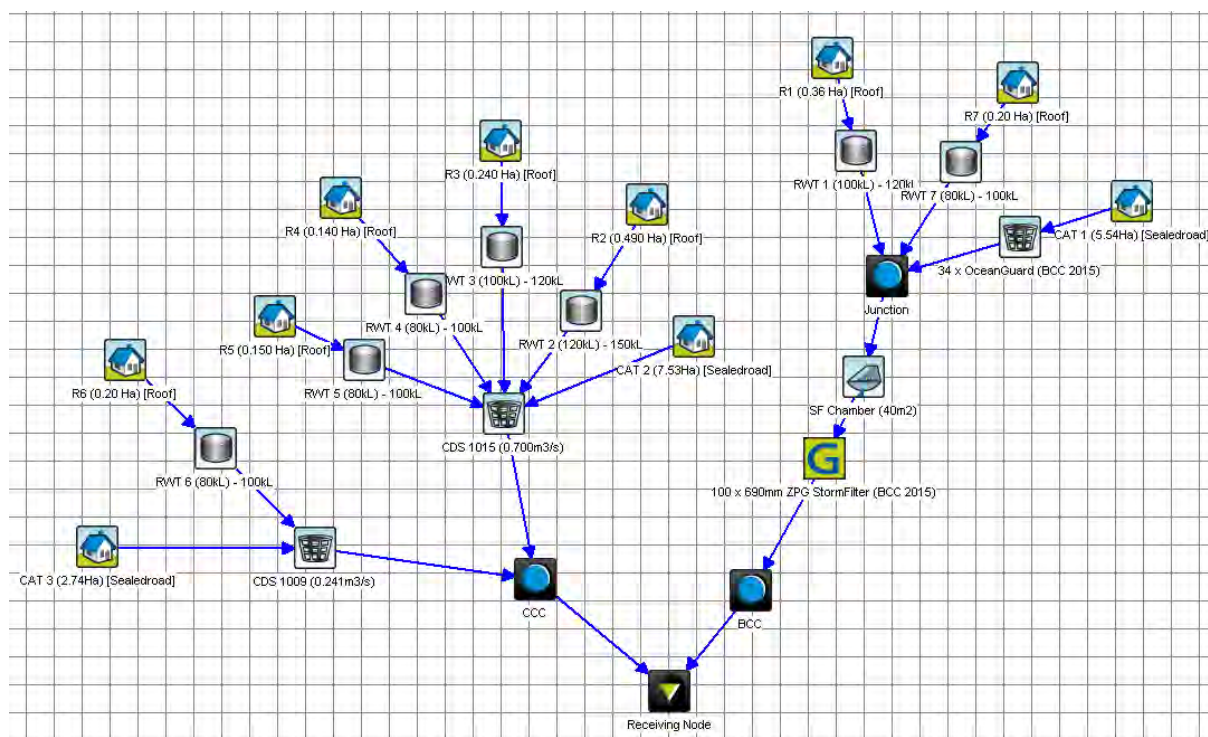


Appendix B

MUSIC Results



Treatment Train Effectiveness - CCC

	Sources	Residual Load	% Reduction
Flow (ML/yr)	78.6	74.4	5.3
Total Suspended Solids (kg/yr)	24000	7670	68.1
Total Phosphorus (kg/yr)	42	29.2	30.3
Total Nitrogen (kg/yr)	186	176	5.4
Gross Pollutants (kg/yr)	2090	49.9	97.6

Treatment Train Effectiveness - BCC

	Sources	Residual Load	% Reduction
Flow (ML/yr)	41.4	39.7	4.2
Total Suspended Solids (kg/yr)	13100	1680	87.2
Total Phosphorus (kg/yr)	22.9	8.01	65.1
Total Nitrogen (kg/yr)	97.4	53.4	45.2
Gross Pollutants (kg/yr)	1100	0	100

Appendix C
SSD 10399 SEAR's
Dated 16 December 2019

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD-10399
Project Name	Prospect Logistics Estate
Location	Clunies Ross Street, Prospect Lot 10 DP 1022044, Lot 107 DP 1028208, Lot 63 DP 752051, Lot 216 DP1030744, and Lot 601 DP 1047403 within Blacktown and Cumberland Local Government Areas (LGAs)
Applicant	Aliro Management Pty Ltd
Date of Issue	16 December 2019
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000. In addition, the EIS must include:</p> <ul style="list-style-type: none"> • a detailed description of the development, including: <ul style="list-style-type: none"> – the need for the proposed development – justification for the proposed development – likely staging of the development – likely interactions between the development and existing, approved and proposed operations in the vicinity of the site – plans of any proposed building works. • consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments • a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment • a detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: <ul style="list-style-type: none"> – a description of the existing environment, using sufficient baseline data – an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes – a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/ or contingency plans to manage significant risks to the environment • a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS. <p>The EIS must also be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> • a detailed calculation of the capital investment value (CIV) of the development as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000, including details of all components of the CIV • an estimate of the jobs that will be created by the development during the construction and operational phases of the development • certification the information provided is accurate at the date of preparation.

Key issues	<p>The EIS must address the following specific matters:</p> <ul style="list-style-type: none"> • Community and Stakeholder Engagement – including: <ul style="list-style-type: none"> – a detailed community and stakeholder participation strategy which identifies who in the community has been consulted and a justification for their selection, other stakeholders consulted and the form(s) of consultation, including a justification for this approach – a report on the results of the implementation of the strategy including issues raised by the community and surrounding land owners and occupiers that may be impacted by the proposal – details of how issues raised during community and stakeholder consultation have been addressed and whether they have resulted in changes to the proposal – details of the proposed approach to future community and stakeholder engagement based on the results of consultation. • Strategic Context – including: <ul style="list-style-type: none"> – details of any proposed consolidation or subdivision of land – a demonstration that the proposal is generally consistent with all relevant planning strategies, environmental planning instruments and development control plans (DCPs) and district plans. Outline and justify any inconsistencies with any of these documents. • Suitability of the Site – including: <ul style="list-style-type: none"> – an analysis of site constraints – details of all development consents and approved plans for the existing industrial estate – a detailed justification that the site is suitable for the scale of the proposal, having regard to the site's surrounds and the potential visual impact of the development. • Urban Design and Visual – including: <ul style="list-style-type: none"> – a detailed design analysis of the proposed development with reference to the building form, height, setbacks, bulk and scale in the context of the immediate locality, the wider area and the desired future character of the area, including views, vistas, open space and the public domain – a detailed assessment (including photomontages and perspectives) of the facility (buildings and storage areas) including height, colour, scale, building materials and finishes, signage and lighting, particularly from nearby public receivers and significant or important vantage points of the broader public domain – consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks – an options analysis for the proposed building materials, architectural treatments, finishes and colour of the buildings, prepared in consultation with nearby sensitive receivers with evidence of consultation provided – a design report that establishes design guidelines and development parameters, and includes diagrams, illustrations and drawings to clarify the design intent of the proposal and which clearly demonstrates how design quality will be achieved in accordance with Clause 31 Design Principles of the State Environmental Planning Policy (Western Sydney Employment Area) 2009 – suitable landscaping incorporating endemic species. • Heritage – including: <ul style="list-style-type: none"> – identification and description of the relevant non-Aboriginal heritage items, including built heritage, landscapes and archaeology, that exist across the development and document in a Statement of Heritage Impact (SOHI). – a description and assessment of potential impacts on non-Aboriginal heritage item(s) such as on Prospect Hill and Mar-Rong Reserve – measures to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage item(s)
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	<ul style="list-style-type: none"> – identification and description of the Aboriginal cultural heritage values that exist across the development and document in an Aboriginal Cultural Heritage Assessment Report (ACHAR) – consultation with Aboriginal people must be undertaken and documented in ACHAR – a description and assessment of potential impacts on Aboriginal cultural heritage values such as Prospect Hill and Mar-Rong Reserve • Traffic and Transport – including: <ul style="list-style-type: none"> – a Traffic Impact Assessment detailing all daily and peak traffic and transport movements likely to be generated (vehicle, public transport, pedestrian and cycle trips) during construction and operation of the development, including a description of vehicle access routes and the impacts on nearby intersections – details of access to the site from the road network including intersection location, design and sight distance – an assessment of predicted impacts on road safety and the capacity of the road network to accommodate the development – detailed plans of the proposed site access and parking provision on site in accordance with the relevant Australian Standards – identification of any dangerous goods likely to be transported on arterial and local roads to/ from the site and, if necessary, the preparation of an incident management strategy – details of impact mitigation, management and monitoring measures. • Soils and Water – including: <ul style="list-style-type: none"> – a description of the water demands and a breakdown of water supplies, including a detailed site water balance – a description of the measures to minimise water use – a description of all wastewater generated on site – characterisation of the nature and extent of any contamination of the site and a description of proposed measures – a detailed description of any cut and fill works and/ or additional retaining walls required to facilitate the development – a description of the proposed erosion and sediment controls during construction and operational phases of the development – a description of the surface and stormwater management system, including on site detention, and measures to treat or re-use water – an assessment of potential surface and groundwater impacts associated with the development including impacts on bulk water supply infrastructure within the vicinity of the site – a description of the surface and stormwater management including drainage design, on site detention, and measures to treat or re-use water – a flooding assessment – a description of erosion and sediment controls – details of impact mitigation, management and monitoring measures. • Noise and Vibration– including: <ul style="list-style-type: none"> – a description of all potential noise and vibration sources during the construction and operational phases of the development, including on and off-site traffic noise – a cumulative noise impact assessment of all potential noise sources in accordance with relevant Environment Protection Authority guidelines – details of noise mitigation, management and monitoring measures. • Air Quality – including: <ul style="list-style-type: none"> – an assessment of the air quality impacts at private properties during construction and operation of the development, in accordance with the relevant Environment Protection Authority guidelines – details of any mitigation, management and monitoring measures required to prevent and/ or minimise emissions.
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	<ul style="list-style-type: none"> • Hazards and Risk – including: <ul style="list-style-type: none"> – if the storage of dangerous goods is proposed on site, the Environmental Impact Statement must include a preliminary risk screening completed in accordance with <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i> and <i>Applying SEPP 33</i> (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is “potentially hazardous” a preliminary hazard analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011). • Waste – including: <ul style="list-style-type: none"> – details of the quantities and classification of all waste streams to be generated on site during construction and operation – details of waste storage, handling and disposal during construction and operation – details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021. • Bushfire and Incident Management. <ul style="list-style-type: none"> – assess the level of hazard posed to future development on adjacent land and how the hazards may change as a result of development – address the requirements of Planning for Bush Fire Protection 2006 (RFS), in particular the provision of access (including perimeter roads) and water supply for firefighting purposes. • Biodiversity – including: <ul style="list-style-type: none"> – an assessment of the proposal's biodiversity impacts in accordance with the <i>Biodiversity Conservation Act 2016</i>, including the preparation of a Biodiversity Development Assessment Report (BDAR) where required under the Act, except where a waiver for preparation of a BDAR has been granted. • Greenhouse Gas and Energy Efficiency – including: <ul style="list-style-type: none"> – an assessment of the energy use on-site, and demonstrate the measures proposed to ensure the development is energy efficient. • Socio-economic – including: <ul style="list-style-type: none"> – an analysis of the economic and social impacts of the development, particularly any benefits to the community. • Ecologically Sustainable Development – including: <ul style="list-style-type: none"> – an assessment of how the development will incorporate ecologically sustainable development principles in all phases of the development – the use of green walls, green roof and/or cool roof into the design and – climate change projections developed for the Sydney Metropolitan area and how they are used. • Infrastructure Requirements – including: <ul style="list-style-type: none"> – details of infrastructure required on the site and identification of any upgrades required to facilitate the development – details of any impacts on existing easements – an assessment of the impacts of the development (construction and operation) on existing infrastructure surrounding the site.
Plans and Documents	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. You should provide these as part of the EIS rather than as separate documents.</p>

Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with:</p> <ul style="list-style-type: none"> • Cumberland Council • Blacktown City Council • Transport for NSW (including former Roads and Maritime Services) • Environment, Energy and Science Division (formerly Office of Environment and Heritage) • Fire and Rescue NSW • Heritage NSW • WaterNSW • Sydney Water • surrounding local residents and stakeholders. <p>The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>
Further consultation after 2 years	<p>If you do not lodge an EIS for the development within 2 years of the issue date of these SEARs, you must consult with the Secretary in relation to any further requirements for lodgement.</p>
References	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p>

ATTACHMENT 1

Technical and Policy Guidelines

The following guidelines may assist in the preparation of the environmental impact statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

<http://www.planning.nsw.gov.au>

<http://www.shop.nsw.gov.au/index.jsp>

<http://www.australia.gov.au/publications>

<http://www.epa.nsw.gov.au/>

<http://www.environment.nsw.gov.au/>

<http://www.dpi.nsw.gov.au/>

Policies, Guidelines & Plans

Policies, Guidelines & Plans	
Aspect	Policy / Methodology
Visual	Control of Obtrusive Effects of Outdoor Lighting (AS 2482)
Heritage	Heritage Act 1977 NSW Heritage Manual (HO and DUAP, 1996) The Burra Charter (ICOMOS Australia, 2013) Statements of Heritage Impact (HO and DUAP, 2002) Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010) Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010)
Traffic, Transport and Access	Roads Act 1993 State Environmental Planning Policy (Infrastructure) 2007 Guide to Traffic Generating Development (RTA, 2002 as updated) Road Design Guide (RMS, 2015-2017)

Policies, Guidelines & Plans

Aspect	Policy / Methodology
	Guide to Traffic Management – Pt 12: Traffic Impacts of Development (Austroads, 2016)
	Guidelines for Planning and Assessment of Road Freight Access in Industrial Areas (Austroads, 2014)
	Bicycle Parking Facilities: Guidelines for Design and Installation (AS 2890.3:2015)
	Integrated Public Transport Service Planning Guidelines: Sydney Metropolitan Area (TfNSW, 2013)
	Future Transport Strategy 2056 (TfNSW, 2018)
	Greater Sydney Services and Infrastructure Plan (TfNSW, 2018)
	NSW Freight & Ports Plan 2018-2023 (TfNSW, 2018)
Soils and Water	
<i>Erosion and Sediment</i>	Managing Urban Stormwater: Soils & Construction (Landcom, 2004)
	Soil and Landscape Issues in Environmental Impact Assessment (DLWC, 2000)
	Wind Erosion – 2nd Edition (DIPNR, 2003)
<i>Groundwater</i>	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC, 2000)
	NSW State Groundwater Policy Framework Document (DLWC, 1997)
	NSW Aquifer Interference Policy (NOW, 2012)
	Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources (NOW, 2011)
	Storing and Handling Liquids: Environmental Protection (DECC, 2007)
<i>Stormwater</i>	Managing Urban Stormwater: Strategic Framework. Draft (EPA, 1996)
	Managing Urban Stormwater: Council Handbook. Draft (EPA, 1997)
	Managing Urban Stormwater: Treatment Techniques (DEC, 2006)
	Managing Urban Stormwater: Source Control. Draft (EPA, 1998)
	Managing Urban Stormwater: Harvesting and Reuse (DEC, 2006)
<i>Wastewater</i>	National Water Quality Management Strategy: Guidelines for Sewerage Systems - Effluent Management (ARMCANZ/ANZECC, 1997)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems - Use of Reclaimed Water (ARMCANZ/ANZECC, 2000)
	National Water Quality Management Strategy – Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) (EPHC, NRMCC & AHMC, 2006)
	National Water Quality Management Strategy – Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 2) (EPHC, NRMCC & AHMC, 2009)
<i>Contamination</i>	State Environmental Planning Policy No. 55 – Remediation of Land
Noise and Vibration	
	Assessing Vibration: A Technical Guide (DEC, 2006)

Policies, Guidelines & Plans

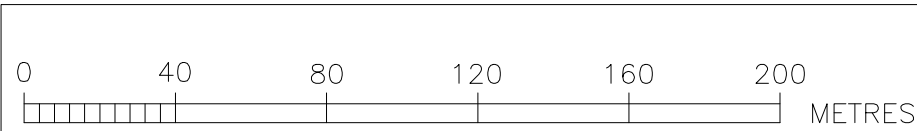
Aspect	Policy / Methodology
	Noise Policy for Industry (EPA, 2017)
	Environmental Criteria for Road Traffic Noise (EPA, 1999)
	Noise Guide for Local Government (EPA, 2013)
	Interim Construction Noise Guideline (DECC, 2009)
Air Quality	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007)
<i>Air Quality</i>	Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016)
<i>Greenhouse Gas</i>	AGO Factors and Methods Workbook (AGO, 2018)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
Hazards and Risk	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DoP, 2011)
Biodiversity	
	Biodiversity Conservation Act 2016
	Biodiversity Assessment Method (OEH, 2017)
	Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018)
Waste	
	Waste Avoidance and Resource Recovery Strategy 2014-21 (EPA, 2014)
Bushfire	
	Planning for Bushfire Protection (RFS, 2006)
Social	
	Social Impact Assessment Guideline (DPE, 2017)
Upper Canal and Warragamba Pipeline Corridors	
	Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines (WaterNSW, 2018)

ATTACHMENT 2

Government Authority Responses to Request for Key Issues

Appendix D

Site Survey



SYDNEY WATER ASSET PROTECTION SURVEY AND PLAN PREPARED BY:

1. LANDPARTNERS PTY LTD, WATER SERVICE COORDINATOR
PO BOX1144, DUNDAS NSW 2117

FOR:

ALIRO GROUP
LEVEL 32, GOVERNOR MACQUARIE TOWER
1 FARRER PLACE, SYDNEY NSW 2000

2. DATE OF INSPECTIONS: 07.01.20 – 09.01.20

3. 1:1 ZONE OF INFLUENCE

4. LANDPARTNERS KEY PERSONNEL: CRAIG PATON & NATHAN SANTOS.

5. DO NOT SCALE FROM THIS PLAN (EXCEPT ELECTRONICALLY).
ALL ASSETS PLOTTED TO MGA COORDINATE SYSTEM USE DIMENSIONS ONLY.

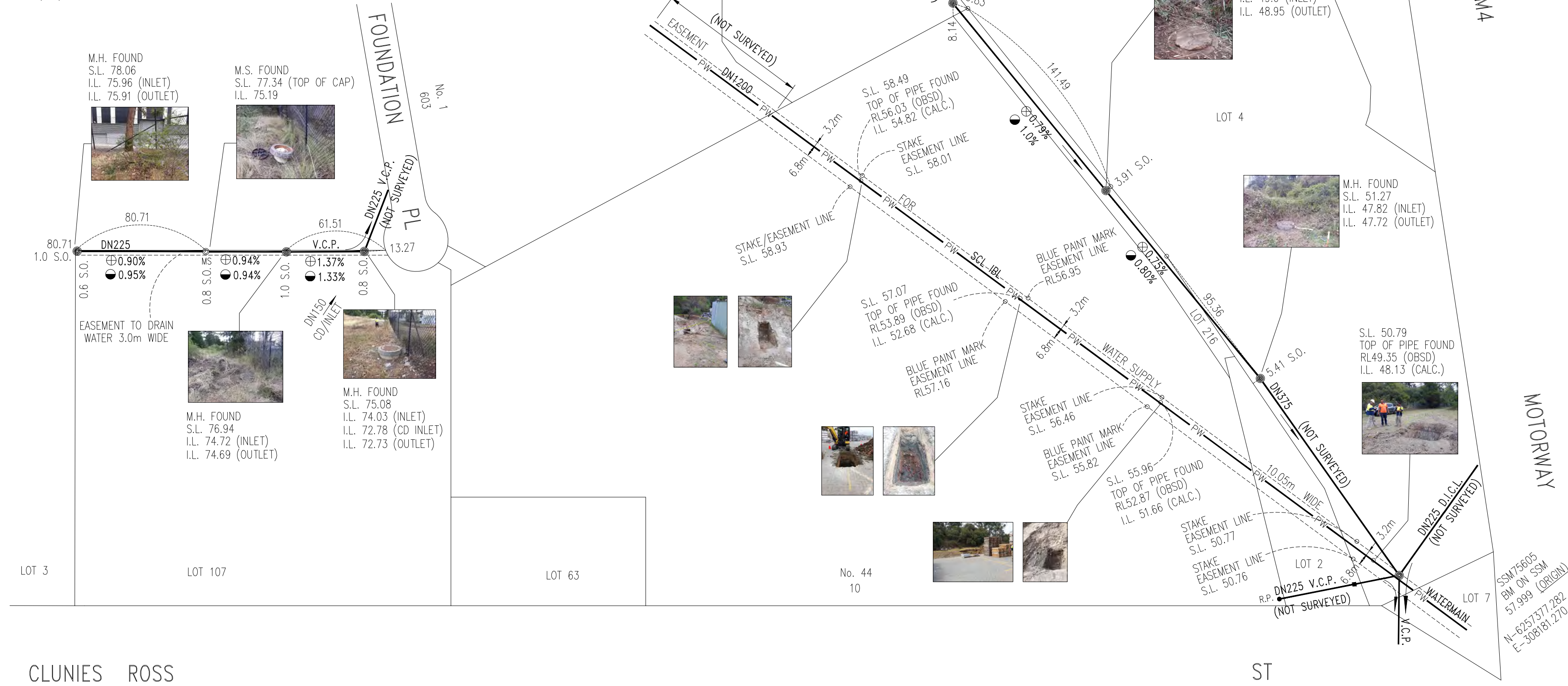
6. ASSET LOCATION METHOD : PHYSICAL DETECTION OF ASSETS.

DAY 1 SURVEYOR ATTENDED ONSITE TO LOCATE & MARK EASEMENT LINES, WATERMAINS LOCATIONS.
AND DETERMINED REAL PROPERTY BOUNDARIES.

DAY 2 CONSTRUCTOR ATTENDED SITE & EXPOSED WATERMAINS FOR THE SURVEYOR TO DETERMINED TOP OF PIPE.
SURVEYOR MARKED APPROX. LOCATION OF SEWER M.H. (AS PER HYDRA INFORMATION).

DAY 3 CONSTRUCTOR CLEARED VEGETATION TO ACCESS M.H. LOCATIONS.
SURVEYOR DETERMINED LOCATION OF M.H.'s WITH MGA CO-ORDINATES.
WSC's MEASURED DEPTHS/COVER OF SEWER M.H.'s.

I, CRAIG PATON OF LANDPARTNERS PTY LTD BEING ACCREDITED
TO CARRY OUT A SERVICE PROTECTION REPORT, CERTIFY THAT
THE INFORMATION SHOWN ON THIS REPORT IS ACCURATE AND HAS
BEEN PREPARED IN ACCORDANCE WITH THE RELEVANT INSTRUCTIONS.
DATE: 15/01/2020



HYDRA MAP
(NOT TO SCALE)

CLIENT
**ALIRO GROUP
LEVEL 32
GOVERNOR
MACQUARIE TOWER
1 FARRER PLACE
SYDNEY NSW 2000**

PROJECT
**SYDNEY WATER ASSET
PROTECTION REPORT

AT
44 CLUNIES ROSS ST
PROSPECT NSW 2148**

LEGEND	
	SEWER MAIN
	MAINTENANCE HOLE
	MAINTENANCE SHAFT
	MAINTENANCE SHAFT
	SEWER GRADES AS PER SYDNEY WATER RECORDS
	OBSERVED GRADE
	WATERMAIN
M.H.	MAINTENANCE HOLE
DN	DIAMETER
DICL	DUCTILE IRON CEMENT LINED
V.C.P.	VITRIFIED CLAY PIPE
S.O.	SQUARE OFF (PERPENDICULAR)
S.L.	NATURAL SURFACE LEVEL
I.L.	INVERT LEVEL
R.L.	REDUCED LEVEL
OBSD	OBSERVED
CALC.	CALCULATED

A	FIRST ISSUE	NS	17.01.20
REV	DESCRIPTION	DRAWN	DATE

LANDPARTNERS
built environment consultants

Sydney Office
Level 2, 23-29 South Street
Rydalmere NSW 2116
PO Box 1144
Dundas NSW 2117

p: (02) 9685 2000
f: (02) 9685 2001
e: info@landpartners.com.au
w: www.landpartners.com.au

HEIGHT DATUM AHD	LOCAL AUTHORITY BLACKTOWN COUNCIL
HEIGHT ORIGIN SSM75605 RL57.999	SCALE 1:2000 (A2)
CO-ORD SYSTEM GDA2020	SURVEYOR SA
MGA2020 CO-ORD SOURCE SSM130419 N-6256704.882 E-307837.975	DATE OF SURVEY 08.01.20
AUTOCAD FILE 74855SWAP	DRAWN NS
ARCHIVE FILE 74855SWAP	DATE 16.01.20
PLAN NUMBER A2-74855SWAPR	CHECKED C.P.
	DATE 17.01.20
	REV A



CLUNIES ROSS

ST

Appendix E
Meeting Minutes
Blacktown City Council – 17 September 2019

MEETING MINUTES

Issue date: 29 November 2019 **Project Name:** 44 Clunies Ross Street, Greystanes

Meeting date: 17 September 2019 **Project No.:** Co13251.06

Meeting Location: Blacktown City Council offices

Attendee	Company	Contact
John Molteno	Blacktown City Council	JM
Jey Mahendra	Blacktown City Council	JM
Approximately 5 other technical officers	Blacktown City Council	No records
Andrew Needham	Aliro	AN
Ben Keen	ISPT	BK
Mark Wilson	Director, Costin Roe Consulting Pty Ltd	MW
Xavier Cure	Associate Director, Costin Roe Consulting Pty Ltd	XC

No.	Notes/Action	Responsibility	Action by
1	General Meeting Discussion Notes		
1.a	<p>AN and BK described the proposed overall precinct, land parcels and development. Also this development in relation to the overall context of the area and progression of the industrial precinct, and key strategic position of the land parcel as noted:</p> <ul style="list-style-type: none"> (i) the intent to lodge and SSDA within 4-6 months of the meeting. (ii) From strategic point AN confirmed proposed uses to be warehouse/ distribution type users + pharmacy, trade etc. No bulky goods. Similar in nature to the nearby Greystanes Quarry Estate users. (iii) SSD application with warehousing use over 		

	<p>the whole site as a masterplan. Any specific uses would be separate or mods.</p> <p>(iv) Note all properties will be consolidated as a single lot. ISPT will hold this in perpetuity, will develop and leasehold all tenancies.</p> <p>(v) 5 star green star rating is intended for the overall estate.</p>		
1.b	<p>MW presented and discussed drawings relating to the stormwater management concepts proposed and discussed in Items 1.c to 1.f below:</p> <p>Co13251.06-C40 and Co13251.06-C32</p> <p><u>Note:</u> Drawings were provided to Council by Aliro prior to meeting.</p>		
1.c	MW discussed the existing regional/ council owned detention system on the north of the site, and water quality wetland/ basin on the north-west of the site (which service this site and the broader industrial catchment) both currently encroach onto the subject development property.		
1.d	MW discussed that as part of the development of the land it is proposed to modify the regional basin to remove the existing encroachment of OSD storage and water quality basin on the site as set out in the concept drawings presented.		
1.e	MW noted the proposal and that a general discussion held with Tony Merrilees approximately 6-8 months prior to the meeting regarding high level requirements for adjusting the detention system. These included maintaining pre and post development flood storage, ensuring no affectation to upstream downstream or adjacent properties, ensuring no change in water quality provisions		
1.f	MW noted it is proposed to include additional storage to the existing basin to provide capacity for stormwater detention requirements for the whole of the proposed development.		
1.g	MW request drawings of regional basin from John Molteno.		
2	Discussion from Council/ Mr John Molteno (JM) relating to the proposed basin and drainage		


	considerations		
2.a	JM noted the basin is a prescribed dam, however managed by Council. Any proposed modification or works to the basin would need to be confirmed and passed through council, and the NSW Dam Safety Committee for approval prior to any works in addition to the SSD process.		
2.b	Given the below technical items can be worked through, the modification to the basin and wetland would be able to be supported by council.		
2.c	<p>Technical items to consider as follows:</p> <ul style="list-style-type: none"> (i) affectation to upstream, downstream or adjoining properties. (ii) Pre and post development flood storage is required to be maintained up to the 1% AEP flood level. (iii) Need to review PMF performance post development compared to pre-development and confirm flood safety requirements are maintained. (iv) Underground cables noted in and around the clay core embankment - CRC to check DBYD. (v) Access paths for pedestrian and AWD vehicles and construction machinery required around basin. (vi) Noted dispersive clays are present in the area. A geotechnical investigation will be required. (vii) An REF assessment will be required for any works in and around the base of the detention system. (viii) The development water quality and quantity would need to meet Part J water quality requirements. 		
2.d	Urban heat + tree canopy would need to be considered for the overall development.		

Appendix F







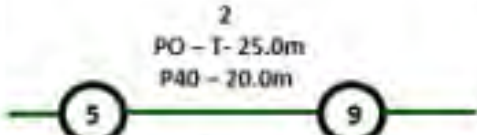
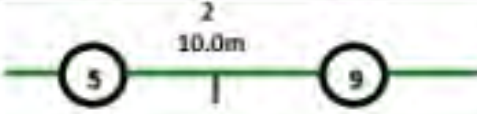




