarized in Table A1. Scaffolding hire includes crane hire, erection and removal with a two month stay on site. The scaffolding estimate was provided by Mountain Metal Roofing based on discussion with the scaffolding provider.

Table A1: Estimated cost of Cladding for Pygmy Possum Lodge.					
Description	Source:	Area sq m	Length met	Unit Cost	Extended
Front	Figure A1	200		\$125	\$25,000
Rear	Figure A2	200		\$125	\$25,000
Sides	Figure A3	560		\$125	\$70,000
Subtotal Cladding		960			
Insulation area		960		0	
Enviroseal area		960		\$0	
Eaves	Figure A4		150	\$100	\$15,000
Barge Boards	Figure A4		150	\$100	\$15,000
Sub total					\$150,000
Verbal quotation from Mountain Metal Roofing (May 2022)					\$175,000
Frame Damage					\$25,000
Scaffolding Hire					\$110,000
Sub Total					\$310,000

Figure A1. Rear of lodge.

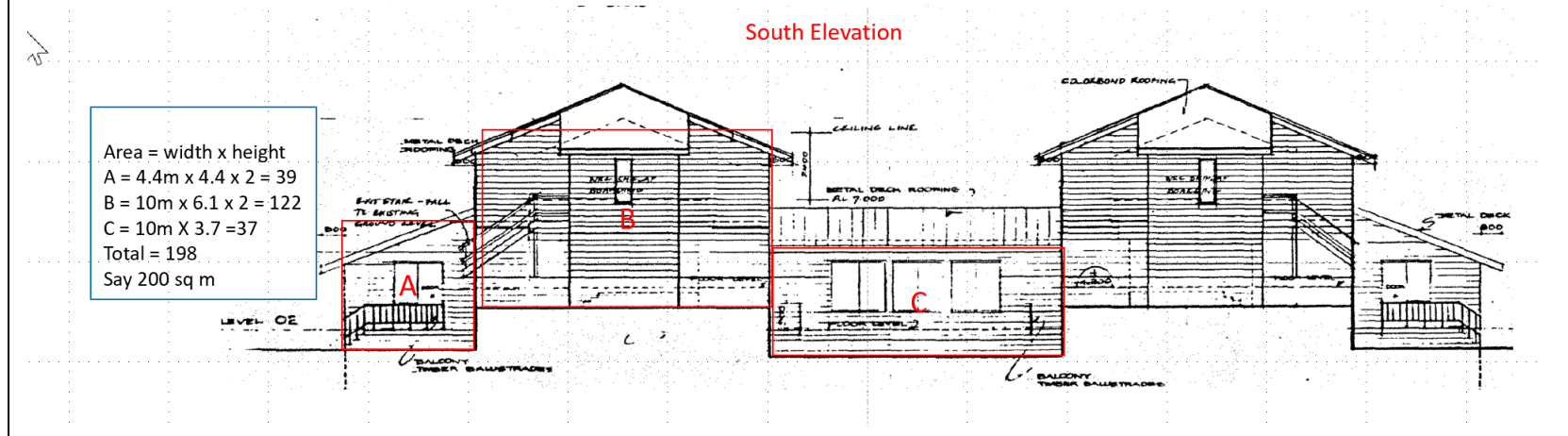


Figure A2: East and west Side Aspect

Area A is multiplied by 3 = 1 east aspect + 1 west aspect + 1 internal aspect
 Games room reduces internal aspect area so effectively 1A not 2A internally
 Area B is multiplied by 4 = 2 wings 2 sides.

$A = 20\text{m} \times 6\text{m} \times 3 = 360$
 $B = 8\text{m} \times 6.2 \times 4 = 198 = 200$
 Total = 560 sq m

$$\begin{aligned} A &= 20\text{m} \times 6\text{m} \times 3 = 360 \\ B &= 8\text{ m} \times 6.2 \times 4 = 198 \approx 200 \\ \text{Total} &= 560 \text{ sq m} \end{aligned}$$

Figure A3: Front aspect

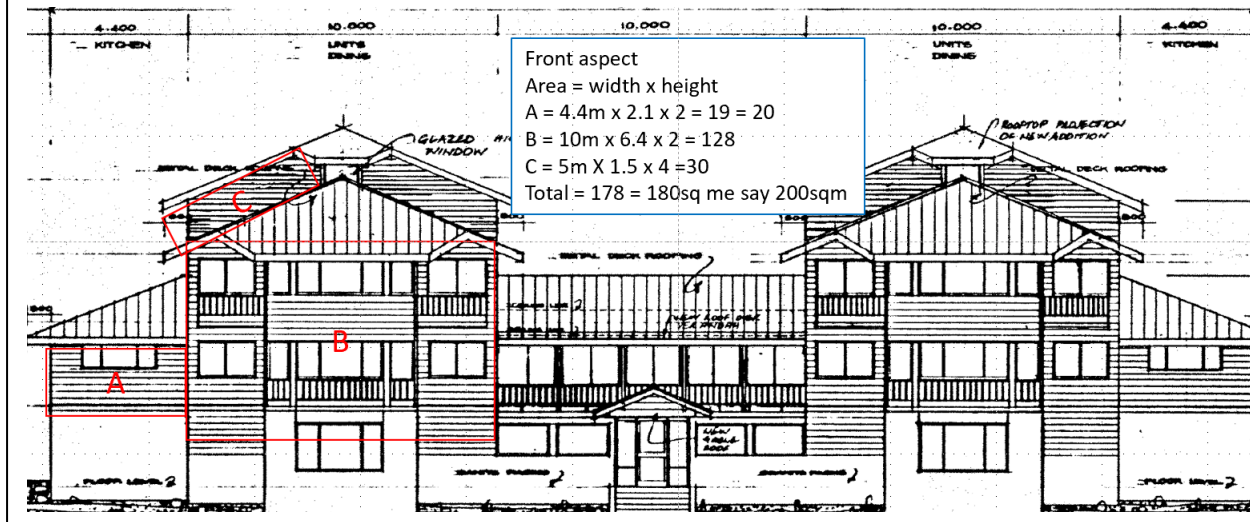
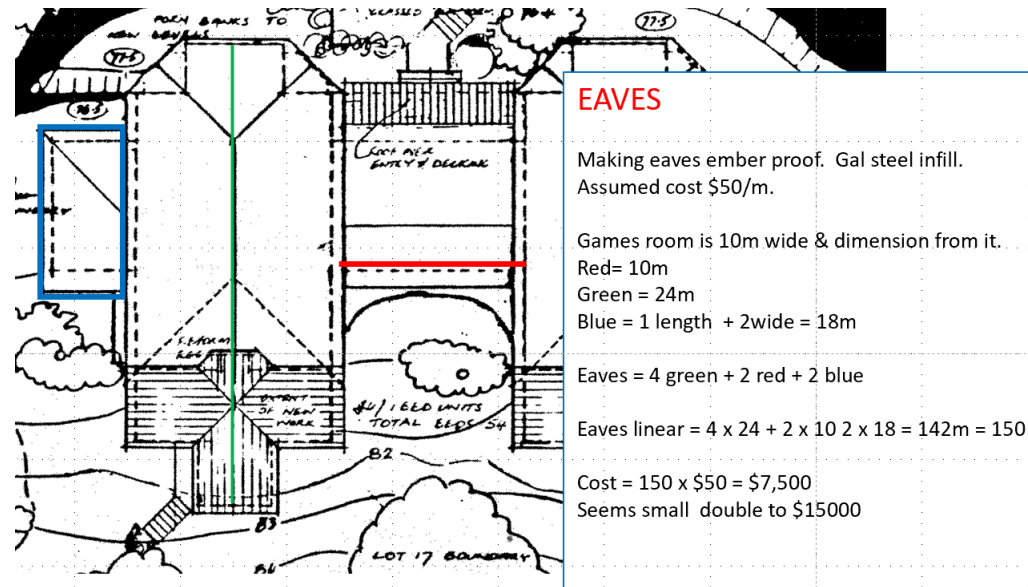


Figure A4: Eaves

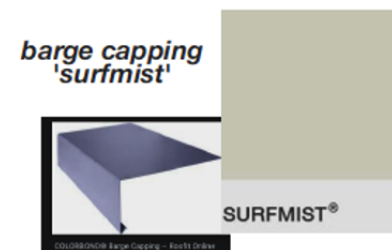


Architectural Drawing Set #220

DA Issue

External Colours and Finishes Schedule - Industrial Modern

- 1 cover page - external finishes and materials
- 2 plan: site and site analysis detail
- 3 plan: level 1 (ground level) floor plan
- 4 plan: level 2 floor plan
- 5 plan: level 3 floor plan
- 6 plan: west wing fire escape (detail)
- 7 plan: east wing fire escape (detail)
- 8 elevations : north and south and facade analysis
- 9 elevations: east and west
- 10 sections: 1-1, 2-2
- 11 sections: 3-3, 4-4
- 12 section: west wing fire escape detail
- 13 section : east wing fire escape detail



