



NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

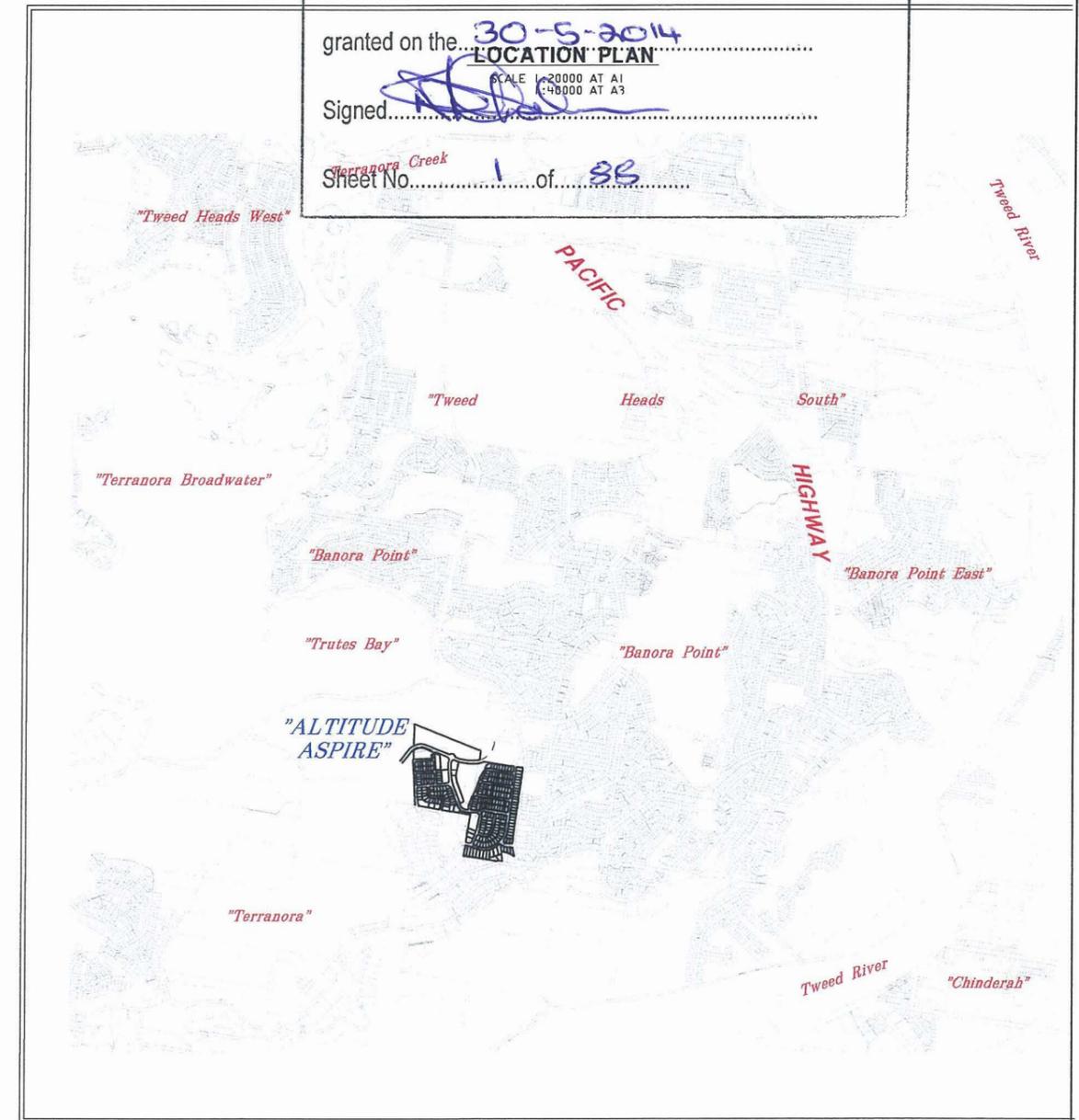
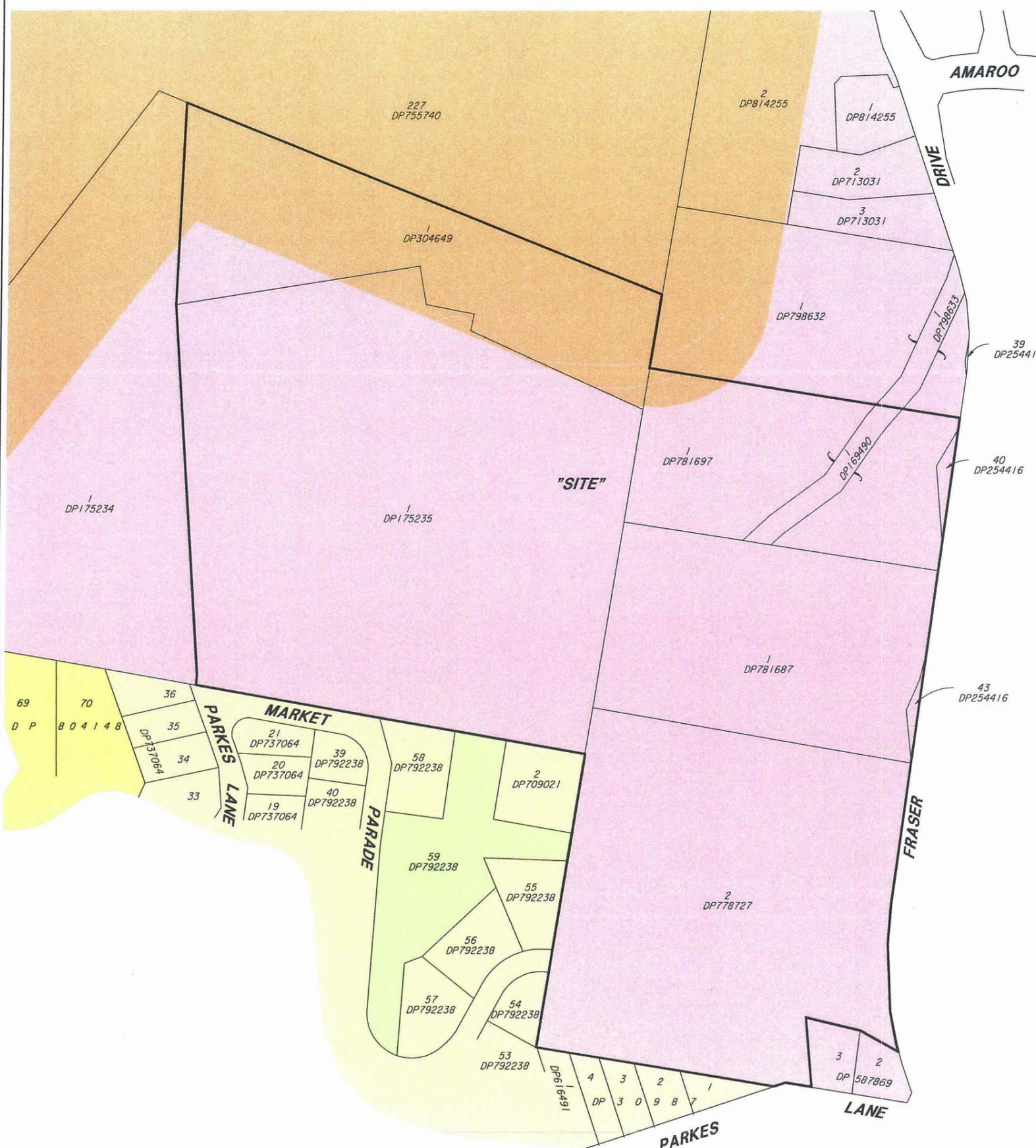
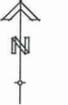
Approved Application No. MPO9-0116

granted on the 30-5-2014
LOCATION PLAN

Signed [Signature]
SCALE 1:20000 AT A1
1:40000 AT A3

Terranora Creek
Sheet No. 1 of 88

M.G.A.



PLAN SHOWING EXISTING
PROPERTY DESCRIPTIONS &
TWEED LOCAL ENVIRONMENTAL
PLAN 2000 - ZONINGS

- ZONE 1(b) RURAL - AGRICULTURAL PROTECTION ZONE
- ZONE 1(c) RURAL - RURAL LIVING
- ZONE 2(c) RESIDENTIAL - URBAN EXPANSION
- ZONE 6(a) OPEN SPACE
- ZONE 7(a) ENVIRONMENTAL PROTECTION (WETLANDS AND LITTORAL RAINFORESTS)



Rev. D 18-7-13 Layout amended
Rev. C 10-7-13 Layout amended
Rev. B 22-5-13 Design Contours amended
Rev. A 22-1-13 Layout amended

Revision

Associate Consultant:

BRADLEES CONSULTING ENGINEERS

IMPORTANT NOTES :
THE ZONE INFORMATION SHOWN HEREON HAS BEEN
COMPILED FROM TWEED SHIRE COUNCIL ZONE MAP
NO.14

BDR
BDR
BDR
BDR
Chk

PROPOSED STAGING

STAGE 1	LOTS 101 - 143
STAGE 2	LOTS 201 - 228
STAGE 3	LOTS 301 - 324
STAGE 4	LOTS 401 - 451 (INCLUDES 1 PUBLIC RESERVE)
STAGE 5	LOTS 501 - 524 (INCLUDES RESERVOIR SITE)
STAGE 6	LOTS 601 - 610 (INCLUDES 1 DRAINAGE RESERVE)
STAGE 7	LOTS 701 - 713 (INCLUDES 2 MEDIUM DENSITY SITES 1 PUBLIC RESERVE & 1 RESIDENTS LOT)
STAGE 8	LOTS 801 - 841 (INCLUDES 1 PUBLIC RESERVE)
STAGE 9	LOTS 901 - 926 (INCLUDES 2 MEDIUM DENSITY LOTS)
STAGE 10	LOT 1001 (PUBLIC RESERVE)

TOTALS - 250 RESIDENTIAL LOTS 4 MEDIUM DENSITY LOTS
4 PUBLIC RESERVES 1 DRAINAGE RESERVE 1 RESERVOIR SITE
1 RESIDENTS LOT (COMMUNITY ASSOCIATION)

PROPOSED SUBDIVISION

LOT 1	IN DP304649, LOT 1 IN DP175235,
LOT 2	IN DP778727, LOT 1 IN DP781687,
LOT 1	IN DP781697, LOT 1 IN DP169490,
LOTS 40 & 43 IN DP254416	
FOR NEULAND DEVELOPERS PTY LTD	

Parish of TERRANORA County of ROUS
P:\TWEED\1526\projects\18798-0\locals\Altitude\Aspire.prj

Level	DATUM	F. DA	L. DA	Drawn
				BDR/RSP
				Chk'd
				BDR

B & P SURVEYS
CONSULTING SURVEYORS
ACMA 01017236
142 MURWILLUMBAH STREET
MURWILLUMBAH
NSW 2484 Australia
Telephone: (02) 66721924
Facsimile: (02) 66722618
E-mail: mbp@bpsurveys.com.au Homepage: www.bpsurveys.com.au

REF. No.	DATE	DRAWING No./Size	SHEET	OF	REV.
T15263	19-1-2012	18779 B	1	8	D

NOTE : ALL PROPOSED ROADS, PATHWAYS, DRAINAGE RESERVES, PUBLIC RESERVES & THE RESERVOIR SITE ARE TO BE DEDICATED TO THE PUBLIC



PLAN SHOWING EXISTING TOPOGRAPHY & PROPOSED SUBDIVISION LAYOUT



NSW GOVERNMENT Planning

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Approved Application No. MPO 9-0166

granted on the 30-5-2014

[Signature]

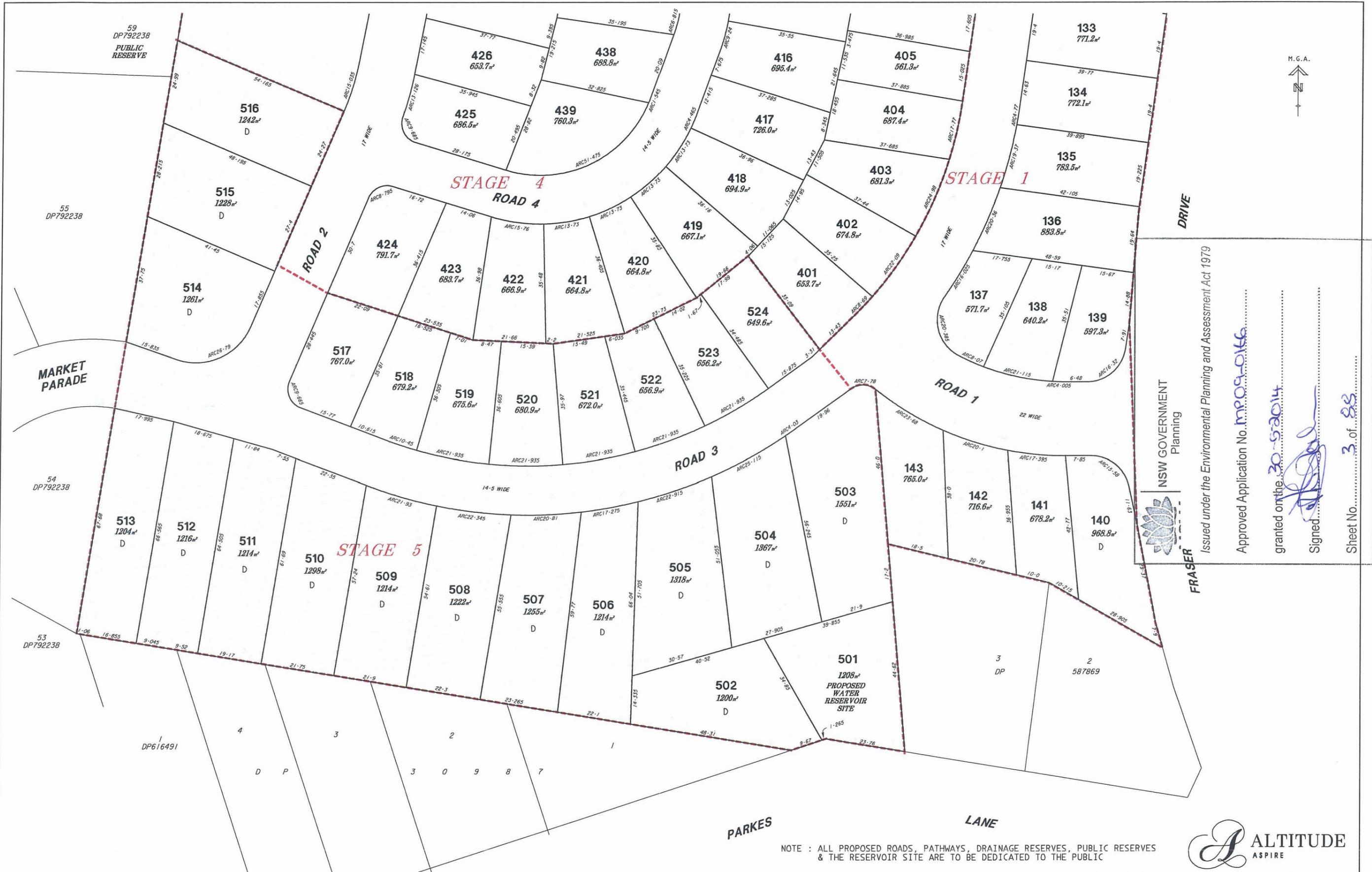
2 of 88



NOTE : ALL PROPOSED ROADS, PATHWAYS, DRAINAGE RESERVES, PUBLIC RESERVES & THE RESERVOIR SITE ARE TO BE DEDICATED TO THE PUBLIC



<p>Rev. D 18-7-13 Layout amended Rev. C 10-7-13 Layout amended Rev. B 22-5-13 Design Contours amended Rev. A 22-1-13 Layout amended Revision Associate Consultant: BRADLEES CONSULTING ENGINEERS</p>	<p>IMPORTANT NOTES : THE EXISTING TOPOGRAPHY SHOWN HEREON IS PER INFORMATION RECEIVED FROM BRADLEES CONSULTING ENGINEERS. THE PROPOSED BOUNDARIES AS SHOWN HEREON ARE PRELIMINARY ONLY AND ARE SUBJECT TO FINAL DESIGN, LOCAL AUTHORITY APPROVAL AND REGISTRATION IN THE DEPARTMENT OF LANDS.</p>	<p>PROPOSED STAGING STAGE 1 LOTS 101 - 143 STAGE 2 LOTS 201 - 228 STAGE 3 LOTS 301 - 394 STAGE 4 LOTS 401 - 451 (INCLUDES 1 PUBLIC RESERVE) STAGE 5 LOTS 501 - 524 (INCLUDES RESERVOIR SITE) STAGE 6 LOTS 601 - 610 (INCLUDES 1 DRAINAGE RESERVE) STAGE 7 LOTS 701 - 713 (INCLUDES 2 MEDIUM DENSITY SITES) STAGE 8 LOTS 801 - 841 (INCLUDES 1 PUBLIC RESERVE) STAGE 9 LOTS 901 - 925 (INCLUDES 2 MEDIUM DENSITY LOTS) STAGE 10 LOT 1001 (PUBLIC RESERVE) TOTALS - 256 RESIDENTIAL LOTS - 4 MEDIUM DENSITY LOTS 4 PUBLIC RESERVES 1 DRAINAGE RESERVE 1 RESERVOIR SITE 1 RESIDENTS LOT (COMMUNITY ASSOCIATION)</p>	<p>PROPOSED SUBDIVISION LOT 1 IN DP304649, LOT 1 IN DP175235, LOT 2 IN DP778727, LOT 1 IN DP781687, LOT 1 IN DP781697, LOT 1 IN DP169490, LOTS 40 & 43 IN DP254416 FOR NEWLAND DEVELOPERS PTY LTD Parish of TERRANORA County of ROUS P:\THEED\1526\Projects\18779-B localics Altitude i Aspire.prj</p>	<p>B & P SURVEYS CONSULTING SURVEYORS ACN 09017236 142 MURWILLUMBAH STREET MURWILLUMBAH NSW 2484 Australia Telephone: (02) 66721924 Facsimile: (02) 66722618 Email: mbah@bpsurveys.com.au Home page: www.bpsurveys.com.au Offices Also At: Newryng Ph: (07) 55960370 Tweed Heads Ph: (07) 55363611</p> <p>SCALE: Level DATUM F. BA L. BA Drawn BY/REP Cht & BOW T: 2000 AT A1 1:4000 AT A3 REF. No. DATE DRAWING No./Size Sheet of Rev. T15263 19-1-2012 18779 B 2 8 D</p>
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NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **MP09-0166**

granted on the **30-5-2014**

Signed *[Signature]*

Sheet No. **3** of **88**



**PLAN SHOWING
PROPOSED SUBDIVISION LAYOUT
& DESIGN CONTOURS**



8	5
7	4
6	3

Rev. D 18-7-13 Layout amended
Rev. C 10-7-13 Layout amended
Rev. B 22-5-13 Design Contours amended
Rev. A 22-1-13 Layout amended
Revision

Associate Consultant:
BRADLEES CONSULTING ENGINEERS

IMPORTANT NOTES :
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DESIGN CONTOURS SHOWN HEREON ARE PER INFORMATION SUPPLIED BY BRADLEES CONSULTING ENGINEERS.
D - DENOTES POTENTIAL DUPLEX LOT
VP - DENOTES PROPOSED RESTRICTION ON USE OVER THE LOT, REQUIRING ONE OFF-STREET CARPARK IS TO BE PROVIDED.

PROPOSED STAGING
STAGE 1 LOTS 101 - 143
STAGE 2 LOTS 201 - 228
STAGE 3 LOTS 301 - 324
STAGE 4 LOTS 401 - 451 (INCLUDES 1 PUBLIC RESERVE)
STAGE 5 LOTS 501 - 584 (INCLUDES RESERVOIR SITE)
STAGE 6 LOTS 601 - 610 (INCLUDES 1 DRAINAGE RESERVE)
STAGE 7 LOTS 701 - 713 (INCLUDES 2 MEDIUM DENSITY SITES, 1 PUBLIC RESERVE & 1 RESIDENTS LOT)
STAGE 8 LOTS 801 - 841 (INCLUDES 1 PUBLIC RESERVE)
STAGE 9 LOTS 901 - 926 (INCLUDES 2 MEDIUM DENSITY LOTS)
STAGE 10 LOT 1001 (PUBLIC RESERVE)
TOTALS - 250 RESIDENTIAL LOTS - 4 MEDIUM DENSITY LOTS
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LOT 1 IN DP304649, LOT 1 IN DP175235,
LOT 2 IN DP778727, LOT 1 IN DP781687,
LOT 1 IN DP781697, LOT 1 IN DP169490,
LOTS 40 & 43 IN DP254416
FOR NEWLAND DEVELOPERS PTY LTD

Parish of TERRANORA County of ROUS
P:\VME\15263\project\18779-B\locates\Altitude\Aspire.prj

Level	DATUM	F.Bk	L.Bk	Strm
-	-	-	-	-

REF. No. T15263 DATE 19-1-2012 DRAWING No. 18779 B SHEET 01 OF 08

B & P SURVEYS
CONSULTING SURVEYORS
ACN 00197236
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Email: mbah@bpsurveys.com.au Homepage: www.bpsurveys.com.au

Office: Also At Nering Ph: (07) 55960370 Tweed Heads Ph: (07) 55363611



NOTE : ALL PROPOSED ROADS, PATHWAYS, DRAINAGE RESERVES, PUBLIC RESERVES & THE RESERVOIR SITE ARE TO BE DEDICATED TO THE PUBLIC



STAGE 10 1001
PROPOSED PUBLIC RESERVE
4.29ha

Scale in Metres - 1:500 AT A1



NOTE : ALL PROPOSED ROADS, PATHWAYS, DRAINAGE RESERVES, PUBLIC RESERVES & THE RESERVOIR SITE ARE TO BE DEDICATED TO THE PUBLIC



610
(3.407ha)
3.505ha
PROPOSED DRAINAGE RESERVE

STAGE 6

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granted on the 30-5-2014
Signed [Signature]
Sheet No. 5 of 88



PLAN SHOWING PROPOSED SUBDIVISION LAYOUT & DESIGN CONTOURS

8	5
7	4
6	3

Rev. D 18-7-13 Layout amended
Rev. C 10-7-13 Layout amended
Rev. B 22-5-13 Design Contours amended
Rev. A 22-1-13 Layout amended
Revision
Associate Consultant:
BRADLEES CONSULTING ENGINEERS

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LOT 1 IN DP304649, LOT 1 IN DP175235, LOT 2 IN DP778727, LOT 1 IN DP781687, LOT 1 IN DP781697, LOT 1 IN DP168490, LOTS 40 & 43 IN DP254416 FOR NEWLAND DEVELOPERS PTY LTD
Parish of TERRANORA County of ROUS
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SCALE: 1:500 AT A1, 1:1000 AT A3

B & P SURVEYS CONSULTING SURVEYORS
ACN 0017236
142 MURWILLUMBAH STREET
MURWILLUMBAH
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Office: Altona A1
Nerang Ph: (07) 55960370
Tweed Heads Ph: (07) 55363611
REF. No. T15263 DATE 19-1-2012 DRAWING No. 7528 Sheet 5 of 8 Rev. 8 D

NOTE : ALL PROPOSED ROADS, PATHWAYS, DRAINAGE RESERVES, PUBLIC RESERVES & THE RESERVOIR SITE ARE TO BE DEDICATED TO THE PUBLIC



NSW GOVERNMENT
Planning

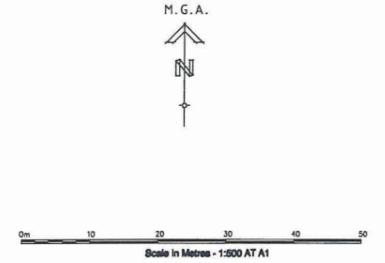
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Approved Application No. MP09-0166

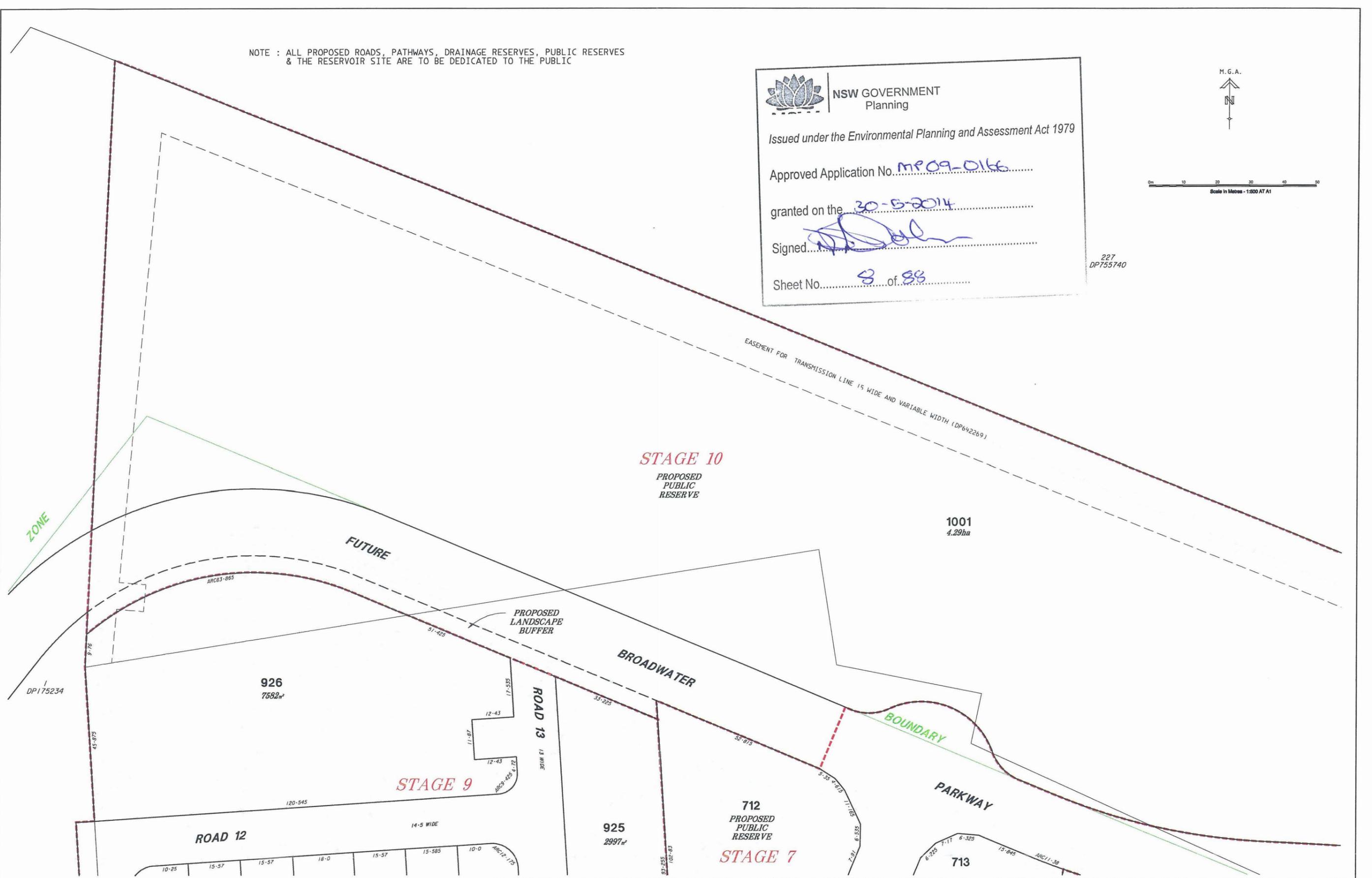
granted on the 30-5-2014

Signed [Signature]

Sheet No. 8 of 88



227
DP755740



PLAN SHOWING
PROPOSED SUBDIVISION LAYOUT
& DESIGN CONTOURS

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7	5
6	4
	3

Rev. D 18-7-13 Layout amended
Rev. C 10-7-13 Layout amended
Rev. B 22-5-13 Design Contours amended
Rev. A 22-1-13 Layout amended
Revision
Associate Consultant:
BRADLEES CONSULTING ENGINEERS

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TOTALS - 250 RESIDENTIAL LOTS, 4 MEDIUM DENSITY LOTS, 4 PUBLIC RESERVES, 1 DRAINAGE RESERVE, 1 RESERVOIR SITE, 1 RESIDENTS LOT (COMMUNITY ASSOCIATION)

PROPOSED SUBDIVISION

LOT 1 IN DP304649, LOT 1 IN DP175235, LOT 2 IN DP776727, LOT 1 IN DP781687, LOT 1 IN DP781657, LOT 1 IN DP169490, LOTS 40 & 43 IN DP254416 FOR NEWLAND DEVELOPERS PTY LTD

Parish of TERRANORA County of ROUS
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SCALE	Level	DATUM	F. OR	L. OR	DR. OR
1:500 AT A1 1:1000 AT A3	-	-	-	-	-

B & P SURVEYS
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Home page: www.bpsurveys.com.au

Office: Also At:
Nerang Ph: (07) 55960370
Tweed Heads Ph: (07) 55363611

REF. No.	DATE	DRAWING No./Sheet	OF	Rev.
T15263	19-1-2012	18779 B	8	8 D



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Signed [Signature]

"TRUTES BAY"

700M TO
BANORA CENTRAL SHOPPING CENTRE
AND BANORA POINT HIGH SCHOOL

"CLUB BANORA
GOLF COURSE"



Rev. I 10-7-13 Layout amended
Rev. H 8-4-13 Layout updated
Rev. G 26-3-12 Layout amended
Rev. F 13-2-12 Layout amended
Rev. E 19-1-12 Layout amended
Rev. D 15-9-11 Layout amended
Rev. C 12-11-10 Lots Amended
Rev. B 19-8-10 Residents Lot & 103/104 Amended
Rev. A 29-8-10 Residents Lot Added
Revision

Associate Consultant:
BRADLEES CONSULTING ENGINEERS

IMPORTANT NOTES :
SOURCE OF AERIAL PHOTOGRAPH - TWEED SHIRE COUNCIL
AERIAL PHOTOGRAPHY DATED MAY 2007
THE PROPOSED BOUNDARIES AS SHOWN HEREON (DASHED)
ARE PRELIMINARY ONLY AND ARE SUBJECT TO FINAL
DESIGN, LOCAL AUTHORITY APPROVAL AND
REGISTRATION IN THE DEPARTMENT OF LANDS.

***** BUS ROUTE

LOCALITY / CONTEXT PLAN
LOT 1 IN DP304649, LOT 1 IN DP175235,
LOT 2 IN DP778727, LOT 1 IN DP781687,
LOT 1 IN DP781697, LOT 1 IN DP169490,
LOTS 40 & 43 IN DP254416
FOR METRICON QLD PTY LTD

B & P SURVEYS
CONSULTING SURVEYORS
ACN 01017286
142 MURWILLUMBAH STREET
MURWILLUMBAH
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Parish of TERRANORA County of ROUS
Surfers Paradise Tweed Heads
Ph. (07) 65390499 Ph. (07) 65363611

REF. No. DATE DRAWING No./Size Sheet OF Rev.
T15263 31-5-2010 18279 B - 1

SCALE: 1:4000 AT A1
1:8000 AT A3






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 Sheet No. 10 of 38

DENSITY PROJECTION PLAN

LOT TYPE	DESCRIPTION*	YIELD (AREA)
TRANSITION LOTS	LOTS GREATER THAN 1200m ²	20
LARGE LOTS	LOTS GREATER THAN 800m ²	9
SUBURBAN LOTS	LOTS BETWEEN 450-800m ²	221
MEDIUM DENSITY LOTS	1 UNIT PER 333m ² OF SITE AREA	4 (52 dw)
COMMUNITY LOT	RESIDENTS CLUB	1 (3658m ²)
RESERVATION LOT		1 (1208m ²)
OPEN SPACE		4 (5.6333 ha)
DRAINAGE RESERVE		1 (3.5051 ha)
TOTAL LOTS		261

*Refer Table 2.1 - Residential Density Targets of Section B24 for detailed description of lot types




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 granted on the 30-5-2014
 Signed 
 Sheet No. 11 of 88

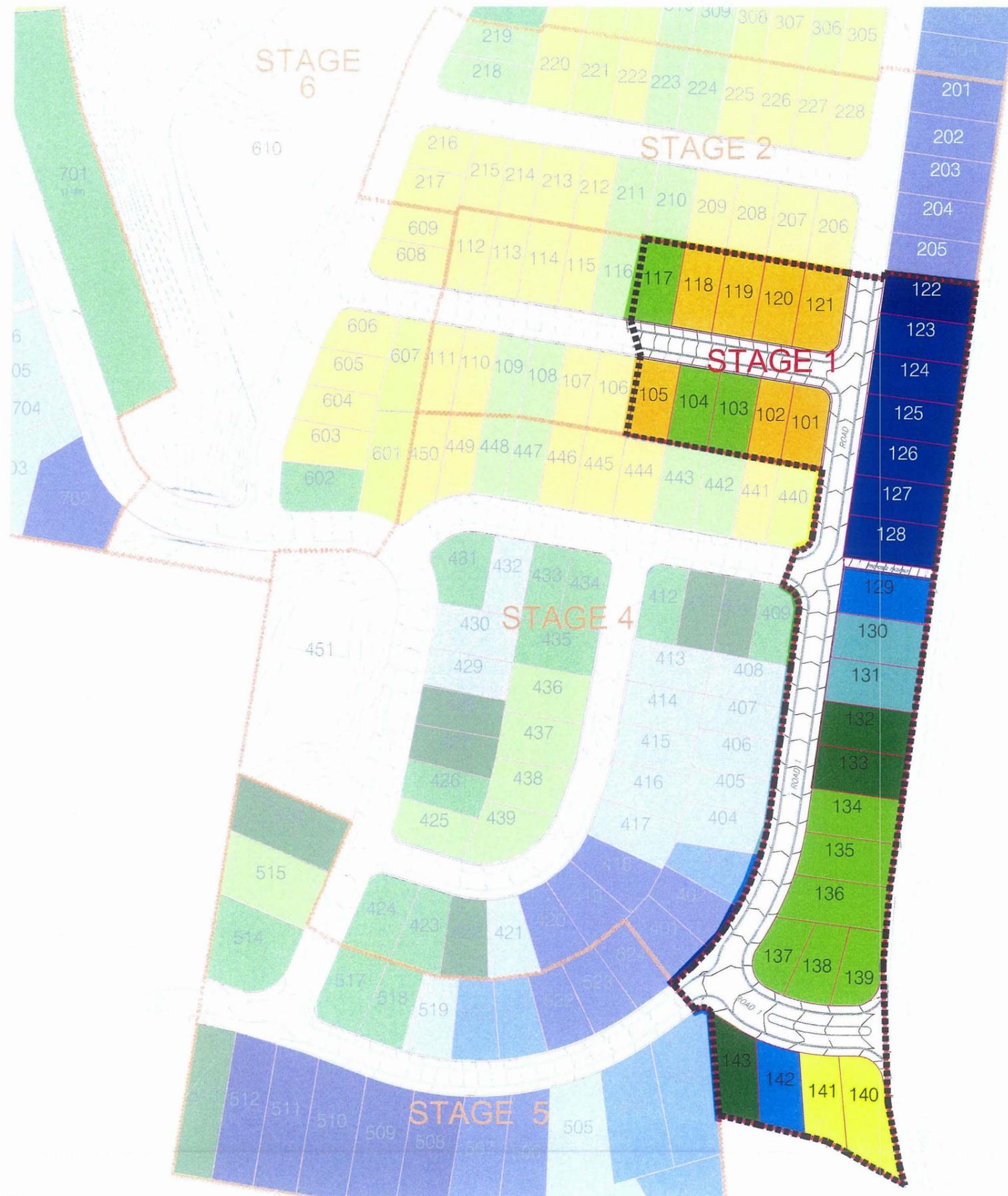
STRUCTURAL SYSTEM PLAN

SLOPE TYPE	INDICATIVE STRUCTURAL SYSTEM	YIELD
FLAT 0-6°		
0-7%	SINGLE SLAB ON GROUND*	28 (11.0%)**
7-10%	STEPPED SLAB ON GROUND* (min. 500mm STEP IN SLAB)	56 (22.0%)**
MODERATE 8-12°		
10-14%	STEPPED SLAB ON GROUND*	40 (15.7%)**
14-18%	SPLIT LEVEL*	25 (9.8%)**
18-21%	SLAB AND SUSPENDED FLOOR*	24 (9.4%)**
STEEP 25-36.3°		
21-25%	PART SLAB, PART PLATFORM*	36 (14.1%)**
25-28%	PART SLAB, PART PLATFORM*	10 (3.9%)**
28-32%	POLE DESIGN, PLATFORM SYSTEM OR SPLIT LEVEL*	24 (9.4%)**
EXTREME >32°		
32-36%	POLE DESIGN, PLATFORM SYSTEM OR SPLIT LEVEL*	7 (2.7%)**
> 36%	POLE DESIGN, PLATFORM SYSTEM OR SPLIT LEVEL*	5 (2.0%)**

255 LOTS (100%)

*Refer Figure 4.7 of Section B24 for detailed description of indicative building types
 **Percentage figure is based on dwelling numbers






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Signed [Signature]

Sheet No. 12 of 88


 OUTLINE OF PROPOSED
 DISPLAY VILLAGE

STRUCTURAL SYSTEM PLAN - DISPLAY VILLAGE

SLOPE TYPE	INDICATIVE STRUCTURAL SYSTEM	YIELD
FLAT 0-6°		
0-7%	SINGLE SLAB ON GROUND*	2 (6.3%)
7-10%	STEPPED SLAB ON GROUND* (min. 500mm STEP IN SLAB)	7 (21.9%)
MODERATE 8-12°		
10-14%	STEPPED SLAB ON GROUND*	9 (28.1%)
16-21%	SLAB AND SUSPENDED FLOOR*	3 (9.4%)
STEEP 25-36.3%		
21-25%	PART SLAB, PART PLATFORM*	2 (6.3%)
25-28%	PART SLAB, PART PLATFORM*	2 (6.3%)
28-32%	POLE DESIGN, PLATFORM SYSTEM OR SPLIT LEVEL*	6 (18.8%)
EXTREME >32%		
32-36%	POLE DESIGN, PLATFORM SYSTEM OR SPLIT LEVEL*	1 (3.1%)

32 LOTS (100%)

*Refer Table 4.7 of Section B24 for detailed description of indicative building types



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Signed [Signature]

Sheet No. 13 of 88

LEGEND

LOT 926
SITE AREA: 7729m²
SITE YIELD: 20 dwellings

- PEDESTRIAN ACCESS
- CAR PARK ACCESS
- CAR PARK
- CAR PARK (UNDER)



CLIENT:
NEWLAND DEVELOPERS

DRAWING:
MEDIUM DENSITY - LOT 926
PROJECT NUMBER:
130300
SCALE:
1:500@A3
DATE:
MARCH 2013

DRAWING NUMBER:
SK.0004
ISSUE:
B

LOCAL OFFICE
ARCHITECTURE

PO Box 536
COOLANGATTA QLD 4225
m. 0400 904 107
e. cameron@local-office.com.au



BROADWATER

ROAD 13

ROAD 12

PROPOSED PATHWAY

LEGEND

LOT 925
SITE AREA: 2938m²
SITE YIELD: 8 dwellings

-  PEDESTRIAN ACCESS
-  CAR PARK ACCESS
-  CAR PARK
-  CAR PARK (UNDER)

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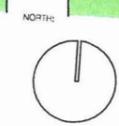
Signed 

Sheet No. 14 of 22

CLIENT:
NEWLAND DEVELOPERS

DRAWING:
MEDIUM DENSITY - LOT 925
PROJECT NUMBER:
130300
SCALE:
1:500@A3
DATE:
MARCH 2013

DRAWING NUMBER:
SK.0005
ISSUE:
B



LOCAL OFFICE
ARCHITECTURE

PO Box 536
COOLANGATTA QLD 4225
m. 0400 904 107
e. cameron@local-office.com.au





LEGEND

LOT 711
 SITE AREA: 3745m²
 SITE YIELD: 10 dwellings

-  PEDESTRIAN ACCESS
-  CAR PARK ACCESS
-  CAR PARK
-  CAR PARK (UNDER)

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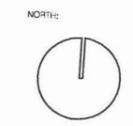
Signed [Signature]

Sheet No. 15 of 88

CLIENT:
 NEWLAND DEVELOPERS

DRAWING:
 MEDIUM DENSITY - LOT 711
 PROJECT NUMBER:
 130300
 SCALE:
 1:500@A3
 DATE:
 MARCH 2013

DRAWING NUMBER:
SK.0006
 ISSUE:
 A



LOCAL OFFICE
 ARCHITECTURE

PO Box 536
 COOLANGATTA QLD 4225
 m. 0400 904 107
 e. cameron@local-office.com.au





- LEGEND**
- LOT 701
 SITE AREA: 5269m²
 SITE YIELD: 14 dwellings
- PEDESTRIAN ACCESS
 - CAR PARK ACCESS
 - CAR PARK
 - CAR PARK (UNDER)

NSW GOVERNMENT
 Planning

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Approved Application No. M909-0166

granted on the 30-5-2014

Signed

Sheet No. 16 of 38

CLIENTS
 NEWLAND DEVELOPERS

DRAWING:
 MEDIUM DENSITY - LOT 701
 PROJECT NUMBER:
 130300
 SCALE:
 1:500@A3
 DATE:
 MARCH 2013

DRAWING NUMBER:
 SK.0007
 ISSUE:
 A



LOCAL OFFICE
 ARCHITECTURE

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 Sheet No. 17 of 88

SOLAR ORIENTATION PLAN

LOT	DESCRIPTION	%
COMPLY	LOTS THAT MEET OPTIMUM SOLAR ORIENTATION*	98%
DONT COMPLY	LOTS THAT DONT MEET OPTIMUM SOLAR ORIENTATION*	2%

*In accordance with Clause 2.10: Design Principle 8: Solar Orientation for Lots

1.00 INTRODUCTION

The Altitude Aspire Community Recreation Facility provides an important social nexus for this new residential community. The Facility will become a gathering place for the residents and their visitors, an extension to the amenity provided by additional communal open space and passive open space in the form of wetland areas.

The pavillion forms are delicately placed in the landscape, and reflect of the functional layout of the utilitarian rural building vernacular and the haphazard site arrangement of such buildings. They are composed of simple, shed-like forms expressed with a robust palette of timber, fibro, steel and stone. It addresses the main street frontage with an articulated facade that is both attractive and functional in its screening against the western sun. The building arrangement forms an amphitheatre of terraced open spaces, focussed down to the pool and looking beyond to the visual amenity of the wetlands. The buildings and pool are intentionally pushed slightly closer to the boundary (5m and 3m respectively). This provides an active and engaging facade to this important entry corner. A differentiation to the standard residential set-back heightens the importance of the amenity of the facility to the community.

The buildings uses are split between function/event and services/amenities. The main building holds common room, lounge, kitchen and office, whilst the secondary building contains the amenities, service rooms, gym and change facilities.

The predominately solid western facade is clad in recycled timber weatherboard panels of various sizes, again reflecting the haphazard application of materials in the rural context, and is punctuated by recesses, splashes of colour and window penetrations. The main body colours represent the dark, igneous, basalt rock so prevalent in the area, the Caldera of Wolumbin. This is offset by the contrasting sharp lines and lighter colours of the remainder of the building form.

APPLICATION DETAILS & CONSULTANTS

1.1 APPLICANT:

Newland
Shaun Nicholson (07) 5501 7222

1.2 APPLICATION

Major Project Application No. 09_0166

1.3 SITE:

Proposed Lot 714 within an amalgamation of separate lots on Fraser Drive, Terranora.

1.4 ARCHITECT & URBAN DESIGN

BDA Architecture
Cameron Thiessen (07) 5555 2600

1.5 TOWN PLANNER

Darryl Anderson Consulting Pty Ltd
Darryl Anderson (07) 5570 4994

1.6 LANDSCAPE ARCHITECT

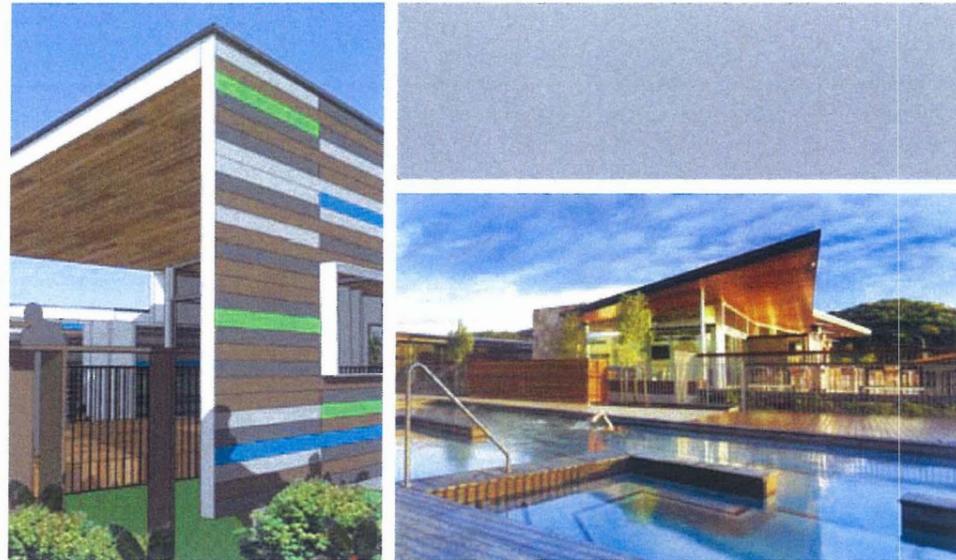
FORM LANDSCAPE ARCHITECTS
Matthew Franzmann (07) 3216 0606

1.7 TRAFFIC ENGINEER

BITZIOS
Andrew Eke (07) 5562 5377

1.8 CIVIL AND STORMWATER MANAGEMENT ENGINEER

BRADLESS
Brian Lees (07) 5528 6411



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Sheet No. 18 of []

2.00 LOCAL CONTEXT PLAN

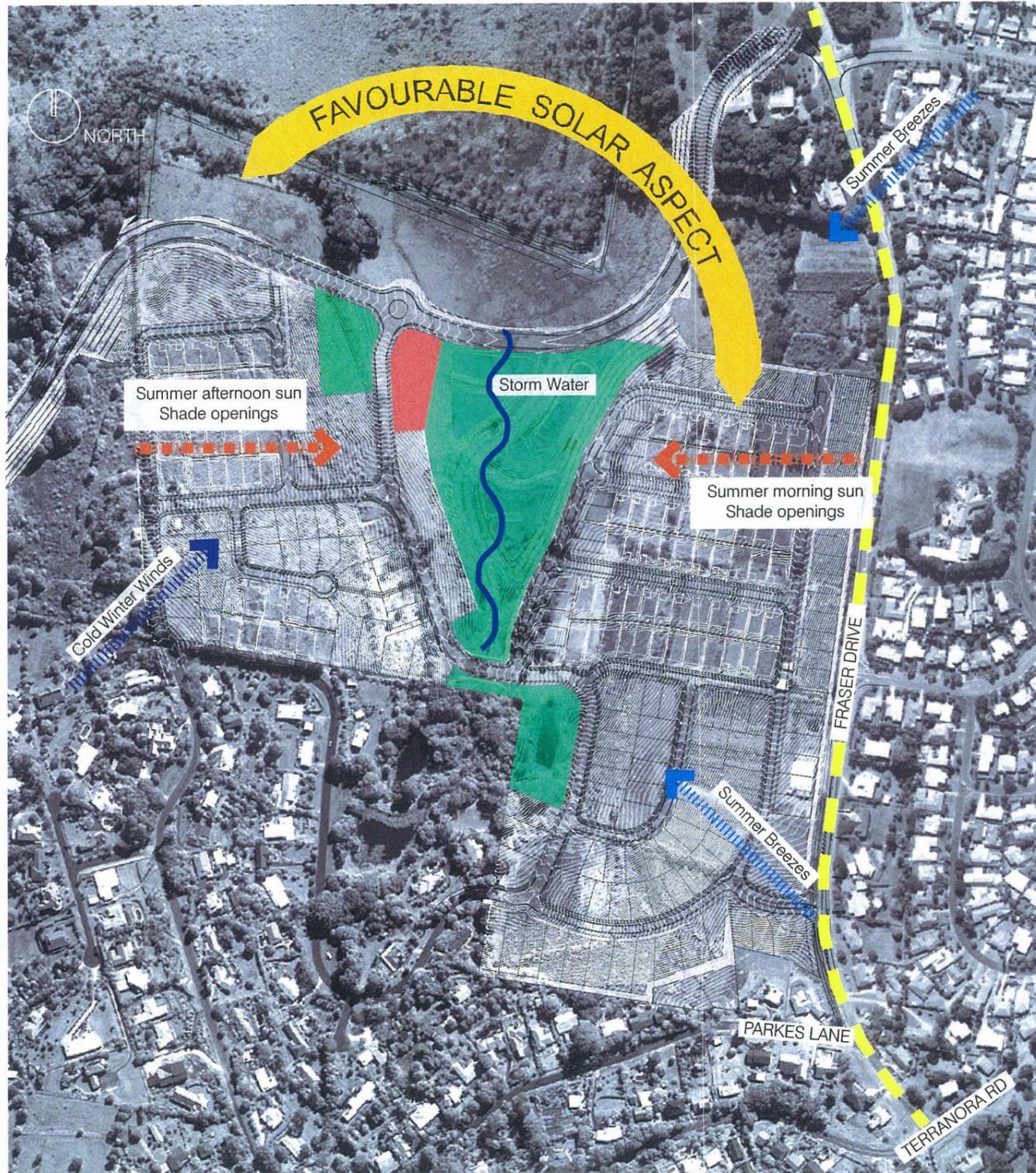


LEGEND

-  Subject Site
-  COOLANGATTA AIRPORT
-  COOLANGATTA
-  PACIFIC HIGHWAY
-  TERRANORA BROADWATER
-  FINGAL HEAD
-  TWEED RIVER BAR
-  TWEED RIVER

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3.00 SITE ANALYSIS



LEGEND

- SUBJECT SITE
- PARKS - OPEN SPACE
- STORMWATER
- SUMMER BREEZES
- WINTER BREEZES
- SUMMER SUN
- MAIN ROADS



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4.00 SITE PLAN

DISCLAIMER
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LEGEND

- | | |
|---------------------------------------|---------------------------------------|
| 01. Pedestrian Entry | 13. Gym (6.9 x 5.7m) |
| 02. Entry Foyer | 14. Outdoor Exercise Terrace |
| 03. Office | 15. 25m Pool |
| 04. Multi-Purpose Room (8.1 x 5.7m) | 16. Spa |
| 05. Terrace (3.6 x 5.4m) | 17. Covered BBQ Area |
| 06. Kitchen (4.9 x 3.6m) | 18. Kids Play Area |
| 07. Store | 19. Tennis Court |
| 08. Residents Lounge (8.1 x 5.7m) | 20. Access path to Wetland open space |
| 09. Lounge Deck (6.0 x 5.4m) | 21. Vehicle Drop-off |
| 10. Disabled WC | 22. Estate Entry Statement |
| 11. Amenities/Change (5.2 x 3.9m) | 23. BBQ |
| 12. Sauna/Pool Equipment (2 x 2m x 2) | 24. Bicycle Racks |

AREA'S

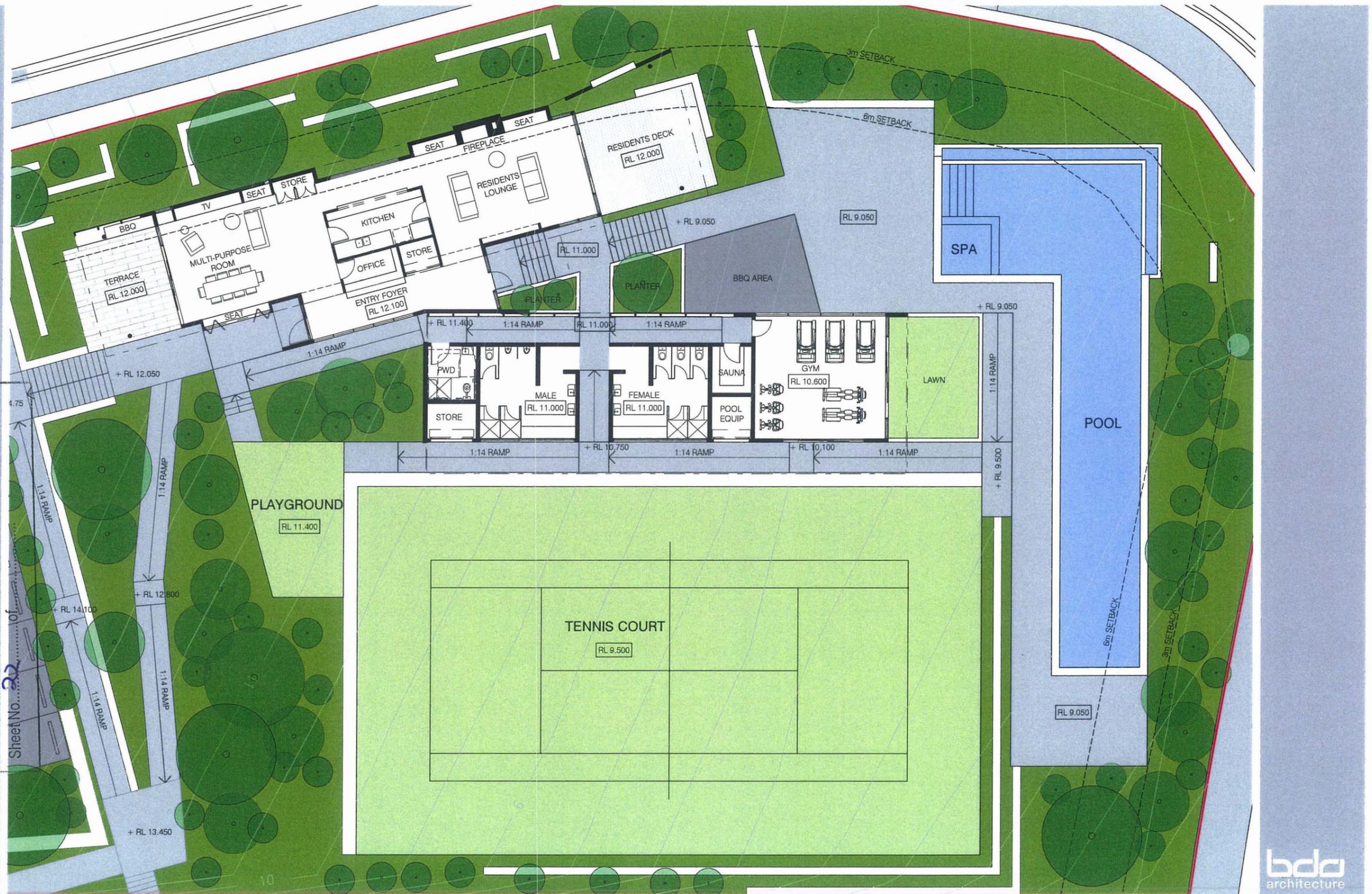
Indoor	250m ²
Covered Outdoor	133m ²

SCALE 1:500 @ A3

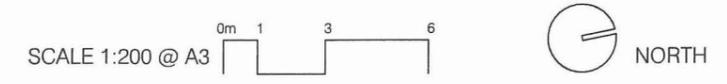


4.01 FLOOR PLAN

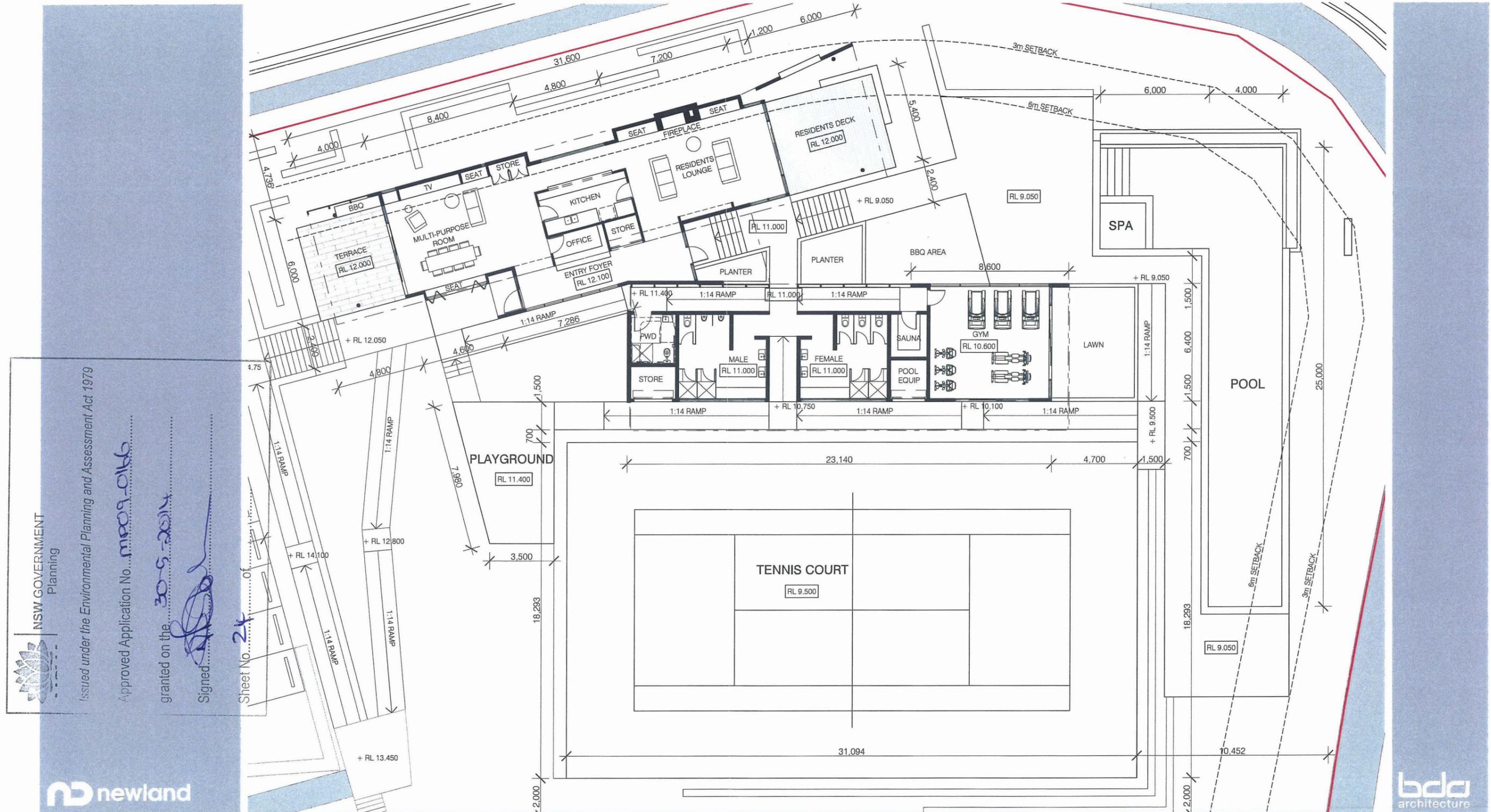
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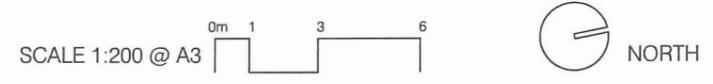
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 approved Application No. **MP09-016**
 granted on the **30-5-2011**
 Signed *[Signature]*
 Sheet No. **22**



5.00 KEY DIMENSIONS 1



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 Sheet No. 24 of 01

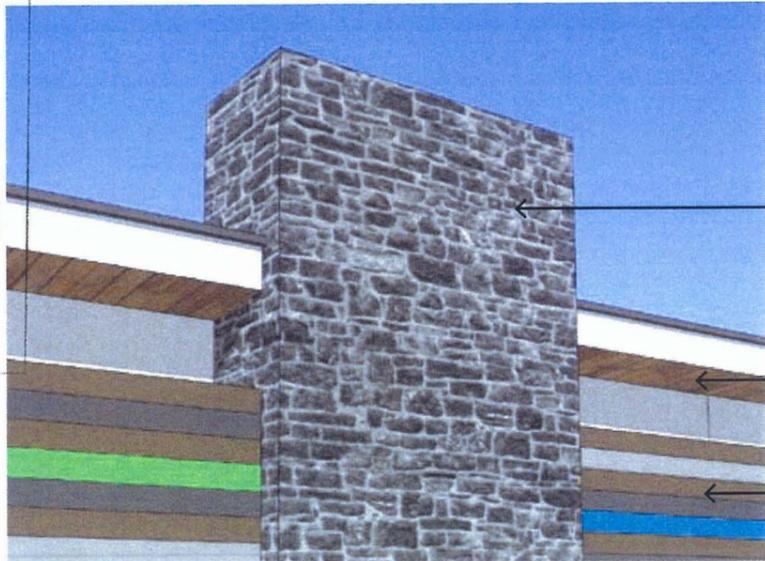


6.00 BUILDING COLOURS AND MATERIALS

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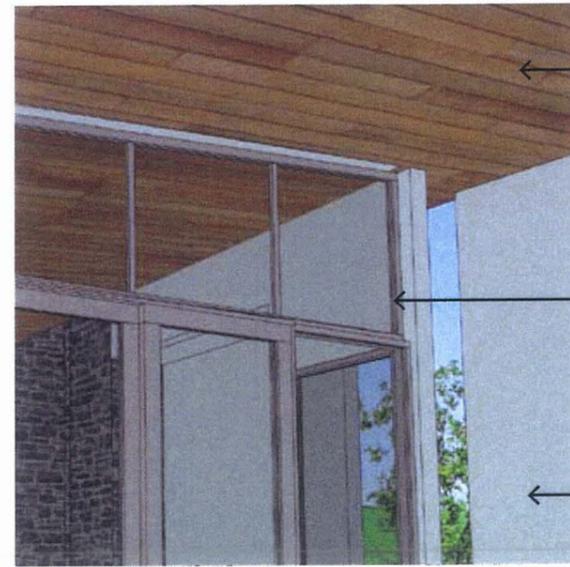
- ← Timber Lined Ceiling
- ← Painted Timber or Fibre Cement Weatherboards
- ← Timber or Fibre Cement Awning
- ← Aluminium Balustrade



- ← Prevelant local Stone
- ← Timber Lined Ceiling
- ← Painted Timber or Fibre Cement Weatherboards



- ← Selected Steel Roof sheeting & Capping
- ← Timber Lined Ceiling
- ← Painted Timber or Fibre Cement Weatherboards
- ← Rendered Blockwork Painted Finish
- ← Prevelant local Stone



- ← Timber Lined Ceiling
- ← Aluminium framed Windows & Doors
- ← Fibre Cement Sheeting Render & Paint Finish



7.00 PERSPECTIVE VIEWS

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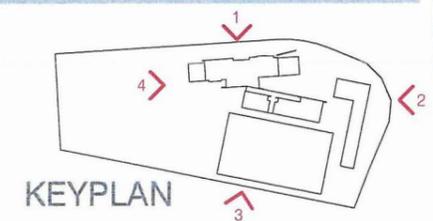




ELEVATION 1 - 1:200



ELEVATION 2 - 1:200



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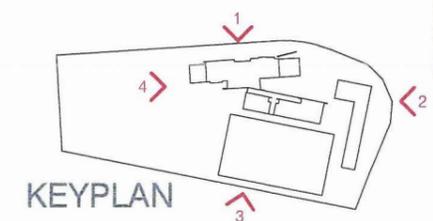


ELEVATION 3 - 1:200

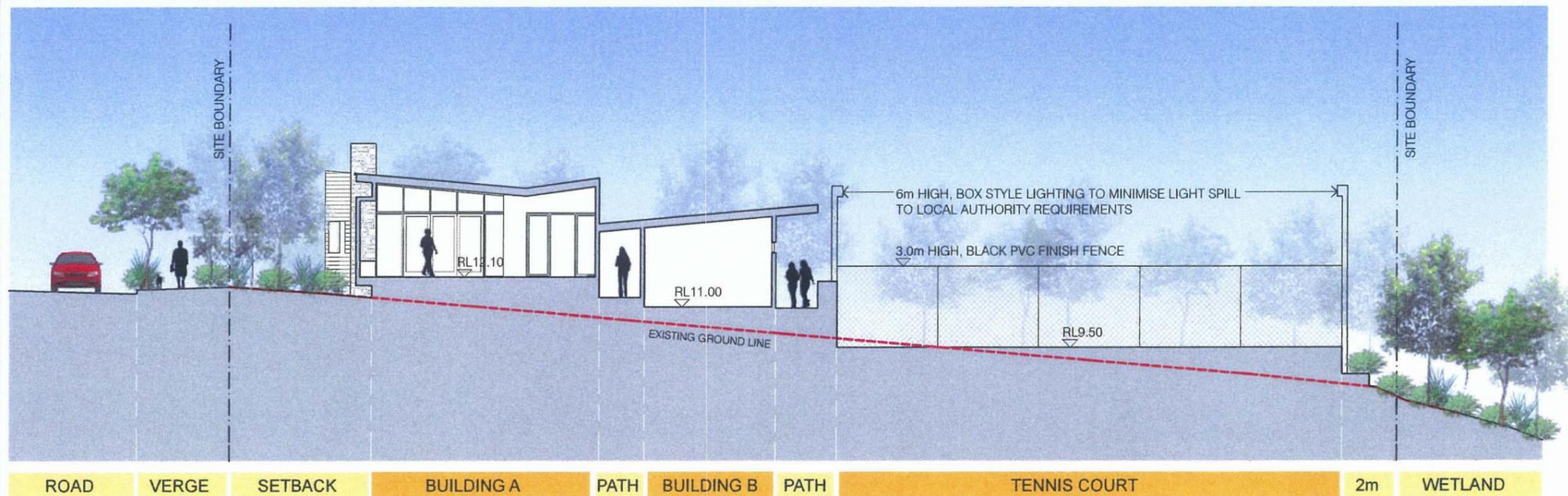


ELEVATION 4 - 1:200

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 granted on the 30-5-2011
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9.00 SITE SECTION A



SECTION A


 NSW GOVERNMENT
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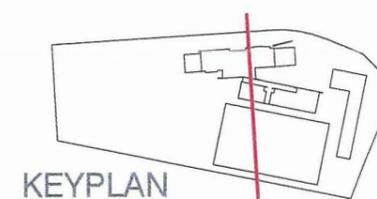
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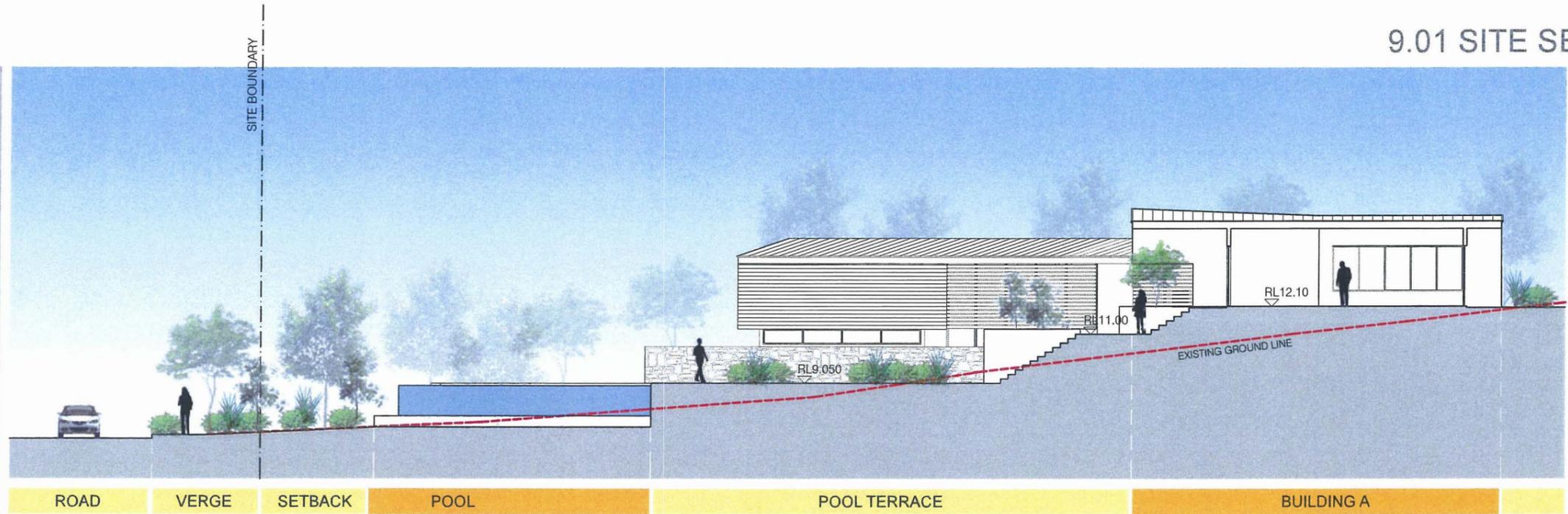
granted on the 30-5-2014

Signed [Signature]

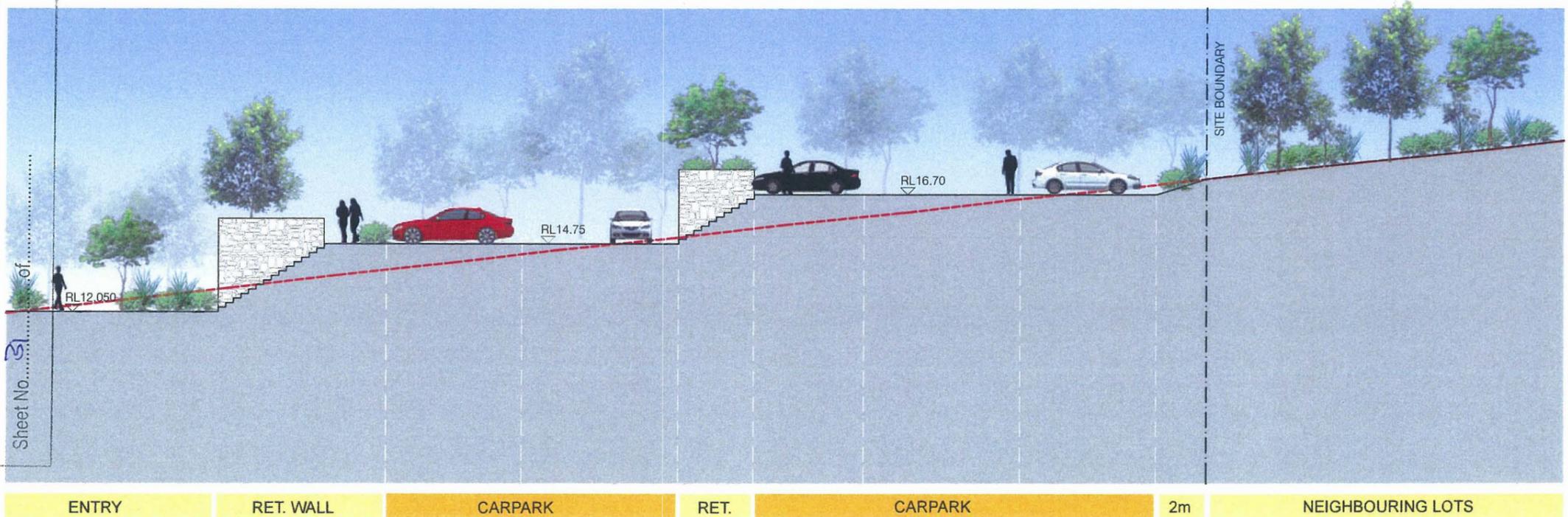
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9.01 SITE SECTION B