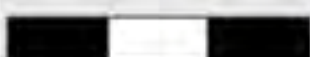
Dial Before You Dig Information

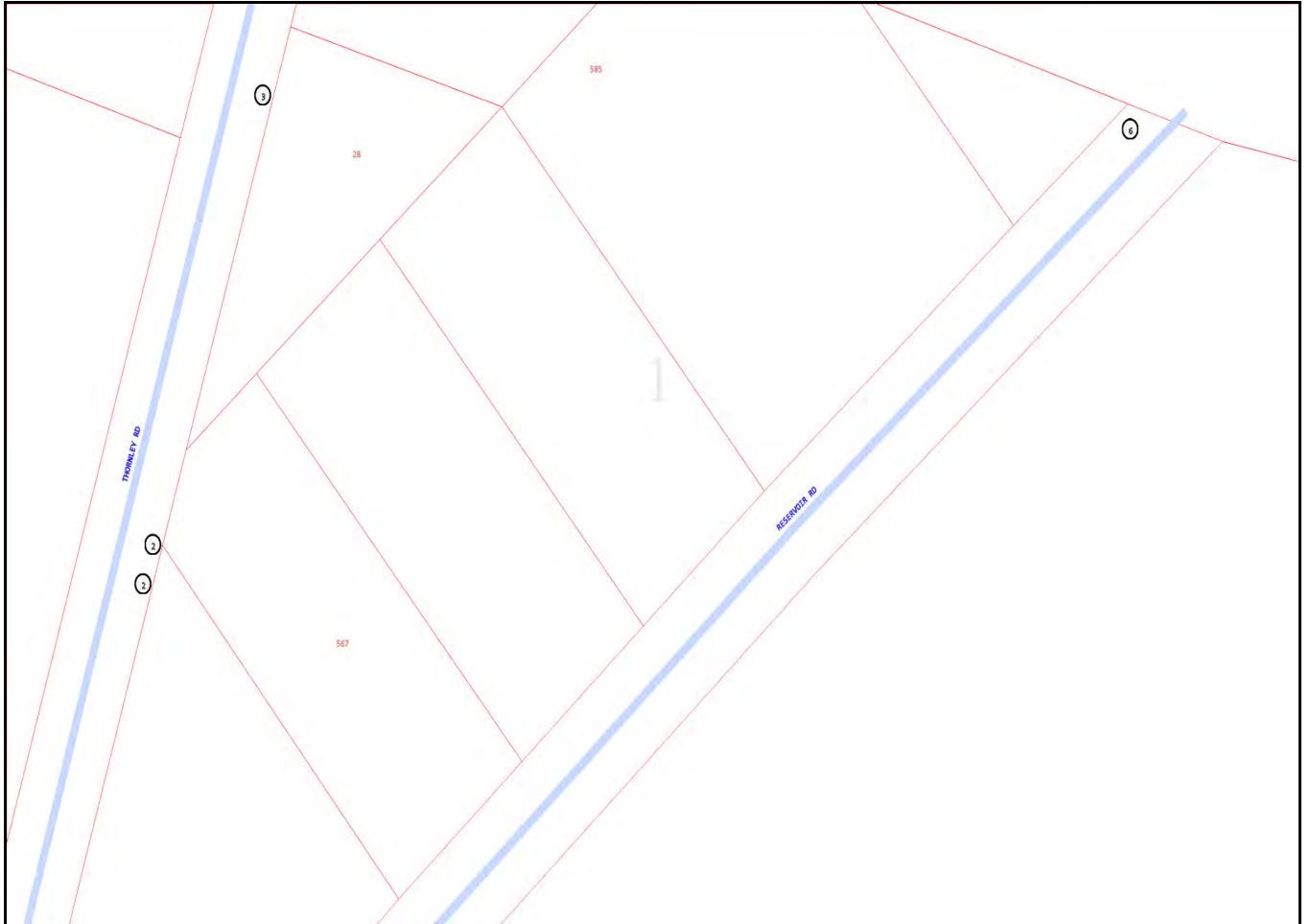


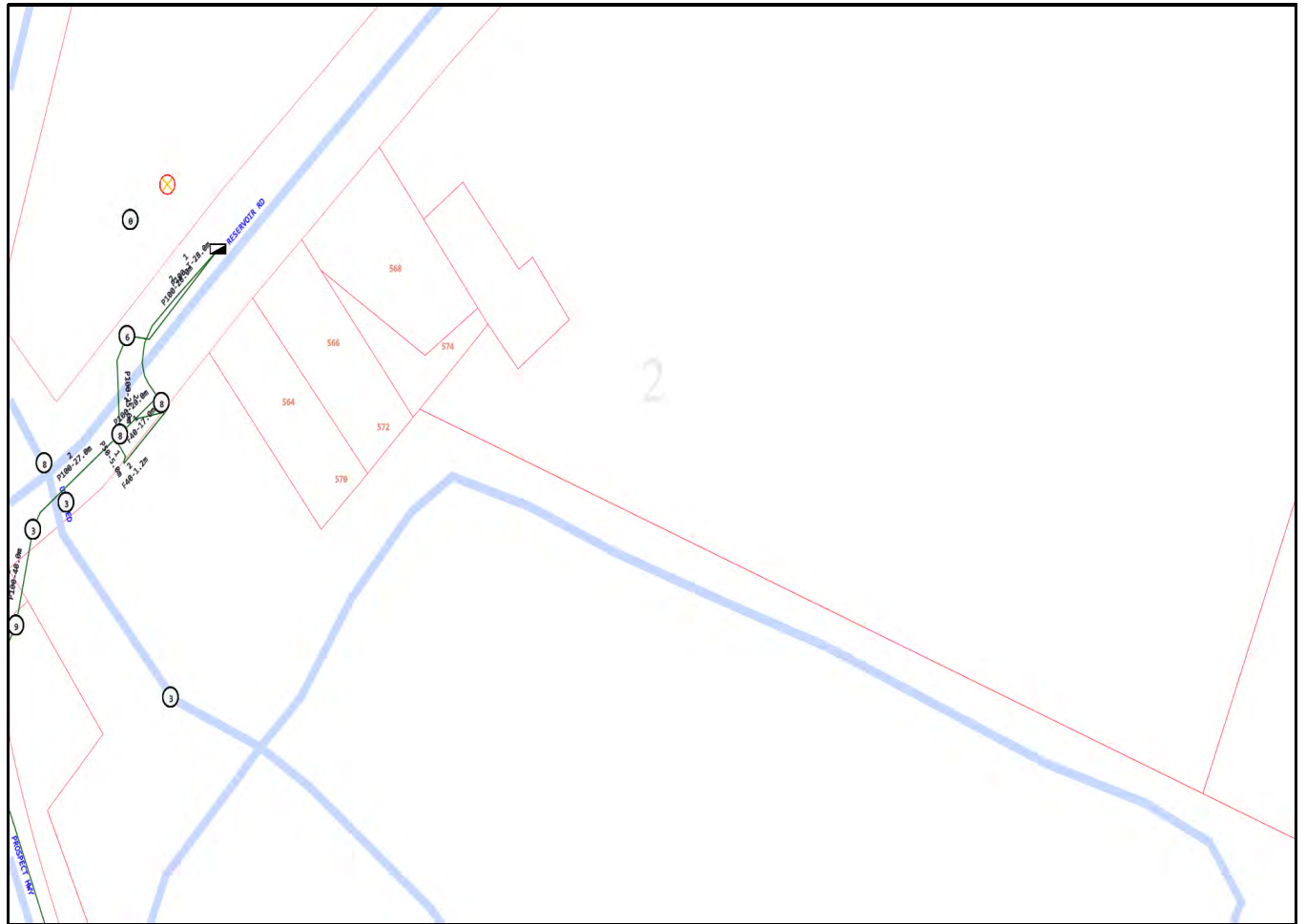
Indicative Plans

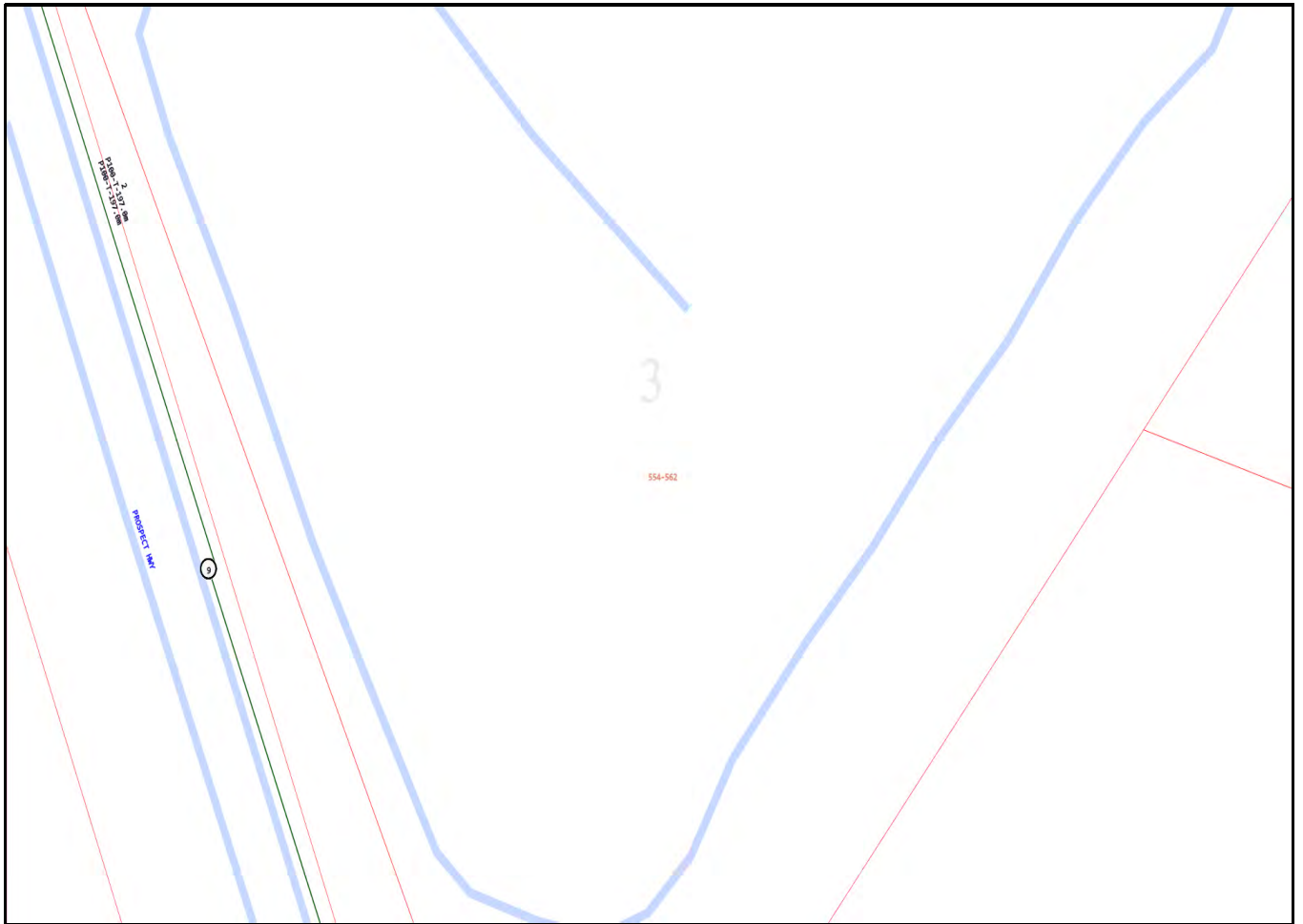
Issue Date:	06/03/2020	 DIAL BEFORE YOU DIG www.1100.com.au
Location:	44 Clunies Ross Street , Prospect , NSW , 2148	

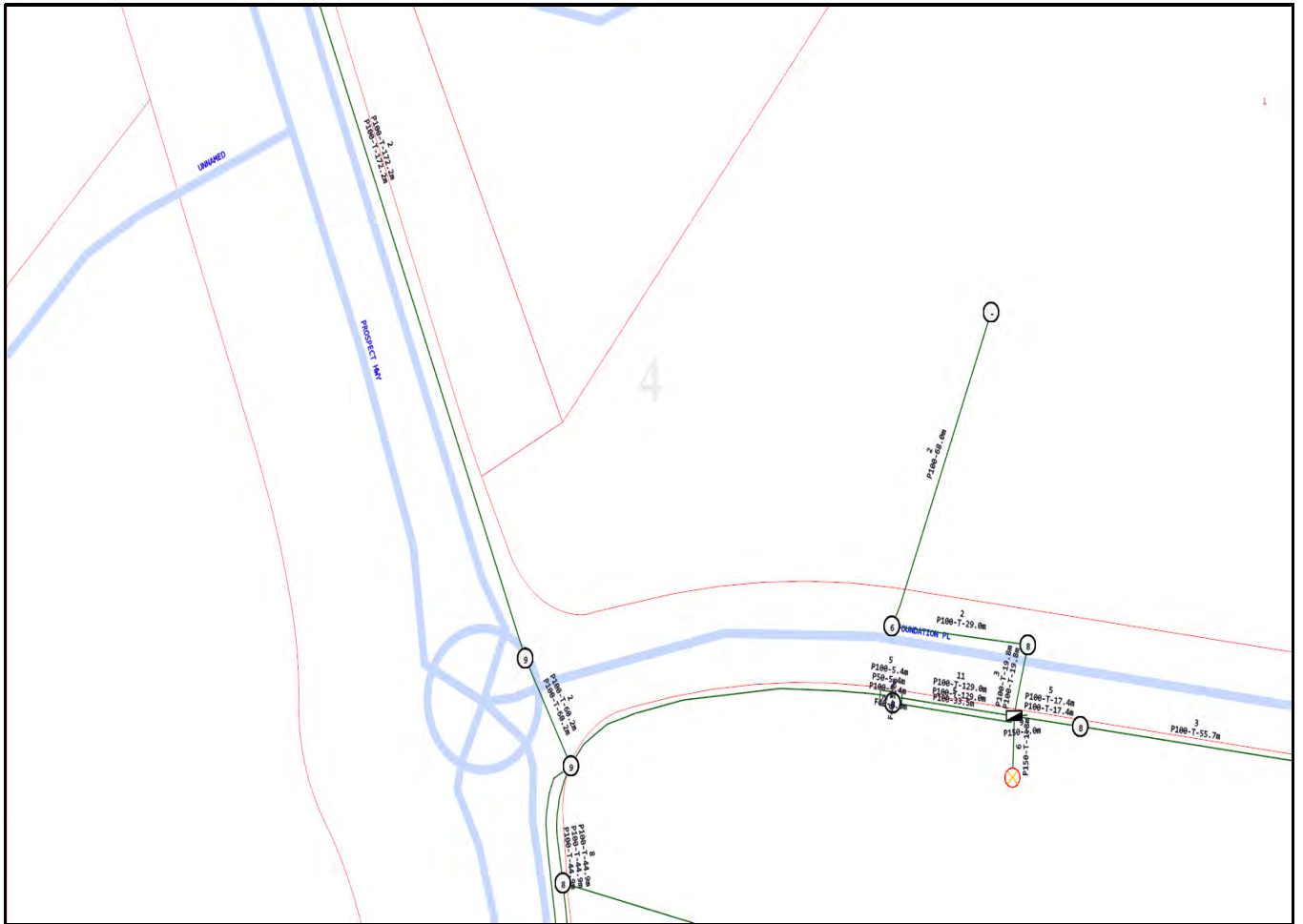
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3	8	13
4	9	14
5	10	15

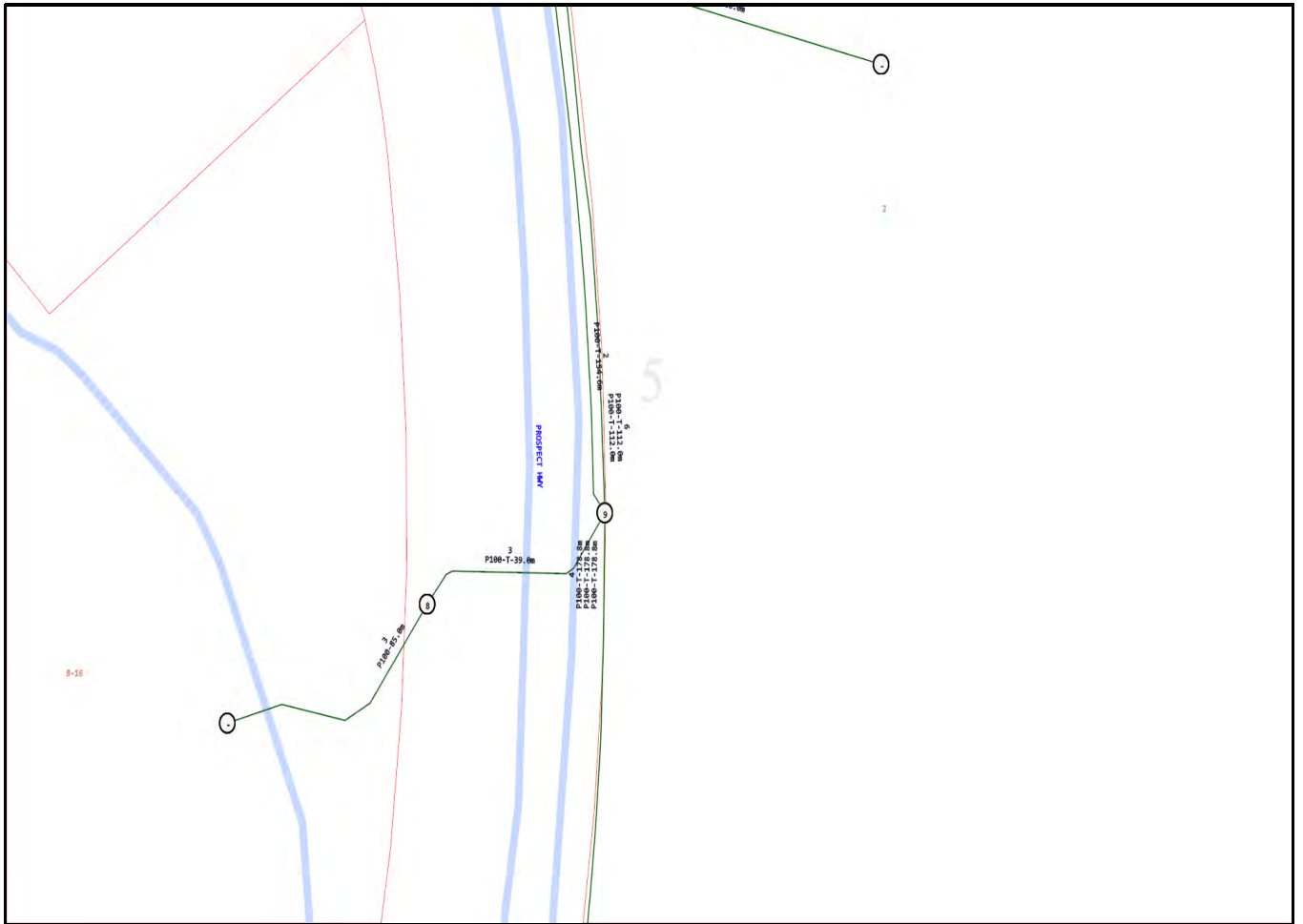
	<h2>LEGEND</h2>
	<p>Parcel and the location</p>
	<p>Pit with size "5"</p>
	<p>Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.</p>
	<p>Manhole</p>
	<p>Pillar</p>
	<p>Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.</p>
	<p>2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.</p>
	<p>Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.</p>
	<p>Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.</p>
	<p>Trench containing any INSERVICE/CONSTRUCTED (Power) cables.</p>
	<p>Road and the street name "Broadway ST".</p>
<p>Scale</p>	<p>0 20 40 60 Meters 1:2000 1 cm equals 20 m</p> 

