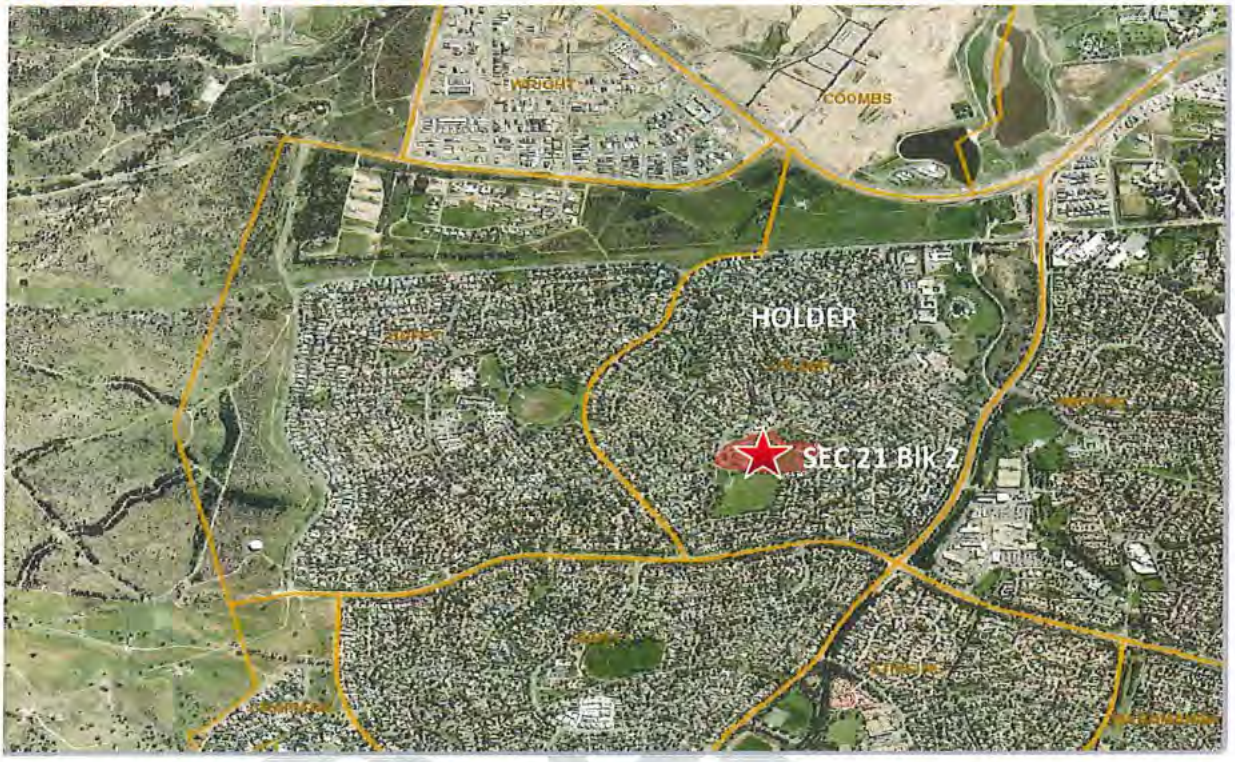
FOR DISCUSSION PURPOSE

URBAN RENEWAL
DISCUSSION PAPER
06/11/2014

POTENTIAL DEVELOPMENT SITE

HOLDER Block 2 Section 21



LEGEND

- Designated Areas
- Residential - RZ1 - Suburban
- Residential - RZ2 - Suburban Core
- Residential - RZ3 - Urban Residential
- Residential - RZ4 - Meduim Density Residential
- Residential - RZ5 - High Density Residential
- Communities Facilities
- Commercial - CZ1 - Core
- Commercial - CZ2 - Business
- Commercial - CZ3 - Services
- Commercial - CZ4 - Local Centre
- Commercial - CZ5 - Mixed Use
- Commercial - CZ6 - Leisure and Accomodation
- Industrial - IZ1 - General Industrial
- Industrial - IZ2 - Industrial Mixed Use
- Urban Parks and Recreation - PRZ1 - Urban Open Space
- Urban Parks and Recreation - PRZ2 - Restricted Access Recreation
- Transport and Services - TSZ1 - Transport
- Transport and Services - TSZ2 - Services
- Non Urban - NUZ1 - Broadacre
- Non Urban - NUZ2 - Rural
- Non Urban - NUZ3 - Hills Ridges and Buffers
- Non Urban - NUZ4 - River Corridor
- Non Urban - NUZ5 - Mountain and Bushlands

SUMMARY OF EXISTING SITE

- **Land Area** — 39,634m^2
- **Location** — HOLDER
- **Planning Controls** — Territory Plan – Land Use Zone: CF: COMMUNITY FACILITIES

Note; This preliminary study has been produced for the purpose of commencing discussion. Further interrogation of the site including Site Investigation Reports and architectural schemes are to be tested prior to yield potential being confirmed.

EXTRACT FROM THE TERRITORY PLAN;

CFZ - Community Facility Zone

Zone Objectives

a) To facilitate social sustainability and inclusion through providing accessible sites for key government and non-government facilities and services for individuals, families, and communities.
b) To provide accessible sites for civic life and allow community organisations to meet the needs of the Territory's various forms of community.
c) To protect these social and community uses from competition from other uses.
d) To enable the efficient use of land through facilitating the co-location, and multi-use of community facilities, generally near public transport routes and convenience services appropriate to the use.
e) To encourage adaptable and affordable housing for persons in need of residential support or care.
f) To safeguard the amenity of surrounding residential areas against unacceptable adverse impacts including from traffic, parking, noise or loss of privacy.

Development	
ancillary use	minor use
business agency	office
child care centre	outdoor recreation facility
community activity centre	parkland
community theatre	place of worship
consolidation	public agency
cultural facility	religious associated use
demolition	residential care accommodation
development in a location and of a type indentified in a precinct map as additional merit track development	retirement village
educational establishment	sign
emergency services facility	subdivision
health facility	supportive housing
hospital	temporary use
indoor recreation facility	varying a lease (where not code track or impact track assessable)
minor road	

PROHIBITED DEVELOPMENT	
Development listed below is prohibited development unless the development is identified elsewhere in this development table as assessable under the code, merit or impact track.	
agriculture	mobile home park
airport	multi-unit housing
animal care facility	municipal depot
animal husbandry	nature conservation area
aquatic recreation facility	offensive industry
boarding house	overnight camping area
bulk landscape supplies	pedestrian plaza
car park	place of assembly
caretakers residence	plant and equipment hire establishment
caravan park/camping ground	plantation forestry
cemetery	playing field
civic administration	produce market
club	public transport facility
communications facility	railway use
COMMERCIAL ACCOMMODATION USE	recyclable materials collection
corrections facility	recycling facility
craft workshop	restaurant
defence installation	sand and gravel extraction
development in a location and of a type identified in a precinct map as additional prohibited development	scientific research establishment
drink establishment	secondary residence
drive-in cinema	serviced apartment
farm tourism	service station
financial establishment	SHOP
freight transport facility	single dwelling housing
funeral parlour	special dwelling
general industry	stock/sale yard
group or organised camp	store
hazardous industry	tourist facility
hazardous waste facility	transport depot
home business	varying a lease to add a use listed as "prohibited development" in this development table
incineration facility	vehicle sales
indoor entertainment facility	veterinary hospital
industrial trades	warehouse
land fill site	waste transfer station
land management facility	woodlot
light industry	zoological facility
liquid fuel depot	
major road	

Subdivision

Element 1: Restrictions on use

Rules	Criteria
1.1 Supportive housing	
R1 Development for *supportive housing* complies with all of the following: a) the occupation of individual *dwellings* in a *supportive housing* complex is restricted by the lease to persons in need of support b) the site has not been identified in a suburb precinct code as being prohibited for *supportive housing* c) all dwellings comply with Class 'C' of *Australian Standard AS4299 – Adaptable Housing*. d) subdivision of a lease developed for *supportive housing*, including subdivision under the Unit Titles Act 2001, is not permitted.	This is a mandatory requirement. There is no applicable criterion.

Element 9: Subdivision

Rules	Criteria
9.1 Subdivision	
R30 Subdivision is only permitted where all of the following are met: a) the subdivision is part of a development application for another assessable development b) it is demonstrated that any residual block can accommodate another assessable development designed in accordance with the relevant sections of this code.	This is a mandatory requirement. There is no applicable criterion.

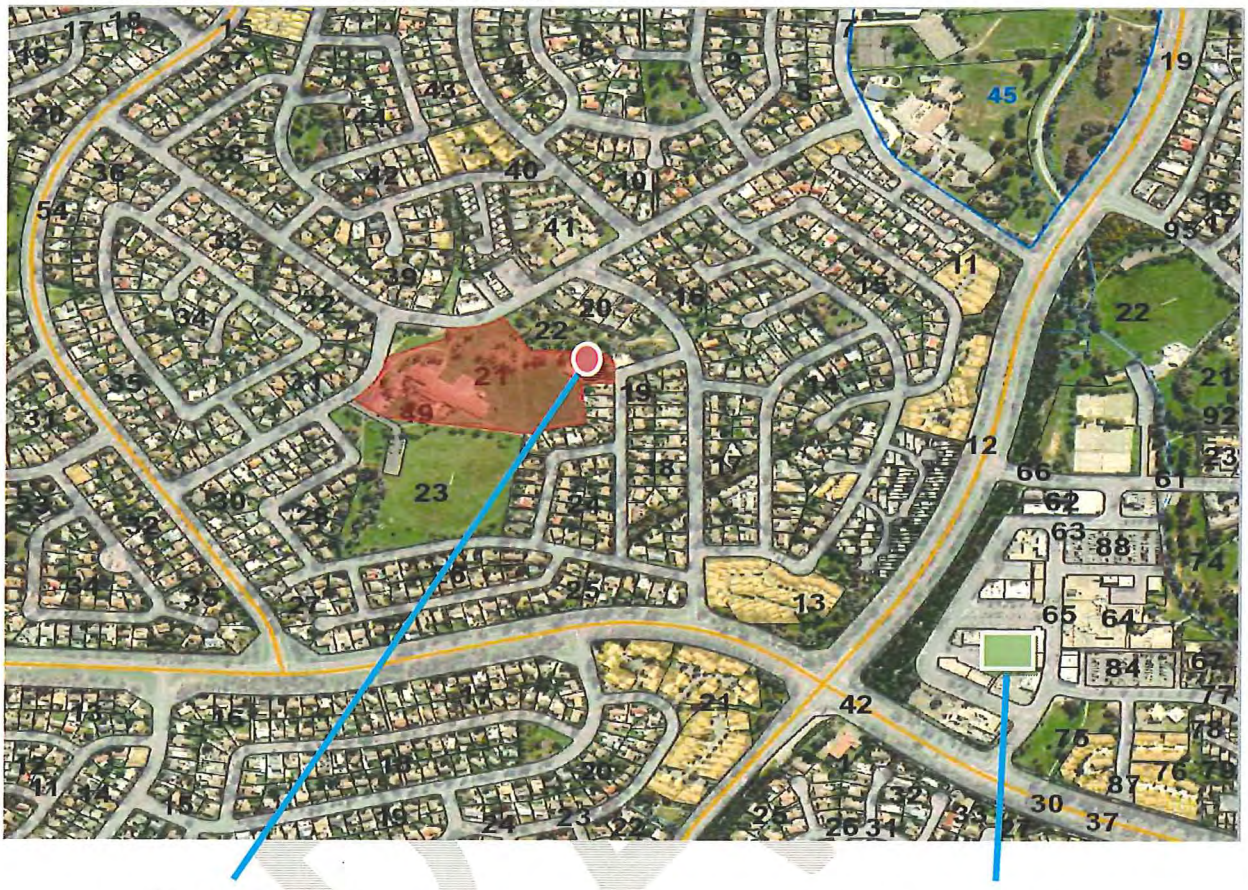
Gross Floor Area

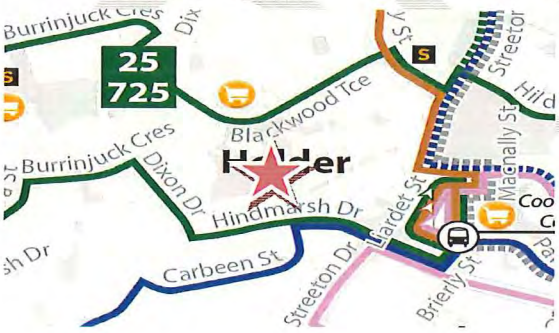
Height

The maximum height *of any* wall of the building is 15 metres above natural ground level.

Proximity to Amenities

- 840m to Cooleman Court
- 150m to Childcare Centre
- 100m to Blackwood Terrace bus route

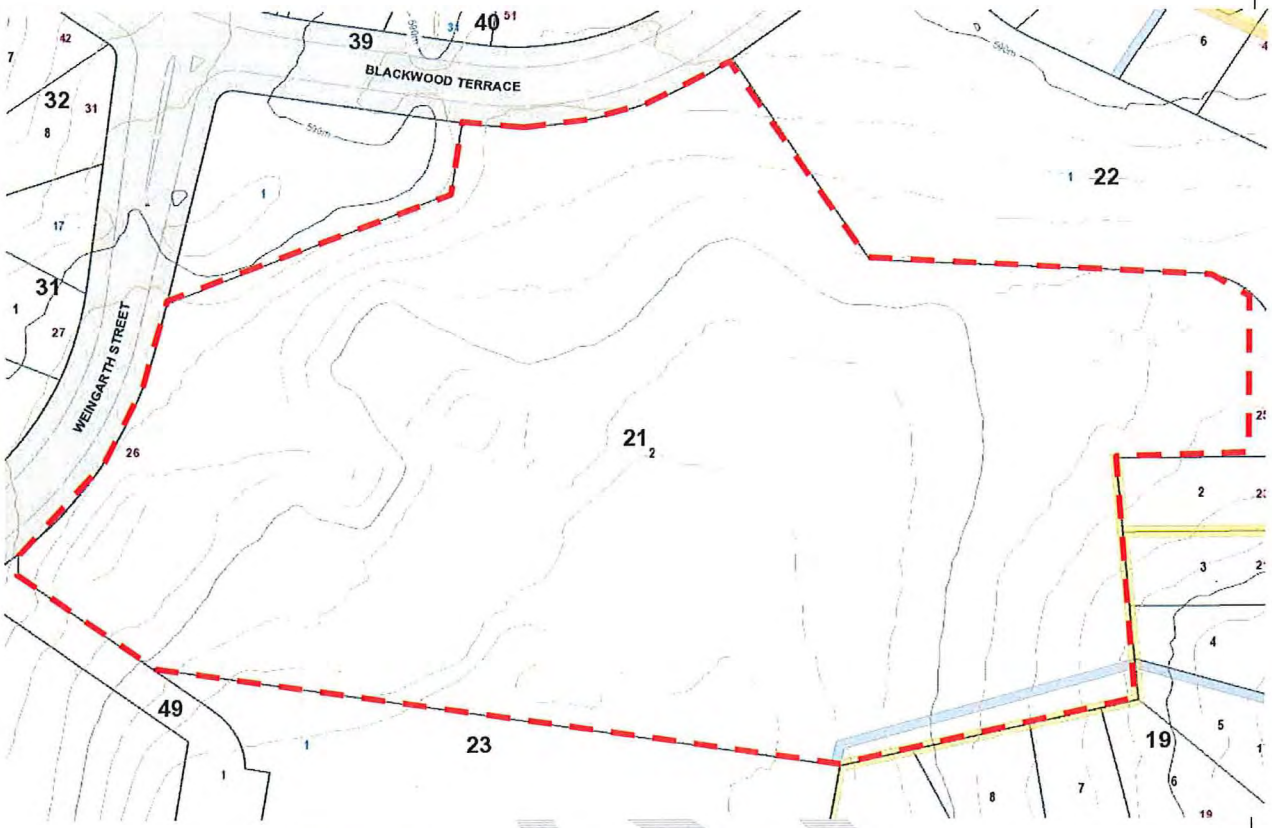




Additional Precinct Prohibited Development

- Nil

Site Topography



POTENTIAL DEVELOPMENT OUTCOME

ACT Government | HOUSING RENEWAL

Public Housing Renewal Steering Committee

Agenda Item 6: Land Supply Options

Date of meeting: 23 April 2015

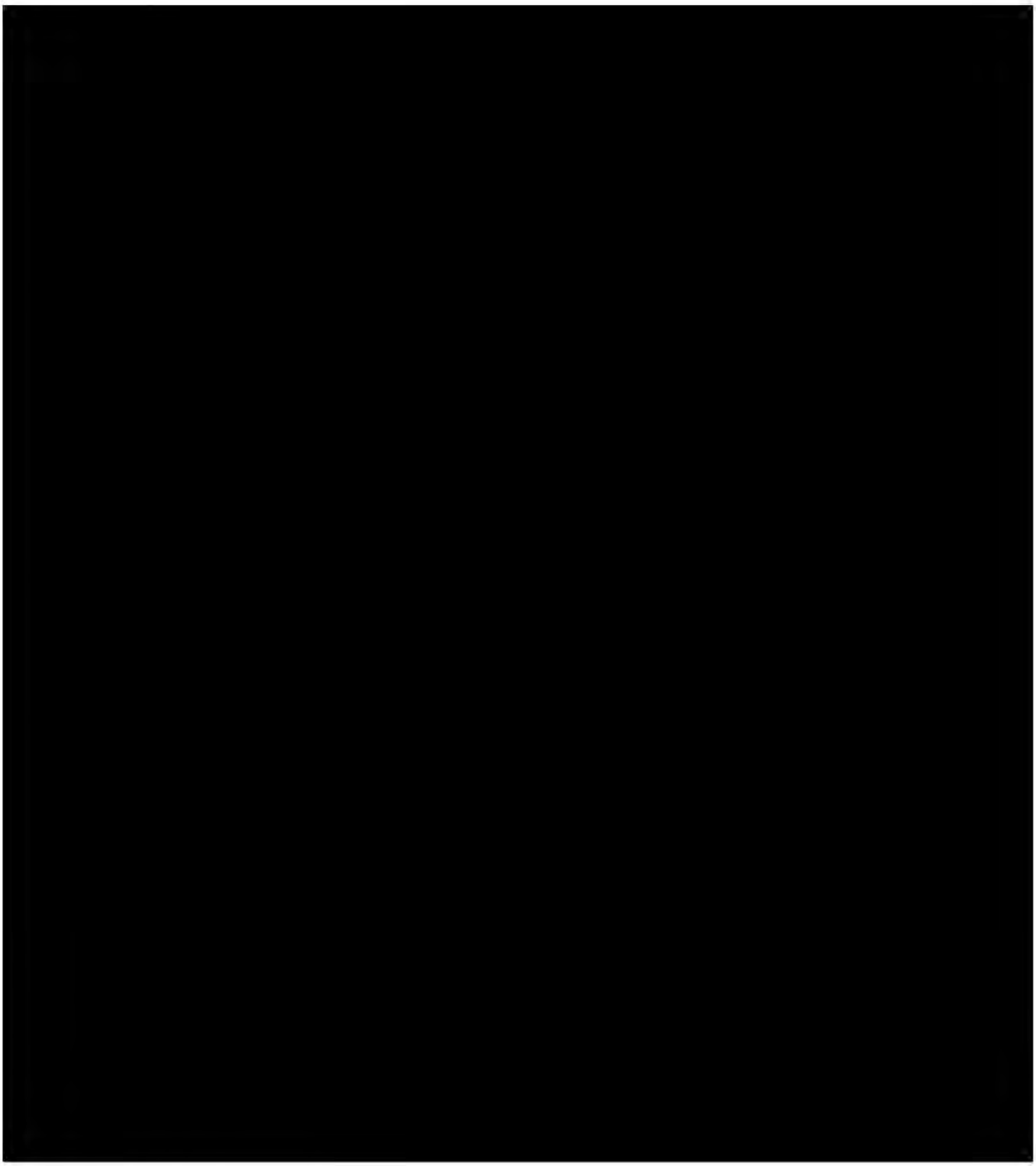
It is recommended that the Steering Committee:

[redacted]

- Agree that alternative land supply options are further investigated in particular used and vacant Community Facility Land;

[redacted]

[redacted]



Community Facility Land

Potential exists for development of portions of existing sites in established areas designated 'Community Facility'. A number of these sites have overlays excluding supportive housing and no site allows general residential use. The Territory Plan currently limits residential development on community facility land to supportive housing. Confirmation is being sought as to whether this definition can include public housing. The use of Community Facility Zoned land would require the

Environment and Planning Directorate (EPD) to support a Territory Plan Variation. Note: If this strategy is supported then construction of dwellings, where supportive housing is permitted, could commence now whilst the Territory Plan Variation is being undertaken as the public housing adaptable Class C dwelling meets the definition of supportive housing. If dwellings could be delivered on each of these sites then over 200 dwellings could be delivered to support the public housing renewal program.

Action:

- **Seek detailed advice from Housing ACT on their capacity to utilise supportive accommodation sites on these locations**
- **Seek support from LDA/Economic Development (ED) for portions of sites**
- **Seek confirmation from EPD that the definition of supportive housing in the Territory Plan may include public housing**
- **Possible consideration and discussion with EPD regarding removal of overlays.**

Draft land Supply Options for Public Housing Renewal Program (As at 10 April 2015)					
	Disposal and Renewal - Construction completion & delivery	Site Area	Total Dwellings		What if Scenario
[redacted]					
	Community Facility Land				
	Monash 2/20	2,112	0		6
	Monash part 13/56	4,000	0		24
[redacted]					

Draft land Supply Options for Public Housing Renewal Program (As at 10 April 2015)					
	Disposal and Renewal - Construction completion & delivery	Site Area	Total Dwellings		What if Scenario

[redacted]

	Community Facility Land				

[redacted]

	Chapman part section 45/1	4,000	0		24
	Holder, Part Block 2 Section 21	4,000	0		24

[redacted]

ACT Government | Public Housing Renewal Taskforce

Public Housing Renewal Steering Committee
Agenda Item 7: Land Supply

Date of Meeting: 10 September 2015

[redacted]

- note the community engagement strategy and action plans to address use of community facility land will be discussed at Agenda Item 8

[redacted]

[redacted]

Chairperson: Natalie Howson, Director-General, Community Services Directorate
Contact Officer: David Collett, Executive Director, Public Housing Renewal Taskforce

[redacted]

Community Facility Land

[redacted]

Six community facility sites delivering up to 119 dwellings are proposed for the 4th Tranche Business Case. The acceptance of these sites by CSD is dependent upon clarification of the definition of 'supportive housing' in the Territory Plan by the Environment and Planning Directorate (EPD).

The Community Facility Zone Development Code provides for the development of 'supportive housing' on Community Facility sites. Until June 2014 the Territory Plan only permitted people who were older or had a disability to live in 'supportive housing'. Now, both the definition of 'supportive housing' and the Community Facility Zone Development Code restrict occupation of such dwellings to persons 'in need of support'. The Territory Plan states:

> *Supportive housing means the use of land for residential accommodation for persons in need of support, which is managed by a Territory approved organisation that provides a range of support services such as counselling, domestic assistance and personal care for residents as required. Although such services must be able to be delivered on site, management and preparation may be carried out on site or elsewhere. Housing may be provided in the form of self-contained dwellings. The term does not include a retirement village or student accommodation.*

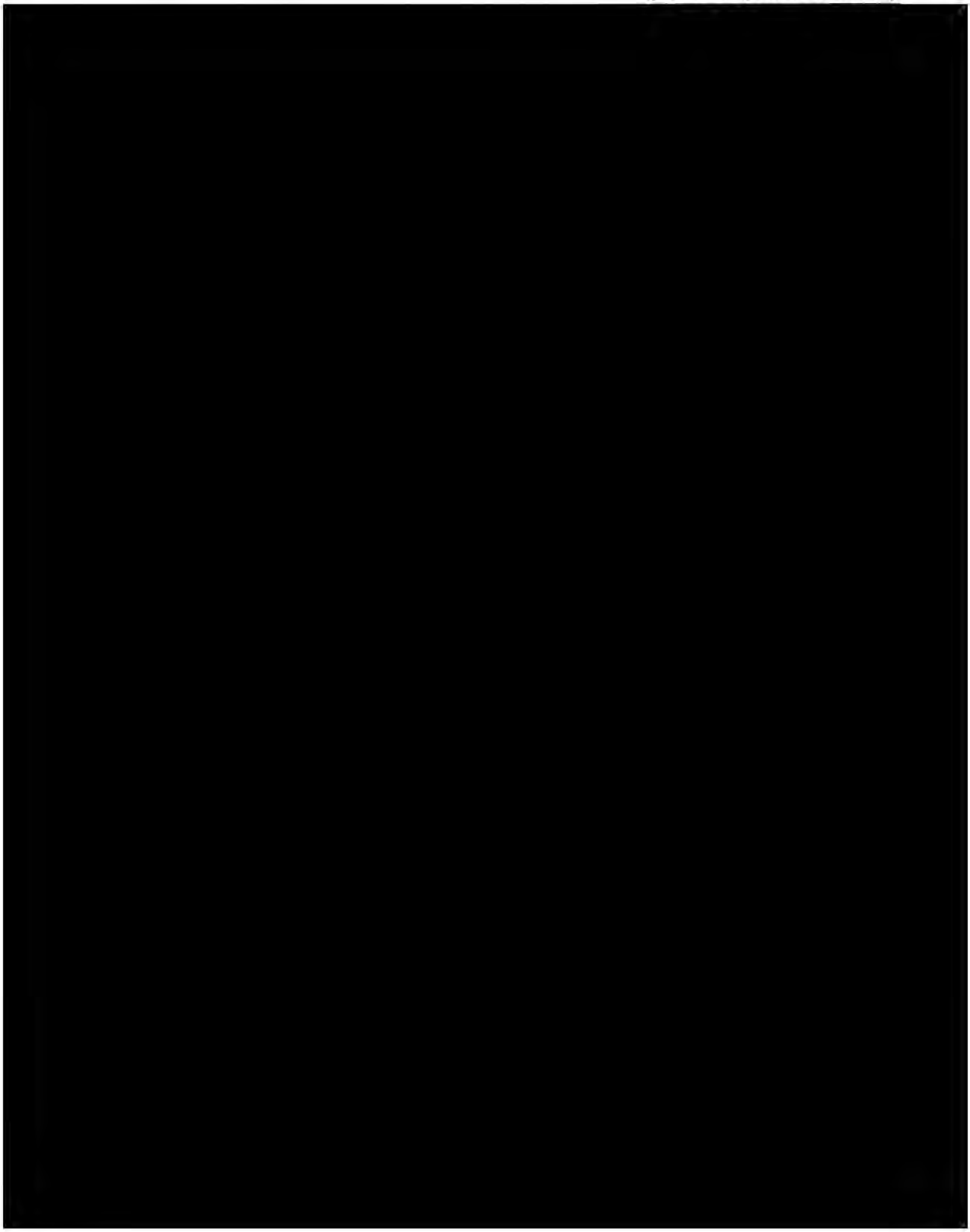
This definition fits with the purpose and use (allocation) of public housing as administered by Housing ACT. There is a point of confusion around Common Terminology associated with 'supportive housing' in the Territory Plan. The Public Housing Renewal Taskforce has sought clarification on this issue through a technical amendment to include 'public housing' in Common Terminology.

