



EXISTING PLAN VIEW

**SITE LOCATION**  
EXISTING PLAN VIEW  
DEVELOPMENT PLAN VIEW  
CONTEXT

**THE PROPOSAL**  
BUILDING ENVELOPE  
BUILDING SETBACKS  
CARPARKING  
MATERIALS  
ON SITE EFFLUENT SYSTEM  
SCHEDULE OF USE

**PERSPECTIVES**  
STREET VIEWS  
BUILDING EXTERNAL VIEWS  
BUILDING INTERNAL VIEWS

**DRAWINGS INDEX**  
FEATURE CONTOUR SURVEY  
SK00 EXISTING SURVEY & DEMOLISHING PLAN  
SK01 SITE & ROOF PLAN  
SK02 GROUND FLOOR PLAN  
SK03 MEZZANINE LEVEL  
SK04 ELEVATIONS  
SK05 ELEVATIONS & SECTIONS

page

01

03

05

18





CONTEXT

The development site is located at the south east corner of, and is immediately adjacent to, the Community Hub of Forrestdale. It is understood to the local residents that this area, is currently part of the masterplan project of Alfred & William Skeet Reserve. This reserve masterplan carries a long term vision to enhance the community facilities and services to better serve the local residents. It includes facilities such as sports fields, recreational clubs, hard courts, kindergarden and picnic zones. The owners of Lot 347, actively participates in enhancing the sense of community at this area, by aligning themselves with the Forrestdale Hub masterplan urban objective.

The development proposes a construction of a new residential structure that houses private accommodation and worship service, of which the latter requires the discretion of the local government as required by the Town Planning Scheme No.4.

The use of the site as a place of worship is classified as 'A' under TPS No.4 Zoning Table. The site is currently prescribed as R12.5/25 that requires compliance in accordance to Table 1 of the Residential Design Codes.

This report contains a summary of design proposals in Page 4., that includes references to the relevant statutory compliance.

DEVELOPMENT PLAN VIEW





**BUILDING ENVELOPE**

The proposed structure is in harmony with the surrounding residential building scale with only 34% built up area. 66% open space are available for natural landscape and north facing courtyards. Effective lighting and cross ventilation have been provided by the courtyard arrangement.

Fundamentally, the proposed structure comprises a residential quarter on the east, a central study block, and a communal block on the west. The building is single storey throughout with a small mezzanine area in the study block. Double glazing are used for almost all the external wall openings for higher thermal performance.

Besides effective lighting and cross-ventilation, the proposed structure provides well-considered acoustic arrangement to the adjoining neighbours on the east. Both the residential quarter and the central study block accommodate activities that are of low noise level. The mezzanine level creates a higher level block that is an acoustic barrier itself, to mitigate noises from the west. The existing east boundary fence is retained, made good with added layer of acoustic fence barrier at a minimum height of 1800mm. (see similar product as *SlimWall Sound Proof Fence*)

The double glazing to all major openings would insulate noise transition. In principal, the activities inside the communal block multi-purpose hall, adjacent to the entry foyer, would be extremely well contained. In fact, the multipurpose hall, the only place where the occupants are most concentrated at one time, are more than 30metres away from to the east boundary. There are also 'buffering' structure such as sheds, carports that are mitigating any distant noise from the west before reaching the residential blocks.

**BUILDING SETBACKS**

All boundary setback are in compliance with R12.5/25 requirement in Table 1+2a of the Residential Design Codes. The proposed boundary setbacks are shown in the summary of design proposals table in page 4, and also the enclosed floor plans.

**CARPARKING**

Depending on the seasons of the year, the number of users holding public worship in the multi-purpose hall, could range from 60 to 120 people. The proposed structure provides a seating area that can accommodate up to the 120 people, which occupies 50m<sup>2</sup> floor area. The number of staff present at peak operation are 3.

The required number of parking bays are based on the table in the Town Planning Scheme no.4 in page 144. Place of Worship stipulates 1 parking bay for every 2.5m<sup>2</sup> seating area, plus 1 parking bay for every staff member present at peak operation. Based on the guidelines, a total of 23 parking bays are required.

As shown in the design proposal summary in page 4 and the enclosed floor plans, a total of 39 parking bays have been provided, including 2 accessible bays.

The parking bays are part of the 66% open space of the proposed development comprising natural landscape. Reinforced trafficable substrate would be used to construct the natural lawns that can also be used as parking bays. Hence, a substantial areas of natural landscape have been retained, as the parking bays would mostly be occupied only once a week. The parking bays are indeed themselves a landscape feature in the development.

**MATERIALS**

A natural light-colored (*Dulux Vivid White*) Acratex finish is selected for the external walls of the proposed structure. This simple appearance stays in harmony to the natural ambience of the surrounding views. Trees, greenery and natural landscape would appear outstanding before this light background. Natural vegetation is planted in most of the natural landscaped area. Extensive planters are provided along the front façade with climbers plant for the shading louvers. Grey water recycling system (such as *Grey Flow Ps*) would be considered for the general irrigation arrangement. As mentioned earlier, the parking bays are constructed with natural lawns. This is combined with a natural finish masonry paved driveway.

