23.03.2020

Client name; French
Address – Waianga Pl, Omapere
Lot 7
DP 525890
Zone – General Coastal
Building profile – Storage shed

To whom it may concern,

Site inspection and determination of good ground in accordance with the requirements of NZ3604 Section 3.1.3 was carried out on this day.

Weather conditions – Fine

A site plan and photos of the build area have been supplied within this document;

- Observations of the site showed no evidence of buried services
- Observations and records show no indication of land slips or surface creep
- Observations show no evidence of earth fill on the building site
- The soils observed in test locations were solid clay, no evidence of organic or soft soils and clays were visible and min ground bearing of 225kpa was satisfied.
- Reasonable enquiry was given to the neighbouring / existing structures which show no evidence of erosion, surface creep or land slippage having occurred in the near by locality.

Best Regards
Darryn Fisher
Construction Manager / Managing Director
M: 021 228 3699
Totalspan Bay of Islands/ Hokianga

Dekka Int Trading Ltd
T/A Totalspan BOI /Hokianga
1235 State Highway 10 - RD3 Kerikeri 0295
Ph – 09 407 7875

Dekka Int Trading Ltd
T/A Totalspan BOI /Hokianga
1235 State Highway 10 - RD3 Kerikeri 0295
Ph – 09 407 7875

DAN CLEARY

PROPOSED RESIDENTIAL SUBDIVISION

LOT 7 DP 525890

WAIANGA PLACE, OMAPERE

SITE SUITABILITY REPORT

Project Reference: 17225
6 December 2019

1 PROJECT OVERVIEW

LDE Ltd were engaged by Dan Cleary to provide a site suitability report for his proposed, 7 lot subdivision in Waianga Place. This site suitability report addresses the overall water supply, wastewater, stormwater and access requirements for the site.

The following information outlines the existing site's infrastructure and how the future post development requirements will be addressed.

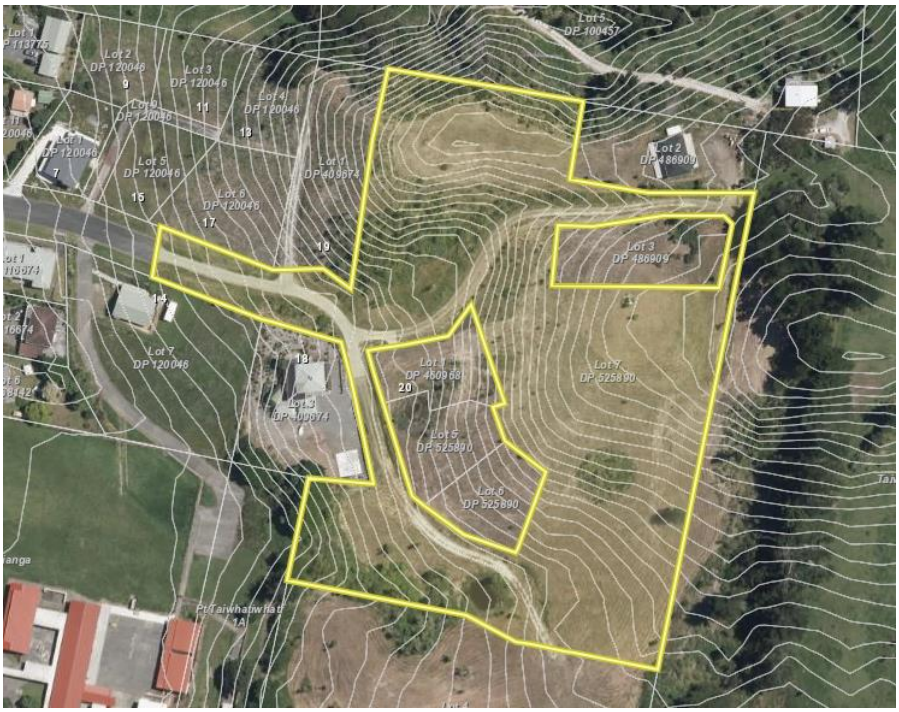


Figure 1 Lot 7 DP 525890. Sourced Far North Maps.

The property is zoned Coastal Residential under the Far North District Plan (FNDP) and is 3.13 Ha in size. It is currently covered with pasture and small areas of native bush. Two existing ROWs provide access to lots from a previous subdivision.

It is intended to subdivide the property into 7 new lots as shown in Figure 2 below.

Figure 2 Proposed subdivision. Provided by Thomson Survey.

2 Residential Water Supply

There is an existing 100mm diameter water supply to the site. Lots 10, 11 and 13 shall be serviced from the existing water supply located at the entrance to ROW 1. A new supply line will be extended up ROW 2 to provide potable water supply to the proposed Lots 7, 8, 9 and 12.

Alternatively, water supply for each dwelling could be provided using a rainwater collection system.

2.1 Fire Supply

There are two options for fire supply to the proposed lots.

2.1.1.1 Option 1

Carry out pressure testing on the existing hydrant to confirm appropriate fire supply pressures can be supplied to the development. Table 2 of SNZ PAS 4509:2008 states that for un-sprinklered, residential dwellings, 12.5 L/s must be provided within 135m of the dwelling, with an additional 12.5 L/s within 270m. To meet these requirements an additional fire hydrant would be installed at approximately CH 140 on ROW 2.

2.1.1.2 Option 2

If it is found that there is insufficient pressure within the existing system to provide the required fire supply, then an alternative fire-fighting supply shall be provided. For un-sprinklered, residential dwellings the requirement is 45,000 L of on-site water storage. It is proposed that this would be provided by locating 2 x 30,000 L tanks on each new lot. The 45,000 L would be provided as dead storage within these tanks, with the remaining 15,000 L of storage being used as attenuation for stormwater flows from the dwelling.

3 WASTEWATER INFRASTRUCTURE

There is existing wastewater infrastructure to the site. A 150mm diameter wastewater gravity main services the property and extends up both ROW 1 and ROW 2. The calculated capacity for this wastewater main – based on its diameter and grade – is 15 l/s.

Assuming 3 people per dwelling, and a design flow of 250 l/person/day, the increase in flows from the site would be:

- ADWF – 0.06 l/s
- PF – 0.15 l/s (diurnal peaking factor = 2.5)

It is therefore considered that there is sufficient capacity within the existing infrastructure to accommodate the increased flows from the subdivision.

It is intended to connect the proposed new lots to the existing infrastructure as follows:

- Lots 7, 8 and 12 will connect to existing WWMH A2 via a drainage easement within Lot 12. Lots 9, 10 and 11 will connect to existing WWMH M2.
- Flows from Lot 13 will be pumped to WWMH M2.

4 STORMWATER

The site is mostly covered with pasture and small areas of native bush. Two ROWs intersect the site and provide access to existing lots within a previous subdivision.

The FNDC GIS maps do not identify any overland flowpaths or floodplains on the site. Based on the site contours, and the Stormwater Catchment Areas identified by Council, the two main flowpaths for the site have been interpreted as shown in Figure 3 below.

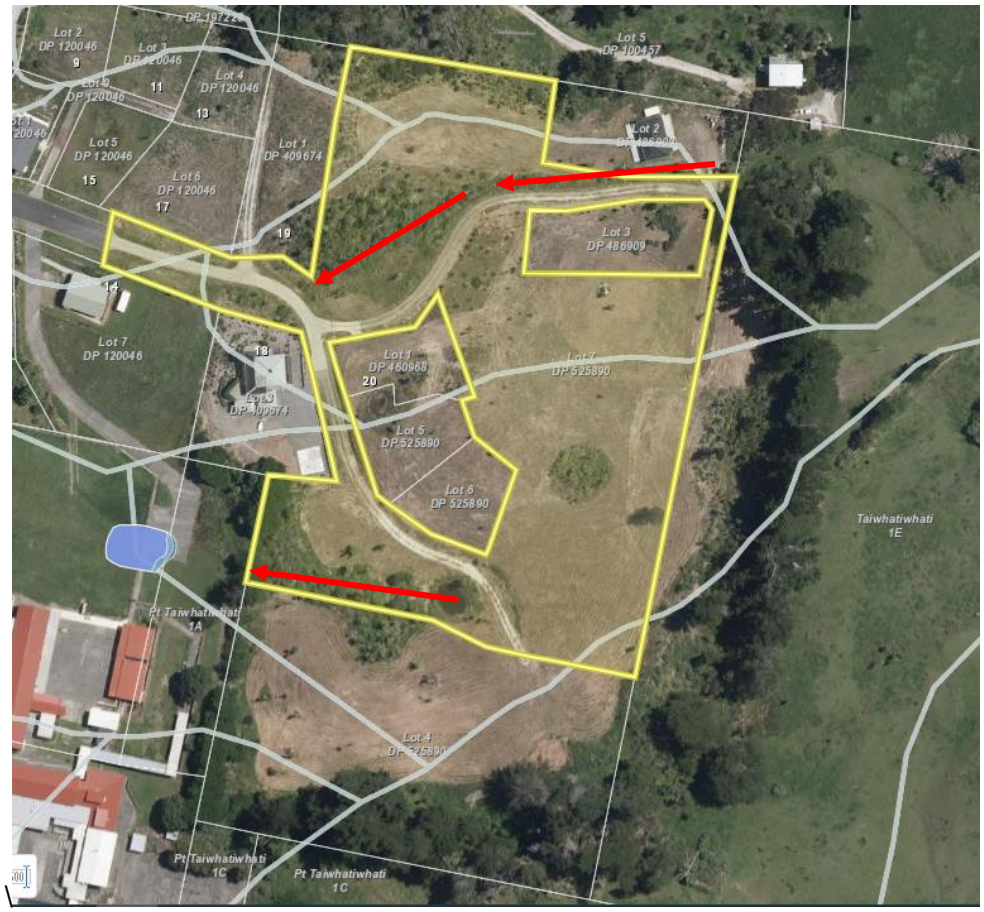


Figure 3: Stormwater catchments (from Far North Maps) and interpreted site drainage paths

