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DOOLEYS

LIDCOMBE CATHOLIC CLUB

Flood Assessment Report

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1 Glossary

ARI	Average Recurrence Interval
AEP	Annual Exceedance Probability
AHD	(Australian Height Datum) National Survey datum corresponding to approximate mean sea level. It is used for measuring surface elevation.
DA	Development Application
DECC	Department of Environment and Climate Change
RAFTS	a computer software package capable of 1D hydrologic analysis software used to model catchments peak flows
HEC-RAS	a computer software package capable of 1D hydraulic analysis software used to model overland flow
Ha	Hectare (10,000m ²)
FFL	Finished Floor Level (typically a internal building level)
Flow	(also known as flow rate) is the volume of water per time period. Typical units are m ³ /s or L/s
Freeboard	the height difference between flood water surface level and a given surface level (normally a floor level)
FWL	Flood Water (Surface) Level
Hydraulic	area of applied science and engineering that deals with the behaviour of fluids flowing around surfaces and objects (such as rivers, channels and urban drainage systems)
Hydrograph	A graph showing how a hydrologic/hydraulic element (such as a catchment, overland flow, pipe flow, channel/river etc) flow changes with time
Hydrologic	scientific study of movement and distribution of water on a surface
LPI	Department of Land and Property Information
RL	Reduced Level (surface elevation)
Sheet Flow	overland flow of water taking the form of a shallow, continuous surface. The flow is spread and not concentrated (channel flow).
Topography	the shape of the surface features of the land
Velocity	measure of the speed and direction of the water flow. Typical units are m/s.

2 Executive Summary

Bonacci Group NSW Pty Ltd has been engaged by Dooleys Lidcombe Catholic Club to carry out a flood assessment for the proposed redevelopment of the Lidcombe Catholic Club site located at the intersection of John Street and Church Street. The subject site is located within the local government area (LGA) of Cumberland City Council, which was formerly known as Auburn City council. The site is situated within Haslams Creek Catchment, which is approximately seventeen kilometres in area and located in the Sydney Metropolitan suburbs of Lidcombe, Auburn and Berala. This report addresses Stage 1 of the proposed redevelopment.

The proposed development incorporates the construction of a 12 storey tower above a two storey podium with two levels of basement car parking. A five storey above ground multi deck parking building is to be located at the north eastern corner of the site (This also includes the construction of three vehicular access ramps into the building from Olympic Drive, Ann Street and Church Street with an internal access road from Board Street to Church street). The entrance from Olympic Drive will provide cut within the floodplain storage, providing extra storage within the floodplain. There are no infill activities within the floodplain as part of the proposed development. Stage 1 of the development is limited to the construction of the above ground multi deck car park, Bulk earthworks for 2 levels of basement, site establishment and infrastructure preparation works.

This flood assessment has been prepared in accordance with the requirements detailed in *Haslams Creek Floodplain Risk Management Study and Plan, January 2003 by Bewsher Consulting Pty Ltd for Auburn City Council*.

The Flood levels and Flood planning levels are extracted from *Haslams Creek Floodplain Risk Management Study and Plan, January 2003 by Bewsher Consulting Pty Ltd*. A revised flood study is currently being prepared for Council – the results of which are not yet available.

The current flood study specifies that the 100 year (1% AEP) storm event flood levels and flood planning levels across the proposed site are 11.2m AHD and 11.7m AHD.

According to Haslams Creek Floodplain Risk management Study and plan, the subject site envelope is located within the “Low Flood Risk Precinct” and does not encroach within the existing 100 year flood extent. The proposed development requires an evacuation plan for the PMF storm event (This is not applicable for stage 1 of the development).

In storm events greater than 100 year ARI, the site can be evacuated if required through Board Street and Ann Street towards John Street. The crest of the basement car park from Olympic Drive is set at 11.7m AHD, which is below the PMF flood level (13.8m AHD). In the event of the basement being flooded, a warning system should be provided in order to allow people to assemble and escape to the ground floor (FFL 16.5m AHD) for safety (This is not applicable for stage 1 of the development).

3 Introduction

Bonacci Group NSW Pty Ltd has been engaged by Dooleys Lidcombe Catholic Club to provide a Flood Assessment Report for the proposed redevelopment of the Lidcombe Catholic Club Stage 1. The proposed site is located at the intersection of Olympic Drive and Church Street. The subject site is located within the Haslams Creek catchment which run along the western boundary of the site and located approximately 157m from Haslams Creek and Church Street bridge junction. The locality sketch of the site is shown in Figure 3.1 below.

The Objectives of this Flood Assessment Report is to ensure that the Stage 1 redevelopment of Dooleys Lidcombe Catholic Club does not have any the impact to existing flood extent or neighbouring properties. This flood assessment report also covers the following:

- To ensure that the proposed development is compatible with the flow regime of the waterway and does not affect the existing flood extent up to and including 100 year ARI Storm events
- To ensure that the proposed development maintains the Flood Planning Levels provided in *Haslams Creek Floodplain Risk Study and Plan, January 2003 by Bewsher Consulting Pty Ltd* on behalf of *Auburn City Council*.
- To assess any Flood Risk associated with the proposed redevelopment
- To ensure that proposed development complies with the Proposed Planning Matrix for the Haslams Creek Catchment extracted from *Haslams Creek Floodplain Risk Study and Plan, January 2003 by Bewsher Consulting Pty Ltd*
- To provide a Flood Evacuation plan of the Stage 1 development.



Figure 3.1: Locality Sketch (Source: Google Map)

4 Site Description

4.1 Local and Regional Context

The proposed site sits within Haslams Creek Catchment which is located in the Sydney metropolitan suburbs of Lidcombe, Auburn and Berala. The subject site is bordered by Olympic Drive to the west, Church Street to the south, John Street to the east and Ann Street to the north. Apex reserve is located to the western boundary of the site, which is part of the existing floodplain only for the PMF storm event. The main western Railway, Church Street and Olympic Drive junction act as an overland flow path (floodplain) up to and including 100 year ARI storm events.

The existing site is currently used as a car park and for residential purposes. It appears as though there are no water quality or quantity measures provided for the existing residential areas. An on-site detention tank is located in the existing car park. The topography of the existing site is such that, the existing car park area drains to south west corner to low points and drain via the on-site detention tank to stormwater pits located adjacent to the site. The stormwater peak flows from upstream north eastern catchment drains through council's stormwater trunk drainage system with any excess flow travelling overland along Board Street to Olympic Drive.

The existing residential buildings located on the northern side of the site drain towards Ann Street to Olympic Drive, and eventually drain to Haslams Creek located within Wyatt Park.

The catchment plan showing Haslam Creek catchment and the envelope of the subject site is shown in catchment plan provided in **Appendix A**.

4.2 The Proposed Development

The proposed site will be used for commercial purposes. The proposed redevelopment of the Dooley's – Lidcombe Catholic Club is divided into two phase. This report only addresses Stage 1 redevelopment.

The redevelopment incorporates the construction of a 12 storey building (proposed for club and hotel tower above the podium with 260 rooms) above a two storey podium (includes club facilities and other facilities associated with the proposed hotel; including conferencing, food and beverage and gym) and two levels of basement car parking located within the existing car park area of the site. This also includes decommission of the existing residential building and construction of a five storey above ground multi deck parking building located north eastern corner of the subject site. This redevelopment also includes internal road access and connection points to surrounding road networks (entrance from Church Street, Olympic Drive and respectively Ann Street) as per Architectural Drawings for access into proposed building.

The Stage 1 redevelopment incorporates the construction of above ground multi deck car park, bulk earthworks for 2 levels of basement; site establishment and infrastructure preparation works. The Architectural site plan for the site is shown in Figure 4.1 below.

