



Application No: RCLU20/0035

Property No: 2601

12 May 2020

A Sigley Developments Ltd
c/- Harrison & O'Sullivan Ltd
13 Church Place
Whanganui

Dear applicant

**Resource Consent Application: 30 Tawhero St, 86 Mosston Road and 45 Magnolia Crescent
WHANGANUI**

Pursuant to Sections 104, 104B and 108 of the Resource Management Act 1991, the Whanganui District Council grants resource consent for earthworks including construction of a road and an attenuation pond associated with SUB20/029 at 30 Tawhero Street, 78 and 86 Mosston Road and 45 Magnolia Crescent, Whanganui, subject to the following conditions:

1. The activity shall be in accordance with the application documentation prepared by Harrison & O'Sullivan Ltd, submitted on 16 April 2020, and Planning Approved on 12 May 2020.

Plan title and reference	Author	Date
Proj 19-069 Sheets 1 of 3, 2 of 3, 3 of 3	Harrison & O'Sullivan Ltd	12 March 2020
100-365 Rev B: Earthworks cut and fill plan Sheet C5-1	Red Jacket	17 March 2020
Erosion and Sediment Control Plan	Red Jacket	March 2020
100-365 Rev B: Erosion and Sediment Control Layout Sheet C6-1	Red Jacket	March 2020

2. No work shall commence on site until the draft Erosion and Sediment Control Plan (ESCP) submitted with the application has been finalised and approved by Council. All works shall be undertaken in accordance with the approved ESCP. The ESCP shall be monitored on at least a weekly basis and results reported monthly to the Council for the full duration of the construction. A copy of the approved ESCP including all inspection records shall be kept on site at all times. This record shall be available upon request by Council.

Advice note: The use of Council water reticulation for dust suppression will require the written approval of the Council and may require metering and charging of actual water use.

3. Earthworks, including site preparation works and associated heavy vehicle movements to and from the site, are only permitted during the following times: 7am – 6pm Monday – Friday; 8am – 3pm Saturday.
4. No earthworks, including site preparation works and associated heavy vehicle movements to and from the site, shall occur on public holidays.
5. All noise associated with earthworks must comply with NZS6803:1999 Acoustics – Construction Noise.
6. Earthworks shall be designed and supervised by a suitably qualified individual or organisation.



Advice Note:

1. The acquisition of fill material from Council land will require a separate formal agreement between the parties, this needs to be in place before the earthworks on Council land can be agreed to.
2. The Erosion and Sediment Control Plan submitted with the application is treated as draft until such time as it has been approved by Horizons. Any changes required by Horizons shall be incorporated and the document thereafter finalised.
3. This resource consent will expire five years after the date of commencement of the resource consent unless it is given effect to before the end of that period or the Council grants an extension of the lapsing period.
4. Charges set in accordance with Section 36(1)(c) of the Resource Management Act 1991 shall be paid to the consent authority for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 of the Act.

Section 36(1)(c) of the Act provides that the Council may from time to time fix charges payable by the holders of resource consents.

5. Should koiwi, taonga or other archaeological material be discovered in an area during the works, work shall immediately cease in the vicinity of the find and the consent holder shall contact iwi, Heritage New Zealand and Whanganui District Council within 24 hours. In the event of archaeological discovery, the applicant is also required to comply with the Heritage New Zealand Pouhere Taonga Archaeological Discovery Protocol. If human remains are found, the New Zealand Police shall be contacted. The consent holder shall allow the above parties to inspect the site, and in consultation with them, identify what needs to occur before work can resume.

After considering Part II of the Resource Management Act 1991, the following are the reasons for this decision:

1. The proposal complies with the relevant objectives and policies of the Whanganui District Plan.
2. The adverse effects arising from the proposal are less than minor.
3. The proposal meets the requirements of the Resource Management Act 1991.

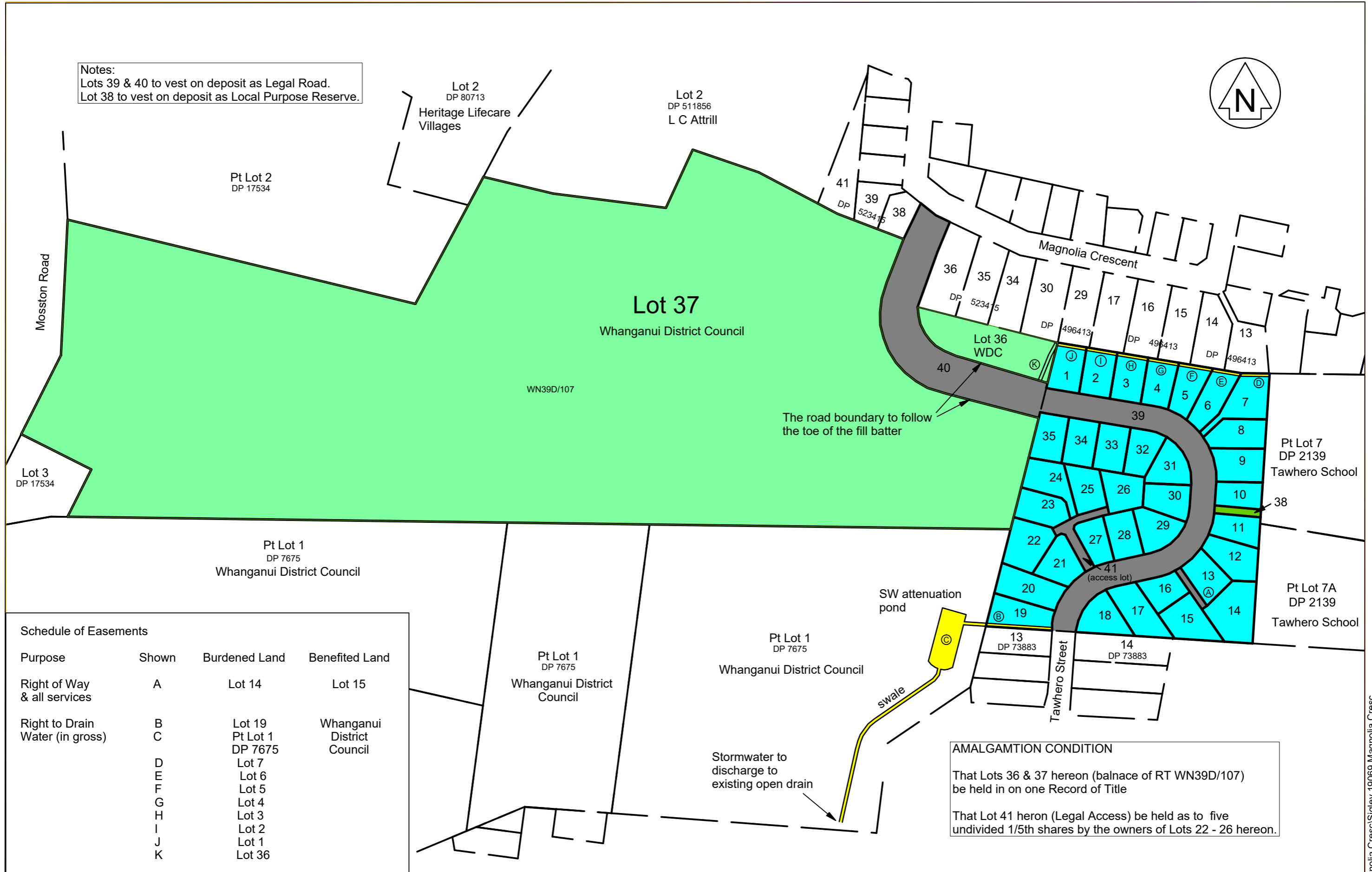
It is very important that you understand and comply with all the conditions of your consent. If you have any questions or concerns about any aspect of your consent or its conditions, I would be happy to discuss them with you.

Please feel free to contact me on (06) 349 – 0001, if you have any questions or concerns.

Yours faithfully

Hamish Lampp
Planning Manager

Notes:
 Lots 39 & 40 to vest on deposit as Legal Road.
 Lot 38 to vest on deposit as Local Purpose Reserve.



Schedule of Easements			
Purpose	Shown	Burdened Land	Benefited Land
Right of Way & all services	A	Lot 14	Lot 15
Right to Drain Water (in gross)	B	Lot 19	Whanganui District Council
	C	Pt Lot 1 DP 7675	
	D	Lot 7	
	E	Lot 6	
	F	Lot 5	
	G	Lot 4	
	H	Lot 3	
	I	Lot 2	
	J	Lot 1	
	K	Lot 36	

AMALGAMTION CONDITION

That Lots 36 & 37 hereon (balnace of RT WN39D/107) be held in on one Record of Title

That Lot 41 heron (Legal Access) be held as to five undivided 1/5th shares by the owners of Lots 22 - 26 hereon.

Email: admin@nzsurveyor.co.nz
 PO Box 4136 Wanganui
 Ph 06 345 8828

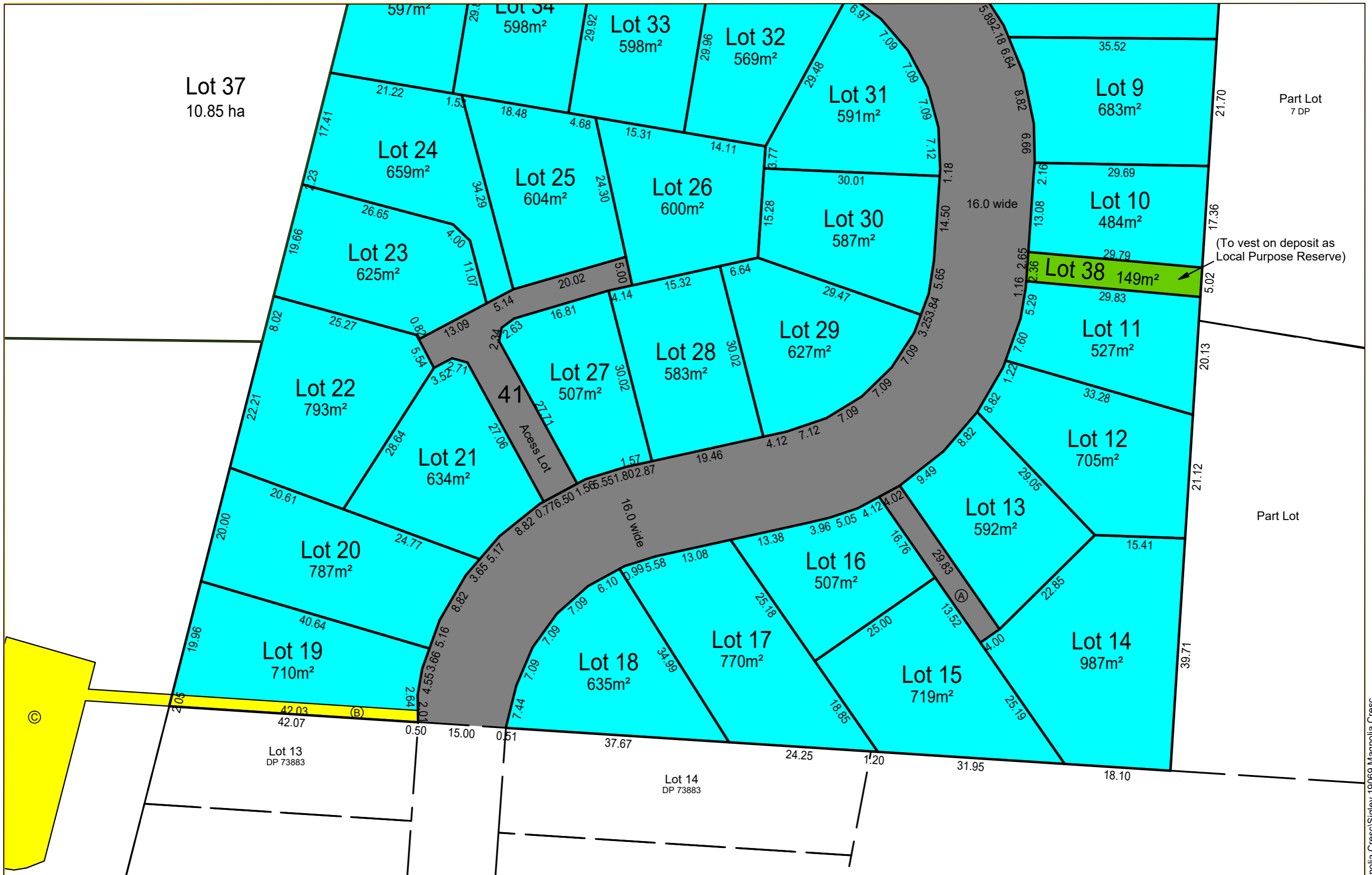
Harrison & O'Sullivan Ltd
 LICENSED CADASTRAL SURVEYORS - LAND DEVELOPMENT CONSULTANTS

10/03/2020		MO	A
DATE	REV RECORD	BY	VER

Propd Subdn of Lot 5 DP 22736
Lot 1 DP 17534 & Lot 37 DP 523415
and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	12 Mar 2020
Scale:	(A3) 1:2250	Drawing No.	Sheet 1 of 3
Project No.	19-069		
Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.			

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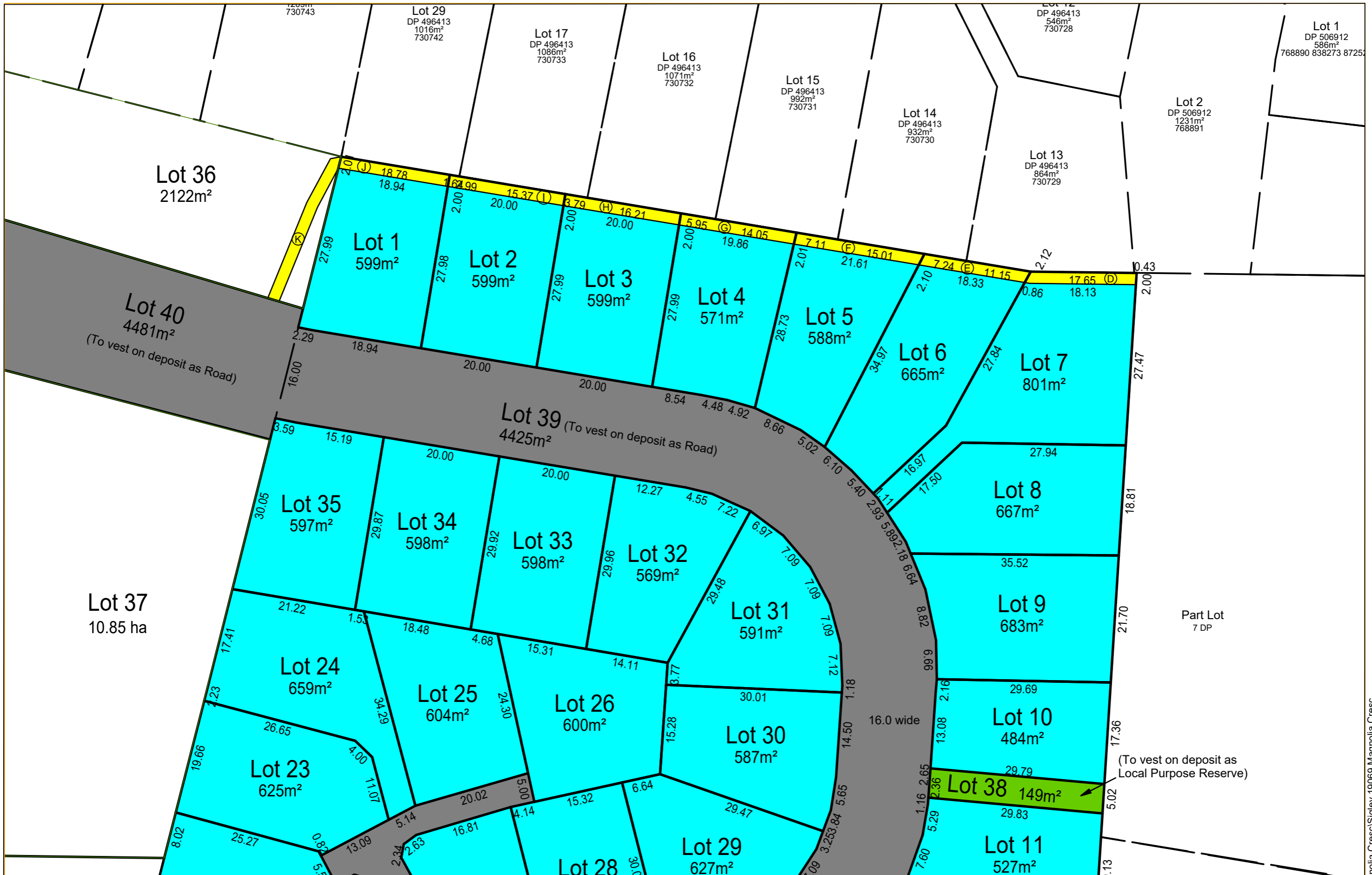
DATE	REV	RECORD	MO	A
			BY	VER

Propd Subdn of Lot 5 DP 22736
 Lot 1 DP 17534 & Lot 37 DP 523415
 and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	12 Mar 2020
Scale:	(A3) 1:600	Drawing No.	Sheet 2 of 3

Project No. 19-069

Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.



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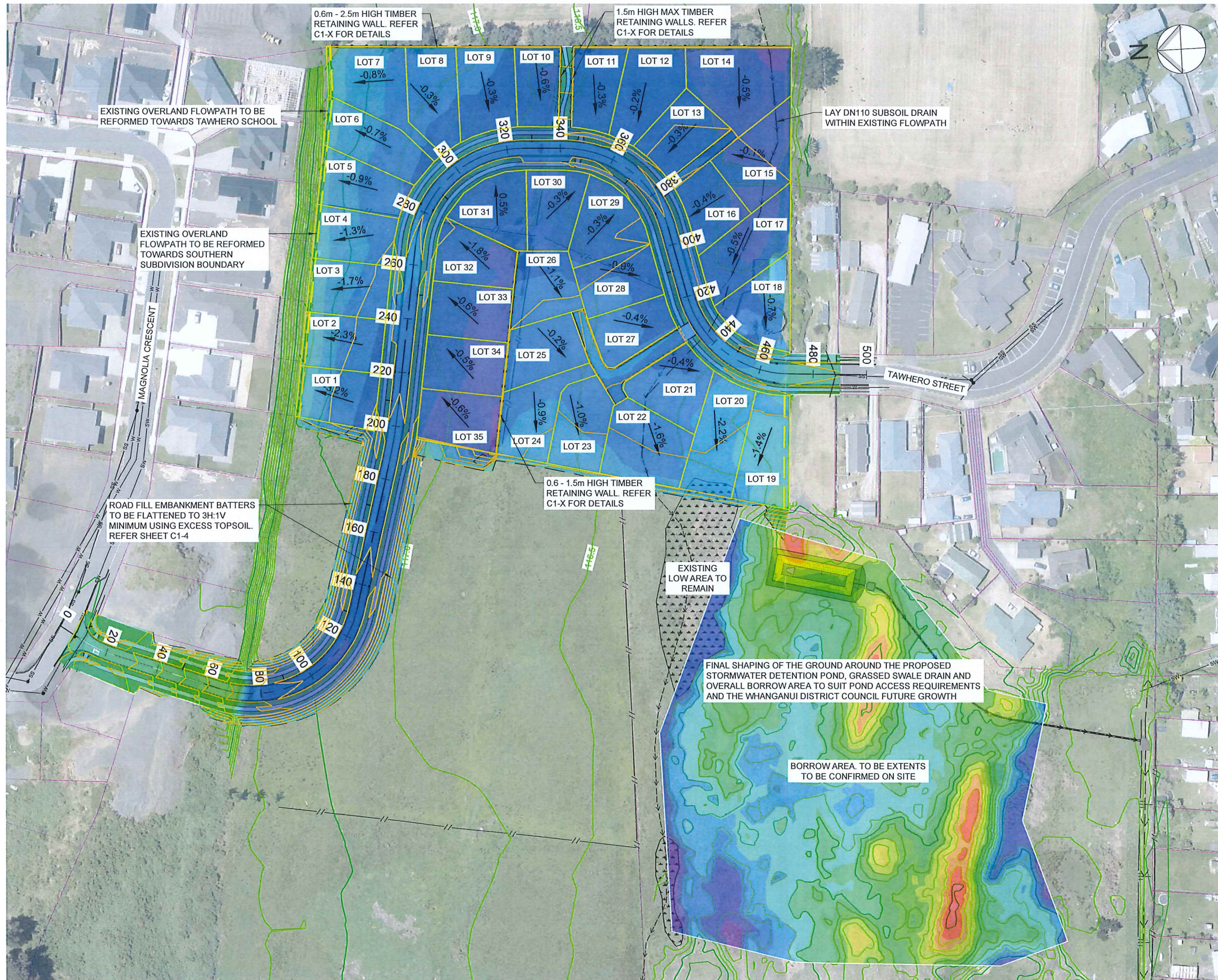


DATE	REV	RECORD	BY	VER
			MO	A
			BY	VER

Propd Subdn of Lot 5 DP 22736
 Lot 1 DP 17534 & Lot 37 DP 523415
 and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	12 Mar 2020
Scale:	(A3) 1:600	Drawing No.	Sheet 3 of 3
Project No.	19-069		

Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.



Surface Analysis: Elevation Ranges

Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Light Pink	-6.000	-5.500
2	Red	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Light Orange	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Light Green	-3.500	-3.000
7	Green	-3.000	-2.500
8	Light Green	-2.500	-2.000
9	Green	-2.000	-1.500
10	Light Green	-1.500	-1.000
11	Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Blue	0.500	1.000
15	Light Blue	1.000	1.500
16	Blue	1.500	2.000
17	Dark Blue	2.000	2.500
18	Very Dark Blue	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

CONSENT



3 DAVIDSON STREET
NEW PLYMOUTH 4310
Ph. 06 759 0999
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17.03.20	A	ISSUED FOR CONSENT	CM	LB	-	-
DATE	REV	REV RECORD	BY	CHD	VER	APP

Client
A SIGLEY DEVELOPMENTS LTD

Project
MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI

Sheet Title
EARTHWORKS CUT AND FILL PLAN

Drawing No.
DWG-100-365

Job No.
3485

Sheet No.
C5-1

A3
REV.
B



EROSION AND SEDIMENT CONTROL PLAN
on the
PROPOSED SUBDIVISION
of
LOT 5 DP 22736
MAGNOLIA CRESCENT / TAWHERO STREET, WHANGANUI

CLIENT : A Sigley Developments
PROJECT TITLE : Magnolia Subdivision
Whanganui
DOCUMENT NUMBER : RPT-3485-02 Rev A

Issue	Description	Date	Prepared By	Checked By	Approved
A	ISSUED FOR CONSENT	Signature	C Miller	L Bunn	
		Date	March'2020	March'2020	
		Signature			
		Date			
		Signature			
		Date			
		Signature			
		Date			

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1. INTRODUCTION

We have been engaged to report on the engineering aspects of the proposed Magnolia Subdivision, located between Magnolia Crescent and Tawhero Street, Whanganui, Lot 5 DP 22736, as shown on the Harrison & O’Sullivan Ltd scheme plan below, Figure 1.1, and Appendix I.

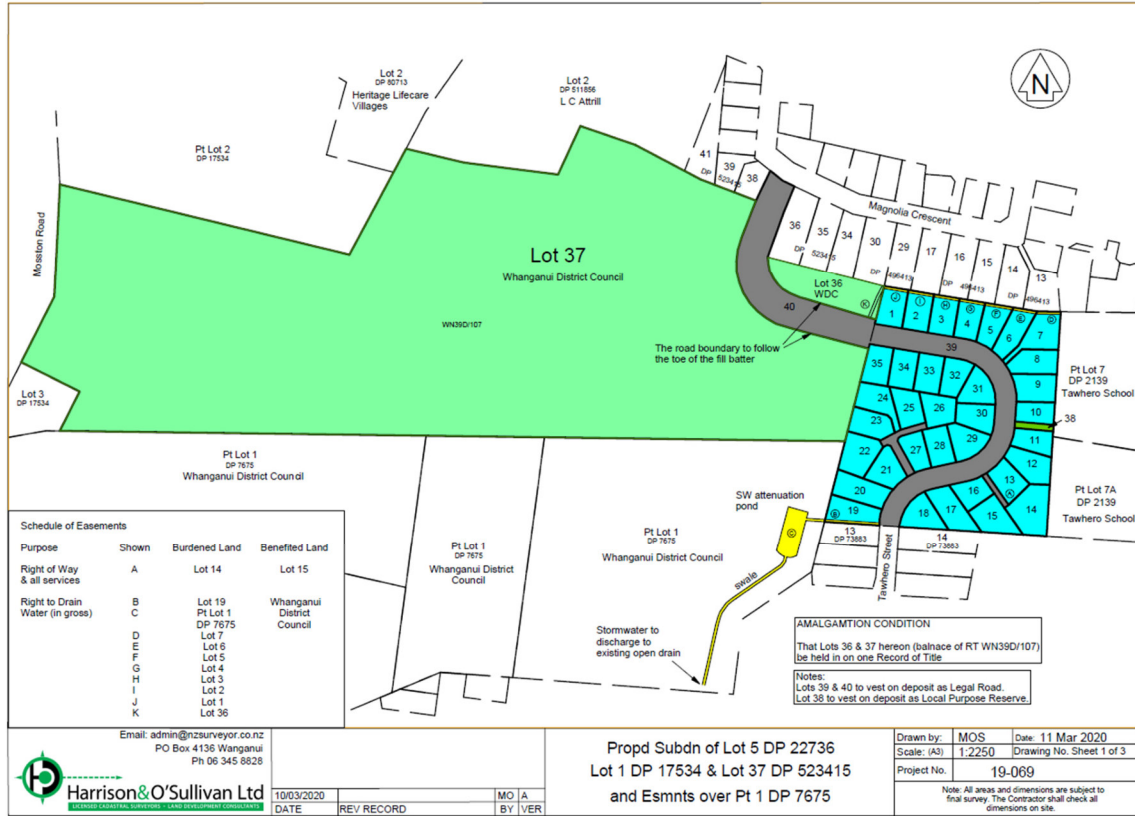


Figure 1.1: Harrison & O’Sullivan Ltd – Scheme Plan

The proposed subdivision includes creating 35 new residential Lots and construction a new road to link Magnolia Crescent and Tawhero Street. Significant earthworks are required to form the Lots and proposed road layout.

This report outlines the proposed erosion and sediment controls to be put in place during construction of the proposed subdivision and to accompany the Horizons Regional Council (HRC) Resource Consent application.

2. EROSION AND SEDIMENT CONTROL PLANNING

This erosion, stormwater and sediment control plan is intended to ensure that the subdivision developer minimises the adverse effects of erosion and sediment from the proposed construction of the subdivision.

Erosion has two main potential causes being wind and stormwater. This plan focuses on control of erosion from stormwater and sediment transportation by both stormwater and wind effects.

Objectives

The erosion and sediment control objectives of the subdivision developer, as detailed within this plan include:

- i. Minimising adverse environmental effects related to erosion and sedimentation.
- ii. Provide guidance to the developer and contractor responsible for site works on how to minimise such effects.
- iii. Ensuring compliance with resource consent conditions.
- iv. Ensuring compliance with applicable local and national laws, rules and regulations.

Strategy

To meet the objectives defined above, the subdivision developer will ensure its contractors:

- i. Use current best practice including training and awareness.
- ii. Use planning of site activities with awareness of minimising adverse erosion and sediment effects.
- iii. Place emphasis on erosion control as a primary approach to minimise sediment generation.
- iv. Use pro-active installation, management, monitoring and improvement (if required) of erosion and sediment control for the specific site.

Factors Considered

As part of the planning process, the following factors have been considered:

- i. Climate including season and local rainfall.
- ii. Local topography including the slope and scope of planned construction activities.
- iii. Soil type and characteristics.
- iv. Extent of planned construction works.

2.1. Site Construction Works

This section outlines the key construction works in relation to potential erosion and sediment issues. The construction works include bulk earthworks - cut to fill, pavement installation and preparation/reinstatement of Lots.

Refer to Red Jacket drawing set 100-365 for further details.

2.1.1 Bulk earthworks

Earthwork volumes for the site are estimated at 46,000 m³ cut to fill.

Topsoil will be stripped and stockpiled for use during reinstatement of cut and fill batters, and Lots.

2.1.2 Pavement construction

The quantity of compacted gravel for the roading layout is estimated at approximately 1,000 m³.

2.1.3 Permanent drainage

Drainage measures include the installation of:

- i. A reticulated stormwater network for carriageway catchment.
- ii. A detention pond and outlet structure/swale drain to an existing swale drain.
- iii. Secondary flow path swale drains

Drainage locations are marked in the design drawings for the site.

2.1.4 Construction Sequencing

The construction sequence will include:

- i. Site survey set out including establishment of erosion and sediment control measures (as described in Appendix B – erosion and sediment control plan A3 drawing)
- ii. Installation of sediment control ponds, strip topsoil and stockpile for re-use during reinstatement.
- iii. Earthworks including cut of the borrow area and the cutting and filling of the main site to achieve design subgrade levels.
- iv. Installation and compaction of granular pavement for the roading layout.
- v. Reinstatement of cut/fill batters and Lots with stockpiled topsoil, coconut matting and hydro-seeding upon completion (reinstate each section before commencing new work).

2.2. Site Erosion and Sediment Control Measures

Control measures for this site are detail below. Refer Appendix V for the Red Jacket Erosion and Sediment Control Plan 100-365 Sheet 6-1. The final erosion and sedimentation control measures will have to be confirmed in conjunction with the construction planning and programming.

Prior to any physical earthworks commencing:

- i. Vegetation and natural surfaces outside of the planned working area will be identified and retained where possible. This will be achieved by marking areas not to be disturbed.
- ii. Slopes (to be disturbed) greater than 25% gradient will be identified. A decision will be made on whether special treatment for their protection is required.

- iii. Control measures including stormwater control, silt catchment and surface preparation will be installed, as per detailed below.

Information on typical control measures is available within the publication - Erosion and Sediment Control Guidelines for the Wellington Region, September 2002, Reprinted June 2006, Greater Wellington Regional Council.

2.2.1 Construction of Erosion and Sediment Control Measures in Relation to Surface Runoff

Prior to the commencement of bulk earthworks works, control measures will be implemented as per this plan for the construction phase. Refer details in Sections 2.3, 2.4 and 2.5.

Typical measures will include, but will not be limited to:

Erosion control

- i. Stormwater diversion channels (to divert upslope stormwater away from the site).
- ii. Revegetation.

Sediment control

- i. Sediment ponds (for localised areas).
- ii. Silt fences.
- iii. Earth bunds.
- iv. Overlaying disturbing ground with compacted topsoil and hydroseeded/temporary seeding/mulching/coconut matting, and fabric geotextiles.

2.2.2 Control Measures in Relation Wind

After soil and ground is disturbed it shall be stabilised as to minimise wind-blown dust and other air pollutants as soon as possible.

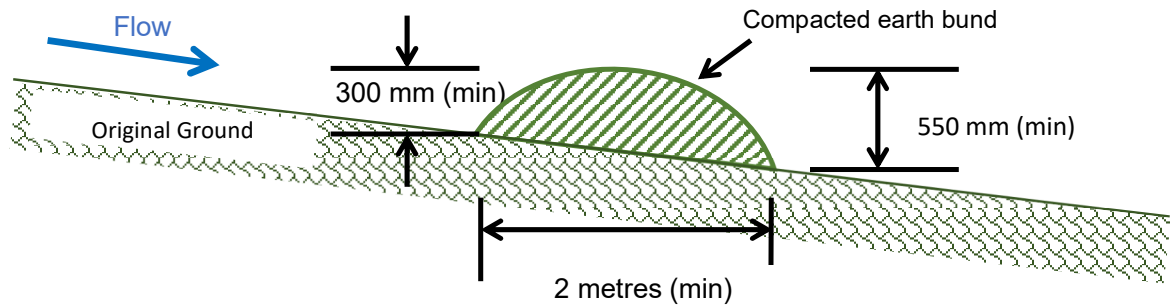
Stabilising control measures during dry months include, but will not be limited to:

- i. Minimise areas of site exposed to wind by staging works.
- ii. Reduce construction plant operating speeds through site to 5 km/hr.
- iii. Use of irrigation systems to spray water to stabilise overlying loose dry sand.
- iv. Use of water carts to spray water to stabilise overlying loose dry sand.
- v. Overlaying disturbing ground with compacted topsoil and hydroseeded/temporary seeding/mulching/coconut matting, and geotextiles.
- vi. If all other measures fail or are unattainable dust suppressant must be used.

2.3. Erosion Control Details

Immediately above areas of significant earthworks (> 500 m²), diversion channels / bunds will be installed to direct clean water away from the cut slope to prevent erosion and sediment runoff.

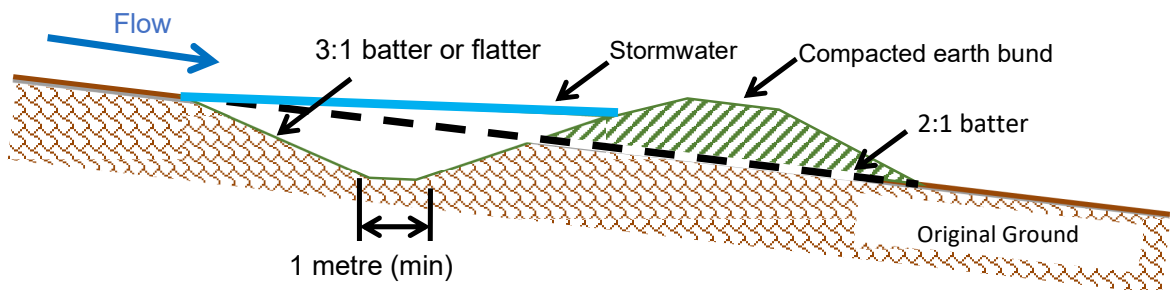
Diversion Bund



- NB. 1. Soil to form bund to be taken from disturbed area.
 2. Vegetation in undisturbed area to remain intact

Figure 2.1: Cross section – Diversion Bund

Diversion Channel

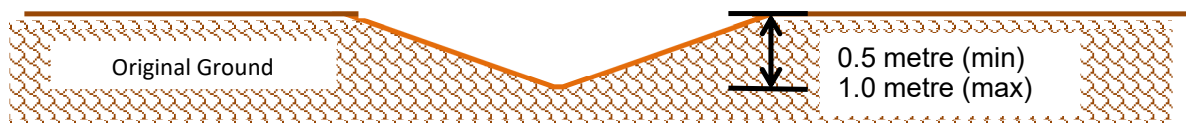


- NB. 1. Soil to form bund to be taken from disturbed area.
 2. Vegetation in undisturbed area to remain intact

Figure 2.2: Cross section – Diversion Channel

Contour (catch) Drains

Contour drains are to be installed (generally) as part of permanent stormwater management.



- NB. 1. Vegetation in undisturbed area to remain intact

Figure 2.3: Cross section – Contour (Catch) Drains

2.4. Silt Control Details

Silt fences are to be constructed from geotextile minimum 600 mm height, with minimum 200 mm into ground. Silt fences are to be installed along the contours as shown in the Red Jacket ERCP.

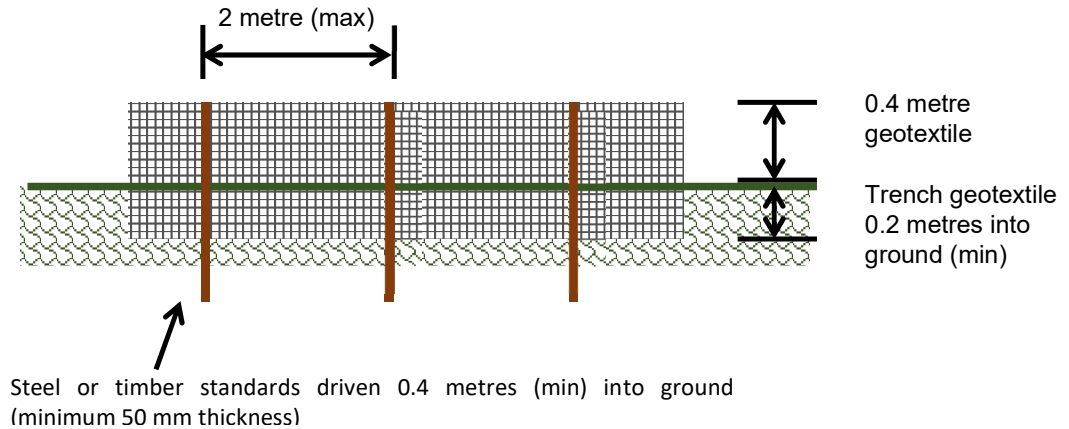


Figure 2.4: Cross section – Contour (Catch) Drains

They should be installed so that:

- i. There are no gaps between joins in the fabric.
- ii. The geotextile is appropriate as per manufacturers specifications.
- iii. The geotextile is buried so that water cannot pass under the fence.
- iv. Returns are installed as support at right angles to the main fence as required (minimum 2.0 m length).

Table 2.1: Silt Fence Design Layout

Slope (%)	Slope Distance Between Fences (m) (maximum)	Return Spacing (m)	Silt Fence Length (m) (max)
<2%	Unlimited	None required	Unlimited
2-10%	40	60	300
10-20%	30	50	230
20-33%	20	40	150
33-50%	15	30	75
>50%	6	20	40

Source: HBRC 2009

2.5. Sediment Retention Ponds

The entire site including subdivision area and borrow area equate to approximately 4.8 ha. During the construction works, three sediment retention ponds will be required to services three distinct areas; the Magnolia Crescent end of the Road 01, the subdivision Lot area, and the borrow area.

The sediment pond sizing steps shown within this section detail the design steps for minimum volume of 2% the contributing catchment. Any flow up to and including the 1% AEP event discharging via a spillway. The GWRC 'Erosion and Sediment Control Guidelines for the Wellington Region' have been used to ensure adequate sizing of sediment detention. The sediment pond sizing is based on a maximum of 1 ha of disturbed ground open at any one time.

GWRC 'Erosion and Sediment Control Guidelines for the Wellington Region' stipulates 2% area (200 m³ per 1 Ha) for soil disturbance areas, with 30% of that area retained as dead storage.

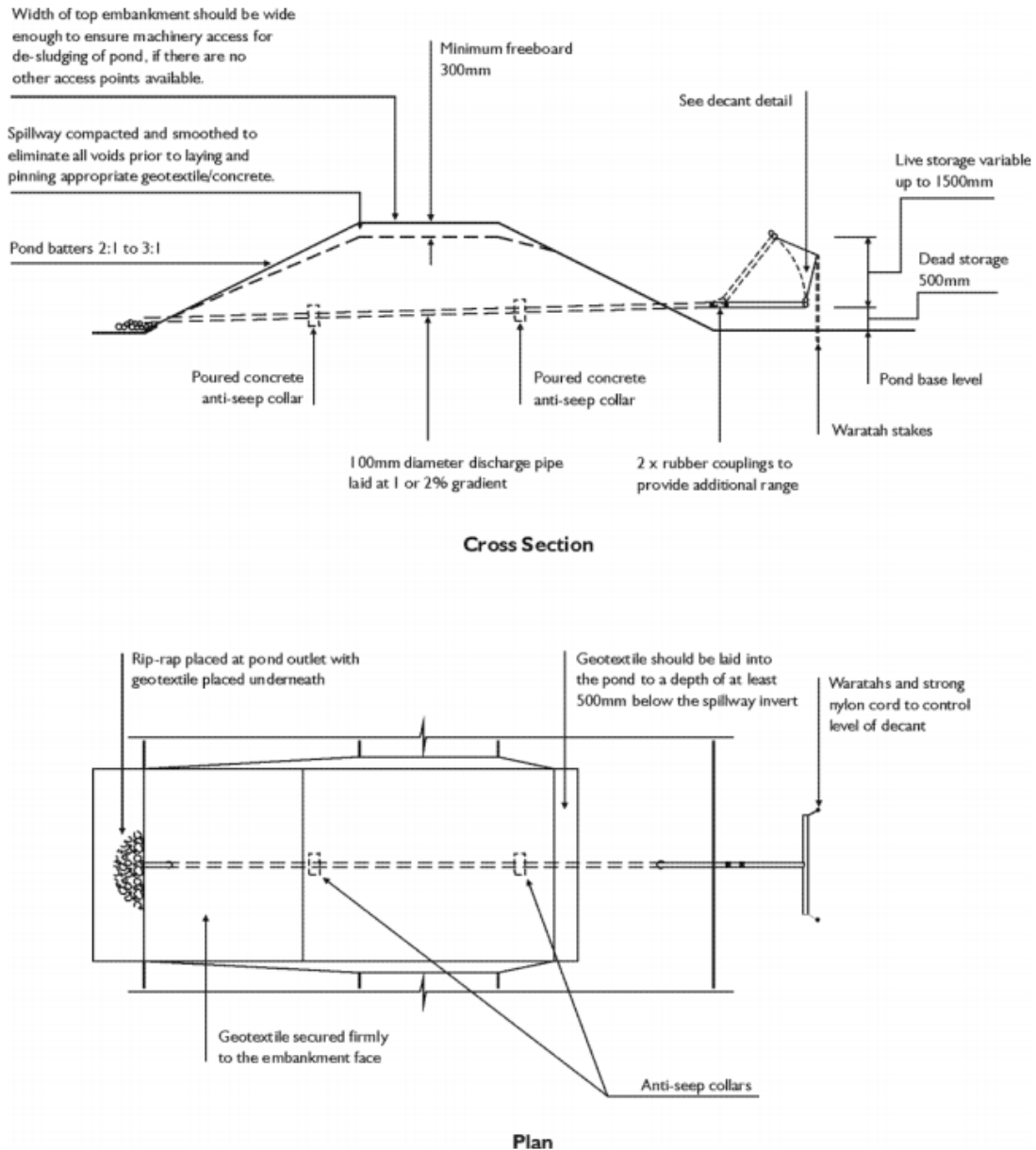


Figure 2.5: Sediment Retention Pond for Catchments up to 1.5 ha

Specific design criteria can be summarised as the following:

- i. Generally, use Sediment Retention Ponds for bare areas of bulk earthworks of 0.3 ha or greater.
- ii. Restrict catchment areas to less than 5.0 ha per Sediment Retention Pond. This limits the length of overland flow paths and reduces maintenance problems.
- iii. Locate Sediment Retention Ponds to provide a convenient collection point for sediment laden flows from the catchment area. This will require strategic use of cut-offs, Runoff Diversion Channels and Contour Drains.
- iv. Locate Sediment Retention Ponds to allow access for removing sediment from the pond. Wherever possible, locate Sediment Retention Ponds to allow the spillway to discharge over undisturbed, well vegetated ground.
- v. Keep the Sediment Retention Pond life to less than two years. If a longer term is required, then further measures to ensure stability and effectiveness are likely to be needed.
- vi. Do not locate Sediment Retention Ponds within watercourses.
- vii. Embankment and spillway stability are generally the weak point in Sediment Retention Pond construction. Correct compaction particularly around emergency spillways, discharge pipes and anti-seep collars, will keep the system robust.
- viii. All sediment retention ponds will include a perimeter fence as well as low gradient pond batters to provide additional safety measures.

2.5.1 Sediment Pond 1

The initial roading extension from Magnolia Crescent into the subdivision catchment area is 0.55 Ha, therefore the minimum sediment pond size based on GWRC's minimum requirements is 110 m³, with 33.3 m³ (30%) retained as dead storage. The designed pond allows for 121.7 m³ with 49.2 m³ (40%) dead storage.

Pond Outlet

Using a 1.0 m deep sediment pond, the invert of the pond outlet has been set at the level (0.5 m below spillway) to provide 49.2 m³ of dead storage, which is 0.5 m from the bottom of the pond. GWRC states that the pipe diameter will be 100 mm and allow for 2 L/s/Ha of catchment discharge.

Spillway

With the elevation of invert of the outlet pipe set, the spillway (a grass swale), which corresponds with 1.0 m elevation above the bottom of the pond.

Emergency spillway will be constructed as a stabilised trapezoidal cross section with a minimum bottom width of 4 m as the contributing catchments has an area of less than 1.5 Ha.

Pond Dimensions

To meet the required pond capacity, the pond will be approximately 8 m wide and 18 m long at the surface (including 0.3 m high bund / spillway). The pond sides will be installed with side slopes of 1:1 (V:H) for three sides and 1:3 (V:H) on one side. The forebay will be designed to 8 m wide and 3 m long with a depth of 0.5 m with side slopes of 1:1 (V:H) for three sides and 1:2 (V:H) for inlet side. A corresponding elevation-storage table is provided below.

Table 7.2: Storage Elevation Sediment Pond 1

Elevation (m)	Volume (m ³)	Outlet
0	0	
0.5	49.2	Invert of Ø100 mm
1.0	121.7	Swale invert at 1.0 m
1.3 (Top of bund)	176.1	

2.5.2 Sediment Pond 2

The proposed subdivision catchment area is split into maximum disturbed areas of 1 Ha max each, therefore the minimum sediment pond size based on GWRC's minimum requirements is 200 m³, with 60 m³ (30%) retained as dead storage. The designed pond allows for 202.2 m³ with 81.3 m³ (40 %) dead storage.

Pond Outlet

Using a 1.0 m deep sediment pond, the invert of the pond outlet has been set at the level (0.5 m below spillway) to provide 81.3 m³ of dead storage, which is 0.5 m from the bottom of the pond. GWRC states that the pipe diameter will be 100 mm and allow for 2 L/s/Ha of catchment discharge.

Spillway

With the elevation of invert of the outlet pipe set, the spillway (a grass swale), which corresponds with 1.0 m elevation above the bottom of the pond.

Emergency spillway will be constructed as a stabilised trapezoidal cross section with a minimum bottom width of 4 m as the contributing catchments has an area of less than 1.5 Ha.

Pond Dimensions

To meet the required pond capacity, the pond will be approximately 8 m wide and 28 m long at the surface (including 0.3 m high bund / spillway). The pond sides will be installed with side slopes of 1:1 (V:H) for three sides and 1:3 (V:H) on one side. The forebay will be designed to 8 m wide and 6 m long with a depth of 0.5 m with side slopes of 1:1 (V:H) for three sides and 1:2 (V:H) for inlet side. A corresponding elevation-storage table is provided below.

Table 7.3: Storage Elevation Sediment Pond 1

Elevation (m)	Volume (m ³)	Outlet
0	0	
0.5	81.3	Invert of Ø100 mm
1.0	202.2	Swale invert at 1.0 m
1.3 (Top of bund)	289.1	

2.5.3 Sediment Pond 3

The proposed borrow catchment area will be split into maximum disturbed areas of 1 ha max each as per the subdivision area. Therefore, Sediment Pond 3 will be as per Sediment Pond 2.

2.6. Maintenance and Monitoring of Erosion and Sediment Control Measures

During the site works, including bulk earthworks and re-establishment, control measures will be inspected and, if required, maintained daily.

After completion of the initial site works, inspection and maintenance will continue at suitable intervals including after significant rainfall events or significant days of wind combined with dry weather.

2.6.1 Runoff Diversion Channels / Bunds and Contour Drains

Maintenance of diversion channels / bunds will include (as a minimum):

- i. Repair as required as identified by inspection
- ii. Removal of any accumulated sediment
- iii. Outlet maintenance including scour and sediment build-up

2.6.2 Silt fences

Sediment and other debris will be removed when build up is noticed during routine inspection and will not exceed 50% depth of the fence. Silt fences shall only be removed after the ground is stabilised.

2.6.3 Sediment Ponds

Clean out sediment retention before sediment has reached 20% of the total sediment retention volume. Sediment removed from retention ponds will be disposed of in cut to waste to areas. Ensure embankment, batters, and baffles are compact and covered with vegetation or geotextiles. T-bar, outlet, and spillway should be cleared daily of obstructions to maintain flow. Access to the forebay is always to be maintained to allow easy access and frequent removal of accumulated sediments by excavator.

In addition to the daily maintenance inspection inspections will be undertaken weekly, and before and after each storm event, to check the effectiveness of the sediment ponds and to check for any major erosion concerns. After every large storm event sediment accumulated must be removed by excavator. Actual control locations used are shown in the Red Jacket ESCP.