As part of the proposed new subdivision, the impervious coverage of the site will be increased. It is proposed to attenuate flows from new impervious areas created by the subdivision to prevent any nuisance to neighbouring or downstream properties.

The increase to impervious areas will occur due to the upgrade and extension of the existing ROWs, as well as the construction of new residential dwellings and their associated hardstand

areas. Attenuation for the 10 year and 100 year ARI design storms shall be provided. The methodology for attenuating stormwater flows from these new impervious areas are provided below.

4.1 Entrance Accessway

As part of the subdivision, the entrance accessway will be widened by adding a 1 meter wide concrete section along its northern edge. This small increase in area amounts to approximately 70 m^2. Offset mitigation of flows from this new impervious area will be provided within the 25,000 L attenuation tank installed for ROW 2 (refer to Section 4.3 below).

In addition to this offset mitigation, it is intended to improve the existing stormwater control on the accessway by installing a grated channel drain across the entrance at Waianga Place. Flows from storms up to the 10 year ARI will be discharged from this drain in to the Council reticulated drainage.

4.2 ROW 1

The existing ROW 1 is already attenuated for storms up to the 100 year ARI event. Construction of new passing bay will slightly increase the impervious area of ROW 1 by approximately 30 m^2. The existing runoff volume from ROW 1 for the 100 year ARI storm is 10,800 L[1]. As the attenuation tank for this system has a capacity of 13,000 L, it is considered that there is sufficient excess capacity within the system to account for the small increase in impervious area. Therefore, no changes are proposed to the existing stormwater infrastructure.

4.3 ROW 2

For the upgrade of ROW 2, a new attenuation tank and other stormwater infrastructure will be required. Flows from the ROW hardstand areas will be collected and directed to a new 25,000L attenuation tank. This tank has been sized to provide attenuation from the new impervious areas within ROW 2, and as offset attenuation for the 1 meter widening of the entrance accessway. Attenuation for design storms up to the 100 year ARI event is provided. The overflow from this attenuation tank shall be directed to the existing Council stormwater infrastructure in Waianga Place.

[1] ACH Consulting letter of 6 September 2018.

4.3.1 HEC-HMS Model

A HEC-HMS model and rainfall data from HIRDS has been used to size the attenuation tank for ROW 2. A climate change increase of 16.8% was added to the post-development rainfall inputs to account for climate change within the model.

The inputs for this model are provided in Table 1 below.

Pre-Development			
Landuse	**Area (m^2)**	**Runoff curve number**	**Initial rainfall abstraction (mm)**
Pervious	210	78	5
Gravel	590	92	0
Sealed	180	80	0
Post-Development			
Landuse	**Area (m^2)**	**Runoff curve number**	**Initial rainfall abstraction (mm)**
Pervious	0	-	-
Gravel	0	-	-
Sealed	980	98	0

Table 1 - Pre and Post site conditions for ROW 2.

The HEC-HMS model was run, and the pre- and post-development runoff flows were assessed. For the post-development scenario, a 25,000 L detention tank was used to attenuate the flows. Table 2 below shows that by using this tank, the post-development impervious areas for ROW 2 can be attenuated to less than the pre-development runoff flow.

ROW 2 (m^2)	ARI	Pre-development (l/s)	Post-development unattenuated (l/s)	Post-development attenuated (l/s)
910	2	10.12	15.33	9.43
	10	17.55	24.01	17.02
	100	31.33	39.86	25.94

Table 2 –Pre and post-development flow rates for ROW 2.

4.4 Impervious Areas Within New Lots

New impervious areas within each lot shall be attenuated by the use of on-site storage tanks. The specific stormwater system design for each new lot shall be submitted to Council as part of the Building Consent process once the final impervious site areas have been confirmed. However, in order to provide information on the methodology and likely sizing of the attenuation systems, an HEC-HMS model has been built to analyse the runoff from a 250 m^2 increase to the impervious area within a lot. The model inputs and results are provided in Section 4.3.1 below and show that attenuation up to the 100 year ARI design storm could be provided within a 15,000L detention tank.

It is noted that if 2 x 30,000 L tanks were placed on the lot for fire supply (refer Section 2.1 above), the additional 15,000 L of attenuation volume could be provided in these. If no fire storage tanks are used, then a single 15,000 L stormwater tank could be used.

Discharge and overflow from each lot's stormwater attenuation tank would be directed towards the existing stormwater infrastructure on the site. Lots 7, 8 and 12 would discharge to the existing swale drain on ROW 2 via a drainage easement within Lot 12. Lots 9, 10 and 11 would discharge to existing SWMH B1. Lot 13 would discharge to the existing waterway within its boundary.

4.4.1 HEC-HMS Model

A HEC-HMS model was built to assess the likely size of the tank required to accommodate a 250 m^2 increase in impervious area.

Pre-Development			
Landuse	**Area (m^2)**	**Runoff curve number**	**Initial rainfall abstraction (mm)**
Pervious	250	78	5
Post-Development			
Landuse	**Area (m^2)**	**Runoff curve number**	**Initial rainfall abstraction (mm)**
Impervious	250	98	0

Table 3 - Pre and Post site conditions for 250 m^2 increase in impervious area.

The HEC-HMS model was run, and the pre- and post-development runoff flows were assessed. For the post-development scenario, a 15,000 L detention tank was used to attenuate the flows. Table 4 below shows that by using this tank, the post-development impervious areas can be attenuated to less than the pre-development runoff flow.

Area (m^2)	ARI	Pre-development (l/s)	Post-development unattenuated (l/s)	Post-development attenuated (l/s)
250	2	1.71	3.95	1.56
	10	3.43	6.19	3.24
	100	3.83	10.27	5.53

Table 4 –Pre and post-development flow rates for 250 m^2 increase in impervious area.

5 ACCESSWAY

The site is currently accessed via a 70m long, 5 meter wide sealed accessway. Two ROWs within the property extend to the upper and lower sections of the site. ROW 1 is 128 meters long and currently services 4 lots. ROW 2 is 206 meters long and services 3 lots.

The proposed subdivision will increase the number of lots accessed from each ROW. Post-development, ROW 1 will service a total of 7 lots, and ROW 2 will service a total of 7 lots.

Under Section 15.1.6C.1.2 of the FNDP, accessways that service more than 4 residential units are required to be 5 meters wide. In addition, passing bays are required for accesses that are more than 60 meters long. However, due to sloping site constraints and the adjacent location of existing stormwater infrastructure, widening and upgrade of the accessways to meet these requirements will be difficult to achieve.

A site walkover was undertaken on 8th November to assess the existing ROWs and to make recommendations on how best to address the proposed subdivisions access requirements in a safe and pragmatic way.

5.1 ROW 1

It is proposed that the existing 3 meter wide access is retained for the full length of ROW 1. A passing bay shall be installed between CH 45 – 60 to allow for vehicles to pass safely. There are clear lines of sight from CH 00 – 45 (refer to Photo 2) and from CH 60 – 121 (refer to Photo

1). As such, drivers can check for oncoming traffic before proceeding on to these sections of the ROW.

The intersection of the two ROWs at CH 00 shall be widened to accommodate the turning requirements for an 8 meter truck. This widening shall also allow for two vehicles to pass safely at this point. as well as providing for the safe movements of pedestrian along the accessway.

Photo 1 – View of ROW 1 from CH 121 looking back to CH 60.