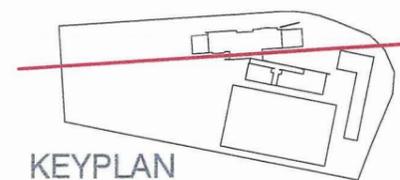
SECTION B

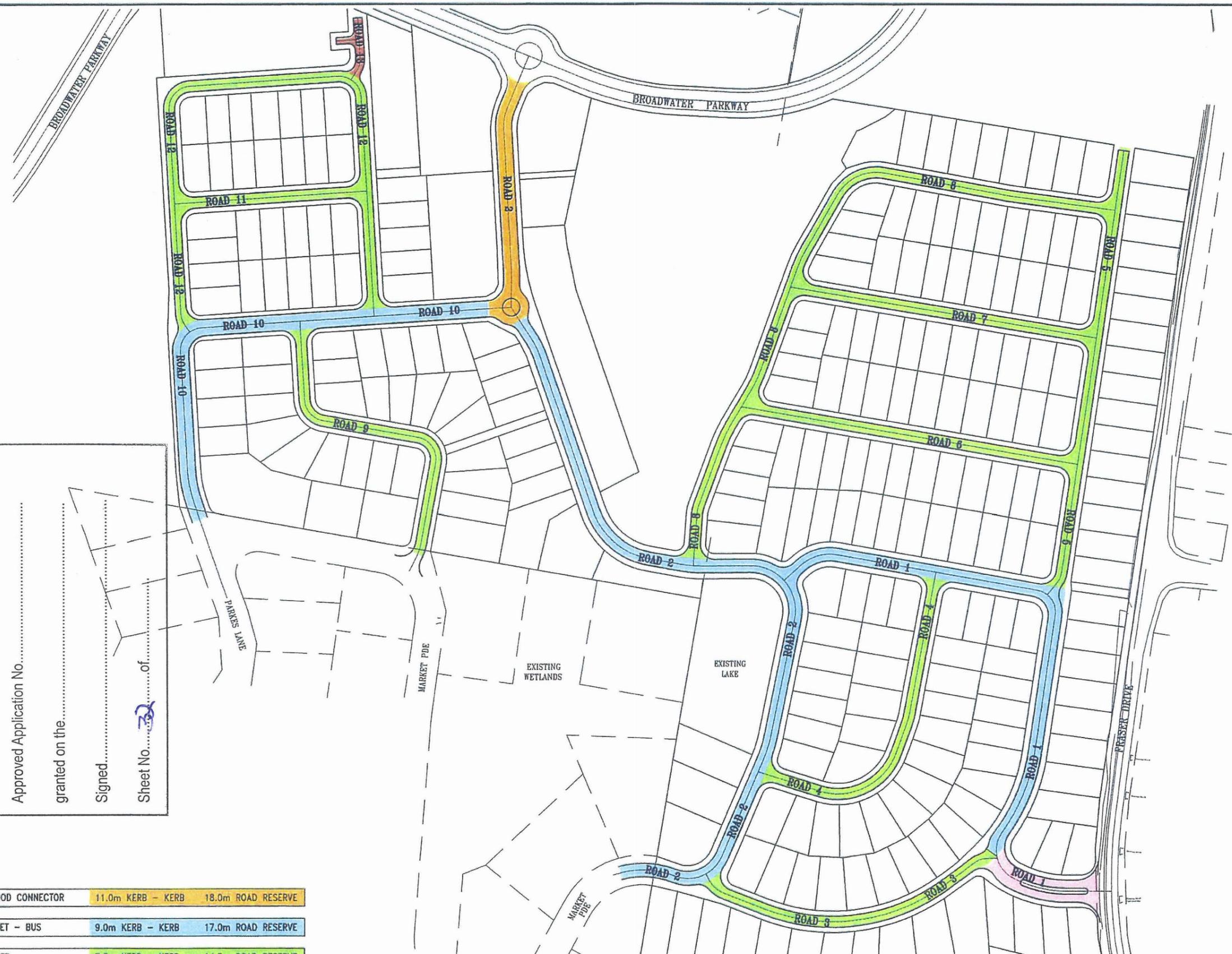


SECTION B (continued)

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Sheet No. 31 of 31





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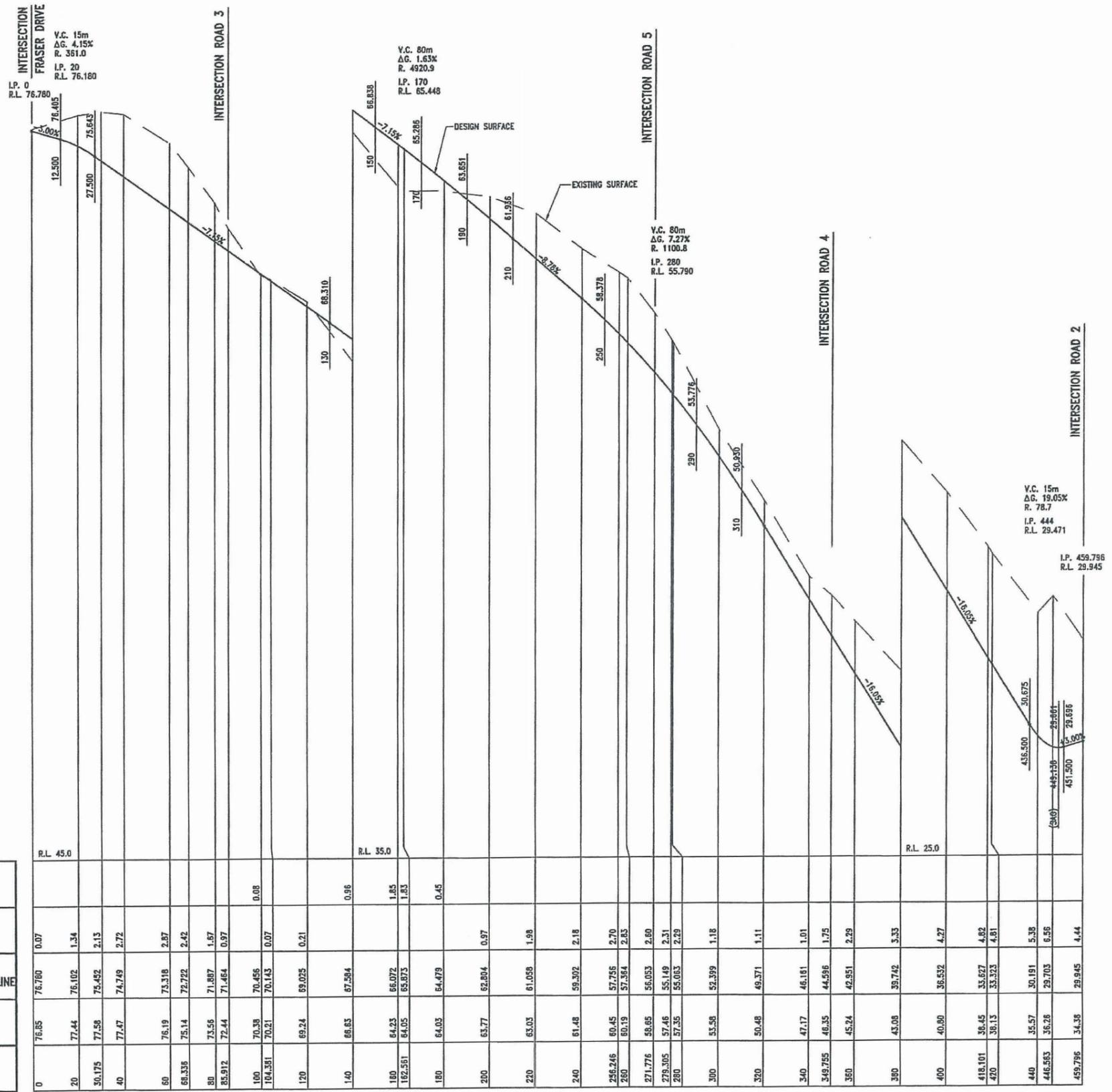
LEGEND

NEIGHBOURHOOD CONNECTOR	11.0m KERB - KERB	18.0m ROAD RESERVE
ACCESS STREET - BUS	9.0m KERB - KERB	17.0m ROAD RESERVE
ACCESS STREET	7.5m KERB - KERB	14.5m ROAD RESERVE
ACCESS STREET - DIVIDED	15.0m KERB - KERB	22.0m ROAD RESERVE
ACCESS STREET	6.0m KERB - KERB	13.0m ROAD RESERVE

PLAN LAYOUT
SCALE NTS

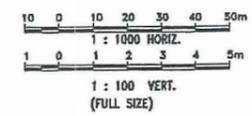
NEWLAND DEVELOPERS PTY LTD	09-374 03-07-2013
TERRANORA PRECINCT 1 ROAD HIERARCHY PLAN	SK3628 REVISION E

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Cheyenne Island QLD 4217	Bradlees Civil Consulting	<p>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 231</p>
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DATUM	HEIGHT OF FILL	DEPTH OF CUT	PAVEMENT LEVEL ON PEGGED CENTRELINE	EXISTING SURFACE LEVEL	PEGGED CHAINAGE
76.780	0.07		76.780	76.85	0
76.405		1.34	76.102	77.44	20
75.643		2.13	75.452	77.58	30.175
		2.72	74.749	77.47	40
				76.19	60
				75.318	60
				75.722	68.538
				75.14	68.538
				71.887	80
				73.56	80
				71.464	85.912
				72.44	85.912
	0.08		70.456	70.38	100
		0.07	70.143	70.21	104.381
		0.21	69.025	69.24	120
			67.584	66.63	140
	0.96				
		1.85	66.072	64.23	160
		1.83	65.873	64.05	162.581
		0.45	64.479	64.03	180
			62.804	63.77	200
		0.97			
		1.98	61.058	63.03	220
			59.302	61.48	240
		2.18			
		2.70	57.756	60.45	256.246
		2.85	57.384	60.19	260
		2.60	56.053	56.65	271.776
		2.31	55.149	57.46	275.305
		2.29	55.063	57.35	280
		1.18	52.399	53.58	300
		1.11	49.371	50.48	320
		1.01	46.161	47.17	340
		1.75	44.596	46.35	348.755
		2.29	42.951	45.24	360
		3.33	39.742	43.08	380
		4.27	36.532	40.80	400
		4.82	33.627	36.45	418.101
		4.81	33.523	36.13	420
		5.38	30.191	35.57	440
		6.56	29.703	36.28	446.883
		4.44	29.945	34.38	459.796

HORIZONTAL CURVE DATA



NEWLAND DEVELOPERS PTY LTD
 TERRANORA PRECINCT 1
 ROAD 1
 LONGITUDINAL SECTION

09-374
 07-01-2013

SK 3586
 REVISION B

Bradford Lees Pty Ltd
 ABN 29 064 159 191

Bradlees
 Civil Consulting

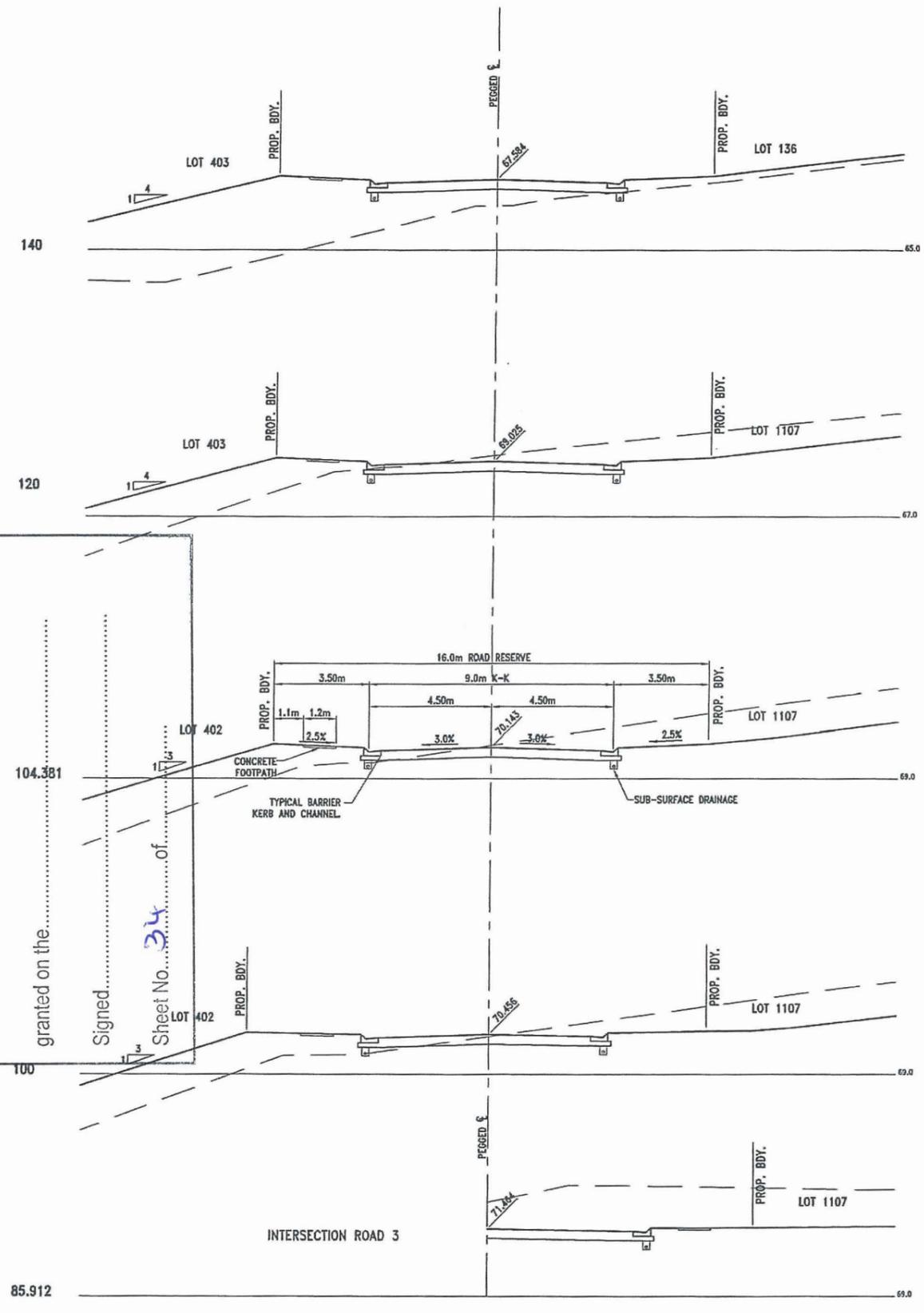
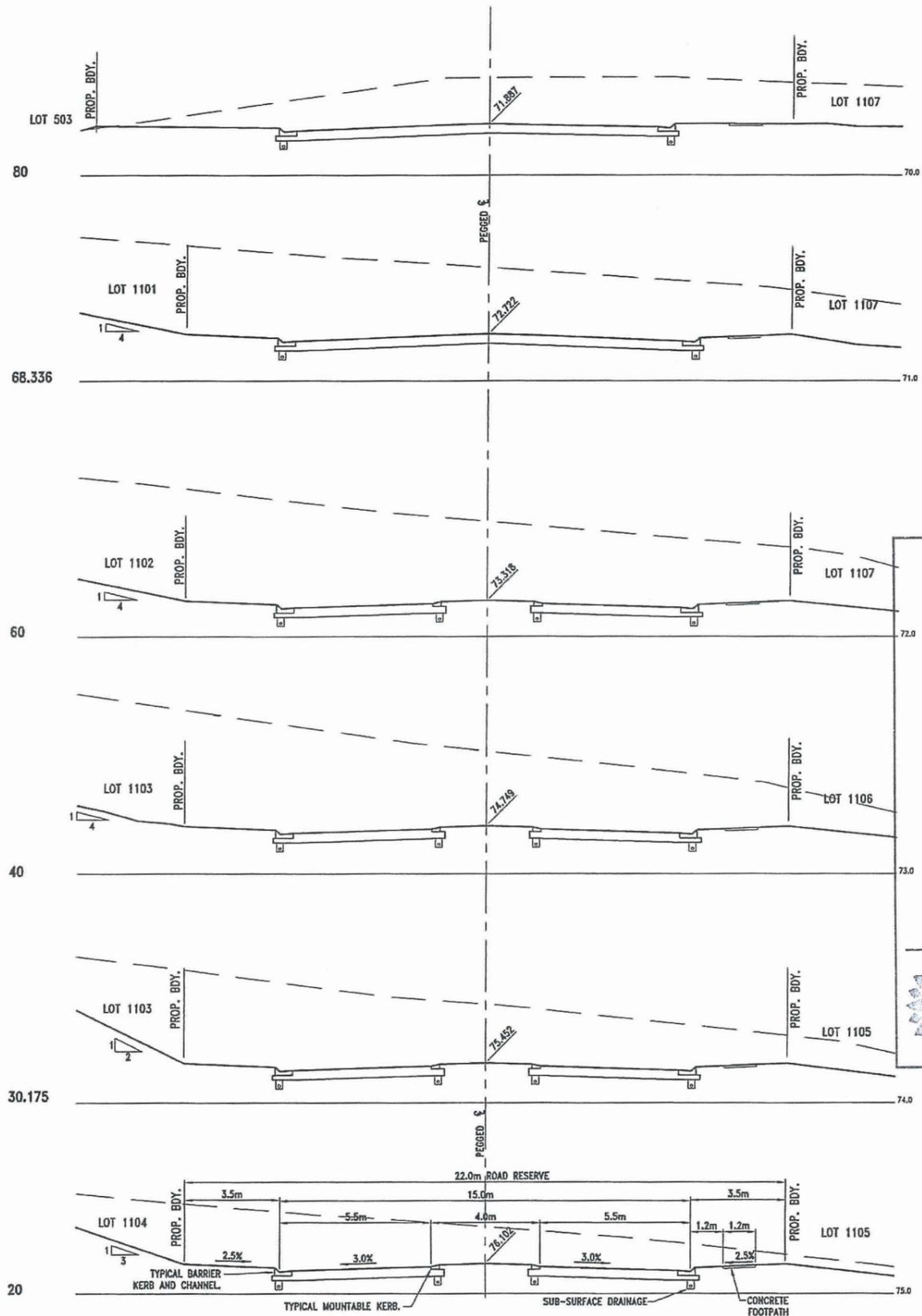
Ph 07 5528 6411
 Fax 07 5528 6422
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 Email mail@bradlees.com.au
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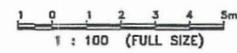
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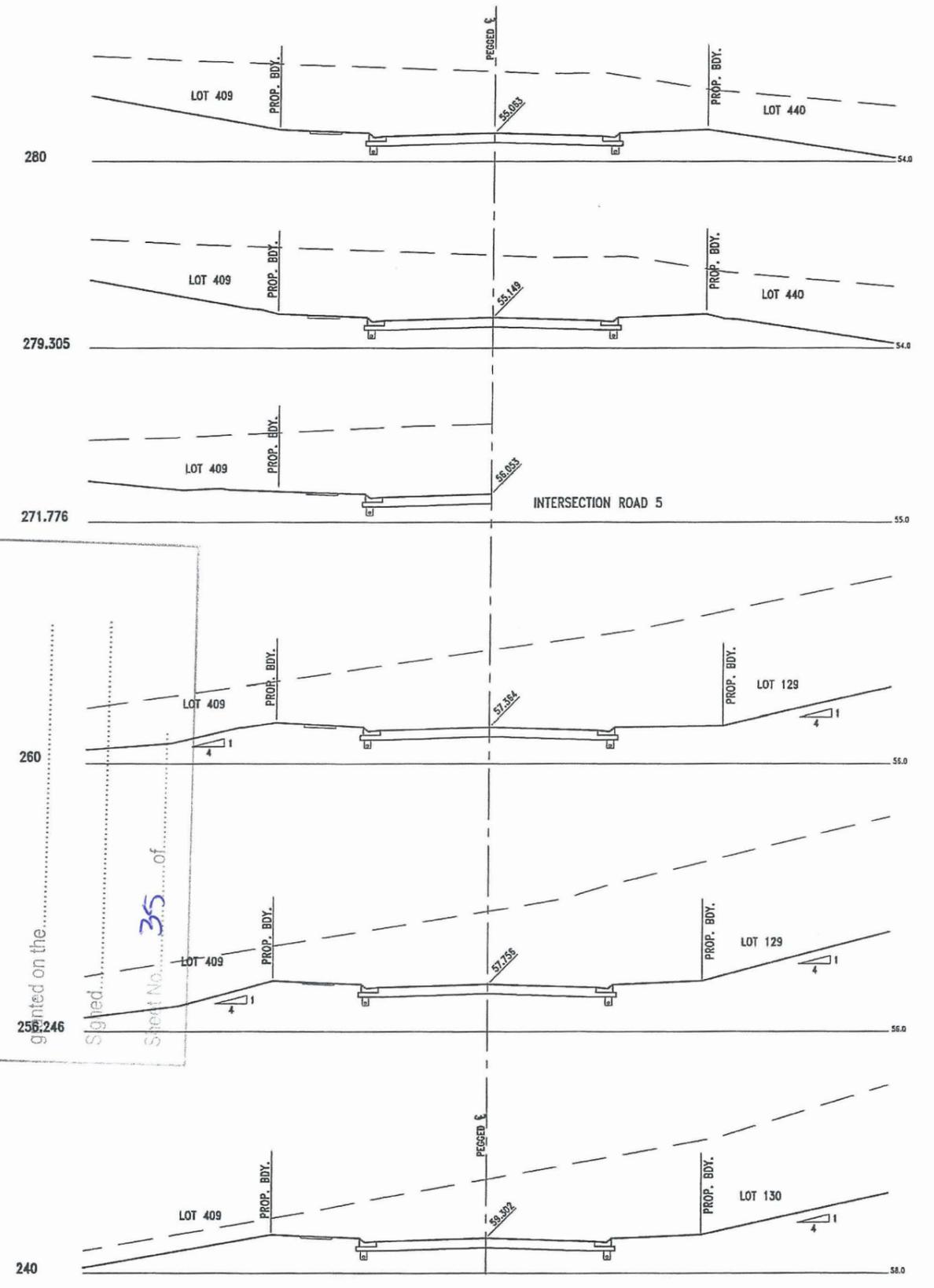
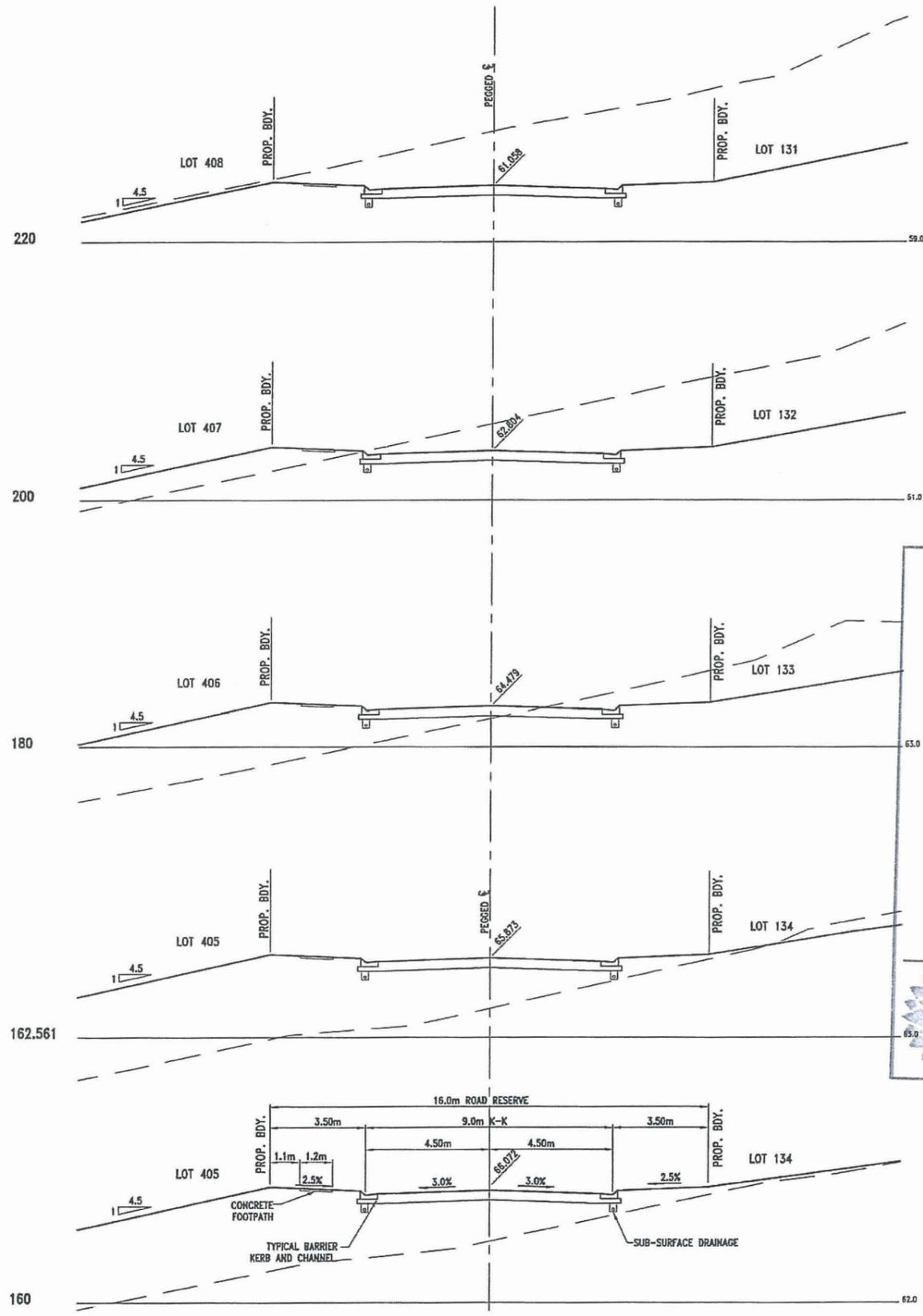
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Sheet No. **34**



NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 1 CROSS SECTIONS SHEET 1 OF 3	SK 3587 REVISION B

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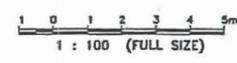
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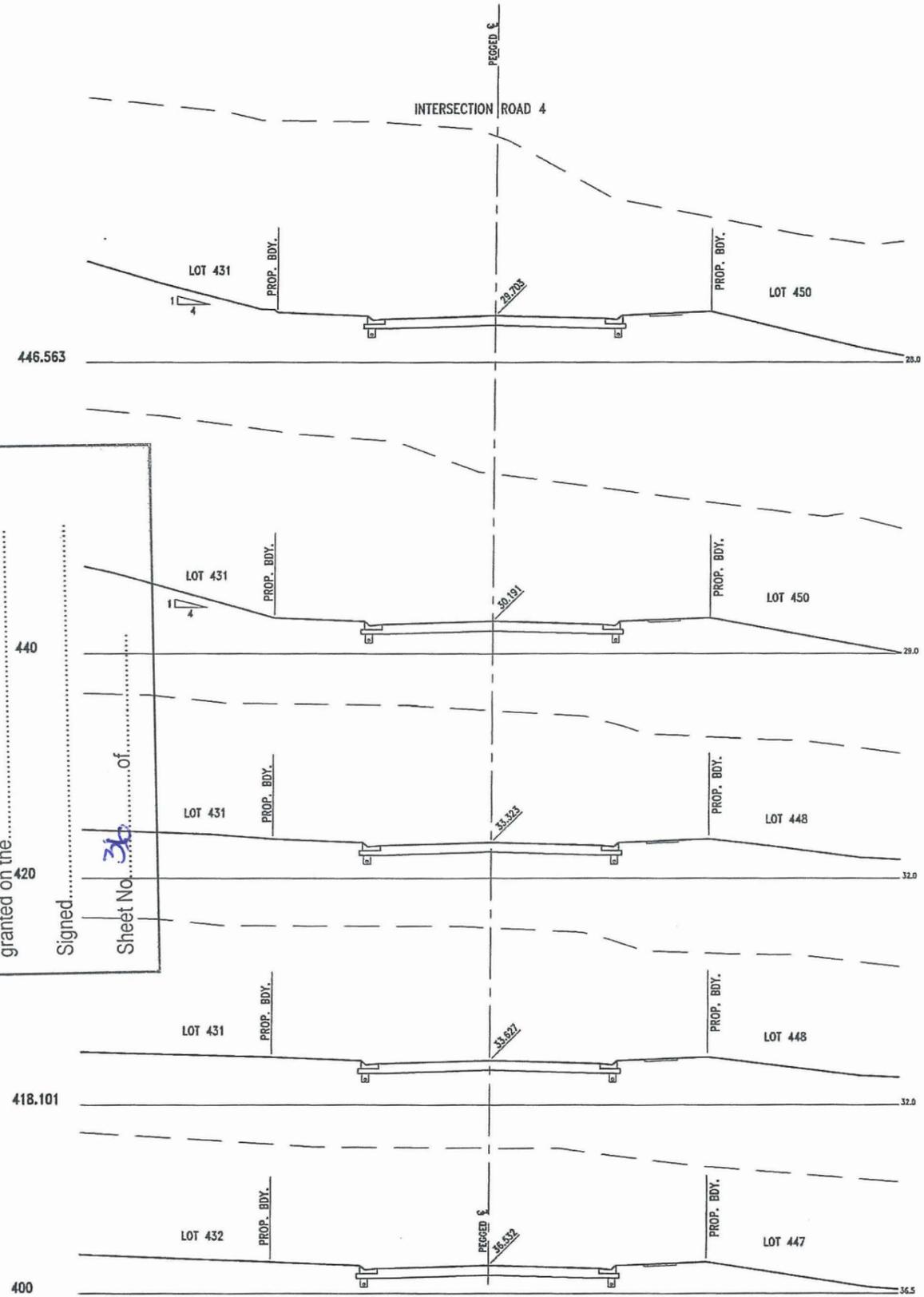
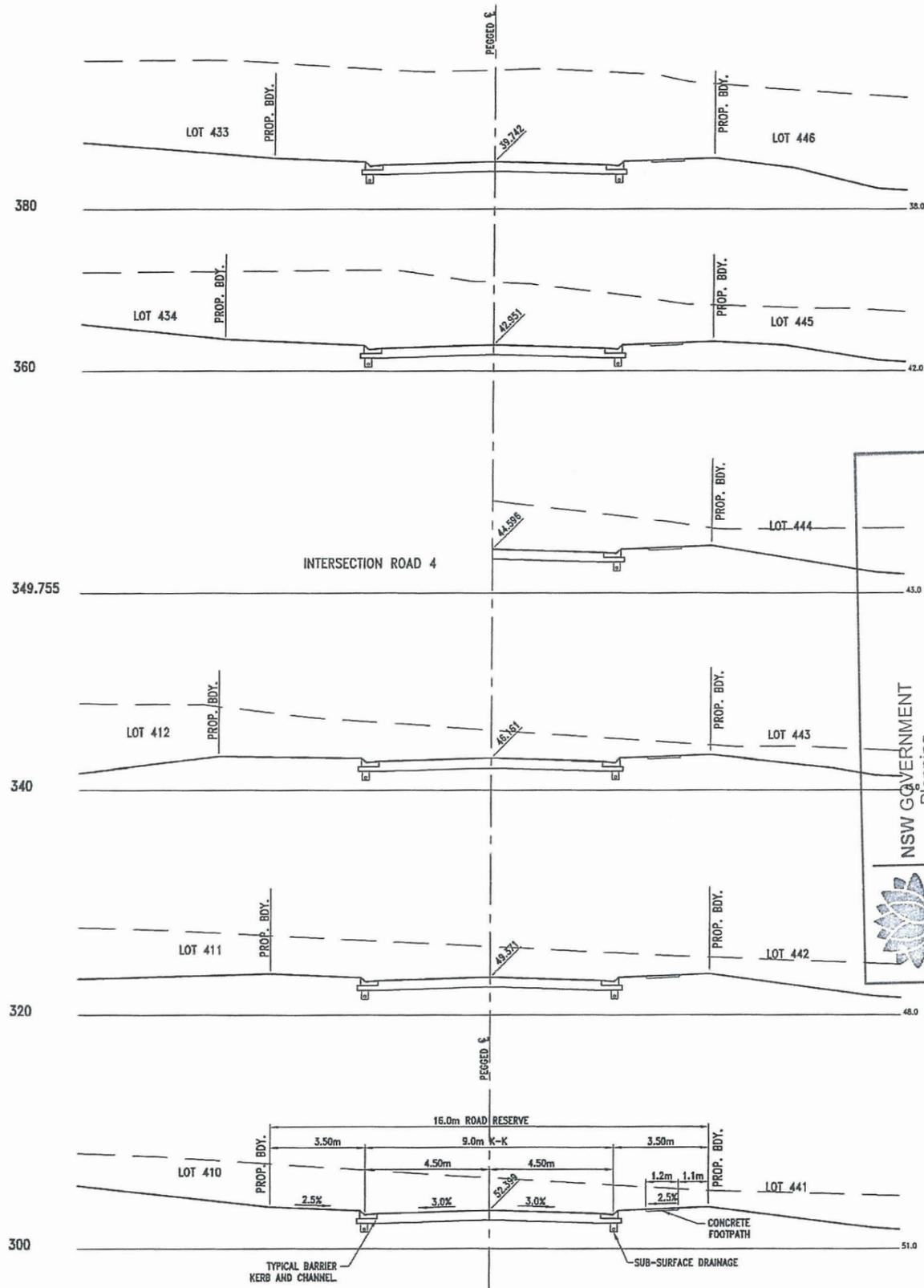
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NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 1 CROSS SECTIONS SHEET 2 OF 3	SK 3588 REVISION B

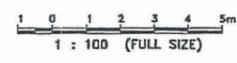
Bradford Lees Pty Ltd ABN 29 064 159 191	Bradlees Civil Consulting	
PH 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		



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Sheet No. 36 of



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HORIZONTAL CURVE DATA

PEGGED CHAINAGE	EXISTING SURFACE LEVEL	PAVEMENT LEVEL ON PEGGED CENTRELINE	DEPTH OF CUT	HEIGHT OF FILL	DATUM
0	45.60	45.604		0.00	
4.923	45.75	45.790		0.04	RL 20.0
20	46.35	46.358		0.01	
40	49.91	46.990	2.92		
42.867	50.26	47.041	3.22		
60	51.53	47.146	4.39		
64.684	51.47	47.115	4.35		
80	49.70	46.826	2.87		
81.344	49.42	46.789	2.64		
100	46.03	46.034	0.00		
120	43.57	44.765	1.19		
140	42.29	43.258	0.96		
143.117	41.97	43.024	1.06		
152.124	41.02	42.345	1.32		
160	39.95	41.752	1.80		
168.932	39.39	41.081	1.68		
180	39.23	40.157	0.93		
200	38.92	38.386	0.53		
220	37.73	36.439	1.29		
240	37.21	34.316	2.89		
248.843	36.93	33.322	3.61		
260	36.80	32.017	4.78		
277.364	34.38	29.945	4.44		
280	34.11	29.630	4.48		
300	31.40	27.243	4.16		
302.948	30.83	26.891	3.94		
320	27.14	24.856	2.28		
335.431	22.42	23.155	0.74		
340	20.98	22.713	1.73		
342.011	20.32	22.527	2.20		
349.997	17.32	21.843	4.52		
360	14.93	21.106	6.18		
372.445	13.30	20.377	7.08		
380	12.92	20.035	7.11		
400	13.33	19.501	6.17		
420	15.72	19.504	3.79		
424.920	16.11	19.587	3.48		
440	16.74	20.043	3.31		
460	17.53	20.874	3.35		
480	17.66	21.705	4.05		
500	17.80	22.537	4.73		
520	17.85	23.368	5.52		
535.865	18.48	23.847	5.37		
540	18.72	23.905	5.18		
547.590	18.76	23.940	5.18		
560	19.80	23.796	4.00		
573.852	20.87	23.342	2.47		
580	20.41	23.040	2.63		
594.475	20.00	22.090	2.09		
599.987	19.84	21.639	1.80		
620	18.85	19.589	0.73		
640	17.81	17.187	0.82		
660	16.25	14.785	1.46		
680	13.94	12.383	1.56		
695.394	12.00	10.534	1.46		
700	11.47	9.981	1.48		
708.899	10.24	8.912	1.33		
720	8.81	7.670	1.14		
740	7.05	7.304	0.25		
747.541	6.46	7.462	1.00		

R60
R25
R25
R60.5
R20.5
R20.5
R79.5 R79.5
R49.5
R50
R20

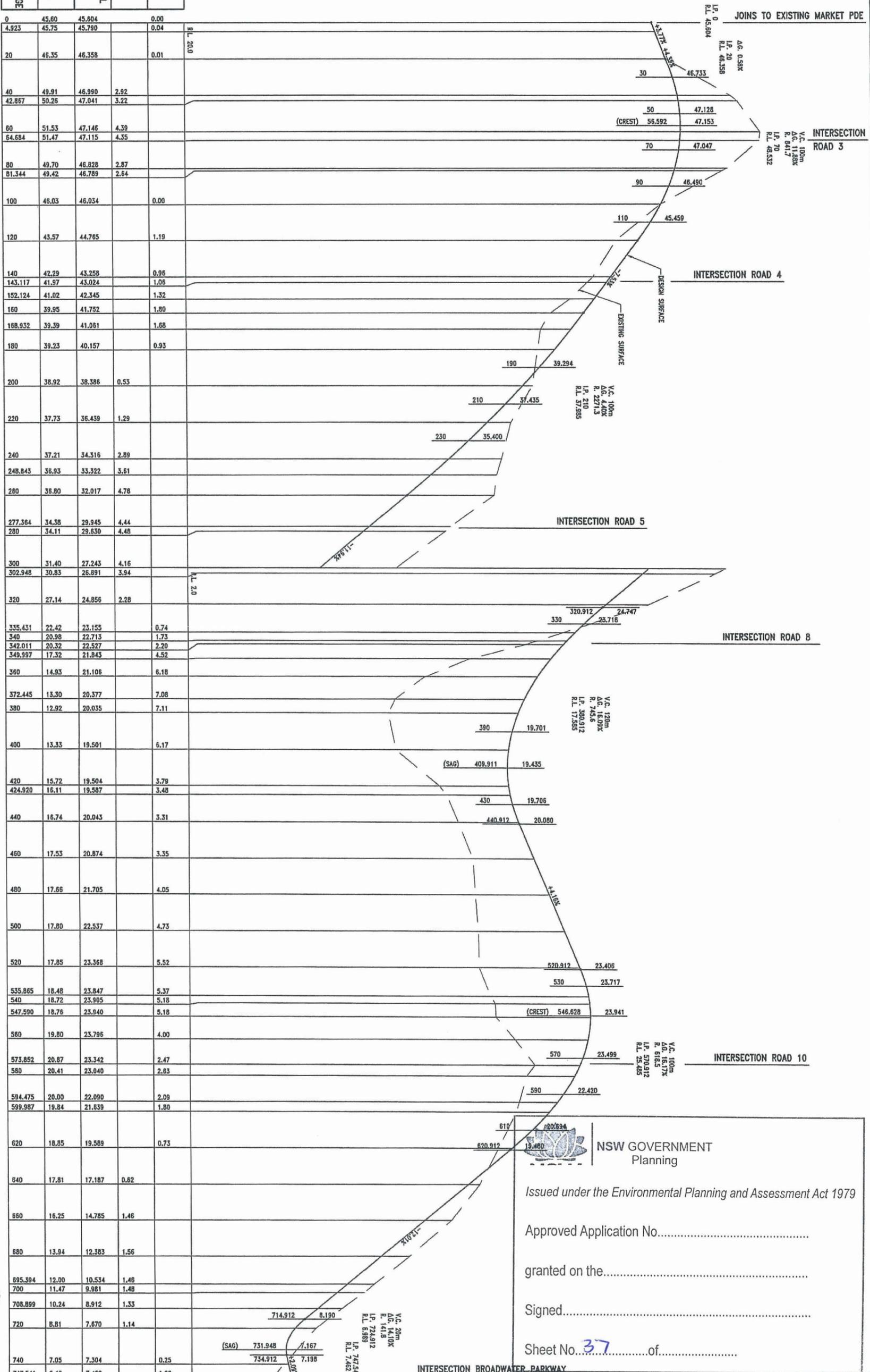


NEWLAND DEVELOPERS PTY LTD
TERRANORA PRECINCT 1
ROAD 2
LONGITUDINAL SECTION
09-374
07-01-2013
SK 3590
REVISION B

Bradlees Pty Ltd
 ABN 29 058 199 191
 Ph: 07 5528 6411
 Fax: 07 5528 6422
 Web: www.bradlees.com.au
 Email: info@bradlees.com.au
 Postal: PO Box 2253, Southport QLD 4215
 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

Bradlees
 Civil Consulting

QUALITY ASSURED COMPANY
 ISO 9001
 ISO 14001
 ISO 45001



NSW GOVERNMENT
 Planning

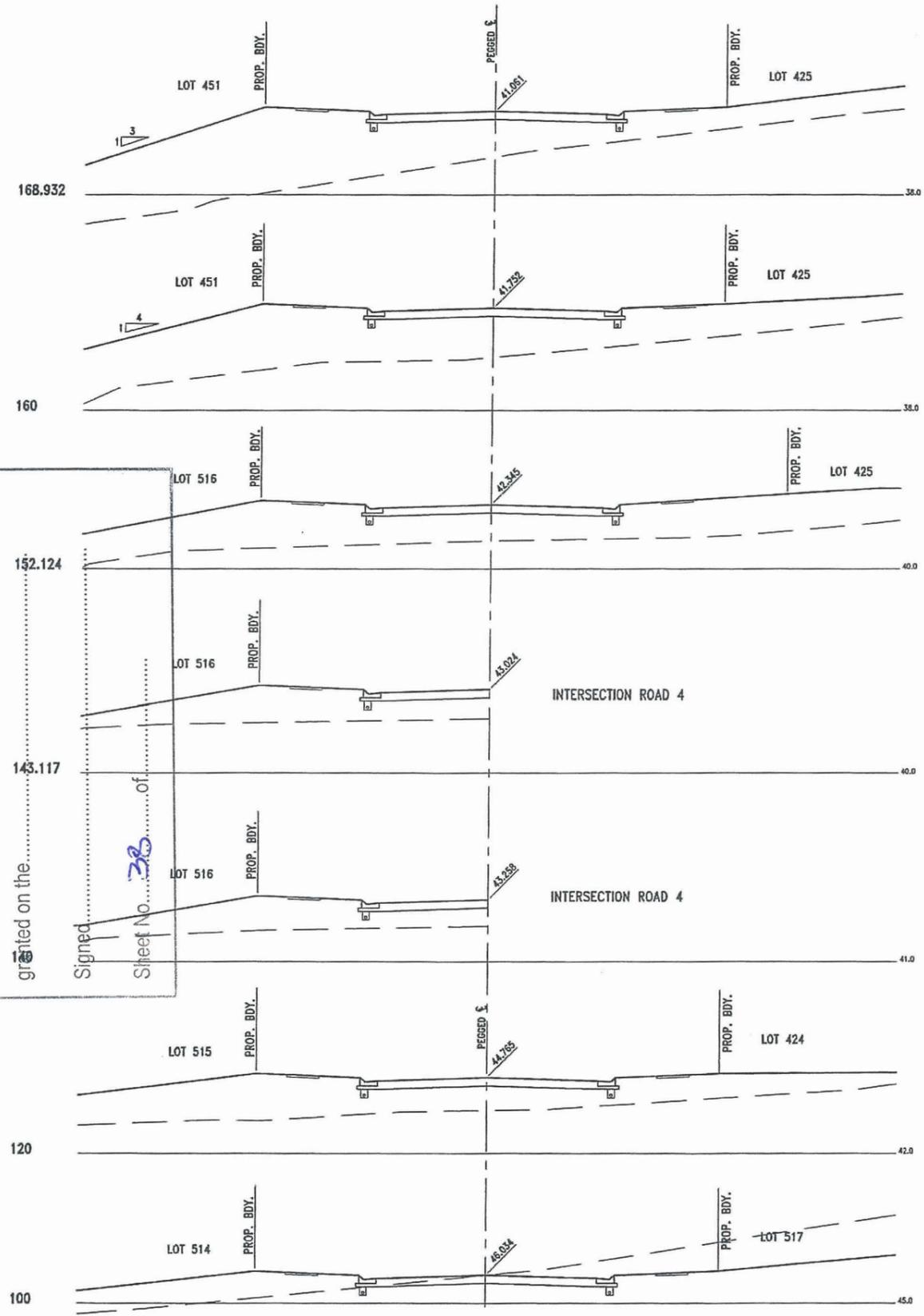
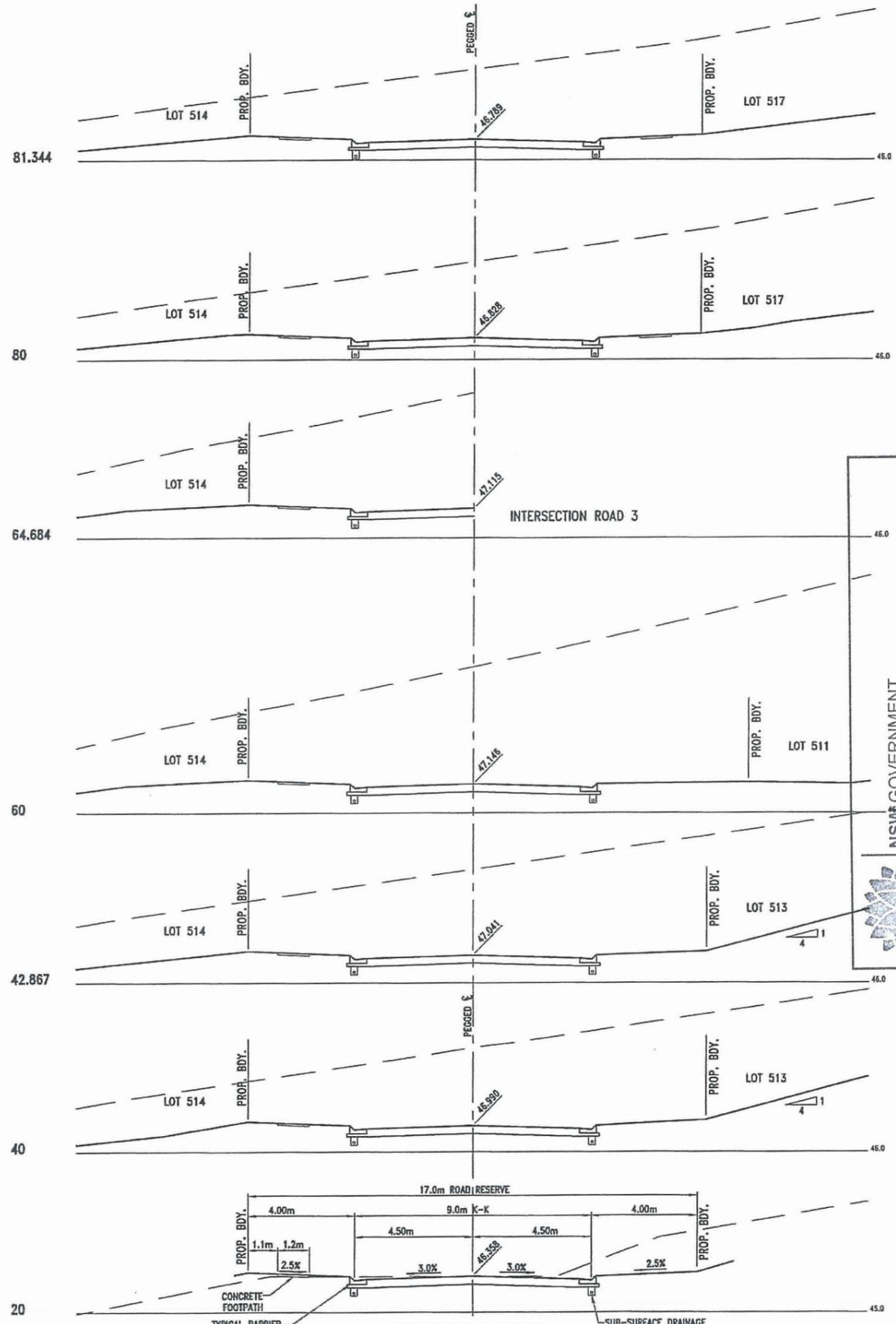
Issued under the Environmental Planning and Assessment Act 1979

Approved Application No.....

granted on the.....

Signed.....

Sheet No. **37** of.....



NSW GOVERNMENT
Planning

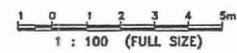
Issued under the Environmental Planning and Assessment Act 1979

Approved Application No.

granted on the of

Signed: *JB*

Sheet No. *28* of



NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1
ROAD 2 CROSS SECTIONS
SHEET 1 OF 5

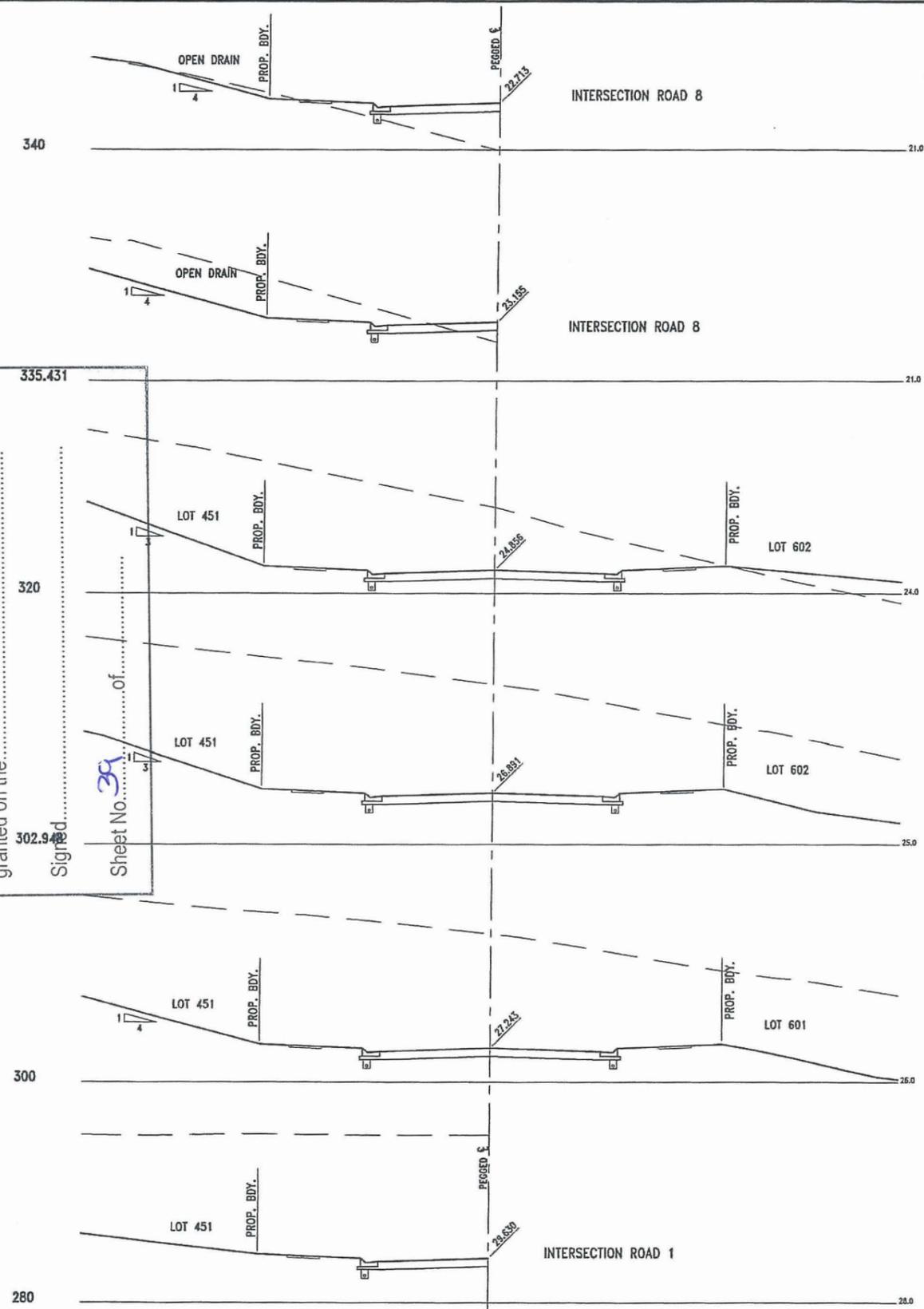
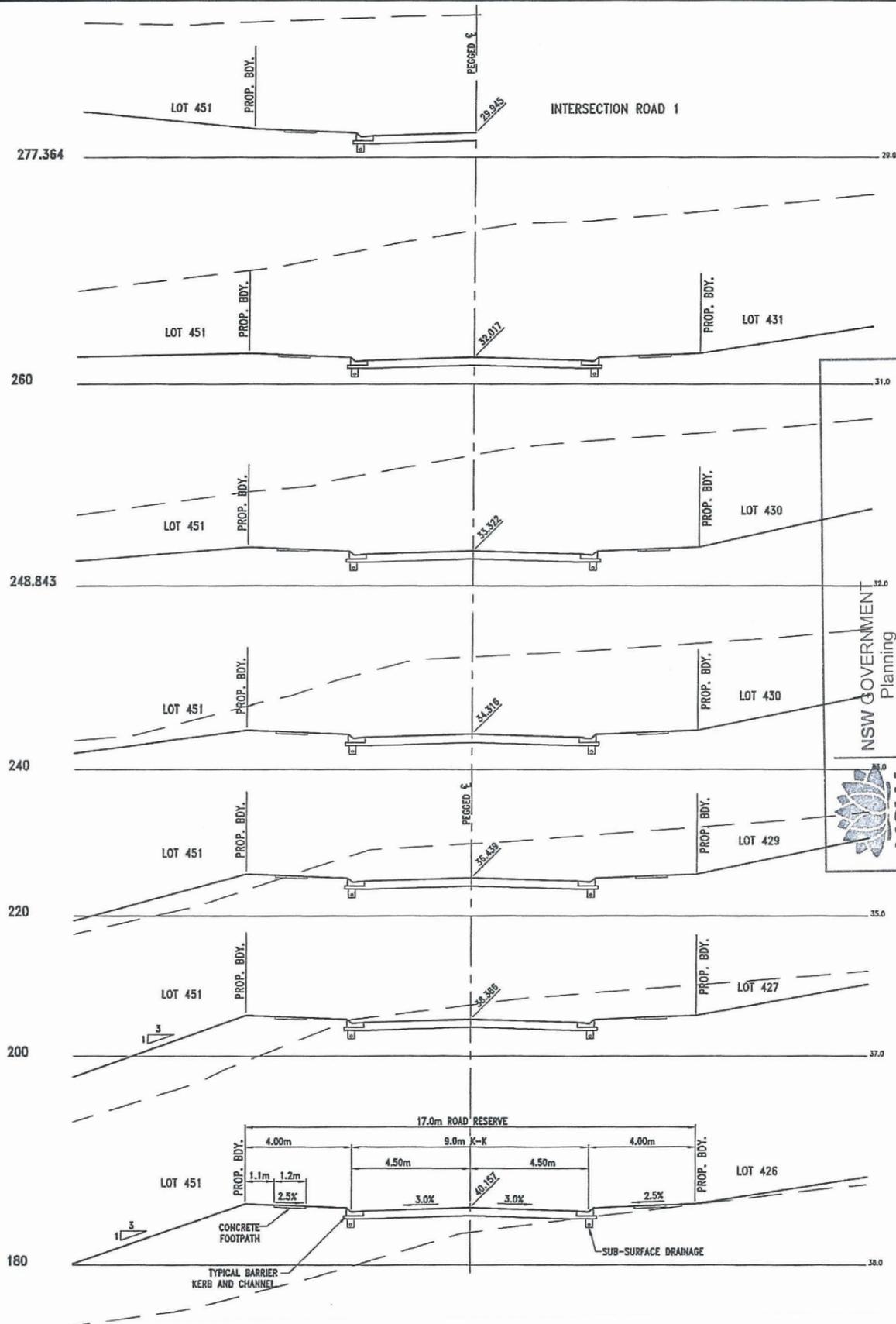
09-374
07-01-2013

SK 3591
REVISION B

Bradford Lees Pty Ltd
ABN 29 054 159 191

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2292, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217





NSW GOVERNMENT
Planning

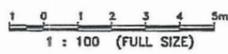
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granted on the of

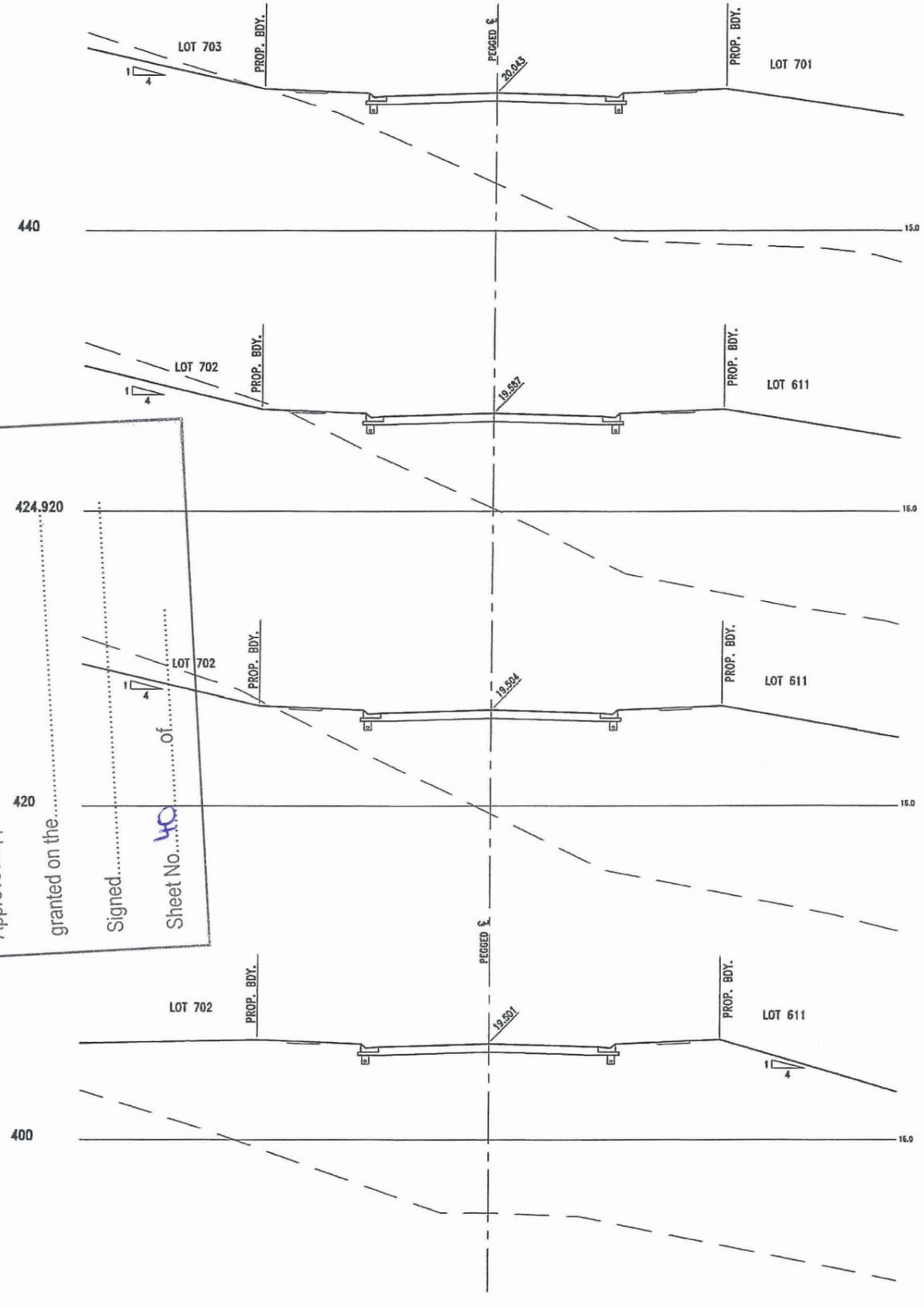
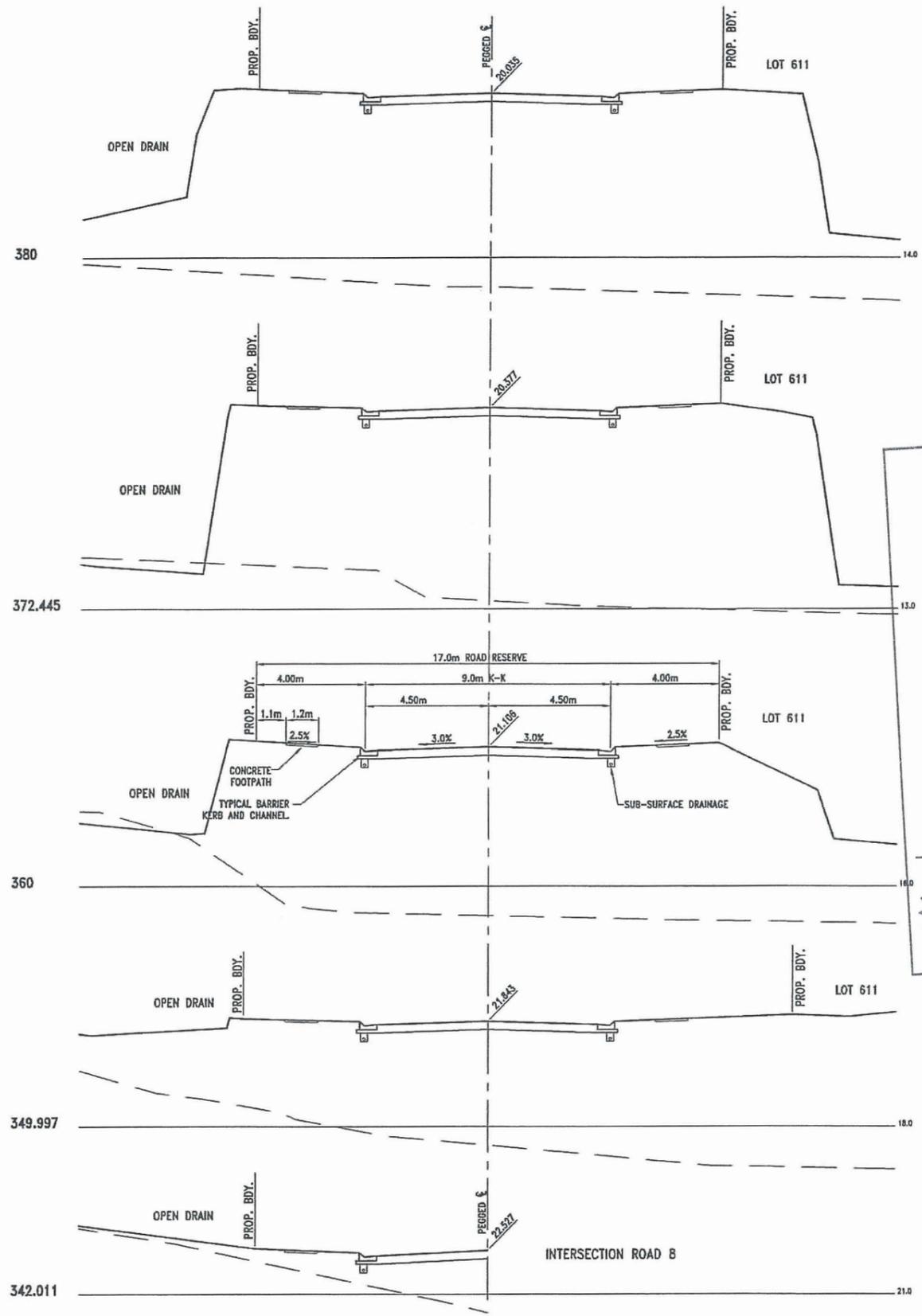
Signed of

Sheet No. 39 of



NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 2 CROSS SECTIONS SHEET 2 OF 5	SK 3592 REVISION B

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 113</small>
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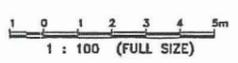
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Approved Application No.
granted on the

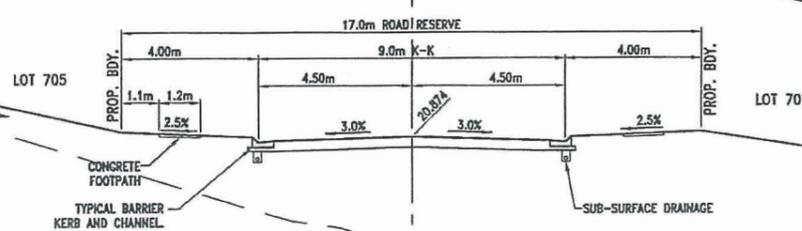
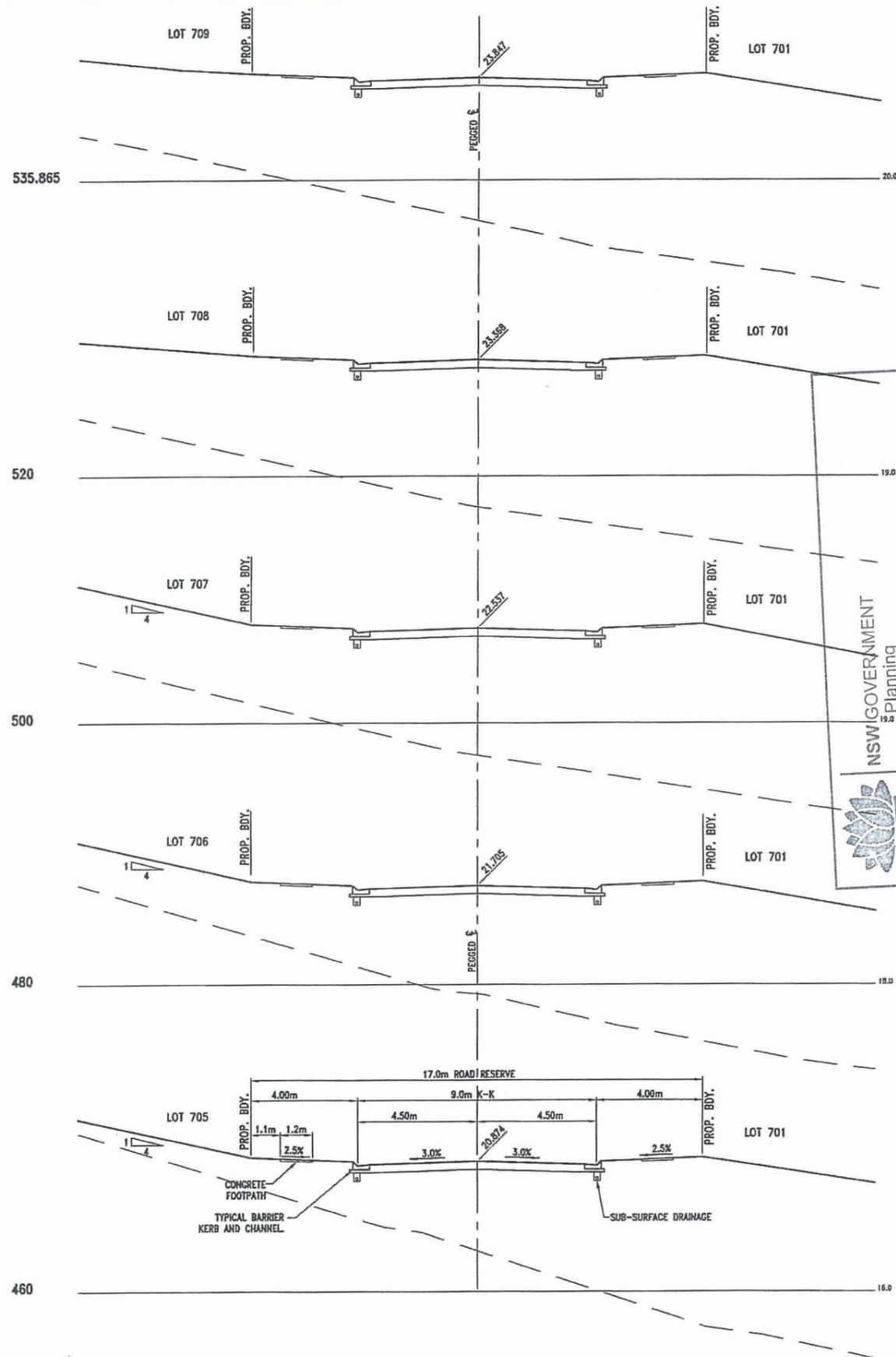
Signed..... of

Sheet No. 40



NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 2 CROSS SECTIONS SHEET 3 OF 5	SK 3593 REVISION B

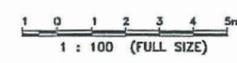
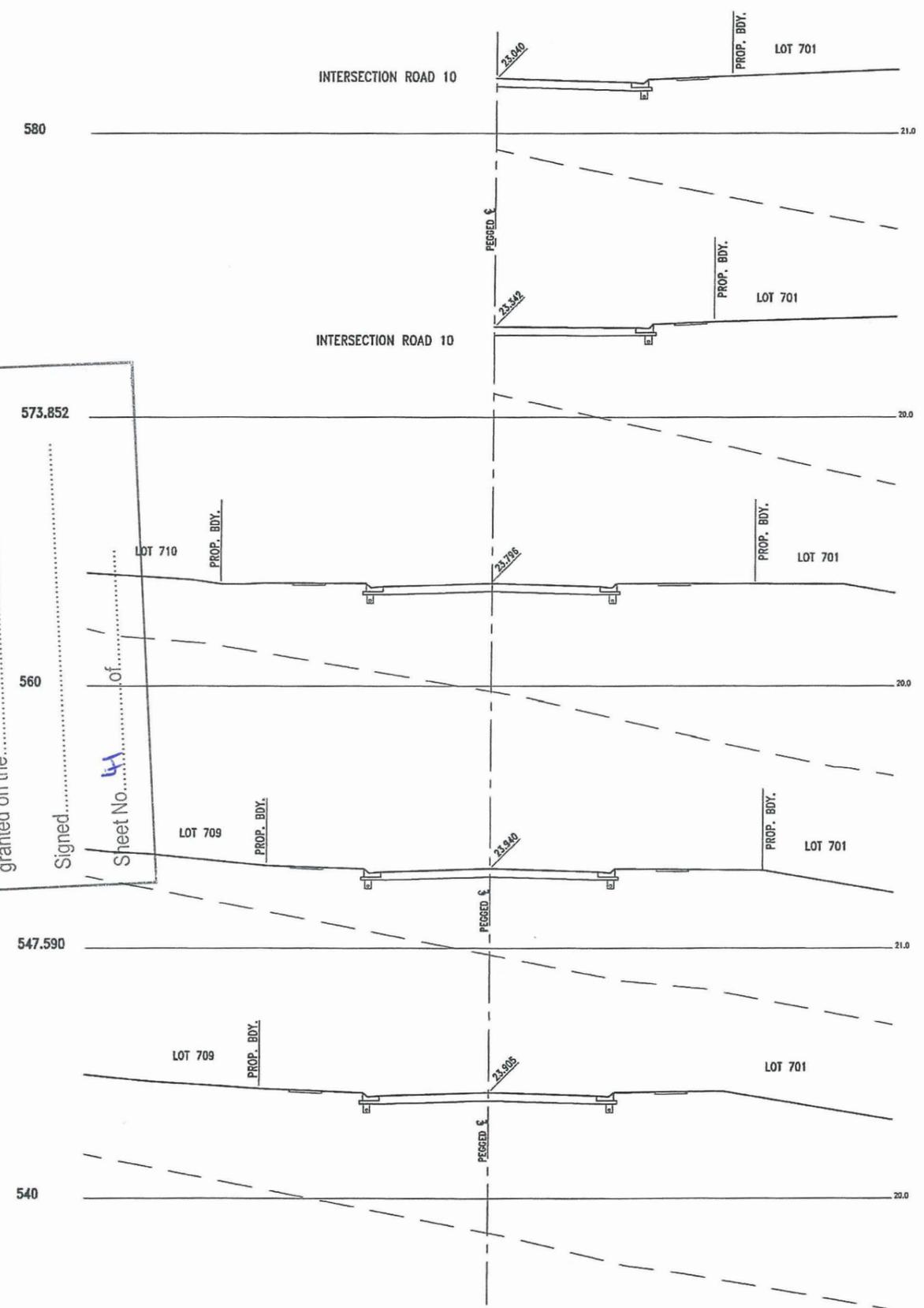
Bradford Lees Pty Ltd ABN 29 064 155 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mjl@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 533</small>
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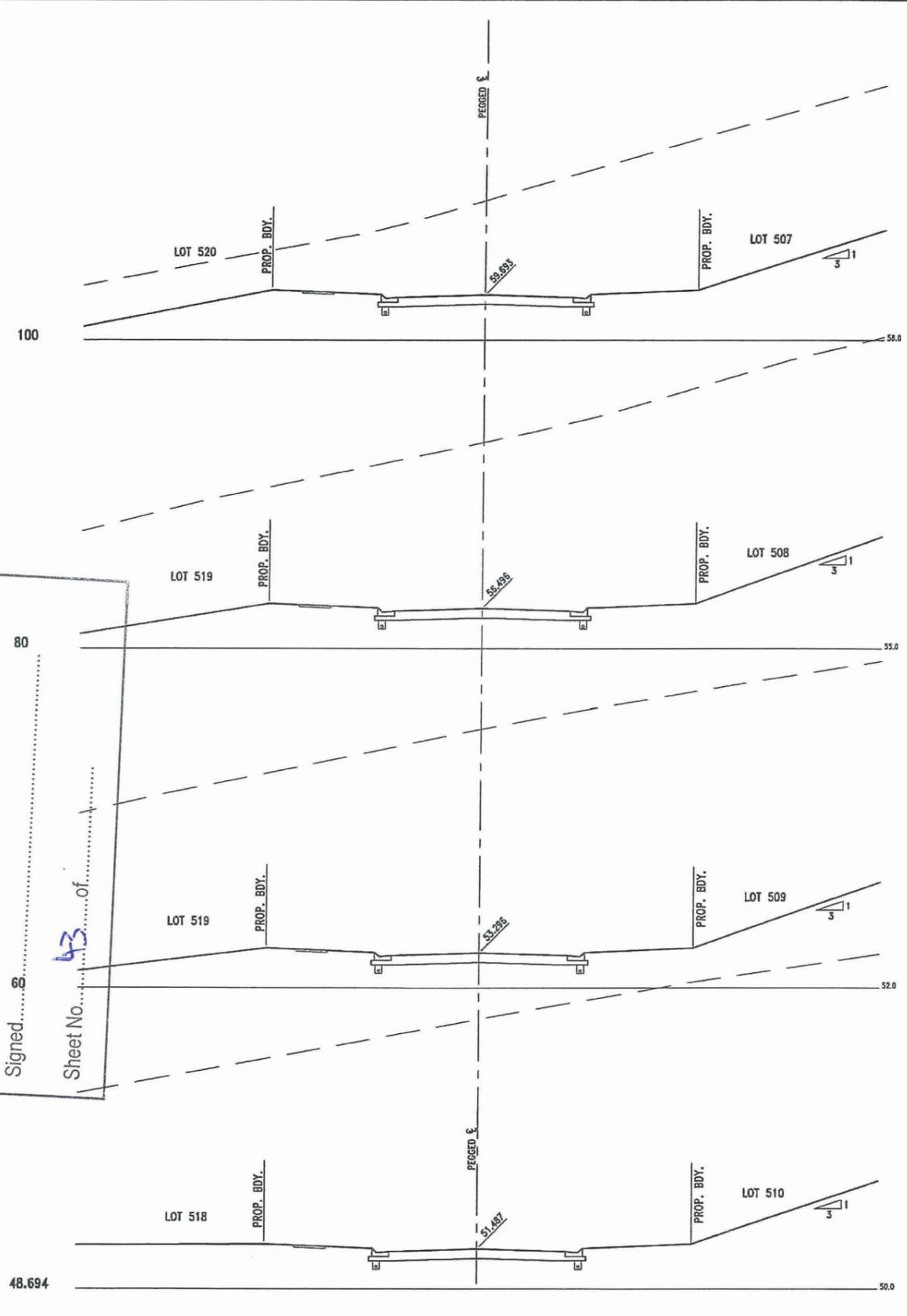
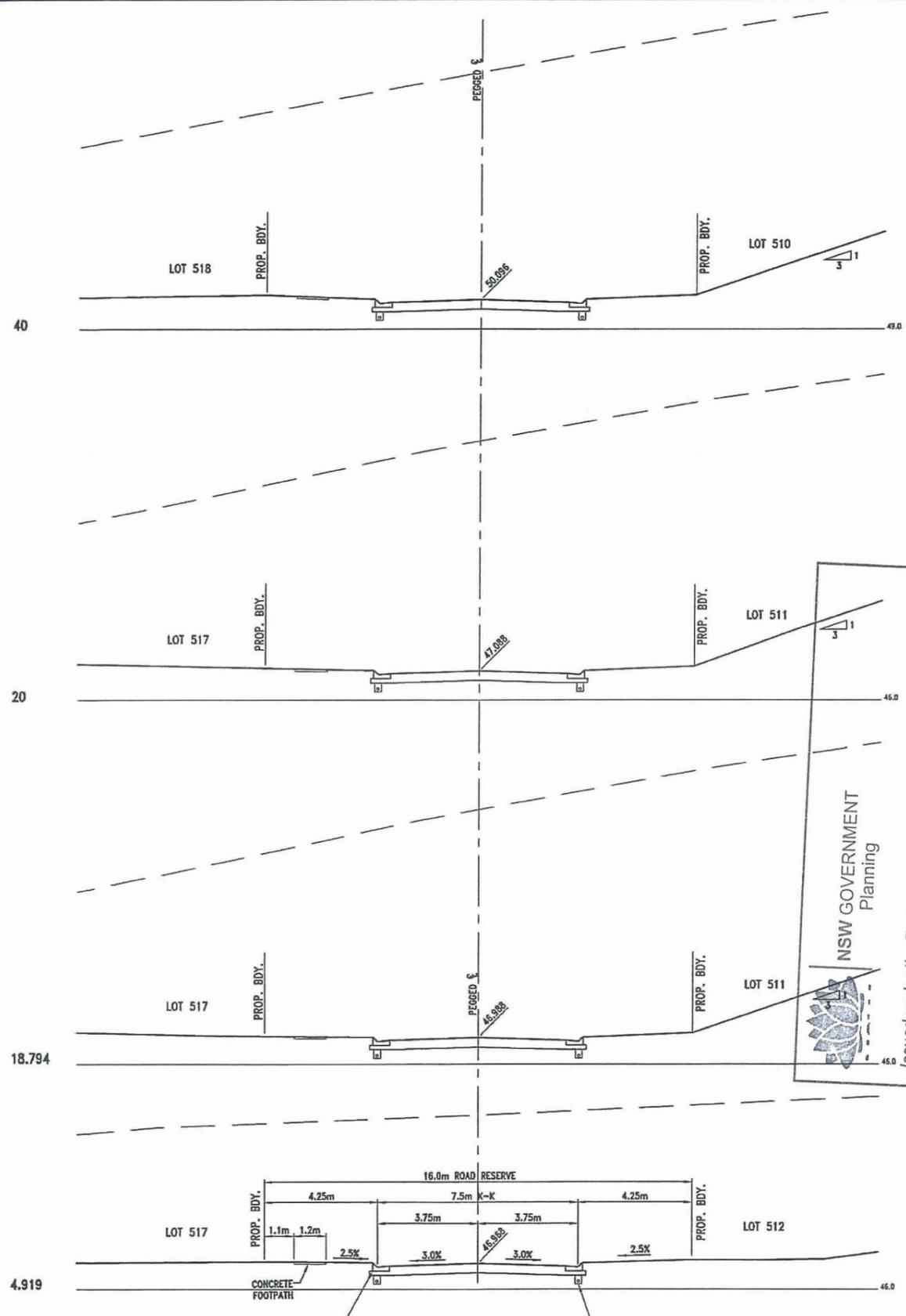
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 granted on the
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 Sheet No. **41** of



NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 ROAD 2 CROSS SECTIONS SHEET 4 OF 5	09-374 07-01-2013 SK 3594 REVISION B
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Bradford Lees Pty Ltd ABN 29 064 152 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 233</small>
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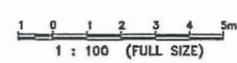
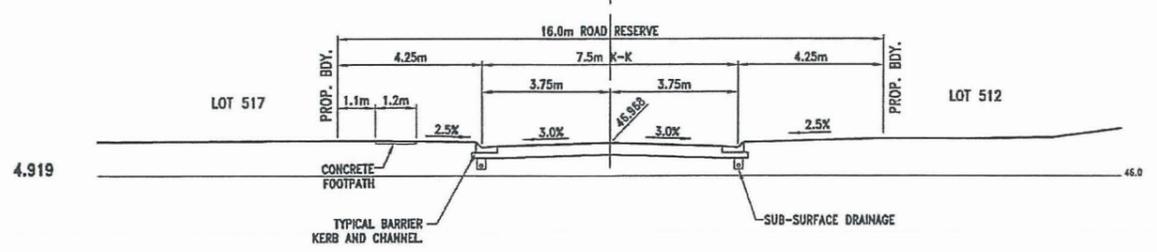


NSW GOVERNMENT
Planning

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granted on the.....