2.6.4 Reinstatement and revegetation

Reinstatement and revegetation will be undertaken at the earliest opportunity, and no later than at the completion of each stage of work. Grassing / vegetation / mulching / geotextiles of slopes will be undertaken as soon as appropriate and will not await the completion of all other works on site, providing that the revegetation will not be affected by future construction works.

Temporary erosion and sediment controls, such as the diversion channels and sediment fences, will be removed only after vegetation has established and the soil stabilised.

2.6.5 Windblown control maintenance

After periods of significant days of wind combined with dry weather all control measures shall be inspected by the Site Manager and mitigations undertaken:

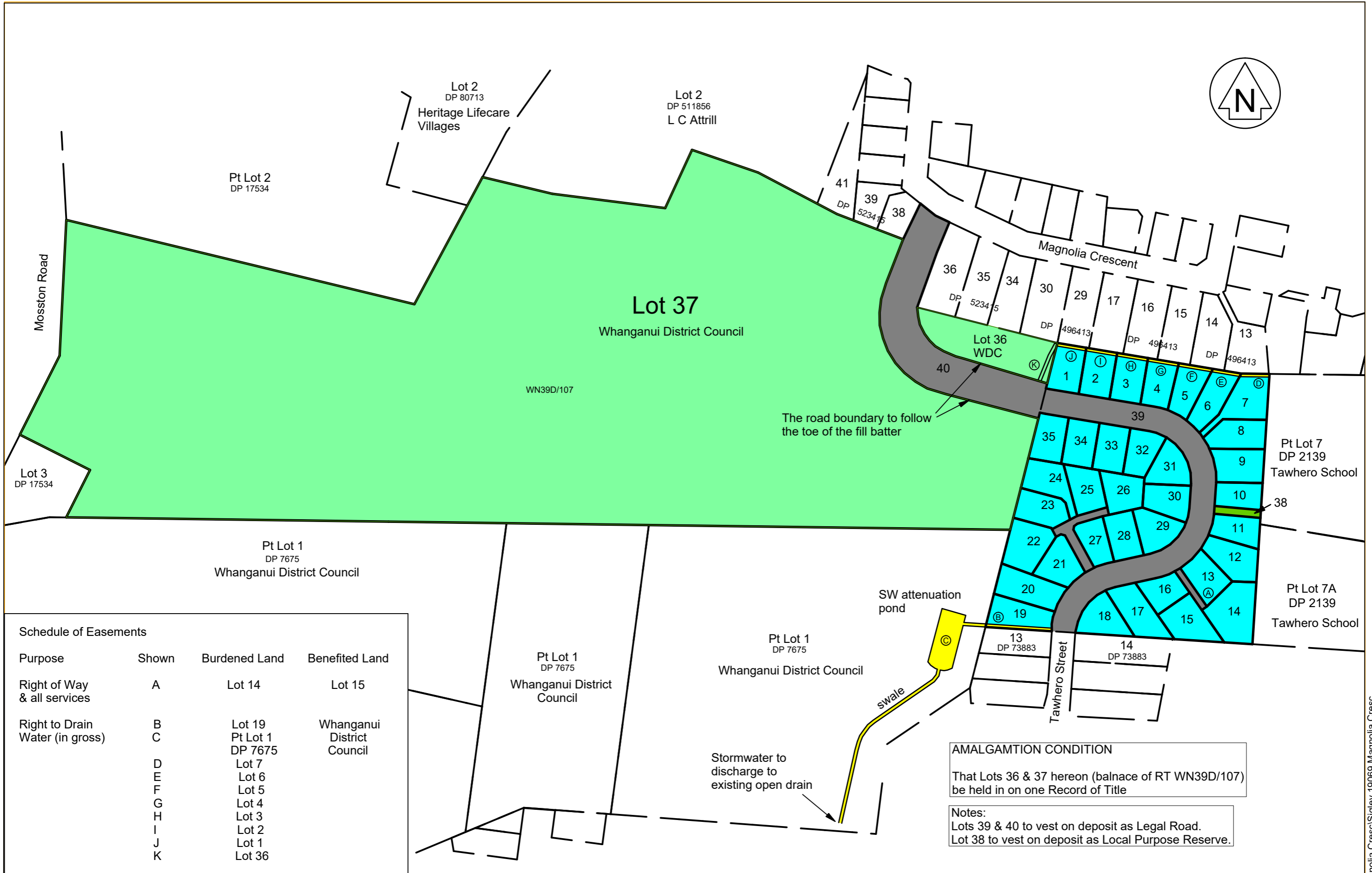
- i. Ensure topsoil is compacted.

- ii. New vegetation has not been killed by desiccation as summer proceeds and soil moisture content lowers.
- iii. Mulching/matting/geotextiles are fixed in place and covering the required disturbed area and uncovered stockpiled topsoil.
- iv. Irrigation/water cart system has adequate water pressure and supply from a hydrant located in Tawhero Road with at least 1 L/m²/hr available water.

3. LIMITATIONS

This report is prepared for your use as owners and for your agents for the stated purpose and cannot be used for any other purpose or by others unless authority is given by Red Jacket Ltd

APPENDIX I SCHEME PLAN



Schedule of Easements			
Purpose	Shown	Burdened Land	Benefited Land
Right of Way & all services	A	Lot 14	Lot 15
Right to Drain Water (in gross)	B	Lot 19	Whanganui District Council
	C	Pt Lot 1 DP 7675	
	D	Lot 7	
	E	Lot 6	
	F	Lot 5	
	G	Lot 4	
	H	Lot 3	
	I	Lot 2	
	J	Lot 1	
	K	Lot 36	

AMALGAMTION CONDITION
 That Lots 36 & 37 hereon (balnace of RT WN39D/107) be held in on one Record of Title

Notes:
 Lots 39 & 40 to vest on deposit as Legal Road.
 Lot 38 to vest on deposit as Local Purpose Reserve.

Email: admin@nzsurveyor.co.nz
 PO Box 4136 Wanganui
 Ph 06 345 8828

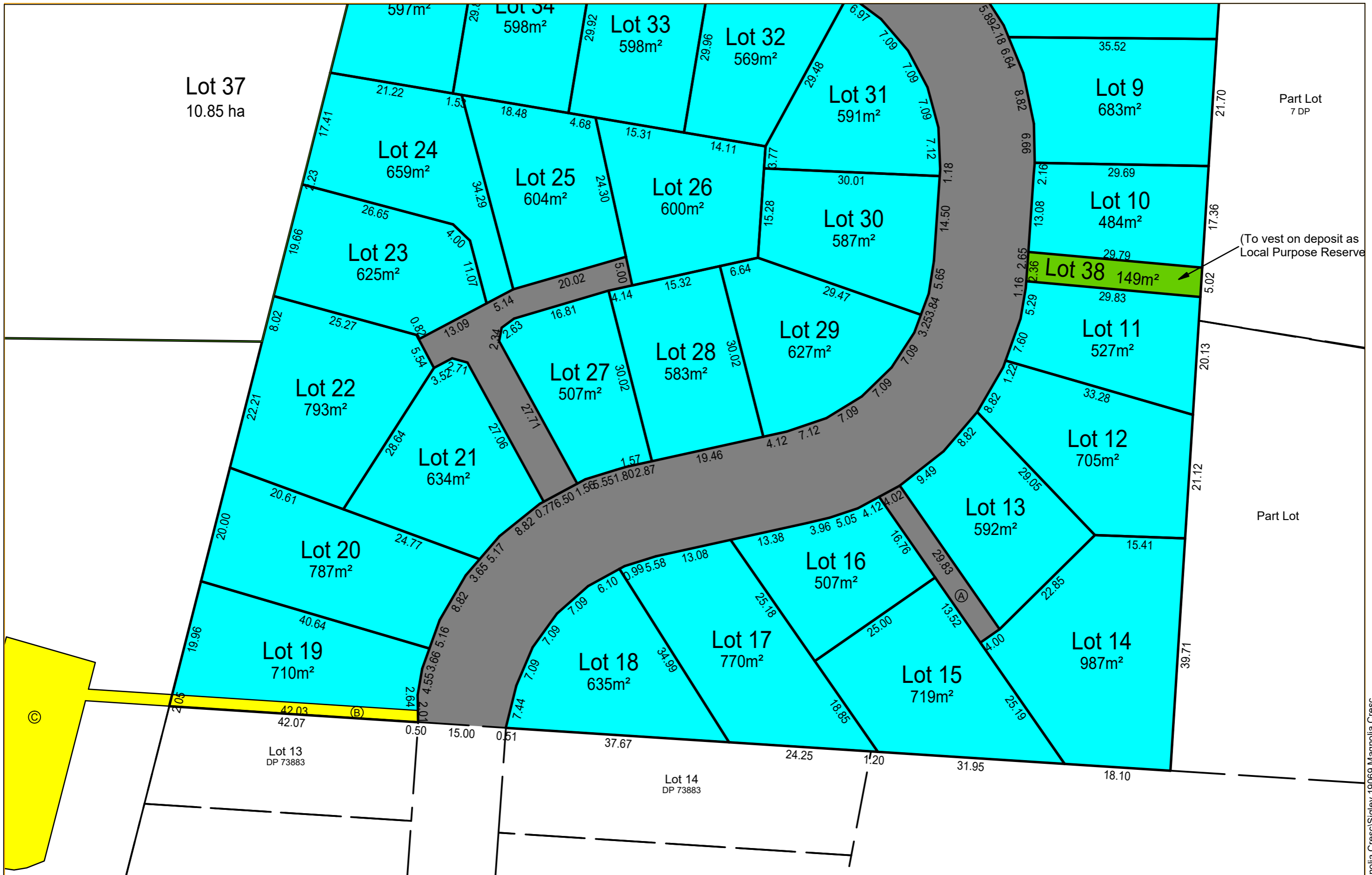
Harrison & O'Sullivan Ltd
 LICENSED CADASTRAL SURVEYORS - LAND DEVELOPMENT CONSULTANTS

10/03/2020		MO	A
DATE	REV RECORD	BY	VER

Propd Subdn of Lot 5 DP 22736
Lot 1 DP 17534 & Lot 37 DP 523415
and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	11 Mar 2020
Scale: (A3)	1:2250	Drawing No.	Sheet 1 of 3
Project No.	19-069		
Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.			

Z:\12d\Sigley 19069 Magnolia Cres\Sigley 19069 Magnolia Cresc



(To vest on deposit as Local Purpose Reserve)

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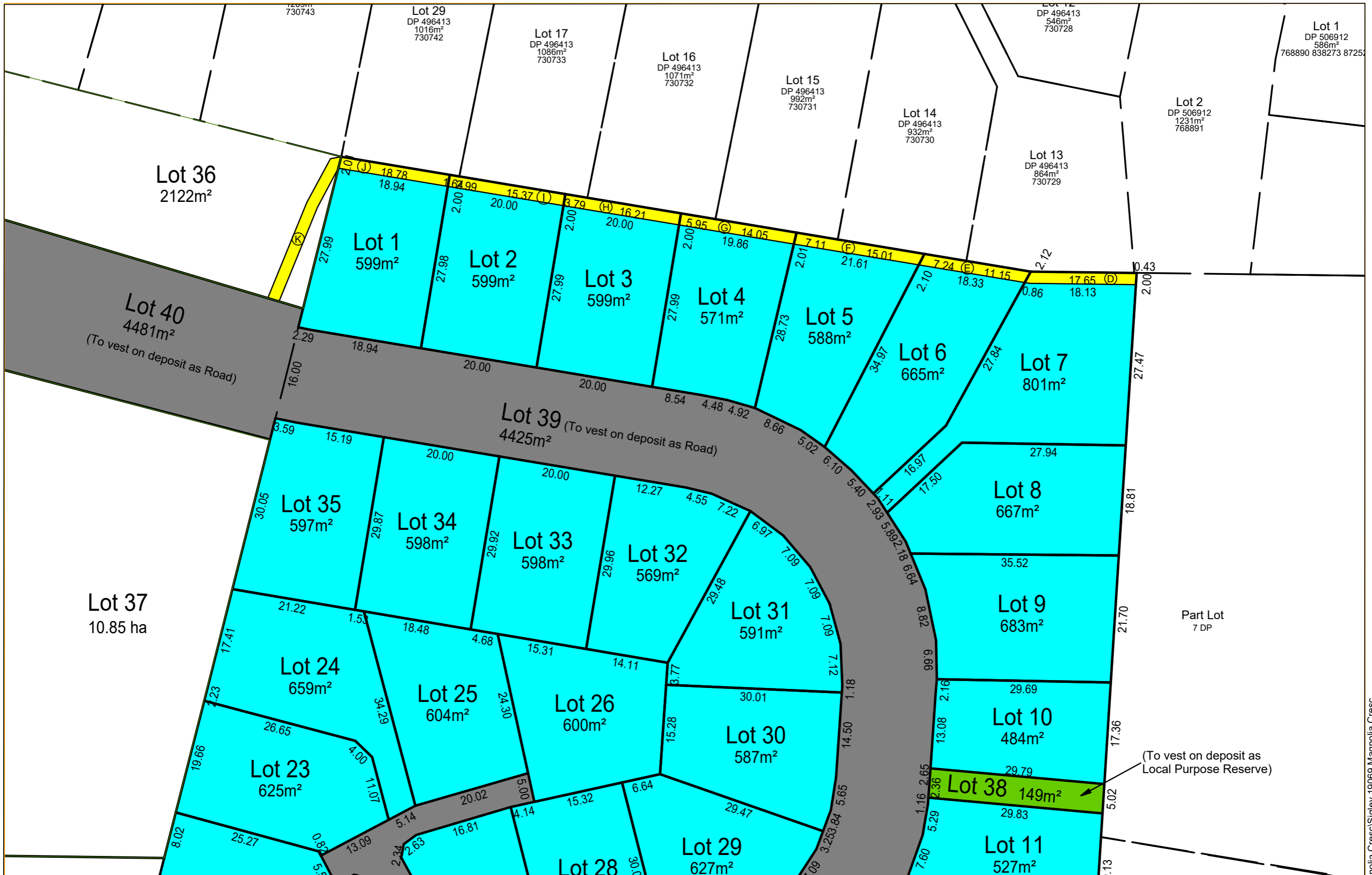
Harrison & O'Sullivan Ltd
 LICENSED CADASTRAL SURVEYORS - LAND DEVELOPMENT CONSULTANTS

DATE	REV	RECORD	MO	A
			BY	VER

Propd Subdn of Lot 5 DP 22736
 Lot 1 DP 17534 & Lot 37 DP 523415
 and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	11 Mar 2020
Scale:	(A3) 1:600	Drawing No. Sheet	2 of 3
Project No.	19-069		
Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.			

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DATE	REV	RECORD	MO	A
			BY	VER

Propd Subdn of Lot 5 DP 22736
 Lot 1 DP 17534 & Lot 37 DP 523415
 and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	11 Mar 2020
Scale:	(A3) 1:600	Drawing No.	Sheet 3 of 3
Project No.	19-069		

Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.

APPENDIX II RJL ENGINEERING DRAWINGS

A SIGLEY DEVELOPMENTS MAGNOLIA CRESCENT EXTENSION WHANGANUI

SHEET No.	DESCRIPTION	17/03/20																		
C0-1	TITLESHEET	A																		
C0-2	SITE OVERVIEW PLAN	A																		
	ROAD 1																			
C1-1	PLAN AND LONGSECTION CH 0 TO 160m	A																		
C1-2	PLAN AND LONGSECTION CH 160 TO 330m	A																		
C1-3	PLAN AND LONGSECTION CH 330 TO 500m	A																		
C1-4	DETAILS	A																		
	ROW 1																			
C1-5	PLAN AND LONGSECTION CH 0 TO 38.1m	A																		
	ROW 2																			
C1-6	PLAN AND LONGSECTION CH 0 TO 34.6m	A																		
	STORMWATER																			
C2-1	LAYOUT - PLAN AND LONGSECTION CH 0 TO 170m	A																		
C2-2	LAYOUT - PLAN AND LONGSECTION CH 170 TO 340m	A																		
C2-3	LAYOUT - PLAN AND LONGSECTION CH 340 TO 396m	A																		
C2-4	DETENTION POND	A																		
	WASTEWATER																			
C3-1	LAYOUT - PLAN AND LONGSECTION CH 0 TO 160m	A																		
C3-2	LAYOUT - PLAN AND LONGSECTION CH 160 TO 326.1m	A																		
C3-3	LAYOUT - ROW1 AND ROW2	A																		
	WATER SUPPLY																			
C4-1	LAYOUT 1 DETAILS	A																		
C4-2	LAYOUT 2 DETAILS	A																		
C4-3	WATER SUPPLY DETAILS 1	A																		
C4-4	WATER SUPPLY DETAILS 2	A																		
C5-1	EARTHWORKS CUT AND FILL PLAN	A																		
C6-1	EROSION AND SEDIMENT CONTROL LAYOUT	A																		

CONSENT

 <p>3 DAVIDSON STREET NEW PLYMOUTH 4310 Ph. 06 759 0999 © COPYRIGHT RED JACKET LTD</p>								Client A SIGLEY DEVELOPMENTS LTD	Project MAGNOLIA CRESCENT EXTENSION LOT 5 DP 22736 WHANGANUI	Sheet Title TITLESHEET	Drawing No. DWG-100-365	A3	
	17.03.20	A	ISSUED FOR CONSENT	CM	LB	-	-					Job No. 3485	Sheet No. C0-1
	DATE	REV	REV RECORD	BY	CHD	VER	APP						

File Name: Z:\JOB\31001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C0-1 Plot Date: 17/03/2020 Plot Time: 09:36

LEGEND

EXISTING LEGAL BOUNDARY	
EXISTING EDGE OF SEAL	
EXISTING CONCRETE	
EXISTING STORMWATER	
EXISTING WASTEWATER	
EXISTING WATER	
NEW STORMWATER	
NEW WASTEWATER	
NEW WATER	
NEW LEGAL BOUNDARY	
NEW UG POWER	
NEW FIBRE OPTIC	
NEW GAS	
NEW GRASS BERM	
NEW RETAINING WALL	
NEW CONCRETE	
NEW CHIP SEAL	
NEW SWALE DRAIN	

GENERAL CIVIL NOTES

1. ALL WORK TO BE IN ACCORDANCE WITH NZS4404:2010 AND WDC LAND DEVELOPMENT & SUBDIVISION ENGINEERING DOCUMENT 2016.
2. ANY UTILITY SERVICES DISPLAYED ARE INDICATIVE ONLY. ALL UTILITY SERVICE PROVIDERS SHALL BE CONTACTED BEFORE CONSTRUCTION COMMENCES AND UTILITY SERVICES LOCATED AND PROTECTED DURING CONSTRUCTION.
3. CHECK ALL DIMENSIONS AND LEVELS ON SITE BEFORE STARTING CONSTRUCTION WORK.
4. ALL PLUMBING AND DRAINAGE TO BE INSTALLED AS PER NZ BUILDING CODE INCLUDING G13/AS1 AND AS2. DRAINAGE WORKS TO BE CONFIRMED ON SITE BY PLUMBER.
5. ENGINEER TO INSPECT ALL CUT BANKS AND FILL BATTERS POST CONSTRUCTION FOR INTEGRITY.
6. ADVISE DESIGN ENGINEER OF ANY CHANGES IN THE EXISTING CONSTRUCTION AND/OR GROUND CONDITIONS TO THAT SHOWN OR IMPLIED ON THE PLANS AND OBTAIN DECISION BEFORE PROCEEDING FURTHER.
7. COMPLY WITH CONTRACTORS HSE PLAN AND COMPLY WITH HEALTH & SAFETY IN EMPLOYMENT ACT & REGULATIONS AND MAINTAIN SAFE SITE AND WORK PRACTICES AT ALL TIMES.
8. OBTAIN COMPREHENSIVE INSURANCE COVER FOR THE WORK INCLUDING PROTECTION OF ADJACENT STRUCTURES.
9. ALL WORK AND MATERIALS SHALL COMPLY WITH THE BUILDING ACT & REGULATIONS.
10. EXCAVATION AND BACKFILLING TO COMPLY WITH TNZ SPECIFICATIONS F1 & B2 UNLESS OTHERWISE SPECIFIED.
11. SEQUENCING OF THE WORK IS BY THE CONTRACTOR UNLESS SPECIFICALLY GIVEN HERE.
12. COMPLY WITH RESOURCE CONSENT AND BUILDING CONSENT AT ALL TIMES, CALL FOR ALL SCHEDULED INSPECTIONS INCLUDING FINAL COMPLETION.
13. FINAL CERTIFICATION WILL ONLY BE GIVEN WHEN UNDER THE DIRECT CONTROL OF RED JACKET LTD.



SITE OVERVIEW PLAN
SCALE 1:1250

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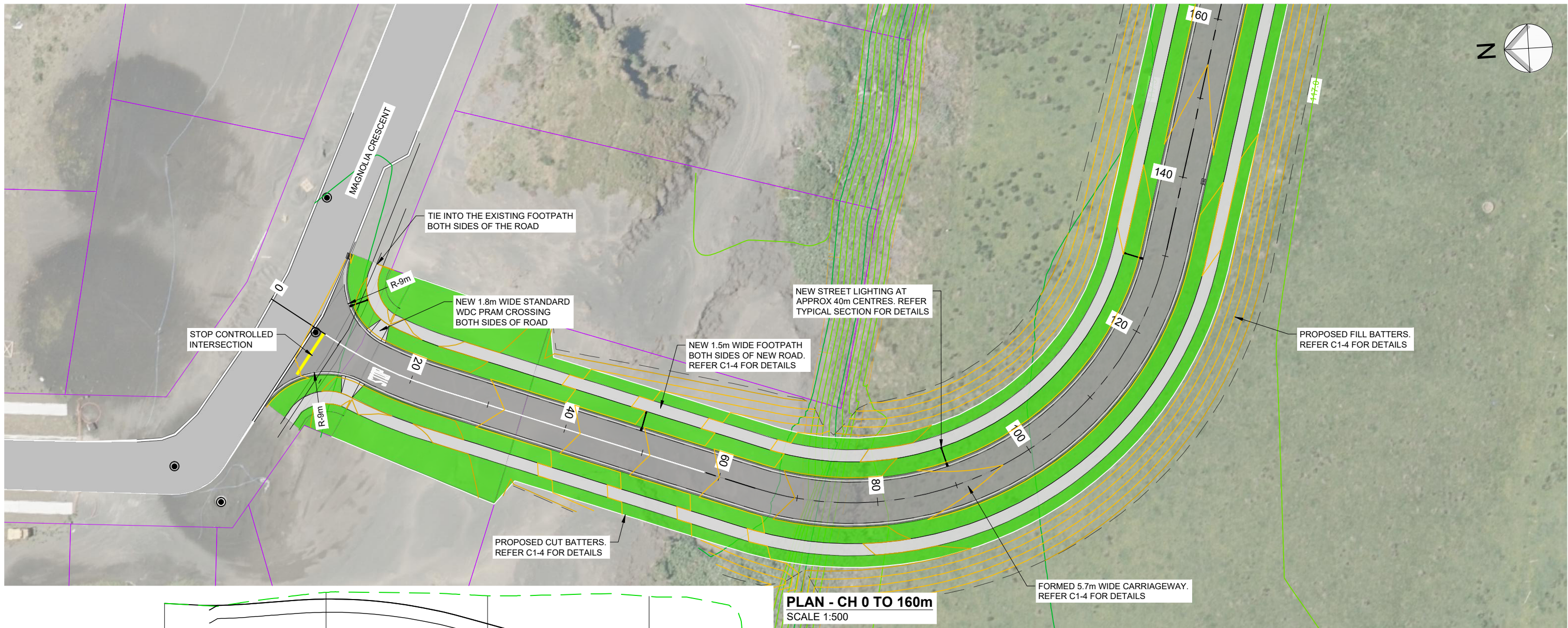
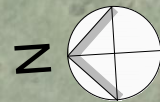
Client
A SIGLEY DEVELOPMENTS LTD

Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

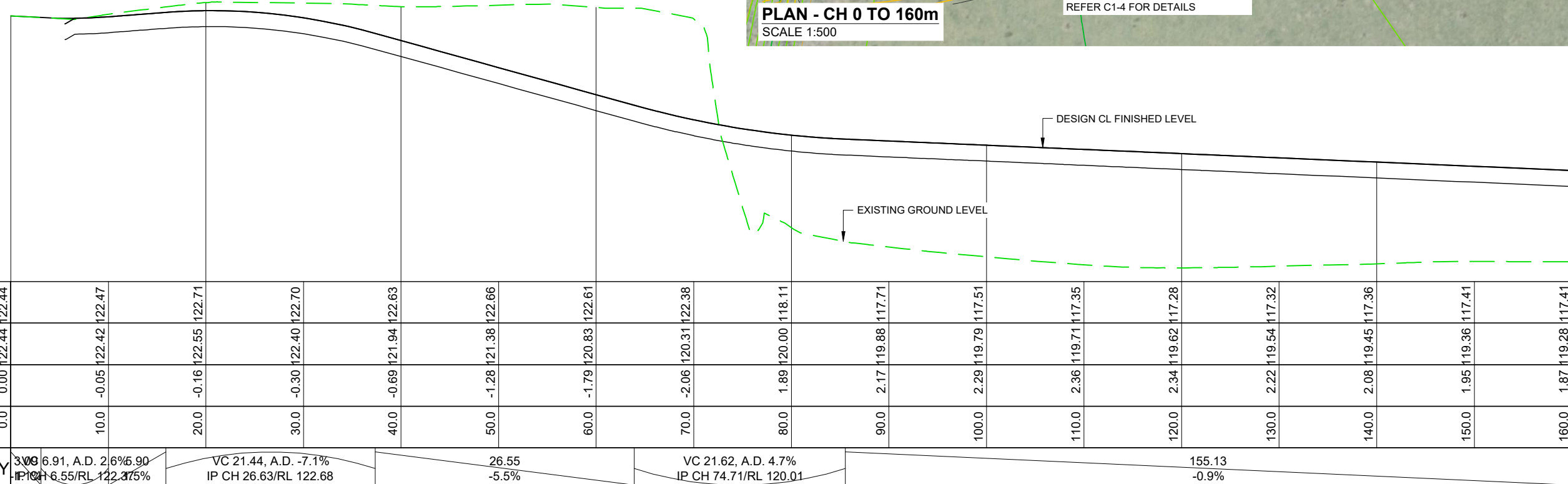
Sheet Title
SITE OVERVIEW PLAN

Drawing No.	DWG-100-365	A3
Job No.	3485	REV.
Sheet No.	C0-2	A

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PLAN - CH 0 TO 160m
SCALE 1:500

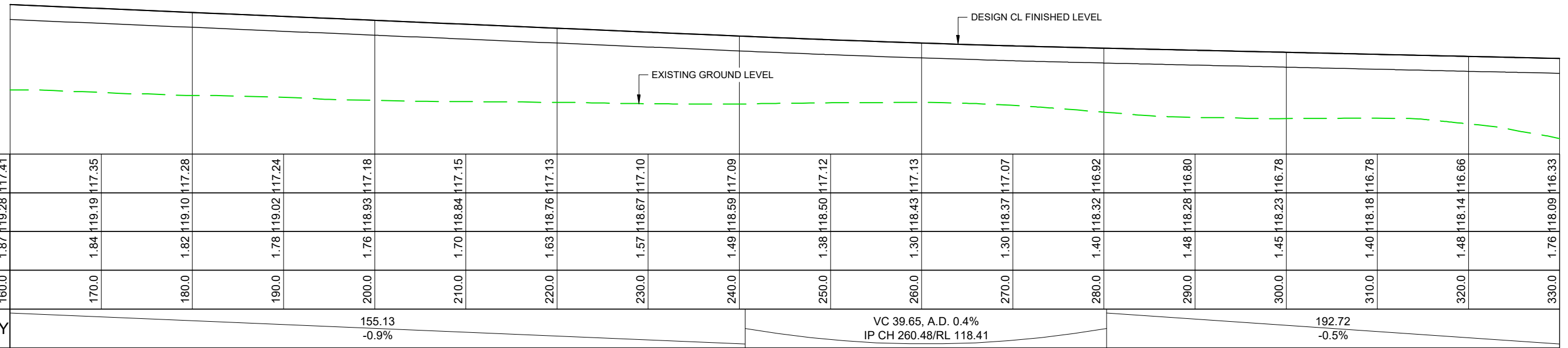
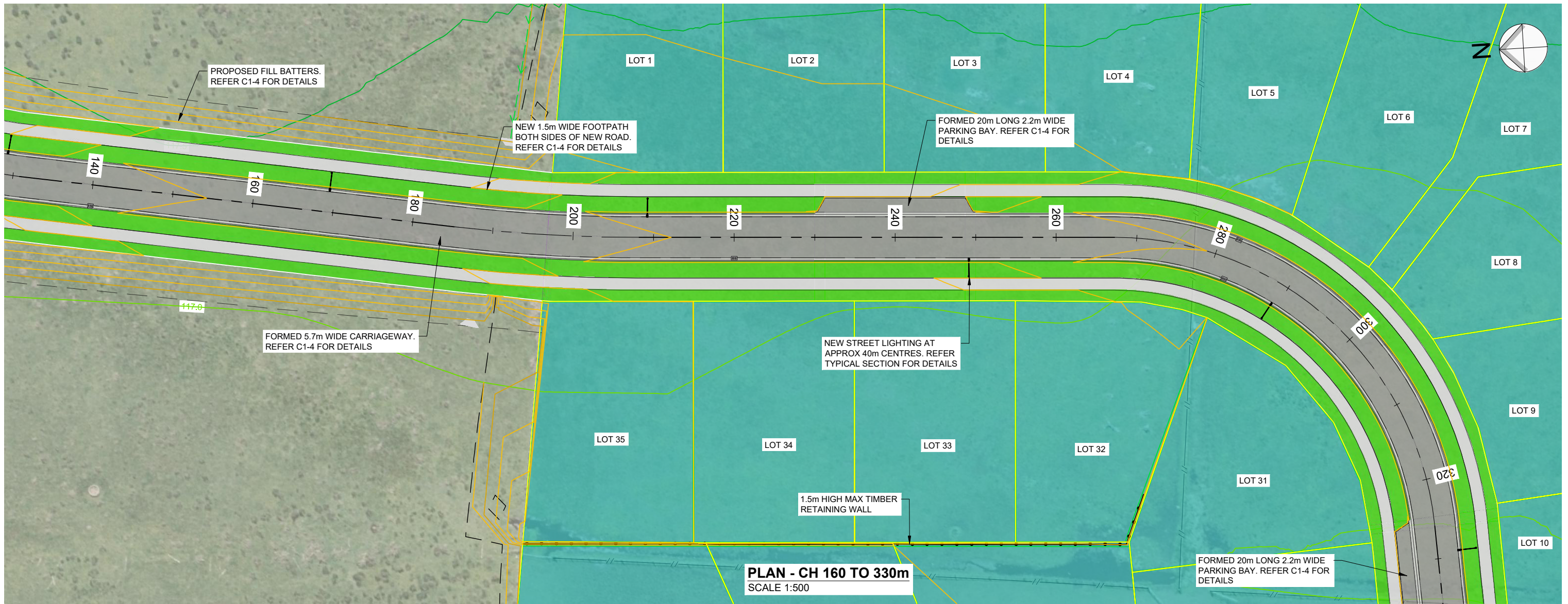


LONG SECTION - CH 0 TO CH 160m
SCALE 1:500 5x VERTICAL EXAGGERATION

CONSENT

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	<p>17.03.20 DATE</p>		<p>A REV</p>		<p>ISSUED FOR CONSENT REV RECORD</p>		<p>CM BY</p>		<p>LB CHD</p>		<p>- VER</p>		<p>- APP</p>
								<p>Job No. 3485</p>		<p>Sheet No. C1-1</p>		<p>A</p>	

File Name: Z:\JOB\3001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C1-1 Plot Date: 17/03/2020 Plot Time: 09:36



LONG SECTION - CH 160 TO 330m
SCALE 1:500 5x VERTICAL EXAGGERATION

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DATE	REV	REV RECORD	BY	CHD	VER	APP

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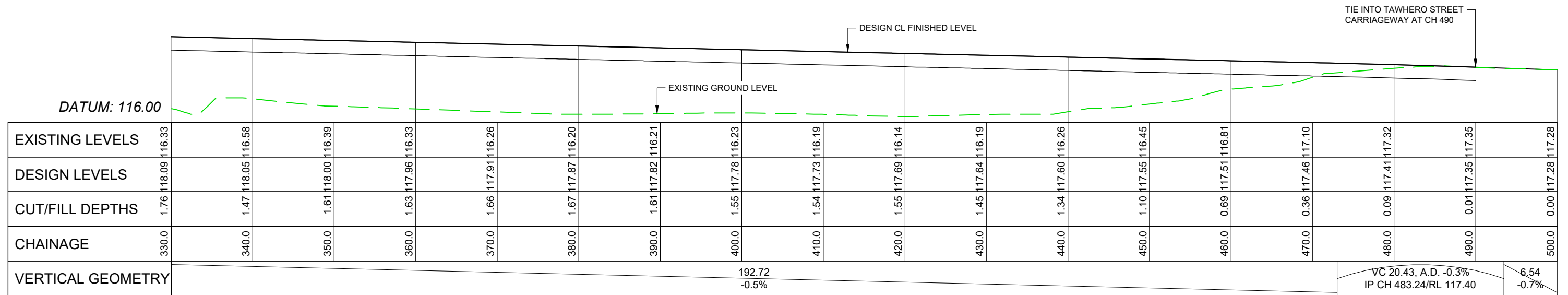
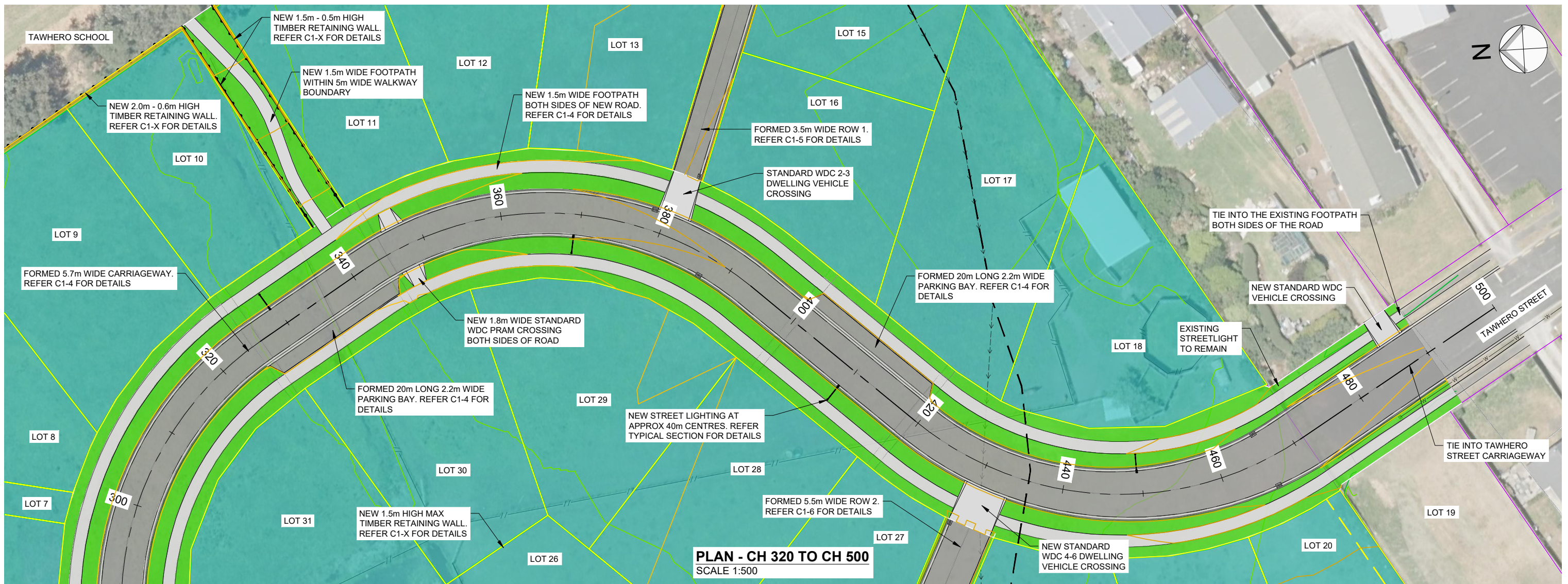
Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**ROAD 1
PLAN AND LONGSECTION
CH 160 TO 330m**

Drawing No.
DWG-100-365

Job No. **3485** Sheet No. **C1-2**

A3
REV.
A



LONG SECTION - CH 330 TO CH 500
SCALE 1:500 5x VERTICAL EXAGGERATION

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Client
A SIGLEY DEVELOPMENTS LTD

Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**ROAD 1
PLAN AND LONGSECTION
CH320 TO 500m**

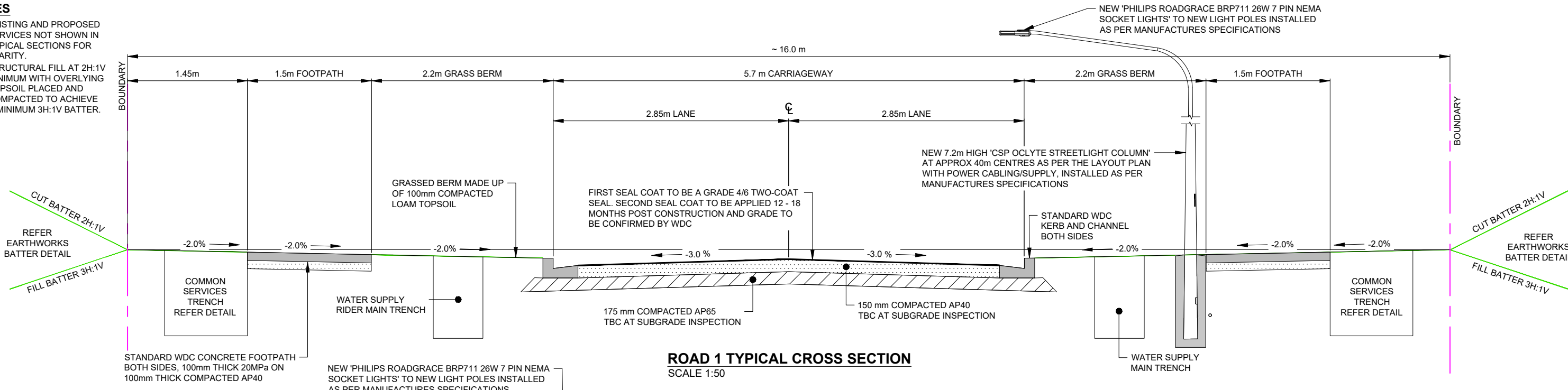
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DWG-100-365

Job No. **3485** Sheet No. **C1-3**

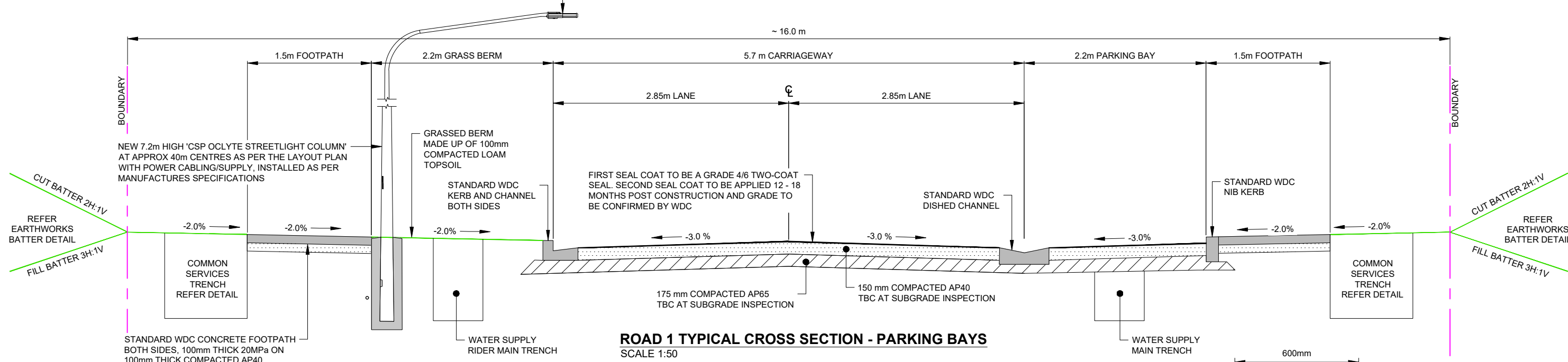
A3
REV.
A

NOTES

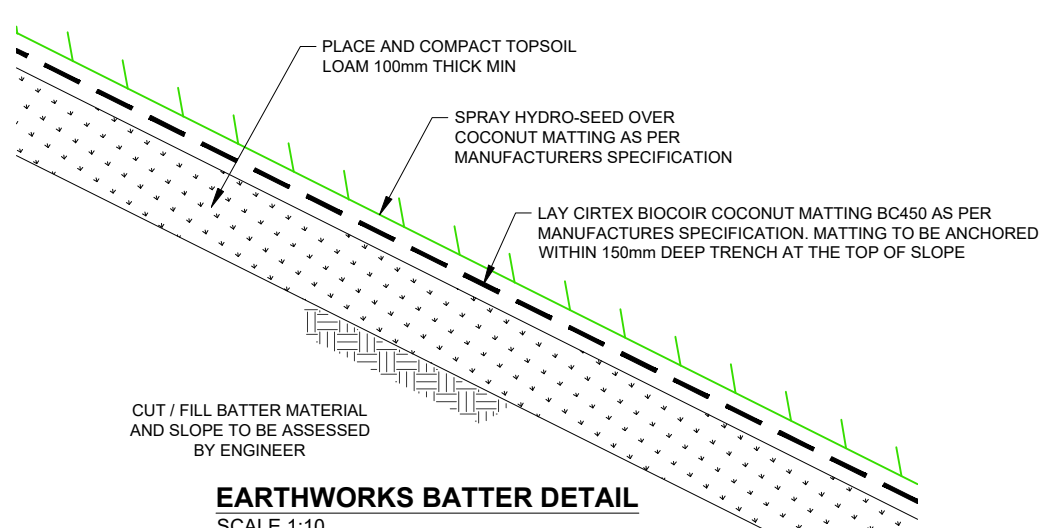
- EXISTING AND PROPOSED SERVICES NOT SHOWN IN TYPICAL SECTIONS FOR CLARITY.
- STRUCTURAL FILL AT 2H:1V MINIMUM WITH OVERLYING TOPSOIL PLACED AND COMPACTED TO ACHIEVE A MINIMUM 3H:1V BATTER.