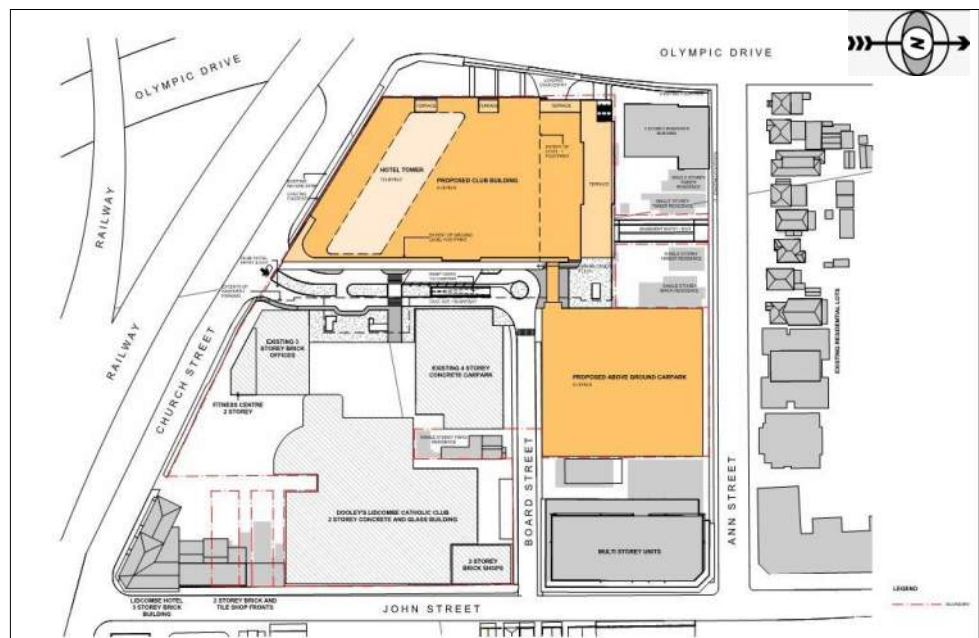


Figure 4.1: Architectural Site Plan (The Proposed Development for Dooley's Lidcombe Catholic Club)

As per the Architectural site plan, there is no filling within the existing floodplain which is located within Apex Reserve to the western boundary of the site. The construction of the vehicular crossing for entry into the building from Olympic Drive will slightly increase the floodplain storage (cut in existing floodplain) up to and including PMF storm events.

Architectural ground floor plan for the club hotel is shown in Figure 4.2 below.



Figure 4.2: Architectural Ground Floor Plan for Club Hotel

Overall Architectural site plan and club hotel ground floor plan is provided in Appendix A.

5 Flood Study

5.1 Flood Study Source Information

The proposed site is located within Haslams Creek catchment which eventually drains to Haslams Creek downstream. The flood study information regarding flood levels, flood risk, flood maps and proposed planning matrix for the Haslams Creek catchment are extracted from *Haslams Creek Floodplain Risk Study and Plan, January 2003 by Bewsher Consulting Pty Ltd prepared for Auburn City Council*

5.2 Catchment

The subject site is located within the Haslams Creek catchment which is approximately seventeen square kilometres in area. The land use of the catchment is mainly residential with isolated industrial and commercial land use. Rookwood Cemetery (located on the south eastern side of the catchment) also forms part of Haslams Creek catchment, and divides the Cooks River and Haslams Creek catchments.

Upstream of Brixton Street to upstream of Parramatta Road, Haslams Creek is generally a concrete lined channel. From Parramatta Road to the M4 Motorway, the Creek has an unlined invert and concrete lined banks.

The trunk drainage system for the catchment includes various stormwater channels and trunk drainage systems which discharge to Haslams Creek. The most of the trunk drainage system including Haslams Creek itself is under the control of Sydney Water Corporation (SWC).

The proposed site is located downstream of the Main Western Railway which is a confluence point of Joseph Street branch and Haslams Creek (Church Street Bridge). The site is approximately 1.5ha in area and drains to the stormwater system located within Olympic Drive (existing scenario). The stormwater from the subject site eventually drains to Haslams Creek through trunk drainage systems located within Olympic Drive which connect to drainage infrastructure in Wyatt Park.

There are various waterway structures (culverts and bridges) located within Haslams Creek which constraint the peak flows.

The Haslams Creek catchment plan extracted from *Haslams Creek Floodplain Risk Study and Plan, January 2003 by Bewsher Consulting Pty Ltd* is provided in **Appendix B**.

5.3 Flood Analysis

The hydrology of the Haslams Creek Catchment flood study was established using RAFTS hydrological model whereas the hydraulic analysis was obtained using a HEC-RAS model.

The methodology adopted for the hydrological and hydraulic analysis of Haslams Creek is described in **Section 4 - Haslams Creek Floodplain Risk Study and Plan, January 2003** by Bewsher Consulting Pty Ltd.

The hydraulic models were incorporated 50% blockage of conduits within the Haslams Creek catchment. The outcomes of the Haslams Creek flood analysis were as follows.

- The adoption of a 50% Conduit Blockage Policy, that should be used by Council for all future development assessments and amendments to flood conditions defined in the 1999 flood study and Flood Study Addendum reports
- The definition of a new set of design flood levels that should be used by Council for all future development assessments

The flood levels and planning levels observed in *Haslams Creek Floodplain Risk Study and Plan, January 2003* are taken into account and maintained for the proposed redevelopment of Dooleys Catholic Club. The flood level and planning level for the subject site is provided in **Section 6.1**.

5.4 Reference

The following documents have been referred to as part of this flood assessment report:

- *Haslams Creek Floodplain Risk Management Study and Plan, January 2003* by Bewsher Consulting Pty Ltd
- *Review of Haslams Creek Flood Studies, 1996* by Bewsher Consulting Pty Ltd
- *Haslams Creek Flood data Collection, 1999* by bewsher Consulting Pty Ltd
- *Haslam Creek Flood Study Addendum, 1999* by Bewsher Consulting Pty Ltd
- *Flood Warning – An Australian Guide, 1995* by Emergency Management Australia

- *Floodplain Development Manual, 2005 by New South Wales Government*
- *Floodplain Management Manual; the Management of Flood Liable land, January 2001 by New South Wales Government*

6 Flood Assessment

The proposed site is located adjacent to the Church Street Bridge on Haslams Creek, which is a confluence point of Joseph Street Branch and Haslams Creek. This location is identified in the Bewsher Report, with the adopted flood levels and flood planning levels for the subject site based on the Floodplain Cross-sections used for hydraulic modelling in **Section 4.2.2 - Haslams Creek Floodplain Risk Study and Plan, January 2003 by Bewsher Consulting Pty Ltd.**

The existing Church Street Bridge is 19.5 m² in open waterway area. HEC-RAS section **1171** has been adopted for the Flood level and Flood planning levels for the site (being conservative and taken into consideration higher flood levels for the proposed development).

The cross sections provided in the hydraulic model are shown in **Figure 6.1** below (also showing the footprint of the site).