Signed.....
Sheet No. 63 of



NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1
ROAD 3 CROSS SECTIONS
SHEET 1 OF 2

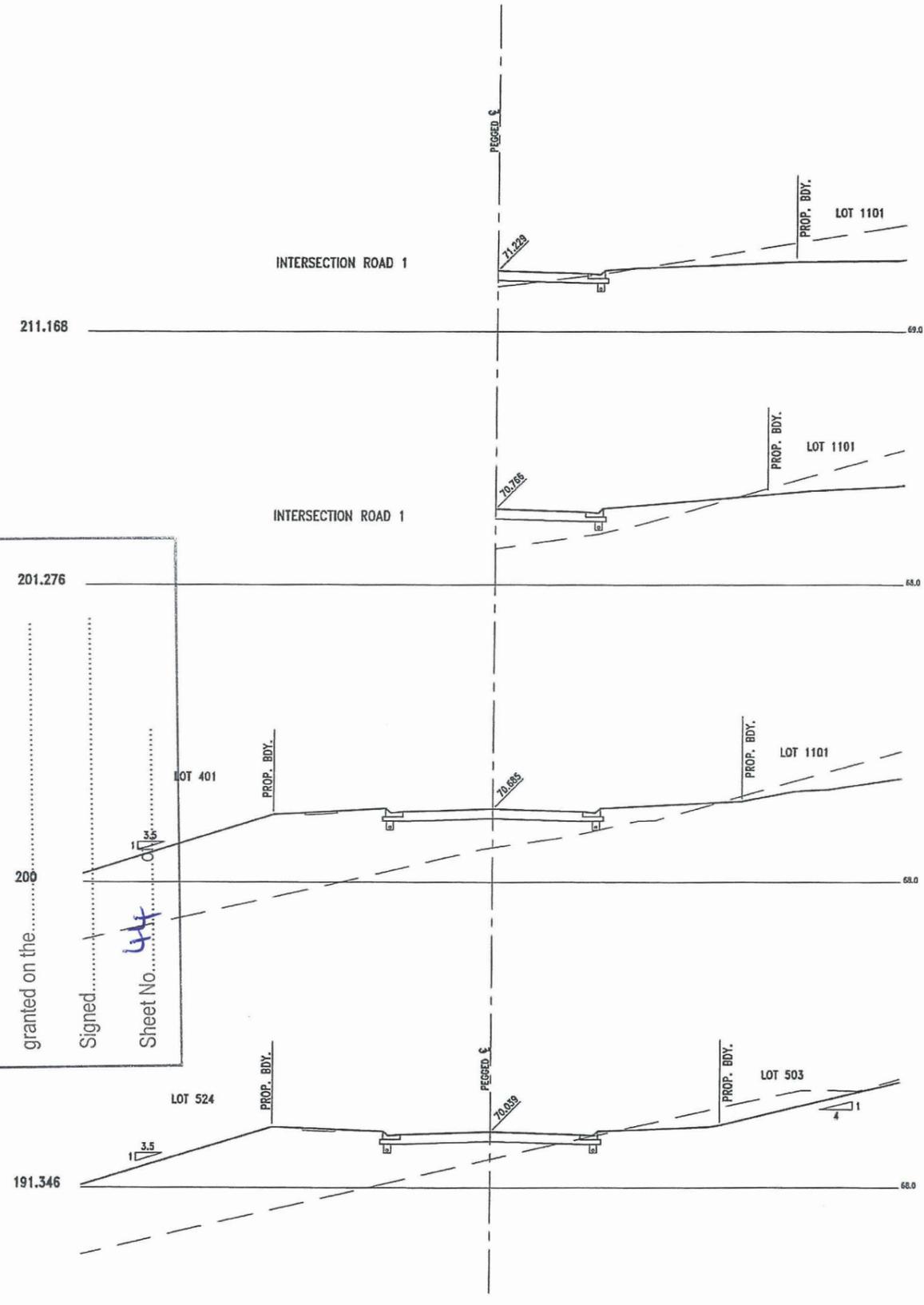
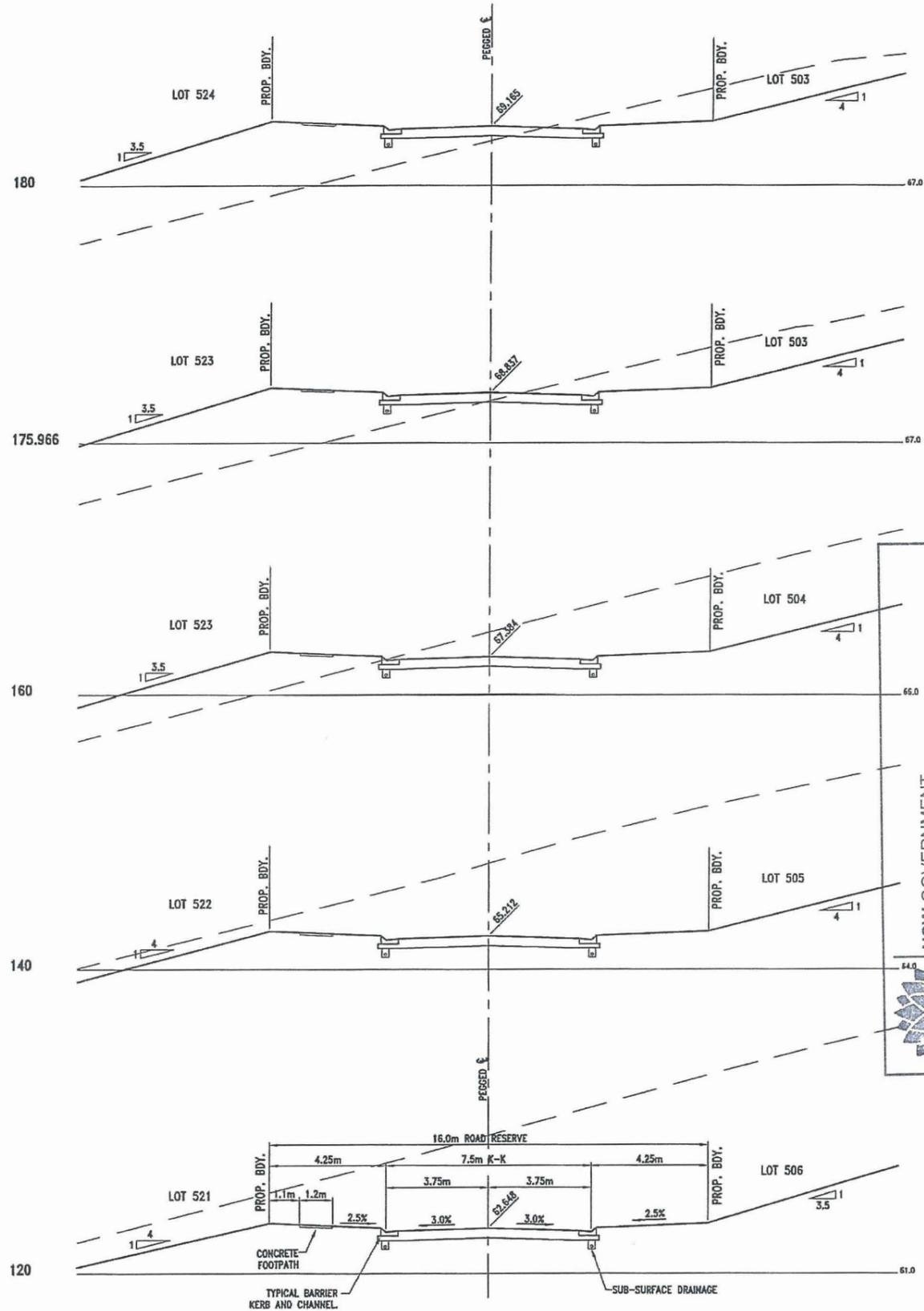
09-374
07-01-2013

SK 3596
REVISION B

Bradford Lees Pty Ltd
ABN 29 064 159 191

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217







 NSW GOVERNMENT
 Planning

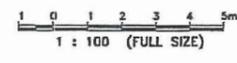
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Approved Application No.

granted on the

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Sheet No. **44**



NEWLAND DEVELOPERS PTY LTD
09-374
 07-01-2013

TERRANORA PRECINCT 1
ROAD 3 CROSS SECTIONS
SHEET 2 OF 2

SK 3597
 REVISION B

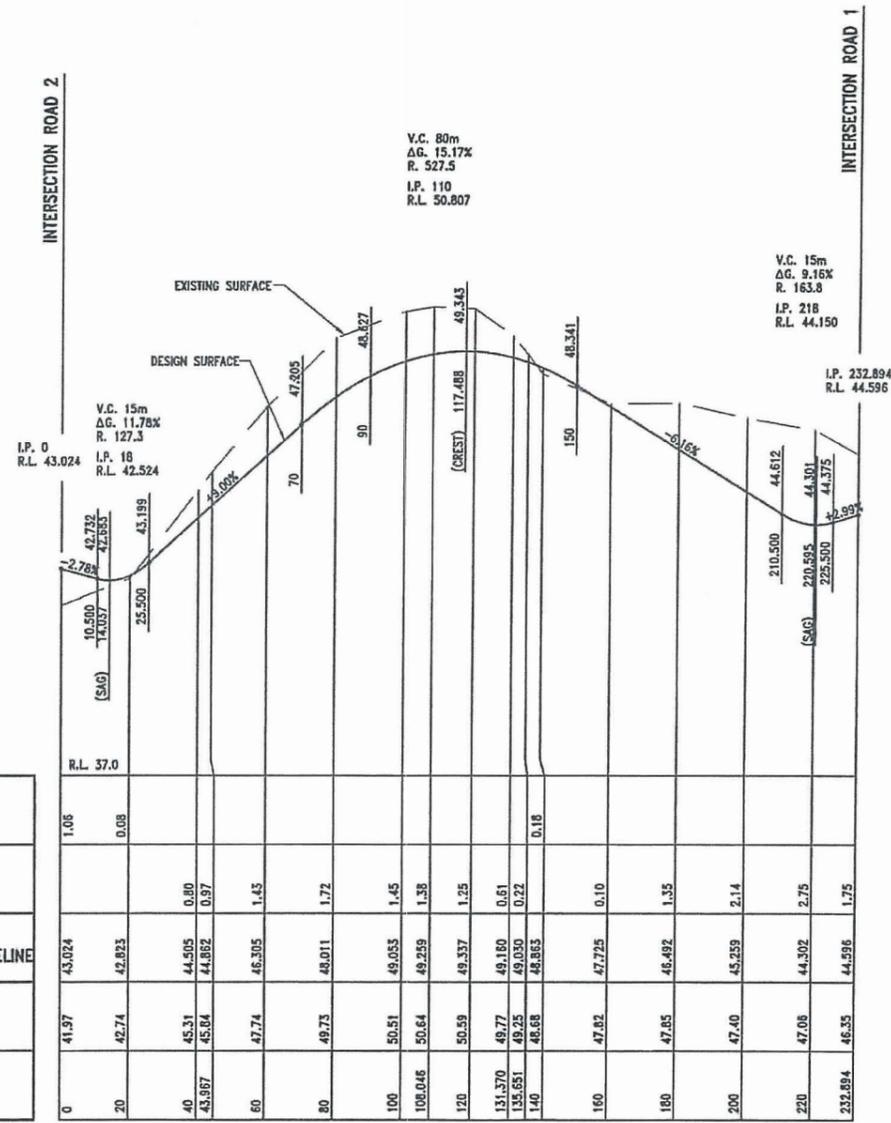
Bradford Lees Pty Ltd
 ABN 29 064 159 191

Bradlees
 Civil Consulting

Ph 07 5528 6411
 Fax 07 5528 6422
 Web www.bradlees.com.au
 Email mail@bradlees.com.au
 Postal PO Box 2293, Southport QLD 4215
 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

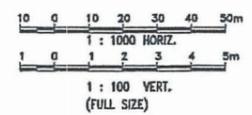


 QUALITY ASSURED COMPANY
 AS/NZS ISO 9001:2008
 REG. NO. 533



DATUM	
HEIGHT OF FILL	R.L. 57.0
DEPTH OF CUT	
PAVEMENT LEVEL ON PEGGED CENTRELINE	
EXISTING SURFACE LEVEL	
PEGGED CHAINAGE	

HORIZONTAL CURVE DATA



NSW GOVERNMENT
Planning

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granted on the.....

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Sheet No. 45 of.....

NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1

ROAD 4

LONGITUDINAL SECTION

09-374
07-01-2013

SK 3598

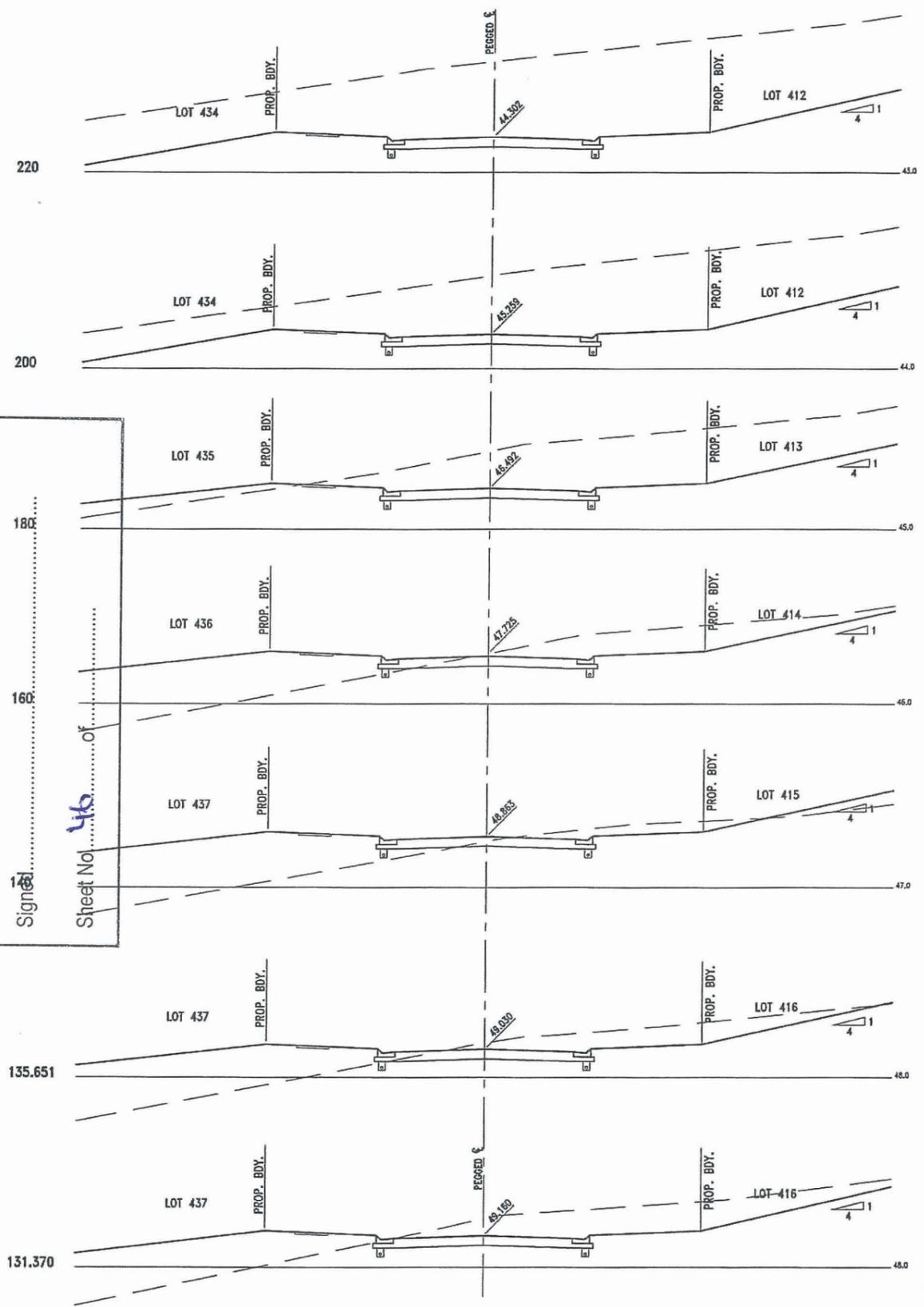
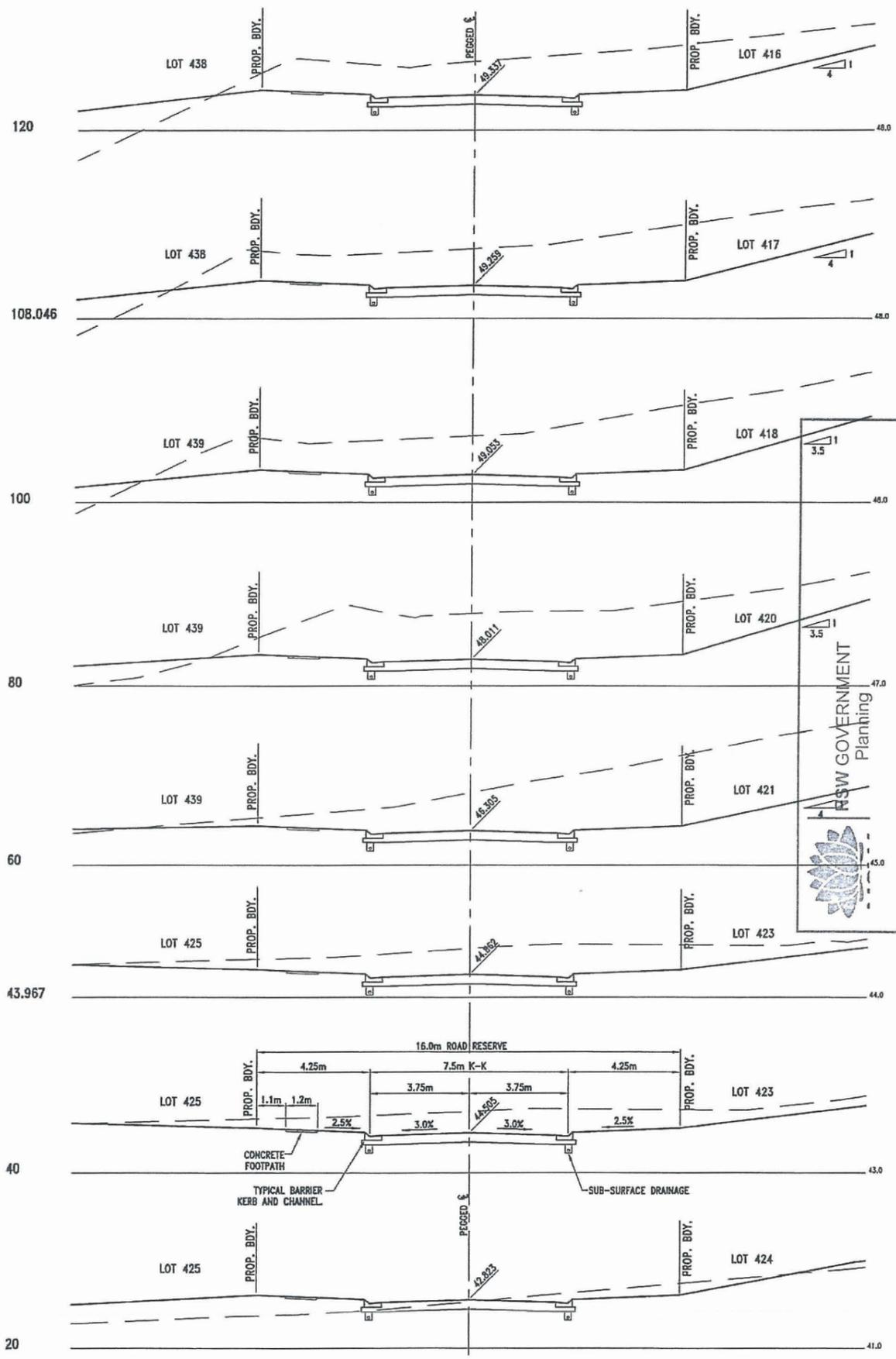
REVISION B

Bradford Lees Pty Ltd
ABN 29 064 159 191

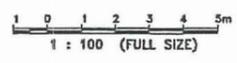
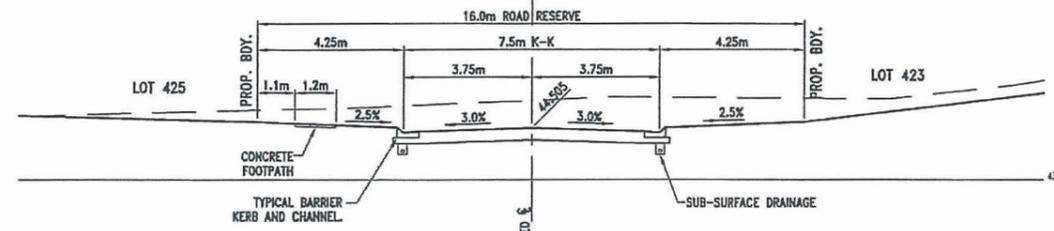
Bradlees
Civil Consulting

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

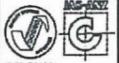


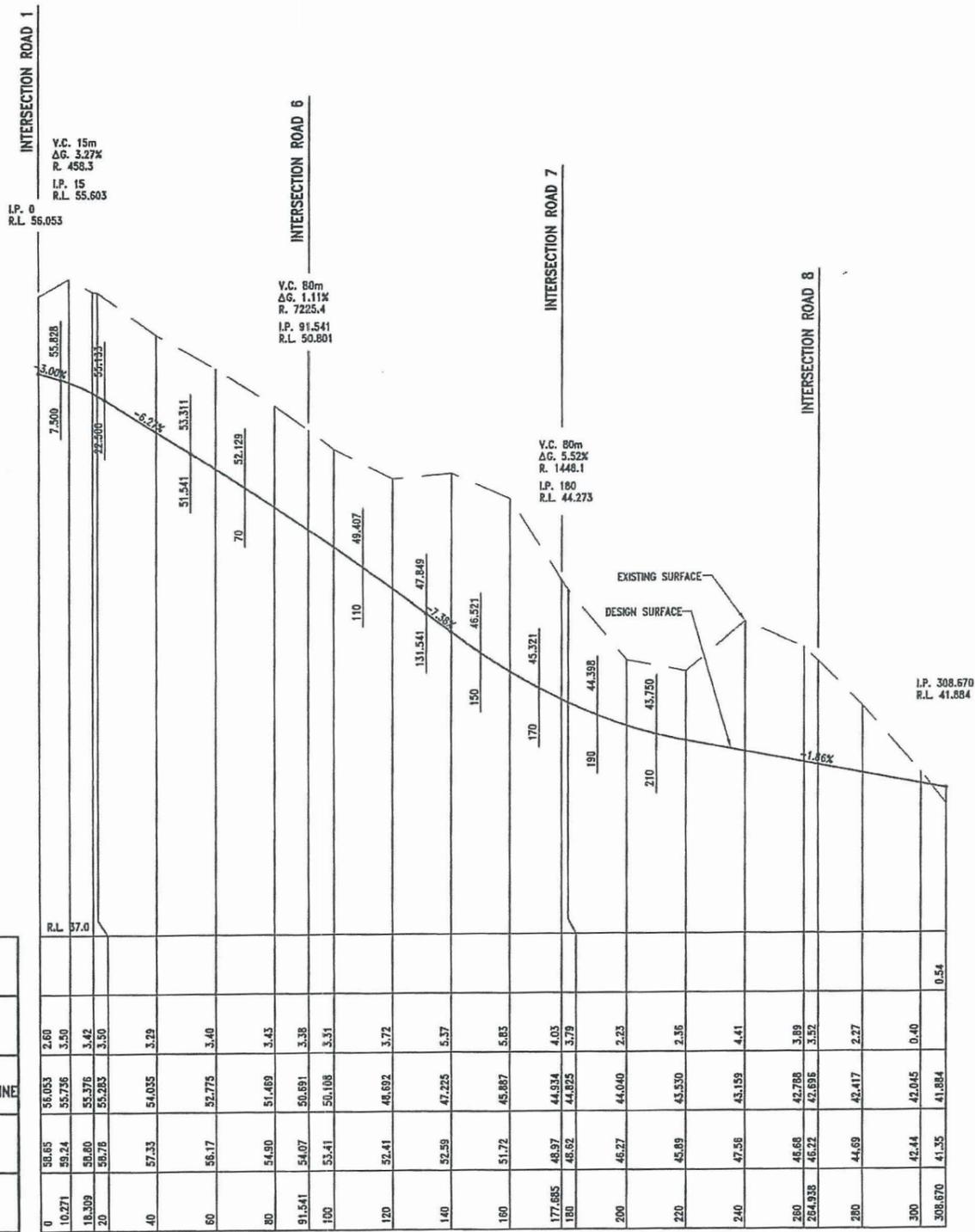



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 Sheet No. **46** of



NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 ROAD 4 CROSS SECTIONS	09-374 07-01-2013 SK 3599 REVISION B
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Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting	 <small> QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 233 </small>
--	--	---



DATUM	R.L. 57.0
HEIGHT OF FILL	
DEPTH OF CUT	
PAVEMENT LEVEL ON PEGGED CENTRELINE	
EXISTING SURFACE LEVEL	
PEGGED CHAINAGE	

0	58.85	55.053	2.80		
10.271	59.24	55.736	3.50		
18.309	58.80	55.376	3.42		
20	58.76	55.283	3.50		
40	57.33	54.035	3.29		
60	56.17	52.775	3.40		
80	54.90	51.489	3.43		
91.541	54.07	50.891	3.38		
100	53.41	50.108	3.31		
120	52.41	48.692	3.72		
140	52.59	47.225	5.37		
160	51.72	45.887	5.85		
177.685	48.97	44.934	4.03		
180	48.82	44.823	3.79		
200	46.27	44.040	2.23		
220	45.89	43.530	2.36		
240	47.56	43.159	4.41		
260	46.68	42.788	3.89		
284.938	46.22	42.698	3.52		
280	44.69	42.417	2.27		
300	42.44	42.045	0.40		
308.670	41.35	41.884	0.54		

HORIZONTAL CURVE DATA

R15



NEWLAND DEVELOPERS PTY LTD 09-374 07-01-2013

TERRANORA PRECINCT 1
ROAD 5
LONGITUDINAL SECTION

SK 3600
REVISION B

NSW GOVERNMENT Planning

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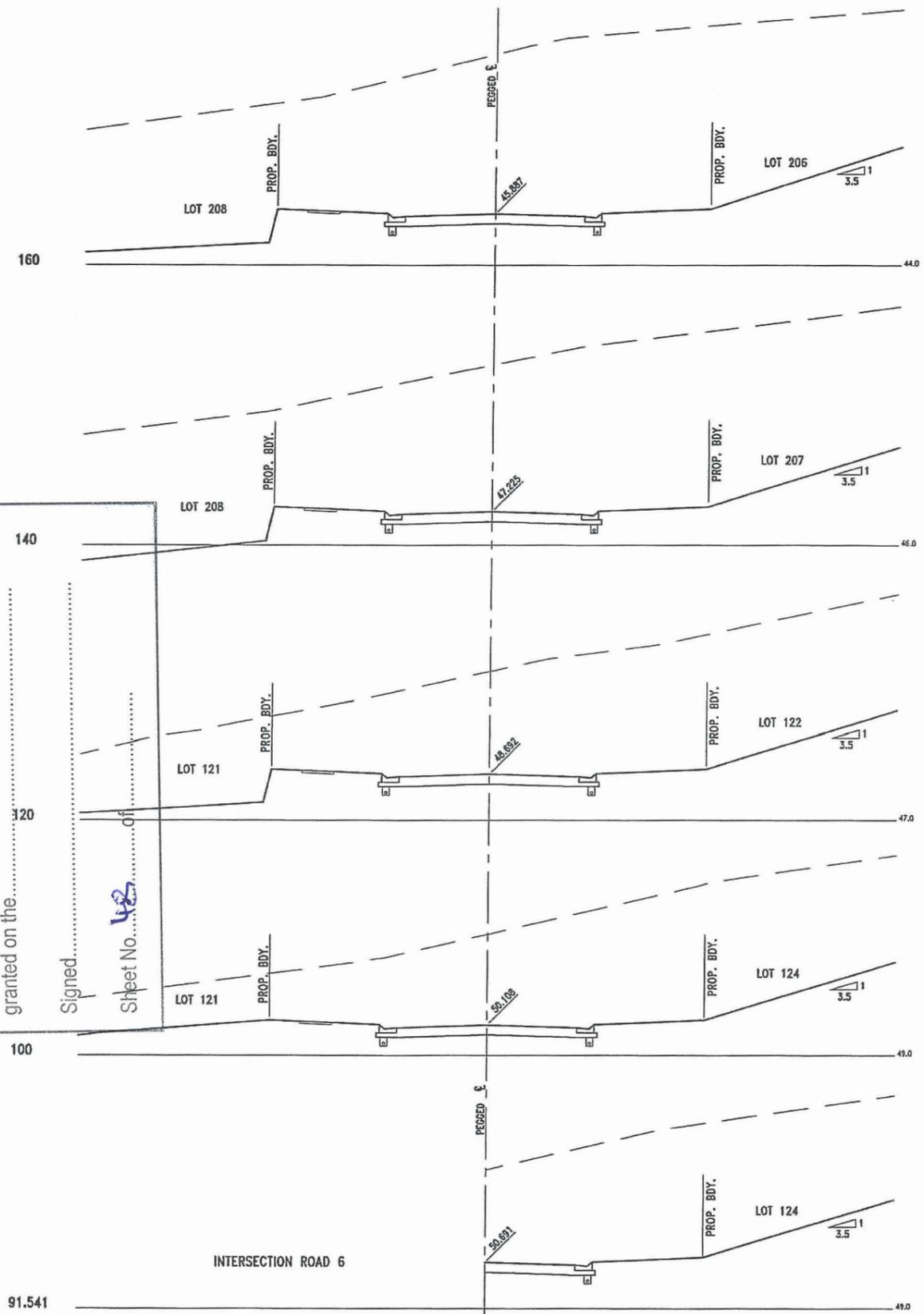
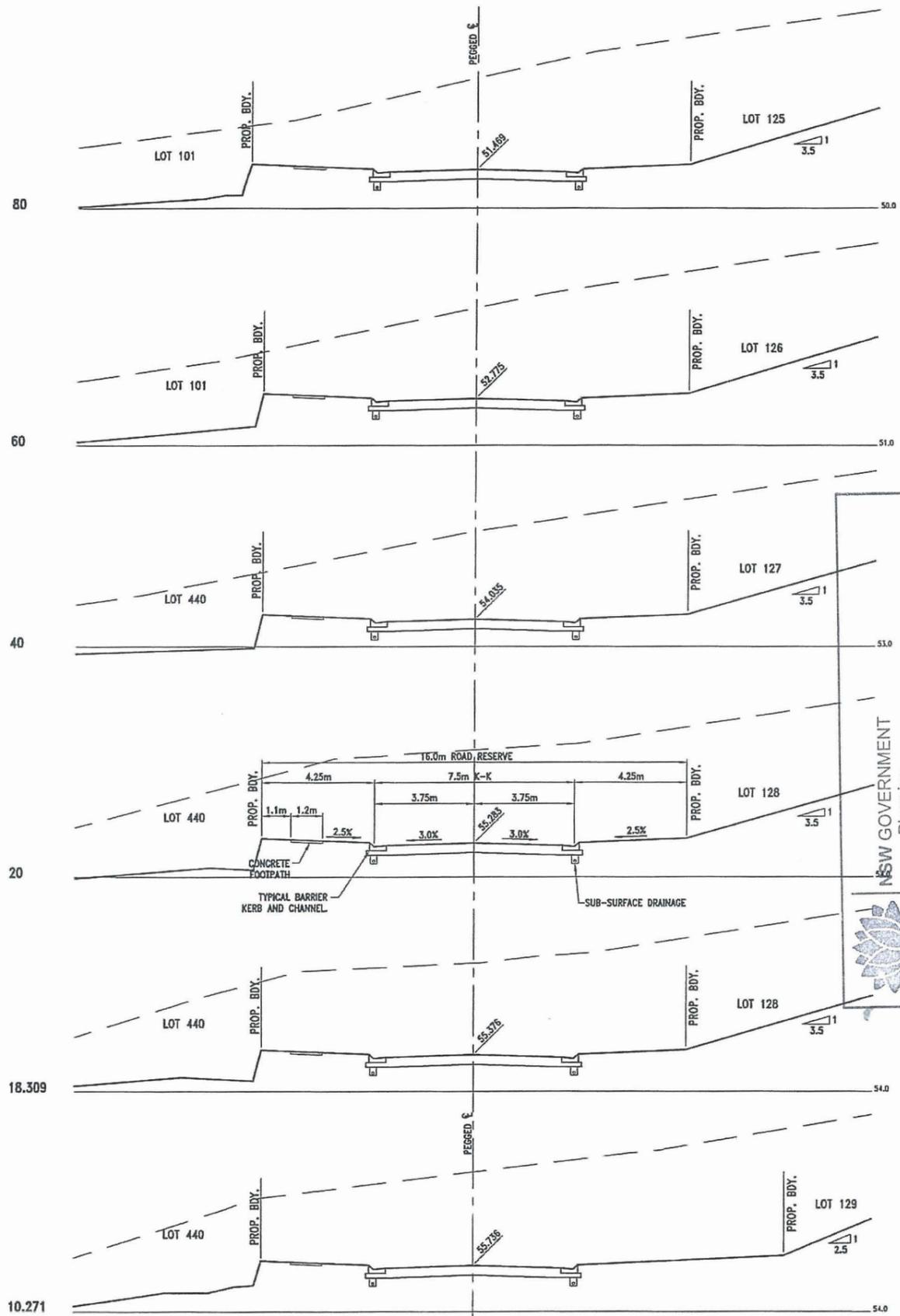
Sheet No. 47 of.....

Bradford Lees Pty Ltd
ABN 29 064 159 191

Bradlees
Civil Consulting

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

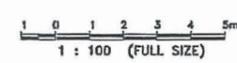
SOLQUAL
QUALITY ASSURED COMPANY
45/MTS DR WOODBINE
NSW REG. NO. 233





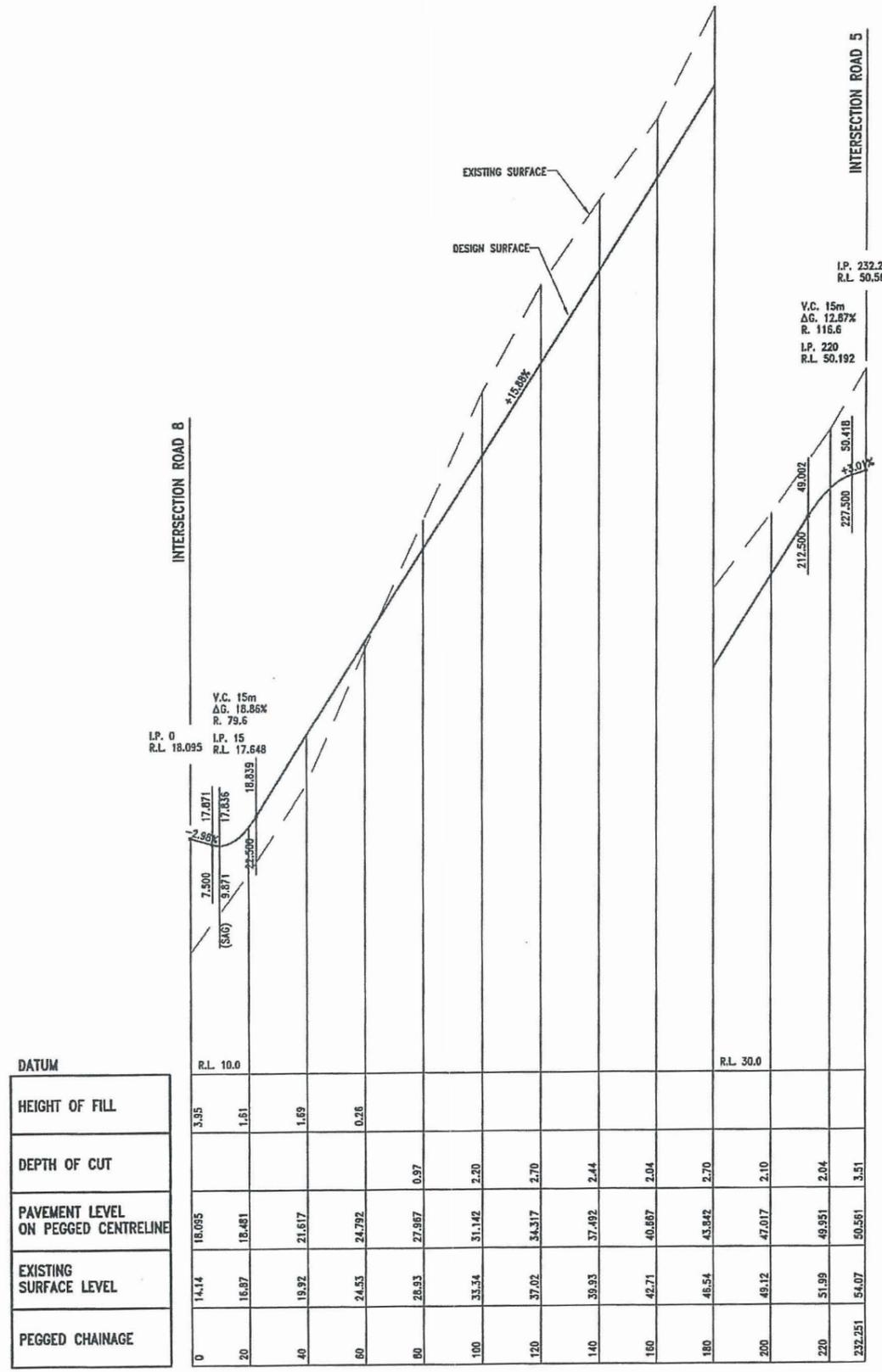
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Approved Application No.
 granted on the
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 Sheet No. **12** of



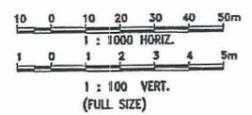
NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 ROAD 5 CROSS SECTIONS SHEET 1 OF 2	09-374 07-01-2013 SK 3601 REVISION B
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Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting  QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 233
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DATUM	R.L. 10.0																			R.L. 30.0
HEIGHT OF FILL	3.95	1.61	1.69	0.26																
DEPTH OF CUT					0.97	2.20	2.70	2.44	2.04	2.70	2.10	2.04	3.51							
PAVEMENT LEVEL ON PEGGED CENTRELINE	18.095	18.481	21.617	24.792	27.967	31.142	34.317	37.492	40.667	43.842	47.017	49.951	50.561							
EXISTING SURFACE LEVEL	14.14	16.87	19.92	24.55	26.93	33.34	37.02	39.93	42.71	46.54	49.12	51.99	54.07							
PEGGED CHAINAGE	0	20	40	60	80	100	120	140	160	180	200	220	232.251							

HORIZONTAL CURVE DATA




NSW GOVERNMENT
 Planning

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Sheet No. **49** of.....

NEWLAND DEVELOPERS PTY LTD
 09-374
 07-01-2013

TERRANORA PRECINCT 1
ROAD 6
LONGITUDINAL SECTION

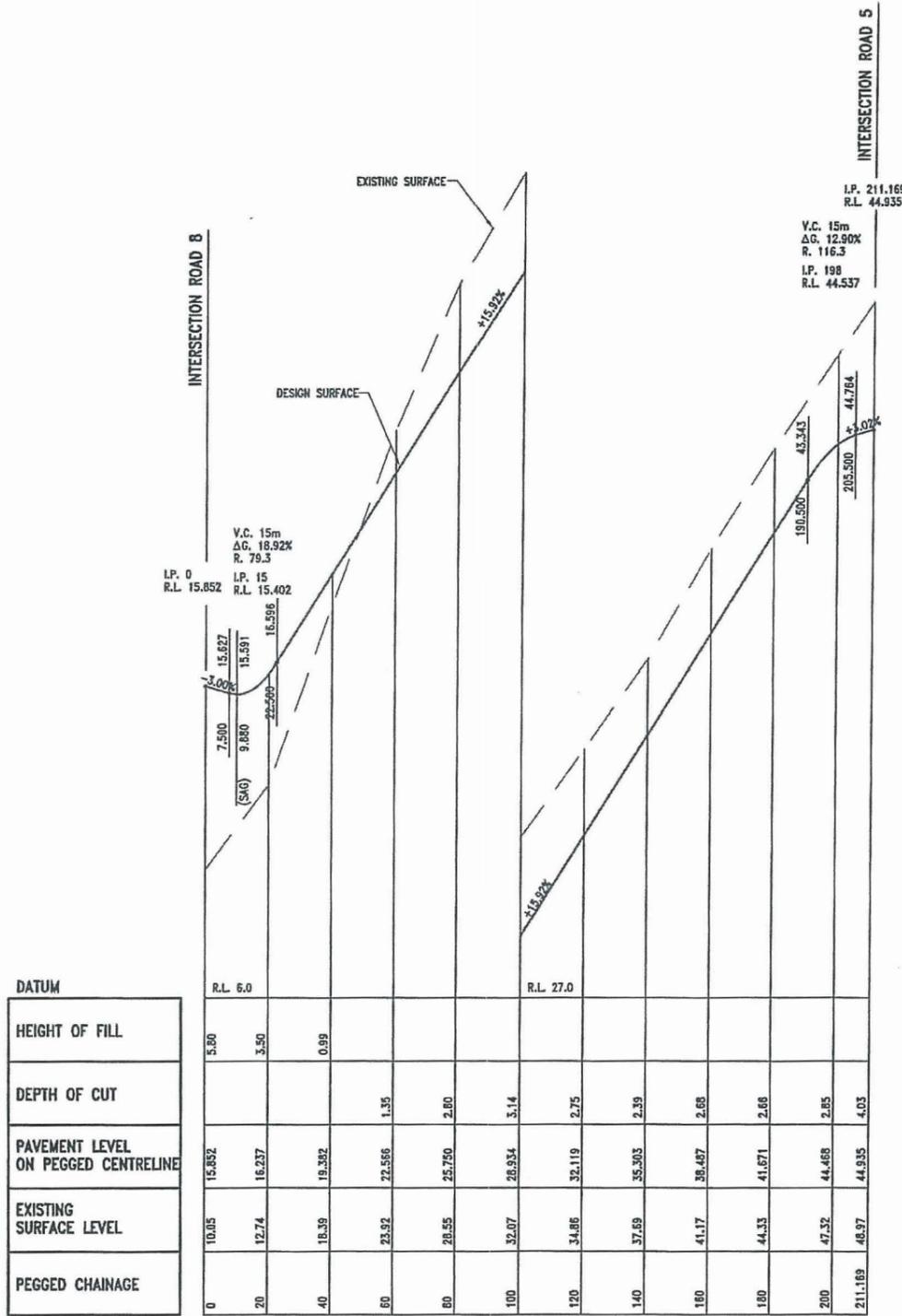
SK 3602
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Bradford Lees Pty Ltd
 ABN 29 054 159 191

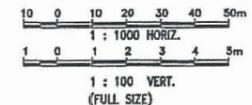
Bradlees
 Civil Consulting

Ph 07 5528 6411
 Fax 07 5528 6422
 Web www.bradlees.com.au
 Email mail@bradlees.com.au
 Postal PO Box 2293, Southport QLD 4215
 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217


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 ISO 9001:2008
 REG. NO. 233



HORIZONTAL CURVE DATA



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Planning

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NEWLAND DEVELOPERS PTY LTD

09-374
07-01-2013

TERRANORA PRECINCT 1
ROAD 7
LONGITUDINAL SECTION

SK 3603
REVISION B

Bradford Lees Pty Ltd
ABN 29 064 159 191

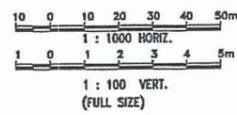
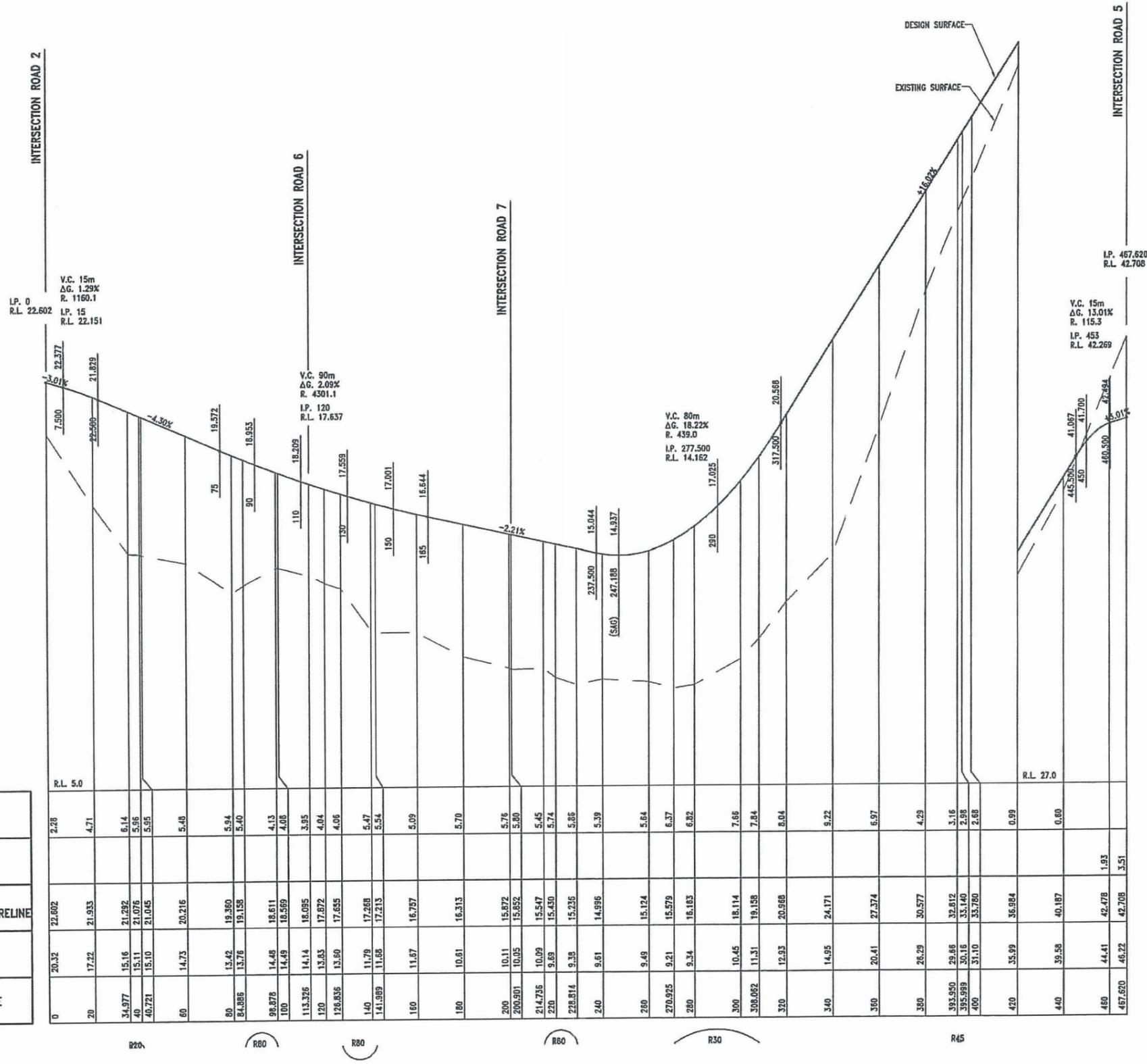
Bradlees
Civil Consulting

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Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
MEM. NO. 233

DATUM	
HEIGHT OF FILL	R.L. 5.0
DEPTH OF CUT	
PAVEMENT LEVEL ON PEGGED CENTRELINE	
EXISTING SURFACE LEVEL	
PEGGED CHAINAGE	

HORIZONTAL CURVE DATA



NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 8 LONGITUDINAL SECTION	SK 3604 REVISION B

Bradford Lees Pty Ltd
ABN 29 054 159 191

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Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

Bradlees
Civil Consulting

QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
REG. NO. 233

NSW GOVERNMENT
Planning

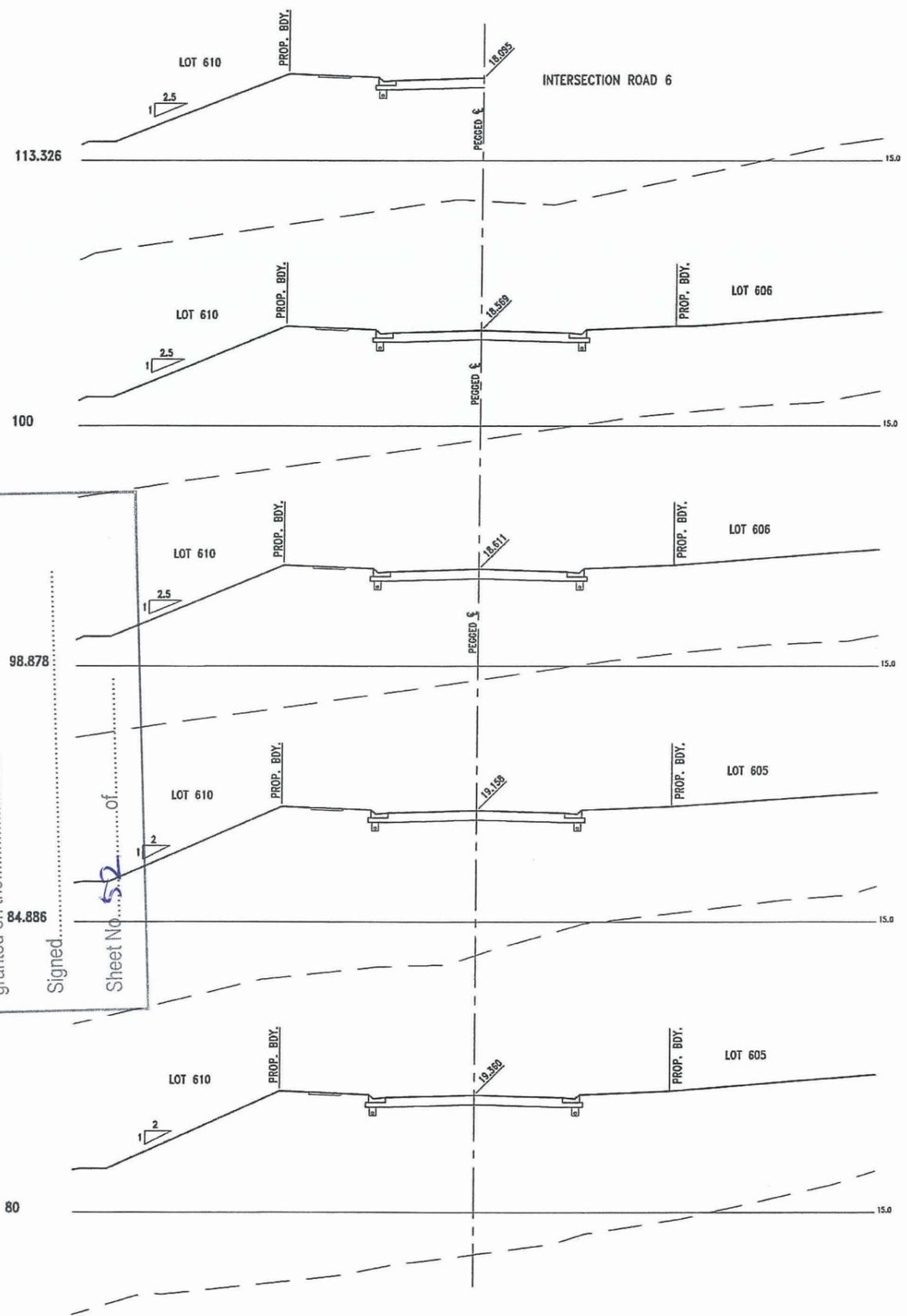
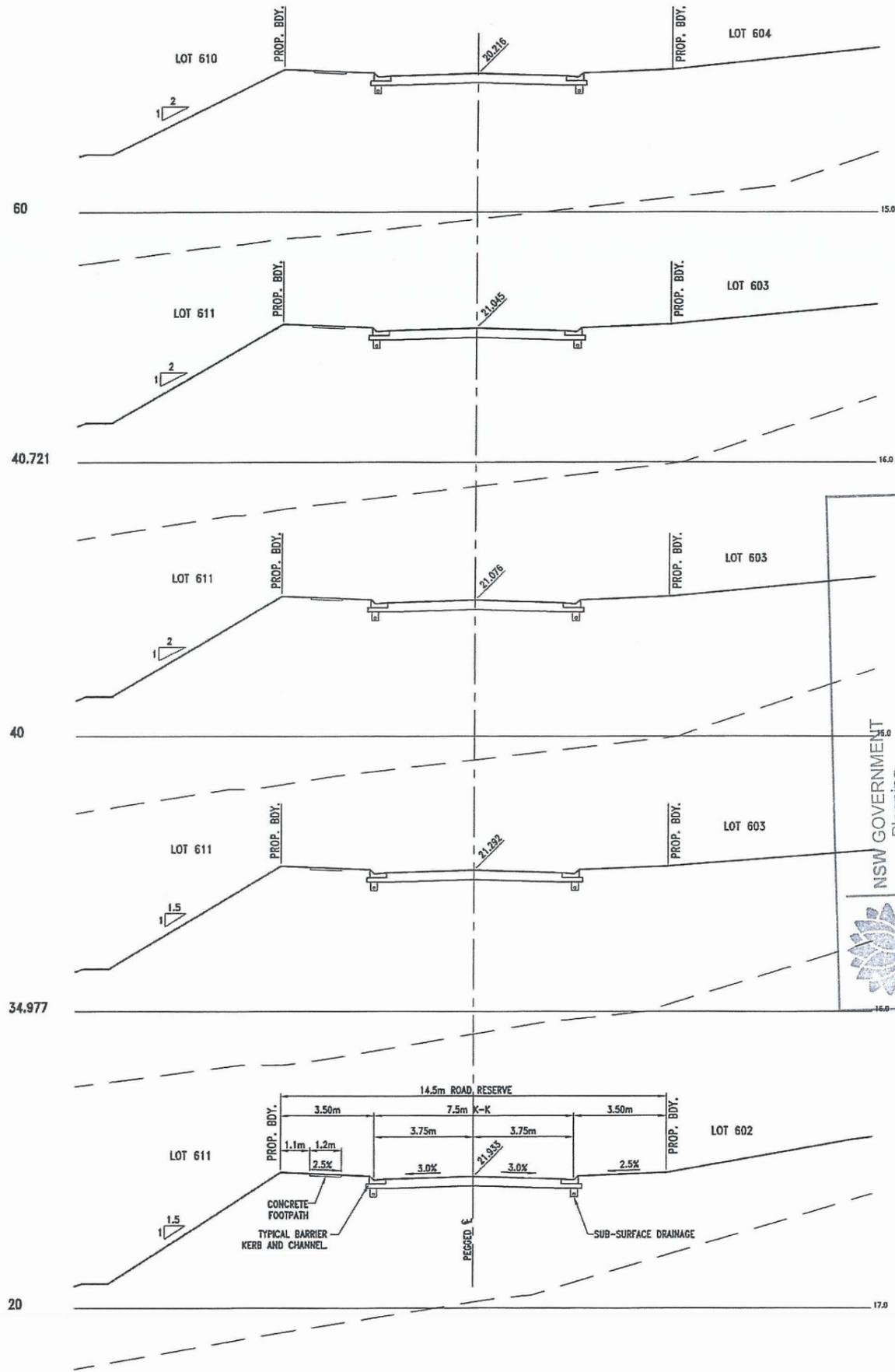
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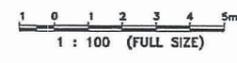
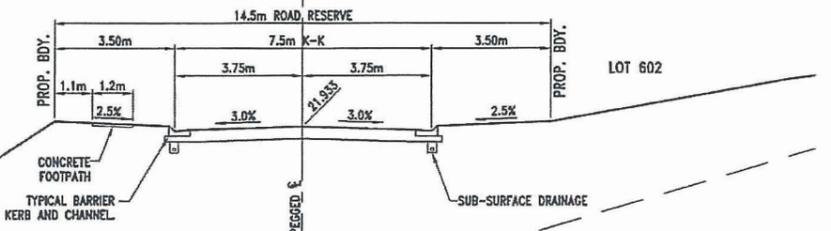
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Planning

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84.886

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NEWLAND DEVELOPERS PTY LTD

09-374
07-01-2013

TERRANORA PRECINCT 1
ROAD 8 CROSS SECTIONS
SHEET 1 OF 4

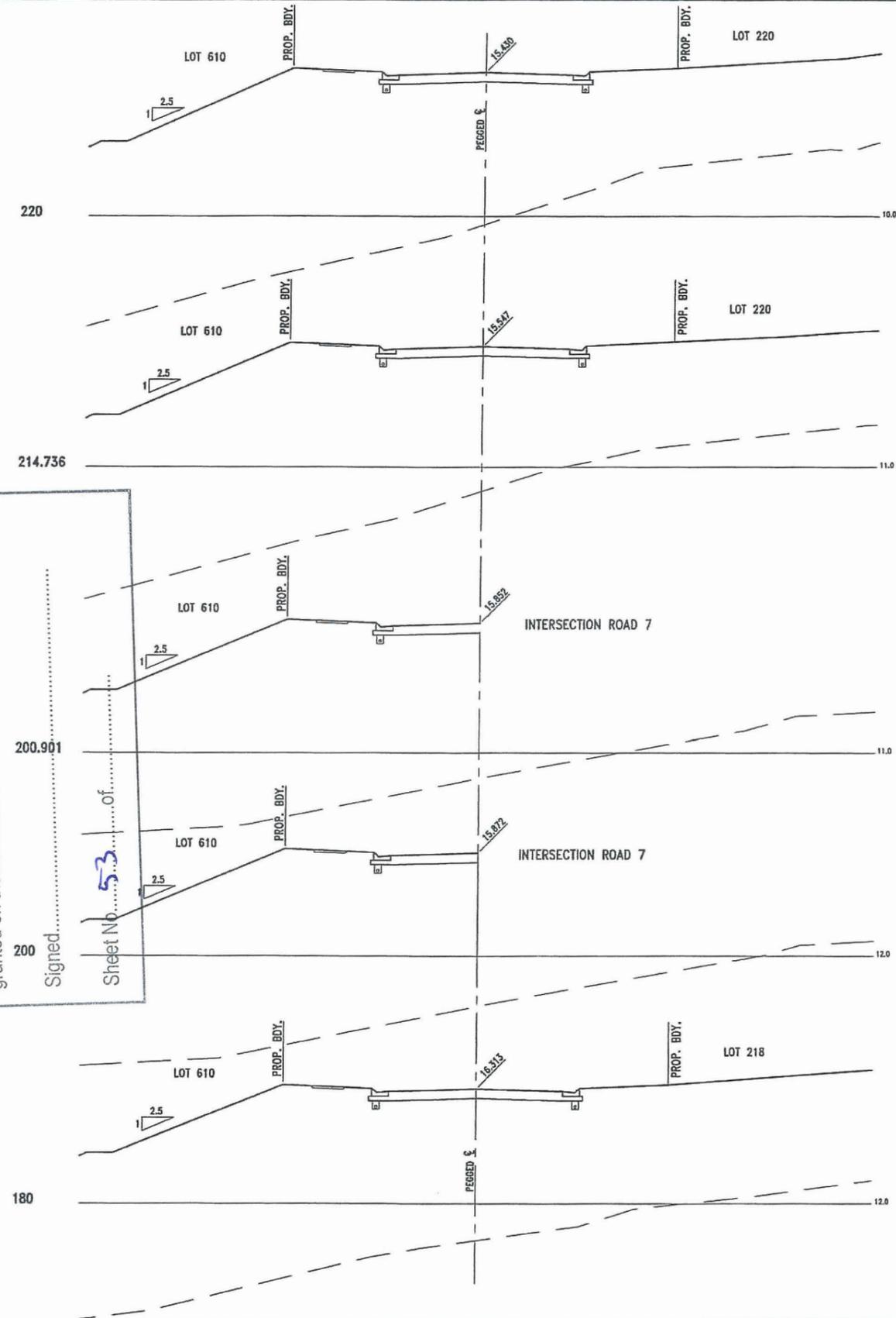
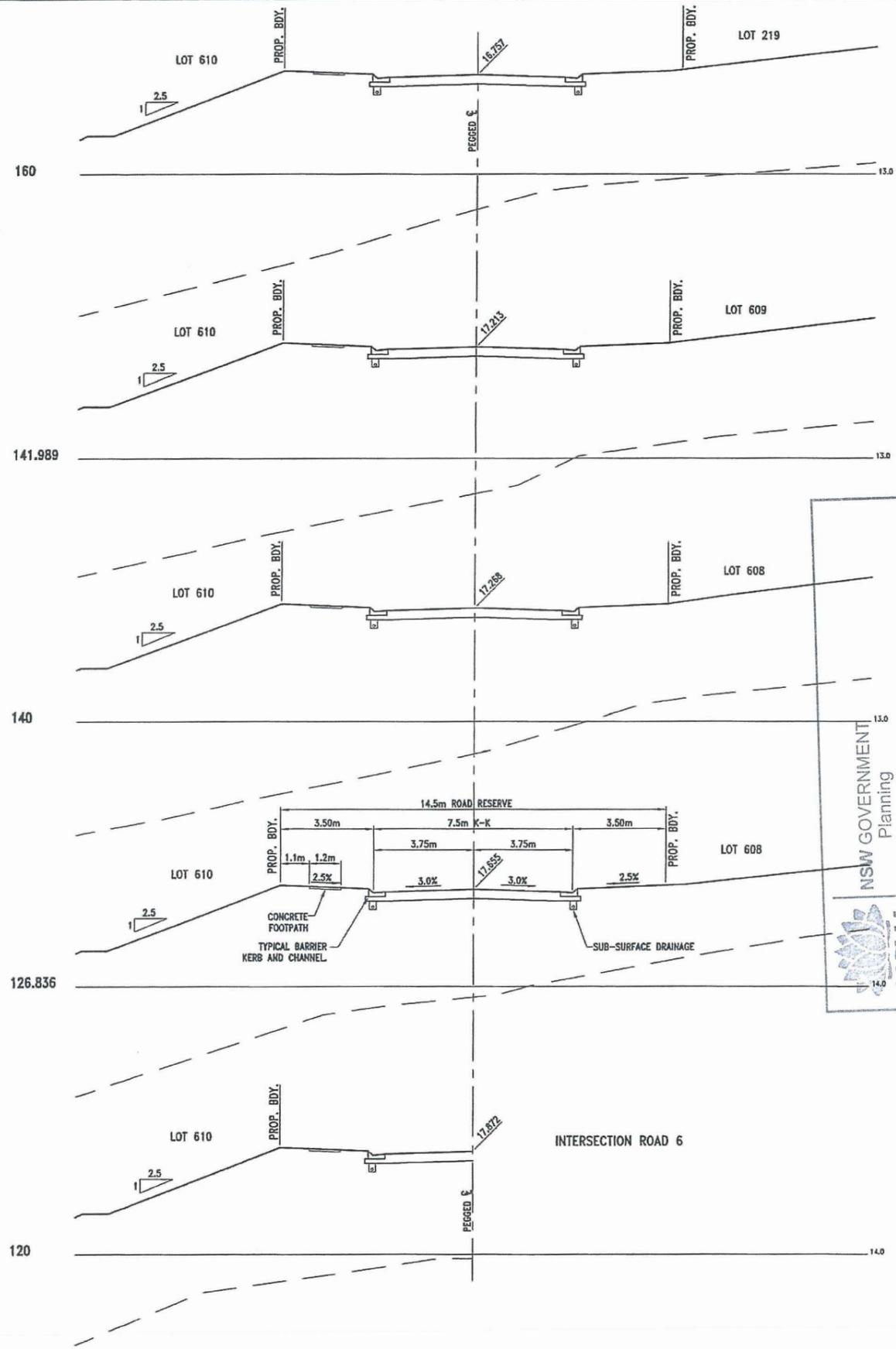
SK 3605
REVISION B

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ABN 29 064 159 191

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Web www.bradlees.com.au
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Bradlees
Civil Consulting

ISO 9001
QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
REG. NO. 533



NSW GOVERNMENT
Planning

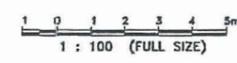
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granted on the of

Signed.....