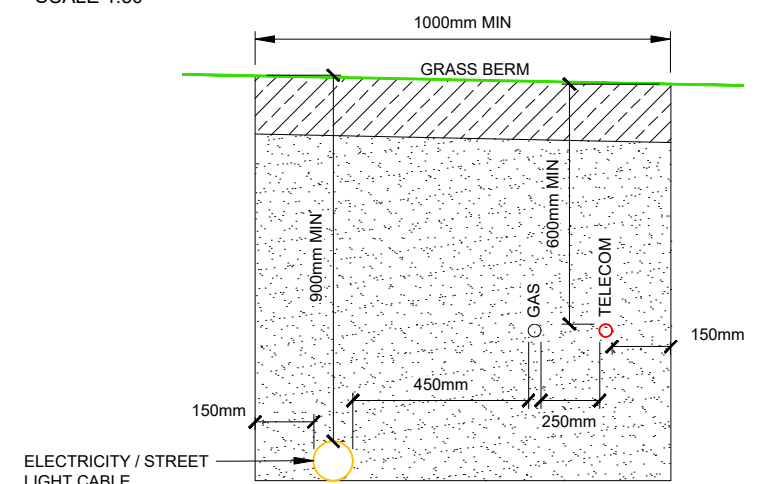
ROAD 1 TYPICAL CROSS SECTION
SCALE 1:50



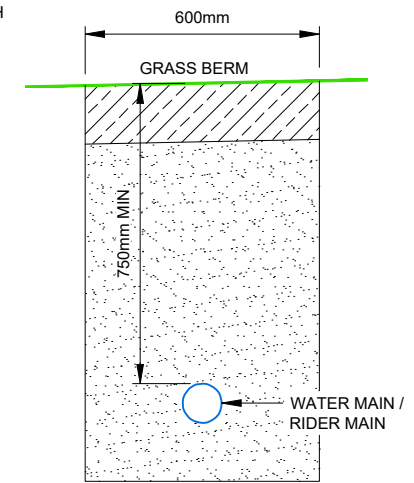
ROAD 1 TYPICAL CROSS SECTION - PARKING BAYS
SCALE 1:50



EARTHWORKS BATTER DETAIL
SCALE 1:10



COMMON SERVICES TRENCH DETAIL
SCALE 1:20

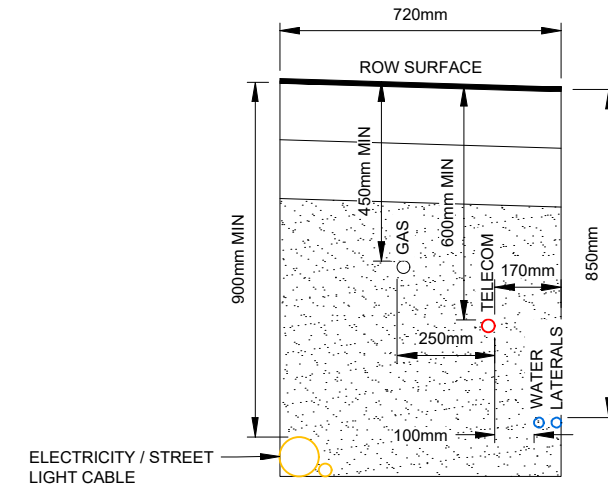
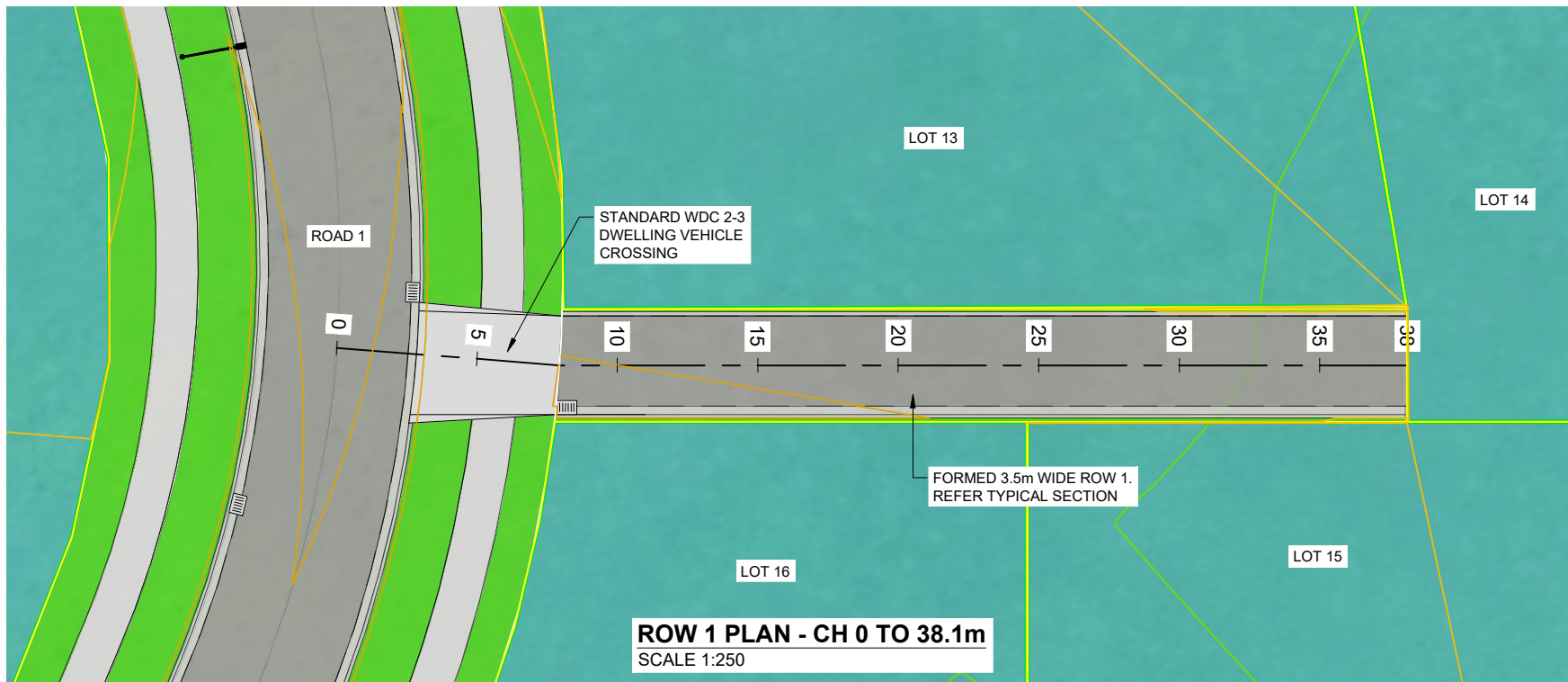


WATER SUPPLY MAIN/RIDER MAIN TRENCH DETAIL
SCALE 1:20

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	<p>17.03.20 A ISSUED FOR CONSENT CM LB - -</p>						<p>Job No. 3485</p>			<p>Sheet No. C1-4</p>		<p>REV.</p>		
	<p>DATE REV REV RECORD BY CHD VER APP</p>						<p>Job No. 3485</p>		<p>Sheet No. C1-4</p>		<p>A</p>			

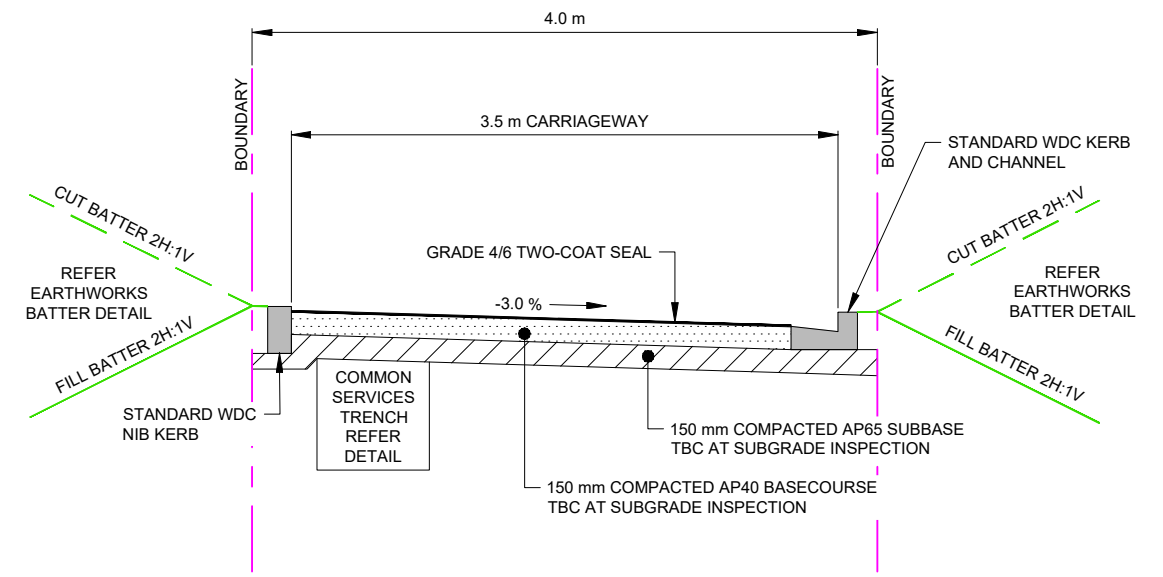
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COMMON SERVICES TRENCH DETAIL
SCALE 1:20

	EXISTING GROUND LEVEL		DESIGN CL FINISHED LEVEL	
DATUM: 115.00	-----			
EXISTING LEVELS	116.20	116.15	116.10	116.01
DESIGN LEVELS	117.86	117.82	117.82	117.97
CUT/FILL DEPTHS	1.66	1.68	1.78	1.92
CHAINAGE	0.0	10.0	20.0	30.0
VERTICAL GEOMETRY	-2.54 -3.0%		35.57 0.5%	

LONG SECTION - CH 0 TO CH 38.1
SCALE 1:250 1x VERTICAL EXAGGERATION



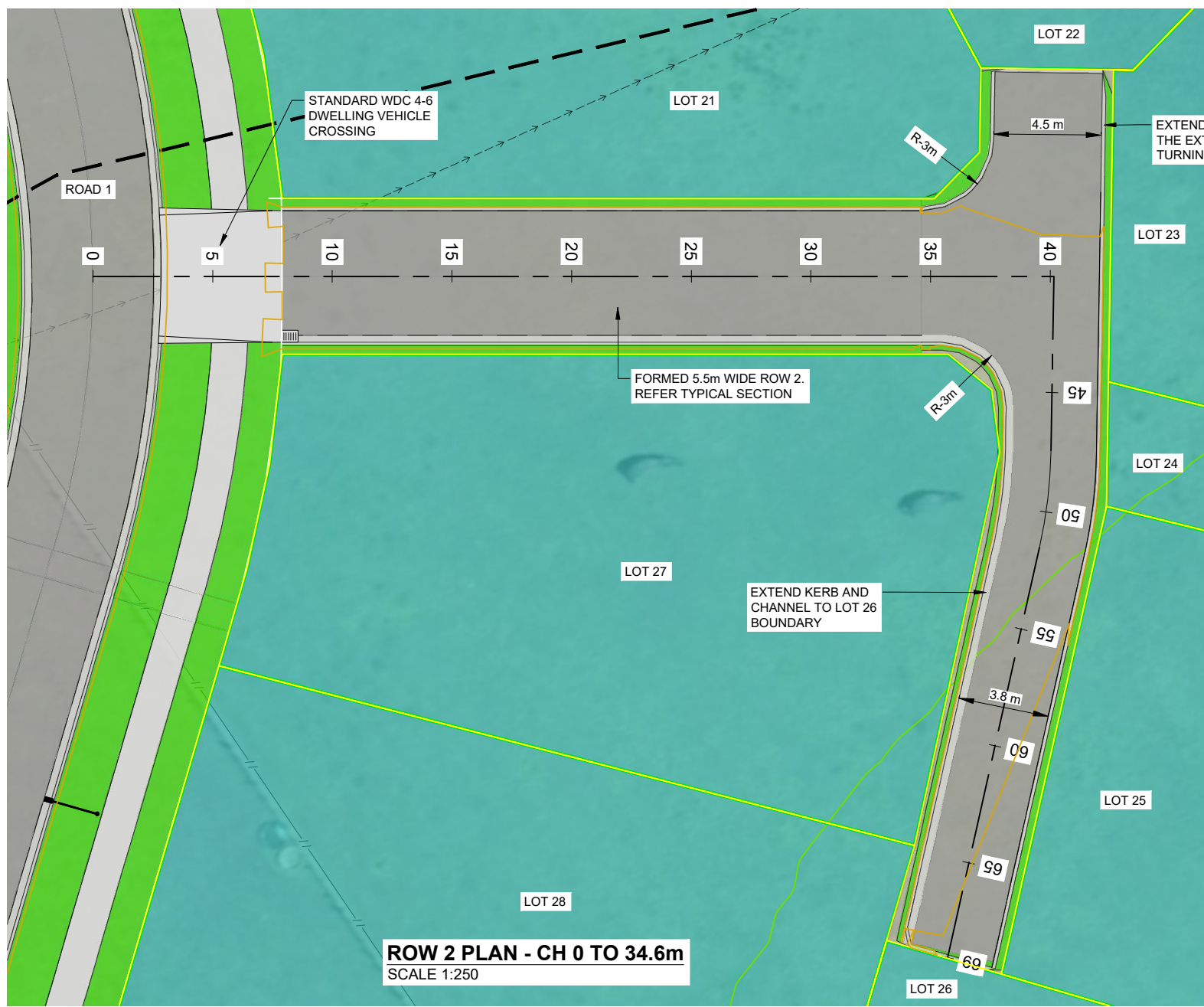
ROW 1 TYPICAL CROSS SECTION
SCALE 1:50

- NOTES**
- EXISTING AND PROPOSED SERVICES NOT SHOWN IN TYPICAL SECTIONS FOR CLARITY.

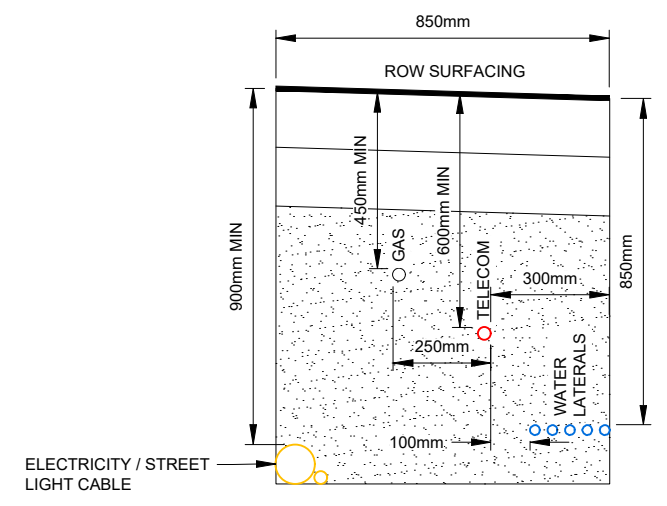
CONSENT

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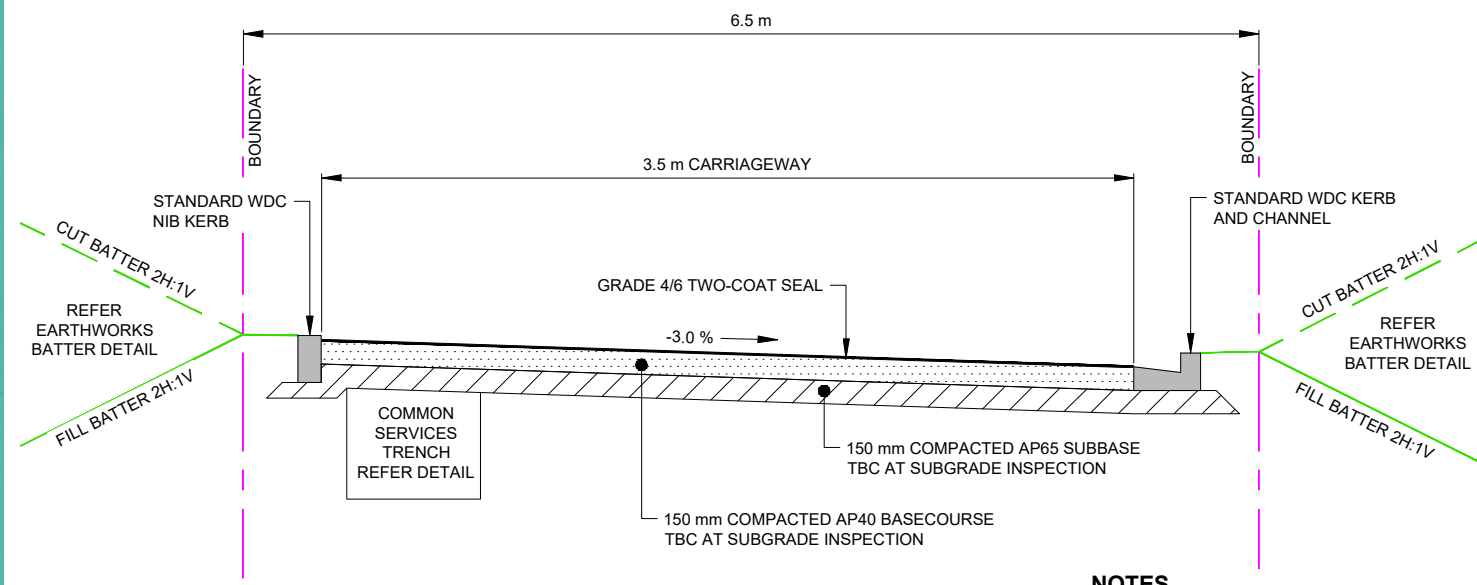
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ROW 2 PLAN - CH 0 TO 34.6m
SCALE 1:250



COMMON SERVICES TRENCH DETAIL
SCALE 1:20



ROW 2 TYPICAL CROSS SECTION
SCALE 1:50

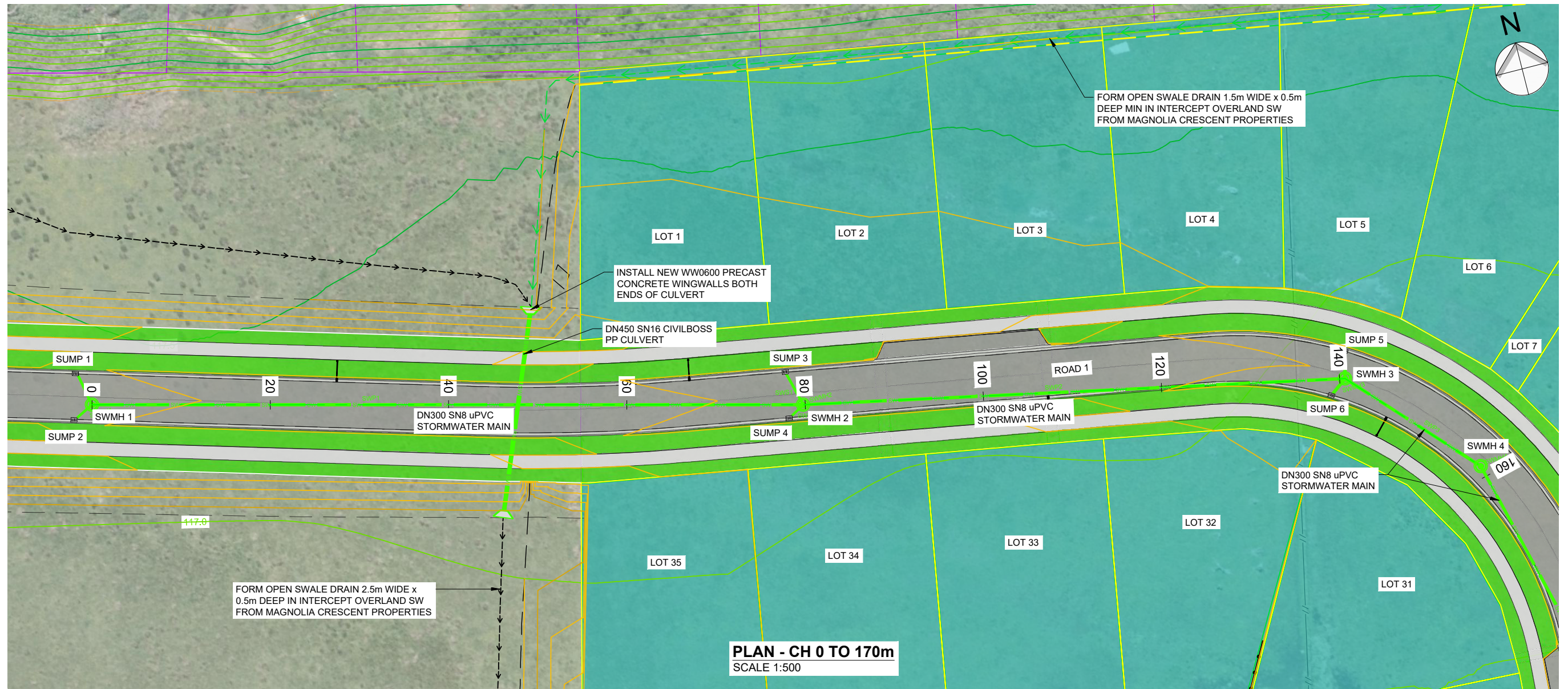
- NOTES**
- EXISTING AND PROPOSED SERVICES NOT SHOWN IN TYPICAL SECTIONS FOR CLARITY.

	EXISTING GROUND LEVEL		DESIGN CL FINISHED LEVEL	
DATUM: 115.00	-----			
EXISTING LEVELS	116.20	116.28	116.37	116.42
DESIGN LEVELS	117.64	117.73	117.77	117.79
CUT/FILL DEPTHS	1.44	1.39	1.36	1.32
CHAINAGE	0.0	10.0	20.0	30.0
VERTICAL GEOMETRY	2.54 -3.0%	66.53 0.5%		

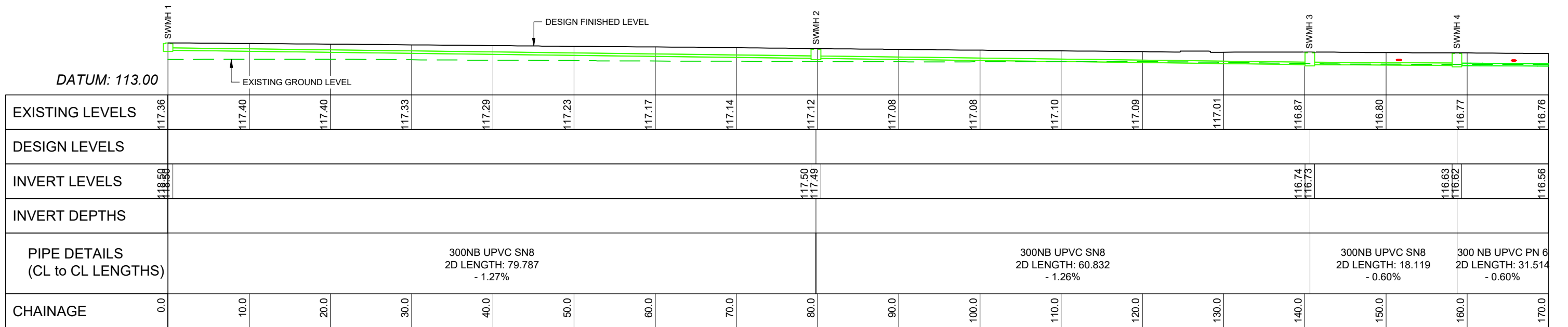
LONG SECTION - CH 0 TO CH 34.6
SCALE 1:250 1x VERTICAL EXAGGERATION

CONSENT

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	DATE 17.03.20	REV A	ISSUED FOR CONSENT	CM BY	LB CHD	- VER	- APP	Job No. 3485		Sheet No. C1-6		REV. A			



PLAN - CH 0 TO 170m
SCALE 1:500



LONG SECTION - CH 0 TO CH 170m
SCALE 1:500 1x VERTICAL EXAGGERATION

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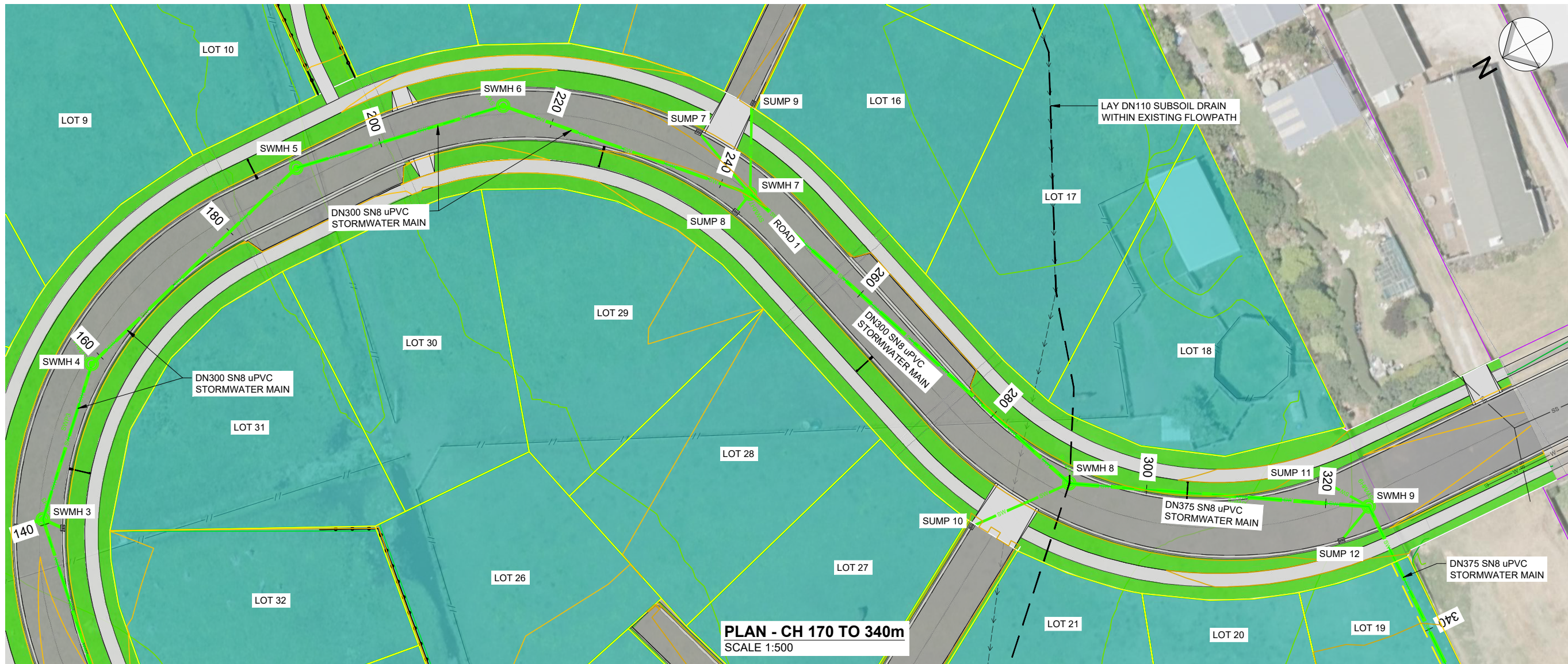
Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**STORMWATER LAYOUT
PLAN AND LONGSECTION
CH 0 TO 170m**

Drawing No.
DWG-100-365

Job No. **3485** Sheet No. **C2-1**

A3
REV.
A



	DESIGN FINISHED LEVEL															EXISTING GROUND LEVEL																				
DATUM: 113.00																																				
EXISTING LEVELS	116.76	116.57	116.20	116.51	116.37	116.31	116.24	116.21	116.22	116.21	116.15	116.13	116.19	116.22	116.39	116.88	117.14	117.00	116.76	116.57	116.20	116.51	116.37	116.31	116.24	116.21	116.22	116.21	116.15	116.13	116.19	116.22	116.39	116.88	117.14	117.00
DESIGN LEVELS			118.03			117.94			117.84				117.58				117.42																			
INVERT LEVELS	116.56		116.44 116.43			116.29 116.29			116.12 116.11				115.83 115.75				115.59 115.58																			
INVERT DEPTHS			-1.59			-1.65			-1.72				-1.79				-1.84																			
PIPE DETAILS (CL to CL LENGTHS)	300 NB UPVC PN 6 2D LENGTH: 31.514 - 0.60%		300NB UPVC SN8 2D LENGTH: 24.029 - 0.60%			300 NB UPVC PN 6 2D LENGTH: 29.161 - 0.60%				375 NB UPVC PN 6 2D LENGTH: 47.944 - 0.60%					375NB UPVC SN8 2D LENGTH: 33.420 - 0.50%				375NB UPVC SN8 2D LENGTH: 71.115 - 0.50%																	
CHAINAGE	170.0	180.0	190.0	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0	300.0	310.0	320.0	330.0	340.0	170.0	180.0	190.0	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0	300.0	310.0	320.0	330.0	340.0

LONG SECTION - CH 170 TO CH 170m
SCALE 1:500 1x VERTICAL EXAGGERATION

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Client
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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

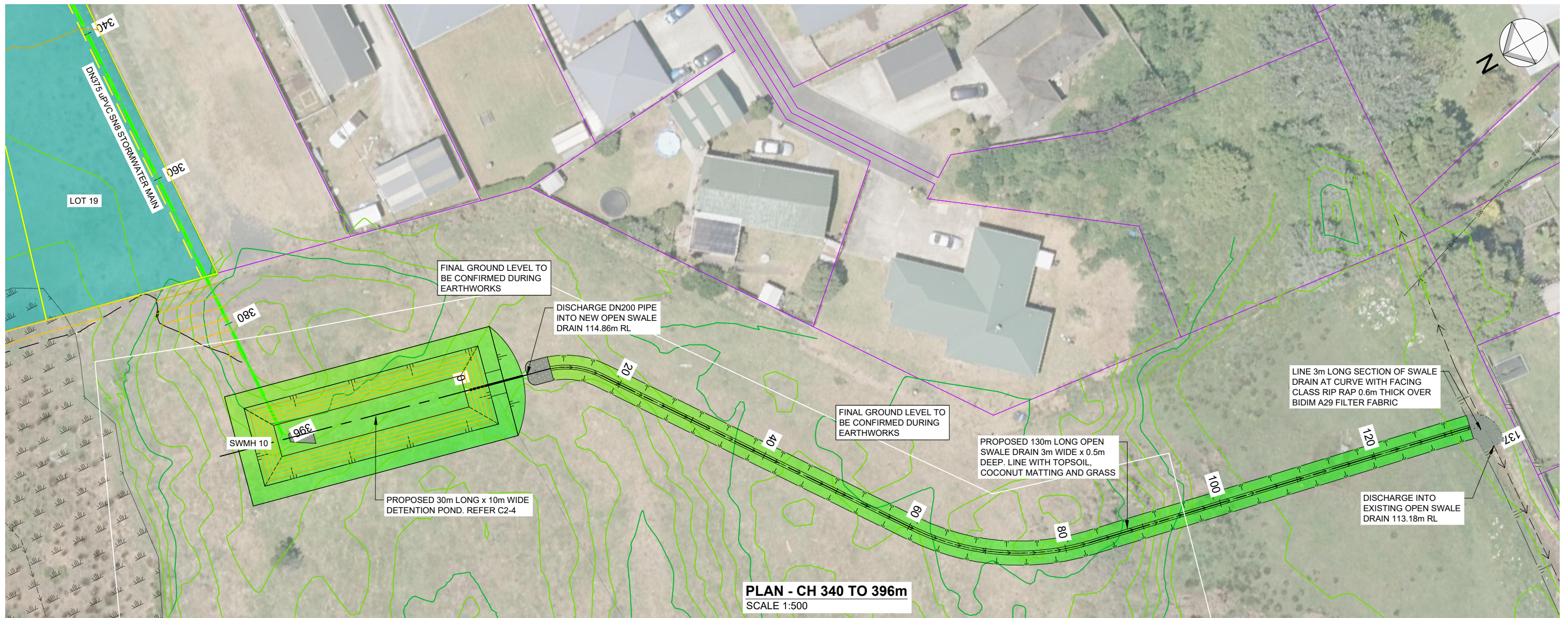
Sheet Title
**STORMWATER LAYOUT
PLAN AND LONGSECTION
CH 170 TO 340m**

Drawing No.
DWG-100-365

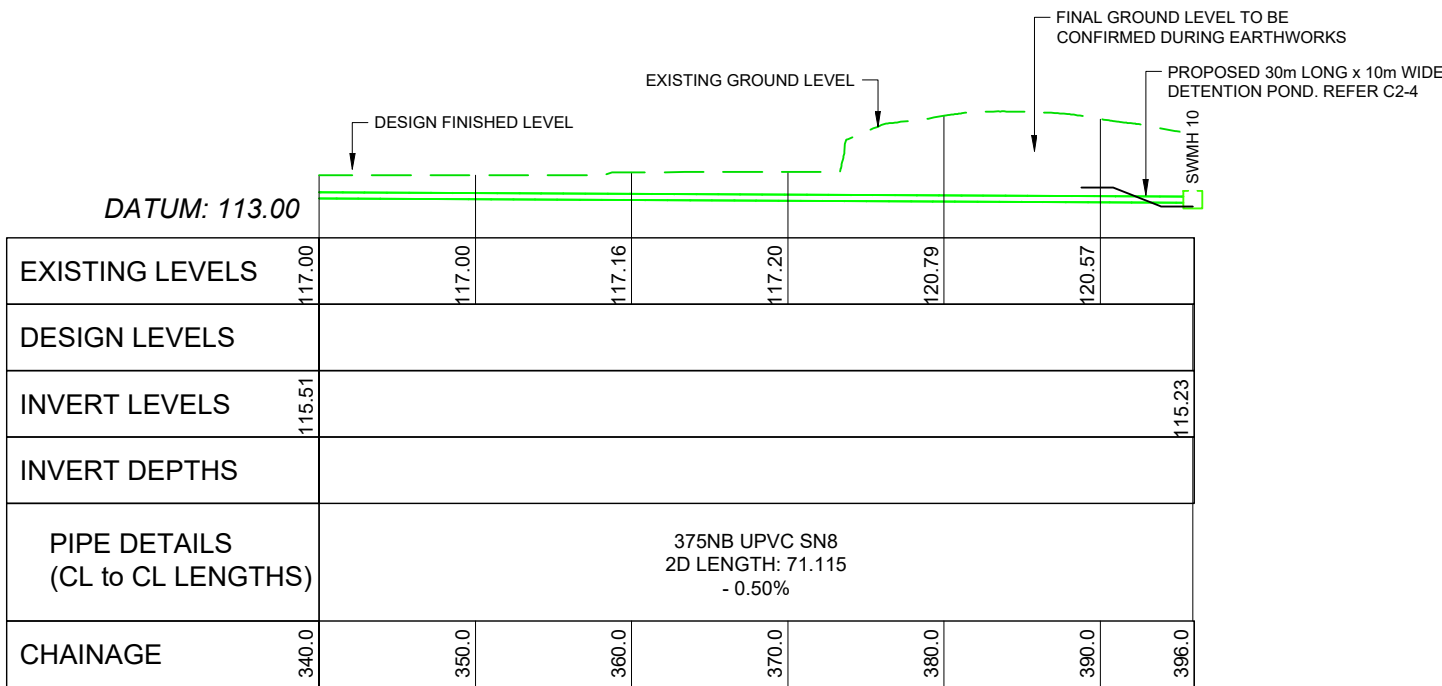
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A3
REV.
A

File Name: Z:\JOB\3001-3500\3485 Magnolia Crescent - Residential Subdivision\Drawings\DWG-100-365.dwg - C2-3 Plot Date: 17/03/2020 Plot Time: 09:38



PLAN - CH 340 TO 396m
SCALE 1:500

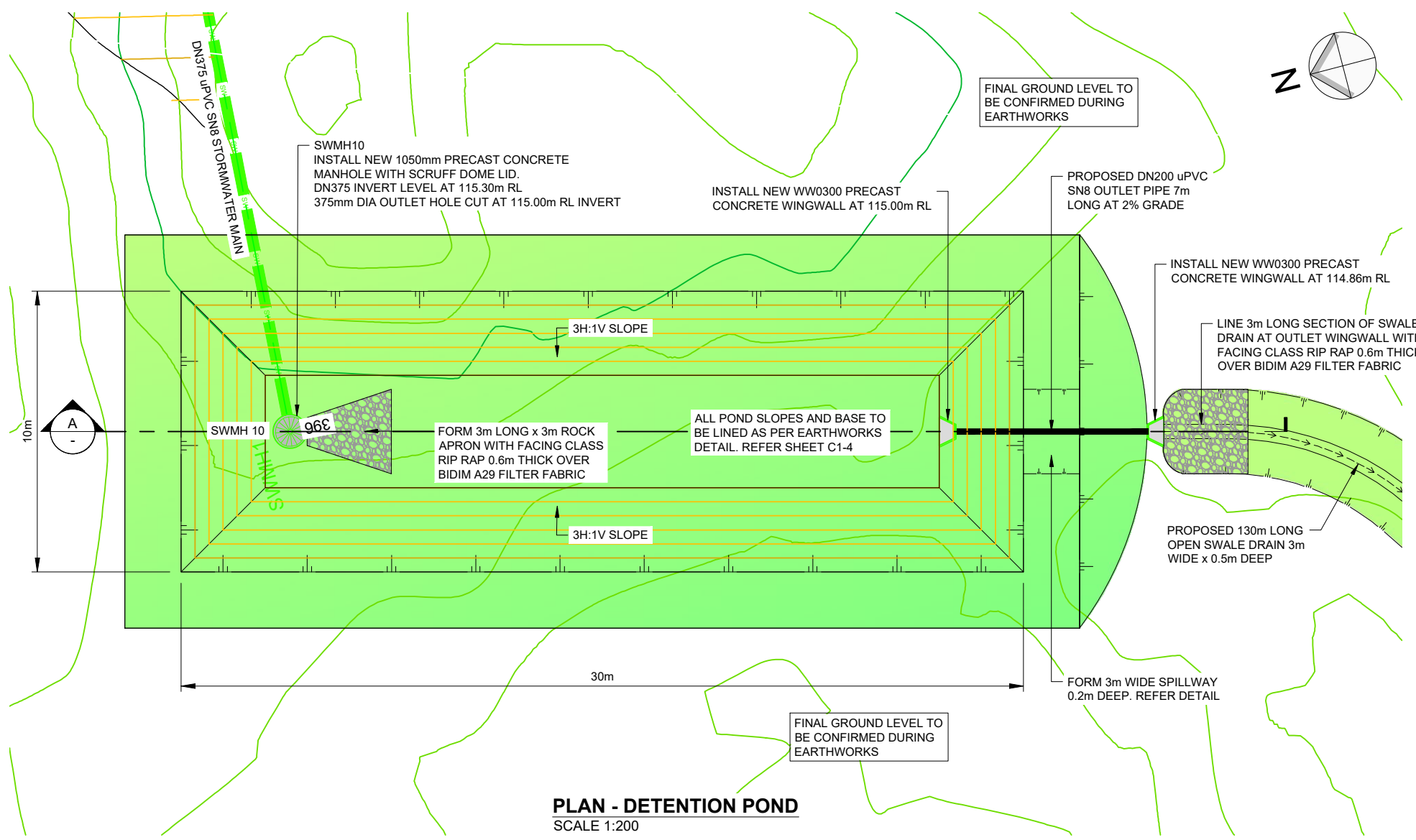


LONG SECTION - CH 340 TO CH 397.5m
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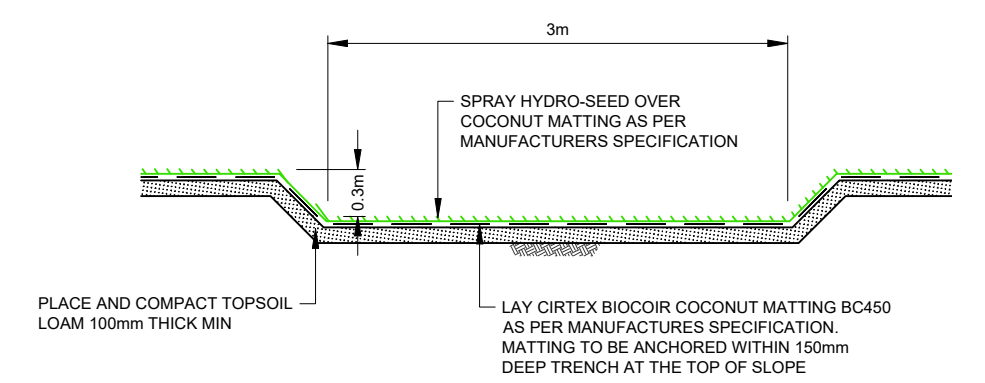
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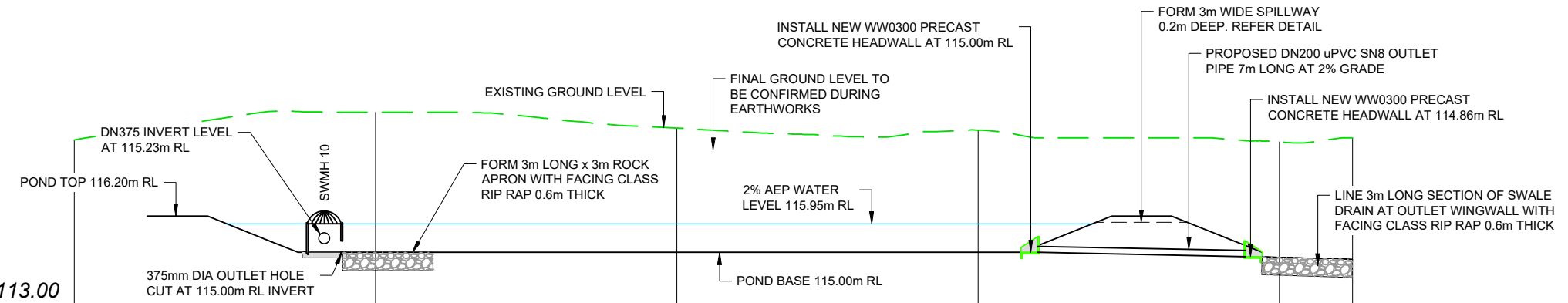
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SCALE 1:200



SPILLWAY DETAIL
SCALE 1:50

RIP RAP GRADING TABLE

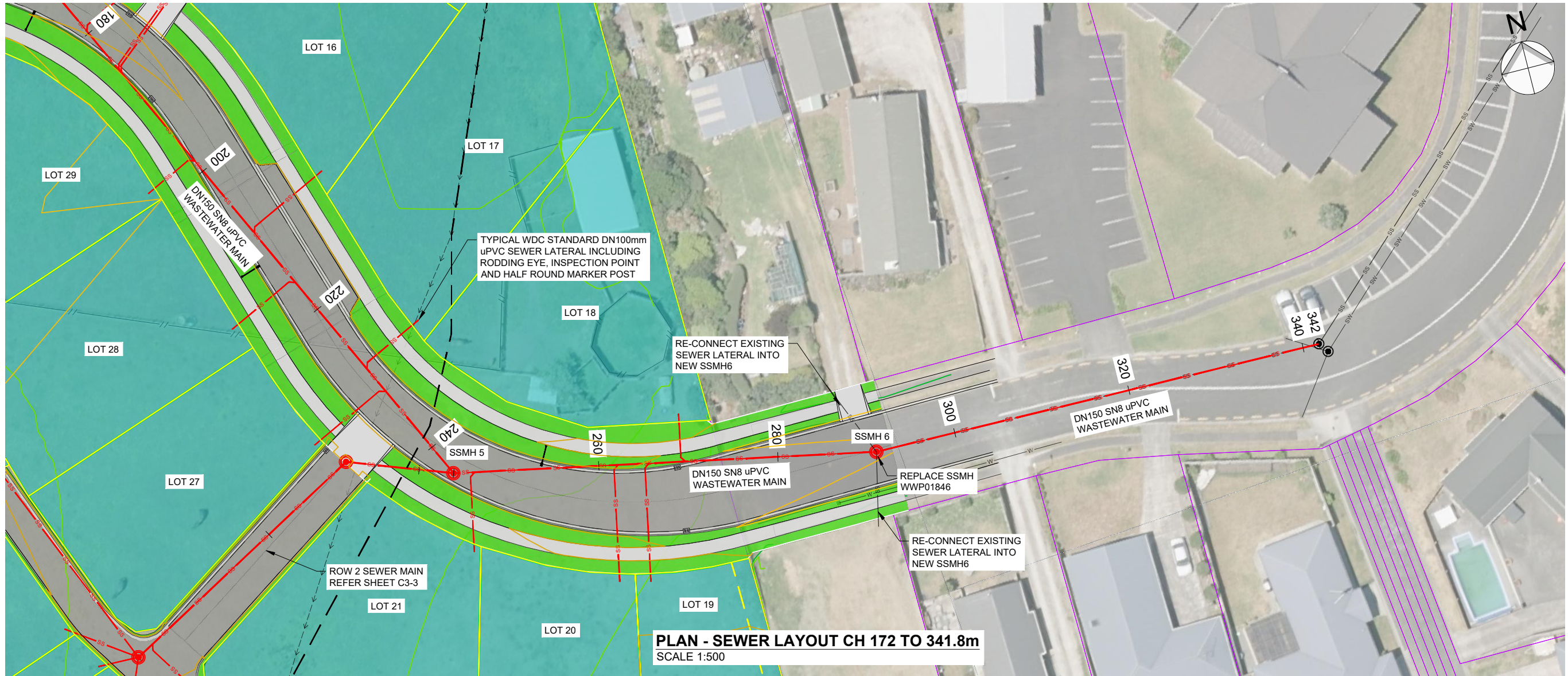
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	0.30	35	50
	0.15	3	90



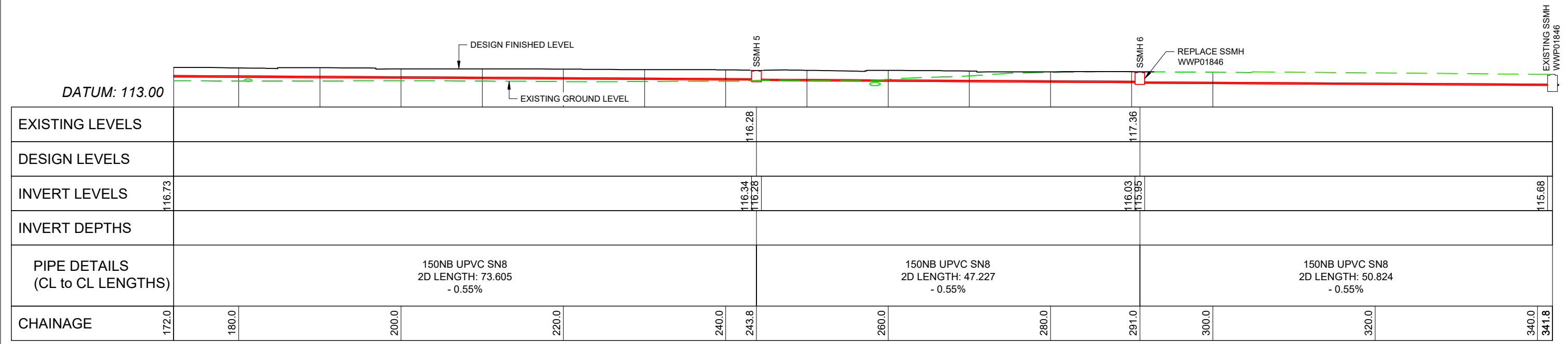
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	DATE REV REV RECORD	Job No. 3485	Sheet No. C2-4	A				



PLAN - SEWER LAYOUT CH 172 TO 341.8m
SCALE 1:500



LONG SECTION - CH 172 TO CH 341.8m
SCALE 1:500 1x VERTICAL EXAGGERATION

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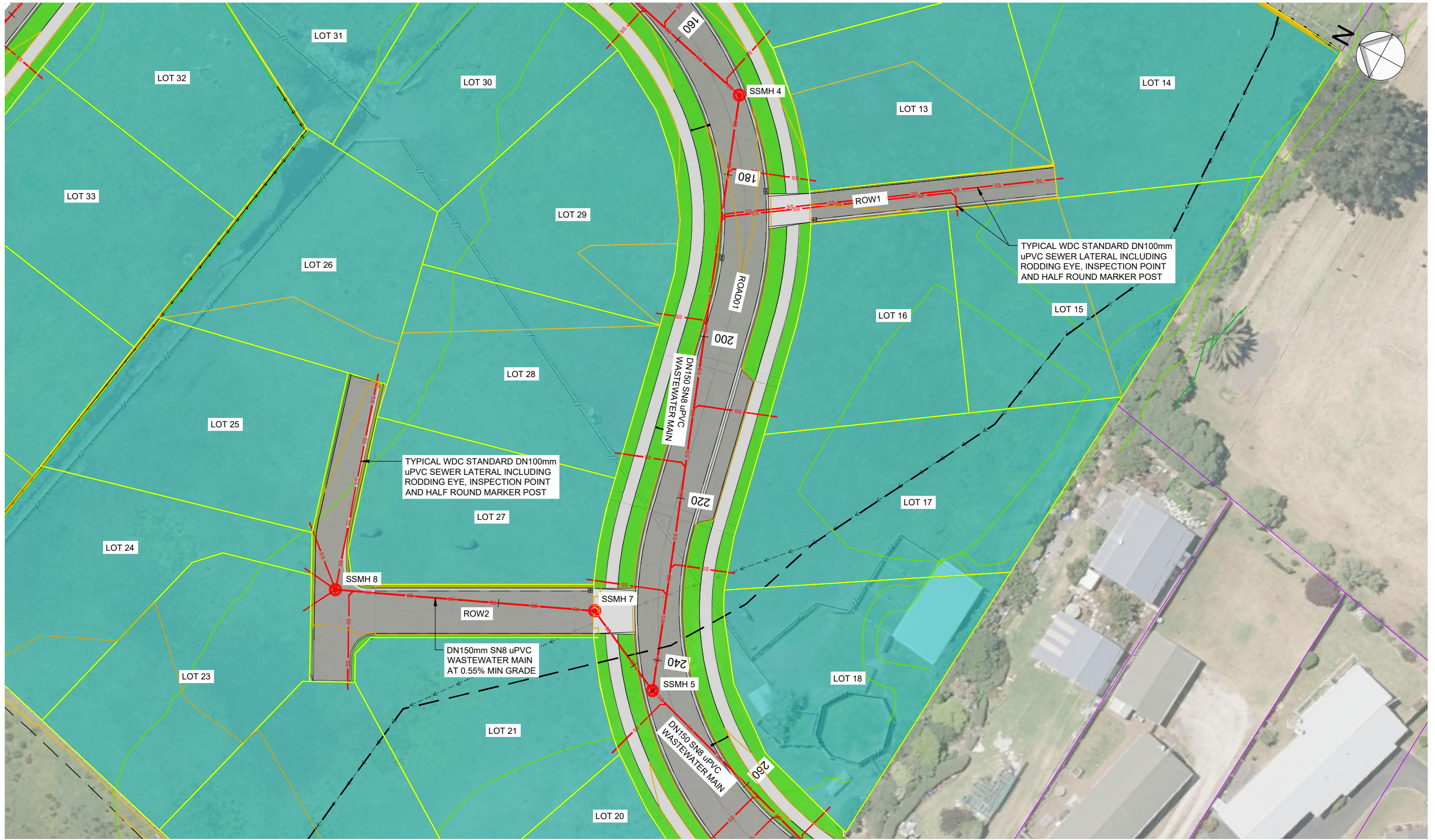
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LOT 5 DP 22736
WHANGANUI**

Sheet Title
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PLAN AND LONGSECTION
CH 172 TO 341.8m**

Drawing No.	DWG-100-365	A3
Job No.	3485	REV.
Sheet No.	C3-2	A

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PLAN - ROW1 AND ROW2 SEWER LAYOUT
SCALE 1:500