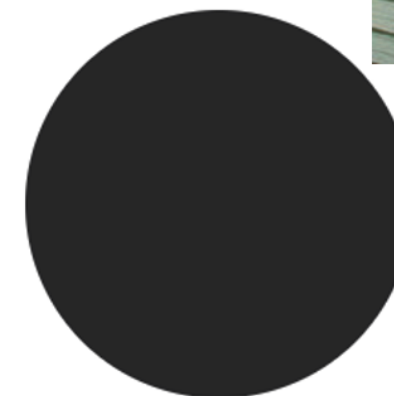
Barge capping & under eaves



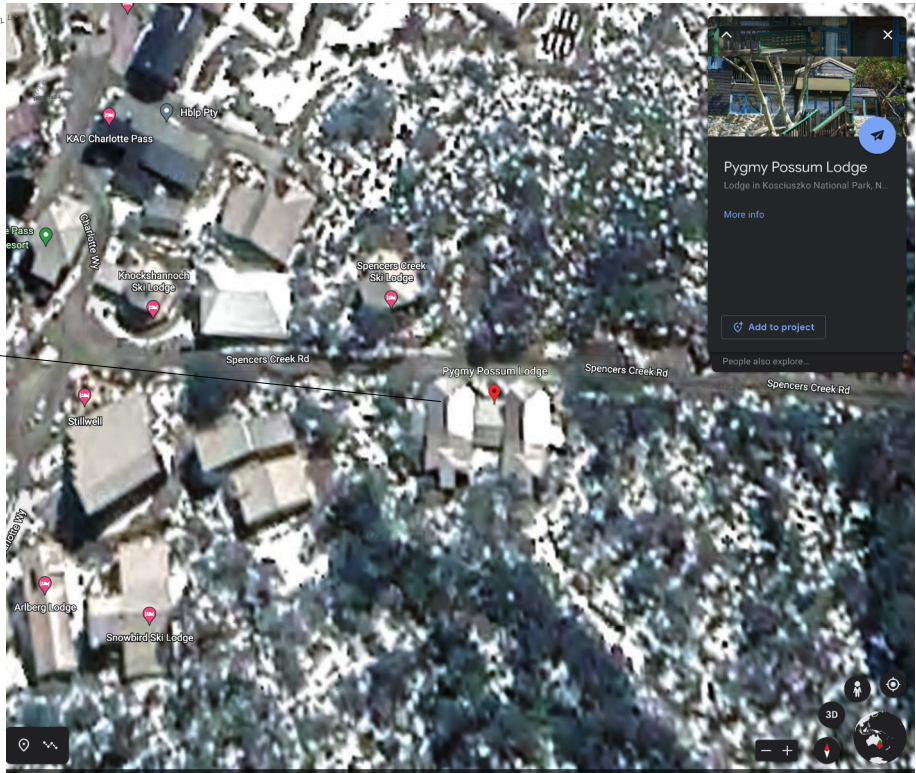
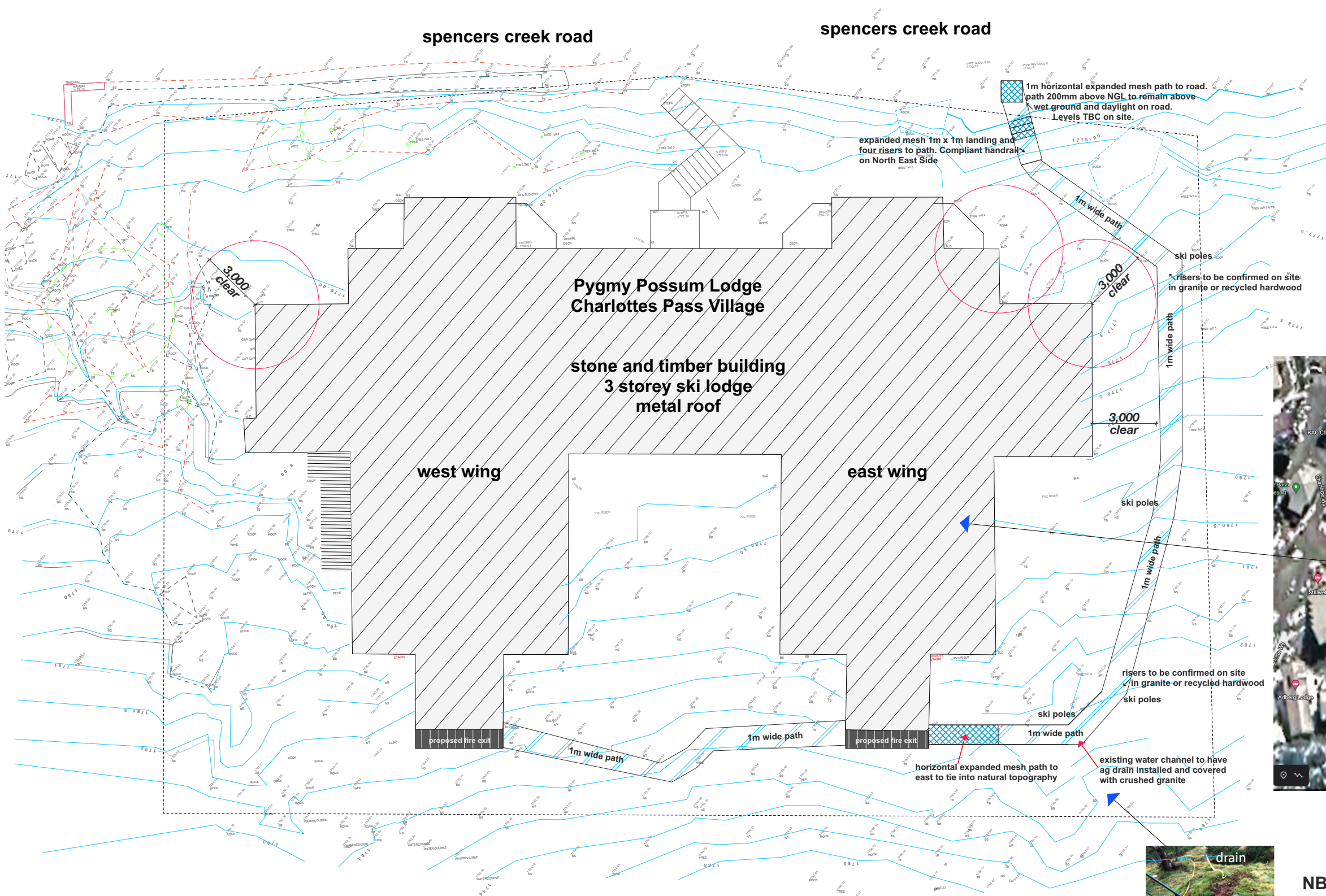
MorClad timber look for
main lodge.
Colour: Monument matt



Colorbond vertical for porticos
Colour: Monument Matt



Monument®



location plan
(google earth courtesy)

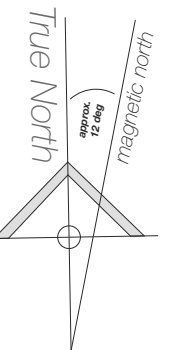
NB: Exit path to run from rear exits to road
most areas to be natural and with minimal disturbance
locally recycled sleepers or granite steps to be added
as required
Main transitions marked with reflective ski poles

by	date	revision

Date	6/6/23
Drawn	DS
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Scale	
Drawing No.	
#220-	2

- 1.** Structural steel columns along front of lower level to be covered with 2 layers of 16mm fire rated plasterboard to achieve a FRL of 90/-/-
- 2.** All PVC pipe penetrations through the first floor slab to be fitted with Promseal retrofit collars to achieve a FRL of -/90/90.
- 3.** Additional emergency lighting shall be provided to all external exits (including front door) in accordance with BCA E4.2 and AS/NZs2293.1 -2018
- 4.** Exit signage for main lodge front exit to comply with E4.5.
- 5.** Upgrade fire alarm system to incorporate a strobe light on the primary entrance. Light to comply with AS1670.1 – 2018.
- 6.** Fire orders to be upgraded to reflect upgraded hose reel & extinguisher locations. Orders to be posted throughout building to comply with BCA G4.9.
- 7.** Emergency spitfire lighting to be installed along exit path on level 1.

existing walls	
existing elements for removal/demolition	
emergency lighting 'spitfire' to be installed where required : certification to be provided	
exit lighting in portico to AS/NZ 2293.1	



<i>by</i>	<i>date</i>	<i>revision</i>

in association with
Ken George - Architect
email: kengedesign@bigpond.com

Date	6/6/23
Drawn	DS
Checked	
Scale	
Drawing No.	
#220-	3

Legend

existing walls
existing elements
for removal/demolition

emergency lighting 'spitfire'
to be installed where required:
certification to be provided