Sheet No. 53 of



NEWLAND DEVELOPERS PTY LTD

09-374
07-01-2013

TERRANORA PRECINCT 1
ROAD 8 CROSS SECTIONS
SHEET 2 OF 4

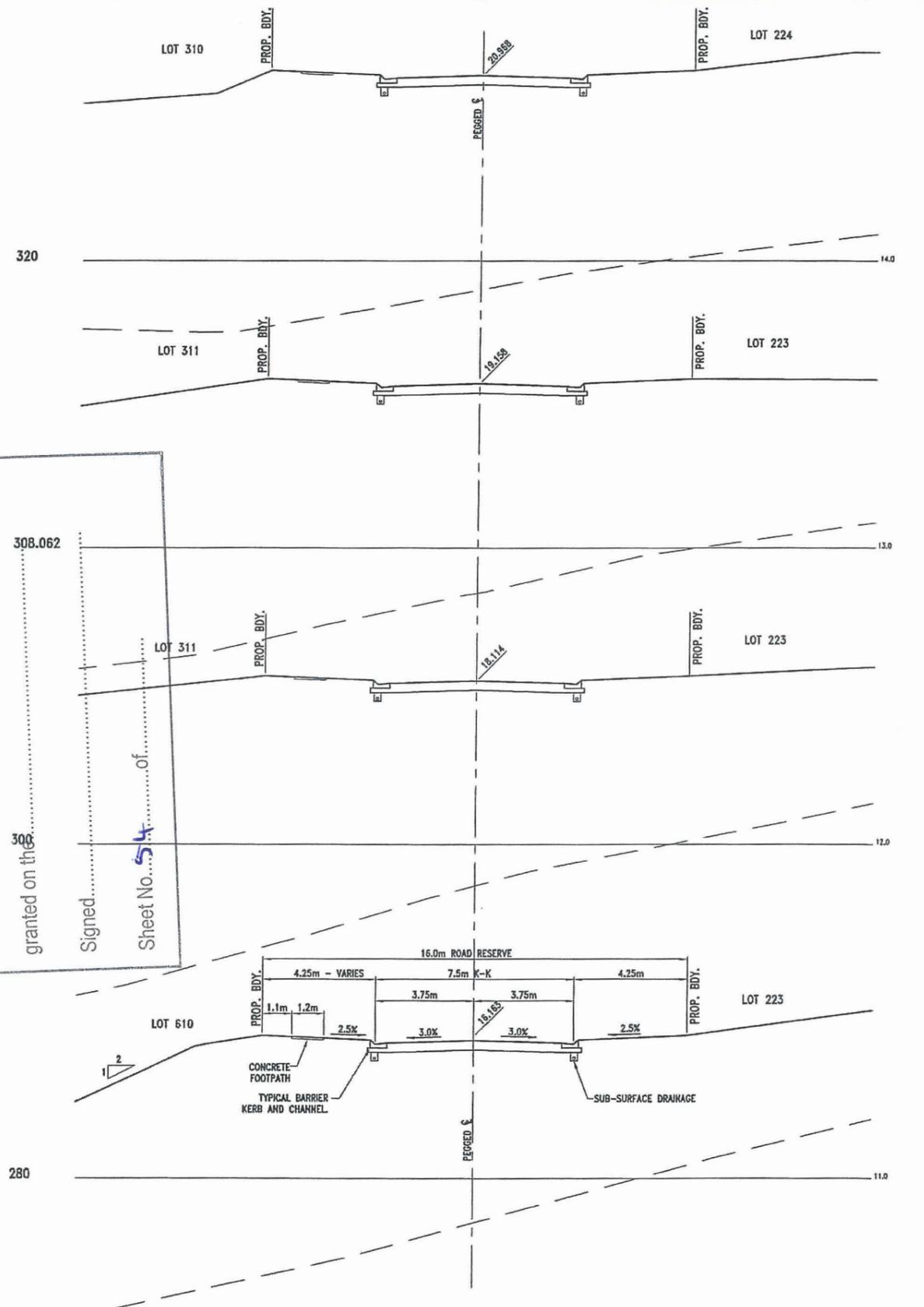
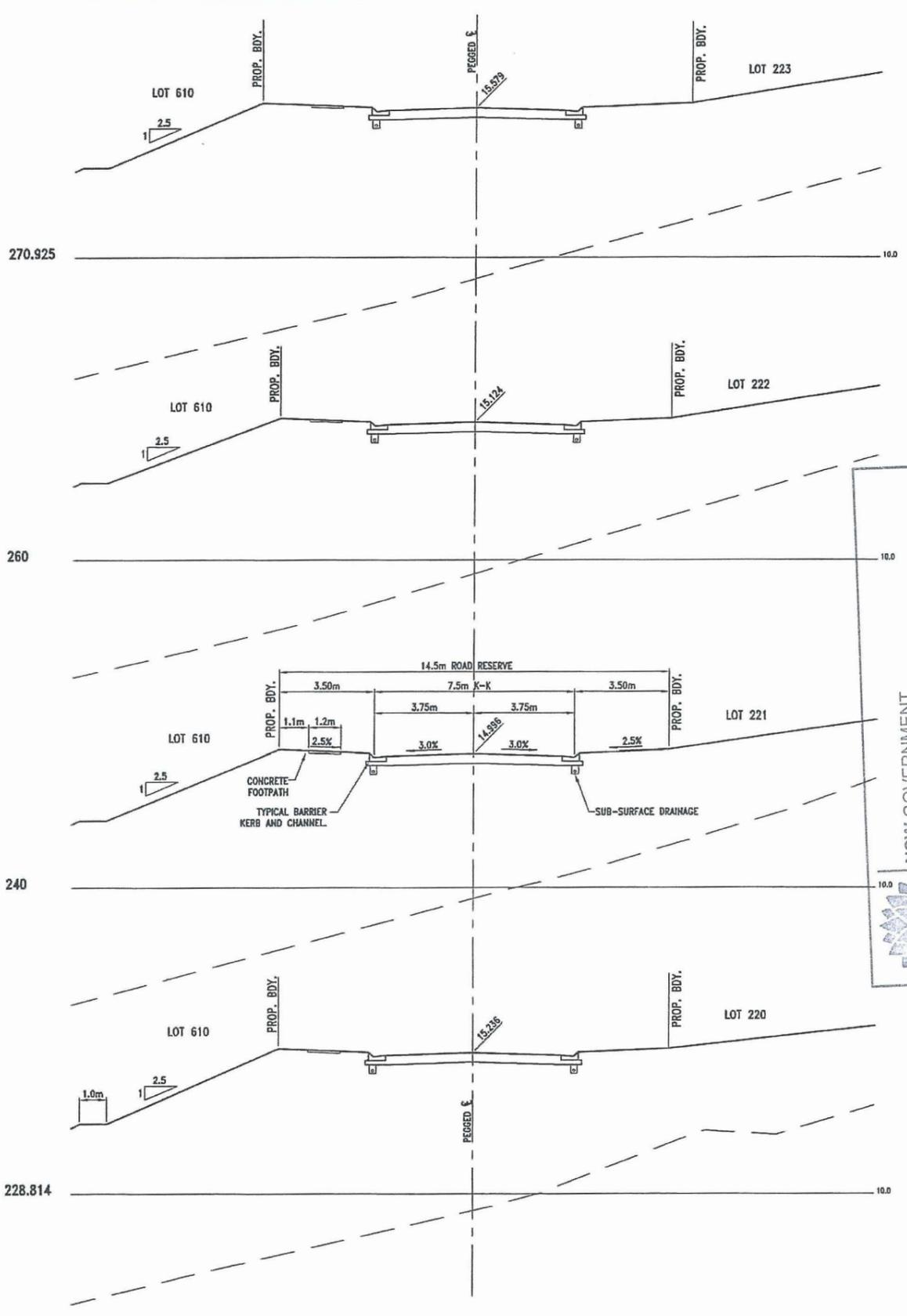
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REVISION 8

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Bradlees
Civil Consulting

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QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
REG. NO. 233



NSW GOVERNMENT
Planning

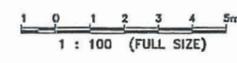
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granted on the of

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Sheet No. **54** of



NEWLAND DEVELOPERS PTY LTD

09-374
07-01-2013

TERRANORA PRECINCT 1
ROAD 8 CROSS SECTIONS
SHEET 3 OF 4

SK 3607
REVISION B

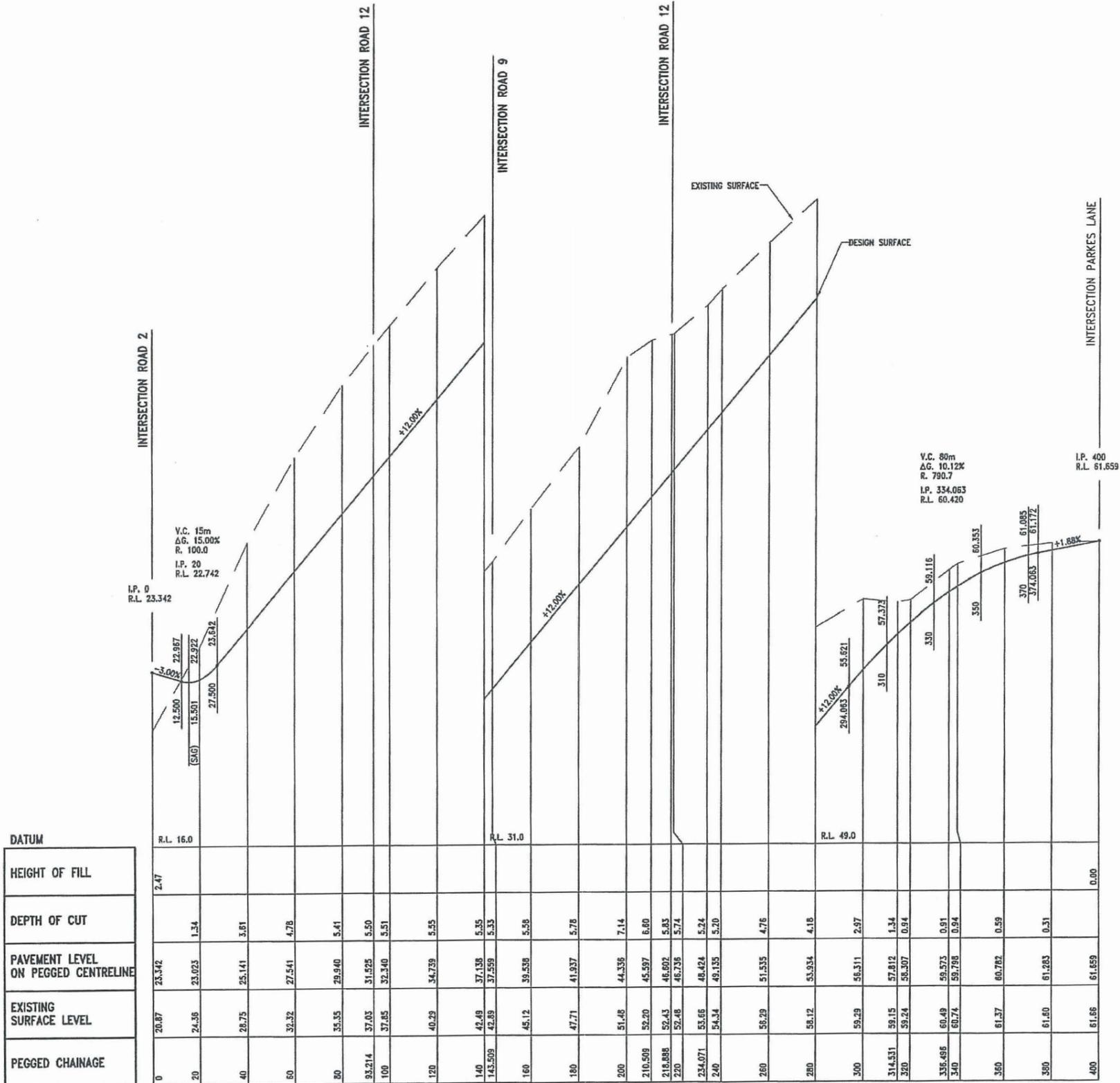
Bradford Lees Pty Ltd
ABN 29 064 159 191

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

Bradlees
Civil Consulting

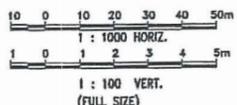
ISO 9001
REGISTERED

QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
REG. NO. 233



DATUM	HEIGHT OF FILL	DEPTH OF CUT	PAVEMENT LEVEL ON PEGGED CENTRELINE	EXISTING SURFACE LEVEL	PEGGED CHAINAGE
R.L. 16.0	2.47		25.342	20.87	0
		1.34	23.023	24.36	20
		3.61	25.141	23.75	40
		4.76	27.541	32.32	60
		5.41	29.940	35.35	80
		5.50	31.525	37.03	93.214
		5.51	32.340	37.85	100
		5.55	34.739	40.29	120
		5.35	37.138	42.49	140
		5.33	37.559	42.89	143.509
		5.59	39.538	45.12	160
		5.76	41.937	47.71	180
		7.14	44.336	51.46	200
		6.60	45.597	52.20	210.509
		5.83	46.602	52.43	216.888
		5.74	46.736	52.46	220
		5.24	48.424	53.66	234.071
		5.20	48.135	54.34	240
		4.76	51.535	56.29	260
		4.18	53.934	56.12	280
		2.97	56.311	59.29	300
		1.34	57.812	59.15	314.531
		0.94	58.307	59.24	320
		0.91	59.573	60.49	336.496
		0.94	59.798	60.74	340
		0.59	60.782	61.37	360
		0.31	61.283	61.60	380
	0.00		61.659	61.66	400

HORIZONTAL CURVE DATA



NEWLAND DEVELOPERS PTY LTD
TERRANORA PRECINCT 1
ROAD 10
LONGITUDINAL SECTION

09-374
07-01-2013

SK 3609
REVISION B

NSW GOVERNMENT
Planning

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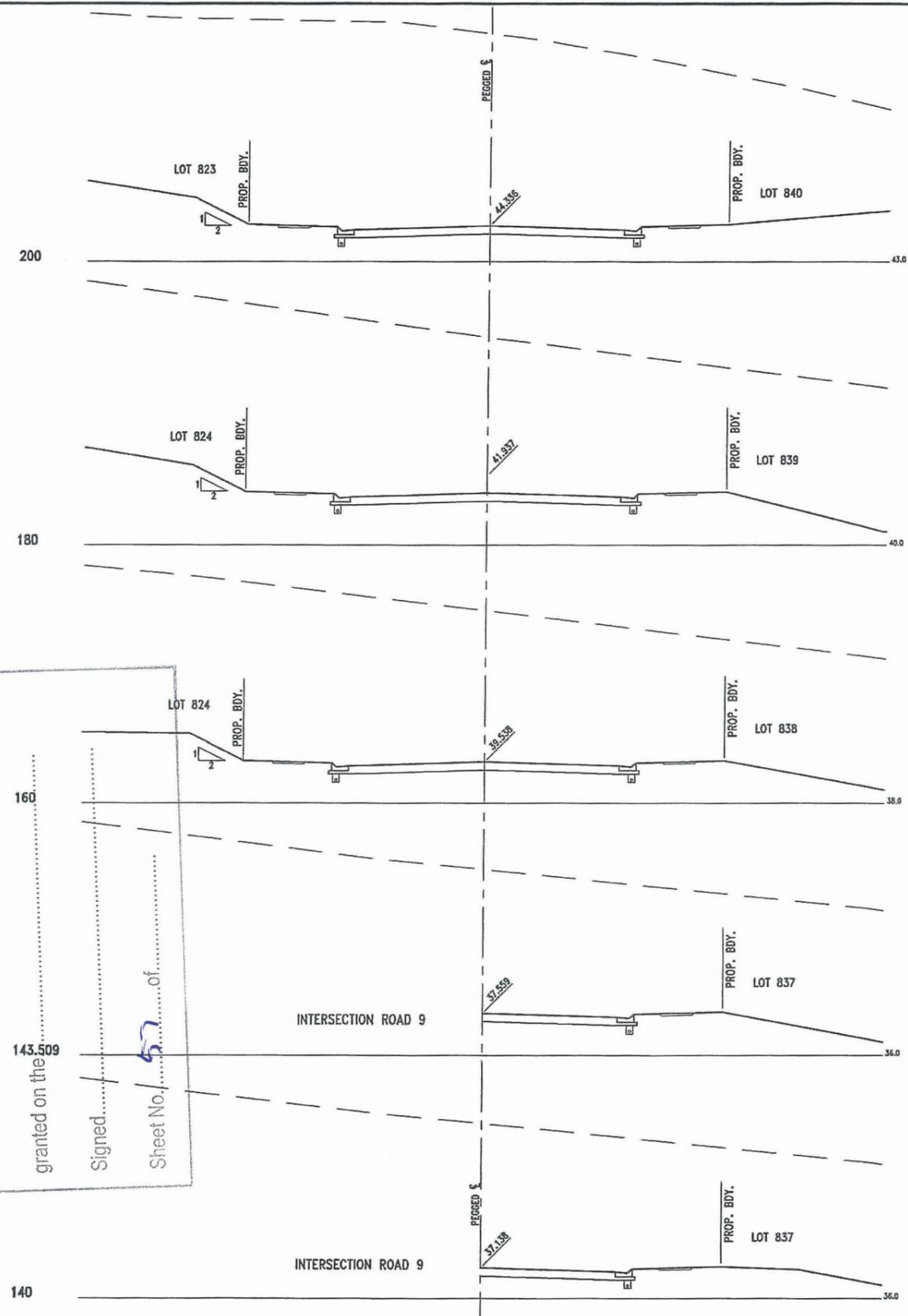
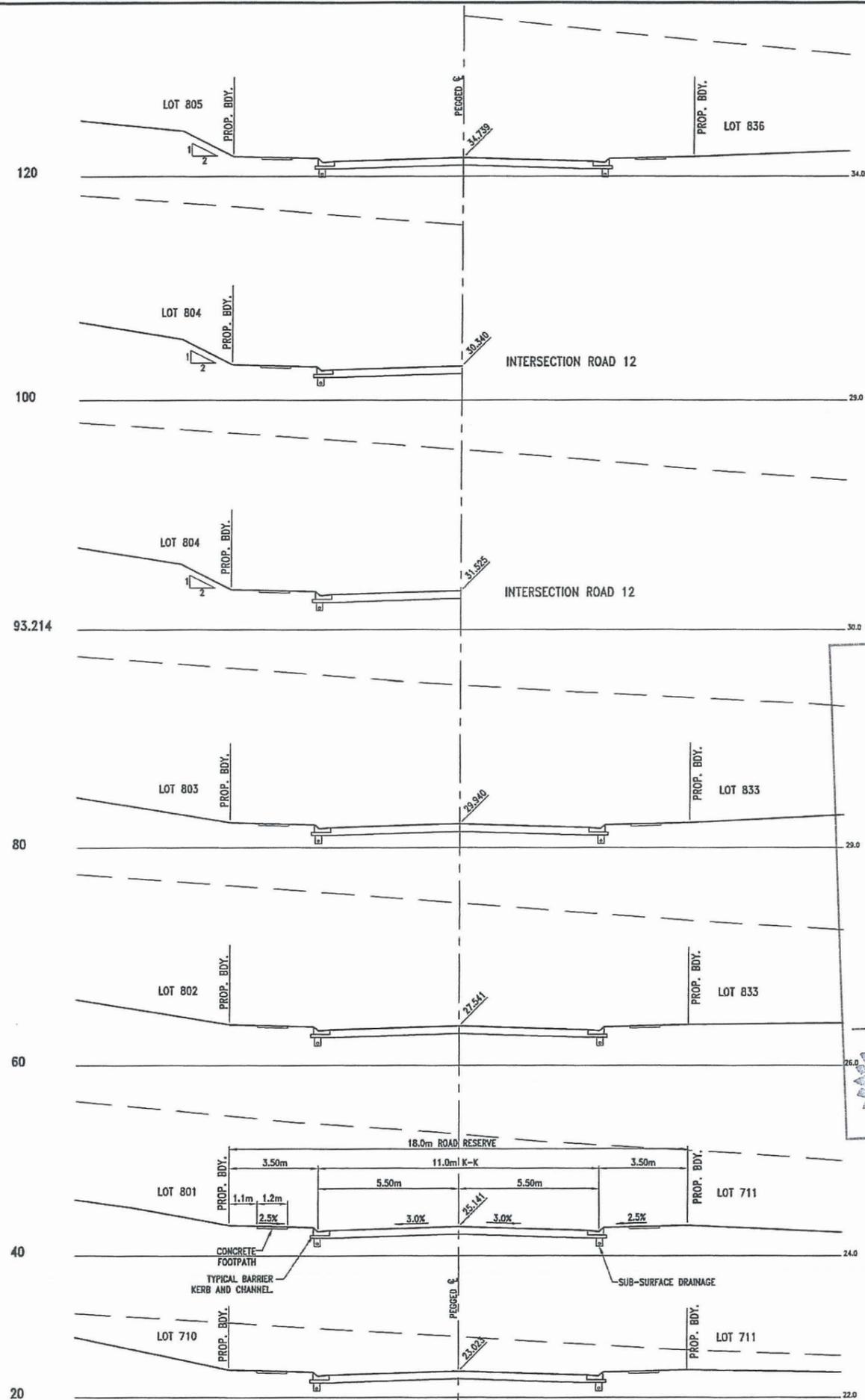
Sheet No.....Of.....

Bradford Lees Pty Ltd
ABN 29 064 159 191

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AS/NZS ISO 9001:2008
REG. NO. 233

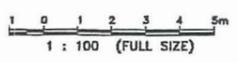


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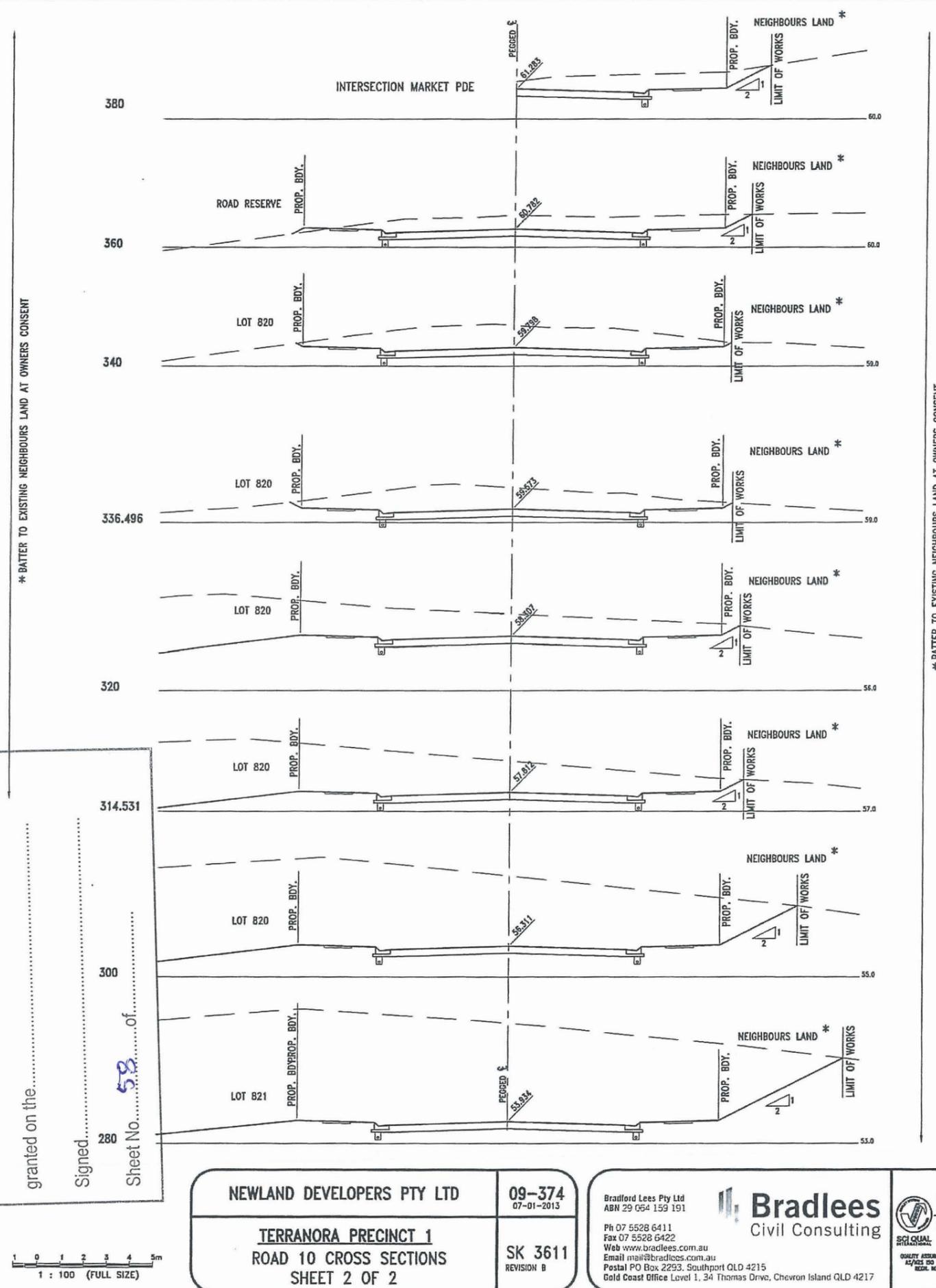
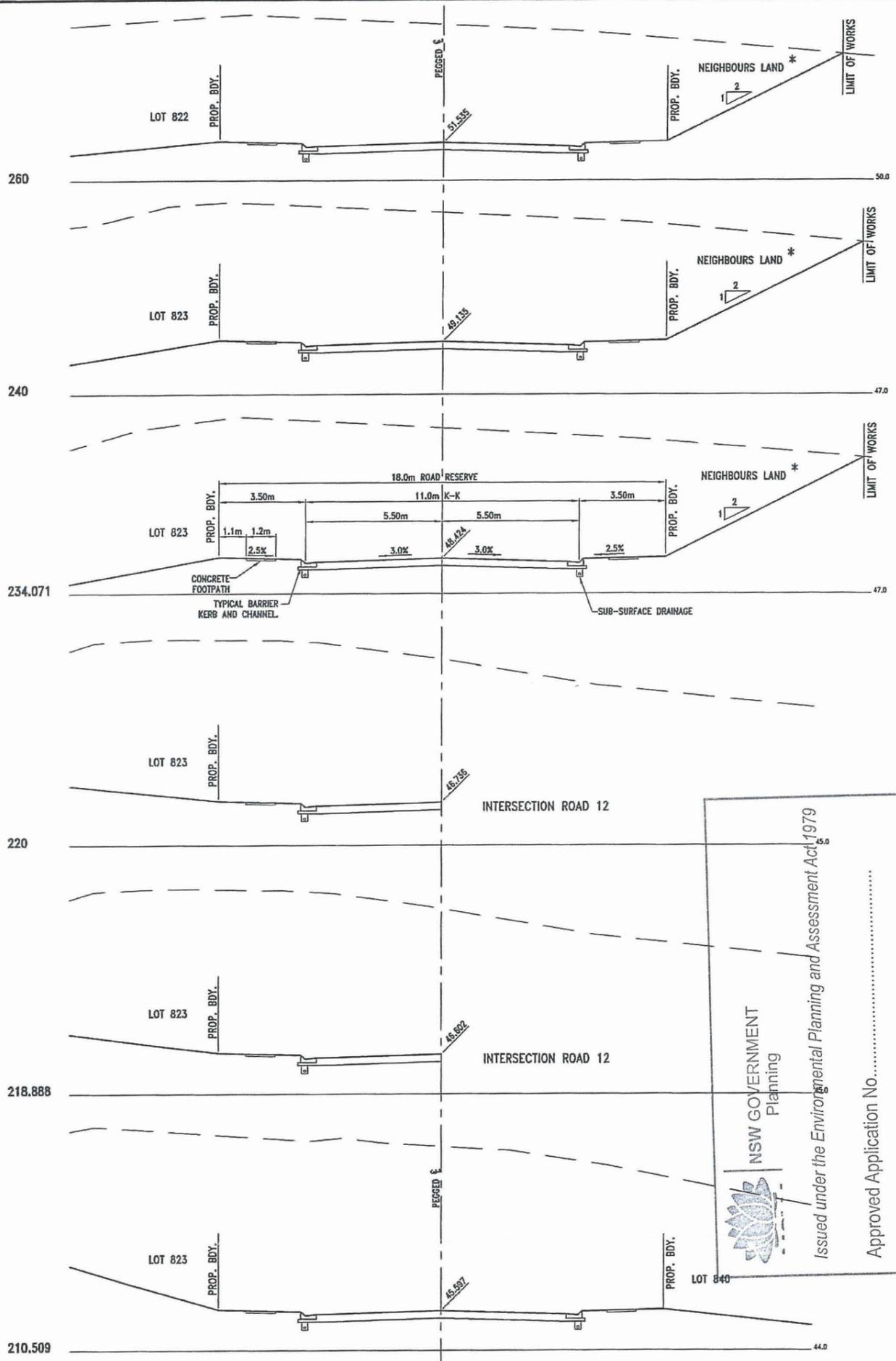
Approved Application No. 143,509
granted on the 16/01/2013

Signed: [Signature]
Sheet No. 1 of 2



NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 10 CROSS SECTIONS SHEET 1 OF 2	SK 3610 REVISION B

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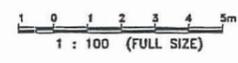
* BATTER TO EXISTING NEIGHBOURS LAND AT OWNERS CONSENT

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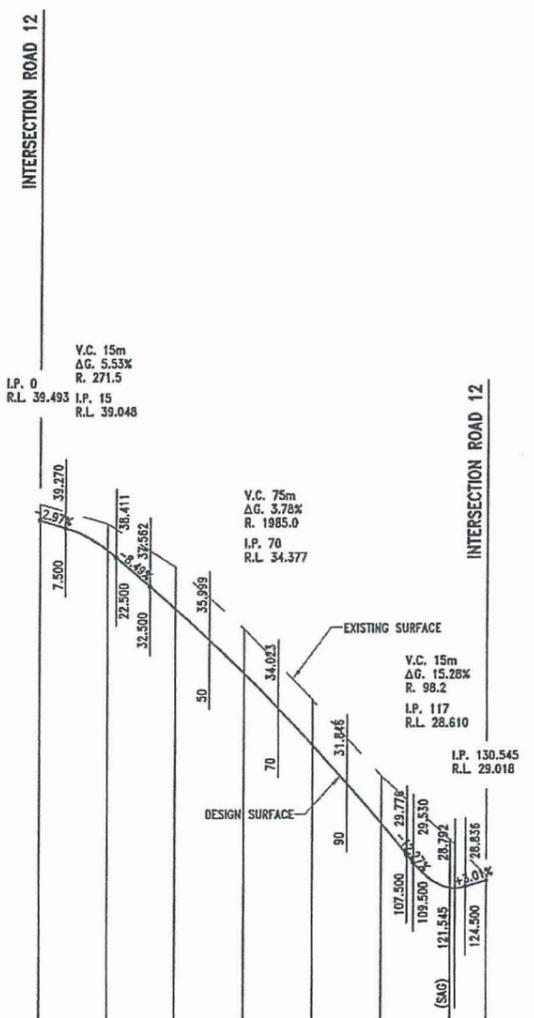
Approved Application No.....
granted on the.....

Signed.....
Sheet No. 53 of.....



NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 10 CROSS SECTIONS SHEET 2 OF 2	SK 3611 REVISION B

Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 353</small>
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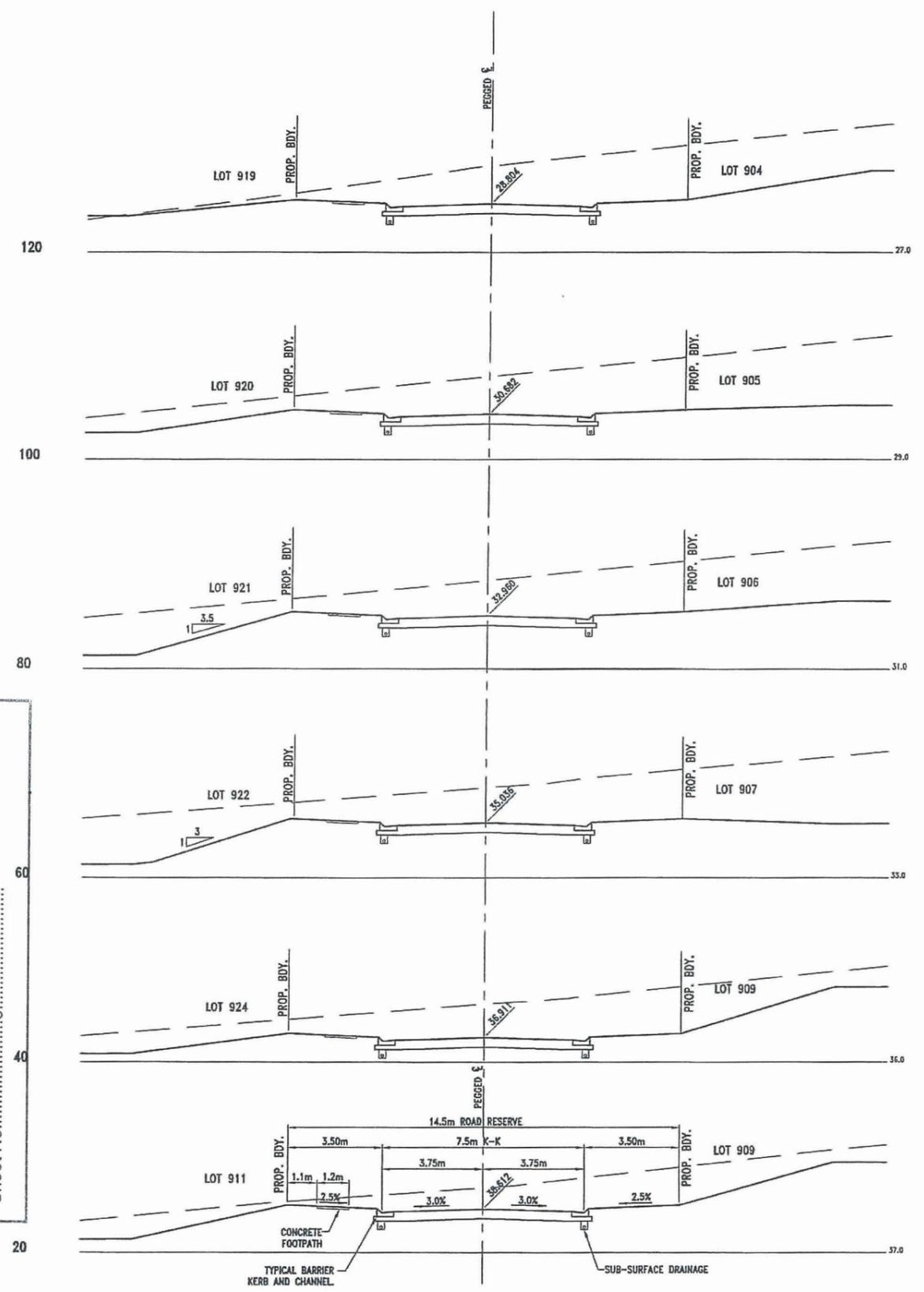
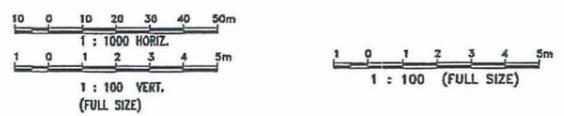
DATUM	R.L. 24.0									
HEIGHT OF FILL										
DEPTH OF CUT	0.47	0.78	1.23	1.30	1.30	1.39	1.41	0.14		
PAVEMENT LEVEL ON PEGGED CENTRELINE	39.493	38.612	36.911	35.036	32.980	30.682	28.804	29.018		
EXISTING SURFACE LEVEL	39.97	39.39	36.14	36.33	34.26	32.07	30.21	29.15		
PEGGED CHAINAGE	0	20	40	60	80	100	120	130.545		

HORIZONTAL CURVE DATA

NSW GOVERNMENT
Planning

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Approved Application No.....
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Signed.....
Sheet No. 59 of.....



NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1
ROAD 11 LONGITUDINAL AND
CROSS SECTIONS

09-374
07-01-2013

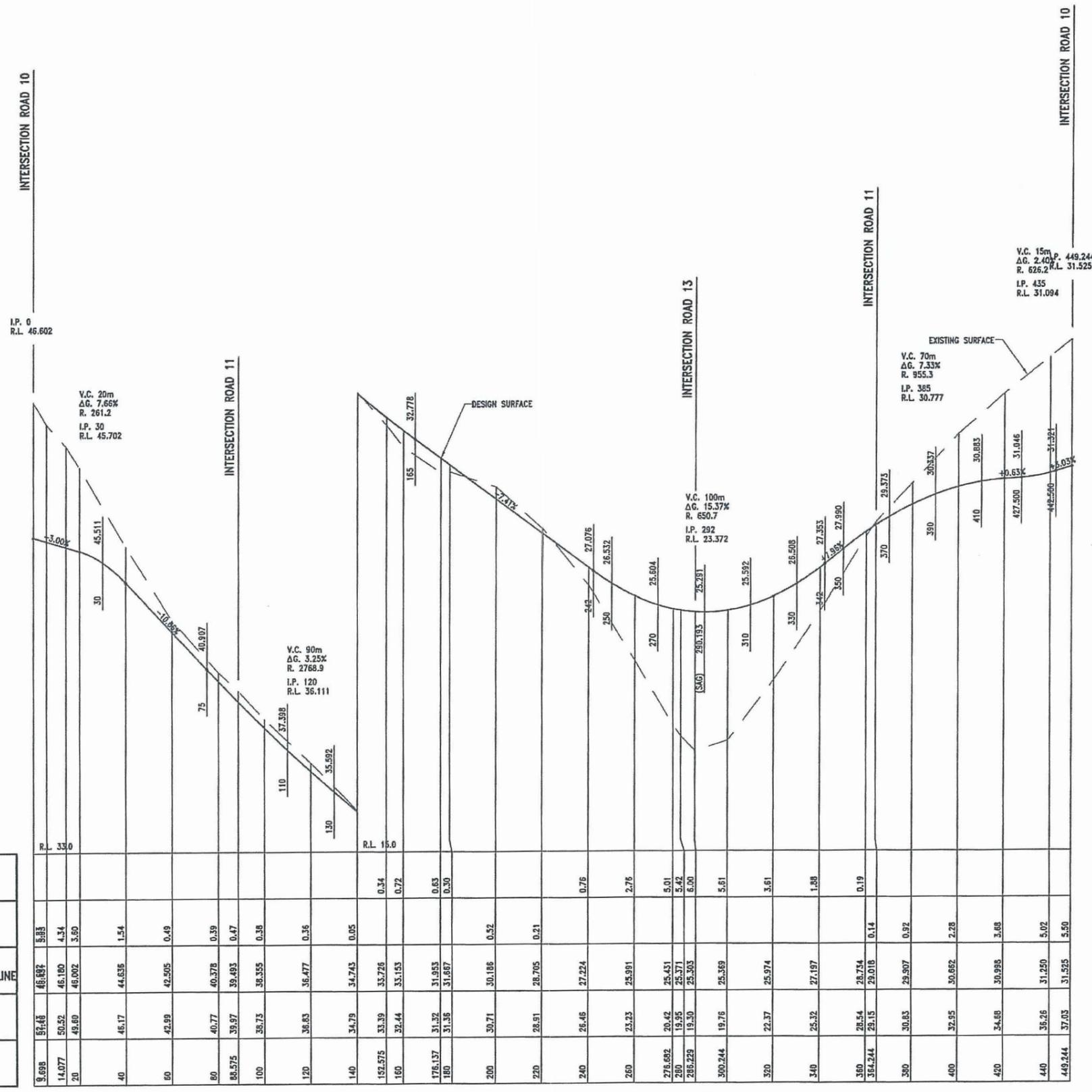
SK 3612
REVISION B

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Web www.bradlees.com.au
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Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

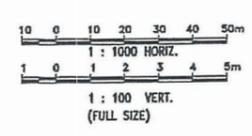
Bradlees
Civil Consulting





DATUM	HEIGHT OF FILL	DEPTH OF CUT	PAVEMENT LEVEL ON PEGGED CENTRELINE	EXISTING SURFACE LEVEL	PEGGED CHAINAGE
R.L. 33.0					0
	5.83		46.692	52.45	9.698
	4.34		46.180	50.52	14.077
	3.80		46.002	49.80	20
	1.54		44.636	46.17	40
	0.49		42.505	42.99	60
	0.39		40.378	40.77	80
	0.47		39.493	39.97	86.575
	0.38		38.355	38.73	100
	0.36		36.477	36.83	120
	0.05		34.743	34.79	140
	0.34		33.726	33.39	152.575
	0.72		33.163	32.44	160
	0.63		31.953	31.32	176.137
	0.30		31.667	31.36	180
	0.52		30.186	30.71	200
	0.21		28.705	28.91	220
	0.76		27.224	26.46	240
	2.76		25.991	23.23	260
	5.01		25.431	20.42	276.682
	5.42		25.371	19.95	280
	6.00		25.305	19.30	286.229
	5.61		25.369	19.76	300.244
	3.61		25.974	22.37	320
	1.88		27.197	25.32	340
	0.19		28.754	28.54	360
	0.14		29.018	29.15	364.244
	0.92		29.907	30.63	380
	2.28		30.662	32.95	400
	3.68		30.998	34.68	420
	5.02		31.250	36.26	440
	5.50		31.525	37.03	449.244

HORIZONTAL CURVE DATA



NEWLAND DEVELOPERS PTY LTD 09-374
07-01-2013

TERRANORA PRECINCT 1
ROAD 12
LONGITUDINAL SECTION

SK 3613
REVISION 8

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Planning

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granted on the.....
Signed.....
Sheet No. **60** of.....

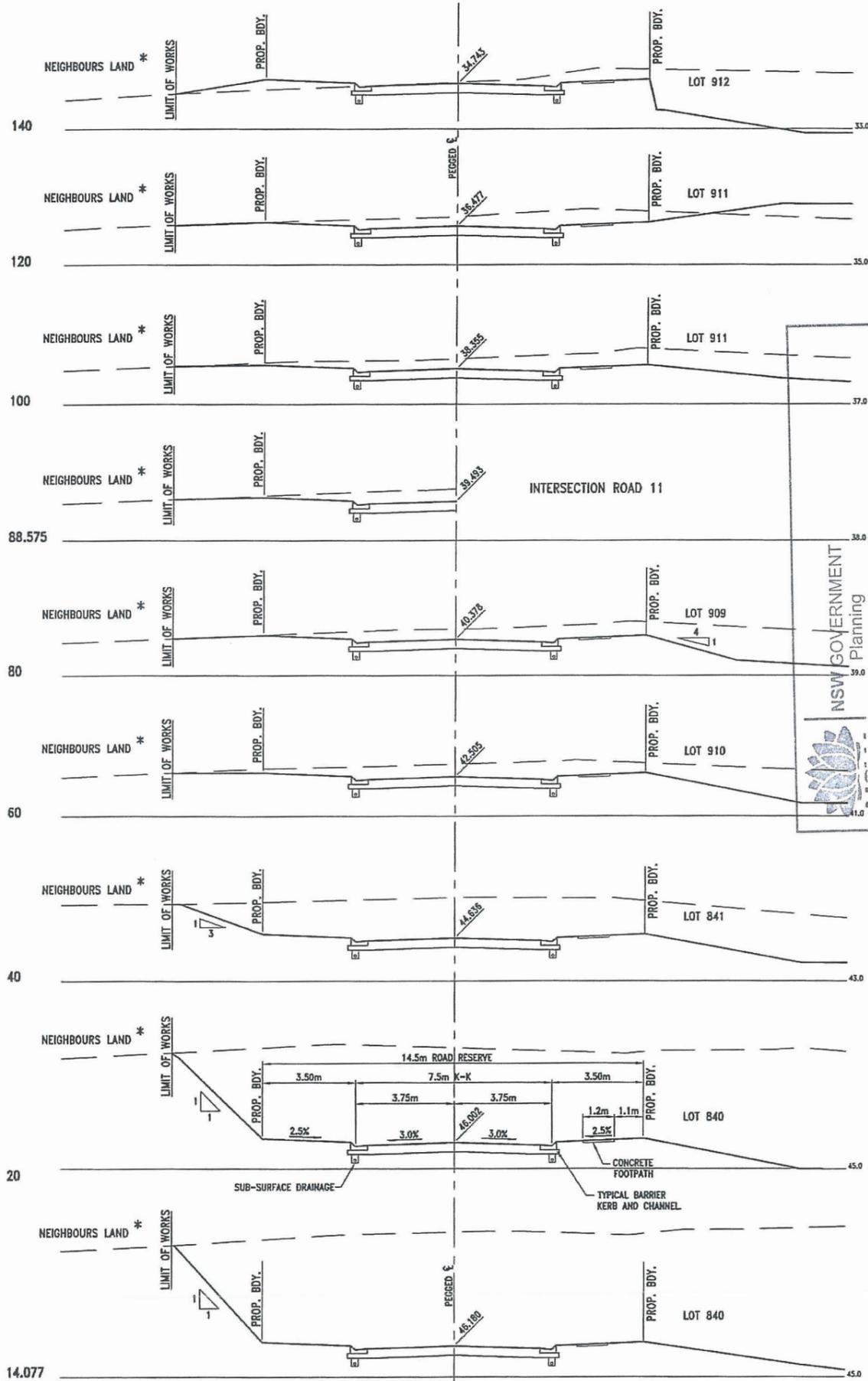
Bradford Lees Pty Ltd
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REG. NO. 233

* BATTER TO EXISTING NEIGHBOURS LAND AT OWNERS CONSENT



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Planning

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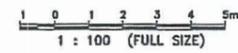
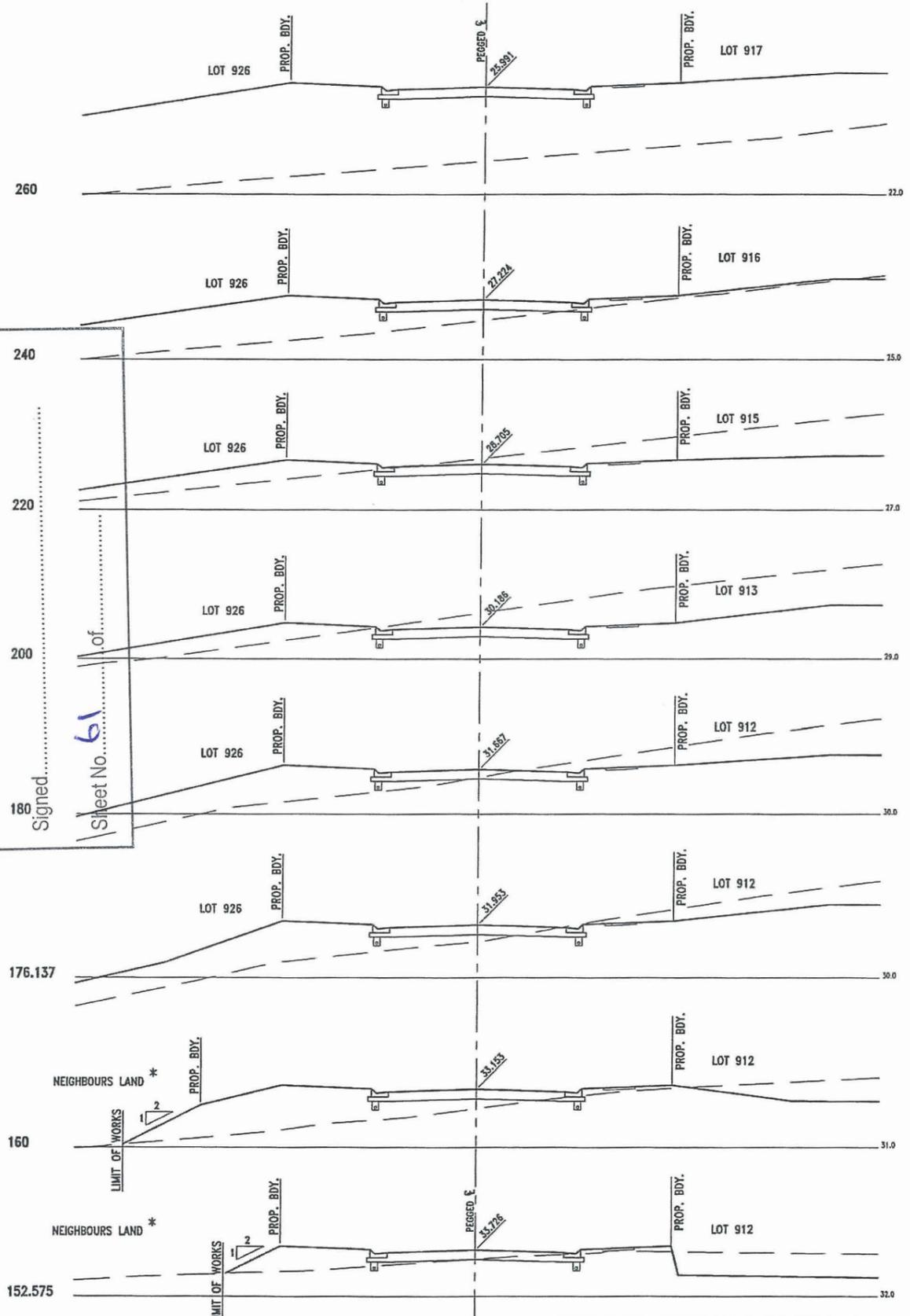
Approved Application No.

granted on the.....

Signed.....

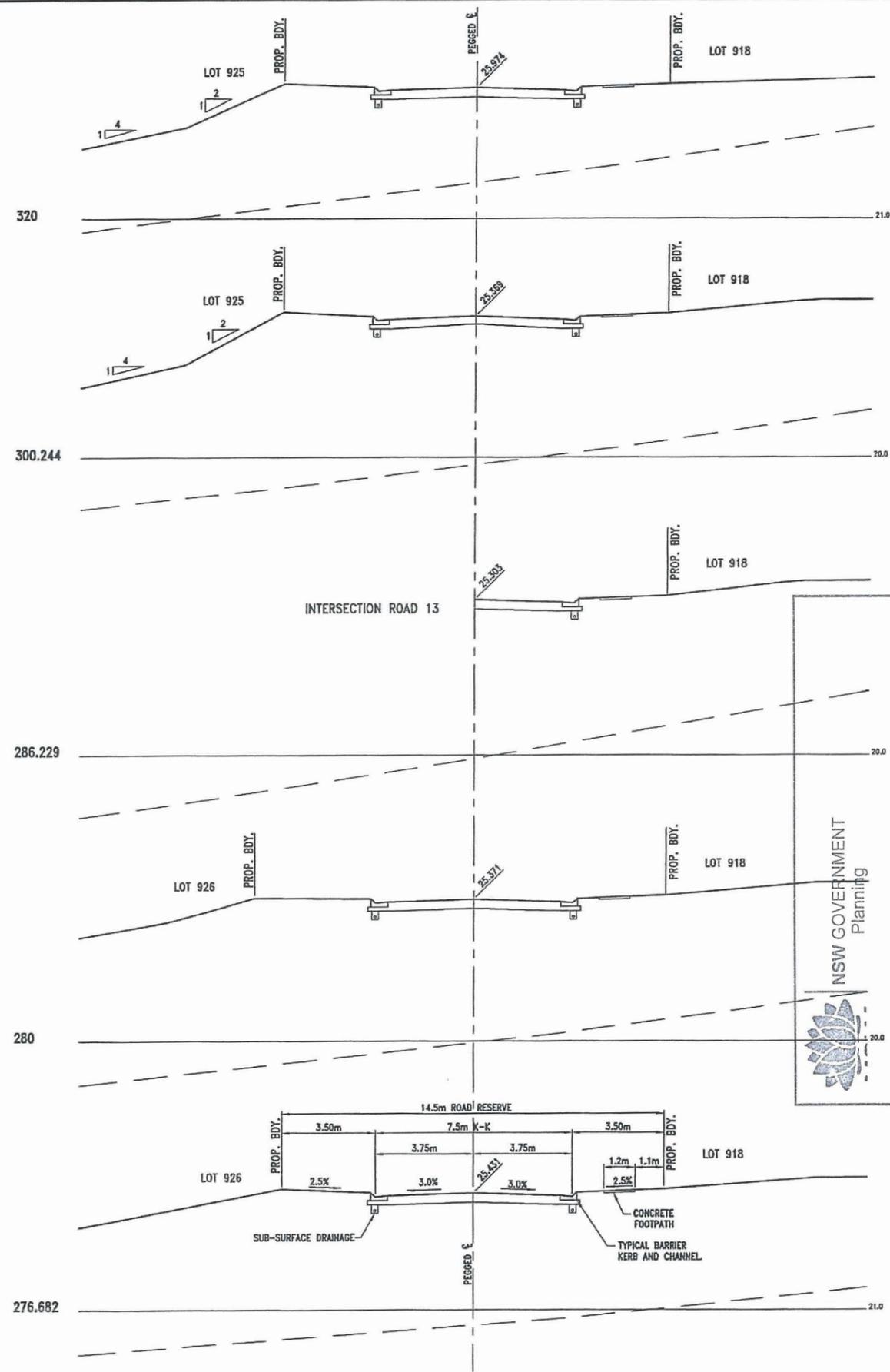
Sheet No. 61 of

* BATTER TO EXISTING NEIGHBOURS LAND AT OWNERS CONSENT



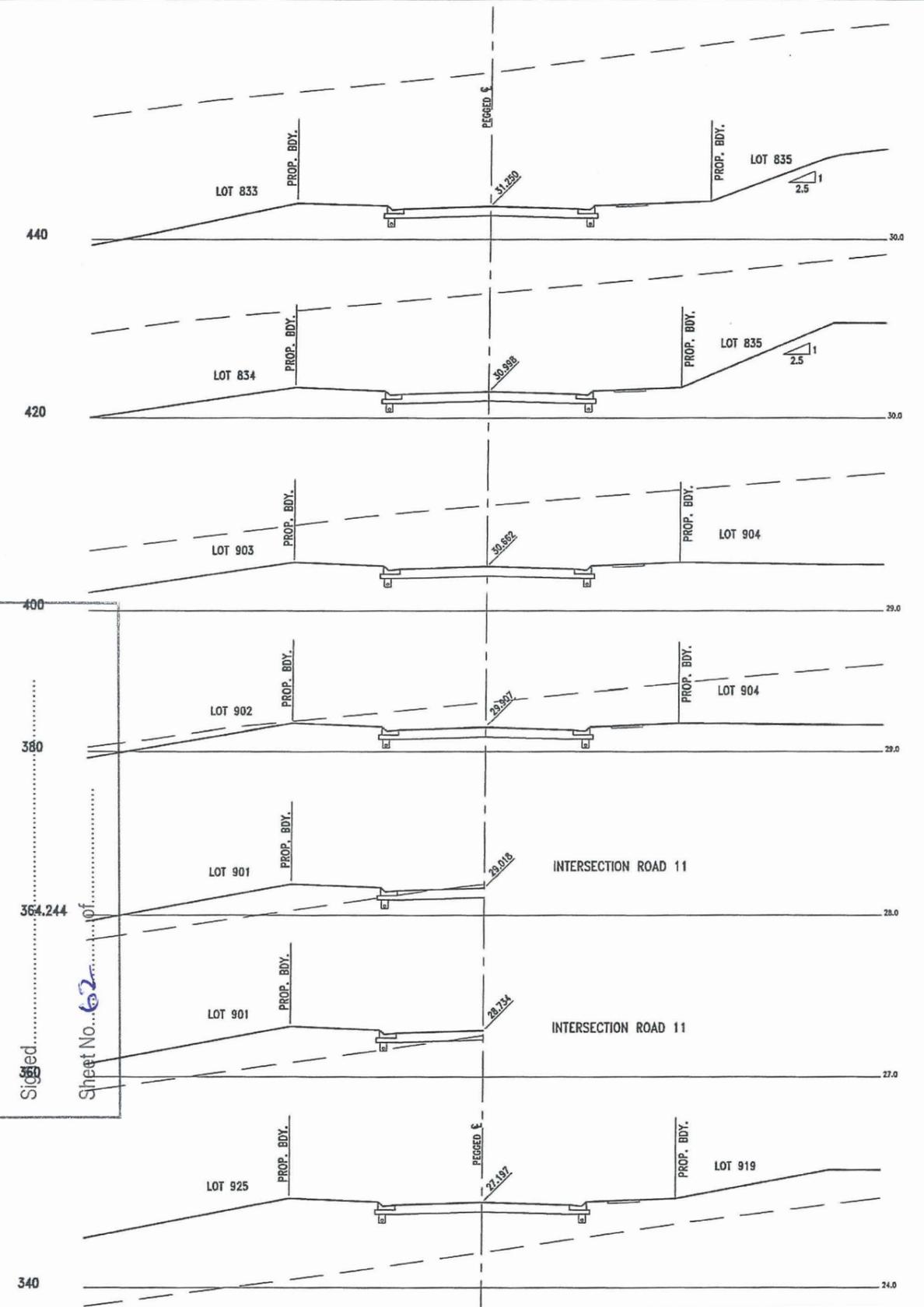
NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 ROAD 12 CROSS SECTIONS SHEET 1 OF 2	SK 3614 REVISION B

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 233</small>
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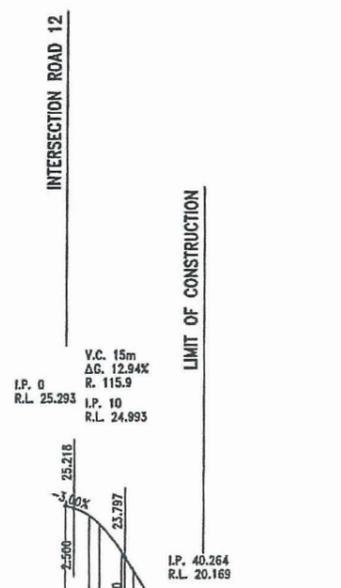


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 Sheet No. 6 of 10



NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 ROAD 12 CROSS SECTIONS SHEET 2 OF 2	09-374 07-01-2013 SK 3615 REVISION B
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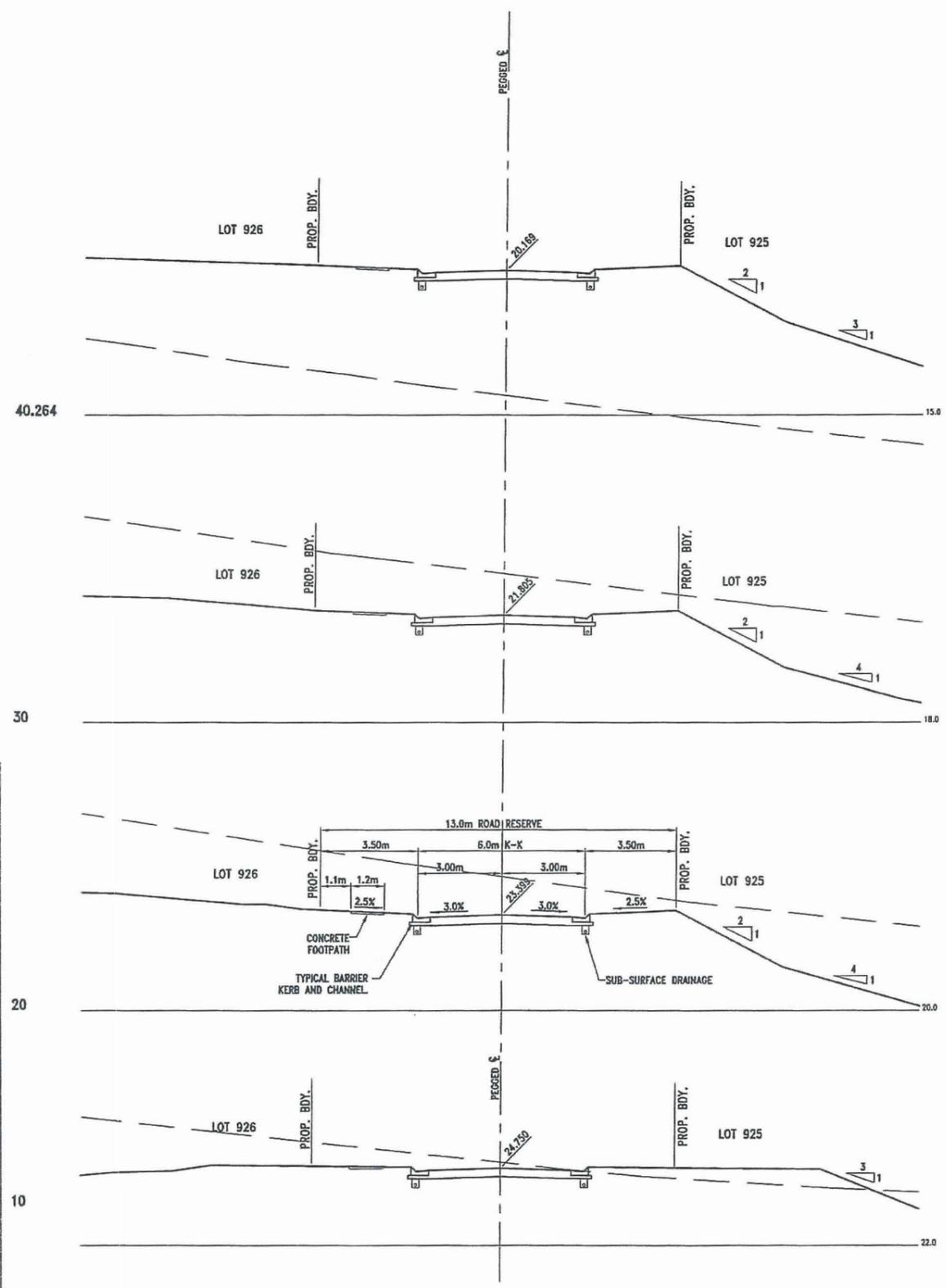
Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS 9001:2008 REG. NO. 233</small>
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DATUM	R.L.
HEIGHT OF FILL	5.97
DEPTH OF CUT	6.95
PAVEMENT LEVEL ON PEGGED CENTRELINE	24.750
EXISTING SURFACE LEVEL	17.80
PEGGED CHAINAGE	0.995

HORIZONTAL CURVE DATA
R15

NSW GOVERNMENT Planning
 Issued under the Environmental Planning and Assessment Act 1979
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 granted on the.....
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 Sheet No. **63** of.....



NEWLAND DEVELOPERS PTY LTD
TERRANORA PRECINCT 1
 ROAD 13 LONGITUDINAL AND CROSS SECTIONS

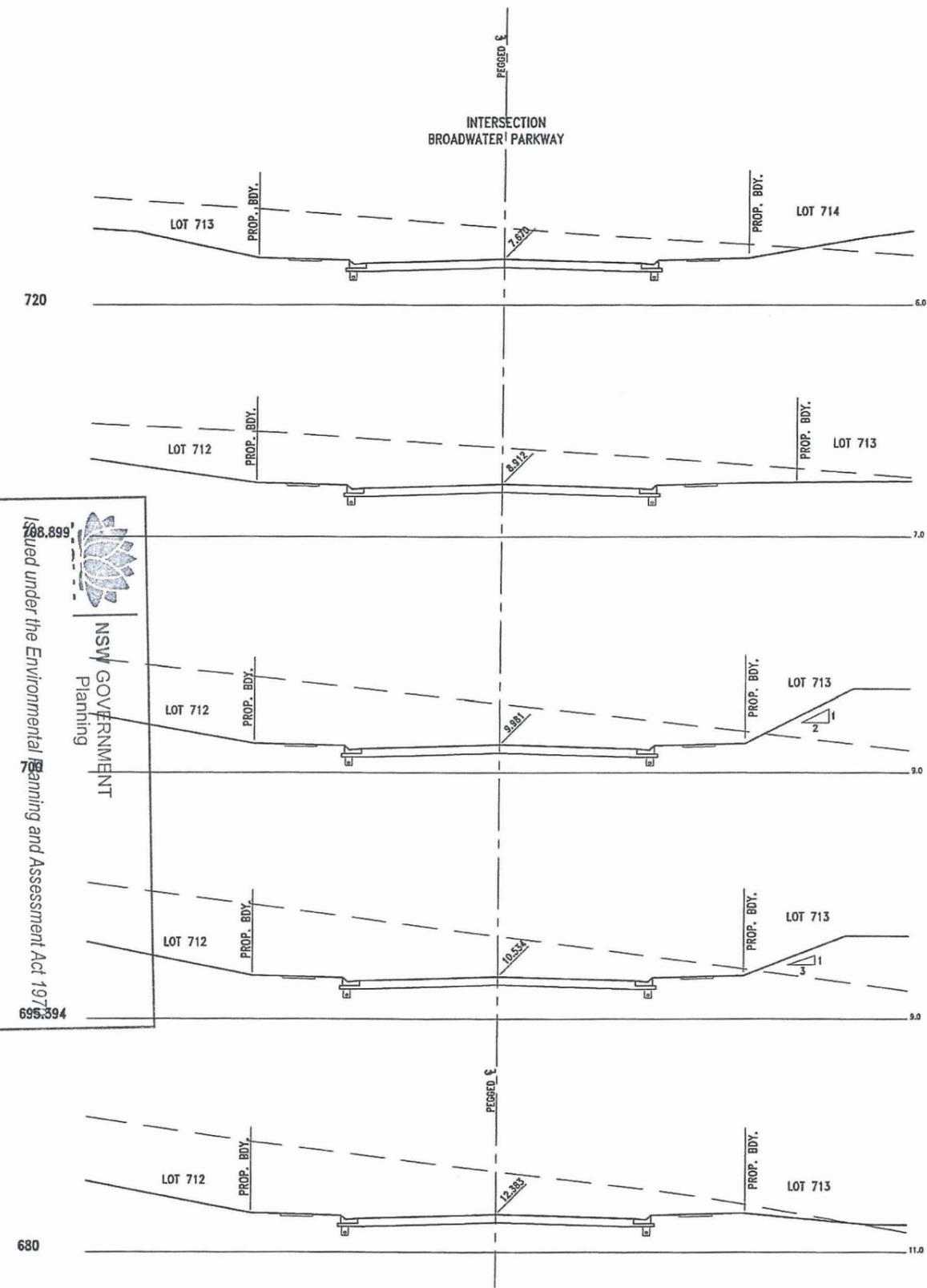
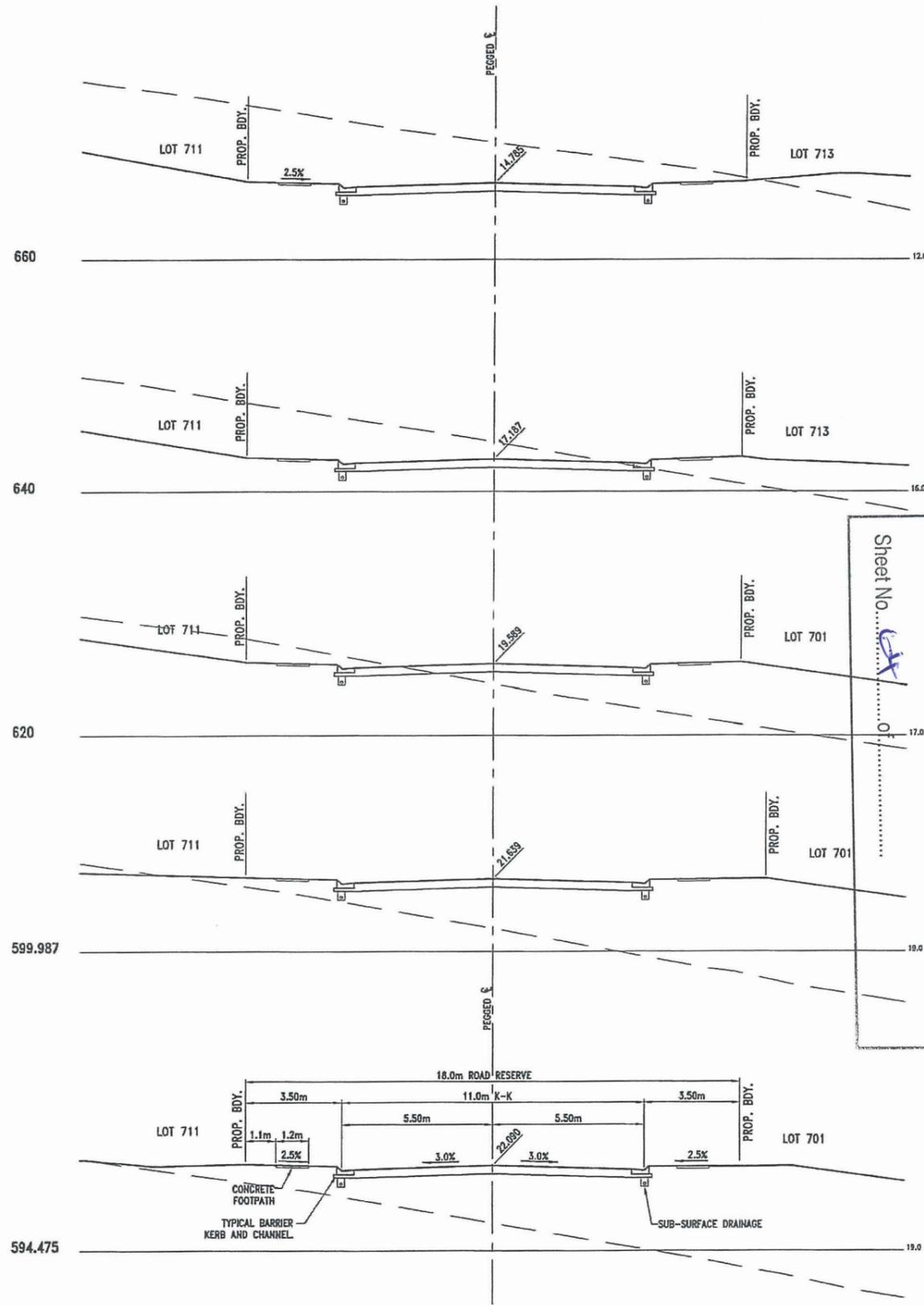
09-374
07-01-2013

SK 3616
REVISION B

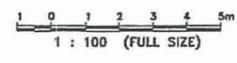
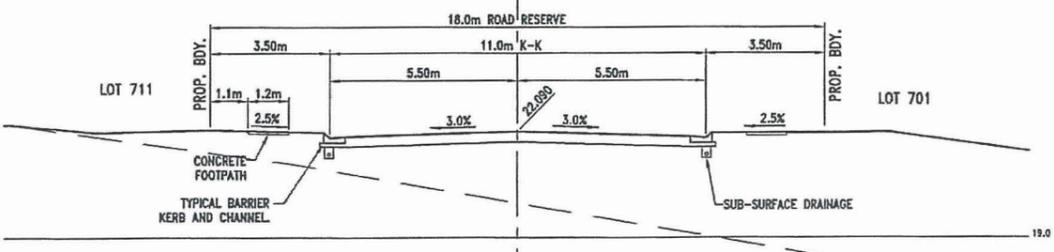
Bradford Lees Pty Ltd
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 Fax 07 5528 6422
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 Email mail@bradlees.com.au
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AS/NZS ISO 9001:2015
REG. NO. 323

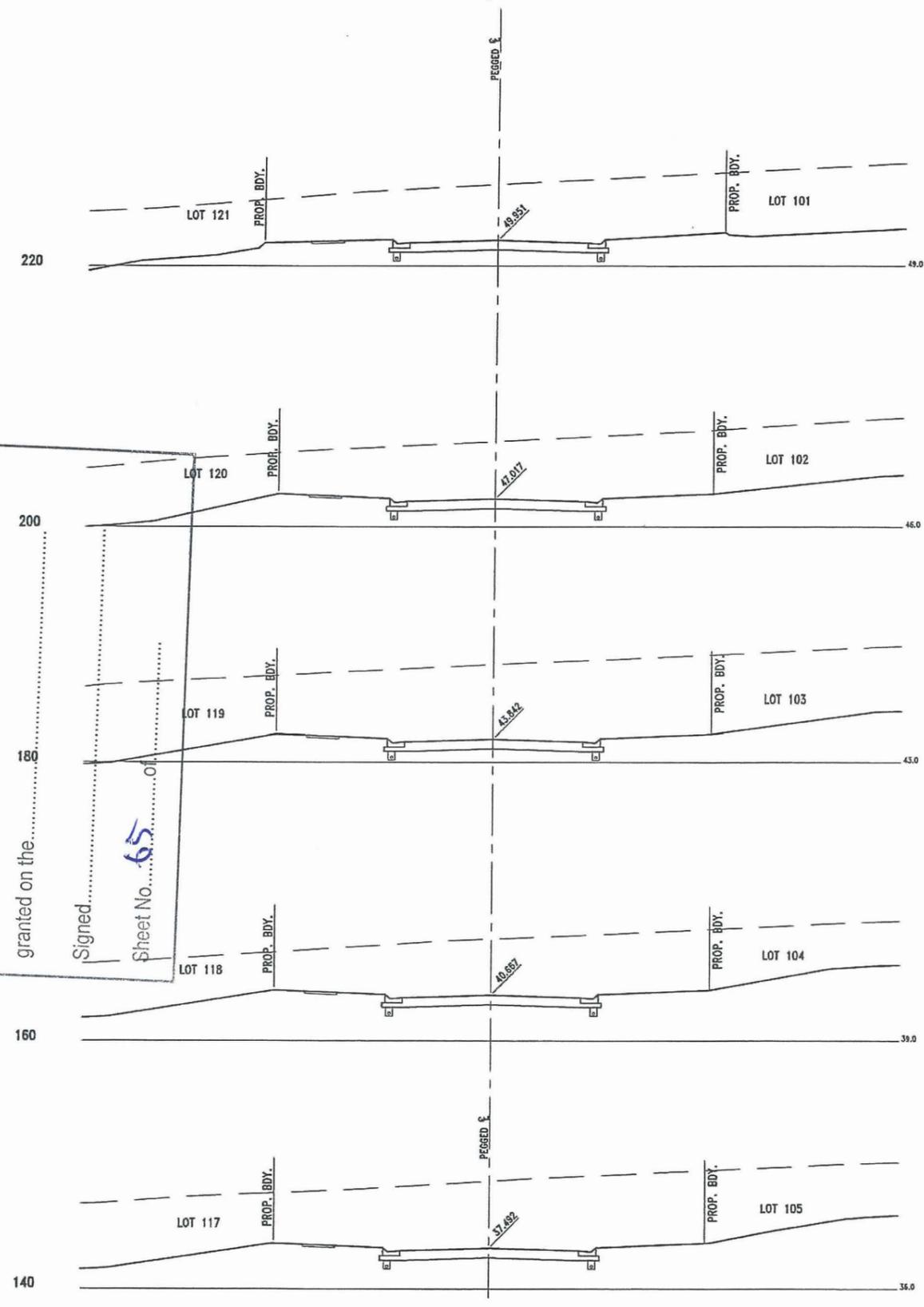
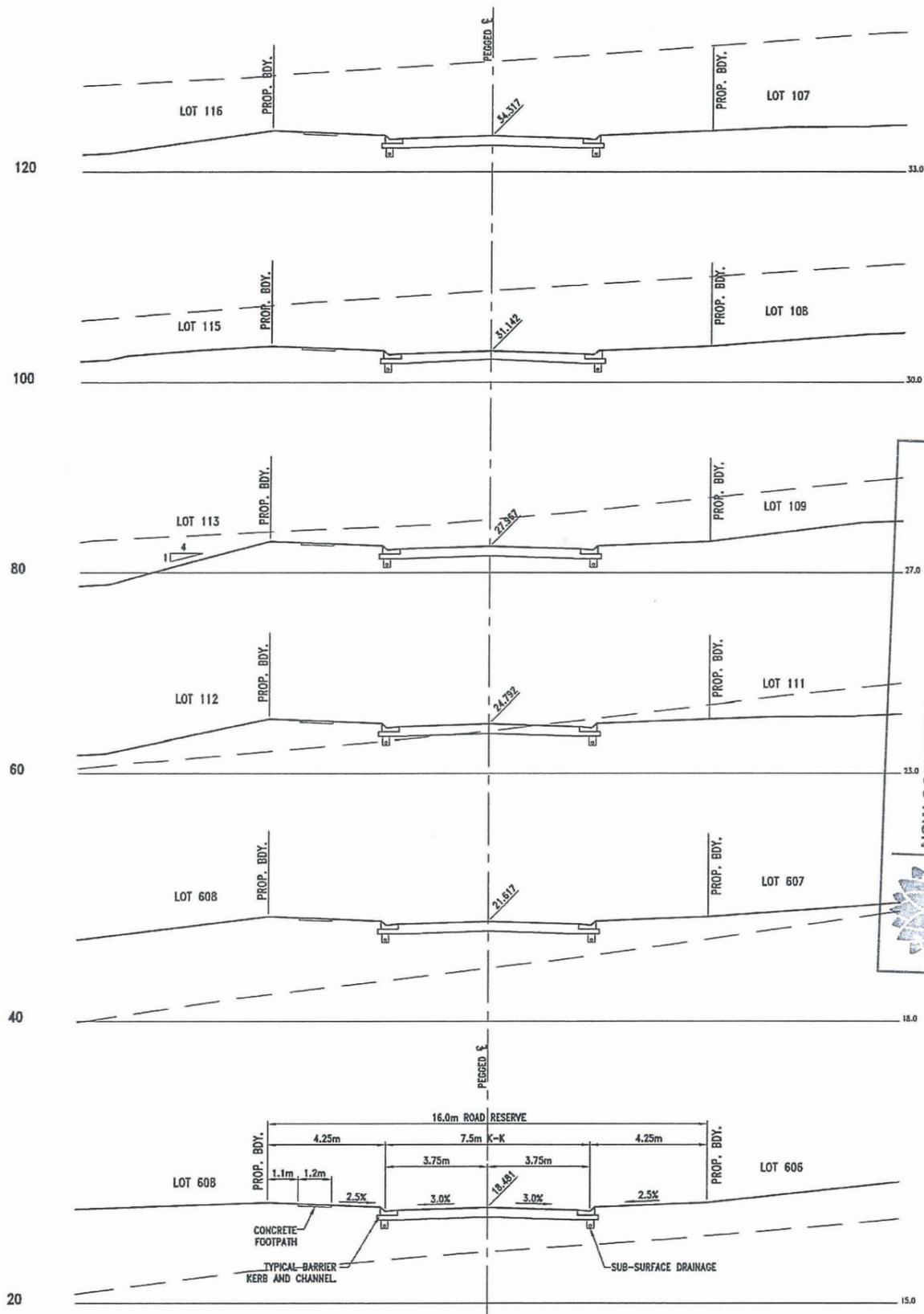


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 Planning
 Made under the Environmental Planning and Assessment Act 1979
 Approved Application No. 708.899
 granted on the
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 Sheet No. 01



NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 ROAD 2 CROSS SECTIONS SHEET 5 OF 5	09-374 07-01-2013 SK 3963 REVISION A
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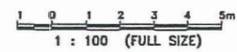
Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	Bradlees Civil Consulting QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REG. NO. 233
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NSW GOVERNMENT
Planning

Approved Application No.
granted on the.....