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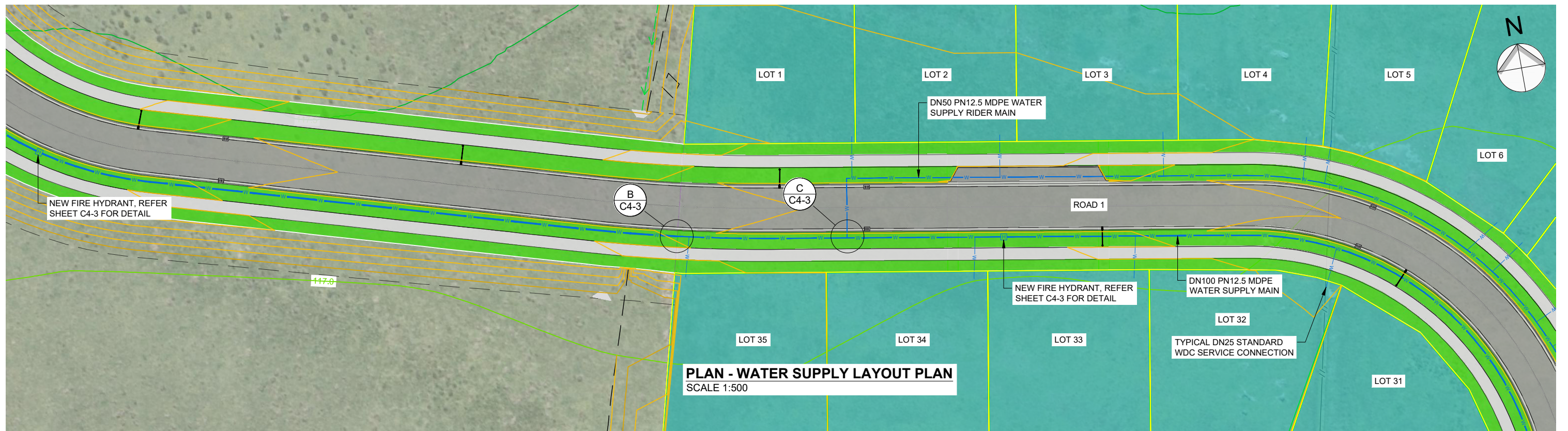
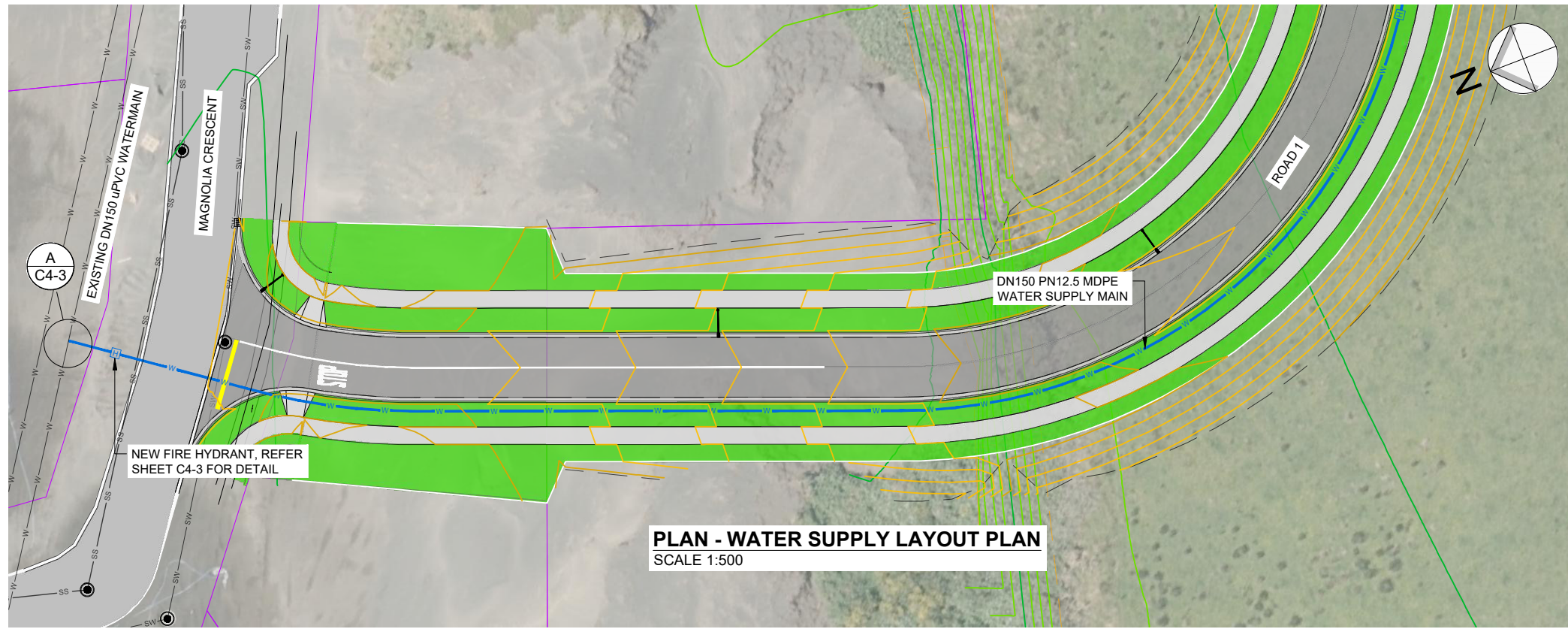
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LOT 5 DP 22736
WHANGANUI**

Sheet Title
**WASTEWATER LAYOUT
ROW1 AND ROW 2 PLAN**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C3-3	REV. A



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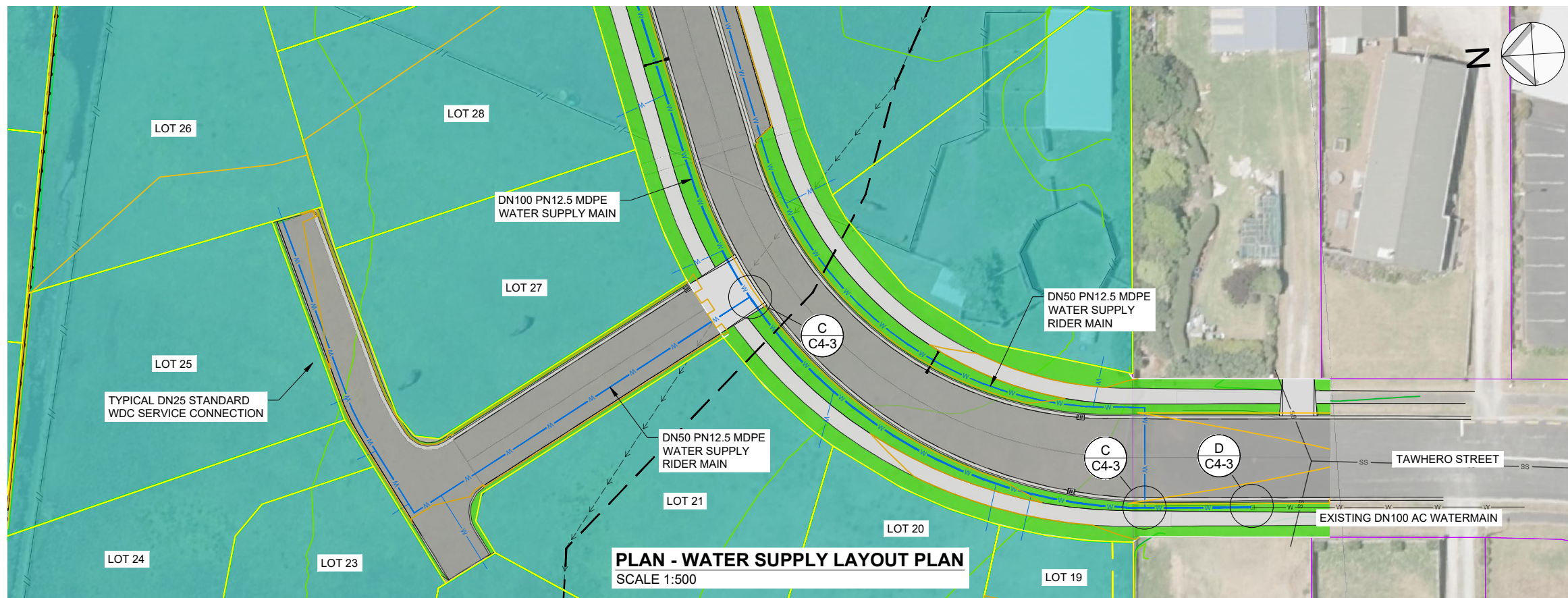
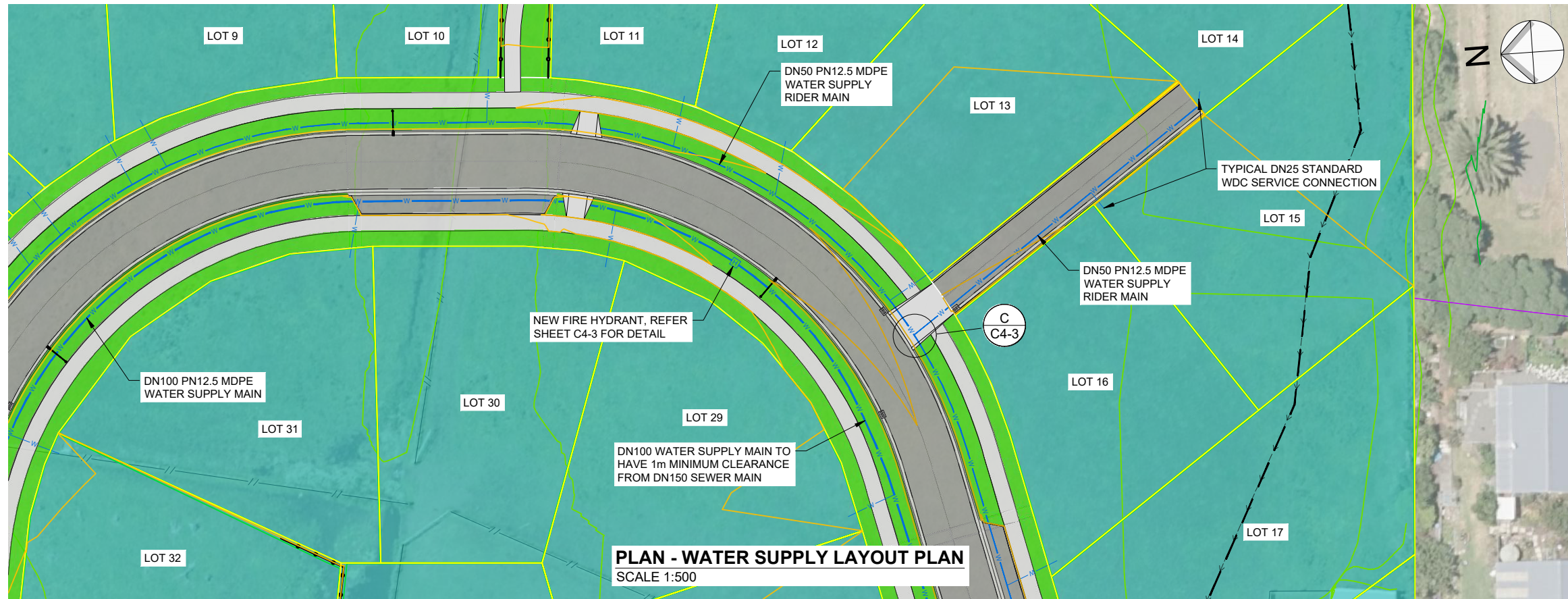
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LOT 5 DP 22736
WHANGANUI

Sheet Title
WATER SUPPLY LAYOUT 1
PLAN AND DETAILS

Drawing No.
DWG-100-365

Job No. 3485
Sheet No. C4-1

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LOT 5 DP 22736
WHANGANUI

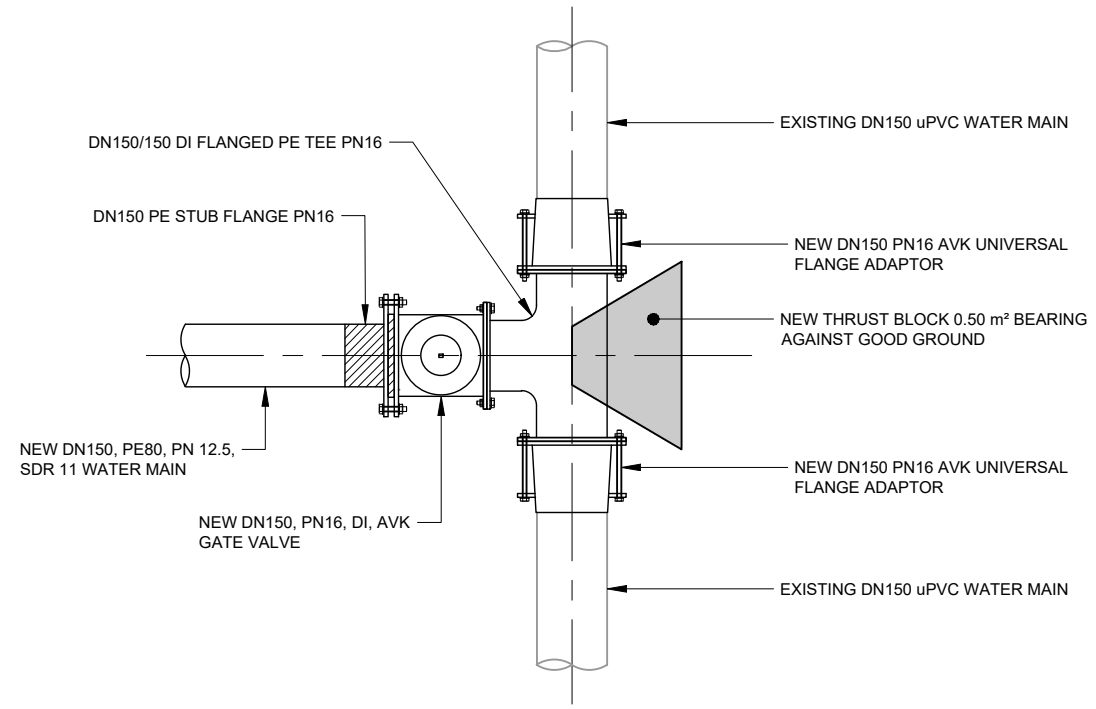
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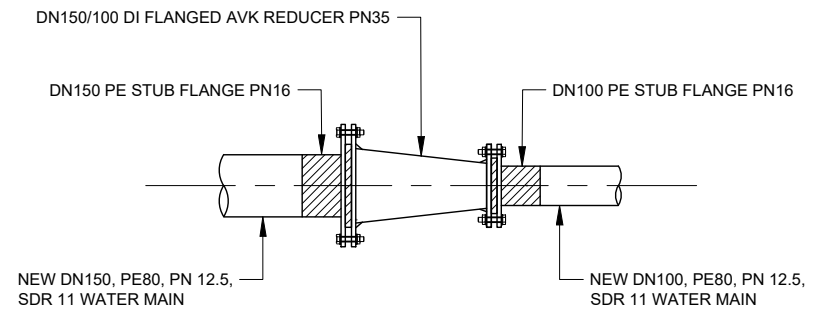
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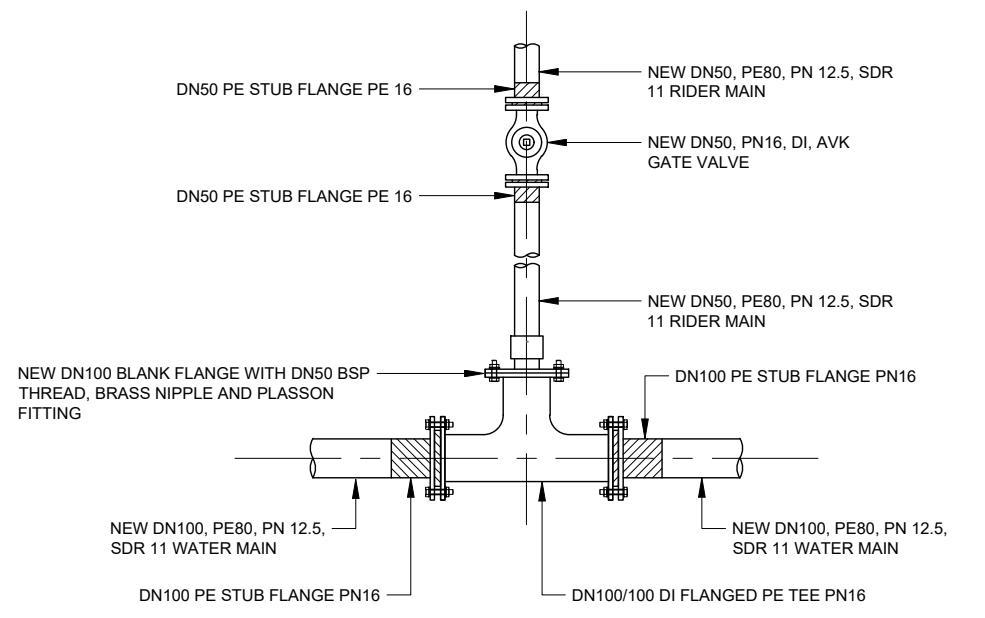
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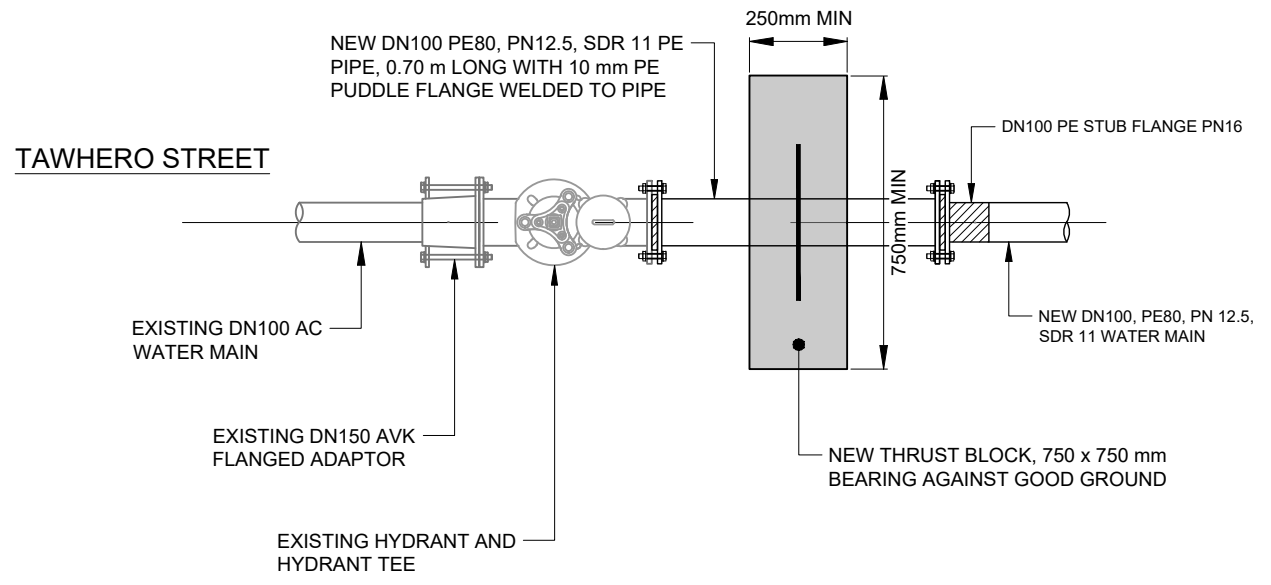
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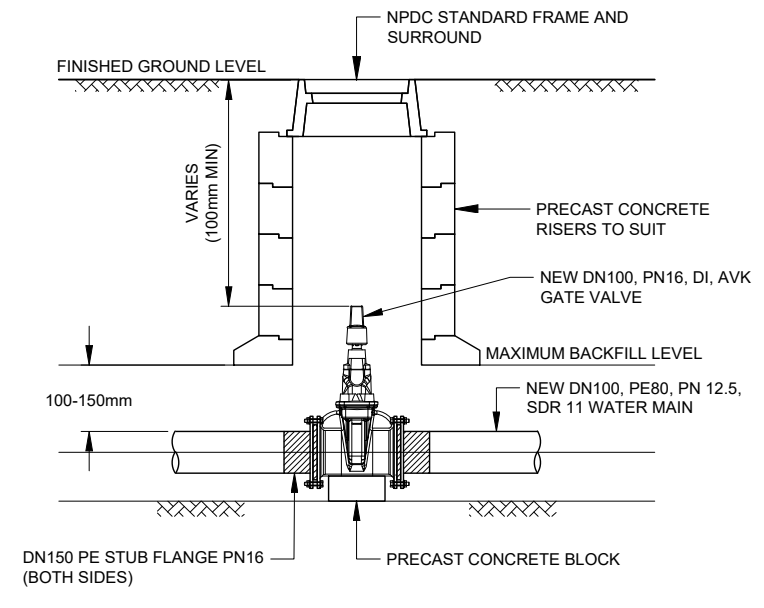
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C4-1 SCALE 1:20



C SECTION
C4-1 SCALE 1:20



D SECTION
C4-1 SCALE 1:20



DN100 STANDARD VALVE DETAIL
SCALE 1:20

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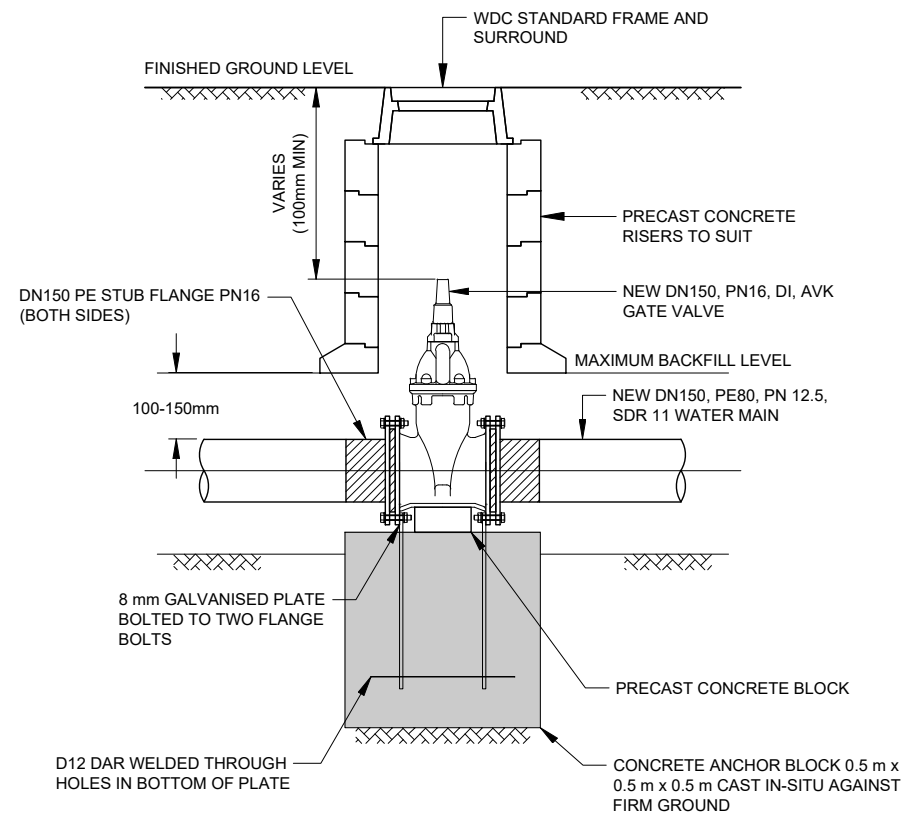
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LOT 5 DP 22736
WHANGANUI**

Sheet Title
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CONSTRUCTION DETAILS**

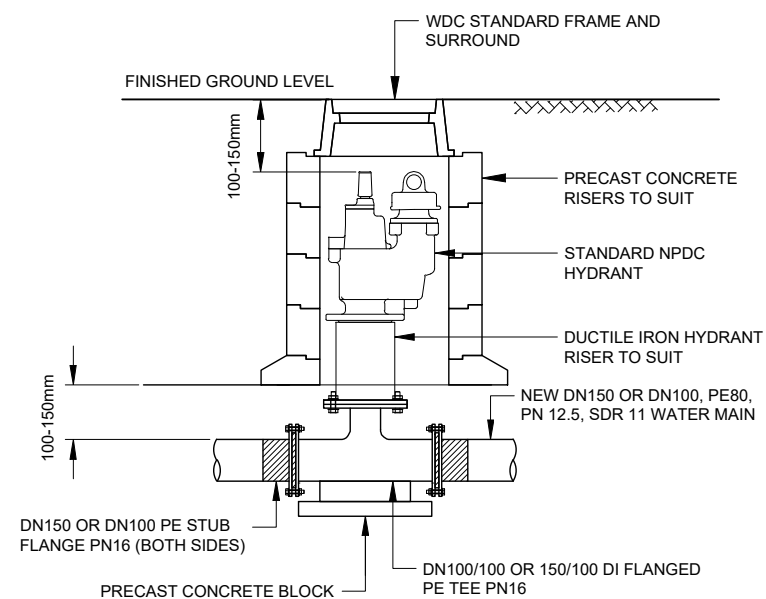
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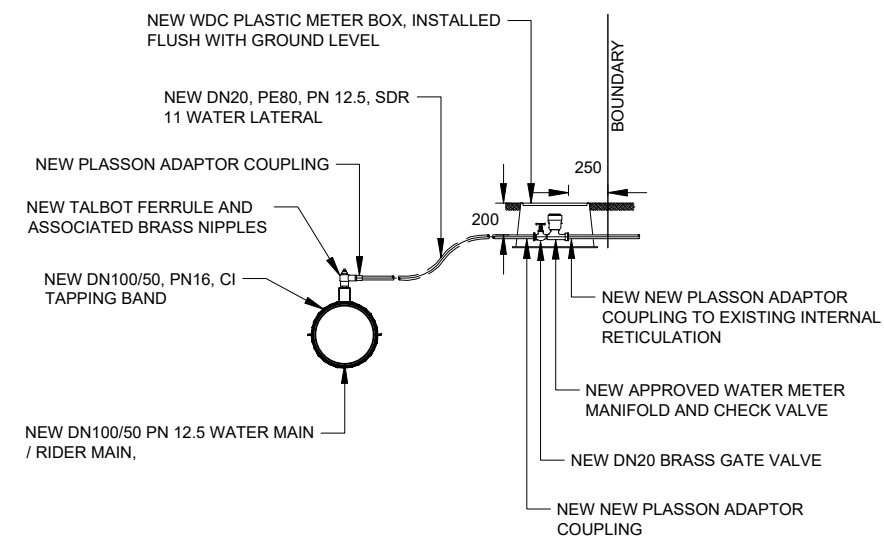
A3
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DN150 STANDARD VALVE DETAIL
SCALE 1:20



STANDARD HYDRANT DETAIL
SCALE 1:20



TYPICAL WATER LATERAL DETAIL
SCALE 1:20

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MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI

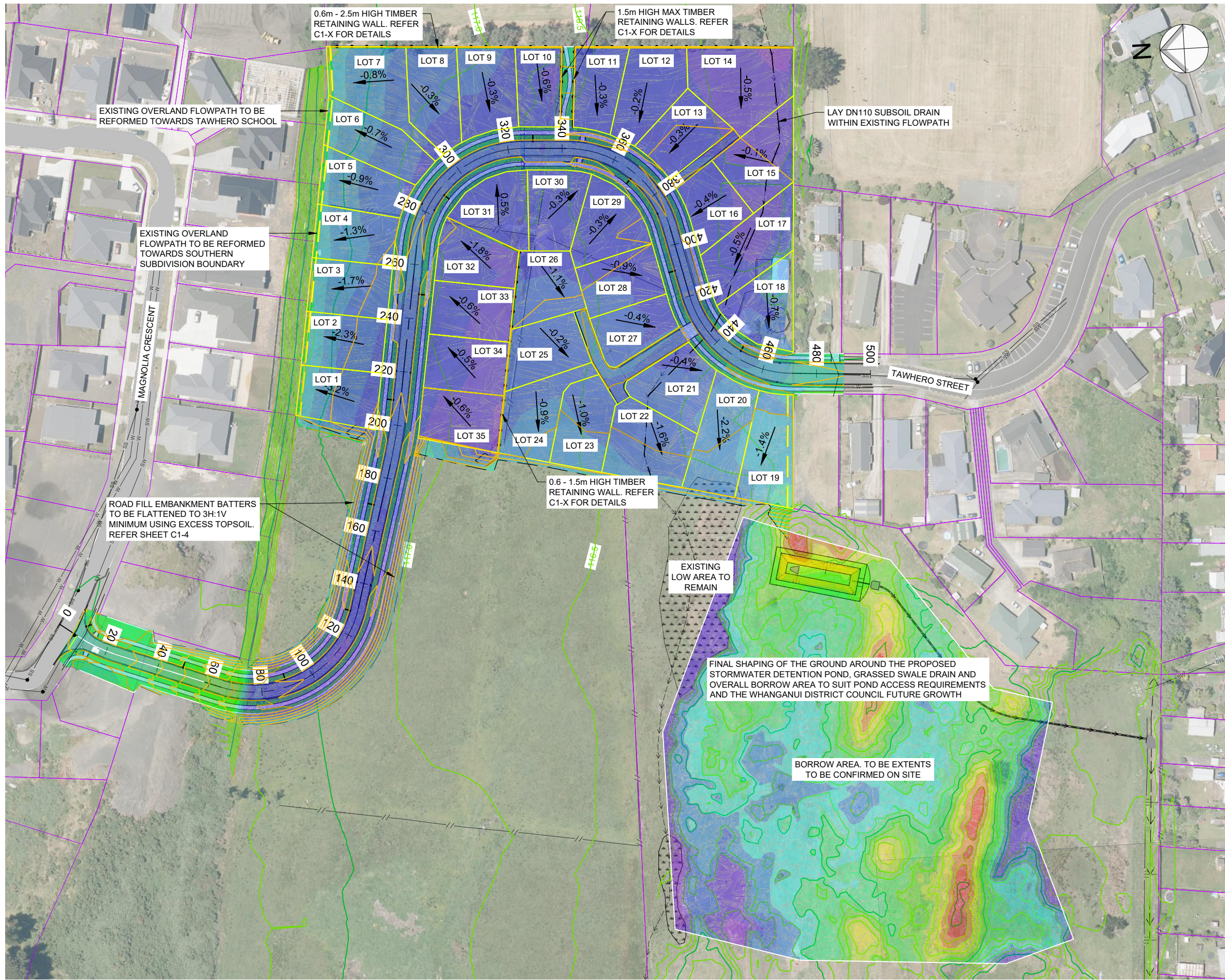
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Drawing No.
DWG-100-365

Job No. 3485
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A3
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A

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Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-6.000	-5.500
2	Red-Orange	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Orange-Yellow	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Yellow-Green	-3.500	-3.000
7	Light Green	-3.000	-2.500
8	Green	-2.500	-2.000
9	Light Green	-2.000	-1.500
10	Green	-1.500	-1.000
11	Light Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Light Blue	0.500	1.000
15	Blue	1.000	1.500
16	Blue	1.500	2.000
17	Blue	2.000	2.500
18	Blue	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

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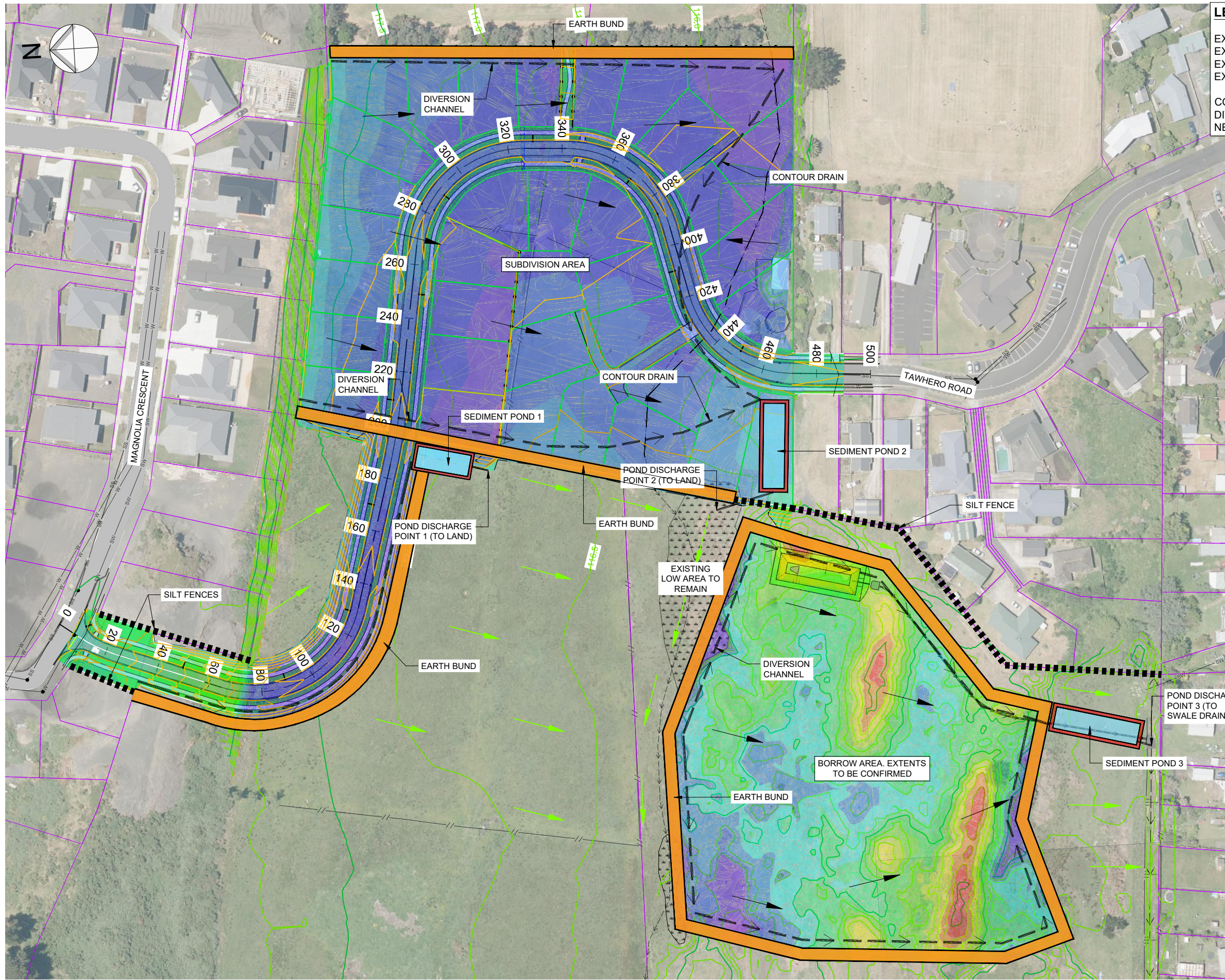
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A SIGLEY DEVELOPMENTS LTD

Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
EARTHWORKS CUT AND FILL PLAN

Drawing No.	DWG-100-365	A3
Job No.	3485	REV.
Sheet No.	C5-1	B

File Name: Z:\JOBS\3001-3500\3485 Magnolia Crescent - Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C6-1 Plot Date: 17/03/2020 Plot Time: 09:39



LEGEND

- EXISTING LEGAL BOUNDARY
- EXISTING SWALE DRAIN
- EXISTING CONTOUR
- EXISTING SURFACE FALL
- CONTOUR DRAIN/DIVERSION CHANNEL
- DIVERSION BUND
- NEW SURFACE FALL

Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-6.000	-5.500
2	Red	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Orange	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Yellow	-3.500	-3.000
7	Light Green	-3.000	-2.500
8	Light Green	-2.500	-2.000
9	Light Green	-2.000	-1.500
10	Light Green	-1.500	-1.000
11	Light Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Light Blue	0.500	1.000
15	Light Blue	1.000	1.500
16	Blue	1.500	2.000
17	Blue	2.000	2.500
18	Purple	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

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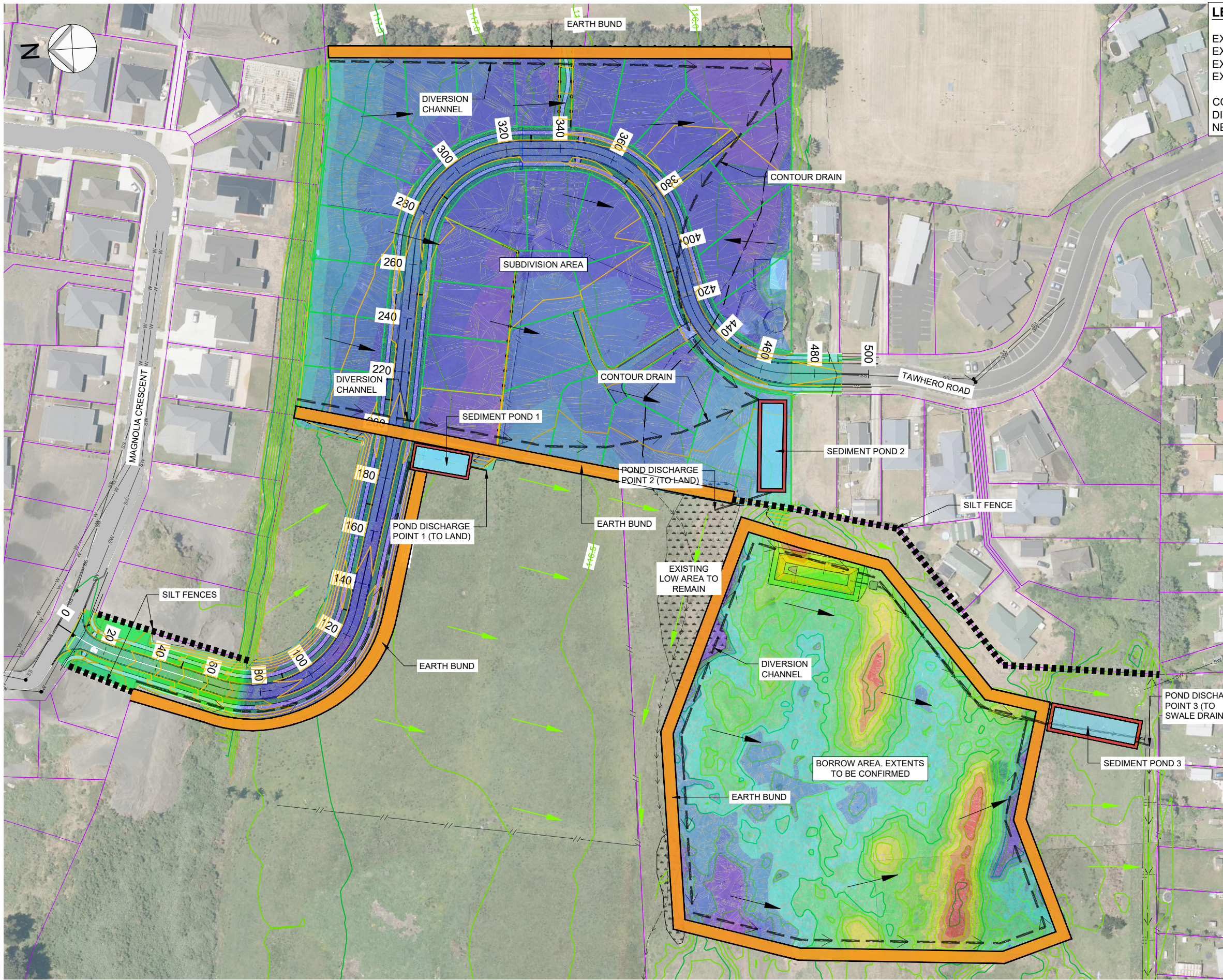
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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**EROSION AND SEDIMENT
CONTROL LAYOUT**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C6-1	REV. B

APPENDIX III EROSION AND SEDIMENT CONTROL PLAN



LEGEND

- EXISTING LEGAL BOUNDARY (dashed purple line)
- EXISTING SWALE DRAIN (dashed black line with arrows)
- EXISTING CONTOUR (green line)
- EXISTING SURFACE FALL (green arrow)
- CONTOUR DRAIN/DIVERSION CHANNEL (dashed black line with arrows)
- DIVERSION BUND (thick orange line)
- NEW SURFACE FALL (black arrow)

Surface Analysis: Elevation Ranges

Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-6.000	-5.500
2	Red-Orange	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Light Orange	-4.500	-4.000
5	Yellow-Orange	-4.000	-3.500
6	Yellow	-3.500	-3.000
7	Light Green	-3.000	-2.500
8	Green	-2.500	-2.000
9	Light Green	-2.000	-1.500
10	Green	-1.500	-1.000
11	Light Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Cyan	0.000	0.500
14	Light Blue	0.500	1.000
15	Blue	1.000	1.500
16	Dark Blue	1.500	2.000
17	Purple	2.000	2.500
18	Dark Purple	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

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**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**EROSION AND SEDIMENT
CONTROL LAYOUT**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C6-1	REV. B

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EROSION AND SEDIMENT CONTROL PLAN
on the
PROPOSED SUBDIVISION
of
LOT 5 DP 22736
MAGNOLIA CRESCENT / TAWHERO STREET, WHANGANUI

CLIENT : A Sigley Developments
PROJECT TITLE : Magnolia Subdivision
Whanganui
DOCUMENT NUMBER : RPT-3485-02 Rev A

Issue	Description	Date	Prepared By	Checked By	Approved
A	ISSUED FOR CONSENT	Signature	C Miller	L Bunn	
		Date	March'2020	March'2020	
		Signature			
		Date			
		Signature			
		Date			
		Signature			
		Date			

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1. INTRODUCTION

We have been engaged to report on the engineering aspects of the proposed Magnolia Subdivision, located between Magnolia Crescent and Tawhero Street, Whanganui, Lot 5 DP 22736, as shown on the Harrison & O’Sullivan Ltd scheme plan below, Figure 1.1, and Appendix I.

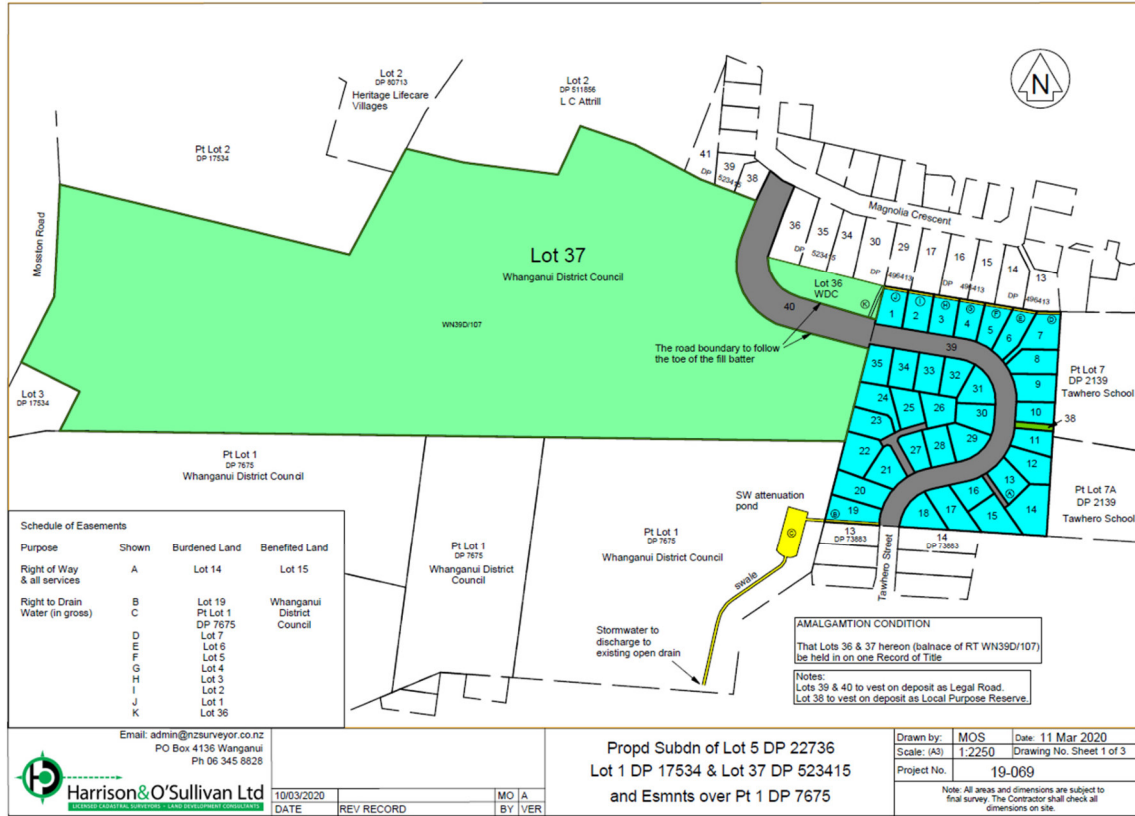


Figure 1.1: Harrison & O’Sullivan Ltd – Scheme Plan

The proposed subdivision includes creating 35 new residential Lots and construction a new road to link Magnolia Crescent and Tawhero Street. Significant earthworks are required to form the Lots and proposed road layout.

This report outlines the proposed erosion and sediment controls to be put in place during construction of the proposed subdivision and to accompany the Horizons Regional Council (HRC) Resource Consent application.

2. EROSION AND SEDIMENT CONTROL PLANNING

This erosion, stormwater and sediment control plan is intended to ensure that the subdivision developer minimises the adverse effects of erosion and sediment from the proposed construction of the subdivision.

Erosion has two main potential causes being wind and stormwater. This plan focuses on control of erosion from stormwater and sediment transportation by both stormwater and wind effects.

Objectives

The erosion and sediment control objectives of the subdivision developer, as detailed within this plan include:

- i. Minimising adverse environmental effects related to erosion and sedimentation.
- ii. Provide guidance to the developer and contractor responsible for site works on how to minimise such effects.
- iii. Ensuring compliance with resource consent conditions.
- iv. Ensuring compliance with applicable local and national laws, rules and regulations.

Strategy

To meet the objectives defined above, the subdivision developer will ensure its contractors:

- i. Use current best practice including training and awareness.
- ii. Use planning of site activities with awareness of minimising adverse erosion and sediment effects.
- iii. Place emphasis on erosion control as a primary approach to minimise sediment generation.
- iv. Use pro-active installation, management, monitoring and improvement (if required) of erosion and sediment control for the specific site.

Factors Considered

As part of the planning process, the following factors have been considered:

- i. Climate including season and local rainfall.
- ii. Local topography including the slope and scope of planned construction activities.
- iii. Soil type and characteristics.
- iv. Extent of planned construction works.

2.1. Site Construction Works

This section outlines the key construction works in relation to potential erosion and sediment issues. The construction works include bulk earthworks - cut to fill, pavement installation and preparation/reinstatement of Lots.

Refer to Red Jacket drawing set 100-365 for further details.

2.1.1 Bulk earthworks

Earthwork volumes for the site are estimated at 46,000 m³ cut to fill.

Topsoil will be stripped and stockpiled for use during reinstatement of cut and fill batters, and Lots.

2.1.2 Pavement construction

The quantity of compacted gravel for the roading layout is estimated at approximately 1,000 m³.

2.1.3 Permanent drainage

Drainage measures include the installation of:

- i. A reticulated stormwater network for carriageway catchment.
- ii. A detention pond and outlet structure/swale drain to an existing swale drain.
- iii. Secondary flow path swale drains

Drainage locations are marked in the design drawings for the site.

2.1.4 Construction Sequencing

The construction sequence will include:

- i. Site survey set out including establishment of erosion and sediment control measures (as described in Appendix B – erosion and sediment control plan A3 drawing)
- ii. Installation of sediment control ponds, strip topsoil and stockpile for re-use during reinstatement.
- iii. Earthworks including cut of the borrow area and the cutting and filling of the main site to achieve design subgrade levels.
- iv. Installation and compaction of granular pavement for the roading layout.
- v. Reinstatement of cut/fill batters and Lots with stockpiled topsoil, coconut matting and hydro-seeding upon completion (reinstate each section before commencing new work).

2.2. Site Erosion and Sediment Control Measures

Control measures for this site are detail below. Refer Appendix V for the Red Jacket Erosion and Sediment Control Plan 100-365 Sheet 6-1. The final erosion and sedimentation control measures will have to be confirmed in conjunction with the construction planning and programming.

Prior to any physical earthworks commencing:

- i. Vegetation and natural surfaces outside of the planned working area will be identified and retained where possible. This will be achieved by marking areas not to be disturbed.
- ii. Slopes (to be disturbed) greater than 25% gradient will be identified. A decision will be made on whether special treatment for their protection is required.

- iii. Control measures including stormwater control, silt catchment and surface preparation will be installed, as per detailed below.

Information on typical control measures is available within the publication - Erosion and Sediment Control Guidelines for the Wellington Region, September 2002, Reprinted June 2006, Greater Wellington Regional Council.

2.2.1 Construction of Erosion and Sediment Control Measures in Relation to Surface Runoff

Prior to the commencement of bulk earthworks works, control measures will be implemented as per this plan for the construction phase. Refer details in Sections 2.3, 2.4 and 2.5.

Typical measures will include, but will not be limited to:

Erosion control

- i. Stormwater diversion channels (to divert upslope stormwater away from the site).
- ii. Revegetation.

Sediment control

- i. Sediment ponds (for localised areas).
- ii. Silt fences.
- iii. Earth bunds.
- iv. Overlaying disturbing ground with compacted topsoil and hydroseeded/temporary seeding/mulching/coconut matting, and fabric geotextiles.

2.2.2 Control Measures in Relation Wind

After soil and ground is disturbed it shall be stabilised as to minimise wind-blown dust and other air pollutants as soon as possible.