The roof, ceiling, external and the internal walls would be insulated for stronger thermal and acoustic performance. The walls would be constructed with a combined masonry and framed structure. Where applicable, the durable fire-resistant fibre-cement cladding is used. Light-colored steel is proposed for the metal roof sheeting (*Zincalume finish*). Colorbond steel in white (*Dulux Whitehaven*), is applied to the drainage components including gutters and downpipes. High thermally insulated double glazing frames, with a natural timber finish, is proposed.

Natural texture finish is also applied to the acoustic fence barrier on the east boundary adjoining the neighbours.

**ON SITE EFFLUENT SYSTEM**

New underground effluent tank system would be proposed for the development to replace the existing septic tank. As has been indicated, the number of people attending for worship service are present only for approximately 2 hours, once every week. As the capacity for effluent system are usually based on occupants who live on site permanently, a same tank capacity could therefore, serve a greater number of occupants who are on site less regularly, than it would for occupants who are on site daily.

Several considerations on the effluent system have been made. For example, a single *Graf 6500litres Carat S* septic tank with two chambers are able to serve up to 13 inhabitants on site daily. With an alternative system *Klaro XXL* with multiple underground tank system, the capacity increases. For example, a *Graf system Klaro XXL* with 5x 6500litres reservoir serves up to 80 inhabitants. (based on daily uses.)

Hence, Investigation would be required on how the factor of only a 2 hours per week usage, would influence the selection of the effluent tank capacity.

There are available space on the development, to store the underground tank system as required. In principal, the space under the larger courtyard (1) can be considered. There is approximately 80m<sup>2</sup> in that area. If required, additional space could be gained by converting some of the car parking bays into pure lawn area, as currently the bays significantly exceed the statutory requirement.

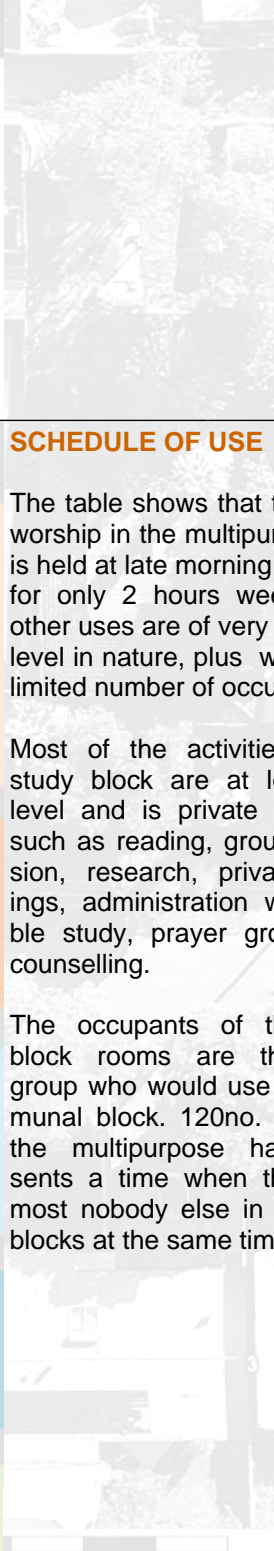


LOT 347 6 COMMERCIAL ROAD FORRESTDAL W.A 6112

Local Government	City of Armadale
Lot No.	347
Site Area	2176 m2
TPS Zoned	<b>R12.5 / R25</b>
Place of Worship under T.P.S no.4	'A' - means that the use is not permitted unless the City has exercised its discretion by granting planning approval after giving special notice in accordance with clause 9.4
Educational Establishment under T.P.S no.4	
Home Office under T.P.S no.4	'P' - means that the use is permitted by the Scheme providing the use complies with the relevant development standards and the requirements of the Scheme

Planning Requirement	R-Codes/T.P.S 4 /BCA	Provided	
Carpark <b>Place of Worship under T.P.S no.4</b> 1 space for every 2.5 square metres seating area + 1 space for every staff member present during peak operation	20 - (min 50 m2 seating area) 3	39 (inc 2x Acc.)	
Building Coverage (of Site)	max. 45% / 50%	34%	749 m2
Open Space (of Site)	min. 55% / 50%	66%	1427 m2
Primary Street Setback (Commercial Road)	7.5 / 6 (m)	approx. 16m	
Side Boundary Setback (East)	2 / 1.5 (m)	2.8m	
Side Boundary Setback (West)	2 / 1.5 (m)	2m	
Rear Boundary Setback (North)- <b>Table 2a R-Codes</b>	1.7 (m)	1.7m	