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Sheet No. **65** of 01



NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1
ROAD 6
CROSS SECTIONS

09-374
07-01-2013

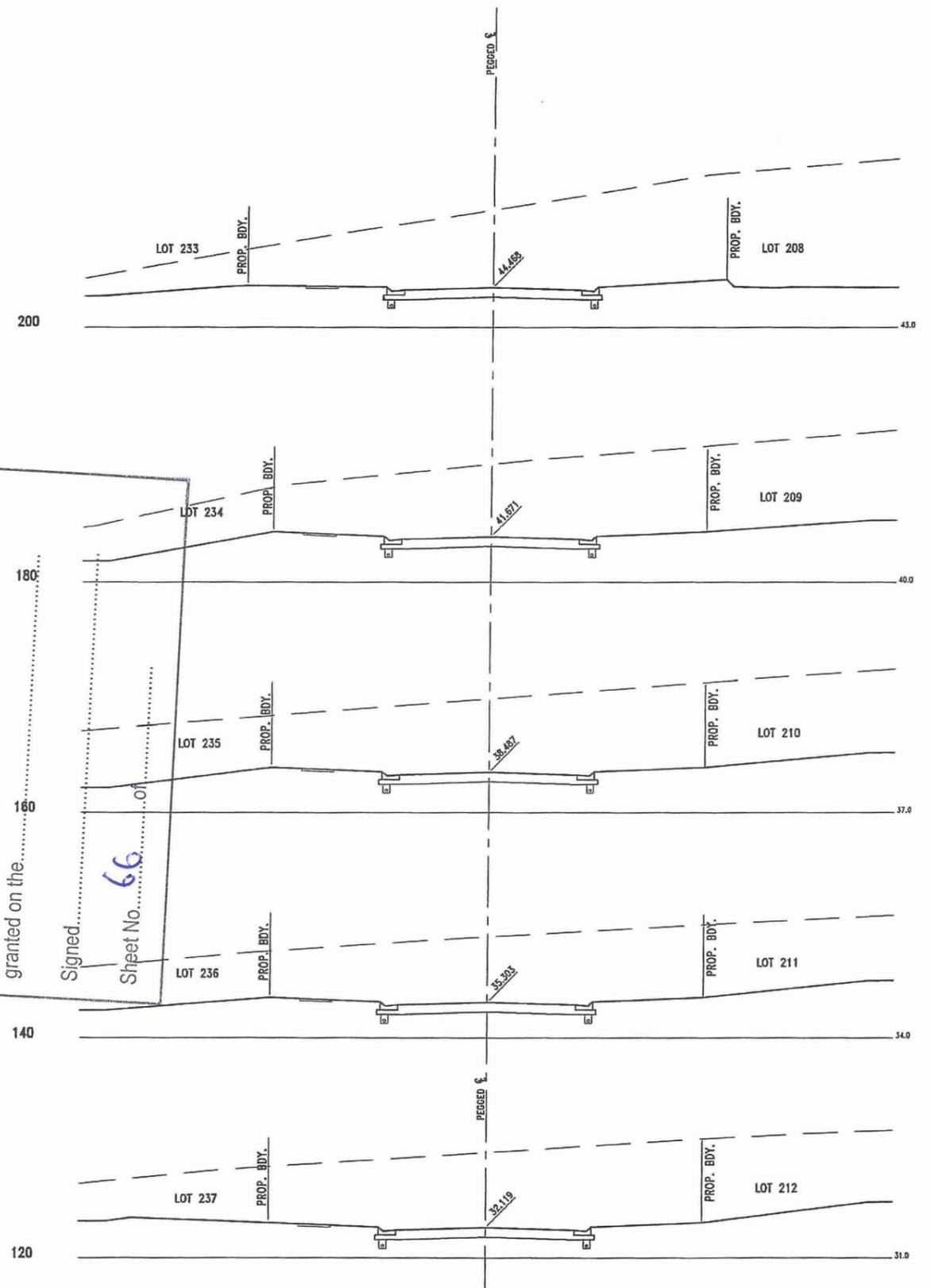
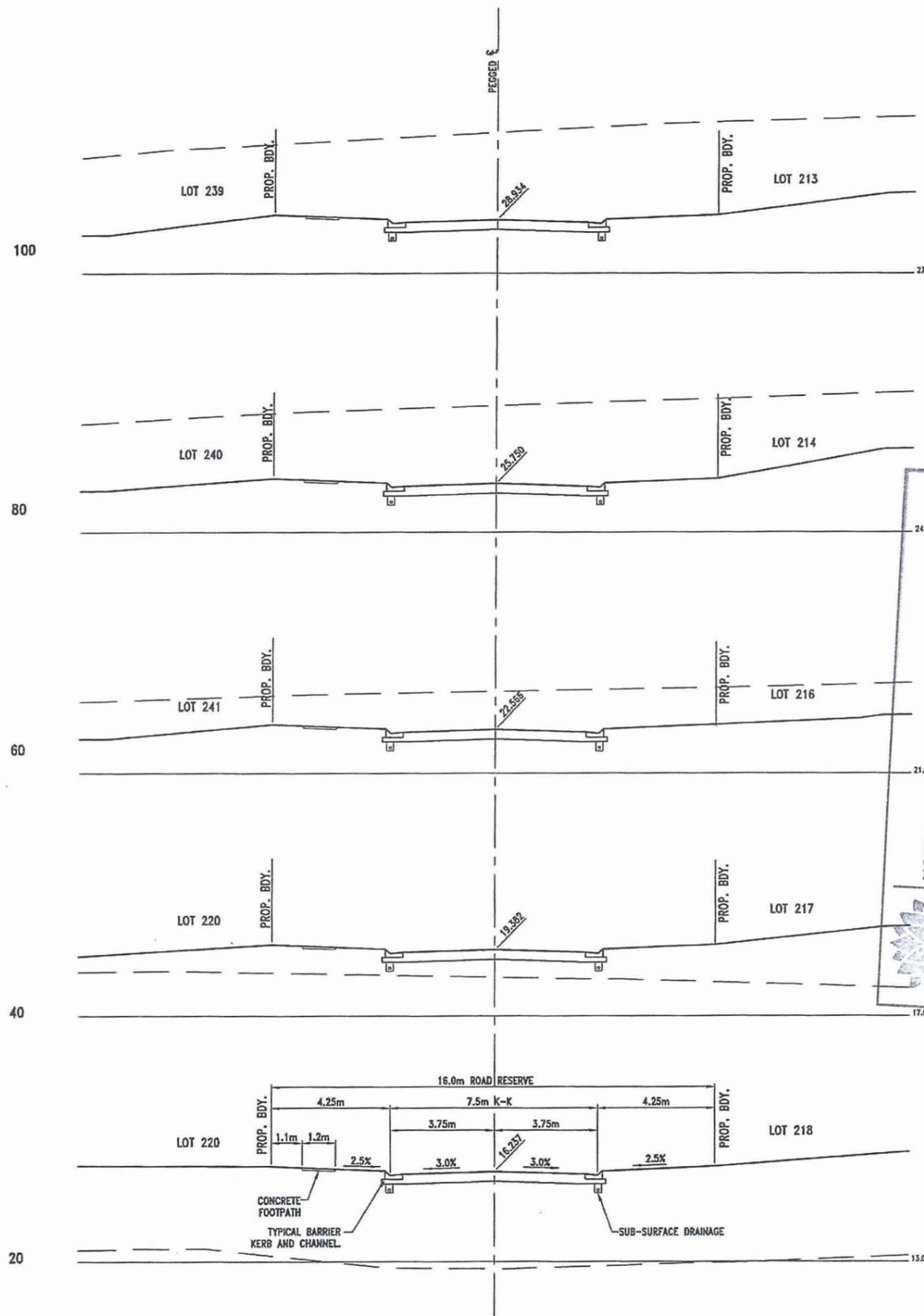
SK 3965
REVISION A

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Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

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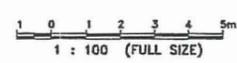
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Sheet No. **66** of 01



NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1

ROAD 7

CROSS SECTIONS

09-374
07-01-2013

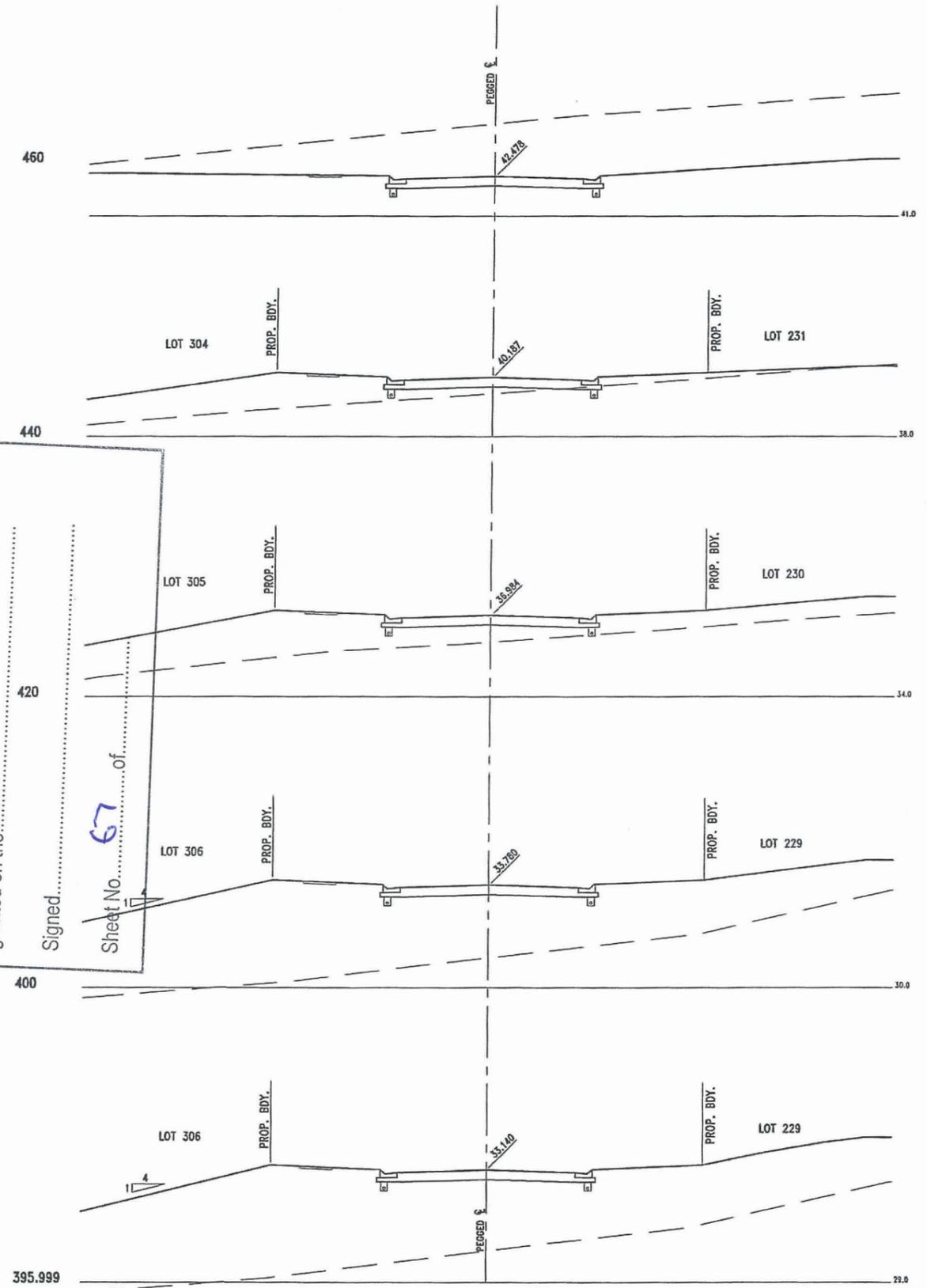
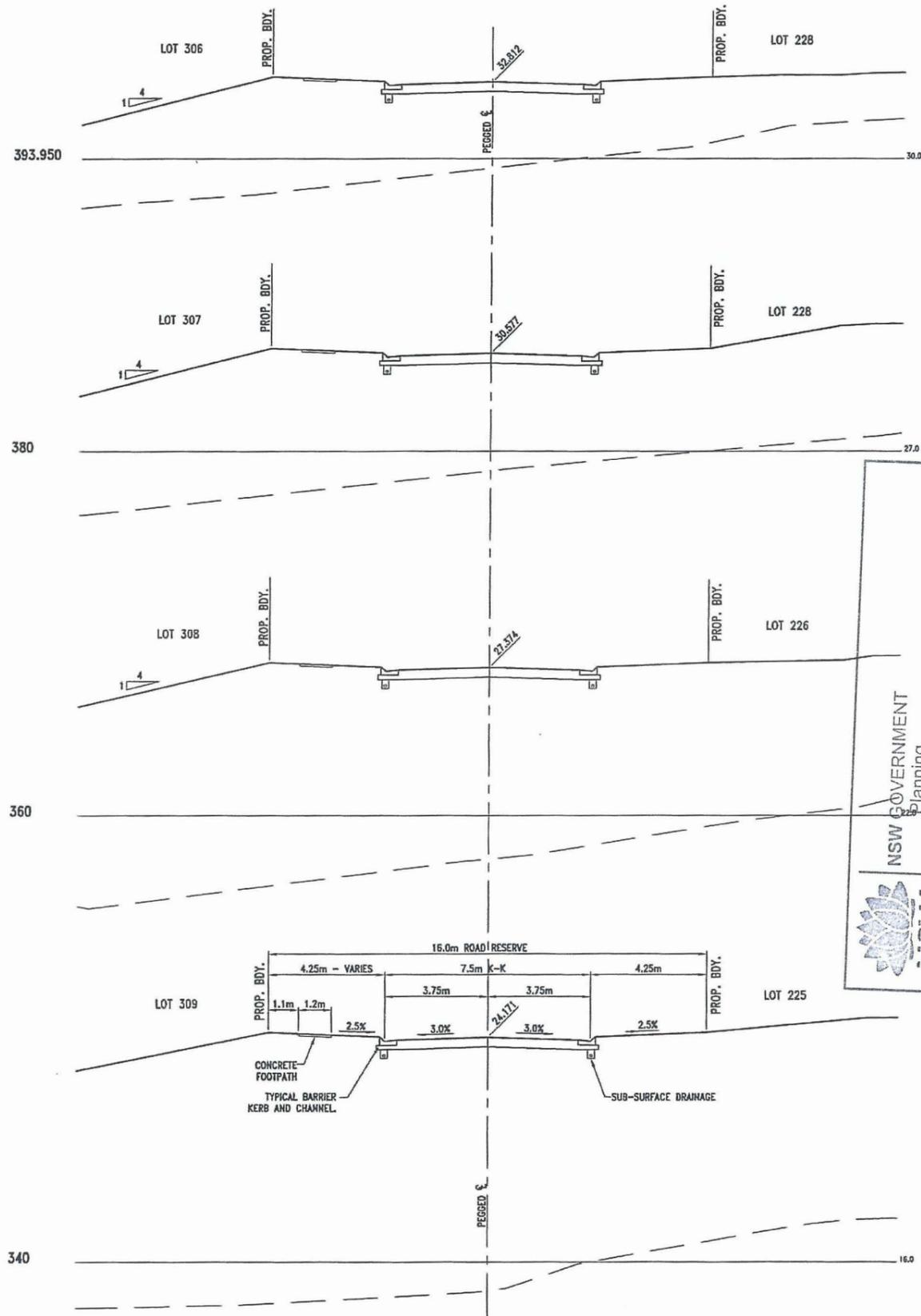
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ABN 29 064 159 191

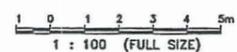
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Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

Bradlees
Civil Consulting

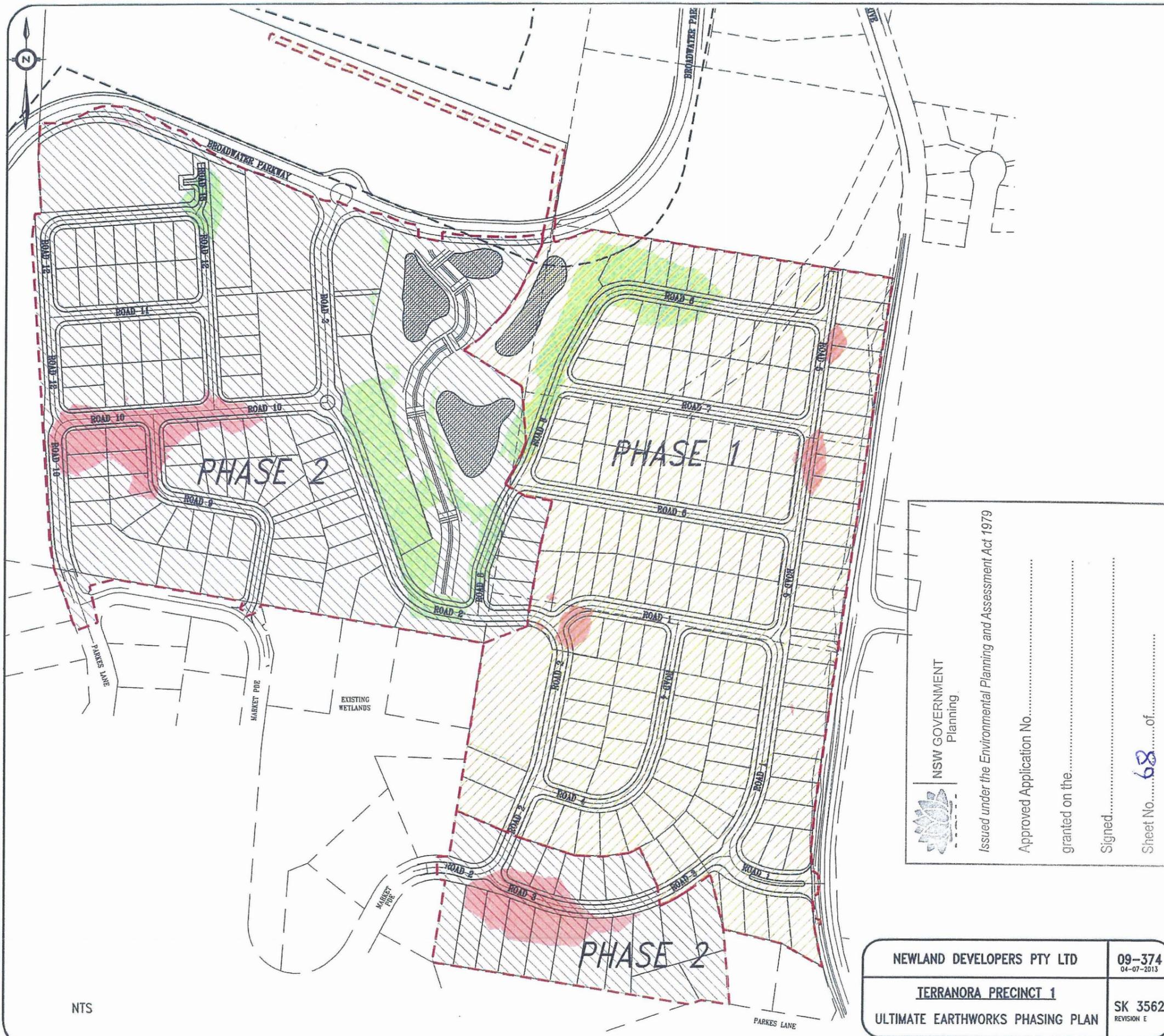





 Issued under the Environmental Planning and Assessment Act 1979
 Approved Application No.
 granted on the
 Signed
 Sheet No. **67** of



NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 ROAD 8 CROSS SECTIONS SHEET 4 OF 4	09-374 07-01-2013 SK 3967 REVISION A	 Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217 
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PRELIMINARY EARTHWORKS VOLUMES

PHASE	CUT Vol. m3	FILL Vol. m3
1	170,100	147,400
2	238,500	207,700
TOTAL	408,600	355,100

NOTE:
EARTHWORKS VOLUMES ARE APPROXIMATE SOLID VOLUMES ONLY AND SUBJECT TO FINAL DETAIL DESIGN.

LEGEND

- FILL 5.0m to 12.0m
- CUT 5.0m to 10.0m
- PHASE 1 EARTHWORKS
- PHASE 2 EARTHWORKS
- ZONE 7A LINE

EARTHWORKS AREAS	
TOTAL SITE AREA	= 36.21 ha
CUT AREA >5.0m HEIGHT	= 1.41 ha
FILL AREA >5.0m DEPTH	= 2.16 ha*
% OF TOTAL AREA >5.0m	= 9.86% *

* INCLUDES THE AREA OF FILL SPECIFIC TO THE RAISING AND FORMATION OF THE CENTRAL OPEN DRAIN = 3.15ha

NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No.....

granted on the.....

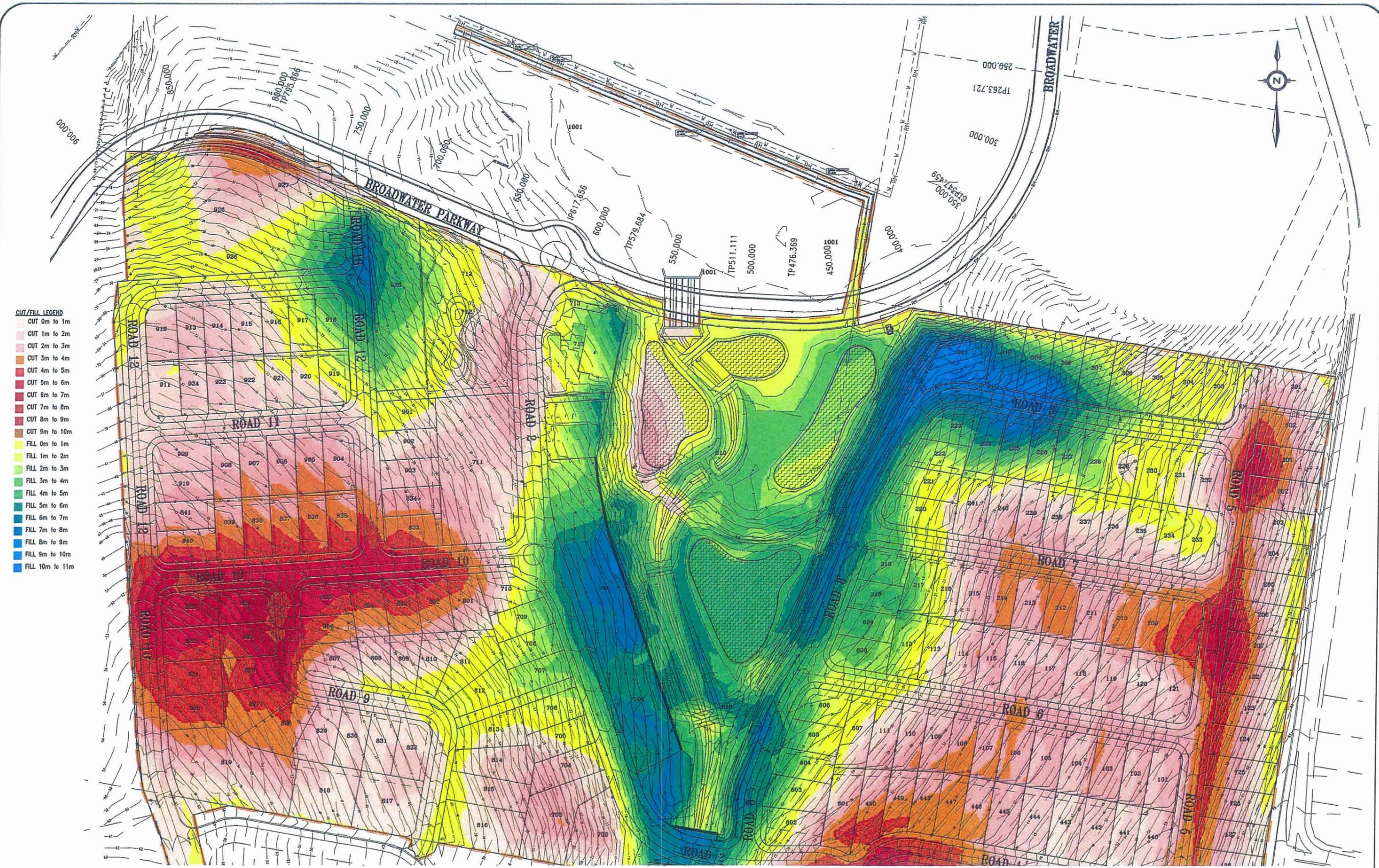
Signed.....

Sheet No..... 68 of.....

NTS

NEWLAND DEVELOPERS PTY LTD	09-374 04-07-2013
TERRANORA PRECINCT 1	
ULTIMATE EARTHWORKS PHASING PLAN	SK 3562 REVISION E

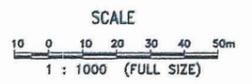
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- CUT/FILL LEGEND**
- CUT 0m to 1m
 - CUT 1m to 2m
 - CUT 2m to 3m
 - CUT 3m to 4m
 - CUT 4m to 5m
 - CUT 5m to 6m
 - CUT 6m to 7m
 - CUT 7m to 8m
 - CUT 8m to 9m
 - CUT 9m to 10m
 - FILL 0m to 1m
 - FILL 1m to 2m
 - FILL 2m to 3m
 - FILL 3m to 4m
 - FILL 4m to 5m
 - FILL 5m to 6m
 - FILL 6m to 7m
 - FILL 7m to 8m
 - FILL 8m to 9m
 - FILL 9m to 10m
 - FILL 10m to 11m

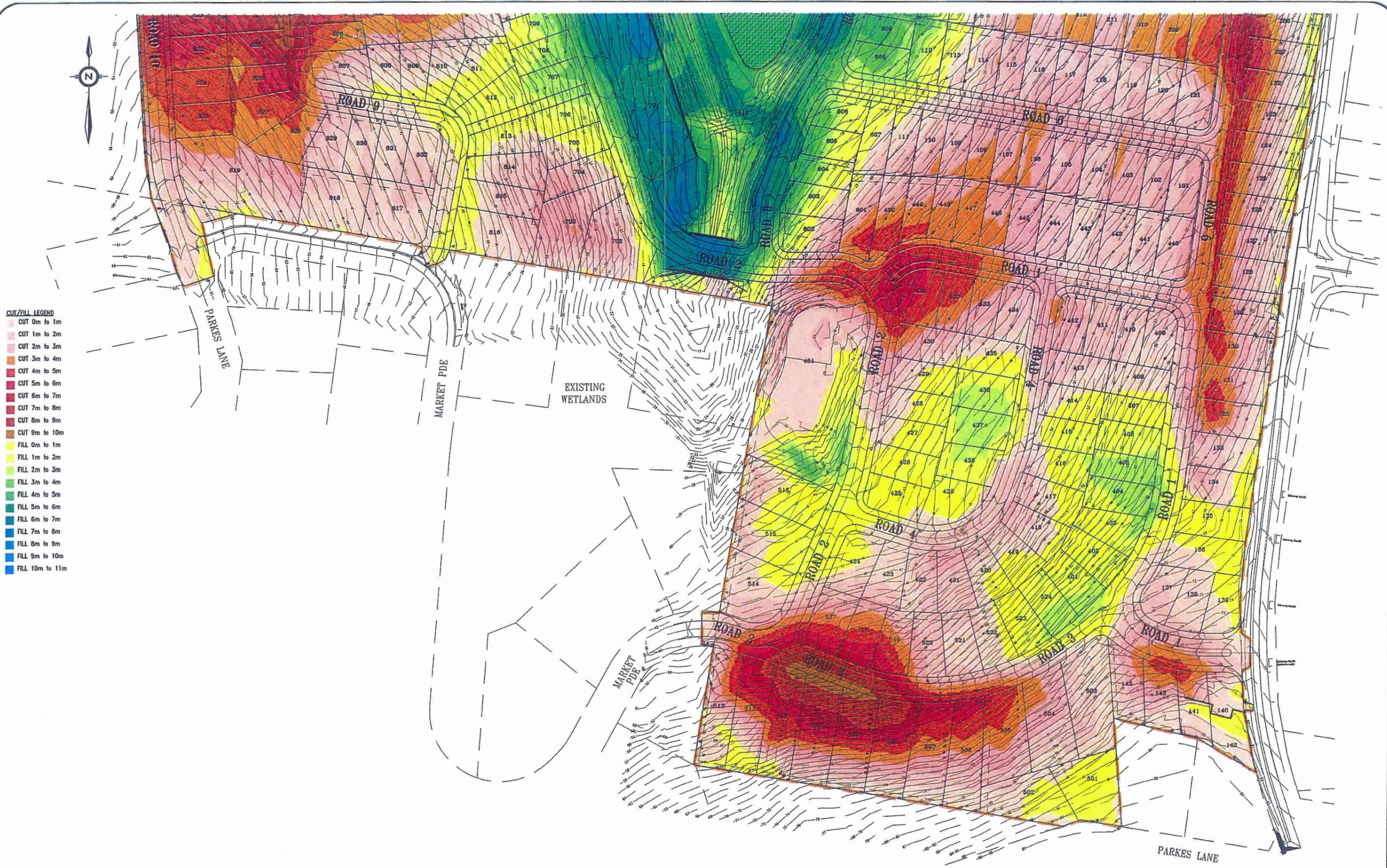
LEGEND

- 12 — DESIGN SURFACE CONTOURS
- 12 — EXISTING SURFACE CONTOURS
- — LIMITS OF EARTHWORKS



NEWLAND DEVELOPERS PTY LTD	09-374 04-07-2013
ALTITUDE ASPIRE CUT - FILL PLAN SHEET 1 OF 2	SK 2604 REVISION F

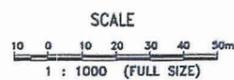
Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting	 ISO 9001 REG. NO. 535
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- CUT/FILL LEGEND**
- CUT 0m to 1m
 - CUT 1m to 2m
 - CUT 2m to 3m
 - CUT 3m to 4m
 - CUT 4m to 5m
 - CUT 5m to 6m
 - CUT 6m to 7m
 - CUT 7m to 8m
 - CUT 8m to 9m
 - CUT 9m to 10m
 - FILL 0m to 1m
 - FILL 1m to 2m
 - FILL 2m to 3m
 - FILL 3m to 4m
 - FILL 4m to 5m
 - FILL 5m to 6m
 - FILL 6m to 7m
 - FILL 7m to 8m
 - FILL 8m to 9m
 - FILL 9m to 10m
 - FILL 10m to 11m

LEGEND

- 12 — DESIGN SURFACE CONTOURS
- 12 — EXISTING SURFACE CONTOURS
- — LIMITS OF EARTHWORKS

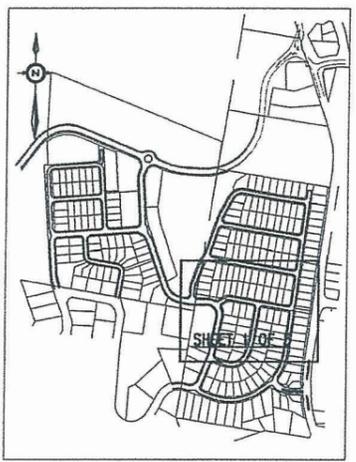


NEWLAND DEVELOPERS PTY LTD	09-374 04-07-2013
ALTITUDE ASPIRE	
CUT - FILL PLAN	
SHEET 2 OF 2	
	SK 2605 REVISION F

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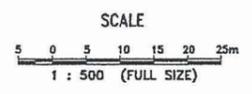


EXISTING LAKE TO BE FILLED TO FORM PAD WITH 0.5m FALL



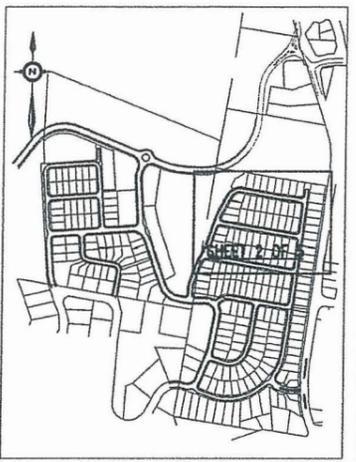
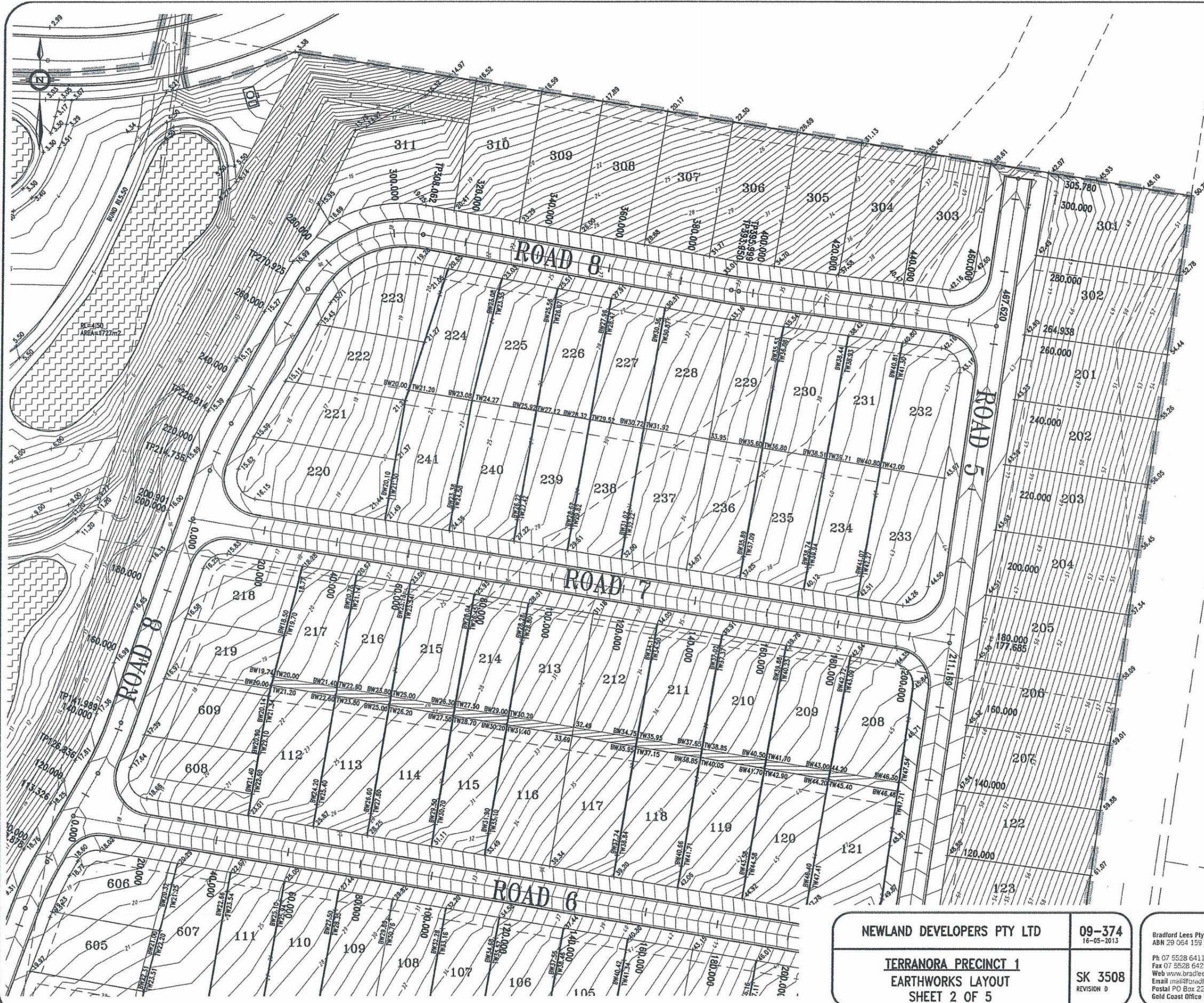
KEY PLAN
NOT TO SCALE

- LEGEND**
- 15 — FINISHED SURFACE CONTOURS
 - 10.017 — FINISHED SURFACE LEVEL
 - PROPOSED SWALE DRAIN
 - ▭ LIMITS OF EARTHWORKS

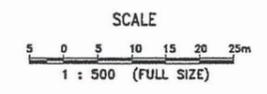


NEWLAND DEVELOPERS PTY LTD	09-374 15-05-2013
TERRANORA PRECINCT 1 EARTHWORKS LAYOUT SHEET 1 OF 5	SK 3507 REVISION D

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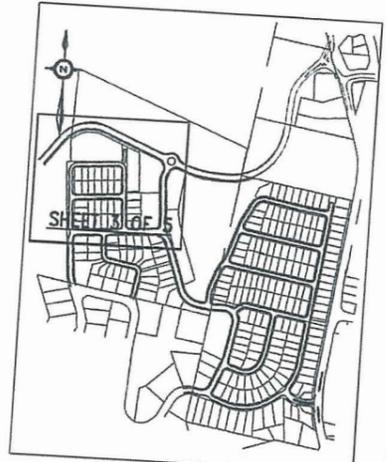
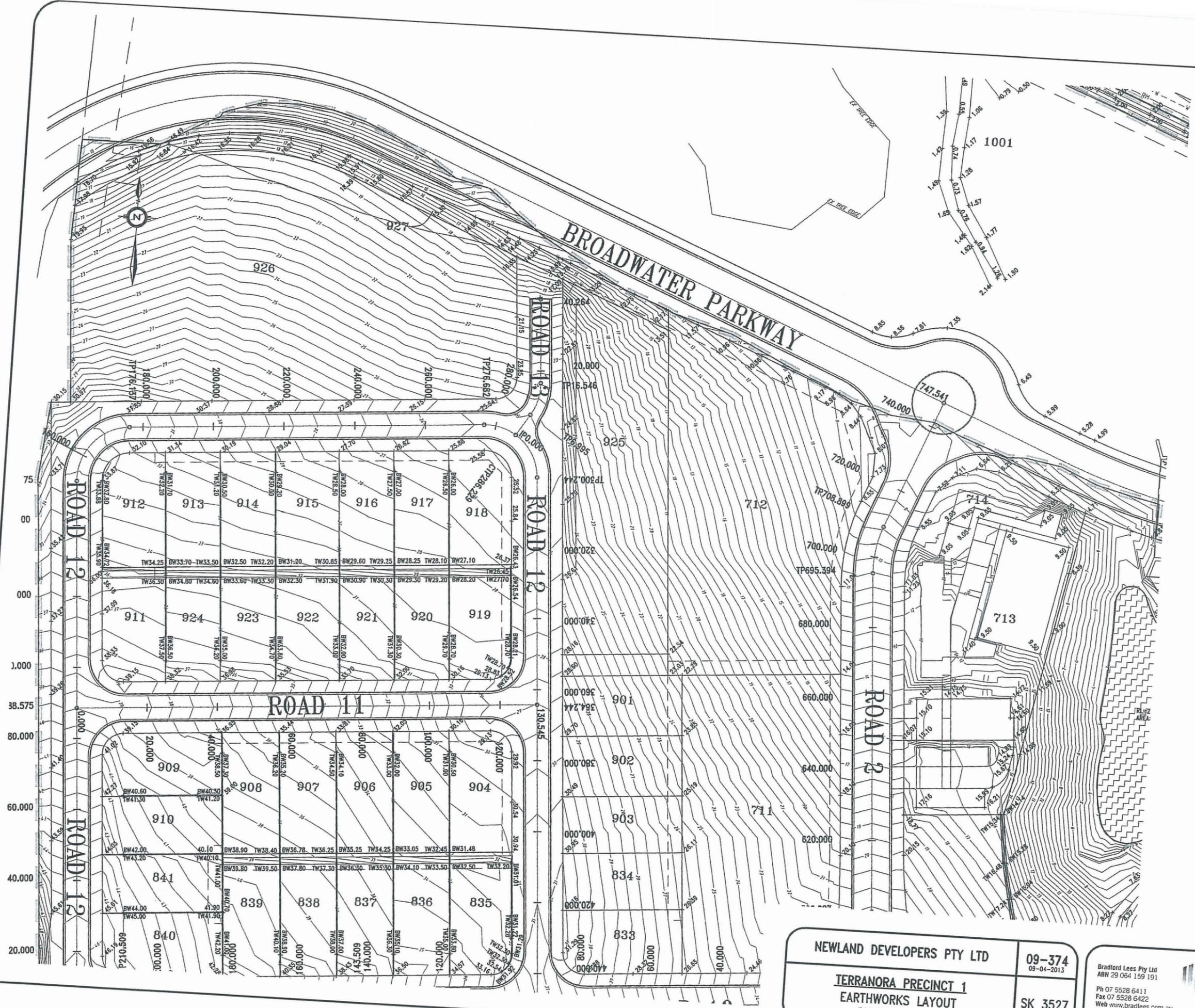


- LEGEND**
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 - 10.817 — FINISHED SURFACE LEVEL
 - PROPOSED SWALE DRAIN
 - LIMITS OF EARTHWORKS



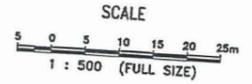
NEWLAND DEVELOPERS PTY LTD	09-374 16-05-2013
TERRANORA PRECINCT 1 EARTHWORKS LAYOUT SHEET 2 OF 5	SK 3508 REVISION D

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KEY PLAN
NOT TO SCALE

- LEGEND**
- 15 — FINISHED SURFACE CONTOURS
 - 10.817 FINISHED SURFACE LEVEL
 - PROPOSED SWALE DRAIN
 - LIMITS OF EARTHWORKS



NEWLAND DEVELOPERS PTY LTD

TERRANORA PRECINCT 1
EARTHWORKS LAYOUT
SHEET 3 OF 5

09-374
09-04-2013

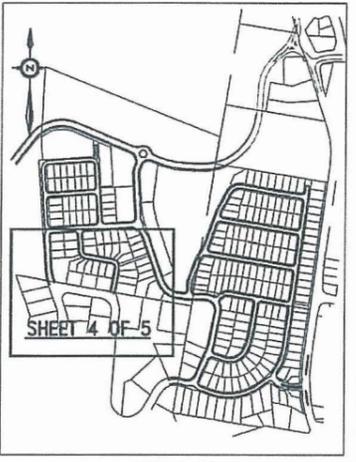
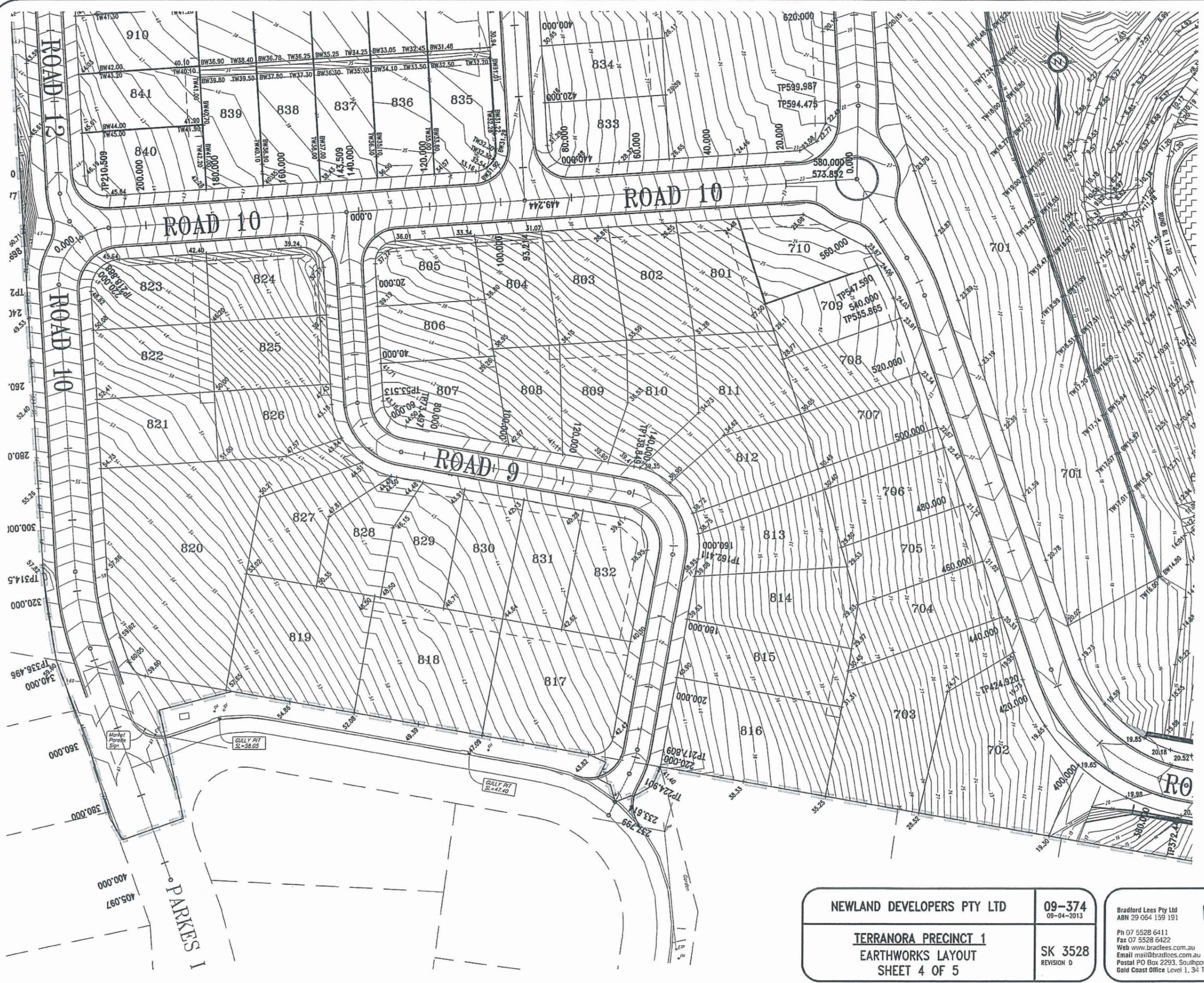
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Civil Consulting

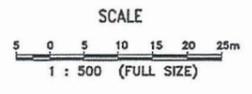
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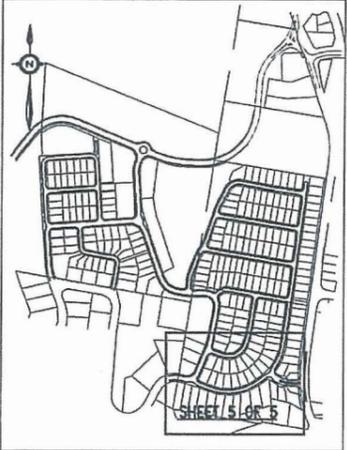
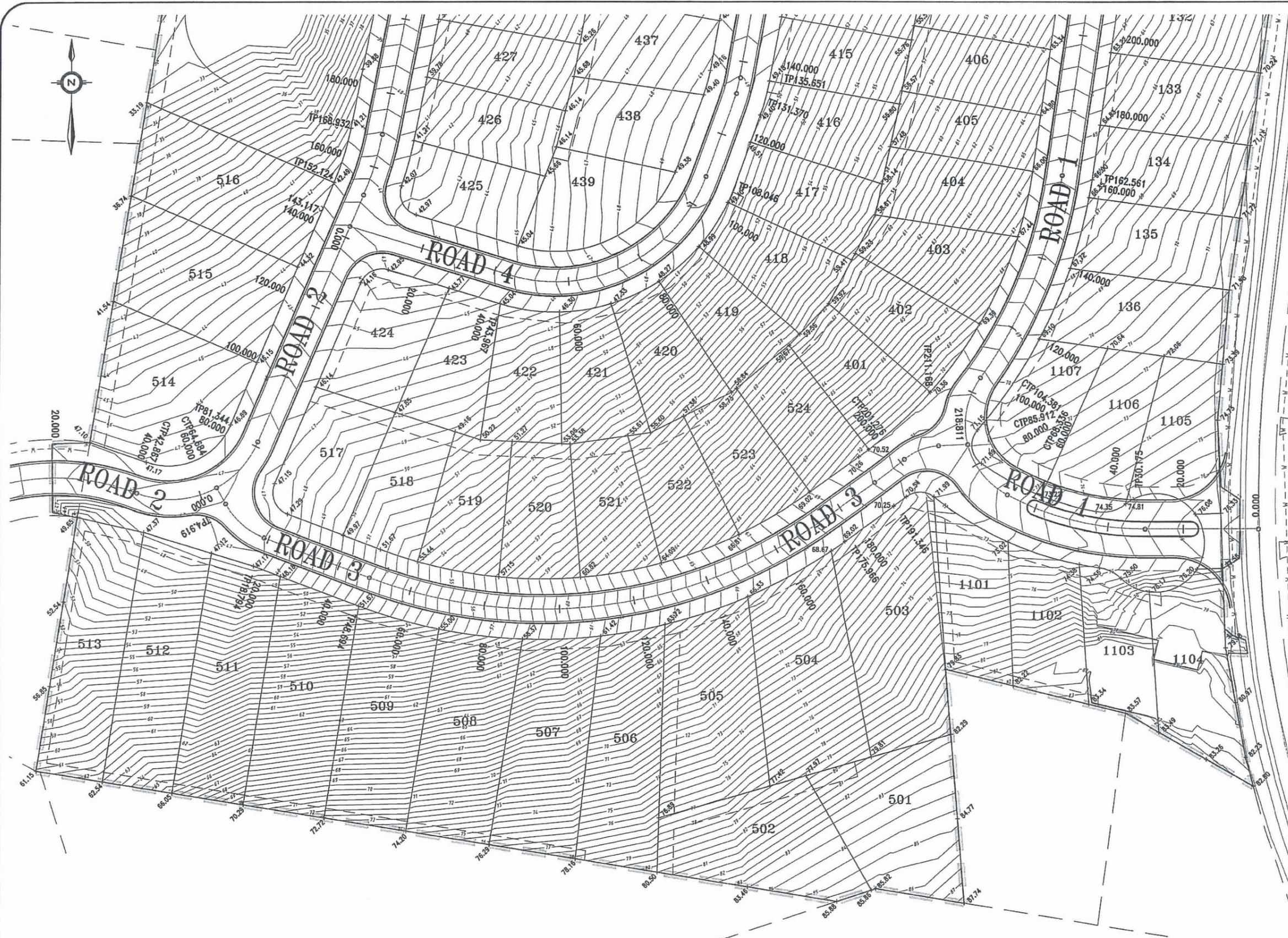
KEY PLAN
NOT TO SCALE

- LEGEND**
- 15 — FINISHED SURFACE CONTOURS
 - 10.817 — FINISHED SURFACE LEVEL
 - → → PROPOSED SWALE DRAIN
 - LIMITS OF EARTHWORKS



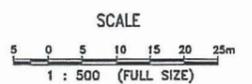
NEWLAND DEVELOPERS PTY LTD	09-374 09-04-2013
TERRANORA PRECINCT 1 EARTHWORKS LAYOUT SHEET 4 OF 5	SK 3528 REVISION D

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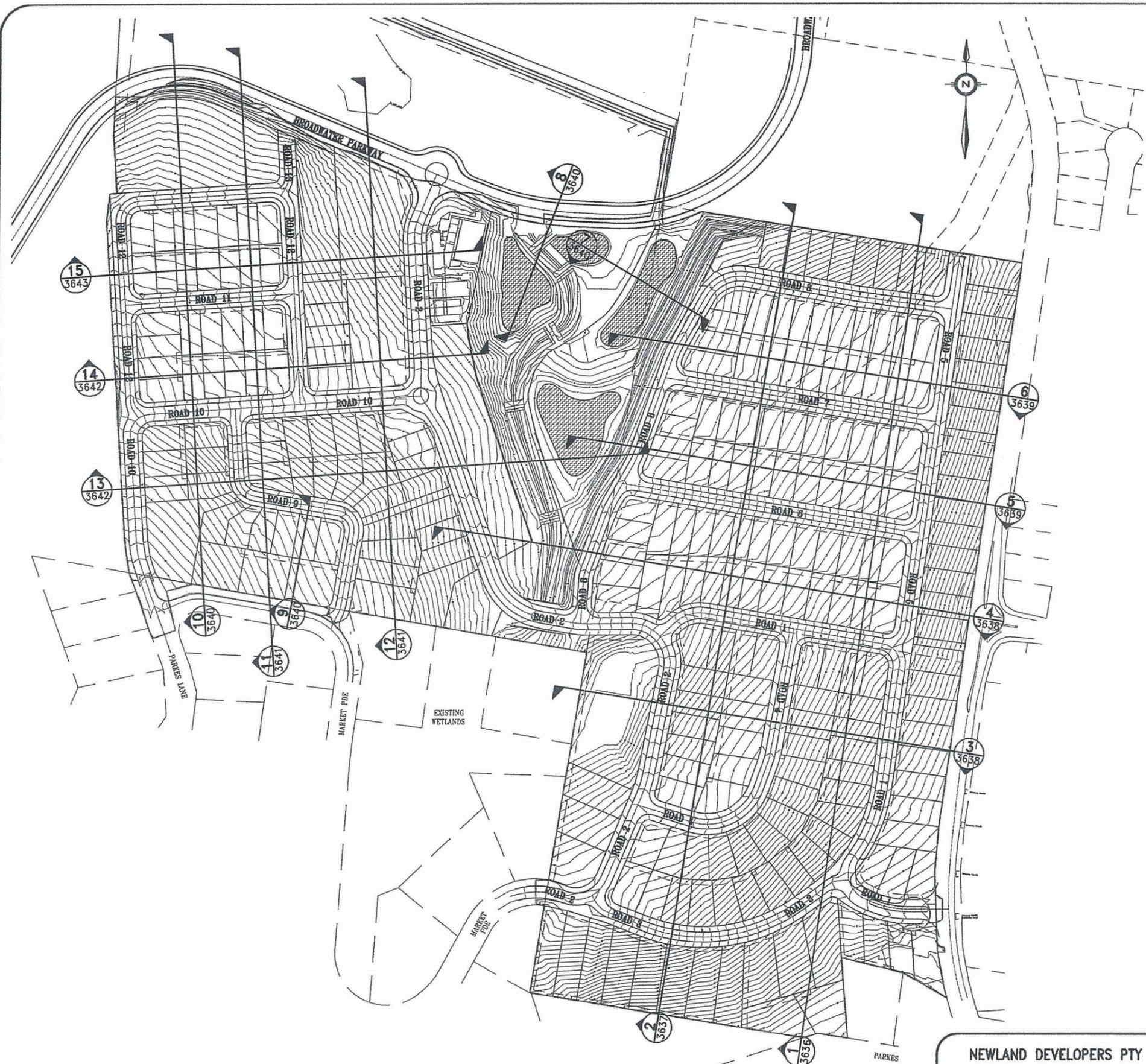
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NOT TO SCALE

- LEGEND**
- 15 — FINISHED SURFACE CONTOURS
 - 10.817 FINISHED SURFACE LEVEL
 - → → PROPOSED SWALE DRAIN
 - LIMITS OF EARTHWORKS



NEWLAND DEVELOPERS PTY LTD	09-374 27-02-2013
TERRANORA PRECINCT 1 EARTHWORKS LAYOUT SHEET 5 OF 5	SK 3529 REVISION C

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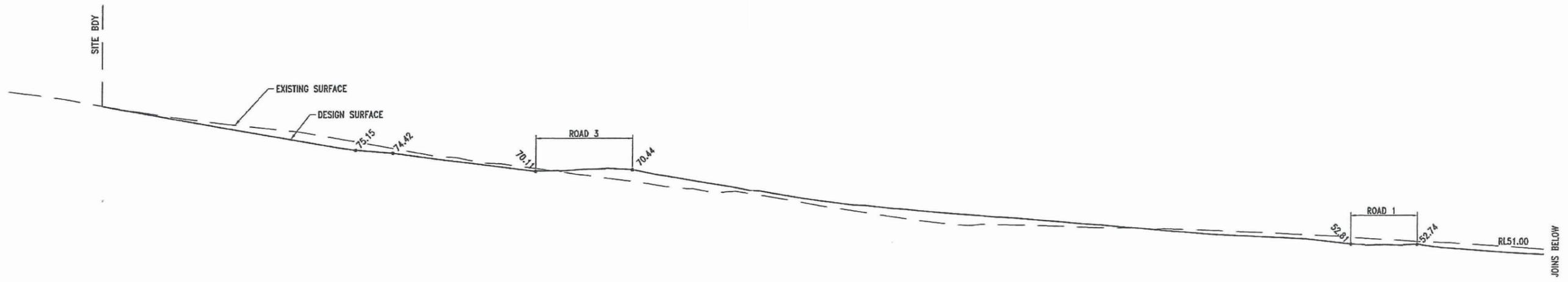


NTS

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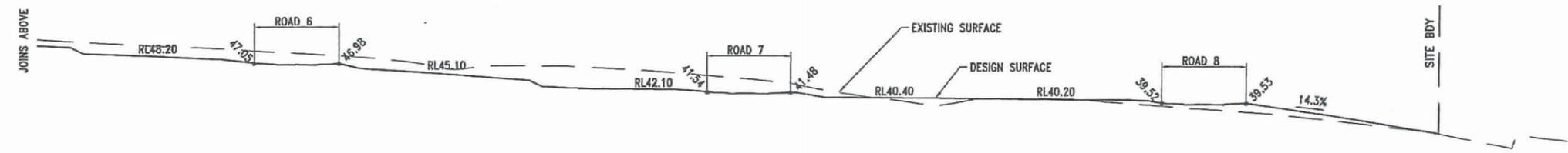
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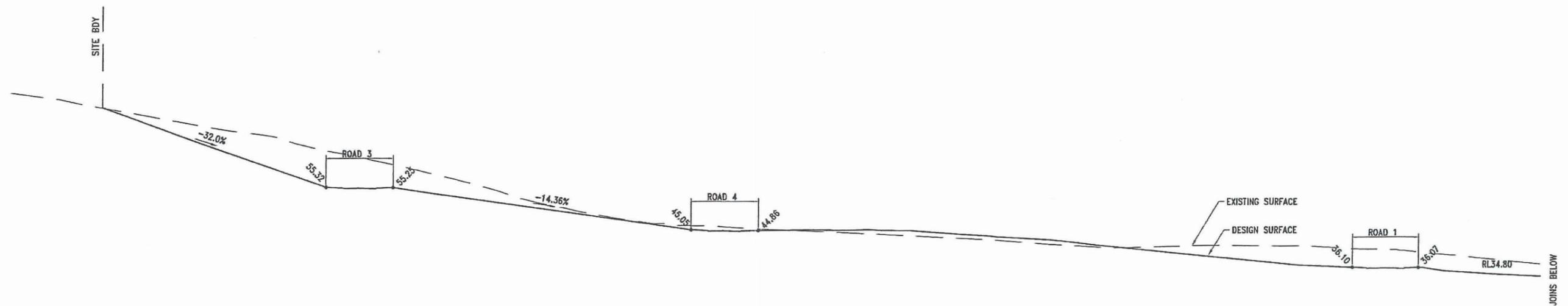


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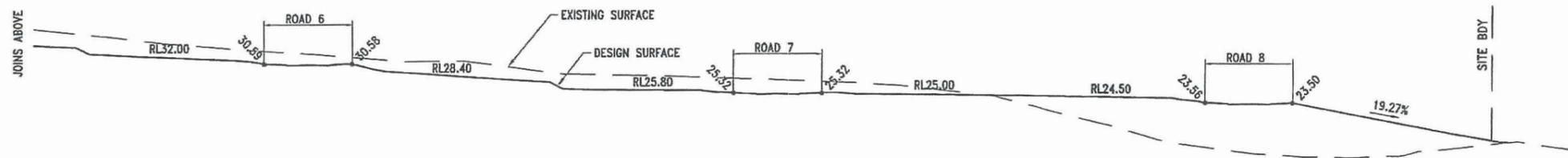
NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 1 OF 8	SK 3636 REVISION B

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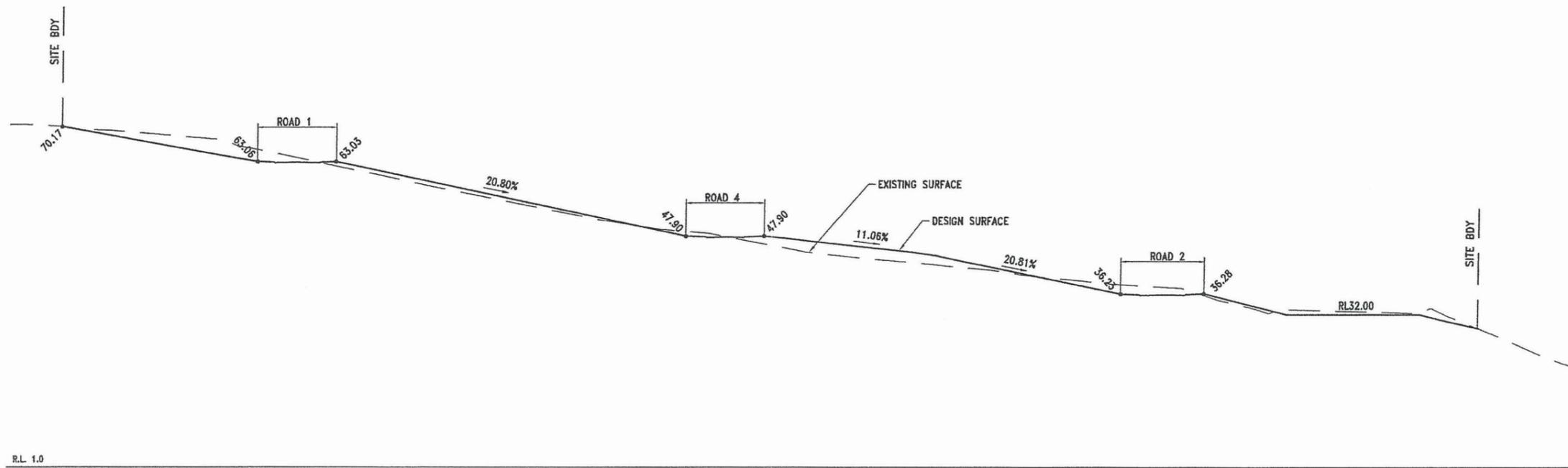
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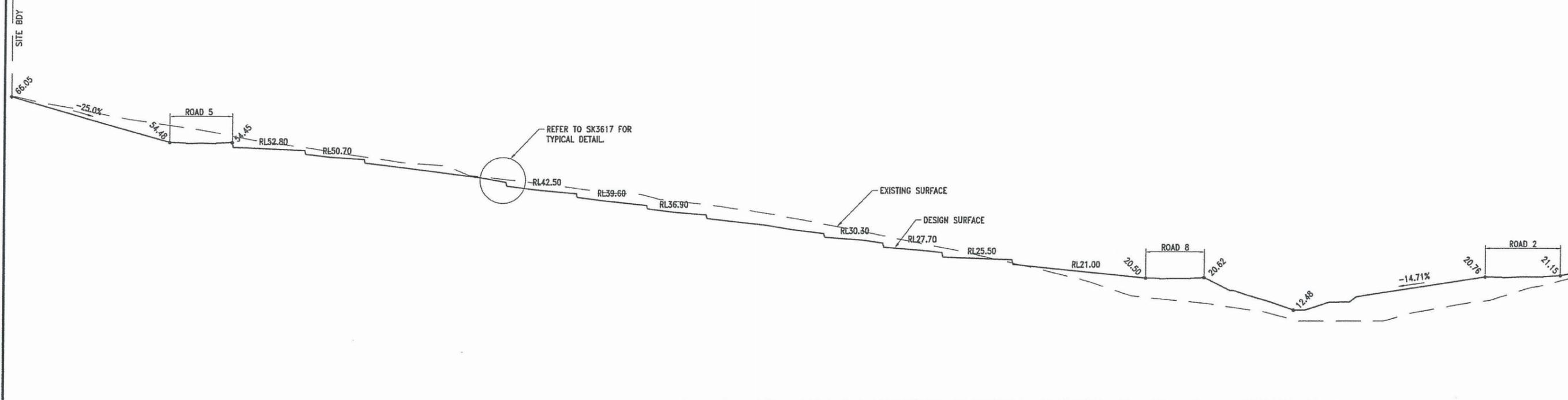
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SK3635

<p>NEWLAND DEVELOPERS PTY LTD ABN 29 064 159 191</p>	<p>09-374 07-01-2013</p>	<p>Bradford Lees Pty Ltd ABN 29 064 159 191</p>	
<p>TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 2 OF 8</p>	<p>SK 3637 REVISION B</p>	<p>Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217</p>	



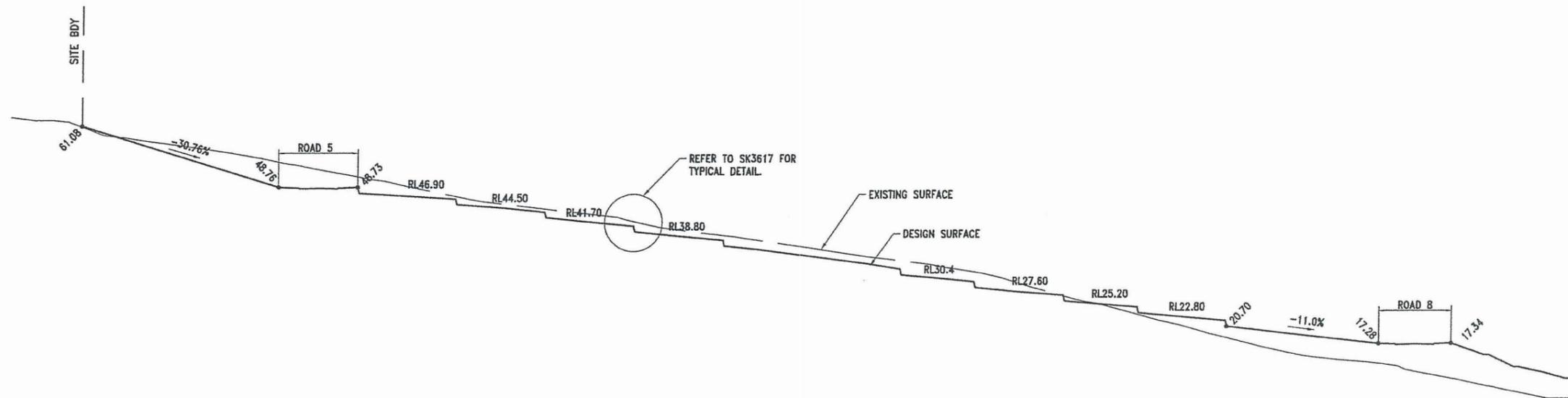
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 SK3635



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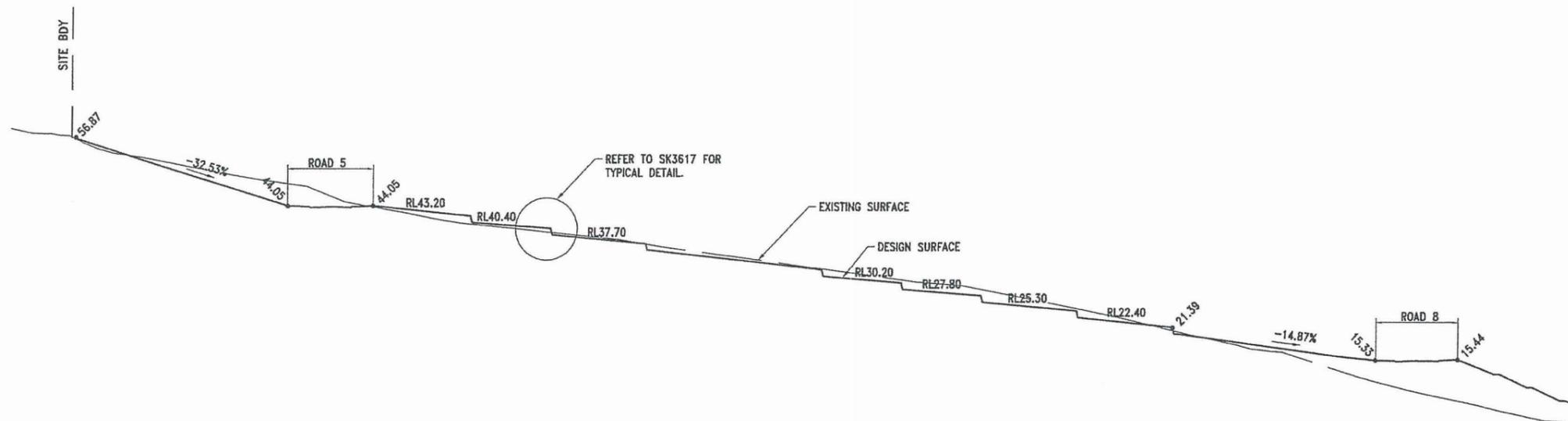
NEWLAND DEVELOPERS PTY LTD	09-374 21-05-2013
TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 3 OF 8	SK 3638 REVISION C

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SK3635

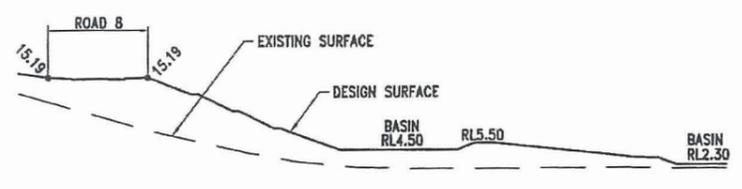


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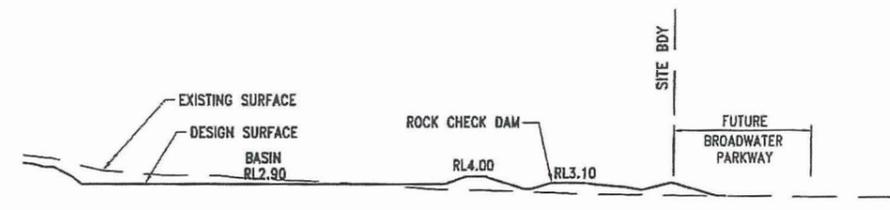
NEWLAND DEVELOPERS PTY LTD	09-374 16-05-2013
TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 4 OF 8	SK 3639 REVISION C