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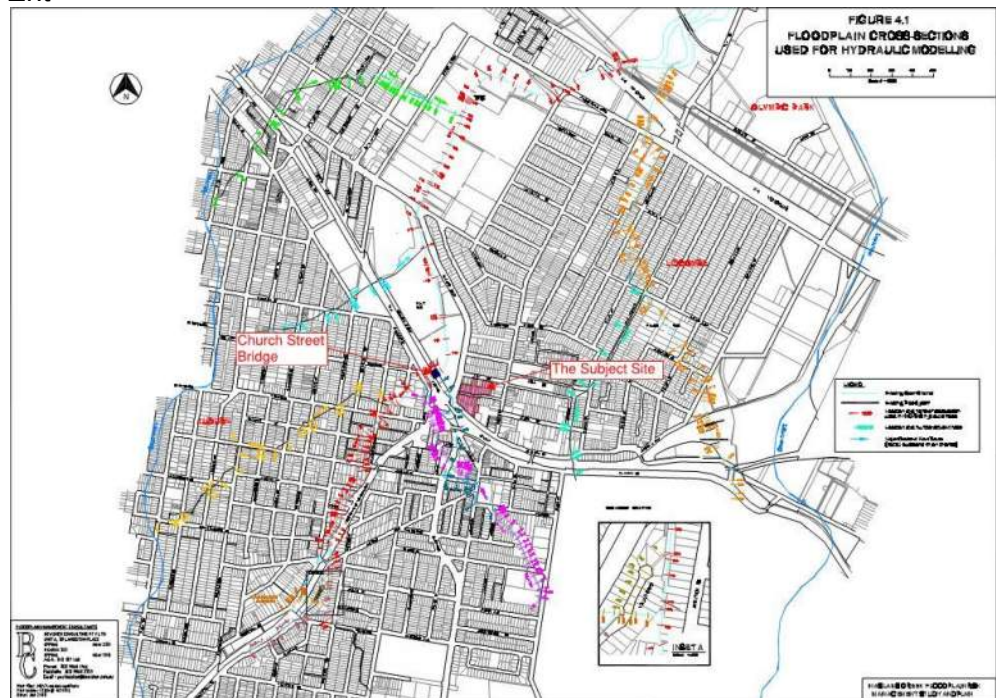


Figure 6.1: HEC-RAS Sections adopted from Haslams Creek Floodplain Risk Management Study and Plan, January 2003 by Bewsher Consulting Pty Ltd

6.1 Flood Levels and Flood Planning Levels

The 100 year ARI and PMF flood levels for Section **1171** is provided in tabular format below (extracted from *Haslams Creek Floodplain Risk Study and Plan, January 2003* by Bewsher Consulting Pty Ltd.)

Table 6.1: Flood Level and Flood Planning Levels for the site

Location	HEC-RAS Section	Flood Levels (mAHD)				100 YR ARI Flood Planning Level (mAHD)
		5 Year ARI	20 Year ARI	100 Year ARI	PMF	
Upstream of Church Street Bridge	1171	10.4	10.8	11.20	13.80	11.70

According to *Haslams Creek Floodplain Risk Study and Plan* (January 2003), 50% conduit blockage requirement and revised design flows for storm events up to and including the PMF were adopted for the flood study.

It is also evident that floodwater gets diverted upstream of Lidcombe Regents Park Railway and downstream of James Street, which is part of the Joseph Street branch (just upstream of the subject site) due to the 50% conduit blocked scenario. The flood waters then flow to the north eastern side of the site, towards a low point located within Olympic Drive and flood the junction of Olympic Drive and Church Street (western and southern boundary of the subject site) during the 20 year, 100 year and PMF storm events.

The flood maps and flood hazards for Haslams Creek extracted from *Haslams Creek Floodplain Risk Study and Plan, January 2003* are provided in **Appendix C**.

The flood planning level for the subject site is taken as 0.5m freeboard to 100 year storm event flood level, which provides flood protection for the site up to and including 100 year ARI storm events (In accordance with *Floodplain Development Manual, April 2005* by NSW Environment and Heritage).

6.2 Design Building Levels

The proposed site redevelopment incorporates the construction of a 12 storey tower above a two storey podium and two levels of basement car parks. The 12 storey will be used for hotel and club facilities. The two storey podium contains club facilities and facilities associated with the proposed hotel, conference facility, food and beverage and gym. The lower two basement will be used for car parking facilities.

The proposed above ground multi deck car park is located above the PMF level (minimum floor level greater than RL 16m AHD).

The proposed ground floor level is 16.5m AHD which is well above the flood planning level (11.7m AHD) noted in **Table 6.1**. The proposed site has three vehicular entrances from Olympic Drive, Church Street and Ann Street.

The crest of the entrance ramps from Olympic Drive and Church Street are set at 11.7m AHD which provides a minimum 0.5m freeboard to the 100 year ARI flood level. Subsequently, the entrance from Ann Street (crest 14.54m AHD) is well above the 100 year and PMF flood level.

There is a pedestrian access entrance fronting Olympic Drive. The entrance is set at 13.07mAHD (existing surface level) at the boundary of the site which has approximately 1.87m freeboard to the 100 year ARI flood level. The stairs are located at the entrance to provide access to ground floor (FFL 16.5mAHD).

Overall, the proposed site has flood protection up to and including 100 year ARI storm events. The proposed site plan and typical section across the site with flood levels are provided in **Appendix D**.

It is also observed that the flood level for PMF storm events is 13.8m AHD which is higher than the driveway crest level from Olympic Drive. The lowest basement car park will be subject to flooding due to PMF storm, events. But this does not require any flood proofing of the Building and structural components which is discussed in Section 6.3. As this applies to the main building, it is not relevant to stage 1 works.

Since the lowest basement of the club hotel is subject to flooding during PMF storm events, a warning system and evacuation plan (provided in Section 6.4) for the site is revised to allow people to travel from the basement to the ground floor.

The Stage 1 works will not be affected by the PMF, as the construction of above ground multi deck car park and excavation of existing car park (Assuming retention of level at the boundary to Olympic Drive). The flood evacuation plan and basement warning system does not apply to Stage 1 of the redevelopment.

6.3 Flood Impact

The flood extent map for Haslams Creek Catchment is shown in Figure 6.2 below. This shows the 100 year ARI and PMF flood extents, in addition to existing terrain and trunk drainage systems.

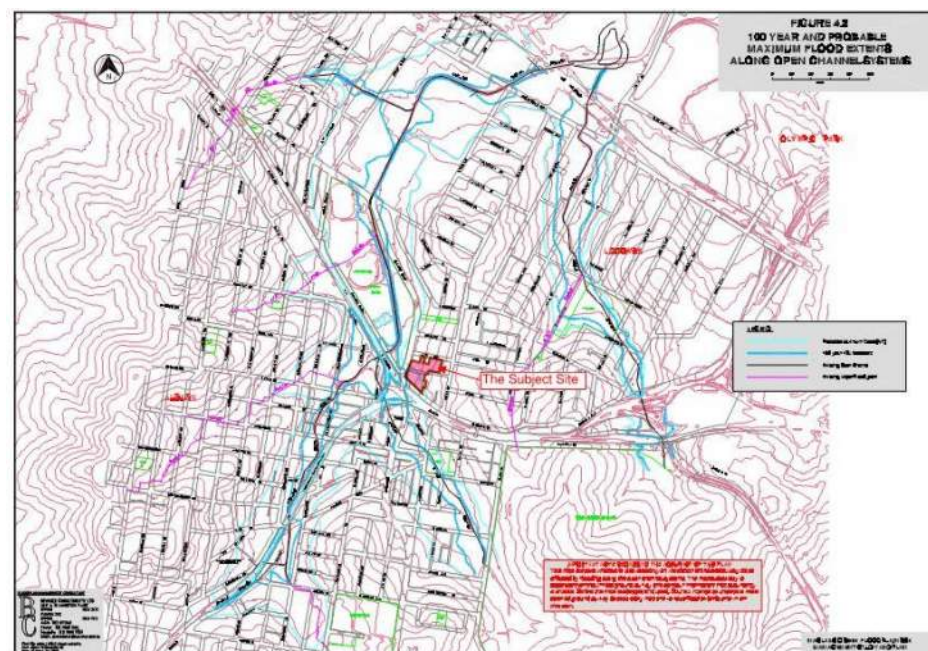


Figure 6.2: Flood extents for 100 year ARI and PMF (Source: *Haslams Creek Floodplain Risk Study and Plan, January 2003*)

From Figure 6.2, it is observed that the subject site does not encroach into the existing 100 year ARI flood extent. Any redevelopment of the site will not have any adverse impact to the existing floodplain or neighbouring properties (this is applicable for both Stage 1 and future stages of redevelopment).