Schedule of Accomodation	Floor Area (m2)	No of Occupants	Peak Period Occupation - times indicated are based on periods set for public usage								SCHEDULE OF USE
Public Gathering			Mon	Tue	Wed	Thu	Fri	Sat	Sun		
Multipurpose Hall		60 -120							10:30am-12:30pm	The table shows that the public worship in the multipurpose hall is held at late morning spanning for only 2 hours weekly. The other uses are of very low noise level in nature, plus with only a limited number of occupants.	
Cry Room	14								10:30am-12:30pm		
Storage 1	19										
Storage 2	18										
Storage 3	11										
PA Room	6	2							10:30am-12:30pm		
Foyer	65								9am-10am		
Dining/Canteen	51								12:30pm-3pm		
Kitchen									12:30pm-2pm		
<b>Administration</b>											
Office		4		9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm	Most of the activities in the study block are at low noise level and is private in nature such as reading, group discussion, research, private meetings, administration works, bible study, prayer groups and counselling.	
Kitchenette				9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm		
Lounge				9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm		
Library Grd floor			9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm	9am-5pm		
Meeting 1	26										
Meeting/Study 2	12										
<b>Educational</b>											
Classroom 1	18	15-20 occupants out from the Multipurpose Hall No.							9:30am-2pm		
Classroom 2	26								9:30am-2pm		
Classroom 3	24								9:30am-2pm		
Classroom 4	19								9:30am-2pm		
Classroom 5	19								9:30am-2pm		
Classroom 6	19								9:30am-2pm		
<b>Amenities</b>											
Bedroom 1	11	1									
Bedroom 2	11	1									
Lounge/Kitchenette	30										
Bathroom											
Laundry	9										
<b>Ancillary</b>											
Male 1											
Male 2											
Female 1											
Female 2											
Accessible WC Unisex 1											
Accessible WC Unisex 2											
Cleaner											









STREET VIEW OF THE PROPOSED DEVELOPMENT FROM COMMERCIAL ROAD





STREET VIEW OF THE PROPOSED DEVELOPMENT FROM COMMERCIAL ROAD





AERIAL VIEW OF THE PROPOSED DEVELOPMENT





EXTERNAL VIEW OF THE PROPOSED DEVELOPMENT (STUDY / RESIDENTIAL BLOCK) FROM THE CAR PARK.





EXTERNAL VIEW OF THE PROPOSED DEVELOPMENT (COMMUNAL BLOCK) FROM THE CAR PARK.





INTERNAL VIEW OF THE COMMUNAL BLOCK MULTIPURPOSE HALL





INTERNAL VIEW OF THE COMMUNAL BLOCK MULTIPURPOSE HALL (TOWARDS THE COURTYARD AT BACKGROUND)





COURTYARD VIEW FROM THE PROPOSED COMMUNAL BLOCK FOYER SPACE





INTERNAL VIEW OF THE PROPOSED DINING ROOM (INTO THE COURYARD AT BACKGROUND)





INTERNAL VIEW OF THE STUDY BLOCK MEETING ROOM





INTERNAL VIEW OF THE STUDY BLOCK LIBRARY / LOUNGE / ADMIN SPACE







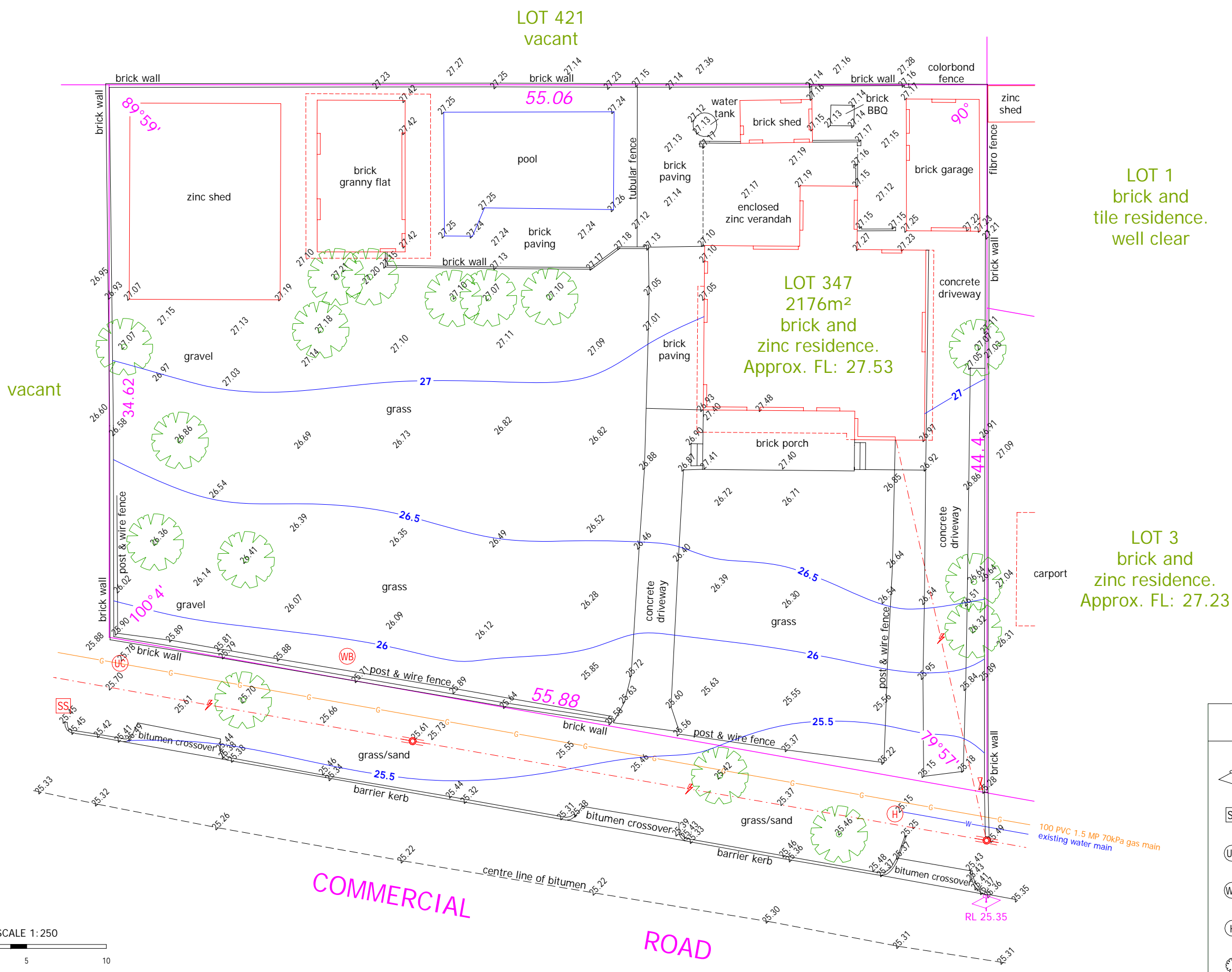
INTERNAL VIEW OF THE STUDY BLOCK LIBRARY ADJACENT TO COURTYARD 2