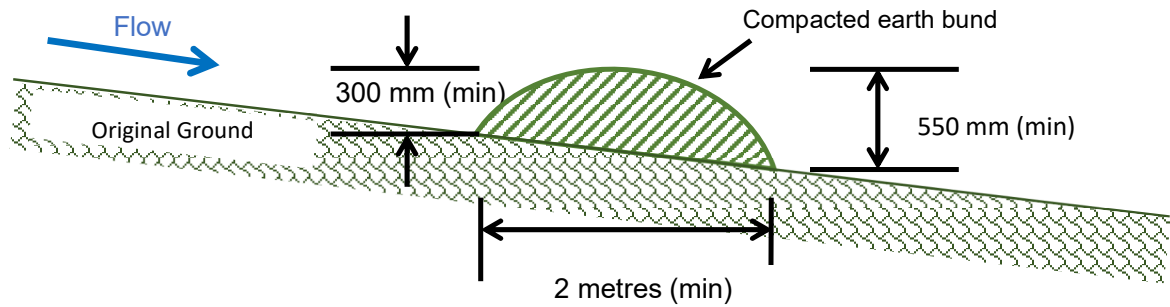
Stabilising control measures during dry months include, but will not be limited to:

- i. Minimise areas of site exposed to wind by staging works.
- ii. Reduce construction plant operating speeds through site to 5 km/hr.
- iii. Use of irrigation systems to spray water to stabilise overlying loose dry sand.
- iv. Use of water carts to spray water to stabilise overlying loose dry sand.
- v. Overlaying disturbing ground with compacted topsoil and hydroseeded/temporary seeding/mulching/coconut matting, and geotextiles.
- vi. If all other measures fail or are unattainable dust suppressant must be used.

2.3. Erosion Control Details

Immediately above areas of significant earthworks (> 500 m²), diversion channels / bunds will be installed to direct clean water away from the cut slope to prevent erosion and sediment runoff.

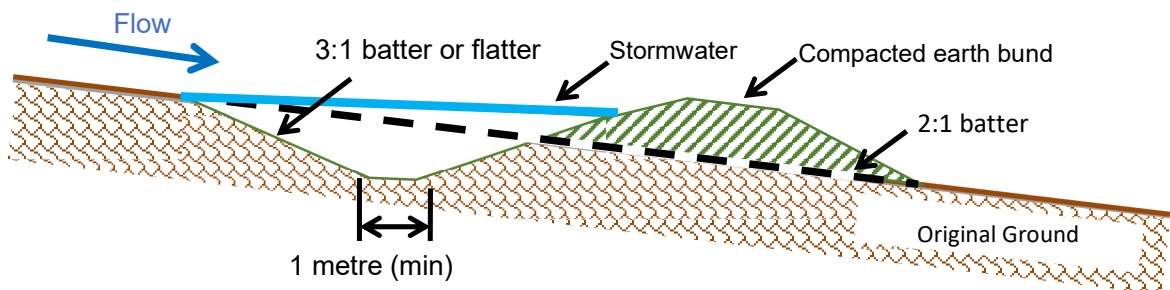
Diversion Bund



- NB. 1. Soil to form bund to be taken from disturbed area.
 2. Vegetation in undisturbed area to remain intact

Figure 2.1: Cross section – Diversion Bund

Diversion Channel

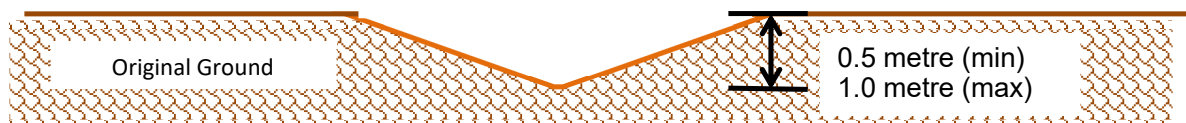


- NB. 1. Soil to form bund to be taken from disturbed area.
 2. Vegetation in undisturbed area to remain intact

Figure 2.2: Cross section – Diversion Channel

Contour (catch) Drains

Contour drains are to be installed (generally) as part of permanent stormwater management.



- NB. 1. Vegetation in undisturbed area to remain intact

Figure 2.3: Cross section – Contour (Catch) Drains

2.4. Silt Control Details

Silt fences are to be constructed from geotextile minimum 600 mm height, with minimum 200 mm into ground. Silt fences are to be installed along the contours as shown in the Red Jacket ERCP.

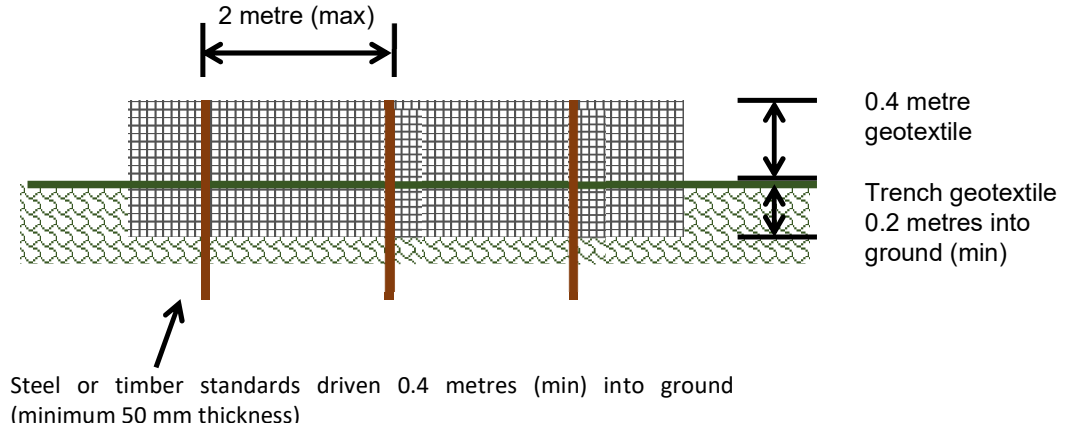


Figure 2.4: Cross section – Contour (Catch) Drains

They should be installed so that:

- i. There are no gaps between joins in the fabric.
- ii. The geotextile is appropriate as per manufacturers specifications.
- iii. The geotextile is buried so that water cannot pass under the fence.
- iv. Returns are installed as support at right angles to the main fence as required (minimum 2.0 m length).

Table 2.1: Silt Fence Design Layout

Slope (%)	Slope Distance Between Fences (m) (maximum)	Return Spacing (m)	Silt Fence Length (m) (max)
<2%	Unlimited	None required	Unlimited
2-10%	40	60	300
10-20%	30	50	230
20-33%	20	40	150
33-50%	15	30	75
>50%	6	20	40

Source: HBRC 2009

2.5. Sediment Retention Ponds

The entire site including subdivision area and borrow area equate to approximately 4.8 ha. During the construction works, three sediment retention ponds will be required to services three distinct areas; the Magnolia Crescent end of the Road 01, the subdivision Lot area, and the borrow area.

The sediment pond sizing steps shown within this section detail the design steps for minimum volume of 2% the contributing catchment. Any flow up to and including the 1% AEP event discharging via a spillway. The GWRC 'Erosion and Sediment Control Guidelines for the Wellington Region' have been used to ensure adequate sizing of sediment detention. The sediment pond sizing is based on a maximum of 1 ha of disturbed ground open at any one time.

GWRC 'Erosion and Sediment Control Guidelines for the Wellington Region' stipulates 2% area (200 m³ per 1 Ha) for soil disturbance areas, with 30% of that area retained as dead storage.

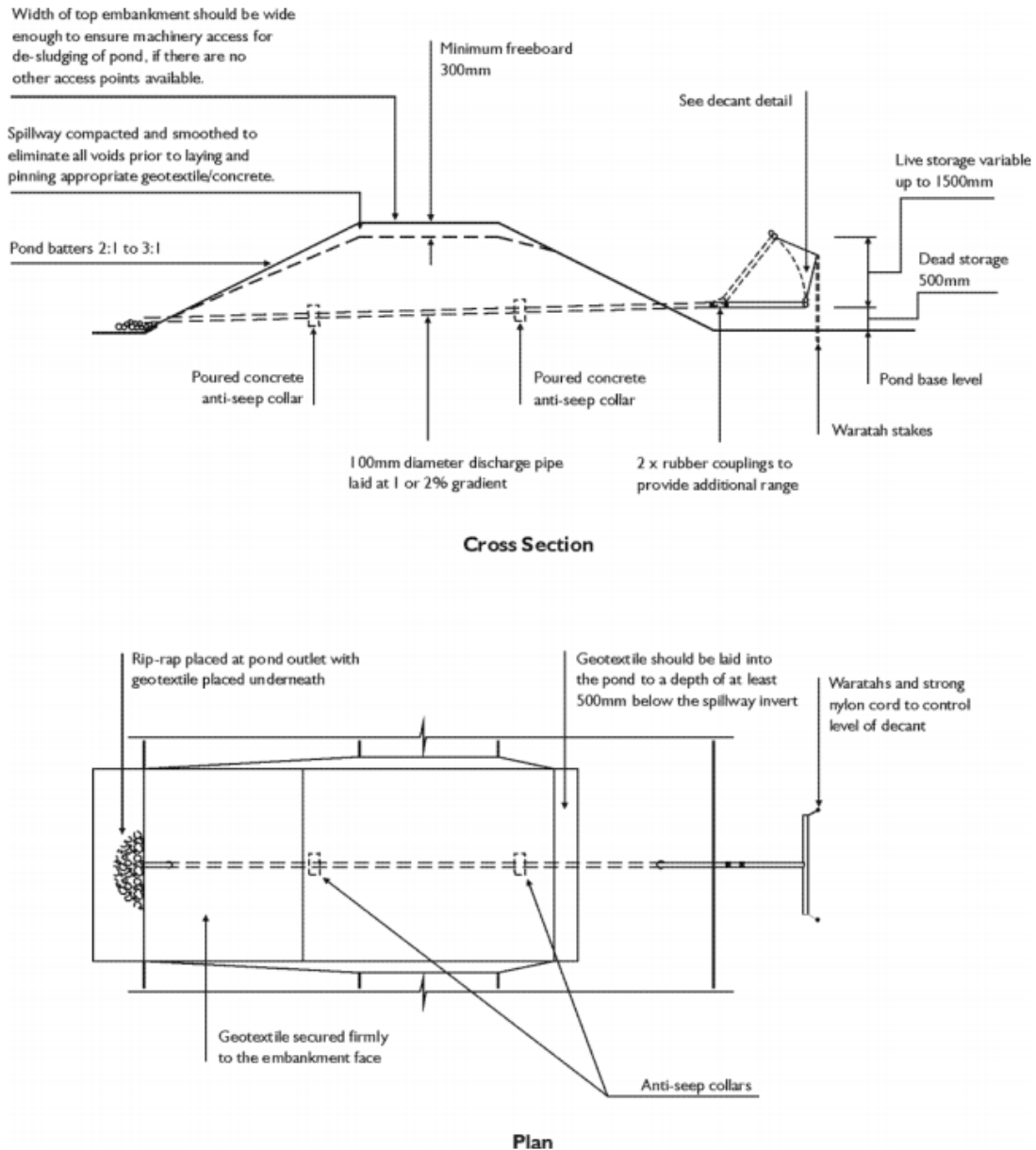


Figure 2.5: Sediment Retention Pond for Catchments up to 1.5 ha

Specific design criteria can be summarised as the following:

- i. Generally, use Sediment Retention Ponds for bare areas of bulk earthworks of 0.3 ha or greater.
- ii. Restrict catchment areas to less than 5.0 ha per Sediment Retention Pond. This limits the length of overland flow paths and reduces maintenance problems.
- iii. Locate Sediment Retention Ponds to provide a convenient collection point for sediment laden flows from the catchment area. This will require strategic use of cut-offs, Runoff Diversion Channels and Contour Drains.
- iv. Locate Sediment Retention Ponds to allow access for removing sediment from the pond. Wherever possible, locate Sediment Retention Ponds to allow the spillway to discharge over undisturbed, well vegetated ground.
- v. Keep the Sediment Retention Pond life to less than two years. If a longer term is required, then further measures to ensure stability and effectiveness are likely to be needed.
- vi. Do not locate Sediment Retention Ponds within watercourses.
- vii. Embankment and spillway stability are generally the weak point in Sediment Retention Pond construction. Correct compaction particularly around emergency spillways, discharge pipes and anti-seep collars, will keep the system robust.
- viii. All sediment retention ponds will include a perimeter fence as well as low gradient pond batters to provide additional safety measures.

2.5.1 Sediment Pond 1

The initial roading extension from Magnolia Crescent into the subdivision catchment area is 0.55 Ha, therefore the minimum sediment pond size based on GWRC's minimum requirements is 110 m³, with 33.3 m³ (30%) retained as dead storage. The designed pond allows for 121.7 m³ with 49.2 m³ (40%) dead storage.

Pond Outlet

Using a 1.0 m deep sediment pond, the invert of the pond outlet has been set at the level (0.5 m below spillway) to provide 49.2 m³ of dead storage, which is 0.5 m from the bottom of the pond. GWRC states that the pipe diameter will be 100 mm and allow for 2 L/s/Ha of catchment discharge.

Spillway

With the elevation of invert of the outlet pipe set, the spillway (a grass swale), which corresponds with 1.0 m elevation above the bottom of the pond.

Emergency spillway will be constructed as a stabilised trapezoidal cross section with a minimum bottom width of 4 m as the contributing catchments has an area of less than 1.5 Ha.

Pond Dimensions

To meet the required pond capacity, the pond will be approximately 8 m wide and 18 m long at the surface (including 0.3 m high bund / spillway). The pond sides will be installed with side slopes of 1:1 (V:H) for three sides and 1:3 (V:H) on one side. The forebay will be designed to 8 m wide and 3 m long with a depth of 0.5 m with side slopes of 1:1 (V:H) for three sides and 1:2 (V:H) for inlet side. A corresponding elevation-storage table is provided below.

Table 7.2: Storage Elevation Sediment Pond 1

Elevation (m)	Volume (m ³)	Outlet
0	0	
0.5	49.2	Invert of Ø100 mm
1.0	121.7	Swale invert at 1.0 m
1.3 (Top of bund)	176.1	

2.5.2 Sediment Pond 2

The proposed subdivision catchment area is split into maximum disturbed areas of 1 Ha max each, therefore the minimum sediment pond size based on GWRC's minimum requirements is 200 m³, with 60 m³ (30%) retained as dead storage. The designed pond allows for 202.2 m³ with 81.3 m³ (40 %) dead storage.

Pond Outlet

Using a 1.0 m deep sediment pond, the invert of the pond outlet has been set at the level (0.5 m below spillway) to provide 81.3 m³ of dead storage, which is 0.5 m from the bottom of the pond. GWRC states that the pipe diameter will be 100 mm and allow for 2 L/s/Ha of catchment discharge.

Spillway

With the elevation of invert of the outlet pipe set, the spillway (a grass swale), which corresponds with 1.0 m elevation above the bottom of the pond.

Emergency spillway will be constructed as a stabilised trapezoidal cross section with a minimum bottom width of 4 m as the contributing catchments has an area of less than 1.5 Ha.

Pond Dimensions

To meet the required pond capacity, the pond will be approximately 8 m wide and 28 m long at the surface (including 0.3 m high bund / spillway). The pond sides will be installed with side slopes of 1:1 (V:H) for three sides and 1:3 (V:H) on one side. The forebay will be designed to 8 m wide and 6 m long with a depth of 0.5 m with side slopes of 1:1 (V:H) for three sides and 1:2 (V:H) for inlet side. A corresponding elevation-storage table is provided below.

Table 7.3: Storage Elevation Sediment Pond 1

Elevation (m)	Volume (m ³)	Outlet
0	0	
0.5	81.3	Invert of Ø100 mm
1.0	202.2	Swale invert at 1.0 m
1.3 (Top of bund)	289.1	

2.5.3 Sediment Pond 3

The proposed borrow catchment area will be split into maximum disturbed areas of 1 ha max each as per the subdivision area. Therefore, Sediment Pond 3 will be as per Sediment Pond 2.

2.6. Maintenance and Monitoring of Erosion and Sediment Control Measures

During the site works, including bulk earthworks and re-establishment, control measures will be inspected and, if required, maintained daily.

After completion of the initial site works, inspection and maintenance will continue at suitable intervals including after significant rainfall events or significant days of wind combined with dry weather.

2.6.1 Runoff Diversion Channels / Bunds and Contour Drains

Maintenance of diversion channels / bunds will include (as a minimum):

- i. Repair as required as identified by inspection
- ii. Removal of any accumulated sediment
- iii. Outlet maintenance including scour and sediment build-up

2.6.2 Silt fences

Sediment and other debris will be removed when build up is noticed during routine inspection and will not exceed 50% depth of the fence. Silt fences shall only be removed after the ground is stabilised.

2.6.3 Sediment Ponds

Clean out sediment retention before sediment has reached 20% of the total sediment retention volume. Sediment removed from retention ponds will be disposed of in cut to waste to areas. Ensure embankment, batters, and baffles are compact and covered with vegetation or geotextiles. T-bar, outlet, and spillway should be cleared daily of obstructions to maintain flow. Access to the forebay is always to be maintained to allow easy access and frequent removal of accumulated sediments by excavator.

In addition to the daily maintenance inspection inspections will be undertaken weekly, and before and after each storm event, to check the effectiveness of the sediment ponds and to check for any major erosion concerns. After every large storm event sediment accumulated must be removed by excavator. Actual control locations used are shown in the Red Jacket ESCP.

2.6.4 Reinstatement and revegetation

Reinstatement and revegetation will be undertaken at the earliest opportunity, and no later than at the completion of each stage of work. Grassing / vegetation / mulching / geotextiles of slopes will be undertaken as soon as appropriate and will not await the completion of all other works on site, providing that the revegetation will not be affected by future construction works.

Temporary erosion and sediment controls, such as the diversion channels and sediment fences, will be removed only after vegetation has established and the soil stabilised.

2.6.5 Windblown control maintenance

After periods of significant days of wind combined with dry weather all control measures shall be inspected by the Site Manager and mitigations undertaken:

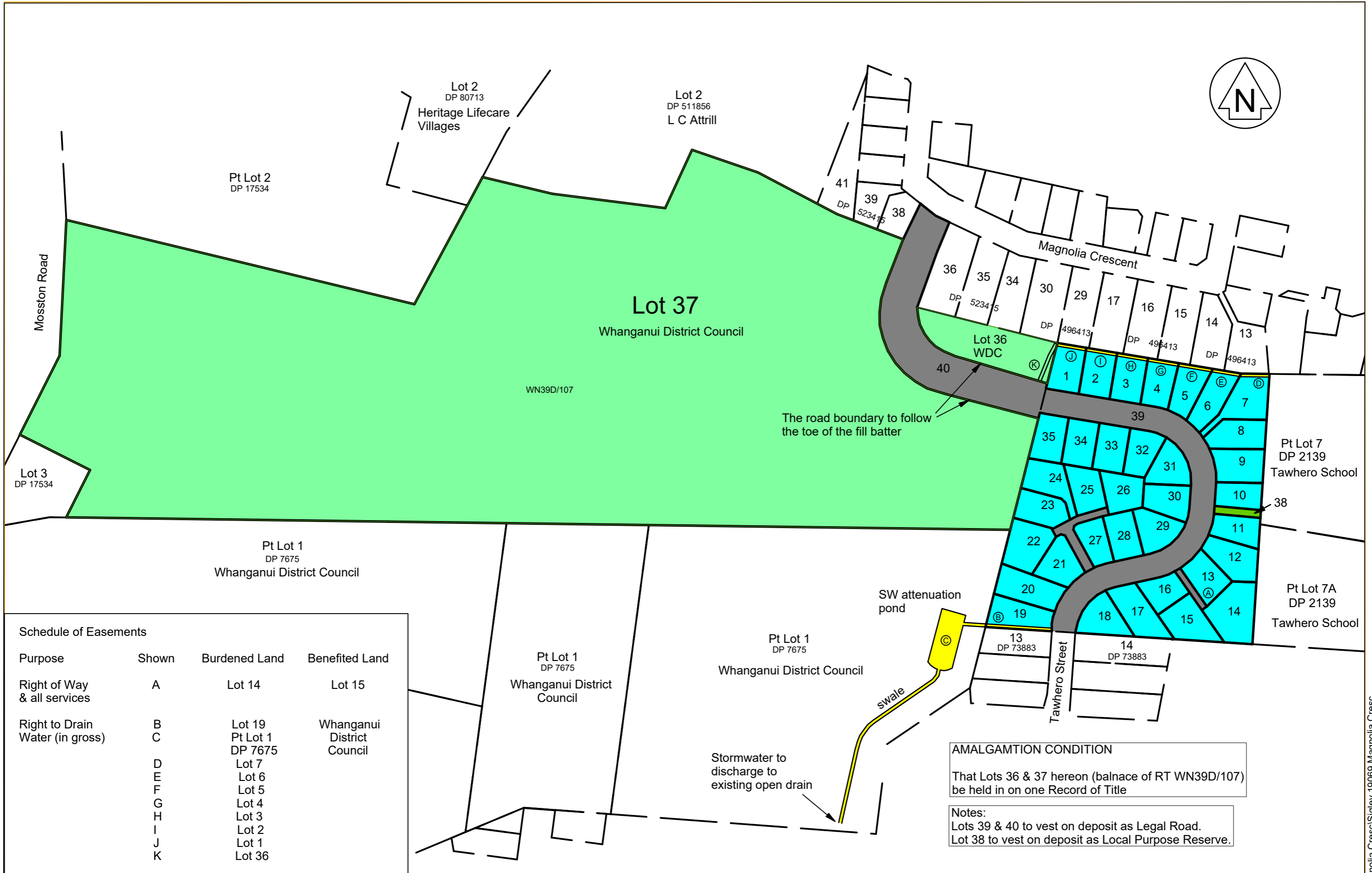
- i. Ensure topsoil is compacted.

- ii. New vegetation has not been killed by desiccation as summer proceeds and soil moisture content lowers.
- iii. Mulching/matting/geotextiles are fixed in place and covering the required disturbed area and uncovered stockpiled topsoil.
- iv. Irrigation/water cart system has adequate water pressure and supply from a hydrant located in Tawhero Road with at least 1 L/m²/hr available water.

3. LIMITATIONS

This report is prepared for your use as owners and for your agents for the stated purpose and cannot be used for any other purpose or by others unless authority is given by Red Jacket Ltd

APPENDIX I SCHEME PLAN



Schedule of Easements			
Purpose	Shown	Burdened Land	Benefited Land
Right of Way & all services	A	Lot 14	Lot 15
Right to Drain Water (in gross)	B	Lot 19	Whanganui District Council
	C	Pt Lot 1 DP 7675	
	D	Lot 7	
	E	Lot 6	
	F	Lot 5	
	G	Lot 4	
	H	Lot 3	
	I	Lot 2	
	J	Lot 1	
	K	Lot 36	

AMALGAMTION CONDITION
 That Lots 36 & 37 hereon (balnace of RT WN39D/107) be held in on one Record of Title

Notes:
 Lots 39 & 40 to vest on deposit as Legal Road.
 Lot 38 to vest on deposit as Local Purpose Reserve.

Email: admin@nzsurveyor.co.nz
 PO Box 4136 Wanganui
 Ph 06 345 8828

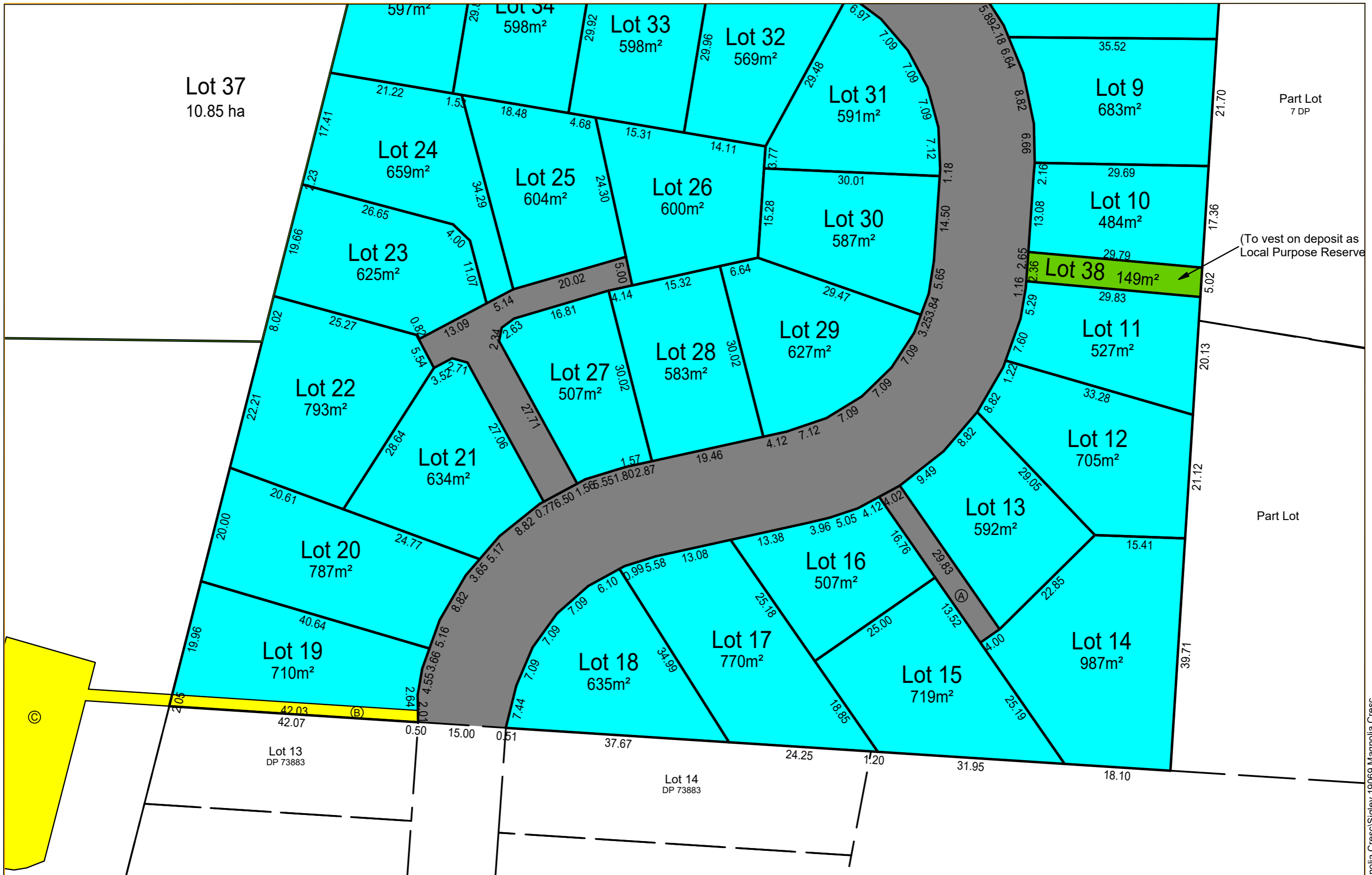
Harrison & O'Sullivan Ltd
 LICENSED CADASTRAL SURVEYORS - LAND DEVELOPMENT CONSULTANTS

10/03/2020		MO	A
DATE	REV RECORD	BY	VER

Propd Subdn of Lot 5 DP 22736
Lot 1 DP 17534 & Lot 37 DP 523415
and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	11 Mar 2020
Scale: (A3)	1:2250	Drawing No.	Sheet 1 of 3
Project No.	19-069		
Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.			

Z:\12d\Sigley 19069 Magnolia Cres\Sigley 19069 Magnolia Cresc



(To vest on deposit as Local Purpose Reserve)

Email: admin@nzsurveyor.co.nz
 PO Box 4136 Wanganui
 Ph 06 345 8828



Harrison & O'Sullivan Ltd
 LICENSED CADASTRAL SURVEYORS - LAND DEVELOPMENT CONSULTANTS

DATE	REV	RECORD	MO	A
			BY	VER

Propd Subdn of Lot 5 DP 22736
 Lot 1 DP 17534 & Lot 37 DP 523415
 and Esmnts over Pt 1 DP 7675

Drawn by:	MOS	Date:	11 Mar 2020
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Project No.	19-069		
Note: All areas and dimensions are subject to final survey. The Contractor shall check all dimensions on site.			

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APPENDIX II RJL ENGINEERING DRAWINGS

A SIGLEY DEVELOPMENTS MAGNOLIA CRESCENT EXTENSION WHANGANUI

SHEET No.	DESCRIPTION	17/03/20																		
C0-1	TITLESHEET	A																		
C0-2	SITE OVERVIEW PLAN	A																		
	ROAD 1																			
C1-1	PLAN AND LONGSECTION CH 0 TO 160m	A																		
C1-2	PLAN AND LONGSECTION CH 160 TO 330m	A																		
C1-3	PLAN AND LONGSECTION CH 330 TO 500m	A																		
C1-4	DETAILS	A																		
	ROW 1																			
C1-5	PLAN AND LONGSECTION CH 0 TO 38.1m	A																		
	ROW 2																			
C1-6	PLAN AND LONGSECTION CH 0 TO 34.6m	A																		
	STORMWATER																			
C2-1	LAYOUT - PLAN AND LONGSECTION CH 0 TO 170m	A																		
C2-2	LAYOUT - PLAN AND LONGSECTION CH 170 TO 340m	A																		
C2-3	LAYOUT - PLAN AND LONGSECTION CH 340 TO 396m	A																		
C2-4	DETENTION POND	A																		
	WASTEWATER																			
C3-1	LAYOUT - PLAN AND LONGSECTION CH 0 TO 160m	A																		
C3-2	LAYOUT - PLAN AND LONGSECTION CH 160 TO 326.1m	A																		
C3-3	LAYOUT - ROW1 AND ROW2	A																		
	WATER SUPPLY																			
C4-1	LAYOUT 1 DETAILS	A																		
C4-2	LAYOUT 2 DETAILS	A																		
C4-3	WATER SUPPLY DETAILS 1	A																		
C4-4	WATER SUPPLY DETAILS 2	A																		
C5-1	EARTHWORKS CUT AND FILL PLAN	A																		
C6-1	EROSION AND SEDIMENT CONTROL LAYOUT	A																		

CONSENT

	3 DAVIDSON STREET NEW PLYMOUTH 4310 Ph. 06 759 0999 © COPYRIGHT RED JACKET LTD		Client A SIGLEY DEVELOPMENTS LTD				Project MAGNOLIA CRESCENT EXTENSION LOT 5 DP 22736 WHANGANUI				Sheet Title TITLESHEET		Drawing No. DWG-100-365		A3
	17.03.20 DATE	A REV	ISSUED FOR CONSENT REV RECORD	CM BY	LB CHD	- VER	- APP	Job No. 3485		Sheet No. C0-1		A			

File Name: Z:\JOB\3001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C0-1 Plot Date: 17/03/2020 Plot Time: 09:36

LEGEND

EXISTING LEGAL BOUNDARY	
EXISTING EDGE OF SEAL	
EXISTING CONCRETE	
EXISTING STORMWATER	
EXISTING WASTEWATER	
EXISTING WATER	
NEW STORMWATER	
NEW WASTEWATER	
NEW WATER	
NEW LEGAL BOUNDARY	
NEW UG POWER	
NEW FIBRE OPTIC	
NEW GAS	
NEW GRASS BERM	
NEW RETAINING WALL	
NEW CONCRETE	
NEW CHIP SEAL	
NEW SWALE DRAIN	

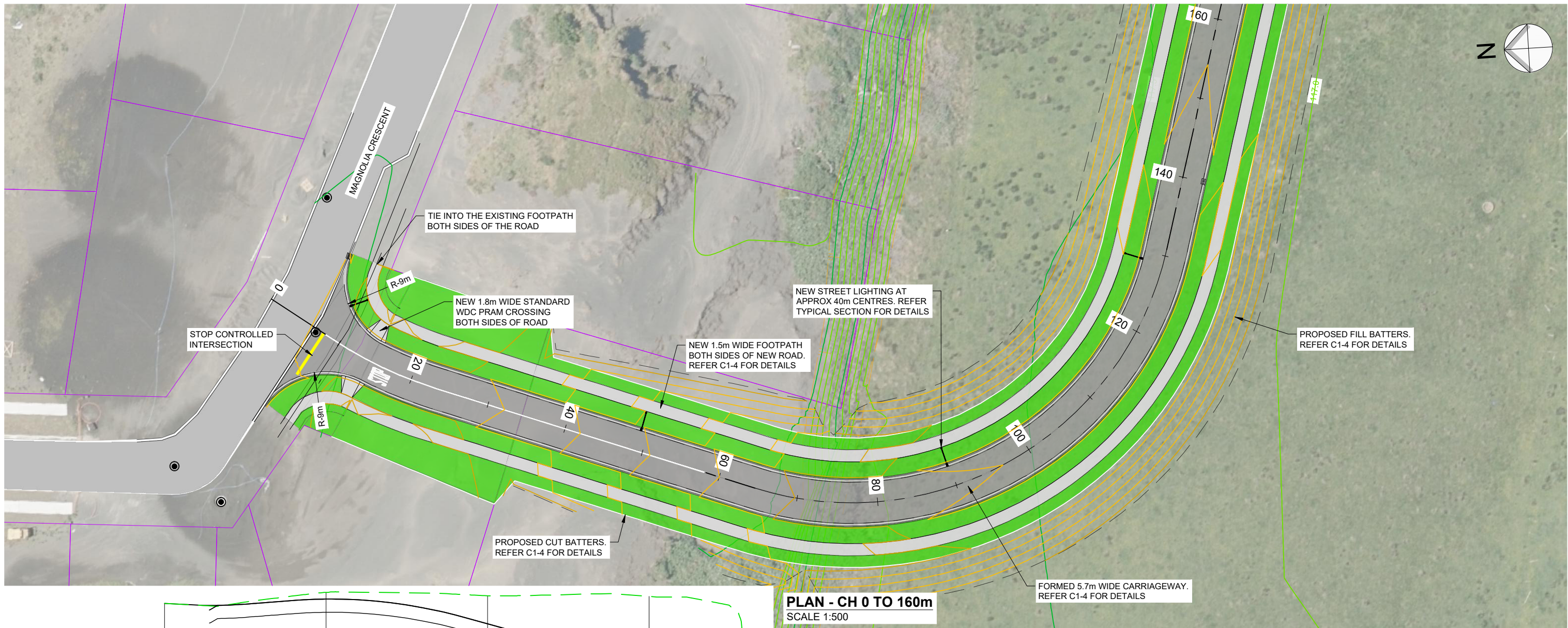
GENERAL CIVIL NOTES

1. ALL WORK TO BE IN ACCORDANCE WITH NZS4404:2010 AND WDC LAND DEVELOPMENT & SUBDIVISION ENGINEERING DOCUMENT 2016.
2. ANY UTILITY SERVICES DISPLAYED ARE INDICATIVE ONLY. ALL UTILITY SERVICE PROVIDERS SHALL BE CONTACTED BEFORE CONSTRUCTION COMMENCES AND UTILITY SERVICES LOCATED AND PROTECTED DURING CONSTRUCTION.
3. CHECK ALL DIMENSIONS AND LEVELS ON SITE BEFORE STARTING CONSTRUCTION WORK.
4. ALL PLUMBING AND DRAINAGE TO BE INSTALLED AS PER NZ BUILDING CODE INCLUDING G13/AS1 AND AS2. DRAINAGE WORKS TO BE CONFIRMED ON SITE BY PLUMBER.
5. ENGINEER TO INSPECT ALL CUT BANKS AND FILL BATTERS POST CONSTRUCTION FOR INTEGRITY.
6. ADVISE DESIGN ENGINEER OF ANY CHANGES IN THE EXISTING CONSTRUCTION AND/OR GROUND CONDITIONS TO THAT SHOWN OR IMPLIED ON THE PLANS AND OBTAIN DECISION BEFORE PROCEEDING FURTHER.
7. COMPLY WITH CONTRACTORS HSE PLAN AND COMPLY WITH HEALTH & SAFETY IN EMPLOYMENT ACT & REGULATIONS AND MAINTAIN SAFE SITE AND WORK PRACTICES AT ALL TIMES.
8. OBTAIN COMPREHENSIVE INSURANCE COVER FOR THE WORK INCLUDING PROTECTION OF ADJACENT STRUCTURES.
9. ALL WORK AND MATERIALS SHALL COMPLY WITH THE BUILDING ACT & REGULATIONS.
10. EXCAVATION AND BACKFILLING TO COMPLY WITH TNZ SPECIFICATIONS F1 & B2 UNLESS OTHERWISE SPECIFIED.
11. SEQUENCING OF THE WORK IS BY THE CONTRACTOR UNLESS SPECIFICALLY GIVEN HERE.
12. COMPLY WITH RESOURCE CONSENT AND BUILDING CONSENT AT ALL TIMES, CALL FOR ALL SCHEDULED INSPECTIONS INCLUDING FINAL COMPLETION.
13. FINAL CERTIFICATION WILL ONLY BE GIVEN WHEN UNDER THE DIRECT CONTROL OF RED JACKET LTD.

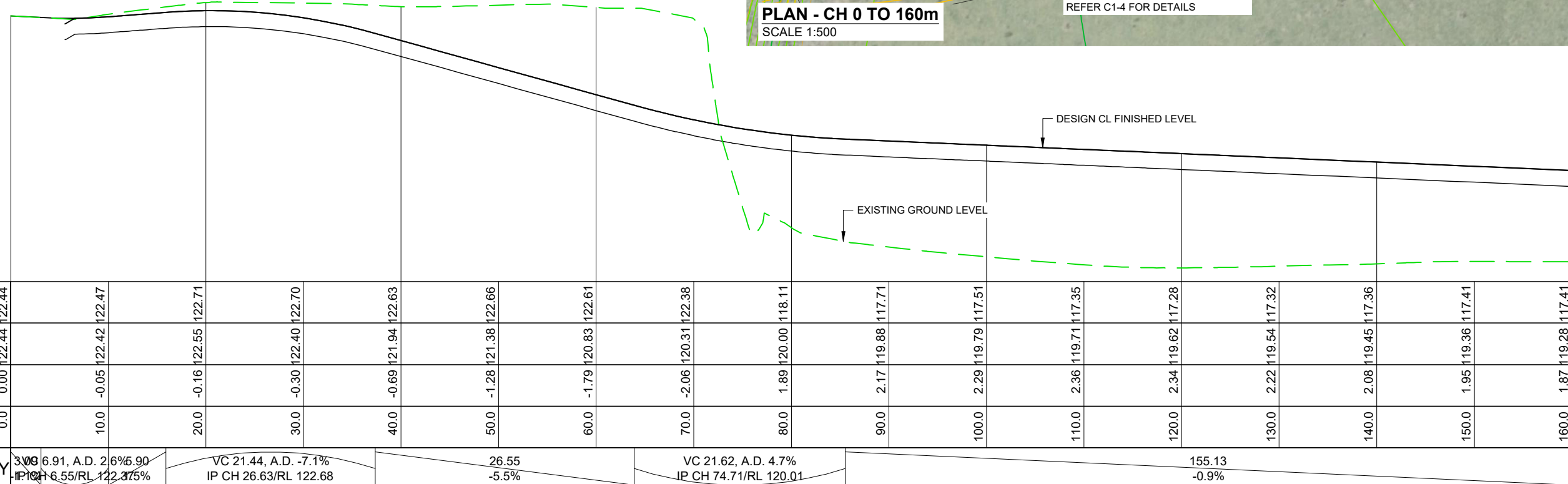


SITE OVERVIEW PLAN
SCALE 1:1250

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DATE	REV	REV RECORD	BY	CHD	VER	APP



PLAN - CH 0 TO 160m
SCALE 1:500



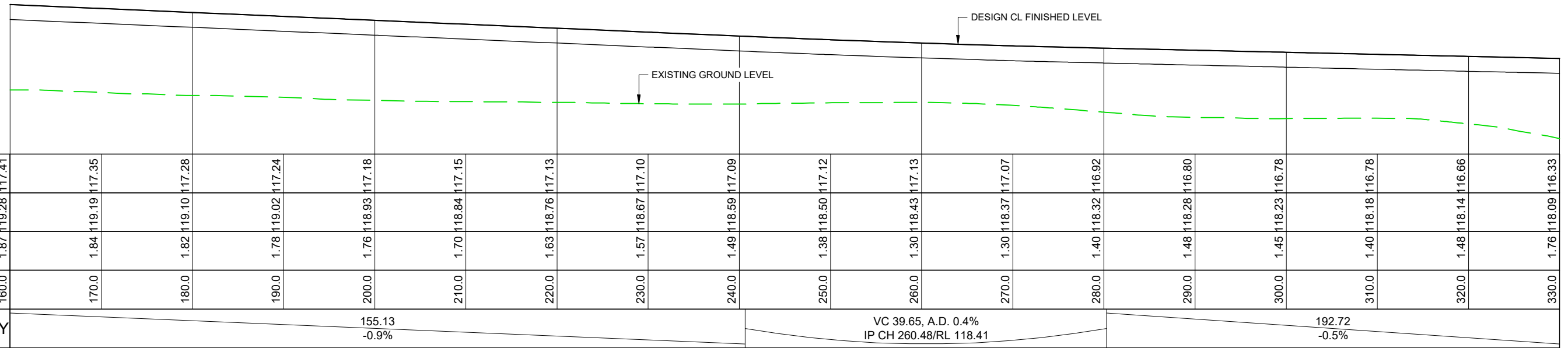
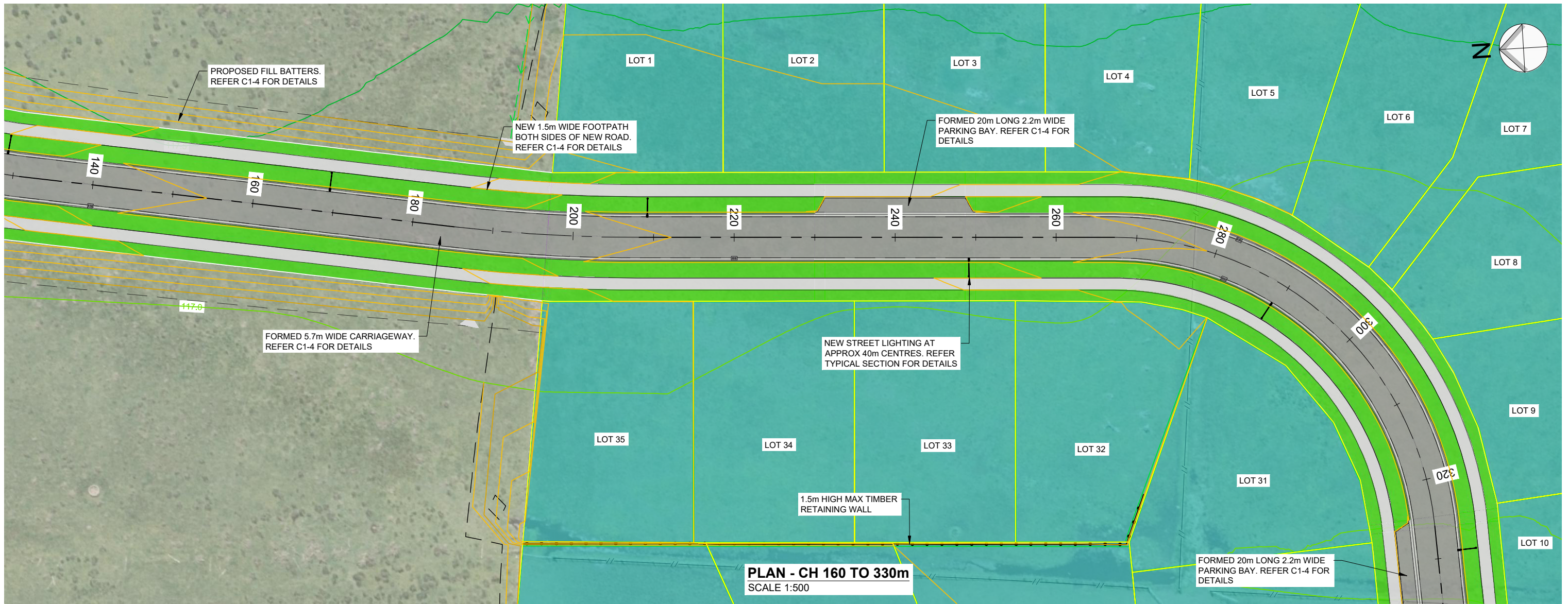
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SCALE 1:500 5x VERTICAL EXAGGERATION

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EXISTING LEVELS	122.44	122.47	122.71	122.70	122.63	122.66	122.61	122.38	118.11	117.71	117.51	117.35	117.28	117.32	117.36	117.41	117.41
DESIGN LEVELS	122.44	122.42	122.55	122.40	121.94	121.38	120.83	120.31	120.00	119.88	119.79	119.71	119.62	119.54	119.45	119.36	119.28
CUT/FILL DEPTHS	0.00	-0.05	-0.16	-0.30	-0.69	-1.28	-1.79	-2.06	1.89	2.17	2.29	2.36	2.34	2.22	2.08	1.95	1.87
CHAINAGE	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0	140.0	150.0	160.0
VERTICAL GEOMETRY	30.00 6.91, A.D. 2.6% S.D. 117.655/RL 122.375%		VC 21.44, A.D. -7.1% IP CH 26.63/RL 122.68				26.55 -5.5%		VC 21.62, A.D. 4.7% IP CH 74.71/RL 120.01				155.13 -0.9%				

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	<p>17.03.20 DATE</p>		<p>A REV</p>		<p>ISSUED FOR CONSENT REV RECORD</p>		<p>CM BY</p>		<p>LB CHD</p>		<p>- VER</p>		<p>- APP</p>		<p>Job No. 3485</p>		<p>Sheet No. C1-1</p>		<p>REV. A</p>

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LONG SECTION - CH 160 TO 330m
SCALE 1:500 5x VERTICAL EXAGGERATION

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17.03.20	A	ISSUED FOR CONSENT	CM	LB	-	-
			BY	CHD	VER	APP

Client
A SIGLEY DEVELOPMENTS LTD

Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
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PLAN AND LONGSECTION
CH 160 TO 330m**