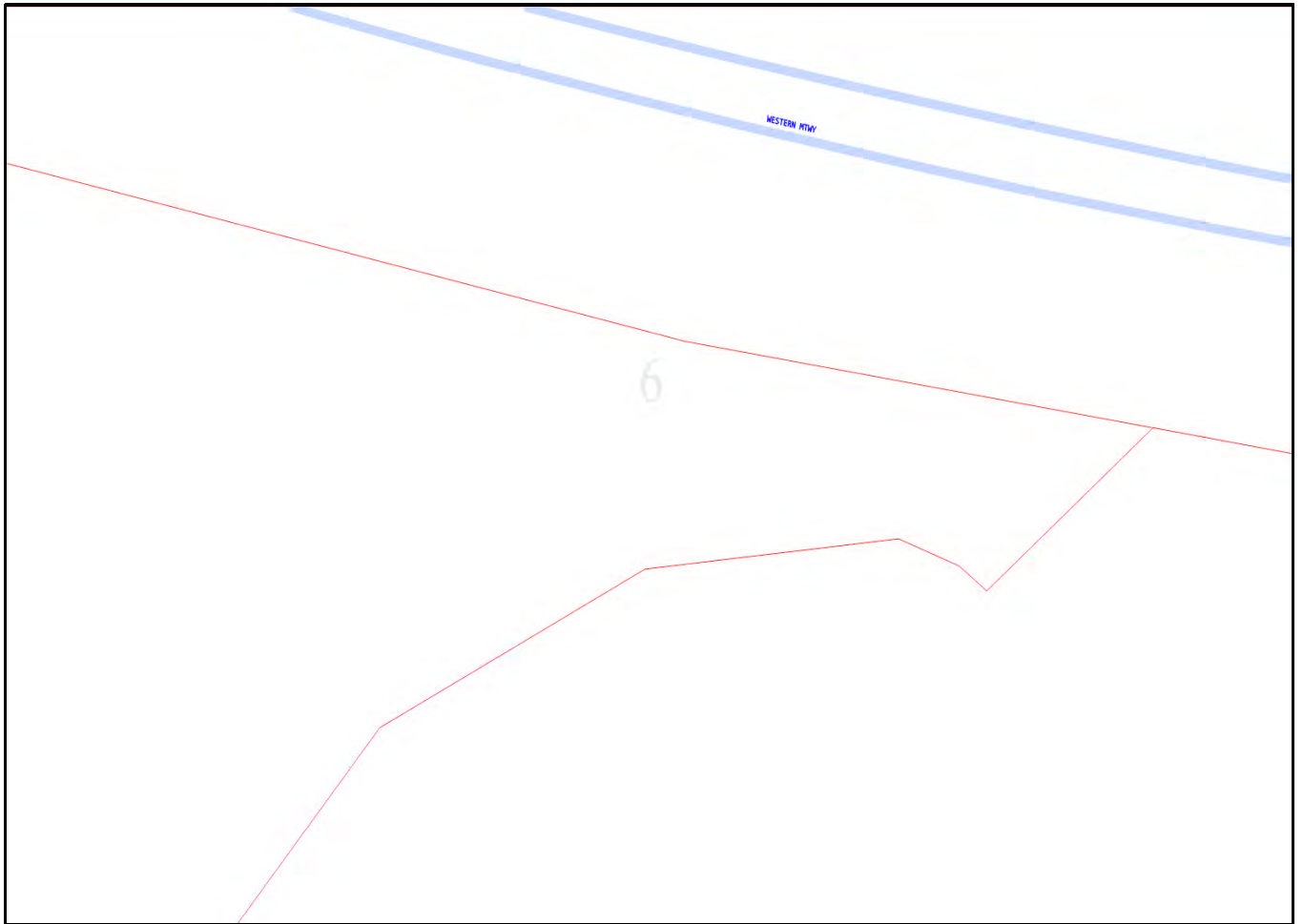


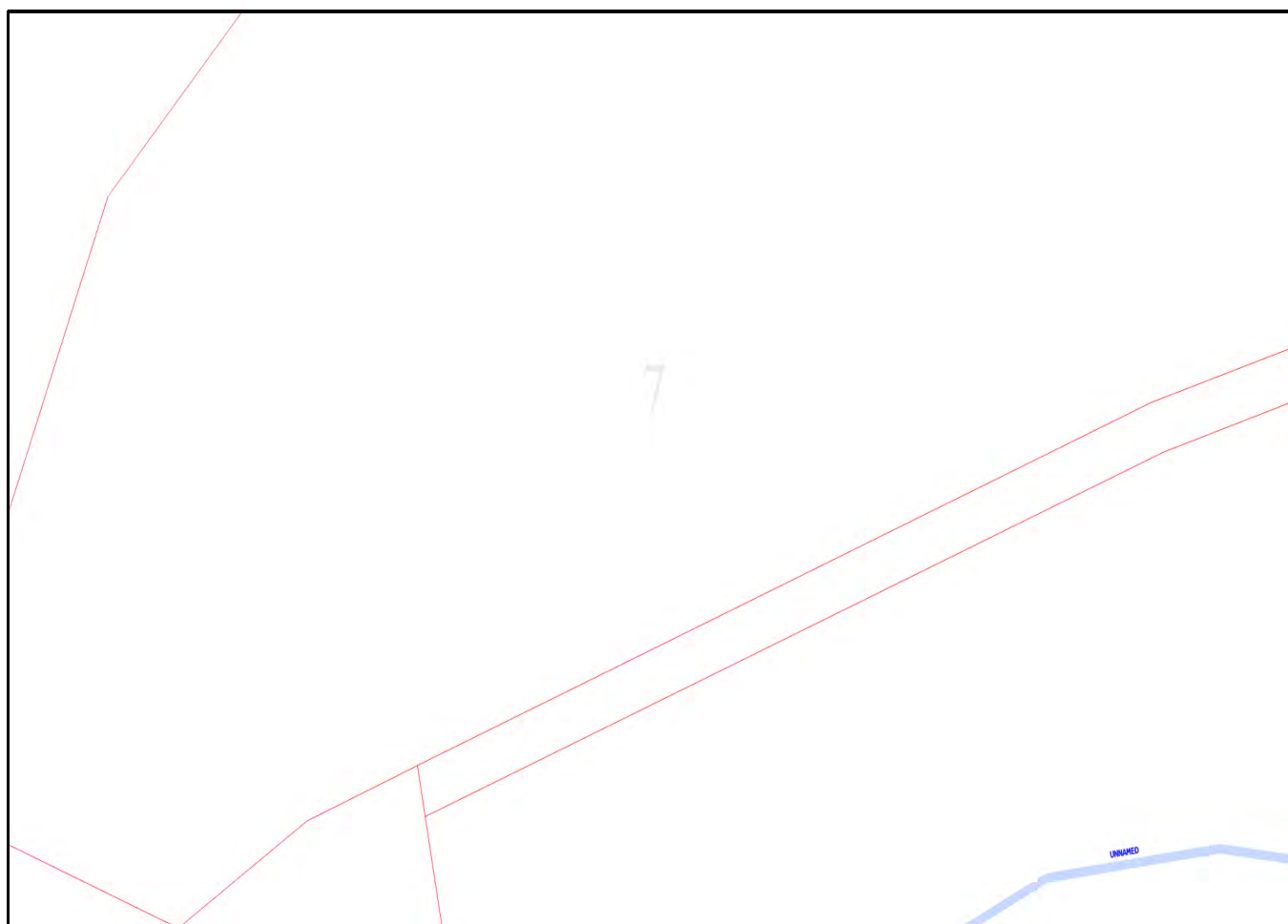


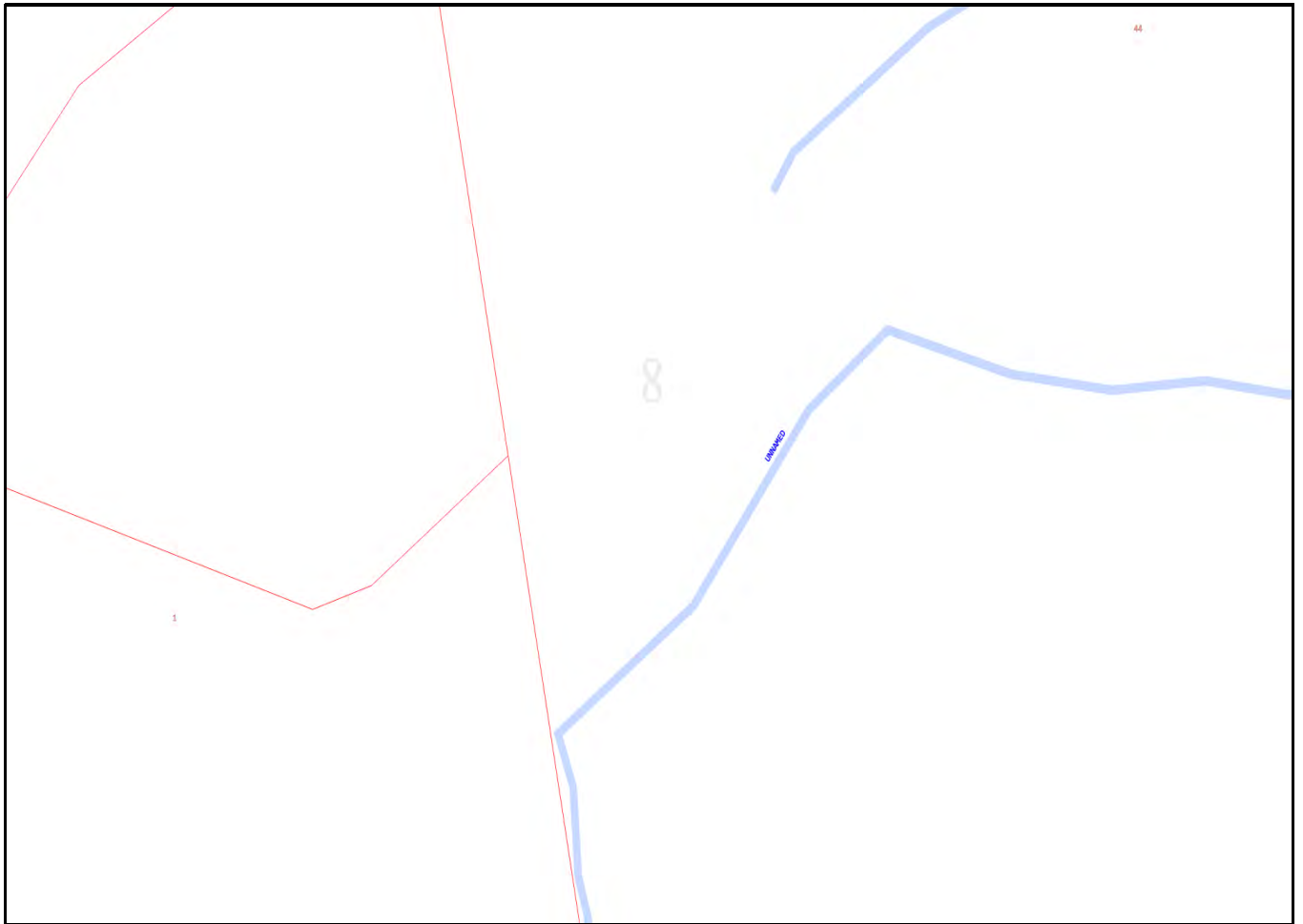


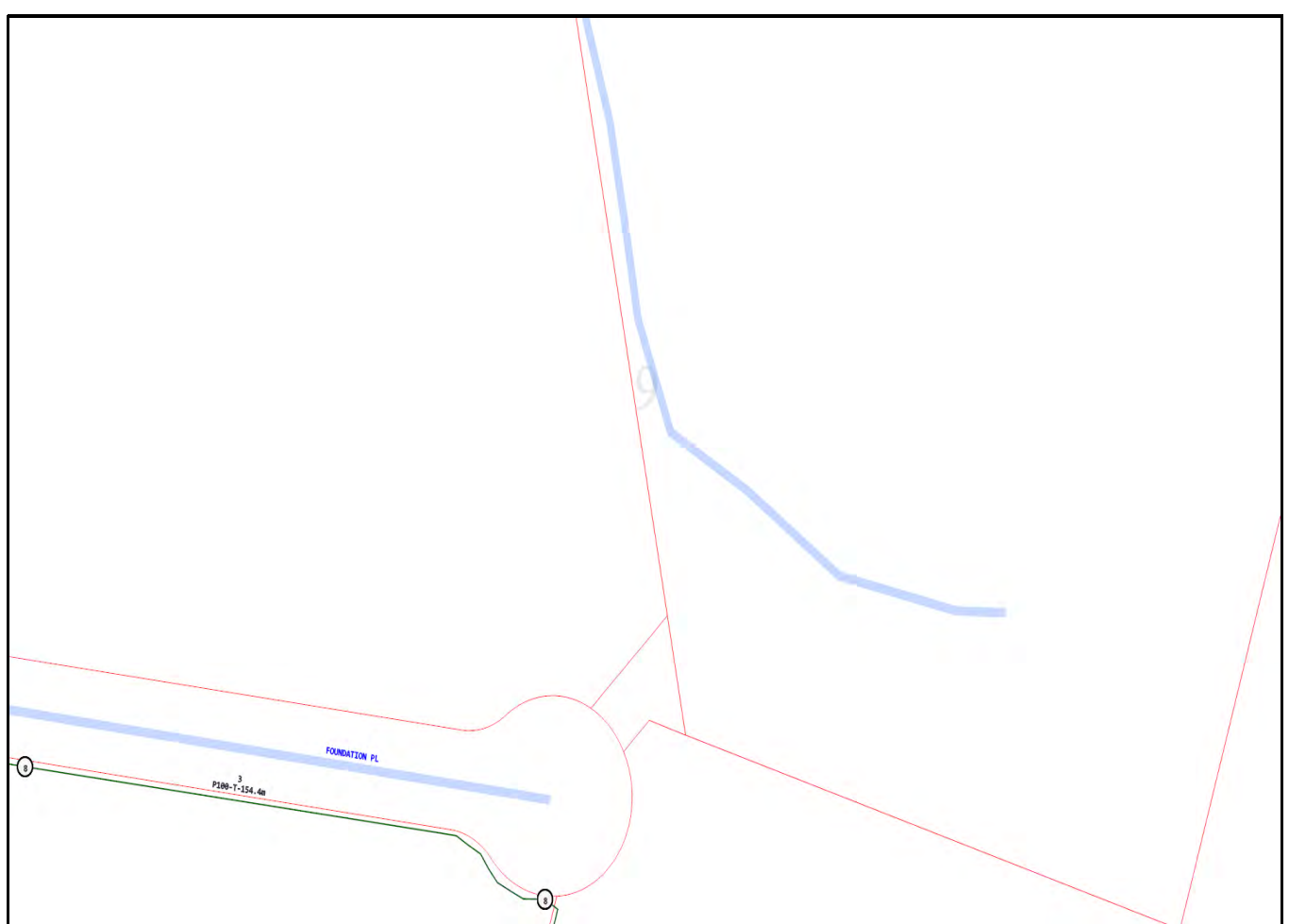


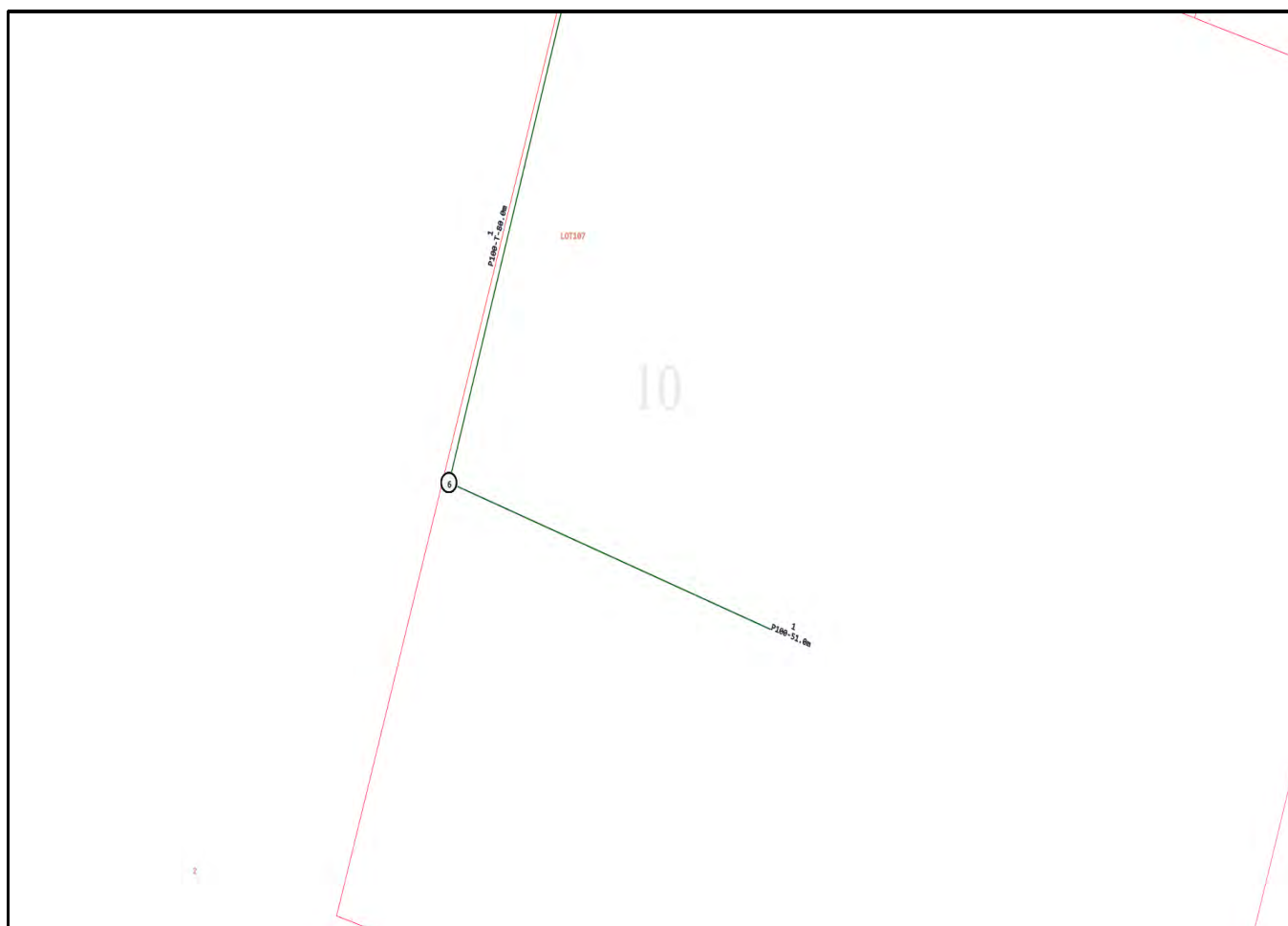


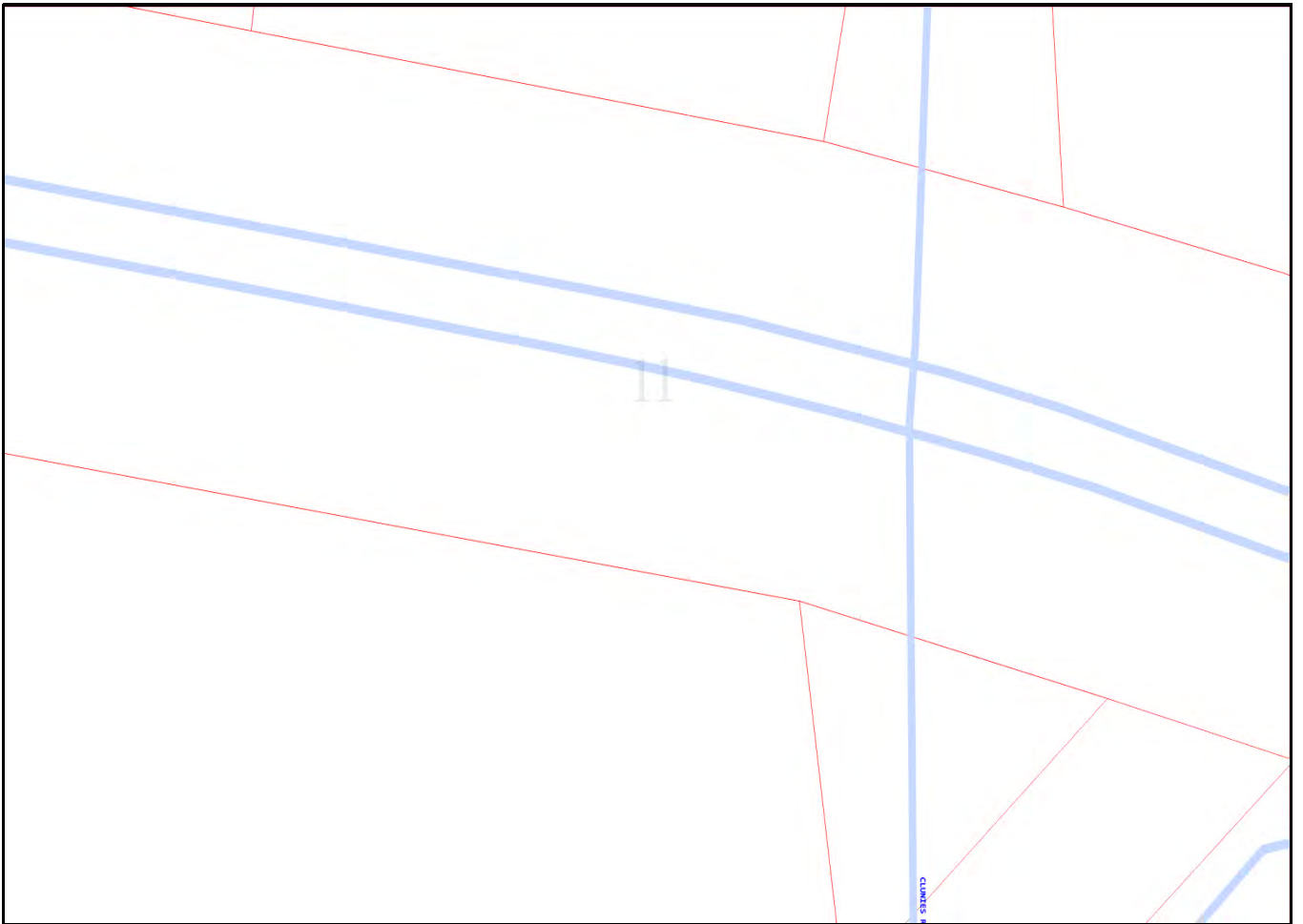


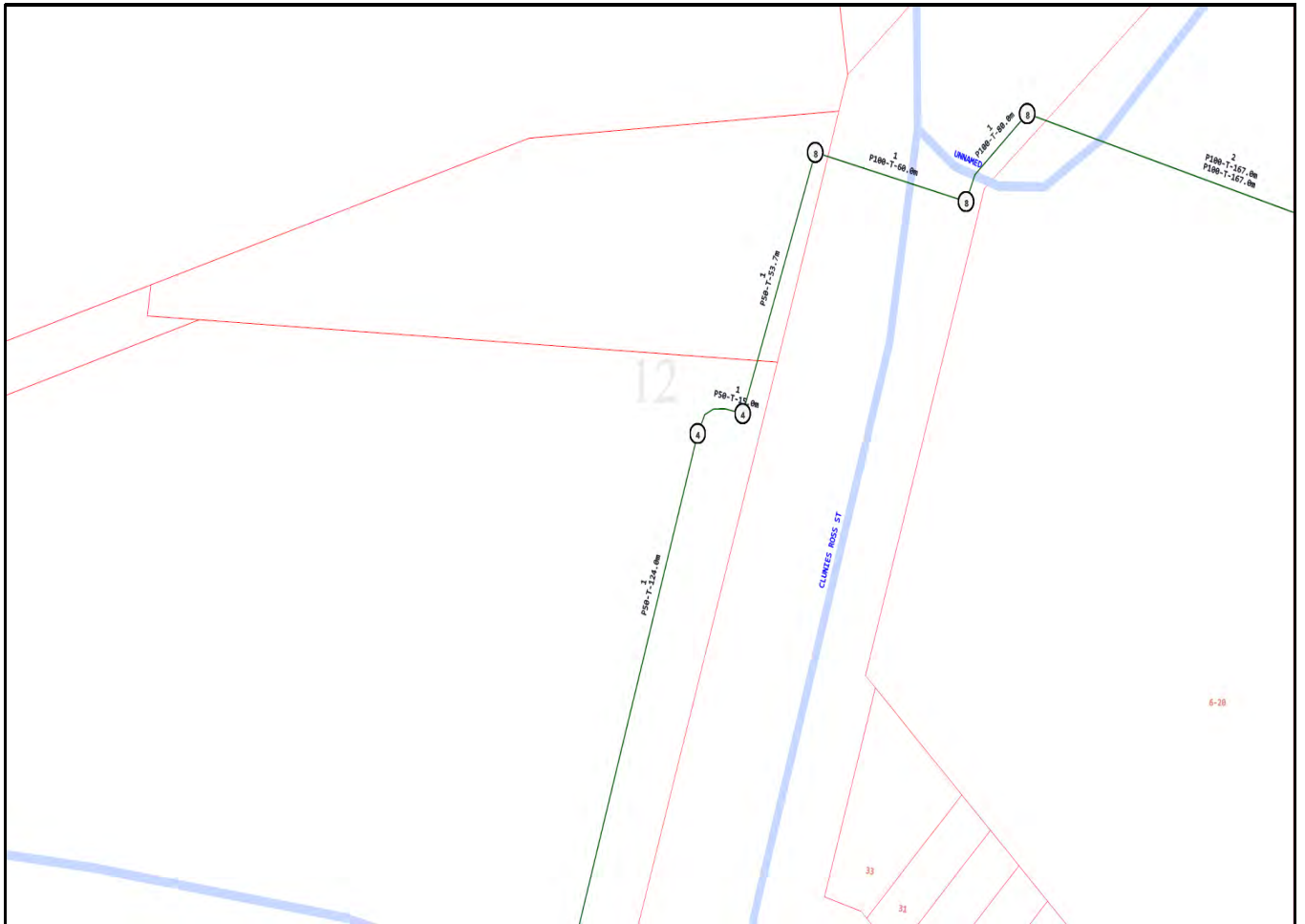


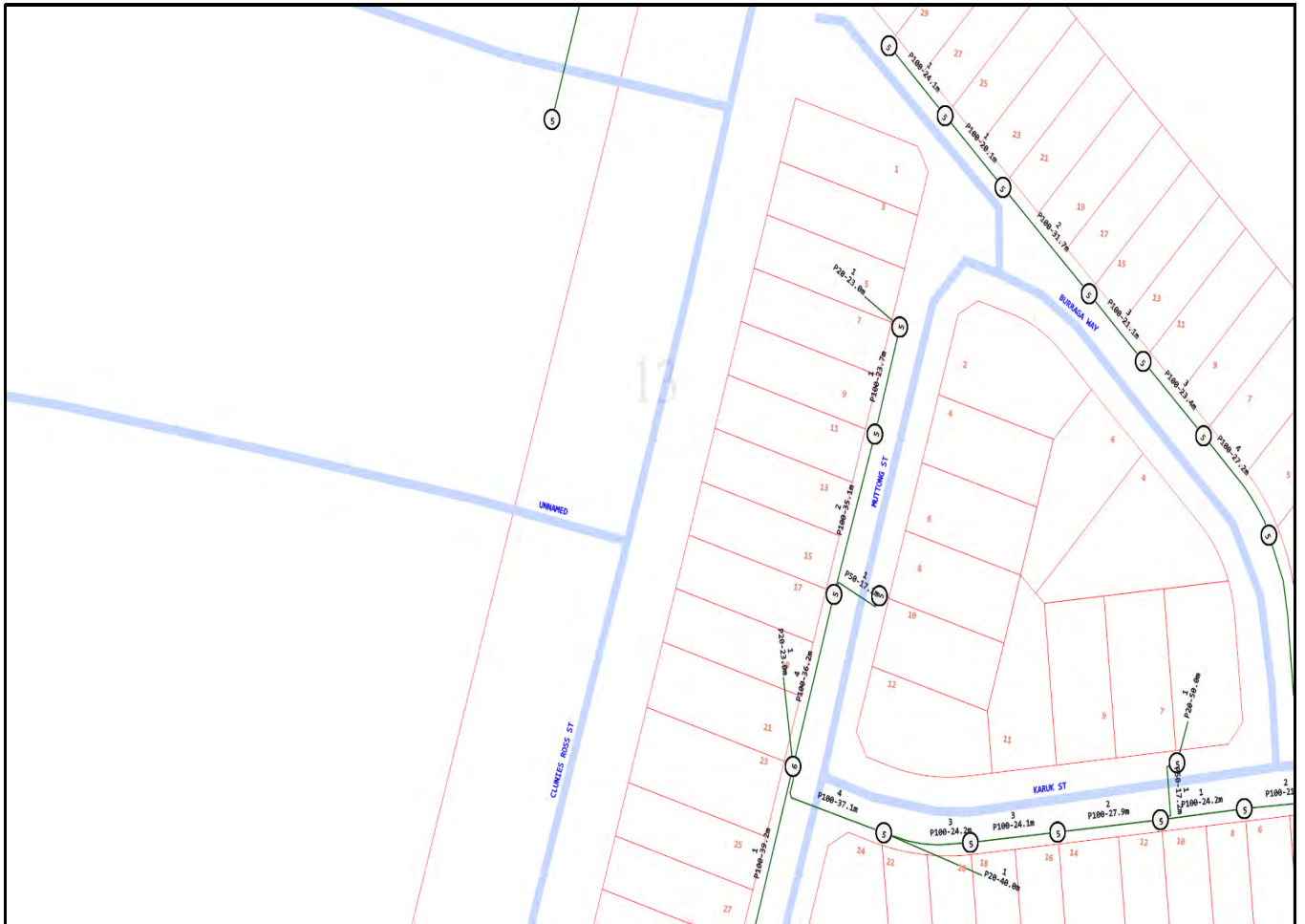


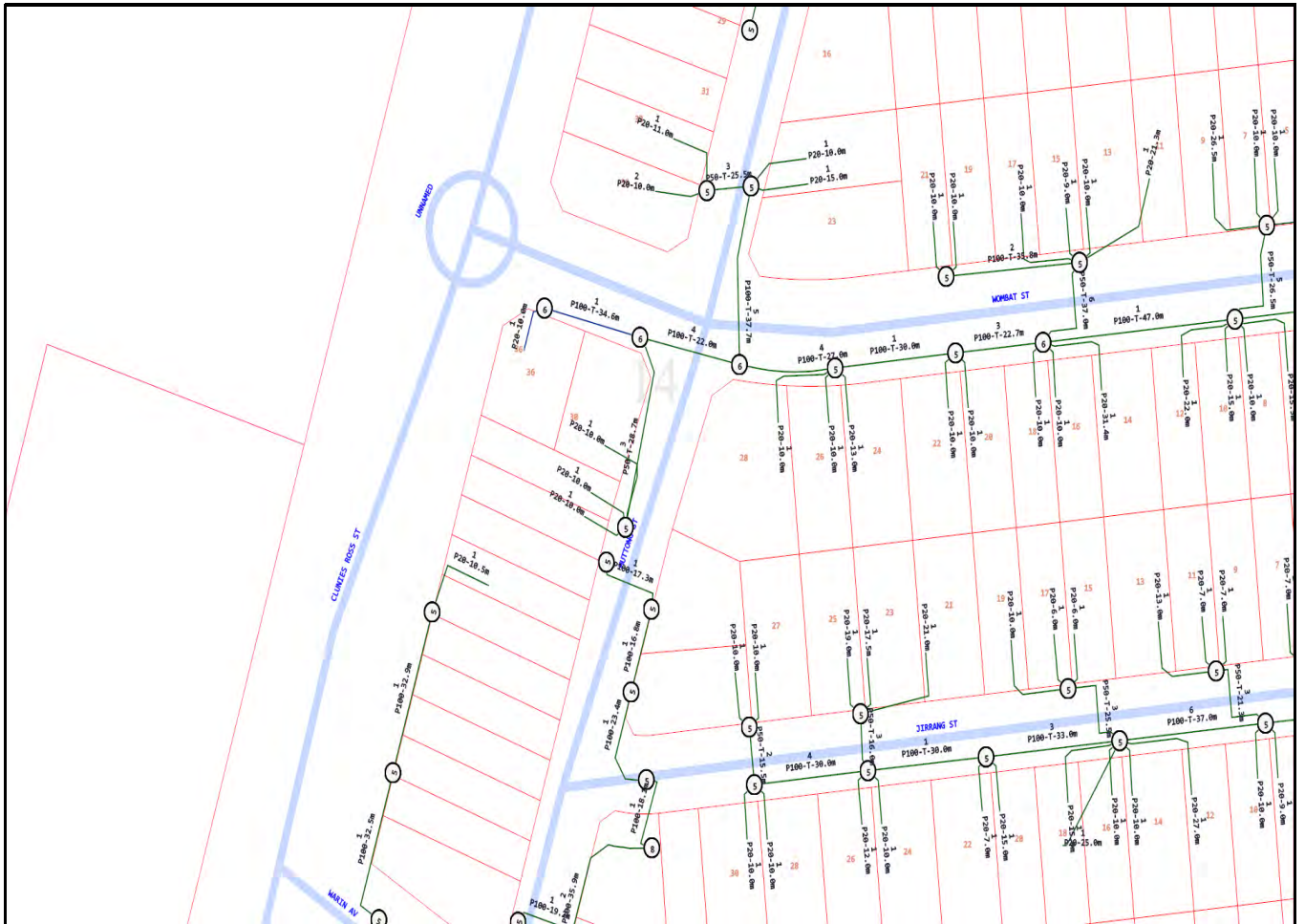


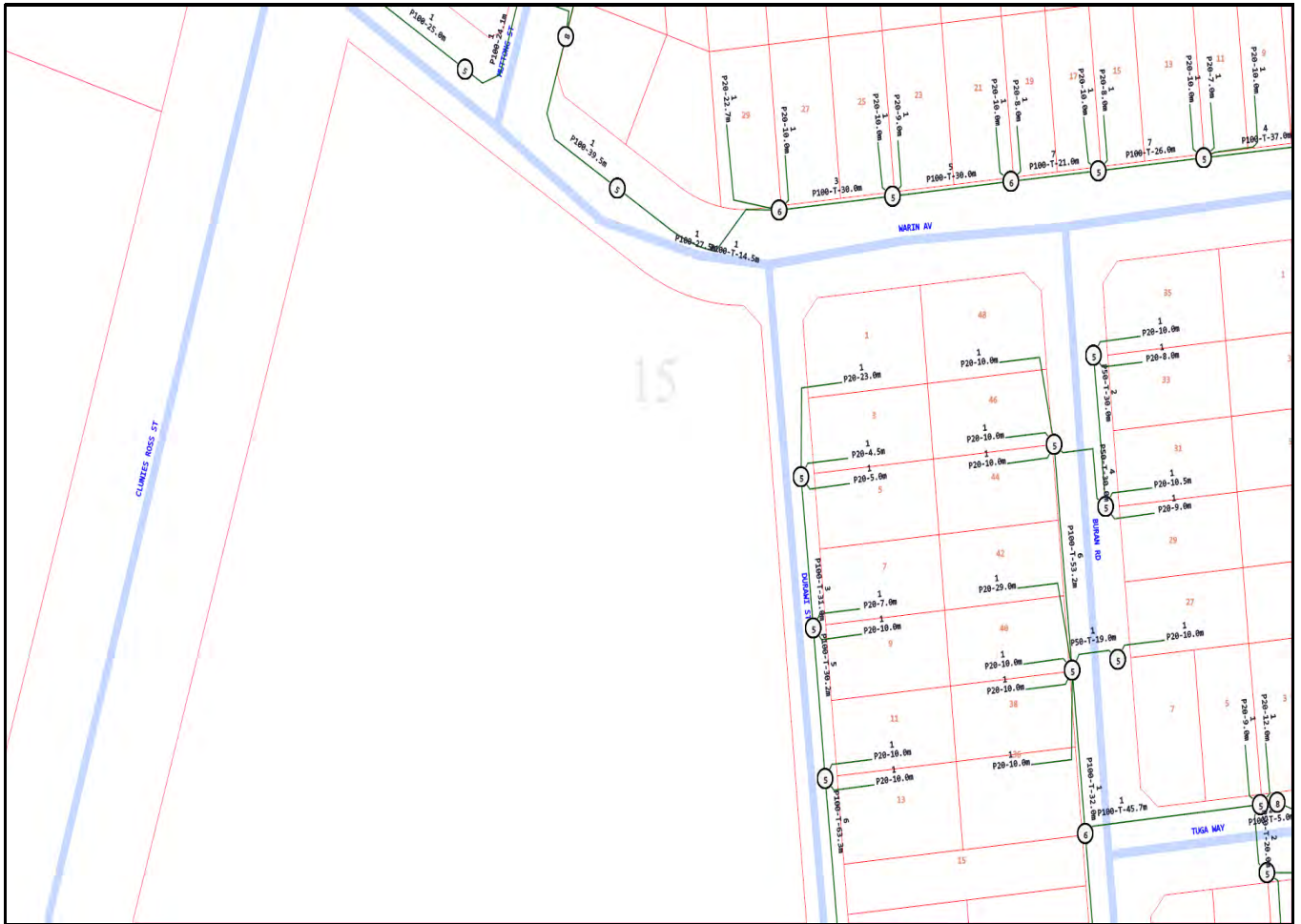












Emergency Contacts

You must immediately report any damage to **nbn**TM network that you are/become aware of. Notification may be by telephone - 1800 626 329.



Response Cover Letter

Date: 06/03/2020

PIPE Networks
Level 17, 127 Creek St
Brisbane QLD 4000
Phone: +61 732339895
Fax: +61 732339880

To:

Ms Erika Watkinson - Customer ID: 1737314
Costin Roe Consulting Pty Ltd - Ms Erika Watkinson
PO Box N419
Sydney
NSW
2000

Email: erika.watkinson@costinroe.com.au
Phone: 02 9251 7699
Fax: Not Supplied
Mobile: Not Supplied

Dear Ms Erika Watkinson

The following is our response to your Dial Before You Dig enquiry.

Assets Affected: PIPE Networks

Sequence Number: 95550396

Location: 44 Clunies Ross Street
Prospect
NSW
2148

Commencement Date: 07/03/2020

Please read over the attached documents for more information about your enquiry.

DISCLAIMER: No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence.

Note: If the works fall in an area that adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time. **NO WORKS TO COMMENCE PRIOR TO INSPECTION.**



Level 17, PIPE Networks House, 127 Creek Street, Brisbane 4000
PH: (07) 3233 9895 FAX: (07) 3233 9880

Attention: Ms Erika Watkinson
Fax: Not Supplied
DBYD Enquiry Number: 95550396

Date: 06/03/2020

Location: 44 Clunies Ross Street
Prospect
NSW
2148

DBYD ENQUIRY RETURN:

PIPE Networks **DOES** own or operate telecommunications network infrastructure within the area detailed above.

The affected network **is contained in the PIPE Networks duct network** and can be found on **PIPE Networks** own network plans.

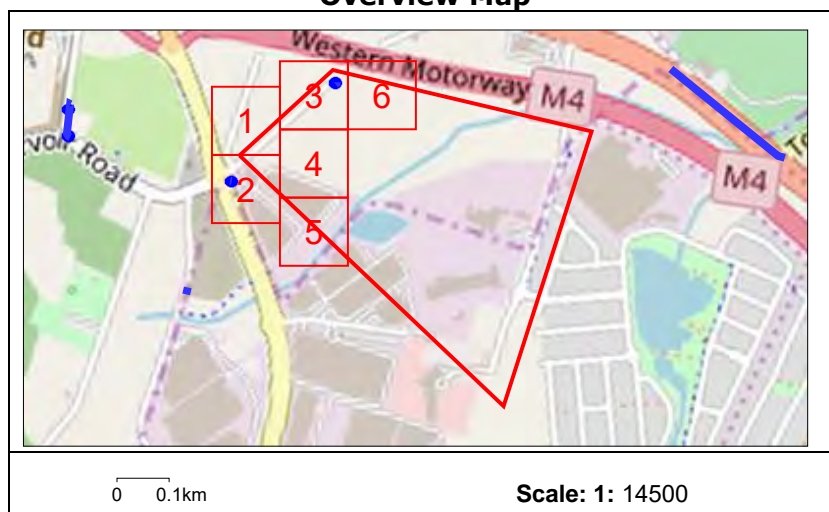
This network is vital to our operations and as such, it is critical that no works commence within the area until a PIPE Networks representative has contacted you.

A PIPE Networks representative will contact you within 24 hours to further discuss your intended works. If you do not hear from PIPE networks within 24hours please call us for assistance.

Due to continued network expansion, this network information can only be considered valid and accurate for 28 days from issue.

PIPE Networks will seek compensation for any damage to its network through negligence or ignorance of your duty of care.

Overview Map



PIPE Networks (for information specific to this job only)

Ph (07) 3233 9895

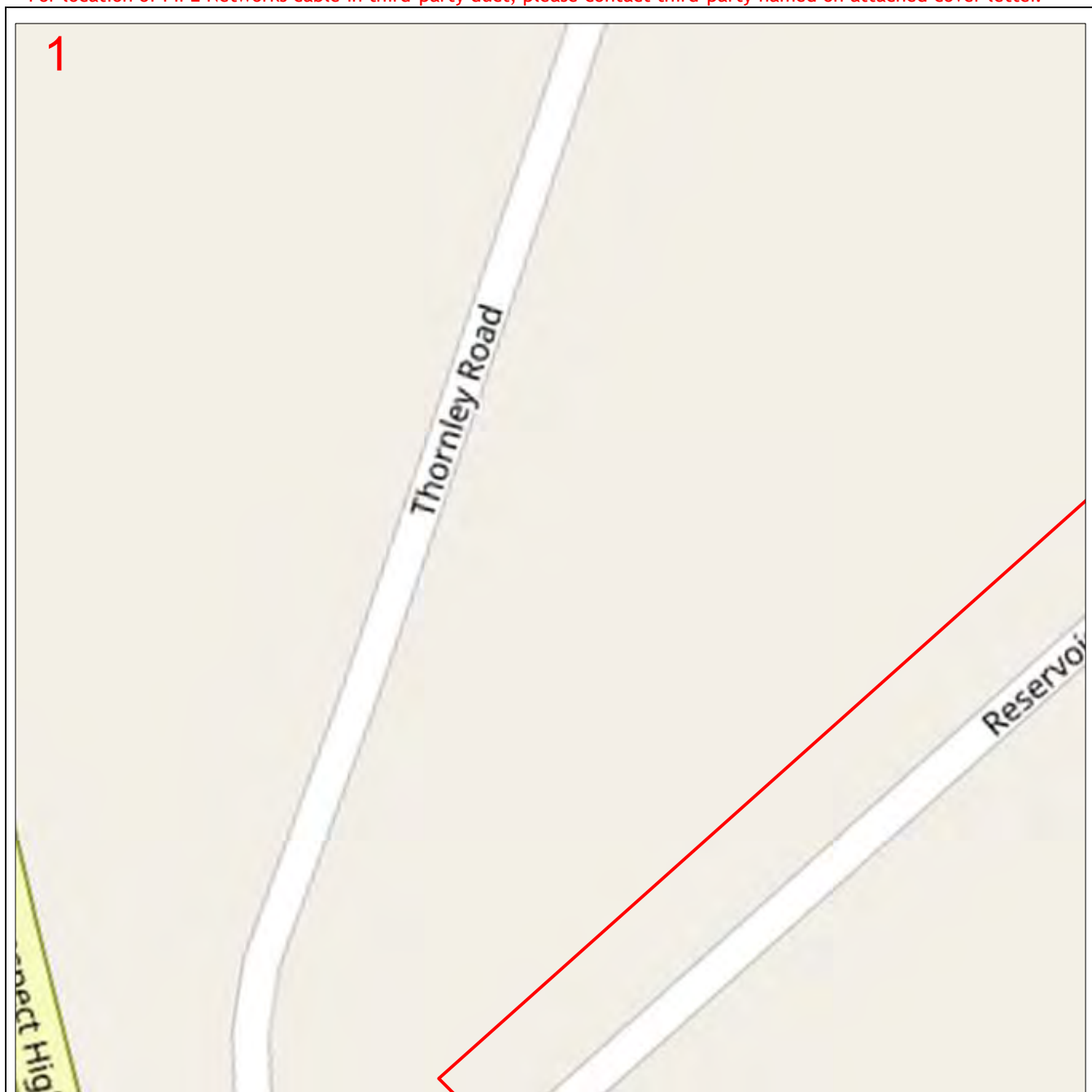
Email: dbyd@pipenetworks.com

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Only PIPE Networks' duct displayed.

For location of PIPE Networks cable in third-party duct, please contact third-party named on attached cover letter.



Enquiry Number: 95550396

Map Sheet: 1

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area

Asset

Line



Manhole



Area



Duct



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Enquiry Number: 95550396

Map Sheet: 2

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area

Asset

Line

Manhole

Area

Duct



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Enquiry Number: 95550396

Map Sheet: 3

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area

Asset

Line



Manhole



Area



Duct



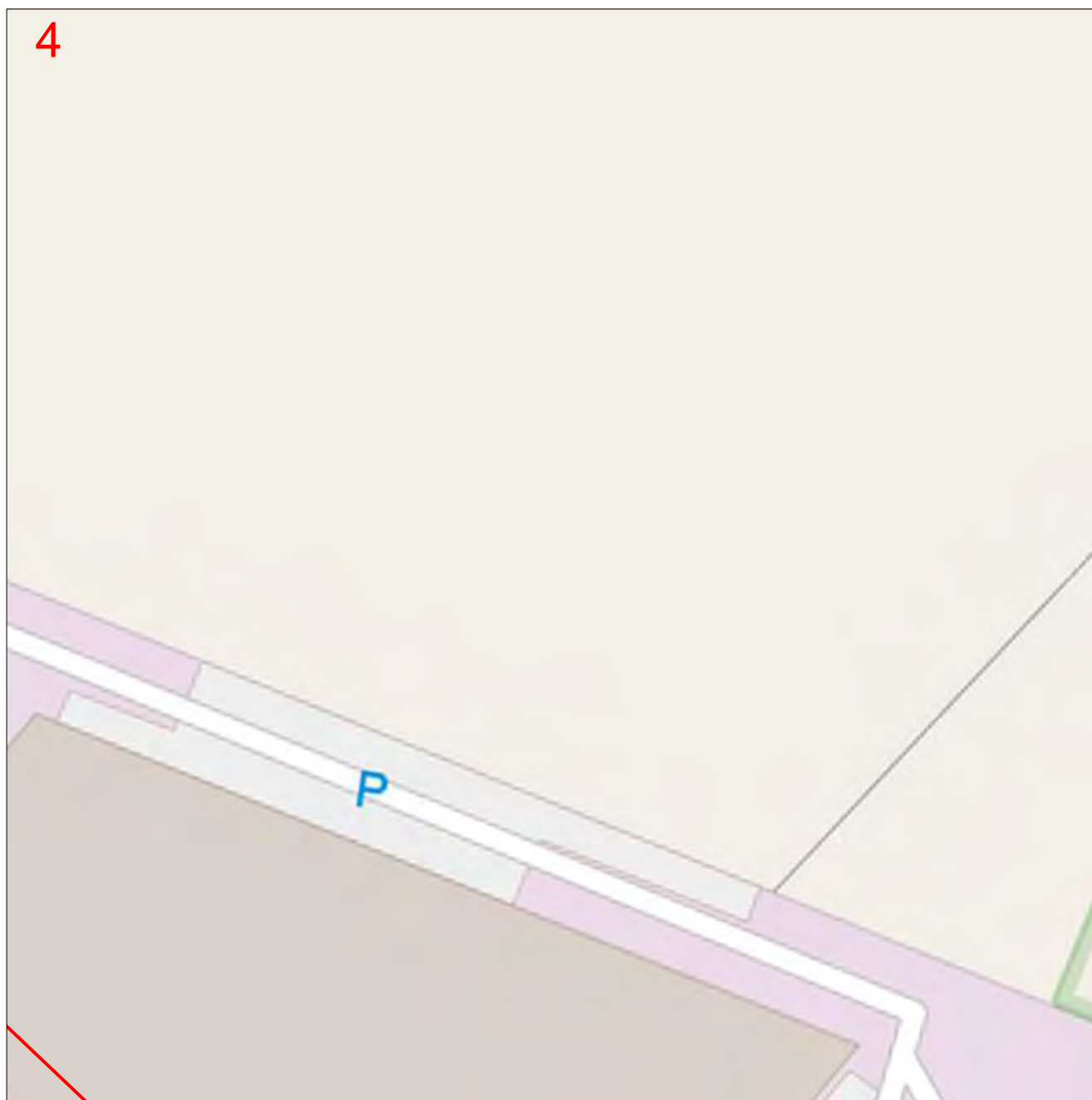
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4



Enquiry Number: 95550396

Map Sheet: 4

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area

Asset

Line

Manhole

Area

Duct

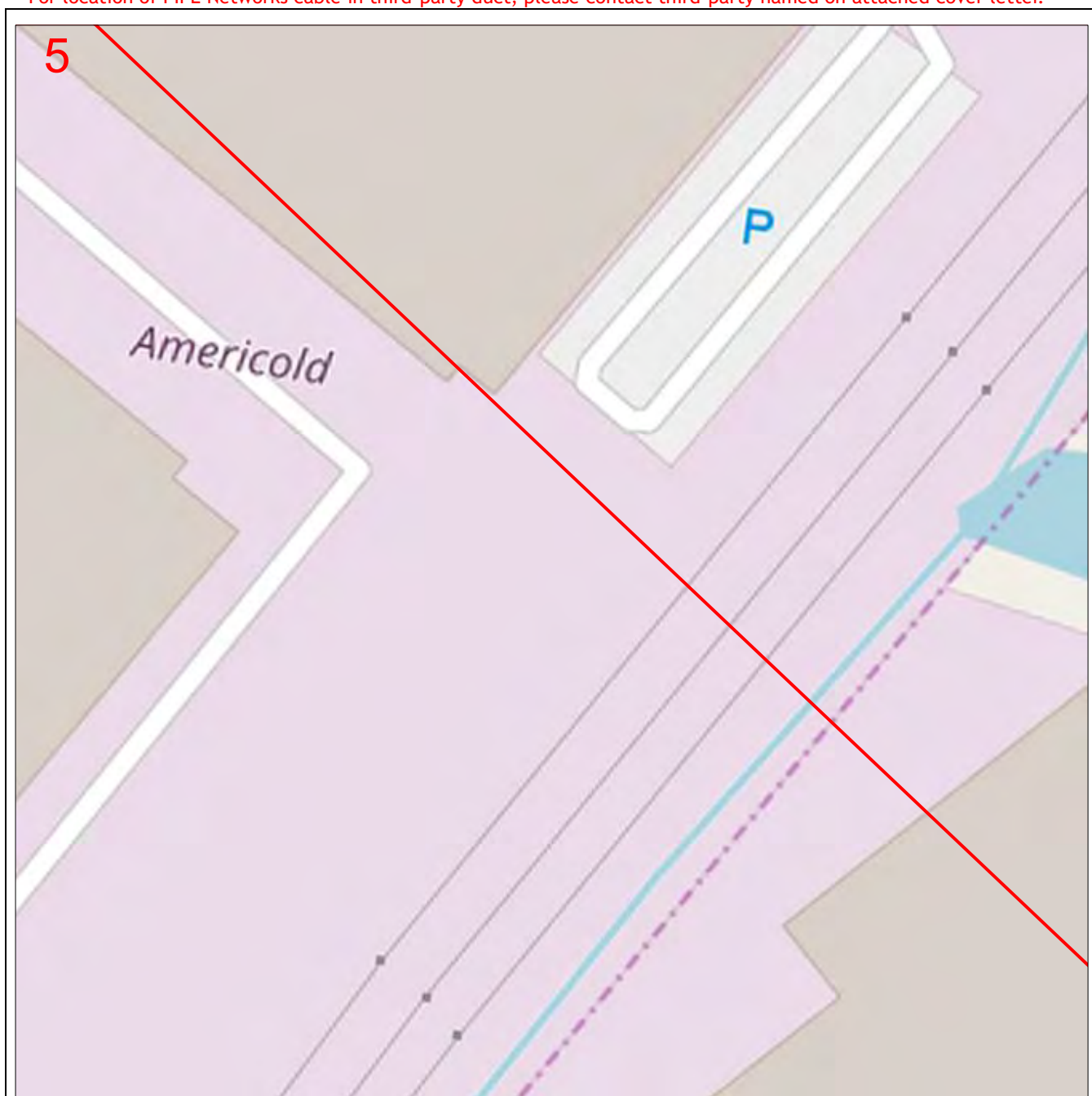


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Enquiry Number: 95550396

Map Sheet: 5

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area

Asset

Line



Manhole



Area



Duct

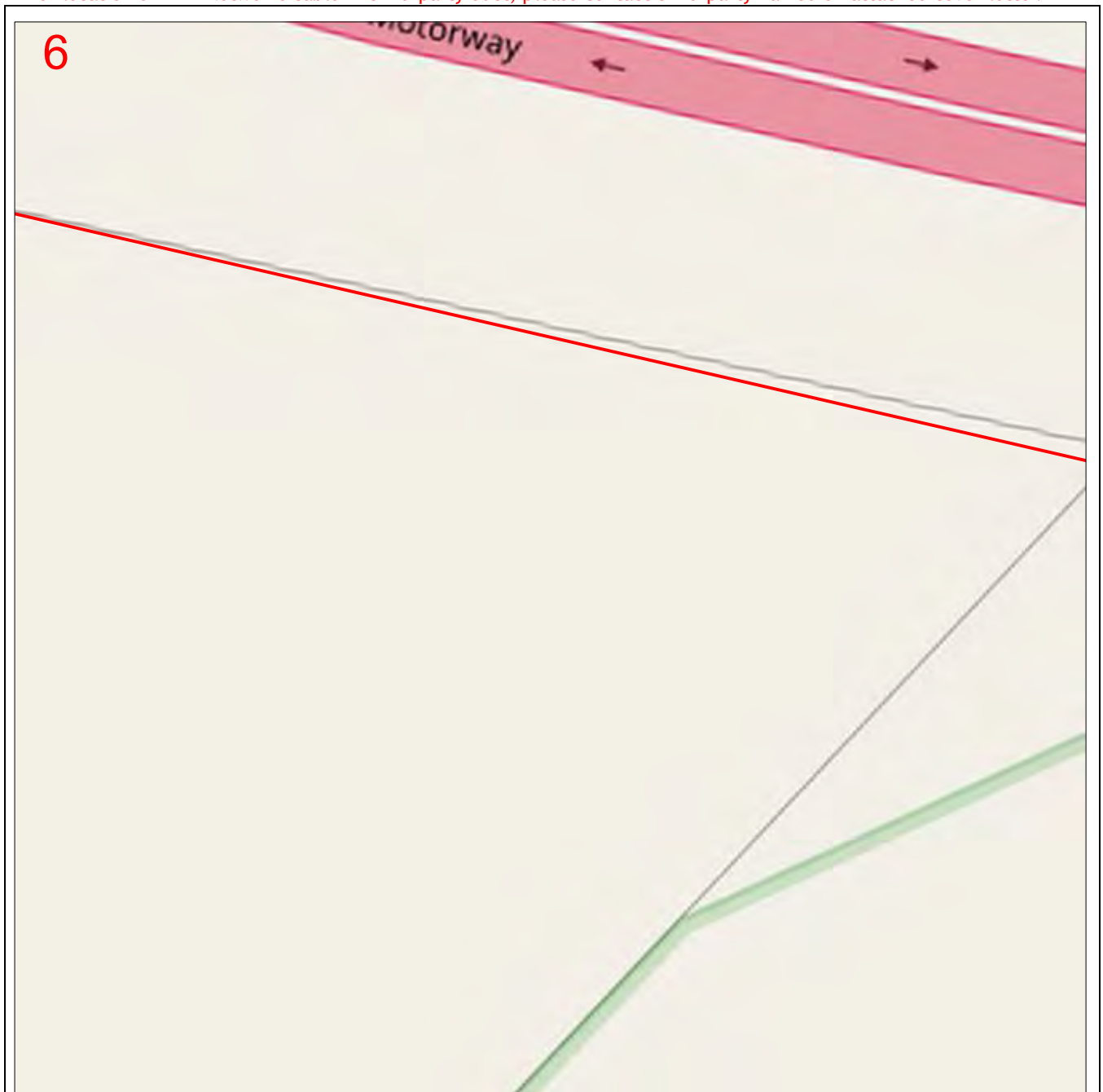


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Only PIPE Networks' duct displayed.