Further sites are planned to be explored for the remaining 209 dwellings, pending the outcome on the interpretation of 'supportive housing'.

Community objection to the use of Community Facility land for the public housing renewal program is likely. It is anticipated that there will be strong opinion regarding the loss of quantity of unleased Territory land designated for community use. A proactive and strategic communication and engagement action plan will be required for these sites similar to one prepared for Franklin Block 3 Section 125 which will be discussed at Agenda Item 8.

Attachment A – Land Supply Program

(as at 1 September 20115)



[redacted]

	Disposal / Renewal	Total Dwellings
2017/18	4th Tranche Business Case (Currong Apartments and Stuart Flats)	

[redacted]

	Community Facility Land	
	Holder Part Block 2 Section 21	26

	Wright Part Block 1 Section 29	26
	[redacted]	
	Monash Block 2 Section 20	4
	Monash Part Block 13 Section 56	26

[redacted]

2018-19	**5th Tranche Business Case (Strathgordon Court, De Burgh and Gowrie Court)**	

[redacted]

	Community Facility Land	
	Monash Part Block 5 Section 52	26
	Mawson Block 29 Section 36	10

[redacted]

Additional sites for consideration - Community Facilities & other

Suburb	Section/Block	Location	Block Size	Low Risk Yield	High Risk Yield	Zoning	OTPV	Restrictions	LRP	Custodian	Due Diligence Yes/No	Costings	Reports	Comment
Low Risk														
[redacted]														
Holder (Tmr school)	21/2	Blackwood Terrace	39634	24		CF	OTPV2				No			
Monash	56/13	Clive-Steele Ave	34416	18		CF					Yes			Identified for aged care. Flooding across lower area of site. Need to investigate whether we can build on higher ground only
[redacted]														
Wright	29/1	Max Jacobs Avenue	9191	24		CF					No			
[redacted]														
High Risk														
Chapman	45/1	Darwinia Terrace	14937		24	CF	OTPV2				Yes	$613,000	SIR, Bushfire, Tree, Traffic, Geotch, Contamination,	Fire zone. Under current zoning approval not possible. Value of site after rezoning may impact upon potential for public housing
[redacted]														
Mawson	29/36		7914		6	CF								on a rise and sloping, dual street access, only part of site may be
[redacted]														
Monash	20/2	Blakey Close	2112		6	CF					No			Check with Housing plans for block
[redacted]														
[redacted]														

Print Date 30-Jun-15

Risk to Delivery for PHRT
Not achievable for PHRT
High Risk to delivery

20/10/2015

Additional sites for consideration - Community Facilities & other

Suburb	Section/Block	Location	Block Size	Low Risk Yield	High Risk Yield	Zoning	OTPV	Restrictions	LRP	Custodian	Due Diligence Yes/No	Costings	Reports	Comment
Low Risk														
[redacted]														
Monash	20/2	Blakey Close	2112	4	6	CF					underway			Check with Housing plans for block
Holder (fmr school)	21/2	Blackwood Terrace	33634	24		CF	OTPV2				underway			
Monash	56/13	Clive-Steele Ave	34416	18		CF					Yes			Identified for aged care. Flooding across lower area of site. Need to investigate whether we can build on higher ground only.
[redacted]														
Wright	29/1	Max Jacobs Avenue	9191	24		CF					No			
Sub-Total				142										
High Risk														
Mawson	29/36		7914		6	CF								on a rise and sloping, dual street access, only part of site may be able to be developed
[redacted]														

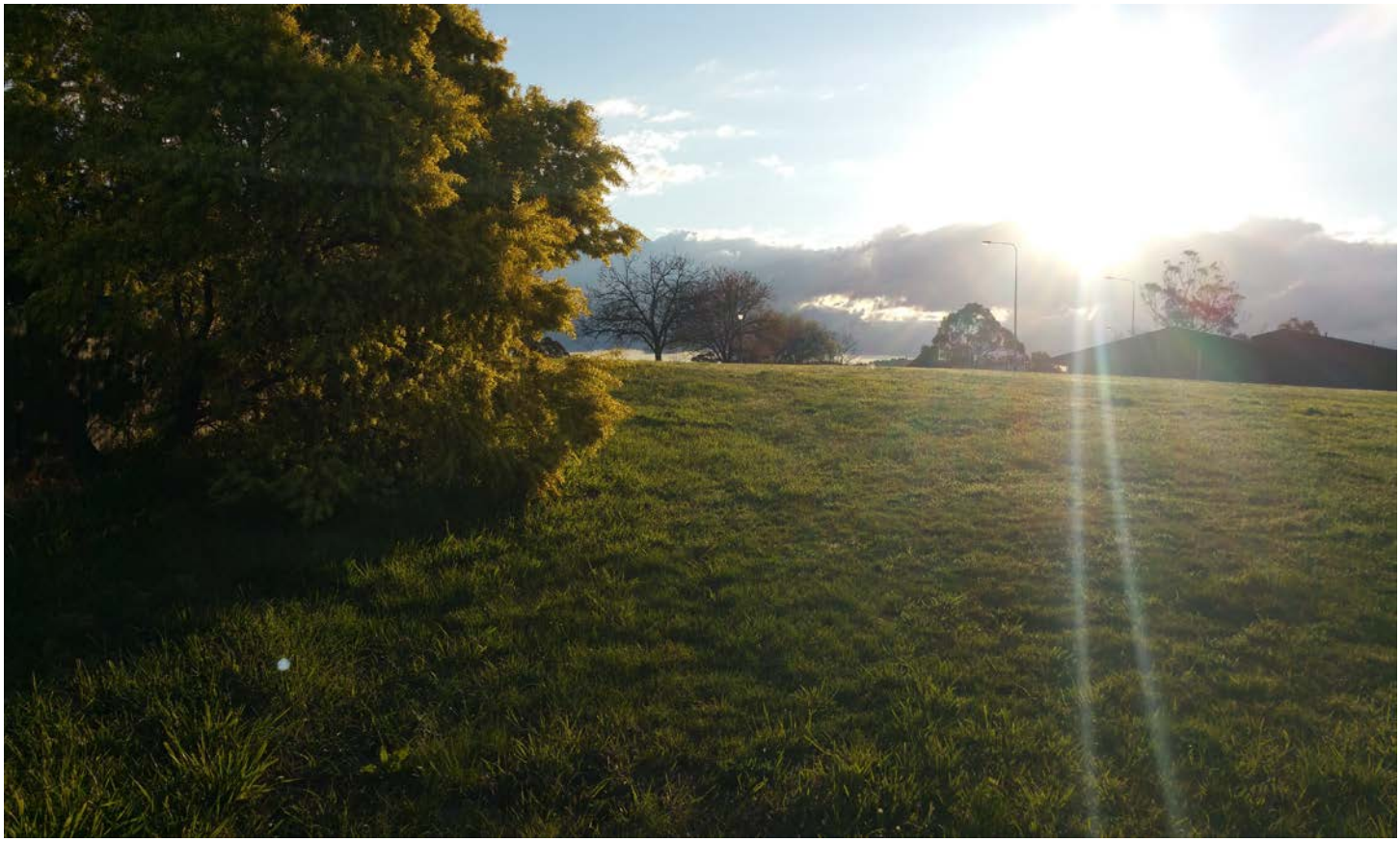
No

[redacted]														

Risk to Delivery for PHRT
Not achievable for PHRT
High Risk to delivery

Sites to be reviewed

[redacted]



Land Development Agency

Stage 1 Site Investigation Report for Holder Block 2 Section 21

Revision 1

November 2015

Executive summary

Study in respect of Holder Block 2 Section 21. The site is designated as a CFZ Community Facility Zone within the ACT Government Territory Plan.

Block 2 Section 21 has an area of 39,634 m2 and is in a community facility zone located between Blackwood Terrace, Weingarth Street and Stapylton Street in Holder. The western half of the block contains the ACT Board of Health building with access from Weingarth Street. The proposed development is to be located on the eastern side of the block with access from Stapylton Street and has an area of 11,012 m2.

The northern half of the site contains an existing building and falls towards the north at approximately 6.2% and east at approximately 2.3%. There is major vegetation located along the northern boundary of the site, containing large trees.

The southern half of the site is vacant land with a stormwater easement located along the southern boundary. The southern half of the site has a fall of approximately 7.5% towards the east, with a grass swale diverting overland stormwater flows to a catch drain in the southeast corner of the site.

The south-eastern corner of the site is too low to drain sewage by gravity to the existing sewer main in Stapylton Street. The layout of residential development on the site must address the limits of the area that can practically drain to the sewer.

The site is well suited to residential development, with suitable vehicular access and availability of utility services.

Summary of opportunities and constraints

Based on the investigations carried out the following opportunities and constraints have been identified:

Opportunities:
Site is physically well suited to infill residential development and has access to all required services.

Constraints:
• **Existing Buildings:** There is an existing building to be considered in planning for future use of the site. • **Sewer:** The southeast corner of the site cannot be serviced due to the slope of the site. • **Easement:** The stormwater easement on the southern boundary of the site will limit construction in the area.

Summary of cost estimate for site servicing

The following works are required to adequately establish the site for the proposed development.

Item	Details	Probable Costs (Including GST)
Subdivision	Subdivision to create separate Block for proposed development	[redacted]
Sub-total		[redacted]
Total +20% contingency		[redacted]

The works shown below are to be completed as part of the development of the site.

Item	Details	Probable Costs (Including GST)
Stormwater	Connect to existing 300 mm diameter stormwater main along the south boundary of the site.	[redacted]
Water	Upgrade existing water service connection across Stapylton Street.	[redacted]
Sewer	Upgrade existing sewer service tie to 150 mm diameter.	[redacted]
Electricity	Connect to existing LV network along southern and eastern boundary. (Nil cost assumes direct connection to existing adjoining overhead electrical reticulation and that there is capacity in the conductors for the additional loads.)	[redacted]
Telecommunications	Installation of TransACT VDSL2 network.	[redacted]
Gas	Trenching from existing 40 mm diameter gas main to site. Jemena have advised that there is no cost to the developer for the laying of gas main and services in medium density developments if the developer provides trenching for the services.	[redacted]
Vehicular Entrance	Upgrade of existing access into site from Stapylton St if required.	[redacted]
Total Developer Funded Works (Incl. GST)		[redacted]

Summary of recommendations

The following key recommendations are presented in this report:

- The layout of residential development on the site must address the limitation of area that can practically drain to the sewer connection
- A geotechnical engineer should undertake a site classification assessment and report
- Care will need to be taken during construction to protect the vehicle access from Stapylton Street. It is likely to become damaged and so may need to be reinstated as a concrete vehicle access upon completion of works.
- Further investigations are required to facilitate the demolition of the existing building located on the site.
- Consultations should be held with ActewAGL as to whether an upgrade may be required to the adjoining overhead electrical reticulation to accommodate the additional loads.

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Appendices

1. Introduction

1.1 Purpose of this report

The Land Development Agency (LDA) has advised that the Public Housing Renewal Taskforce (PHRT) is considering the potential to develop part of Holder Block 2 Section 21 to provide twenty eight (28) x two (2) bedroom dwellings.

LDA has engaged GHD to prepare a Site Investigation Report on the suitability of the identified blocks for development, including identifying any restrictions and the cost of any site related works to develop the site and addresses the following in accordance with the provided template:

1. Describe the site and its location – undertake site inspection taking relevant photographs for inclusion in SIR
2. Identify existing and required site servicing including sewer, water, and stormwater, overland flows, telecommunications, gas and electricity including street lighting through a DBYD search to identify key services ties and capacity and any potential constraints. GHD will liaise with the relevant utility authorities to determine service availability as necessary
3. Describe existing development constraints, landforms, access, easements and setbacks and identify any required works
4. Tree and vegetation assessment – Undertake an on-site tree and vegetation assessment in accordance with the LDA's requirements
5. Preliminary traffic assessment – Undertake a capacity check as to the ability of the surrounding roads and intersections to accommodate the proposed development
6. Preliminary environmental assessment – Undertake a desktop study to identify any environmental constraints and make recommendations as to possible mitigations and further investigations required
7. Preliminary geotechnical assessment – Undertake a desktop study to summarise the existing ground conditions, identify any geological constraints or limitations and make recommendations as to possible mitigations and further investigations required
8. Provide indicative cost estimates for required works.

1.2 Scope and limitations

This report: has been prepared by GHD for Land Development Agency and may only be used and relied on by Land Development Agency for the purpose agreed between GHD and the Land Development Agency as set out in section 1.1 of this report.

The buyer is required to undertake their own assessments of the site prior to forwarding a Development Application with ACTPLA.

GHD otherwise disclaims responsibility to any person other than Land Development Agency arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

GHD has prepared the preliminary cost estimate set out in section ***Error! Reference source not found.*** *of this report ("Cost Estimate") using information reasonably available to the GHD employee(s) who prepared this report; and based on assumptions and judgments made by GHD.*

The Cost Estimate is a preliminary estimate only. Actual prices, costs and other variables may be different to those used to prepare the Cost Estimate and may change. Unless as otherwise specified in this report, no detailed quotation has been obtained for actions identified in this report. GHD does not represent, warrant or guarantee that the works can or will be undertaken at a cost which is the same or less than the Cost Estimate.

2. Land use and planning framework

Holder Block 2 Section 21 is zoned under the ACT Government Territory Plan as CFZ Community Facility Zone.

The Land Development Agency (LDA) has advised that the Public Housing Renewal Taskforce (PHRT) is considering the potential to develop this site to provide 18 x 2 bedroom dwellings.

GHD has not reviewed the specific design details for this development, except as described in this report.

Multi-unit housing is listed in the Territory Plan as a prohibited development; however supportive housing developments can be approved under the Merit Track.

3. Investigation scope

This report provides a preliminary investigation of the following existing conditions:

- Services
- Easements
- Traffic, parking and access arrangements
- Flooding and overland flows characteristics
- Vegetation
- Ground conditions
- Geotechnical and contamination
- Heritage
- Environmental / Ecological
- Other characteristics / Constraints.

4. Site description and location

4.1 Site location and setting

Holder Block 2 Section 21 is located approximately 9.8 km southwest of the Canberra City Centre. The Block is a 39,634 m^2 community facility zone located between Blackwood Terrace, Weingarth Street and Stapylton Street in Holder. The western half of the block contains the ACT Board of Health building with access from Weingarth Street. The proposed development is to be located on the eastern side of the block with access from Stapylton Street.

The northern half of the site contains an existing building and falls north at approximately 6.2% and east at approximately 2.3%. There is major vegetation located along the northern boundary of the site, containing large trees.

The southern half of the site is vacant land with a stormwater easement located along the southern boundary. The southern half of the site has a fall of approximately 7.5% towards the east, with a grass swale diverting overland stormwater flows to a catch drain in the southeast corner of the site.

4.2 Surrounding blocks

Block 2 Section 21 adjoins a cricket oval (Block 1 Section 23) to its south and vacant park lands (Block 1 Sections 21 and 22) on its north-western and north-eastern boundaries (shown in Figure 4-1).

The site adjoins residential properties along its eastern and southern boundaries.

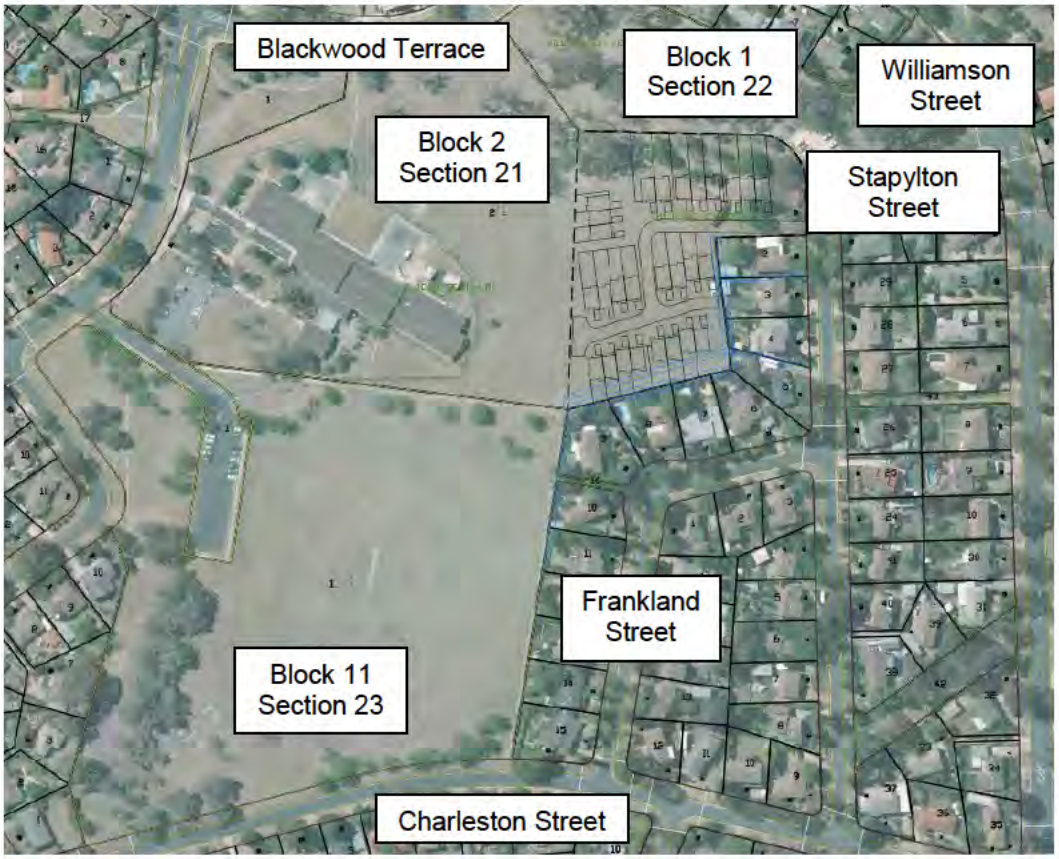

Figure 4-1 Site location on Holder Block 2 Section 21 and surrounding features

Details of blocks around the subject site are summarised in Table 4-1.

Table 4-1 Summary of Blocks surrounding Monash Block 2 Section 20

Block No.	Section No.	Direction from Block	Area (m^2)	Land Use
Site				
2	21	(Eastern part of Block 2)	11,012	CFZ – Community Facility (Existing building in northern half. Southern half vacant)
External to the Site				
2	21	(Western part of Block 2)	28,622	CFZ – Community Facility (ACT Board of Health)
1	23	Southwest	14,417	PRZ1 – Urban Open Space (Cricket oval)
2-15	19	South	11,438	RZ1 – Suburban (Residential properties)
1	22	North/Northwest	14,398	PRZ1 – Urban Open Space (Park and playground)

5. Existing site servicing

5.1 General

GHD has carried out a site investigation of Holder Block 2 Section 21, including liaison and consultation with local service authorities, Territory and Municipal Services (TAMS), “Dial Before you Dig” (applications are provided in Appendix E) and a visual site inspection (site photos are provided in Appendix B).

It is noted that the service alignments, sizes, etc. provided in this report are shown in an approximate location only and are subject to confirmation through detailed on site survey. The exact location of these services should be confirmed prior to commencing any site works.

Existing service plans were made available by Telstra and TransACT for telecommunication and ActewAGL for electricity, gas, sewer and water. Existing stormwater service information was provided by TAMS.

The information supplied in this section is qualified on the basis that it has been supplied by external parties. This information was confirmed where possible by a site visit on 17 September 2015. The following existing site services have been compiled and are detailed on drawing number 23-15186-SK012 referenced in Appendix A .

5.2 Stormwater drainage

5.2.1 Existing stormwater drainage

Stormwater infrastructure in close proximity to the site comprises the following:

- There is an existing Type R sump at the north-eastern corner of Block 1 Section 23 that collects overland flows from the park. Flows from the sump flow through a 300 mm diameter pipe located in a stormwater easement across the southern side of the site towards Stapylton Street. The easement is between approximately 4-8 m north of the southern site boundary, continuing along the northern boundary Block 5 Section 19 to Stapylton Street.
- There is a headwall in the south-eastern corner of the site that collects overland flows from the site. A grass swale has been constructed along the eastern boundary of the site that leads stormwater to the headwall. The headwall is connected to the 300 mm diameter stormwater pipe that is located in the easement.

5.2.2 Overland flow

The southern half of the western boundary of the site is located on a crest, with a fall of approximately 7.5% towards the east. A grass swale has been installed along the eastern boundary to catch overland flows. Stormwater in the south half of the site flows towards the south-eastern corner, where a headwall has been installed

Stormwater in the northern half of the site flows north at approximately 6.2% towards Block 1 Section 22 and east at approximately 2.3% towards Stapylton Street. From visual inspection there are no identifiable concentrated overland flow paths onto or through Block 2.

5.3 Sewer

5.3.1 Existing sewer

Sewer infrastructure in close proximity to the site comprises the following:

- An existing sewer service tie located in the north-eastern corner of the site. The tie connects the existing building to the 150 mm diameter reticulation gravity main located in the western verge along Stapylton Street
- Two existing 150 mm diameter reticulation gravity mains lie to the west of the site at the ACT Board of Health. These sewer lines do not service this part of Block 2 Section 21.

5.4 Water supply

Water supply infrastructure in close proximity to the site comprises the following:

- An existing 20 mm water service tie connecting the existing building to the 100 mm diameter water reticulation main in the eastern verge of Stapylton Street
- A 225 mm diameter water reticulation main northwest of the site along the northern verge of Blackwood Terrace
- A 100 mm diameter water reticulation main south of the site on the southern verge of Frankland Street.

5.5 Electricity supply

Electrical infrastructure in close proximity to the site comprises the following:

- An existing electrical service point located in the existing building connected by an underground service line to the Pole 57607
- There is a series of utility poles along the boundary between the site and the residential property along Stapylton Street and Frankland Street. The poles carry an overhead low voltage electric line and service the residential properties. The poles located along the boundary of Holder Block 1 Section 23 also carry an overhead streetlight line. An underground streetlight line continues along the Block 2 Section 21 and Block 1 Section 23 boundary
- Street lighting along the western verge of Stapylton Street and Frankland Street.

5.6 Telecommunications services

Telecommunications plant comprises the following:

5.6.1 Telstra

Telstra cables are located as follows:

- An existing overhead Telstra line carried by the poles located along the inside of the boundary of the residential property (Monash Section 19) along Frankland Street and Stapylton Street
- An existing 50 mm diameter PVC conduit containing a 50 pair cable along the eastern verge of Stapylton Street. The conduit connects to an above ground cabinet at the northeast corner of the site (Note: the location of the cabinet was not verified as it is located on private property).

5.6.2 Optus

There is no Optus telecommunications plant surrounding Holder Block 2 Section 21.

5.6.3 ICON

There is no ICON telecommunications plant surrounding Holder Block 2 Section 21.

5.6.4 TransACT

Other telecommunication network cables are located as follows:

- An underground conduit running from the pole at the southwest corner of the site northwest towards the ACT Board of Health
- An underground conduit running through Block 4 Section 24, up the western verge of Stapylton Street then east through Block 43 Section 18.

5.6.5 Other providers

There is no telecommunications plant supplied by any other providers surrounding Holder Block 2 Section 21.

5.7 Natural gas supply

Natural gas infrastructure in close proximity to the site comprises the following:

- A 40 mm diameter Polyethylene gas distribution main (210 kPa) is located in both verges of Frankland Street and Stapylton Street, along the roadside boundary of the residential properties.

5.8 Verge works

5.8.1 Stapylton Street

Stapylton Street is located east of Block 2 Section 21. The south end of the street meets Sheaffe Street at a T-junction. There is a bend at the northern end of Stapylton Street towards the northeast where it meets Williamston Street at a T-Junction.

The nature of road reserves and associated verges on Stapylton Street surrounding the site is outlined below.

North of Bend

- There are no footpaths in the verges along Stapylton Street.
- Two driveways North of the Bend:
  - One in the northern verge providing access to a gravel carpark.
  - One in the southern verge providing access to Block 2 Section 19.
- Streetlighting along the northern verge
- A water hydrant in the southern verge near the bend
- A Type R stormwater sump in the southern verge on the corner of Stapylton Street and Willimamston Street.

South of Bend

- There are no footpaths in the verges along Stapylton Street
- Driveways along both verges into residential properties
- Vehicle access to the existing building
- Streetlighting along the western verge
- Water hydrants are along the eastern verge
- Sewer manholes along the western verge
- Type R stormwater sumps along both verges.

5.8.2 Frankland Street

Frankland Street is located south of Block 2 Section 21. The south end of the street meets Sheaffe Street at a T-junction. There is a bend at the northern end of Frankland Street towards the east where it meets Stapylton Street at a T-Junction. There are no footpaths along Frankland Street.

The nature of road reserves and associated verges on Frankland Street surrounding the site is outlined below.

- There are no footpaths in the verges along Frankland Street
- Driveways along both verges into residential properties
- Streetlighting along the northern verge
- Water hydrants are along the southern verge
- Sewer manholes along the northern verge
- Type R stormwater sumps along both verges.

Table 5-1 Road reserve widths surrounding Holder Block 2 Section 21

Subcomponent	Approximate Width (m)
Stapylton Street	
North of bend	
Northern verge	6.4
Road	6.9
Southern verge	5.6
South of bend	
Western verge	5.2
Road	6.2
Eastern verge	5.4
Frankland Street	
Northern verge	5.2
Road	6.2
Southern verge	5.2

5.9 Easements

There is an electricity easement along the boundary with section 19. The easement contains overhead electricity and telecommunication lines that run along the rear of the residential properties. The electricity easement is also located along the common boundary between Block 2 and Block 3.

There is a stormwater/drainage easement along the south end of the site. The easement carries a stormwater pipe that connects the sump in the northeast corner of Block 1 Section 23 to Stapylton Street.

It would be feasible to realign the stormwater line and easement along the southern boundary of the site, but this would have only minimal benefit to the developable area of the site as development is constrained more by access to sewerage services.

5.10 Traffic, parking and access

5.10.1 Vehicle and pedestrian access

There is existing vehicle access to the existing building from Stapylton Street with capacity for the proposed development.

Pedestrian access around the site consists of:

- A concrete pedestrian footpath along the northeast boundary of the site, connecting Stapylton Street to the park and to the footpath along the southern boundary of Section 20
- A concrete pedestrian footpath along the eastern and northern boundaries of Block 1 Section 23, connecting Sheaffe Street to Weingarth Street. There is evidence of foot traffic continuing from the footpath north, along the western boundary of the proposed site, to the playground in Block 1 Section 22.

5.10.2 Parking

There is an existing gravel carpark northeast of the site on Block 2 Section 21, with access from Stapylton Street.

The existing building currently has five carpark spaces, two of which are reserved for disabled use.

Kerbside parking is not restricted on Stapylton Street and Frankland Street.

5.10.3 Traffic

Stapylton Street is an access street between the major collector Williamson Street and the minor collector Sheaffe Street. The road network is surrounded by the arterial roads: Hindmarsh Drive, Dixon Drive and Streeton Drive.

The current road network has adequate traffic capacity.

6. Specialist investigations

6.1 Tree survey and assessment

A tree assessment was carried out on Holder Block 2 Section 21, ACT, on 17 September 2015. The tree assessment was based on the Land Development Agency tree assessment methodologies, however the landscape amenity items were removed as they were not required as part of this assessment.