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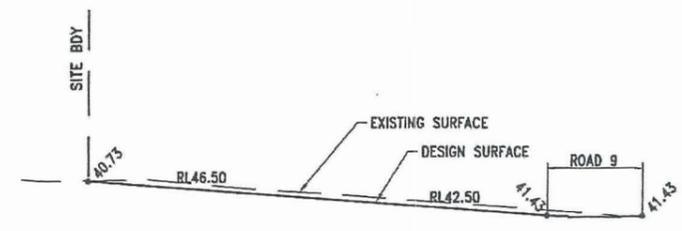
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SECTION 7
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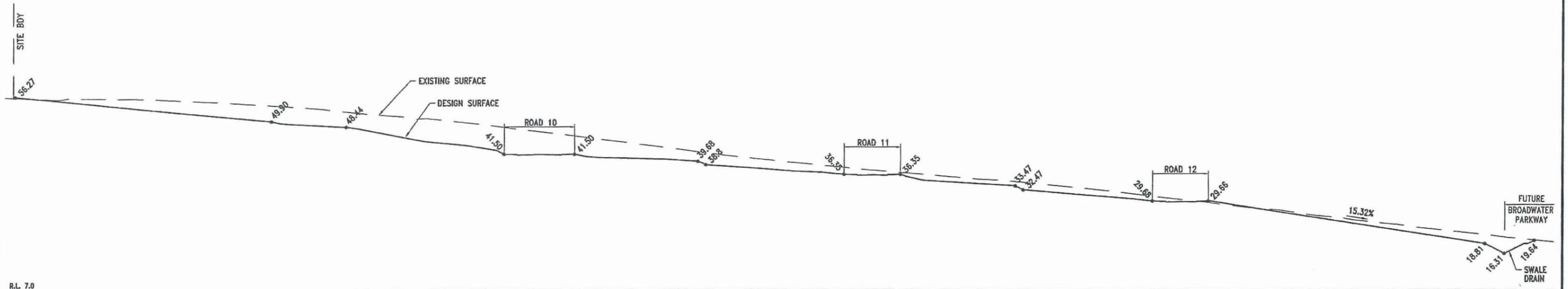
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SK3635



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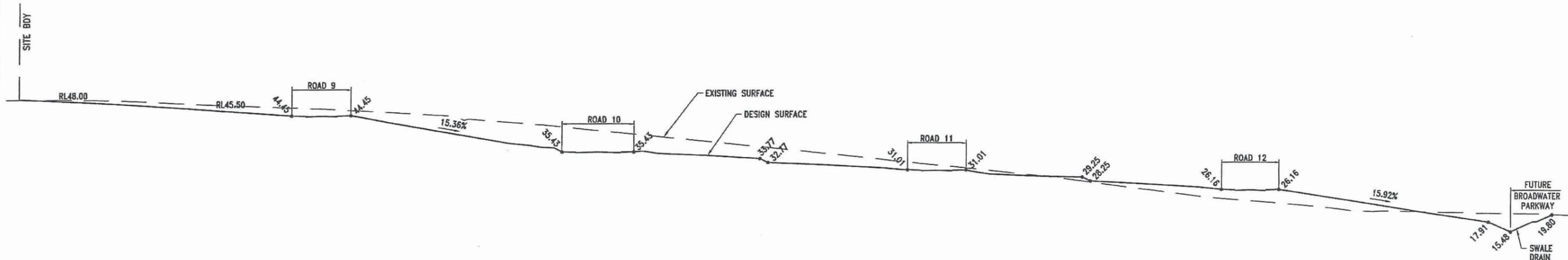


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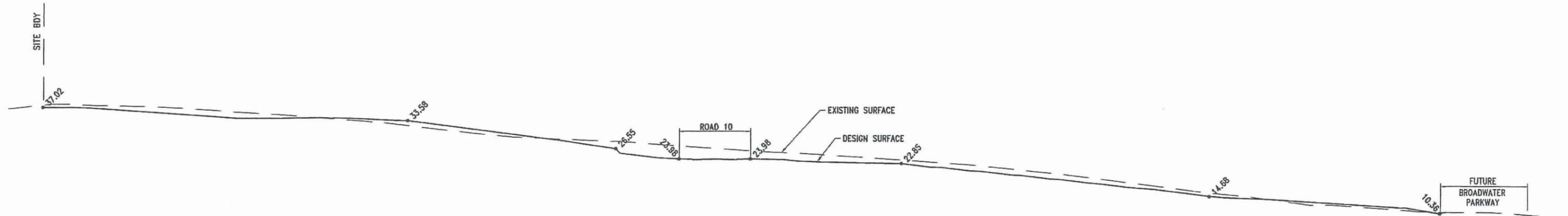
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SK3635

NEWLAND DEVELOPERS PTY LTD	09-374 09-04-2013
TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 5 OF 8	SK 3640 REVISION C

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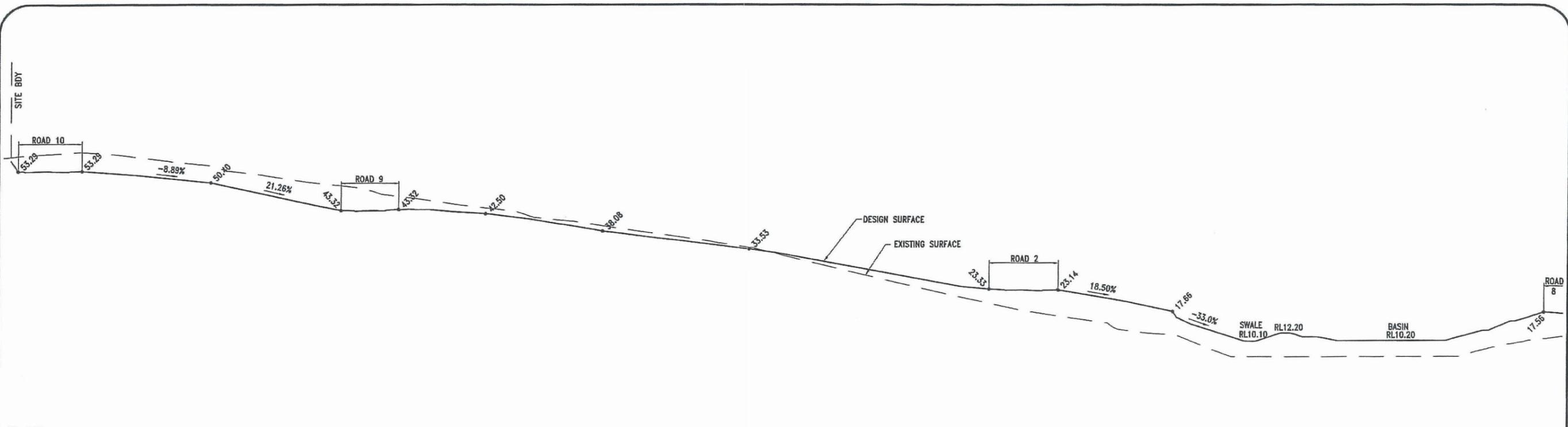


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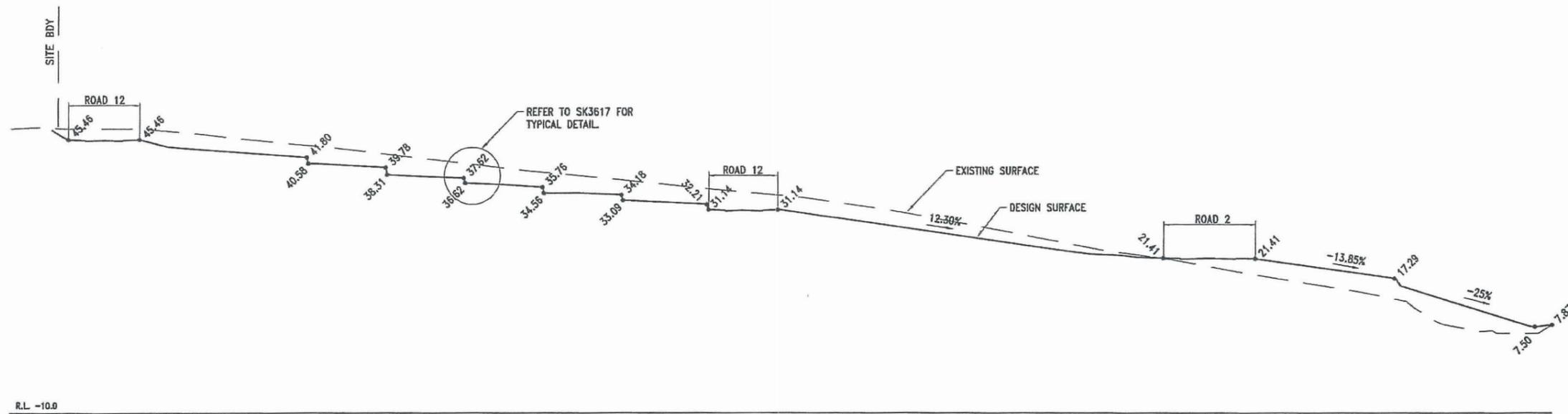


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NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 6 OF 8	09-374 09-04-2015	Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	
	SK 3641 REVISION C		



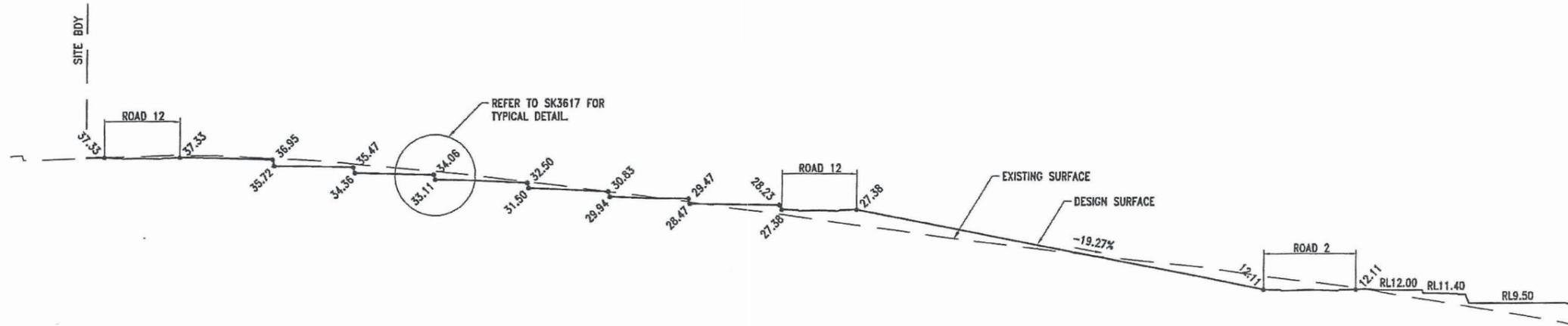
SECTION 13
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SK3635



SECTION 14
HORIZ SCALE 1:500
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SK3635

NEWLAND DEVELOPERS PTY LTD	09-374 09-04-2013
TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 7 OF 8	SK 3642 REVISION C

Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		
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R.L. -15.0
ROADNAME: SECT15-EX HORIZ SCALE 1:500 VERT SCALE 1:500

SECTION 15
HORIZ SCALE 1:500 SK3635
VERT SCALE 1:500

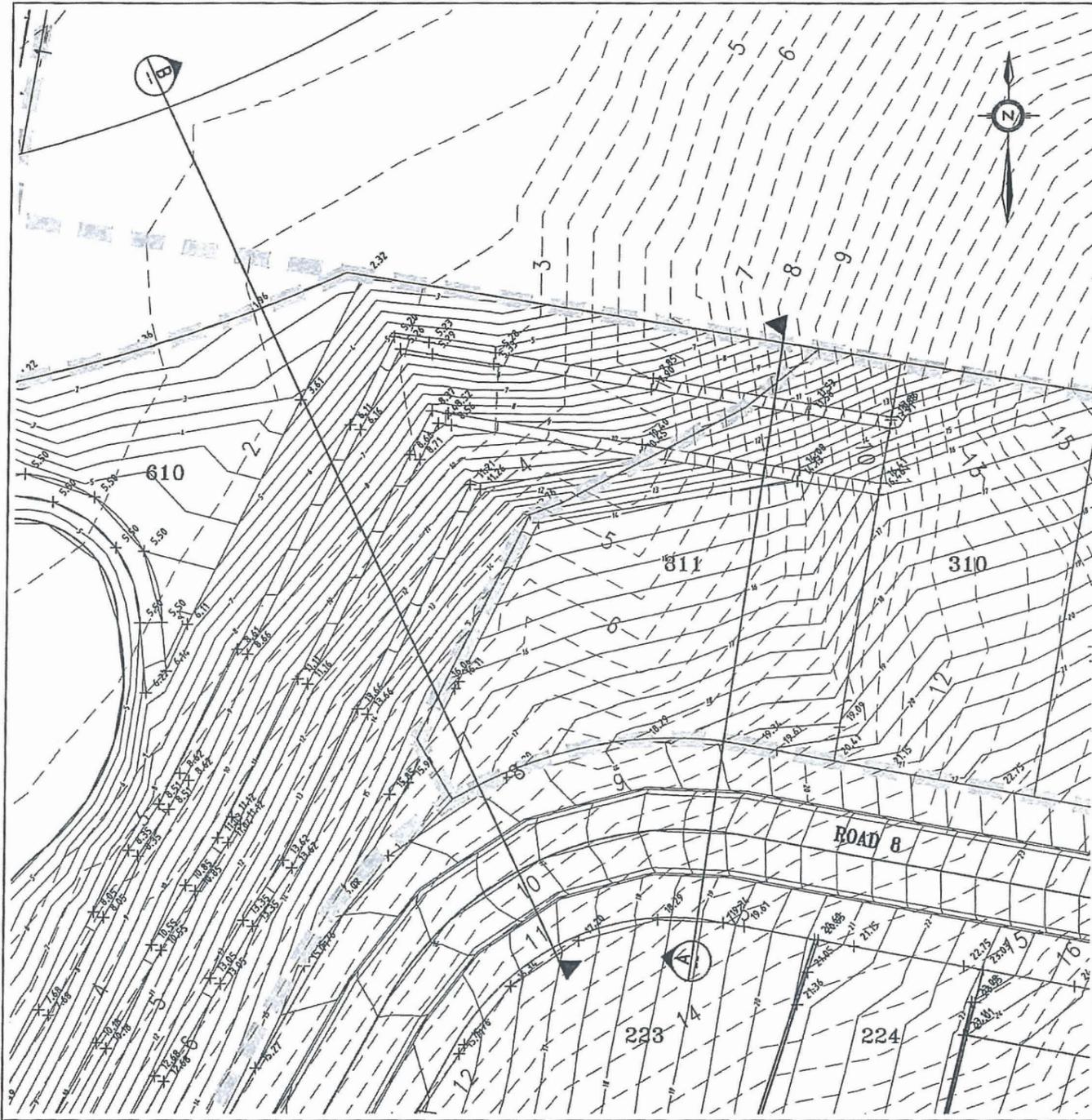
NEWLAND DEVELOPERS PTY LTD	09-374 09-04-2013
TERRANORA PRECINCT 1 EARTHWORKS CROSS SECTIONS SHEET 8 OF 8	SK 3643 REVISION C

Bradford Lees Pty Ltd
ABN 29 064 159 191

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

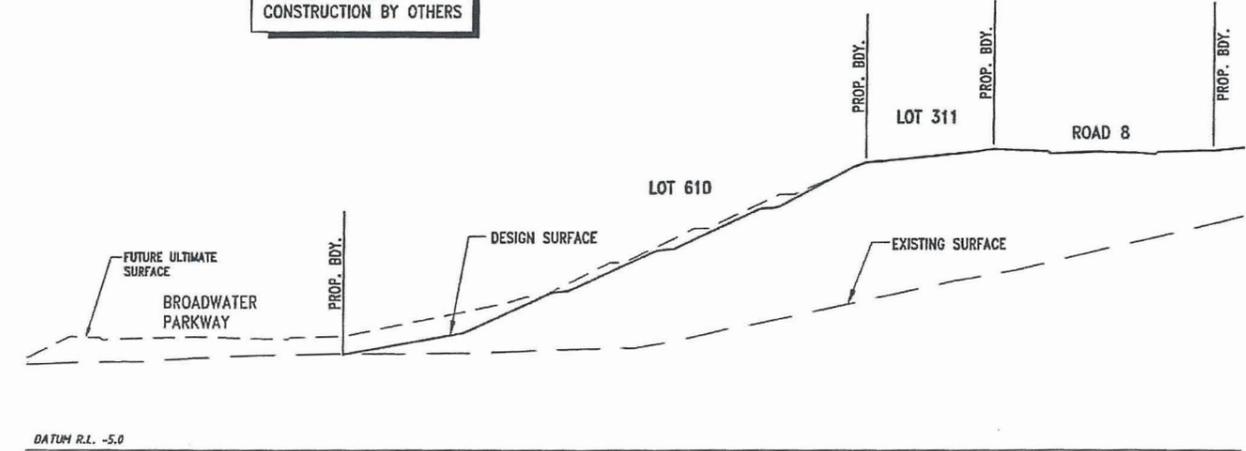
Bradlees
Civil Consulting

QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
REG. NO. 513

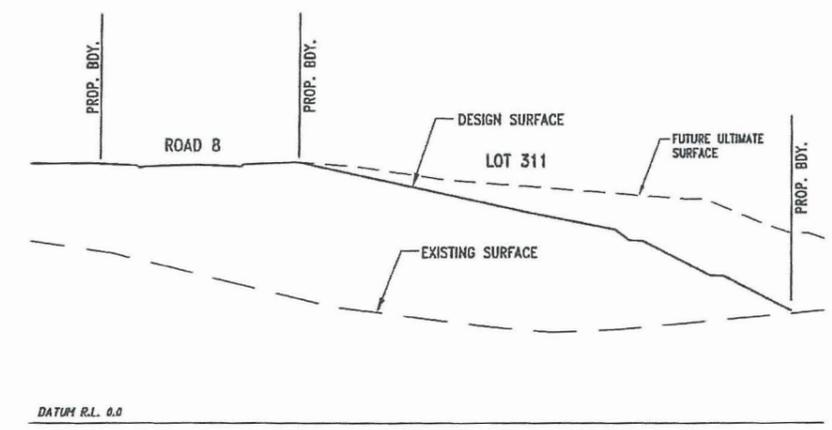


LAYOUT
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NOTE
FUTURE ULTIMATE
CONSTRUCTION BY OTHERS

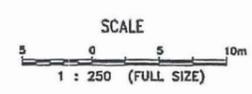


SECTION B
SCALE 1:250



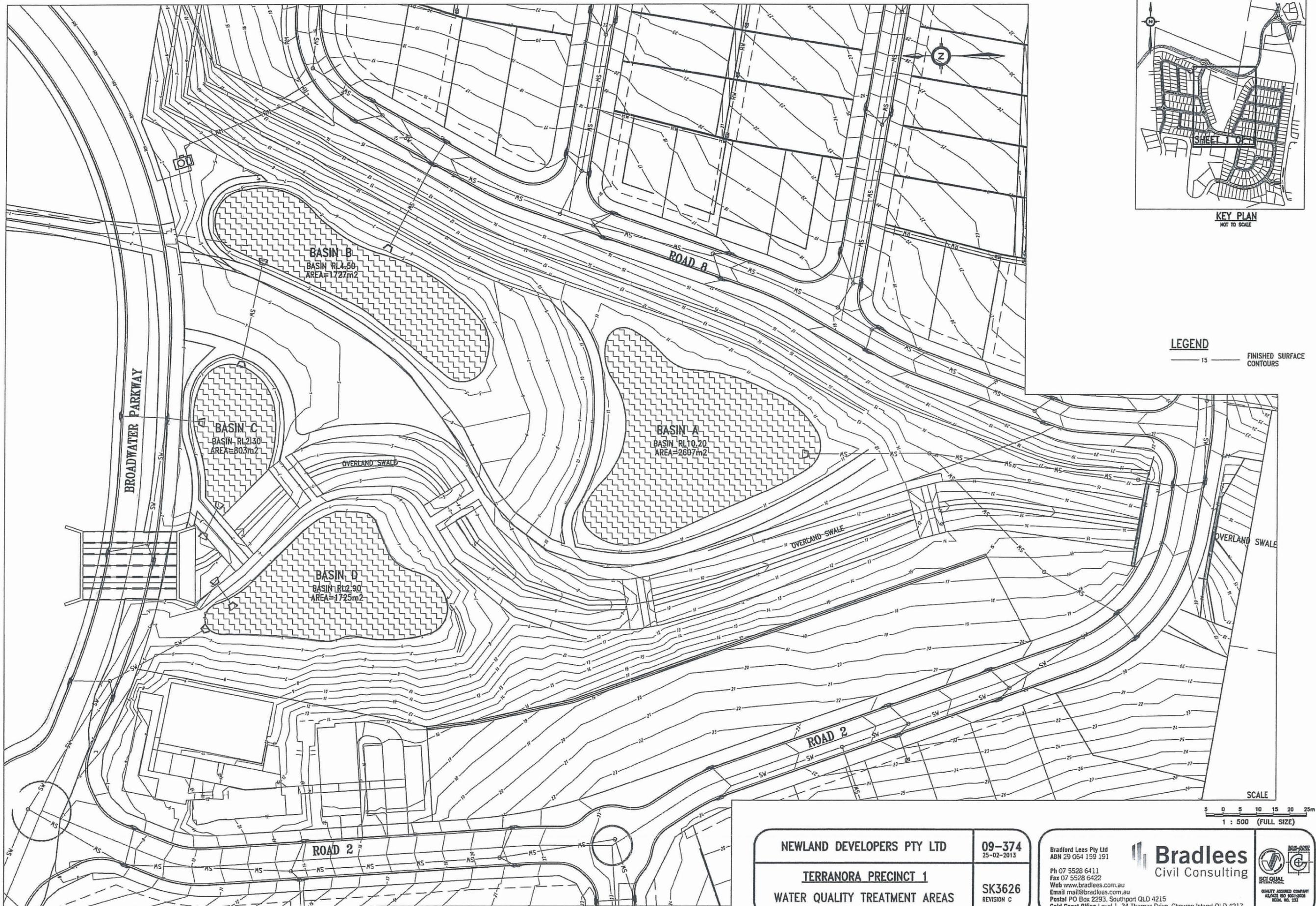
SECTION A
SCALE 1:250

- LEGEND**
- 15 — FINISHED SURFACE CONTOURS
 - - - 12 - - - EXISTING SURFACE CONTOURS
 - STAGE BOUNDARY
 - + 10.817 FINISHED SURFACE LEVEL



NEWLAND DEVELOPERS PTY LTD	09-374 15-03-2013
TERRANORA PRECINCT 1 EXISTING BOUNDARY TIE IN	SK 4032 REVISION A

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mial@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	Bradlees Civil Consulting	 <small>QUALITY ASSURED COMPANY AS/NZS 9000 CERTIFIED REG. NO. 210</small>
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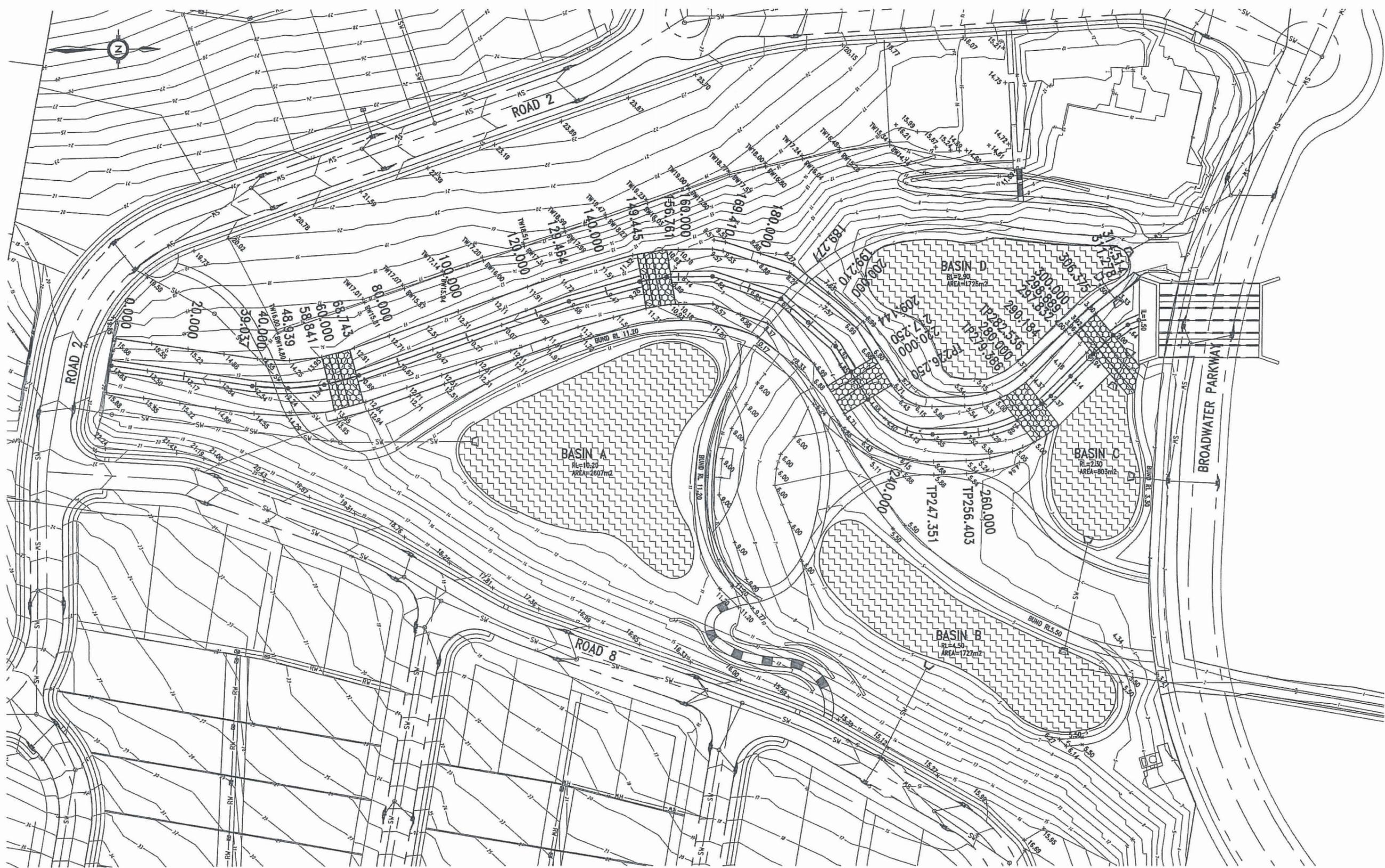
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2013
TERRANORA PRECINCT 1	SK3626
WATER QUALITY TREATMENT AREAS	REVISION C

Bradford Lees Pty Ltd
ABN 29 064 159 191

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

Bradlees
Civil Consulting

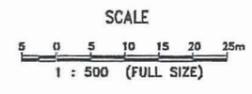
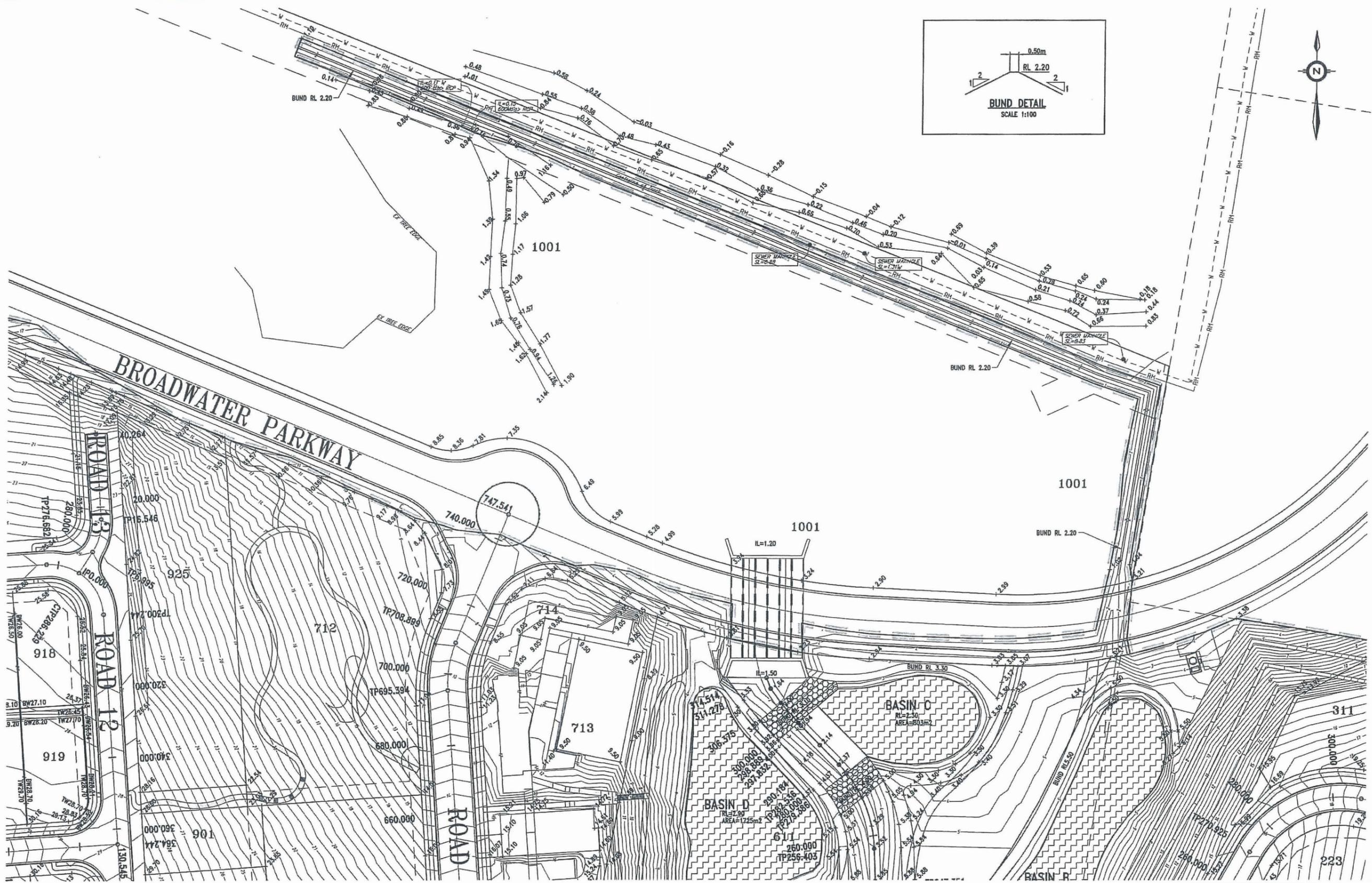
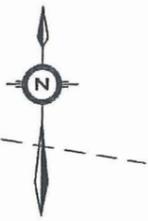
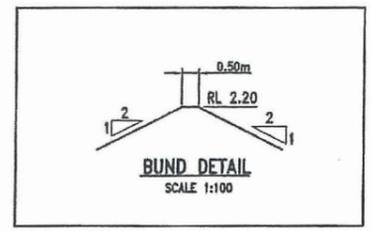
ISO 9001
SOCI QUAL
INTERNATIONAL
QUALITY ASSURED COMPANY
AS/NZS ISO 9001:2008
REG. NO. 121



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1 : 500 (FULL SIZE)

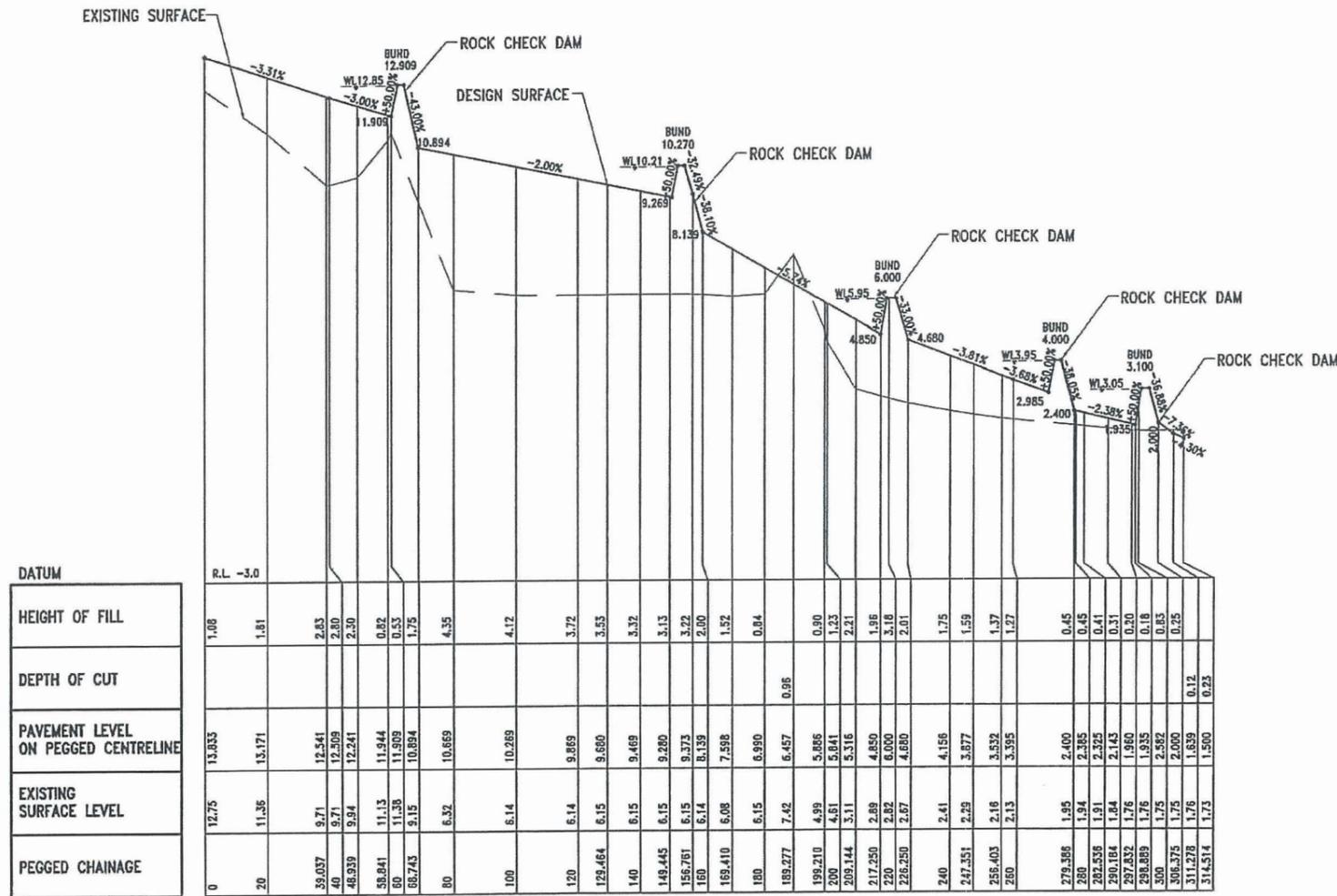
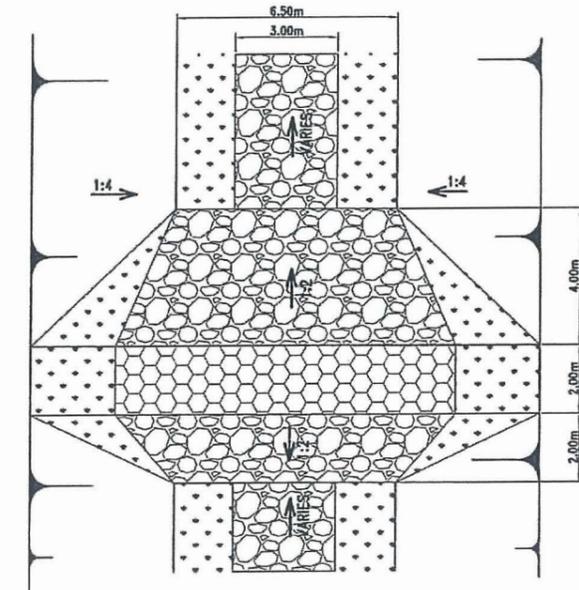
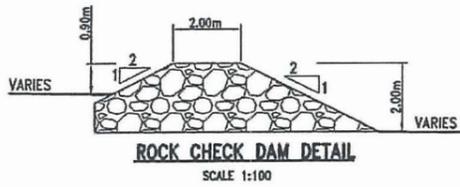
NEWLAND DEVELOPERS PTY LTD	09-374 09-04-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE PLAN	SK3618 REVISION D

Bradford Lees Pty Ltd ABN 29 064 159 191		
Ph 07 3528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		



NEWLAND DEVELOPERS PTY LTD	09-374 17-04-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE BUND	SK 4038 REVISION B

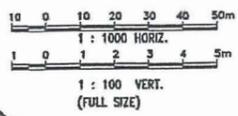
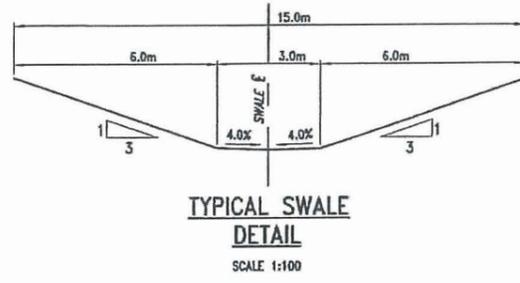
Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	<p>Bradlees Civil Consulting</p>	<p>QUALITY ASSURED COMPANY AUSTRALIAN ISO 9001:2008 REG. NO. 233</p>
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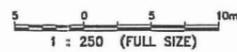
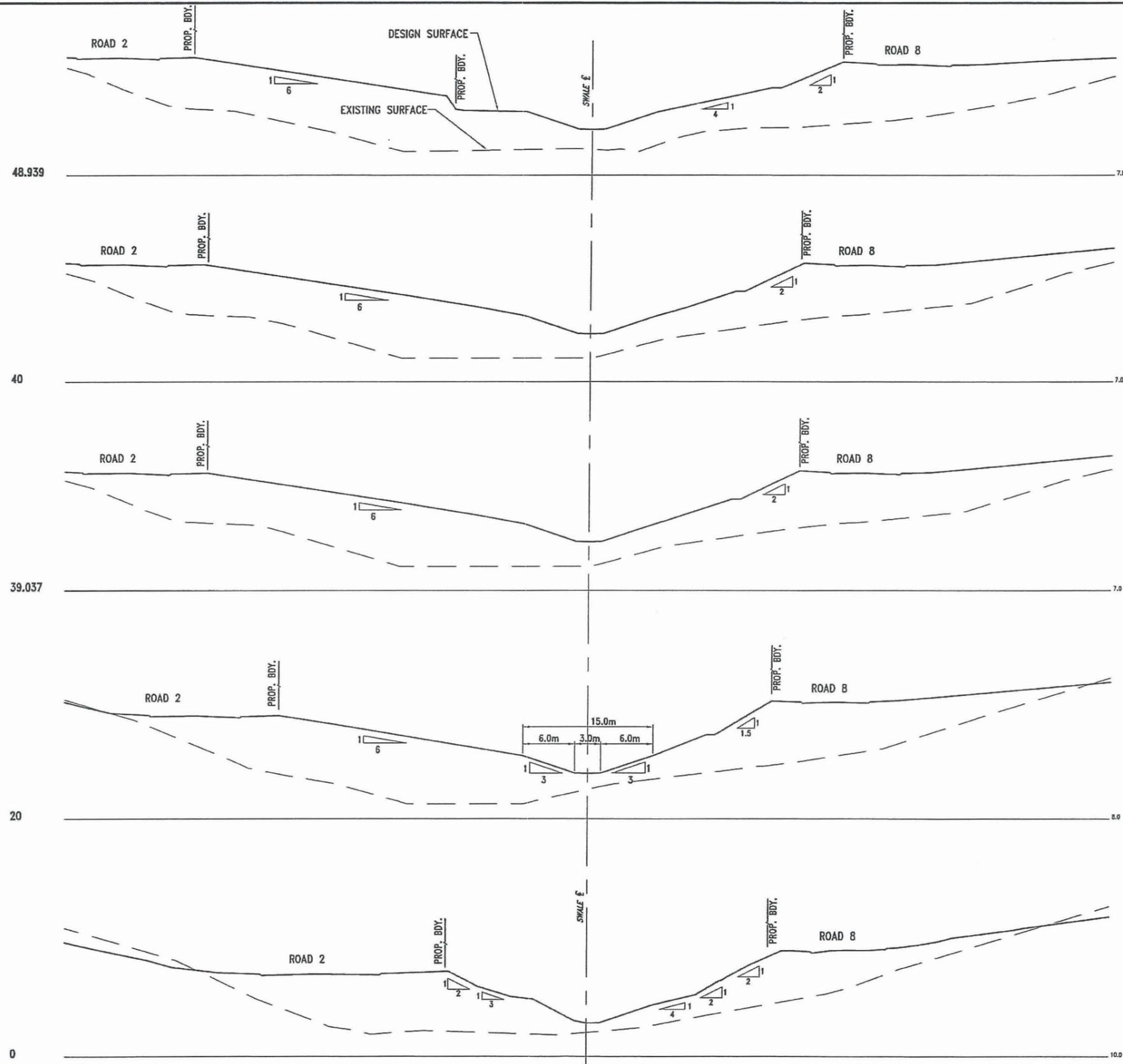
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DEPTH OF CUT	
PAVEMENT LEVEL ON PEGGED CENTRELINE	13.833, 13.171, 12.541, 12.509, 12.241, 11.944, 11.909, 10.894, 10.669, 10.269, 9.869, 9.660, 9.469, 9.260, 9.373, 8.139, 7.598, 6.990, 6.457, 5.866, 5.841, 5.316, 4.850, 6.000, 4.660, 4.156, 3.877, 3.532, 3.395, 2.400, 2.385, 2.325, 2.143, 1.960, 1.935, 2.562, 2.000, 1.500, 0.25
EXISTING SURFACE LEVEL	12.75, 11.36, 9.71, 9.71, 9.94, 11.13, 11.38, 9.15, 6.32, 6.14, 6.14, 6.15, 6.15, 6.15, 6.15, 6.14, 6.08, 6.15, 7.42, 4.99, 4.61, 3.11, 2.69, 2.82, 2.67, 2.41, 2.29, 2.16, 2.13, 1.95, 1.94, 1.91, 1.84, 1.76, 1.76, 1.75, 1.75, 1.76, 1.73
PEGGED CHAINAGE	0, 20, 39.037, 40, 46.939, 58.841, 60, 66.743, 80, 100, 120, 129.464, 140, 149.445, 156.761, 160, 169.410, 180, 189.277, 199.210, 200, 209.144, 217.250, 220, 226.250, 240, 247.351, 256.403, 260, 279.366, 280, 287.536, 290.184, 292.832, 298.869, 300, 308.375, 311.278, 314.514

HORIZONTAL CURVE DATA

R20 R35 R15

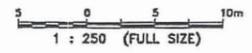
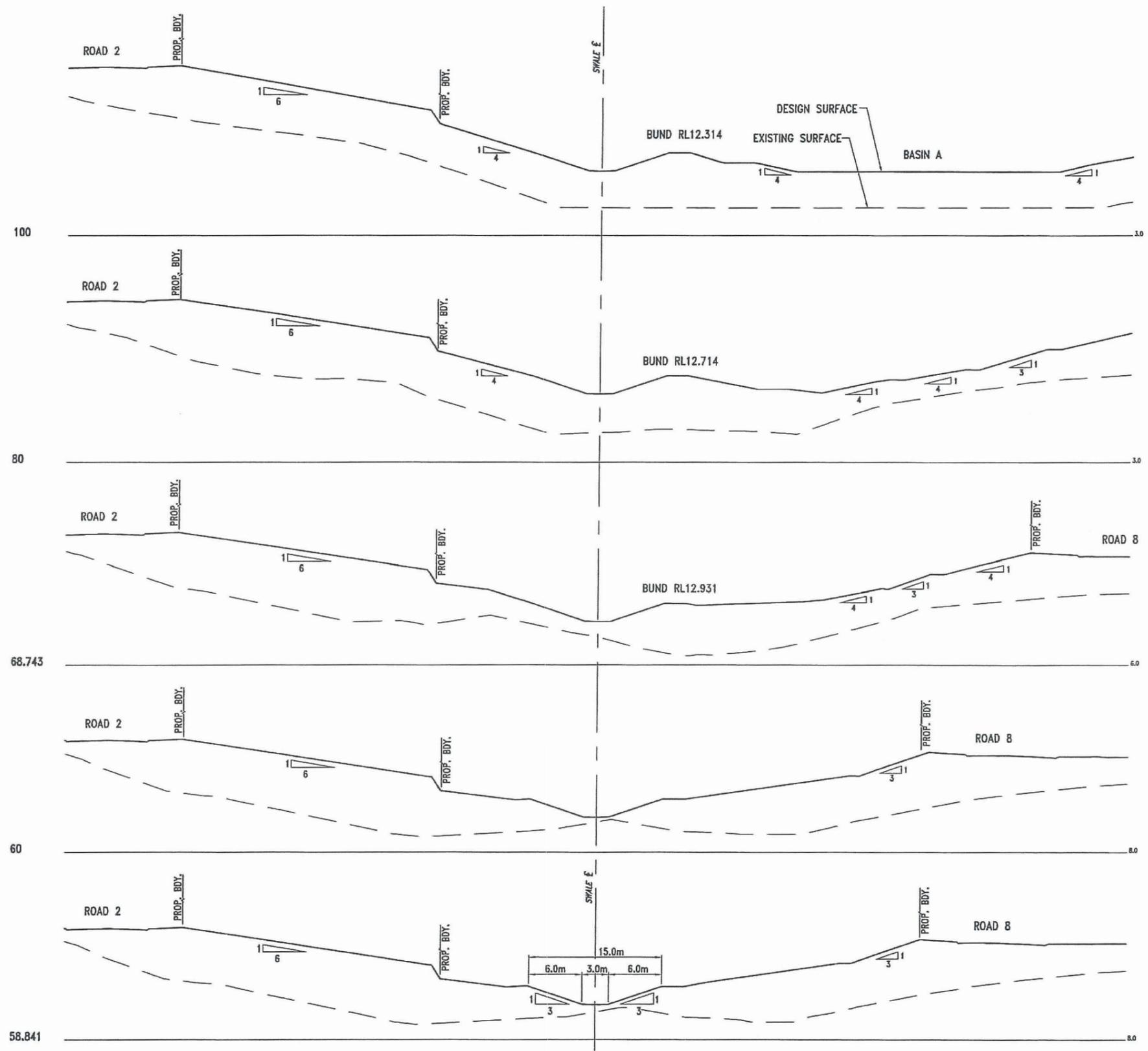


NEWLAND DEVELOPERS PTY LTD TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE LONG SECTION	09-374 25-02-2013 SK3619 REVISION B	Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217



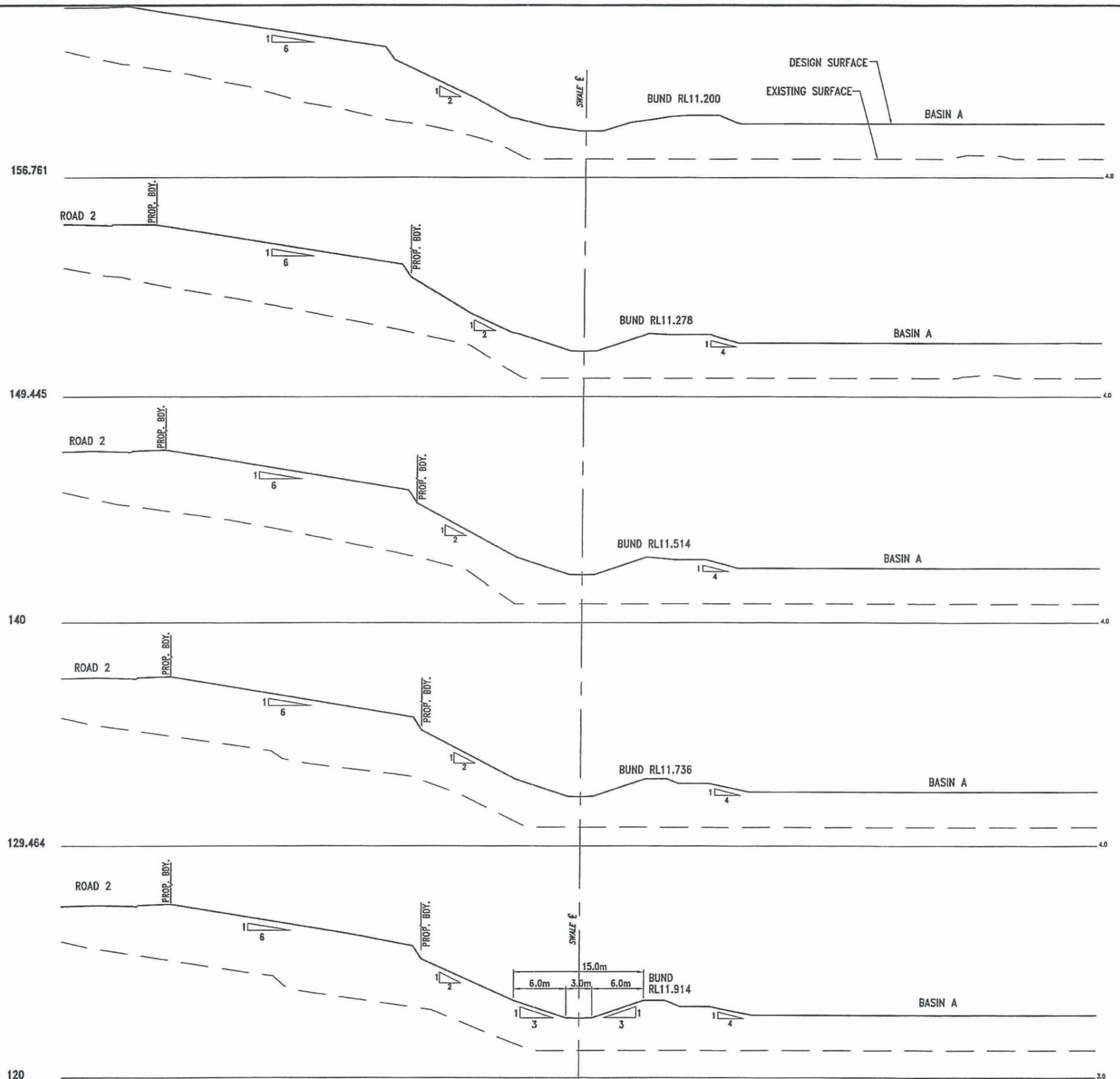
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE CROSS SECTIONS SHEET 1 OF 6	SK3620 REVISION C

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		
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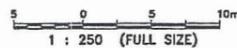
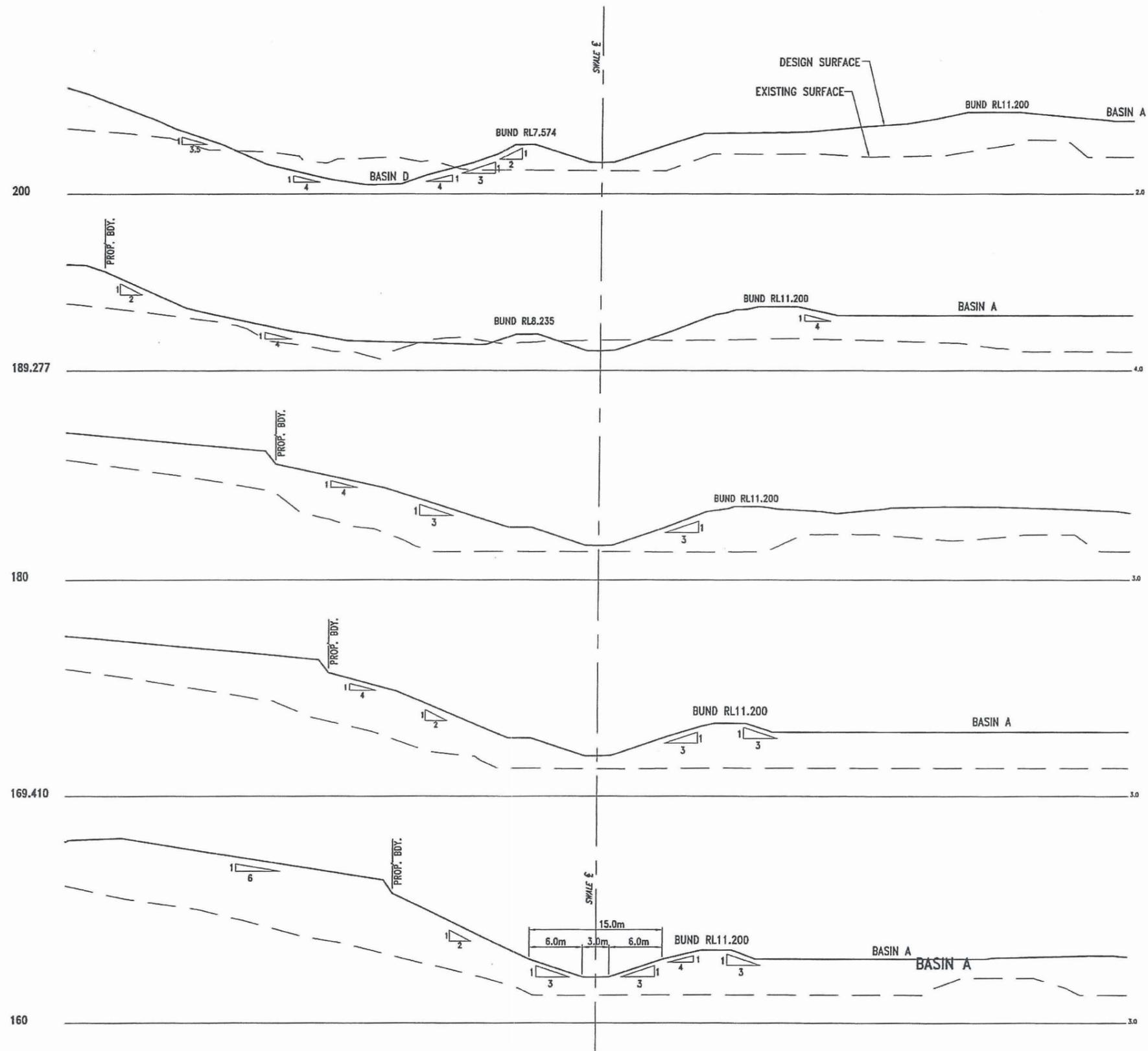
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE CROSS SECTIONS SHEET 2 OF 6	SK3621 REVISION C

Bradford Lees Pty Ltd ABN 29 064 159 191		
Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		



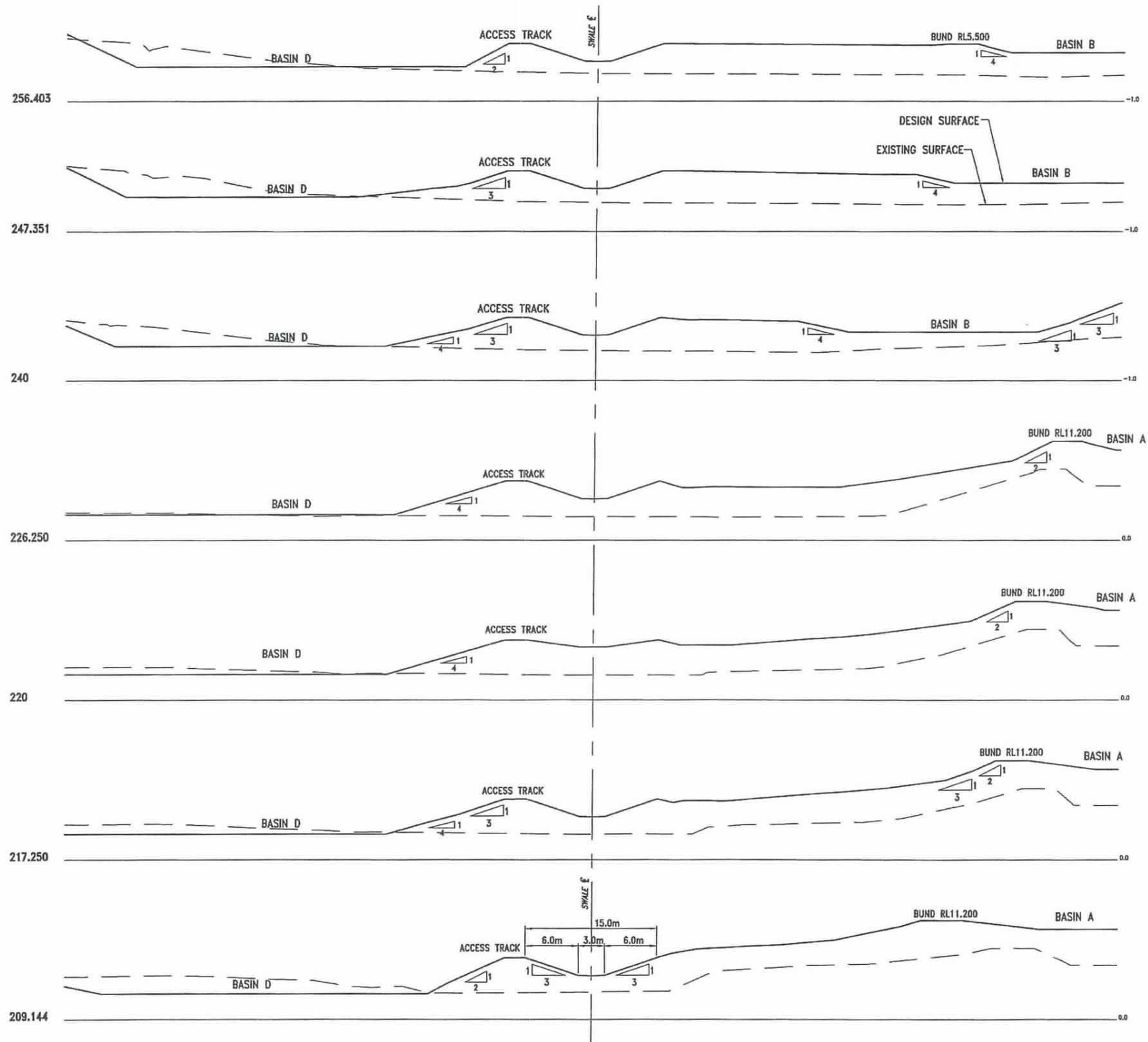
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE CROSS SECTIONS SHEET 3 OF 6	SK3622 REVISION C

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217			
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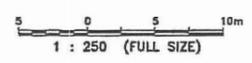
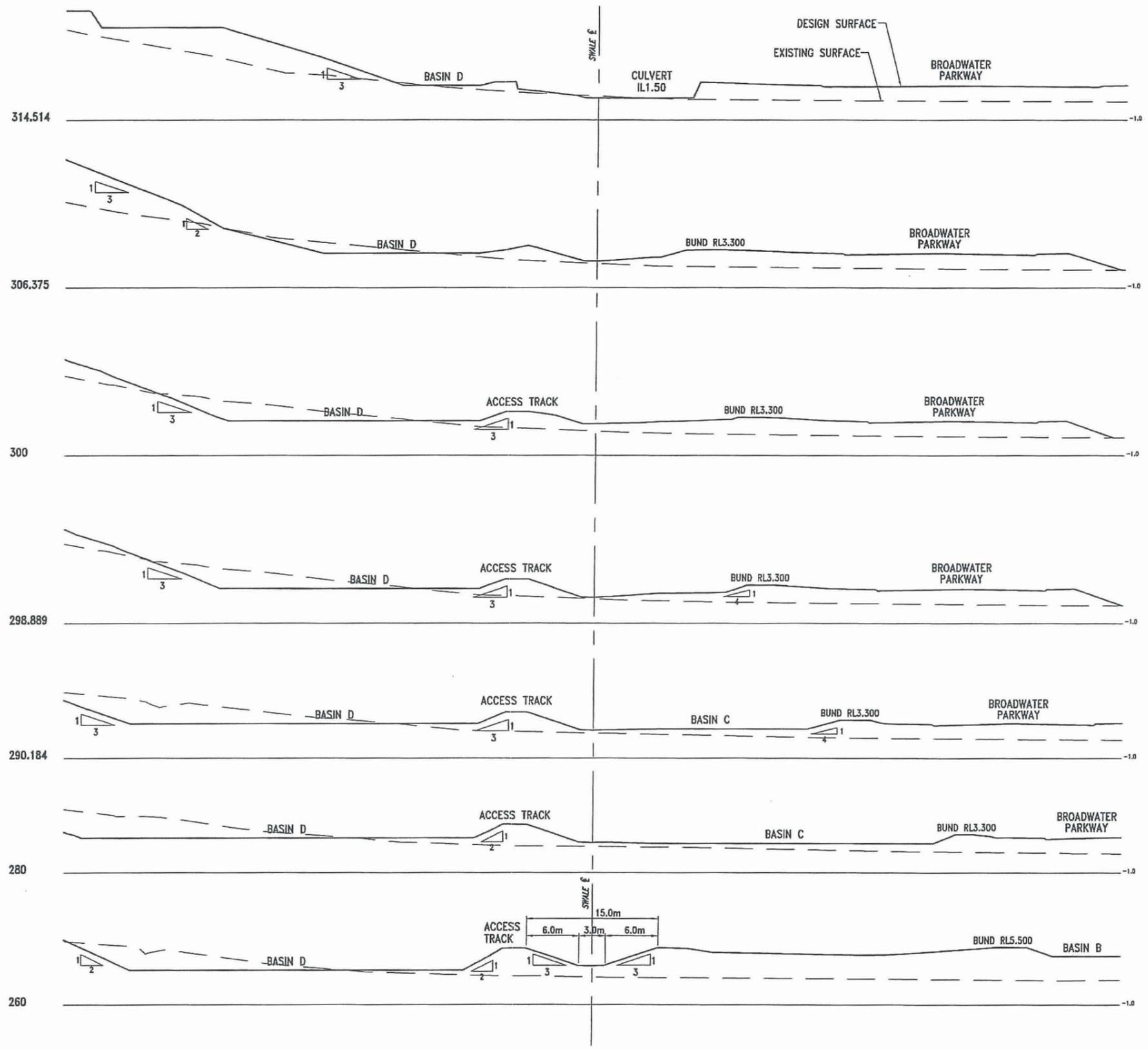
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2015
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE CROSS SECTIONS SHEET 4 OF 6	SK3623 REVISION C

Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting	 SCL QUAL QUALITY ASSURED COMPANY AS/NZS ISO 9001:2015 REG. NO. 233
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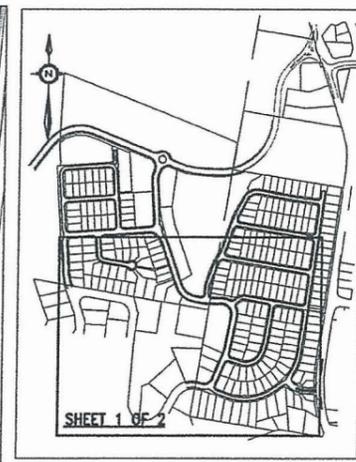
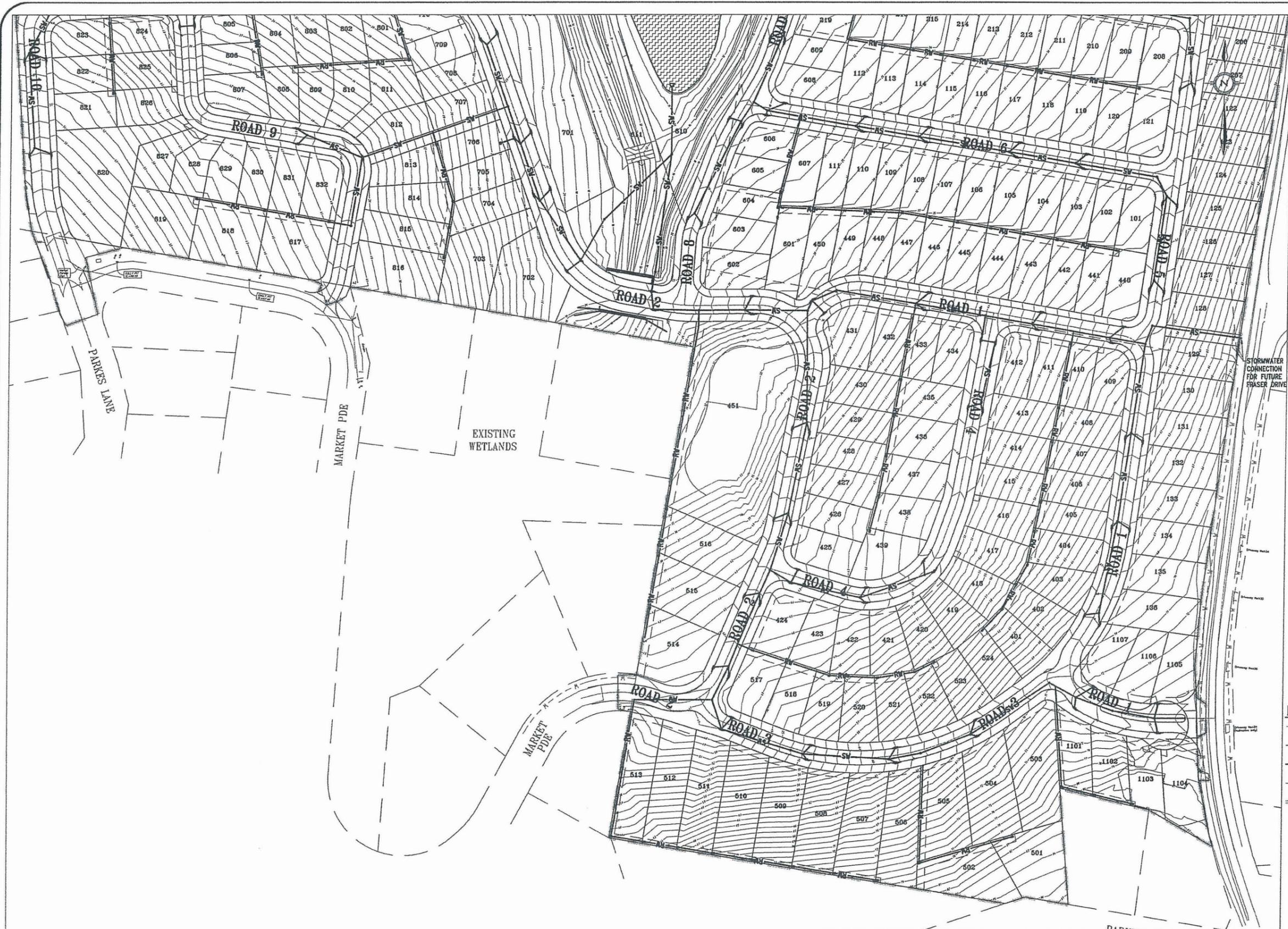
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE CROSS SECTIONS SHEET 5 OF 6	SK3624 REVISION C

Bradford Lees Pty Ltd ABN 29 054 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	 Bradlees Civil Consulting <small>QUALITY ASSURED COMPANY AS/NZS 9001:2008 REG. NO. 233</small>
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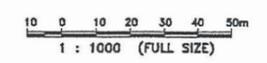
NEWLAND DEVELOPERS PTY LTD	09-374 25-02-2013
TERRANORA PRECINCT 1 CENTRAL OPEN DRAIN SWALE CROSS SECTIONS SHEET 6 OF 6	SK3625 REVISION C

Bradford Lees Pty Ltd ABN 29 064 159 191		
Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		



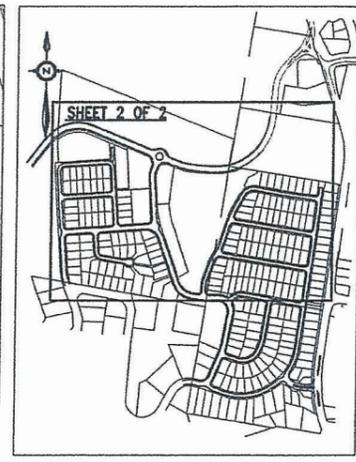
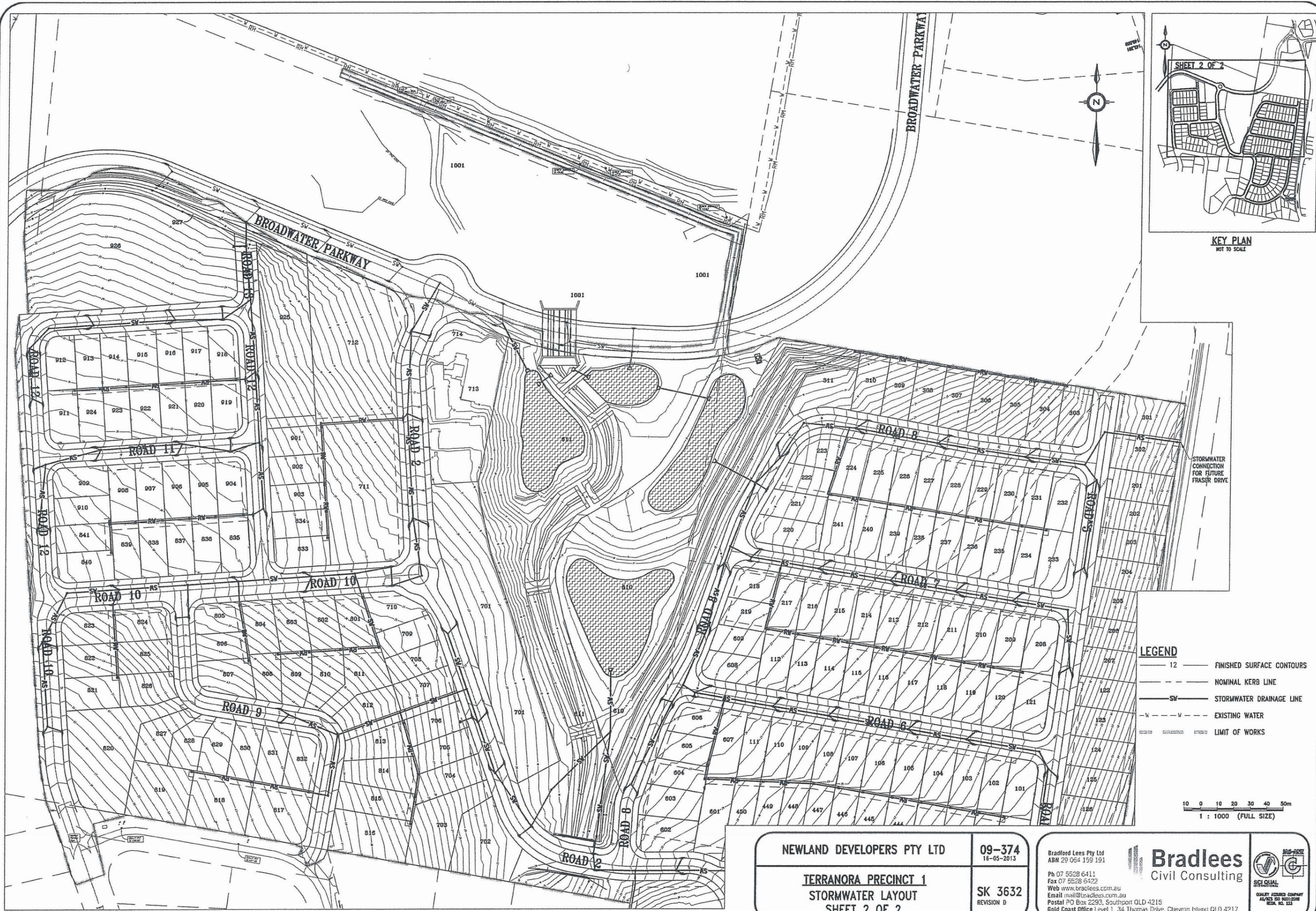
KEY PLAN
NOT TO SCALE

- LEGEND**
- 12 — FINISHED SURFACE CONTOURS
 - - - - - NOMINAL KERB LINE
 - SW — STORMWATER DRAINAGE LINE
 - W - - - - EXISTING WATER
 - --- --- LIMIT OF WORKS