Photo 2 – View of ROW 1 from CH 00 – CH 60

5.2 ROW 2

The first section of ROW 2, CH 00 – 80, will be widened to 5 meters. The sight lines are sufficiently clear to allow drivers to check for on-coming traffic prior to turning on to ROW 2 (refer to Photos 3 and 4).

Photo 3 – View of ROW 2 CH 00 – 40.

Photo 4 – View of ROW 2 looking from CH 80 back to CH 40.

The section of access between CH 80 – 140 is constricted, with a steep slope on one side, and an existing open stormwater drain on the other. To widen this section to 5 meters would require excavation into the slope and altering the existing stormwater drain. It is proposed to restrict the widening of this section of the ROW to 4 meters. There are clear lines of sight along this length (refer to Photos 5 and 6) and the 4 meter width will be sufficient to allow pedestrians and cars to pass safely. The corner at CH 140 shall be widened sufficiently to allow vehicles to pass safely at this point.

Photo 5 – View of ROW 2 CH 80 – 140.

Photo 6 – View of ROW 2 CH 110 – 140.

From CH 140 – 204 the access will only service 4 lots. This section will therefore be 3 meters wide and sealed as per FNDP requirements. There are clear sight lines from CH 204 looking back to CH 140, allowing drivers to check for on-coming vehicles prior to turning on to the ROW (refer to Photo 7).

Photo 7 – View of ROW 2 from CH 190 looking back to CH 140.

The proposed widths and surfacing for ROW 2 are summarised in Table 5 below.

Pre-Development			
Chainage	**Width (m)**	**Surfacing**	
00 – 40	3	Sealed	
40 – 204	3	Metalled	
Post-Development			
Chainage	**Width (m)**	**Surfacing**	**No. of Lots Serviced**
00 – 80	5	Sealed	7
80 – 150	4	Sealed	5
150 – 204	3	Sealed	4

Table 5 – ROW 2 pre- and post-development accessway widths and surfacing.

6 OTHER CONSIDERATIONS

This report has been prepared exclusively for Dan Cleary and the relevant governing authorities, with respect to the particular brief given to us. Information, opinions and recommendations contained in it cannot be used for any other purpose or by any other entity without our review and written consent. Land Development & Engineering Ltd accepts no liability or responsibility whatsoever for or in respect of any use or reliance upon this report by any third party.

For and on behalf of LDE Ltd

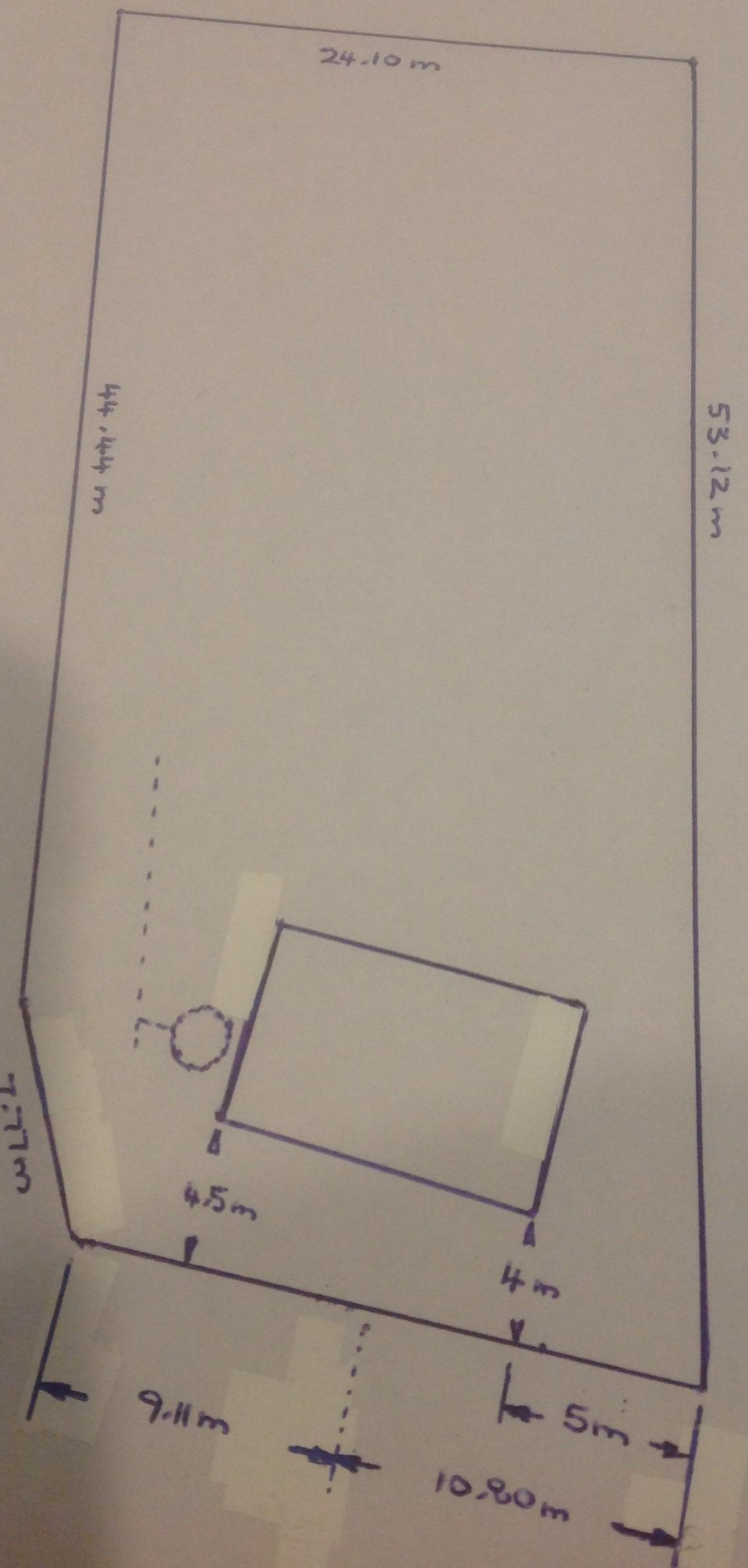
Report prepared by:

Sarah Duncan
Senior Civil Engineer

Report reviewed by:

Aaron Holland
CMEng, CPEng
Senior Civil Engineer

Find out more about LDE professionals



Project Number: 17225
Project Office: Whangarei
Project Manager: Sarah Duncan

Drawings for Engineering Approval

Residential Subdivision

at Waianga Place

Omapere

CONTENTS				
SHEET	DESCRIPTION	ISSUE DATE	STATUS	REVISION
1	Site Plan	2020-02-20	Engineering Approval	0
2	Site Plan Entrance	2020-02-20	Engineering Approval	0
3	Site Plan ROW 1	2020-02-20	Engineering Approval	0
4	Site Plan ROW 2	2020-02-20	Engineering Approval	0
5	Stormwater Details	2020-02-20	Engineering Approval	0
6	Typical Details	2020-02-20	Engineering Approval	0
7	Longsection ROW 2	2020-02-20	Engineering Approval	0
8	Pipe Longsections	2020-02-20	Engineering Approval	0

north

0 10 20 30 40 50

Scale 1:1000 (m)

Original Size = A3

CLIENT	PROJECT	DRAWING TITLE	
Dan Cleary	7 Lot Residential Subdivision LOT 7 DP 525890 Waianga Place	Site Plan	LDE LAND DEVELOPMENT & ENGINEERING LTD.