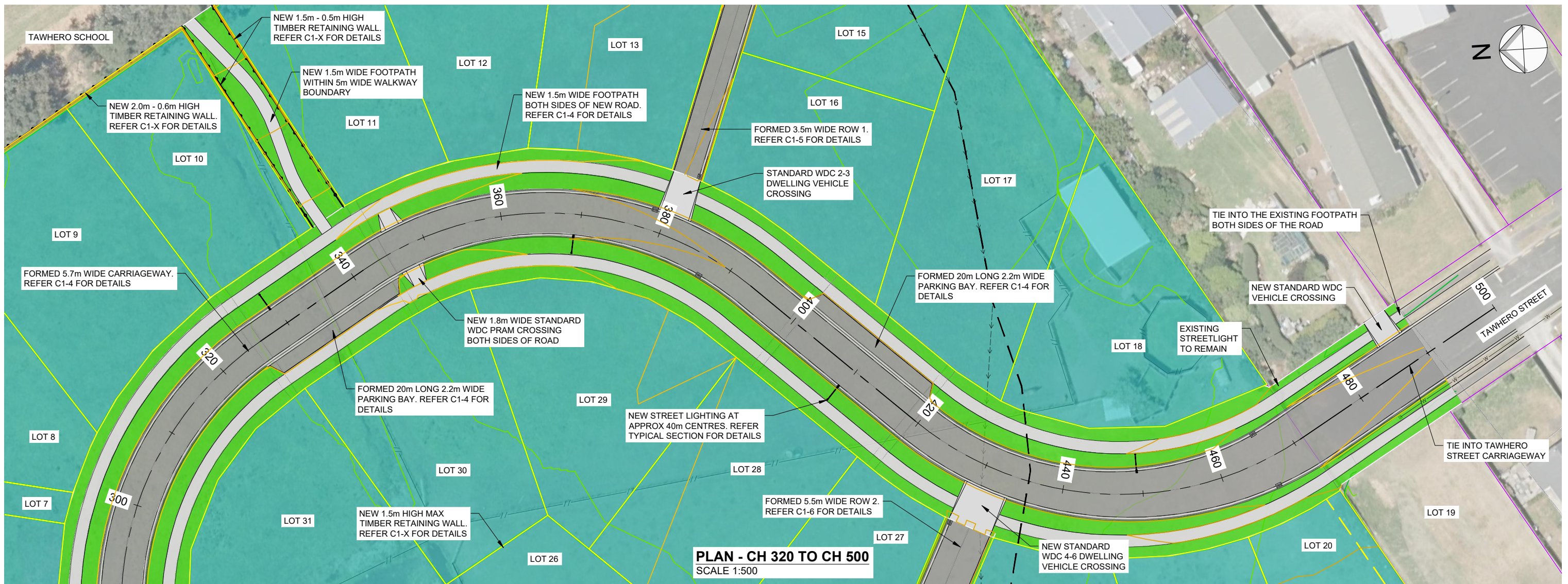
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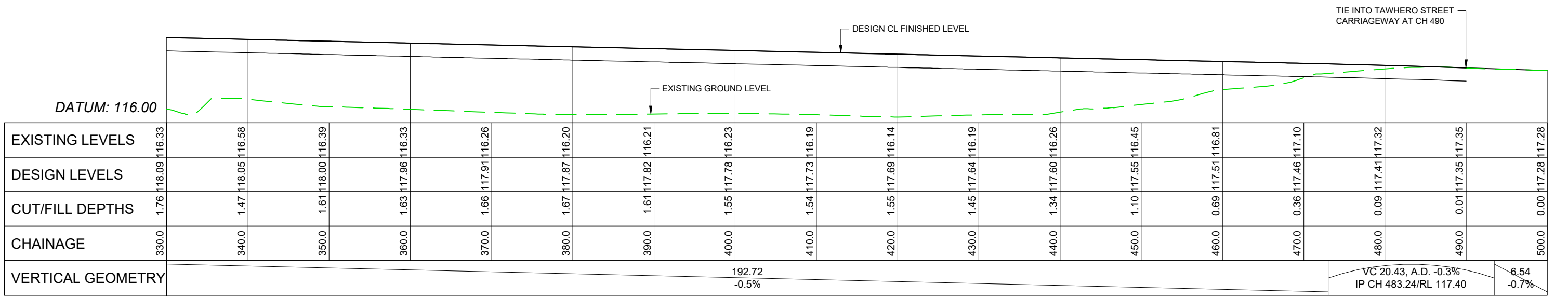
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A3
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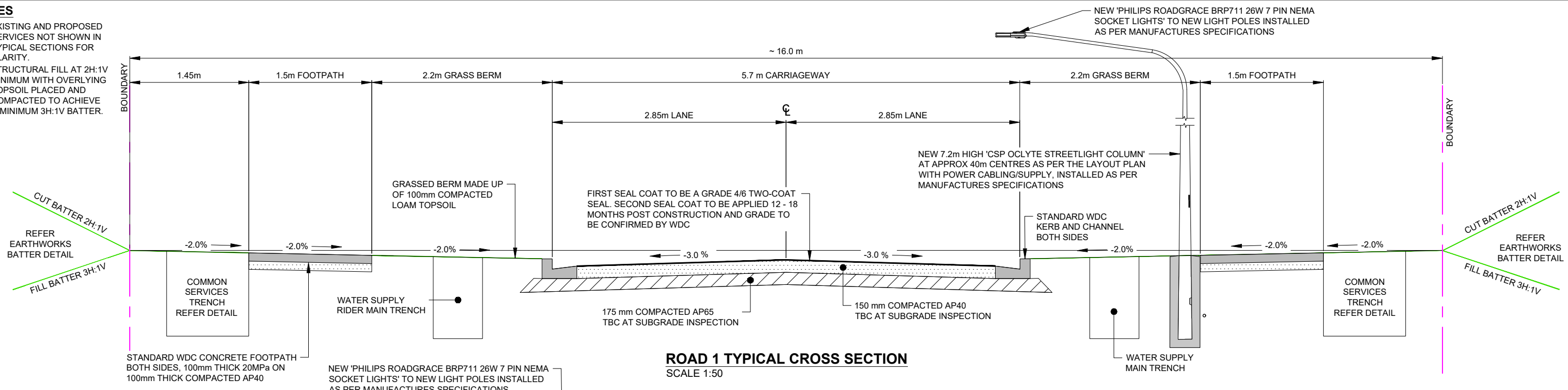
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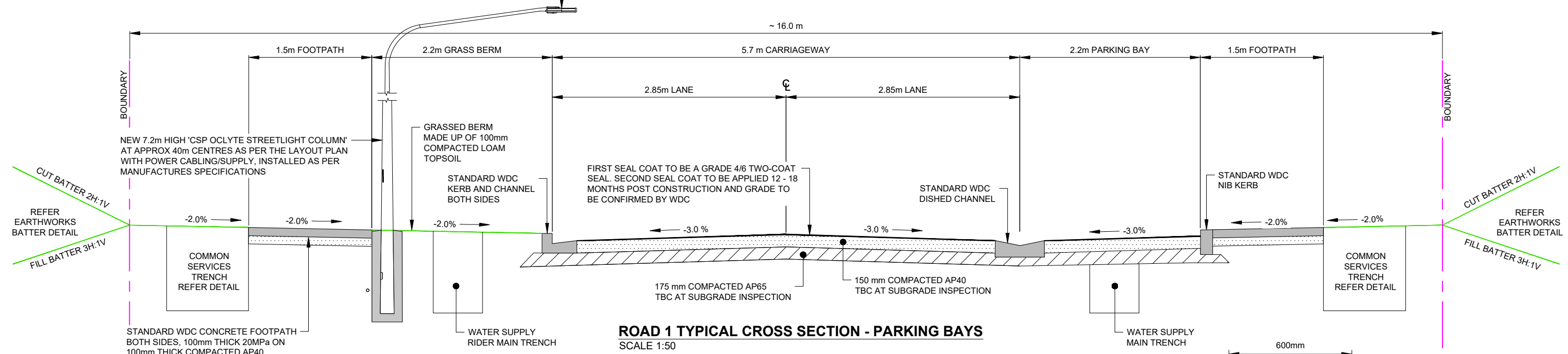
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	3485 Job No.		C1-3 Sheet No.		A REV.										A

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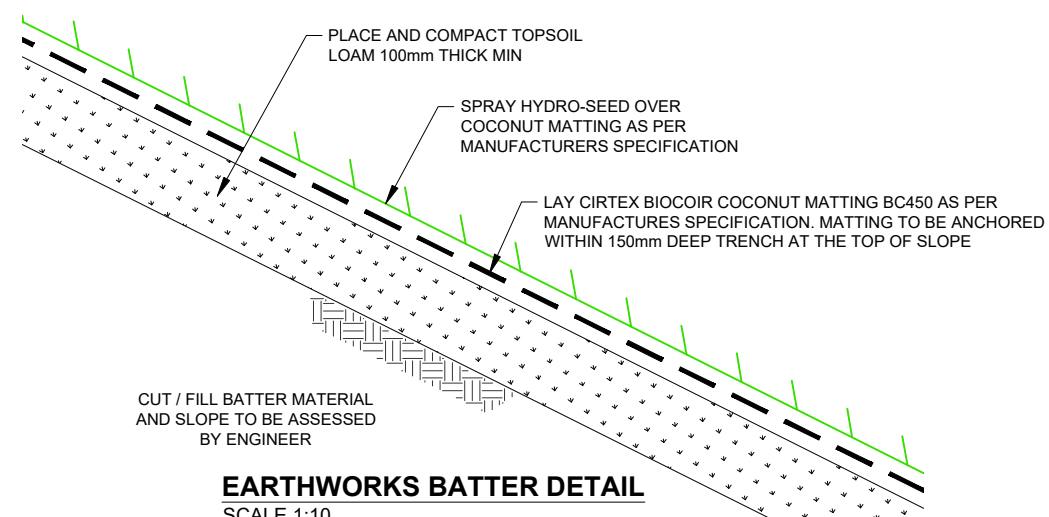
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- STRUCTURAL FILL AT 2H:1V MINIMUM WITH OVERLYING TOPSOIL PLACED AND COMPACTED TO ACHIEVE A MINIMUM 3H:1V BATTER.



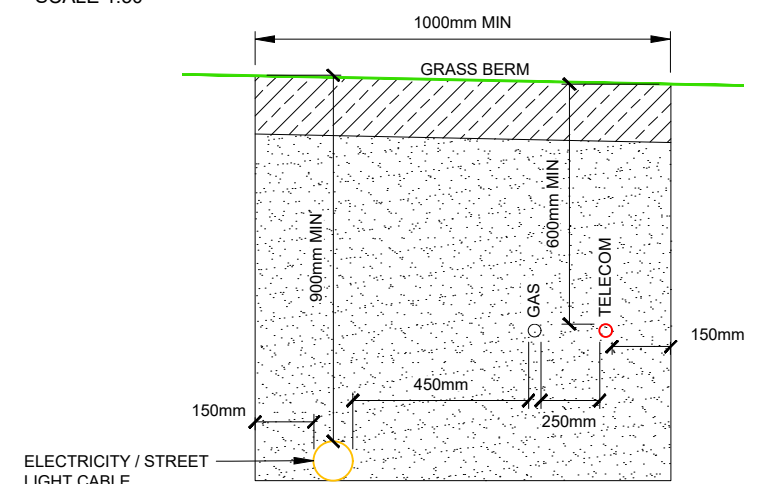
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SCALE 1:50



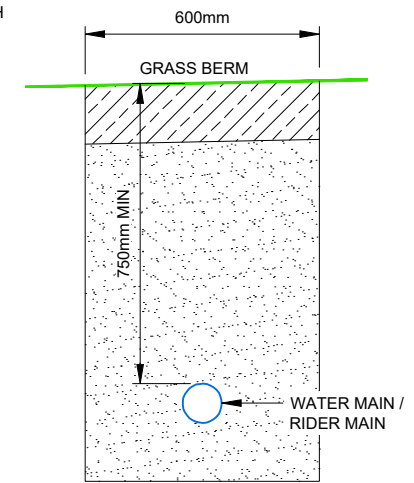
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SCALE 1:50



EARTHWORKS BATTER DETAIL
SCALE 1:10



COMMON SERVICES TRENCH DETAIL
SCALE 1:20

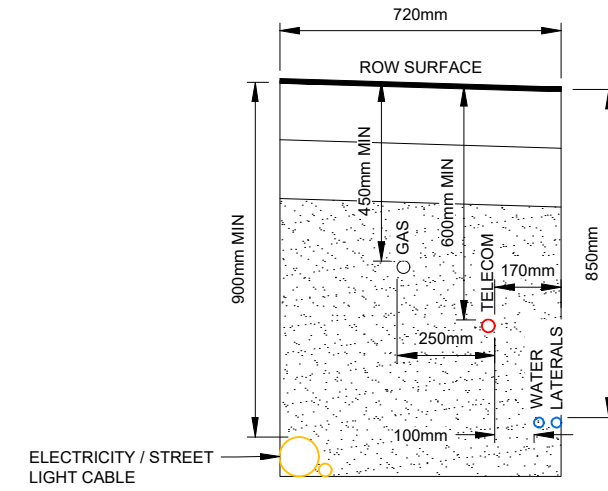
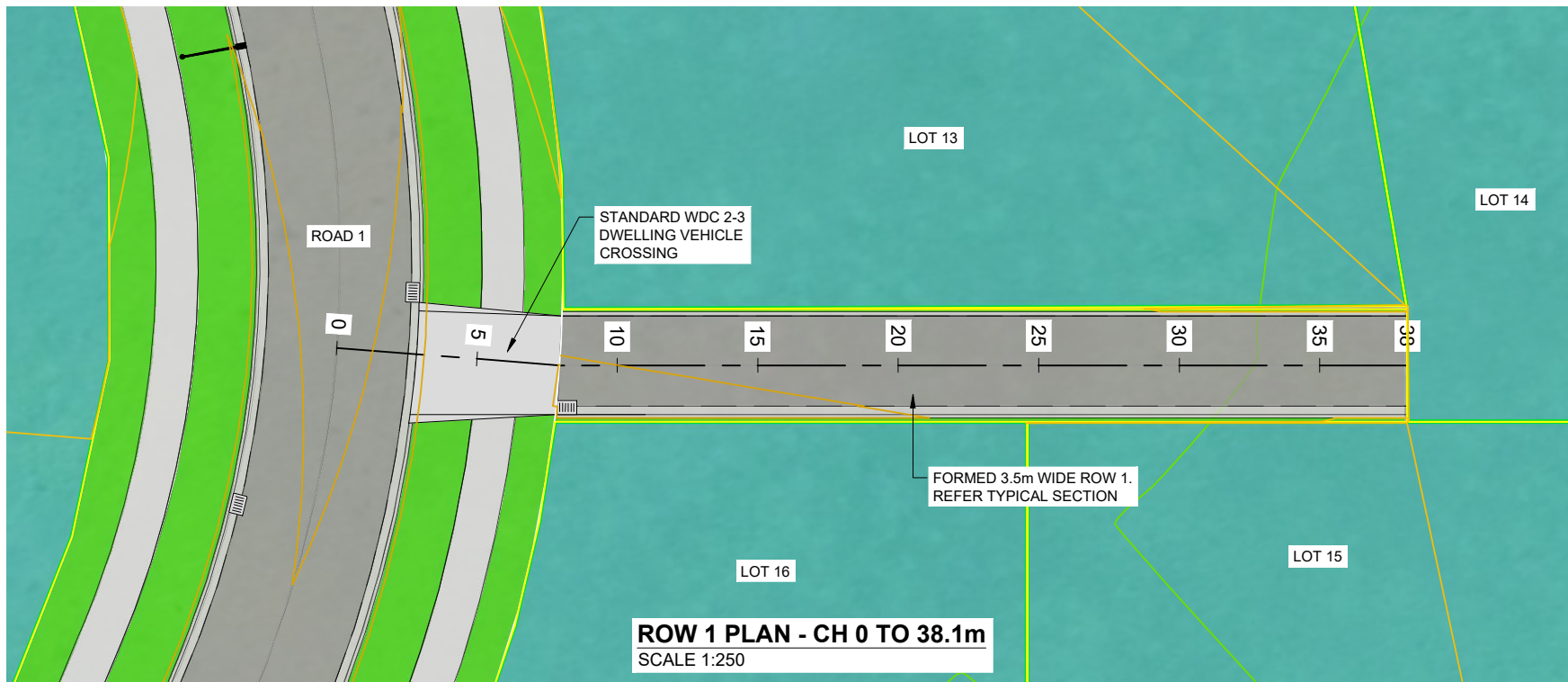


WATER SUPPLY MAIN/RIDER MAIN TRENCH DETAIL
SCALE 1:20

CONSENT

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	<p>17.03.20 A ISSUED FOR CONSENT</p>				<p>CM LB - -</p>				<p>Job No. 3485</p>		<p>Sheet No. C1-4</p>		<p>REV.</p>	
	<p>DATE REV REV RECORD</p>				<p>BY CHD VER APP</p>				<p>3485</p>		<p>C1-4</p>		<p>A</p>	

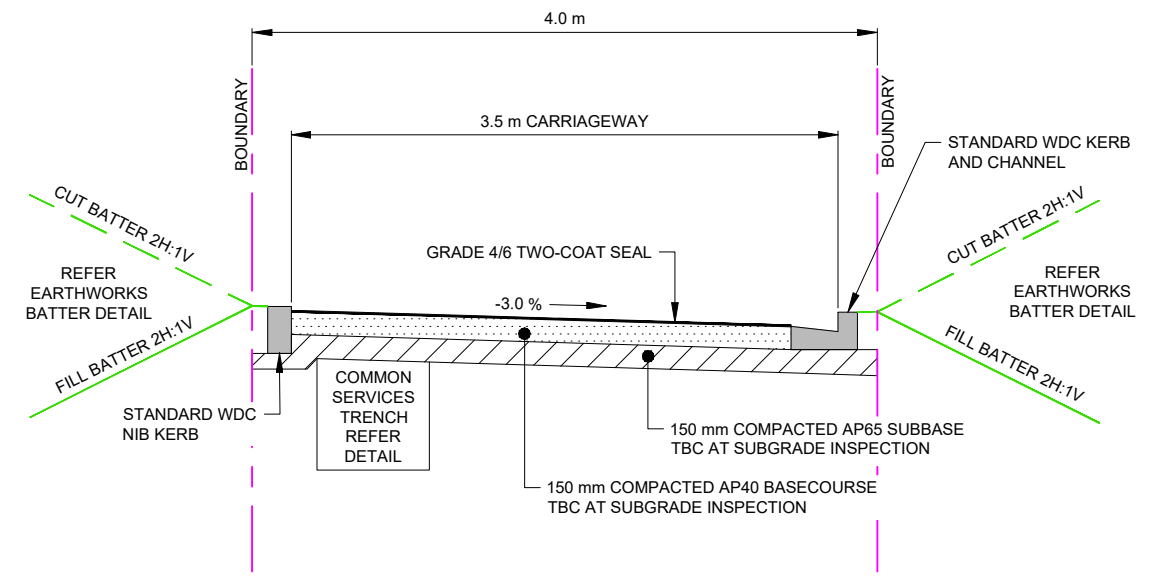
File Name: Z:\JOBST\3001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C1-4 Plot Date: 17/03/2020 Plot Time: 09:37



COMMON SERVICES TRENCH DETAIL
SCALE 1:20

	EXISTING GROUND LEVEL		DESIGN CL FINISHED LEVEL	
DATUM: 115.00	-----			
EXISTING LEVELS	116.20	116.15	116.10	116.01
DESIGN LEVELS	117.86	117.82	117.82	117.97
CUT/FILL DEPTHS	1.66	1.68	1.78	1.92
CHAINAGE	0.0	10.0	20.0	30.0
VERTICAL GEOMETRY	-2.54 -3.0%		35.57 0.5%	

LONG SECTION - CH 0 TO CH 38.1
SCALE 1:250 1x VERTICAL EXAGGERATION

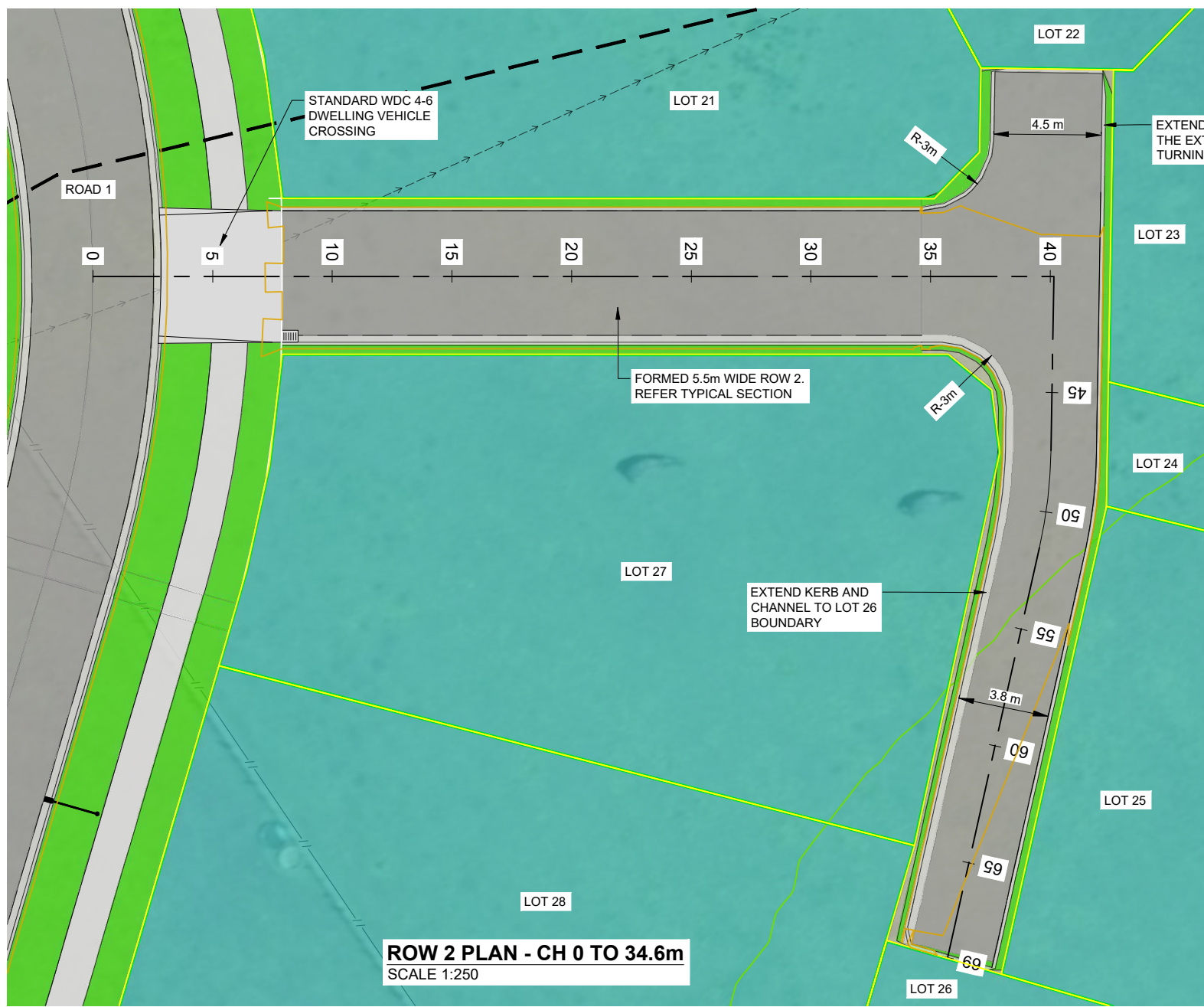


ROW 1 TYPICAL CROSS SECTION
SCALE 1:50

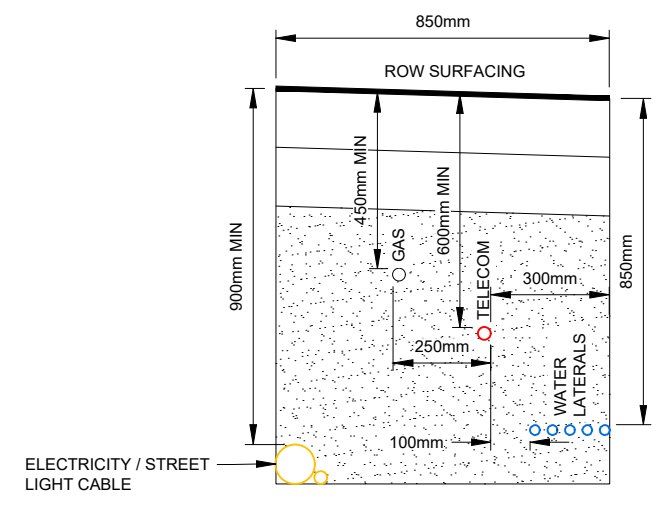
- NOTES**
- EXISTING AND PROPOSED SERVICES NOT SHOWN IN TYPICAL SECTIONS FOR CLARITY.

CONSENT

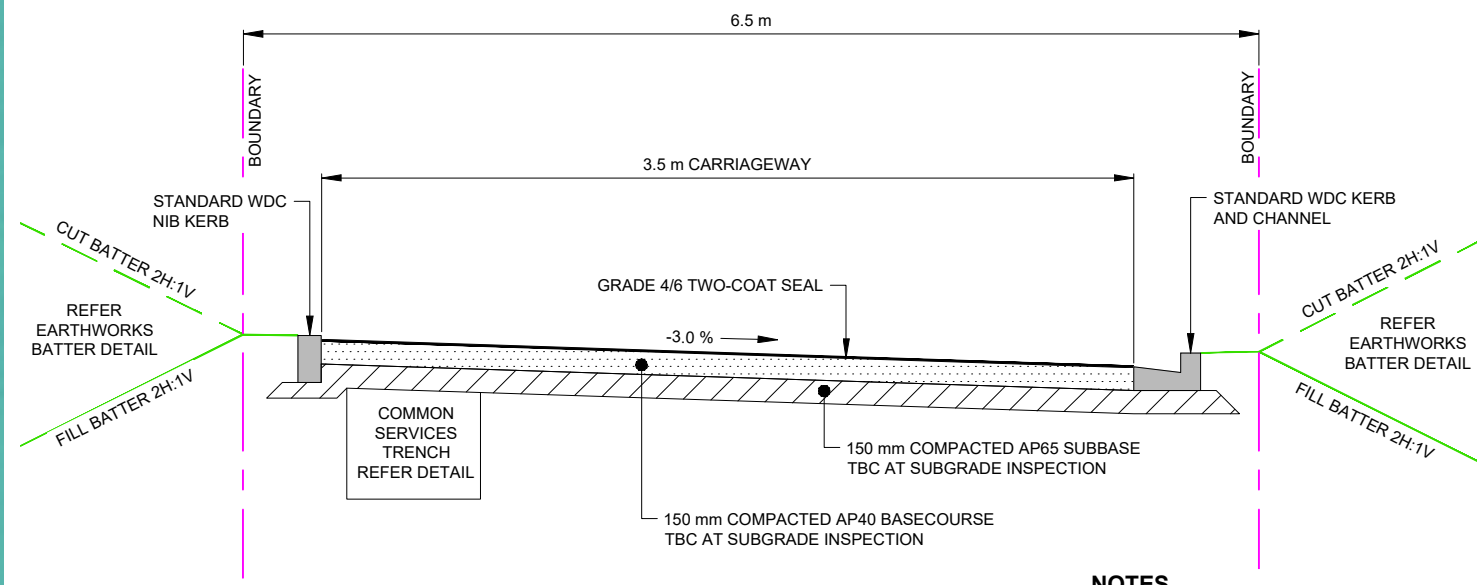
File Name: Z:\JOB\31001-3500\3485 Magnolia Crescent - Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C1-6 Plot Date: 17/03/2020 Plot Time: 09:37



ROW 2 PLAN - CH 0 TO 34.6m
SCALE 1:250



COMMON SERVICES TRENCH DETAIL
SCALE 1:20



ROW 2 TYPICAL CROSS SECTION
SCALE 1:50

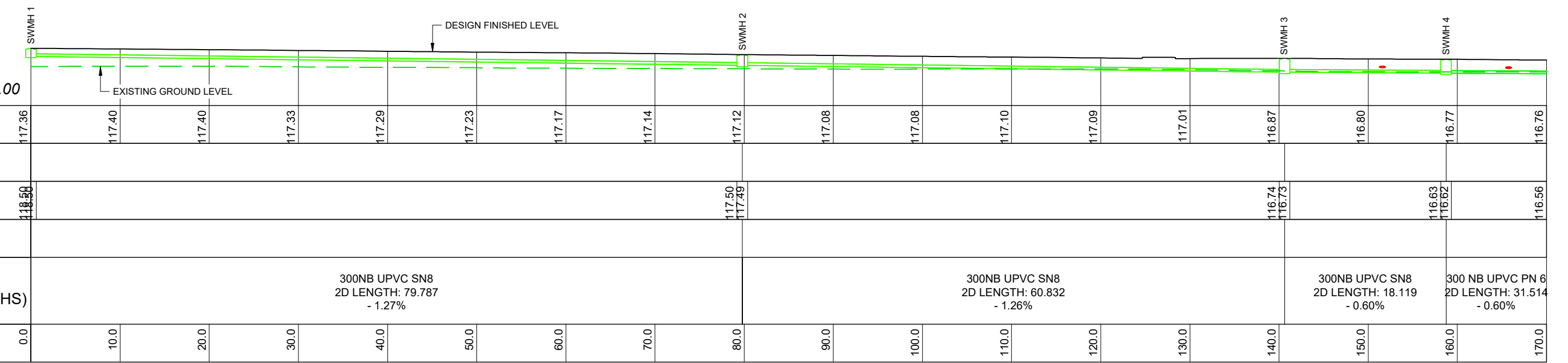
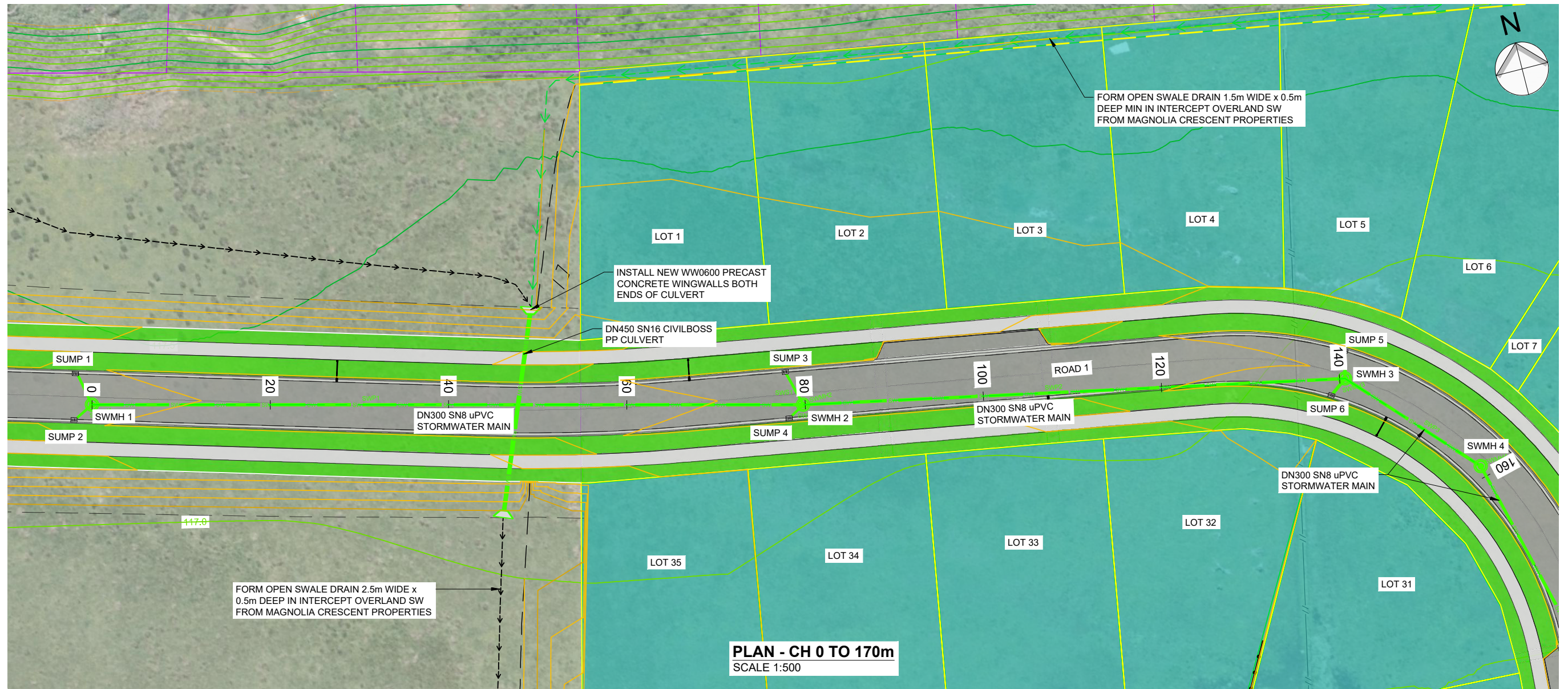
- NOTES**
- EXISTING AND PROPOSED SERVICES NOT SHOWN IN TYPICAL SECTIONS FOR CLARITY.

	0.0	10.0	20.0	30.0	40.0	50.0	60.0	69.1
EXISTING GROUND LEVEL	116.20	116.28	116.37	116.42	116.48	116.53	116.56	
DESIGN CL FINISHED LEVEL	117.64	117.73	117.77	117.79	117.87	117.87	117.87	
CUT/FILL DEPTHS	1.44	1.39	1.36	1.32	1.32	1.30	1.30	1.31
CHAINAGE	0.0	10.0	20.0	30.0	40.0	50.0	60.0	69.1
VERTICAL GEOMETRY	2.54 -3.0%		66.53 0.5%					

LONG SECTION - CH 0 TO CH 34.6
SCALE 1:250 1x VERTICAL EXAGGERATION

CONSENT

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	DATE 17.03.20	REV A	ISSUED FOR CONSENT REV RECORD	CM BY	LB CHD	- VER	- APP	Job No. 3485		Sheet No. C1-6		REV.	A



LONG SECTION - CH 0 TO CH 170m
SCALE 1:500 1x VERTICAL EXAGGERATION

CONSENT



	DESIGN FINISHED LEVEL															EXISTING GROUND LEVEL																					
DATUM: 113.00																																					
EXISTING LEVELS	116.76	116.57	116.20	116.51	116.37	116.31	116.24	116.21	116.22	116.21	116.15	116.13	116.19	116.22	116.39	116.88	117.14	117.00	116.76	116.57	116.20	116.51	116.37	116.31	116.24	116.21	116.22	116.21	116.15	116.13	116.19	116.22	116.39	116.88	117.14	117.00	
DESIGN LEVELS			118.03		117.94			117.84					117.58				117.42																				
INVERT LEVELS	116.56		116.44 116.43		116.29 116.29			116.12 116.11					115.83 115.75				115.59 115.58																				
INVERT DEPTHS			-1.59		-1.65			-1.72					-1.79				-1.84																				
PIPE DETAILS (CL to CL LENGTHS)	300 NB UPVC PN 6 2D LENGTH: 31.514 - 0.60%		300NB UPVC SN8 2D LENGTH: 24.029 - 0.60%			300 NB UPVC PN 6 2D LENGTH: 29.161 - 0.60%				375 NB UPVC PN 6 2D LENGTH: 47.944 - 0.60%					375NB UPVC SN8 2D LENGTH: 33.420 - 0.50%				375NB UPVC SN8 2D LENGTH: 71.115 - 0.50%																		
CHAINAGE	170.0	180.0	190.0	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0	300.0	310.0	320.0	330.0	340.0	170.0	180.0	190.0	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0	300.0	310.0	320.0	330.0	340.0	

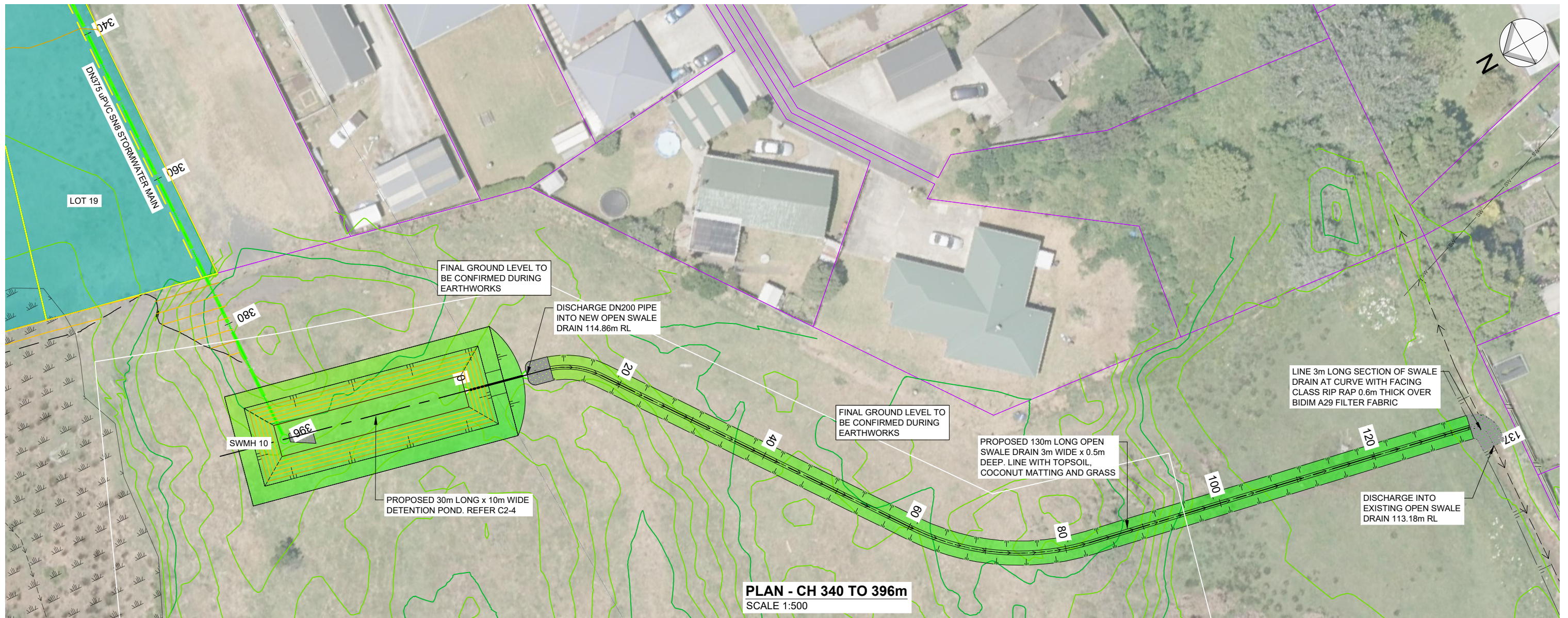
LONG SECTION - CH 170 TO CH 170m
SCALE 1:500 1x VERTICAL EXAGGERATION

CONSENT

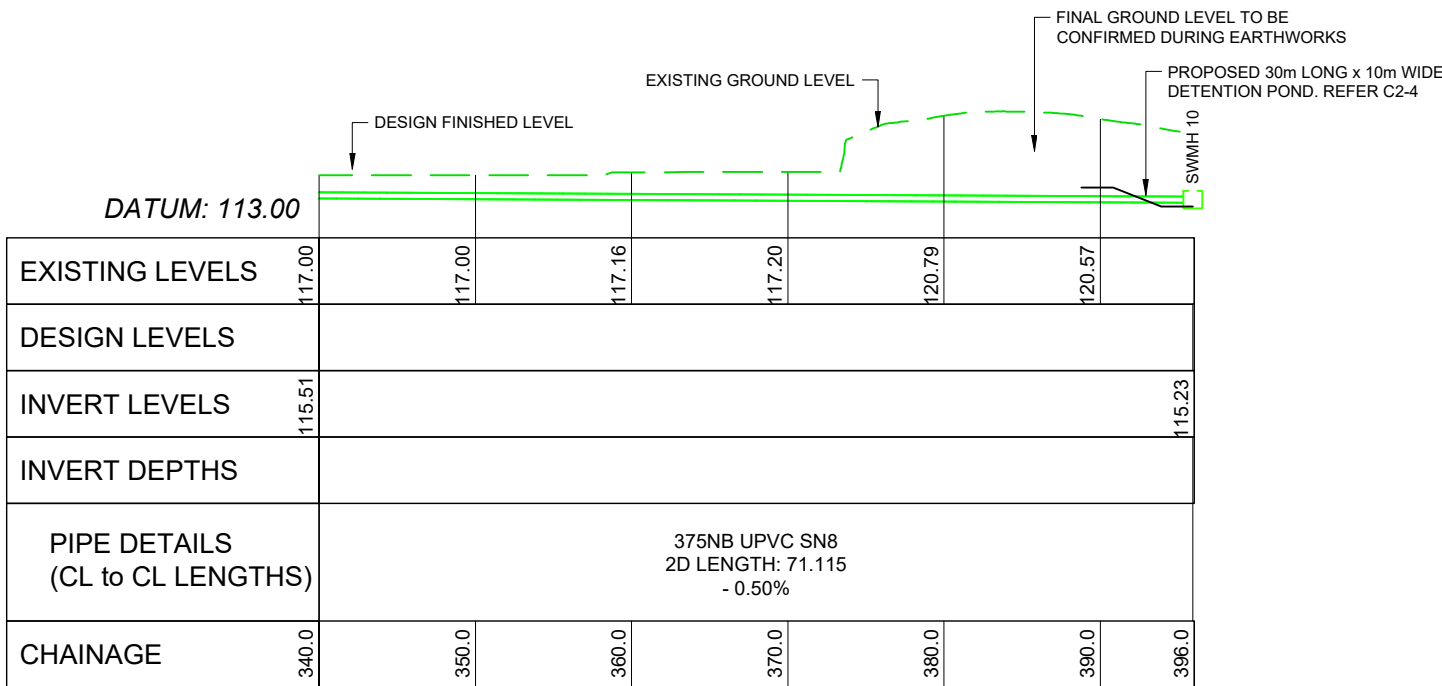
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	DATE	REV	REV RECORD	BY	CHD	VER	APP				Job No. 3485	Sheet No. C2-2	

File Name: Z:\JOBST\3001-3500\3485-Magnolia Crescent - Residential Subdivision\Drawings\DWG-100-365.dwg - C2-2 Plot Date: 17/03/2020 Plot Time: 09:38

File Name: Z:\JOB\31001-3500\3485 Magnolia Crescent - Residential Subdivision\Drawings\DWG-100-365.dwg - C2-3 Plot Date: 17/03/2020 Plot Time: 09:38



PLAN - CH 340 TO 396m
SCALE 1:500

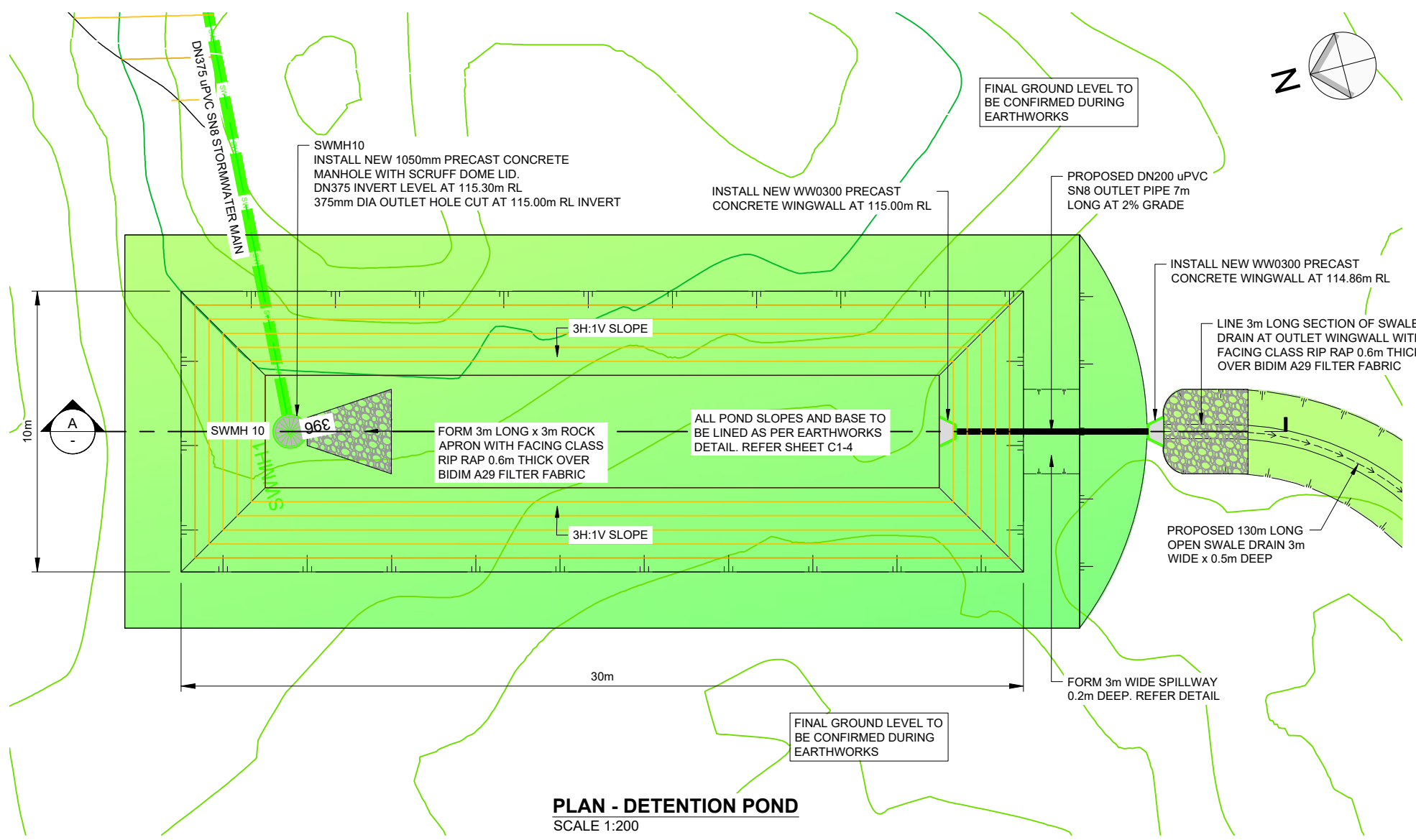


LONG SECTION - CH 340 TO CH 397.5m
SCALE 1:500 1x VERTICAL EXAGGERATION

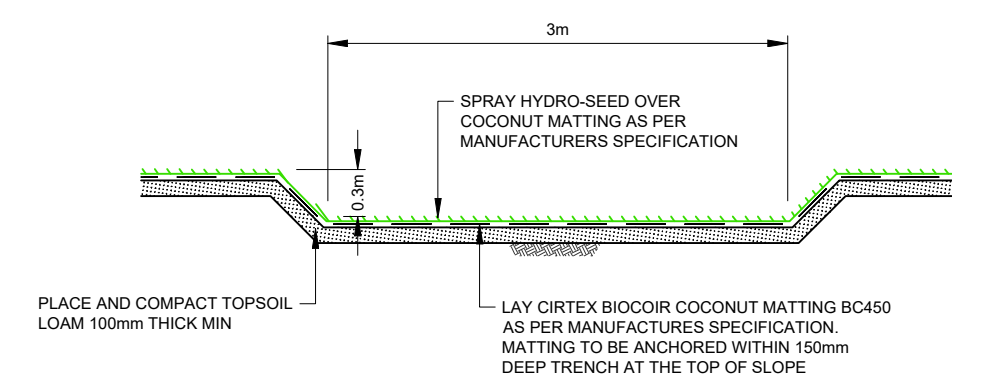
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	17.03.20 DATE	A REV	ISSUED FOR CONSENT REV RECORD	CM BY	LB CHD	- VER	- APP	Job No. 3485		Sheet No. C2-3		REV. A	
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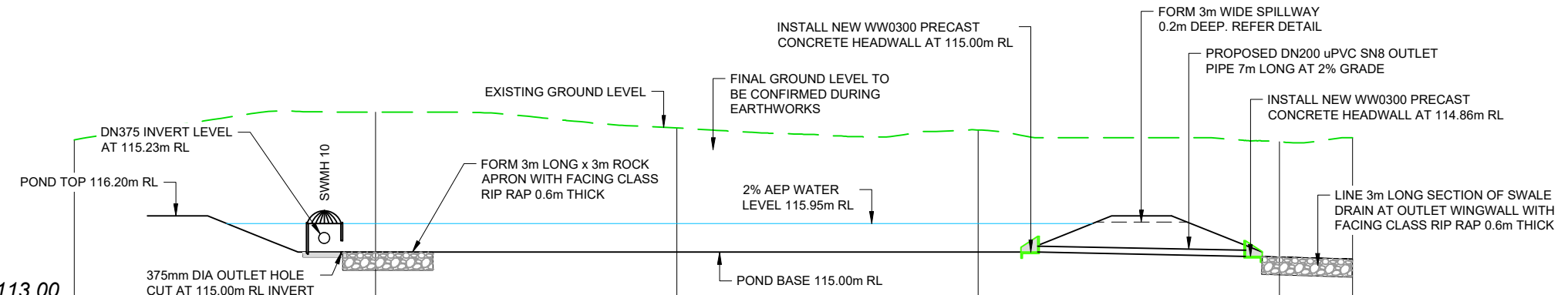
PLAN - DETENTION POND
SCALE 1:200