Submitted with this summary report is the tree assessment data sheet (provided in excel format in Appendix D), and an aerial map of the site with tree identification numbers marked (used in absence of a formal site survey of individual trees).

This assessment was undertaken during early spring, and as such leaves were not present on most deciduous trees. Species and health assessments were undertaken in the absence of leaves and therefore the best possible assessment was made in light of their dormant state. The species of two trees on the Holder site were unable to be identified due to the absence of leaves.

Information recorded in the tree assessment reflects the condition of the trees at the time of their inspection. The trees were assessed using visual methods from standing at ground level in the vicinity of the tree. Trees were not climbed or inspected from above the ground, and therefore some defects may not have been noted if they could not be seen from ground level. Assessment methods did not include probing, boring, coring or use of any other diagnostic instruments. The root structure of the tree was not examined.

Without external signs of decay, it is not possible to determine any internal decay or other major defects in the stem or limbs. It is therefore possible for a tree to fail without showing external defects or signs.

6.1.1 Tree protection requirements

Where trees fall within a tree management precinct on National leased land, they fall under the protection of the *ACT Tree Protection Act 2005* and should be managed accordingly. Trees are protected on leased land based on their size. A protected tree is either: A regulated tree – greater than 12 m tall, has a trunk circumference of 1.5 m or more at 1 m above the ground, or a canopy spread of 12 m or more; or a registered tree – a tree that has been included on the ACT Tree Register. There were no registered trees on the sites.

Note that 'land within an existing school campus is not taken to be part of a tree management precinct for the purpose of determining whether a funded activity will affect, is affecting or has affected a regulated tree'- as per the *Tree Protection (Tree Management Precincts) Declaration 2009 (No 1)*. A school site is 'a government or non-government school within the meaning of the *Education Act 2004*'; and a funding activity means 'development, or another activity, that is funded completely or partly by 1 or more declared funding programs'.

If any trees fall on TAMS unleased land (for example on a verge) then these trees are considered a public asset and are therefore all protected regardless of their size. Any tree damaging acts or tree removal is subject to Asset Acceptance (AA) approval and should be managed in accordance with the TAMS Landscape Management and Protection Plan (LMPP).

The tree assessment was carried out in accordance with requirements under the *ACT Tree Protection Act 2005*.

6.1.2 Holder Block 2 Section 21

The Holder tree assessment consisted of a total of 30 trees. There was a mix of planted trees as well as remnant natives, and consisted of both exotics and natives.

With the exception of remnant tree #7, all other remnant trees (#s 8, 24, 25 and 29), have significant decay either in the main stem or major forks (or both) and present a significant risk of failure. While these trees provide important natural value because of their remnant status and because they provide localised habitat for native birds and animals, they were nonetheless rated as 'poor' due to their risk potential.

Trees 22 and 23 were dead with some basal shooting, and trees #26, 27 and 28 were in decline. Tree # 30 was growing through the powerlines. These trees should be removed for safety reasons (as shown in Figure 6-1).

As a group, the trees on site stand out in the landscape. However, the majority of the trees if seen on their own would not be considered to have a high visual or scenic value. Additionally, some trees were multi-leaders and some were of poor form visually.

Figure 6-1 Remnant trees and dead/declining trees

6.2 Preliminary heritage assessment

There are no elements on or near Holder Block 2 Section 21 that are listed on the heritage register.

6.3 Preliminary environmental assessment

During the site investigation of Holder Block 2 Section 21 there was no evidence of uncontrolled dumping on or around the site.

GHD understands that Holder Block 2 Section 21 was established as part of the surrounding residential subdivision development and has been held as part of the existing block which contains the existing building and former school.

It is assumed that prior to the surrounding residential development this site was managed in the same manner as the adjoining land and is not unsuited to residential use by reason of previous land-uses.

A formal Phase 1 contamination assessment has not been undertaken as part of this Site Investigation Report.

In view of the age of the existing building, it must be presumed that it contains at least some bonded asbestos material that must be removed by a properly licenced contractor prior to the demolition of the building.

The site inspection did not reveal any other evidence of areas of potential environmental concern.

6.4 Preliminary geotechnical assessment

Holder Block 2 Section 21 is located on a 'Quartz Gravel' geological surface as shown in BMR Bulletin 233: Geology of the Canberra 1:100 000 Sheet area, New South Wales and Australian Capital Territory. The surrounding development indicates that the site is not unsuitable for residential development.

No sampling or testing has been undertaken. To facilitate residential development of the site, it would be appropriate for a geotechnical engineer to undertake a site classification assessment and report.

7. Proposed site servicing

All relevant service authorities have been consulted in order to determine the adequacy of existing services at or near the site to meet the likely estimated demands associated with the proposed development. The following identified service connection points assume an average demand upon these services for intended land use, and connection points described below.

The site is located within a developed and well-serviced residential area. The site can be readily serviced by the various services which are located nearby.

In order to establish the site for development, the existing building will need to be demolished.

7.1 Stormwater drainage

The existing 300 mm diameter stormwater main in the easement near the southern boundary of the site has sufficient capacity to meet the demand of the site. A stormwater service tie will be required to service the development and may be connected to the stormwater main.

7.2 Water supply

There is an existing 20 mm water service tie located in the northeast corner of the site that connects to the 100 mm diameter water main along the eastern verge of Stapylton Street. The service tie is currently used to service the existing building and will need to be upgraded in order to service the proposed 28 x 2 bedroom units.

The extent of the development may also require upgrading of the existing 100 mm diameter water main along Stapylton Street, as well as the construction of additional fire hydrants based on the fire rating.

The hydraulic services design for the residential development on the site must consider available water pressures to meet the relevant fire-fighting flows required by the building code.

7.3 Sewer

There is an existing sewer service tie located in the northeast corner of the site that connects the existing building to the 150 mm diameter gravity sewer main along the western verge of Stapylton Street/Frankland Street. The existing network has capacity to cater for the proposed 28 x 2 bedroom units, however the existing service tie will need to be upgraded.

It is relevant to note that the profile of the site does not allow the units in the southeast corner of the site to drain to this point and it is impracticable to construct a sewer main across residential properties fronting Stapylton Street. In order to alleviate this issue the floor level of a small number of the units will need to be raised in the impacted areas, however this may cause the units to overshadow and overlook the neighbouring properties. An alternative development footprint is shown in drawing 23-15186-SK016 in Appendix A.

7.4 Electricity supply

ActewAGL has advised that it can provide electrical services to Holder Block 2 Section 21, likely from the overhead network along the south and east boundaries of the site.

It is observed that the proposed development would be supplied from the end of a lengthy overhead reticulation and may require some upgrading of the conductors by ActewAGL. It has not been determined whether any upgrade of the conductors would be required.

7.5 Telecommunications

TransACT has advised that the Point of Entry for Holder Block 2 Section 21 is at Pole ID57611 located just outside the southwest corner of the site. The Point of Entry plan supplied by TransACT can be found in Appendix C.

7.6 Natural gas supply

The gas connection for the proposed development can be sourced from the existing 40 mm diameter gas main located in Stapylton Street.

7.7 Boundaries and easements

Holder Block 2 Section 21 will require subdivision before the site can be used for development.

The site is affected by stormwater drainage and electrical reticulation easements that will affect the layout of the development.

7.8 Traffic and Access

The existing road network is adequately servicing the existing development and has spare capacity to accommodate traffic from the proposed 28 x 2-bedroom dwellings.

There is existing vehicle access to the existing building from Stapylton Street with capacity for the proposed development. Care should be taken during development to protect the access from damage by construction traffic. If repairs are required, the access could be reconstructed as a conventional concrete verge crossing if preferred to match the internal driveway materials.

8. Cost estimate

The following works shown in Table 8-1 are required to adequately establish the site for the proposed development.

Table 8-1 Summary of site establishment works and cost estimates

Item	Details	Probable Costs (Including GST)
Subdivision	Subdivision to create separate Block for proposed development	[redacted]
Sub-total		[redacted]
Total +20% contingency		[redacted]

The works shown in Table 8-2 are to be completed as part of the development of the site.

Table 8-2 Summary of development works and cost estimates

Item	Details	Probable Costs (Including GST)
Stormwater	Connect to existing 300 mm diameter stormwater main along the south boundary of the site.	[redacted]
Water	Upgrade existing water service connection across Stapylton Street.	[redacted]
Sewer	Upgrade existing sewer service tie to 150 mm diameter.	[redacted]
Electricity	Connect to existing LV network along southern and eastern boundary. (Nil cost assumes direct connection to existing adjoining overhead electrical reticulation and that there is capacity in the conductors for the additional loads.)	[redacted]
Telecommunications	Installation of TransACT VDSL2 network.	[redacted]
Gas	Trenching from existing 40 mm diameter gas main to site. Jemena have advised that there is no cost to the developer for the laying of gas main and services in medium density developments if the developer provides trenching for the services.	[redacted]
Vehicular Entrance	Upgrade of existing access into site from Stapylton St if required.	[redacted]
Total Developer Funded Works (Incl. GST)		[redacted]

9. Summary of opportunity and constraints

Based on the investigations carried out the following opportunities and constraints have been identified in n :

Table 9-1 Summary of opportunities and constraints

Opportunities:
• Site is physically well suited to infill residential development and has access to all required services.
Constraints:
• **Existing Building:** There is an existing building to be considered in planning for future use of the site. • **Sewer:** The southeast corner of the site cannot be serviced due to the slope of the site. • **Easement:** The stormwater easement on the southern boundary of the site will limit construction in the area.

10. Recommendations

Based on the investigations carried out to date it is recommended that the lessee / developer carry out the following additional investigations:

- The layout of residential development on the site must address the limitation of area that can practically drain to the sewer connection
- A geotechnical engineer should undertake a site classification assessment and report
- Care will need to be taken during construction to protect the vehicle access from Stapylton Street. It is likely to become damaged and so may need to be reinstated as a concrete vehicle access upon completion of works.
- Further investigations are required in relation to the demolition or reuse of the existing building located on the site.
- Consultations should be held with ActewAGL as to whether an upgrade may be required to the adjoining overhead electrical reticulation to accommodate the additional loads.

11. Drawings

Drawings provided in Appendix A of this report include:

- Drawing 23-15186-SK010 “Existing Services – Holder Block 2 Section 21”
- Drawing 23-15186-SK013 “Proposed Services – Holder Block 2 Section 21”
- Drawing 23-15186-SK016 “Site Constraints – Holder Block 2 Section 21”.

These drawings are to be read in conjunction with this report. The plans are based upon work as executed information and other information supplied by authorities. All services are to be confirmed on site. The existing services in the vicinity of the site are represented in an indicative format. The plans were prepared solely for the purposes of this report and for the use of the client.

Appendices

Appendix A - Drawings

LEGEND:

- PROPOSED SITE DEVELOPMENT BOUNDARY
- EXISTING WATER MAIN HYDRANT VALVE SMALL METER LARGE METER
- EXISTING SEWER MAIN MAINTENANCE HOLE SLOPE JUNCTION SERVICE POINT
- EXISTING STORMWATER MANHOLE SUMP
- EXISTING GAS LINE
- EXISTING HIGH VOLTAGE ELECTRICITY LINE (OVERHEAD)
- EXISTING HIGH VOLTAGE ELECTRICITY LINE (UNDERGROUND)
- EXISTING LOW VOLTAGE ELECTRICITY LINE (OVERHEAD)
- EXISTING LOW VOLTAGE ELECTRICITY LINE (UNDERGROUND)
- EXISTING ELECTR C SUBSTATION SERVICE POINT POLE
- EXISTING STREET LIGHT AND CABLE
- EXISTING TELSTRA CABLE ACCESS CHAMBER CABINET
- EXISTING TRANSACT CABLE

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

PRELIMINARY

rev	description	app'd	date
A	INITIAL ISSUE	JW*	07.10.15

LDA
FUTURE DEVELOPMENT
EXISTING SERVICES
HOLDER BLOCK 2 SECTION 21

GHD
Level 7, 16 Marcus C arke Street
Canberra ACT 2601 Austral a
GPO Box 1877 Canberra ACT 2601
61 2 6113 3200 F 61 2 6113 3299
E cbrma x@xxx.xxx W www.ghd.com

scale	1:500 for A1	job no.	23-15186
date	OCTOBER 2015	rev no.	A

approved (PD) SK010

Plot Date: 8 Oc ober 2015 - 11 06 AM Plo ted by: Dav d onko Cad F le No: G: 23\15186\CADD\Drawings 23 15186-SK010-SK012.dwg

LEGEND:

- PROPOSED SITE DEVELOPMENT BOUNDARY
- EXISTING WATER MAIN HYDRANT VALVE SMALL METER LARGE METER
- EXISTING SEWER MAIN MAINTENANCE HOLE SLOPE JUNCTION SERVICE POINT
- EXISTING STORMWATER MANHOLE SUMP
- EXISTING GAS LINE
- EXISTING HIGH VOLTAGE ELECTRICITY LINE (OVERHEAD)
- EXISTING HIGH VOLTAGE ELECTRICITY LINE (UNDERGROUND)
- EXISTING LOW VOLTAGE ELECTRICITY LINE (OVERHEAD)
- EXISTING LOW VOLTAGE ELECTRICITY LINE (UNDERGROUND)
- EXISTING ELECTR C SUBSTATION SERVICE POINT POLE
- EXISTING STREET LIGHT AND CABLE
- EXISTING TELSTRA CABLE ACCESS CHAMBER CABINET
- EXISTING TRANSACT CABLE
- NEW WATER MAIN HYDRANT VALVE SMALL METER LARGE METER
- NEW SEWER MAIN MAINTENANCE HOLE SLOPE JUNCTION SERV CE POINT
- NEW STORMWATER MANHOLE SUMP
- NEW GAS LINE
- NEW LOW VOLTAGE ELECTR CITY LINE (UNDERGROUND)
- NEW TRANSACT CABLE

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

PRELIMINARY

rev	description	app'd	date
A	INITIAL ISSUE	JW*	07.10.15

LDA
FUTURE DEVELOPMENT
PROPOSED SERVICES
HOLDER BLOCK 2 SECTION 21

GHD
Level 7, 16 Marcus C arke Street
Canberra ACT 2601 Austral a
GPO Box 1877 Canberra ACT 2601
61 2 6113 3200 F 61 2 6113 3299
E cbrma x@xxx.xxx W www.ghd.com

scale	1:500 for A1	job no.	23-15186
date	OCTOBER 2015	rev no.	A

approved (PD) SK013

Plot Date: 7 Oc ober 2015 - 6: 5 PM Plo ted by: Dav d onko
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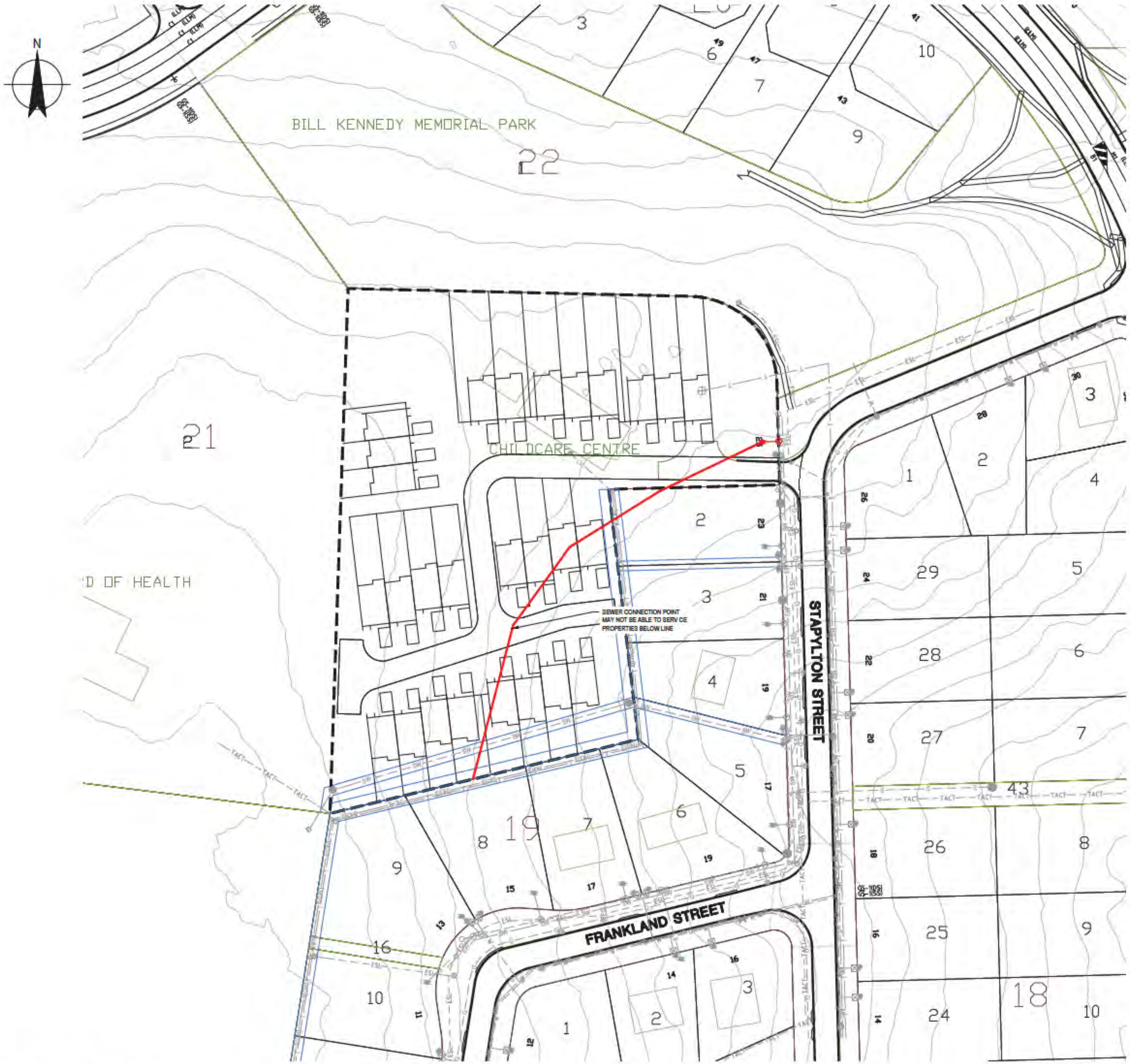

LEGEND:

- PROPOSED SITE DEVELOPMENT BOUNDARY
- EXISTING WATER MAIN HYDRANT VALVE SMALL METER LARGE METER
- EXISTING SEWER MAIN MAINTENANCE HOLE SLOPE JUNCTION SERVICE POINT
- EXISTING STORMWATER MANHOLE SUMP
- EXISTING GAS LINE
- EXISTING HIGH VOLTAGE ELECTRICITY LINE (OVERHEAD)
- EXISTING HIGH VOLTAGE ELECTRICITY LINE (UNDERGROUND)
- EXISTING LOW VOLTAGE ELECTRICITY LINE (OVERHEAD)
- EXISTING LOW VOLTAGE ELECTRICITY LINE (UNDERGROUND)
- EXISTING ELECTR C SUBSTATION SERVICE POINT POLE
- EXISTING STREET LIGHT AND CABLE
- EXISTING TELSTRA CABLE ACCESS CHAMBER CABINET
- EXISTING TRANSACT CABLE

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

PRELIMINARY

rev	description	app'd	date
A	INITIAL ISSUE	JW*	07.10.15

LDA
FUTURE DEVELOPMENT
SITE CONSTRAINTS
HOLDER BLOCK 2 SECTION 21

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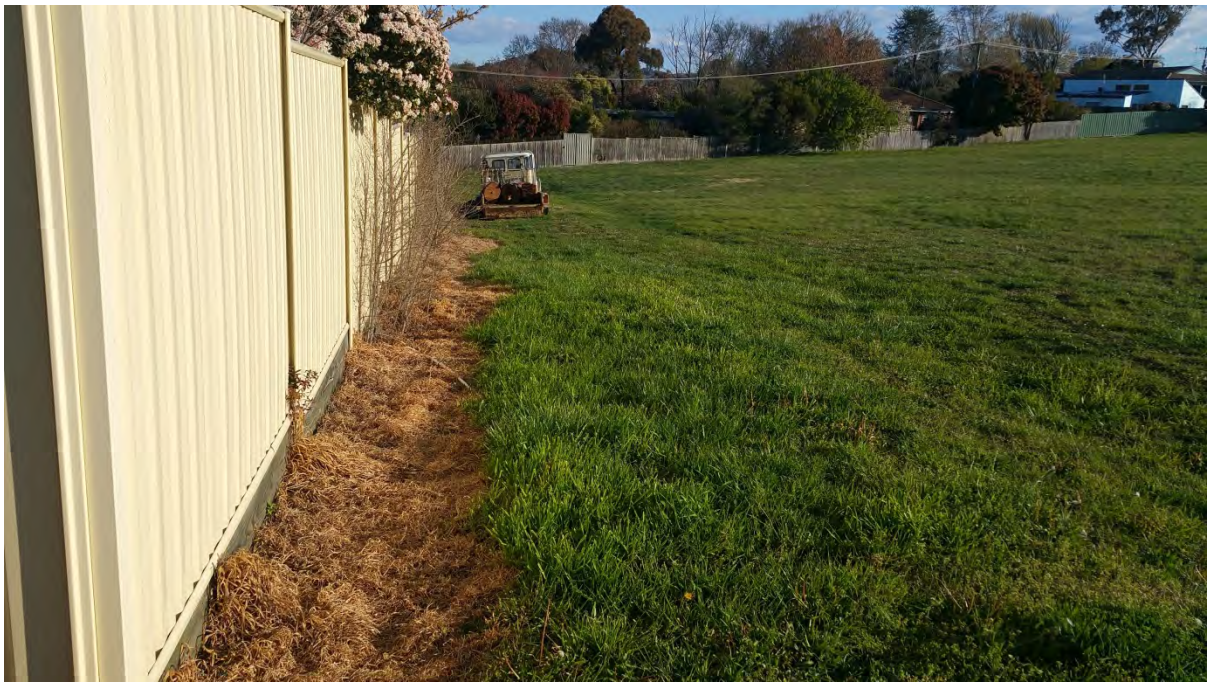
scale 1:500 for A1 job no. 23-15186
date OCTOBER 2015 rev no. A

approved (PD) SK016

Plot Date: 8 October 2015 - 12:22 PM Plotted by: David onko Cad File No: G:\23\15186\CADD\Drawings\23 15186-SK016-SK017.dwg

Appendix B - Site Visit Photos



Appendix C - Correspondence with agencies / Authorities

David Ionko

From: Nugent, Chris <Chris.Nugen[redacted]
Sent: Tuesday, 15 September 2015 3:06 PM
To: David Ionko
Cc: Vanderkley, Robert
Subject: RE: WAE information for site investigations
Attachments: David Ionko - GHD.zip

Hi David,

Please see attached drawings for the sites as requested. Please note I was unable to find any tie data from ACTPLA for the site in Holder. According to the original WAE plans there appears to be a tie in the south eastern corner of the block.

Please note that these plans are archive files, originally supplied to the ACT Government by external consultants as part of works as executed submissions. I have tried to find all the data we have, and while we do not have any more up to date files on the system that is not to say there has not been work done since that we have not received for various reasons. Please also note that this information is provided as a guide only and the ACT government does not guarantee the accuracy or completeness of this data.

Any issues please let me know.

Regards

Chris

Chris Nugent
Technical Officer | Operational Support Branch | Directorate Services Division |
Department of Territory and Municipal Services | ACT Government |
PH: +61 2 6207 0708 | FAX: +61 2 6207 0708
chris.nugent@act.gov.au

From: David Ionko [mailto:David.Ionko@ghd.com]
Sent: Tuesday, 15 September 2015 1:24 PM
To: Vanderkley, Robert
Cc: John Wearne; Jim Efstathiou
Subject: WAE information for site investigations

Hi Robert,

GHD has been engaged by the LDA to investigate the potential for future development at the following sites:

- Part of Holder Block 2 Section 21
- [redacted]
- Monash Block 2 Section 20

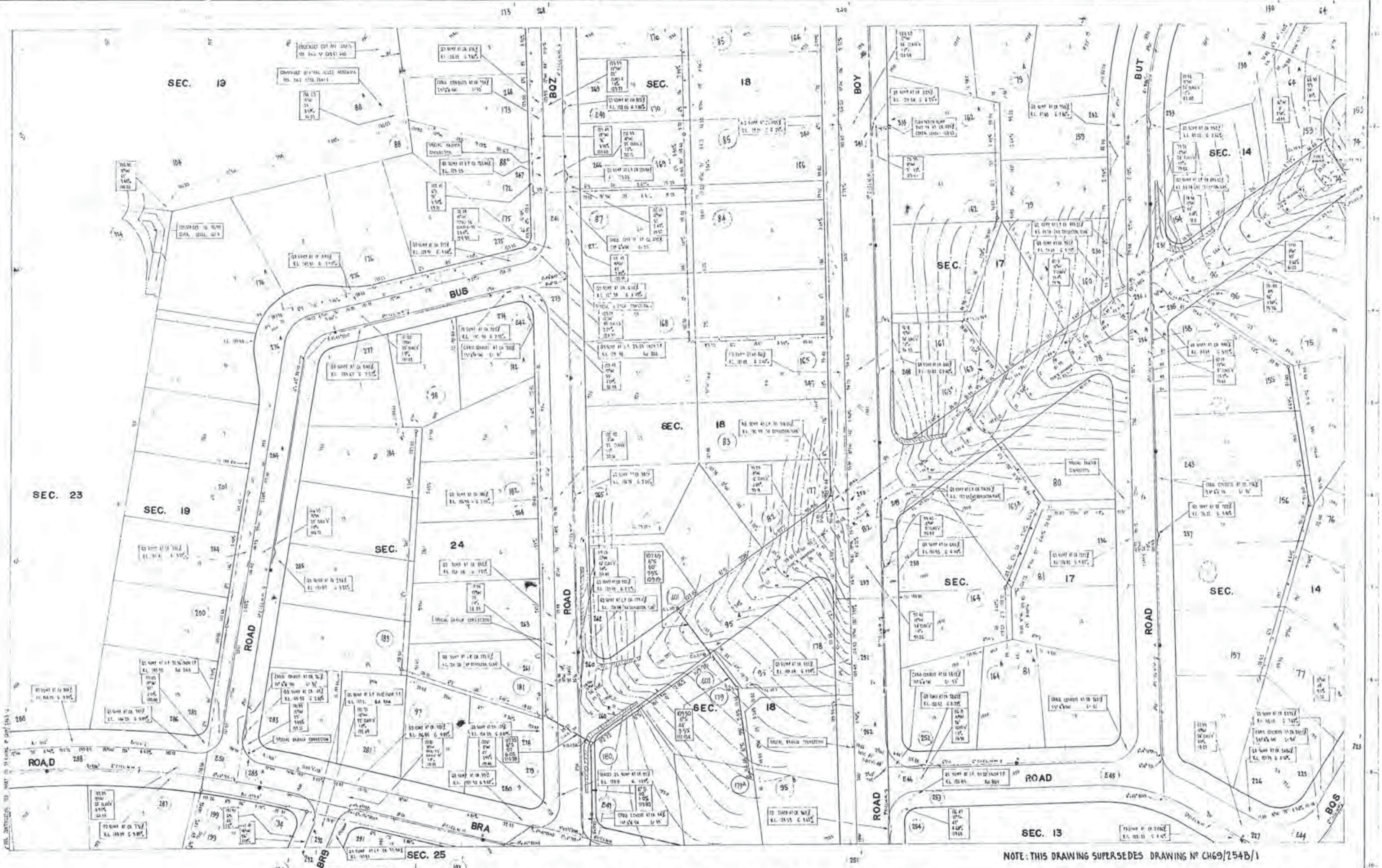
The site boundaries are outlined in the attached PDFs.