As part of the proposed development, there is also no filling within floodplain storage area, which ensures that there is no impact on flood regimes or floodplain storage.

In accordance with *Haslams Creek Floodplain Risk Management Study and Plan*, the flood extent may change due to an increase in peak flow to Haslams Creek. The water sensitive urban design (WSUD) measures proposed for the redevelopment will restrict the peak flows leaving the site (Refer to **202171802-C DA** WSUD Report). There will be a slight increase in waterway storage available as a result of the proposed redevelopment, as some filling adjacent to Olympic Drive is removed to allow access to the site. Therefore, the proposed development does not have any impact on the existing flood levels up to and including PMF storm events.

The Flood Risk Precinct for the Haslams Creek is provided in Figure 6.3 below which are extracted from *Haslams Creek Floodplain Risk Study and Plan*, January 2003.

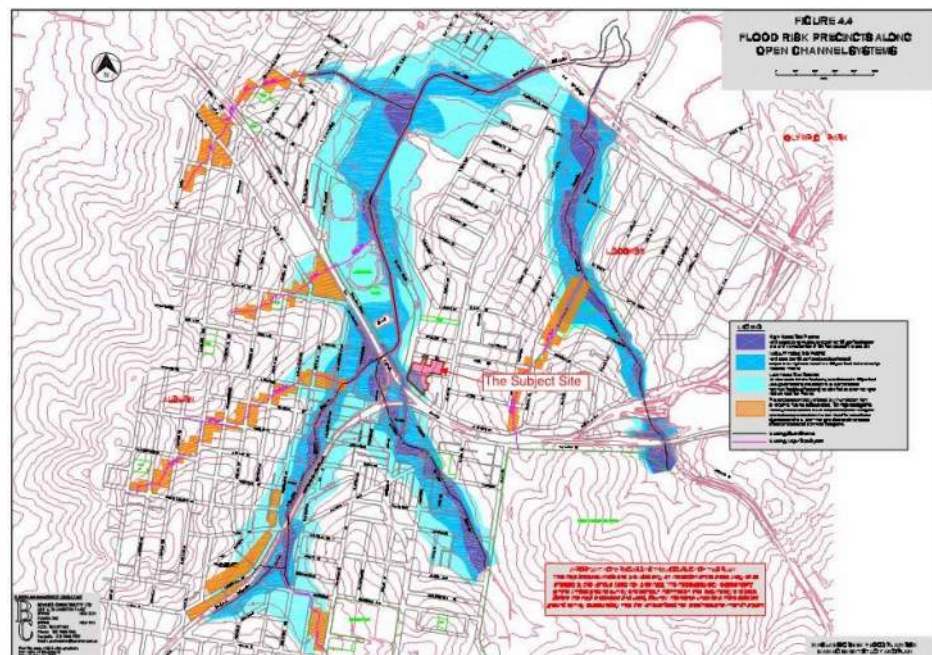


Figure 6.3: Flood Risk Precinct for Haslams Creek Catchment (Source: *Haslams Creek Floodplain Risk Study and Plan*, January 2003).

It is observed from above that, the subject site is partially located within “Low Flood Risk Precinct”. Only the western and south western corner is subjected to partial flooding for storm events greater than 100 year ARI. The subject site has flood protection up to and including 100 year ARI events.

The proposed development is used for “Commercial” purposes. In accordance with proposed Planning Matrix for the Haslams Creek

Floodplain, since the site is located within the low flood risk precinct, it does not require any flood proofing of building and structural components. A flood evacuation plan for the proposed site is required (either on site or offsite management of flood evacuation).

The Proposed Planning Matrix for the Haslams Creek Floodplain is shown in Figure 6.4 below.

TABLE 8.4: PROPOSED PLANNING MATRIX FOR THE HASLAM'S CREEK FLOODPLAIN
(Also applies to Duck River and Cooks River Floodplain in interim - subject to review)

	Flood Risk Precincts (FRP's)													
	Low Flood Risk				Medium Flood Risk				High Flood Risk					
	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development
Planning Consideration														
Floor Level	5							2,3,4	2,3	1	6			1, 2,6
Building Components	2							1	1	1	1			1, 1
Structural Soundness	3							2	2	2	2			1, 1
Flood Affection	2							1	2	2	2			1, 1
Evacuation	2,4 *	3,4	4					*	3,4	3,4	1	3		1, 3
Management & Design	1,2,3	1						1	2,3,5	2,3,5	2,3,5			2,3,5

 Not Relevant
 Unsuitable Land Use
 * Refer to 'Management & Design' planning consideration for subdivision.

Note: Filing of the site, where acceptable to Council, may change the FRP considered to determine the controls applied in the circumstances of individual applications.

Floor Level

- All Floor Levels to be equal to or greater than the 5 year ARI flood level plus freeboard unless justified by site specific assessment.
- Floor levels of open car parking areas to be equal to or greater than the 20 year ARI flood. This may be achieved with a suspended floor which allows the continued passage of flood waters or filling if justified by a site specific assessment, as required with reference to "Flood Affection" and other controls below. Enclosed car parking (eg. garages or basement car parking) must be protected from the 100 year ARI flood.
- Habitable floor levels to be equal to or greater than the 100 year ARI flood plus freeboard.
- Below ground swimming pools should be free from inundation from storms up to the 5 year ARI. Where required, the private open space of a dwelling should be a useable outdoor recreation area which, during storm events equal to less than the 5 year ARI, is free from inundation by overland flows exceeding 50 mm.
- All Floor Levels to be equal to or greater than the PMF flood plus freeboard.
- Floor levels to be as close to the design floor level (the level nominated above that would apply if not "concessional development") as practical & no lower than the existing floor level when undertaking alterations or additions.

Note: The freeboard height in the Haslams Creek floodplain is variable primarily, due to the implications of sub-critical and super-critical flows caused by obstructions to the flowpath of flood waters, and can be determined by reference to a map and tables produced as part of the Haslams Creek FRMP and held in the offices of Council. The freeboard height for the Duck River and Cooks River floodplains is 0.5m.

Building Components & Method

- All structures to have flood compatible building components below or at the 100 year ARI flood level.
- All structures to have flood compatible building components below or at the PMF level.

Structural Soundness

- Engineers report to certify that any structure can withstand the forces of floodwater, debris & buoyancy up to & including a 100 year flood.
- Applicant to demonstrate that any structure can withstand the forces of floodwater, debris & buoyancy up to & including a 100 year flood.
- Applicant to demonstrate that any structure can withstand the forces of floodwater, debris & buoyancy up to & including a PMF flood.

Flood Affection

- Engineers report required to certify that the development will not increase flood affection elsewhere.
- The impact of the development on flooding elsewhere to be considered.

Note: When assessing flood affection the following must be considered:

- Loss of storage area in the floodplain (except for filling occurring up to the 20 year ARI).
- Changes in flood levels caused by alteration of conveyance of flood waters.
- Filling between the 20 year and 100 year ARI flood levels will not be permitted.