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Enquiry Number: 95550396

Map Sheet: 6

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area

Asset

Line



Manhole



Area

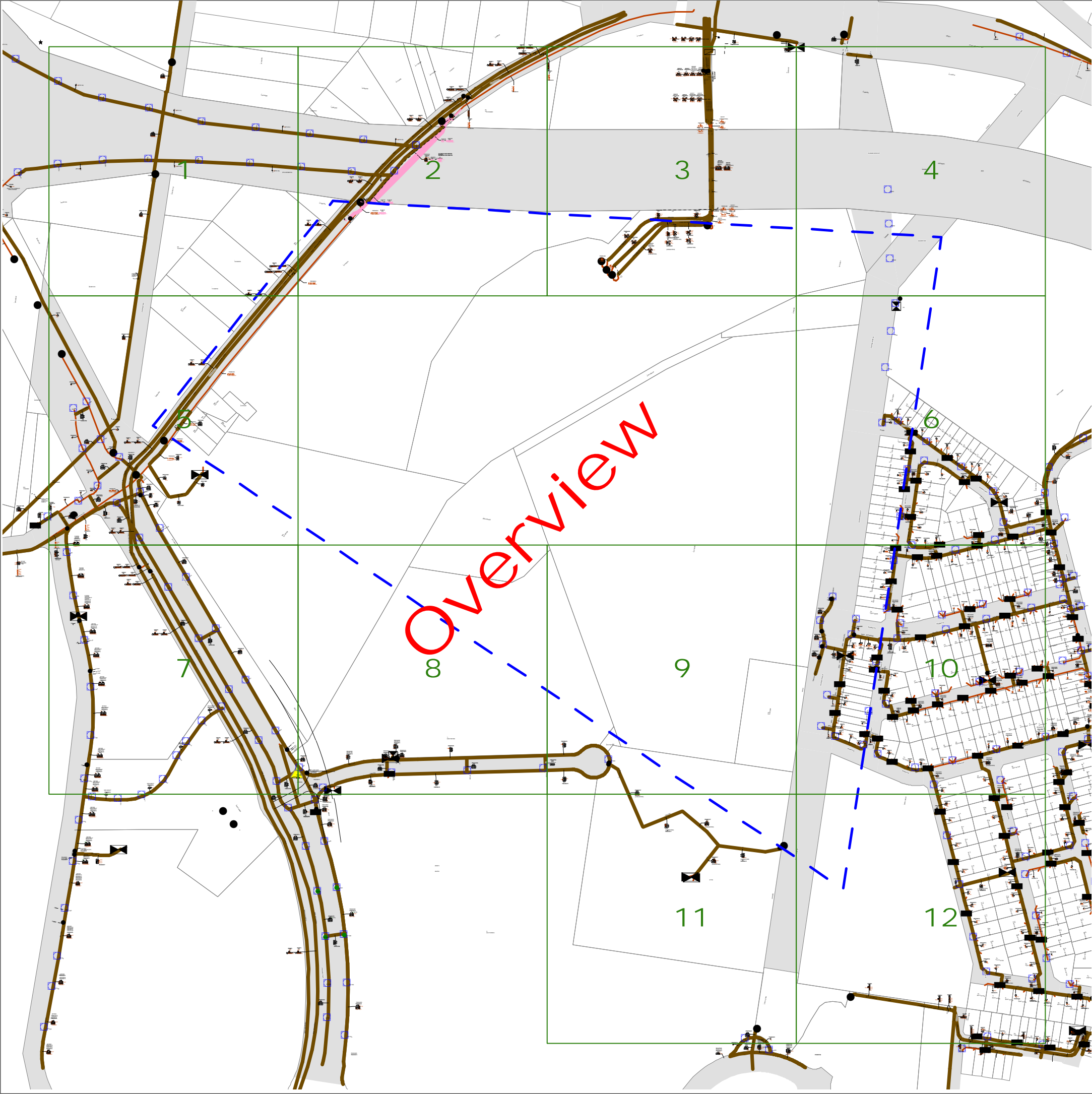


Duct



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4 WORKING DAYS BEFORE COMMENCING WORK

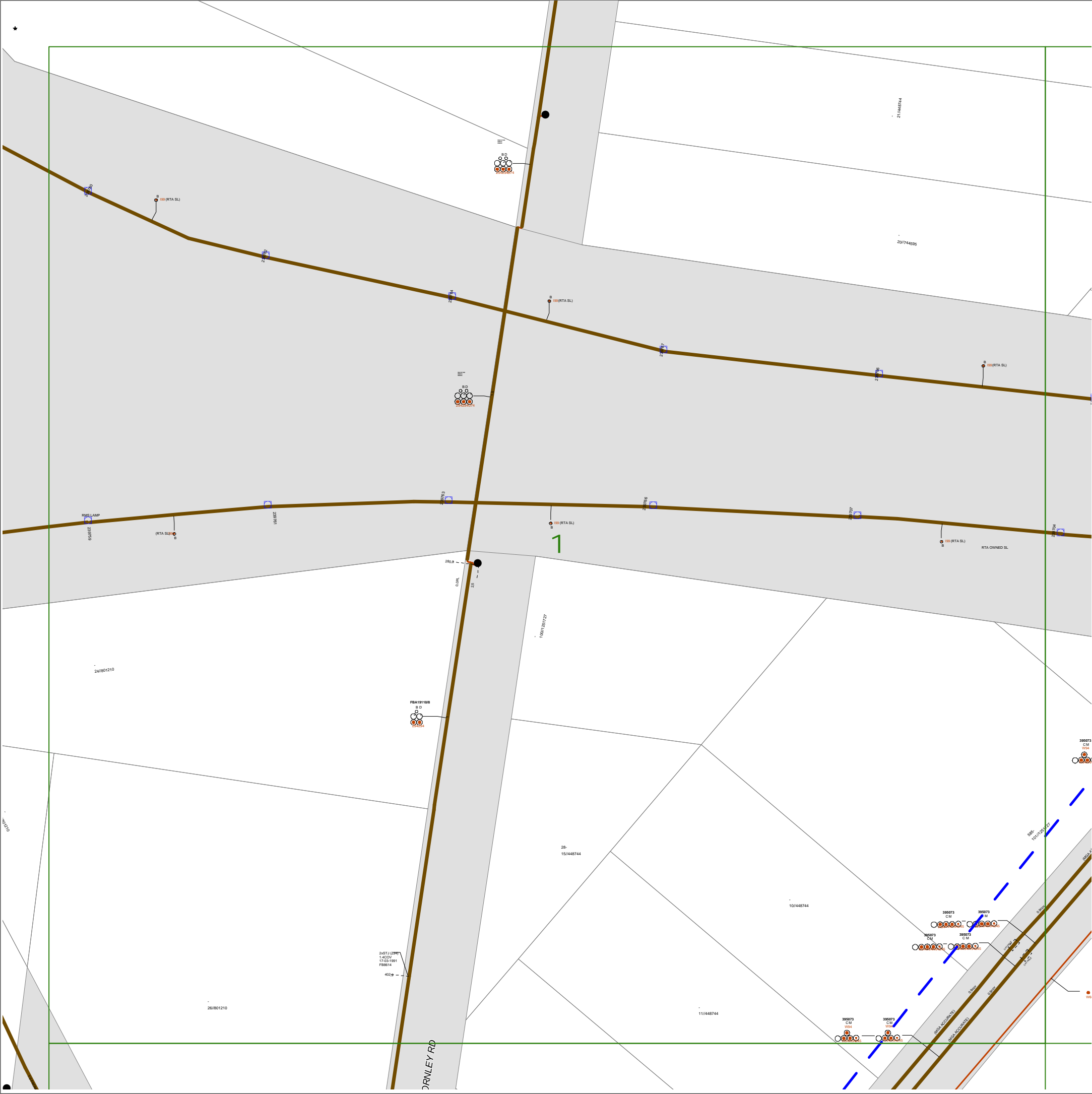
LEGEND

- or ■ Street light column
- ▤ Padmount substation
- or ■ Overground pillar (O.G.Box)
- ▣ Underground pit
- ▬ Duct run
- ▬ Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	95550397
Issued Date:	06/03/2020



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LEGEND

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NOT TO SCALE

DBYD Sequence No.:	95550397
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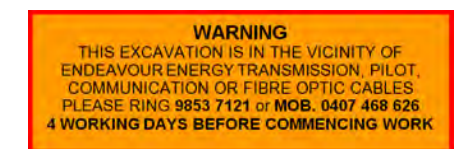
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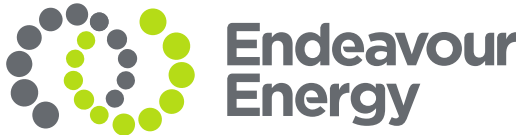
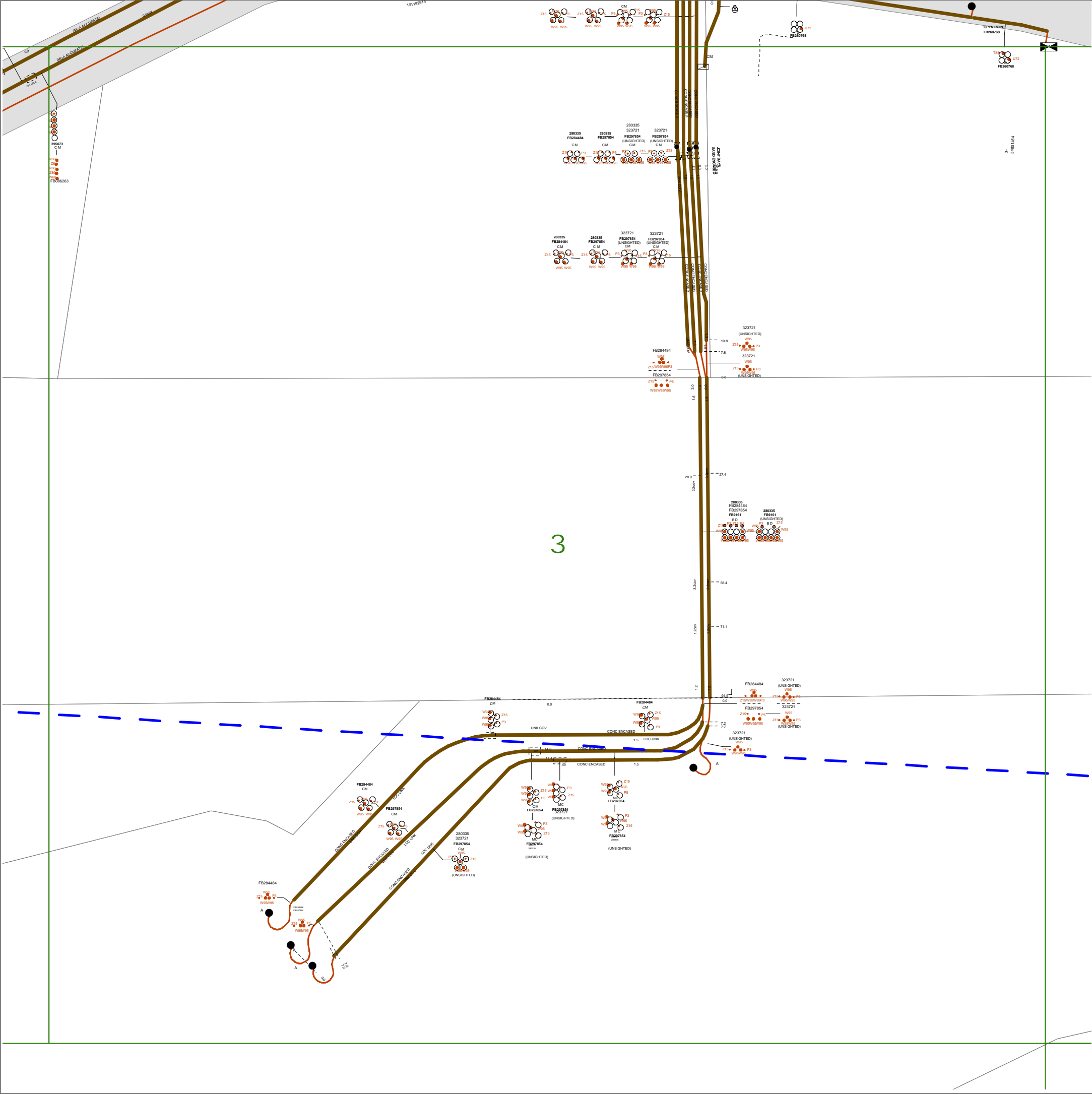
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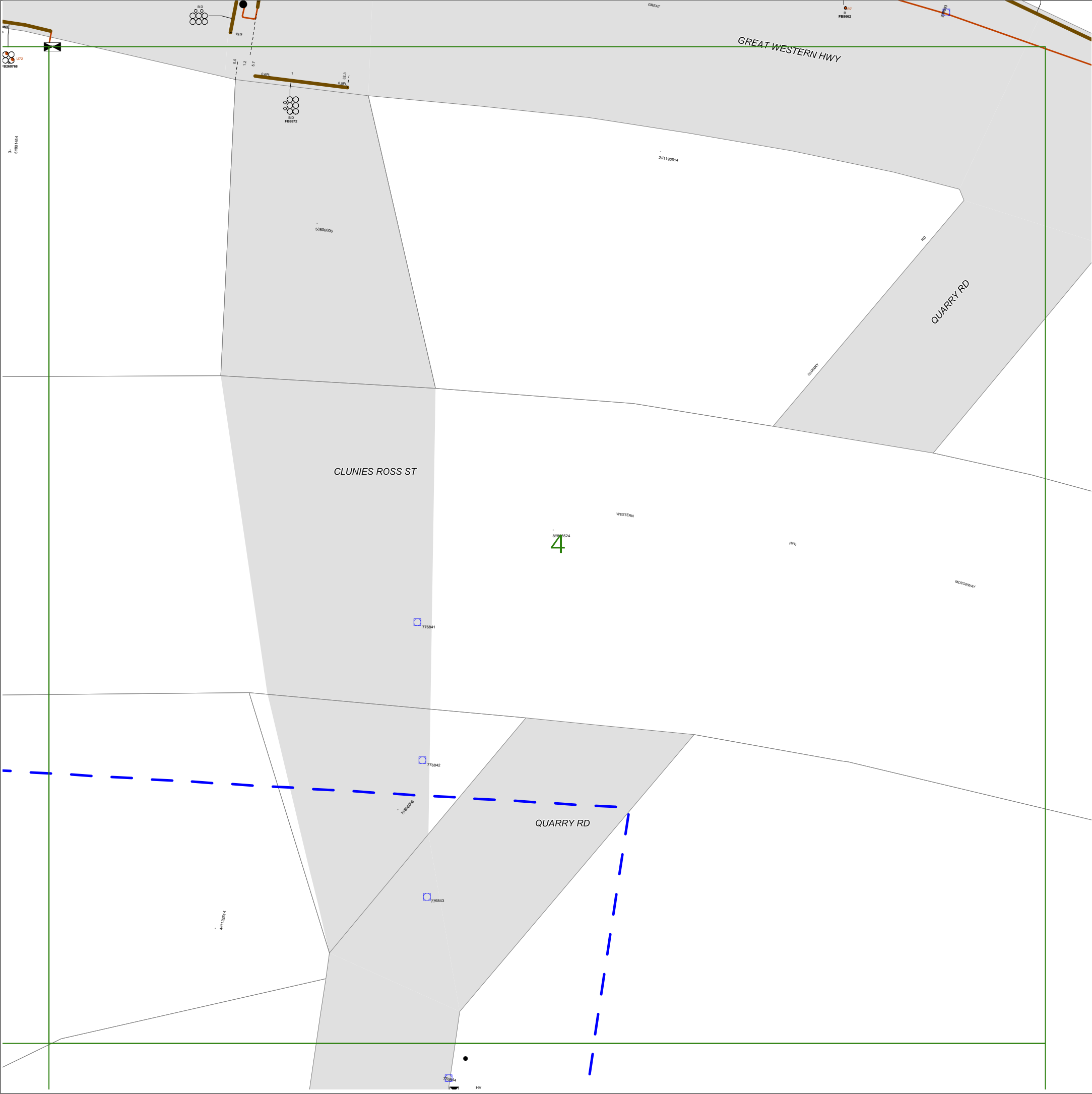
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






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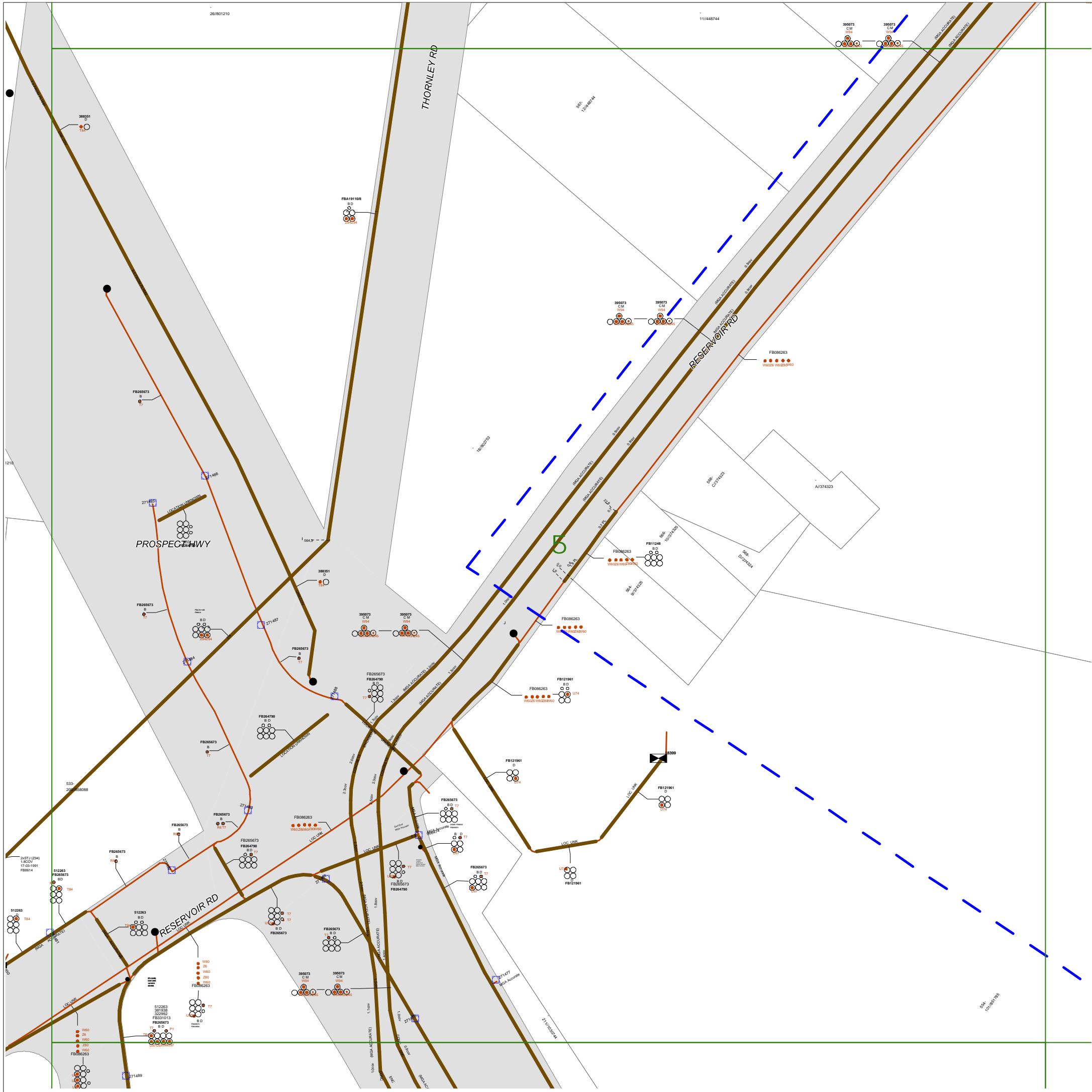
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









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4 WORKING DAYS BEFORE COMMENCING WORK

LEGEND

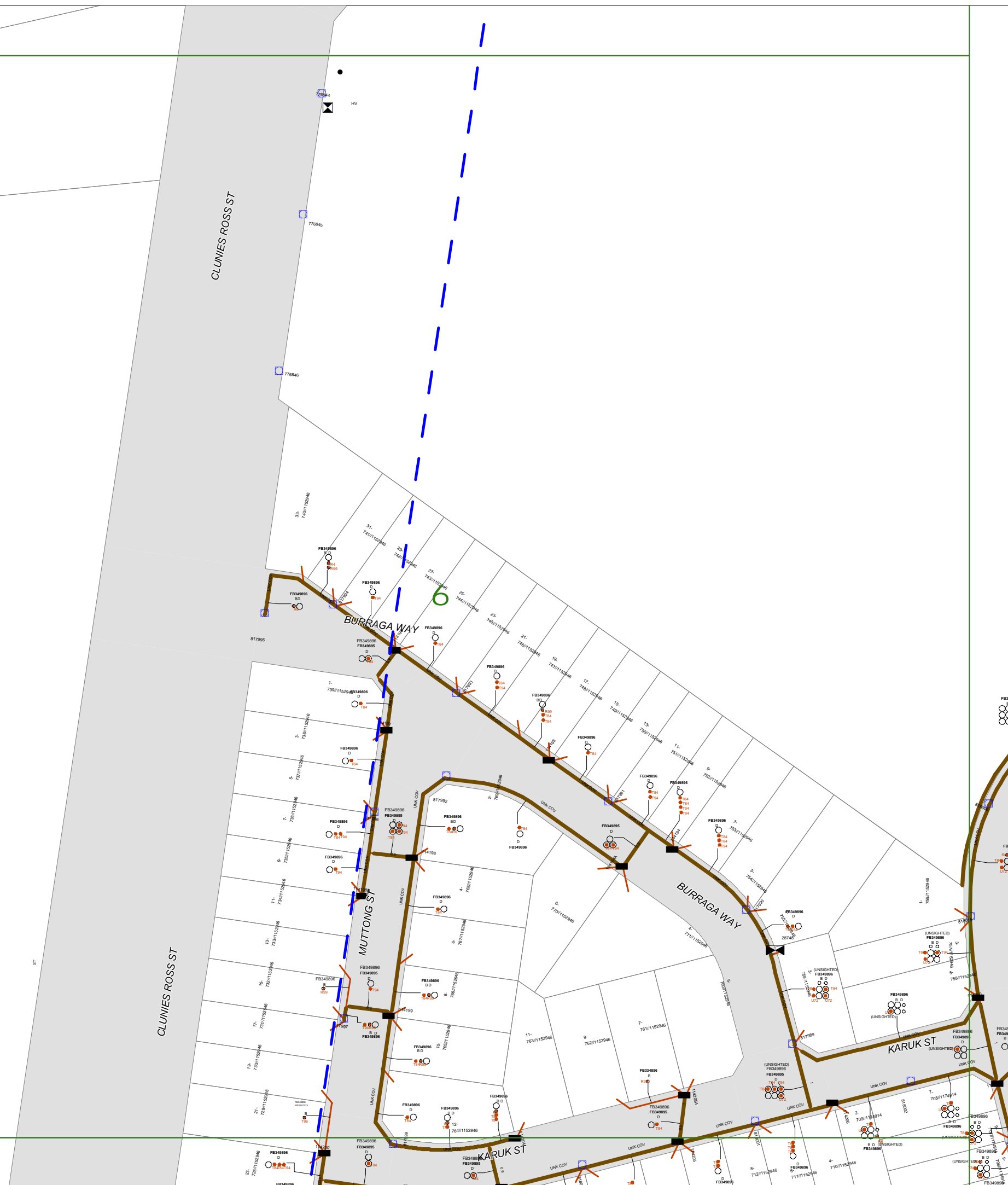
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-  Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	95550397
Issued Date:	06/03/2020

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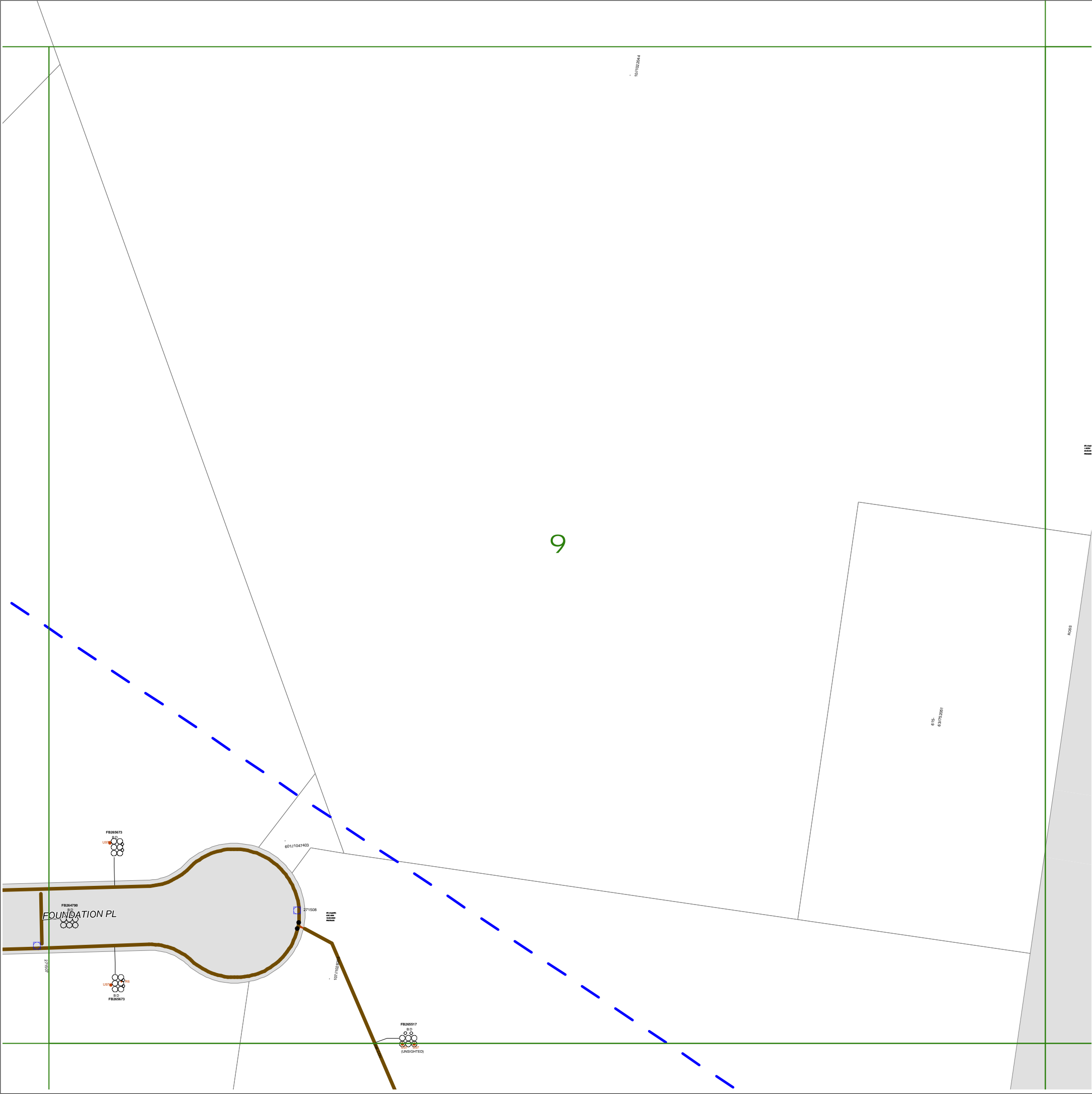
- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
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






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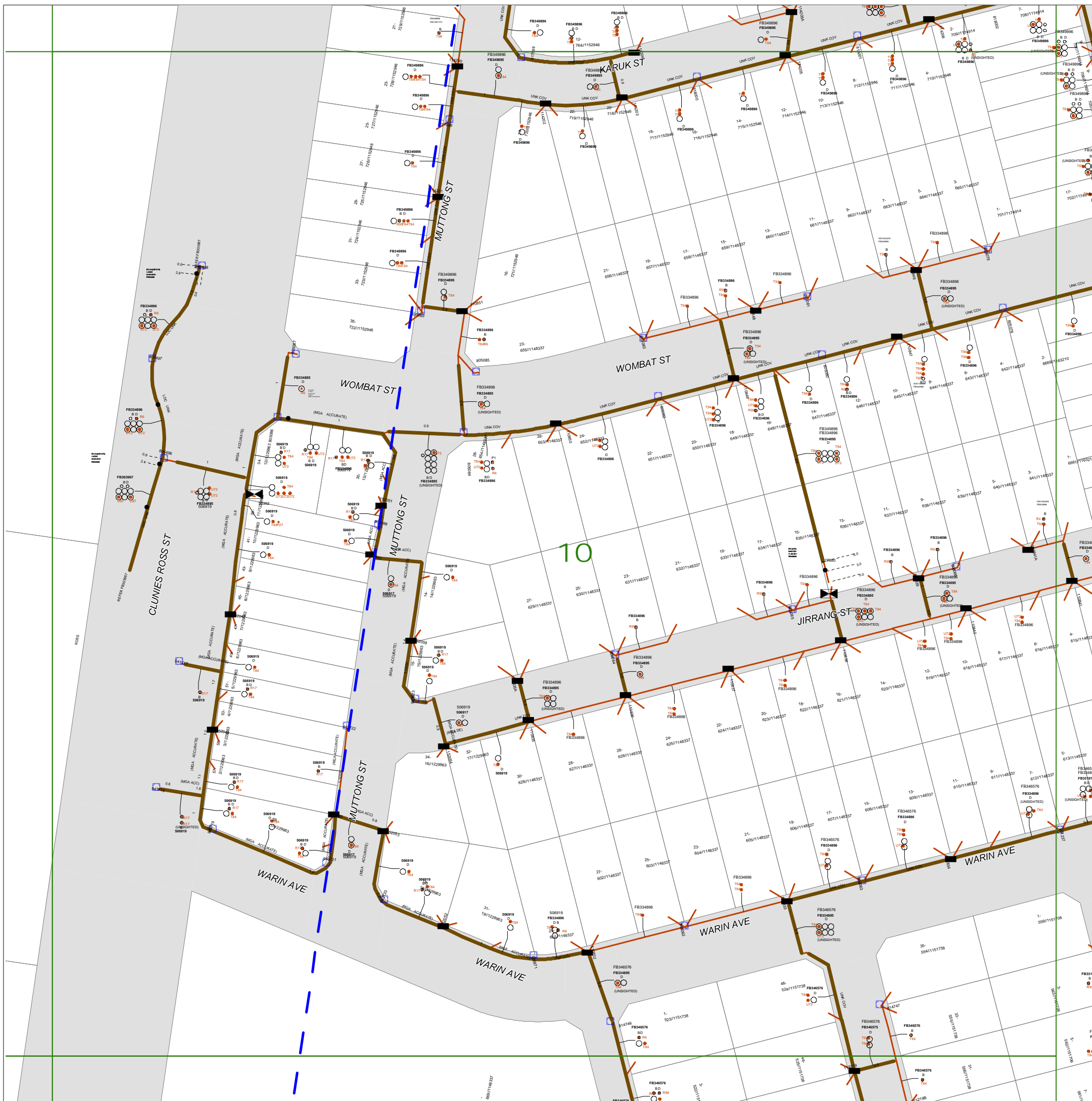
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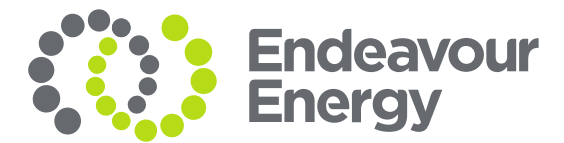
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









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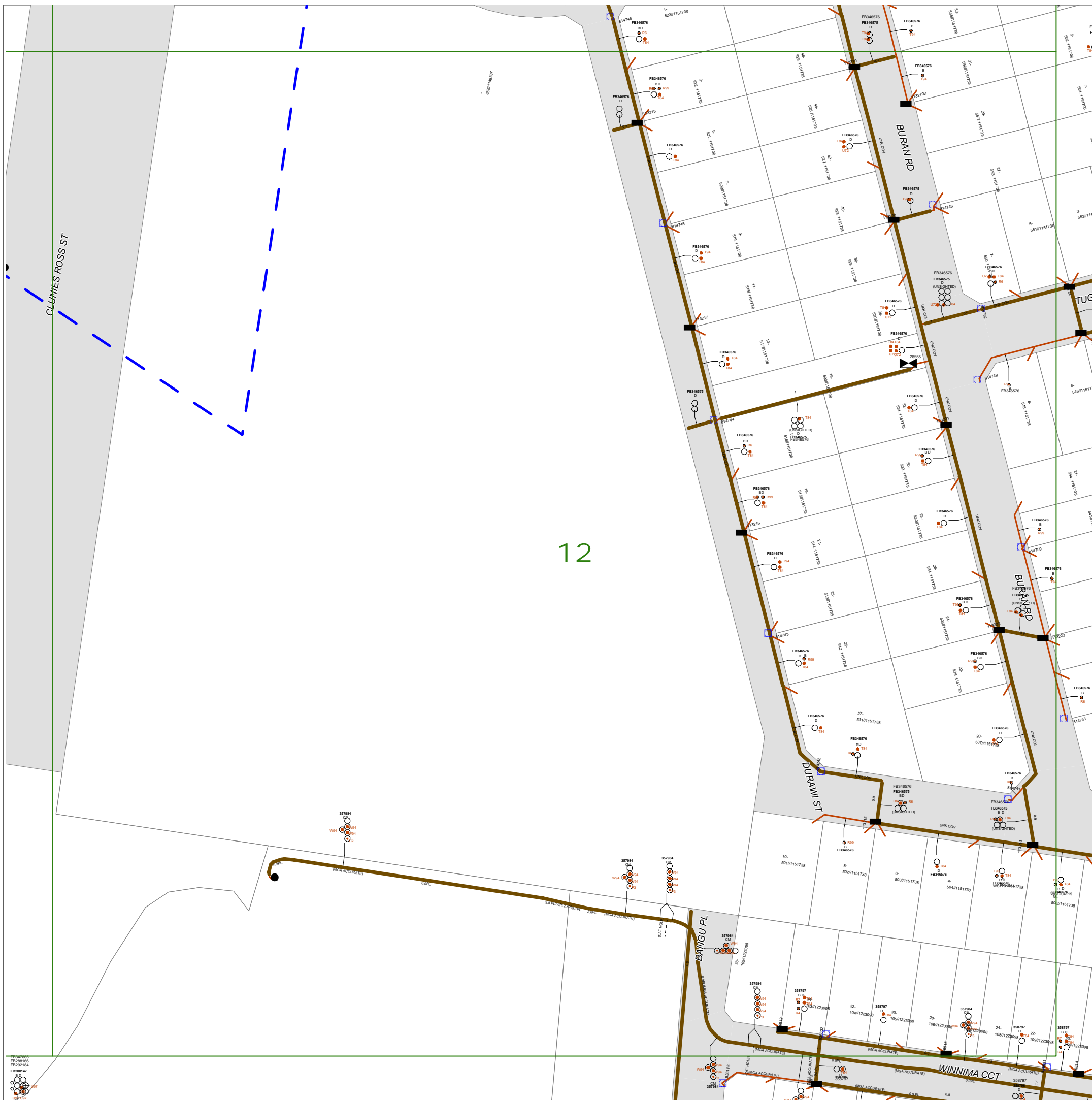
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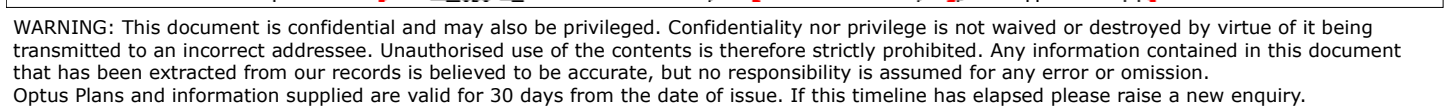