exit lighting in portico to AS/NZ 2293.1

Spitfire Emergency Light



Balustrades to be replaced and
comply with BCA clause D2.16

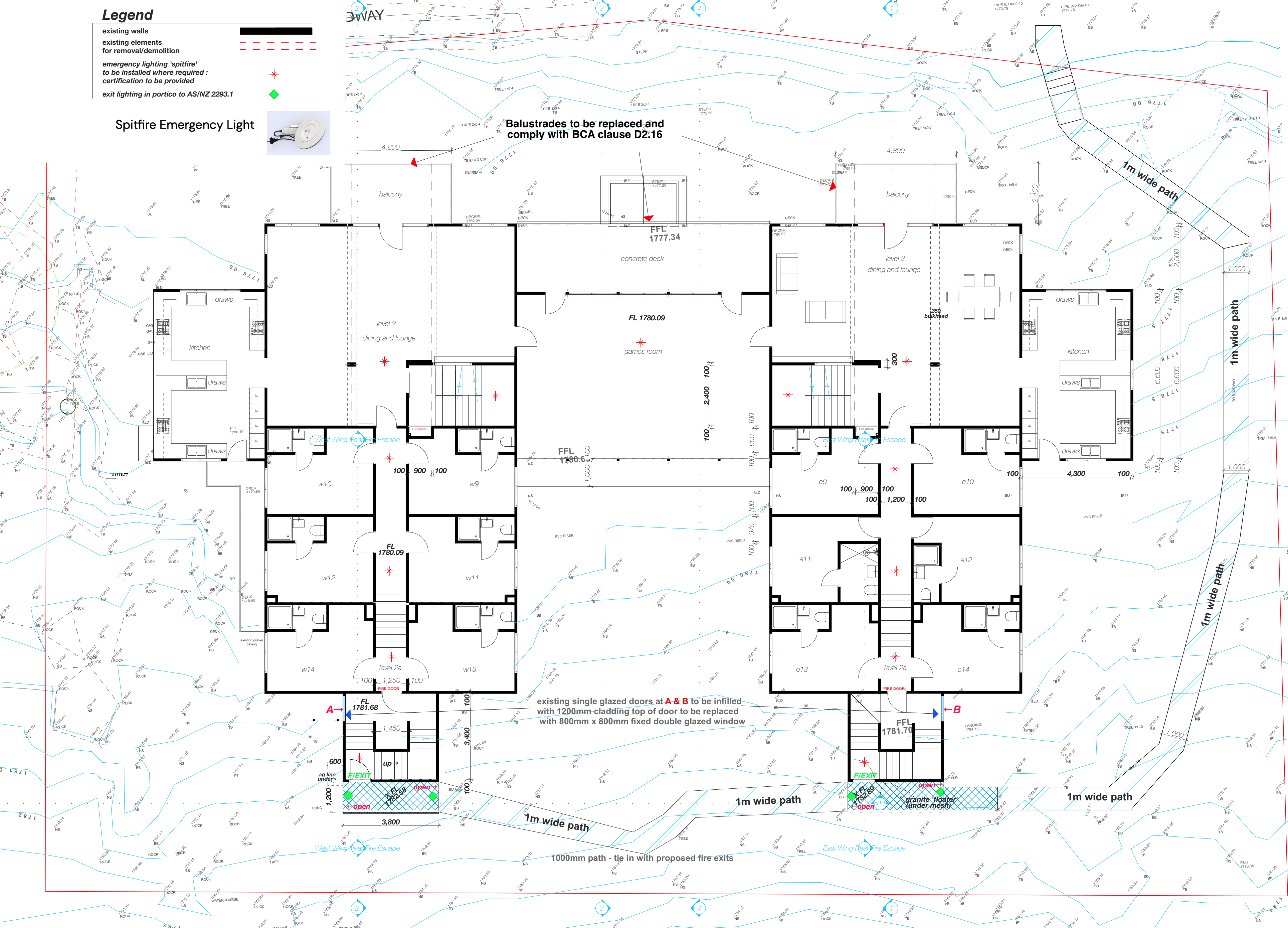
Notes for BCA upgrades

Level 2

1. "SOU bathrooms W9-W14 & E9-E14 will be retro fitted with a fire damper, to maintain the fire resistance of the SOU ceiling.
2. SOU bathrooms W9-W14 & E9-E14 to have non-locking lever door handles to comply with D2.21 of BCA
3. All SOU exit doors to be fitted with lockable lever action handles to comply with D2.21 of BCA
4. Exit doors from SOU corridor to front & rear stairs to be replaced with 45mm MDF door sets to FRL-/60/30 rating with self-closing mechanism & factory fitted flame proof glass. Doors to be smoke sealed. Floor seal to be Lorient 8009, side & top to be sealed with Kilago IS7087 compression seals. Seals to conform with BCA C3.4
5. All exit doors to be marked "Open Inwards". Specifically, games room, kitchens, rear fire exit. Signage letters to be a minimum 75mm in height & in a colour contrasting with surrounding.
6. All exit doors to be fitted with a lever handle, to comply with D2.21 of BCA
7. New rear exit door to be signed EXIT to comply with E4.5 of BCA. All existing exit signage to be relocated & reinstalled to correctly identify new exits to egressing occupants.
8. New rear exit to have external exit lighting to comply with E4.2 of BCA.
9. Electrical meters & distribution boards (lounge dining) to be suitably clad in non-combustible or fire protective coverings to comply with BCA D2.7.
10. Internal stairs. All internal balustrades to comply with D2.16 and 865mm high.
11. Fire hose in lounges to be decommissioned after sprinkler system installed & replaced by adequate portable extinguishers in accordance with AS2444 -2001
12. Existing extinguishers to meet AS2444-2001 in location, size and signage.
13. All internal stairs to have floor to ceiling height increased to 2100mm if possible or to 2000mm for head height compliance (currently 1950mm)
14. In rear exit (east wing only) the lower step is a winder. Signage to be installed "CAUTION Watch Your Step" in 50-75mm high letters with contrasting textured strips on the treads.

Balustrades

All balustrades to be replaced with steel or aluminium to D16 standard. That is 1000mm height & no lower rung above 150mm & no opening greater than 125mm. Applies to Level 2 east and west dining areas and games room balcony



level 2 floor plan

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PO Box 4344 North Rocks NSW 2151

email: info@precisionplanning.com.au

Studio Director - Daniel Sutton

Contact: 0416 110 281

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Contact Precision Planning with any dimension queries.

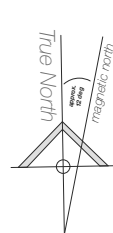
- Confirm Window/door/sky/light sizes prior to order.

- No underground services search has been conducted.

It is advised to do a 'Dial Before You Dig' before construction work commences.

Termite Protection:

Termimesh/Kordon Blanket or similar termite protection system is to be used in the protection against subterranean termites in accordance with AS3660.1-2000 and to manufacturer's specifications.



by	date	revision

DA Issue

Alterations and Additions

Pygmy Possum Lodge,

Lot 108, DP 1242013

Charlotte Pass Village

for Elouera Ski Club

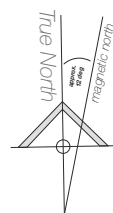
in association with

Ken George - Architect

email: kengeorge@bigpond.com

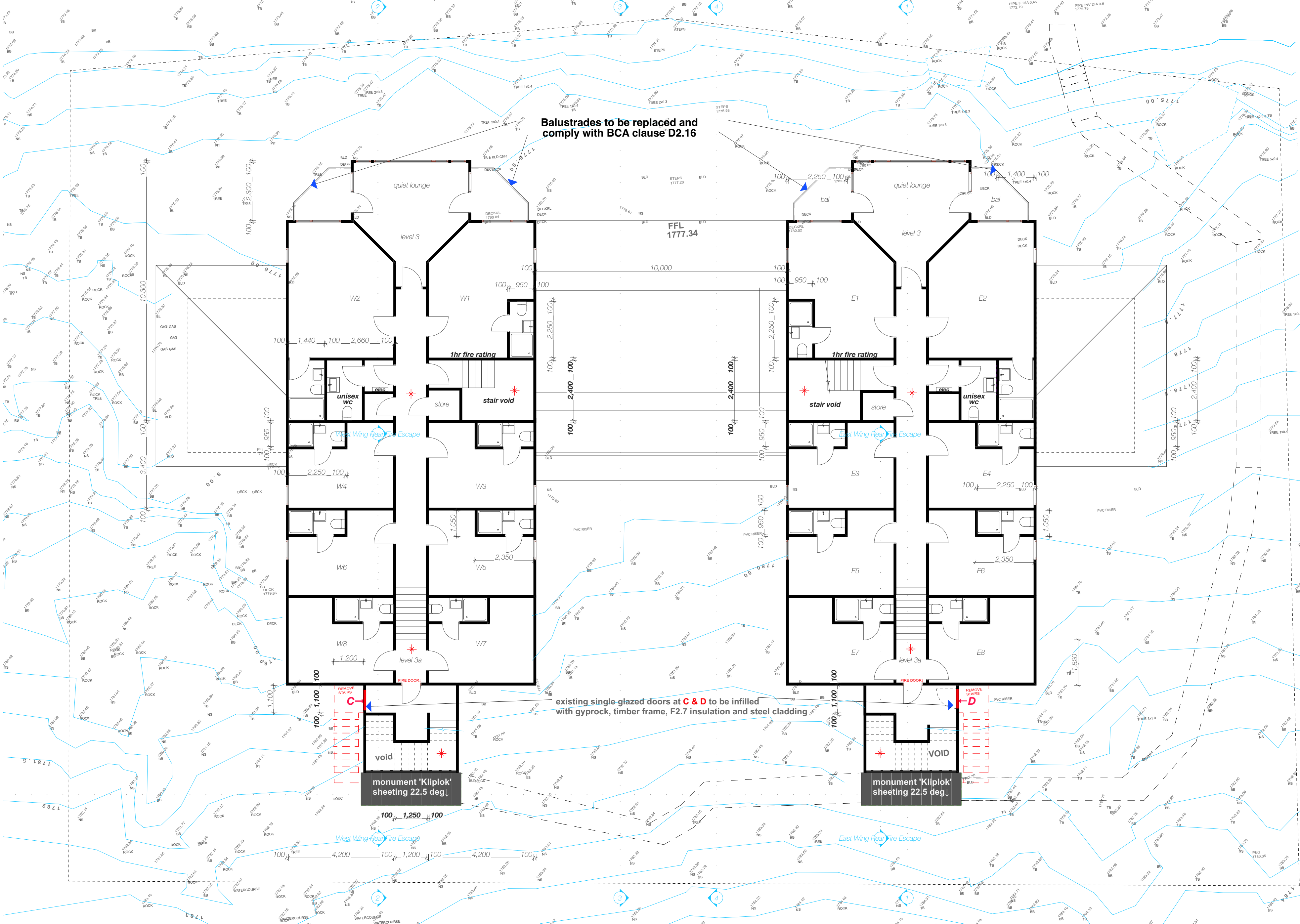
Date	6/6/23
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Drawing No.	
#220-	4