Evacuation

- Reliable access for pedestrians required during a 5 year ARI flood.
- Reliable access for pedestrians and vehicles required during a PMF flood.
- Reliable access for pedestrians or vehicles is required from the dwelling, commencing at a minimum floor level equal to the lowest habitable floor level to an area of refuge above the PMF level, either on-site or off-site.
- Applicant to demonstrate that the development is to be consistent with any relevant DISPLAN or flood evacuation strategy.

Management & Design

- Applicant to demonstrate that potential development as a consequence of a subdivision proposal can be undertaken in accordance with this Plan.
- Site Emergency Response Flood plan required (except for single dwelling-houses) where floor levels are below the design floor level.
- Applicant to demonstrate that area is available to store goods above the 100 year flood plus 0.5m (freeboard).
- Applicant to demonstrate that area is available to store goods above the PMF flood plus 0.5m (freeboard).
- No external storage of materials below the design floor level which may cause pollution or be potentially hazardous during any flood.

Figure 6.4: Proposed planning Matrix for the Haslams Creek Floodplain (Source: Haslams Creek Floodplain Risk Study and Plan, January 2003).

Overall, the proposed site maintains all the requirements of the Council's floodplain risk management studies and plans and is compatible with the flood hazards. Since the proposed site is outside the 100 year ARI flood extent and falls partially within low flood risk precinct, there is no flood affectation to the adjacent properties. There are no flooding associated social or economic impacts to the community.

6.4 Flood Evacuation

The flood evacuation procedures of the proposed redeveloped could consist of the following:

- Building lockdown
- Evacuate building east along the building perimeter (through Board Street) or evacuate north (through Ann street) through the proposed internal access from club hotel lowest basement

The finished floor levels are above the 1% AEP flood levels, which would allow a building lockdown procedure to be initiated. Evacuation of the building could be commenced once the surrounding flood waters have subsided. The floodwaters may enter into basement B2 during storm events greater than 100 year ARI (specifically the PMF storm event) through the entrance ramp from Olympic Drive. A flood warning system could be installed to initiate warning procedures as well as evacuation procedures.

If deemed safe by the building's chief emergency warden and rescue personal, the building occupancy could be evacuated either by:

- travelling east along the building perimeter using Board Street towards John Street and through northern internal access road connected to Ann street

Both evacuation routes are free of the flood hazard classification. The Evacuation plan is provided in **Appendix E**.

This is not applicable to Stage 1 of the redevelopment.

7 Conclusions

This flood assessment has been carried out in accordance with Haslams Creek Floodplain Risk Management Study and plan by Bewsher Consulting Pty Ltd which has been prepared for Auburn Council. It maintains all the requirements in accordance with Council's flood study and plan for the catchment within which the site sits.

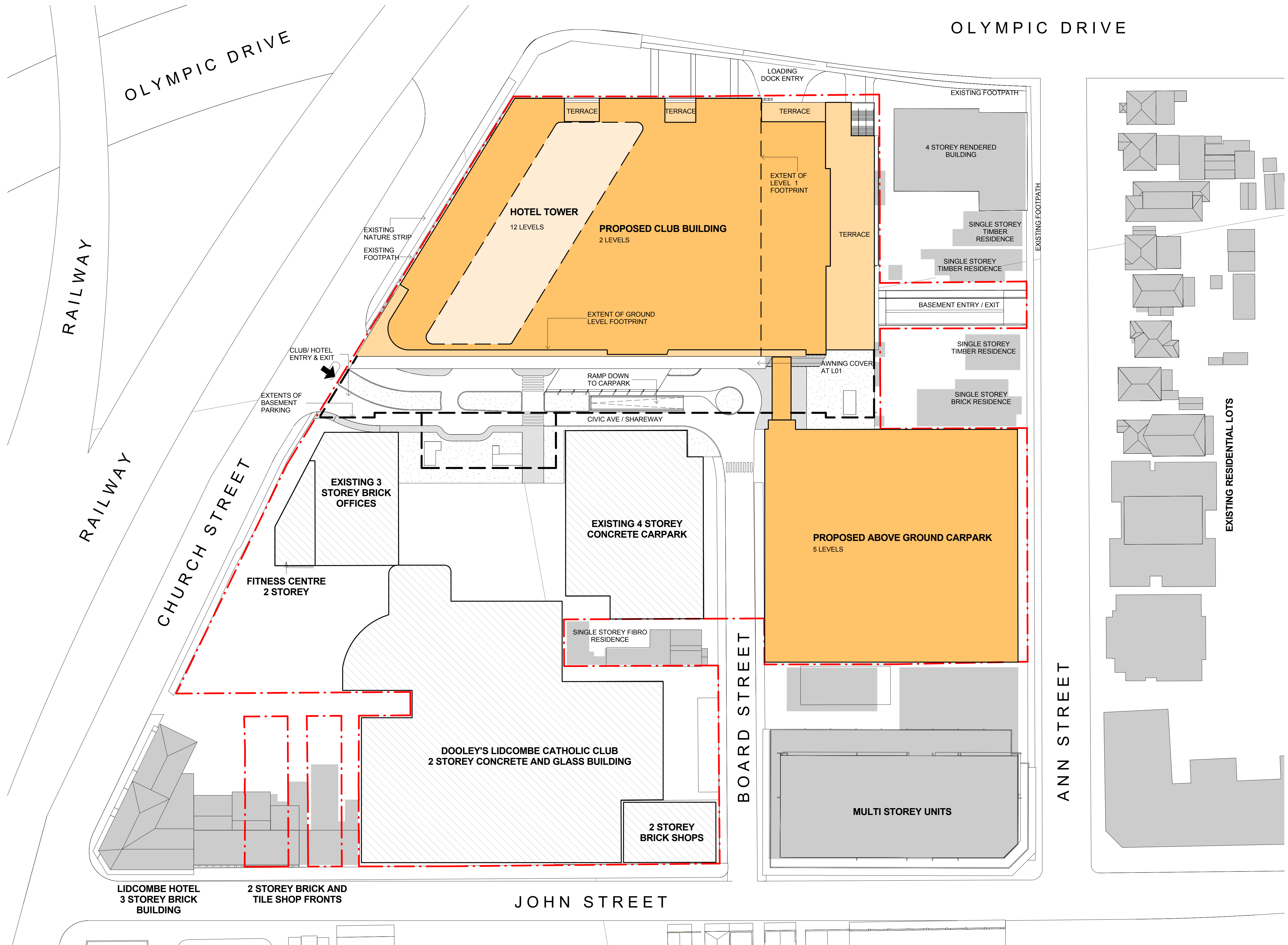
The proposed building levels have a minimum 0.5m freeboard to 100 year ARI storm events which makes the proposed site envelope flood protected up to and including 100 year ARI events. This flood assessment also concludes that there is no social or financial impact to the community.

Since there is no filling activities or encroachment within the 100 year flood extents, there is no flood affectation to the existing flood regimes, floodplain storage or adjacent properties.

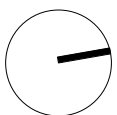
The proposed development complies with all criteria which need to be fulfilled in accordance with the proposed planning matrix for the Haslams Creek floodplain catchment within which the site sits.