INTERNAL VIEW OF THE MEZZANINE LEVEL LIBRARY / STUDY AREA





### LEGEND

- |  |                       |
|--|-----------------------|
| Temporary benchmark, deck spike in bitumen RL 25.35m AHD | AHD height contour    |
| Street sign  | Spot height in metres |
| Underground cable  | Power pole            |
| Water bore   | Overhead power        |
| Hydrant  | Water meter           |
| Significant tree   |                       |

TBM deck spike in bitumen equals RL 25.35 AHD  
Based on Benchmark HR717 RL 24.726 AHD  
Contractor to check datum before adopting levels

**Note: Features are related to fence-lines only. No connection made to boundaries. REPEG RECOMMENDED**

Date: 20 NOVEMBER 2013  
Scale: 1:250@A3  
Client: Daniel Ong  
Position and depth of services to be confirmed on site by contractor

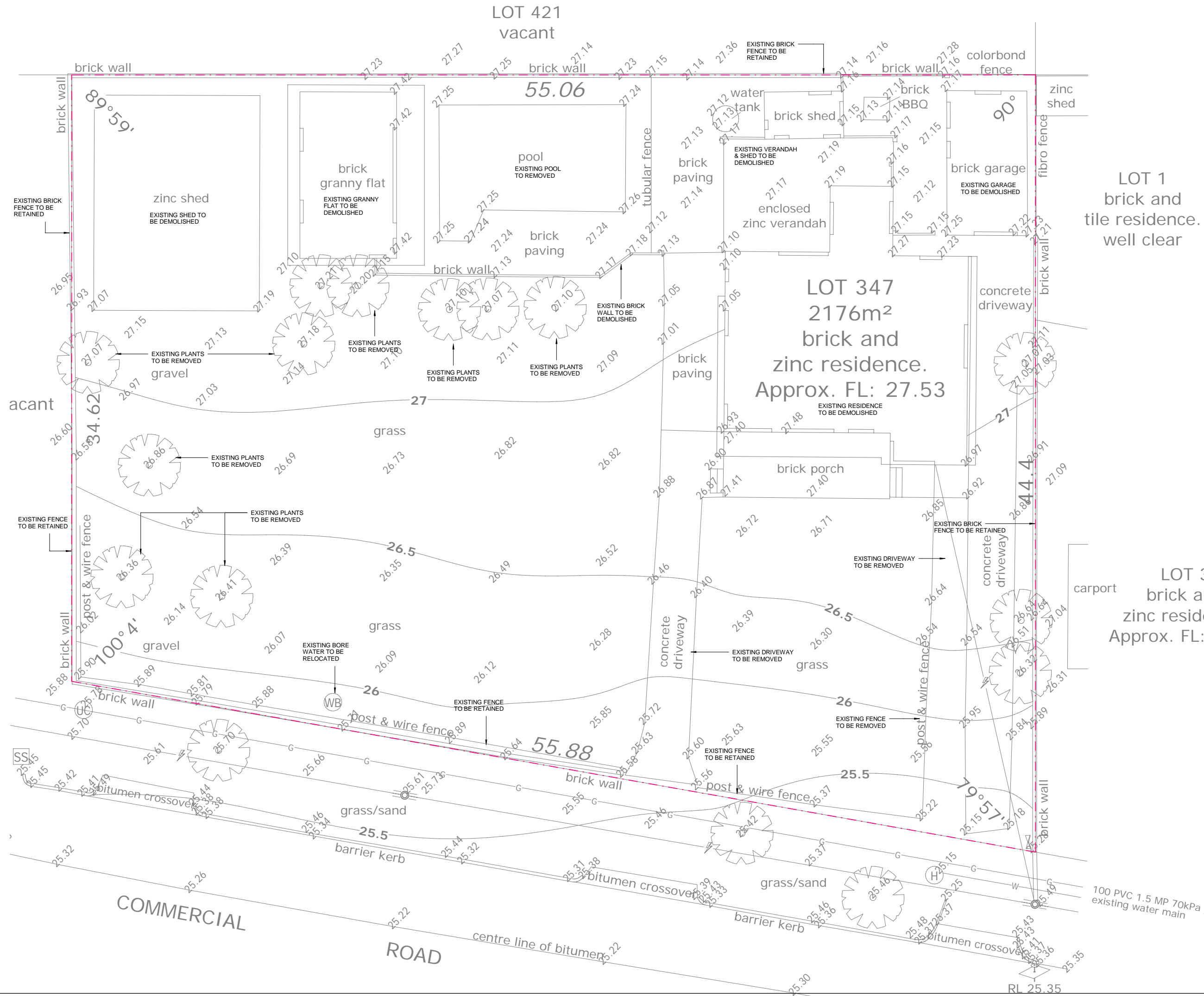


## FEATURE AND CONTOUR SURVEY OF LOT 347 ON DEPOSITED PLAN 222421 6 COMMERCIAL ROAD, FORRESTDALE our ref. 13/5217

Feature Survey by  