level 3 floor plan



by	date	revision

Date	6/6/23
Drawn	DS
Checked	
Scale	
Drawing No.	
	#220- 5



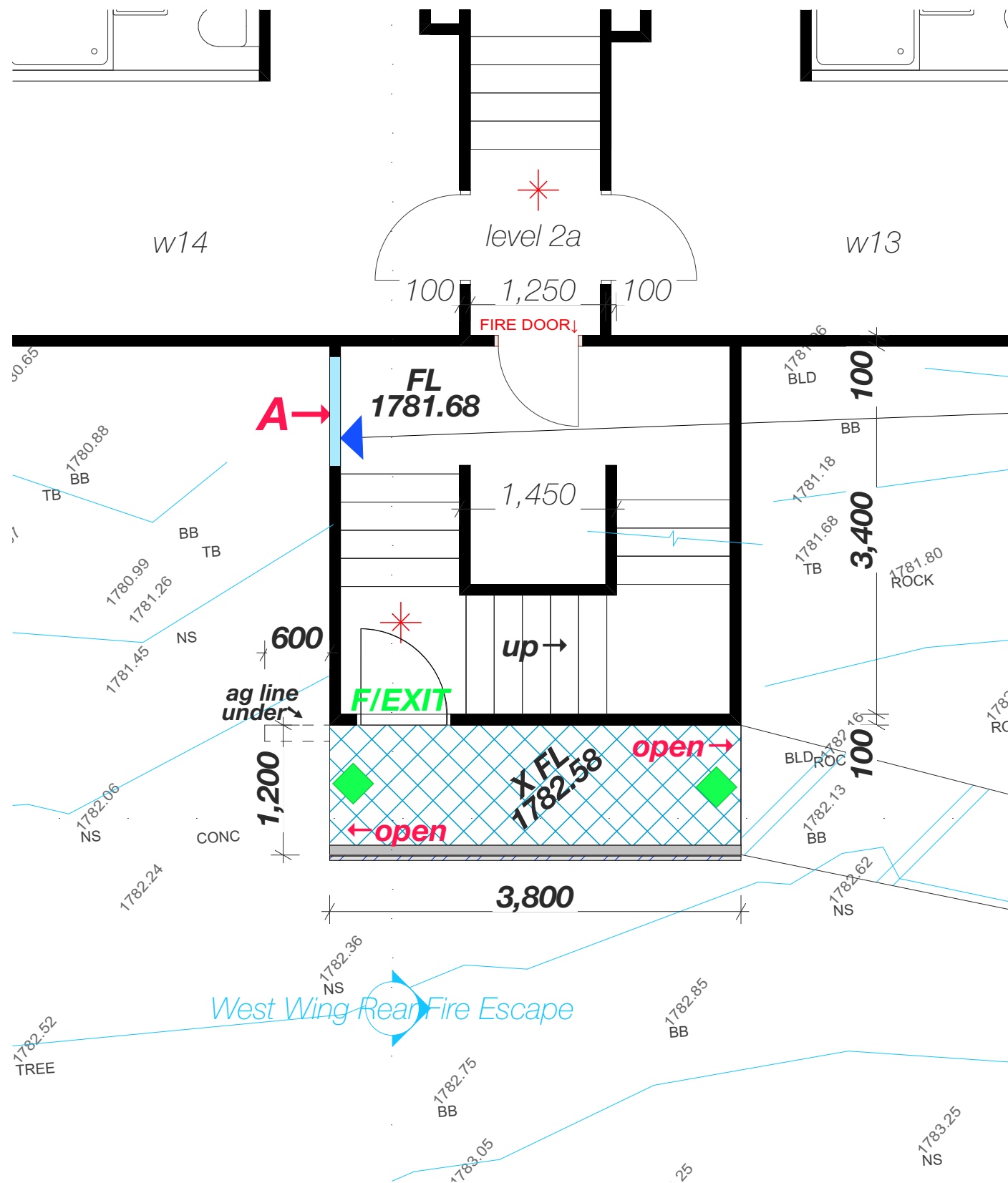
Notes for BCA upgrades

Level 3

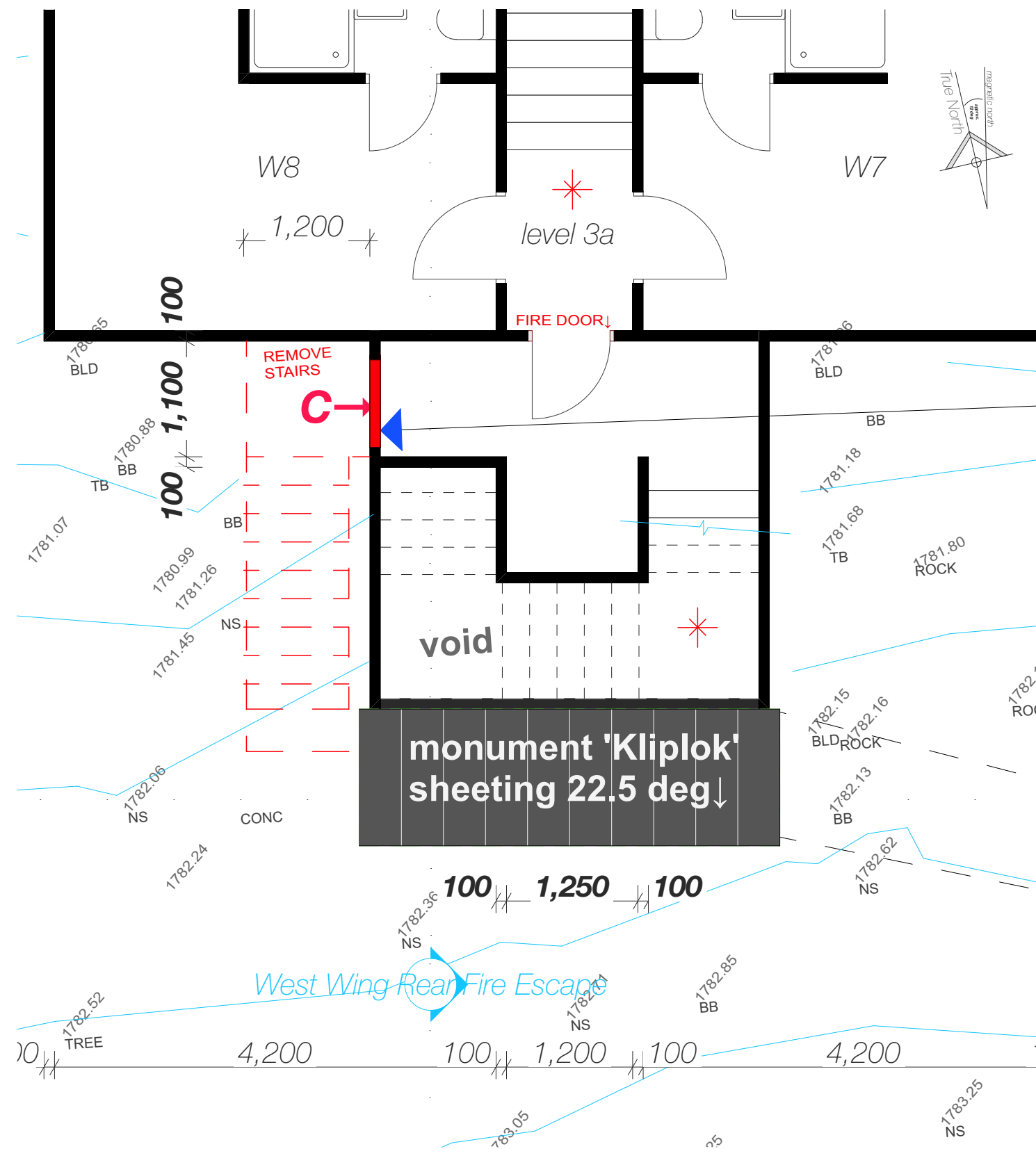
1. SOU bathrooms W1-W8 & E1-E8 will be retro fitted with a fire damper, to maintain the fire resistance of the SOU ceiling.
2. SOU bathrooms W1-W8 & E1-E8 to have non-locking lever door handles to comply with D2.21 of BCA
3. All SOU exit doors to be fitted with lockable lever action handles to comply with D2.21 of BCA
4. Exit doors from SOU corridor to front & rear stairs to be replaced with 45mm MDF door sets to FRL-/60/30 rating with self-closing mechanism & factory fitted flame proof glass. Doors to be smoke sealed. Floor seal to be Lorient 8009, side & top to be sealed with Kilago IS7087 compression seals. Seals to conform with BCA C3.4
5. Quiet lounge room doors to be replaced with 45mm MDF door sets to FRL-/60/30 rating with self-closing mechanism & factory fitted flame proof glass. Doors to be smoke sealed. Floor seal to be Lorient 8009, side & top to be sealed with Kilago IS7087 compression seals. Seals to conform with BCA

Balustrades

All balustrades to be replaced with steel or aluminium to D16 standard. That is 1000mm height & no lower rung above 150mm & no opening greater than 125mm.
Applies to Level 3 east and west wing quiet room balconies