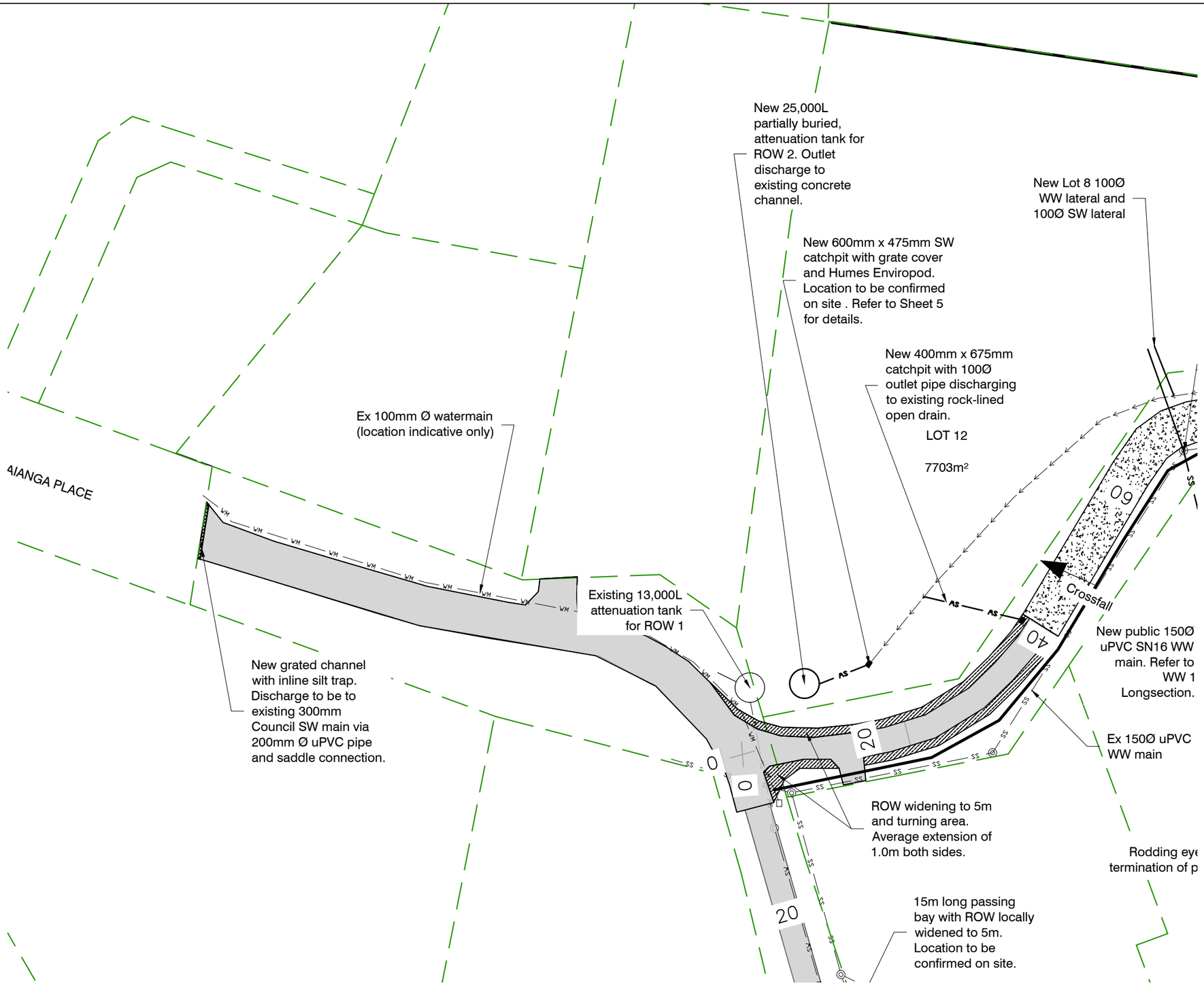
No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	1:1000

PROJECT STATUS: Engineering Approval

PROJECT: 17225 SHEET: 1 of 8

DRAWING No: 17225 REV: 0



NOTES:

1. All works to be in accordance with Far North District Council Code of Practice.
2. All uPVC pipe to be SN16 and bedded on GAP7 or approved equivalent.
3. Contractor shall locate, identify and protect all existing services prior to commencement of any work.
4. Contractor to install appropriate sediment control measures prior to commencement of any work and maintain for duration of works.
5. All Lot WW laterals to be 100Ø uPVC.
6. All Lot SW laterals to be 100Ø uPVC.
7. Passing bays to comply with Rule 15.1.6C.1.3 of Far North District Plan
8. New Lot accesses to be formed and concreted in accordance with Council Standard FNDC/S/6 and 6B. Construction methodology to be as per FNDC/S/2.

0 5 10 15 20 25

Scale 1:500 (m)

Original Size = A3

CLIENT	Dan Cleary		
PROJECT	7 Lot Residential Subdivision LOT 7 DP 525890 Waianga Place		
DRAWING TITLE	Site Plan Entrance		

LDE LAND DEVELOPMENT & ENGINEERING LTD.

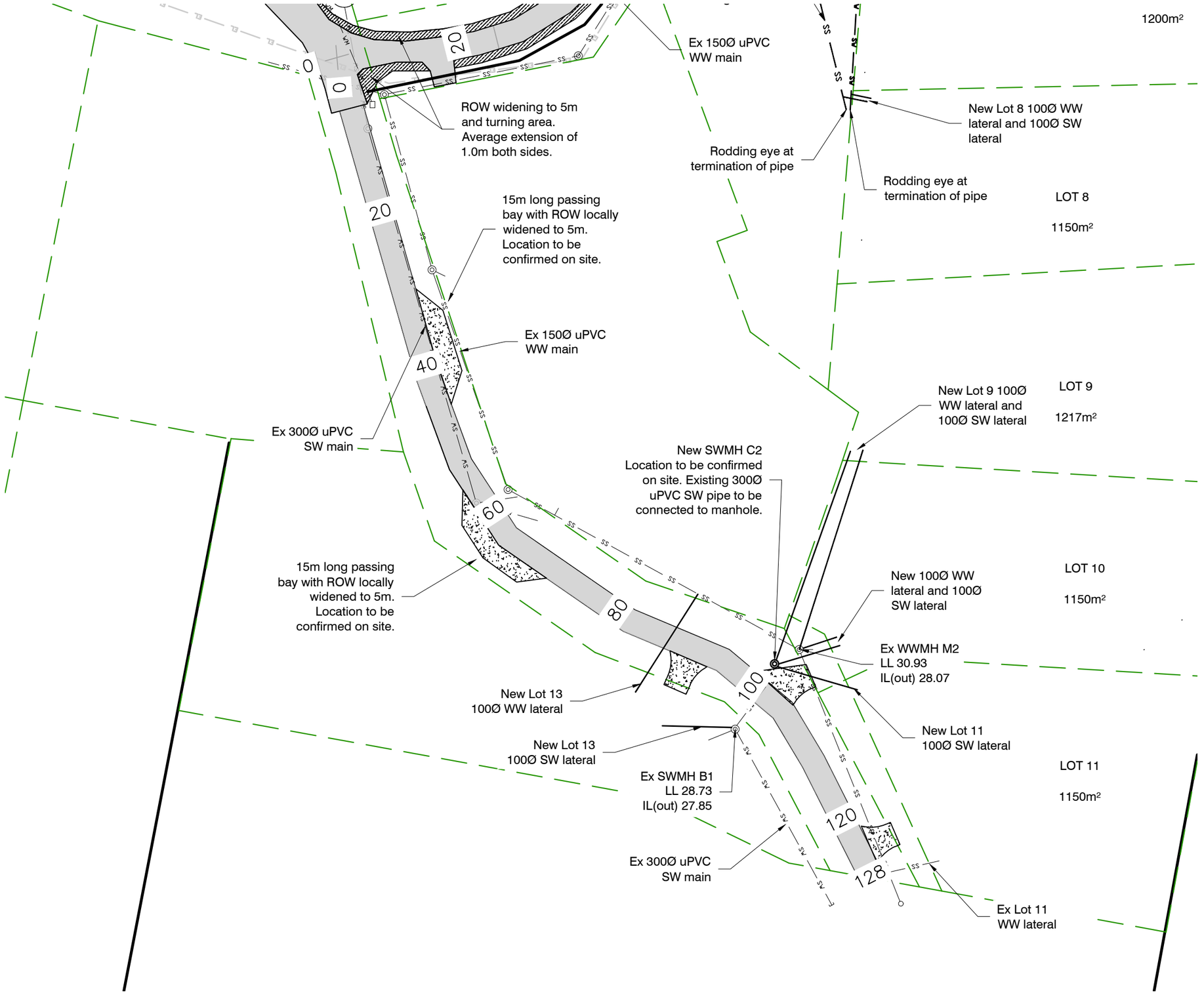
No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	1:500

PROJECT STATUS: Engineering Approval

PROJECT: 17225 SHEET: 2 of 8

DRAWING No: 17225 REV: 0



KEY:

- Property Boundaries
- Existing Stormwater
- Existing Wastewater
- Existing Watermain
- Existing Concrete ROW
- New Concrete Pavement
- ROW Widening
- New Public Stormwater Main
- New Public Wastewater Main
- New Public Watermain
- New Wastewater Lateral
- New Stormwater Lateral

NOTES:

1. All works to be in accordance with Far North District Council Code of Practice.
2. All uPVC pipe to be SN16 and bedded on GAP7 or approved equivalent.
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8. New Lot accesses to be formed and concreted in accordance with Council Standard FNDC/S/6 and 6B. Construction methodology to be as per FNDC/S/2.

0 5 10 15 20 25

Scale 1:500 (m)

Original Size = A3

CLIENT	PROJECT	DRAWING TITLE
Dan Cleary	7 Lot Residential Subdivision LOT 7 DP 525890 Waianga Place	Site Plan ROW 1

LDE LAND DEVELOPMENT & ENGINEERING LTD.