**THE LAND DIVISION**  
PLANNING | SURVEYING | DESIGN  
PO Box 4454,  
Myaree BC, WA 6960  
Tel 089 333 5700  
Fax 089 317 7023



NOTES:  
DO NOT SCALE FROM DRAWINGS  
VERIFY ALL DIMENSIONS ON SITE BEFORE  
COMMENCING WORK. COPY OR THE  
REPRODUCTION OF THIS DRAWING IS  
STRICTLY PROHIBITED WITHOUT THE CONSENT  
OF CARMELBPC INC.



LOT 1  
brick and  
tile residence.  
well clear

LOT 347  
2176m²  
brick and  
zinc residence.  
Approx. FL: 27.53

LOT 3  
brick and  
zinc residence.  
Approx. FL: 27.23

KEY PLAN



APPLICANT  
Carmel BPC  
ABN 28023366549  
6, Commercial Road  
Fornessdale  
Western Australia  
6112  
T +61 (0)8 9393 3515  
E carmelbpc@inet.net.au  
W www.carmelbpc.org.au

CLIENT  
Carmel Presbyterian Church

PROJECT  
DEVELOPMENT APPLICATION FOR A PLACE  
OF WORSHIP & FOR A CHANGE OF USE

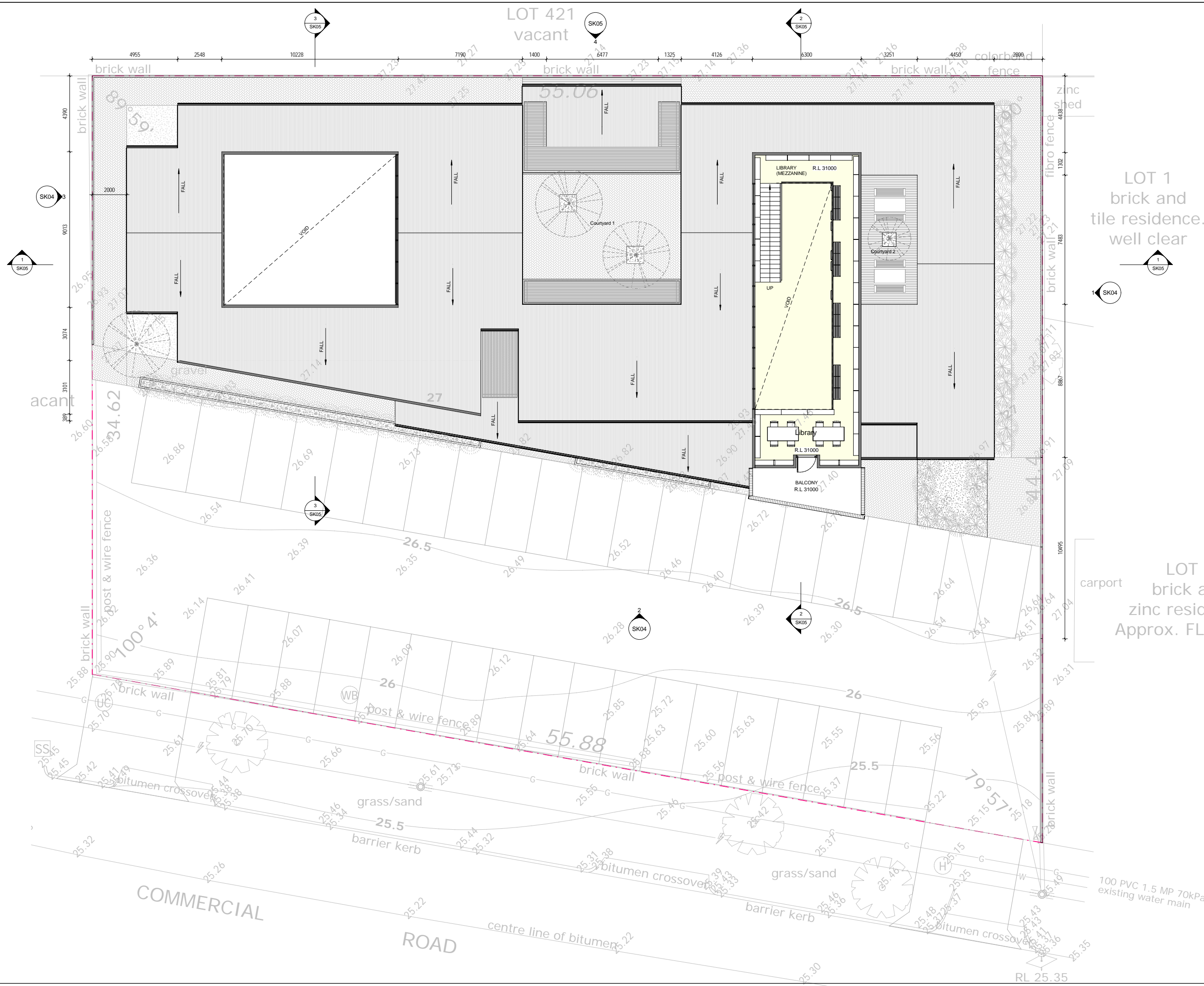
TITLE  
EXISTING SURVEY & DEMOLISHING PLAN