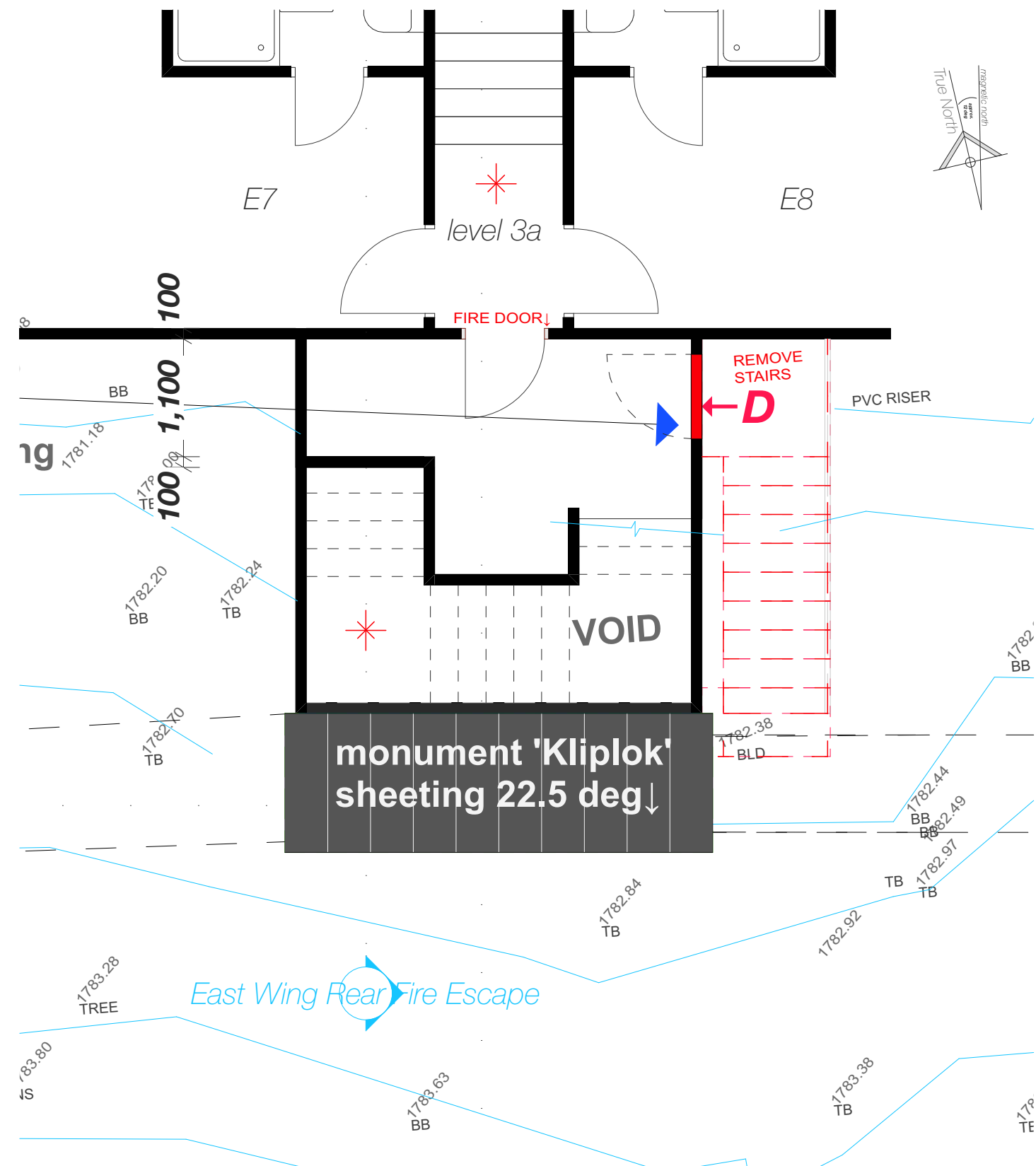
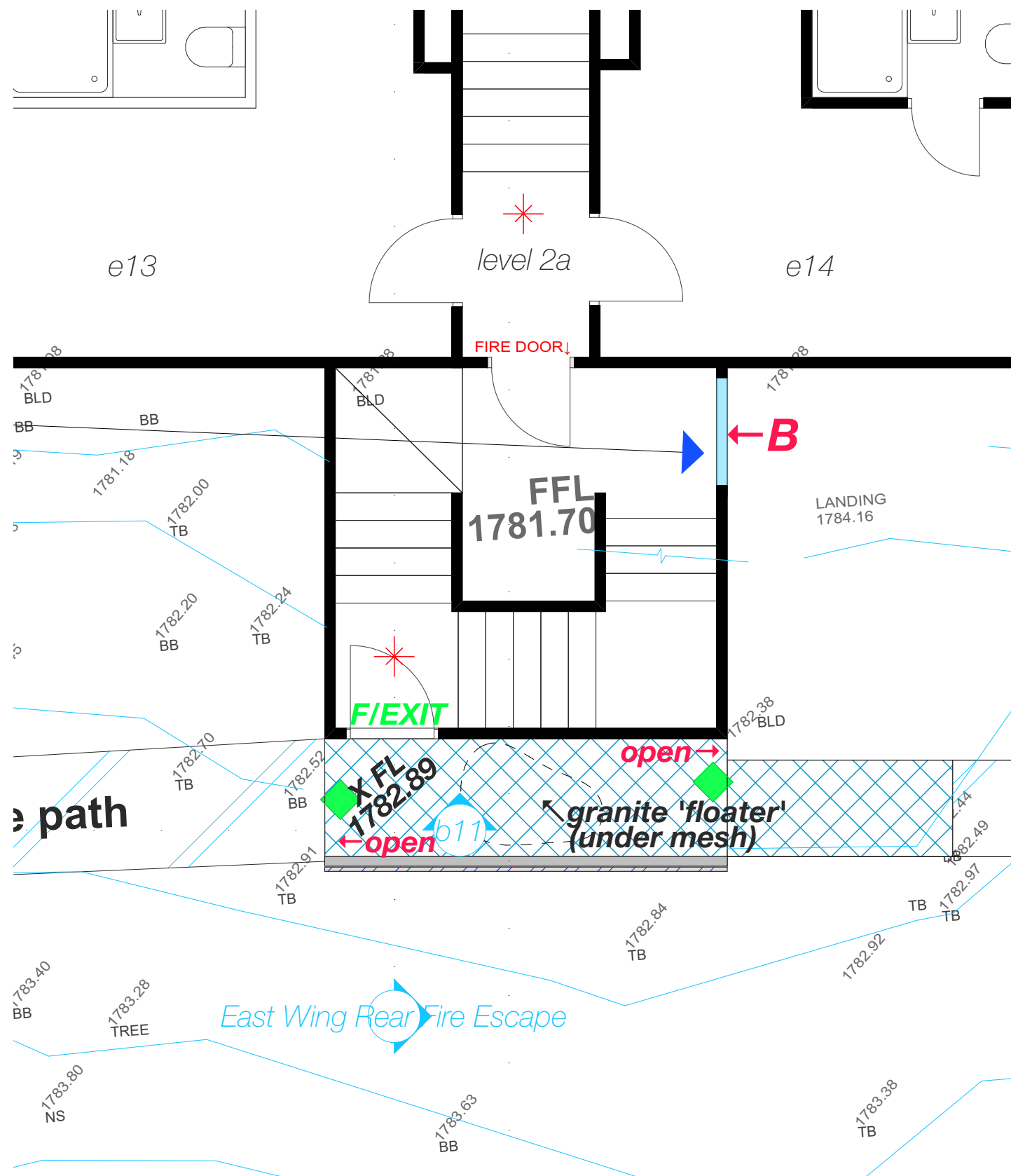
west wing fire escape
[plan view] scale 1:50 - Level 2



west wing fire escape
[plan view] scale 1:50 - Level 3

by	date	revision

Date	6/6/23
Drawn	DS
Checked	
Scale	
Drawing No.	
#220-	6



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Studio Director - Daniel Sutton
Contact: 0416 110 281

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- Confirm Window/door/skylight sizes prior to order.
- No underground services search has been conducted.

It is advised to do 'Dial Before You Dig' before construction work commences.

Termite Protection:
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<i>by</i>	<i>date</i>	<i>revision</i>