SPILLWAY DETAIL
SCALE 1:50

RIP RAP GRADING TABLE

ROCK CLASS	ROCK SIZE	ROCK MASS	MINIMUM PERCENTAGE OF ROCK LARGER THAN
FACING	0.40	100	0
	0.30	35	50
	0.15	3	90



A SECTION
SCALE 1:200

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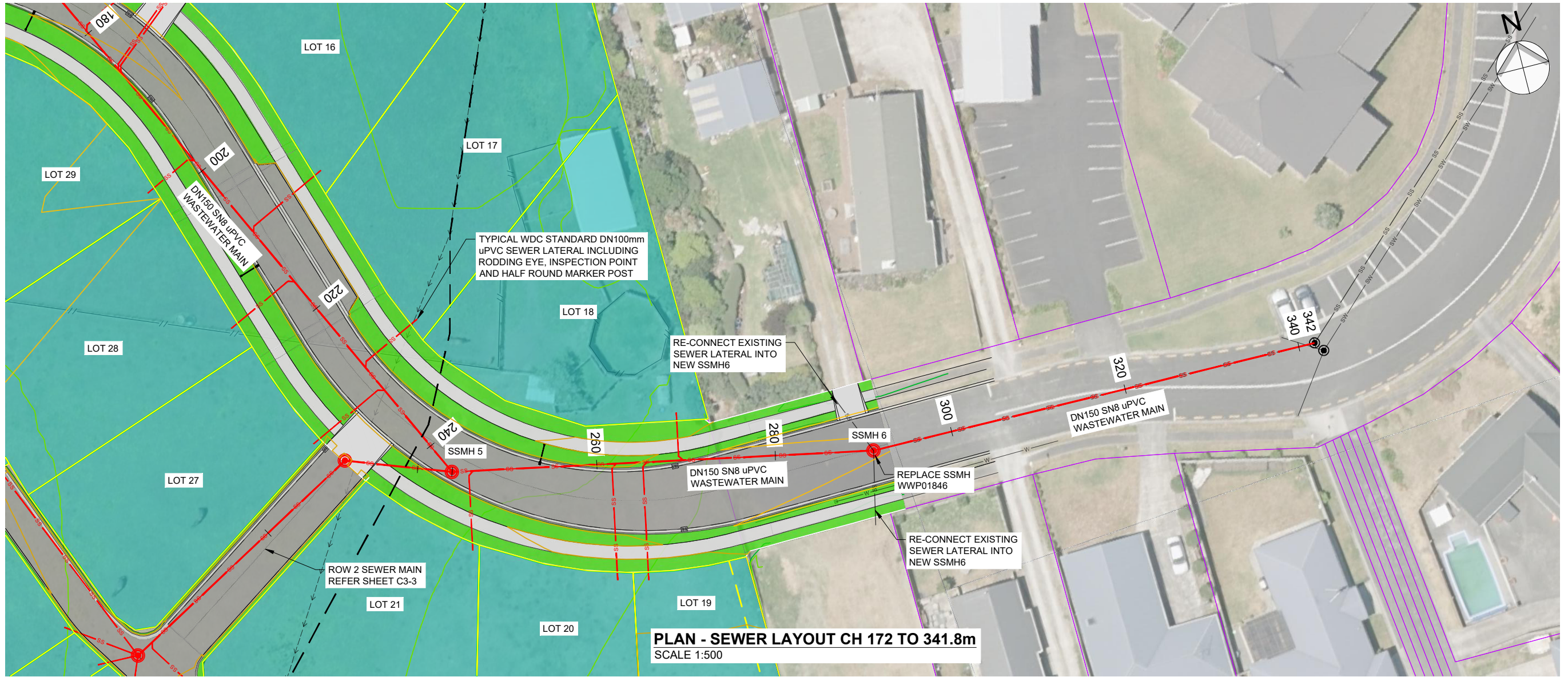
17.03.20	A	ISSUED FOR CONSENT	CM	LB	-	-
DATE	REV	REV RECORD	BY	CHD	VER	APP

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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**STORMWATER LAYOUT
DETENTION POND**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C2-4	REV. A



PLAN - SEWER LAYOUT CH 172 TO 341.8m
SCALE 1:500



LONG SECTION - CH 172 TO CH 341.8m
SCALE 1:500 1x VERTICAL EXAGGERATION

CONSENT

DATUM: 113.00		DESIGN FINISHED LEVEL		EXISTING GROUND LEVEL		SSMH 5		SSMH 6		REPLACE SSMH WWP01846		EXISTING SSMH WWP01846	
EXISTING LEVELS							116.28		117.36				
DESIGN LEVELS													
INVERT LEVELS	116.73						116.34 116.28		116.03 115.95				115.68
INVERT DEPTHS													
PIPE DETAILS (CL to CL LENGTHS)	150NB UPVC SN8 2D LENGTH: 73.605 - 0.55%			150NB UPVC SN8 2D LENGTH: 47.227 - 0.55%			150NB UPVC SN8 2D LENGTH: 50.824 - 0.55%						
CHAINAGE	172.0	180.0	200.0	220.0	240.0	243.8	260.0	280.0	291.0	300.0	320.0	340.0	341.8

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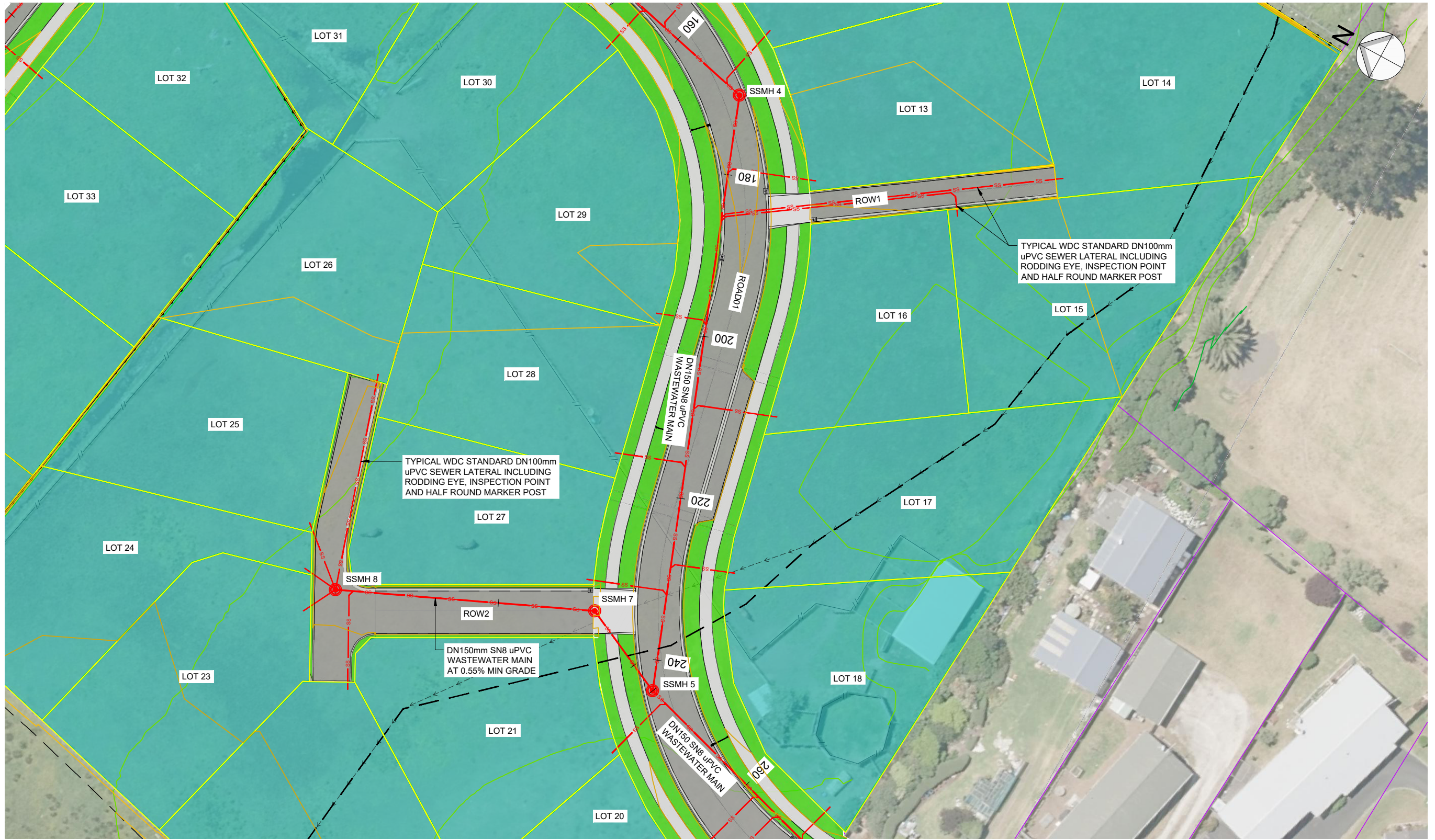
Client
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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**WASTEWATER LAYOUT
PLAN AND LONGSECTION
CH 172 TO 341.8m**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C3-2	REV. A

File Name: Z:\JOB\31001-3500\3485 Magnolia Crescent - Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C3-2 Plot Date: 17/03/2020 Plot Time: 09:38



PLAN - ROW1 AND ROW2 SEWER LAYOUT
SCALE 1:500

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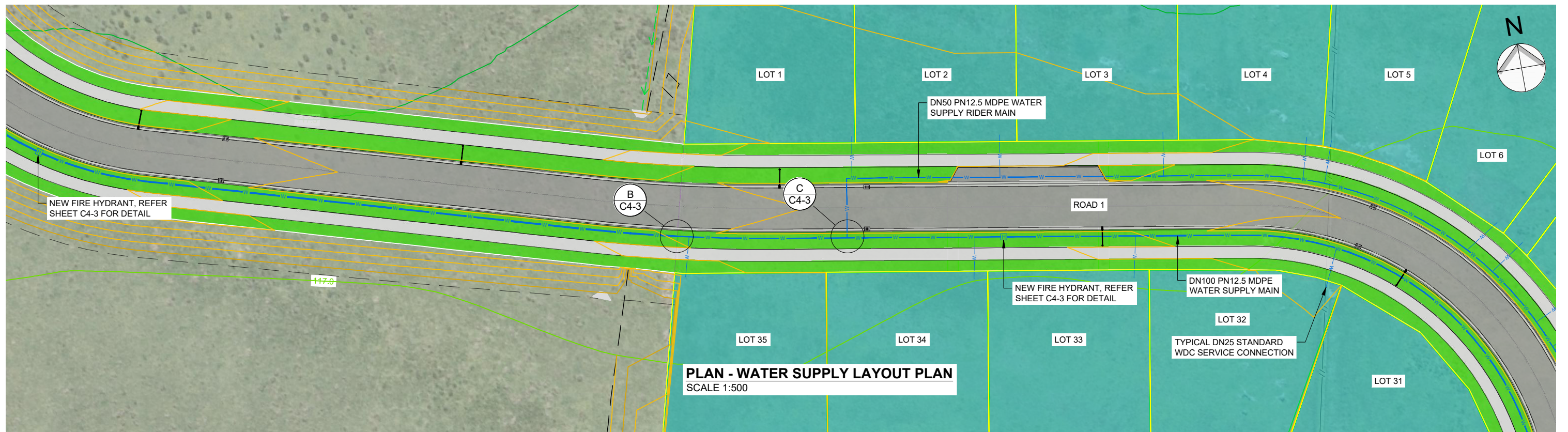
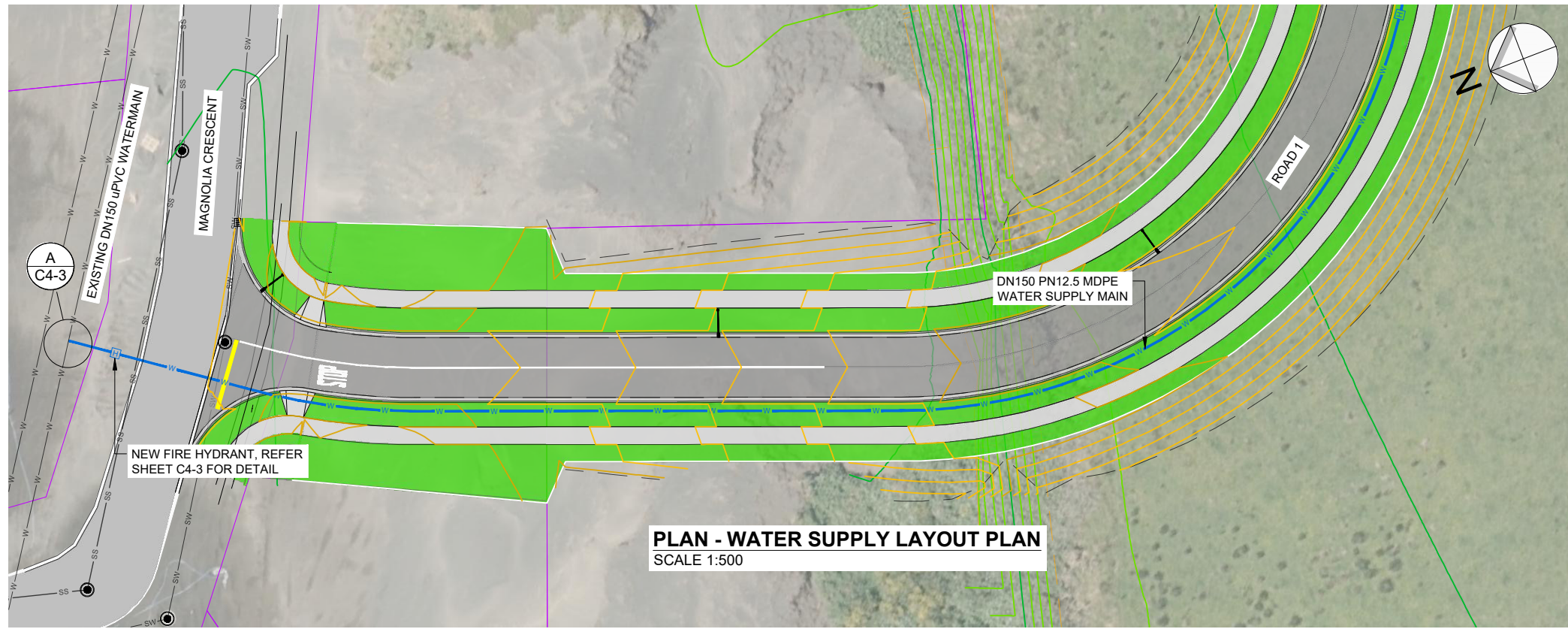
Client
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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**WASTEWATER LAYOUT
ROW1 AND ROW 2 PLAN**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C3-3	REV. A

File Name: Z:\JOB\31001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C3-3 Plot Date: 17/03/2020 Plot Time: 09:38



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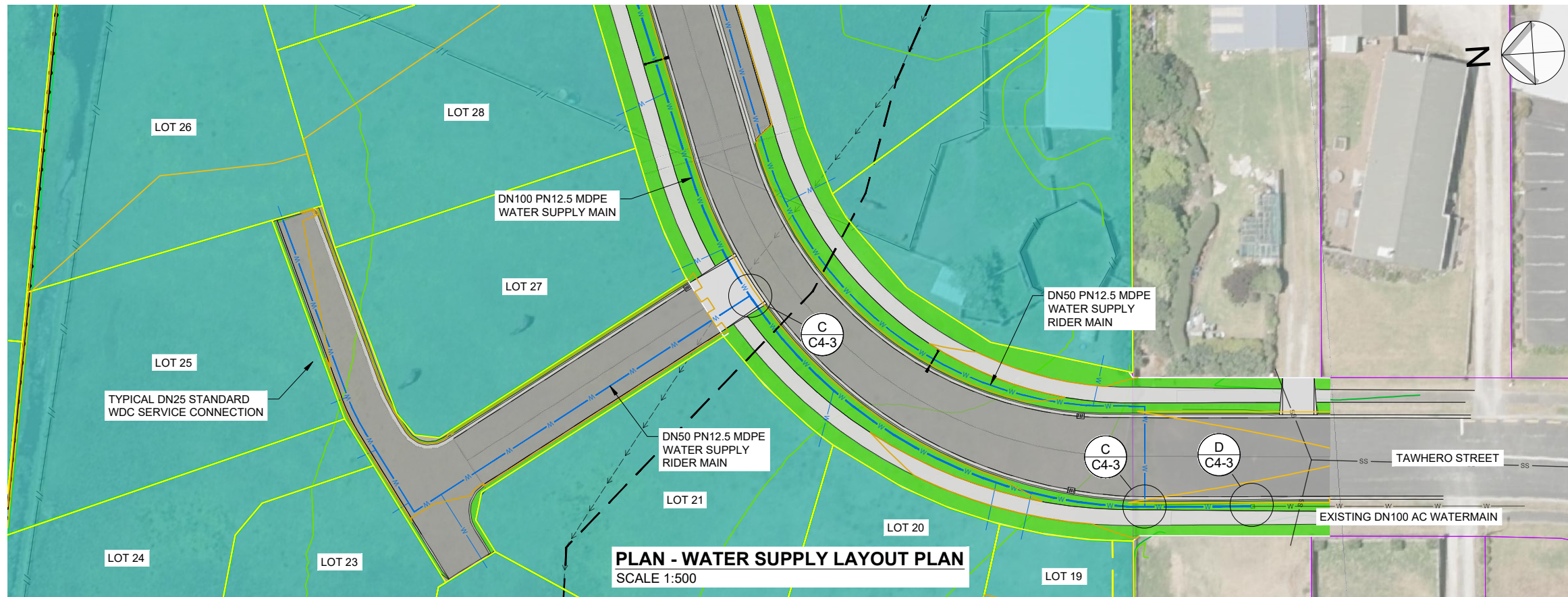
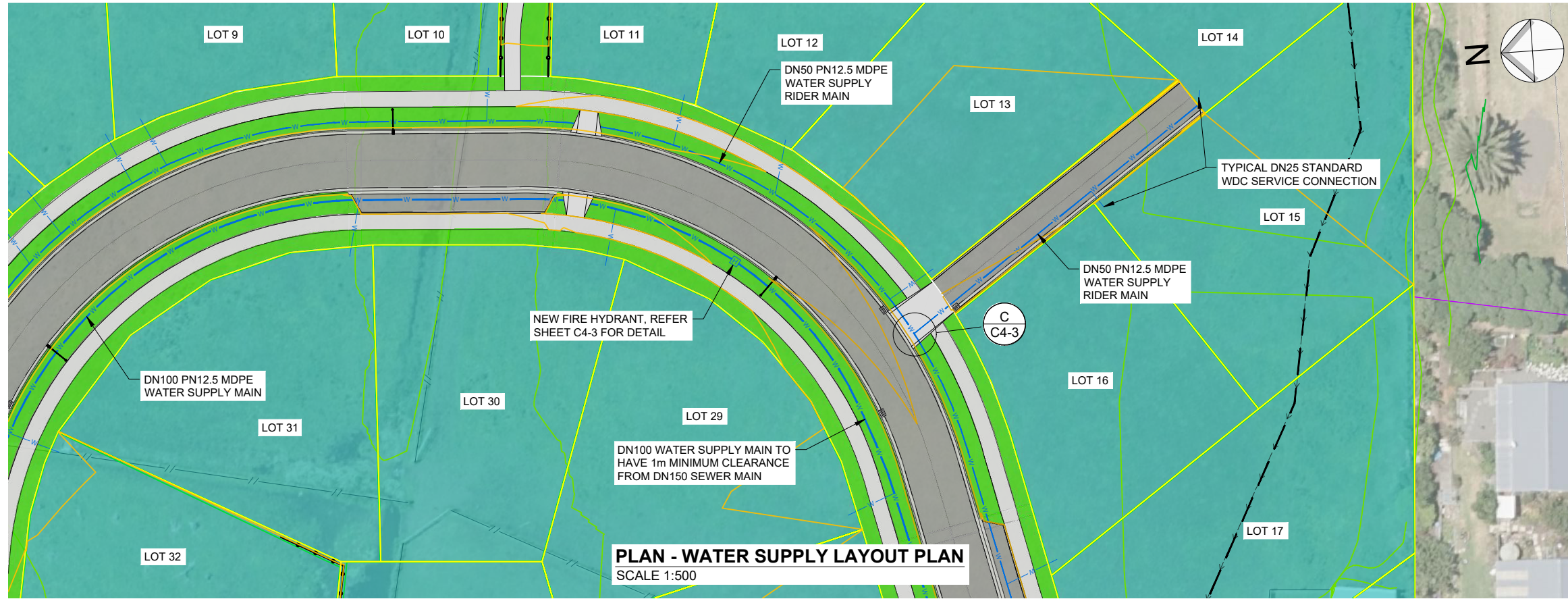
Project
MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI

Sheet Title
WATER SUPPLY LAYOUT 1
PLAN AND DETAILS

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C4-1	REV. A

File Name: Z:\JOB\31001-3500\3485-1-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C4-1 Plot Date: 17/03/2020 Plot Time: 09:38

File Name: Z:\JOB\31001-3500\3485 Magnolia Crescent - Residential Subdivision\Drawings\DWG-100-365.dwg - C4-2 Plot Date: 17/03/2020 Plot Time: 09:39



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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

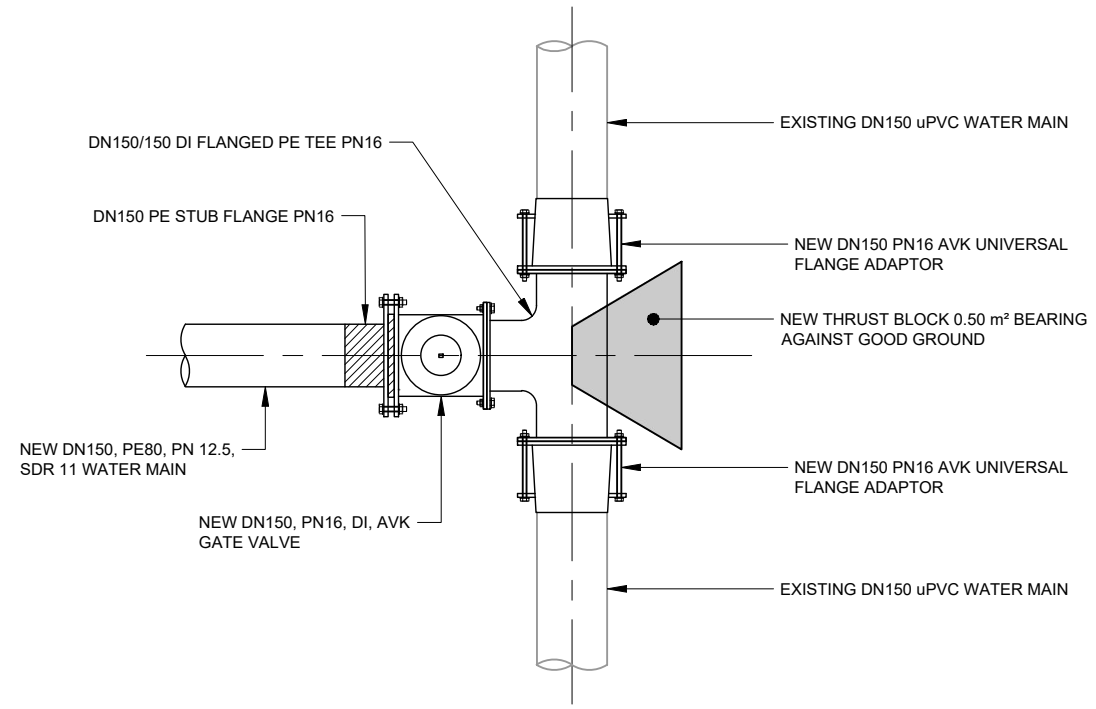
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**WATER SUPPLY LAYOUT 2
PLAN AND DETAILS**

Drawing No.
DWG-100-365

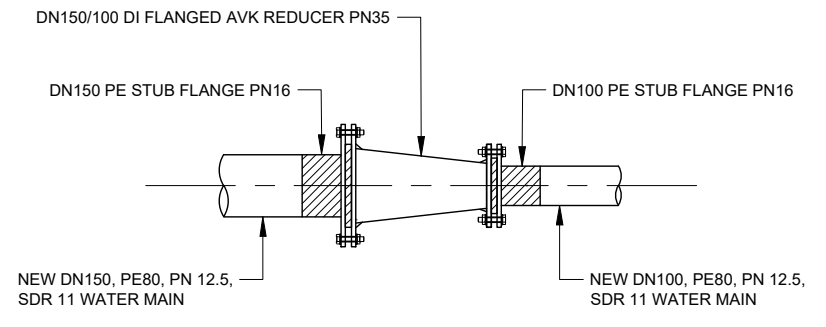
Job No. **3485** Sheet No. **C4-2**

A3
REV.
A

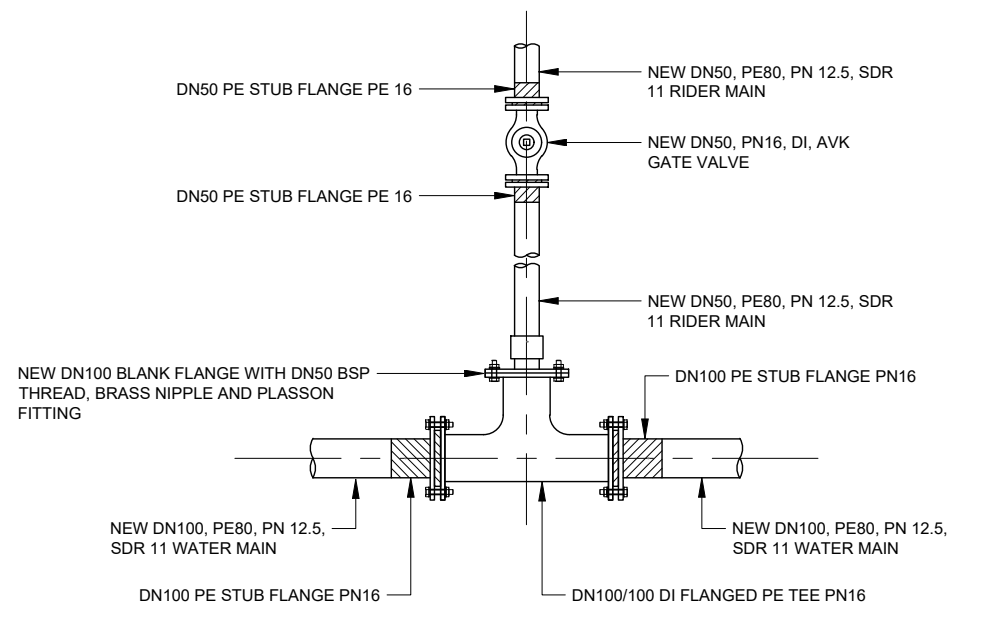
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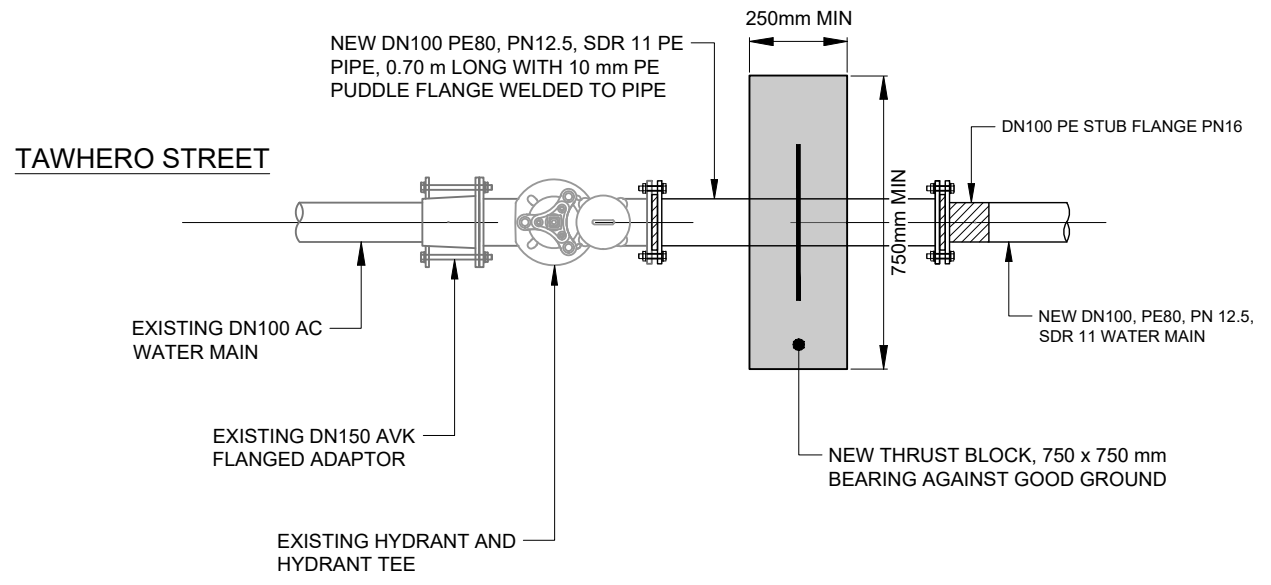
A SECTION
C4-1 SCALE 1:20



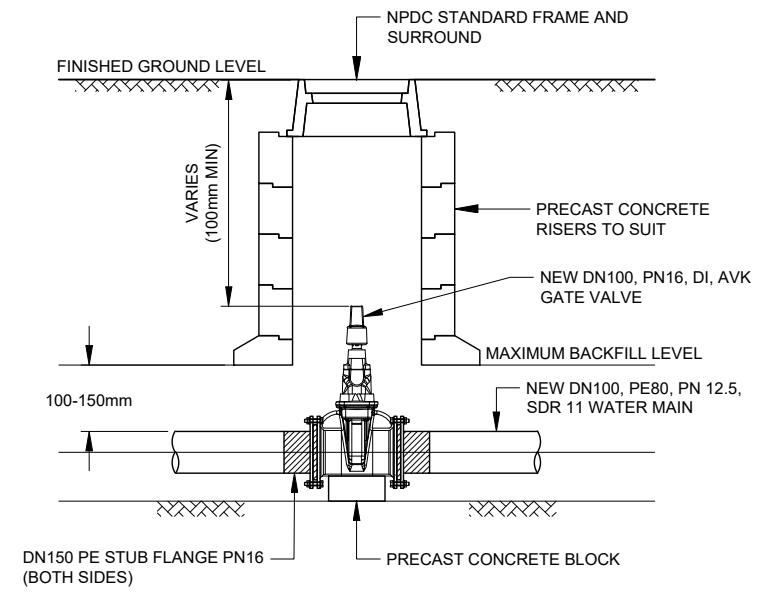
B SECTION
C4-1 SCALE 1:20



C SECTION
C4-1 SCALE 1:20



D SECTION
C4-1 SCALE 1:20



DN100 STANDARD VALVE DETAIL
SCALE 1:20

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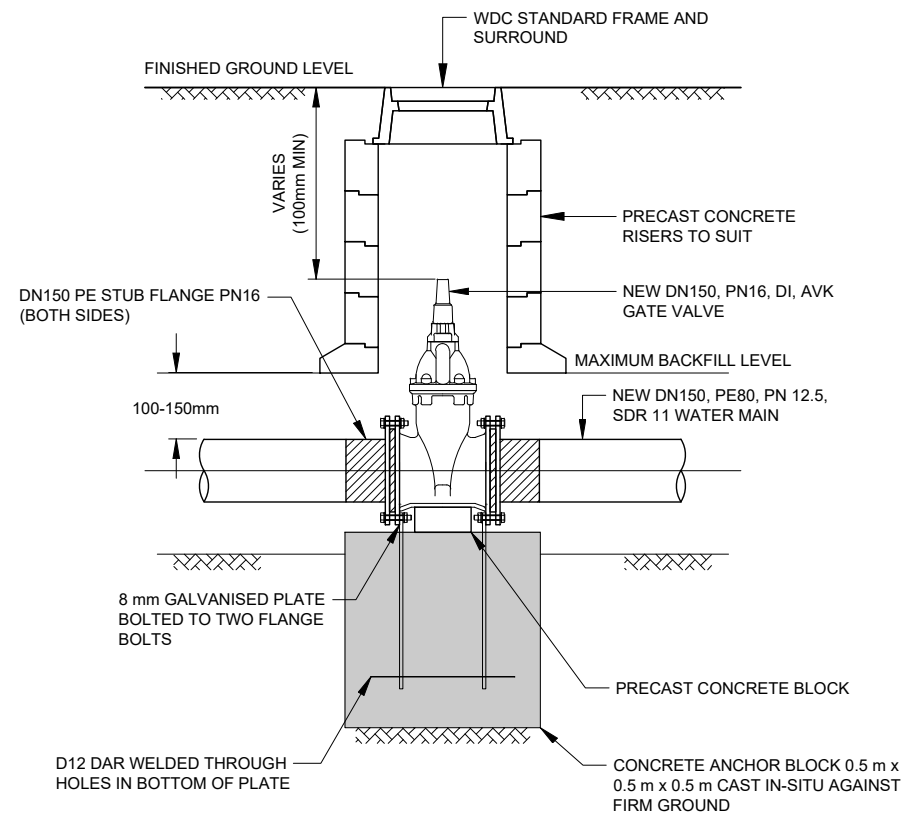
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DATE	REV	REV RECORD	BY	CHD	VER	APP

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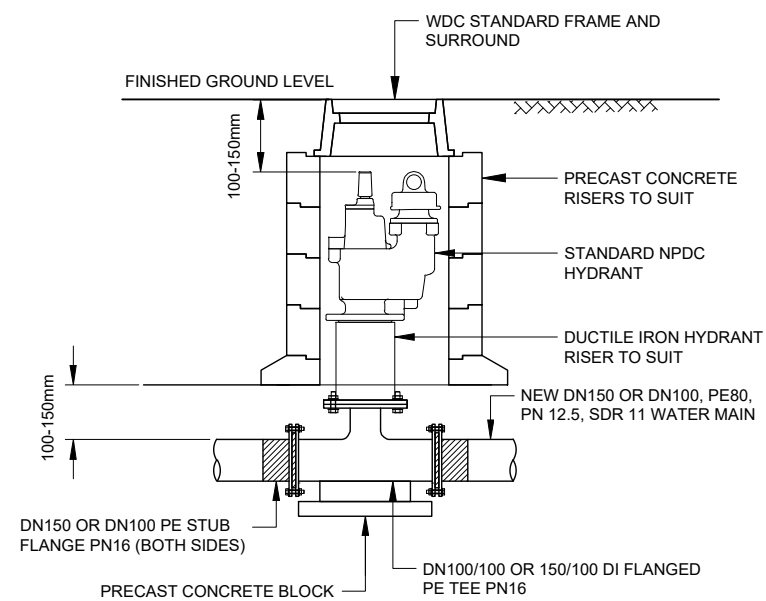
Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**WATER SUPPLY
CONSTRUCTION DETAILS**

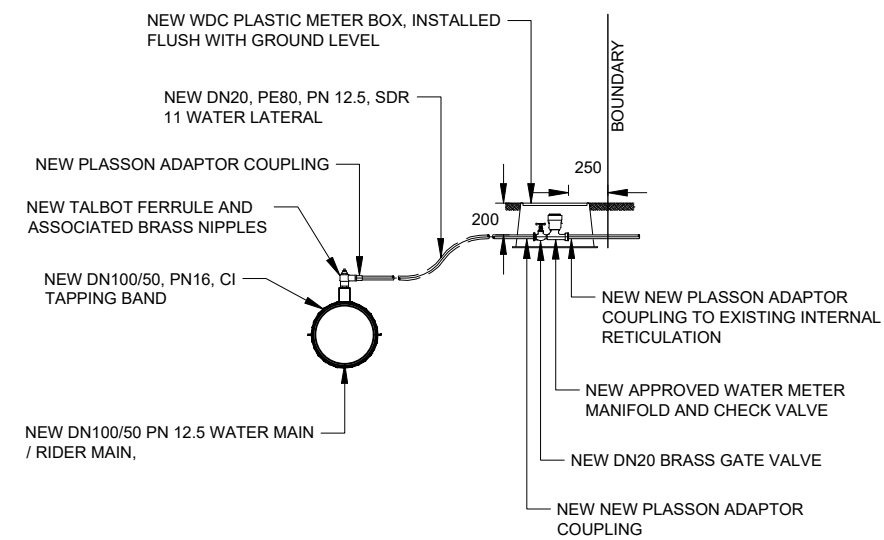
Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C4-3	REV. A



DN150 STANDARD VALVE DETAIL
SCALE 1:20



STANDARD HYDRANT DETAIL
SCALE 1:20



TYPICAL WATER LATERAL DETAIL
SCALE 1:20

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Project
MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI

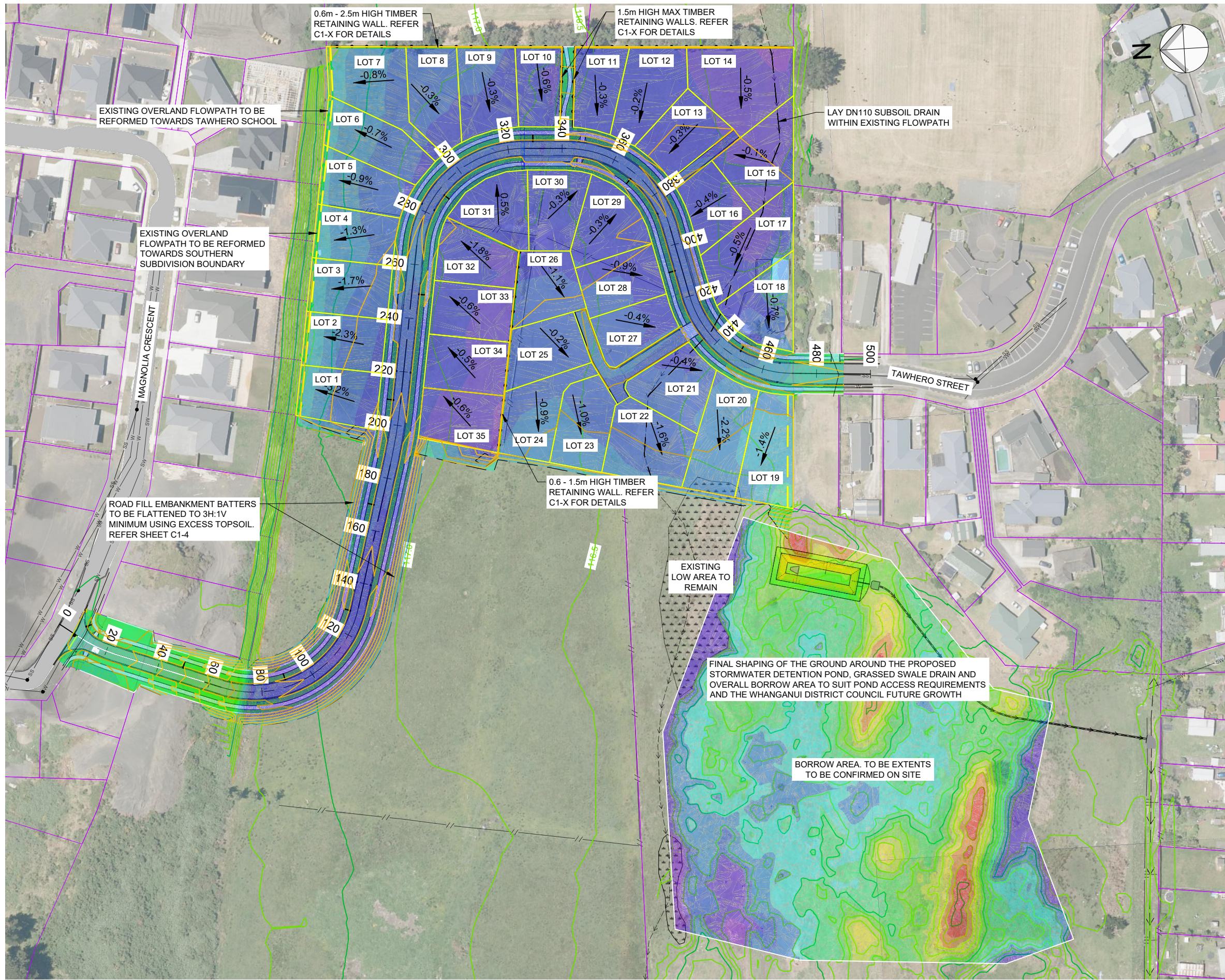
Sheet Title
WATER SUPPLY
CONSTRUCTION DETAILS

Drawing No.
DWG-100-365

Job No. 3485
Sheet No. C4-4

A3
REV.
A

File Name: Z:\JOBS\3001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C5-1 Plot Date: 17/03/2020 Plot Time: 09:39



Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-6.000	-5.500
2	Red-Orange	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Orange-Yellow	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Yellow-Green	-3.500	-3.000
7	Light Green	-3.000	-2.500
8	Green	-2.500	-2.000
9	Light Green	-2.000	-1.500
10	Green	-1.500	-1.000
11	Light Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Light Blue	0.500	1.000
15	Blue	1.000	1.500
16	Blue	1.500	2.000
17	Blue	2.000	2.500
18	Blue	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

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DATE	REV	REV RECORD	BY	CHD	VER	APP

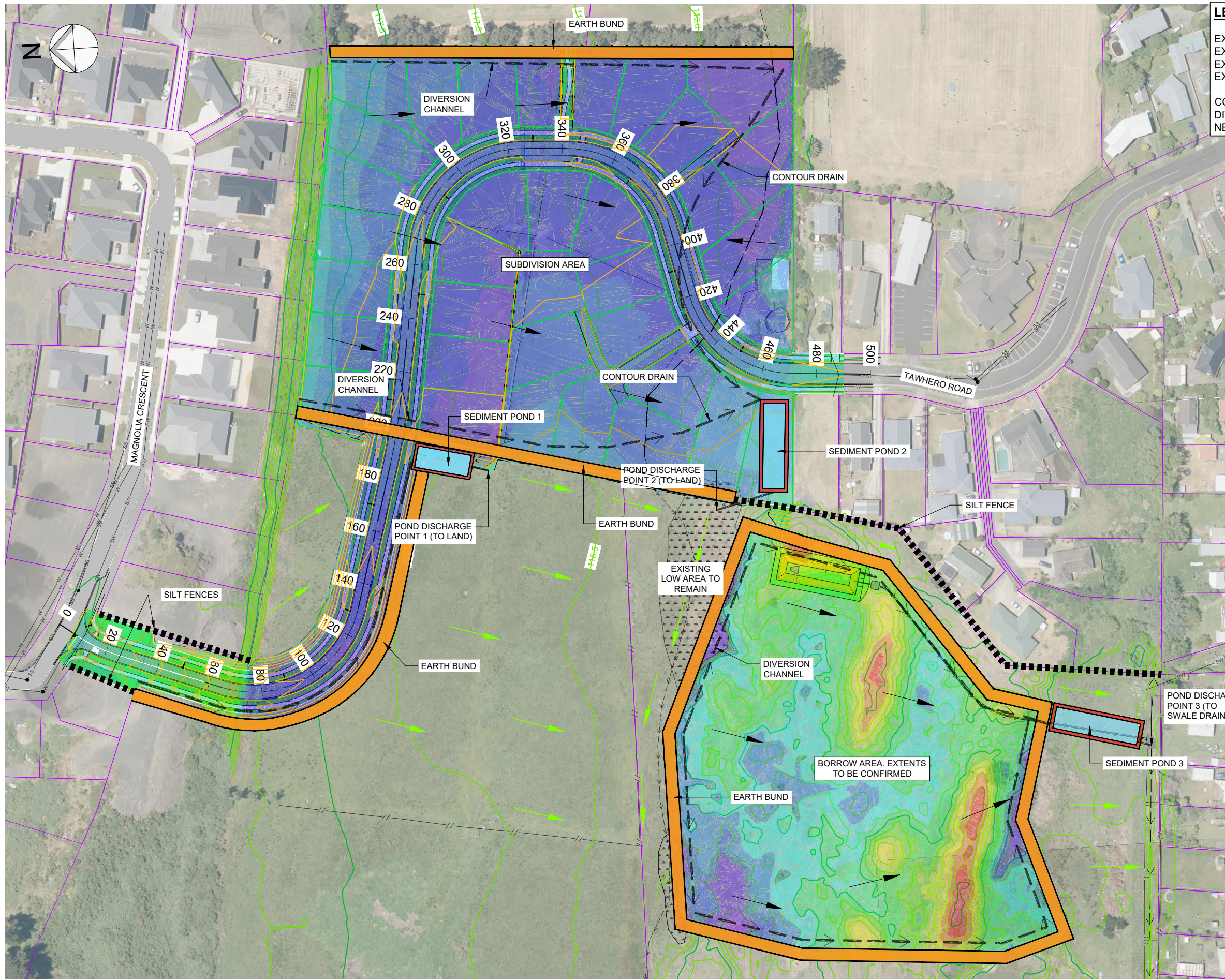
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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
EARTHWORKS CUT AND FILL PLAN

Drawing No.	DWG-100-365	A3
Job No.	3485	REV.
Sheet No.	C5-1	B

File Name: Z:\JOBS\3001-3500\3485 Magnolia Crescent, Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C6-1 Plot Date: 17/03/2020 Plot Time: 09:39



LEGEND

- EXISTING LEGAL BOUNDARY
- EXISTING SWALE DRAIN
- EXISTING CONTOUR
- EXISTING SURFACE FALL
- CONTOUR DRAIN/DIVERSION CHANNEL
- DIVERSION BUND
- NEW SURFACE FALL

Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-6.000	-5.500
2	Red	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Orange	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Yellow	-3.500	-3.000
7	Light Green	-3.000	-2.500
8	Light Green	-2.500	-2.000
9	Light Green	-2.000	-1.500
10	Light Green	-1.500	-1.000
11	Light Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Light Blue	0.500	1.000
15	Light Blue	1.000	1.500
16	Blue	1.500	2.000
17	Blue	2.000	2.500
18	Blue	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

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17.03.20	A	ISSUED FOR CONSENT	CM	LB	-	-
DATE	REV	REV RECORD	BY	CHD	VER	APP

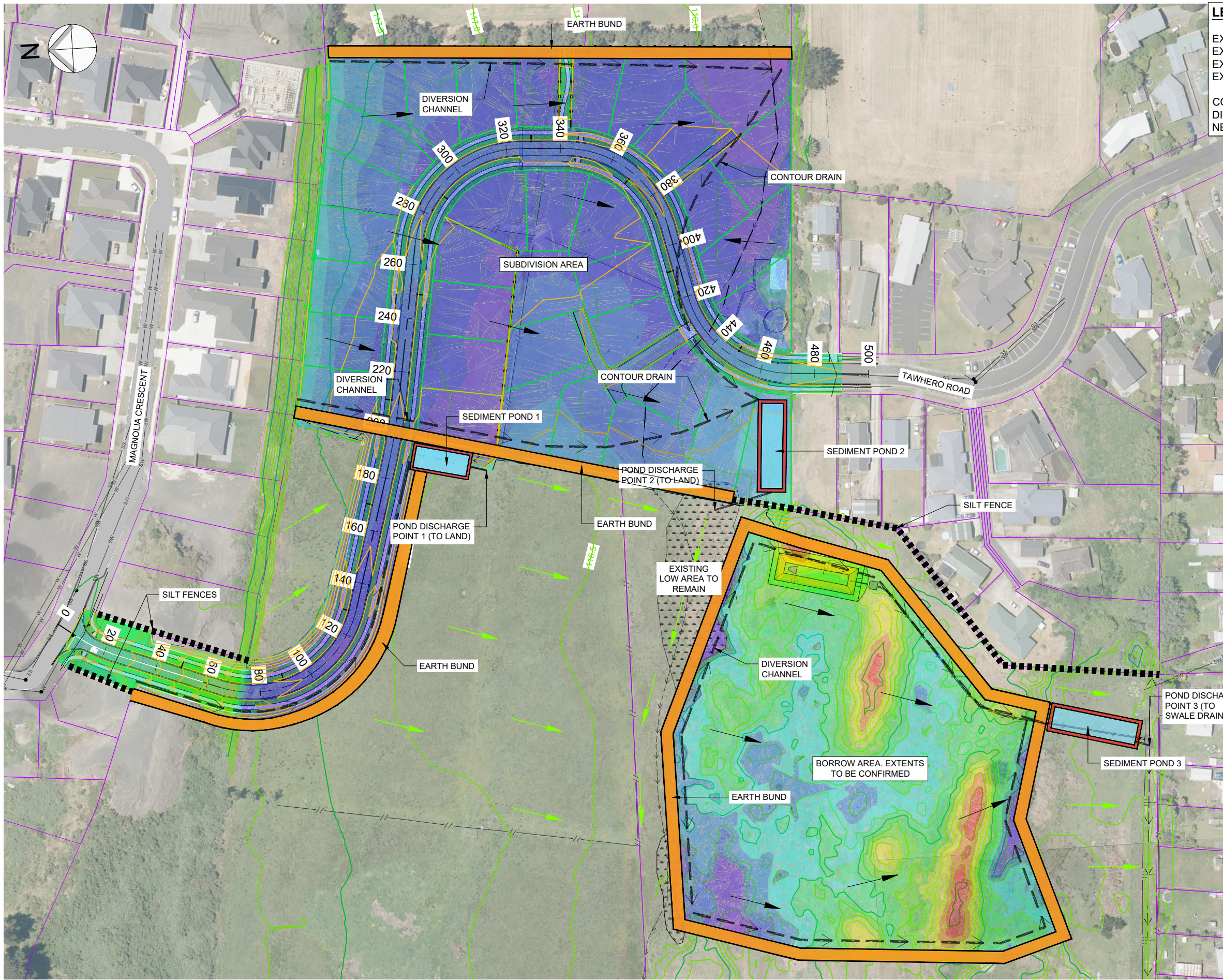
Client
A SIGLEY DEVELOPMENTS LTD

Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**EROSION AND SEDIMENT
CONTROL LAYOUT**

