

# Building Services Return Brief

## 17 Fenwick Crescent, Goulburn

### Presented to

Infinite Projects Fenwick Pty Ltd  
c/o Purdon Pty Ltd  
243 Northbourne Avenue  
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NSW240017



-  Structural
-  Geotechnical
-  Civil
-  Residential
-  Forensic
-  Building Services
-  Surveying

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## Document Revision History

Date	Rev	Author	Comments
30/10/24	A	Jack Hurley	Return Brief

# 1 Introduction

Intrax Consulting Group have provided this Return Building Services Brief to provide a guide to the client of the building services and their performance of the proposed Fenwick Cr Childcare project, prior to detailed development of the design.

This return services brief covers the following disciplines:

- Electrical services (electricity, communications and electronic security)
- Fire protection services (fire hydrants & Fire hose reel)

For the purposes of this brief and the building services design, the following has been assumed:

Project Assumptions	
Applicable National Construction Code (NCC)	2022 Volumes One
NCC Building Classification	Class 9b
Bushfire Prone Area (BPA) or Bushfire Management Overlay (BMO)	No
Client brief(s) provided	Nil
Additional Client Requirement	Nil

# 2 Infrastructure

Preliminary utility infrastructure to service the project has been undertaken. The details of the study are shown below:

## 2.1 Electrical

Essential energy power cables in proximity to the site are located as follows:

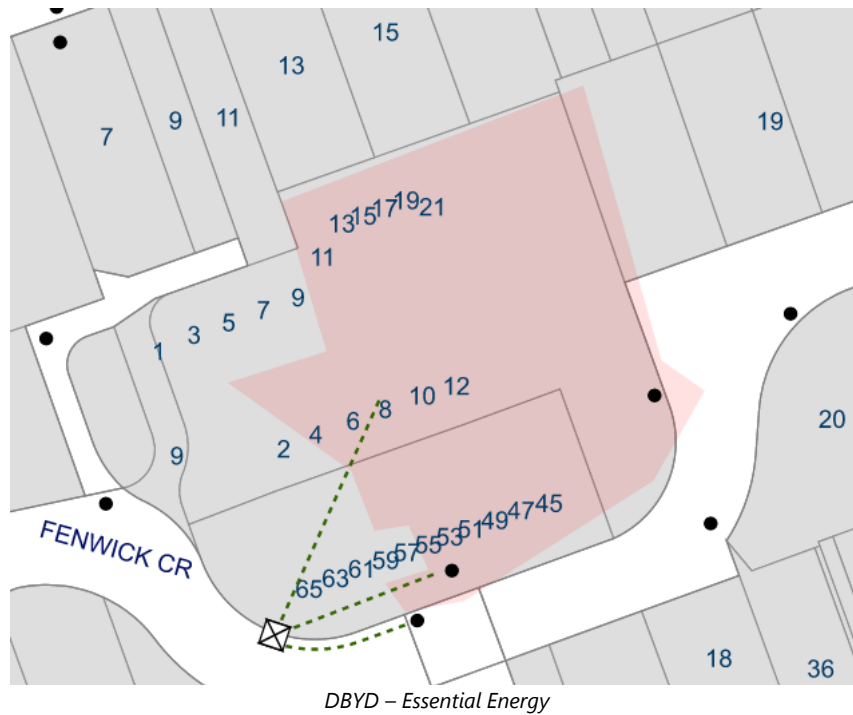
- Fenwick Crescent: low voltage below ground, our side of street
- Fenwick Crescent: low voltage above ground, our side of street
- On site: low voltage below ground

Intrax has undergone a maximum demand study in accordance with AS/NZS 3000 Table 3, the maximum demand for the proposed development is 90A. It is proposed to connect the new building to the power cables on Fenwick Crescent via an overhead underground connection from a new power pole located onsite.

Overhead power lines are located as follows:

- Fenwick Crescent
- Duck Avenue

The overhead power lines are not likely to require relocation as part of this development. Existing underground services in this area would have to be located and protection for them considered before any construction could commence.



## 2.2 Communications

Communications cables in proximity to the site are located as follows. Fenwick crescent has NBN pit and pipe infrastructure running adjacent to site. This is where we would look to connect to the NBN infrastructure.



## 3 Electrical Services

### 3.1 Artificial Lighting

Artificial Lighting													
Area	Lighting Level (Lux)	Lighting Type							Control Type				Other
		Wall	Downlight	Linear	LED Panel	Utility	Special	Emergency/EXIT	Manual	Occupancy	Daylight/Timer	Dimmer / Special	
Entry lobby	240	✓		✓			✓	✓		✓			-
Amenities	160		✓					✓		✓			-
Circulation	80		✓					✓		✓			-
Storage	80		✓							✓			-
Individual office (small office)	320		✓		✓			✓	✓	✓			-
Reception	320			✓				✓	✓	✓		✓	Main lighting control panel located within reception.
Staff room	240				✓			✓	✓	✓			-
Storeroom	80		✓		✓					✓			-
Commercial kitchen	400					✓		✓	✓	✓			Food grade light fittings.
Foyer	160		✓	✓				✓	✓	✓			-
Multi-purpose rooms	320		✓	✓				✓	✓	✓		✓	-
Classroom	320				✓			✓	✓	✓			-
External car park - General	7					✓					✓		Category PC2.
External car park – Disabled car park	21					✓					✓		Category PCD.
Building perimeter	-	✓									✓		For building security lighting.
Pathways	3					✓					✓		Category PP3.