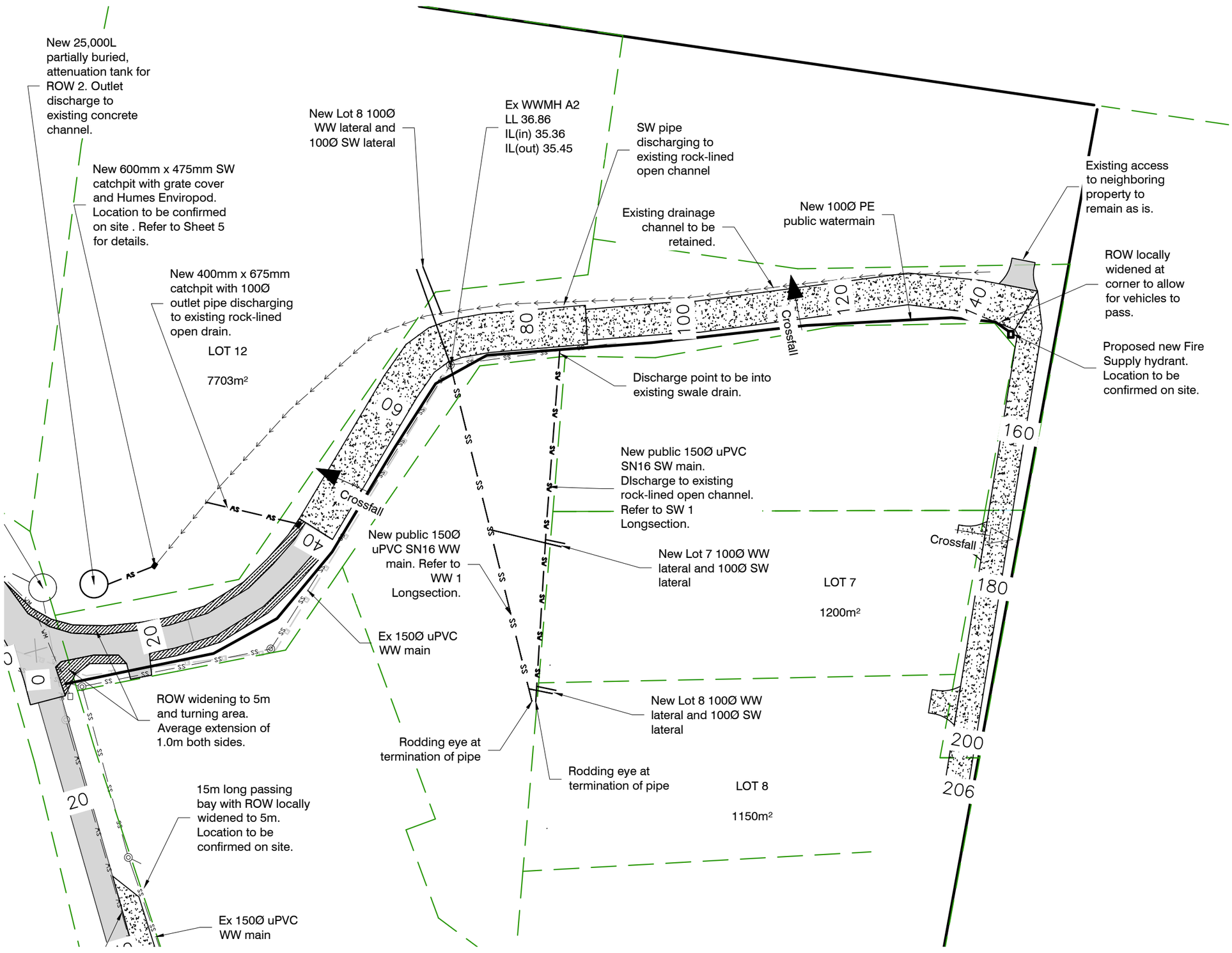
No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	1:500

PROJECT STATUS: Engineering Approval

PROJECT: 17225 SHEET: 3 of 8

DRAWING No: 17225 REV: 0



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8. New Lot accesses to be formed and concreted in accordance with Council Standard FNDC/S/6 and 6B. Construction methodology to be as per FNDC/S/2.

0 5 10 15 20 25

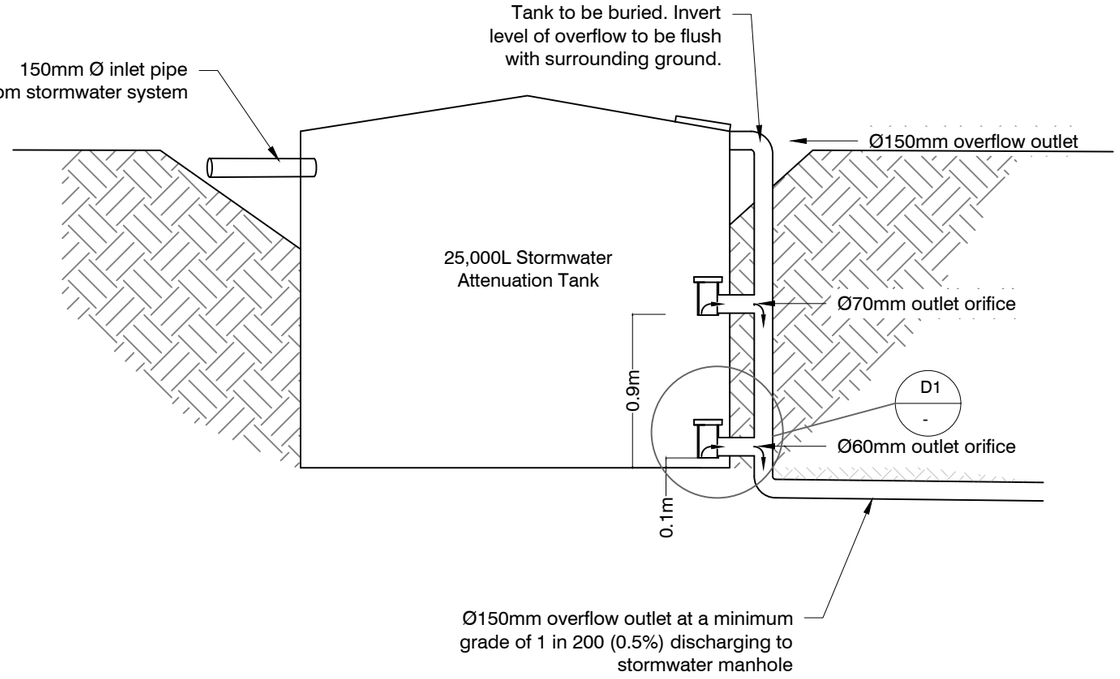
Scale 1:500 (m) Original Size = A3

CLIENT: Dan Cleary	PROJECT: 7 Lot Residential Subdivision LOT 7 DP 525890 Waianga Place	DRAWING TITLE: Site Plan ROW 2	LDE LAND DEVELOPMENT & ENGINEERING LTD.

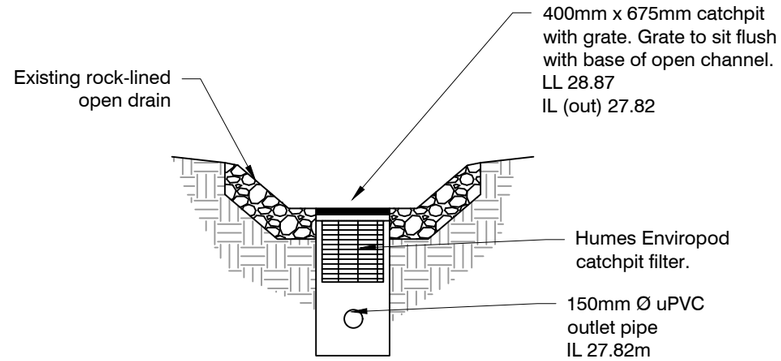
No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	1:500

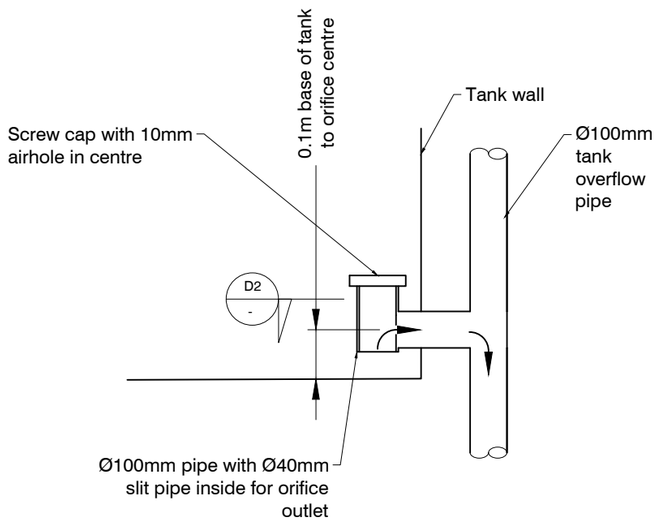
PROJECT STATUS: Engineering Approval
PROJECT: 17225
SHEET: 4 of 8
DRAWING No: 17225
REV: 0