Appendix A – Architectural Site Plan and Ground Floor Plan for Club Hotel

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LEGEND
- - - - - BOUNDARY



NSW Nominated Architects
© Parsons Architect No 80288
© Jones Architect No 4778
A Rose Architect No 3067

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LEGEND

	GAMING	1988m ²
	FOOD & BEVERAGE	1882m ²
	CONFERENCE	446m ²
	ENTRY	951m ²
	HOTEL	526m ²
	PLANT	

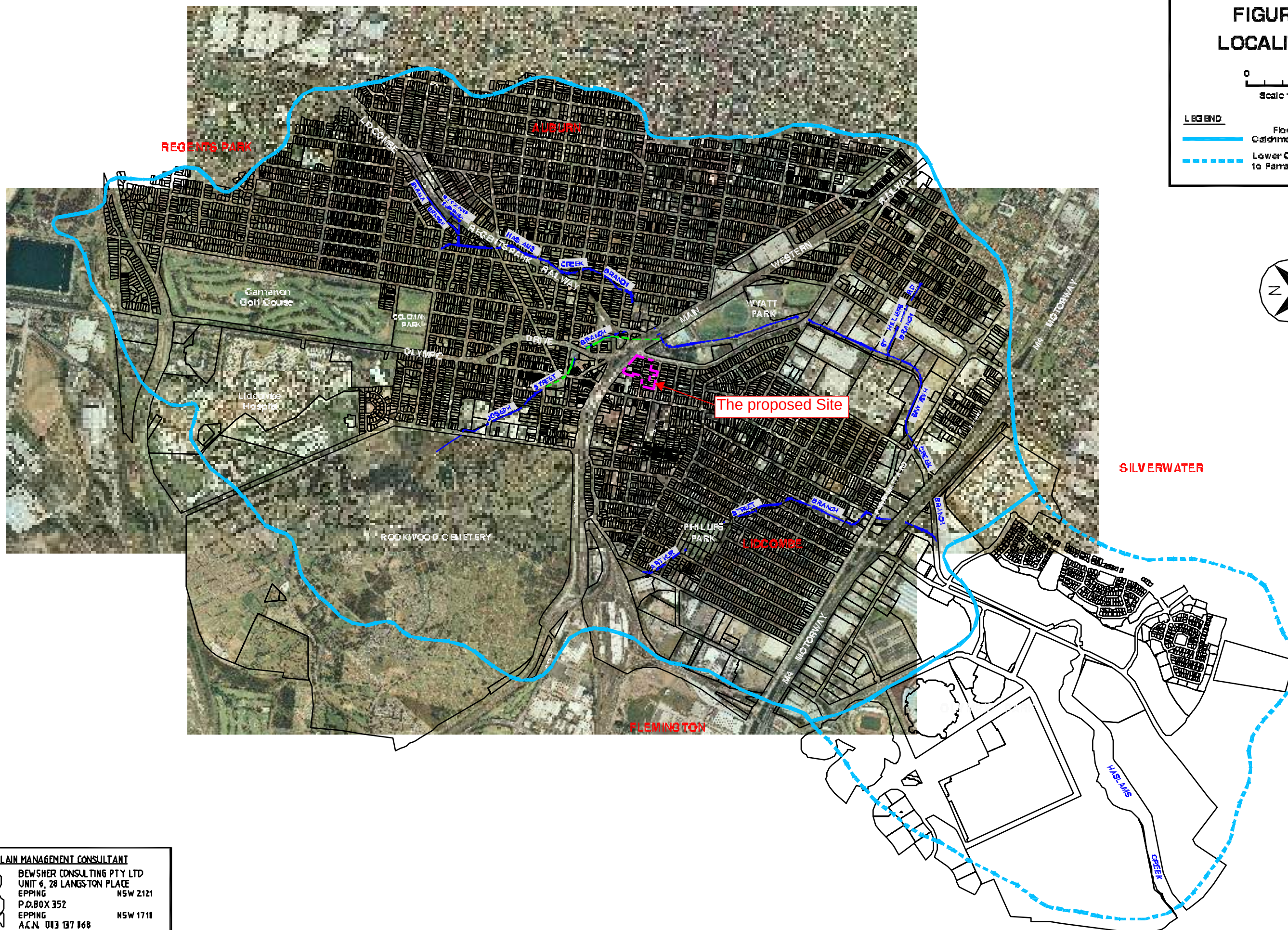
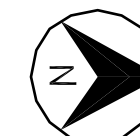


Appendix B – Catchment Plan for Haslams Creek

**FIGURE 1.1
LOCALITY PLAN**

0 500m
Scale 1:20000

LEGEND
 Flood Study Catchment Boundary
 Lower Catchment Boundary to Parramatta River



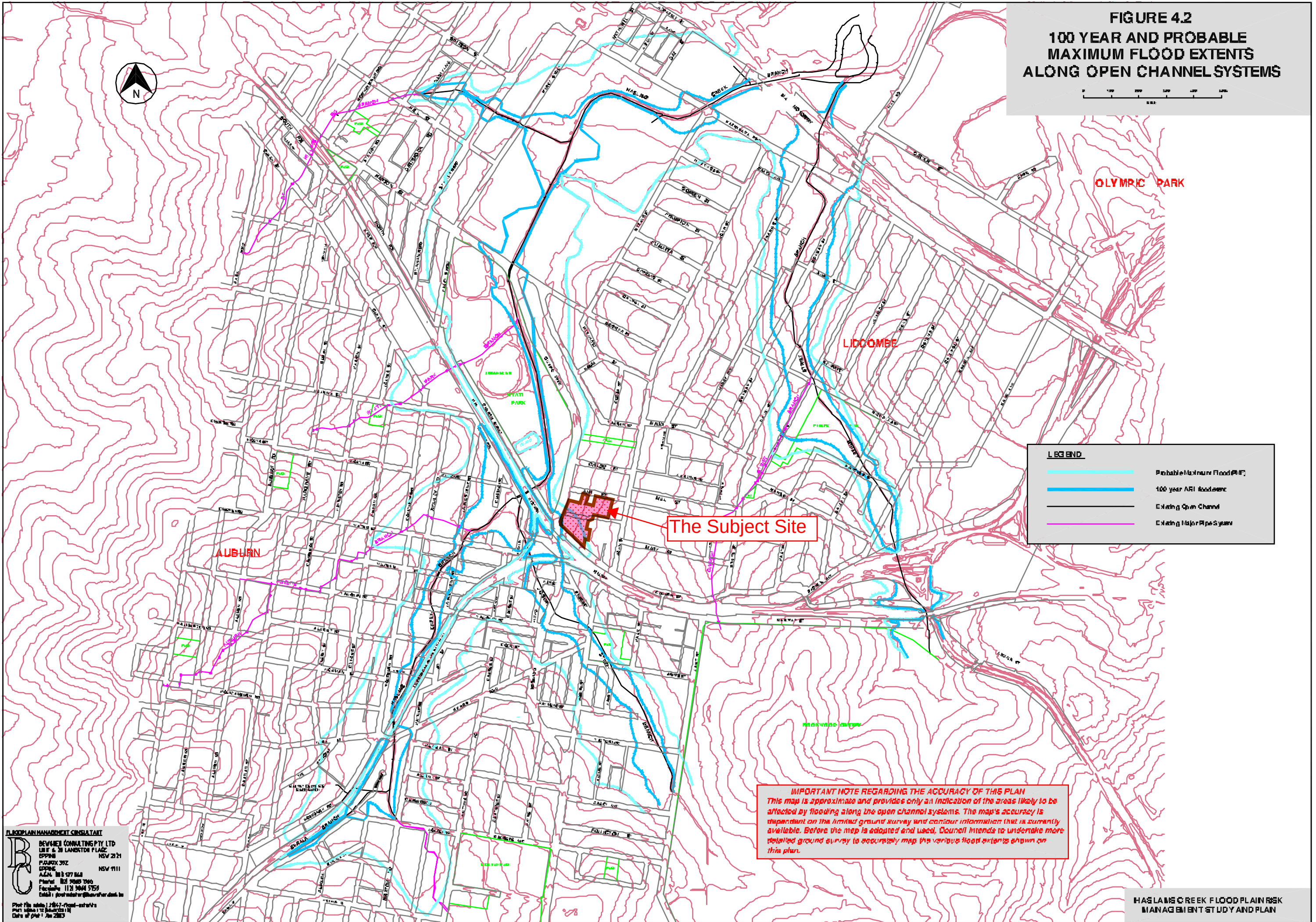
FLOODPLAIN MANAGEMENT CONSULTANT
BC BEWSHER CONSULTING PTY LTD
 UNIT 6, 28 LANGSTON PLACE
 EPPING NSW 2121
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 Phone: (02) 9868 1966
 Facsimile: (02) 9868 5759
 Email: postmaster@bewshpr.com.au