NEWLAND DEVELOPERS PTY LTD	09-374 16-05-2013
TERRANORA PRECINCT 1 STORMWATER LAYOUT SHEET 1 OF 2	SK 3631 REVISION C

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	
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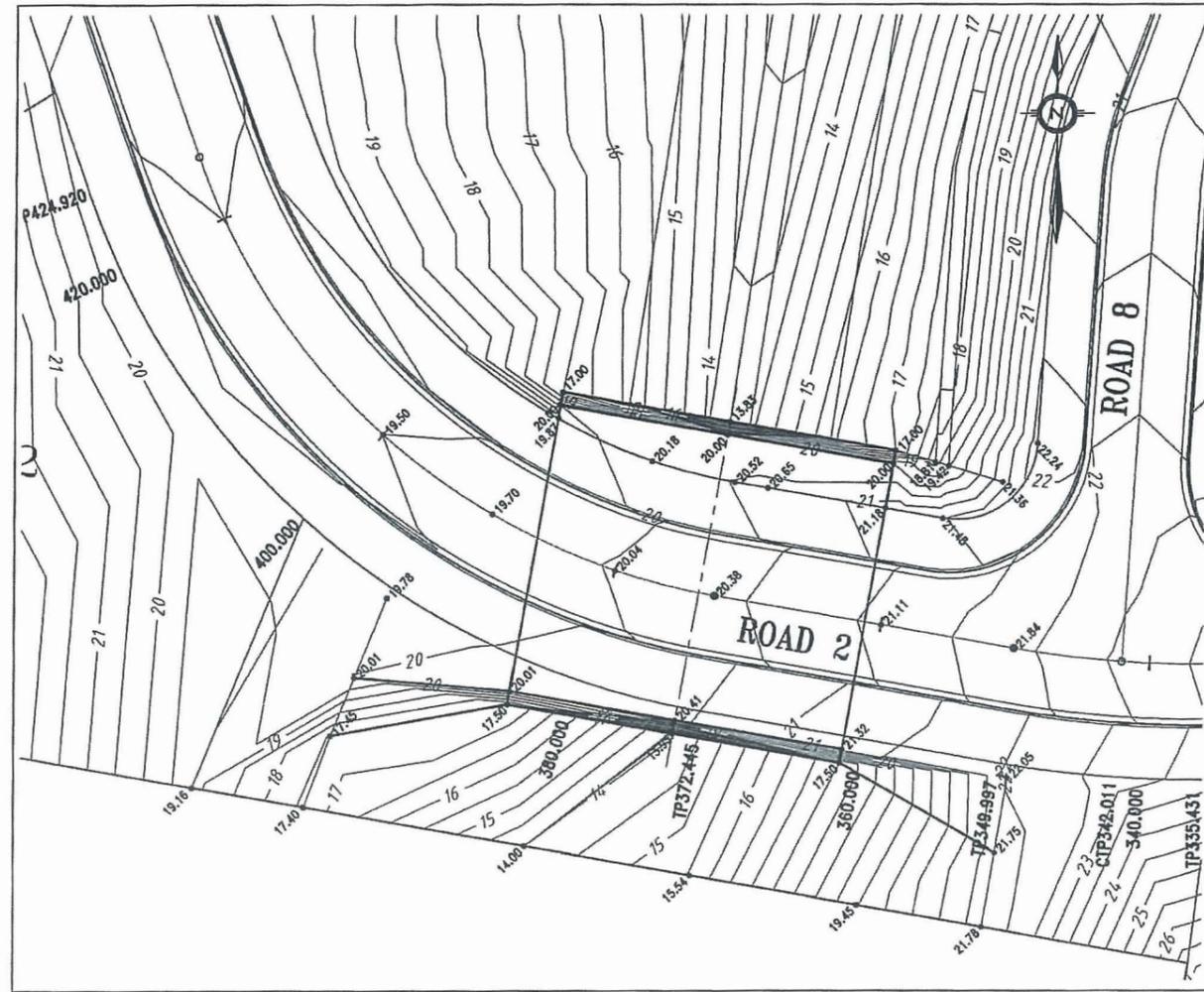
KEY PLAN
NOT TO SCALE

- LEGEND**
- 12 — FINISHED SURFACE CONTOURS
 - — — — — NOMINAL KERB LINE
 - SW — STORMWATER DRAINAGE LINE
 - - - - - EXISTING WATER
 - — — — — LIMIT OF WORKS

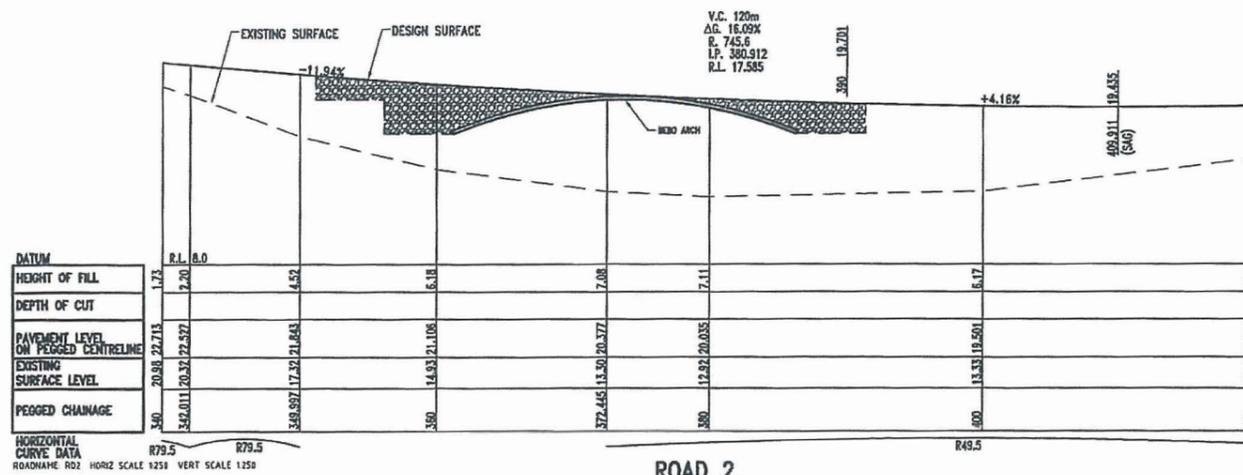
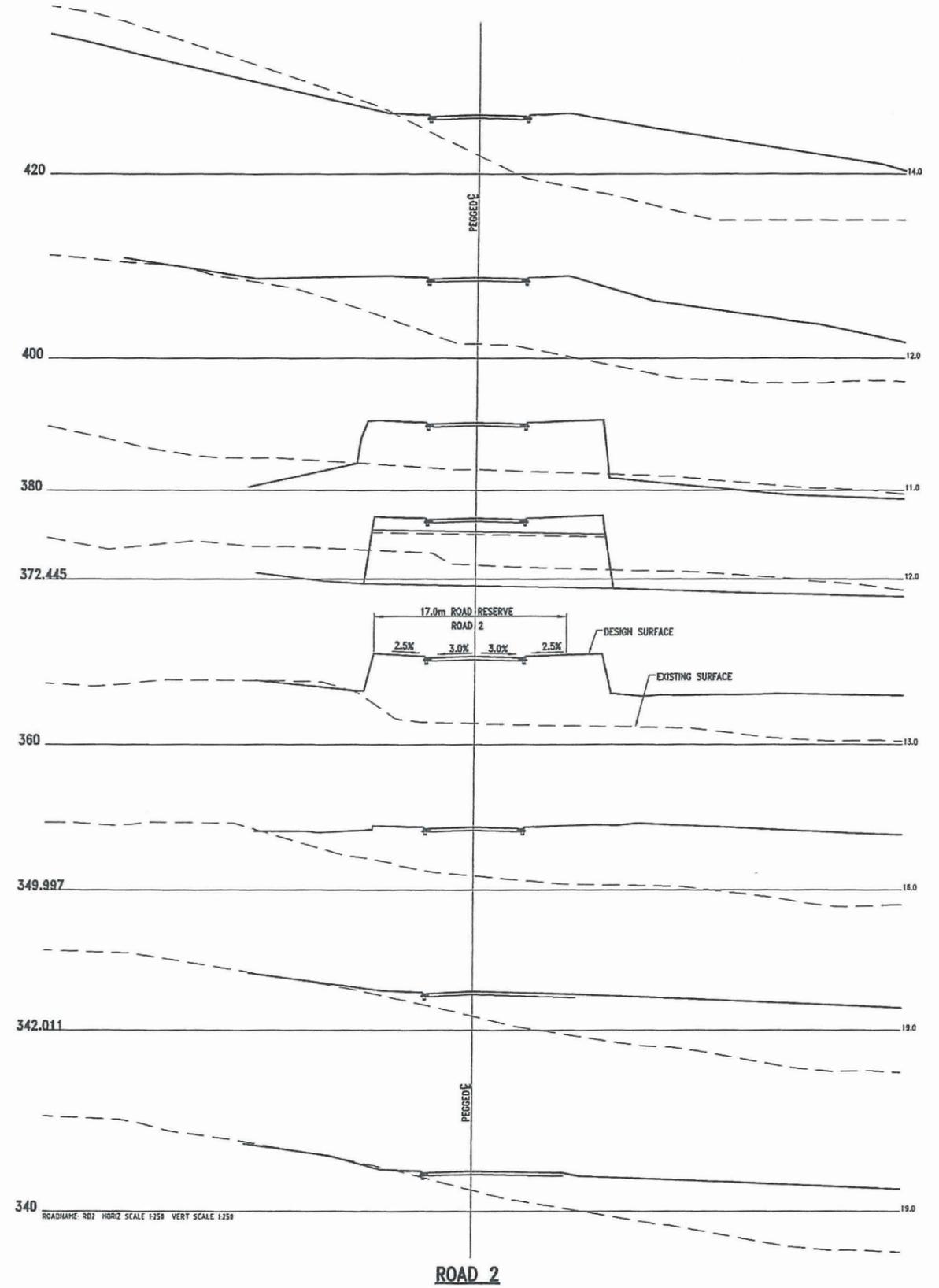
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NEWLAND DEVELOPERS PTY LTD	09-374 16-05-2013
TERRANORA PRECINCT 1 STORMWATER LAYOUT SHEET 2 OF 2	SK 3632 REVISION D

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217			
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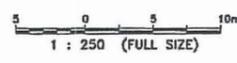
BEO CULVERT SECTIONS LAYOUT
SCALE 1:250



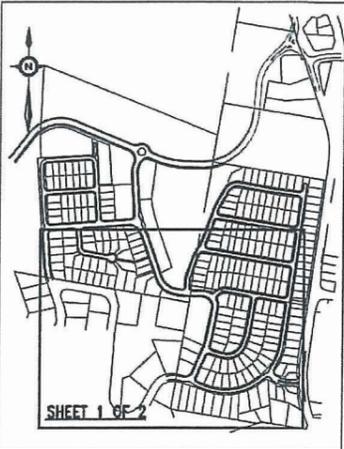
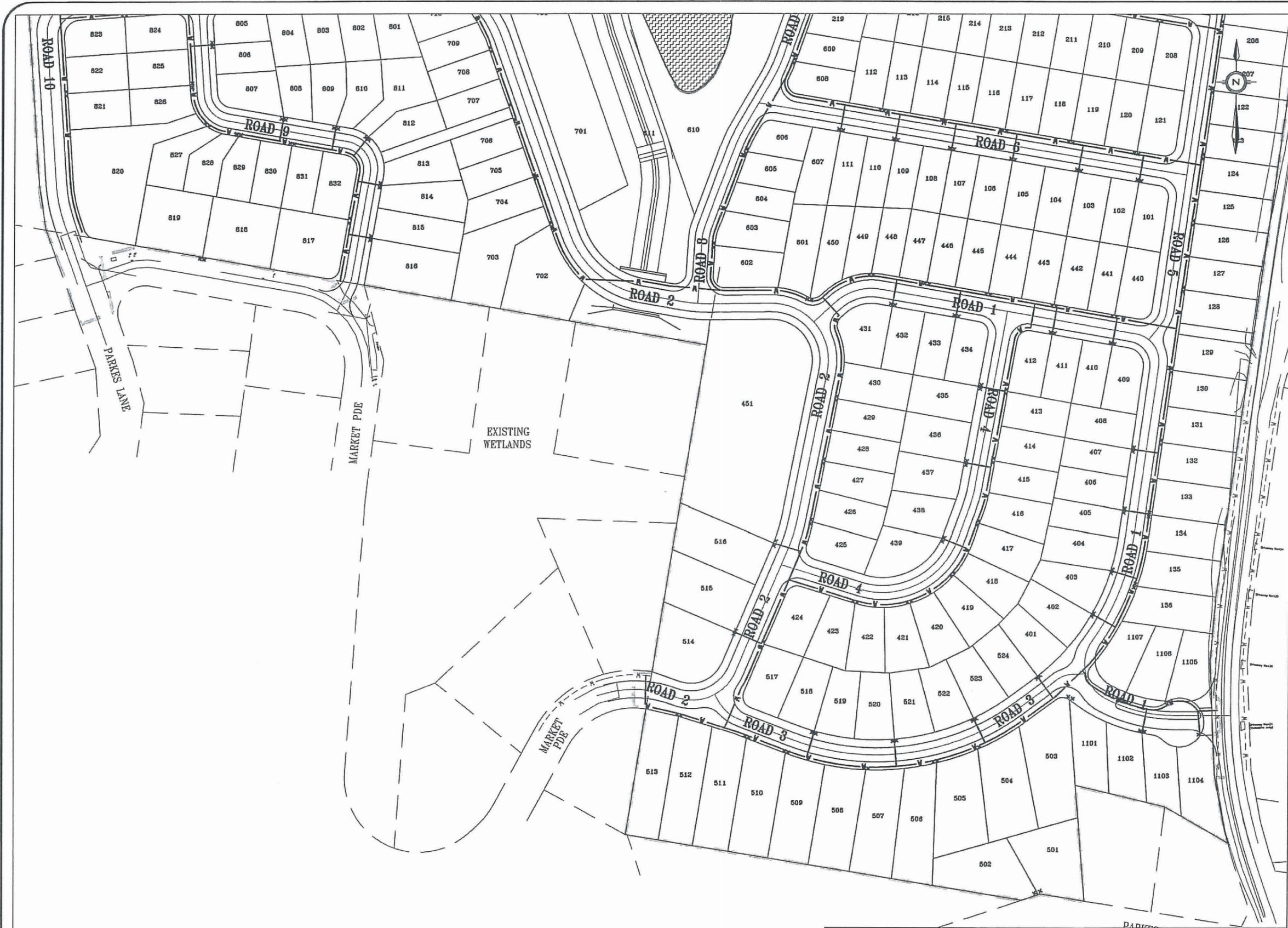
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HEIGHT OF FILL	1.75
DEPTH OF CUT	7.20
PAVEMENT LEVEL ON PEGGED CENTRELING	349.011
EXISTING SURFACE LEVEL	349.997
PEGGED CHAINAGE	340

HORIZONTAL CURVE DATA
ROADNAME: R02 HORIZ SCALE 1:250 VERT SCALE 1:250

ROAD 2



NEWLAND DEVELOPERS PTY LTD	09-374 09-04-2013	Bradford Lees Pty Ltd ABN 29 064 159 191		
ALTITUDE ASPIRE BEO CULVERT SECTIONS	SK 3487 REVISION C	Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217		



KEY PLAN
NOT TO SCALE

LEGEND

- NOMINAL KERB LINE
- W — PROPOSED WATER MAIN
- - - - FUTURE WATER
- - - - EXISTING WATER
- - - - LIMIT OF WORKS

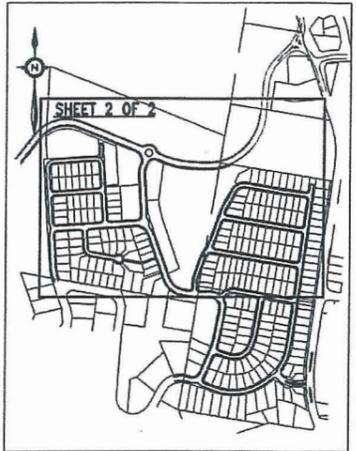
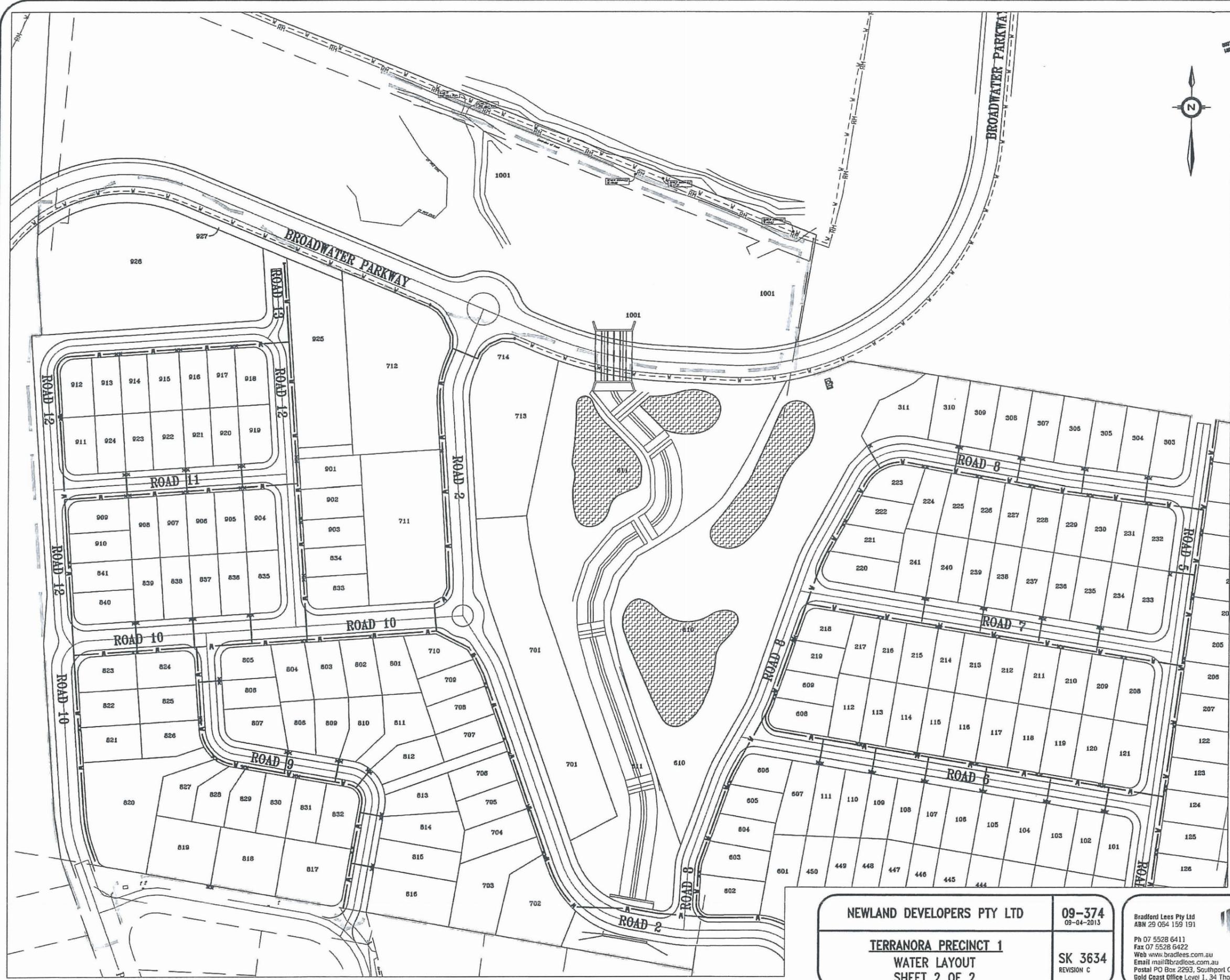
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NEWLAND DEVELOPERS PTY LTD	09-374 07-01-2013
TERRANORA PRECINCT 1 WATER LAYOUT SHEET 1 OF 2	SK 3633 REVISION B

Bradford Lees Pty Ltd
ABN 29 054 159 191

Ph 07 5528 6411
Fax 07 5528 6422
Web www.bradlees.com.au
Email mail@bradlees.com.au
Postal PO Box 2293, Southport QLD 4215
Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217

Bradlees
Civil Consulting

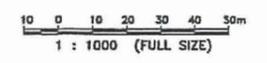


KEY PLAN
NOT TO SCALE



LEGEND

- NOMINAL KERB LINE
- W — PROPOSED WATER MAIN
- - - - FUTURE WATER
- - - - EXISTING WATER
- LIMIT OF WORKS

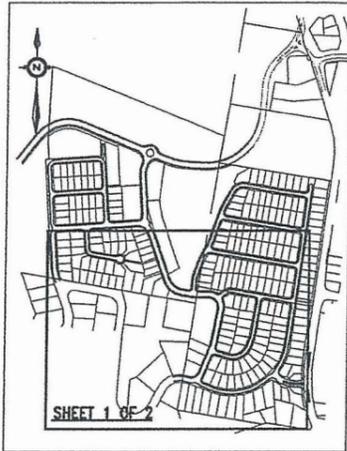
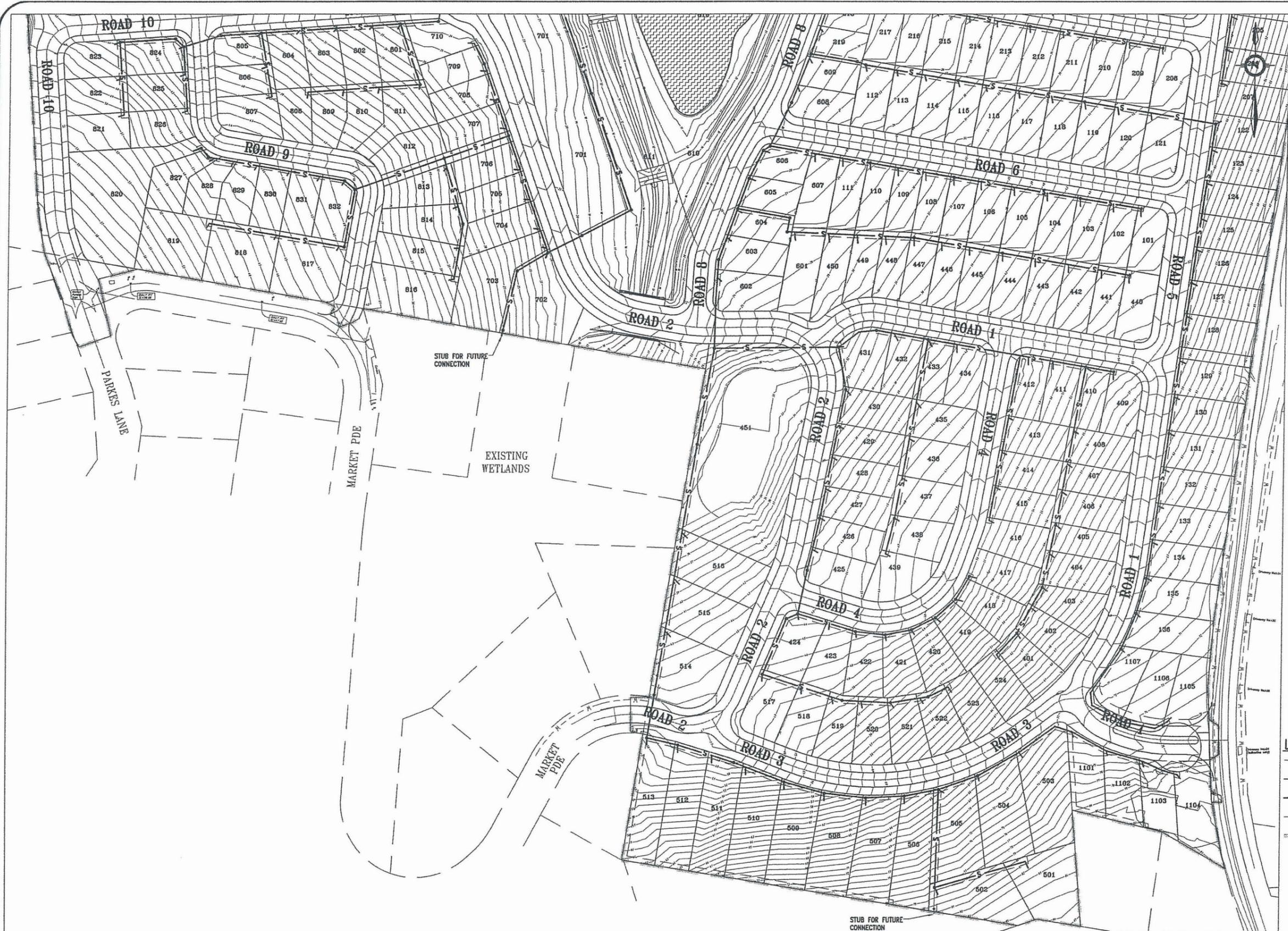


NEWLAND DEVELOPERS PTY LTD
TERRANORA PRECINCT 1
 WATER LAYOUT
 SHEET 2 OF 2

09-374
09-04-2013
 SK 3634
 REVISION C

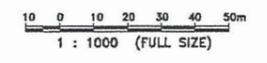
Bradford Lees Pty Ltd
 ABN 29 054 159 191
 Ph 07 5528 6411
 Fax 07 5528 6422
 Web www.bradlees.com.au
 Email mail@bradlees.com.au
 Postal PO Box 2293, Southport QLD 4215
 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217





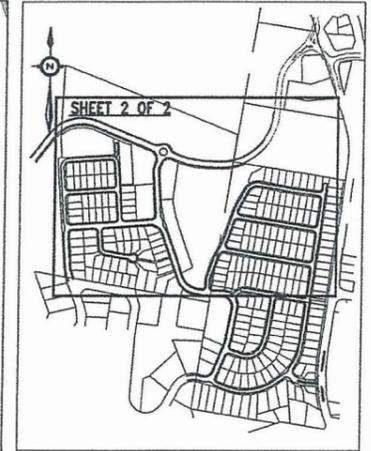
KEY PLAN
NOT TO SCALE

- LEGEND**
- 12 FINISHED SURFACE CONTOURS
 - NOMINAL KERB LINE
 - S SEWER MAIN
 - W-W- EXISTING WATER
 - LIMIT OF WORKS



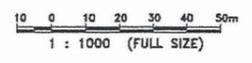
NEWLAND DEVELOPERS PTY LTD	09-374 16-05-2013
TERRANORA PRECINCT 1 SEWER LAYOUT SHEET 1 OF 2	SK 3629 REVISION C

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217 Sunshine Coast Ph 07 5451 1994 Tweed Coast Ph 02 6674 8133	<p>Bradlees Civil Consulting</p> <p>SEI QUAL QUALITY ASSURED COMPANY AS/NZS ISO 9001:2008 REGD. NO. 235</p>
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KEY PLAN
NOT TO SCALE

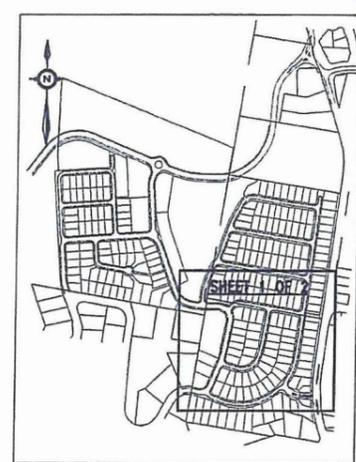
- LEGEND**
- 12 — FINISHED SURFACE CONTOURS
 - - - - - NOMINAL KERB LINE
 - S - SEWER MAIN
 - RM - SEWER RISING MAIN
 - W - - - - EXISTING WATER
 - LIMIT OF WORKS



SEWER RISING MAIN
CONNECTION TO EXISTING
FRASER DRIVE SEWER

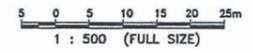
NEWLAND DEVELOPERS PTY LTD	09-374 16-05-2013
ALTITUDE ASPIRE SEWER LAYOUT SHEET 2 OF 2	SK 3630 REVISION D

Bradford Lees Pty Ltd ABN 29 064 159 191 Ph 07 5528 6411 Fax 07 5528 6422 Web www.bradlees.com.au Email mail@bradlees.com.au Postal PO Box 2293, Southport QLD 4215 Gold Coast Office Level 1, 34 Thomas Drive, Chevron Island QLD 4217	<p>Bradlees Civil Consulting</p> <p>QUALITY ASSURED COMPANY AS/NZS ISO 9001:2015 REG. NO. 123</p>
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KEY PLAN
NOT TO SCALE

- LEGEND**
- 12 — FINISHED SURFACE CONTOURS
 - - - - - NOMINAL KERB LINE
 - S - SEWER MAIN
 - W - PROPOSED WATER MAIN
 - SW - STORMWATER DRAINAGE LINE
 - W - - - - EXISTING WATER
 - - - - - STAGE BOUNDARY



NEWLAND DEVELOPERS PTY LTD
16-05-2013

TERRANORA PRECINCT 1
STAGES 1, 2 AND 3 SERVICES
LAYOUT - SHEET 1 OF 2

09-374
16-05-2013

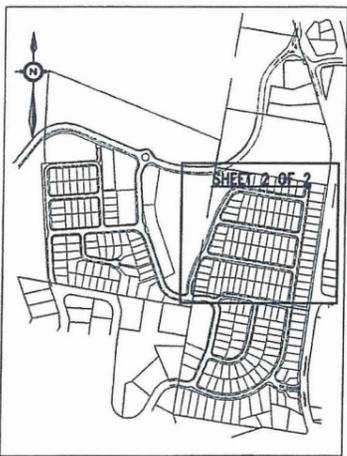
SK 3647
REVISION C

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Web www.bradlees.com.au
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Sunshine Coast Ph 07 5451 1994 Tweed Coast Ph 02 6674 8133

Bradlees
Civil Consulting

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AS/NZS ISO 9001:2008
REG. NO. 232



KEY PLAN
NOT TO SCALE

- LEGEND**
- 12 — FINISHED SURFACE CONTOURS
 - NOMINAL KERB LINE
 - S — SEWER MAIN
 - RH — SEWER RISING MAIN
 - W — PROPOSED WATER MAIN
 - SW — STORMWATER DRAINAGE LINE
 - W -W - EXISTING WATER
 - STAGE BOUNDARY



NEWLAND DEVELOPERS PTY LTD
 TERRANORA PRECINCT 1
 STAGES 1, 2 AND 3 SERVICES
 LAYOUT - SHEET 2 OF 2

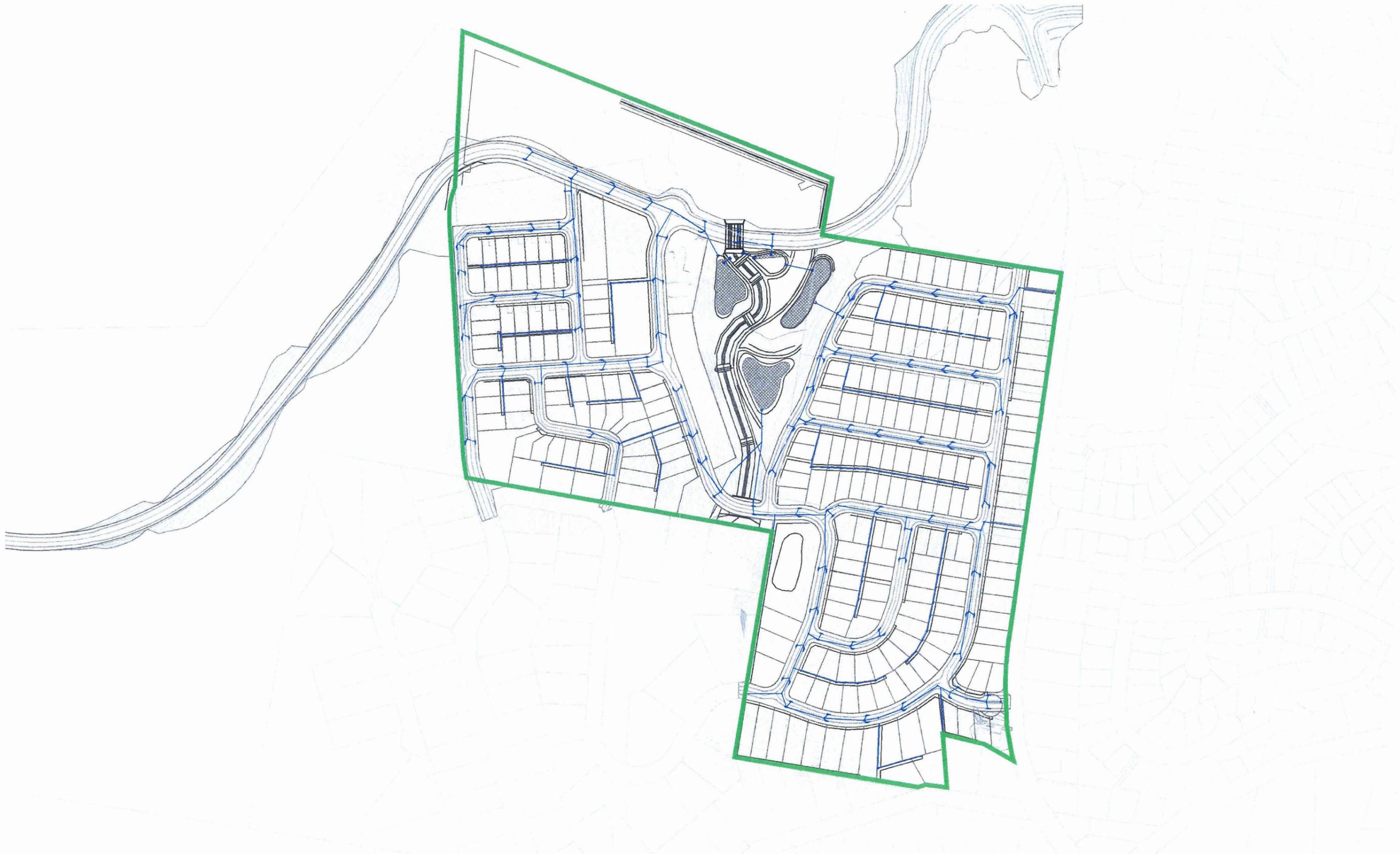
09-374
16-05-2013

SK 3648
REVISION D

Bradford Lees Pty Ltd
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ISO 9001
ISO 14001
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REG. NO. 235




 ORIENTATION
 NORTH
 SCALE
 40 80 120 160 200
 metres
 ROBINA
 PO Box 4115 Robina QLD4230 07 5578 9944
 Email robina@access.gs www.access.gs

LEGEND
 Site boundary
 0.5m contours
 2.5m contours
 Stormwater drainage network

SOURCES
 Base plan: BradLees Consulting
 Received: 20/02/2013
 Earthworks contours: BradLees Consulting
 Received: 22/22/2013
 Background DCDB: supplied by B&P surveys
 Received: 17/04/2013

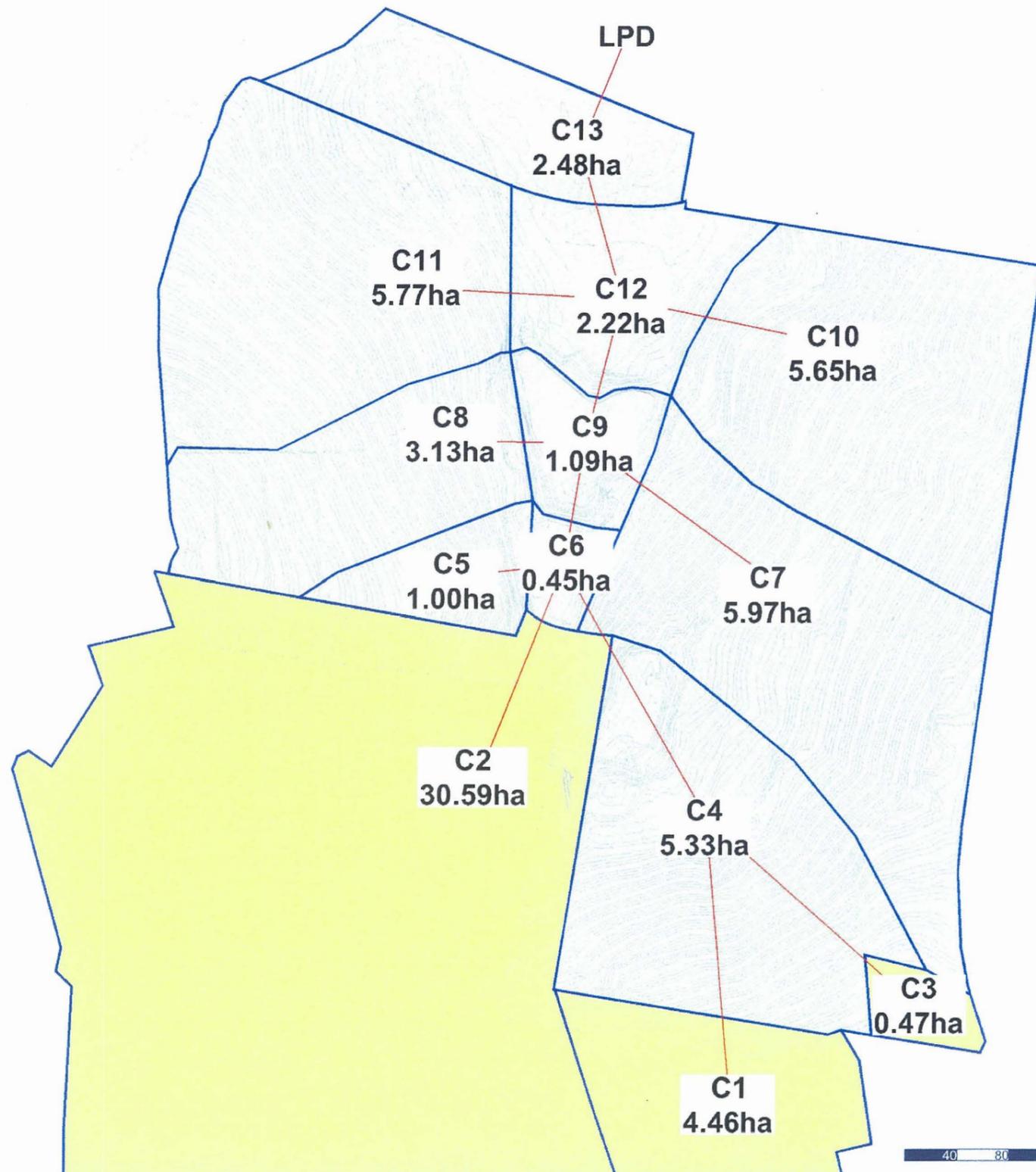
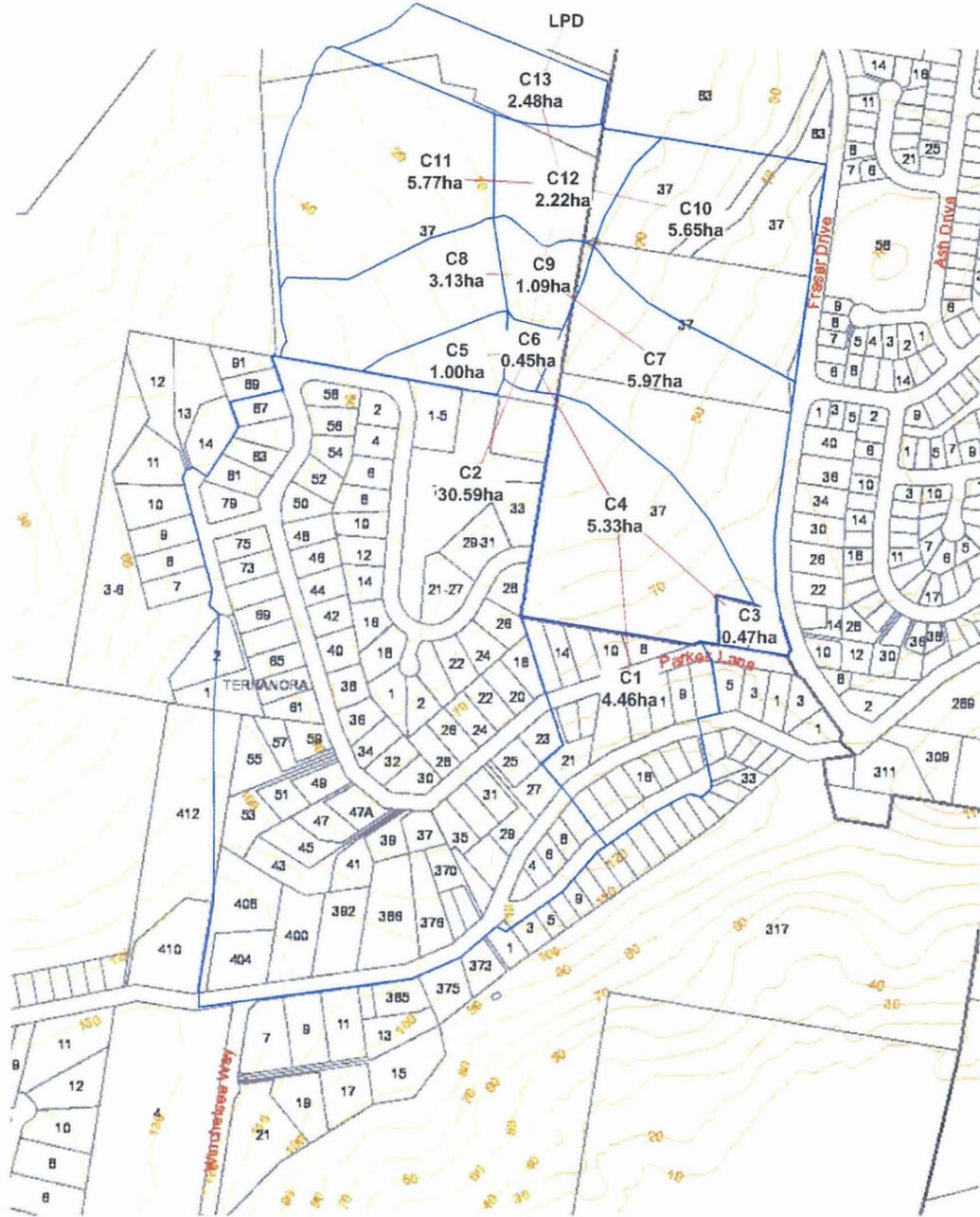
PROJECT
 ALTITUDE ASPIRE
 FRASER DRIVE
 TERRANORA
 NEW SOUTH WALES
 SCALE
 1:4 000@A3
 DATE
 19/04/2013

CLIENT
 NEWLAND
 DEVELOPERS
 PTY LTD
 DRAWN
 AJF
 CHECKED
 CMA

DRAWING
 PROPOSED
 DEVELOPMENT
 PROJECT NO
 10849
 DRAWING NO
 203

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1:8 000@A3
 100 200 300 400
 metres

1:4 000@A3
 40 80 120 160 200
 metres

ORIENTATION
 NORTH

SCALE
 AS SHOWN

ROBINA

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 Email: robina@access.gs www.access.gs

LEGEND

- Catchment boundary
- 0.5m contours
- Landuse - open space, parks & drainage easement
- Landuse - existing external residential development

SOURCES

Image base: Tweed Shire Council - PDOnline database
 Survey contours: B&P Surveys

PROJECT

ALTITUDE ASPIRE
 FRASER DRIVE
 TERRANORA
 NEW SOUTH WALES

CLIENT

NEWLAND
 DEVELOPERS
 PTY LTD

DRAWING

EXISTING CASE
 CATCHMENTS,
 LANDUSE & WBNM
 MODEL LAYOUT

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 Agriculture. Water. Environment.

SCALE
 AS SHOWN

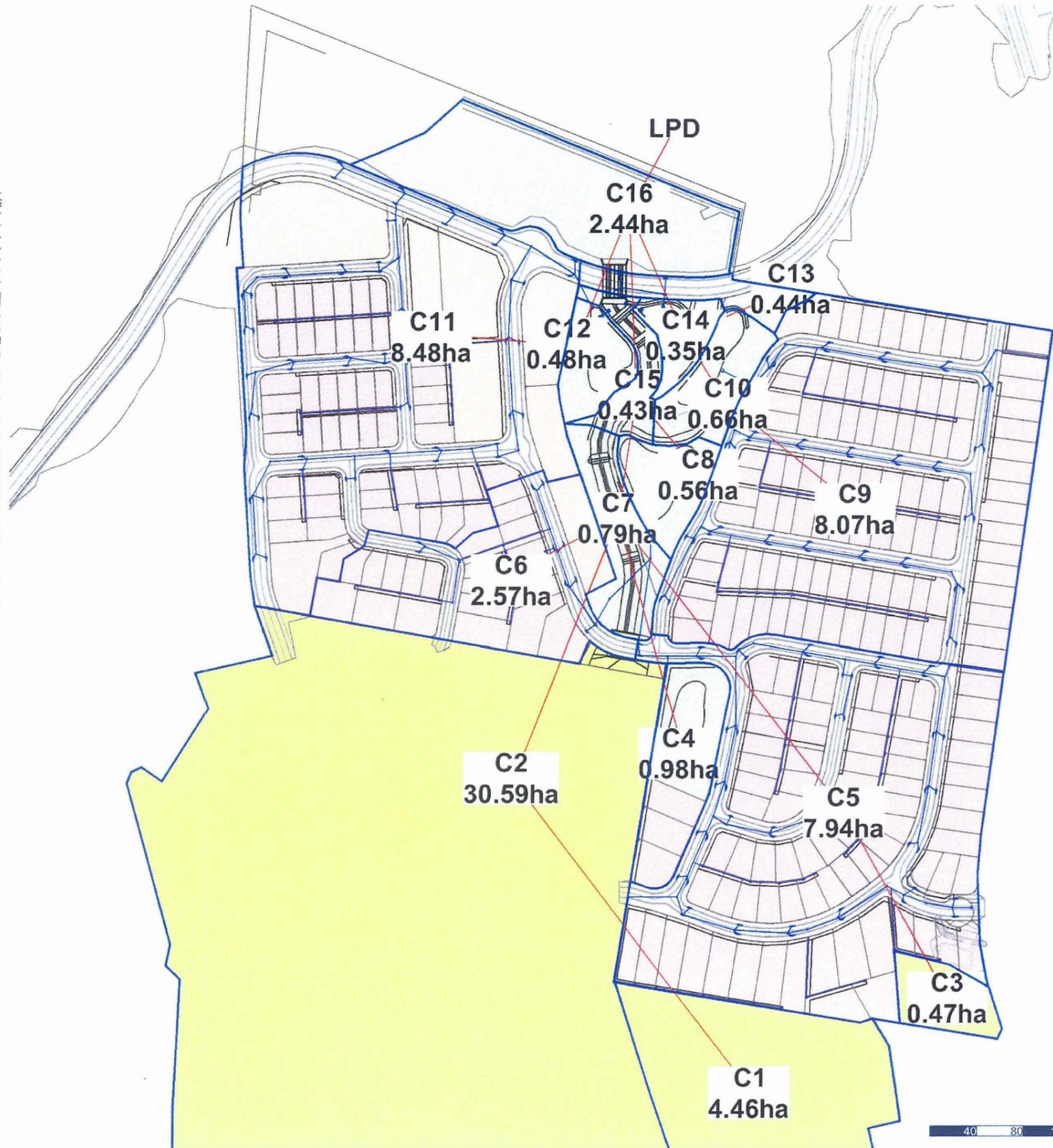
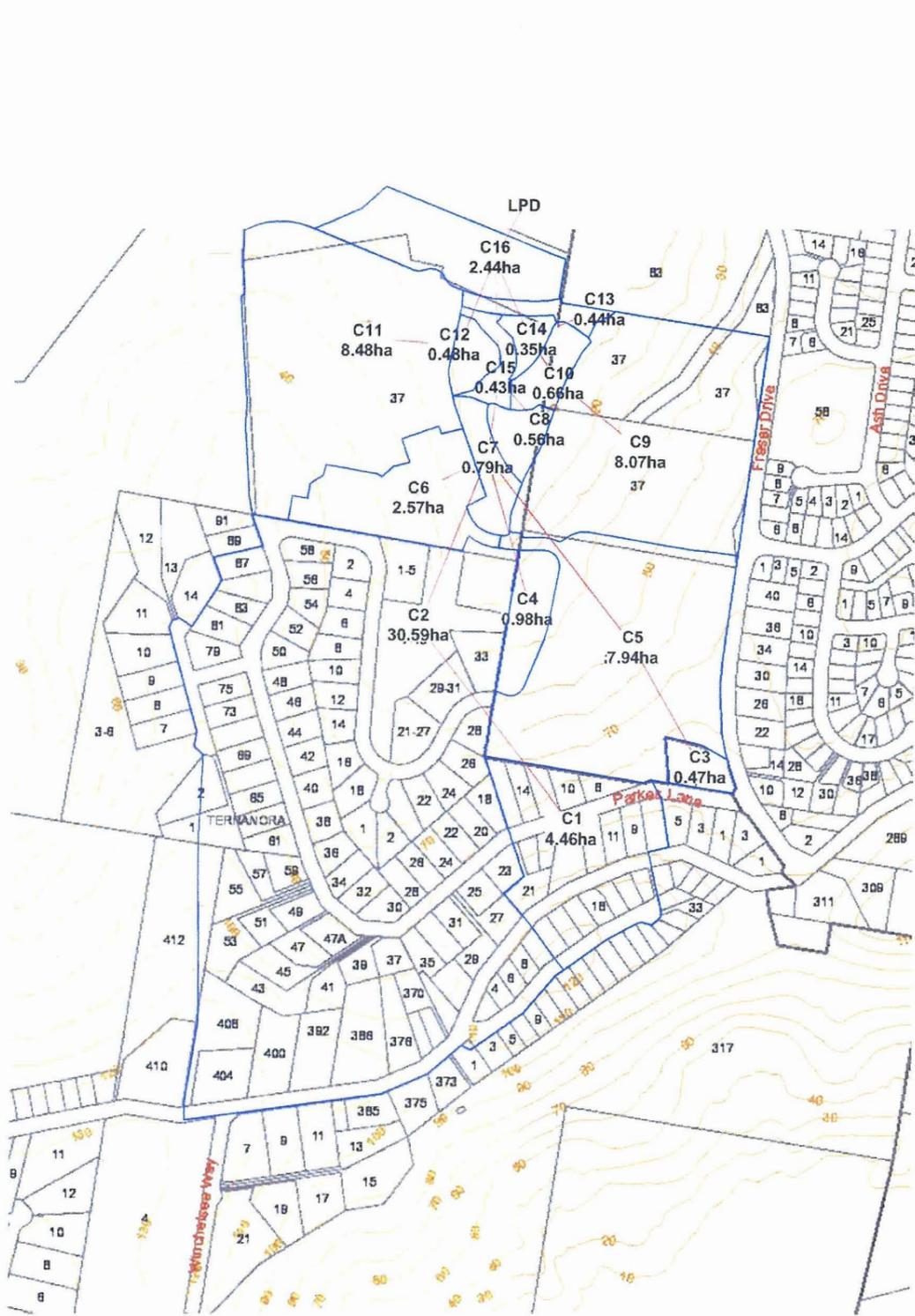
DATE
 19.04.2013

DRAWN
 AJF

CHECKED
 CMA

PROJECT NO
 10849

DRAWING NO
 204



ORIENTATION
NORTH

SCALE
AS SHOWN

ROBINA
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LEGEND	
	Catchment boundary
	2.5m contours
	Landuse - urban lots
	Landuse - urban roads
	Landuse - other urban
	Landuse - open space, parks & drainage easement
	Landuse - existing external residential development

SOURCES

Image base: Tweed Shire Council - PDOnline database

Base plan: BradLees Consulting
Received: 20/02/2013

Earthworks contours: BradLees Consulting
Received: 22/22/2013

PROJECT
ALTITUDE ASPIRE
FRASER DRIVE
TERRANORA
NEW SOUTH WALES

CLIENT
NEWLAND
DEVELOPERS
PTY LTD

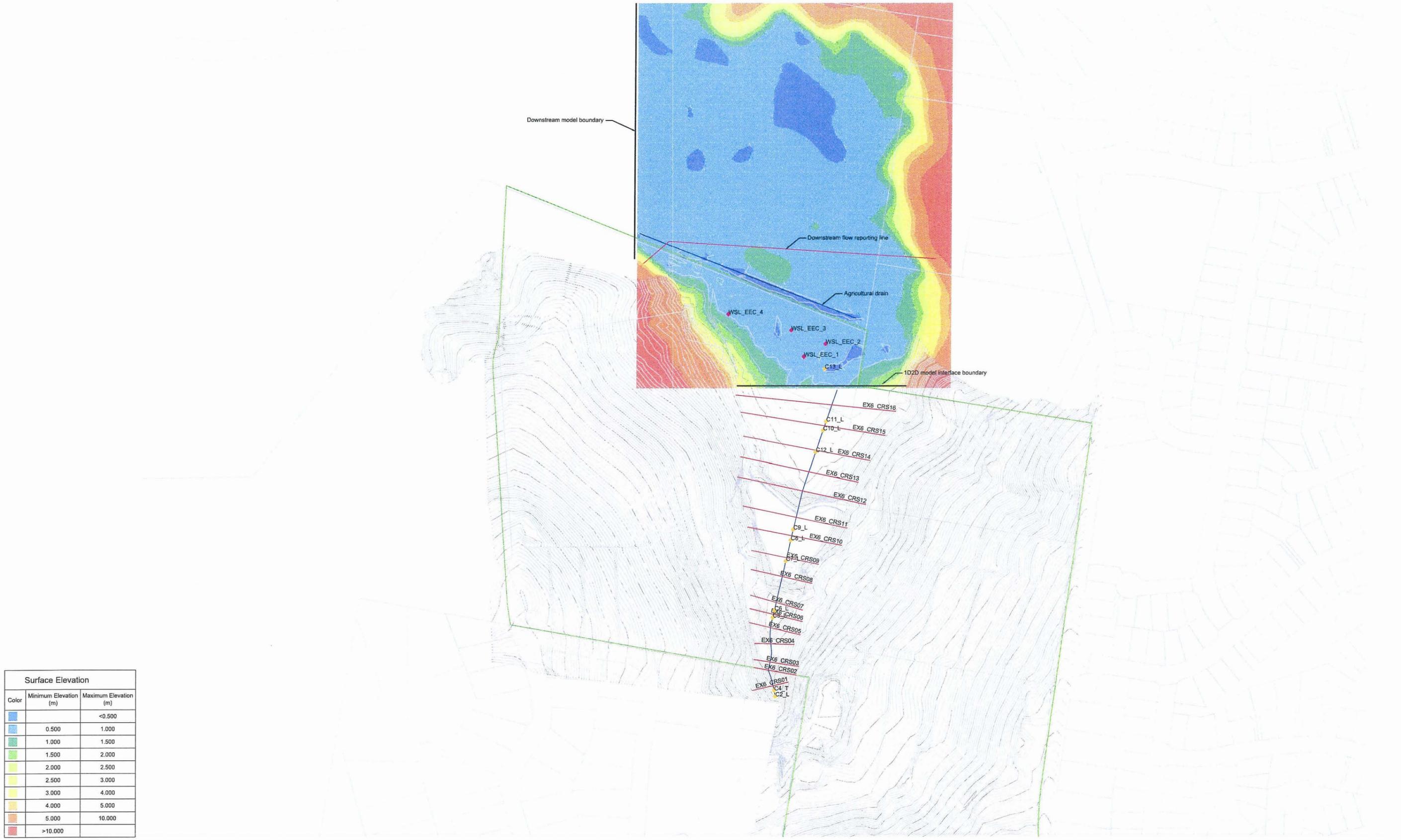
DRAWING
DEVELOPED CASE
CATCHMENTS,
LANDUSE & WBNM
MODEL LAYOUT

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SCALE	DATE	DRAWN	CHECKED	PROJECT NO	DRAWING NO
AS SHOWN	19/04/2013	AJF	CMA	10849	205



Surface Elevation		
Color	Minimum Elevation (m)	Maximum Elevation (m)
[Blue]		<0.500
[Light Blue]	0.500	1.000
[Green]	1.000	1.500
[Light Green]	1.500	2.000
[Yellow-Green]	2.000	2.500
[Yellow]	2.500	3.000
[Light Orange]	3.000	4.000
[Orange]	4.000	5.000
[Red-Orange]	5.000	10.000
[Red]	>10.000	

ORIENTATION
 NORTH
SCALE
 40 80 120 160 200 metres
 ROBINA
 PO Box 4115 Robina QLD4230 07 5578 9944
 Email robina@access.gs www.access.gs

- LEGEND**
- Site boundary
 - 2.5m contours
 - 0.5m contours
 - Channel centreline
 - Cross sections
 - Inflow location
 - 2D Reporting point

SOURCES
n/a

PROJECT
 ALTITUDE ASPIRE
 FRASER DRIVE
 TERRANORA
 NEW SOUTH WALES

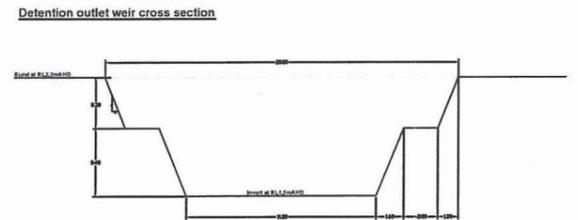
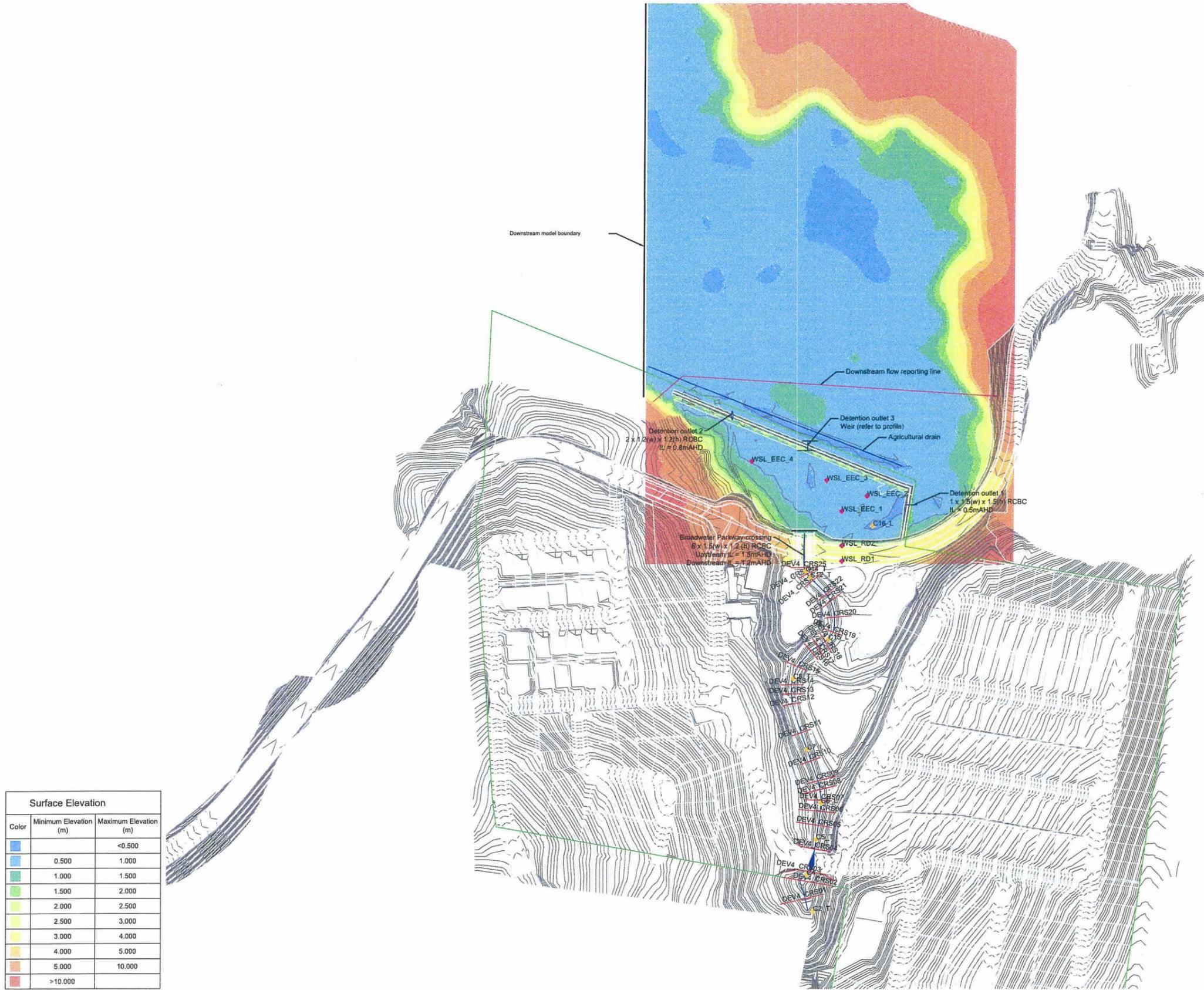
CLIENT
 NEWLAND
 DEVELOPERS
 PTY LTD

DRAWING
 BASE CASE
 SOBEK MODEL
 LAYOUT

SCALE 1:4 000@A3 **DATE** 22/04/2013 **DRAWN** AJF **CHECKED** CMA **PROJECT NO** 10849 **DRAWING NO** 206

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Surface Elevation		
Color	Minimum Elevation (m)	Maximum Elevation (m)
Blue	<0.500	<0.500
Light Blue	0.500	1.000
Green	1.000	1.500
Light Green	1.500	2.000
Yellow	2.000	2.500
Light Yellow	2.500	3.000
Orange	3.000	4.000
Light Orange	4.000	5.000
Red	5.000	10.000
Dark Red	>10.000	>10.000

ORIENTATION NORTH

SCALE

 40 80 120 160 200 metres

ROBINA

 PO Box 4115 Robina QLD4230 07 5578 9944

 Email robina@access.gs www.access.gs

LEGEND	
	Site boundary
	0.5m contours
	2.5m contours
	Channel centreline
	Cross sections
	Inflow location
	2D Reporting point

SOURCES

 Base plan: BradLees Consulting

 Received: 20/02/2013

 Earthworks contours: BradLees Consulting

 Received: 22/22/2013

 Background DCDB: supplied by B&P surveys

 Received: 17/04/2013

PROJECT

 ALTITUDE ASPIRE

 FRASER DRIVE

 TERRANORA

 NEW SOUTH WALES

CLIENT

 NEWLAND

 DEVELOPERS

 PTY LTD

DRAWING

 DEVELOPED CASE

 SOBEK MODEL

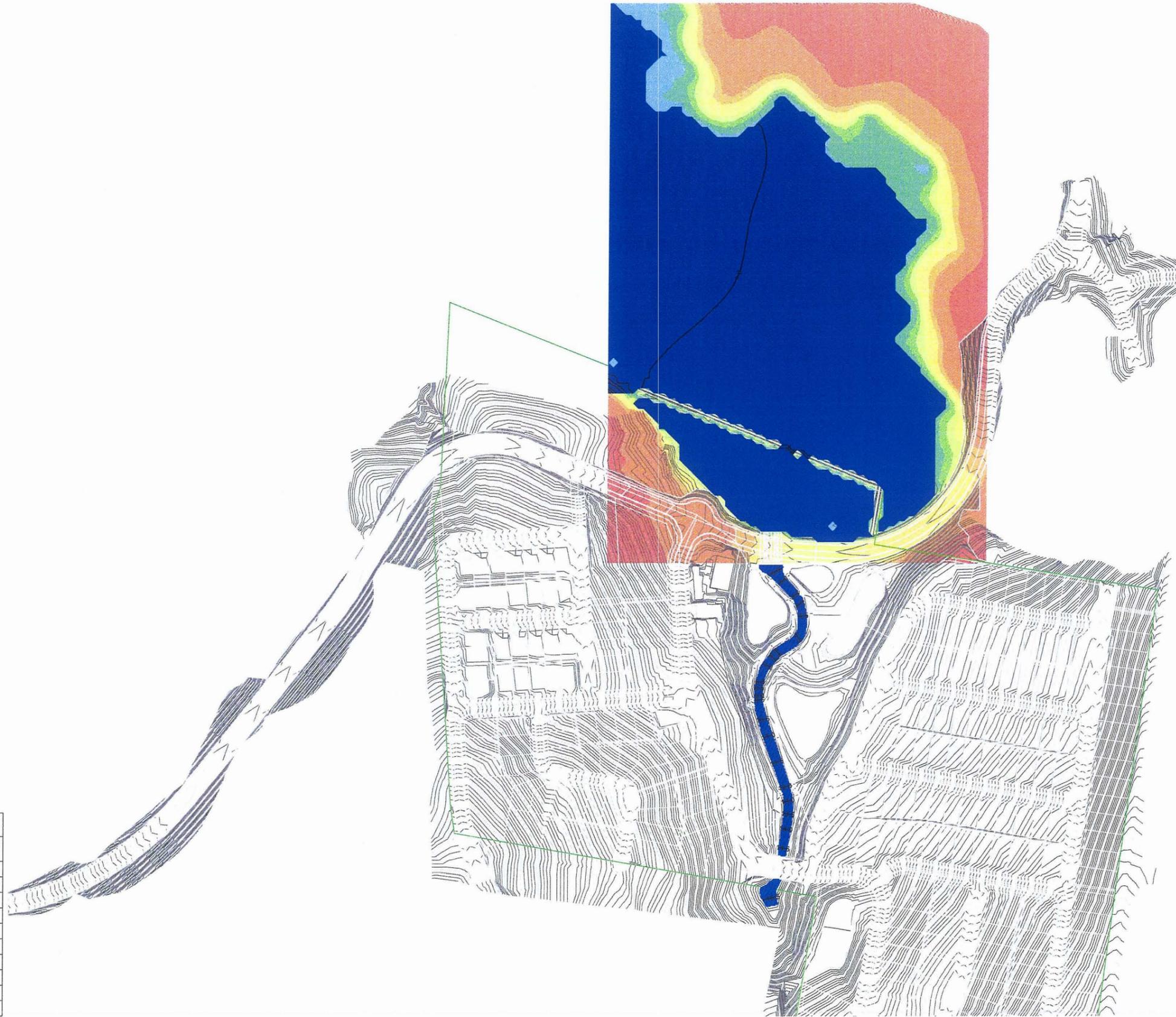
 LAYOUT

SCALE	DATE	DRAWN	CHECKED	PROJECT NO	DRAWING NO
1:4 000@A3	23/04/2013	AJF	CMA	10849	207

Brisbane Sydney Melbourne and regions

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Surface Elevation		
Color	Minimum Elevation (m)	Maximum Elevation (m)
Blue	<0.500	<0.500
Light Blue	0.500	1.000
Light Green	1.000	1.500
Green	1.500	2.000
Yellow-Green	2.000	2.500
Yellow	2.500	3.000
Light Orange	3.000	4.000
Orange	4.000	5.000
Red-Orange	5.000	10.000
Red	>10.000	>10.000

 **ORIENTATION**
 NORTH
SCALE

 40 80 120 160 200 metres
ROBINA
 PO Box 4115 Robina QLD4230 07 5578 9944
 Email robina@access.gs www.access.gs

LEGEND
 Site boundary
 0.5m contours
 2.5m contours
 Channel centreline
 Cross sections
 2.5 Flood level contours
 100 year ARI flood inundation extent

SOURCES
 Base plan: BradLees Consulting
 Received: 20/02/2013
 Earthworks contours: BradLees Consulting
 Received: 22/22/2013
 Background DCDB: supplied by B&P surveys
 Received: 17/04/2013

PROJECT
 ALTITUDE ASPIRE
 FRASER DRIVE
 TERRANORA
 NEW SOUTH WALES

CLIENT
 NEWLAND
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DRAWING
 100 YEAR ARI
 FLOOD INUNDATION
 EXTENT

SCALE 1:4 000@A3 **DATE** 22/04/2013 **DRAWN** AJF **CHECKED** CMA **PROJECT NO** 10849 **DRAWING NO** 208

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ORIENTATION
NORTH

SCALE
40 80 120 160 200
metres

ROBINA
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Email robina@access.gs www.access.gs

LEGEND

- Site boundary
- 0.5m contours
- 2.5m contours

SOURCES

Base plan: BradLees Consulting
Received: 20/02/2013

Earthworks contours: BradLees Consulting
Received: 22/22/2013

Background DCDB: supplied by B&P surveys
Received: 17/04/2013

PROJECT

ALTITUDE ASPIRE
FRASER DRIVE
TERRANORA
NEW SOUTH WALES

CLIENT

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DRAWING

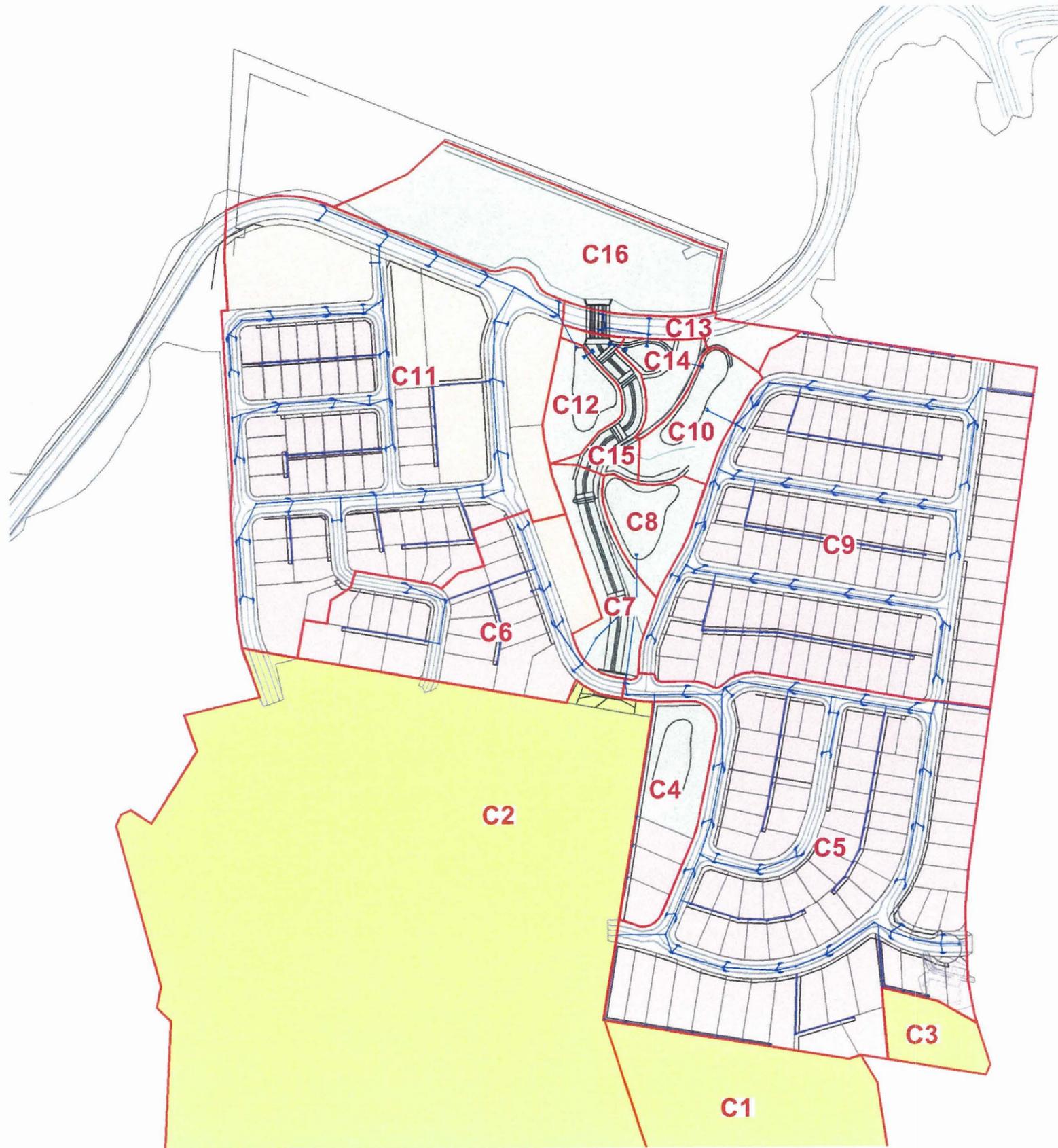
PROPOSED
DEVELOPMENT

SCALE 1:4 000@A3	DATE 17/04/2013	DRAWN AJF	CHECKED CMA	PROJECT NO 10849	DRAWING NO 103
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Catchment	Area (ha)	Landuse(s)	Drainage detail	Treatment device(s)
C1	4.46	External	Discharge through central drainage channel bypassing all treatment basins	n/a
C2	30.59	External	Discharge through central drainage channel bypassing all treatment basins	n/a
C3	0.47	External	Discharge through C5 (cannot bypass treatment)	n/a (but treated in bioretention basin 1)
C4	0.98	Urban & Open space	Piped to basin A in C8	Rainwater tanks & Bioretention basin A (C8)
C5	7.94	Urban	Piped to basin A in C8	Rainwater tanks & Bioretention basin A (C8)
C6	2.57	Urban	Piped to basin A in C8	Rainwater tanks & Bioretention basin A (C8)
C7	0.79	Open space	Central drainage channel	n/a
C8	0.56	Open space	Surface runoff to internal bioretention basin A	Bioretention basin A
C9	8.07	Urban	Piped to basin B in C10	Rainwater tanks & Bioretention basin B (C10)
C10	0.66	Open space	Surface runoff to internal bioretention basin B	Bioretention basin B
C11	8.48	Urban	Piped to basin D in C12	Rainwater tanks & Bioretention basin D (C12)
C12	0.48	Open space	Surface runoff to internal bioretention basin D	Bioretention basin D
C13	0.44	Urban (road) & Open space	Piped to basin C in C14	Bioretention basin C
C14	0.35	Open space	Surface runoff to internal bioretention basin C	Bioretention basin C
C15	0.43	Open space	Central drainage channel	n/a
C16	2.44	Open space	Detention area (refer to HHA report) downstream of Broadwater Parkway	n/a

ORIENTATION
 NORTH
SCALE
 40 80 120 160 200 metres
ROBINA
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LEGEND
 Catchment boundary
 2.5m contours
 Landuse - urban lots
 Landuse - urban roads
 Landuse - other urban
 Landuse - open space, parks & drainage easement
 Landuse - existing external residential development

SOURCES
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 Received: 20/02/2013
 Earthworks contours: BradLees Consulting
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PROJECT
 ALTITUDE ASPIRE
 FRASER DRIVE
 TERRANORA
 NEW SOUTH WALES

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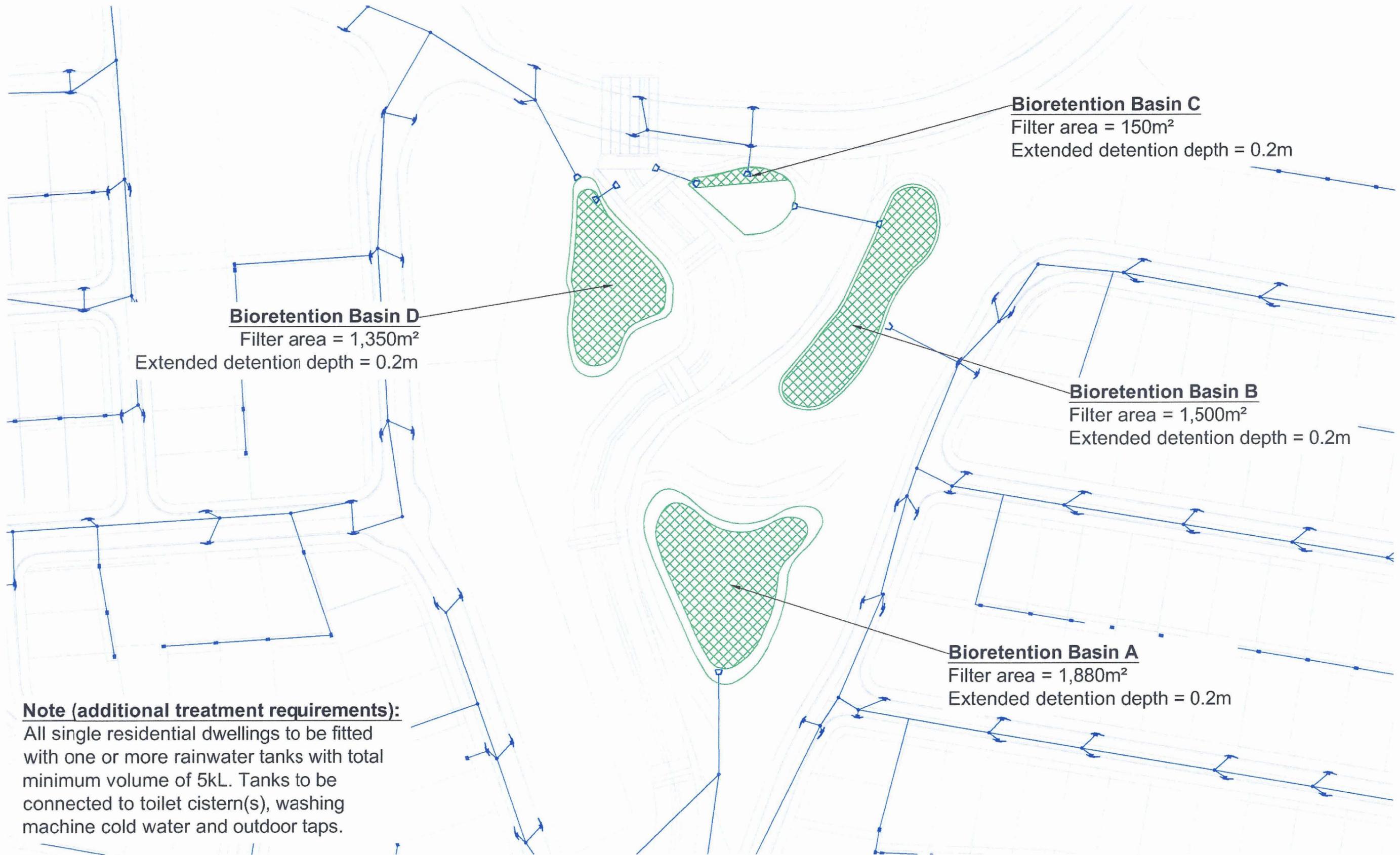
DRAWING
 DEVELOPED CASE
 CATCHMENT PLAN
 AND DRAINAGE
 DETAIL

SCALE 1:4 000@A3 DATE 17/04/2013 DRAWN AJF CHECKED CMA PROJECT NO 10649 DRAWING NO 104

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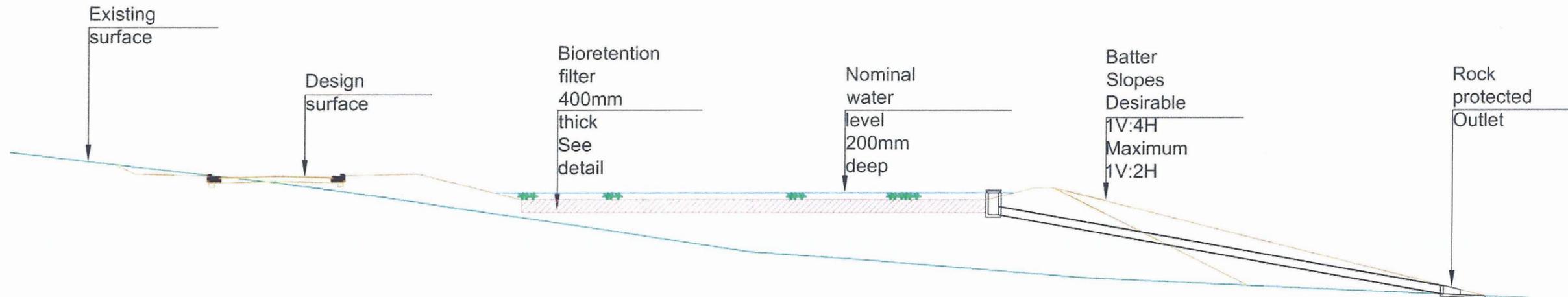
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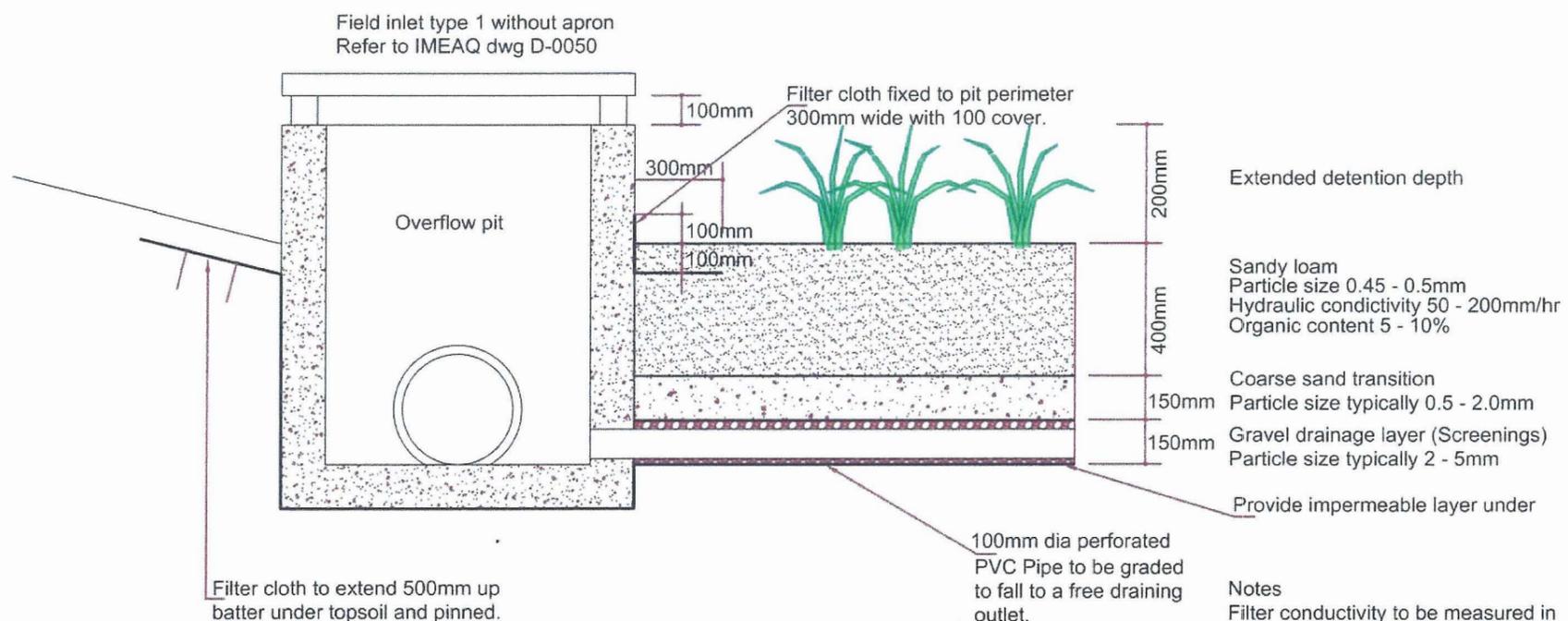


Note (additional treatment requirements):

All single residential dwellings to be fitted with one or more rainwater tanks with total minimum volume of 5kL. Tanks to be connected to toilet cistern(s), washing machine cold water and outdoor taps.