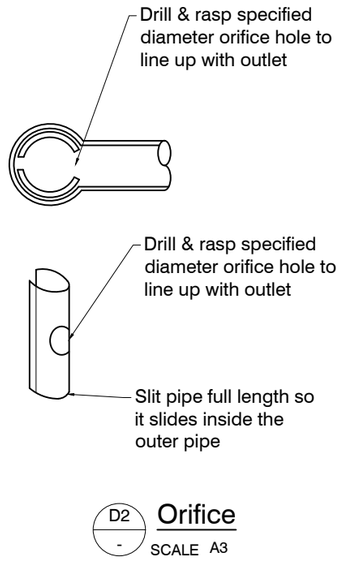
T1 - ROW 2 Attenuation Tank
SCALE A3



CP1 / 4 - Open Drain Catchpit
SCALE A3



D1 / - Tank Outlet
SCALE A3



D2 / - Orifice
SCALE A3

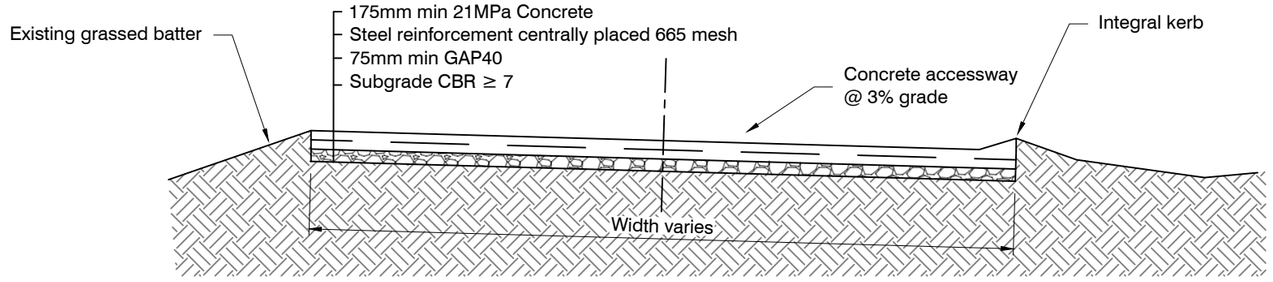
Original Size = A3

CLIENT: Dan Cleary	PROJECT: 7 Lot Residential Subdivision LOT 7 DP 525890 Waianga Place	DRAWING TITLE: Stormwater Details	LDE LAND DEVELOPMENT & ENGINEERING LTD.

No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

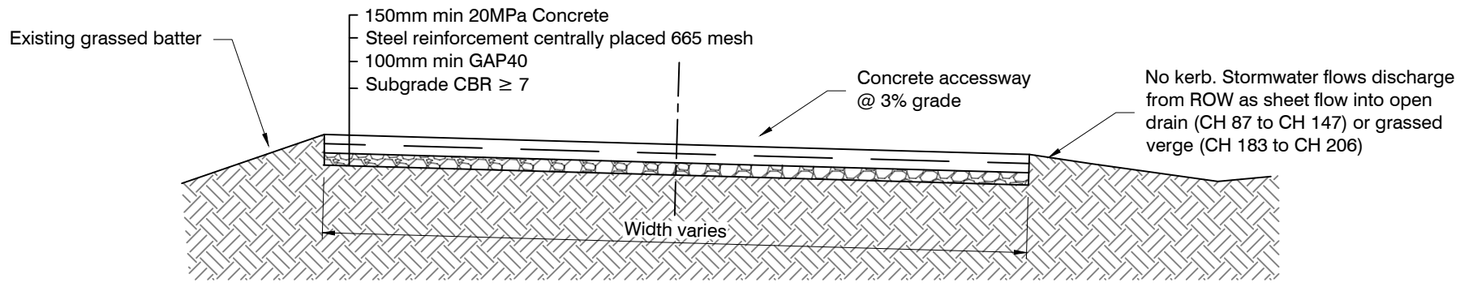
DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	As Shown

PROJECT STATUS: Engineering Approval
PROJECT: 17225
SHEET: 5 of 8
DRAWING No: 17225
REV: 0



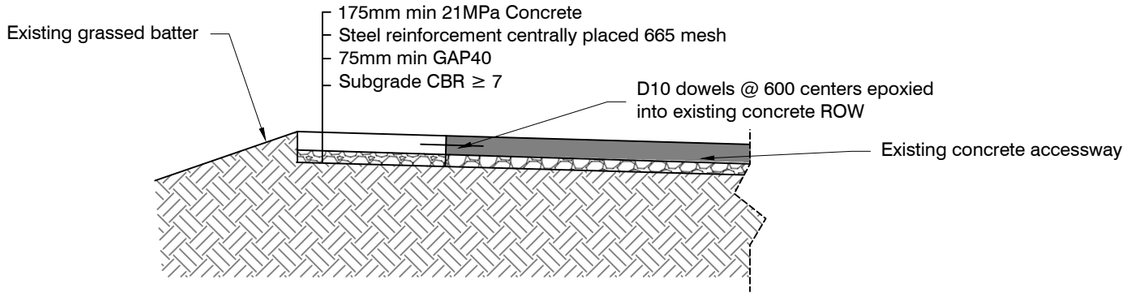
R1 - Concrete ROW Cross-Section Detail A

SCALE A3 1:50



R2 - Concrete ROW Cross-Section Detail B

SCALE A3 1:50



R3 - ROW Widening Typical Cross-Section

SCALE A3 1:50

Original Size = A3

CLIENT: Dan Cleary	PROJECT: 7 Lot Residential Subdivision LOT 7 DP 525890 Waianga Place	DRAWING TITLE: Typical Details	LAND DEVELOPMENT & ENGINEERING LTD.

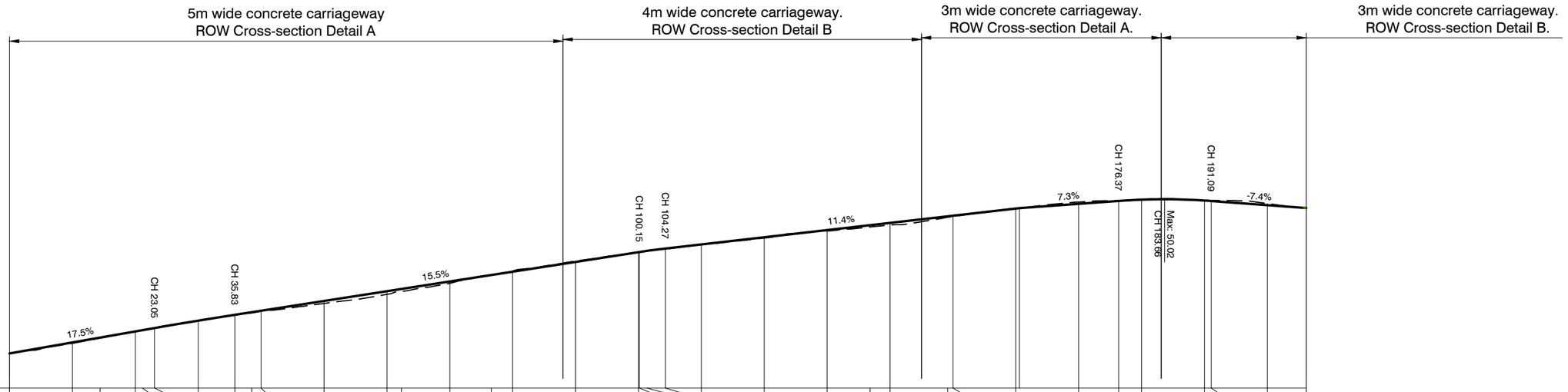
No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	As Shown

PROJECT STATUS: Engineering Approval

PROJECT: 17225 SHEET: 6 of 8

DRAWING No: 17225 REV: 0



Datum 20.0

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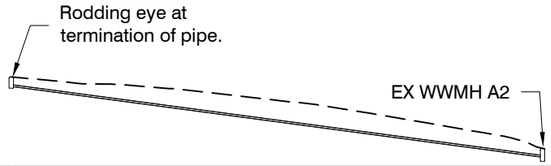
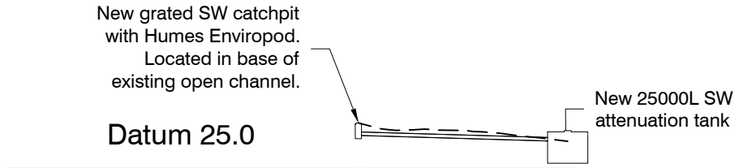