Drawing No.	DWG-100-365	A3
Job No.	3485	REV.
Sheet No.	C6-1	B

APPENDIX III EROSION AND SEDIMENT CONTROL PLAN



LEGEND

- EXISTING LEGAL BOUNDARY ---
- EXISTING SWALE DRAIN -->-->
- EXISTING CONTOUR ---
- EXISTING SURFACE FALL -->
- CONTOUR DRAIN/DIVERSION CHANNEL -->-->
- DIVERSION BUND ---
- NEW SURFACE FALL -->

Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-6.000	-5.500
2	Red	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Orange	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Yellow	-3.500	-3.000
7	Light Green	-3.000	-2.500
8	Light Green	-2.500	-2.000
9	Light Green	-2.000	-1.500
10	Light Green	-1.500	-1.000
11	Light Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Light Blue	0.500	1.000
15	Light Blue	1.000	1.500
16	Blue	1.500	2.000
17	Blue	2.000	2.500
18	Purple	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

CONSENT

3 DAVIDSON STREET
NEW PLYMOUTH 4310
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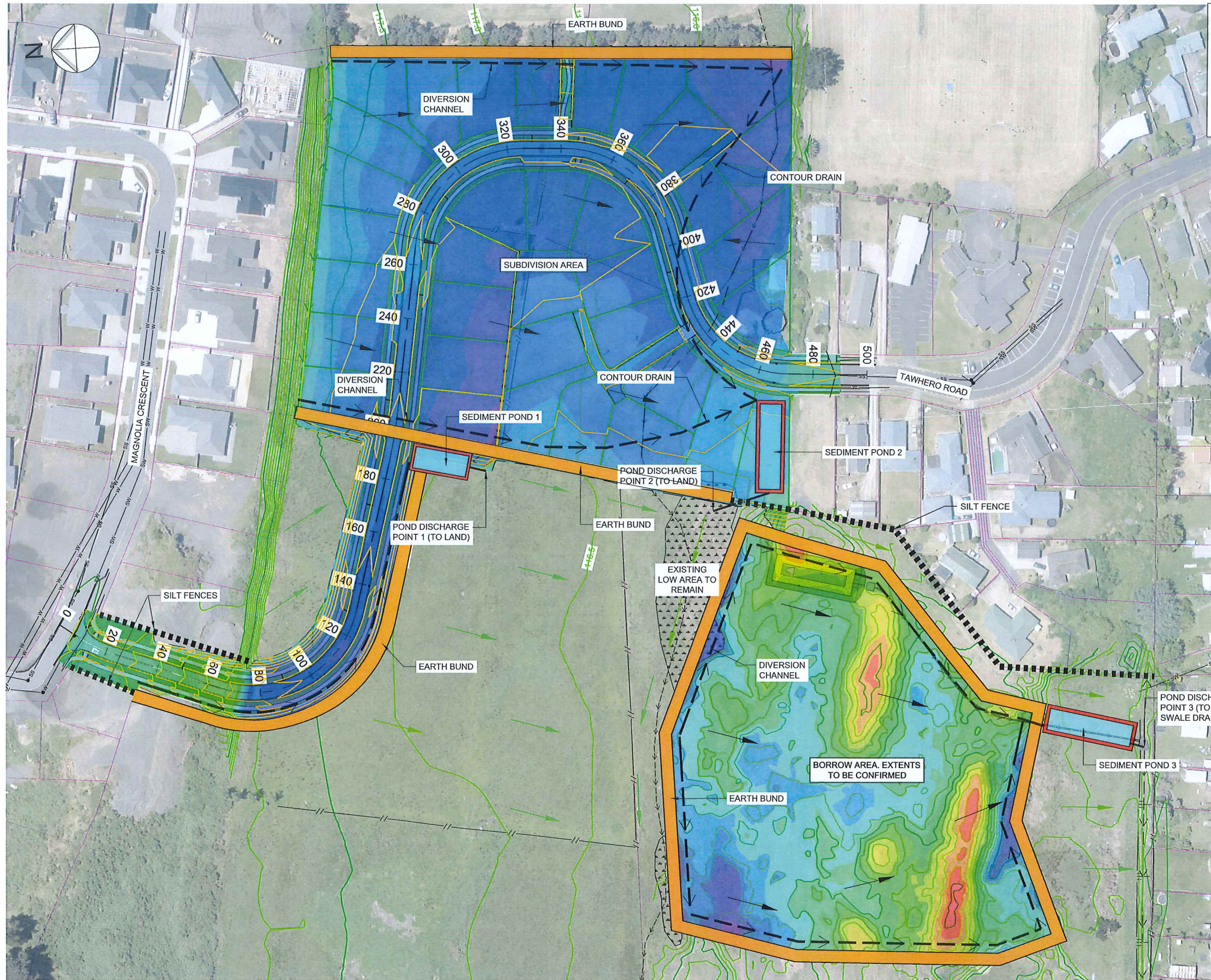
Client
A SIGLEY DEVELOPMENTS LTD

Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**EROSION AND SEDIMENT
CONTROL LAYOUT**

Drawing No. DWG-100-365		A3
Job No. 3485	Sheet No. C6-1	REV. B

File Name: Z:\JOBS\3001-3500\3485 Magnolia Crescent - Whanganui - Residential Subdivision\Drawings\DWG-100-365.dwg - C6-1 Plot Date: 17/03/2020 Plot Time: 09:39



LEGEND

EXISTING LEGAL BOUNDARY	
EXISTING SWALE DRAIN	
EXISTING CONTOUR	
EXISTING SURFACE FALL	
CONTOUR DRAIN/DIVERSION CHANNEL	
DIVERSION BUND	
NEW SURFACE FALL	

Surface Analysis: Elevation Ranges

Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Light Pink	-6.000	-5.500
2	Red	-5.500	-5.000
3	Orange	-5.000	-4.500
4	Light Orange	-4.500	-4.000
5	Yellow	-4.000	-3.500
6	Light Green	-3.500	-3.000
7	Green	-3.000	-2.500
8	Light Green	-2.500	-2.000
9	Green	-2.000	-1.500
10	Light Green	-1.500	-1.000
11	Green	-1.000	-0.500
12	Light Green	-0.500	0.000
13	Light Blue	0.000	0.500
14	Blue	0.500	1.000
15	Light Blue	1.000	1.500
16	Blue	1.500	2.000
17	Dark Blue	2.000	2.500
18	Very Dark Blue	2.500	3.000

EARTHWORKS PLAN
SCALE 1:1500

CONSENT

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17.03.20	A	ISSUED FOR CONSENT	CM	LB	-	-
DATE	REV	REV RECORD	BY	CHD	VER	APP

Client
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Project
**MAGNOLIA CRESCENT EXTENSION
LOT 5 DP 22736
WHANGANUI**

Sheet Title
**EROSION AND SEDIMENT
CONTROL LAYOUT**

Drawing No.	DWG-100-365	A3 REV.
Job No.	3485	
Sheet No.	C6-1	B

File Name: Z:\JOB\3001-3500\3485 Magnolia Crescent - Residential Subdivision\Drawings\DWG-100-365.dwg - C6-1 Plot Date: 17/03/2020 Plot Time: 09:39

**WHANGANUI DISTRICT COUNCIL
RESOURCE CONSENT REPORT**

Date: 23 April 2020

Subject: CONJOINED RESOURCE CONSENT – SUBDIVISION AND EARTHWORKS

Address: 30 Tawhero Street, 78 and 86 Mosston Road and 45 Magnolia Crescent

File Number: SUB20/029 and RCLU20/0035
Applicant: Harrison and O’Sullivan
Proposed: Conjoined - 41 lot subdivision and earthworks
Zoning: Rural Lifestyle/Residential Zone
Overlay: NA
Other: NA
Activity Status: Discretionary
Notification Decision: Non-Notified
Recommendation: Approve

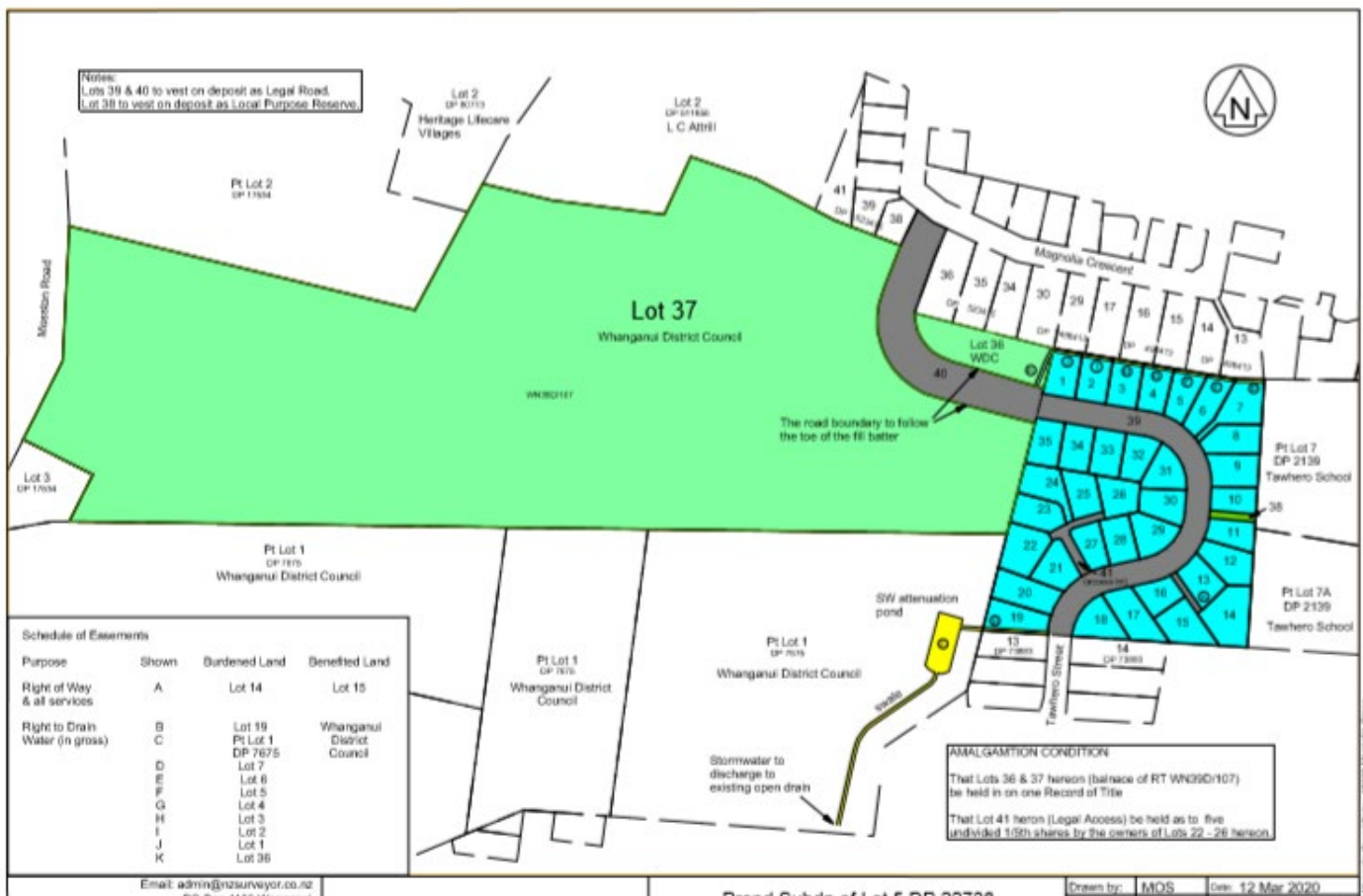
1.0 Site description

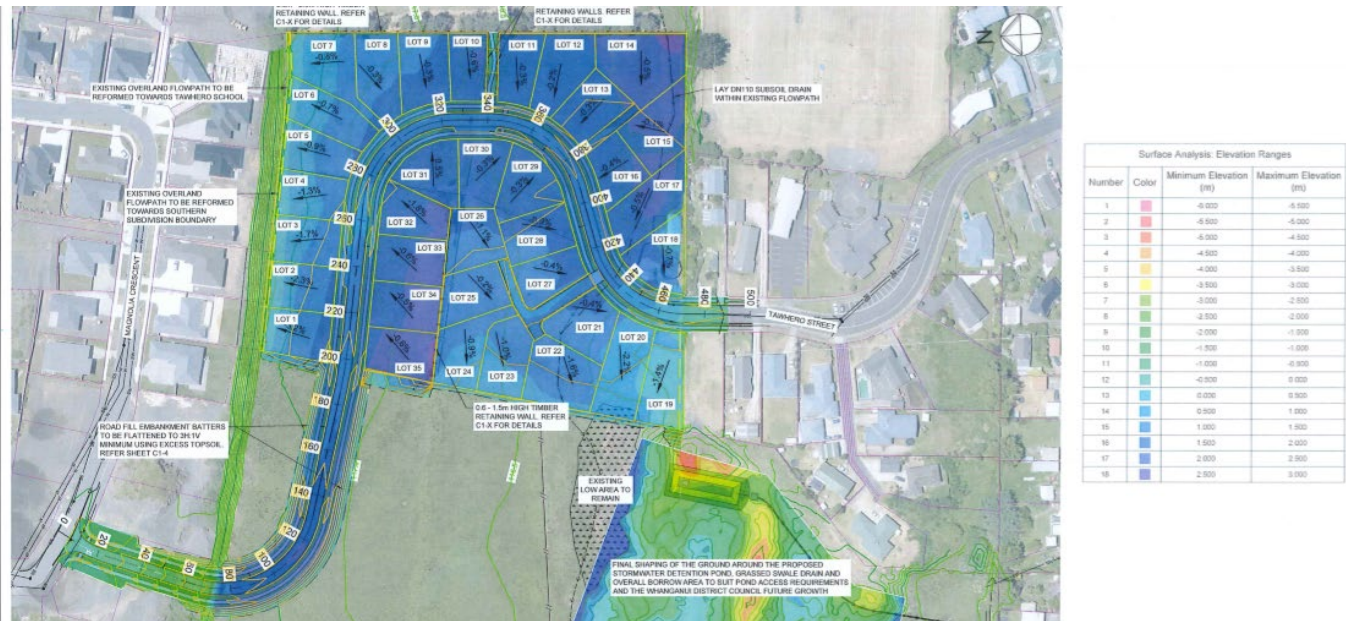
The application site comprises 30 Tawhero Street, part 86 Mosston Road (Council owned land) and 45 Magnolia Crescent.



1.1 Proposal

- 41 lot subdivision to create 35 residential lots at 30 Tawhero.
- Residential lots range in size from 484m² (Lot 10) through to 801m² (Lot 7)
- In addition to the 35 residential allotments, it is also proposed to create the following:
 - Lot 36 and 37 which are the balance lots of Councils parcel (Lot 1 DP 17534).
 - Lot 38 – a lot to vest as Local Purpose Reserve which will provide pedestrian access through to Tawhero and St Marcellin Primary Schools.
 - Lot 39: a road which is to be vested to Council
 - Lot 40: a road which is to be vested to Council
 - Lot 41: an access lot which is to be held as five undivided 1/5th shares by the owners of Lot 22 – 26
- Construction of a stormwater attenuation pond on the adjacent Council owned land (Part Lot 7 DP 7675 – 78 Mosston) which will be protected by easement in gross.
- Construction of the Tawhero Street extension, which will link with Magnolia Crescent.
- Bulk earthworks associated with road construction include the following (see cut and fill plan below), all to be undertaken in accordance with a submitted ESCP plan:
 - Cut sand material to certified fill 1,200 m³
 - Cut organic and unsuitable material to waste 100 m³
 - Import approved sand backfill 46,000 m³
 - Strip topsoil for re-use on cut and fill batters and berms 6,000 m





2.0 WHANGANUI DISTRICT PLAN

Plan Change 53 (PC53) rezones the subject land and surrounding area to residential, in accordance with the Springvale Structure Plan. PC53 was approved by Council on 16 April 2020. The appeal period closes 5 June 2020. The provisions of PC53 therefore have legal effect. The application was lodged on 16 April 2020. An assessment against both the provisions pre and post PC53 is therefore required.

The applicant sets out an assessment of the proposal against relevant performance standards in the supporting application documentation and I accept its findings. Summary as follows:

- The application complies with the performance standards of the RZ except for earthworks.
- The application complies with the performance standards of the RLZ except for minimum lot size and earthworks.
- The application complies with the performance standards of Part I - Subdivision and Infrastructure (Chapter 13) except for RLZ minimum lot size.
- The application does not comply with the scale (14.5.1) and general (14.5.2) performance standards of the Earthworks chapter when considered as RZ.

Application Status

Subdivision - discretionary activity pursuant to Rule 13.4.3(c).

Land use (earthworks - RZ) - restricted discretionary activity pursuant to Rule 14.4.2(a).

Land use (construction of an attenuation pond - ROSZ) - discretionary activity (8.4.3).

Applying bundling principle, activity status is **discretionary**.

NES Soil Contamination - HAIL

There is no evidence before officers to suggest the subject land has been subject to a use included on the HAIL. The site has been used to graze stock for hobby purposes.

3.0 REFERRALS

The following comments have been received for this application:

Referral	Comment
Parks Department	No objection subject to conditions.
Property Department	No objection.
Infrastructure Department	No objection subject to standard conditions.

4.0 SECTIONS 95A, B D AND E OF THE RMA

Sections 95A and 95B of the Resource Management Act 1991 (RMA) states that a consent authority must follow the steps set out in this section, in the order given, to determine whether to publically notify or limited notify an application for a resource consent.

4.1 Public Notification 95A

Step 1 - Public notification is mandatory in certain circumstances

Public notification is mandatory in certain circumstances

Has the applicant requested public notification?	No
Is public notification required under s95C?	No
Is the application made jointly with an application to exchange recreation reserve land under s15AA of the Reserves Act?	No

Public notification is not mandatory under step 1 and therefore the application can progress onto step 2.

Step 2 - Public notification is precluded in certain circumstances

If public notification is not required under step 1 it may be precluded in certain circumstances (unless special circumstances apply under step 4).

Are all activities in the application subject to a rule in a Plan or National Environmental Standard precluding public notification?	No
Is the application for one or more of the following (but no other) activities? <ul style="list-style-type: none"> ▪ A controlled activity ▪ A residential activity with a restricted discretionary or discretionary activity status ▪ A subdivision of land with a restricted discretionary or discretionary activity status 	No

<ul style="list-style-type: none"> ▪ A boundary activity with a restricted discretionary, discretionary or non-complying activity status ▪ An activity prescribed by regulation made under s360H(1)(a)(i) precluding public notification (if any) 	
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Public notification is not precluded under step 2 and therefore the application progresses onto step 3.

Step 3 – Public notification is required in certain circumstances

If public notification precluded under step 2, public notification may be required in certain circumstances.

Is any activity in the application subject to a rule in a Plan or National Environmental Standard that requires public notification?	No
Does the activity have, or is likely to have, adverse environmental effects that are more than minor in accordance with s95D?	See below

Does the activity have, or is likely to have, adverse environmental effects that are more than minor in accordance with s95D?

Public notification is required under step 3 if the activity will have or is likely to have adverse effects on the environment that are more than minor. In considering if the adverse effects on the environment are more than minor, the effects on persons who own or occupy the land in, on, or over which the activity will occur; or any land adjacent to that land must be disregarded. The adverse effects on the environment are considered not more than minor for the following reasons:

- Proposed conventional residential layout, consistent with neighbouring conventional residential layout, all residential lots compliant with minimum RZ lot size.
- Proposal is consistent with the Springvale Structure Plan.
- Mitigation measures proposed by the application, such as development to accord with Council Infrastructure requirements (ESCP included), limits environmental effects to less than minor.
- Density of development will increase traffic on local roads, however no evidence to suggest local road capacity cannot absorb the traffic generation anticipated.

Step 4 – Public notification is required in special circumstances

If public notification is not required under previous steps, public notification may still be warranted where there are special circumstances

Do special circumstances exist that warrant public notification?	No
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In conclusion, public notification is not required pursuant to s95A of the RMA.

4.2 Limited Notification 95B

Step 1 – Certain affected groups/persons must be notified

Limited notification is mandatory for certain groups/persons.

Are there affected customary rights groups?	No
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Are there affected customary marine title groups (for accommodated activities)?	No
Is the proposal on or adjacent to, or may affect, land that is subject to a statutory acknowledgement and whether the person to whom the statutory acknowledgement is made affected under section 95E?	No

Limited notification is not required under step 1 and therefore the application can progress onto step 2.

Step 2 – Limited notification is precluded in certain circumstances

Limited notification to any other persons not referenced in step 1 is precluded in certain circumstances (unless special circumstances apply under step 4).

Are all activities in the application subject to a rule in a Plan or National Environmental Standard precluding limited notification?	No
Is the application for either or both of the following, but no other activities: <ul style="list-style-type: none"> • A controlled activity (other than a subdivision) under the District Plan • An activity prescribed by regulations made under s360H(1)(a)(ii) precluding limited notification (if any) 	No

Limited notification is not precluded under step 2 and therefore the application must progress onto step 3.

Step 3 – Certain other persons must be notified

If limited notification is not precluded under step 2, limited notification is required for any persons found affected under s95E.

Are any of the following persons ‘affected’ under s95E? <ul style="list-style-type: none"> • For ‘boundary activities’ an owner of an allotment with an ‘infringed boundary’ • In the case of any activity prescribed under s360H(1)(b), a prescribed person in respect of the proposed activity. 	No
For all other activities, are there any affected persons in accordance with s95E?	No (see below assessment)

In accordance with s95E are there any affected persons?

Section 95E(3)(a) stipulates that those individuals who give written approval to a proposal cannot be considered to be an “affected party”. No written approvals have been provided.

In accordance with section 95E, I have considered whether the proposal could adversely affect any persons. I consider there to be no affected persons as the potential environmental effects will be less than minor for the following reasons:

- Proposed conventional residential layout, consistent with neighbouring conventional residential layout, all residential lots compliant with minimum RZ lot size.

- Proposal is consistent with the Springvale Structure Plan.
- Mitigation measures proposed by the application, such as development to accord with Council Infrastructure requirements (ESCP included), limits environmental effects to less than minor.
- Density of development will increase traffic on local roads, however no evidence to suggest local road capacity cannot absorb the traffic generation anticipated.

Limited notification is not required under step 3 and therefore the application can progress onto step 4.

Step 4 – Limited notification is required under special circumstances

If limited notification is not required under step 3, limited notification may still be warranted where there are special circumstances.

Do special circumstances exist that warrant notification of any persons to whom limited notification would otherwise be precluded?	No
--	----

In conclusion, limited notification is not required pursuant to s95B of the RMA.

5.0 CONCLUSION

Having regard to the step-by-step process for considering public notification and limited notification, it is determined that:

1. The application does not need to be publicly notified under s95A of the Act pursuant to s95A(9)(b).
2. The application does not need to be limited notified under s95B of the Act pursuant to s95B(10)(b).

6.0 SECTION 95 RECOMMENDATION

That, for the reasons outlined above, this application be processed without notice.

That the recommendation above be adopted under delegated authority.



Hamish Lampp
Planning Manager

Date: 12 May 2020

7.0 CONSIDERATION OF APPLICATION (SECTION 104)

In considering this resource consent the Council must have regard to the matters set out in Section 104(1) of the RMA 1991 and Section 104B of the RMA. Section 104B, relating to discretionary activities, requires that the Council may grant or refuse the application and if it grants the application, may impose conditions under section 108.

In considering the actual and potential effects on the environment of both the subdivision and land use consents the applicant has had regard to potential effects in relation to:

Subdivision:

- Existing Buildings: Yards and ancillary sheds to be removed. Less than minor effects.
- Allotment Size: all lots will meet the minimum lot size for the Residential Zone. The lot sizes are well under the RLZ minimum, however the intent of PC53 and direction of policy travel for this area means this policy conflict is outweighed by the consistency with the RZ provisions. Less than minor effects.
- Easements: As noted by the applicant, there is a stormwater management scheme throughout the site which is to be protected by easements in gross (areas B – K inclusive). The only other easement required is over Lot 14 in favour of Lot 15. Lot 15 is a back lot and as such access and all services will be contained within Lot 14, within the area labelled A.
- Site suitability: All lots are of suitable size and shape to contain a compliant residential dwelling. An indicative building platform which meets these requirements will be available on all allotments following completion of the scheme of earthworks proposed at the site. Less than minor effects.
- Site serviceability: Infrastructure design will accord with NZS4404:2010 Council's Supplementary Engineering Document 2016, to be managed by consent conditions. Council's Development Engineer raises no objection to the grant of consents subject to conditions. Less than minor effects.
- Network Utilities: New reticulation for water, wastewater and stormwater will be provided throughout the development, connected to the existing network in Magnolia Crescent and Tawhero Street. Less than minor effects.
- Site Access: It is proposed to construct a new road through the development which will provide connectivity from Magnolia Crescent over Lot 37 DP 523415 through to Tawhero Street. All allotments will have direct road frontage onto the new road with the exception of Lot 15 via a right of way over Lot 14, and Lots 22 – 26 which will have access to the new road via Lot 41 (an access lot) which is to be held as to five undivided 1/5th shares by the owners of Lots 22 - 26 hereon. Less than minor effects.
- Archaeological sites: There are no designated arch sites on the subject land. The development will not affect this site given the separation distance and infrastructure design. The site is 150m from the nearest designated arch site – Titoki Wetland. Standard HNZ protocol advice note is recommended. Less than minor effects.

Land Use:

- Earthworks: The extent of the earthworks proposed across these allotments is shown on the supporting earthworks cut and fill plan. The design proposal and mitigation measures identified in the ESCP will ensure that environmental effects from erosion and sedimentation will be less than minor. Note – the ESCP is treated as draft until such time as it has been approved by Horizons. This has been taken into account in the wording of the ESCP condition. Less than minor effects.

Conclusion: The application concludes that the actual and potential effects on the environment of the proposal will be less than minor. I agree with that assessment.

There are not considered to be any other relevant matters under Section 104(1)(b) or (c).

The objectives and policies of the District Plan have been assessed in the supporting AEE at Section 7. It finds that the proposal will not compromise the amenity of the RZ and non-compliance with the RLZ is not determinative. I agree with that assessment. Importantly, the proposal is consistent with the principles of the Springvale Structure Plan, providing connectivity between Tawhero and Magnolia, and pedestrian connectivity between Tawhero and the adjacent eastern schools.

The application does not necessitate the need for assessment against Part 2 of the Resource Management Act 1991.

8.0 CONCLUSION

The proposed subdivision and earthworks meet the requirements of the Whanganui District Plan and the Resource Management Act 1991, and are recommended for approval.

9.0 RECOMMENDATION A – SUBDIVISION

That pursuant to Sections 104, 104B, 108 and 220 of the Resource Management Act 1991, the Whanganui District Council grants resource consent for a 41 lot subdivision (creating 35 residential lots on Lot 5 DP 22736) at 30 Tawhero Street, 86 Mosston Road and 45 Magnolia Crescent, Whanganui, subject to the following conditions:

General:

1. The subdivision shall be in accordance with the application documentation prepared by Harrison & O’Sullivan Ltd, submitted on 16 April 2020 and Planning Approved on 23 April 2020:

Plan title and reference	Author	Date
Proj 19-069 Sheets 1 of 3, 2 of 3, 3 of 3	Harrison & O’Sullivan Ltd	12 March 2020
100-365 Rev B: Earthworks cut and fill plan Sheet C5-1	Red Jacket	17 March 2020
Erosion and Sediment Control Plan	Red Jacket	March 2020
100-365 Rev B: Erosion and Sediment Control Layout Sheet C6-1	Red Jacket	March 2020

2. Prior to any works commencing on site, a detailed engineering design report which addresses all of the requirements of NZS4404:2010 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016 shall be provided to the consent authority Whanganui District Council for approval. The engineering design report must comprehensively address each section, subsection and appendices of both documents.

3. No work shall commence on site until the detailed engineering design report required by condition 2 has been approved by Whanganui District Council. The development must proceed in accordance with the approved engineering design report and a copy of the approved engineering report must be kept on site at all times.
4. Prior to section 224 certification, Schedules 1A, 1B, 1C and 2A shall be provided to the Whanganui District Council.
5. During the two year maintenance period the Council may undertake network inspections. Where defects are identified with the subdivision works the developer shall undertake repairs in a prompt and timely manner. For clarity, this means timeframes no greater than timeframes contained in Whanganui District Council network maintenance contracts.
6. Lots 36 and 37 shall be amalgamated and held in the same Computer Freehold Register. If the amalgamation is deemed impracticable, an alternative legally binding solution shall be submitted to and approved by the Whanganui District Council and thereby formalised.
7. Lot 41 (Legal Access) and lots 22 – 26 shall be amalgamated and held in the same Computer Freehold Register. If the amalgamation is deemed impracticable, an alternative legally binding solution shall be submitted to and approved by the Whanganui District Council and thereby formalised.

Geotechnical and Earthworks

8. A site specific full geotechnical assessment shall form part of the engineering design report required by condition 2. The geotechnical report shall fully cover all aspects of NZS4404:2100 section 2 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016.
9. Where the geotechnical report approved in accordance with condition 6 identifies additional constraints on foundation design and land development on some or all of the proposed lots, a consent notice to this effect shall be registered against the titles of the relevant lots. The wording and limitations of such notices shall be determined from the approved engineering design report.
10. Where the contours of any lot or road reserve are proposed to change a full earthworks construction report shall be included in the engineering design report required by condition 2
11. No work shall commence on site until the Erosion and Sediment Control Plan (ESCP) submitted with the application has been finalised and approved by Council. All works shall be undertaken in accordance with the ESCP. The ESCP shall be monitored on at least a weekly basis and results reported monthly to the Council for the full duration of the construction. A copy of the approved ESCP including all inspection records shall be kept on site at all times. This record shall be available upon request by Council.

Advice note: The use of Council water reticulation for dust suppression will require the written approval of the Council and may require metering and charging of actual water use.

12. Earthworks shall be designed and supervised by a suitably qualified individual or organisation.

13. Earthworks shall ensure that any overland flow path or ponding area is not obstructed or diverted on to any neighbouring property. A full assessment of any earthworks impact on the overland flow paths and ponding area must be included with the engineering design report required in accordance with condition 2.

Roads:

14. Prior to the commencement of any work on site a design and access statement prepared by a suitably qualified individual shall be submitted to and approved by Council. The design and access statement shall fully comply with NZS4404:2010 Section 3.2.6.
15. Prior to the commencement of any work on site either (a) a Road Safety Audit compliant with NZS4404:2010 Section 3.2.7, prepared by suitably qualified individual, shall be submitted to and approved by Council or (b) an exemption declaration as described in *NZTA Road safety audit procedures for projects*, prepared by suitably qualified individual shall be submitted to and approved by Council.
16. Prior to the commencement of any work on site evidence demonstrating that a suitable compliant vehicle crossing location is available for all residential lots must be submitted to and approved by Council. The evidence must take into consideration the geometric design of the local road and intersection.
17. The design and construction of all roads shall be in strict accordance with NZS4404:2010 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016.

Advice note: Any non-conformance with the above standards should be clearly identified and non-conforming design matters may require notices to be placed against the titles of some or all of the residential lots. It may also require additional consent notices.

18. The road design shall incorporate the Ministry for the Environment's Crime Prevention through Environmental Design (CPTED) guidelines and the provisions of the Springvale Structure Plan.
19. The road shall be vested to Whanganui District Council.
20. The engineering design report required by condition 2 shall include in respect to roads and connectivity:
 - a) Details of sumps and sump leads designed for appropriate loadings and sized appropriately.
 - b) Provision of shared pathways, footpaths, cycle lanes and active movement
 - c) A detailed technical specification and testing schedule that shall align with the Whanganui District Council Land Development and Subdivision Engineering Document 2016 Appendices I and L respectively. Any variation from the technical specification must be clearly labelled.

21. The roads hereby approved shall be subject to a minimum maintenance period of 2 years from the final date of construction. All defects presented during this period shall be repaired at the expense of the consent holder. Any repairs required shall be undertaken in a timely manner consistent with the service delivery timeframes of councils existing maintenance contracts.

22. The consent holder shall ensure that at the end of the 2 year maintenance period (being 2 years following issue of the section 224 certification) and following the repair of all defects during that period that a second coat seal is applied to the road surface and all road markings are reinstated.
23. The consent holder shall be responsible for the provision of all street furniture, signs and road markings. These features shall be included in all design drawings and shall form part of the subdivision design report.
24. Street lighting must be included in the engineering design report required by condition 2. This must include a detailed light spread plan and detailed street light ducting plan.
25. Prior to section 224 certification, full as-built records of the roading infrastructure must be provided to the Whanganui District Council. The roading information must be in a format suitable for direct upload into RAMM and the Whanganui District Council plan system. As-built records and drawings must comply with the as built requirements of the Whanganui District Council Land Development and Subdivision Engineering Document 2016. It must be ensured that when the as-builts supplied are printed on an A3 sheet size, all information is legible without magnification. This may require plans to be presented on multiple sheets.

Stormwater:

26. A stormwater design, including construction methodology, shall form part of the engineering design reports required by condition 2 and shall fully cover all aspects of NZS4404:2010 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016. The stormwater design:
 - a) Must be at a catchment level and not just specific to the subdivision land, upstream and downstream flows must be included in report calculations;
 - b) Must achieve a state of hydrological neutrality such that post development flows do not exceed pre-development flow.
27. Prior to the issue of S224 certification it must be demonstrated that stormwater discharged from the development meets stormwater discharge quality standards of Horizons Regional Council. It must be demonstrated that any quality measures achieve a compliant standard and that any requisite Horizons Regional Council resource consents have been obtained.
28. The engineering design report required by condition 2 shall fully detail all necessary temporary attenuation and disposal required to be put in place until the downstream works have been constructed. Such attenuation shall remain in place and be maintained by the consent holder until the overflow pipe and downstream attenuation are complete (servicing the development).
29. Prior to section 224 certification, CCTV inspections of all publically vested pipe work must be provided to and approved by council. The CCTV information shall be provided in a format suitable for inclusion in the Councils asset management system (Assetfinda)
30. Prior to section 224 certification, full as-built records of the stormwater and subsoil infrastructure must be provided to the Whanganui District Council. As-built records and drawings must comply with the as built requirements of the Whanganui District Council Land Development and Subdivision engineering document 2016. As-built drawing hard

copies produced for printing on an A3 sheet size MUST be legible without magnification. This may require plans to be presented on multiple sheets.

31. A s221 consent notice shall be registered against the title of each lot stating that all future occupants of the lot shall not discharge to the stormwater network or the street any products (e.g. moss or mould removers) which may be harmful to the environment.
32. A s221 consent notice shall be registered against the title of each lot requiring subsequent development to achieve hydrological neutrality.
33. Where overland flow paths exist, minimum floor level calculations shall be provided in conjunction with the engineering design report and a consent notice registered against the titles of the relevant lots to that effect. Minimum floor levels will be required.
34. The overland flow paths recorded against the parent lot must be included in the engineering design report and shall be protected by easement. This includes the detailed design and sizing of all secondary flow path channels.
35. Prior to the issuing of S224 certification full as-built records of the stormwater and subsoil infrastructure must be submitted and approved by Council. As-built records and drawings must comply with the as-built requirements of the Whanganui District Council Land Development and Subdivision Engineering Document 2016. As-built drawing hard copies produced for printing on an A3 sheet size must be legible without magnification. This may require plans to be presented on multiple sheets.

Wastewater:

36. A wastewater design shall form part of the engineering design reports required by condition 2 and shall full cover all aspects of NZS4404:2010 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016. The public wastewater reticulation shall be designed to be entirely within the road reserve. Wastewater pipelines shall not be under buildings or other structures.
37. Prior to section 224 certification, a new wastewater connection to the public reticulation system must be provided to each lot hereby approved. The location of the connection shall be determined as part of the detailed engineering design report. The connection shall be capped and staked in accordance with NZS4404:2010 and the Whanganui District Council Land Development and Sub Division Engineering Document 2016.
38. Prior to section 224 certification, full as-built records of the wastewater infrastructure must be provided to the Whanganui District Council. As-built records and drawings must comply with the as built requirements of the Whanganui District Council Land Development and Subdivision engineering document 2016. As-built drawing hard copies produced for printing on an A3 sheet size must be legible without magnification. This may require plans to be presented on multiple sheets.
39. Prior to section 224 certification, CCTV inspections of all publically vested pipe work must be provided to and approved by council. The CCTV information shall be provided in a format suitable for inclusion in the Council's asset management system (Assetfinda).

Water:

40. A water supply design shall form part of the engineering design reports required by condition 2 and shall fully cover all aspects of NZS4404:2010 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016. The water supply design shall include:
- a) Calculation and clearly state the available pressure and flow available to each lot. Please note a minimum main internal diameter of 150mm shall be used for the water main.
 - b) An assessment of the need for pressure reducing valves and any other reticulation management devices (Scour valves, air release valves etc.).
 - c) A public water supply reticulation contained entirely within the road corridor. Reticulation shall not be designed to be located on private property.
41. Prior to section 224 certification, a new water connection shall be provided to each residential lot. The location of the connection shall be determined as part of the detailed engineering design report. The connection shall be capped and staked in accordance with NZS4404:2010 and the Whanganui District Council Land Development and Sub Division Engineering Document 2016.
42. Prior to section 224 certification, full as-built records of the water infrastructure must be provided to the Whanganui District Council. As-built records and drawings must comply with the as built requirements of the Whanganui District Council Land Development and Subdivision engineering document 2016. As-built drawing hard copies produced for printing on an A3 sheet size must be legible without magnification. This may require plans to be presented on multiple sheets.

Utilities:

43. A network utilities design shall form part of the engineering design reports required by condition 2 and shall fully cover all aspects of NZS4404:2010 and the Whanganui District Council Land Development and Subdivision Engineering Document 2016. The design shall ensure network utilities reticulation is contained entirely within the road corridor. Reticulation shall not be designed to be located on private property.
44. Prior to section 224 certification, utility connections shall be provided to each residential lot. The location of the connection shall be determined as part of the detailed subdivision design report.
45. Prior to section 224 certification, full as-built drawings for all utility services must be prepared in the format required by the Whanganui District Council Land Development and Subdivision Engineering Document 2016 and provided to Whanganui District Council. As-built drawing hard copies produced for printing on an A3 sheet size MUST be legible without magnification. This may require plans to be presented on multiple sheets.
46. Prior to section 224 certification, certification of acceptance of all network utilities shall be provided to the Whanganui District Council.

Landscape:

47. Prior to commencement of any works on site, a landscape design covering all aspects of NZS4404:2010 and the Whanganui District Council Land Development and Subdivision

Engineering Document 2016 shall be submitted to and approved by the Whanganui District Council. The landscape design shall include:

- a) A street tree planting plan. Note - Berm areas that are to be planted with trees must be a minimum of 1.5m in width, and shall allow for planting a minimum of 1m from underground services. Provision shall be made to allow sufficient clearance for mature trees from above ground infrastructure such as driveway crossings and street lighting.
 - b) A methodology for the maintenance over the two year maintenance period shall form part of the street tree planting plan.
 - c) Incorporation of Ministry for the Environment's Crime Prevention through Environmental Design (CPTED) guidelines.
 - d) Incorporation of the provisions of the Springvale Structure Plan.
 - e) A fencing plan detailing treatments to all common boundaries between the approved road, residential lots and adjoining Council land. The plan must also detail a stock proof fence to the perimeter of the attenuation pond and swale.
 - f) Measures to reinstate the land surrounding the attenuation pond and swale post construction, to ensure conditions are suitable for stock grazing.
48. Prior to section 224 certification, the approved landscape design shall be fully implemented. All street tree planting shall be carried out in accordance with the Council's specification for *Planting Young Street Trees* document. The maintenance of the landscape features shall be the responsibility of the consent holder for a period of 2 years following the date of section 224 certification. All street tree plantings and grassed areas must be fully established and healthy at the end of the two year maintenance period to the satisfaction of Council.
49. During the maintenance period the Council shall undertake landscape inspections. Where defects are identified with the subdivision works the consent holder shall undertake repairs in a prompt and timely manner. For clarity this means timeframes no greater than timeframes contained in Whanganui District Council network maintenance contracts.
50. Prior to section 224 certification, full as-built records of the landscaping must be provided to the Whanganui District Council. As-built records and drawings must comply with the as built requirements of the Whanganui District Council Land Development and Subdivision Engineering Document 2016. As-built drawing hard copies produced for printing on an A3 sheet size must be legible without magnification. This may require plans to be presented on multiple sheets.

Advice Notes

1. In accordance with Council's Development Contribution Policy 2018, the approved development is subject to a development contribution of \$8,321.22 excluding GST per HEU, payable prior to the issue of S224 certification. The development is assessed as creating 35 HEU requiring a development contribution of \$291,124.70 excluding GST.
2. The acquisition of fill material from Council land will require a separate formal agreement between the parties, this needs to be in place before the earthworks on Council land can be agreed to.
3. The Erosion and Sediment Control Plan submitted with the application is treated as draft until such time as it has been approved by Horizons. Any changes required by Horizons shall be

incorporated and the document thereafter finalised and implemented, in accordance with condition 9.

4. All design and as-built drawings shall be in the terms of NZVD 2016.
5. All overland flow paths shall be designed to convey the design storm event 100 year event for NZS4404:2010 and 200 year event as defined in the Horizons One Plan.
6. The engineering design report shall clearly identify the secondary system for stormwater and shall include the provision of detailed maps of the secondary system in a format suitable for upload and inclusion in the Whanganui District Council GIS mapping system. The details of the secondary system shall include details including the type of flow and the volume of the flow.
7. The downstream effects of the secondary system shall be analysed and shown in the engineering design report required by condition 2. Where necessary secondary flow paths shall be protected by easement. Should the overland flow path pass through the retention area the area shall be designed to avoid scouring due to over topping.
8. Overland flow paths and ponding areas are evident across the site, the design of the attenuation for the development must take this into consideration. The development must not create ponding on upstream properties due to displacement of ponded water. The engineering design report required by condition 2 must address the storage requirements and ponding effects on all neighbouring properties.
9. Where wastewater manholes are located in an area subject to permanent, temporary or intermittent inundation of stormwater or within an overland flow path, bolt down covers (water tight) must be used.
10. Please liaise with Council Parks Manager Wendy Bainbridge regarding landscape design requirements (condition 47).
11. This resource consent will expire five years after the date of commencement of the resource consent unless it is given effect to before the end of that period or the Council grants an extension of the lapsing period.
12. Charges set in accordance with Section 36(1)(c) of the Resource Management Act 1991 shall be paid to the consent authority for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 of the Act.

Section 36(1)(c) of the Act provides that the Council may from time to time fix charges payable by the holders of resource consents.

13. Should koiwi, taonga or other archaeological material be discovered in an area during the works, work shall immediately cease in the vicinity of the find and the consent holder shall contact iwi, Heritage New Zealand and Whanganui District Council within 24 hours. In the event of archaeological discovery, the applicant is also required to comply with the Heritage New Zealand Pouhere Taonga Archaeological Discovery Protocol. If human remains are found, the New Zealand Police shall be contacted. The consent holder shall allow the above parties to inspect the site, and in consultation with them, identify what needs to occur before work can resume.

10.0 RECOMMENDATION B – LAND USE

That pursuant to Sections 104, 104B and 108 of the Resource Management Act 1991, the Whanganui District Council grants resource consent for earthworks including construction of a road and an attenuation pond associated with SUB20/029 at 30 Tawhero Street, 78 and 86 Mosston Road and 45 Magnolia Crescent, Whanganui, subject to the following conditions:

1. The activity shall be in accordance with the application documentation prepared by Harrison & O’Sullivan Ltd, submitted on 16 April 2020, and Planning Approved on 23 April 2020.

Plan title and reference	Author	Date
Proj 19-069 Sheets 1 of 3, 2 of 3, 3 of 3	Harrison & O’Sullivan Ltd	12 March 2020
100-365 Rev B: Earthworks cut and fill plan Sheet C5-1	Red Jacket	17 March 2020
Erosion and Sediment Control Plan	Red Jacket	March 2020
100-365 Rev B: Erosion and Sediment Control Layout Sheet C6-1	Red Jacket	March 2020

2. No work shall commence on site until the draft Erosion and Sediment Control Plan (ESCP) submitted with the application has been finalised and approved by Council. All works shall be undertaken in accordance with the approved ESCP. The ESCP shall be monitored on at least a weekly basis and results reported monthly to the Council for the full duration of the construction. A copy of the approved ESCP including all inspection records shall be kept on site at all times. This record shall be available upon request by Council.

Advice note: The use of Council water reticulation for dust suppression will require the written approval of the Council and may require metering and charging of actual water use.

3. Earthworks, including site preparation works and associated heavy vehicle movements to and from the site, are only permitted during the following times: 7am – 6pm Monday – Friday; 8am – 3pm Saturday.
4. No earthworks, including site preparation works and associated heavy vehicle movements to and from the site, shall occur on public holidays.
5. All noise associated with earthworks must comply with NZS6803:1999 Acoustics – Construction Noise.
6. Earthworks shall be designed and supervised by a suitably qualified individual or organisation.

Advice Note:

1. The acquisition of fill material from Council land will require a separate formal agreement between the parties, this needs to be in place before the earthworks on Council land can be agreed to.
2. The Erosion and Sediment Control Plan submitted with the application is treated as draft until such time as it has been approved by Horizons. Any changes required by Horizons shall be incorporated and the document thereafter finalised.
3. This resource consent will expire five years after the date of commencement of the resource consent unless it is given effect to before the end of that period or the Council grants an extension of the lapsing period.
4. Charges set in accordance with Section 36(1)(c) of the Resource Management Act 1991 shall be paid to the consent authority for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 of the Act.

Section 36(1)(c) of the Act provides that the Council may from time to time fix charges payable by the holders of resource consents.

5. Should koiwi, taonga or other archaeological material be discovered in an area during the works, work shall immediately cease in the vicinity of the find and the consent holder shall contact iwi, Heritage New Zealand and Whanganui District Council within 24 hours. In the event of archaeological discovery, the applicant is also required to comply with the Heritage New Zealand Pouhere Taonga Archaeological Discovery Protocol. If human remains are found, the New Zealand Police shall be contacted. The consent holder shall allow the above parties to inspect the site, and in consultation with them, identify what needs to occur before work can resume.

10 REASONS FOR THE DECISION

After considering Part II of the Resource Management Act 1991, the following are the reasons for this decision:

1. The proposal complies with the relevant objectives and policies of the Whanganui District Plan.
2. The adverse effects arising from the proposal are less than minor.
3. The proposal meets the requirements of the Resource Management Act 1991.

That the recommendations above be adopted under delegated authority.



Hamish Lampp
Planning Manager

Date: 12 May 2020