DATE DRAWN 08/03/2014	STATUS DA
DRAWN DO	PLOT DATE 11/04/2014 23:11:14
CHECKED Carmel	SCALE 1:200 (A3) 1:100 (A1)
APPROVED Approver	1 2 3 4m
PROJ N° 1401	STAGE [ ] ZONE [ ] DISCIPLINE [ ] DWG SER [ ] DWG NO [ ] REV [ ]
	SK00

© Copyright CarmelBPC INC



NOTES:  
DO NOT SCALE FROM DRAWINGS  
VERIFY ALL DIMENSIONS ON SITE BEFORE  
COMMENCING WORK. COPY OR THE  
REPRODUCTION OF THIS DRAWING IS  
STRICTLY PROHIBITED WITHOUT THE CONSENT  
OF CARMELBPC INC.



LOT 1  
brick and  
tile residence.  
well clear

LOT 3  
brick and  
zinc residence.  
Approx. FL: 27.23

Date	No.	Revision Description	Drawn	Check
KEY PLAN				

APPLICANT  
  
Carmel BPC  
ABN 28023360549  
6, Commercial Road  
Forrestfield  
Western Australia  
6112  
T +61 (0)8 9393 3515  
E carmelbpc@inet.net.au  
W www.carmelbpc.org.au



CLIENT  
  
Carmel Presbyterian Church

PROJECT  
  
DEVELOPMENT APPLICATION FOR A PLACE  
OF WORSHIP & FOR A CHANGE OF USE

TITLE  
  
MEZZANINE LEVEL

DATE DRAWN	STATUS	DA
DRAWN	PLOT DATE	11/04/2014 23:12:36
CHECKED	SCALE	1:200 (A3) 1:100 (A1)
APPROVED	1 2 3 4m	
PROJ N°	STAGE	ZONE DISCIPLINE DWG SER DWG NO REV
1401		SK03

© Copyright CarmelBPC INC



NOTES:  
DO NOT SCALE FROM DRAWINGS  
VERIFY ALL DIMENSIONS ON SITE BEFORE  
COMMENCING WORK. COPY OR THE  
REPRODUCTION OF THIS DRAWING IS  
STRICTLY PROHIBITED WITHOUT THE CONSENT  
OF CARMELBPC INC.

LOT 1  
brick and  
tile residence.  
well clear

LOT 3  
brick and  
zinc residence.  
Approx. FL: 27.23

Date	No.	Revision Description	Drawn	Check
KEY PLAN				

APPLICANT  
  
Carmel BPC  
ABN 28023366549  
6, Commercial Road  
Fornessdale  
Western Australia  
6112  
T +61 (0)8 9393 3515  
E carmelbpc@inet.net.au  
W www.carmelbpc.org.au