Datum 35.0

Invert Levels	41.65	35.76
Depth to Invert	0.78	0.75
Ground Level	42.43	36.50
Pipe Details	150 NB UPVC PN 12	
Distance	L= 44.15	
Grade	13.3%	

Public Wastewater Main Longsection

Scale: Horiz 1:500, Vert 1:500

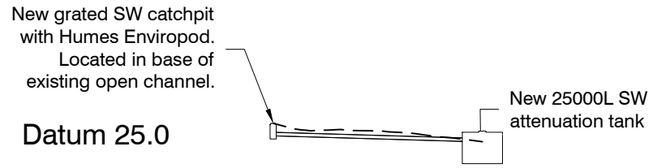


Datum 25.0

Invert Levels	27.82	27.30
Depth to Invert	1.05	0.02
Ground Level	28.87	28.21
Pipe Details	150 NB UPVC PN 12	
Distance	L= 17.77	
Grade	2.9%	

Public Stormwater Main Longsection

Scale: Horiz 1:500, Vert 1:500



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Invert Levels	27.82	27.30
Depth to Invert	1.05	0.02
Ground Level	28.87	28.21
Pipe Details	150 NB UPVC PN 12	
Distance	L= 17.77	
Grade	2.9%	

Public Stormwater Main Longsection

Scale: Horiz 1:500, Vert 1:500

Original Size = A3

CLIENT: Dan Cleary

PROJECT: 7 Lot Residential Subdivision
LOT 7 DP 525890
Waianga Place

DRAWING TITLE: Pipe Longsections

No.	REVISION	BY	DATE
0	Issued for Engineering Approval	SD	20.02.20

DESIGN:	SD
DRAWN:	SD
DATE:	20.02.20
CHECKED:	HD
SCALE A3:	As Shown

PROJECT STATUS: Engineering Approval
PROJECT: 17225
SHEET: 8 of 8
DRAWING No: 17225
REV: 0

www.lde.co.nz ● Auckland 09 280 6645 ● Gisborne 06 867 3035 ● Napier 06 929 0720 ● Tauranga 07 975 0029 ● Warkworth 09 425 0137 ● Whanganui 06 867 3036 ● Whangarei 09 974 8799 ● email: info@lde.co.nz

Far North District Council

FAR NORTH DISTRICT COUNCIL

FAR NORTH OPERATIVE DISTRICT PLAN
DECISION ON RESOURCE CONSENT APPLICATION (SUBDIVISION)

Resource Consent Number: 2200170-RMASUB

Pursuant to section 104B of the Resource Management Act 1991 (the Act), the Far North District Council hereby grants resource consent to:

Daniel Cleary

The activity to which this decision relates: Subdivision to create 7 lots from one title (6 additional) in the Coastal Residential Zone.

Subject Site Details

Address:	Lot 7, Waianga Place, Omapere
Legal Description:	Lot 7 DP 525890
Certificate of Title reference:	CT-842903

Pursuant to Section 108 of the Act, this consent is issued subject to the following conditions:

1 The subdivision shall be carried out in accordance with the approved plan of subdivision prepared by Thomson Survey Ltd, referenced "Proposed Subdivision of Lot 7 DP 525890" Ref No. 9608, dated 15.11.19 and attached to this consent with the Council's "Approved Stamp" affixed to it.

2. The survey plan, submitted for approval pursuant to Section 223 of the Act shall show:

(a) All easements in the memorandum to be duly granted or reserved.

(b) An easement for the overland flow path within Lot 13.

(c) The following amalgamation conditions imposed pursuant to Section 220(1)9b)(iv):

"That Lot 100 hereon (legal access) be held as to three undivided one-third shares by the owners of Lots 7, 8 and 9 hereon as tenants in common in the said shares and that individual records of title be issued in accordance therewith"; and

"That Lot 101 hereon (legal access) be held in three undivided one-third shares by the owners of Lots 10, 11 and 13 hereon as tenants in common in

the said shares and that individual records of title be issued in accordance therewith".

See **LINZ Ref: 1621330**

3. Prior to the approval of the survey plan pursuant to Section 223 of the Act, the consent holder shall:

(a) Undertake hydrant testing of the water supply reticulation to determine if flows and pressure are compliant with Council requirements. Test results are to be submitted to Council for review. If the results are non-compliant, an alternative water source such as rainwater collection tanks for each dwelling will be required. Firefighting water supplies are to comply with the requirements of the NZ Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008, or with specific approval from FENZ.

(b) Submit to Council's Development Engineer and Stormwater Engineer or designate plans, specifications & details of R.O.W.S, intersection, stormwater drainage, wastewater, and water supply for the approval of Council prior to commencing construction. Such works shall be designed in accordance with the Council's current Engineering Standards and NZS4404:2004.

In particular the plans and details shall show:

(i) R.O.W easements **A, B, C, D** and **E** to provide 5m width sealed or concreted formation and drainage.
(ii) R.O.W easements **F** to provide a 3m width sealed or concreted formation and drainage with passing bays provided to comply with Rule 15.1.6C.1.3 of the Far North District Plan. Locations of the proposed passing bays within R.O.W. **F** shall be shown.
(iii) R.O.W easements **K** to provide a 4m width sealed or concreted formation and drainage with passing bay at the corner.
(iv) R.O.W easements **I** to provide a 3m width sealed or concreted formation and drainage.
(v) The upgraded and widened intersection at R.O.W **C, D** and **F**.
(vi) A formed and concreted entrance to the boundary of each lot in accordance with Council Standard FNDC/S/6 and 6B.
(vii) Stormwater drainage and construction for R.O.Ws and disposal to control structures.
(viii) The proposed stormwater control works to be in place prior to and during construction.
(ix) Location of the second hydrant on Lot 100 if it is proposed.
(x) Approved CAR and TMP required for road construction prior to works commencing.
(xi) PS1 (Schedule 1A) certificate signed by a suitable IQP to be submitted for R.O.W design and drainage.
(xii) All assets that are to vest in Council.
(xiii) Construction and as-built specifications in accordance FNDC Engineering Standards and Guidelines.
(xiv) A reticulated sanitary sewer system with a service connection to each lot.
(xv) A reticulated water supply system with a metered connection to each lot.
(xvi) Earthworks including proposed erosion and sediment control measures required to undertake the development of the site

(c) Following approval of the plans and selection of the contractor, provide to Council;

(i) Details of the successful contractor
(ii) Details of the planned date and duration of the contract
(iii) Details of the supervising engineer
(iv) A traffic management plan

(d) Prior to the commencing any physical site works, a construction management plan shall be submitted to and approved by the Council. The plan shall contain information on, and site management procedures, for the following:

(i) The timing of building demolition and construction works, including hours of work, key project and site management personnel.
(ii) The transportation of demolition and construction materials from and to the site and associated controls on vehicles through sign-posted site entrance/exits and the loading and unloading of materials.
(iii) The excavation works, including retaining structures and any necessary dewatering facilities, prepared by a suitably qualified geotechnical engineer.
(iv) Control of dust and noise on-site and any necessary avoidance or remedial measures.
(v) Prevention of earth and other material being deposited on surrounding roads from vehicles and remedial actions should it occur.
(vi) Publicity measures and safety measures, including signage, to inform adjacent landowners and occupiers, pedestrians and other users or Road.
(vii) Erosion and sediment control measures to be in place for the duration of the works.

All construction works on the site are to be undertaken in accordance with the approved construction management plan.

4. Prior to the issuing of a certificate pursuant to Section 224(c) of the Act, the consent holder shall:

(a) Provide to Council As-built plans for R.O.Ws, stormwater drainage, sewage, water supply and all assets that are to vest in Council complying with schedule 1D of NZS 4404:2004 and section 1.5.2.5 of Councils Engineering standards and guidelines.

(b) Upon completion of the works specified in condition(s) 3(b) and 3(d) above, provide certification (PS3 / Schedule 1b) of the work from contractor(s) that all work has been completed in accordance with the approved plans.

(c) Upon completion of the works specified in condition(s) 3(b) and 3(d) above, provide certification (PS4 / Schedule 1C) of the work from a chartered professional engineer that all work has been completed in accordance with the approved plans.

(d) Provide to Council written confirmation from a registered surveyor that the access carriageway is fully contained within the easements provided for access.

(e) Provide documentation that the service providers of electric power and telecommunications to the sites are satisfied with the arrangements made for the provision of these services.

(f) Where infrastructure is not proposed to be vested to Council and is to remain in private ownership, provide for Council approval a legal document that details how this private infrastructure will be managed and maintained by each owner and provide a solicitor's undertaking to register the approved legal document against the appropriate titles. Note that Council is not to be a party to the maintenance and management of these common areas and private reticulation systems.