Plot file: J1147-locality
 Plot scale: 21 to 3 @ 1:21000
 Date: Jan 2013

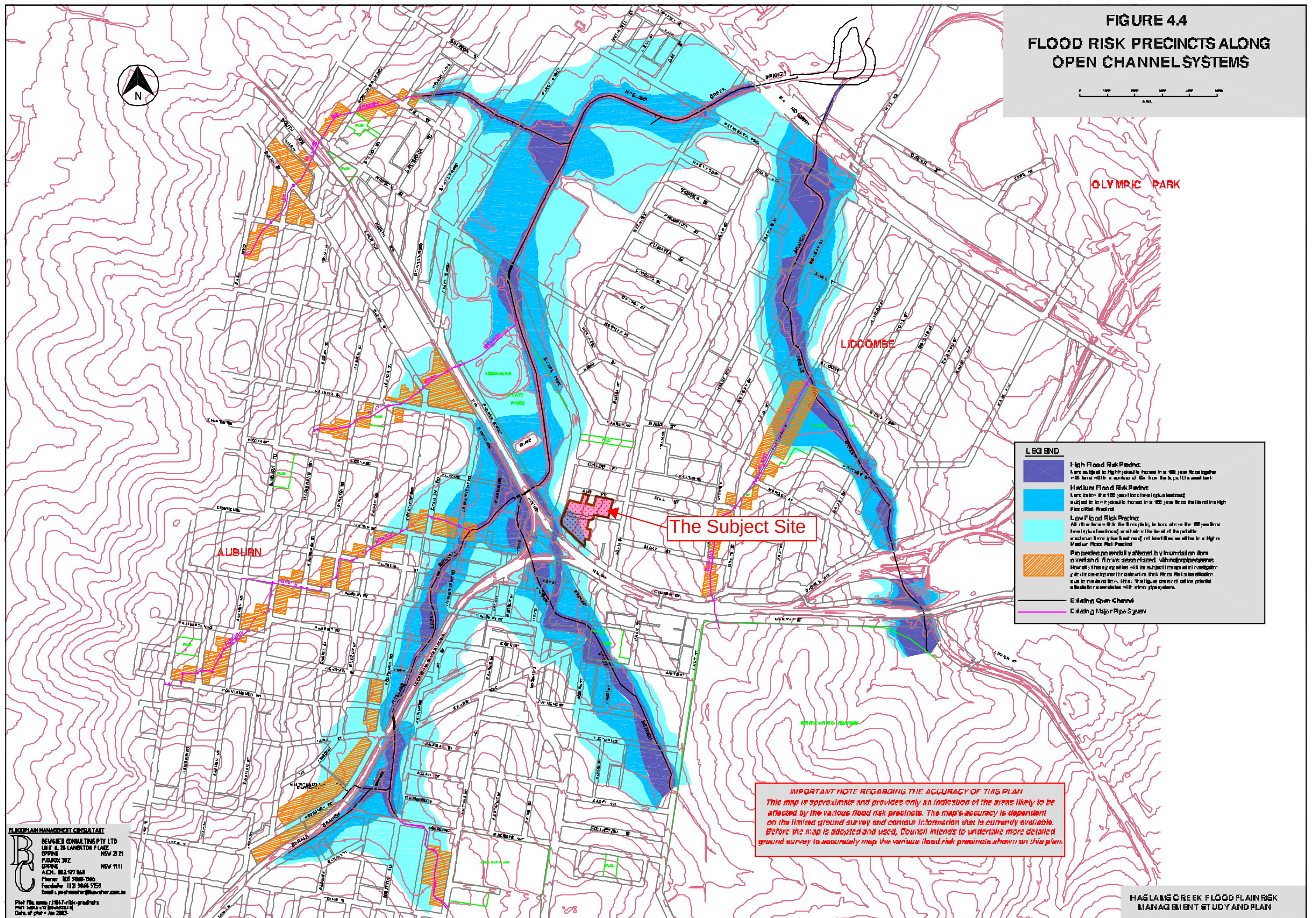
**HASLAM'S CREEK FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Appendix C – Flood Maps and Flood Risk Precinct Plan for Haslams Creek

FIGURE 4.2
100 YEAR AND PROBABLE
MAXIMUM FLOOD EXTENTS
ALONG OPEN CHANNEL SYSTEMS



**FIGURE 4.4
FLOOD RISK PRECINCTS ALONG
OPEN CHANNEL SYSTEMS**



LEGEND

- High Flood Risk Precinct:** Areas subject to high potential flood risk in a 100 year flood (excluding areas with flood risk of less than 100 years flood risk).
- Medium Flood Risk Precinct:** Areas subject to medium potential flood risk in a 100 year flood (excluding areas with flood risk of less than 100 years flood risk).
- Low Flood Risk Precinct:** All other areas with the potential to be flooded in a 100 year flood (excluding areas with flood risk of less than 100 years flood risk).
- Properties potentially affected by inundation from a waterway:** Properties with the potential to be inundated by a waterway. These properties are shown with a hatched pattern.
- Existing Open Channel:** Black line.
- Existing Major Pipe System:** Green line.

IMPORTANT NOTE REGARDING THE ACCURACY OF THIS PLAN
This map is approximate and provides only an indication of the areas likely to be affected by the various flood risk precincts. The map's accuracy is dependent on the limited ground survey and current information that is currently available. Before the map is adopted and used, Council intends to undertake more detailed ground survey to accurately map the various flood risk precincts shown on this plan.

**Appendix D – Site Plan and Typical Section for the
Subject Site showing Flood Levels**

NOTE: GAS, ELECTRICITY, WATER AND TELSTRA LINES NOT SHOWN FOR CLARITY.

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE SHOWN (SEE NOTE BELOW). THEIR EXACT POSITION SHOULD BE PROVEN ON SITE.

ALL EXISTING PROPERTY SERVICES' LOCATIONS AND DEPTHS ARE APPROXIMATE AND MUST BE VERIFIED ON SITE. THE CONTRACTOR SHOULD SUPPLY PRECISE LOCATIONS AND DEPTHS TO THE ENGINEER FOR REVIEW PRIOR TO ANY WORKS THAT MAY AFFECT THESE SERVICES.

NOTE: PODIUM DRAINAGE AND RAMP GRATED DRAIN TO ANN STREET IS ASSUMED TO BE BY THE HYDRAULIC ENGINEER AND IS NOT SHOWN ON THIS DRAWING. IT IS ASSUMED THAT PODIUM AREA DRAINS INTO OSD 2.