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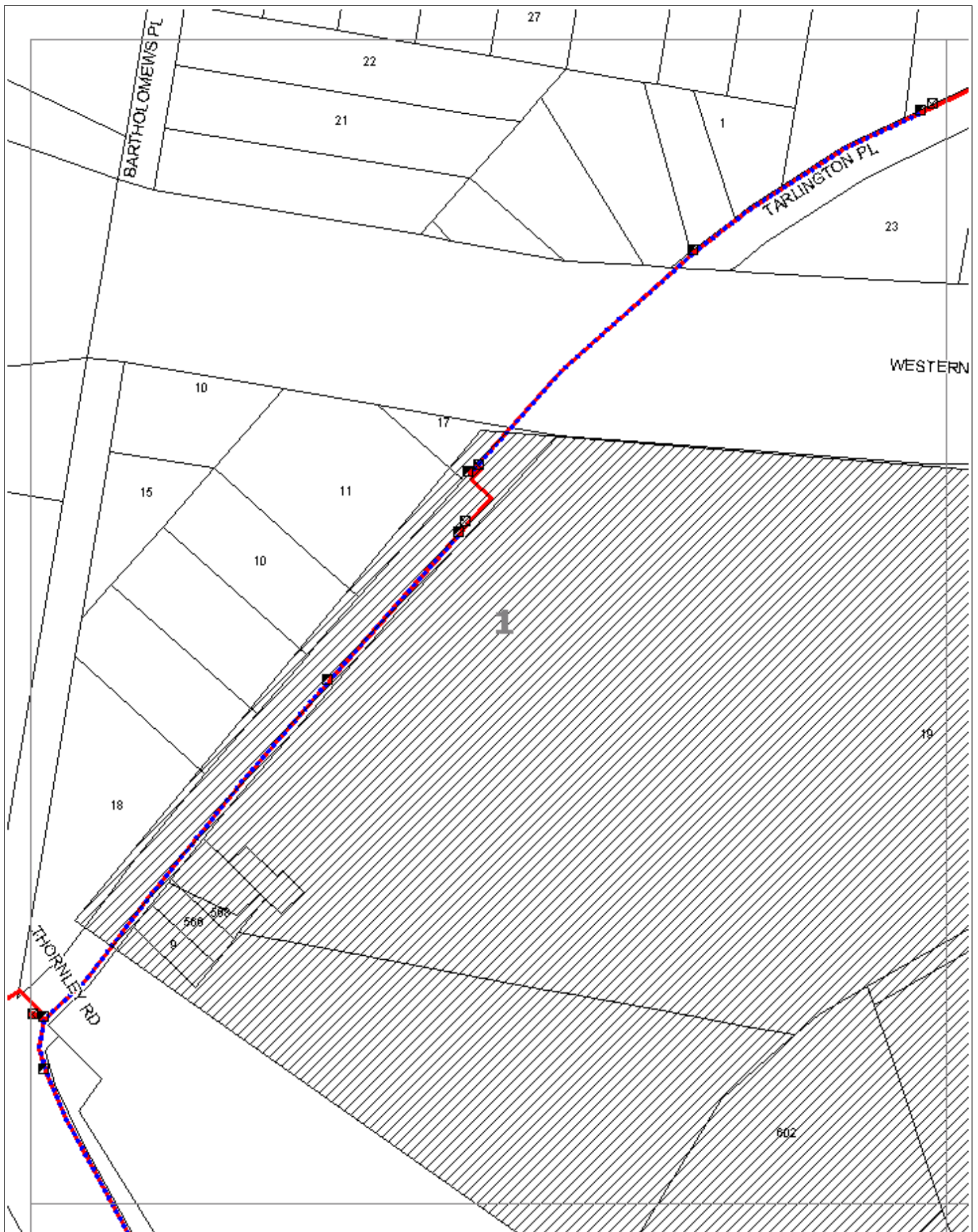
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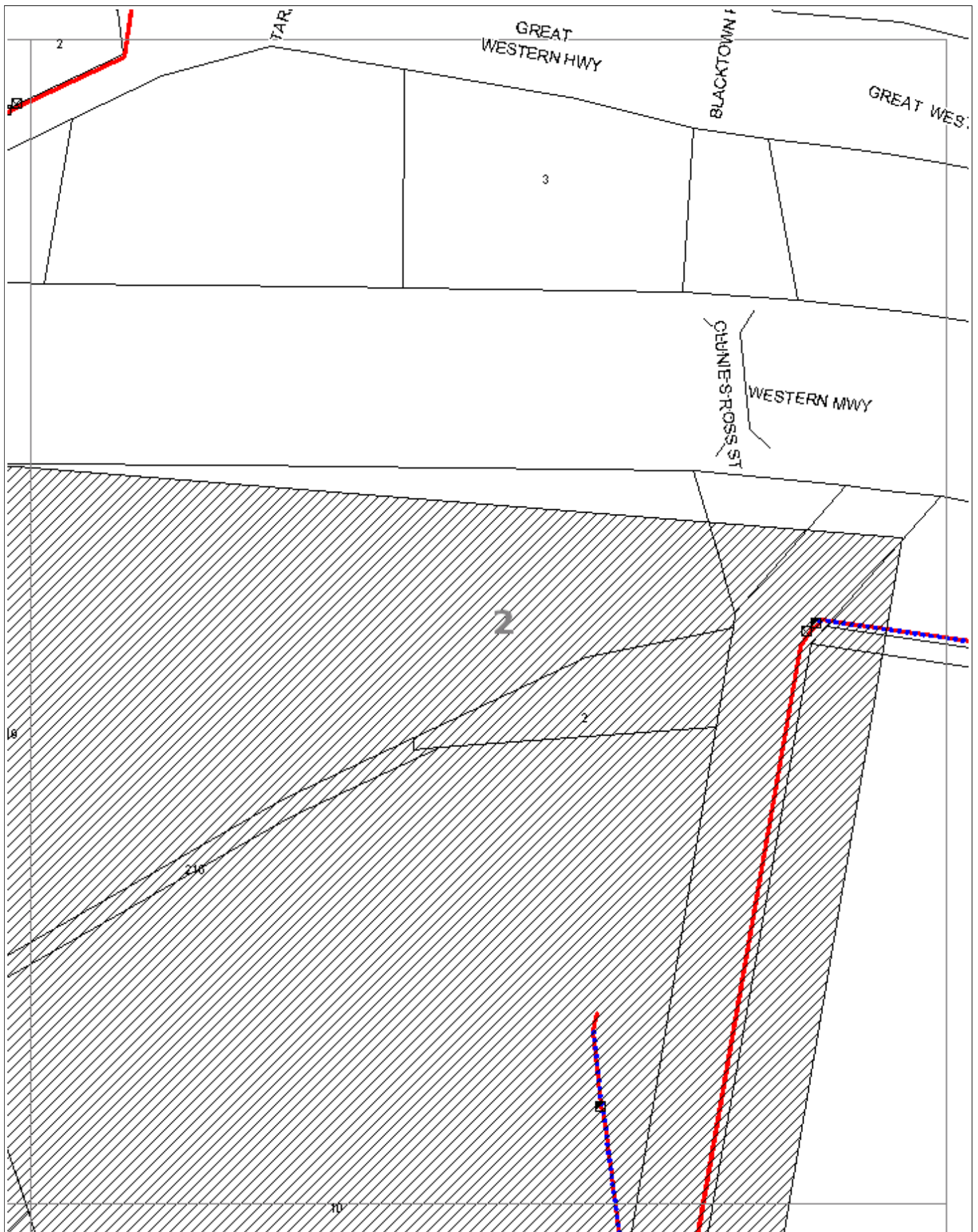
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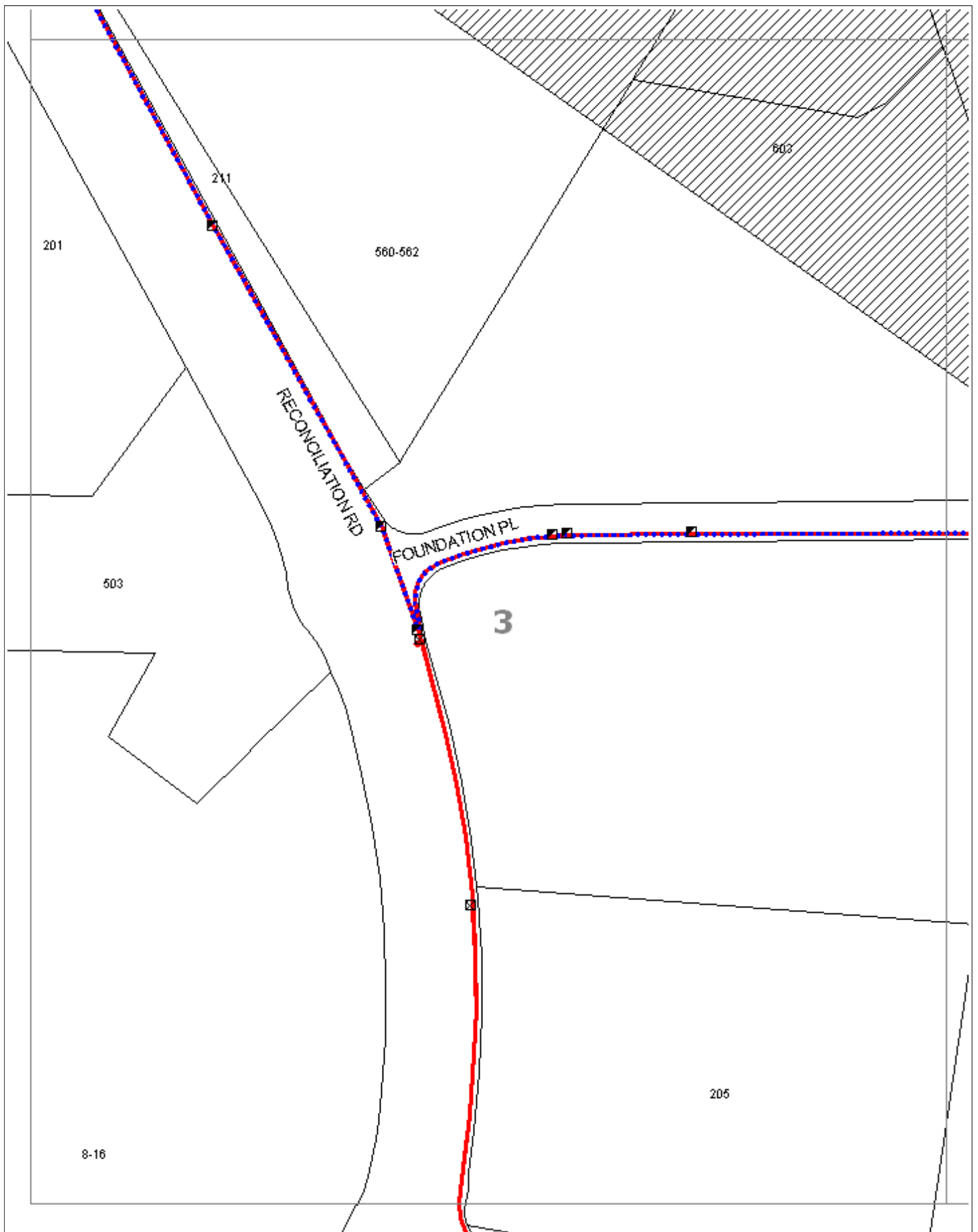
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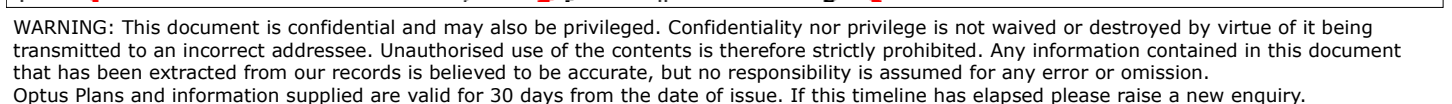
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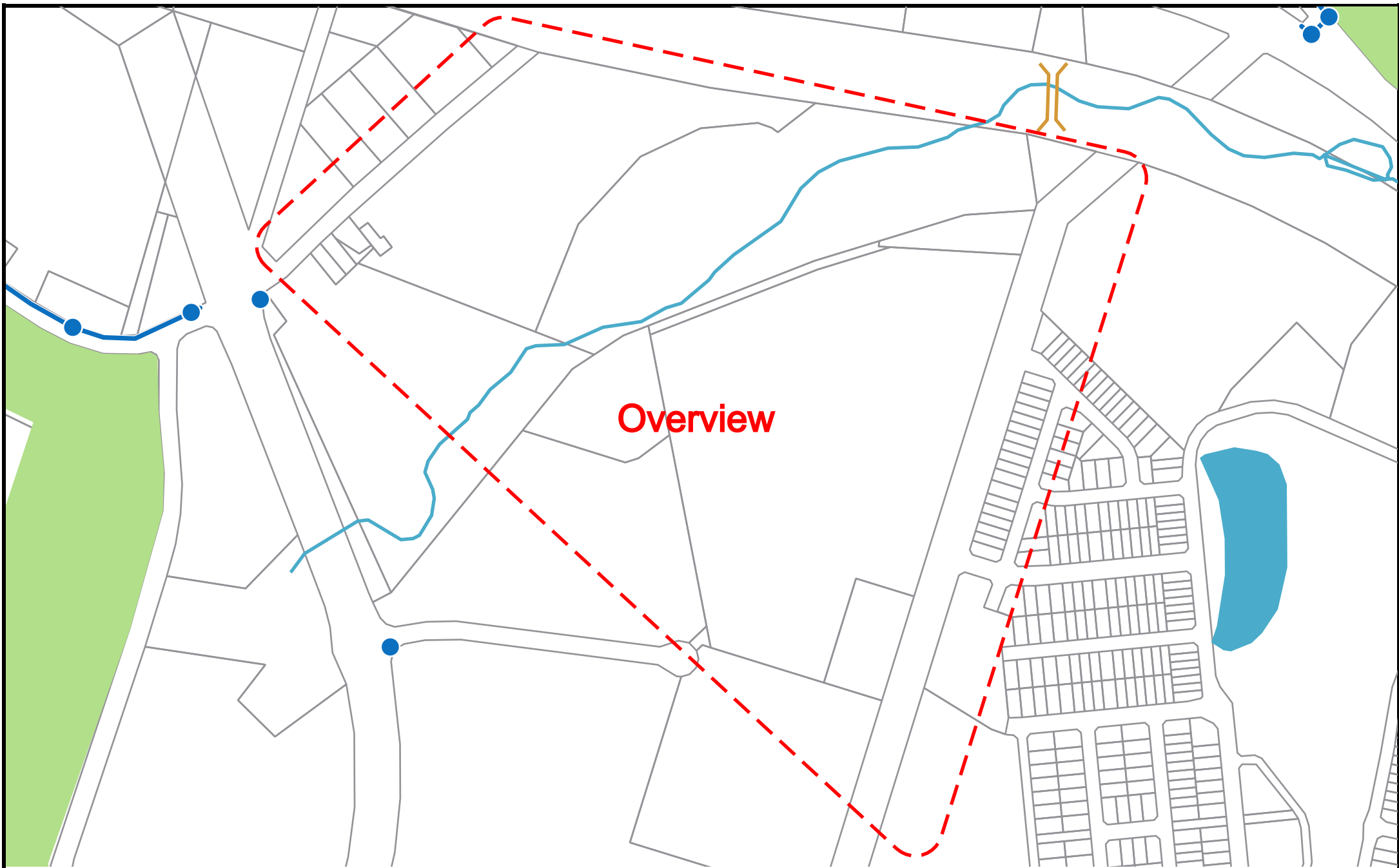


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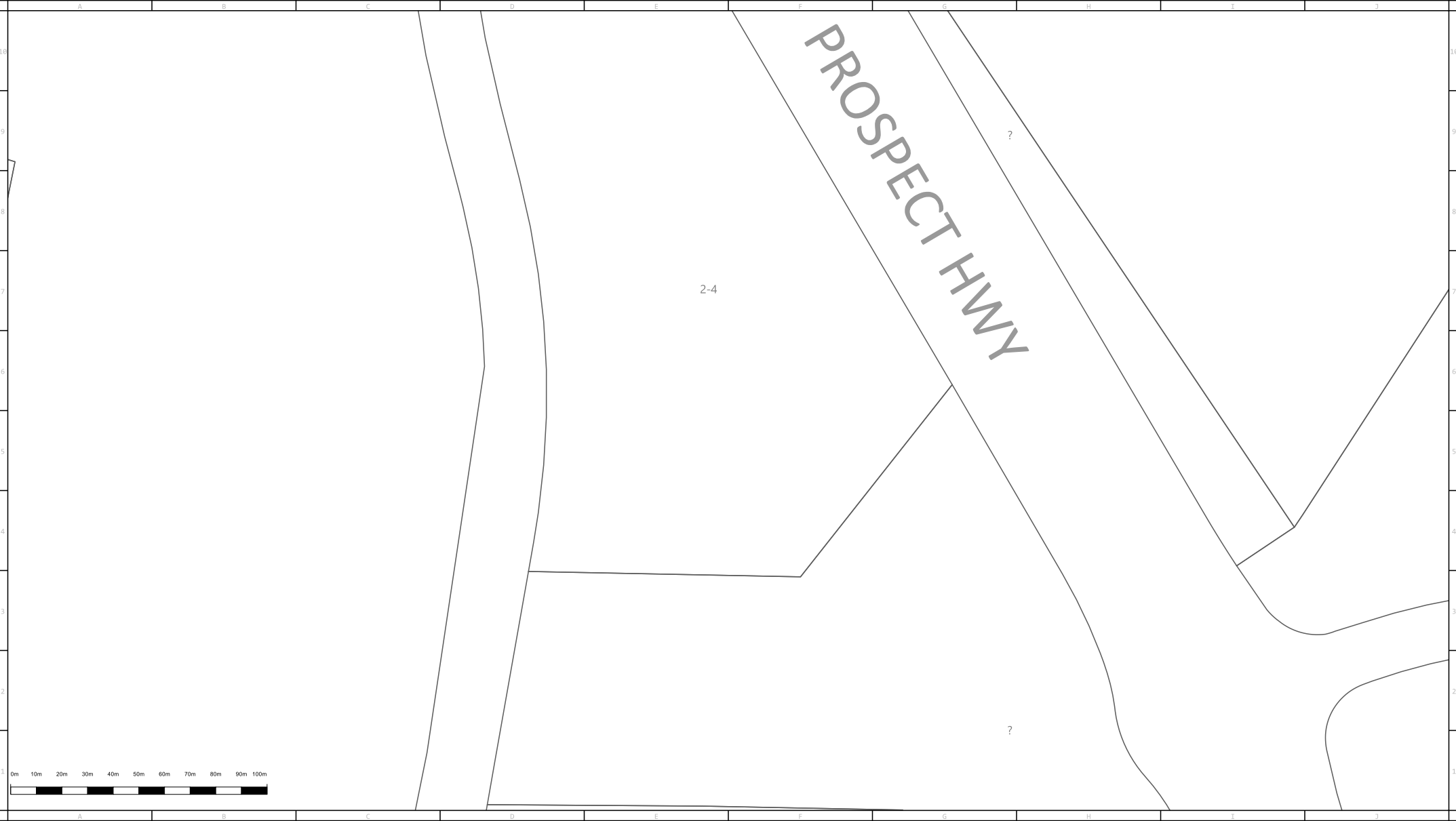


Date Generated: 06/03/2020



Overview





Main	In Service	Proposed	Main	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators	
Unknown Pressure	—	----	Proposed Isolate (coloured according to kPa)	-----	Critical Main (Treat as High Pressure Main)	—●—●—●—	Siphon	~1.5
Distribution - 2 kPa	—	----	Isolated Service	-----	Secondary Network - 1050 kPa	—●—●—●—	Valve	MBK = Metres Back of Kerb
Distribution - 7 kPa	—	----	Conduit or Casing	-----	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	Regulator Set	MFL = Metres from Fence Line
Distribution - 30 kPa	—	----	Size & Material	-----	Primary - 3500 kPa	—●—●—●—	Regulator Station	50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main
Distribution - 100 kPa	—	----	100 PVC	-----	JGN Trunk - 7000 kPa	—●—●—●—	Automatic Line Break Valve	32mm Nylon main inserted into 50mm Steel Main
Distribution - 210 kPa	—	----		-----	Transmission	—●—●—●—		©NB 50MM NY
Distribution - 300 kPa	—	----		-----				©9MM 32MM NY
Distribution - 400 kPa	—	----		-----				

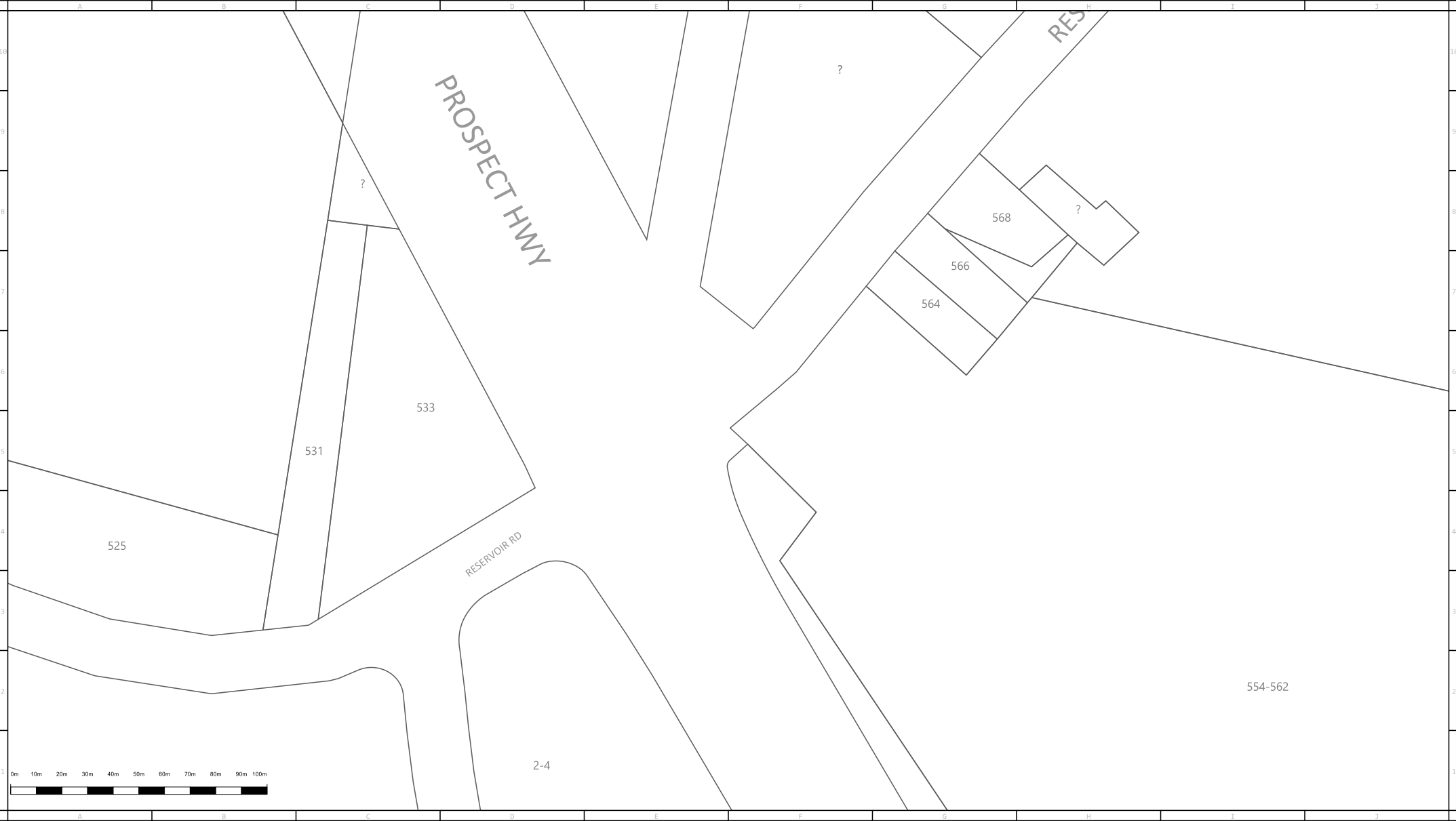
Scale:1:2000

Issue Date: 06/03/2020

DBYD Seq No: 95550400

DBYD Job No: 19165192

WARNING:This is a representation of Jemena Gas Networks underground assets only and may not indicate all assets in the area. It must not be used for the purpose of exact asset location in order to undertake any type of excavation. This plan is diagrammatic only, and distances scaled from this plan may not be accurate. Please read all conditions and information on the attached information sheet. This extract is subject to those conditions. The information contained on this plan is only valid for 28 days from the date of issue.



Main	In Service	Proposed	Main	In Service	Proposed	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators
Unknown Pressure	—	---	Proposed Isolate (coloured according to kPa)	-----	-----	Critical Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Siphon
Distribution - 2 kPa	—	---	Isolated Service	-----	-----	Secondary Network - 1050 kPa	—●—●—●—	—●—●—●—	Valve
Distribution - 7 kPa	—	---	Conduit or Casing	-----	-----	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Regulator Set
Distribution - 30 kPa	—	---	Size & Material (PL - Plastic, PVC, PE, NY, ST)	-----	-----	Primary - 3500 kPa	—●—●—●—	—●—●—●—	Regulator Station
Distribution - 100 kPa	—	---	100 PVC	-----	-----	JGN Trunk - 7000 kPa	—●—●—●—	—●—●—●—	Automatic Line Break Valve
Distribution - 210 kPa	—	---				Transmission	—●—●—●—	—●—●—●—	
Distribution - 300 kPa	—	---							
Distribution - 400 kPa	—	---							

Distance in metres of Main from Boundary Line ~1.5

MBK = Metres Back of Kerb

MFL = Metres from Fence Line

50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main

32mm Nylon main inserted into 50mm Steel Main

©NB 50MM NY

©9MM 32MM NY

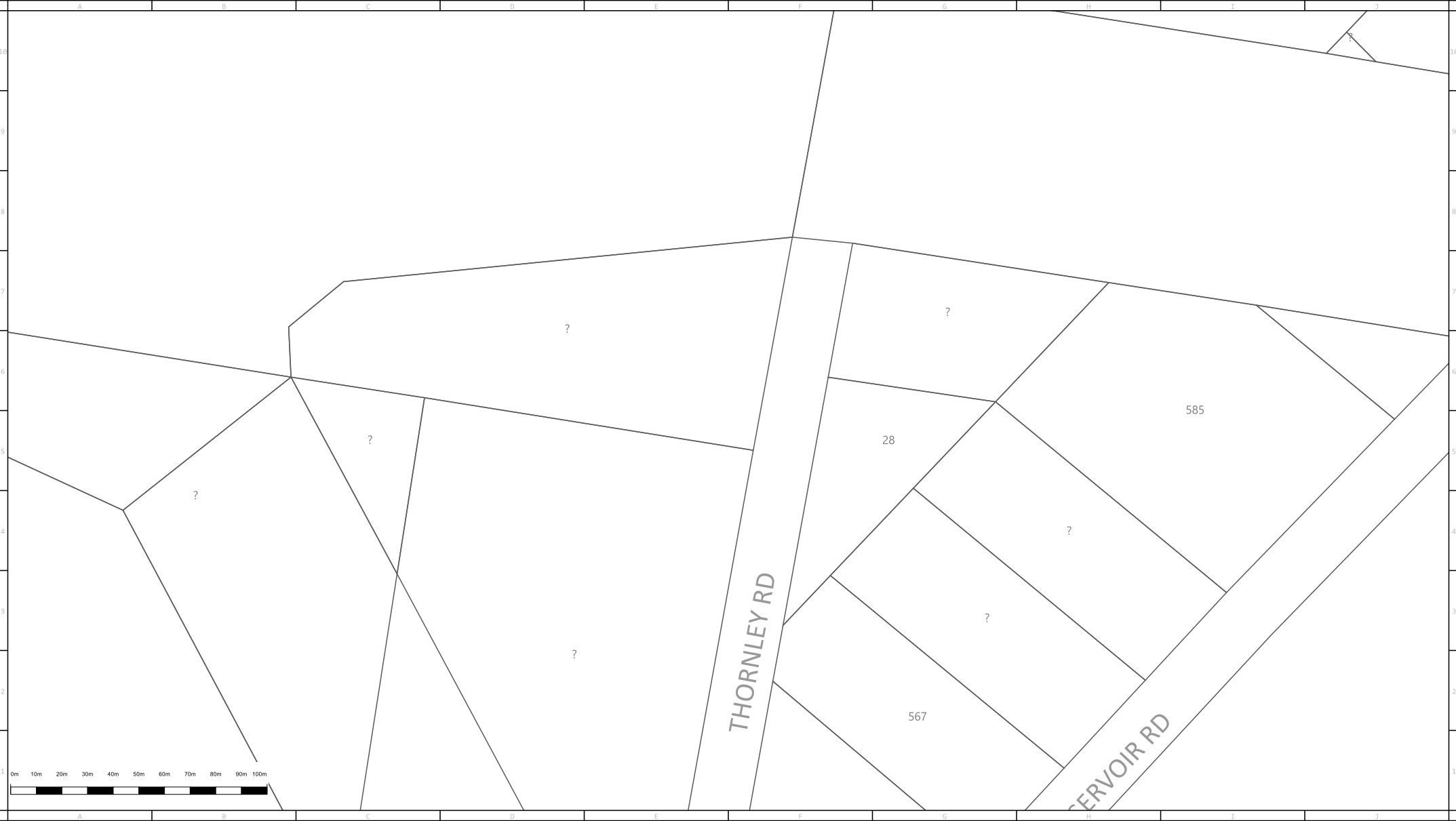
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Unknown Pressure	—	---	Proposed Isolate (coloured according to kPa)	Critical Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Siphon
Distribution - 2 kPa	—	---	Isolated Service	Secondary Network - 1050 kPa	—●—●—●—	—●—●—●—	Valve
Distribution - 7 kPa	—	---	Conduit or Casing	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Regulator Set
Distribution - 30 kPa	—	---	Size & Material	Primary - 3500 kPa	—●—●—●—	—●—●—●—	Regulator Station
Distribution - 100 kPa	—	---	100 PVC	JGN Trunk - 7000 kPa	—●—●—●—	—●—●—●—	Automatic Line Break Valve
Distribution - 210 kPa	—	---		Transmission	—●—●—●—	—●—●—●—	
Distribution - 300 kPa	—	---			—●—●—●—	—●—●—●—	
Distribution - 400 kPa	—	---			—●—●—●—	—●—●—●—	

Distance in metres of Main from Boundary Line ~1.5

MBK = Metres Back of Kerb

MFL = Metres from Fence Line

50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main

32mm Nylon main inserted into 50mm Steel Main

©NB 50MM NY

©9MM 32MM NY

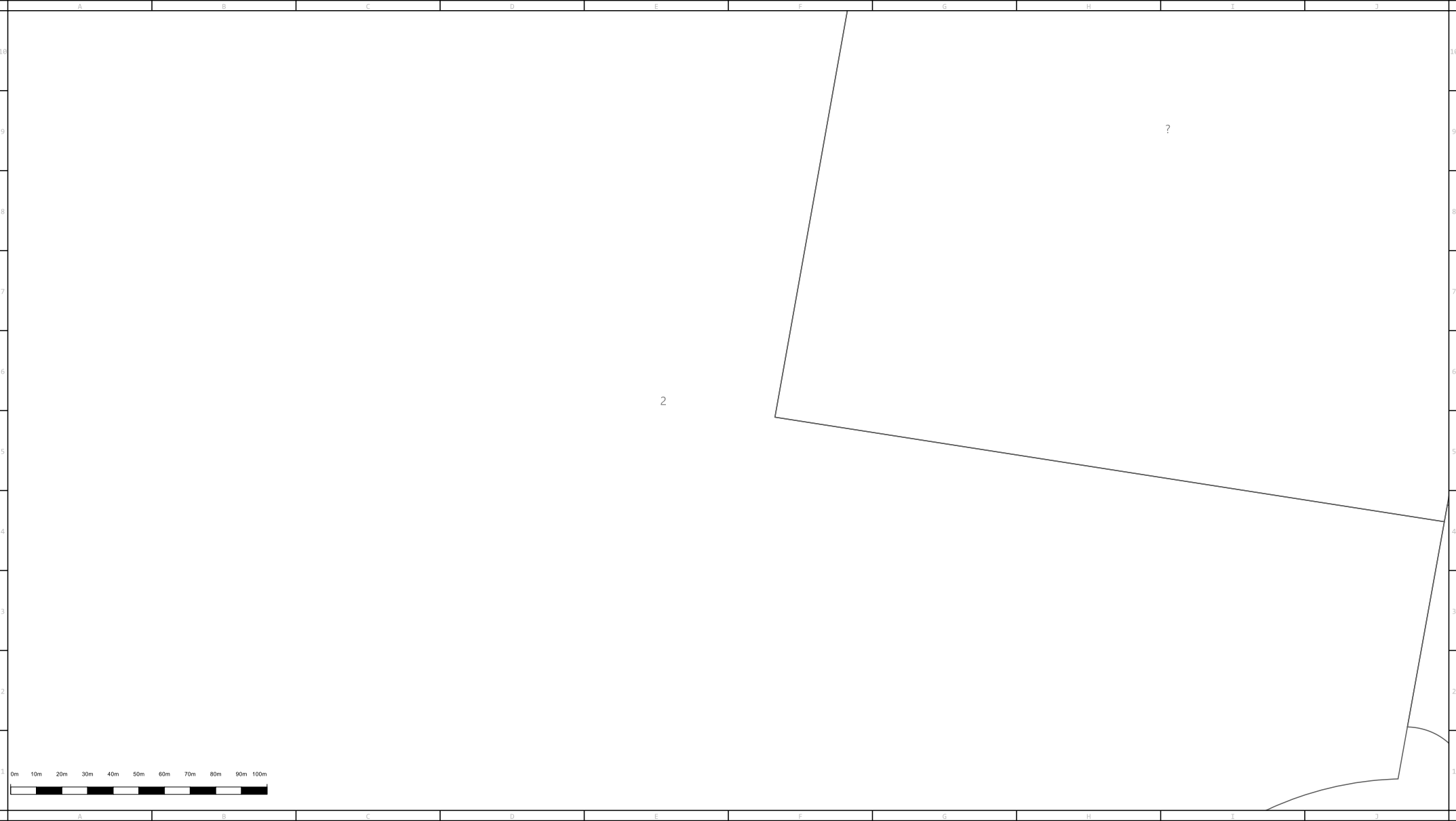
Scale: 1:2000


Issue Date: 06/03/2020

DBYD Seq No: 95550400

DBYD Job No: 19165192

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ABN 87 003 004 322

Main	In Service	Proposed	Main	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators	
Unknown Pressure	—	----	Proposed Isolate (coloured according to kPa)	-----	Critical Main (Treat as High Pressure Main)	—●—●—●—	Siphon	●
Distribution - 2 kPa	—	----	Isolated Service	-----	Secondary Network - 1050 kPa	—●—●—●—	Valve	⋈
Distribution - 7 kPa	—	----	Conduit or Casing	-----	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	Regulator Set	⬢
Distribution - 30 kPa	—	----	Size & Material (PL - Plastic, PVC, PE, NY, ST)	-----	Primary - 3500 kPa	—●—●—●—	Regulator Station	⬢
Distribution - 100 kPa	—	----	100 PVC	-----	JGN Trunk - 7000 kPa	—●—●—●—	Automatic Line Break Valve	⬢
Distribution - 210 kPa	—	----		-----	Transmission	—●—●—●—		
Distribution - 300 kPa	—	----		-----				
Distribution - 400 kPa	—	----		-----				