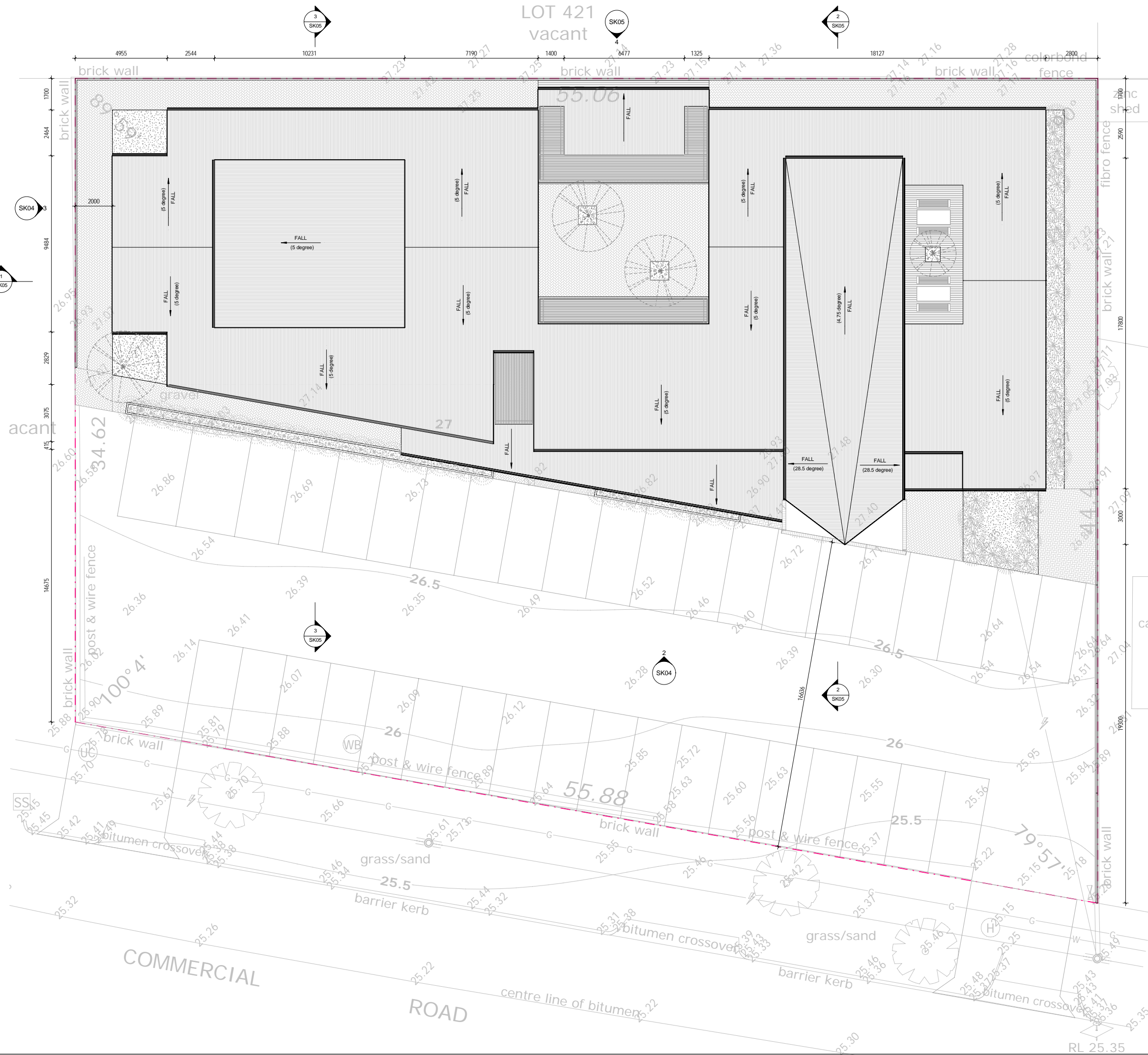
CLIENT  
  
Carmel Presbyterian Church

PROJECT  
  
DEVELOPMENT APPLICATION FOR A PLACE  
OF WORSHIP & FOR A CHANGE OF USE

TITLE  
  
SITE ROOF PLAN

DATE DRAWN	STATUS	DA
DRAWN	PLOT DATE	11/04/2014 23:11:34
CHECKED	SCALE	1:200 (A3) 1:100 (A1)
APPROVED	1 2 3 4m	
PROJ N°	STAGE	ZONE DISCIPLINE DWG SER DWG NO REV
1401		SK01

© Copyright CarmelBPC INC



NOTES:  
DO NOT SCALE FROM DRAWINGS  
VERIFY ALL DIMENSIONS ON SITE BEFORE  
COMMENCING WORK. COPY OR THE  
REPRODUCTION OF THIS DRAWING IS  
STRICTLY PROHIBITED WITHOUT THE CONSENT  
OF CARMELBPC INC.



LOT 1  
brick and  
tile residence.  
well clear

LOT 3  
brick and  
zinc residence.  
Approx. FL: 27.23

Date	No.	Revision Description	Drawn	Check
KEY PLAN				

APPLICANT  
  
Carmel BPC  
ABN 28023360549  
6, Commercial Road  
Forrestdale  
Western Australia  
6112  
T +61 (0)8 9393 3515  
E carmelbpc@inet.net.au  
W www.carmelbpc.org.au