Does TAMS possess any WAE information for infrastructure at or around these sites? Your help is much appreciated.

Regards

David Ionko
Graduate Civil Engineer

GHD
T: +61 2 6113 3297 | V: 233297 | E: david.ionko@ghd.com
Level 7, 16 Marcus Clarke Street, Canberra ACT 2601 Australia | www.ghd.com



NOTE: THIS DRAWING SUPERSEDES DRAWING Nº CH69/254B/1

ALL 6" & 9" DIA. SEWERS SHOWN ON THIS DRAWING TO BE CONSTRUCTED IN VITRIFIED CLAY PIPES

SCALE

246	247
248	249
250	251
252	253
254	255
256 257	258

KEY TO ADJOINING SHEETS

BIRD DRAUGHTING SERVICES

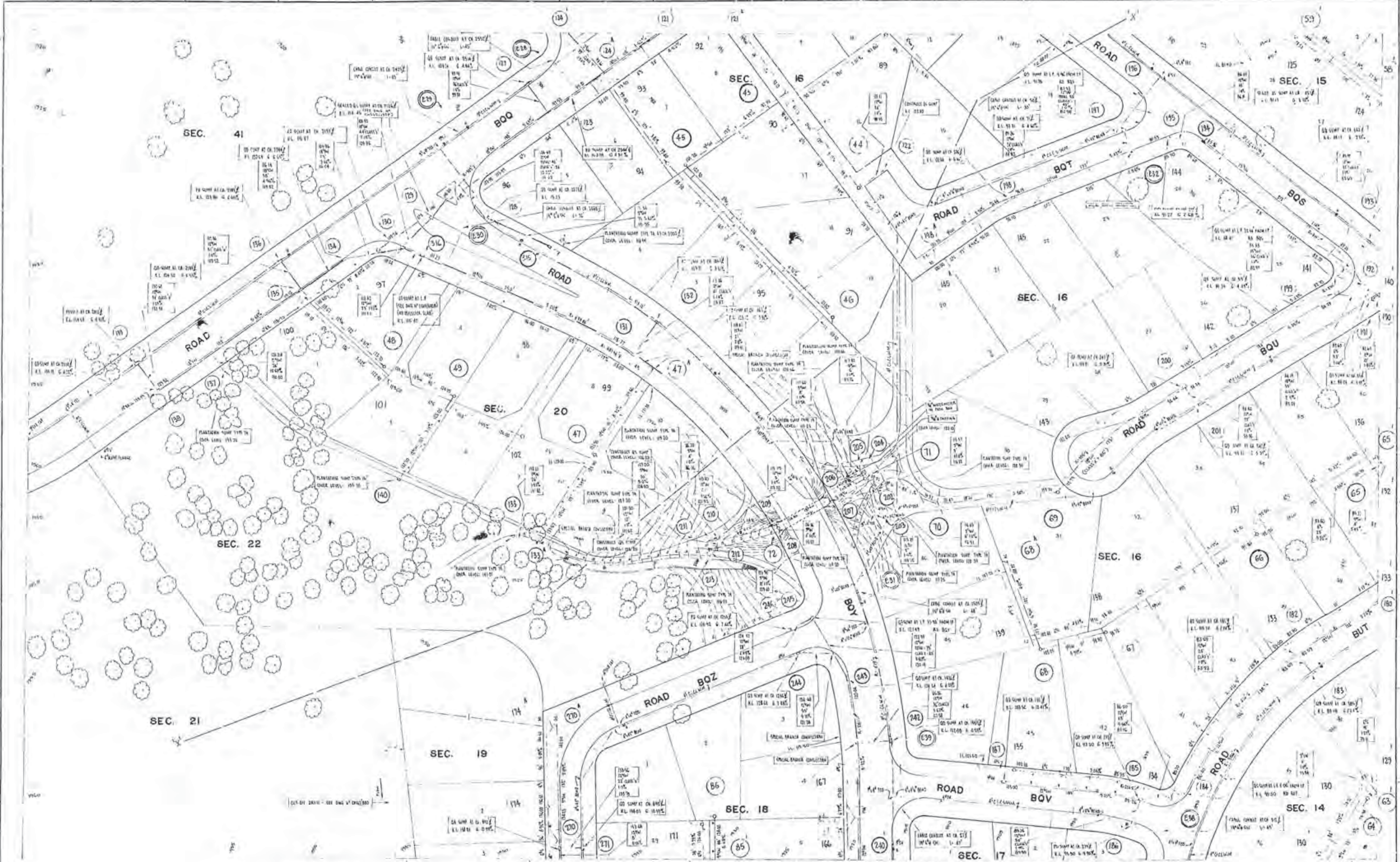
AMEND. No.	AMENDMENTS	DATE	INIT.
3	Re-design of sewer mains in the vicinity of Roodway...		

FOR AND ON BEHALF OF THE NATIONAL CAPITAL DEVELOPMENT COMMISSION

COMMONWEALTH OF AUSTRALIA
DEPARTMENT OF WORKS
CANBERRA, A.C.T.

WESTON CREEK NO. 7A
SECTION 24,
PART SECTIONS 13 14 17 18 19 25 26
HYDRAULIC SERVICES

CH69/254B/3



ALL 6" & 9" DIA. SEWERS NORTH OF LINE 'X'-'X' TO BE CONSTRUCTED IN CONCRETE PIPES

ALL 6" & 9" DIA. SEWERS SOUTH OF LINE 'X'-'X' TO BE CONSTRUCTED IN VITRIFIED CLAY PIPES

SCALE Feet: 40 20 0 40 80 120

ALL DIMENSIONS MUST BE VERIFIED ON THE JOB BEFORE COMMENCING ANY WORK OR MAKING ANY SHOP DRAWINGS.

NOTE: STORMWATER LINE 152-151 & 212-142A TO BE CONSTRUCTED AFTER ROAD IS FORMED.

NOTE: FOR GENERAL NOTES SEE DRAWING Nº CH69/119

	246	247
	248	249
	250	251
	252	253
	254	255
256	257	258

KEY TO ADJOINING SHEETS

PREPARED BY
BIRD DRAUGHTING SERVICES
NCR HOUSE, 3 BADHAM ST
DICKSON ACT PH. 400747

AMEND No.	AMENDMENTS	DATE	INITL.
1.	SEC 18 BL 8 4"SH MH ADDED / MH 171 ADDED	28.4.70	

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FOR AND ON BEHALF OF THE NATIONAL CAPITAL DEVELOPMENT COMMISSION

COMMONWEALTH OF AUSTRALIA
DEPARTMENT OF WORKS
CANBERRA, A.C.T.

SUPERVISING HYDRAULIC ENGINEER — PRINCIPAL ENGINEER — DIRECTOR OF WORKS

WESTON CREEK NO. 7A
SECTION 20,
PART SECTIONS 14-19
HYDRAULIC SERVICES

THIS DRAWING TO READ IN CONJUNCTION WITH THE SPECIFICATION.

DRAWING NUMBER: CH69/252B

David Ionko

From: enworks <enworks@actewagl.com.au>
Sent: Wednesday, 30 September 2015 9:54 AM
To: David Ionko
Subject: RE: Servicing of potential future development - Holder

Dear David,

Thank you for your email.

Yes, it is practical for ActewAGL to provide electrical services to this site.
The developer/proponent will be required to fund associated project costs as per ActewAGL Connection Charges Policy which is available on ActewAGL website.

Thanks

Network Connection Services
Customer Connections
ActewAGL Distribution

T: 02 6293 5880

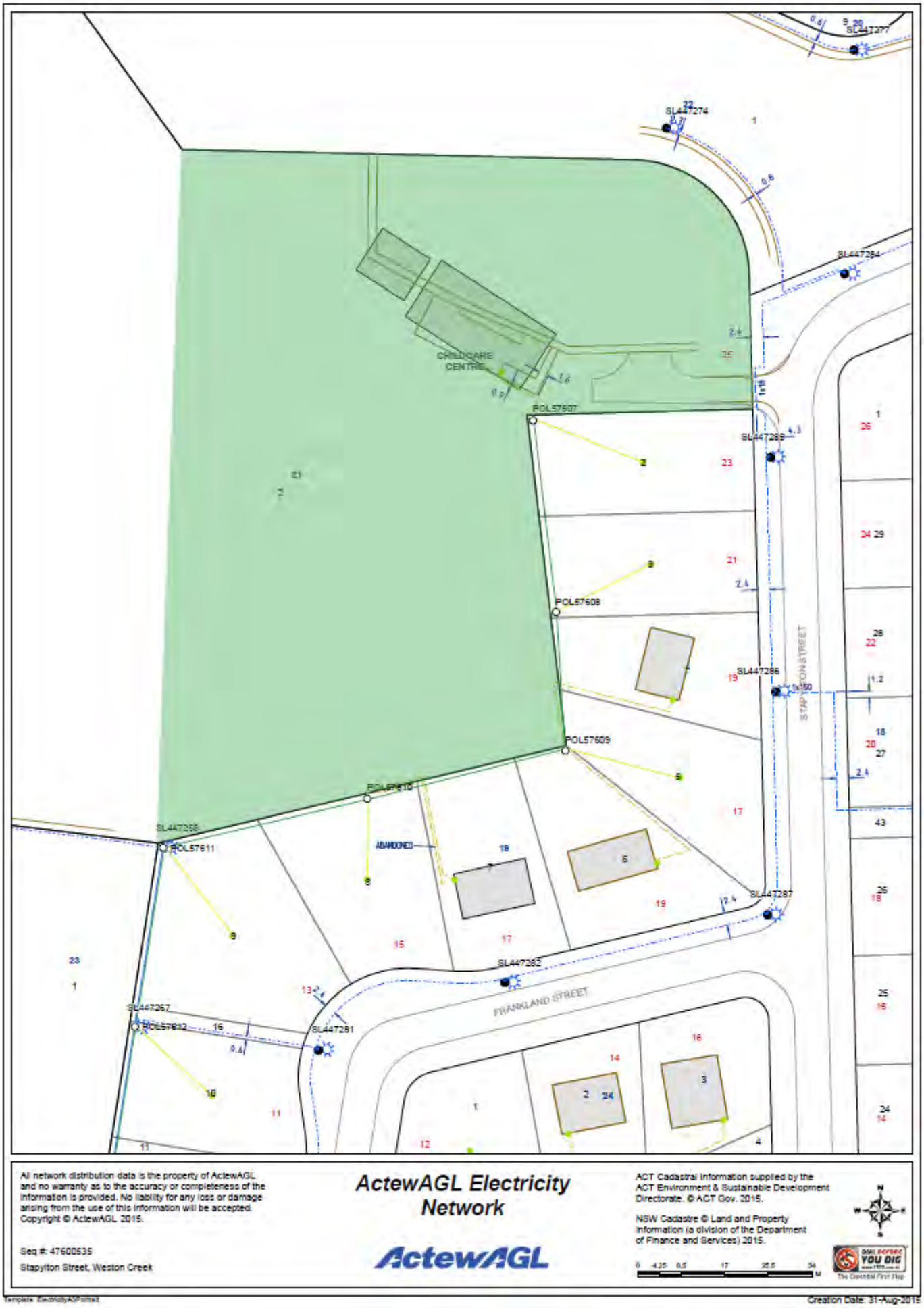
Follow us on Facebook and Twitter
www.actewagl.com.au

From: David Ionko [mailto:David.Ionko@ghd.com]
Sent: Tuesday, 29 September 2015 12:16 PM
To: Singh, Darshan
Subject: Servicing of potential future development - Holder

Steve,

GHD has been engaged by the LDA to investigate the potential for future development on part of Holder Block 2 Section 21.

Would you please confirm that it is practical to provide electrical services for the equivalent of 27 x 2 bedroom dwellings on the site shown below and the approximate cost of this servicing?



Thank you for your help.

Regards

David Ionko
Graduate Civil Engineer

GHD
T: +61 2 6113 3297 | V: 233297 | E: david.ionko@ghd.com
Level 7, 16 Marcus Clarke Street, Canberra ACT 2601 Australia | www.ghd.com

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

David Ionko

From: Steve Donnelly <Steve.Donnelly@jemena.com.au>
Sent: Thursday, 24 September 2015 12:01 PM
To: David Ionko
Subject: RE: Servicing of potential future development - Holder
Attachments: MEDIUM DENSITY SITE.pdf

Hi David

Gas can be supplied to this site from the existing 40mm main located in Stapylton Street. In general there is no cost to the developer for the laying of gas main and services in medium density developments if they provide trenching to the attached specifications. This advice also applies to the Monash and [redacted] sites.

Regards

Regards

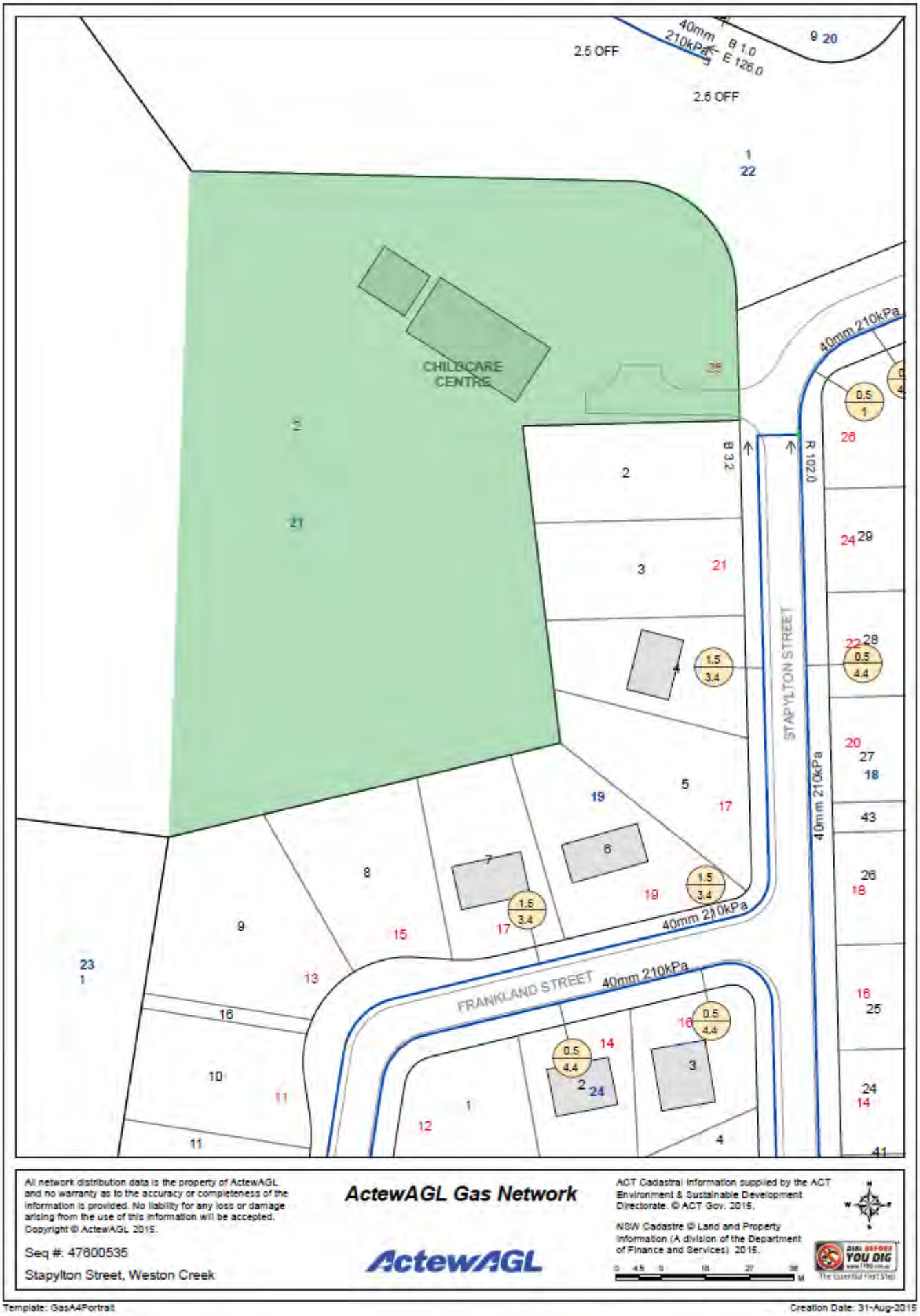
Steve Donnelly
Network Development Manager
Jemena
Unit 1, 5-7 Johns Place, Hume, ACT 2620
(02) 6203 0640 | 0427 401 803
steve.donnelly@jemena.com.au | www.jemena.com.au

From: David Ionko [mailto:David.Ionko@ghd.com]
Sent: Thursday, 24 September 2015 11:24 AM
To: Steve Donnelly
Subject: Servicing of potential future development - Holder

Steve,

GHD has been engaged by the LDA to investigate the potential for future development on part of Holder Block 2 Section 21.

Would you please confirm that it is practical to provide gas services for the equivalent of 27 x 2 bedroom dwellings on the site shown below and the approximate cost of this servicing?



Thank you for your help.

Regards

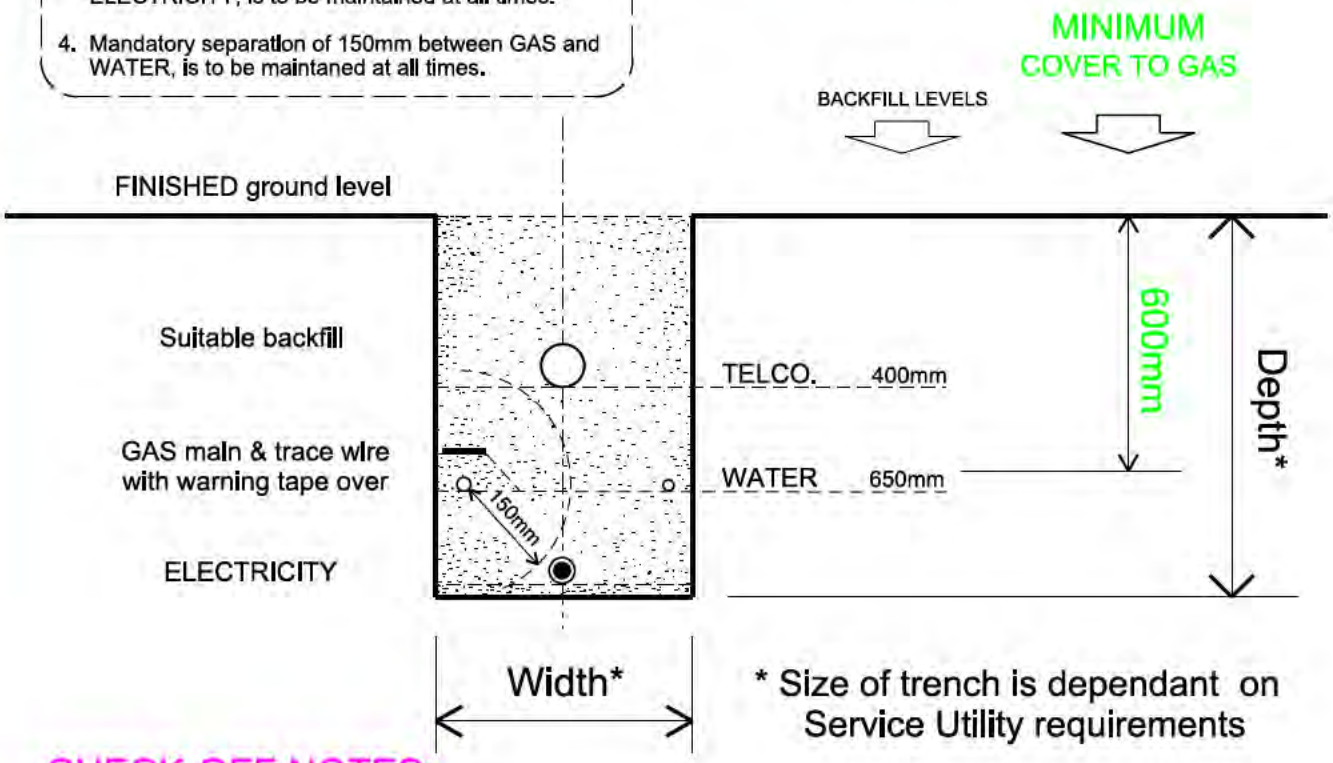
David Ionko
Graduate Civil Engineer

GHD
T: +61 2 6113 3297 | V: 233297 | E: david.ionko@ghd.com
Level 7, 16 Marcus Clarke Street, Canberra ACT 2601 Australia | www.ghd.com

MANDATORY SEPARATIONS:

1. Mandatory separation of 150mm between GAS and TELECOMMUNICATIONS is to be kept at all times.
2. Separations between TELECOMMUNICATIONS and ELECTRICITY is to be as per relevant Service Utility specifications.
3. Mandatory separation of 150mm between GAS and ELECTRICITY, Is to be maintained at all times.
4. Mandatory separation of 150mm between GAS and WATER, is to be maintaned at all times.

NOTE: If ground levels are altered AFTER the gas mains are laid, and retification works are then required, the BUILDER WILL BE CHARGED.



* Size of trench is dependant on Service Utility requirements

CHECK-OFF NOTES:

- ☐ The Meter : All meter positions must be confirmed prior to ZNX attending site.
- ☐ The Trench: Must be clean, backfilled, and leveled to accept the installation of gas at 650mm level.
  All electrical cables must be completely Installed prior to backfilling.
  The trench must not run beneath the driveway at the point of services entry to site.
  Gas must have a separation of 150mm from other services and/or obstructions.
  Jemena will pad gas pipe only - remaining backfill and compaction to telco. level is by the Builder.
- ☐ The Pipework: Gas pipe will be Installed, padded, and a gas warning tape will be laid by ZNX.
  The meter set, meter bar, and copper riser may be installed at a later date.
  A path valve will be installed 225mm outside the property boundary line.
- ☐ The Tie-in: ZNX will not make a connection beneath any portion of concrete driveway - ie: ZNX will not install a path valve in a concrete driveway.
- ☐ The Connection Date: The Builder Is to provide ZNX 5 working days notice for open trenches.
  Trenches will be inspected a day before for their suitability and accessibility for mains laying.

* Please contact ZNX on 6203 0620 to arrange for the installation of gas services.

If these conditions are not met, provision of gas will be delayed.

27.09.2013

ZNX

UNDERGROUND SERVICES in a SHARED TRENCH

MEDIUM DENSITY SITE - PREFERRED TRENCH FORMAT & CHECK-OFF NOTES

ELECTRICITY, NATURAL GAS, WATER, & TELECOMMUNICATIONS

David Ionko

From: Alan Sadler <a.sadler@staff.iinet.net.au>
Sent: Wednesday, 30 September 2015 2:25 PM
To: David Ionko
Subject: RE: Servicing of potential future development - Holder
Attachments: B2 S21 Holder TransACT Point of Entry Plan.pdf

Good afternoon David

The requested point of entry for this site is on the attached plan.
The nominal cost for installation of TransACT VDSL2 network into B2 S21 Holder is [redacted].
This will need to be reviewed if your client decides to proceed as it is only valid for 30 days.

Kind Regards

Alan Sadler
Network Designer

470 Northbourne Avenue, Dickson, ACT, 2602
ph: 02 6161 8306 **mob:** 0406 377 379
email: a.sadler@staff.iinet.net.au

From: David Ionko [mailto:David.Ionko@ghd.com]
Sent: Tuesday, 29 September 2015 2:29 PM
To: Alan Sadler
Subject: RE: Servicing of potential future development - Holder

Hi Alan,

With an opportunity for early input into the development, what would be your recommendation?

Regards

David Ionko
Graduate Civil Engineer

GHD
T: +61 2 6113 3297 | V: 233297 | E: david.ionko@ghd.com

From: Alan Sadler [mailto:a.sadler@staff.iinet.net.au]
Sent: Tuesday, 29 September 2015 2:11 PM
To: David Ionko
Subject: RE: Servicing of potential future development - Holder

Hi David,

Thank you for this.

Will you be running a central MDF or individual lead-ins via pit and pipe?

Kind Regards
Alan Sadler
Network Designer

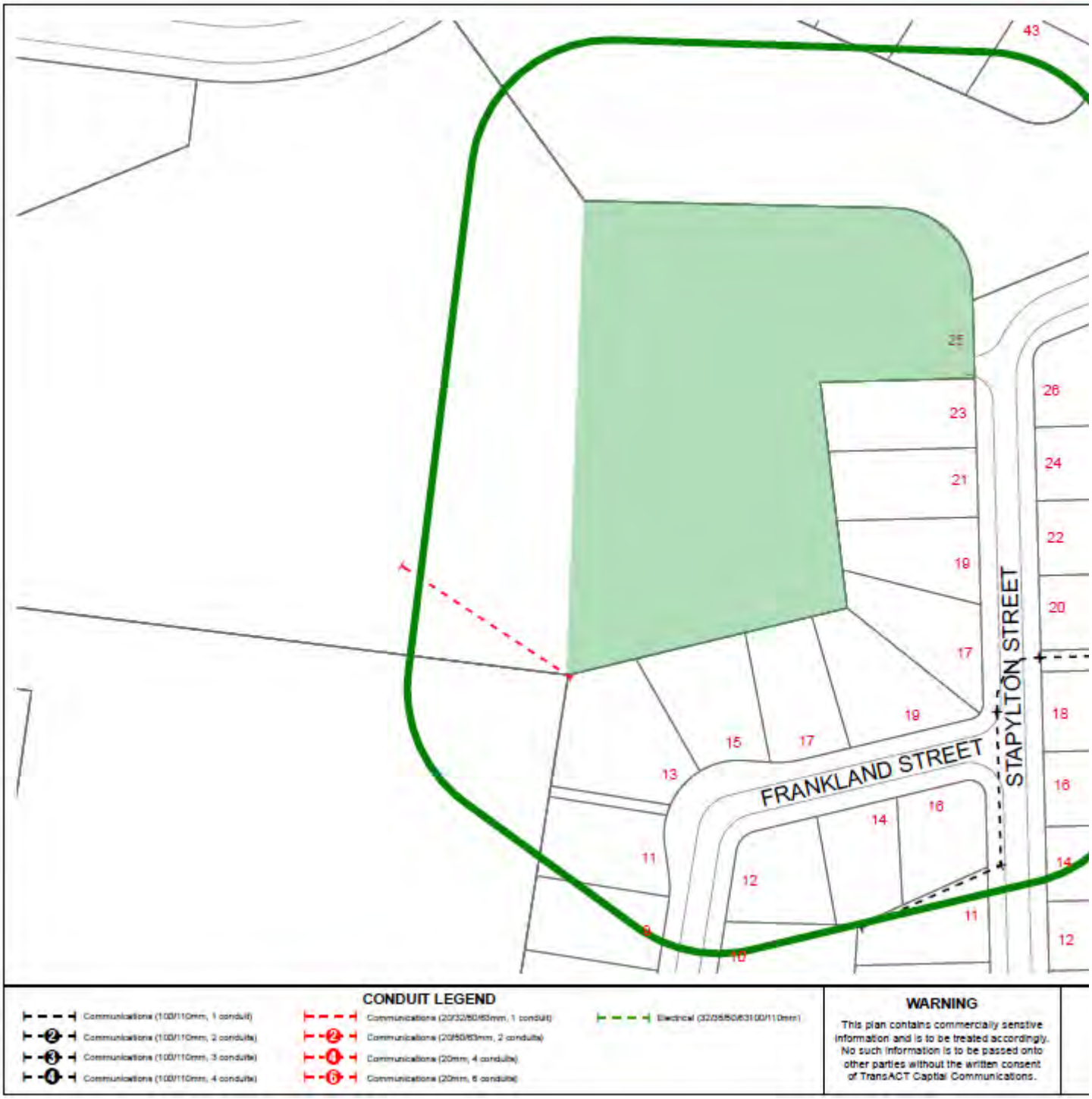
470 Northbourne Avenue, Dickson, ACT, 2602
ph: 02 6161 8306 **mob:** 0406 377 379
email: a.sadler@staff.iinet.net.au

From: David Ionko [mailto:David.Ionko@ghd.com]
Sent: Tuesday, 29 September 2015 1:49 PM
To: Alan Sadler
Subject: Servicing of potential future development - Holder

Alan,

GHD has been engaged by the LDA to investigate the potential for future development on part of Holder Block 2 Section 21.