DA Issue

Alterations and Additions

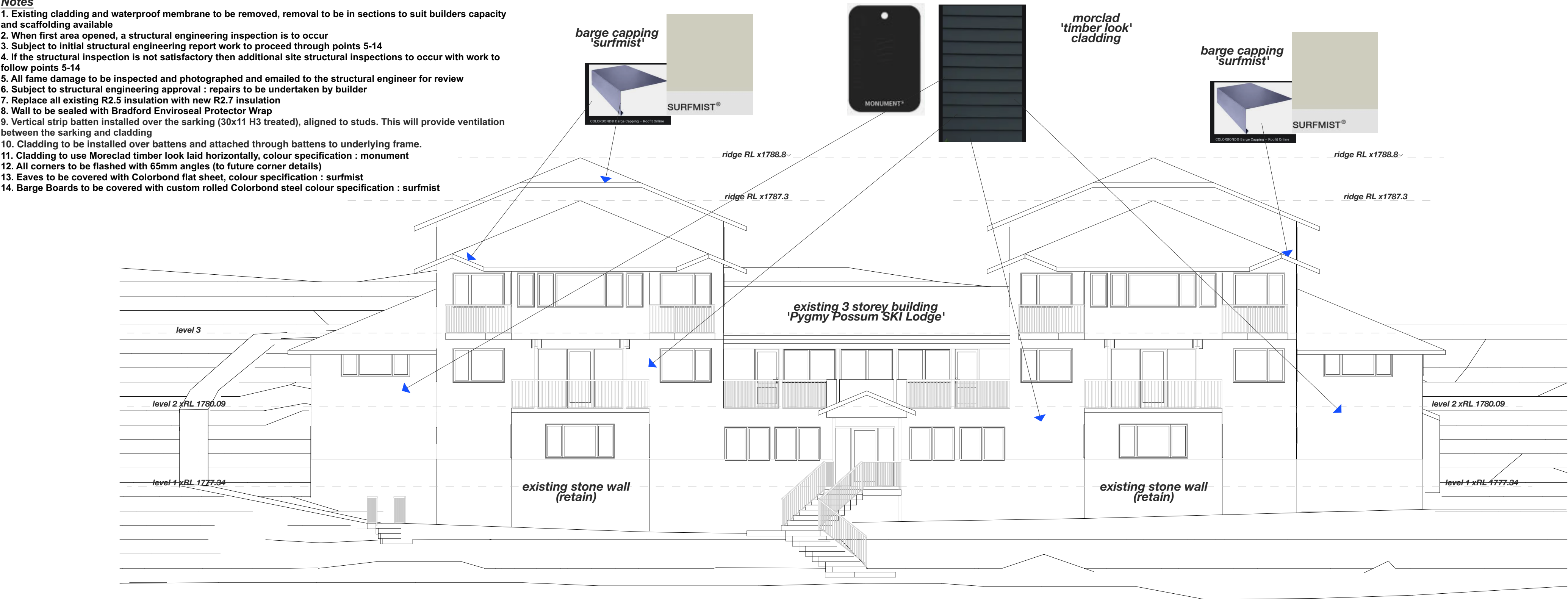
Pygmy Possum Lodge,
Lot 108, DP 1242013

Charlotte Pass Village
for Elouera Ski Club

in association with
Ken George - Architect
email: kengeorge@bigpond.com

Date	6/6/23
Drawn	DS
Checked	
Scale	
Drawing No.	
#220-	7

- Notes**
- Existing cladding and waterproof membrane to be removed, removal to be in sections to suit builders capacity and scaffolding available
 - When first area opened, a structural engineering inspection is to occur
 - Subject to initial structural engineering report work to proceed through points 5-14
 - If the structural inspection is not satisfactory then additional site structural inspections to occur with work to follow points 5-14
 - All fame damage to be inspected and photographed and emailed to the structural engineer for review
 - Subject to structural engineering approval : repairs to be undertaken by builder
 - Replace all existing R2.5 insulation with new R2.7 insulation
 - Wall to be sealed with Bradford Enviroseal Protector Wrap
 - Vertical strip batten installed over the sarking (30x11 H3 treated), aligned to studs. This will provide ventilation between the sarking and cladding
 - Cladding to be installed over battens and attached through battens to underlying frame.
 - Cladding to use Moreclad timber look laid horizontally, colour specification : monument
 - All corners to be flashed with 65mm angles (to future corner details)
 - Eaves to be covered with Colorbond flat sheet, colour specification : surfmist
 - Barge Boards to be covered with custom rolled Colorbond steel colour specification : surfmist



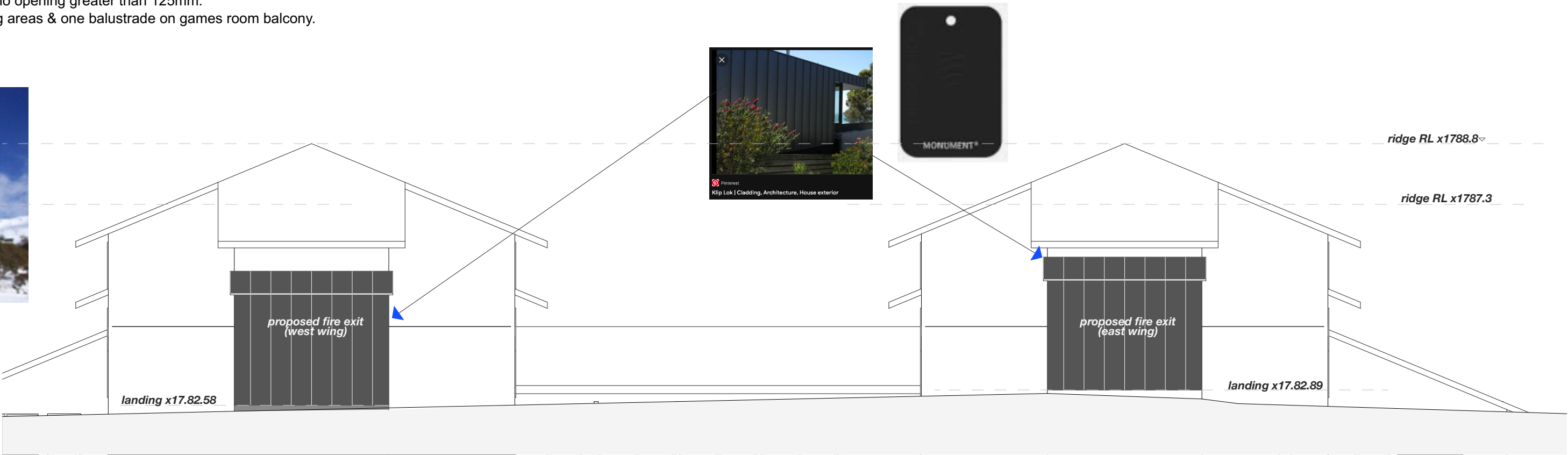
Balustrades

All balustrades to be replaced with steel or aluminium to D16 standard.
That is 1000mm height & no lower rung above 150mm & no opening greater than 125mm.
Applies to 4 x level 3 quiet lounge areas, two level 2 dining areas & one balustrade on games room balcony.

north elevation front facade



existing photo
(east wing)



south elevation rear facade



existing photo
(west wing)

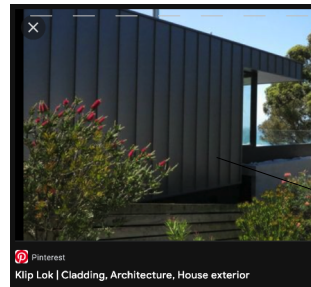


existing photo
(west wing)

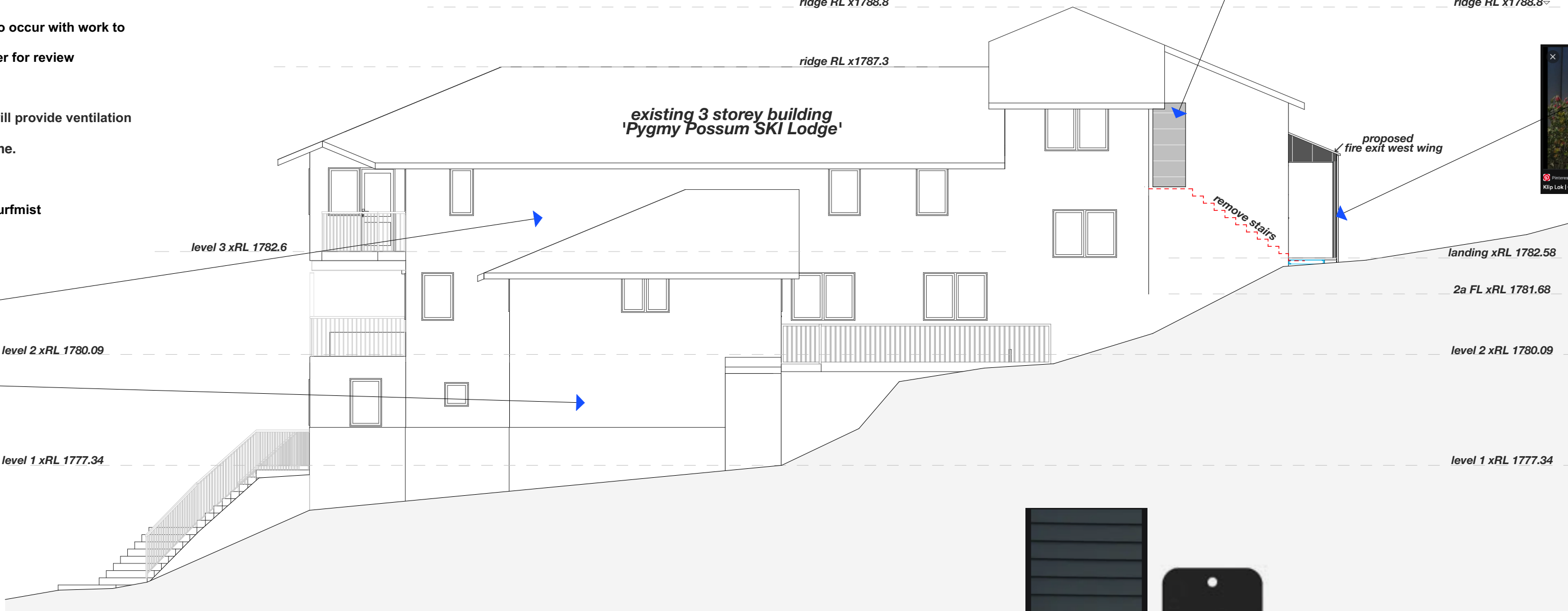
by	date	revision

Date	6/6/23
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Drawing No.	
#220-	8

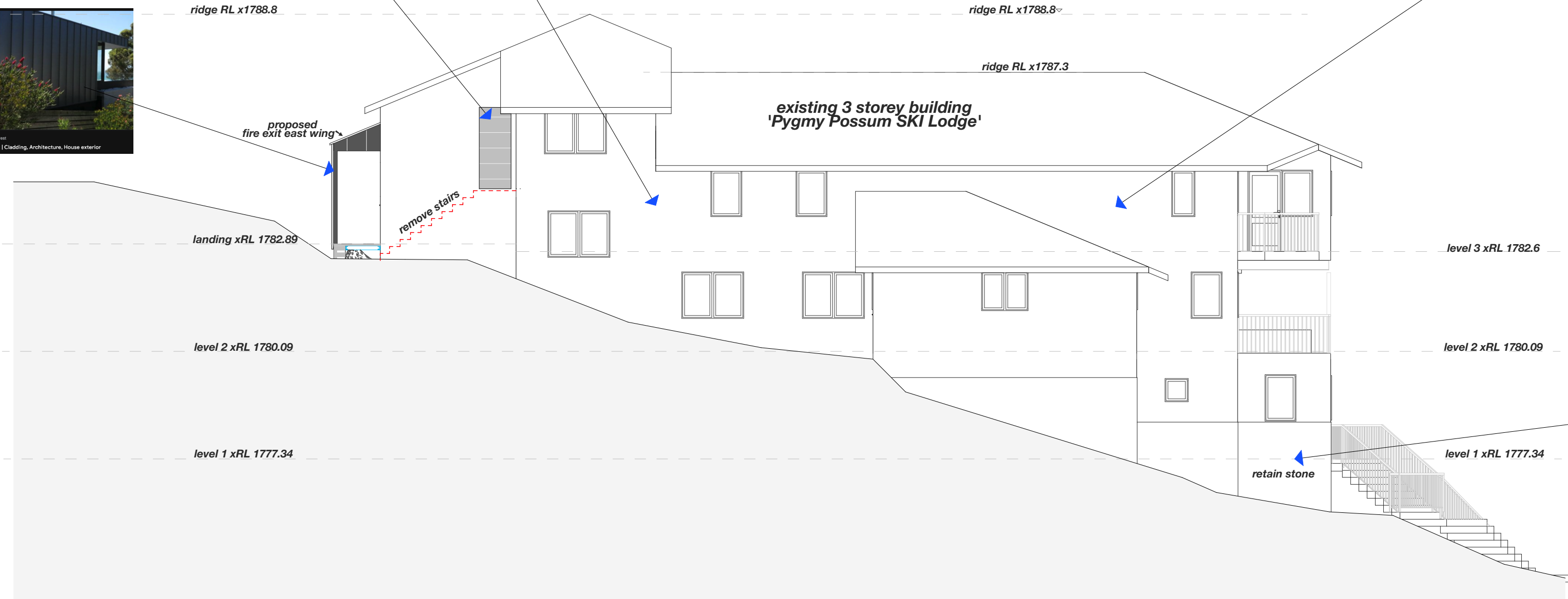
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existing single glazed doors at to be infilled with gyprock, timber frame, F2.7 insulation and steel cladding



west elevation



east elevation



**existing photo
(east wing front)**

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Studio Director - Daniel Sutton