Distance in metres of Main from Boundary Line ~1.5

MBK = Metres Back of Kerb


MFL = Metres from Fence Line

50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main

32mm Nylon main inserted into 50mm Steel Main

6NB 50MM NY

69MM 32MM NY



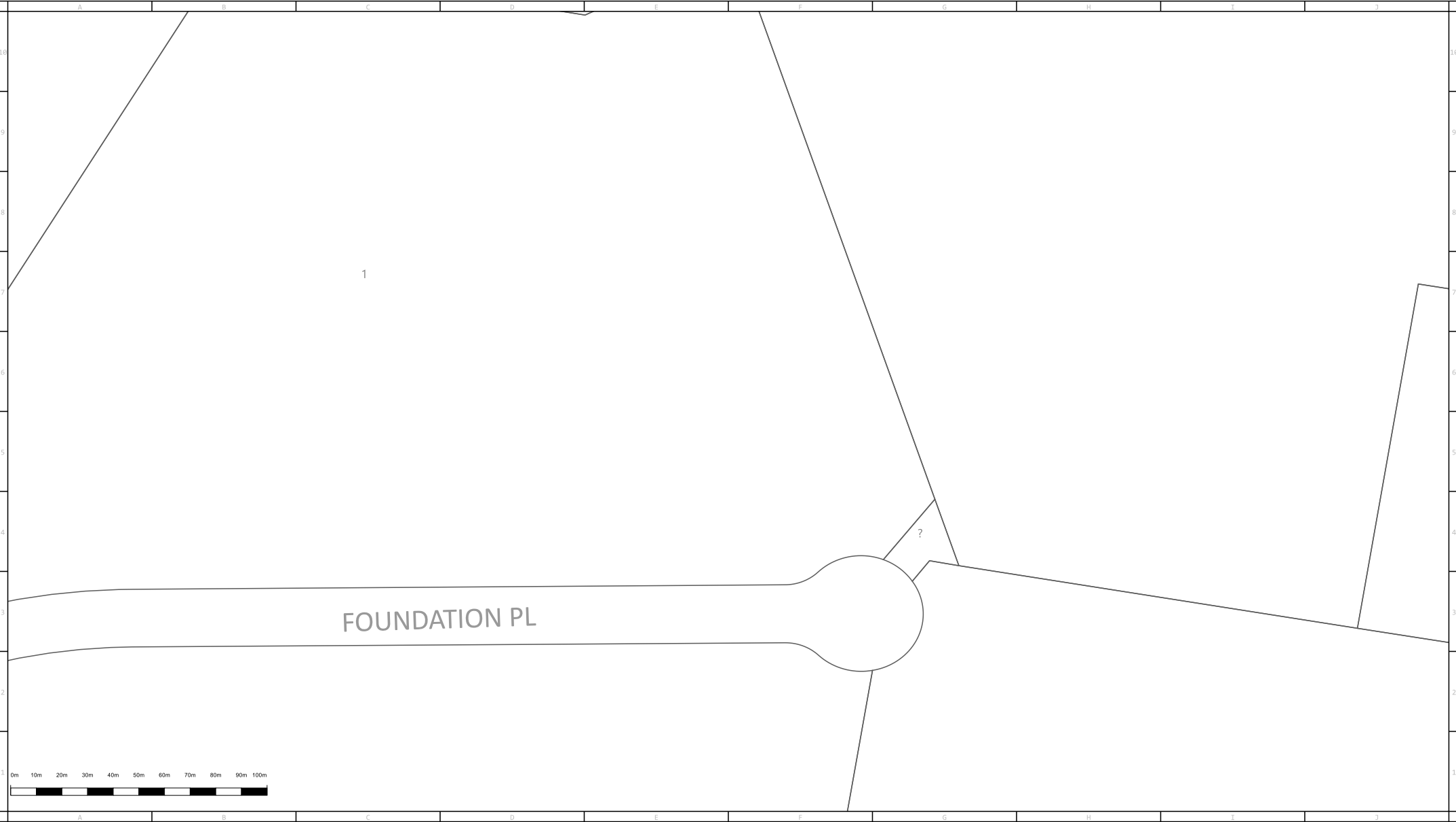
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ABN 87 003 004 322

Main	In Service	Proposed	Main	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators	
Unknown Pressure	—	----	Proposed Isolate (coloured according to kPa)	-----	Critical Main (Treat as High Pressure Main)	—●—●—●—	Siphon	Distance in metres of Main from Boundary Line ~1.5
Distribution - 2 kPa	—	----	Isolated Service	-----	Secondary Network - 1050 kPa	—●—●—●—	Valve	MBK = Metres Back of Kerb
Distribution - 7 kPa	—	----	Conduit or Casing	-----	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	Regulator Set	MFL = Metres from Fence Line
Distribution - 30 kPa	—	----	Size & Material (PL - Plastic, PVC, PE, NY, ST)	-----	Primary - 3500 kPa	—●—●—●—	Regulator Station	50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main
Distribution - 100 kPa	—	----	100 PVC	-----	JGN Trunk - 7000 kPa	—●—●—●—	Automatic Line Break Valve	32mm Nylon main inserted into 50mm Steel Main
Distribution - 210 kPa	—	----		-----	Transmission	—●—●—●—		⑥NB 50MM NY
Distribution - 300 kPa	—	----		-----				⑥9MM 32MM NY
Distribution - 400 kPa	—	----		-----				



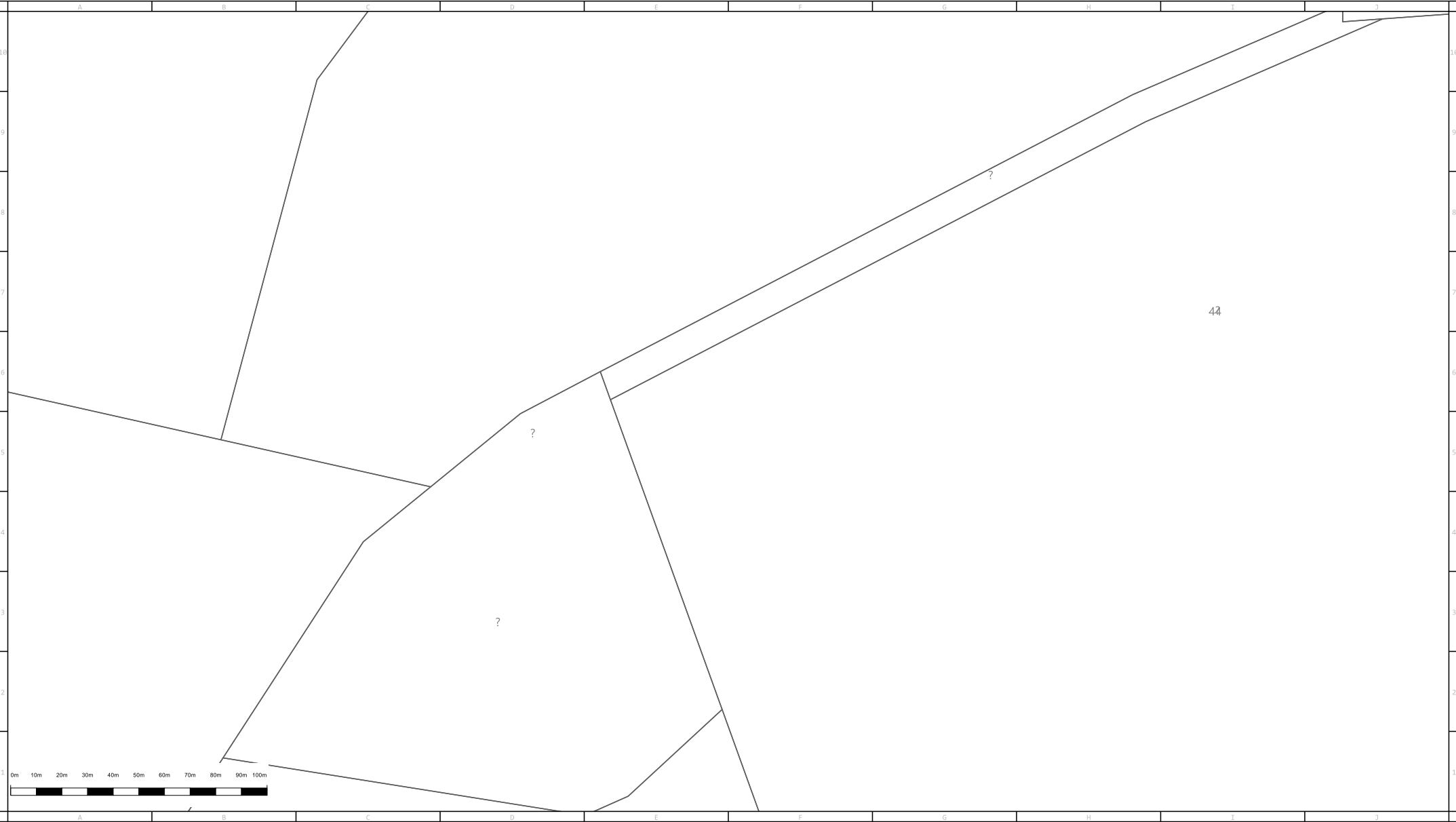
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Main	In Service	Proposed	Main	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators
Unknown Pressure	—	---	Proposed Isolate (coloured according to kPa)	Critical Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Siphon
Distribution - 2 kPa	—	---	Isolated Service	Secondary Network - 1050 kPa	—●—●—●—	—●—●—●—	Valve
Distribution - 7 kPa	—	---	Conduit or Casing	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Regulator Set
Distribution - 30 kPa	—	---	Size & Material (PL - Plastic, PVC, PE, NY, ST)	Primary - 3500 kPa	—●—●—●—	—●—●—●—	Regulator Station
Distribution - 100 kPa	—	---	100 PVC	JGN Trunk - 7000 kPa	—●—●—●—	—●—●—●—	Automatic Line Break Valve
Distribution - 210 kPa	—	---		Transmission	—●—●—●—	—●—●—●—	
Distribution - 300 kPa	—	---					
Distribution - 400 kPa	—	---					

Distance in metres of Main from Boundary Line ~1.5

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50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main

32mm Nylon main inserted into 50mm Steel Main

©NB 50MM NY

©9MM 32MM NY



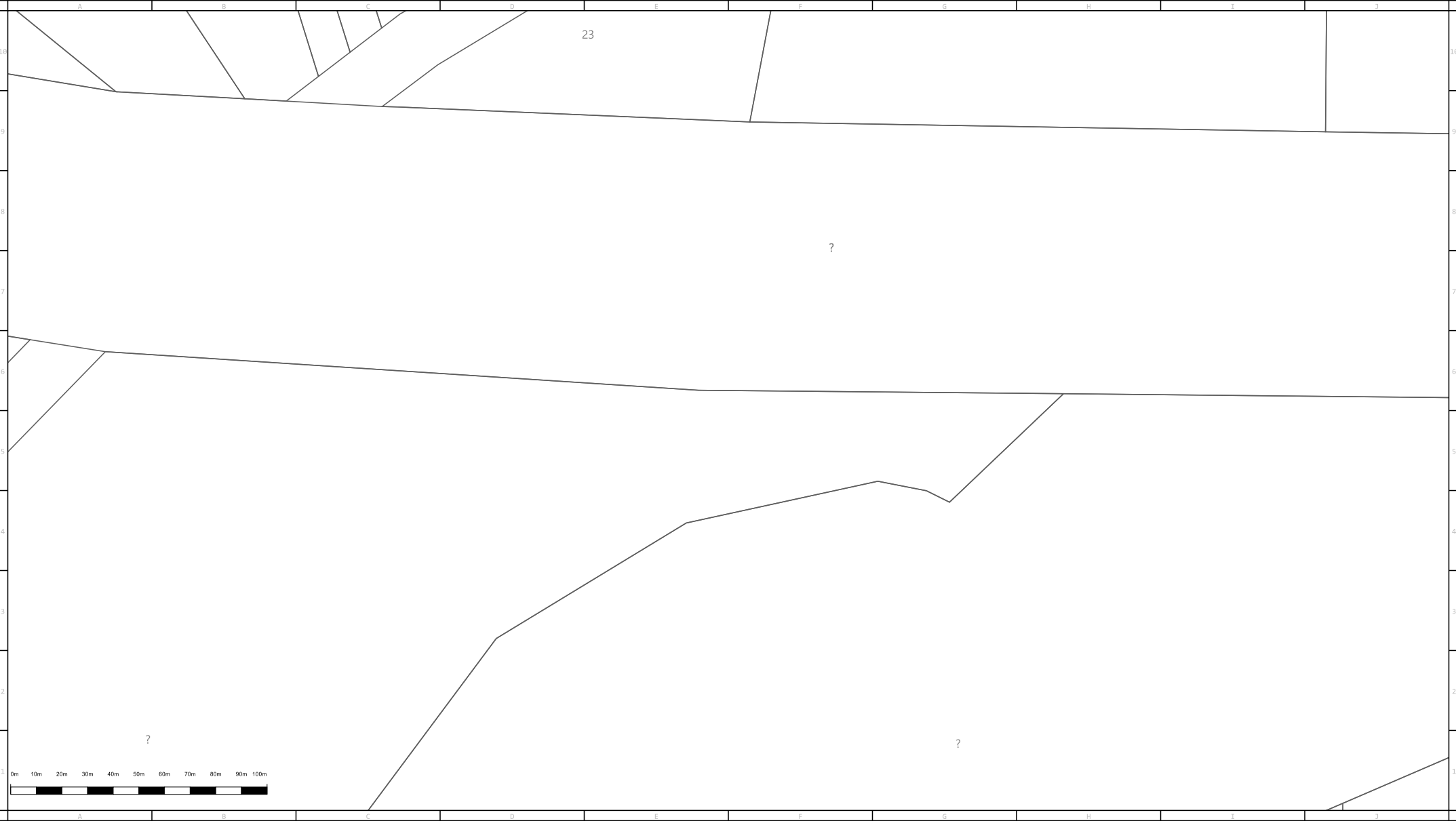
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Main	In Service	Proposed	Main	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators	
Unknown Pressure	—	----	Proposed Isolate (coloured according to kPa)	-----	Critical Main (Treat as High Pressure Main)	—●—●—●—	Siphon	●
Distribution - 2 kPa	—	----	Isolated Service	-----	Secondary Network - 1050 kPa	—●—●—●—	Valve	⋈
Distribution - 7 kPa	—	----	Conduit or Casing	-----	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	Regulator Set	⬢
Distribution - 30 kPa	—	----	Size & Material	-----	Primary - 3500 kPa	—●—●—●—	Regulator Station	⬢
Distribution - 100 kPa	—	----	100 PVC	-----	JGN Trunk - 7000 kPa	—●—●—●—	Automatic Line Break Valve	⬢
Distribution - 210 kPa	—	----	(PL - Plastic, PVC, PE, NY, ST)	-----	Transmission	—●—●—●—		
Distribution - 300 kPa	—	----		-----				
Distribution - 400 kPa	—	----		-----				

Distance in metres of Main from Boundary Line ~1.5

MBK = Metres Back of Kerb

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©NB 50MM NY

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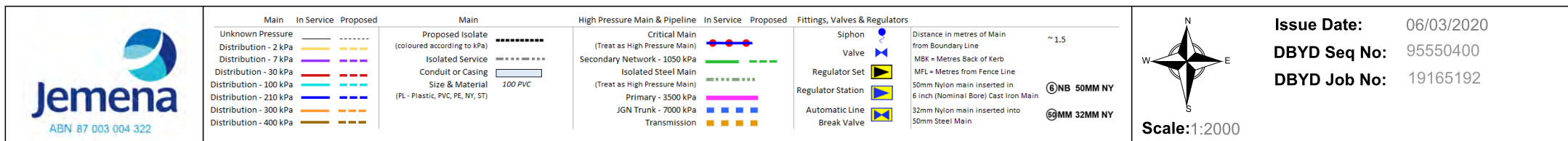
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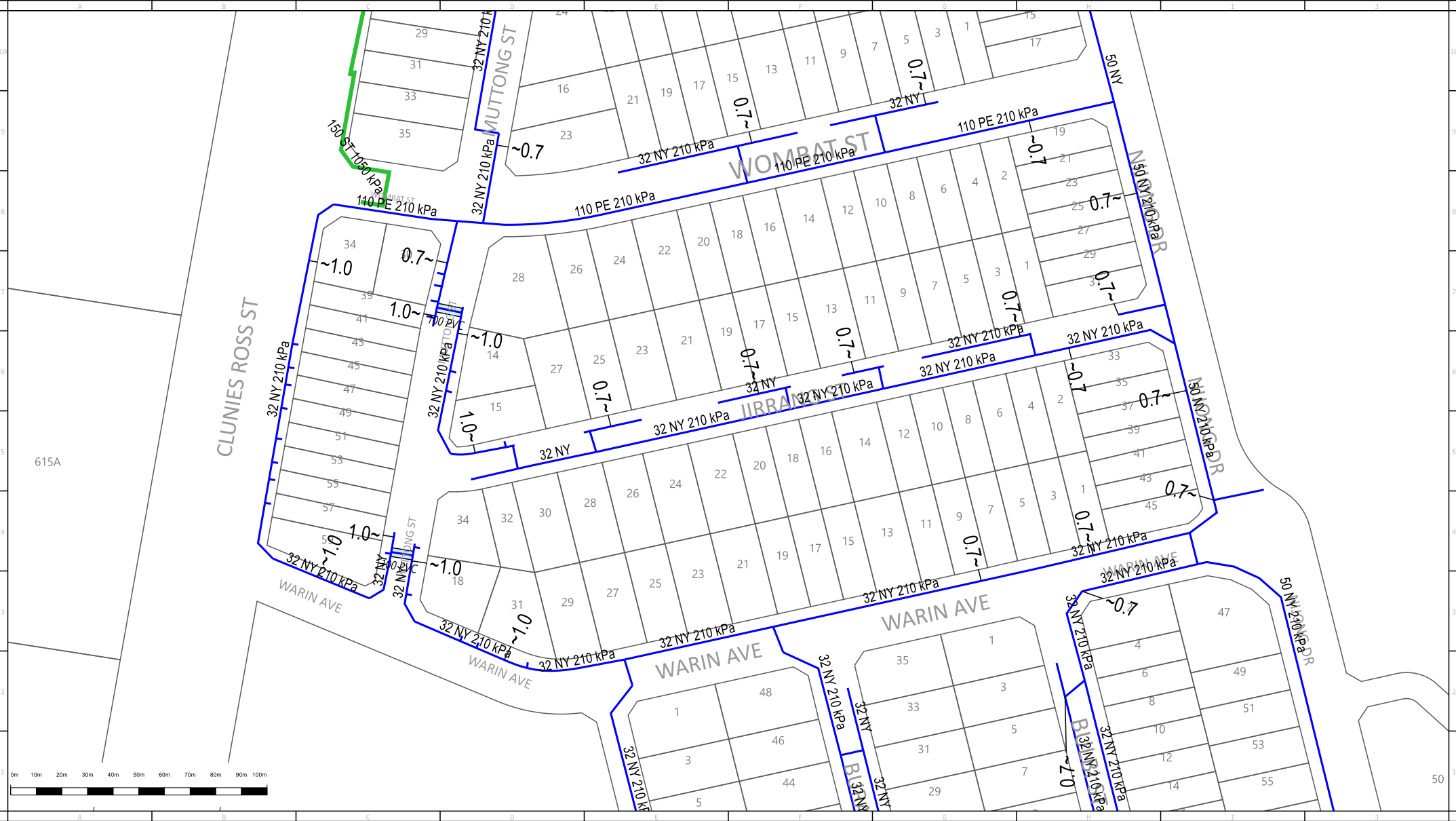
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ABN 87 003 004 322

Main	In Service	Proposed	Main	In Service	Proposed	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators	In Service	Proposed	Distance in metres of Main from Boundary Line	~1.5
Unknown Pressure	-----	-----	Proposed Isolate (coloured according to kPa)	-----	-----	Critical Main (Treat as High Pressure Main)	-----	-----	Siphon	-----	-----	MBK = Metres Back of Kerb	
Distribution - 2 kPa	-----	-----	Isolated Service	-----	-----	Secondary Network - 1050 kPa	-----	-----	Valve	-----	-----	MFL = Metres from Fence Line	
Distribution - 7 kPa	-----	-----	Conduit or Casing	-----	-----	Isolated Steel Main (Treat as High Pressure Main)	-----	-----	Regulator Set	-----	-----	50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main	⑥NB 50MM NY
Distribution - 30 kPa	-----	-----	Size & Material	-----	-----	Primary - 3500 kPa	-----	-----	Regulator Station	-----	-----	32mm Nylon main inserted into 50mm Steel Main	⑥NB 32MM NY
Distribution - 100 kPa	-----	-----	(PL - Plastic, PVC, PE, NY, ST)	-----	-----	JGN Trunk - 7000 kPa	-----	-----	Automatic Line Break Valve	-----	-----		
Distribution - 210 kPa	-----	-----				Transmission	-----	-----					
Distribution - 300 kPa	-----	-----											
Distribution - 400 kPa	-----	-----											



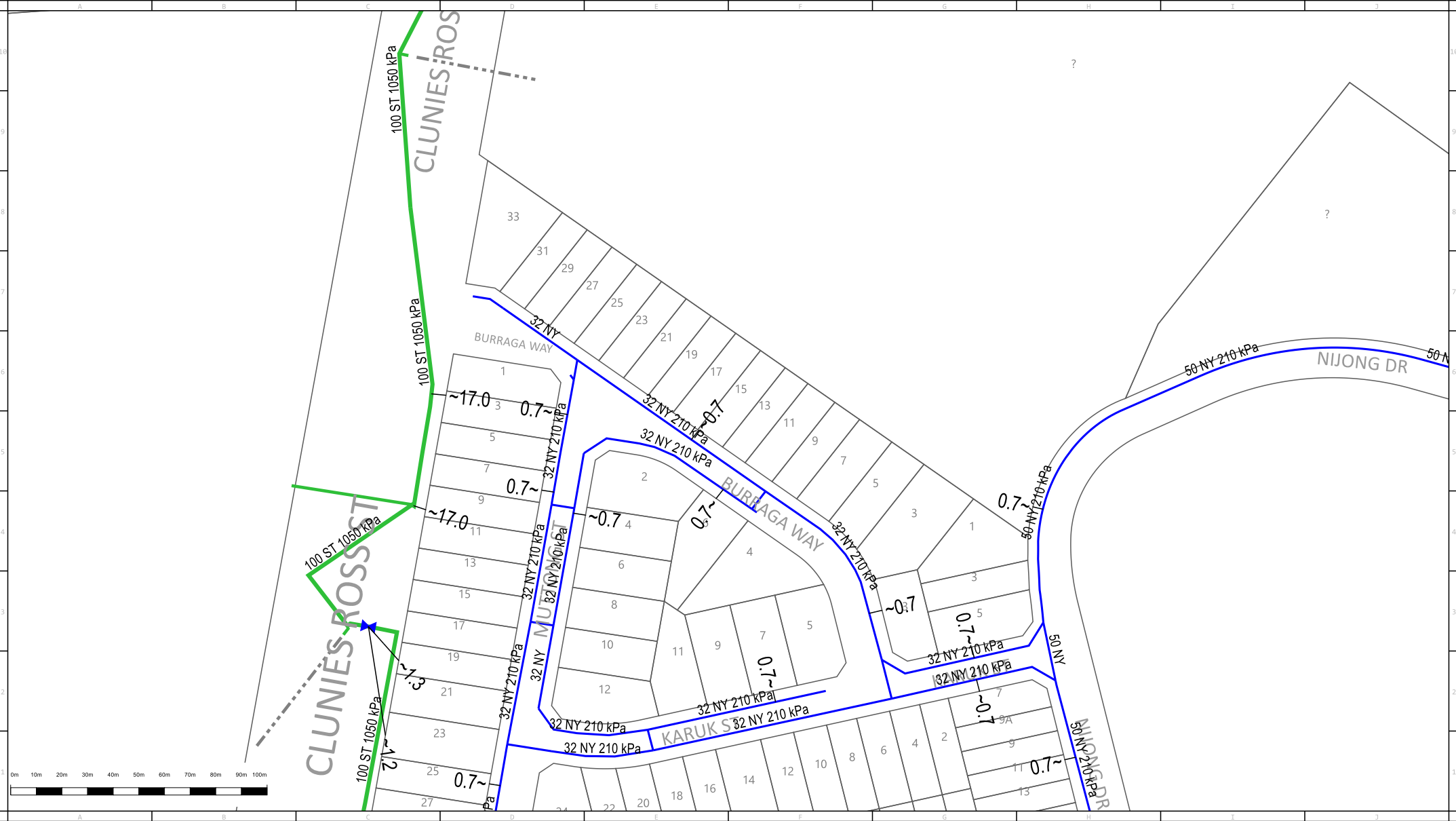
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Main	In Service	Proposed	Main	In Service	Proposed	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators	Distance in metres of Main from Boundary Line	~1.5
Unknown Pressure	—	---	Proposed Isolate (coloured according to kPa)	-----	-----	Critical Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Siphon	●	MBK = Metres Back of Kerb
Distribution - 2 kPa	—	---	Isolated Service	-----	-----	Secondary Network - 1050 kPa	—●—●—●—	—●—●—●—	Valve	⋈	MFL = Metres from Fence Line
Distribution - 7 kPa	—	---	Conduit or Casing	-----	-----	Isolated Steel Main (Treat as High Pressure Main)	—●—●—●—	—●—●—●—	Regulator Set	⬢	50mm Nylon main inserted in 6 inch (Nominal Bore) Cast Iron Main
Distribution - 30 kPa	—	---	Size & Material	-----	-----	Primary - 3500 kPa	—●—●—●—	—●—●—●—	Regulator Station	⬢	6"NB 50MM NY
Distribution - 100 kPa	—	---	100 PVC	-----	-----	JGN Trunk - 7000 kPa	—●—●—●—	—●—●—●—	Automatic Line Break Valve	⬢	60MM 32MM NY
Distribution - 210 kPa	—	---	(PL - Plastic, PVC, PE, NY, ST)	-----	-----	Transmission	—●—●—●—	—●—●—●—			32mm Nylon main inserted into 50mm Steel Main
Distribution - 300 kPa	—	---		-----	-----						
Distribution - 400 kPa	—	---		-----	-----						



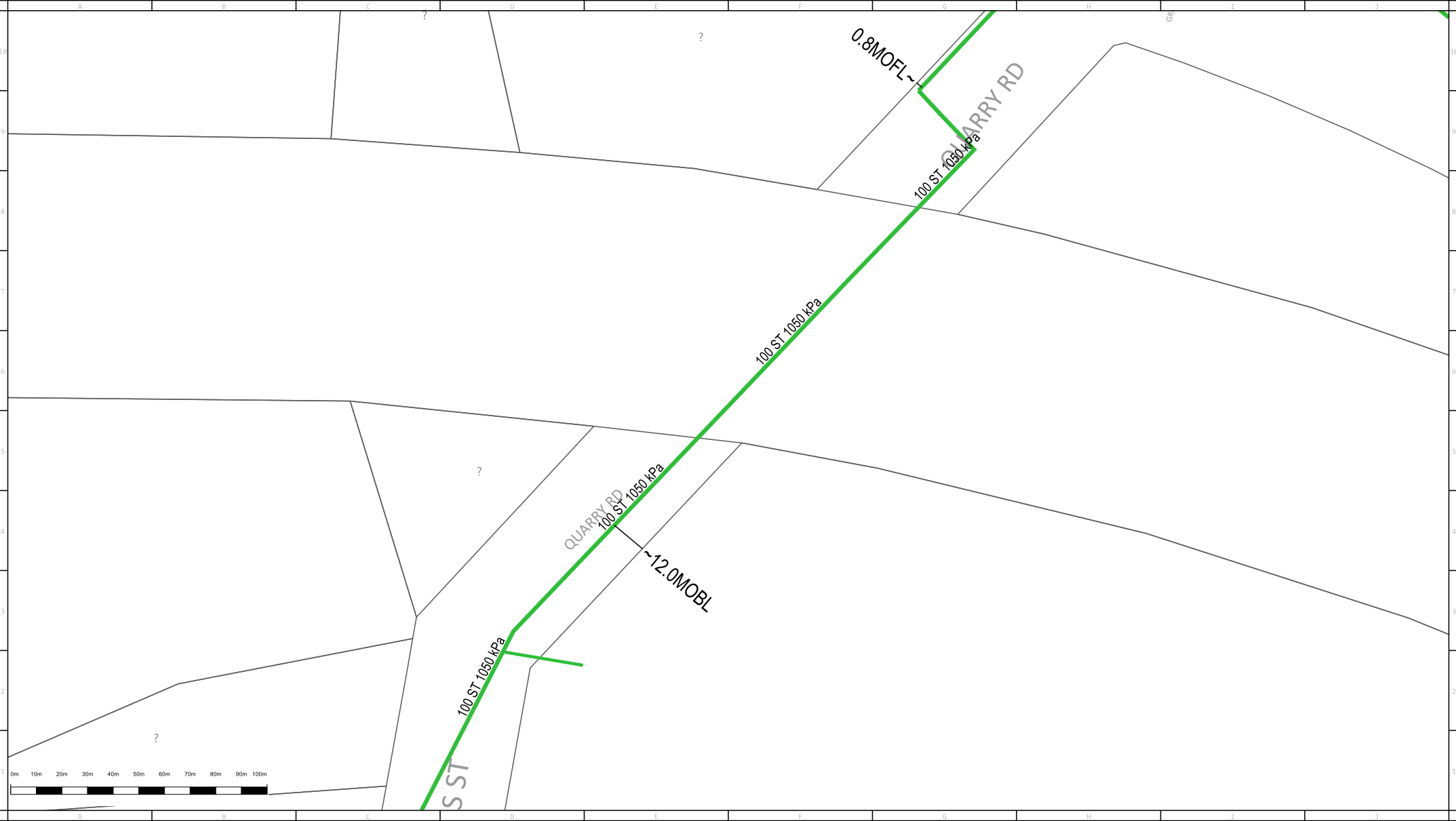
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Main	In Service	Proposed	Main	High Pressure Main & Pipeline	In Service	Proposed	Fittings, Valves & Regulators
Unknown Pressure	-----	-----	Proposed Isolate (coloured according to kPa)	Critical Main (Treat as High Pressure Main)	-----	-----	Siphon
Distribution - 2 kPa	-----	-----	Isolated Service	Secondary Network - 1050 kPa	-----	-----	Valve
Distribution - 7 kPa	-----	-----	Conduit or Casing	Isolated Steel Main (Treat as High Pressure Main)	-----	-----	Regulator Set
Distribution - 30 kPa	-----	-----	Size & Material	Primary - 3500 kPa	-----	-----	Regulator Station
Distribution - 100 kPa	-----	-----	100 PVC	JGN Trunk - 7000 kPa	-----	-----	Automatic Line Break Valve
Distribution - 210 kPa	-----	-----		Transmission	-----	-----	
Distribution - 300 kPa	-----	-----			-----	-----	
Distribution - 400 kPa	-----	-----			-----	-----	

Distance in metres of Main from Boundary Line ~1.5

MBK = Metres Back of Kerb


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32mm Nylon main inserted into 50mm Steel Main

©NB 50MM NY

©9MM 32MM NY



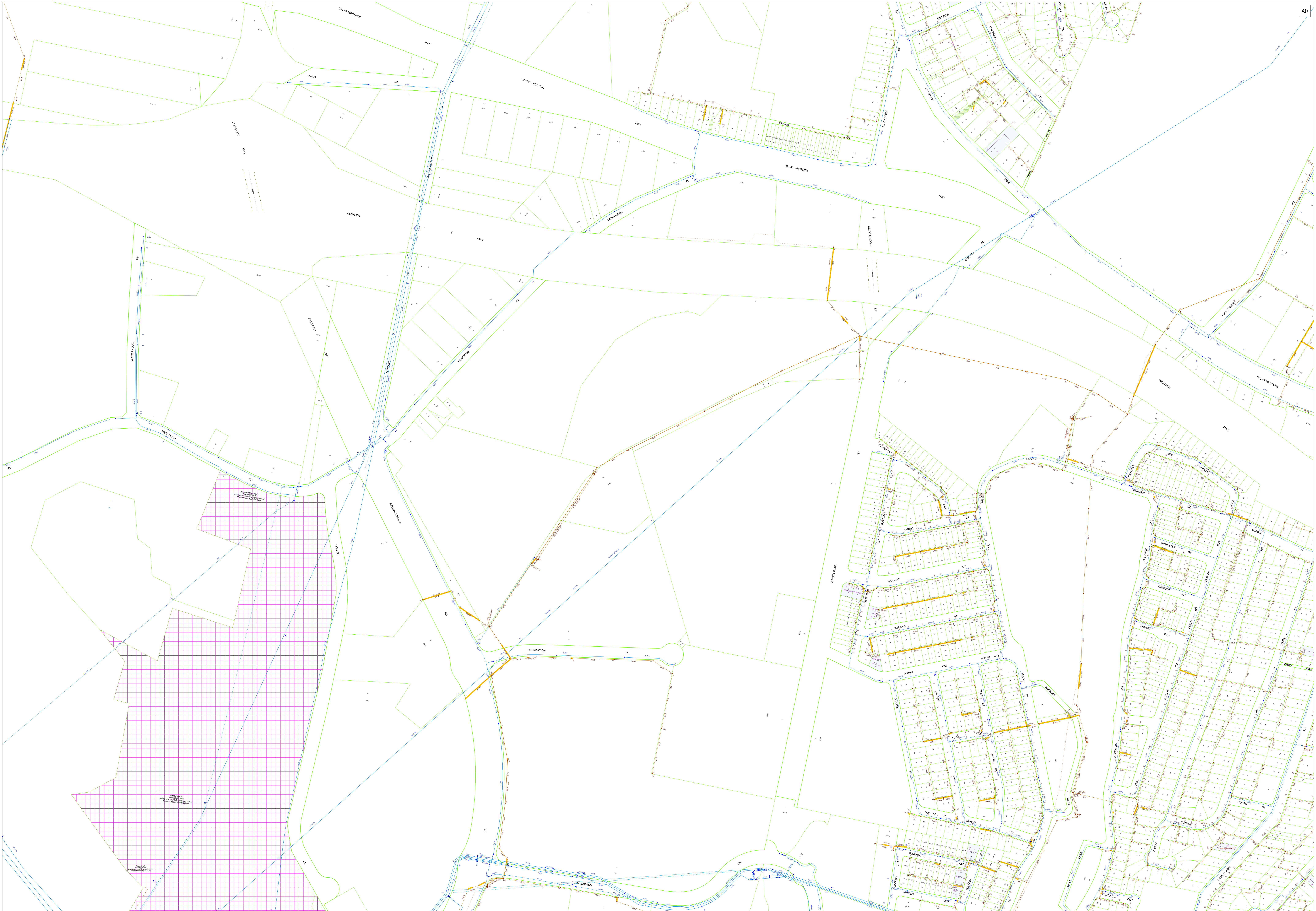
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Appendix G

WAE – Regional Detention Basin

BLACKTOWN CITY COUNCIL
HOLROYD MUNICIPAL COUNCIL
DEPARTMENT OF WATER
RESOURCES

GREYSTANES CREEK

RETARDING BASINS

These plans are supplied with the following warning that Council will not be responsible for any errors or omissions in these works as executed (WAE) plans. You are responsible to carry out your own checks to confirm whether:

1. The plans are as constructed in the field.
2. The calculations and levels are correct.
3. Any catchment areas or extents are correct.
4. Any other works have been carried out.
5. Any service locations shown are correct.