Would you please confirm that it is practical to provide telecommunication services for the equivalent of 27 x 2 bedroom dwellings on the site shown below and the approximate cost of this servicing?



Thank you for your help.

Regards

David Ionko
Graduate Civil Engineer

GHD
T: +61 2 6113 3297 | V: 233297 | E: david.ionko@ghd.com
Level 7, 16 Marcus Clarke Street, Canberra ACT 2601 Australia | www.ghd.com

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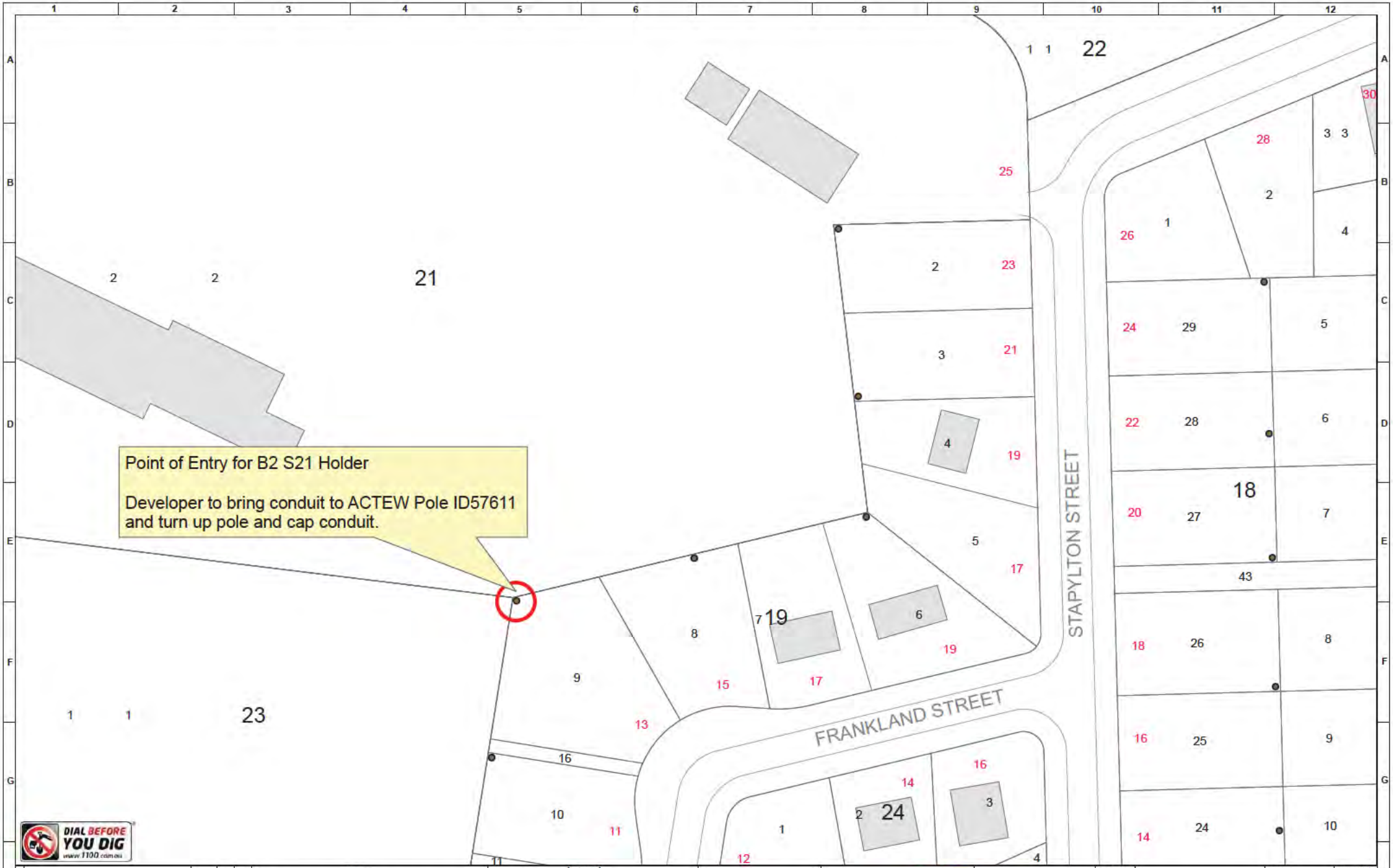
This e-mail has been scanned for viruses



DIAL BEFORE YOU DIG www.1100.com.au

Notes

1. All services search to be carried out by civils work contractor prior to construction.
2. All excavation (including underbore) within properties is to be within 1.0m of side property line.
3. Variation to proposed trench alignments due to conflict with existing utilities and obstacles (including footpaths, trees etc) to be done in consultation with TransACT

Legend

WARNING

This Plan contains commercially sensitive information and is to be treated accordingly. No such information is to be passed onto other parties without the written consent of TransACT.

TransACT
an ilnet company
TransACT Communications
TransACT House
70 Northbourne Ave, Dickson ACT 2602
PO Box 1006, Civic Square ACT 2608
Phone: (02) 6229 8000 Fax: (02) 6229 8011

Drawn By:	TransACT	30/09/15
Design Engineer	A .Sadler	30/09/15
Design Approved		
As-Built Checked		
As-Built Recorded		

Point of Entry
B2 S21 Holder

Scale 1:780

Issue Date 30/09/15

Drawing Number 919591

Appendix D - Specialist Report – Tree Assessment

Tree Assessment Summary Report - Holder

A tree assessments were carried out on Holder Block 2 Section 21, ACT, on 17 September 2015. The tree assessment was based on the Land Development Agency tree assessment methodologies, however the landscape amenity items were removed as they were not required as part of this assessment.

Submitted with this summary report is the tree assessment data sheet (provided in excel format), and an aerial map of the site with tree identification numbers marked (used in absence of a formal site survey of individual trees).

This assessment was undertaken during early spring, and as such leaves were not present on most deciduous trees. Species and health assessments were undertaken in the absence of leaves and therefore the best possible assessment was made in light of their dormant state. The species of two trees on the Holder site were unable to be identified due to the absence of leaves.

Information recorded in the tree assessment reflects the condition of the trees at the time of their inspection. The trees were assessed using visual methods from standing at ground level in the vicinity of the tree. Trees were not climbed or inspected from above the ground, and therefore some defects may not have been noted if they could not be seen from ground level. Assessment methods did not include probing, boring, coring or use of any other diagnostic instruments. The root structure of the tree was not examined.

Without external signs of decay, it is not possible to determine any internal decay or other major defects in the stem or limbs. It is therefore possible for a tree to fail without showing external defects or signs.

Tree protection requirements

Where trees fall within a tree management precinct on National leased land, they fall under the protection of the *ACT Tree Protection Act 2005* and should be managed accordingly. Trees are protected on leased land based on their size. A protected tree is either: A regulated tree – greater than 12m tall, has a trunk circumference of 1.5m or more at 1m above the ground, or a canopy spread of 12m or more; or a registered tree – a tree that has been included on the ACT Tree Register. There were no registered trees on the sites.

Note that 'land within an existing school campus is not taken to be part of a tree management precinct for the purpose of determining whether a funded activity will affect, is affecting or has affected a regulated tree'- as per the *Tree Protection (Tree Management Precincts) Declaration 2009 (No 1)*. A school site is 'a government or non-government school within the meaning of the *Education Act 2004*'; and a funding activity means 'development, or another activity, that is funded completely or partly by 1 or more declared funding programs'.

If any trees fall on TAMS unleased land (for example on a verge) then these trees are considered a public asset and are therefore all protected regardless of their size. Any tree damaging acts or tree removal is subject to Asset Acceptance (AA) approval and should be managed in accordance with the TAMS Landscape Management and Protection Plan (LMPP).

The tree assessment was carried out in accordance with requirements under the ACT Tree Protection Act 2005.

Holder Block 2 Section 21

The Holder tree assessment consisted of a total of 30 trees. There was a mix of planted trees as well as remnant natives, and consisted of both exotics and natives.

With the exception of remnant tree #7, all other remnant trees (#s 8, 24, 25 and 29), have significant decay either in the main stem or major forks (or both) and present a significant risk of failure. While these trees provide important natural value because of their remnant status and because they provide localised habitat for native birds and animals, they were nonetheless rated as 'poor' due to their risk potential (Figure 1).

Trees 22 and 23 were dead with some basal shooting, and trees #26, 27 and 28 were in decline. Tree # 30 was growing through the powerlines. These trees should be removed for safety reasons (Figure 1).

As a group, the trees on site stand out in the landscape. However, the majority of the trees if seen on their own would not be considered to have a high visual or scenic value. Additionally, some trees were multi-leaders and some were of poor form visually.

Tree 7

Tree 8

Tree 24

Tree 25

Tree 29

Tree 22 and 23

Trees 26, 27, 28

Tree 30

Figure 1: Remnant trees and dead/declining trees, Holder Block 2 Section 21

This summary report was prepared by Melinda Mylek, on 22/9/15.

Should you have any questions regarding this report or any supporting documentation, please don't hesitate to contact Melinda on:

Email	mylekconsulting@gmail.com
Phone	0409 828 821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690m
STAPYLTON STREET
4
30

Holder Tree Number	Assessment Date	Regulated size	Species	Common Name	Height (m)	Tree Canopy (m)	Trunk Circumference (mm at 1m)	Trunk Diameter (cm at 1.4m)	Number of Trunks	Potential to reduce risk
1	17/9/15	Yes	*Fraxinus sp.*	Ash	14.0	6.4	1620	50.5	1	None
2	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	11.50	4.5	950	30.5	1	None
3	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	10.9	2.5	450	14.0	1	None
4	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	10.7	3.4	760	25.5	1	None
5	17/9/15	No	*E. mannifera*	Brittle gum	7.8	1.7	450	14	1	None
6	17/9/15	No	*Acacia sp.*	Wattle	8.1	4	800	25	1	Significant works
7	17/9/15	Yes	*E. polyanthemos*	Red box	14.9	5	1720	54	1	Moderate works
8	17/9/15	Yes	*E. melliodora*	Yellow box	12.6	5.4	2350	74	1	Significant works
9	17/9/15	Yes	*Ulmus parvifolia*	Chinese elm	11	5.5	1510	45	1	None
10	17/9/15	No	*E. mannifera ssp. maculosa*	Brittle gum	10.4	3	1380	43	1	Moderate works
11	17/9/15	No	*E. mannifera ssp. maculosa*	Brittle gum	7.6	2.4	650	20	1	Moderate works
12	17/9/15	No	*E. mannifera ssp. maculosa*	Brittle gum	6	2	710	15	2	None
13	17/9/15	Yes	*E. mannifera ssp. maculosa*	Brittle gum	8.8	3.2	2910	38	6	None
14	17/9/15	No	*Fraxinus sp.*	Ash	8.6	3.2	1020	31	1	None
15	17/9/15	No	Unknown	Unknown	5.8	2.5	1020	35	1	None
16	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	8.5	4	770	25	1	None
17	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	5.5	1.2	380	11	1	None
18	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	8.6	2	620	19	1	None
19	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	9.2	3.2	660	22	1	None
20	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	11.1	4.2	1170	37	1	None
21	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	7.6	2.2	550	18	1	None
22	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	11	2.6	930	29	1	Significant works
23	17/9/15	No	*Fraxinus oxycarpa*	Desert ash	7.4	2	550	15	1	Significant works
24	17/9/15	Yes	*E. melliodora*	Yellow box	21.3	8.5	3370	107	1	Significant works
25	17/9/15	Yes	*E. blakelyi*	Blakely's red gum	12.8	8.7	3390	79	2	Significant works
26	17/9/15	No	*E. blakelyi*	Blakely's red gum	7.6	1.4	900	28	1	Significant works
27	17/9/15	Yes	*E. blakelyi*	Blakely's red gum	12.6	6.7	1320	42	1	Significant works
28	17/9/15	No	*E. blakelyi*	Blakely's red gum	10.6	2.8	1000	32	1	Significant works
29	17/9/15	Yes	*E. melliodora*	Yellow box	20.1	6.2	2050	64	1	Significant works
30	17/9/15	No	*Acacia sp.*	Wattle	5.8	2	650	24.0	1	None

Holder Tree Number	Canopy Density	Canopy Dead Wood	Insect Attack	Disease	Epicormic Growth	Mistletoe	Form	Age	Tolerance to Disturbance
1	Full canopy (>80%)	<20% dead wood	None	None	Moderate	None	Typical of species	Mature	High tolerance
2	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
3	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
4	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
5	Full canopy (>80%)	<20% dead wood	Moderate	Moderate	None	None	Typical of species	Semi-mature	High tolerance
6	Full canopy (>80%)	<20% dead wood	None	None	None	None	Trunk lean >Stunted0 deg	Mature	High tolerance
7	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
8	Full canopy (>80%)	<20% dead wood	Moderate	None	None	None	Typical of species	Mature	High tolerance
9	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
10	Full canopy (>80%)	20-60% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
11	Part canopy (20-80%)	20-60% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
12	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
13	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
14	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
15	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
16	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
17	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
18	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
19	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
20	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
21	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
22	Sparse canopy (<20%)	>60% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
23	Sparse canopy (<20%)	>60% dead wood	None	None	Moderate	None	Typical of species	Mature	High tolerance
24	Part canopy (20-80%)	20-60% dead wood	None	None	None	None	Typical of species	Mature	High tolerance
25	Full canopy (>80%)	20-60% dead wood	Moderate	None	None	None	Unbalanced canopy	Mature	High tolerance
26	Part canopy (20-80%)	20-60% dead wood	None	None	None	None	Stunted	Mature	High tolerance
27	Part canopy (20-80%)	20-60% dead wood	None	None	None	None	Stunted	Mature	High tolerance
28	Part canopy (20-80%)	20-60% dead wood	None	None	None	None	Stunted	Mature	High tolerance
29	Full canopy (>80%)	<20% dead wood	None	None	None	None	Unbalanced canopy	Mature	High tolerance
30	Full canopy (>80%)	<20% dead wood	None	None	None	None	Typical of species	Mature	High tolerance

Holder Tree Number	Risk Potential	Health Condition	Contribution to Existing Landscape	Potential Contribution to Future Landscape	Visual Scenic	Unique Species	Habitat Quality	Habitat Value	Cultural Value
1	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
2	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
3	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
4	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
5	Low risk	Fair	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
6	Medium risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
7	Low risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
8	High risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
9	Low risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
10	Medium risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
11	Medium risk	Fair	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
12	Low risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
13	Low risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known
14	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
15	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
16	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
17	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
18	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
19	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
20	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
21	Low risk	Good	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
22	High risk	Poor	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
23	High risk	Poor	Moderate	Moderate	Medium	Common	No habitat opportunity	Shelter only	Low/none known
24	High risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
25	High risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
26	High risk	Fair	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
27	High risk	Fair	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
28	High risk	Fair	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
29	High risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Non specialised habitat	Low/none known
30	Low risk	Good	Moderate	Moderate	Medium	Common	Attracts native wildlife	Shelter only	Low/none known

Holder Tree Number	Social Value	Science Value	Remnant Species	Arborcultural Assessment	Comments
1	Low/none known	Low/none known	No	High	
2	Low/none known	Low/none known	No	High	
3	Low/none known	Low/none known	No	Medium	
4	Low/none known	Low/none known	No	High	
5	Low/none known	Low/none known	No	Medium	
6	Low/none known	Low/none known	No	Poor	
7	Low/none known	Low/none known	Yes	High	
8	Low/none known	Low/none known	Yes	Poor	Borer present in stem, major decay present in stem.
9	Low/none known	Low/none known	No	High	
10	Low/none known	Low/none known	No	Medium	
11	Low/none known	Low/none known	No	Poor	
12	Low/none known	Low/none known	No	Poor	
13	Low/none known	Low/none known	No	Poor	
14	Low/none known	Low/none known	No	High	
15	Low/none known	Low/none known	No	High	
16	Low/none known	Low/none known	No	High	
17	Low/none known	Low/none known	No	High	
18	Low/none known	Low/none known	No	High	
19	Low/none known	Low/none known	No	High	
20	Low/none known	Low/none known	No	High	
21	Low/none known	Low/none known	No	High	
22	Low/none known	Low/none known	No	Poor	Dead
23	Low/none known	Low/none known	No	Poor	Dead stem, some basal shoots
24	Low/none known	Low/none known	Yes	Poor	Significant decay/hollow in fork at 5m
25	Low/none known	Low/none known	Yes	Poor	Significant decay/hollow in fork at 2m
26	Low/none known	Low/none known	No	Poor	In decline
27	Low/none known	Low/none known	No	Poor	In decline, significant decay/hollow in fork at 1m
28	Low/none known	Low/none known	No	Poor	In decline
29	Low/none known	Low/none known	Yes	Poor	Significant decay/hollow in fork at 5m
30	Low/none known	Low/none known	No	Medium	Growing through powerlines

Appendix E - Dial Before You Dig (DBYD) Information

Job No 9605529

Phone: 1100
www.1100.com.au

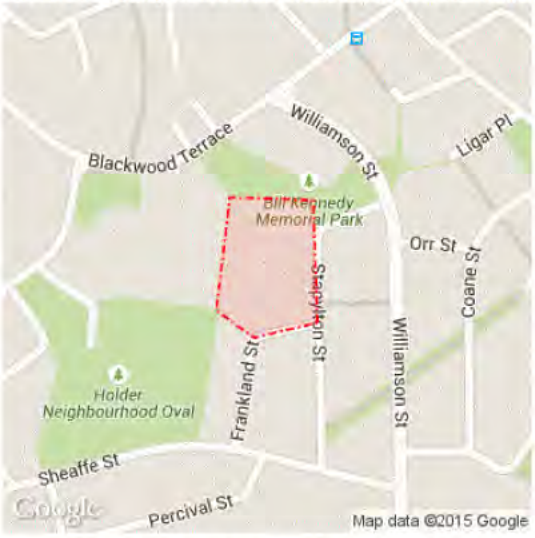
Caller Details

Contact: Mr David Ionko
Company: GHD
Address: [redacted]

Caller Id: 1450109 **Phone:** 0261133297
Mobile: Not Supplied **Fax:** Not Supplied
Email: david.ionko@ghd.com

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.



User Reference: 231518603 - Holder
Working on Behalf of:
Private

Enquiry Date:	Start Date:	End Date:
31/08/2015	05/10/2015	30/10/2015

Address:
Stapylton Street
Weston Creek ACT 2611

Job Purpose: Excavation
Onsite Activity: Mechanical Excavation
Location of Workplace: Both
Location in Road: CarriageWay,Footpath,Nature Strip

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:
Not Supplied

Your Responsibilities and Duty of Care

- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at **www.1100.com.au**
- **For more information on safe excavation practices, visit www.1100.com.au**

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.
** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.
# Asset owners highlighted with a hash require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
47600535	ActewAGL / Icon Water	0262935770	NOTIFIED
47600532	Department of Finance	0262043300	NOTIFIED
47600534	Telstra NSW, South	1800653935	NOTIFIED
47600533	Transact Communications	0261611100	NOTIFIED

END OF UTILITIES LIST

Asset Location Information

Applicant/Contractor	Job No.	9605529	DBYD Sequence No.	47600535

Company: GHD
Contact: Mr David Ionko
Telephone: 0261133297 **Mobile:** Not Supplied **Fax:** Not Supplied
Address: [redacted]
Email: david.ionko@ghd.com

Work Details

Suburb: Weston Creek
Address: Stapylton Street
UBD Ref: 67E11,67E12,67F11
Description: Not Supplied

Enquiry Date: 31-Aug-2015 **Issue Date:** 31-Aug-2015

Information

The approximate location of ActewAGL or Icon Water assets in the area-of-enquiry are shown on the attached maps.

Please review all attached maps to check whether there are ActewAGL or Icon Water utility assets within your work area.

Please refer to your Dial Before You Dig (DBYD) enquiry information to ensure that you have received asset maps from all relevant utility owners before you commence work.

Note that there may be additional pages attached dependent on what assets are found in the area; and that maps might be on pages of different sizes.

Individual customer gas connections are generally not shown on any attached ActewAGL Gas Network map. For information regarding individual gas connections we recommend that you request a site meeting / inlet service location as per Item 6 in the Disclaimer.

Comments

This information is valid from **31-Aug-2015** to **30-Nov-2015**

IN CASE OF EMERGENCY OR TO REPORT DAMAGE PHONE:
13 10 93 ELECTRICITY | **13 11 93** WATER AND SEWER | **13 19 09** GAS

Please read the following important information (overleaf)

DIAL BEFORE YOU DIG www.1100.com.au
The Essential First Step

ActewAGL | icon WATER

Disclaimer

1. General location only

The Applicant acknowledges that:

(a) while Icon Water and ActewAGL have used reasonable endeavours to keep Asset location records current, neither party makes any warranty, guarantee or representation as to the accuracy, currency or completeness of the information contained in the attached Asset Plans.

(b) Asset Plans:

i. may not show all assets in the work area;

ii. show only the general and approximate location of Assets;

iii. may show the position of Assets relative to fences, buildings, property lines, kerbs and/or other points of reference that existed at the time the Assets were installed. Any subsequent alterations to those fences, buildings etc may not have been updated on the Asset Plans. Persons should not rely on such things as a point of reference to estimate location of the Assets.

2. Limitation of liability

To the maximum extent permitted by law:

(a) subject to paragraph 2(b), Icon Water, Jemena and ActewAGL and the officers, employees and agents of each accept no responsibility or liability for any loss, damage, liability, cost, expense, claim or proceeding of whatever nature and howsoever arising, incurred by or awarded against the Applicant or its officers, employees, agents, contractors or subcontractors, arising out of, connected with or as a consequence of use of the Asset Plans or any inaccuracies in the Asset Plans;

(b) where:

i. a Jemena or ActewAGL representative has, at the Applicants request, attended the work site to mark the location of Assets prior to commencement of any works on the work site, and

ii. the Jemena or ActewAGL representative has been proven to be negligent in marking the Asset location

then Icon Water, Jemena and ActewAGL's liability, and the liability of the officers, employees and agents of each, is limited, at Icon Water / Jemena / ActewAGL's option, to re-attending the work site to re-mark the Asset location or paying the costs of having a third party attend the work site to re-mark the Asset location.

3. Electricity cables to be treated as LIVE

ALL electricity cables and conductors identified on the attached Asset Plans, including those marked as 'Abandoned', **MUST** be treated as 'LIVE' and dangerous until such time that they are tested and proven to be 'DE-ENERGISED'. ActewAGL recommends that cables identified as 'Abandoned' and which may be impacted, severed, damaged and/or removed by excavation works be proven 'DE-ENERGISED' and safe before commencing full-scale excavations.

4. Location of Assets may change

Assets may be moved, or additional Assets may be installed at any time. Persons using the attached Asset Plans are advised to be alert for changed locations or new installations performed after the Issue Date. If work extends for a period of 3 months beyond the Issue Date, a new application MUST be made to Dial Before You Dig for up to date Asset Location Information.

5. Work to be undertaken without interference or damage to assets

Any work undertaken near Assets, including without limitation excavation, structures, material storage, heavy vehicle parking, blasting or change of surface level, must be performed in a way that does not interfere with the reliability of, or access to Icon Water or ActewAGL Assets, including electricity lines or plant. Persons excavating are required to exercise care if Assets are indicated on Asset Plans and will be held responsible for any damage caused through failure to exercise such care. Icon Water or ActewAGL (as applicable) will pursue the person responsible for causing the damage or interference to their Assets to recover costs and expenses incurred in remedying such damage or interference.

6. Asset location marking

You may request our representative to visit the work site to mark the approximate location of Assets by calling **02 6293 5770** (Water and Electricity) or **02 6203 0660** (Gas) between 7:30 am and 4 pm. Irrespective of any mandatory directions given in this notice, ActewAGL recommends that a site visit be conducted before commencing any works near Assets. Appointments will be accepted only if the Asset Location Information Sequence Number is supplied. The location and marking of Assets will not take place unless the Asset Location Advice and attached Asset Plans are in colour and to the same scale as supplied, and are at the work site. ActewAGL does not charge for these site visits. Alternatively, the Applicant may wish to engage a private underground Asset locator, at the Applicant's expense.

You are responsible for maintaining the presence / visibility of all markings and to ensure that all workers on site are aware of:

- the presence of Icon Water / ActewAGL infrastructure in the vicinity of the intended work and
- Icon Water, Jemena and ActewAGL's requirements.

NB: Arranging for marking of approximate Asset locations by either an ActewAGL representative or private underground asset locator will not relieve the Applicant and persons working on their behalf of responsibility to exercise care when working near ActewAGL / Icon Water Assets or for any damage they cause to ActewAGL / Icon Water Assets while performing works.

7. Underground Assets must be located by potholing

Potholing or other non-destructive techniques must be used until underground Assets are located. When located, excavation may commence provided that persons carrying out the excavation work must follow ActewAGL's recommended specifications concerning minimum safety distances when excavating within the vicinity of Icon Water or ActewAGL's networks. Unless otherwise approved by Jemena, **under no circumstances can mechanical excavation be carried out within 1.0 metres of a gas main without a Jemena Representative on site.**

8. Water, Sewer and Effluent Mains

Icon Water requires mandatory supervision by authorised Icon Water personnel when potholing and excavating within the vicinity of critical water and sewer network assets (as determined by Icon Water) or Icon Water mains with a diameter of 300mm and above.

To arrange please call Icon Water 6248 3111 during business hours. In an emergency call 13 11 93.

9. Substation Earthing Conductors

The information does not include details of substation earthing conductors that are usually installed within the vicinity of pole and ground mounted substations. General information only can be provided upon request.