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by	date	revision

DA Issue

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for Elouera Ski Club

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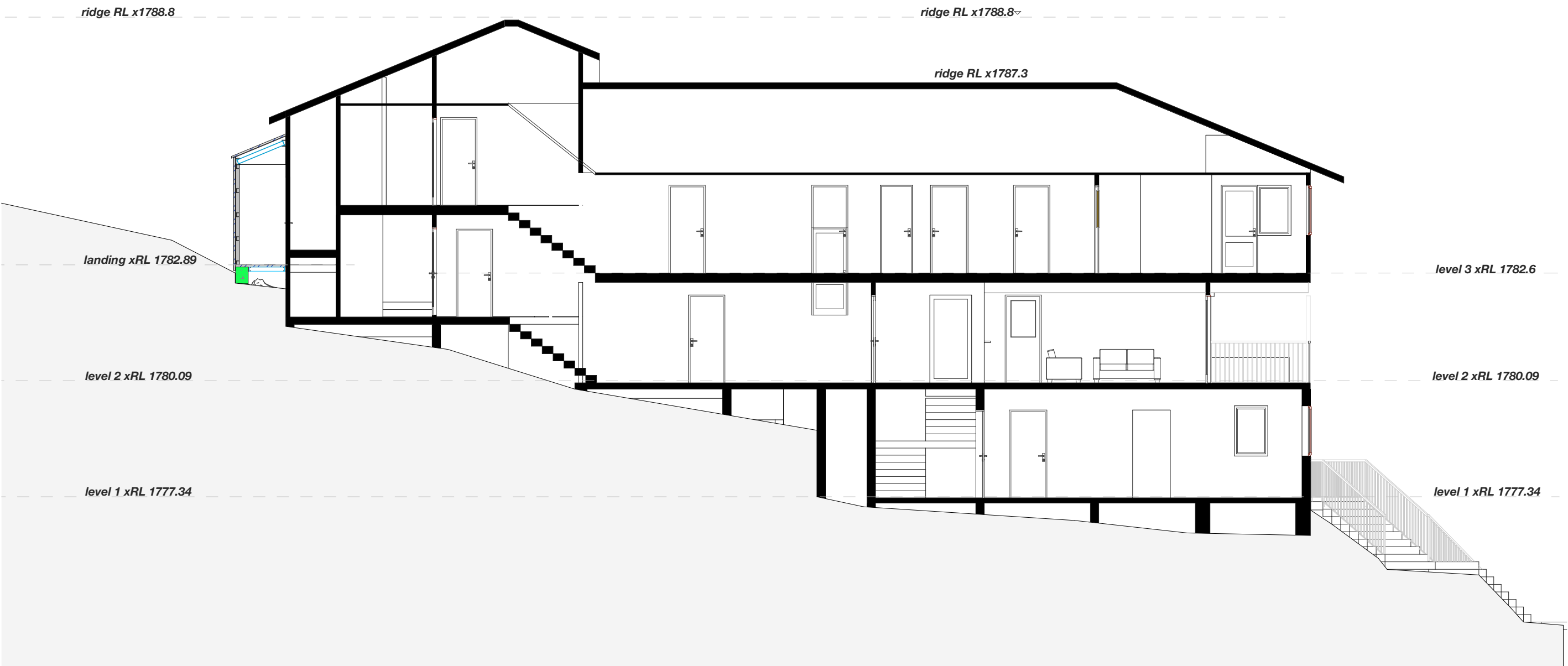
email: kenged@bigpond.com

Date	6/6/23
Drawn	DS
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Scale	
Drawing No.	
#220-	9