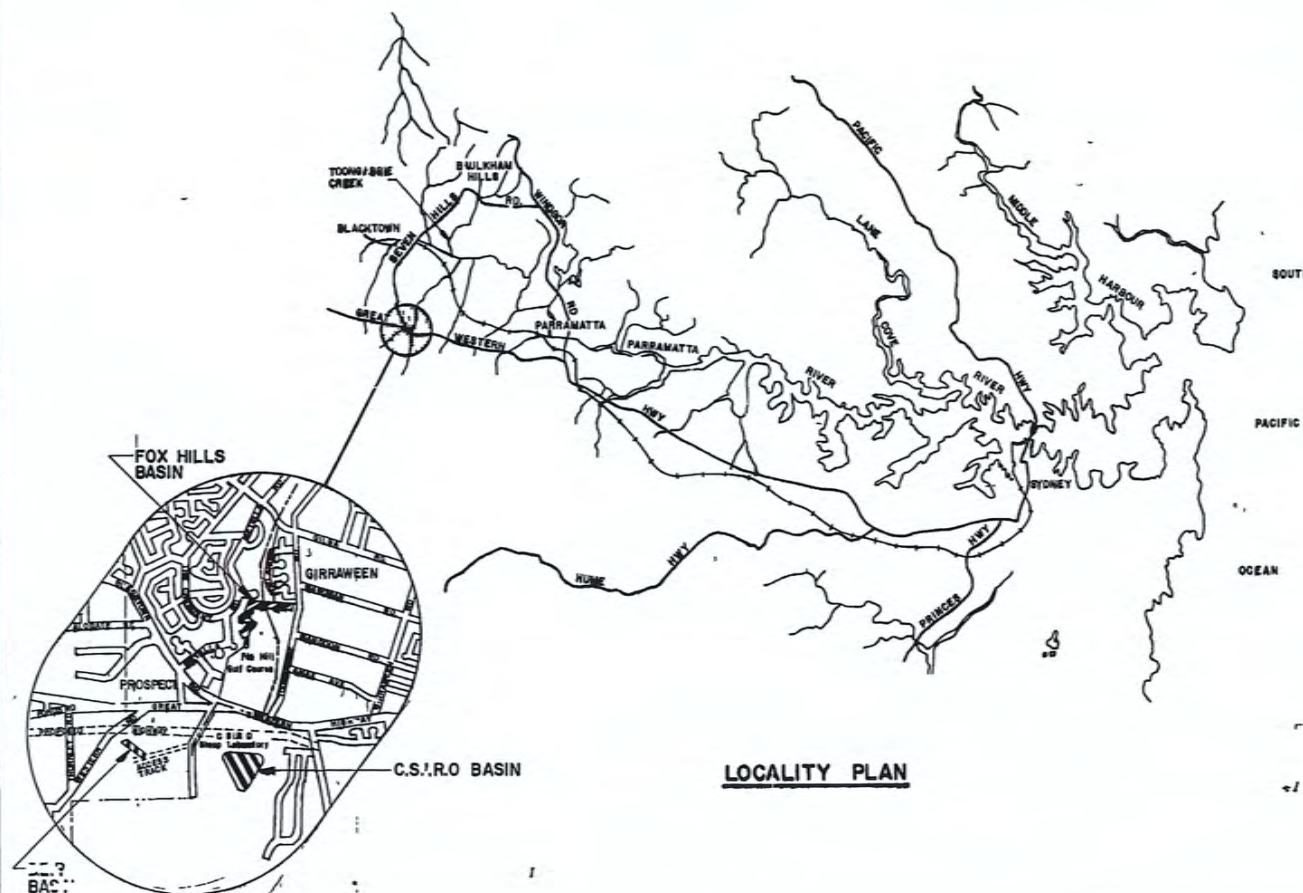
Proposed design works and flood modelling should be based on field survey data and not on these WAE plans.

D.E.P. BASIN **SERIES 6191-B**
FOX HILLS BASIN **SERIES 6191-C**
C.S.I.R.O. BASIN **SERIES 6191-D**

WILLING & PARTNERS
CONSULTING ENGINEERS

621 PACIFIC HIGHWAY
 ST. LEONARDS 2085

TELEPHONE 430 9548



E91/12V

MICROFILMED 1 of 47

DEPARTMENT OF WATER RESOURCES

GREYSTANES CREEK D.E.P. RETARDING BASIN

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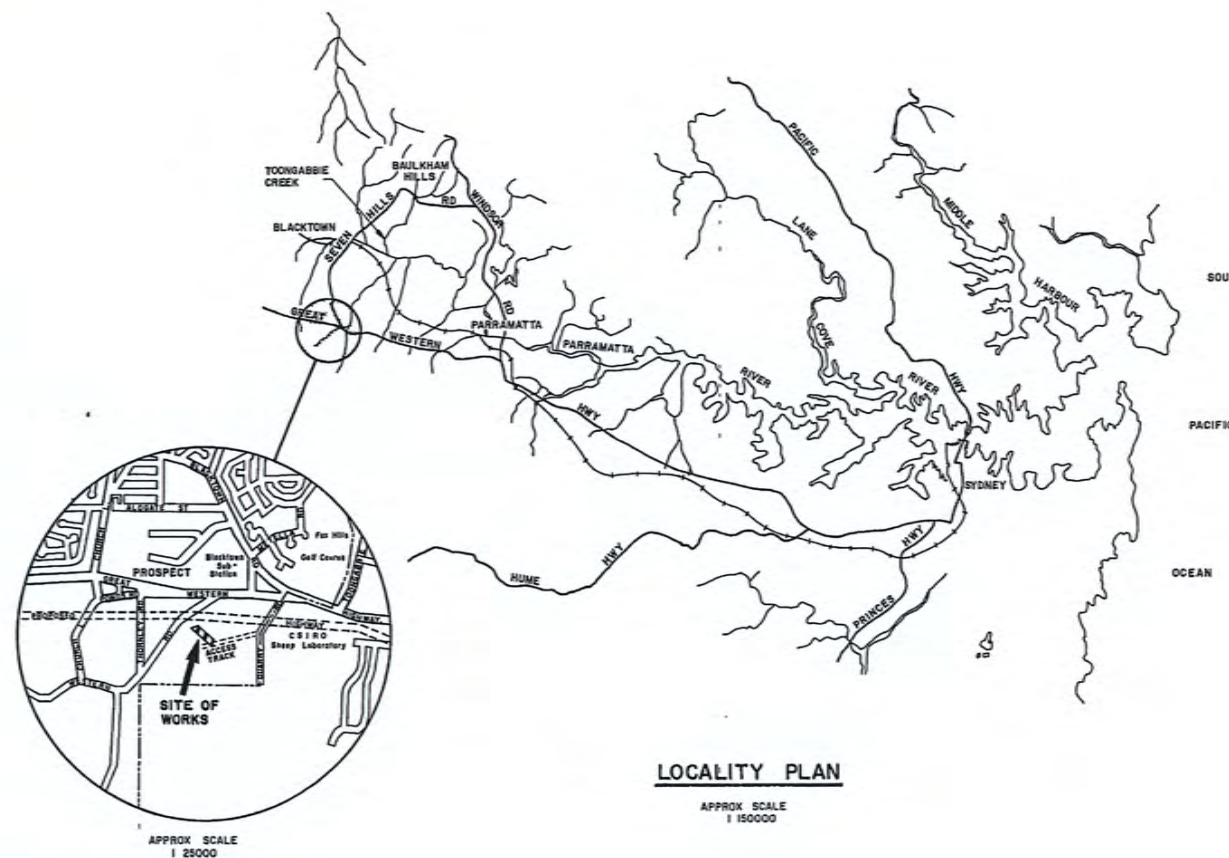
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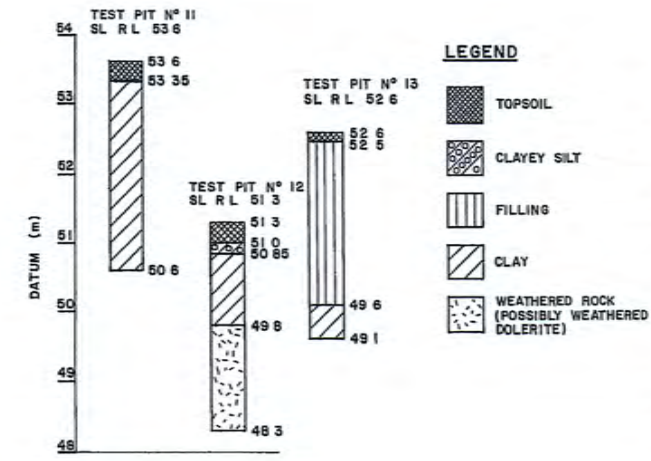
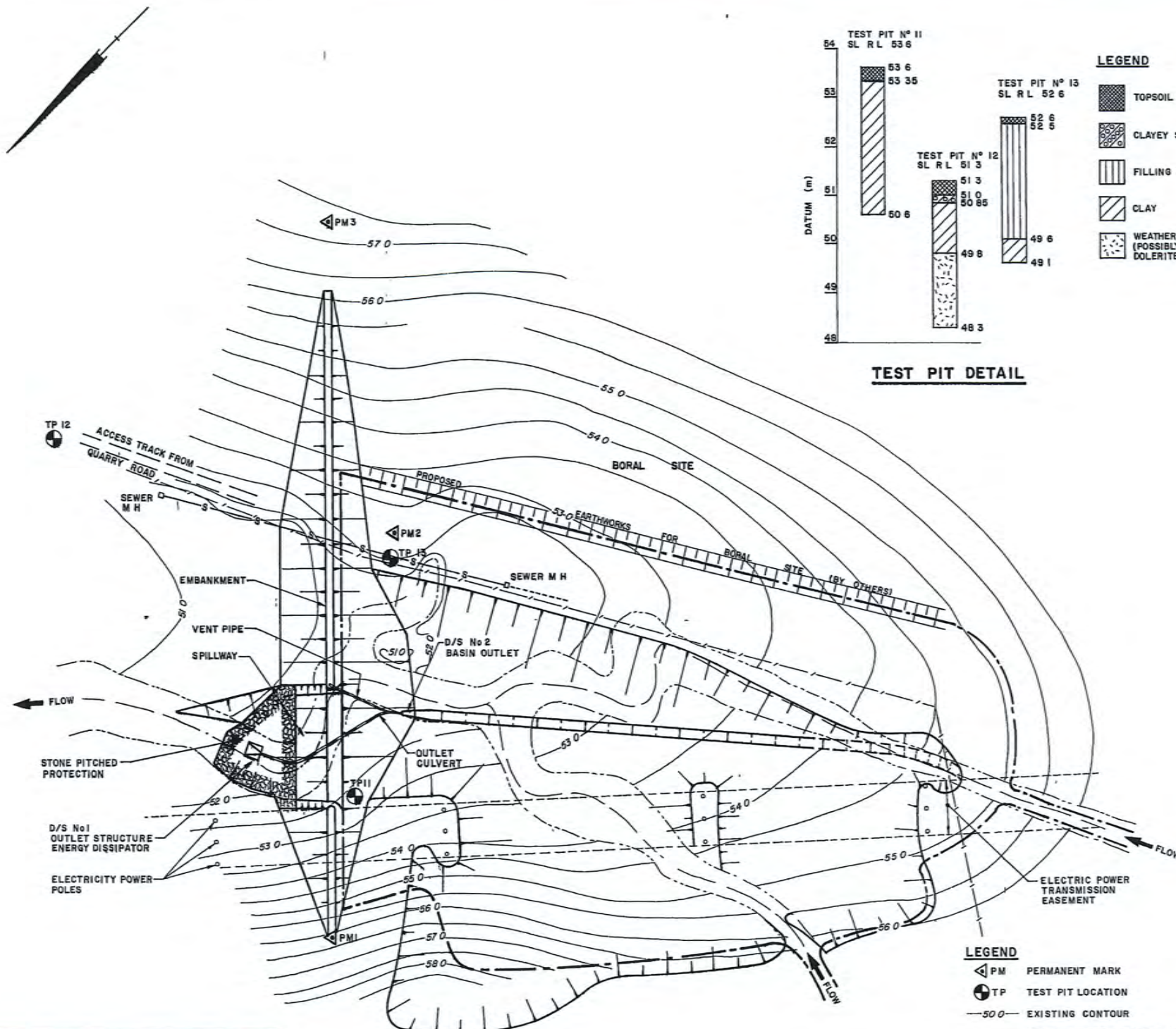
PROJECT DRAWINGS

- 6191B-1 SITE PLAN
- 6191B-2 SETTING OUT PLAN
- 6191B-3 GENERAL ARRANGEMENT
- 6191B-4 EMBANKMENT, SPILLWAY AND BASIN DETAILS
- 6191B-5 OUTLET CULVERT AND SEWER ENCASEMENT DETAILS
- 6191B-6 DRAINAGE STRUCTURE N°1 - OUTLET STRUCTURE AND ENERGY DISSIPATOR
- 6191B-7 DRAINAGE STRUCTURE N°2 - BASIN OUTLET
- 6191B-8 TRASH RACK DETAILS

WILLING & PARTNERS PTY. LTD.
CONSULTING ENGINEERS
1-3 ATCHISON ST.
ST. LEONARDS, N.S.W. 2065
TEL. 02 439 8546



E91/12V



- LEGEND**
- TOPSOIL
 - CLAYEY SILT
 - FILLING
 - CLAY
 - WEATHERED ROCK (POSSIBLY WEATHERED DOLERITE)

GENERAL NOTES

1. DRAWINGS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION
2. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.)
3. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE AND ARE TO BE VERIFIED ON SITE
4. ALL SERVICES SHALL BE LOCATED PRIOR TO WORK COMMENCING
5. NO WORK SHALL COMMENCE IN THE VICINITY OF ANY SERVICES PRIOR TO NOTIFICATION OF THE RELEVANT AUTHORITY

CONCRETE NOTES

1. ALL CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 25 MPa, 75 MAXIMUM SLUMP, 20 MAXIMUM AGGREGATE SIZE AND TO BE IN ACCORDANCE WITH A S 1480
2. SUBGRADE UNDER DRAINAGE STRUCTURES TO BE COMPACTED TO MINIMUM OF 100% OF THE STANDARD MAXIMUM DRY DENSITY WHEN TESTED IN ACCORDANCE WITH A S 1289
3. ALL EXPOSED EDGES AND CORNERS TO BE PROVIDED WITH 25 x 25 CHAMFERS OR FILLETS UNLESS NOTED OTHERWISE
4. WEEPHOLES 50 DIA TO BE PROVIDED WHERE INDICATED ON THE DRAWING

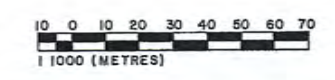
REINFORCEMENT NOTES

1. SYMBOLS ON DRAWINGS FOR GRADE AND TYPE OF REINFORCEMENT
Y - WELDING GRADE DEFORMED BAR TO A S 1302
EXAMPLE GRADE DIA SPACING C/C
Y 16 200
F - WELDED WIRE FABRIC TO A S 1302
2. 40 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE
3. NF DENOTES NEAR FACE, FF DENOTES FAR FACE, EF DENOTES EACH FACE
4. MINIMUM BAR LAP TO BE 40 x BAR DIAMETER
5. BARS TO BE BENT WITH A MINIMUM DIAMETER OF 6 BAR DIAMETERS
6. FABRIC TO BE CUT NEATLY AROUND PIPES AND OPENINGS WHERE REQUIRED FABRIC LAP TO SQUARE AND MINIMUM 225

CIVIL NOTES

1. EMBANKMENT TO BE KEYED INTO SUBGRADE AND DEPTH TO BE APPROVED BY THE ENGINEER
2. EMBANKMENT FILL MATERIAL TO BE APPROVED BY THE ENGINEER
3. STONE PITCHING TO BE COMPOSED OF DURABLE MATERIAL OF NOMINAL SIZE 375 UNLESS SHOWN OTHERWISE
4. SUBGRADE UNDER EMBANKMENT AND KEY TO BE COMPACTED TO A MINIMUM OF 100% OF THE STANDARD MAXIMUM DRY DENSITY WHEN TESTED IN ACCORDANCE WITH A S 1289
5. ALL BUILDING RUBBLE AND DUMPED FILLING MATERIALS ENCOUNTERED DURING EXCAVATION OF EMBANKMENT KEY TO BE REMOVED AND DISPOSED OF TO THE SATISFACTION OF THE SUPERINTENDENT

- LEGEND**
- PM PERMANENT MARK
 - TP TEST PIT LOCATION
 - 50.0 EXISTING CONTOUR
 - CENTRELINE OF EXISTING CREEK
 - TOP OF CREEK BANK
 - BOUNDARY FENCE LINE
 - S-O EXISTING SEWER
 - CULVERT
 - 4m WIDE CHANNEL
 - LIMIT OF WORKS
 - LIMIT OF 1% AEP INUNDATION (R.L. 55.2)



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DRAWING No.		SUBJECT		AMDT.		DESCRIPTION		DATE INIT.	
ASSOCIATED DRAWINGS		AMENDMENTS							
		A		AMEND LIMIT OF WORK & 1% INUNDATION LINES		5/12/85		C.C.	

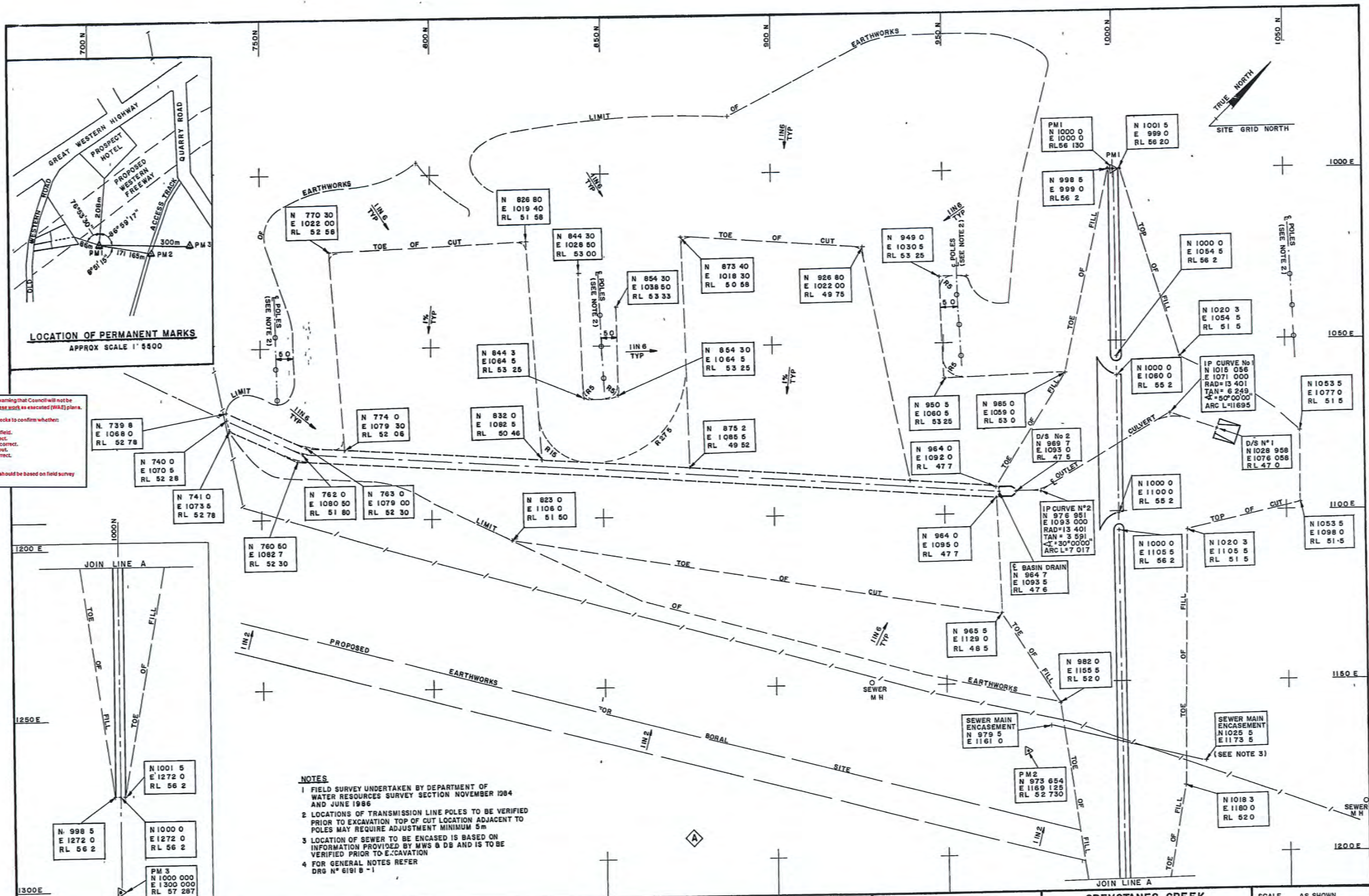
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CONSULTING ENGINEERS
1-3 ATCHISON STREET,
ST LEONARDS 2065 TELEPHONE 439 8546

FOR
**DEPARTMENT OF
WATER RESOURCES**

**GREYSTANES CREEK
DEP RETARDING BASIN**

SITE PLAN

SCALE AS SHOWN
DATE SEPT 1985
DESIGNED M.H.B.
DRAWN K.W. 18c
CHECKED R.H.S.
DRAWING No. 6191B - 1



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- NOTES**
1. FIELD SURVEY UNDERTAKEN BY DEPARTMENT OF WATER RESOURCES SURVEY SECTION NOVEMBER 1984 AND JUNE 1986
 2. LOCATIONS OF TRANSMISSION LINE POLES TO BE VERIFIED PRIOR TO EXCAVATION TOP OF CUT LOCATION ADJACENT TO POLES MAY REQUIRE ADJUSTMENT MINIMUM 5m
 3. LOCATION OF SEWER TO BE ENCASED IS BASED ON INFORMATION PROVIDED BY MWS & DB AND IS TO BE VERIFIED PRIOR TO EXCAVATION
 4. FOR GENERAL NOTES REFER DRG N° 6191 B - 1



WILLING & PARTNERS
CONSULTING ENGINEERS
621 PACIFIC HIGHWAY,
ST LEONARDS, NSW 2065
TELEPHONE 439 8546

FOR
**DEPARTMENT OF
WATER RESOURCES**

**GREYSTANES CREEK
DEP RETARDING BASIN**

SETTING OUT PLAN

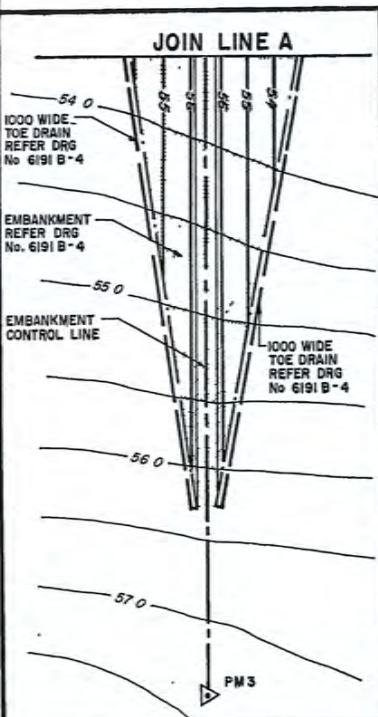
SCALE AS SHOWN
DATE DECEMBER 1989
DESIGNED MHB / AB
DRAWN KW
CHECKED
DRAWING No
6191B-2

DRAWING No	SUBJECT	AMOT	DESCRIPTION	DATE	INIT













You are responsible to carry out your own checks to confirm whether:

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2. The calculations and levels are correct.
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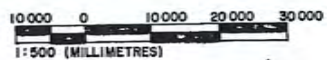


LEGEND

- | | | |
|-------------------------------------------------------------------------------------|--------|--------------------------|
|  | PM1 | PERMANENT MARK |
|  | — 50 — | EXISTING CONTOUR |
|  | — 50 — | PROPOSED CONTOUR |
|  | — / — | BOUNDARY FENCE LINE |
|  | — S — | EXISTING SEWER |
|  | — — — | LIMIT OF WORKS |
|  | | CULVERT |
|  | | GROUTED STONE PITCHING |
|  | | SPILLWAY PROTECTION |
|  | | TURFED AREA |
|  | | SEEDED AREA |
|  | | UNGROUTED STONE PITCHING |

NOTES

- 1 FOR GENERAL NOTES REFER
DRG. No 6191B-1
- 2 EXCAVATED MATERIAL TO BE DISPOSED
OF ON ADJACENT STOCKPILE AREAS
OR SUITABLE MATERIAL USED IN
CONSTRUCTION OF EMBANKMENT AT
FOX HILLS BASIN.


WILLING & PARTNERS
CONSULTING ENGINEERS

621 PACIFIC HIGHWAY,
ST LEONARDS, N.S.W. 2065

PRINCIPAL

DATE _____

FOR

DEPARTMENT OF
WATER RESOURCES

GREYSTANES CREEK
DEP RETARDING BASIN

GENERAL ARRANGEMENT

SCALE	AS SHOWN
DATE	NOV 1989
DESIGNED	MHB / A B
DRAWN	G H
CHECKED	

DRAWING No

6191B - 3

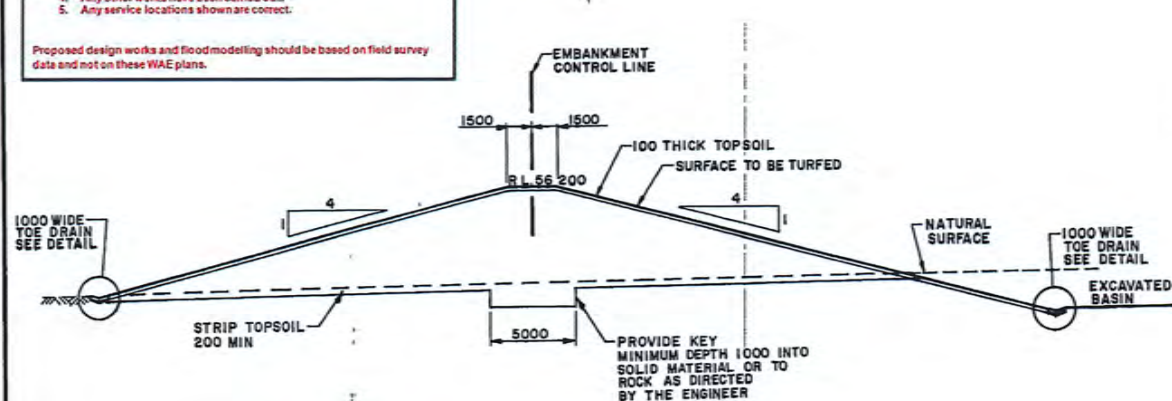
6191B - 7	DRAINAGE STRUCTURE No 2					
6191B - 6	DRAINAGE STRUCTURE No 1					
6191B - 5	CULVERT AND MISC DETAILS					
6191B - 4	EMBANKMENT & SPILLWAY DETAILS					
6191B	SETTING OUT DETAILS	A	AMEND BASIN DESIGN		27/1/85	CC
DRAWING No.	SUBJECT	AMDT	DESCRIPTION		DATE	INIT
ASSOCIATED DRAWINGS			AMENDMENTS			

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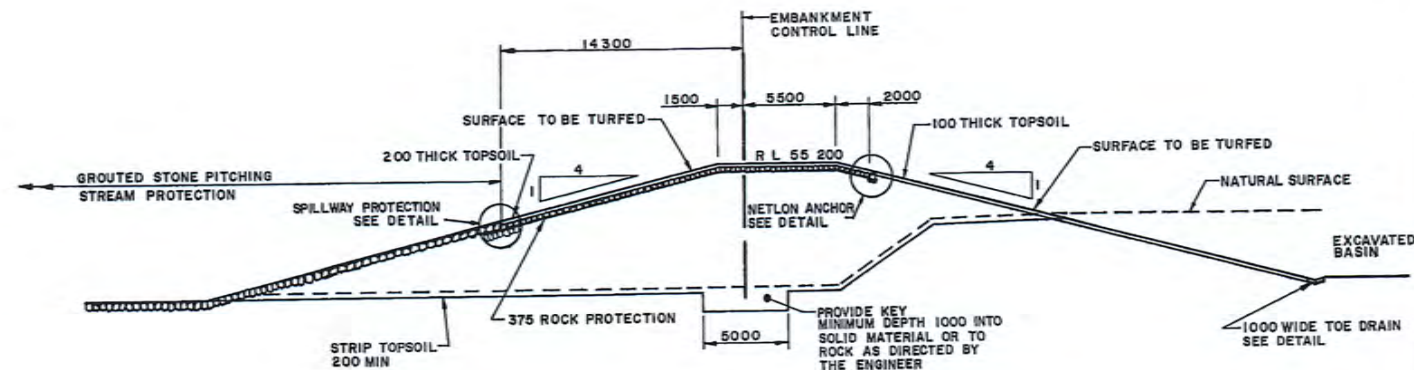
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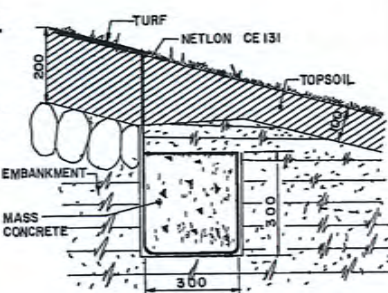
TYPICAL SECTION THROUGH EMBANKMENT

SCALE 1:200



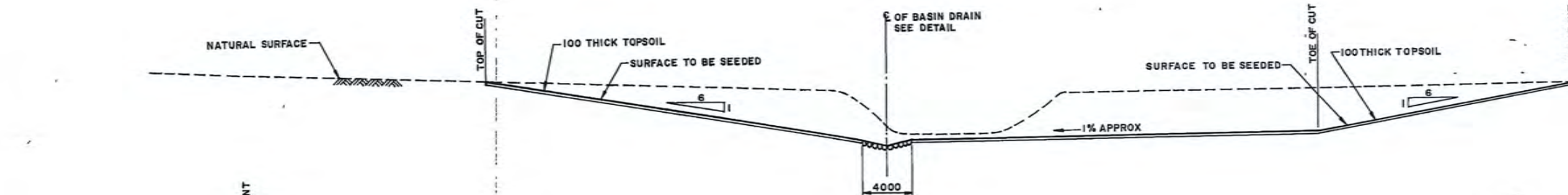
TYPICAL SECTION THROUGH SPILLWAY

SCALE 1:200



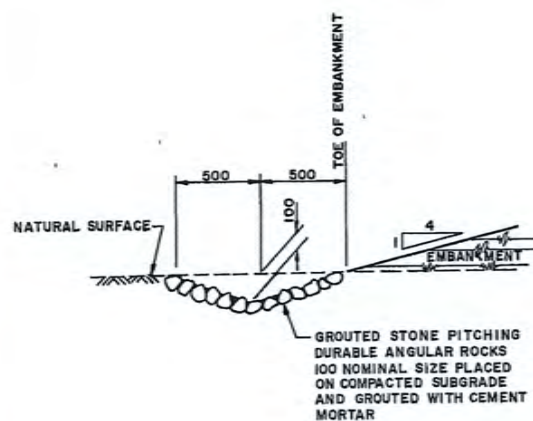
NETLON ANCHOR DETAIL

SCALE 1:10



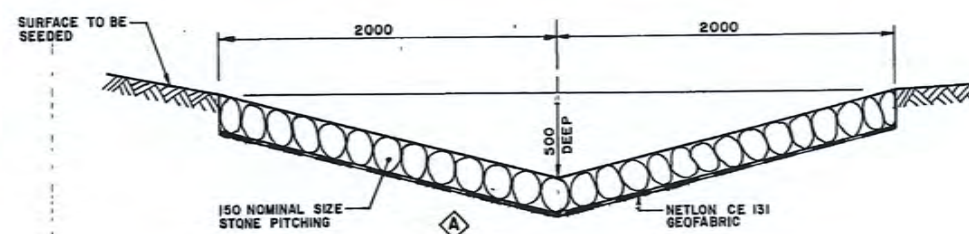
TYPICAL SECTION BASIN EXCAVATION

SCALE 1:200



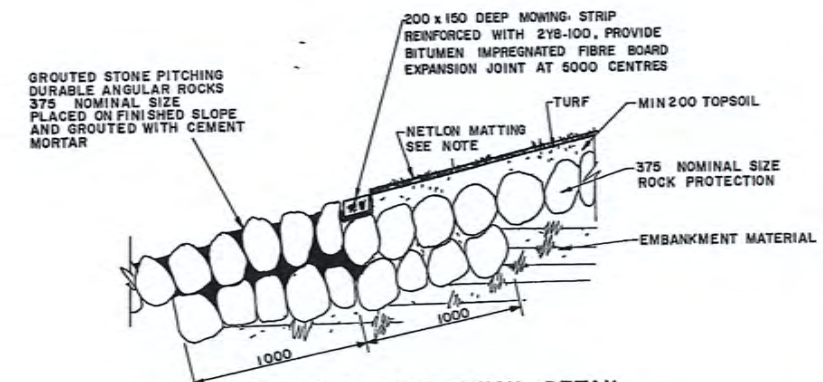
TOE DRAIN DETAIL

SCALE 1:20



BASIN DRAIN DETAIL

SCALE 1:20

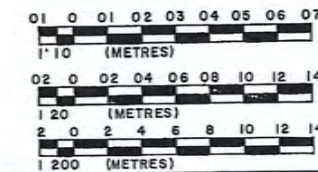


SPILLWAY PROTECTION DETAIL

SCALE 1:20

NOTE

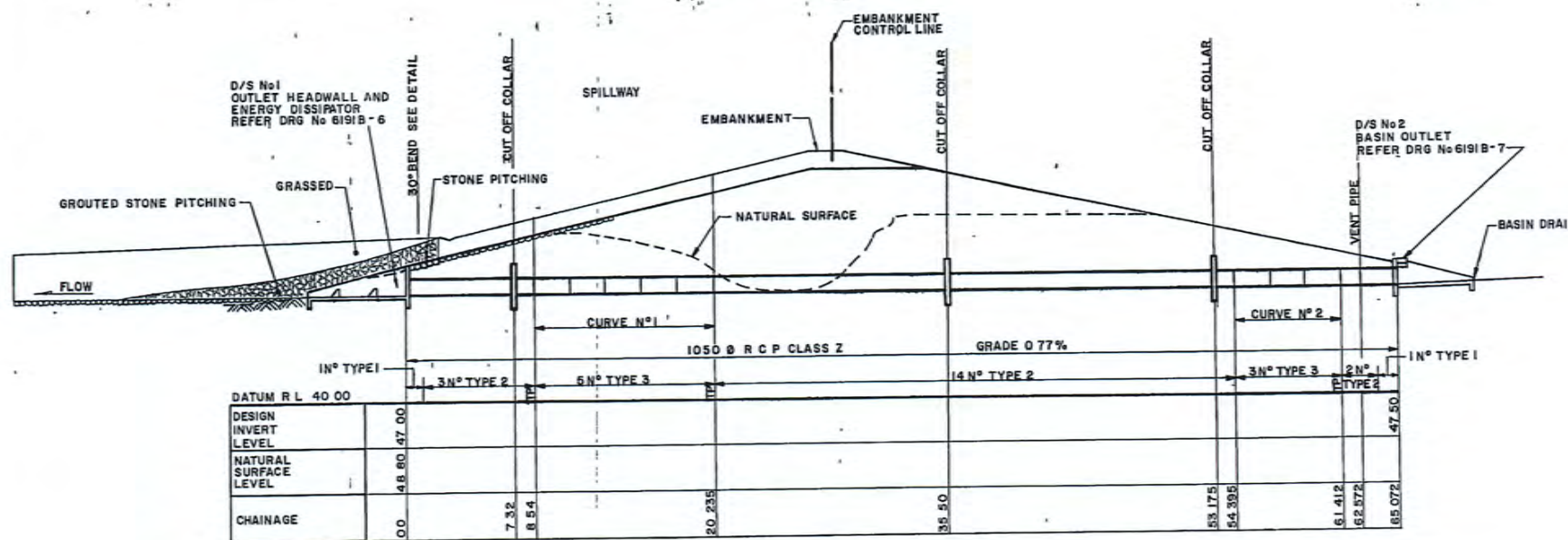
1. USE NETLON MAT CE 131 OR EQUIVALENT TO BE APPROVED BY THE SUPERINTENDENT ROLLS TO BE JOINED BY U V OR BLACK POLYETHYLENE ROPING OR SIMILAR AT 1000 MAXIMUM SPACING ROLLS TO BE LOCATED LONGITUDINALLY DOWN THE EMBANKMENT SLOPE AS DIRECTED BY THE ENGINEER.
2. COMPACTED FILL TO EMBANKMENT TO BE SCARIFIED BEFORE PLACING TOPSOIL.