10. Indications of the Presence of Cables

The presence of cables or conduits may be indicated by the following warning and marking devices

- Letter "E" inscriptions on Kerbs or "Electrical" inscriptions on pit lids
- Danger signs on above ground posts, walls etc
- Thin Orange "Caution Electrical Cables" Warning Tape
- Orange /Black PLASTIC Polymeric slab (3-6mm thick x 200mm wide)
- Concrete Bricks or slabs (approx 200mm x 500mm)
- Orange PVC or white Asbestos Cement (AC) Conduit or Galvanized Pipe
- Cylindrical concrete "ACTEA Electric Cable" markers
- Weak Concrete encasement directly around cables / conduits
- Texture/ colour change of excavated material (bedding sand, cracker dust, clean fill)

Note that some cables may have been installed without the presence of such marking devices.

11. Gas mains

(a) ActewAGL gas mains are operated by Jemena Asset Management Pty Ltd.

(b) Mandatory stand-by / supervision by Jemena personnel is required when excavating within the vicinity of critical gas network assets OR where mechanical excavation is required within 1.0 metres of the gas network. Your activity around critical gas assets will be supervised by Jemena at no charge for the first two hours. This supervision is to ensure the integrity of ActewAGL's assets is maintained.

Note: Charges may apply if stand-by is required for longer than two hours.

Please contact Jemena on **02 6203 0660** between 7.30 am and 4 pm if you require a stand-by person.

12. High Pressure Gas Network Assets

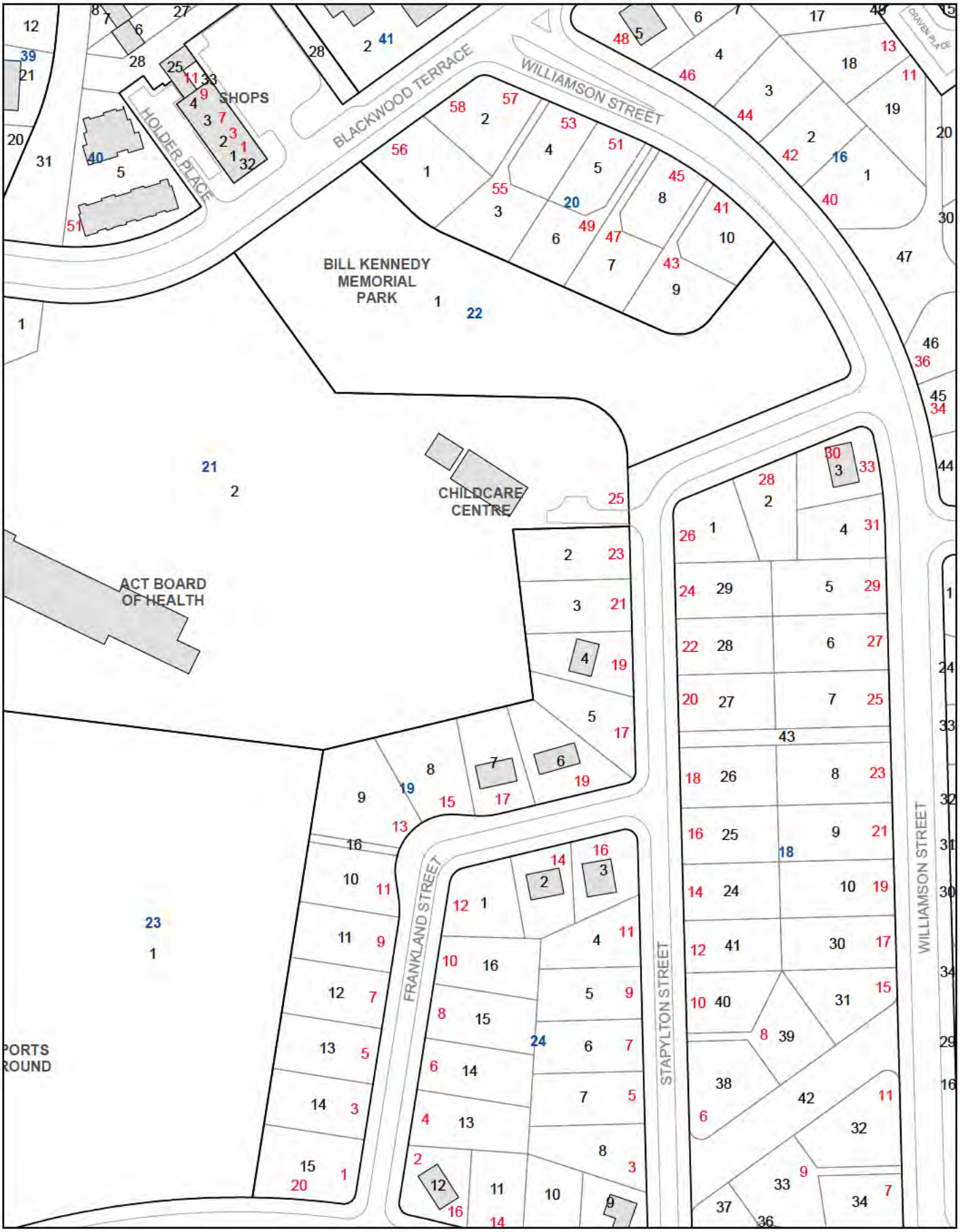
You must supply Jemena with your proposal of works including a written outline of your works and design plans for review. It may take up to four weeks for Jemena to review your works proposal. Following review, we will advise you of Jemena's requirements for protecting the High Pressure gas main.

Please mail your proposed works details to:

Jemena Asset Management Pty Ltd
Attention: Land Services Department
PO Box 6507
Silverwater NSW 2128

Please note that a duty of care exists to ensure that this gas main is not compromised or damaged during future development or construction work.

THIS DOCUMENT AND ASSOCIATED ASSET PLANS MUST BE KEPT AT THE WORK SITE.



Seq #: 47600535

Stapylton Street, Weston Creek

Effluent Network

icon WATER

0 5 10 20 30 40 M

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Template: EffluentA4Portrait

Creation Date: 31-Aug-2015

ELECTRICITY NETWORK LEGEND

Support Structure (Distribution)
- Pole
- Streetlight-Only Pole

Support Structure (Transmission)
- Pole
- Tower
- Yard Structure

Underground Structure
- Pit

Recloser
- Recloser

Transmission Line
- Overhead Transmission Line
- Underground Transmission Line

Building
- Zone Building
- Standalone Chamber

Switches
- Air Break
- Load Break
- Overhead Link

Fuse
- Drop Out Fuse

HV Electric Lines
- Overhead HV Electric Line
- Underground HV Electric Line

LV Electric Lines
- Overhead LV Electric Line
- Underground LV Electric Line

Streetlight
- Streetlight
- Streetlight Controller
- Streetlight Photoelectric Controller
- Other Streetlight Support
- Streetlight Column

Streetlight Cable
- Overhead Streetlight Line
- Underground Streetlight Line

Joint
- Cable Joint

Service Lines
- Overhead Service Line
- Underground Service Line

Service Point
- Service Point

Fibre Communication Cable
- Fibre Communication Cable

Copper Communication Cable
- Pilot Cable

Underground Earth Cable
- Underground Earth Cable

Ground Mounted Structure
- Streetlight Control Cubicle
- Distribution Box
- Point-Of-Entry Cubicle
- HV Switching Station
- Kiosk
- Padmount
- Link Pillar
- Micro Pillar
- Mini Pillar
- Pregnant Column
- Communication Cubicle
- SCADA Cubicle

Electric Supply Site
- 132kV Switching Station
- Bulk Supply Station
- Mobile Zone Substation
- Zone Substation
- Overhead Substation
- Chamber Substation
- Stockade

IMPORTANT NOTE:

- The term 'ABANDONED' is utilised to identify an underground cable that has been physically disconnected from the ActewAGL electricity network, is not in service and cannot readily be put back into service without specific augmentation and/or reconnection works. Cable(s) identified by ActewAGL as 'ABANDONED' have been discarded in-situ by ActewAGL. ALL cables should be treated as 'LIVE' and Dangerous until proven de-energised and safe.

ActewAGL

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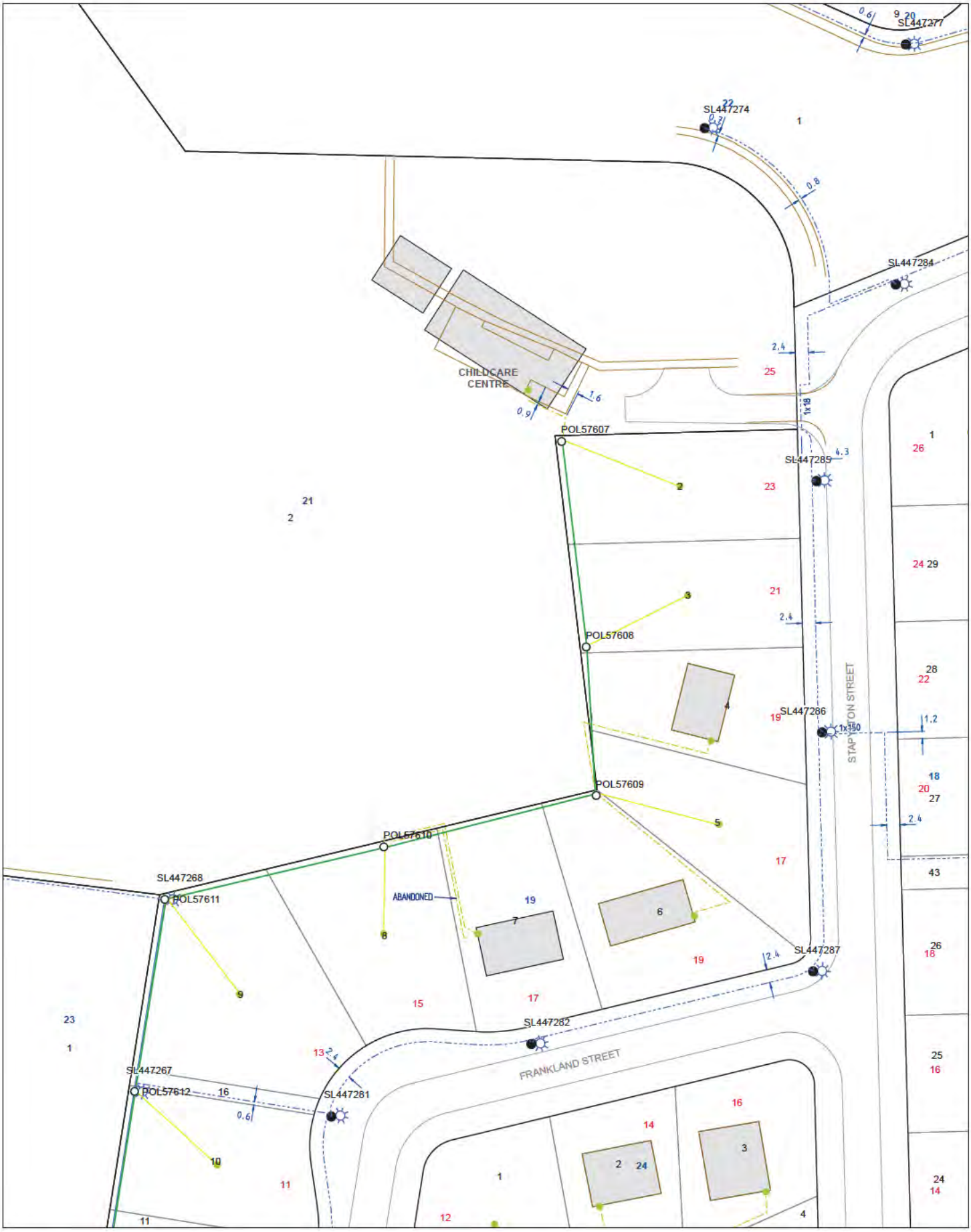

Seq #: 47600535

Stapylton Street, Weston Creek

ActewAGL Electricity Network

ActewAGL

0 4.25 8.5 17 25.5 34 M

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Template ElectricityA3Portrait

Creation Date: 31-Aug-2015

ActewAGL House 40 Bunda Street Canberra ACT 2600 | GPO Box 366 Canberra ACT 2601
t 13 14 93 | f 02 6249 7237 | actewagl.com.au

GAS PIPELINE IN THE VICINITY

Applicant/Contractor **Job No.** **9605529** **DBYD Sequence No.** **47600535**

Company: GHD
Contact: Mr David Ionko
Telephone: 0261133297 **Mobile:** Not Supplied **Fax:** Not Supplied
Address: [redacted]
Email: david.ionko@ghd.com

Work Details

Suburb: Weston Creek
Address: Stapylton Street
UBD Ref: 67E11,67E12,67F11
Description: Not Supplied

Enquiry Date: 31-Aug-2015 **Issue Date:** 31-Aug-2015

The records of ActewAGL Gas Networks indicate that Underground Assets/Pipes ARE present in the vicinity of and/or surrounding area of the above enquiry. Please read all the information and conditions below.

IN THE EVENT OF A GAS EMERGENCY CALL 13 19 09 (24 hours)

CONDITIONS FOR WORKS IN THE VICINITY OF ActewAGL GAS NETWORK ASSETS

Any information provided is valid only for 90 days from the date of issue. If the work operation extends beyond this period, or if the designs are altered in any way, you are requested to re-submit your proposal for re-assessment.

Consistent with the requirements of Part 2 General – Section 8 of the Utility Networks (Public Safety) Regulations 2001 No. 28, ActewAGL require that:

- The requestor shall ensure that all workers on site are aware of the presence of natural gas.
- The requestor shall ensure that under no circumstances will mechanical excavation be carried out within 1.0 metres of a gas main without there being a Jemena Representative on site.
- The requestor shall be responsible to maintain the presence / visibilities of all gas markings.
- **No live or Isolated gas pipes shall be cut, altered or removed without APPROVAL from Jemena.**

Note: Individual customer gas connections are generally not shown on the accompanying maps. For information regarding individual gas connections we recommend that you request a site meeting / inlet service location.

You can obtain additional information or arrange a site meeting by contacting Jemena on **(02) 6203 0660. Note that 24 hours notice is required for site meetings.**

WARNING. It is essential that ALL these documents be handed to the principal contractor carrying out the work. A photocopy may be taken for office records. All documents must be on site at the time of excavation. The information provided is to be used as guide only and does not absolve third parties in their "Duty of Care" obligations to take additional precautions where the work has the potential to impact on gas assets and the safety of people.

All work that may impact upon the ActewAGL Gas Network should be carefully planned with notification to Jemena well in advance of commencement. This includes excavation of gas pipelines, crossings of pipelines by other underground infrastructure (drains, power cables, etc), road works or structural installations.

ActewAGL plans have been provided to show the position of underground gas mains and equipment in public gazetted roads only. Individual customers' services are not generally included on these plans. These plans have been prepared solely for ActewAGL's own use and indicate the position of underground mains and installations relative to boundaries and kerbs as at the time the mains were installed, and do not necessarily reflect any subsequent changes eg: changes to road alignments.

ActewAGL and / or Jemena will accept no liability for inaccuracies in the information or lack of information on such plans for any cause whatsoever arising. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to underground mains and equipment, and the costs associated with replacement or repair.

Please note that the information contained on the map provided is not a method of determining gas availability for the purposes of connection to a natural gas supply. Please contact a gas retailer to determine the availability of gas as an energy source.

IN THE EVENT OF A GAS EMERGENCY CALL 13 19 09 (24 hours)

Extinguish all sources of ignition and keep the area clear of all persons. Any attempt by third parties to repair damaged gas mains or services may result in prosecution under the Utility Networks (Public Safety) Regulations 2001.

Legend - ActewAGL Gas Networks

GasStation CRITICAL

- DistrictRegulator
- TrunkReceivingStation
- PrimaryRegulatingStation
- BulkMeteringStation
- PressureMonitoringStation
- ScraperStation
- BR BoundaryRegulatorSet
- BRS SecondaryBoundaryRegulatorSet
- ValveStation

GasDevice

- <all other values>
- IsolationValve
- Odouriser
- Siphon
- WaterbathHeater
- Filter
- Catalyst Heater
- Silencer
- Regulator

GasDevice High Risk Valve CRITICAL

- HighRiskAreaIsolation

GasMeter

- DomesticMeter
- IndustCommMeter
- SecondaryMeterSet

GasFitting

- EndCap
- Tee
- ExpansionJoint
- Flange
- Reducer
- Cross
- ServiceSaddle
- InsulationJoint
- GaugingPoint

CPAnode

- AnodeGroundBed
- SacrificialAnode

CPRectifier

- R TransformerRectifier

CPCable

- CPRectifierCable
- CPGroundBedCable

Conduit

- Conduit

GasStructure

- <all other values>
- CPKiosk
- Pit
- StationStructure

GasService

- <all other values>
- Gas Service IN USE
- Gas Service NOT IN USE

GasService STEEL or MAOP>=1050 OR DIA >=75mm CRITICAL

- Gas Service IN SERVICE
- Gas Service NOT IN SERVICE

GasPipe

- <all other values>
- DistributionMain, Nylon, InService
- Gas Pipe NOT IN USE
- DistributionMain, PE, InService
- DistributionMain, Copper, InService

GasPipe STEEL OR MAOP>=1050 OR DIA>=75mm CRITICAL

- DistributionMain, Copper, InService
- DistributionMain, Nylon, InService
- DistributionMain, PE, InService
- PrimaryMain, Steel, InService
- PrimaryMain, Steel, Proposed
- SecondaryMain, Steel, InService
- SecondaryMain, Steel, Proposed
- TransmissionMain, Steel, InService
- Gas Pipe NOT IN USE

R 10.0 = DISTANCE TO ROAD
B 10.0 = DISTANCE TO BOUNDARY
E 10.0 = DISTANCE TO END
C 10.0 = DISTANCE TO CHANGE OF DIRECTION

4.4 = DISTANCE FROM MAIN TO KERB
0.6 = DISTANCE FROM MAIN TO BOUNDARY

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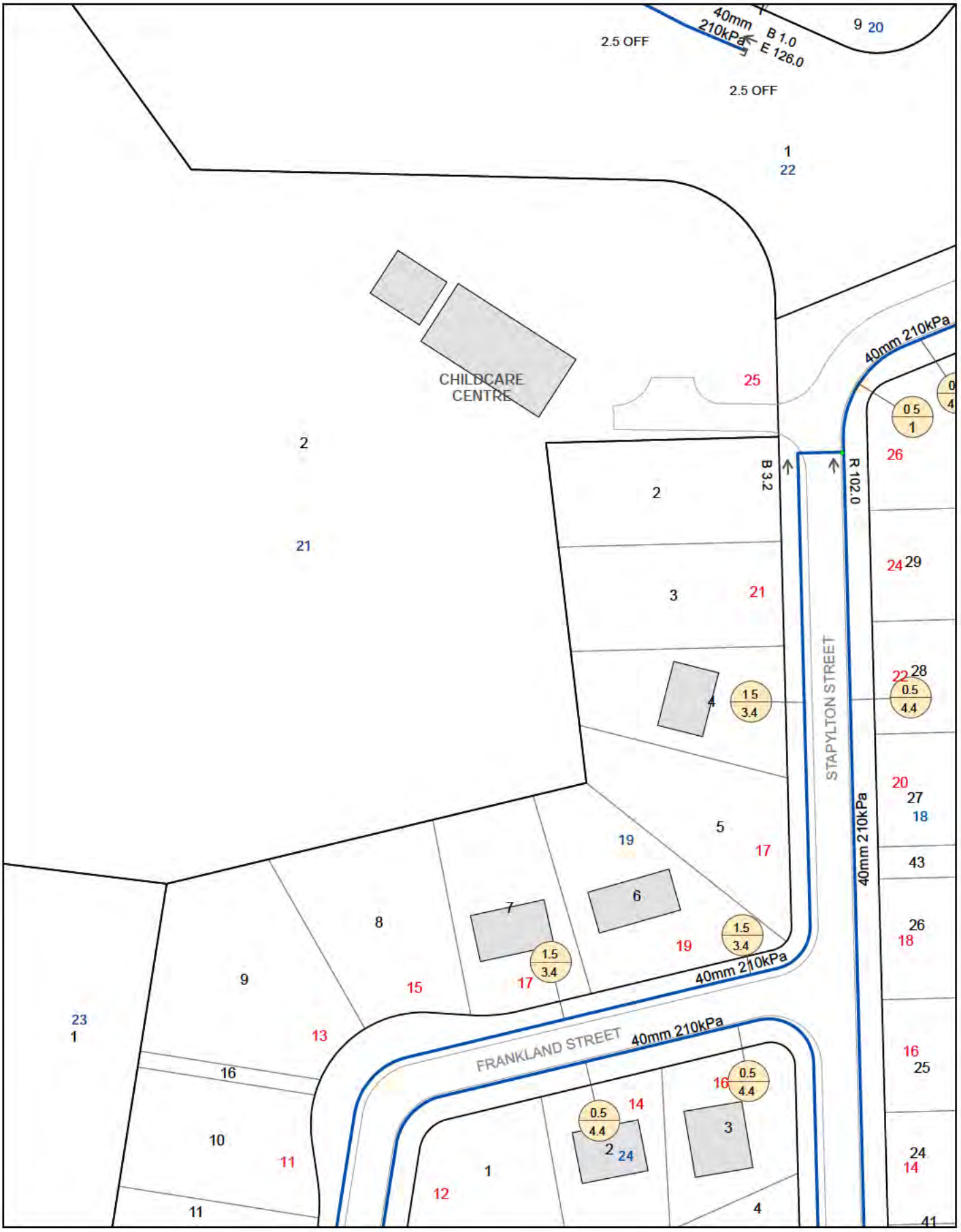
ActewAGL



Seq #: 47600535

Stapylton Street, Weston Creek

ActewAGL Gas Network

ActewAGL

0 4.5 9 18 27 36 M

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

Template: GasA4Portrait

Creation Date: 31-Aug-2015

SEWER NETWORK LEGEND

MaintenanceHole

- <all other values>
- Abandoned
- De-Commissioned
- Operational
- Planned

NonAssetFitting

- BVR BuriedVerticalRiser
- Riser
- SlopeJunction

AssetFitting

- DeadEnd
- Reducer
- Tee

InspectionShaft

- SIS SpecialInspectionShaft
- RP RoddingPoint
- SMS Standard 225

ProtectionValve

- AirValve
- Reflux

SystemControlValve

- SCOUR ScourValve
- Ball
- PLUG Plug
- Gate
- SL StopLog
- P Penstock

Pump

- Centrifugal
- PositiveDisplacement
- VariableSpeed

GravityMain

- <all other values>
- Reticulation, Operational
- Trunk, Operational
- Tunnel, Operational
- Siphon, Operational
- Overflow, Operational
- Inline,OPERATIONAL
- Reticulation, Planned
- Trunk, Planned
- Reticulation, Abandoned
- Reticulation, De-Commissioned
- Trunk, Abandoned
- Trunk, De-Commissioned

PressureMain

- <all other values>
- Scour, Operational
- RisingMain, Planned
- RisingMain, Operational
- RisingMain, De-Commissioned
- RisingMain, Abandoned

SewerStructure

- DiversionChamber
- DiversionPoint
- PumpStation
- SplitManhole
- StorageBasin
- TreatmentPlant
- DischargeStructure
- PipeBridge

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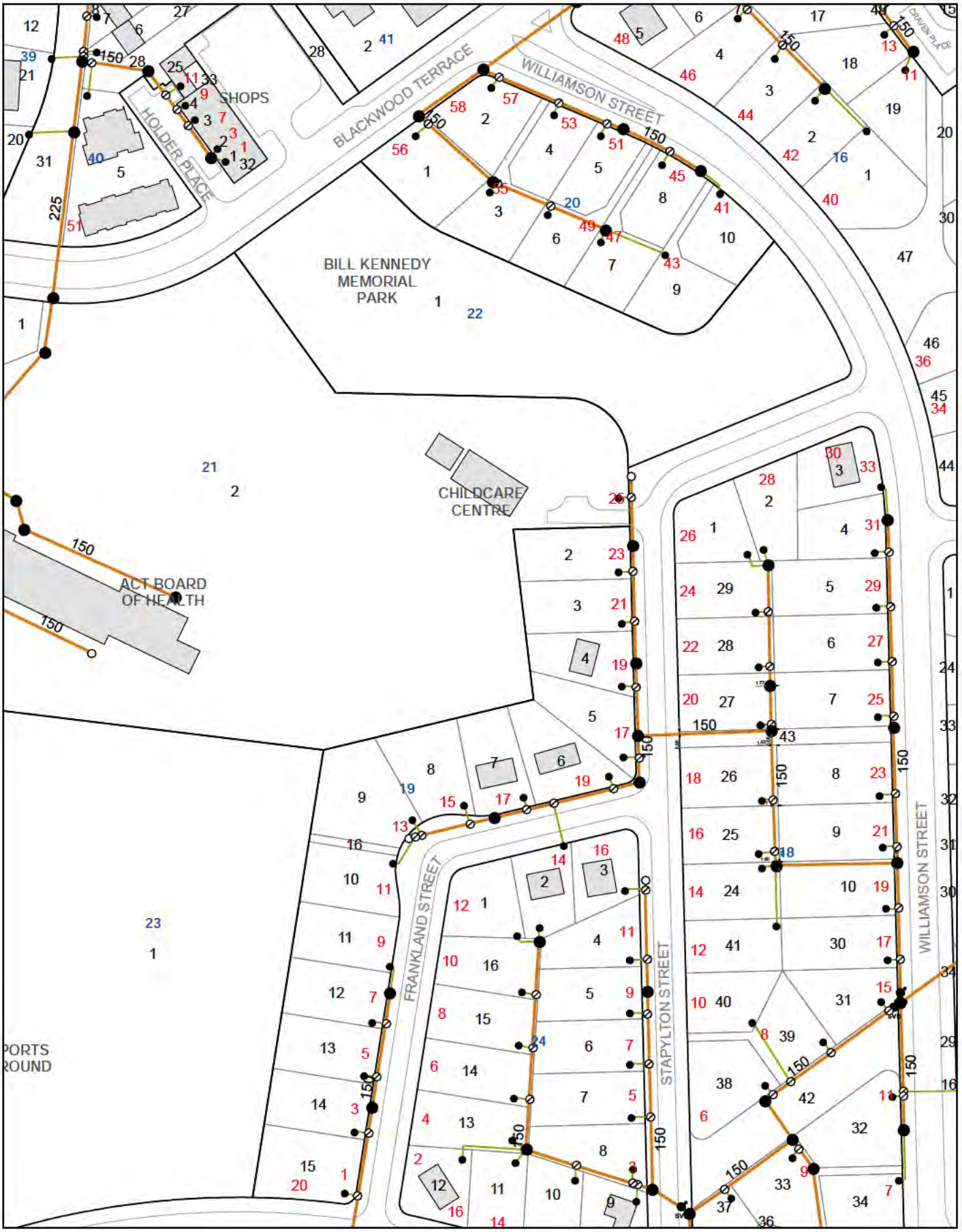
icon WATER



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Seq #: 47600535

Stapylton Street, Weston Creek

Sewer Network

icon WATER

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NSW Cadastre © Land and Property Information (A division of the Department of Finance and Services) 2015.