BIORETENTION BASIN TYPICAL SECTION



BIORETENTION BASIN FILTER ZONE DETAIL

NOTES:

1. Filter cloth should not be placed between filter layers.
2. Underdrains are to be 100mm dia. at 1.5m spacings, minimum grade 0.5%. Pipes to be class 400 corrugated PVC pipe Type 1 with 6 rows of perforations 1.25mm wide X 7.4mm long.
3. Perforated underdrains should not be wrapped in filter cloth.
4. Provide uPVC clean out riser with a removable lid at the head of each pipe.
5. Underdrain clean out risers are not to be perforated.
6. Caps on underdrain clean out points are to be lockable caps or caps secured by screws.
7. Base of bioretention basin to be lined with an impermeable layer.
8. Construct a reinforced concrete sediment forebay minimum area at the basin inlet. Refer to standard Drawing WSUD-005 for details.
9. All details are conceptual and subject to detailed design.
10. Basin is to be used as a temporary sedimentation basin during the earthwork phase.
11. On completion of development construction, subsurface drainage system and filter media are to be installed, covered with filter fabric, 75mm of sandy loam and turfed.
12. Remove turf, sandy loam and filter fabric when 80% of catchment has been built out and plant out filter areas as a "rain garden" in accordance with the landscape plans.
13. Refer to landscaping OPW drawings for other landscaping details.

Bus services may include the use of Roads 1, 2 and 10. Roads 2 and 10 provide grades less than 12.5%, however it is noted that a section of Road 1 between Road 2 and Road 5 includes a grade of 16%. Whilst this grade exceeds Council's requirements for road grades to cater for bus routes it is demonstrated within Table 6.1 that existing bus services (both Route Services and School Bus Routes) throughout Banora Point use roads in excess of 12.5%.

Table 6.1 Banora Point Bus Route Grades Comparison

Road	Bus Service	Grade (%)
Lochlomond Drive	Route 602, School Route 1232	15.0%
Banora Hills Drive	Route 602, School Route 1232	17.6%
Summit Drive	School Routes 1220	21.4%

As the subject section of Road 1 is not expected to be used by route services and may only potentially be used by school buses for a short period of time until Roads 2 and 10 are connected to Parks Lane, it is deemed acceptable that Road 1 could cater for bus routes if required.

6.1.4 Bus Stops

Two potential bus stop locations are proposed along Road 2 (refer to Figure 6.3). These bus stop locations comply with standard bus stop design practices by providing a maximum walking distance of 400 metres between stops and dwellings within new residential developments.

Upon construction of Broadwater Parkway, the northern bus stops are recommended to be located closer to Broadwater Parkway (north of Road 10).

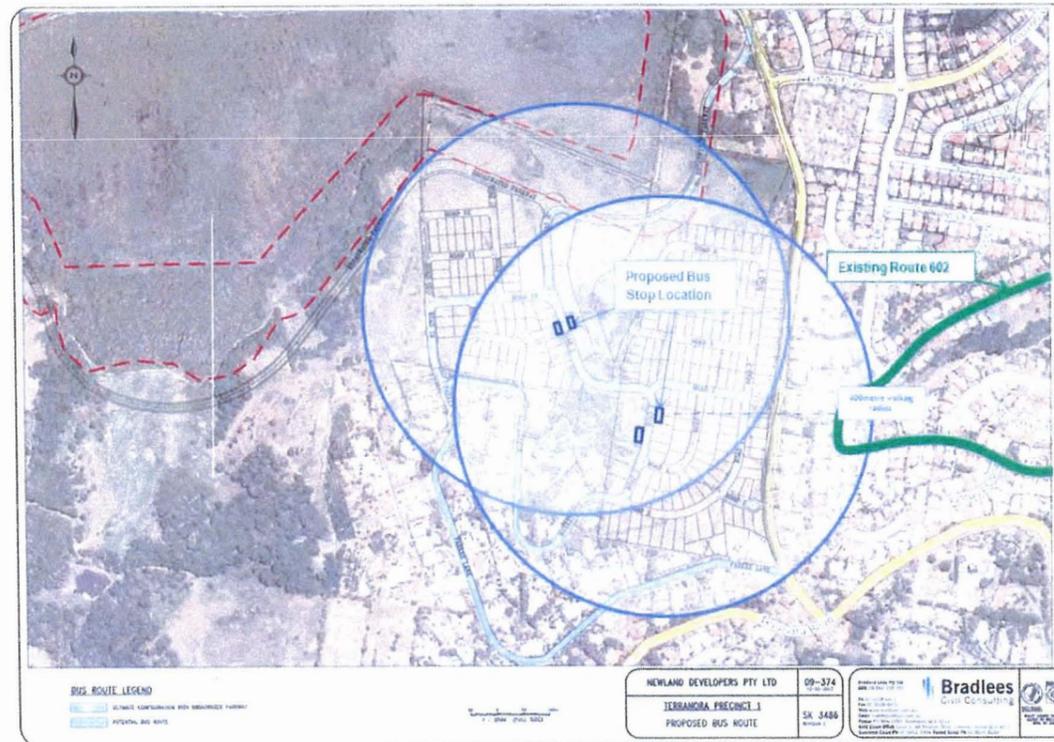


Figure 6.3: Proposed Bus Stops

In addition to the proposed bus stops, local bus services also provide a 'Hail and Ride' service along the route, allowing buses to stop for boardings and alightings where it is safe to do so.

Access to School routes is expected to occur along Fraser Drive via pedestrian linkages and onto existing services such as Routes 602 and 605.

- 1 ENTRY PRECINCT
- 2 PLAYGROUND PARK
- 3 POCKET PARK
- 4 COMMUNITY RECREATION FACILITIES
- 5 WETLAND RESERVE
- 6 CREEK / DRAINAGE CORRIDOR

NOTE: STREET TREE LOCATIONS ARE FOR INDICATIVE PURPOSES ONLY.



LANDSCAPE MASTERPLAN

100906 | 12 AUG 13 | DA07 | NORTH  | SCALE 1:3000 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD

FIGURE 1 – LANDSCAPE MASTERPLAN

- BIO-RETENTION
- NEIGHBOURHOOD PARK
- COMMUNITY REC CENTRE
- POCKET PARKS
- DRAINAGE CHANNEL
- REVEGETATION ZONE
- ENTRY PRECINCTS
- WETLAND



LANDSCAPE STRUCTURE

100906 | 12 AUG 13 | DA07 | NORTH ⌚ | SCALE 1:3000 @ A3
 PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD

FIGURE 2 – LANDSCAPE STRUCTURE

- - - PARK PATHWAYS
- CONCRETE PATHWAYS
- BLUESTONE GABION RETAINING WALLS
- ⊙ PARK ENTRY
- * PARK SHELTERS
- TRANSITIONAL ROAD TREATMENT
- ▬ MAJOR ROADS
- ▬ PRIMARY BOULEVARD
- ▬ SECONDARY SPINE ROAD



CIRCULATION NETWORK

100906 | 12 AUG 13 | DA07 | NORTH ⌚ | SCALE 1:3000 @ A3
 PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD

FIGURE 3 – CIRCULATION NETWORK

- ALUMINIUM & TIMBER FENCE
- TIMBER SCREEN FEATURE FENCE
- TIMBER PALING FENCE



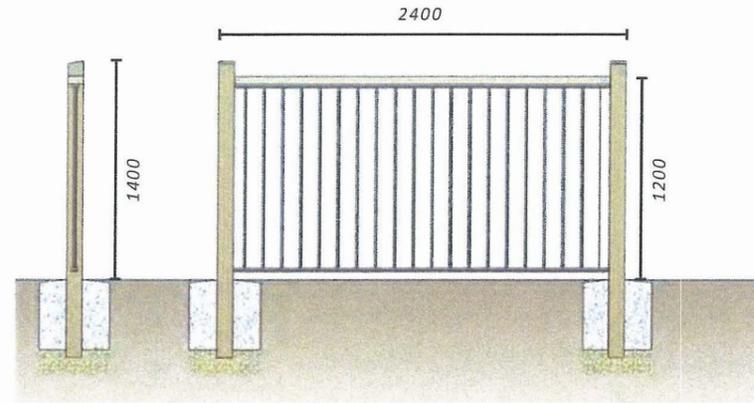
FENCE TYPES

100906 | 12 AUG 13 | DA07 | NORTH Ⓜ | SCALE 1:3000 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



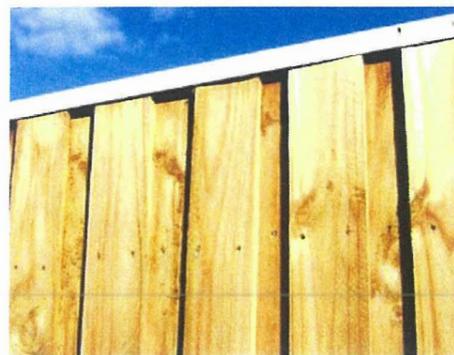
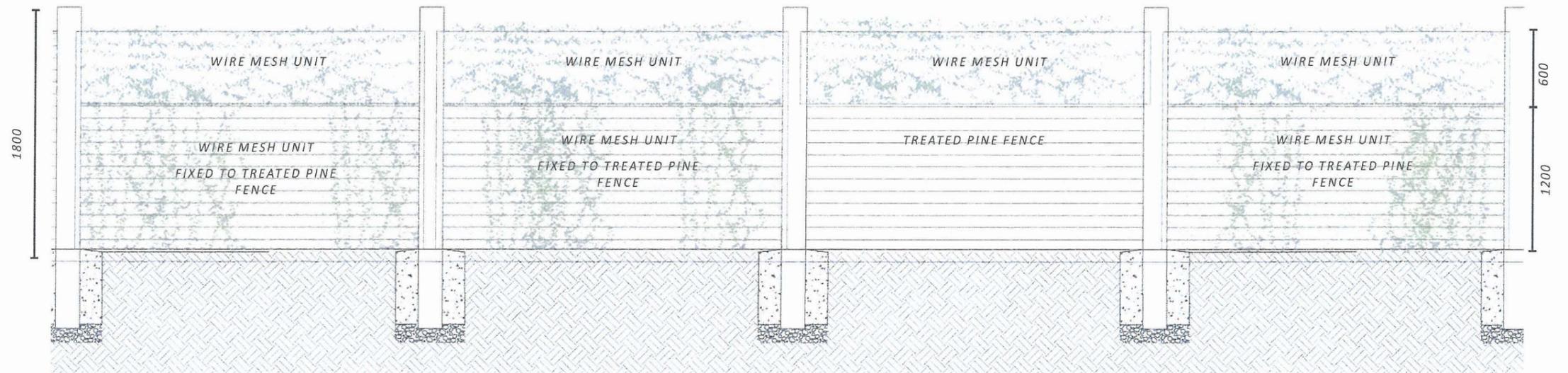
ALUMINIUM AND TIMBER FENCE



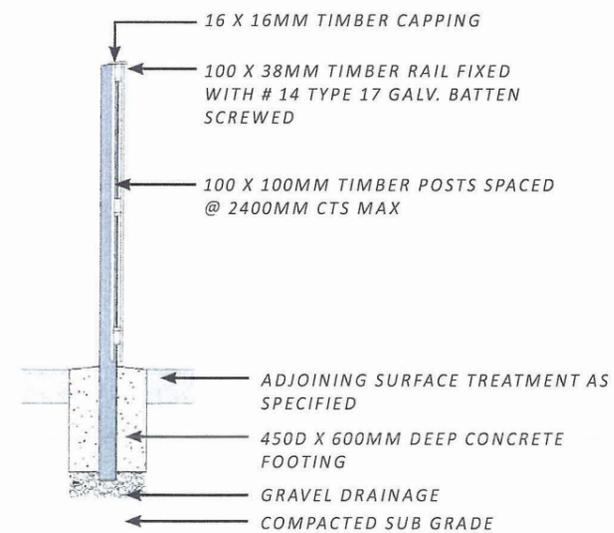
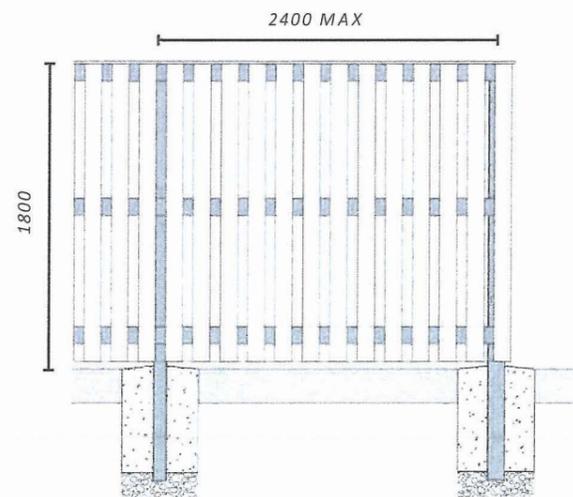
END POSTS: 100X 100 HWD
 TOP RAIL: 100 X 50 HWD
 BLACK POWDERCOAT ALUMINIUM POOL FENCE
 PANEL SIZE: 2400MM
 PANEL HEIGHT: 1200MM
 TUBE SIZE: 19MM D VERTICAL TUBE
 FIX TO POSTS AS PER MANUFACTURERS RECOMMENDATIONS



TIMBER SCREEN FENCE



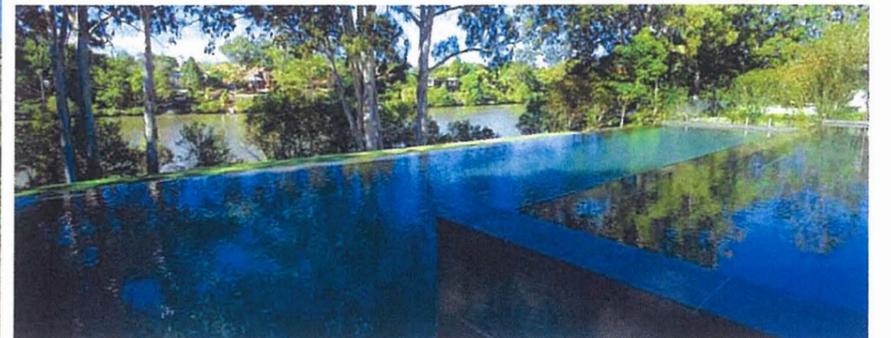
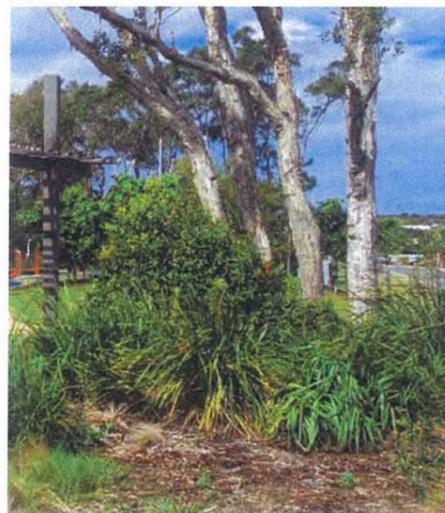
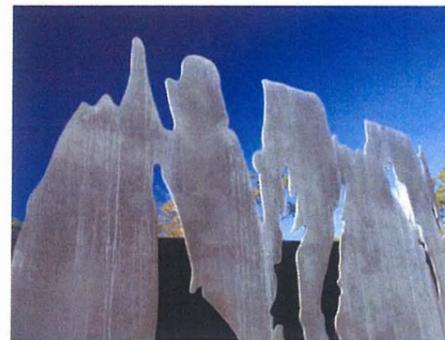
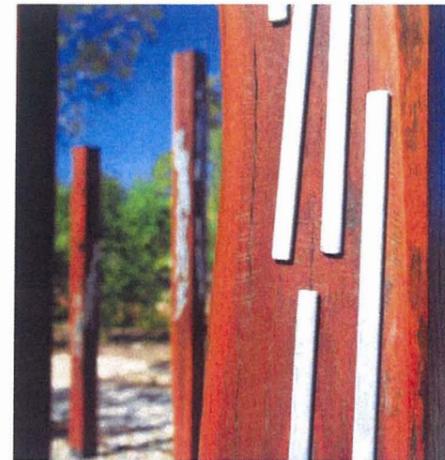
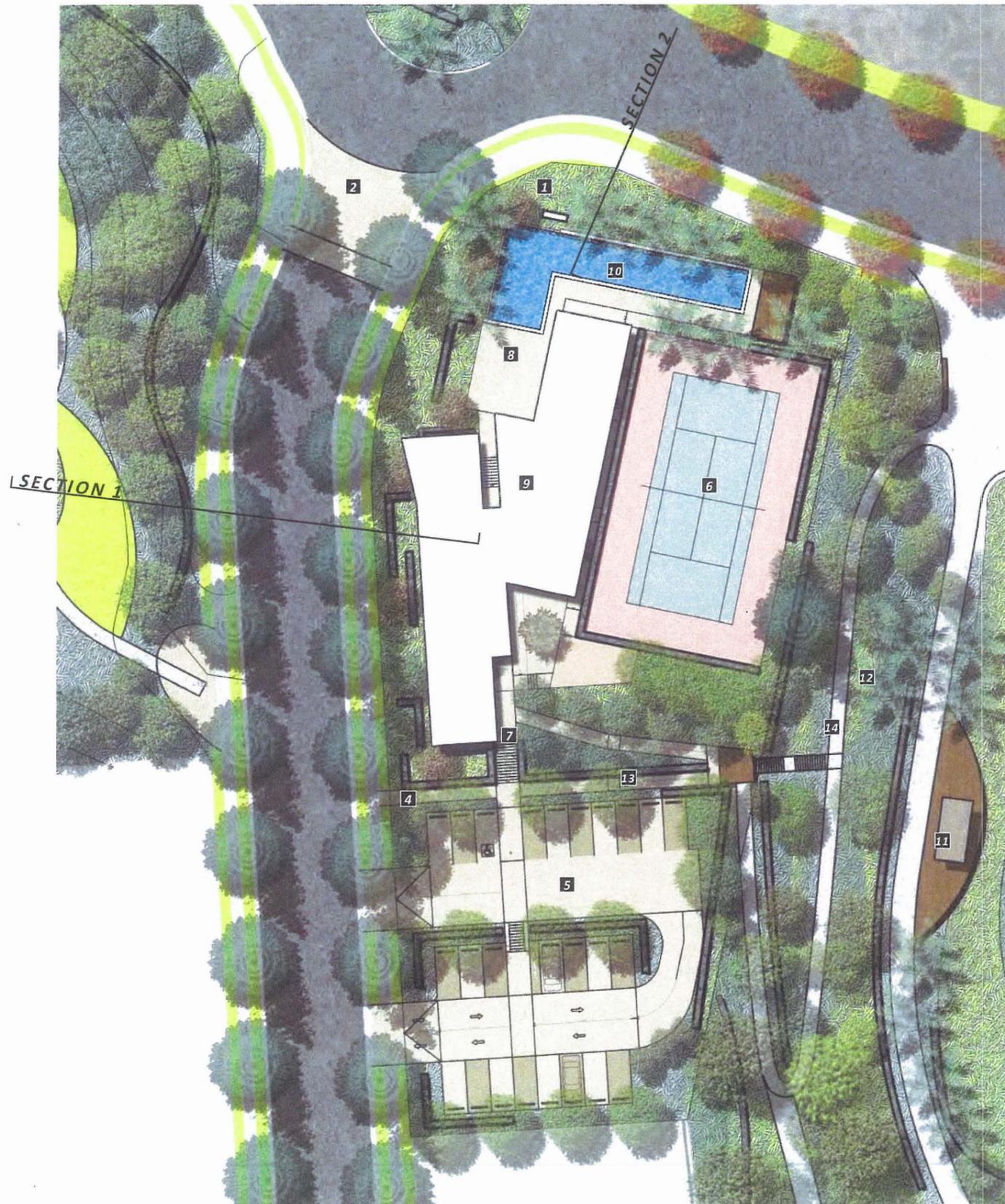
TIMBER PALING FENCE



FENCE TYPES

100906 | 12 AUG 13 | DA07 | SCALE 1:40 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



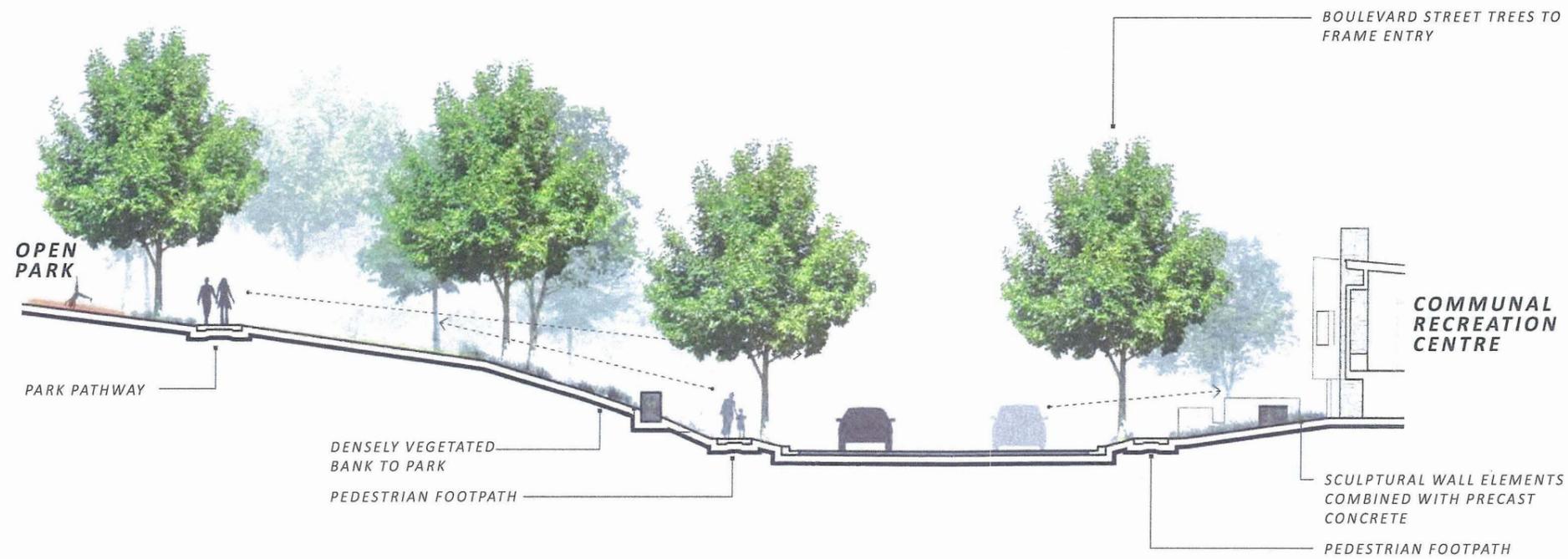
- 1** ENTRY WALLS AND SIGNAGE
- 2** TRANSITION PAVEMENT
- 3** TRANSITION PAVEMENT TO PARK
- 4** ENTRY ARBOUR TO COMMUNAL REC CENTRE
- 5** REC CENTRE CARPARK
- 6** TENNIS COURT
- 7** REC CENTRE ENTRY
- 8** POOL BBQ
- 9** REC CENTRE

- 10** LAP POOL
- 11** VIEWING DECK
- 12** NATIVE GRASSES AND GROUNDCOVERS
- 13** PATHWAY SPINE (PUBLIC LINK)
- 14** PUBLIC PATHWAY

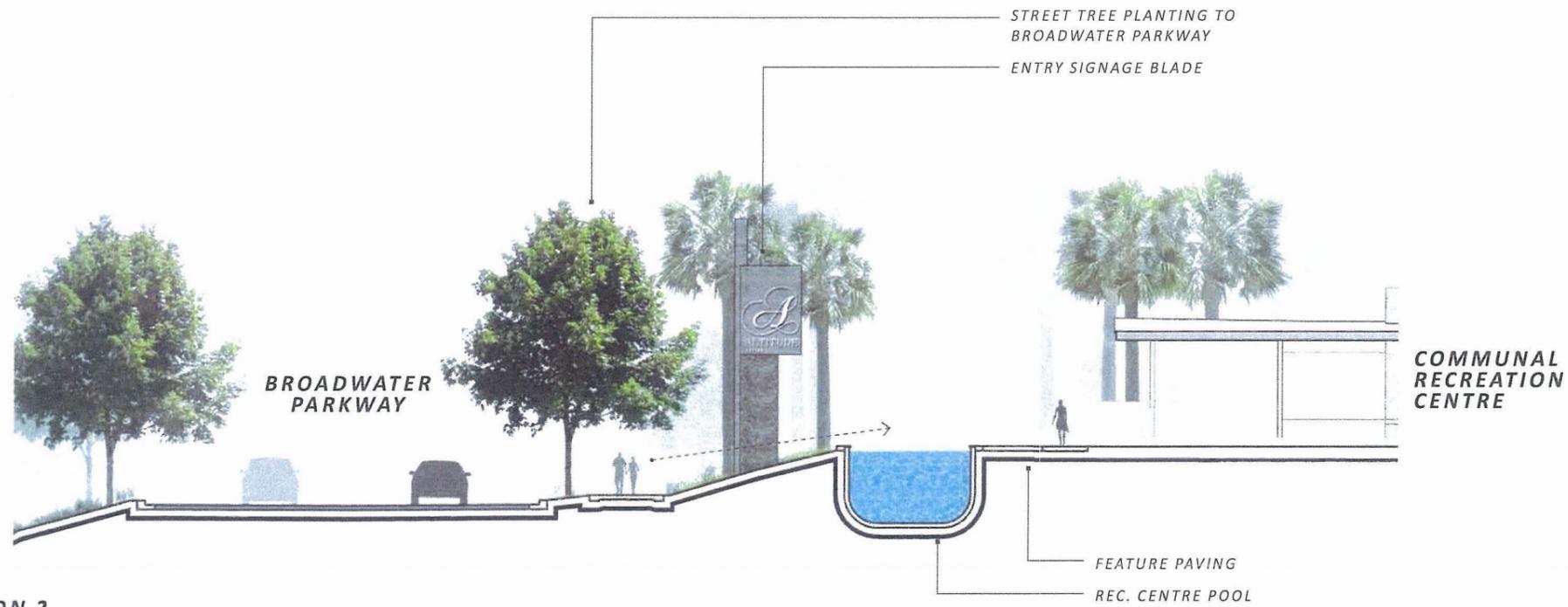
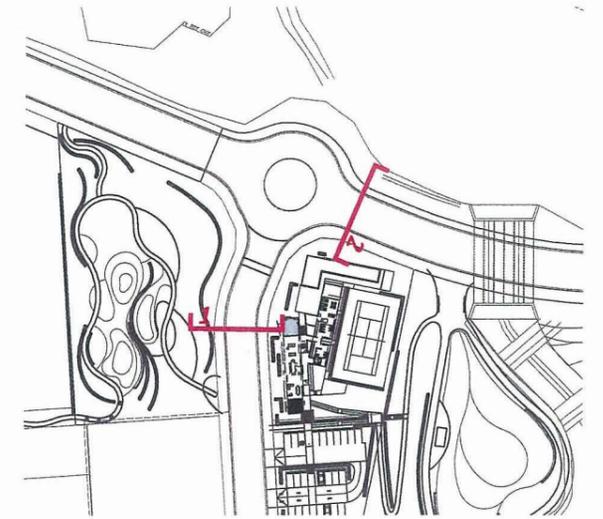
ENTRY PRECINCT

100906 | 12 AUG 13 | DA07 | NORTH ☺ | SCALE 1:500 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



SECTION 1

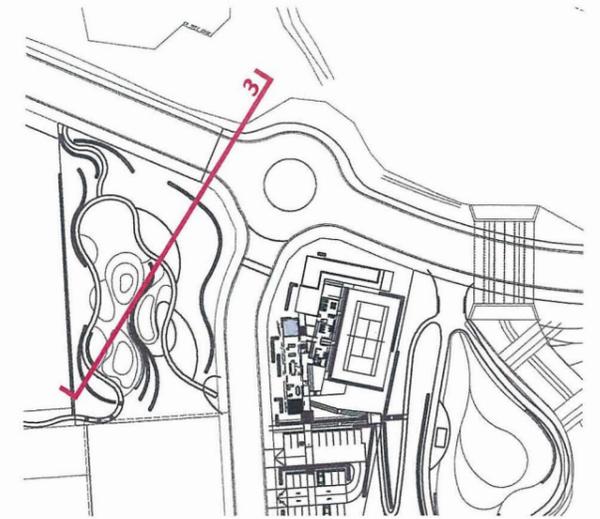
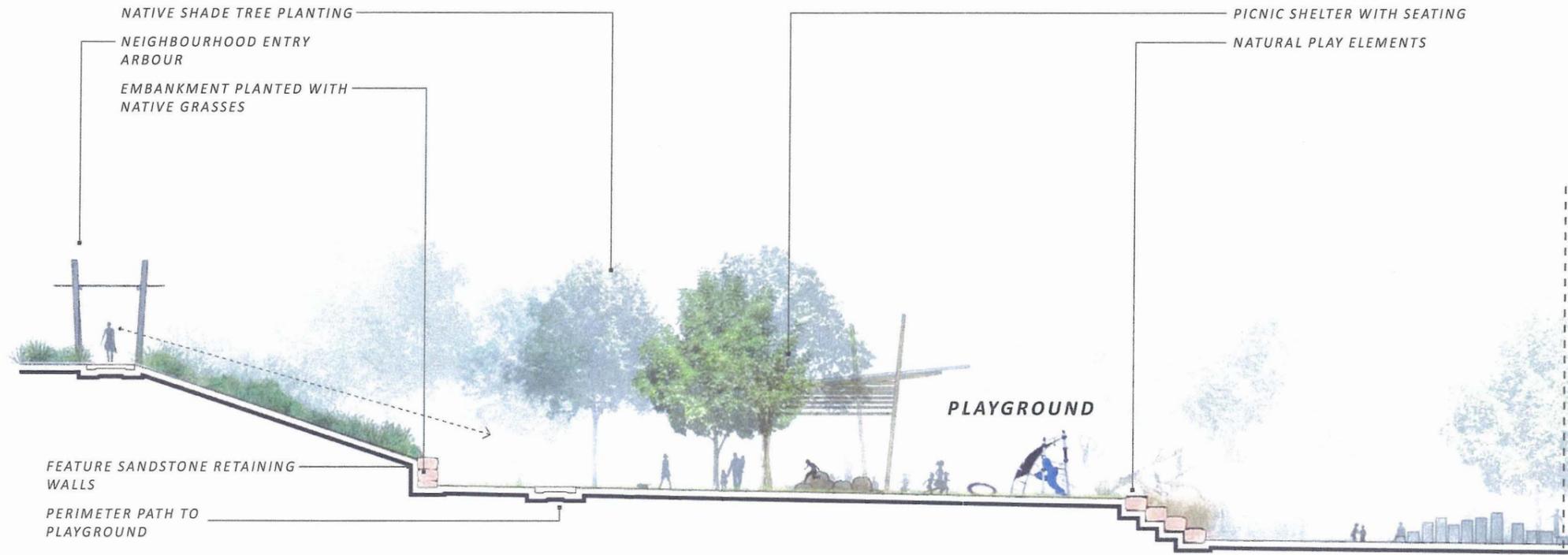


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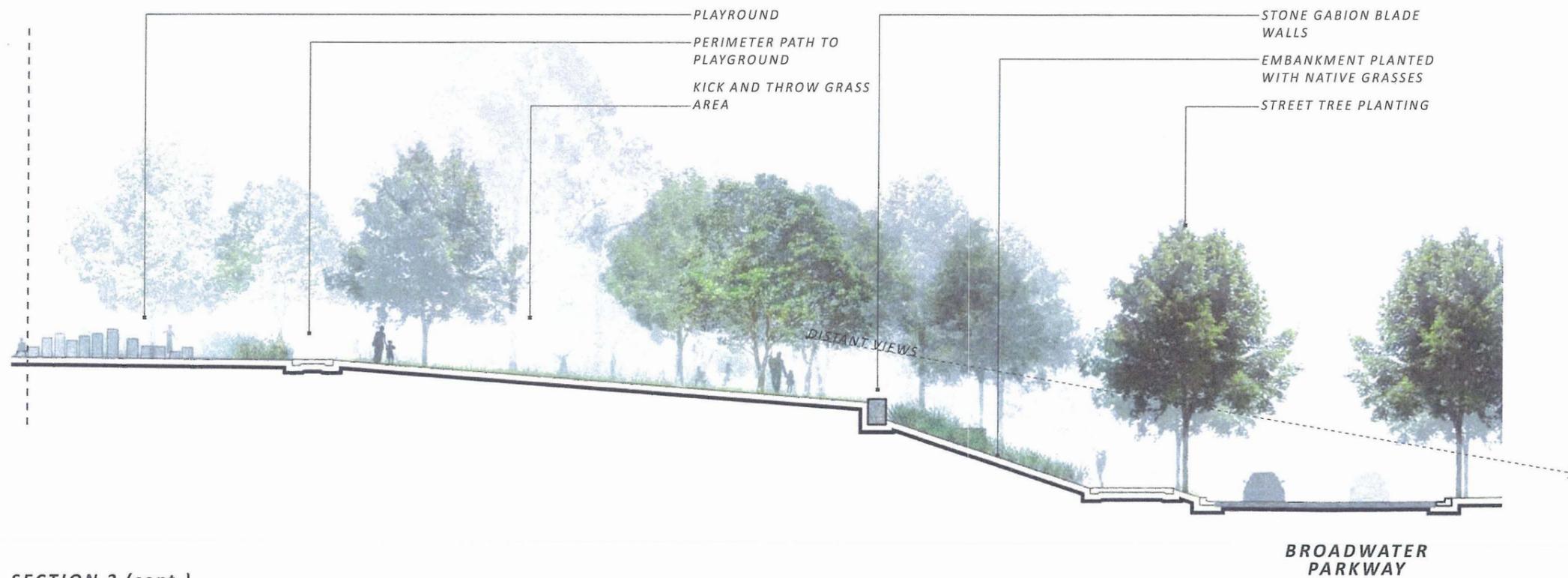
LANDSCAPE SECTIONS

100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



SECTION 3



SECTION 3 (cont.)

LANDSCAPE SECTION

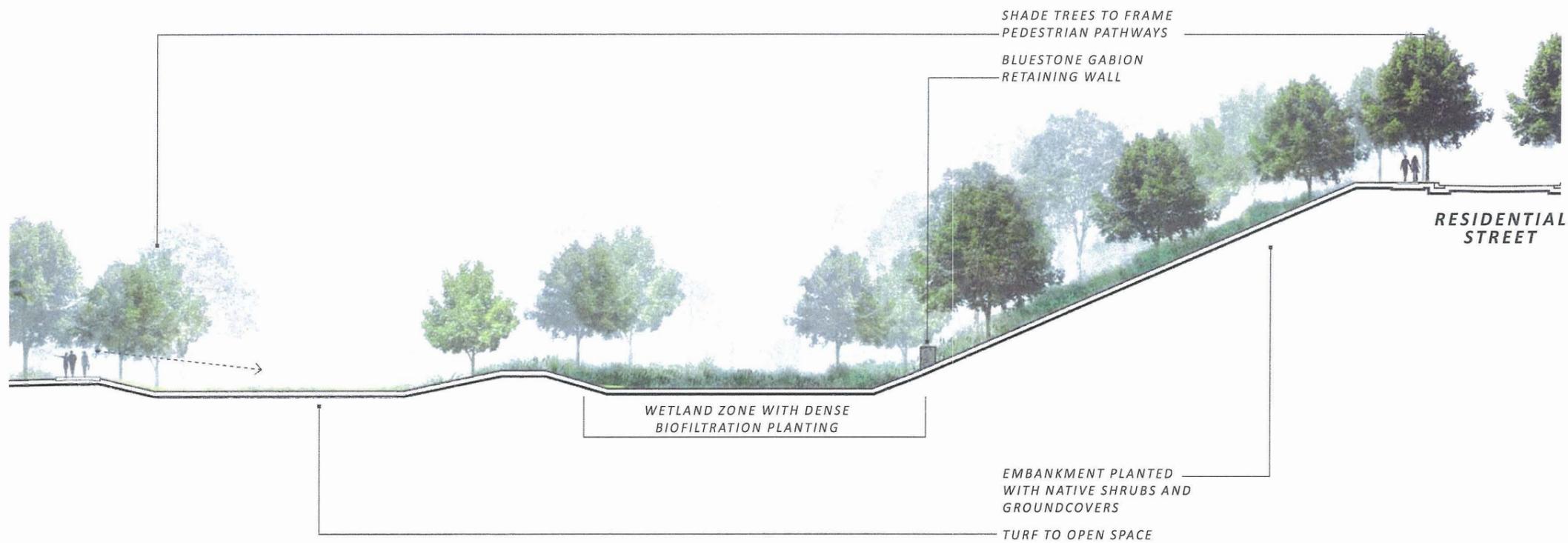
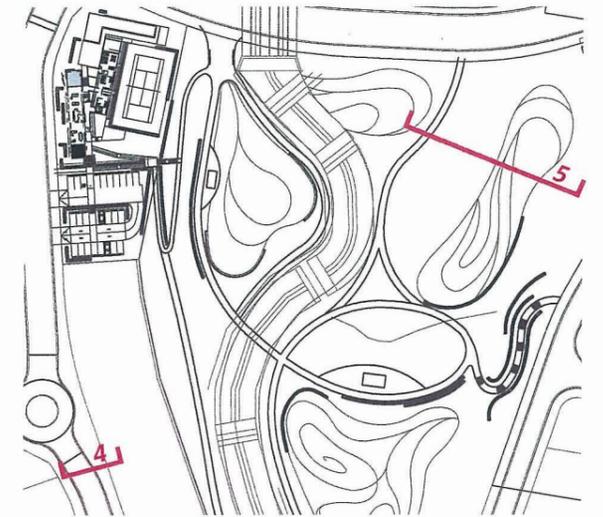
100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD





SECTION 4



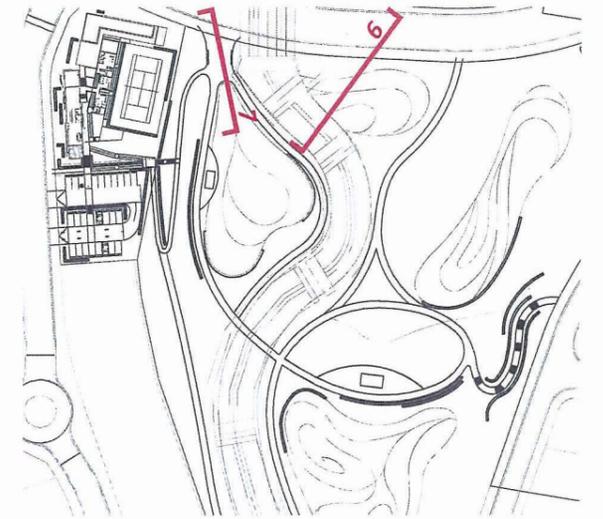
SECTION 5



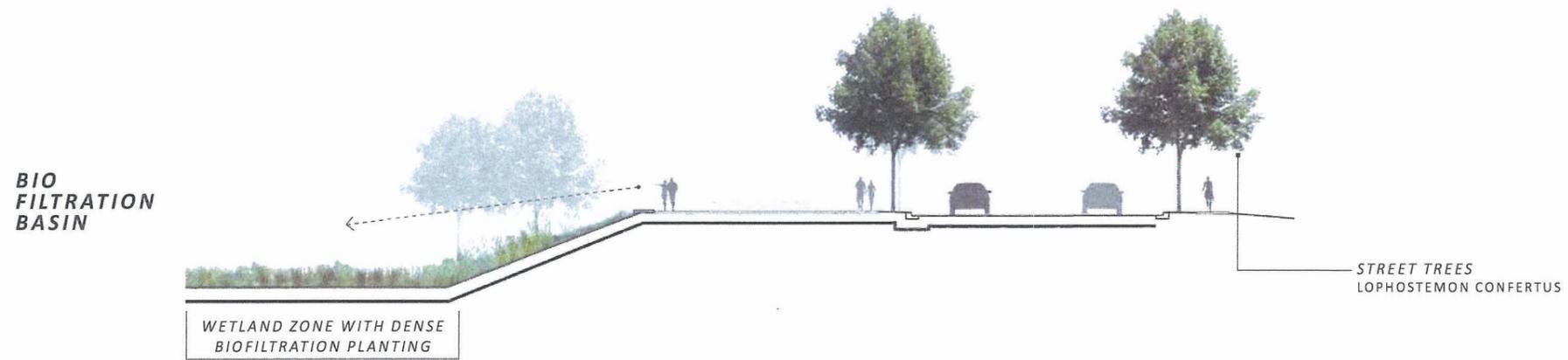
LANDSCAPE SECTIONS

100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



SECTION 6

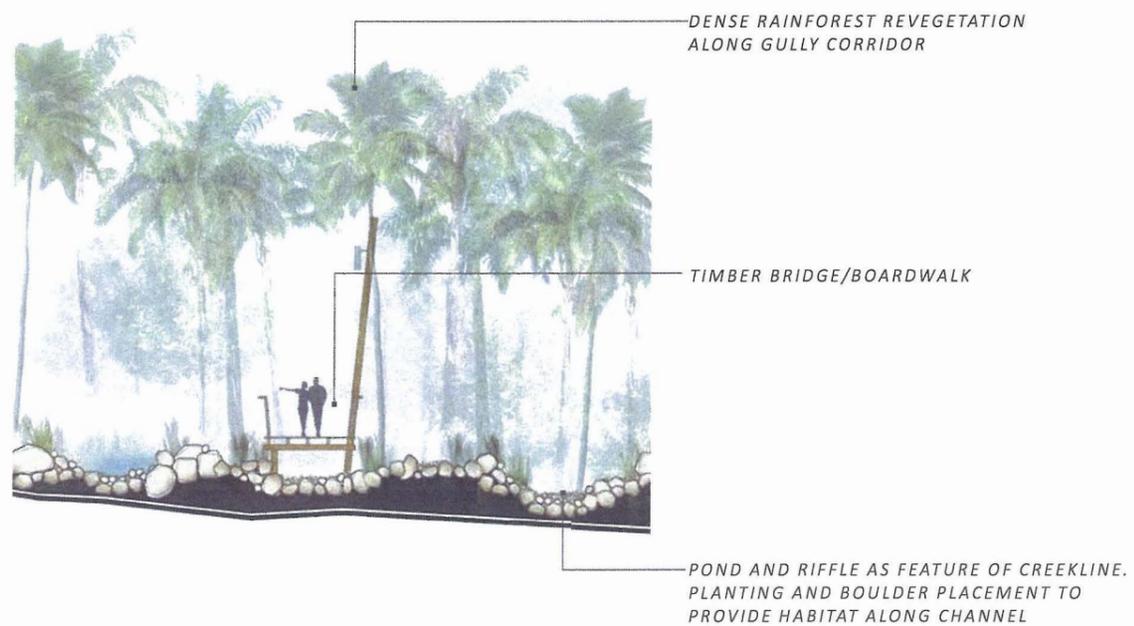


SECTION 7

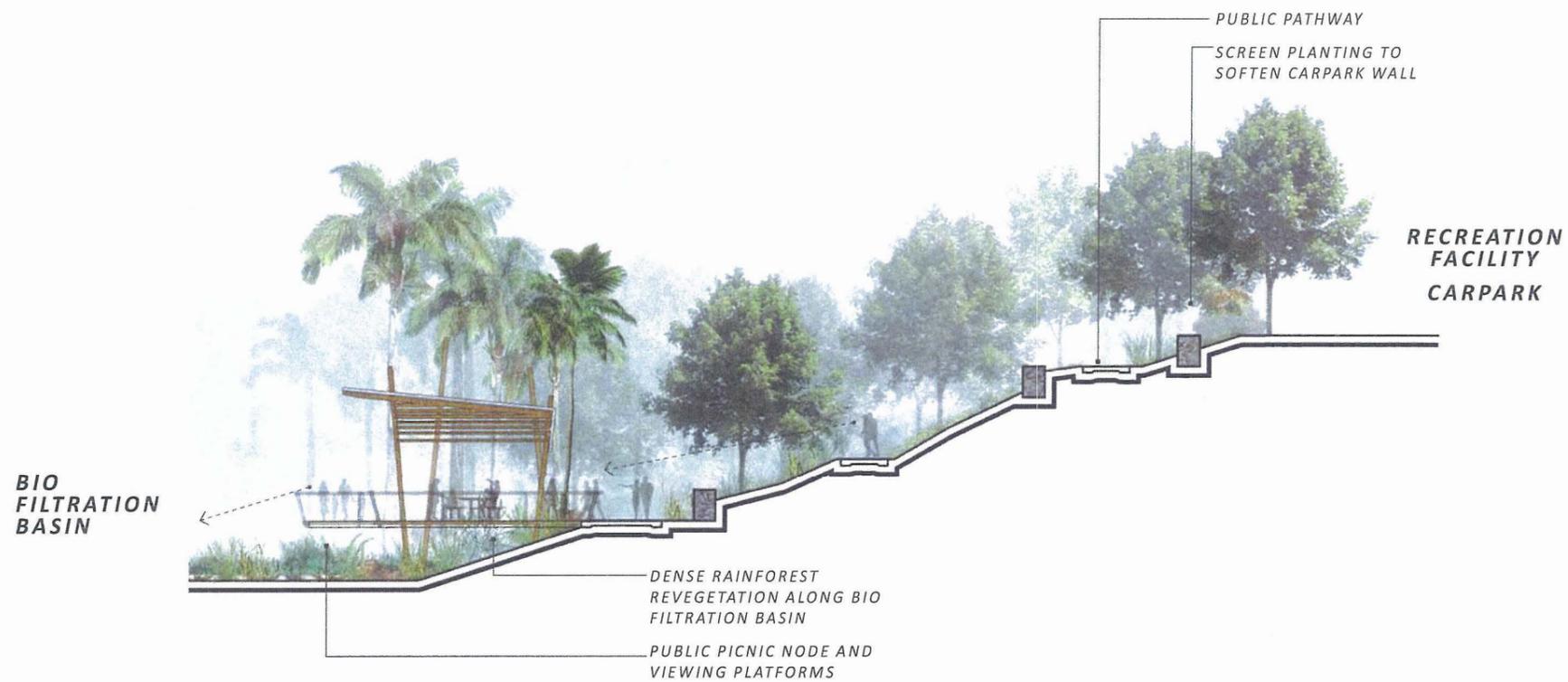
LANDSCAPE SECTIONS

100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



SECTION 8

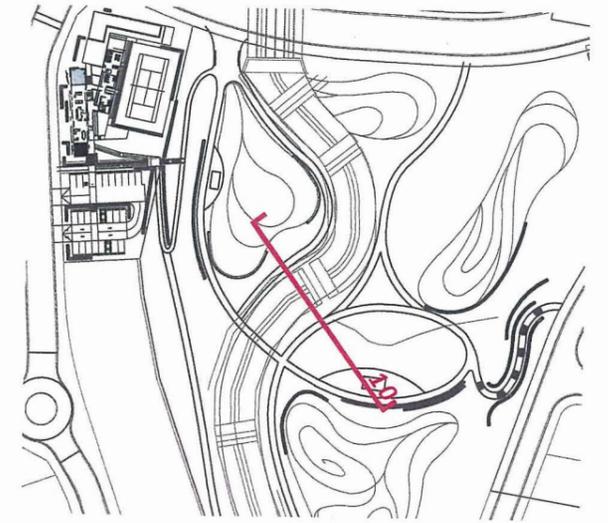


SECTION 9

LANDSCAPE SECTIONS

100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD

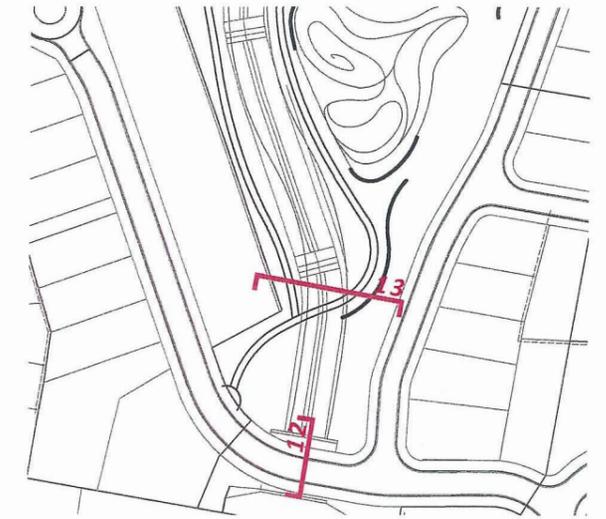
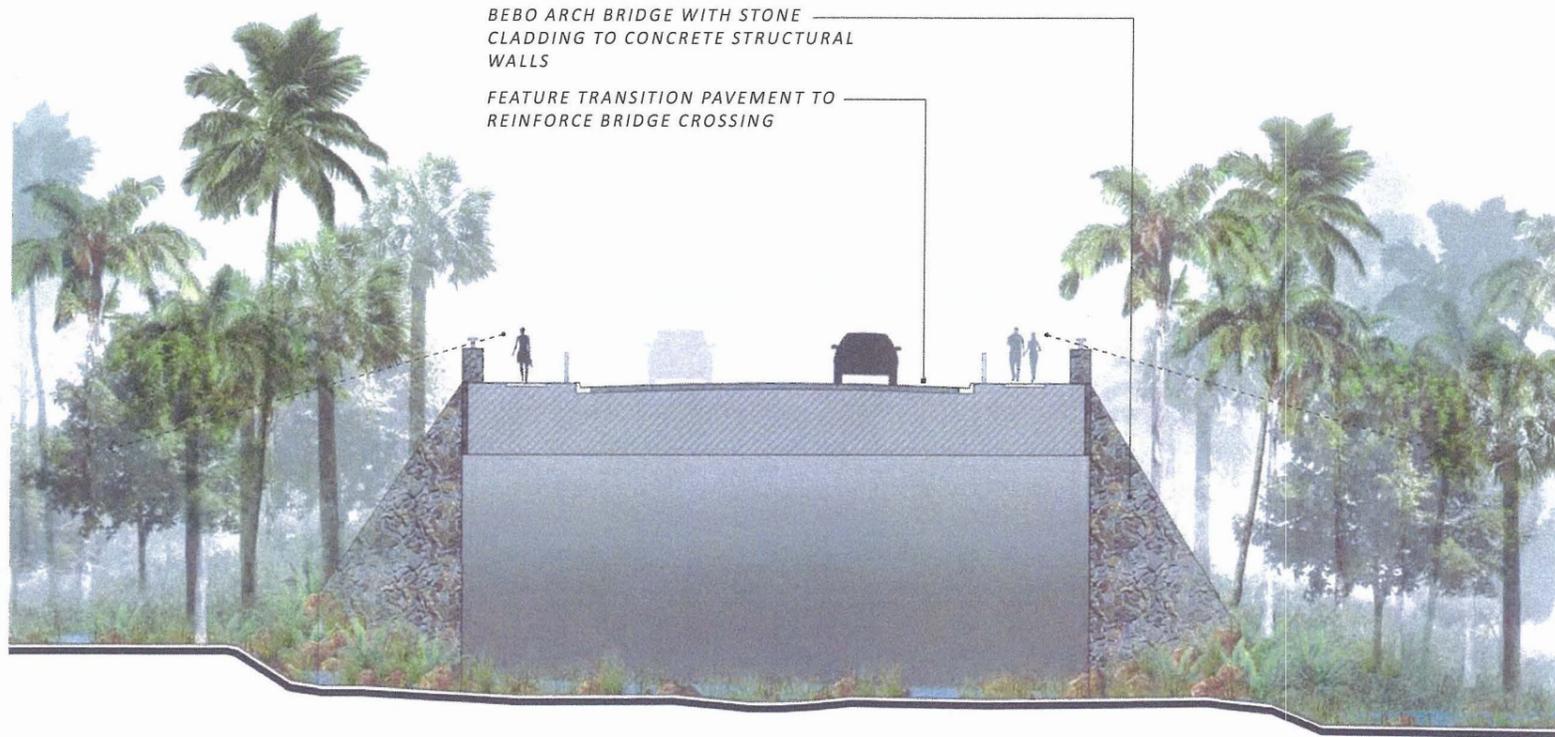


SECTION 10

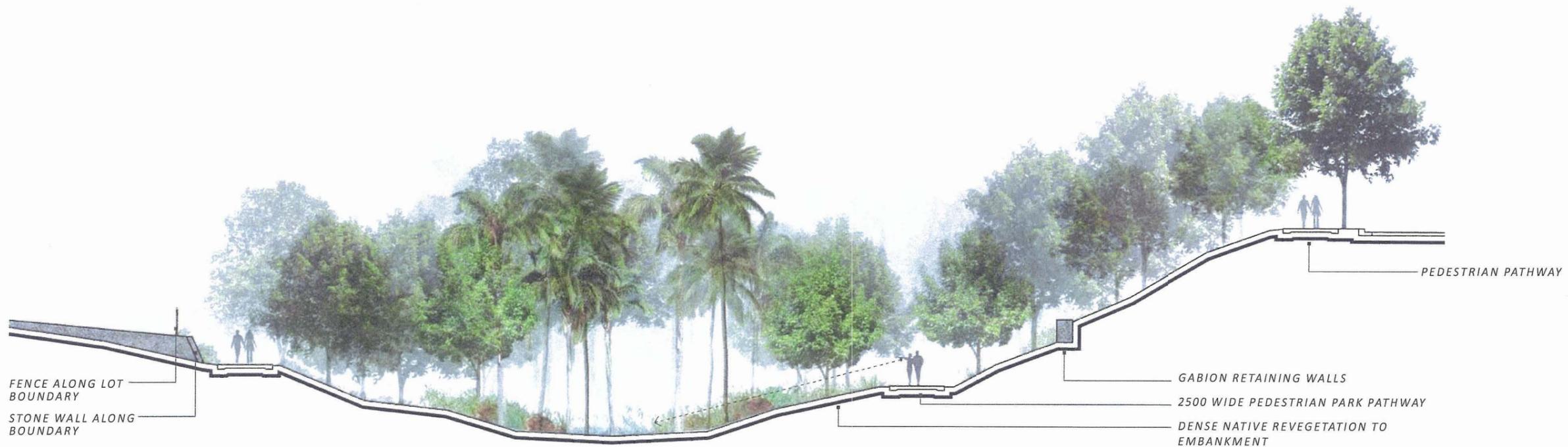
LANDSCAPE SECTIONS

100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



SECTION 12



SECTION 13

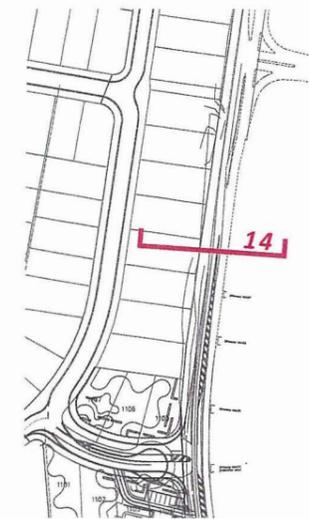
LANDSCAPE SECTIONS

100906 | 12 AUG 13 | DA07 | SCALE 1:200 @ A3

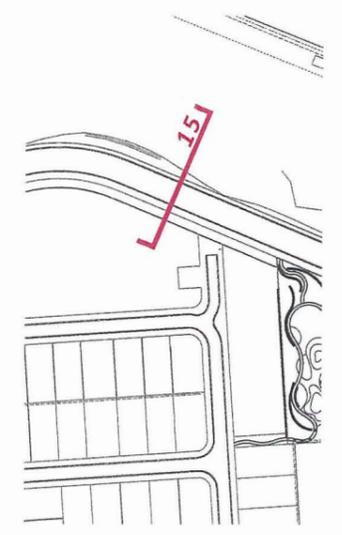
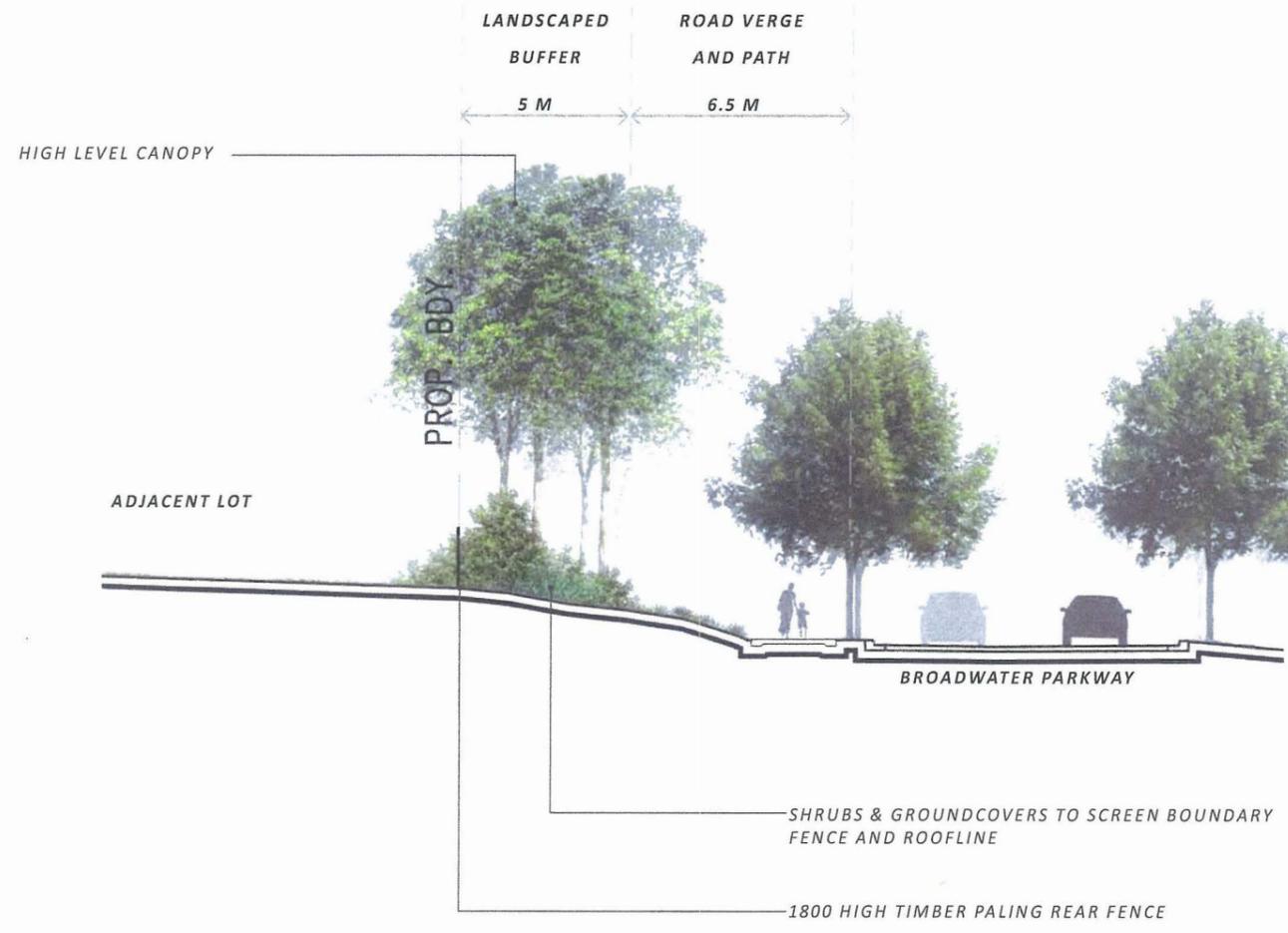
PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



PERSPECTIVE OF LANDSCAPE BUFFER & SCREENING TO FRASER DRIVE.
 (SOURCE: TWEED HEADS SHIRE COUNCIL, DCP, 2011)



SECTION 14



SECTION 15

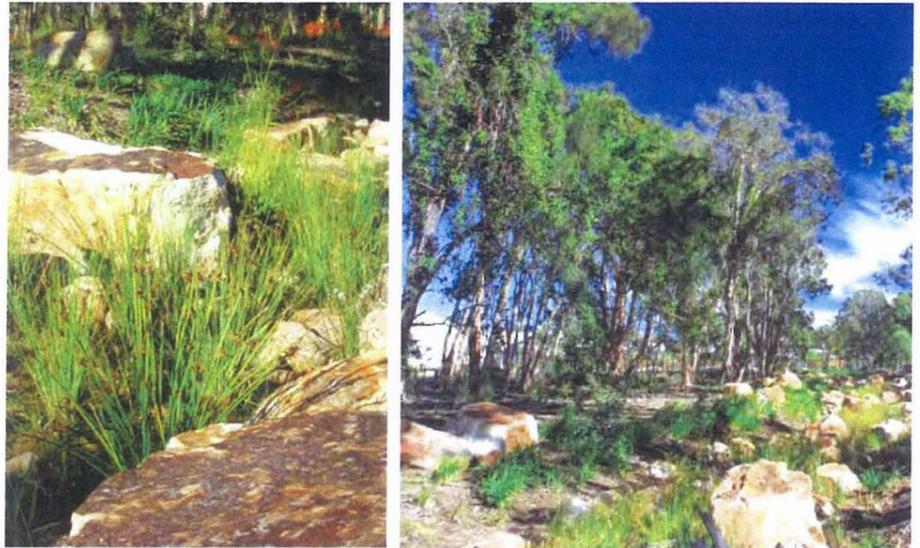


- 1** PICNIC PARK SHELTER WITH PICNIC BENCH
- 2** NATURAL PLAY ELEMENTS
- 3** SOFTFALL PLAYGROUND
- 4** NEIGHBOURHOOD ENTRY ARBOUR
- 5** PARK PATHWAY
- 6** SANDSTONE RETAINING WALLS
- 7** OPEN KICK AND THROW GRASS AREA
- 8** GABION BLADE WALLS
- 9** RAMPED PATHWAY
- 10** TRANSITIONAL PAVEMENT ACCESS TO COMMUNITY REC CENTRE
- 11** SCREEN PLANTING TO BOUNDARY

NEIGHBOURHOOD PLAYGROUND PARK

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PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



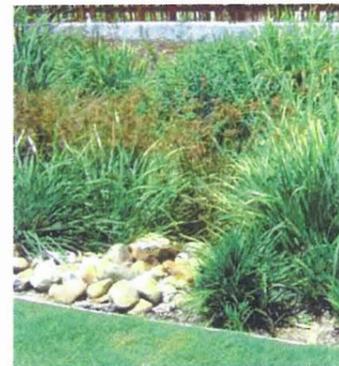
- 1 SHELTER AND DECK
- 2 BRIDGE ACROSS CREEK
- 3 SEDGES AND MARGINAL PLANTING ZONE
- 4 DRAINAGE GULLY
- 5 PARK PEDESTRIAN PATH
- 6 PARK SHELTER
- 7 GABION RETAINING WALLS
- 8 WETLAND
- 9 BIO RETENTION BASIN

NOTE: SECTION 12 (PG 15), 14 (PG 17) & 15 (PG 18) REFER TO KEYPLANS.

DRAINAGE CORRIDOR AND WETLANDS

100906 | 12 AUG 13 | DA07 | NORTH | SCALE 1:1000 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



- 1 PARK PATHWAY
- 2 DECOMPOSED GRANITE
- 3 PARK TOTEMS
- 4 PICNIC SHELTER
- 5 SANDSTONE TERRACE
- 6 GABION WALL
- 7 KICK AND THROW GRASS AREA
- 8 SCREEN PLANTING TO BOUNDARY

POCKET PARK 1

100906 | 12 AUG 13 | DA07 | NORTH ⌚ | SCALE 1:500 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD



- 1 PARK PATHWAY
- 2 BARBEQUE
- 3 TIMBER BOLLARDS AND LOCKRAIL TO PARK BOUNDARY
- 4 PICNIC SHELTER
- 5 SANDSTONE TERRACE
- 6 KICK AND THROW GRASS AREA
- 7 SCREEN PLANTING TO BOUNDARY

-  NEW TREES
-  EXISTING TREES
-  PROPOSED CONTOURS

POCKET PARK 2

100906 | 12 AUG 13 | DA07 | NORTH ⌚ | SCALE 1:500 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | LANDSCAPE MASTERPLAN | CLIENT NEWLAND DEVELOPERS PTY LTD