- Notes**
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section 1

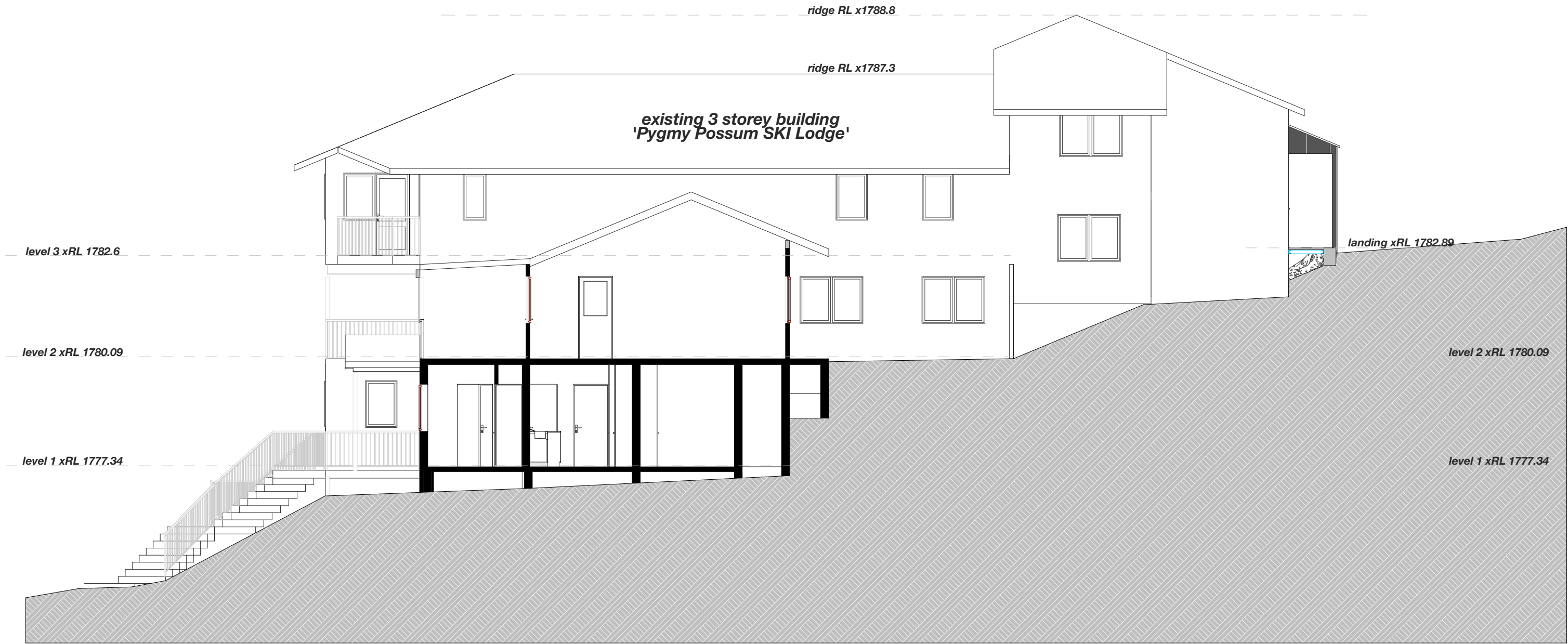


section 2

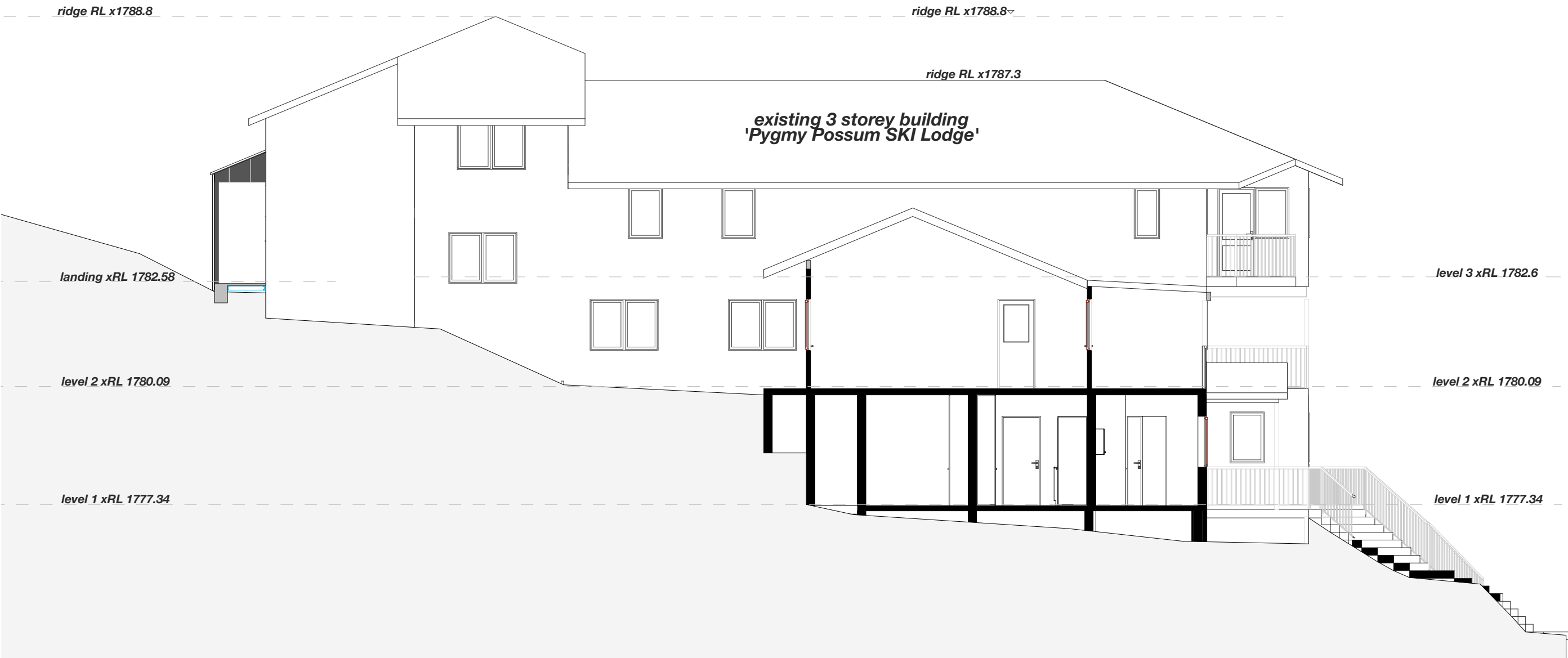
by	date	revision

Date	6/6/23
Drawn	DS
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Scale	
Drawing No.	
#220-	10

- Notes**
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section 3

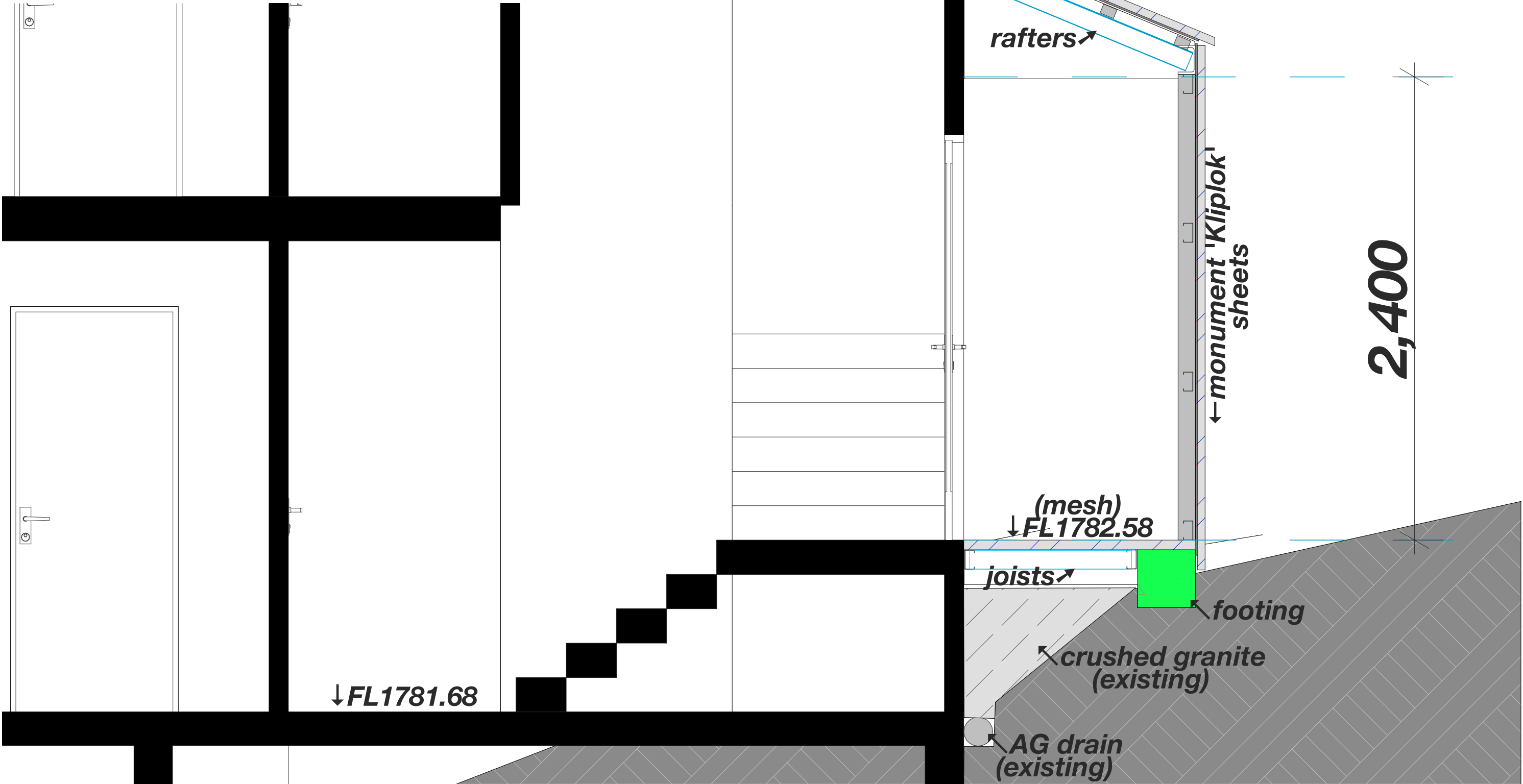


section 4

by	date	revision

Date	6/6/23
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Scale	
Drawing No.	
#220-	11

*Wall, Roof and Floor framing steel RHS as detailed in Camstruct 'Fire Escape details'

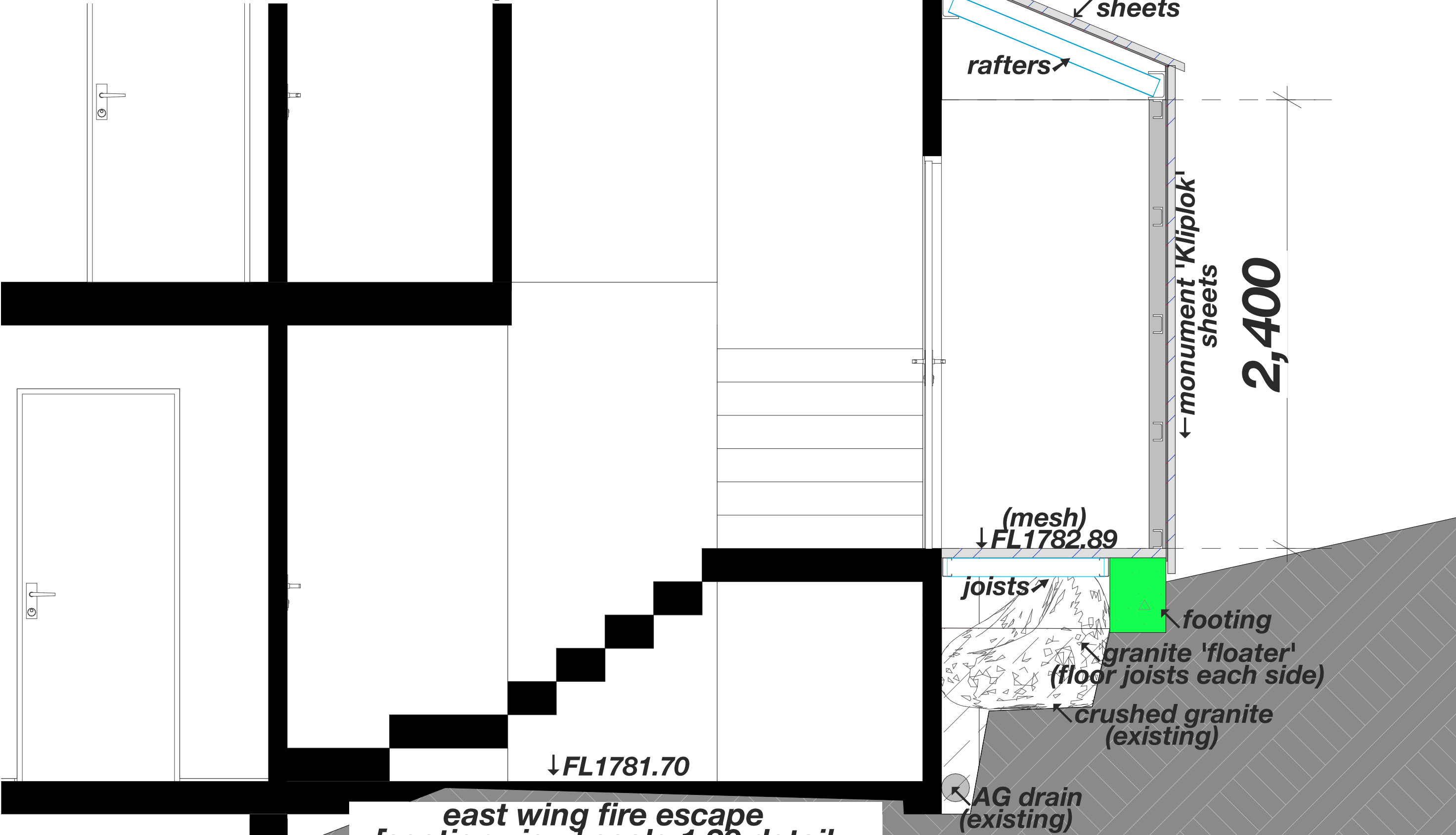


west wing fire escape
[section view] scale 1:20 detail

by	date	revision

Date	6/6/23
Drawn	DS
Checked	
Scale	
Drawing No.	
#220-	12

***Wall, Roof and Floor framing steel RHS as detailed in Camstruct 'Fire Escape details'**



**east wing fire escape
[section view] scale 1:20 detail**

by	date	revision

Date	6/6/23
Drawn	DS
Checked	
Scale	
Drawing No.	
#220-	13