LEGEND

- ExSW — EXISTING STORMWATER LINE
- ✕—ExSW—✕ EX STORMWATER LINE & PIT TO BE REMOVED
- PROPOSED STORMWATER LINE
- SURFACE INLET PIT
- SURFACE INLET PIT
- ▣ KERB INLET PIT (NOMINAL 2.4 m LINTEL)
- ▨ PROPOSED STORMWATER DETENTION

SITE PLAN

SCALE 1:500



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Rev	Description	Date	By	App
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Rev	Description	Date	By	App

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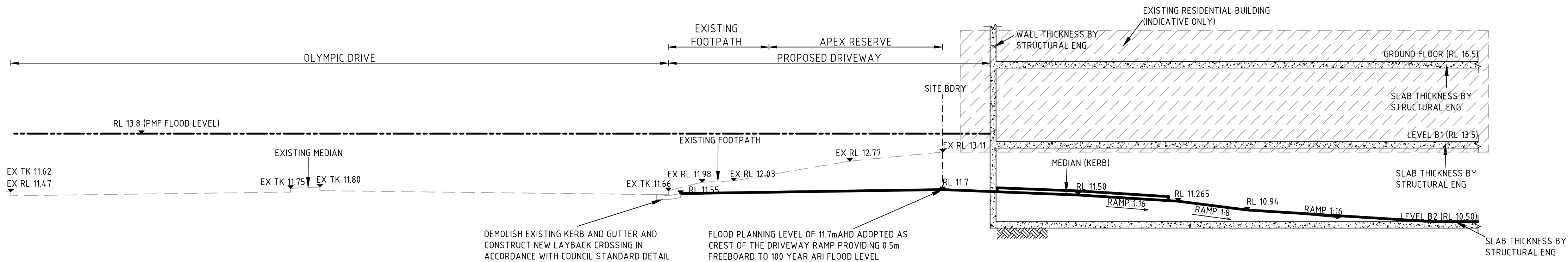
Project Name
DOOLEYS LIDCOMBE
CATHOLIC CLUB
JOHN STREET, LIDCOMBE

Drawing Title
SITE PLAN

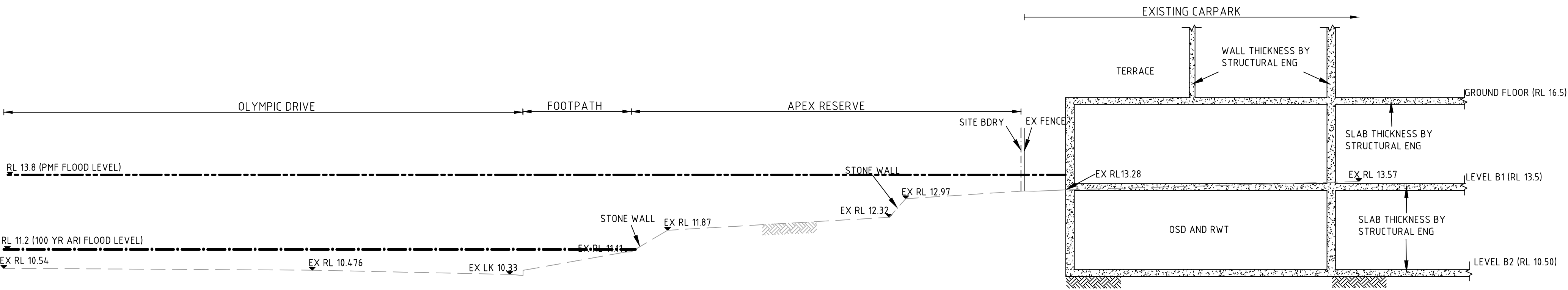
PRELIMINARY

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Sheet				

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SECTION 1
SCALE 1:100 SK01



SECTION 2
SCALE 1:100 SK01

NOTE: STRUCTURE SHOWN INDICATIVELY ONLY. REFER TO STRUCTURAL DRAWINGS.

TYPICAL SECTIONS

SCALE 1:100 0m 1m 2m 4m 6m

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CATHOLIC CLUB
JOHN STREET, LIDCOMBE

Drawing Title
TYPICAL SECTIONS

PRELIMINARY

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Appendix E – Evacuation Plan for the Site

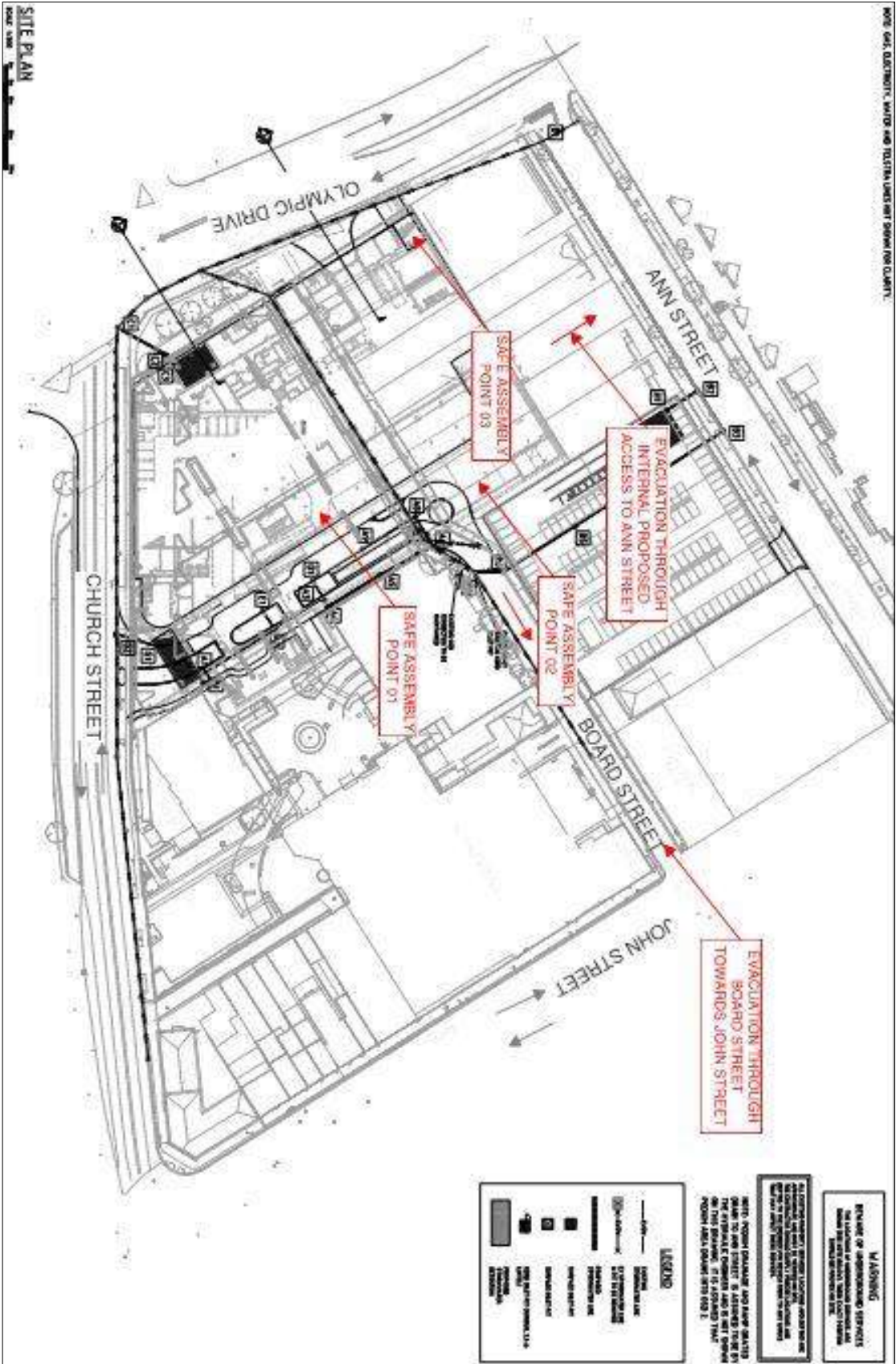


Figure D. 1: The Evacuation Plan for the Proposed Site – Ground Floor Plan