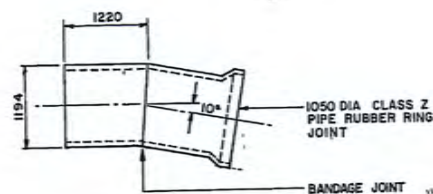
NOTES

1. FOR GENERAL NOTES REFER ORG N° 6191 B - 1
2. FOR CONCRETE NOTES REFER ORG N° 6191 B - 1

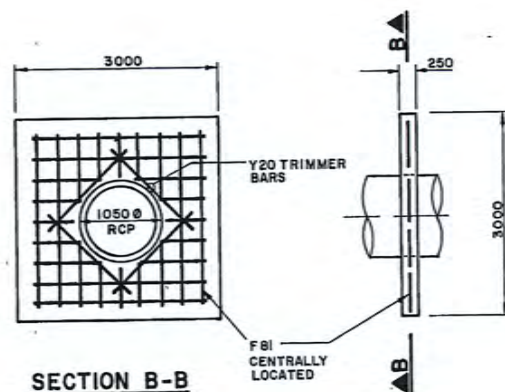
WILLING & PARTNERS PTY LTD CONSULTING ENGINEERS 1-3 AITCHISON STREET, ST LEONARDS 2065 TELEPHONE 439 8546				FOR DEPARTMENT OF WATER RESOURCES		GREYSTANES CREEK DEP RETARDING BASIN EMBANKMENT, SPILLWAY AND BASIN DETAILS		SCALE AS SHOWN DATE AUG 19 86 DESIGNED M H B DRAWN K W P CHECKED J W B DRAWING No. 6191 B - 4
DRAWING No.	SUBJECT	AMDT.	DESCRIPTION	DATE INIT.	PRINCIPAL	DATE		
	ASSOCIATED DRAWINGS		AMENDMENTS					



CULVERT LONG SECTION
SCALE 1:200

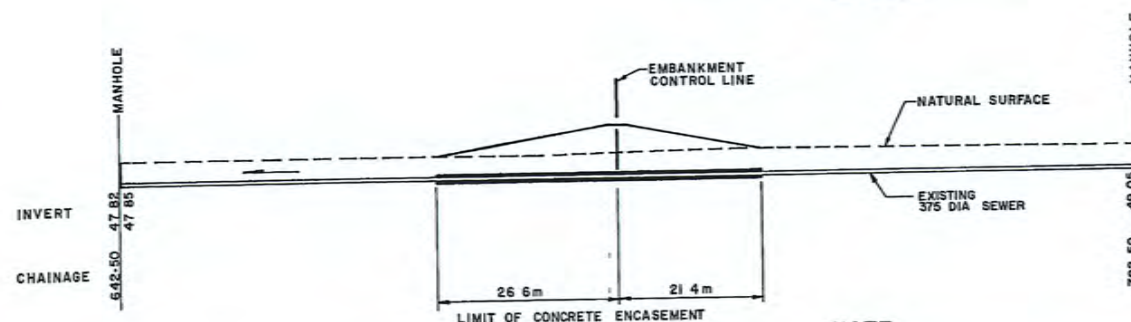


TYPE 3 PIPE CURVE SECTION
SCALE 1:50



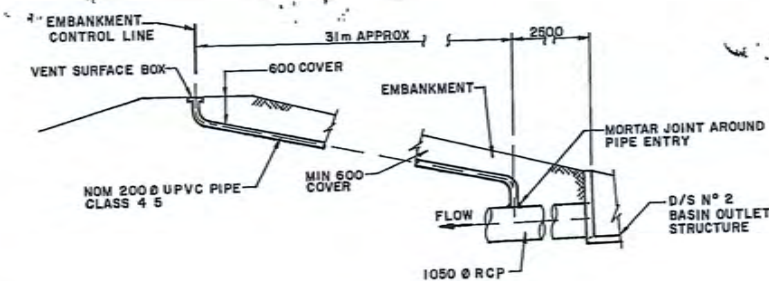
SECTION B-B

CUT OFF COLLAR DETAIL
SCALE 1:50

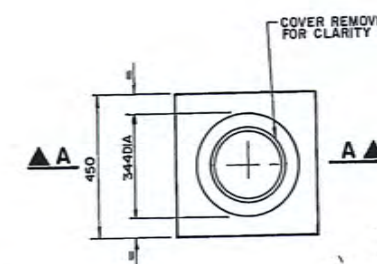


SEWER LONG SECTION
SCALE 1:500

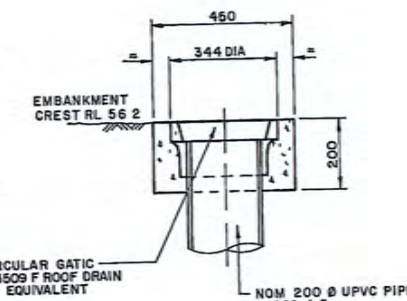
NOTE
ALL INFORMATION REGARDING EXISTING SEWER OBTAINED FROM MWS & DB W.O. 57972 DRAWINGS DETAILS NOT GUARANTEED



VENT PIPE DETAIL
NOT TO SCALE



PLAN



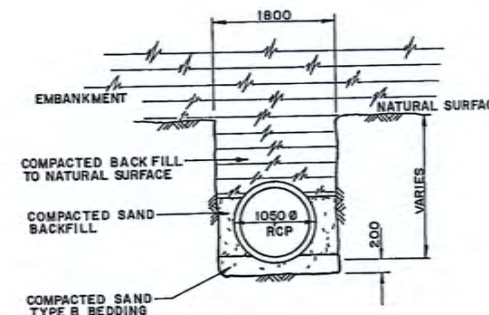
SECTION A-A

VENT SURFACE BOX DETAIL
SCALE 1:10

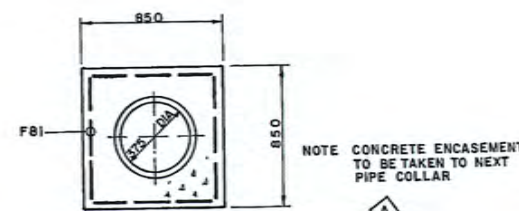
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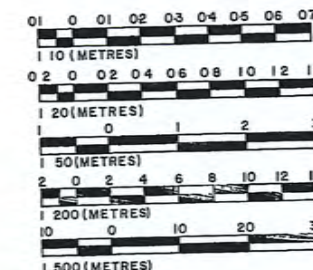
TRENCH DETAIL
SCALE 1:50



CONCRETE ENCASEMENT OF SEWER TYPICAL SECTION
SCALE 1:20

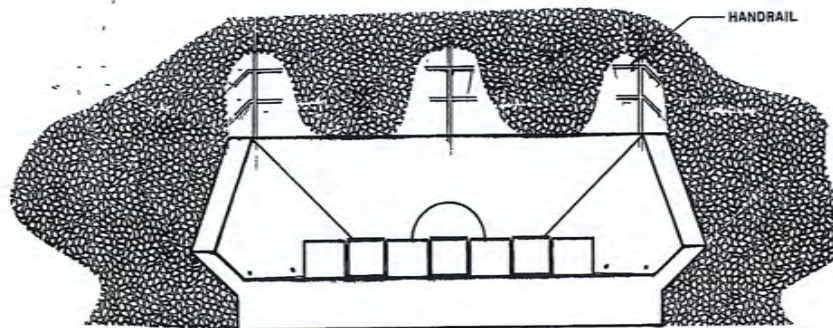
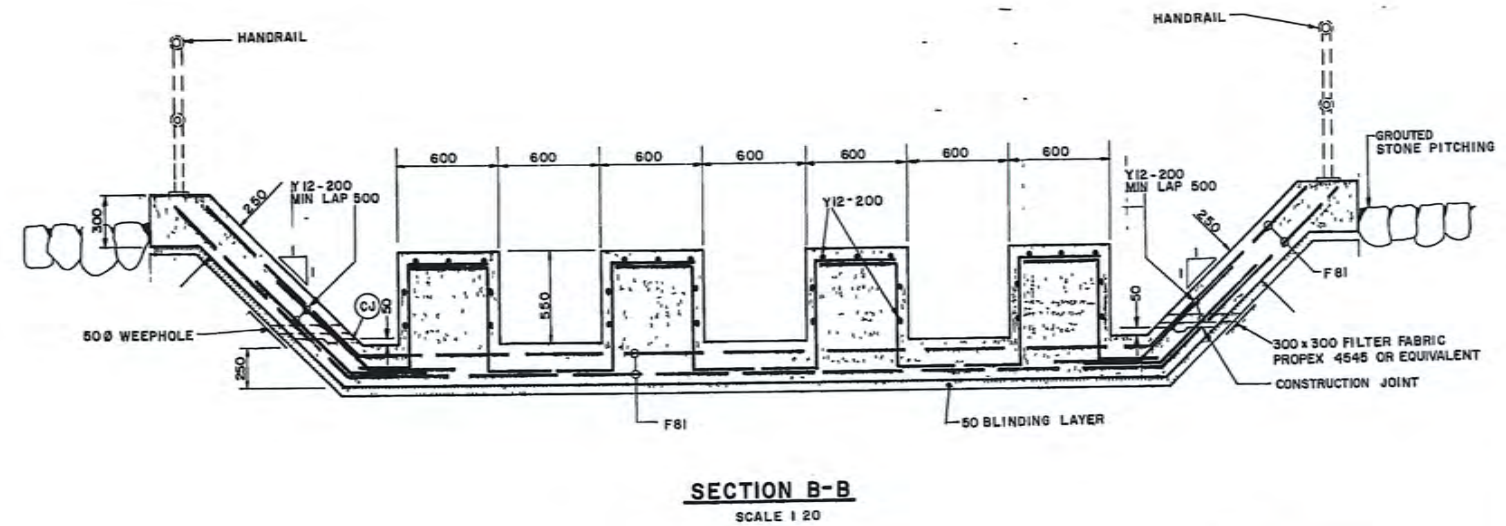
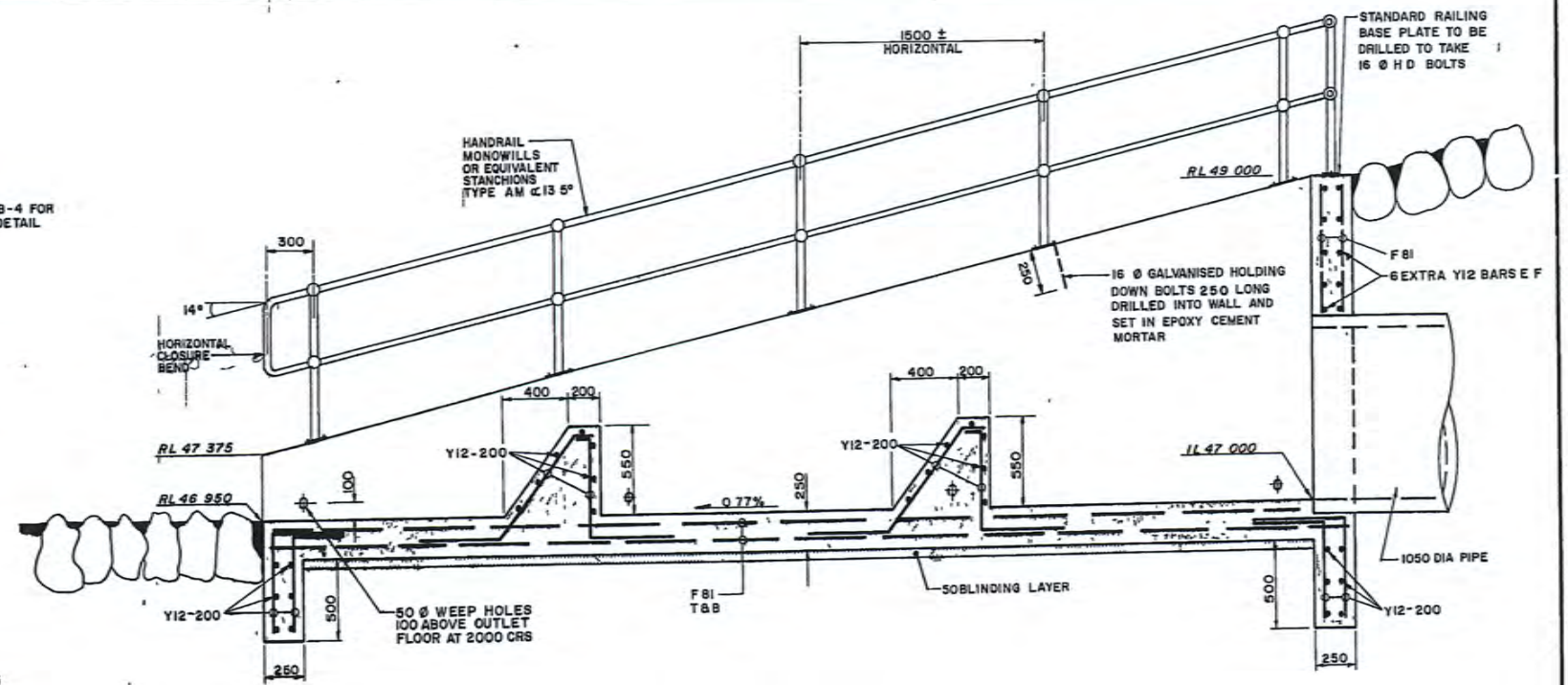
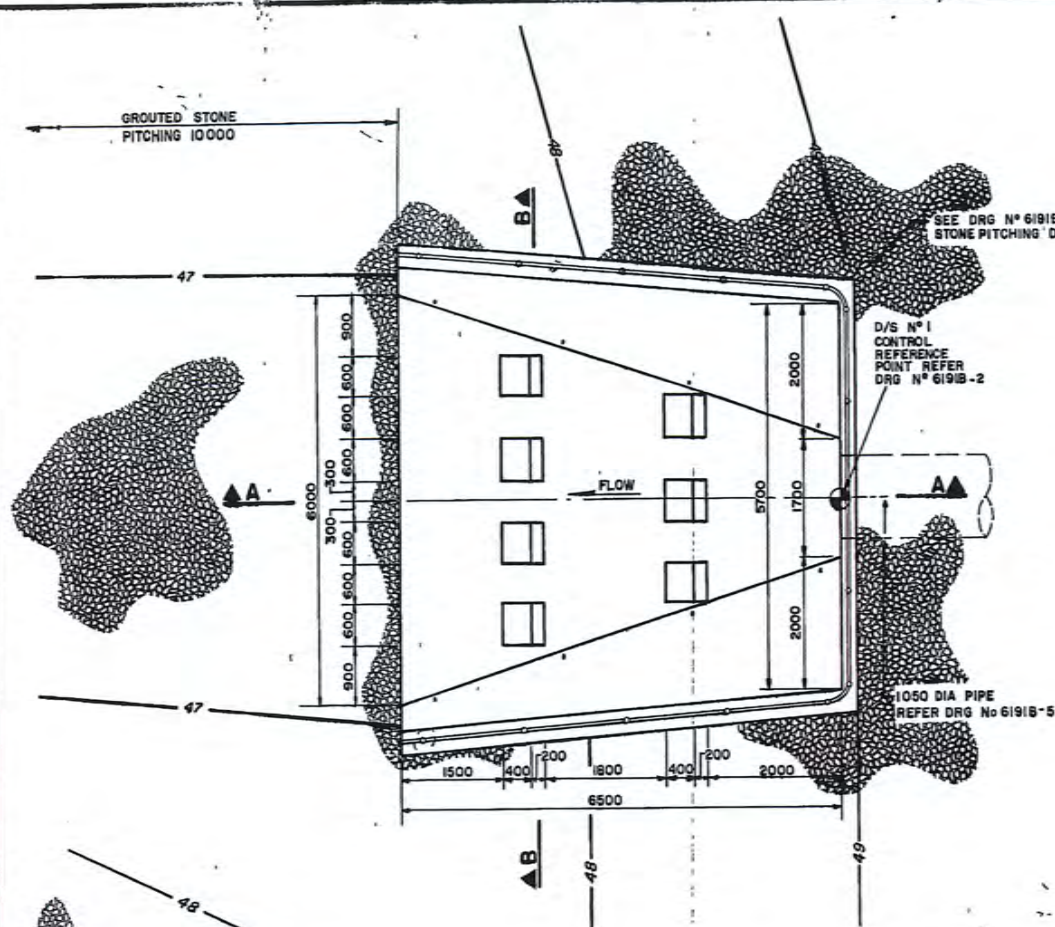
NOTES

1. FOR GENERAL NOTES REFER DRG N° 6191B-1
2. FOR CONCRETE NOTES REFER DRG N° 6191B-1
3. FOR REINFORCEMENT NOTES REFER DRG N° 6191B-1



				WILLING & PARTNERS PTY LTD CONSULTING ENGINEERS 1-3 ATCHISON STREET, ST LEONARDS 2065 TELEPHONE 439 8546		FOR DEPARTMENT OF WATER RESOURCES		GREYSTANES CREEK DEP RETARDING BASIN		DATE AUG 1986 DESIGNED M H B DRAWN K W CHECKED J B C	
A ADD CONCRETE ENCASEMENT NOTE & AMEND VENT SURFACE BOX				FEB 90 R I C				OUTLET CULVERT AND SEWER ENCASEMENT DETAILS		DRAWING No 6191B - 5	
DRAWING No		SUBJECT		AMDT.		DESCRIPTION		DATE		INIT.	
ASSOCIATED DRAWINGS				AMENDMENTS							

E91/12V 7 of 47



These plans are supplied with the following warning that Council will not be responsible for any errors or omissions in these plans as executed (WAE) plans. You are responsible to carry out your own checks to confirm whether:

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3. FOR REINFORCEMENT NOTES REFER DRG N° 6191B-1

WILLING & PARTNERS PTY. LTD.
CONSULTING ENGINEERS
1-3 ATCHISON STREET,
ST LEONARDS 2065 TELEPHONE 439 8546

FOR

DEPARTMENT OF
WATER RESOURCES

GREYSTANES CREEK
DEP RETARDING BASIN

DRAINAGE STRUCTURE N°1
OUTLET STRUCTURE AND
ENERGY DISSIPATOR

SCALE AS SHOWN
DATE AUGUST 1986
DESIGNED M H B
DRAWN G M D PSC
CHECKED *RHS*
DRAWING No
6191B - 6

E91/12V 8 of 47

DRAWING No.	SUBJECT	AMDT.	DESCRIPTION	DATE	INIT.
	ASSOCIATED DRAWINGS		AMENDMENTS		

Appendix H

Blacktown City Council Flood Letter



File no: 325885 337658

9 April 2020

Costin Roe Consulting Pty Ltd
PO Box N419
SYDNEY NSW 1220

Attention: Erika Watkinson

Dear Erika

44 Clunies Ross Street Prospect being Lot 10 in DP 1022044 and Clunies Ross Street Prospect being Lot 216 in DP 1030744

I refer to your email of 9th March 2020 regarding flood information for the above property.

Flood Assessment

This assessment is only based on the area of the Lot within the Blacktown City Council Local Government Area (LGA).

Based on the latest information available to us from consultants and/or statutory authorities, these properties are identified in the High, Medium and Low Flood Risk Precinct of the Girraween Creek floodplain.

Recommendations

1. The subdivision is to be filled to a minimum of 500 mm above the 1% Annual Exceedance Probability (AEP) flood level with 15% climate change.
2. The relevant 1% AEP flood level without climate change is 55.06 metres AHD at the south western boundary and a flood level of 47.99 metres AHD at the north eastern boundary.
3. A development application must provide a detail survey to AHD and certified (signed) by a registered surveyor. The survey is to include sufficient spot levels with contours and any existing floor levels. The survey plan will need to show the origin and level of the benchmark used and a local benchmark on top of kerb installed for use during construction.

Connect - Create - Celebrate

Council Chambers - 62 Flushcombe Road - Blacktown NSW 2148
Telephone: (02) 9839 6000 - DX 8117 Blacktown
Email: council@blacktown.nsw.gov.au - Website: www.blacktown.nsw.gov.au
All correspondence to: The General Manager - PO Box 63 - Blacktown NSW 2148

4. Council will not allow the importing of any fill within the 1% AEP flood area without a supporting Flood Study to demonstrate no adverse impact.
5. Any future development within the 1% AEP flood area would have to prove that it does not increase the flood risk to life or the surrounding area and it must maintain an appropriate overland flow path.

Background

Flood related development controls apply to the land, which will be required to be complied with during the assessment of a development proposal.

Please read this letter in conjunction with Attachment A, General Flood Information and Attachment B, Complying Development Information

Council's flood mapping is available on Council's web site. To start go to <http://maps.blacktown.nsw.gov.au>. Council's flood mapping only covers the areas where it has information. A property that is not identified does not mean that there are no flood issues. It is the responsibility of the person enquiring to check the natural fall of the land and to ensure that the subject property is not affected by local stormwater overland flows that might affect existing or future development on this land.

Find attached a copy of an extract from Council's Geographical Information System (GIS) showing the approximate extent of Blacktown City's flood information in this area. Please note the disclaimer and the contour interval of 0.5 metres.

The above comments are preliminary and not complete. A more detailed assessment at development application stage may result in modifications and/or additions to these comments (This advice is not a guarantee of approval).

However, please also be advised that there may be other non-flood related issues that might impact on the use of the land.

If you would like to discuss this matter further, please contact me on 9839 6348.

Yours faithfully

A handwritten signature in blue ink, appearing to be 'Tony Merrilees', with a stylized, cursive-like script.

Tony Merrilees

Senior Engineer (Drainage) Developments

Encl. Attachments A & B, Flood map & 1x Flood Level Maps.

Disclaimer:

Blacktown City Council gives notice and points out to all users of the information supplied herein, that the information is valid only on the date of issue. While the information herein is provided with all due care and in good faith, it is provided on the basis that Council will not accept any responsibility for and will not be liable for its contents or for any consequence arising from its use. Blacktown City Council also gives notice to all users of the information supplied herein, wherever any particular enquiry herein remains unanswered or has not been elaborated upon, such silence should not be interpreted as meaning or inferring either a negative or a positive response as the case may be.

Attachment A

General Flood Information

The flood levels supplied are for the pre-developed existing conditions

The flood levels supplied do not take climate change into consideration. These flood levels should not be used to set floor levels or to identify the extent of flooding over the property as our current flood models may not have included blockage factors nor changes in land-use and landform since the date of the study.

Probable Maximum Flood

This is the largest flood that could conceivably occur at a particular location. The PMF defines the extent of flood prone land that is, the floodplain. The risk of it happening in any one year is extremely rare and is considered to be between a 1 in 100,000 to a 1 in 10,000,000 chance.

1% AEP flood

This is a flood that has a probability of 1% (or a 1 in 100 chance) of occurring in any given year.

Flood risk precincts

Precincts have been defined based on hydraulic and survey information available to Council. In many cases a more definitive indication of flood risk precinct extents can be determined by relating surveyed ground levels at AHD to the relevant hydraulic and/or flood level criteria.

The Low Flood Risk Precinct is all land within the floodplain, i.e. within the extent of the Probable Maximum Flood (PMF) but not identified as either a high flood risk or medium flood risk precinct. Therefore, the Low Flood Risk Precinct is all the land between the 1% AEP and PMF flood extents.

The Medium Flood Risk Precinct is the land below the 1% AEP flood level subject to a low hydraulic hazard (in accordance with the provisional criteria outlined in the N.S.W. Government Floodplain Development Manual 2005). For more information on Complying Development see attachment B.

The High Flood Risk Precinct is the land subject to a high hydraulic hazard (in accordance with the provisional criteria outlined in the N.S.W. Government Floodplain

Development Manual 2005) in a 1% AEP flood event and/or subject to potential evacuation difficulties during a flood. For more information on Complying Development see attachment B.

“Development on Flood Prone Land” guidelines

Our guidelines can be found in “Blacktown Development Control Plan (DCP) 2015 Part A” publication. This publication is available on Council’s Website “www.blacktown.nsw.gov.au”. To find this document click on Planning and Development tab on the home page and then select Blacktown Development Control Plan 2015. This publication is currently under review in respect of floodplain planning issues.

Council’s flood mapping is available on Council’s web site

To start click Discover Blacktown tab on the home page and then select Maps Online and follow the instructions. Council’s flood mapping only covers the areas where it has information. A property that is not identified does not mean that there are no flood issues. It is the responsibility of the person enquiring to check the natural fall of the land and to ensure that the subject property is not affected by local stormwater overland flows that might affect existing or future development on this land.

Flood Planning Level

The Flood Planning Level is a special area of the Low Flood Risk Precinct that is within the 0.5 m freeboard of the 1% AEP flood level.

We are currently reviewing the flood modelling in this area

Finalisation of this modelling work may result in a variation to the quoted flood levels and amendments to our current flood mapping extents. The flood levels shown are under review and therefore are preliminary information only.

Attachment B

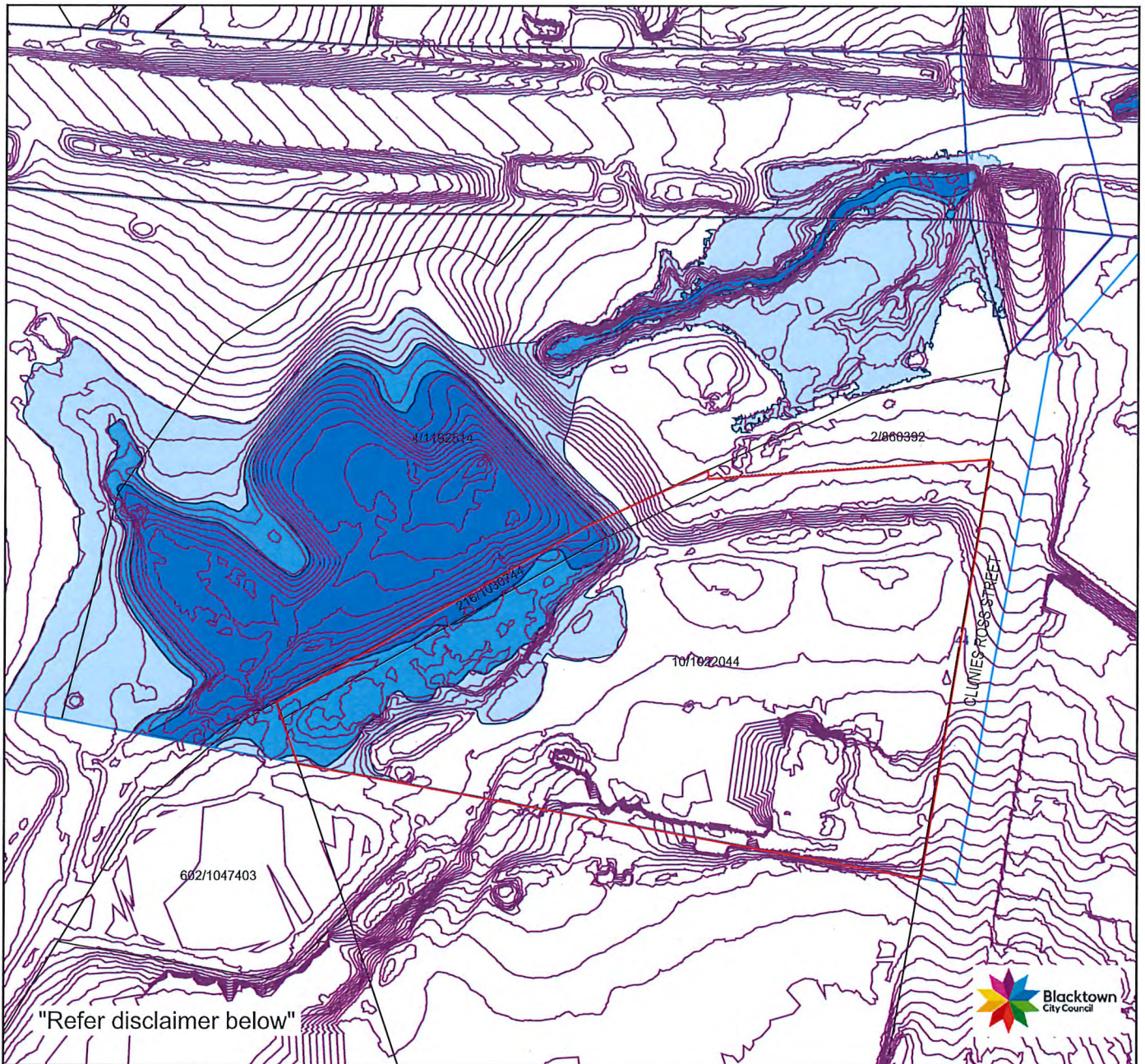
Complying Development Information

The information you seek may vary between “complying development” i.e.: routine development which has minimal environmental impact, providing the design complies with each relevant development standard of the pertinent State Environmental Planning Policy (SEPP) or “local development” i.e.: development, including State significant development, which may have significant environmental impact and for which a Development Consent and Construction Certificate are required under the Environmental Planning and Assessment Act 1979.

The property is identified on Council’s records as being a flood control lot as it is affected by “Medium Flood Risk Precinct” according to the latest information available to Council. The Medium Flood Risk Precinct is considered to be the equivalent of “a flow path” for the purposes of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Where your enquiry relates to a proposed Complying Development Certificate (CDC), any flood control lot provisions of the relevant SEPP must be investigated.

The SEPP may provide that a CDC cannot be issued for any flood control lot until either Council or a professional engineer who specialises in hydraulic engineering (e.g.: a person holding the relevant accreditation under the NSW Building Professionals Board accreditation scheme) certifies that the land is not a flood storage area, a floodway area, a flow path, a high hazard area or a high-risk area.



Copyright NSW Land Information Centre 1996

Plot Date: 31/03/2020

Copyright Blacktown City Council

BLACKTOWN CITY COUNCIL

Flood Risk Map

DISCLAIMER: The flood risk precincts shown are based on information available to Council and should be regarded as an indicative guide only. A more accurate indication of the extent of the respective flood risk precincts can be determined by relating surveyed ground levels at Australian Height Datum (AHD) to the hydraulic and/or flood level criteria determining flood risk precinct boundaries. This information may be obtained by a written request to Council accompanied by a ground level survey to AHD prepared by a Registered Surveyor. Should flood risk precinct extents be required for the purpose of a financial transaction of any nature, then the parties to that transaction should apply to Council for formal certification and/or seek independent legal or professional advice.



Scale 1:4000