(g) Secure the conditions below by way of a Consent Notice issued under Section 221 of the Act, to be registered against the titles of the affected allotment. The costs of preparing, checking and executing the Notice shall be met by the Applicant.

Lots 7-13

(i) In conjunction with the construction of any building >50m2 or construction of any impermeable surface > 250m^2, the lot owner shall install a stormwater detention system with an appropriate flow attenuated outlet directed towards the existing stormwater infrastructure. The stormwater detention system shall be at least 15,000l in size as outlined in the Site Suitability Report prepared by LDE, Project 17225, Revision 1, dated 11 December 2019.

Where total impermeable surfaces exceed 250m^2 on the site, the lot owner shall, in conjunction with a building consent application, submit for the approval of Council's Stormwater Engineer a report prepared by a suitably qualified Chartered Professional Engineer. The report shall detail the on-site detention and flow attenuation of stormwater from the site. The flow shall be limited to the pre-development level for rainfall events up to those with a 1% AEP with a climate change allowance of 2.50^C included.

(ii) [This condition is only required if fire hydrant(s) not installed as per condition 3a of this consent as determined at s223 and s224c stage]
In conjunction with the construction of any dwelling, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.

(iii) Any building erected on the lot shall have foundations specifically designed by a suitably qualified chartered professional engineer. The details of design and a Geotechnical Investigation Report shall be submitted in conjunction with the Building Consent application.

Advice Notes

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.

Reasons for the Decision

1. The Council has determined (by way of an earlier report and resolution) that the adverse environmental effects associated with the proposed activity are no more than minor and that there are no affected persons or affected customary rights group or customary marine title group.

2. District Plan Rules Affected:
The proposal breaches rules 13.7.2.1 as there are no permitted subdivision activities. The proposal however complies with the Controlled Activity criteria. The subdivision serves more than 9 sites at Easements A, B, and C and rule 15.1.6C.1.1(d) requires an upgrade to a public road. This is not being proposed and is breached accordingly.

   <u>Adverse effects will be less than minor:</u>
   It is considered the relevant and potential effects have been addressed within the assessment of effects above, and it has been concluded that the adverse effects will be less than minor.

   <u>Positive effects of the proposal:</u>
   Under s104(1)(a) the positive and potential effects of the proposal are:
   a) The potential effects of the proposal included the appropriate provision of infrastructure for coastal residential development and mitigation of land slippage risks.
   b) Positive effects of the proposal include increased residential development opportunities within Opononi and flow on employment and economic growth benefits associated with development.

   <u>Objectives and policies of the District Plan:</u>
   The following objectives and policies of the District Plan have been considered:
   a) Chapter 10.8.3 and 10.8.4 – Coastal Residential Zone
   b) Chapter 13.3 and 13.4 – Subdivision
   c) Chapter 15.1.3 and 15.1.4 – Transportation

   The proposal is not contrary to the relevant objectives and policies of the District Plan. The proposal promotes allotments that are suitable for coastal residential development with appropriate infrastructure to be provided. The requirement for a public road is not appropriate in this case and Council has agreed with the access arrangements onto the site for the development.

3. In accordance with an assessment under s104(1)(b) of the RMA the proposal is consistent with the relevant statutory documents.

   a) The Northland Regional Policy Statement 2016;
   b) Regional plans (including proposed Regional Plan)
   c) New Zealand Coastal Policy Statement 2010

   As the proposal meets the controlled standard for subdivision, many of the higher level objectives and policies only have minor relevance. The proposal is located within the Coastal Environment and the assessment undertaken in the AEE is concurred with. Specifically:

   - The site is not within an area identified as having any coastal hazards;
   - The subdivision promotes consolidation of development;
   - The site does not contain any significant indigenous vegetation or habitat;
   - The proposal is not located near the coastal marine area and does not promote any esplanade reserves or areas for public access;
   - The development is unlikely to cause impacts to water quality as the proposed will connect to Council systems to manage wastewater and stormwater.

   From a regional perspective the sentiments found within the AEE are also concurred with. The site is adequately serviced with infrastructure, consolidated urban development, does little to impact natural character and maintains and enhances the sense of place and character of the site and surrounds.

4. Part 2 Matters
   The Council has taken into account the purpose & principles outlined in sections 5, 6, 7 & 8 of the Act. It is considered that granting this resource consent application achieves the purpose of the Act.

5. In summary it is considered that the activity is consistent with the sustainable management purpose of the RMA.

Approval

This resource consent has been prepared by Consultant Planner, Steve Sanson and is granted under delegated authority (pursuant to section 34A of the Resource Management Act 1991) from the Far North District Council by:

Louise Wilson
Team Leader Resource Consents

Date: Tuesday 7 January 2020

Amended s.133A Date: Thursday 9 January 2020

Right of Objection
If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Resource Management Act 1991) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.

Lapsing Of Consent
Pursuant to section 125 of the Resource Management Act 1991, this resource consent will lapse 5 years after the date of commencement of consent unless, before the consent lapses;

The consent is given effect to; or

An application is made to the Council to extend the period of consent, and the council decides to grant an extension after taking into account the statutory considerations, set out in section 125(1)(b) of the Resource Management Act 1991.

District Plan Zoning: General Coastal

Wind Zone as per AS/NZS 1170.2 = 40.95 m/s
Site Area = 1200m2

Existing Driveways = 15 m²
Proposed Building = 73.71 m²
Total Site Coverage = 88.71 m²
Impermeable Surfaces (%) = 7.5 %

Building Use = Storage

Earthworks =
200mm site scrape of top soil only of less than 20 cubic Meters. All soil to remain on site

Stormwater =
To be direct through 80mm dia PVC DPs and led to tank as shown with 1:100 fall via storm water pipe to comply with E1.

= Proposed Building

= Down pipes leading to water tank

= Boundary distance indicators

= Boundary line indicators

N

SITEPLAN

TOTALSPAN
STEEL BUILDINGS
WHO CAN? TOTALSPAN!

Dekka Int Trading Ltd T/A Totalspan
Bay of Islands/Hokianga

1235B State Highway 10, RD3,
Kerikeri 0293 New Zealand.
Phone: 09 4077875
E: Kirsty.fisher@totalspan.co.nz

Building Proposed For:
Michelle French

Customer Site Address:
Waianga Place, Omapere

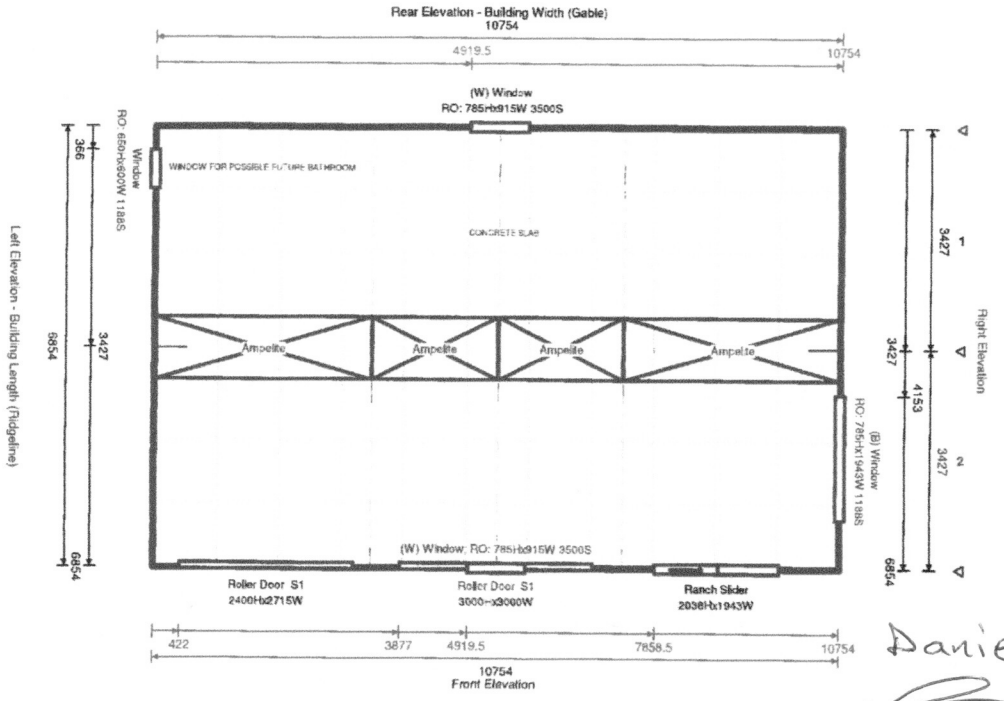
LOT 8 DP 409674

Date: 27.03.2020

NOT TO SCALE

ALL DIMENSIONS IN METRES UNLESS STATED:

Consent Version: 1



Daniel J. Cleary