0 5 10 20 30 40 M

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

Template: SewerA4Portrait

Creation Date: 31-Aug-2015

WATER NETWORK LEGEND

Hydrant

- <all other values>
- SpringHydrant
- HighCapacity
- PillarHydrant
- MillCock
- OverheadFillingPoint

Main

- Rising Main - Abandoned
- Rising Main
- Bulk Supply Main
- Bulk Supply Main - Abandoned
- Distribution Main
- Distribution Main - Abandoned
- Reticulation Main - Abandoned
- Reticulation Main

ProtectionValve

- <all other values>
- Reflux Valve
- Single Air Valve
- Double Air Valve
- RPZ Valve
- Double Check Valve
- Pressure Relief Valve
- Float Valve

Meter

- <all other values>
- FlowElement
- BillingLargeDiameter
- BillingSmallDiameter

MiscellaneousDevice

- <all other values>
- SamplingPoint
- FlowRecordingDevice
- PressureRecordingDevice

SystemValve

- <all other values>
- Scour Valve
- Ball Valve
- Needle Valve
- Cone Valve
- Altitude Cone Valve
- Flow Rate Altitude Combination Globe Valve
- Pressure Reducing Globe Valve
- Pump Control Globe Valve
- Outlet Control Globe Valve
- Pressure Sustaining Globe Valve
- Backup Altitude Globe Valve
- Altitude Globe Valve
- Flow Rate control Globe Valve
- Altitude Butterfly Valve
- Backup Altitude Butterfly Valve
- Pump Control Butterfly Valve
- Normally Closed Butterfly Valve
- Dual Flow Rate control Butterfly Valve
- Butterfly Valve
- Motorised Butterfly Valve
- Zone Valve (Butterfly)
- Flow Rate Control Butterfly Valve
- Flow Rate Altitude Combination Butterfly Valve
- Temporary Zone Valve
- Altitude Gate Valve
- Gate Valve
- Motorised Gate Valve
- Normally Closed Gate Valve
- Backup Altitude Gate Valve
- Zone Valve

AirVesselDevice

- <all other values>
- AirVessel

Fitting

- <all other values>
- MainCock
- Tee
- ServiceTee
- DualServiceTee
- Cross
- Reducer
- EndCap
- GibaultJoint
- OpenEnd
- BlankFlange
- MaintenanceHole
- OrificePlate
- StopCock
- TappingBand_Bend
- TappingBand_Valve

ServiceLine

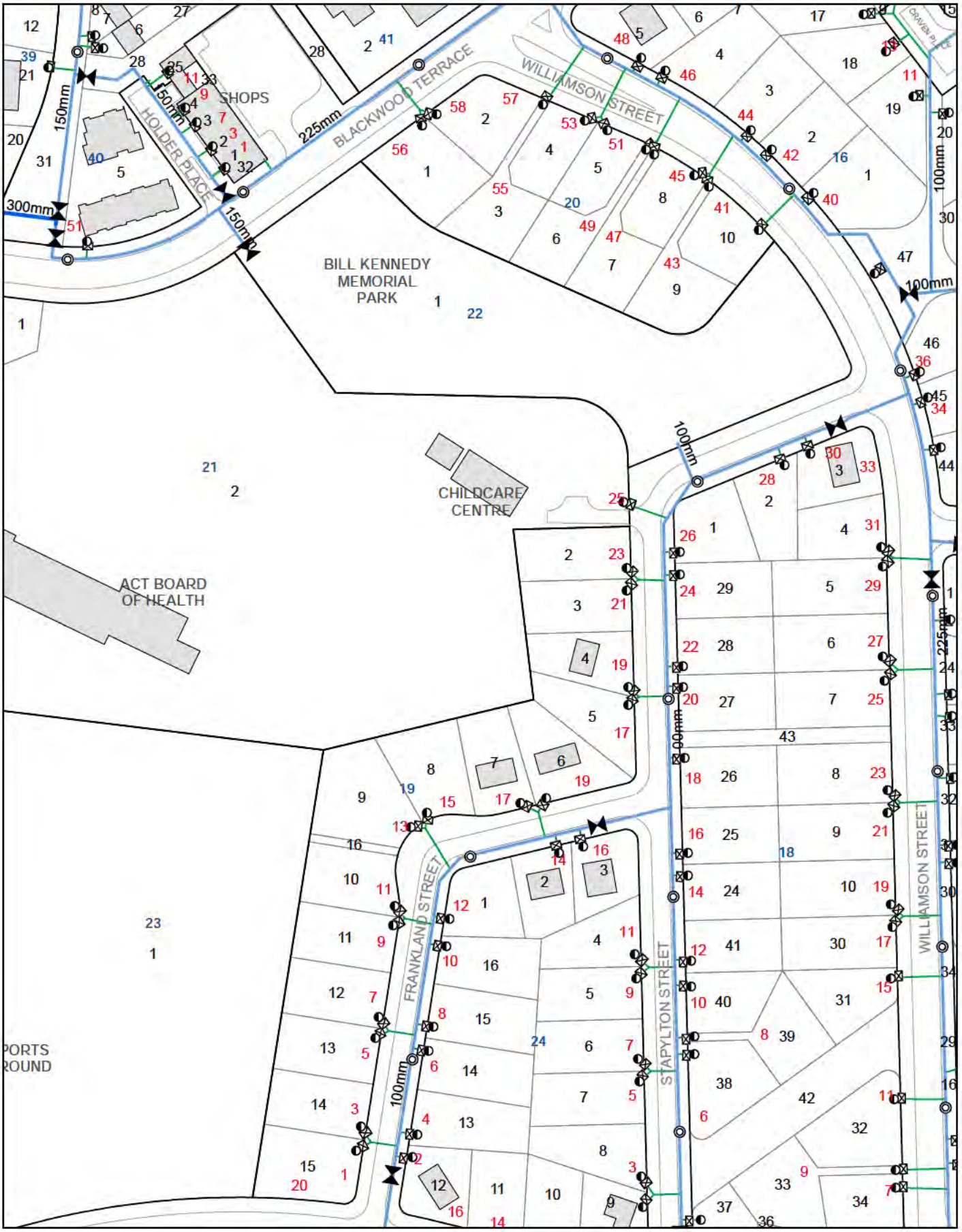
- DomesticService
- FireService

SystemProtectionLine

- Scour
- OverFlow
- Drain
- WashDown

DIAL BEFORE YOU DIG www.1100.com.au
The Essential First Step

icon WATER



Seq #: 47600535

Stapylton Street, Weston Creek

Water Network

icon WATER

0 5 10 20 30 40 M

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

Template: WaterA4Portrait

Creation Date: 31-Aug-2015

DUTY OF CARE

TELSTRA CORPORATON ACN 051 775 556

IMPORTANT:

Please read and understand all the information and disclaimers provided below.

Telstra plan and location information conforms to **Quality Level 'D'** of the **Australian Standard AS 5488 – Classification of Subsurface Utility Information**. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. **FURTHER ON-SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK**. A plant location service is an essential part of the process to validate the exact location of the Telstra assets and to ensure that the asset is protected during construction work. The plant location service must be Telstra accredited to be able to access Telstra network. The exact position of Telstra assets can only be validated by physically exposing it. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Telstra DBYD plans are not for locating Telstra network within a Telstra exchange building site.
If locating Telstra network within a Telstra exchange site contact Telstra Plan Services.

"DUTY OF CARE"

When working in the vicinity of telecommunications plant you have a "Duty of Care" that must be observed.

Works or proposed works should be planned to allow for minimal impact and appropriate protection of Telstra plant. Telstra can provide plans and sketches showing the presence of its network to assist at the design stage. Telstra will also work with you to avoid damage to Telstra's plant during construction works.

It is your responsibility to:

1. Request plans of Telstra plant for a particular location at a reasonable time before construction begins. ***http://www.1100.com.au***
2. Engage an Accredited Plant Locator who must have a current Telstra issued accreditation card. A list of accredited locators is attached to this email. (Allow enough time to arrange for one).
3. After engaging a Telstra Accredited Plant Locator, visually locate Telstra plant by hand digging or using non destructive water jet method (pot holing) where construction activities may be next to, damage or interfere with Telstra plant (see "Essential Precautions and Approach Distances" section for more information); and
4. Contact Telstra's Plan Services (see below for details) if Telstra plant is near to, wholly, or partly located near planned construction activities and you require further advice about how to protect the plant or you need to relocate the plant to complete your construction activities. ***(Telstra.Plans@team.telstra.com)***

Important note: *The construction of Telstra's network dates back over many years. Some of Telstra's pits and ducts were manufactured from asbestos-containing cement. You must take care in conducting any works in the vicinity of Telstra's pits and ducts. You must refrain from in any way disturbing or damaging Telstra's network infrastructure when conducting your works. We recommend that before you conduct any works in the vicinity of Telstra infrastructure that you ensure your processes and procedures eliminate any possibility of disturbing, damaging or interfering in any way with Telstra's infrastructure. Your processes and procedures should incorporate appropriate measures having regard to the nature of this risk.*

ASSET RELOCATIONS

You are not permitted to access, relocate or alter or repair any Telstra assets or network under any circumstances.

For all enquiries relating to the relocation or protection of Telstra assets please phone **1800 810 443** or email **F1102490@team.telstra.com**

Only Telstra and its contractors may access and conduct works on Telstra's network (including its plant and assets). This includes performing modification or relocation works. This requirement is to ensure that Telstra can protect the integrity of its network, avoid disruption to services and ensure that the relocation meets Telstra's requirements.

DAMAGE TO TELSTRA'S NETWORK MUST BE REPORTED TO 132203 IMMEDIATELY.

You will be held responsible for all plant damage that occurs or any impacts to Telstra's network as a result of your construction activities. This includes interfering with plant, conducting unauthorised modification works and interfering with Telstra's assets in a way that prevents Telstra from accessing or using its assets in the future.

Telstra reserves all rights to recover compensation for loss or damage to its cable network or other property including consequential losses.

EMERGENCY SITUATIONS - RECEIVING TELSTRA PLANS

Telstra's automated mapping system will provide a fast response for emergency situations. (Faster than an operator can provide manually). Automated responses are normally available 24/7.

To receive a fast automated response from Telstra your request must **-**

- Be a web request lodged at DBYD (**www.1100.com.au**). The request will be then forwarded directly to Telstra.
- contain your email address so you can receive the automated email response.
- be for the purposes of 'mechanical excavation' or other ground breaking DBYD activity. (requests with activity types conveyancing, planning & design or other non digging activities may not be responded to until the next business day).
- be for an area less than 350 metres in size to obtain a PDF map (over 350 metres will default to DWF due to size)
- be for an area less than 2500 metres in size to obtain a DWF map

NATURAL DISASTERS

Natural Disasters include (amongst other things) earthquakes, cyclones, floods and tsunamis.

In the case of such events, urgent requests for plans or information relating to the location of Telstra network can be made directly to Telstra Network Integrity Team Managers as follows:

NSW – John McInerney 0419 485 795

QLD – Glenn Swift 0419 660 147

VIC/TAS - David Povazan 0417 300 947

SA/NT - Mick Weaver 0419 828 703

WA - Angus Beresford-Peirse 0419 123 589

TELSTRA PLAN SERVICES **-** for all Telstra Dial Before You Dig related enquiries

email - **Telstra.Plans@team.telstra.com**

phone - **1800 653 935** (general enquiries, business hours only)

for Telstra DBYD plan information - Shalin 07 3455 2997
Glen 07 3455 1011

for advice on preventing damage - Adam 07 3455 2037
Lachlan 07 3455 3132
Shalin 07 3455 2997

Accredited plant locator enquiries - Mike 0477 377 036
Taylor 0477 365 666
(Including how to become an Accredited Plant Locator to locate Telstra network)

Road closures and easements - Megan 07 3455 0834
Glen 07 3455 1011

Please note - to make an enquiry the plans must be current (within 60 days of issue). If your plans have expired you will need to submit a new request via DBYD.

CONCERNING TELSTRA PLANS:

Please note the following:

- For Telstra plans contact **Dial Before You Dig** (**www.1100.com.au**) at least 2 business days prior to digging. (Note - further lead time may be required for you to arrange for an Accredited Plant Locator from the provided list)
- Fast response can be provided by Telstra if an email address is supplied. (if posted, this may take up to one week or longer to receive plans)
- Telstra plans and information provided are **valid for 60 days** from the date of issue.
- Telstra owns and retains the copyright in all plans and details provided in conjunction with the applicant's request. The applicant is authorised to use the plans and details only for the purpose indicated in the applicant's request. The applicant must not use the plans or details for any other purpose.
- Telstra plans or other details are provided only for the use of the applicant, its servants, agents or Telstra-accredited plant locators. **The applicant may not give the plans or details to any parties other than these, and may not generate profit from commercialising the plans or details.**
- Please contact **Telstra Plan Services** (see above for details) immediately should you locate Telstra assets not indicated on these plans.
- Telstra, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and/or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Telstra against any claim or demand for any such loss or damage.
- Please ensure Telstra plans and information provided remains on-site at all times throughout the inspection, location and construction phase of any works.
- Telstra plans conform to Quality Level ‘D’ of the Australian Standard (AS 5488) – Classification of Subsurface Utility Information (SUI). For further information refer to AS 5488.

ESSENTIAL PRECAUTIONS AND APPROACH DISTANCES:

NOTE: If the following clearances cannot be maintained, please contact Telstra Plan Services for advice on how best to resolve this situation. (see above for contact details)

1. On receipt of plans and sketches and before commencing any excavation work or similar activities near Telstra's plant, you must validate the location of Telstra plant. It is your responsibility as part of your "Duty of Care". A plant location service is an essential part of the process to validate the exact location of Telstra assets. Only Telstra accredited locators may access Telstra network. All accredited locators must have a current Telstra-issued accreditation card. After engaging a Telstra Accredited Plant Locator, undertake manual exposure such as potholing to validate the actual location of Telstra plant. (Note - The exact position of Telstra assets can only be validated by physically exposing it).

Where Telstra's plant is in an area where road and footpaths are well defined by kerbs or other features a minimum clear distance of 600mm must be maintained from where it is determined plant is located.

In non established or unformed reserves and terrain, this approach distance must be at least 1.5 metres.

In country/rural areas which may have wider variations in reasonably presumed plant presence, the following minimum approach distances apply:

a) Parallel to major plant: 10 metres (for optic fibre and/or copper cable over 300 pairs)
b) Parallel to other plant: 5 metres

NOTE: Even manual pot-holing needs to be undertaken with extreme care, commonsense and employing techniques least likely to damage cables. For example, orientate shovel blades and trowels parallel to the cable rather than digging across the cable.

If construction work is parallel to Telstra plant, then careful hand digging or using non destructive water jet method (pot-holing) at least every 5m is required to establish the location of all plant before work commences.

2. Maintain the following minimum clearance between construction activity and **actual validated location** of Telstra Plant.

Jackhammers/Pneumatic Breakers	*Not within 1.0m of **actual validated location.***
Vibrating Plate or Wacker Packer Compactor	*Not within 0.5m of actual location of Telstra ducts.* *300mm compact clearance cover before compactor can be used across Telstra ducts.*
Boring Equipment (in-line, horizontal and vertical)	*Not within 2.0m of **actual validated location**.* *Constructor to hand dig or use non-destructive water jet method (pot-hole) and expose plant.*
Heavy Vehicle Traffic (over 3 tonnes)	*Not to be driven across Telstra ducts (or plant) with less than 600mm cover.* *Constructor to check actual depth via hand digging.*
Mechanical Excavators, Farm ploughing and Tree Removal	*Not within 1.0m of **actual validated location.*** *Constructor to hand dig or use non-destructive water jet method (pot-hole) and expose plant.*

All Telstra pits and manholes should be a minimum of 1.2m in from the back of kerb after the completion of your work.

All Telstra conduit should have the following minimum depth of cover after the completion of your work:-

Footway 450mm

Roadway 450mm at drain invert and 600mm at road centre crown

For clearance distances relating to Telstra pillars, cabinets and RIMs/RCMs please contact Telstra Plan Services (see above for details).

FURTHER ASSISTANCE:

Assistance can be obtained by contacting Telstra Plan Services (see contact details above)

Where on-site location is provided, you are responsible for all hand digging or use non-destructive water jet method (pot-holing) to visually locate and expose Telstra plant. (For advice on damage prevention please contact Telstra Plan Services)

If plant location plans or visual location of Telstra plant by digging reveals that the location of Telstra plant is situated wholly or partly where you plan to work, then Telstra's Network Integrity Group must be contacted to discuss possible engineering solutions.
Please phone **1800 810 443** or email **F1102490@team.telstra.com**

NOTE:

If Telstra relocation or protection works are part of the agreed solution, then payment to Telstra for the cost of this work shall be the responsibility of the principal developer, constructor or person for whom the work is performed. The principal developer or constructor will be required to provide Telstra with the details of their proposed work showing how Telstra's plant is to be accommodated and these details must be approved by the Regional Network Integrity Manager prior to the commencement of site works.
Please phone **1800 810 443** or email **F1102490@team.telstra.com**

RURAL LANDOWNERS

Where Telstra owned cable crosses agricultural land, Telstra may provide on-site assistance with cable location. The Telstra Plan Services operator will provide assistance in determining eligibility.

Please note:

- The exact location, including depth of cables**,** must be validated by pot holing, which is not covered by this service.
- This service is only available to assist private rural land owners.
- This service normally covers one hour on-site only. Any time required in addition to Telstra funded time can be purchased directly from the Accredited Plant Locator.

For further information including terms and conditions, please contact Telstra Plan Services.

PRIVACY NOTE

Your information has been provided to Telstra by DBYD to enable Telstra to respond to your DBYD request. Telstra keeps your information in accordance with its privacy statement entitled "Protecting Your Privacy" which can be obtained from Telstra either by calling 1800 039 059 or visiting our website at www.telstra.com.au/privacy

DATA EXTRACTION FEES

In some instances a data extraction fee may be applicable for the supply of Telstra information. Typically a data extraction fee may apply to large projects or requests to be supplied in non standard formats. For further details contact Telstra Plan Services.

ELECTRONIC PLANS - PDF AND DWF MAPS

If you have received Telstra maps via email you will have received the maps as either a PDF file (for smaller areas) or DWF file (for larger area requests). If you are unable to launch any one of the softcopy files for viewing and printing, you may need to download and install one or more of the free viewing and printing products such as Adobe Acrobat Reader (for PDF files) or Autodesk Design Review (for DWF files) available from the internet.

PDF files

PDF is the default softcopy format for all requests for areas up to approx *350m in length. (*depends on geographic location of request). The PDF file is formatted to A3 portrait sheet however it can be printed on any size sheet including from A4 to AO, either as the full sheet or selected areas to suit needs and legibility. (to print a selected area zoom up and print 'current view') If there are multiple layers of Telstra network you may receive up to 2 sheets in the single PDF file attachment supplied. There are three types or layers of network normally recorded - local network, mains cables or a combined layer of local and mains (usually displayed in rural or semi rural areas). If mains cable network is present in addition to local cables (i.e. as separate layer in a particular area), the mains will be shown on a separate sheet. The mains cable information should be read in conjunction with the local cable information.

DWF files

This is the default softcopy format for all requests for areas that are over 350m in length. Maximum length for a DWF automated response is approx 2500m - depending on geographic location of request (manually-processed plans may provide larger coverage). The DWF files differ from PDF in that DWF are vector files made up of layers that can be turned on or off and are not formatted to a specific sheet size. This makes them ideal for larger areas and for transmitting over email etc.

How to view Telstra DWF files -

Telstra DWF files come with all layers turned on. You may need to turn individual layers on or off for viewing and printing clarity. Individual layer names are CC (main cable/conduit), DA (distribution or local area network) and sometimes a combined layer - CAC. Layer details can be viewed by either picking off the side menu or by selecting 'window' then 'layers' off the top menu bar. Use 'layers' to turn individual layers off or on. (double click or right click on layer icon.)

How to print Telstra DWF files -

DWF files can be printed on any size sheet. They can be printed in their entirety or by selected areas of interest. Some DWF coverage areas are large and are not suited to printing legibly on a single A4 sheet - you may need several prints if you only have an A4 printer. Alternatively, an A3, A1 or larger printer could be used. To print, zoom in or out and then, by changing the 'print range' settings, you can print what is displayed on your screen to suit your paper size. If you only have a small printer, e.g. A4, you may need to zoom until the text is legible on your screen for it to be legible on the print. (which is why you may need several prints). To print what is displayed on your screen the 'view' setting should be changed from 'full page' to 'current view'. The 'current sheet' setting should also be selected. You may need to print layers separately for clarity and legibility. (Details above on how to turn layers on or off)

How to change the background colour from white to black (when viewing) Telstra DWF files -

If using Autodesk Design Review the background colour can be changed by selecting 'Tools' then 'options' then 'sheet'. Tick the box 'override published paper colours' and select the colour required using the tab provided.

Telstra Automated Mapping System (TAMS)

Telstra provides an automated plan response for the majority of DBYD requests received.

Requestors must supply a current email address on their request to DBYD and must also be able to accept a standard format of PDF or DWF. An automated response can be provided much faster than the alternative of a mailed hardcopy, and can avoid unnecessary delays in waiting for plans to arrive. Being softcopy, it can easily be sent directly to a worksite and can be available 7 days a week. The automated system can be configured for individual requestors to receive either PDF/DWF (where small requests are PDF and larger requests are DWF) or, alternatively, all in DWF (both small and large requests). Please contact Plan Services for further details or to have your preferences updated. **Please note that all requests over *350m (approx.) in size can only be supplied in DWF format** and there are size limits on what can be provided. (* actual size depends on geographic location of requested area)

ACCREDITED PLANT LOCATORS (For your area)

All Accredited Plant Locators locating Telstra network must have a current identification card issued by Telstra. A list of Telstra Accredited Locators is provided with the Telstra Dial Before You Dig plans.

Telstra does not permit external parties (non-Telstra) to access or conduct work on our network. Only Telstra staff, Telstra contractors or locators who are correctly accredited are allowed to work on or enter our manholes, pits, ducts, cables etc. This is for safety as well as for legal reasons.

Please note it is a criminal offence under the *Criminal Code Act 1995* (Cth) to tamper or interfere with communication facilities owned by a carrier. Heavy penalties may apply for breach of this prohibition, and any damages suffered, or costs incurred by Telstra as a result of any such unauthorised works may be claimed against you.

For the assistance of customers an accredited Plant Locator can perform any of the following activities if requested to do so by the owner:

- review Telstra's plans to assess the approximate location of Telstra plant;
- advise owners of the approximate location of Telstra plant according to the plans;
- advise owners of the best method for locating Telstra plant;
- advise owners of the hazards of unqualified persons attempting to find the exact location of Telstra plant and working in the vicinity of Telstra plant without first locating its exact position; and
- perform trial hole explorations by hand digging (pot-holing) to expose Telstra plant with a high degree of skill, competence and efficiency and utilising all necessary safety equipment.

The attached list provides the names and contact details for Accredited Plant Locators who service your area and can provide you with assistance in locating Telstra plant on site. These organisations have been able to satisfy Telstra that they have a sound knowledge of telecommunications plant and its sensitivity to disturbance; appropriate equipment for locating telecommunications plant and competent personnel who are able to interpret telecommunications plans and sketches and understand safety issues relevant to working around telecommunications plant.

Please Note:

- Optic fibre cable locations must be performed by a locator with Telstra optic fibre cable location accreditation. (Not all copper accredited locators have optic fibre accreditation). The locators with additional optic fibre cable location accreditation are indicated by a 'yes' in the column headed 'Fibre' in the lists of locators that are published with the DBYD plans.
- An Accredited Plant Locator is NOT permitted to provide depth of communications plant unless it is physically exposed by hand digging.
- The details of any contract, agreement or retainer for site assistance to locate telecommunications plant shall be for you to decide and agree with the organisation engaged. Telstra is not a party to any contract entered into between you and an Accredited Plant Locator. The Accredited Plant Locators are able to provide guidance concerning the extent of site investigations required.
- Payment for the site assistance will be your responsibility and payment details should be agreed before the engagement is confirmed.
- Telstra does not accept any liability or responsibility for the performance of or advice given by an Accredited Plant Locator. Accreditation is an initiative taken by Telstra towards the establishment and maintenance of competency standards. However, performance and the advice given will always depend on the nature of the individual engagement.
- You have the right to request the organisation you engage to show their Telstra issued ID card.
- Neither the Accredited Plant Locator nor any of its employees are an employee or agent for Telstra. Telstra is not liable for any damage or loss caused by the Accredited Plant Locator or its employees.

Telstra offers free Cable Awareness Presentations & Advanced Cable Reading Presentations, if you believe you or your company would benefit from this offer please contact Network Integrity on 1800 810 443 or **F1102490@team.telstra.com**

*For details on how to become an Accredited Plant Locator to be able to locate Telstra network please contact Telstra Plan Services – Mike (0477 377 036) ***mugl@dominoapp.in.telstra.com.au***

Telstra Accredited Plant Locators - New South Wales (South Region)

Telstra plans are intended to be indicative only. A plant location service (Telstra accredited) is required to identify the exact location of the plant and ensure that the asset is protected during construction work. It is your responsibility as part of your "Duty of Care" to engage an Accredited Plant Locator.

Please contact a Telstra accredited locator from the list below (fees apply).

***Optic fibre cable locations** must be performed by a locator with Telstra optic fibre location accreditation. Locators with Telstra optic fibre cable location accreditation are indicated by a 'yes' in the 'Fibre' column.