CLIENT  
  
Carmel Presbyterian Church

PROJECT  
  
DEVELOPMENT APPLICATION FOR A PLACE  
OF WORSHIP & FOR A CHANGE OF USE

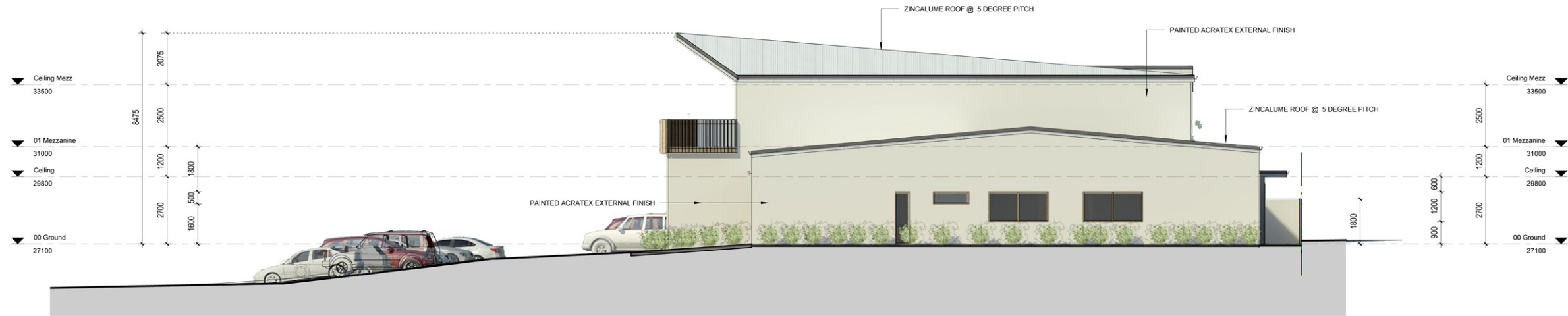
TITLE  
  
GROUND FLOOR PLAN

DATE DRAWN	STATUS	DA
DRAWN	PLOT DATE	11/04/2014 23:12:12
CHECKED	SCALE	1:200 (A3) 1:100 (A1)
APPROVED	1 2 3 4m	
PROJ N°	STAGE	ZONE DISCIPLINE DWG SER DWG NO REV
1401		SK02

© Copyright CarmelBPC INC



NOTES:  
DO NOT SCALE FROM DRAWINGS  
VERIFY ALL DIMENSIONS ON SITE BEFORE  
COMMENCING WORK. COPY OR THE  
REPRODUCTION OF THIS DRAWING IS  
STRICTLY PROHIBITED WITHOUT THE CONSENT  
OF CARMELBPC INC.



1 East Elevation  
SK00 1 : 100



3 West Elevation  
SK00 1 : 100



2 South Elevation  
SK00 1 : 100

Date	No.	Revision Description	Drawn	Check
KEY PLAN				

APPLICANT  
Carmel BPC  
ABN 2802336549  
6, Commercial Road  
Forrestvale  
Western Australia  
6112  
T +61 (0)8 9393 3515  
E carmelbpc@inet.net.au  
W www.carmelwa.org.au



CLIENT  
Carmel Presbyterian Church

PROJECT  
DEVELOPMENT APPLICATION FOR A PLACE  
OF WORSHIP & FOR A CHANGE OF USE

TITLE  
ELEVATIONS

DATE DRAWN	STATUS	DA
DRAWN 90	PLOT DATE	30/03/2014 20:56:34
CHECKED Checker	SCALE	1:200 (A3) 1:100 (A1)
APPROVED Approver	1	2 3 4 m
PROJ N°	STAGE	ZONE DISCIPLINE(DWG SER) DWG NO REV
1401		SK04



© Copyright CarmelBPC INC

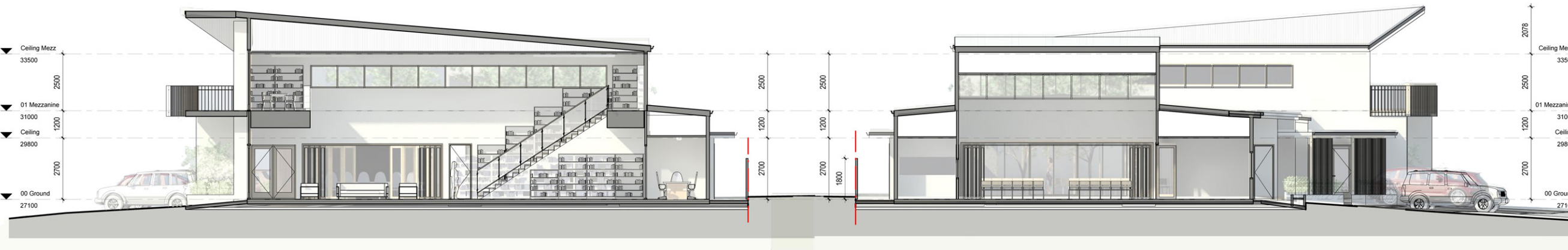
NOTES:  
DO NOT SCALE FROM DRAWINGS  
VERIFY ALL DIMENSIONS ON SITE BEFORE  
COMMENCING WORK. COPY OR THE  
REPRODUCTION OF THIS DRAWING IS  
STRICTLY PROHIBITED WITHOUT THE CONSENT  
OF CARMELBPC INC.



4 North Elevation  
SK01/ 1 : 100



1 Section A  
SK01/ 1 : 100



2 Section B  
SK01/ 1 : 100

3 Section C  
SK01/ 1 : 100

Date	No.	Revision Description	Drawn	Check
KEY PLAN				

APPLICANT

Carmel BPC  
ABN 2802336549  
6, Commercial Road  
Forrestdale  
Western Australia  
6112  
T +61 (0)8 9393 3515  
E carmelbpc@inet.net.au  
W www.carmelwa.org.au



CLIENT

Carmel Presbyterian Church

PROJECT

DEVELOPMENT APPLICATION FOR A PLACE  
OF WORSHIP & FOR A CHANGE OF USE

TITLE

ELEVATIONS & SECTION

DATE DRAWN	STATUS	DA
DRAWN	PLOT DATE	30/03/2014 20:56:55
CHECKED	SCALE	1:200 (A3) 1:100 (A1)
APPROVED	1 2 3 4 m	
PROJ N°	STAGE	ZONE DISCIPLINE (DWS SER) DWG NO REV
1401		SK05

© Copyright CarmelBPC INC