### 3.2 Power

Power								
Area	Power Allowance (W/m2)	Power Outlet Types						Other
		Standard GPO	GPO + USB	Weatherproof	Lockable GPO	Starter Socket	Special	
Entry lobby	50							Cleaners GPOs as required.
Lift lobby	50							Cleaners GPOs as required.
Pump room	-			✓				Provision for pump room distribution board.
Amenities	15	✓						-
Circulation	60							Assuming these spaces are air conditioned. Cleaners GPOs as required.
Individual office	100	✓						3x DPGO per office
Meeting rooms	100	✓					✓	Provision for table/floor boxes within meeting rooms. Power for audio visual equipment.
Reception	100	✓						3x DGPO per workstation below bench & 2 x DGPO per workstation above bench per reception desk.
Staff room	60	✓						Domestic kitchen equipment. Cleaners GPOs as required.
Storeroom	5	✓						-
IT/Server room	200	✓						2 x 20A captive power socket outlets per communications rack.
Circulation	60							10A cleaners power outlets to be spaced 10m evenly throughout the venue. Cleaners GPOs as required.
Amenities	15	✓						1 x 15 Amp GPO hard wired per hand dryer.
Commercial kitchen	350	✓						Commercial kitchen equipment. 3-phase supply to selected equipment.
Back of house	15	✓						Cleaners GPOs as required.
Amenities	15	✓						1 x 15 Amp GPO hard wired per hand dryer.
Foyer	50	✓						10A cleaners power outlets to be spaced 10m evenly throughout the venue
Multi-purpose rooms	100							Provision for floor boxes within rooms. Power supply for audio visual equipment.
Classroom	100		✓				✓	Power required to projectors, white boards, and cleaner's power outlets.  Power bank for iPad/laptop charging.

### 3.3 Communications

Communications							
Area	Wired (Data Pts)	Wireless	FTA TV Outlet	Pay TV Outlet	Audio Visual	Hearing Augmentation	Other
Entry lobby		✓					-
Amenities							-
Circulation		✓					-
Individual office	✓	✓					2x data points per office.
Meeting rooms	✓	✓			✓	✓	Provision for table/floor boxes within meeting rooms.
Reception	✓	✓	✓				4x data points per workstation below bench per reception desk.
Staff room	✓	✓	✓				1 x data point for telephone.
Storeroom							-
IT/Server room	✓	✓					2 x data points per comms rack for PC builds, IT etc.
Commercial kitchen	✓	✓					-
Back of house	✓	✓					-
Foyer		✓					-
Multi-purpose rooms	✓	✓	✓	✓	✓	✓	-
Classroom	✓	✓			✓	✓	Hearing augmentation via wireless system
External car park							-

### 3.4 Security Systems

Electronic Security	
System	System Type and Description
Access control	Proximity card/keypad access control for entry doors, Storerooms, stair doors, bike store and lift. Wired or wireless solution TBC.
Duress	Duress button located at reception. Portable duress buttons TBC.
Intruder detection	Intruder detection system to classrooms/entry/exit doors. Arming disarming station located at reception.
Intercom	Audio/Video intercom to office reception.
CCTV	Closed circuit television to the following areas: <ul style="list-style-type: none"> <li>- Entry and exit lobby.</li> <li>- Carparks.</li> </ul>

### Electronic Security

System	System Type and Description
	<ul style="list-style-type: none"> <li>- Building perimeter.</li> <li>- Common area corridors.</li> <li>- Lift and stair entries at each level.</li> </ul>

## 3.5 Fire Detection and Alarm System

### Fire Detection and Alarm System

System	System Type and Description
Fire detection – Residential	Smoke detectors or alarms to the following areas: <ul style="list-style-type: none"> <li>- Individual smoke alarms to apartments/townhouses to comply with AS 3786.</li> <li>- Addressable smoke detectors to corridors to AS 1670.1.</li> <li>- Thermal detectors to basement car parks, if not sprinklered.</li> </ul>
Fire detection – Base building	Smoke detection to the following areas: <ul style="list-style-type: none"> <li>- Smoke detector to services cupboards.</li> <li>- Smoke detection to all areas to AS 1670.1/AS 1668.1</li> </ul>
Occupant & emergency warning system	OWS/EWS to all areas, visual indicators to plant rooms, to AS 1670.1. To be confirmed by client.

## 3.6 Miscellaneous Systems

### Miscellaneous

System	System Type and Description
Check metering	Separate check metering to separate lighting, power, Lifts and HVAC switchboards. Separate check meters for individual building zones.

## 4 Fire Protection Services

### Fire Protection Services

System	Details
Fire hydrants	To AS 2419.1, street hydrant coverage is provided. This is subject to an external gate being installed to allow firefighters access the site. There is sufficient fire hydrant coverage to site provided that the external gate is installed to allow fire fighting access during a fire event.
Fire hoses	To AS 2441, connected to domestic metered water supply system. Intrax will show the location of the fire hose reel, the hydraulic contractor shall supply a 25mm water supply with adequate backflow prevention to the hose reel.
Portable extinguishers and fire blankets	Located to BCA and AS 2444. These will be supplied to areas where required – next to switchboards, kitchens.