Name & areas covered	*Fibre	Contact details
A1 Hydro Excavation – *Bathurst* *Central West NSW area*	Yes	02 6331 9588
Advanced Ground Locations - *Maitland* *Newcastle, Hunter Valley, Central Coast*	Yes	(02) 4930 3195 0412 497488 Fax: (02) 4930 3222
All About Pipes - *Leppington*	No	(02) 9606 2320 0408 790 010 Fax: (02) 9606 2325
All States Recoveries P/L – *Bendigo* (Victoria, Bendigo, Mildura, Murray River, Southern NSW)	No	(03) 5446 3778 or 0428 003 333 F: (03) 5446 3778 E: ian@allstatesrecoveries.com.au
Australian Locating Services - *Woolooware* *All of New South Wales*	Yes	1300 761 545 or 0412 227 434 Fax (02) 9531 2169 E: admin@locating.com.au
Australian Subsurface - *Canberra* *Canberra, ACT & NSW*	Yes	0427 879 600 E: admin@australiansubsurface.com W: www.australiansubsurface.com
Australian Underground Surveys - *Kambah* *Canberra - South Coast, Wollongong to Eden, Goulbourn Monaro*	No	0417 458 803 Fax: (02) 6231 1762
Australian Underground Utility Locations - *Bega* *Eurobodalla Shire, Bega Valley Shire, Snowy River Shire, Batemans Bay to Vic border, Far South Coast NSW*	Yes	(02) 6494 4955 or 0418 329 370
Bega Bobcats - *Bega* *Bega Valley Shire*	Yes	(02) 6492 0283 0427 260 423
Billy Charnock Electrical - *Swan Hill* *Swan Hill and Surrounding Districts*	Yes	(03) 5032 1866 Fax: (03) 5033 1866
Capogreco Excavations Pty Ltd - *Mildura South* *Mildura, Wentworth, Gol Gol, Dareton, Ouyen, Robinvale, Merbein*	No	(03) 5022 2070 or 0428 356 269 Fax (03) 5022 7003

Name & areas covered	*Fibre	Contact details
Coastal Cable Locators Pty Ltd - *Bawley Point* *Wollongong to Eden, Braidwood, Bungendore, Goulburn*	Yes	(02) 4457 1258 0427 975 777
Cobram Electrical and Data Pty Ltd - *Cobram* *North East Victoria and NSW*	Yes	(03) 5871 2807 or 0447 777 566 Fax (03) 5871 2907 E:info@cobramelectricalanddata.com
Commence Communications - *Yass* *Canberra, Yass, Bungendore, Goulburn and surrounding regional areas*	Yes	0428 595 620 02 6226 3869 E: admin@commencecomms.com.au
D-Tech Services - *Higgins*	No	02 6278 7548 0438 630 852 E: dtech@webone.com.au
Datateks Pty Ltd. – *Wagga Wagga* *All NSW areas*	Yes	0408 693 660 02 6971 7777 W: www.datateks.com.au
Digitin Coms Pty Ltd - *Queanbeyan* *Southern NSW*	No	(02) 6297 4120 (M) 0407 406 766 Fax: (02) 6299 2410 E: digitincoms@grapevine.com.au
Down Under Detection Services - *Rose Bay*	Yes	(02) 9371 7744
Down Under Pipeline Surveys Pty Ltd - *Orangeville*	No	(02) 4653 1286 or 0418 675 374 Fax (02) 4653 1747
Durkin Construction Pty Ltd - *Auburn* *All Areas*	Yes	(02) 9712 0308 or 0413 158 255 Fax (02) 9712 0206
EJ Russell Plant Hire - *Bathurst* *All Areas*	Yes	0428 874 832 E: rphire2@bigpond.com
Echuca and District Cable Locations - *Echuca* *Southern NSW, Northern VIC*	Yes	0419 001 843
Eiicon Locations - *Wodonga* *Wodonga, Albury, Wagga Wagga, Wangaratta, Towong Shire, Alpine Shire, Indigo Shire*	Yes	0419 568 331
Far West Communication – *Broken Hill* *NSW Areas – Cobar, Menindee, Tibbaburra, Ivanhoe & surrounding areas.*	Yes	0439 350 355
Fletcher Plumbing *Southern NSW and North East Victoria*	No	(02) 6057 1100 0404 030 305 Fax: (02) 6043 3199
G & C McCorkindale - *Dubbo, Young, Wagga* *Yass, Goulburn, Bathurst, Orange, Temora, West Wyalong & most NSW country regions*	Yes	0408 822 428 Fax: (02) 6382 2639 E: locateit@bigpond.net.au
GBG Australia Pty Ltd - *North Sydney* *All Areas*	No	(02) 98 90 2122 or 0433 940 477 Fax: (02) 98 90 2922 E: tuan@gbgoz.com.au

Name & areas covered	*Fibre	Contact details
Geoscope Utility Detection Services Pty Ltd - *Raby* *Sydney Areas and parts of NSW*	No	0432 296 323 E: info@geoscopelocating.com.au
Geotrace Pty Ltd - *Kings Langley* *All Areas, Hills District, Sydney, Wollongong, Newcastle, ACT, Sutherland, Bankstown, Richmond, Burwood, Rose Bay, Balmain*	Yes	(02) 8824 6654 or 0417 147 945 Fax: (02) 8824 5637 E: antony@geotrace.net.au
Ground Scan Locating – *White Rocks* *Bathurst & Central West*	Yes	0414 640 640 Fax (02) 6332 2599
GVS Irrigation Enterprises – *Wagga Wagga* *Wagga Wagga & surrounding areas*	Yes	0427 075 547 (02) 6921 6747 E: gerry@gvsirrigation.com.au
Hunter Smith Management – *Castle Hill* *NSW and ACT*	No	(02) 8090 2695 or 0422 224 761 Fax: (02) 8282 5056
Hydro Digga - *Korora* *All of NSW, ACT & South East QLD*	Yes	0447 774 000 E: locator@hydrodigga.com.au
Landmark Surveys Pty Ltd - *Fyshwick* *South Coast, Southern NSW & ACT*	Yes	(02) 6280 9696 0413 832 038 E: admin@landmarksurveys.com.au
Laneyrie Electrical Pty Ltd - *Dapto* *Helensburg to Ulladulla, Southern Highlands*	Yes	(02) 4262 8166 or 0412 079 079 Fax (02) 4260 9193 E: bindy@laneyrieelectrical.com.au
Larsen Electrics – *Red Cliffs* *Mildura & Districts, NSW South, SA*	No	(03) 5024 1733 or 0428 385 610 Fax: (03) 5024 1170
Laser Electrical Goulburn- *Goulburn* *Goulburn and surrounding regional area*	No	(02) 4822 7742 0417 392 273 E: goulburn@laserelectrical.com.au
Lynco Pty Ltd t/as Lyntet Communications – *Dubbo* *Forbes, Grenfell, Parkes, Bourke, Bourke North, Nyngan, Coonabarabran, Coonamble, Mudgee, Narromine, Wellington, Orange, Molong, Yeoval, Coolah, Dunedoo, Gilgandra, Mendooran*	Yes	0409 811 673 Fax: (02) 68 829856
MIA Pipe & Cable Layers Pty Ltd – *Griffith* *Griffith, Leeton, Narrandera and surrounding areas*	No	0418 501 050 E: kb@miapcl.com.au
Mr Mac Group - *Orange* *Bathurst, Yass, Goulburn*	Yes	0447 818 260 E: locatemrmac@gmail.com
Murray Valley Locating and Electrical – *Cobram* *Murray Valley, North East Victoria and Southern NSW*	Yes	0417 426 731 E: officemvle@gmail.com
On Point Utility Locating Pty Ltd – *Woodpark* *Sydney, Parramatta, Penrith, Wollongong, Central Coast, Highlands, Goulburn, Blue Mountains*	Yes	0405 149 529
Online Pipe & Cable Locating – *Girraween* *Sydney, Newcastle, Canberra, Central Coast, Wollongong, Blue Mountains and Port Macquarie*	Yes	1300 665 384 or 0418 402 234 Fax (02) 9676 6127

Name & areas covered	*Fibre	Contact details
RCR O'Donnell Griffin Pty Ltd - *Mitchell* *ACT area*	No	(02) 6204 3300 Fax: (02) 6209 9761 E: annette.gall@rcrtom.com.au
Riverina Horizontal Boring Pty Ltd – *Wodonga*	No	(02) 6059 1788 or 0419 149 153 Fax: (02) 6059 5090
Rubicof Pty Ltd – *Cessnock* *Gosford, Newcastle, Taree*	Yes	(02) 4990 5718 or 0418 683 451 Fax: (02) 4991 2600
Signal Support Services - *Goulburn* *Goulburn, Southern Highlands, Canberra*	No	(02) 4821 8334 or 0418 237 668 Fax: (02) 4821 0203
Southern Cable Services - *Yass*	No	(02) 6226 5201 or 0417 255 573 Fax: (02) 6226 5675 E: southerncables@gmail.com
Spot on Group *Central & North-East Vic, Southern NSW*	No	1300 531 431 or 0407 505 226 Fax: (03) 5032 1173
Steger & Associates Registered Land Surveyors – *Kambah* *NSW South, ACT, Northern VIC*	Yes	(02) 6296 4089 Fax: 02 6296 4090 E: enquiries@steger.com
Tim Barnes Communications – *Leeton* *Riverina, and surrounding areas, Wagga, Albury, West Wyalong, Hay Temora*	Yes	0428 534 476 Fax (02) 6953 4460
TR Civils – *Pialligo* *ACT – Southern Tablelands, Goulburn, Snowy Mountains areas*	Yes	02 6249 6818 E: admin@trcivils.com.au
UES (Victoria) Pty Ltd - *Kyabram* *Northern Victoria, Goulburn Valley, Southern Riverina*	Yes	0407 120 201 Fax (03) 5852 1577
Utility I.D – *Murphys Creek* *All areas Queensland and New South Wales*	Yes	0401 202 515 E: sam@utilityid.com.au
Utility Locating Pty Ltd t/as Suresearch - *Wentworthville* *Sydney, Penrith, Richmond, Wollongong, Katoomba, Macarthur, Central Coast, Newcastle, Maitland, Hunter Valley, Port Macquarie*	Yes	1300 884 520 or 0408 221 046 Fax: (02) 8915 1487
Vac Group Operations Pty Ltd t/as Earthspy	Yes	1300 822 834
Vacsafe - *Mudgee*	No	0414 810 652 Fax: (02) 6372 4753
Vertex Power & Process - *Broken Hill* *Cobar, Menindee, Tibooburra, Ivanhoe, Wilcannia & surrounding areas*	Yes	0419 847 760 0428 154 450 E: admin@vertexpp.com.au
Wagga Directional Drilling - *Wagga* *Riverina & Surrounds*	Yes	(02) 6925 4660 or 0418 800 196 Fax (02) 6925 4941

Name & areas covered	*Fibre	Contact details
Watters Electrical Pty Ltd - *Shepparton*	Yes	(03) 5821 3944 Fax: (03) 5831 1101
Worth Recycling – *San Souci*	No	0448 071 662
ZNX Pty Ltd – *Hume* *ACT and surrounding areas*	No	0402 060 474

LEGEND

IT'S HOW WE CONNECT

For more info contact a Telstra Accredited Locater or Telstra Plan Services 1800 653 935

Exchange
(major cable present)

Footway access chamber
(can vary from 1-lid to 12-lid)

Roadway access chamber

Pillar/cabinet
(above the ground / free standing)

Above ground complex equipment housing (eg RIM)
Please Note: This equipment is powered by 240V electricity.

PT **Public telephone**
Please Note: This equipment is powered by 240V electricity.

Direct buried cable

Cable jointing pit
(number indicating pit type)

Buried cable jointing pit
(number indicating pit type)

Elevated cable joint
(above ground joint on buried cable)

Cable loop (direct buried)

Telstra Plant in shared utility trench

Aerial Cable
(above ground)

Aerial Cable
(attached to joint use pole e.g. power)

SMOF **Optical fibre cable direct buried**

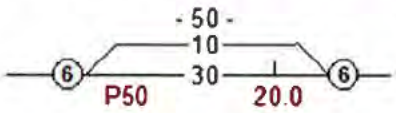
Single to multiple round conduit
Configurations 1, 2, 4, 9 respectively
P100
(Attached text denotes conduit type and size)

Multiple square conduit
Configurations 2, 4, 6 respectively
E85
(Attached text denotes conduit type and size)

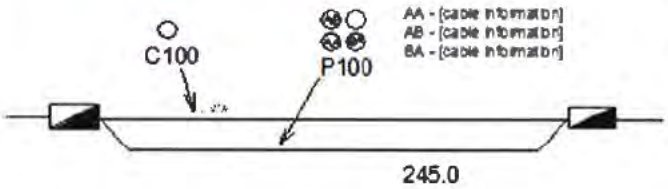
Some examples of conduit type and size:
A - Asbestos cement, P - PVC / plastic, C - Concrete,
GI - Galvanised iron, E - Earthenware.
Conduit sizes *nominally* range from 20mm to 100mm.

P50	50mm PVC conduit
P100	100mm PVC conduit
A100	100mm asbestos cement conduit
E 85	85mm square earthenware conduit

Some examples of how to read Telstra plans:



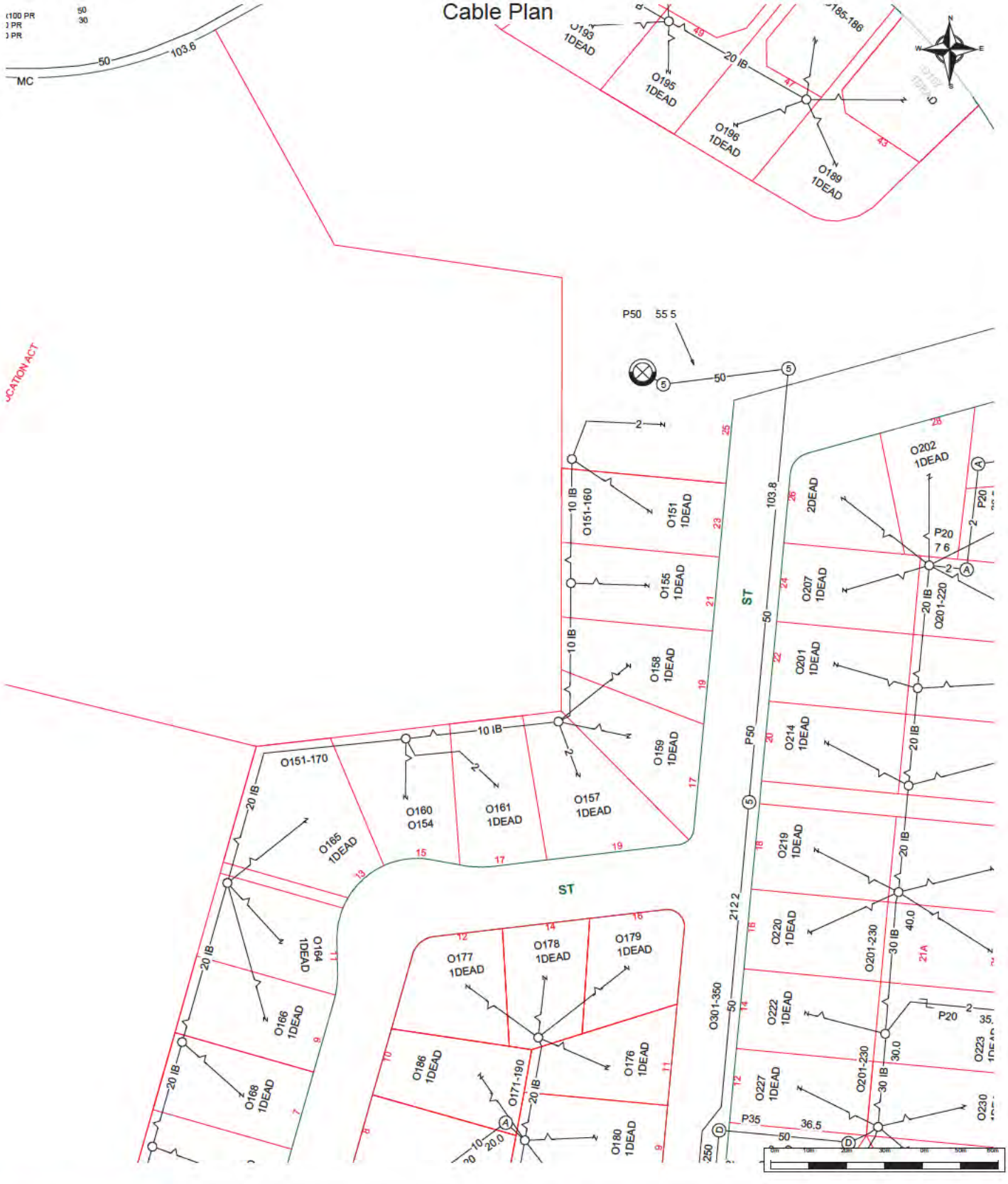
One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6-pits, 20.0m apart, with a direct buried 30-pair cable along the same route.



Two separate conduit runs between two footway access chambers (manholes) 245m apart. A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along the same route.

WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works. The exact position of Telstra assets can only be validated by physically exposing it. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Cable Plan



Telstra

For all Telstra DBYD plan enquiries -
email - Telstra.Plans@team.telstra.com
For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 31/08/2015 11:23:27

Sequence Number: 47600534

CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

DBYD Notification Response

iinet connect better

Adam Internet	Agile Communications	TransACT Victoria Communications
Contact: 02 62298009	Contact: 02 62298009	Contact: 02 62298009
ABN - 22 055 495 853	ABN - 36 080 855 321	ABN - 55 647 895 442

Critical iinet assets found

To:	Mr David Ionko	From:	**30213 - Transact Communications**
Company:	GHD	Date:	31/08/2015
Address:	[redacted]	Location:	**Stapylton Street Weston Creek ACT, 2611**
Phone:	0261133297	Sequence#:	**47600533**
Fax:	Not Supplied	Job#:	**9605529**
Email:	david.ionko@ghd.com	District:	Weston Creek

iinet must be contacted in regards to this site prior to excavation commencing.
An on site location is required call (02) 6229 8009 to arrange an onsite appointment.
Please allow a minimum of three (3) working days for an on-site location.

The response to this enquiry has been obtained from iinet's records based on the GML location provided by DBYD from your original request.

IMPORTANT NOTICE

This form and associated plans are to be kept at the work site.

DO NOT ASSUME DEPTH OR ALIGNMENT of cables or plant as these may vary significantly.

This information is valid for 14 days from the sent date and indicates the presence of the iinet underground network in the area in the original DBYD GML file. The location of the iinet underground network may vary over time. Accordingly iinet plans are intended to be indicative only. The Recipient must make arrangements with iinet for an on-site investigation to determine its location, if such an investigation is required or requested. The Recipient, of this document is responsible for any damage caused to the iinet underground network and any other iinet plant or equipment where works commence before the receipt of this reply, or where the Recipient fails to follow any instructions issued by iinet following an on-site investigation. All investigation/excavation on or around the iinet underground network must be Soft dig. iinet reserves the right to recover compensation for any loss or damage, including consequential losses, to its underground network or any other plant or equipment, caused by the Recipient. If an on-site investigation is required or requested, the Recipient must contact iinet at least 3 business days prior to the commencement of any works. If additional works are planned at a location, which is not specified in this reply, or if works are not carried out within 14 days from the date of this reply, please note that iinet requires the Recipient to lodge an additional request.

Adam Internet
Contact: 02 62298009
ABN - 22 055 495 853

Agile Communications
Contact: 02 62298009
ABN - 36 080 855 321

TransACT Victoria Communications
Contact: 02 62298009
ABN - 55 647 895 442

RECIPIENT'S DUTY OF CARE

It is the Recipient's responsibility to:

1. request information of iinet underground network for a particular location at a reasonable time before construction is due to begin
2. must first physically expose iinet plant by Soft Dig (Pot Holing)
3. Prior to any mechanical excavation, visually locate iinet plant by hand Pot Holing (Soft Dig) every 5 metres where construction activities may damage or interfere with iinet underground network.

DAMAGE

ANY DAMAGE TO TRANSACT'S NETWORK MUST BE REPORTED IMMEDIATELY.

It is the Recipient's responsibility to locate iinet's underground plant by careful hand Pot Holing prior to any mechanical excavation in the vicinity and to exercise due care during that excavation. iinet will accept no liability for the accuracy and / or the completeness of the information contained herein.

TRANSACT WILL SEEK COMPENSATION FOR LOSS CAUSED BY ASSET DAMAGE.

Further assistance can be obtained via the iinet contact details shown at the beginning of this document.

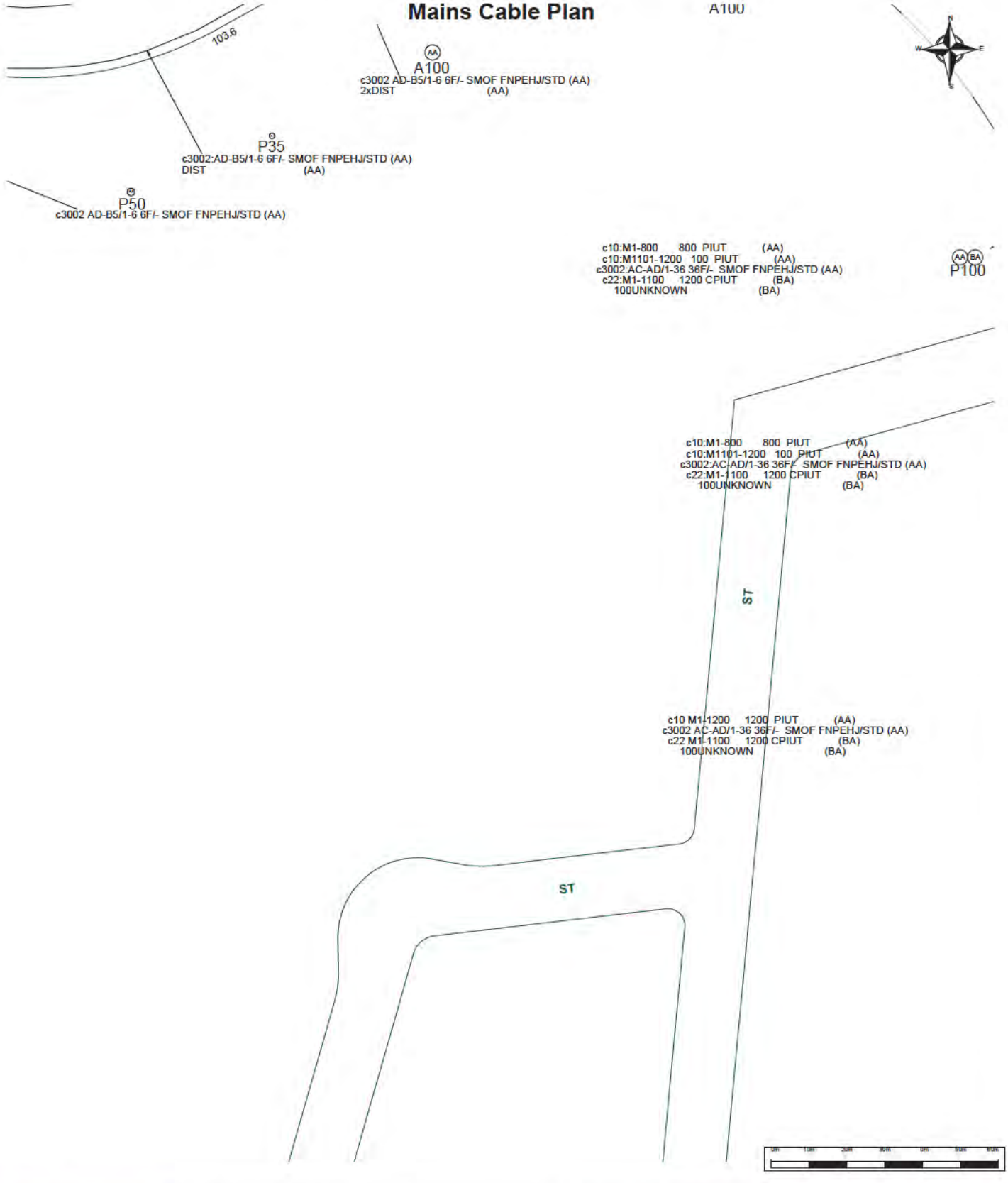
PRIVACY NOTE

Your information has been provided to iinet by DBYD. iinet keeps your information in accordance with its privacy policy.

Definition – The terms below have the following meanings in this document

1. **Recipient** means the recipient of this document including its contractors, employees and agents
2. **Soft Dig** means to physically expose the iinet plant by non mechanical excavation
3. **Pot Holing** means to physically expose the iinet plant by non mechanical excavation

Mains Cable Plan



Telstra

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TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

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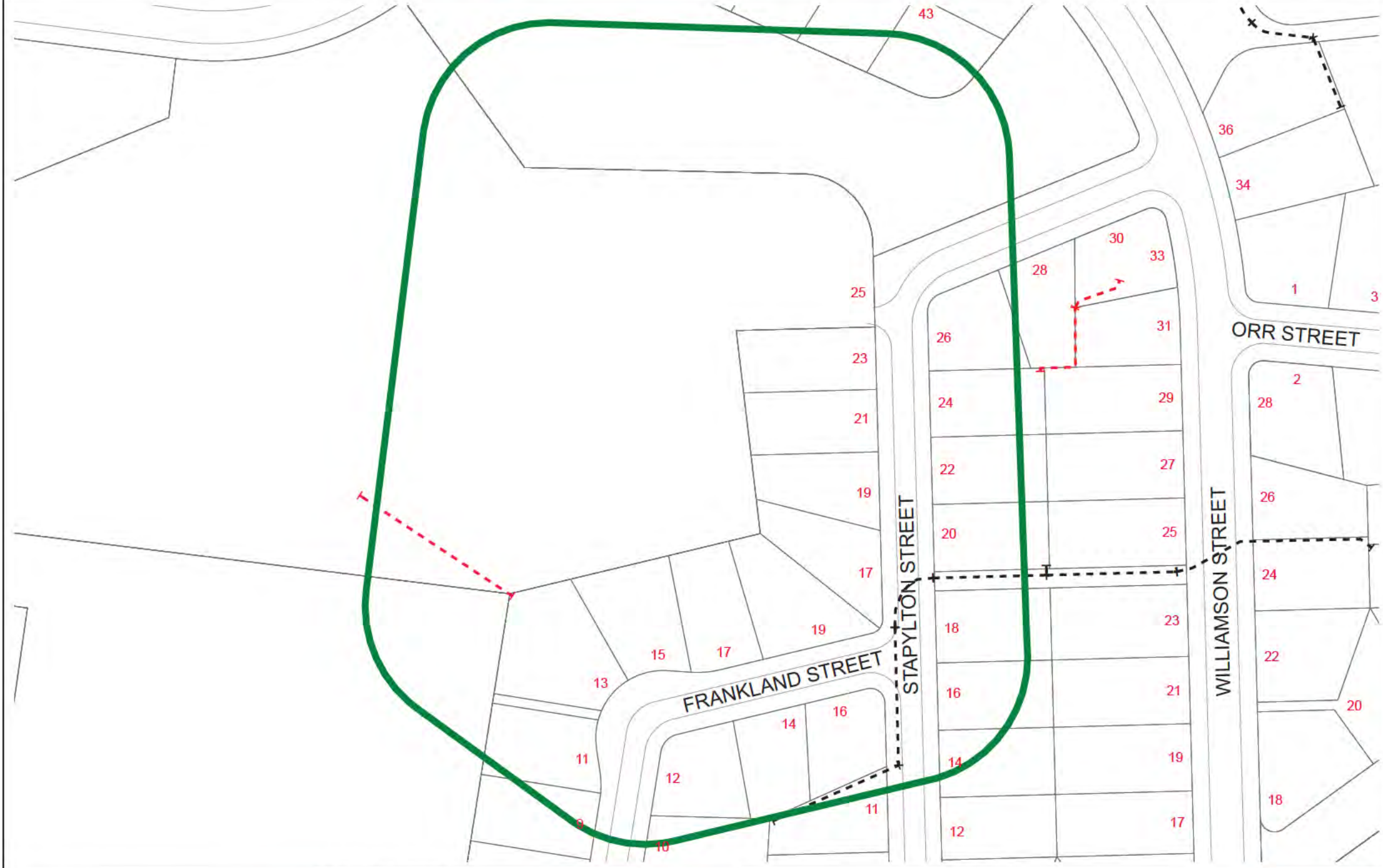
CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.



CONDUIT LEGEND

- Communications (100/110mm, 1 conduit)
- 2 Communications (100/110mm, 2 conduits)
- 3 Communications (100/110mm, 3 conduits)
- 4 Communications (100/110mm, 4 conduits)
- Communications (20/32/50/63mm, 1 conduit)
- 2 Communications (20/50/63mm, 2 conduits)
- 4 Communications (20mm, 4 conduits)
- 6 Communications (20mm, 6 conduits)
- Electrical (32/35/50/63100/110mm)

WARNING

This plan contains commercially senstive information and is to be treated accordingly. No such information is to be passed onto other parties without the written consent of TransACT Captial Communications.

TransACT Capital Communications Pty Ltd
TransACT House
470 Northbourne Avenue, Dickson, ACT, 2602
PO Box 1006, Civic Square, ACT, 2608
Phone: (02) 6229 8000 Fax: (02) 6229 8025

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	D. Ionko	J. Wearne		Alice Buck (LDA)		30/10/2015
1	D. Ionko	J. Wearne		Alice Buck (LDA)		06/11/2015

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