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13. ALL STREET NAME SIGNS SHALL FOLLOW ATCOP GUIDELINES IN TERMS OF LAYOUT, CLEARANCES, AND CONSTRUCTION DETAILS.
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15. THE MINIMUM VERTICAL AND LATERAL CLEARANCES FOR SIGNAGE SHALL BE IN ACCORDANCE WITH MOTSAM STANDARDS.
16. STREET LIGHTING SHALL BE DESIGNED IN ACCORDANCE WITH ALL APPLICABLE NEW ZEALAND STANDARDS INCLUDING BUT NOT RESTRICTED TO THE CURRENT VERSION OF AS/NZS 1158 LIGHTING FOR ROADS AND PUBLIC SPACES SERIES OF STANDARDS.
17. ALL NEW, MODIFIED OR UPGRADED PRAM CROSSINGS MUST BE IN ACCORDANCE WITH RTS 14 GUIDELINES FOR FACILITIES FOR BLIND AND VISION-IMPAIRED PEDESTRIANS AND NZS/AS 1428.4 AND MUST COMPLY WITH THE DETAILS PROVIDED IN AT'S STANDARD PLAN NO.FP006.

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 8. REFER TO LONG SECTION FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.
 9. ALL DUCTS SHALL HAVE LOCATIONS MARKED ON KERB LINES IN ACCORDANCE WITH SPECIFICATION.

LEGEND:

- EX BDY
- PR BDY
- PR EXTENT WORK
- PR ROAD CENTRELINE
- PR PASSING BAY
- PR VEHICLE CROSSING
- PR BUILDING PLATFORM AREA
- PR CARRIAGEWAY
- PR SWALE
- PR BERM
- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK

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| A | RC | KH | 03/25 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

M **Maven Associates**
09 571 0050
info@maven.co.nz
www.maven.co.nz
5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 1
JOAL/ROADING
PLAN OVERVIEW**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:10,000 @ A3 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 1.DWG |
| Drawing no. | C320-1-0 |
| Rev | A |

RESOURCE CONSENT

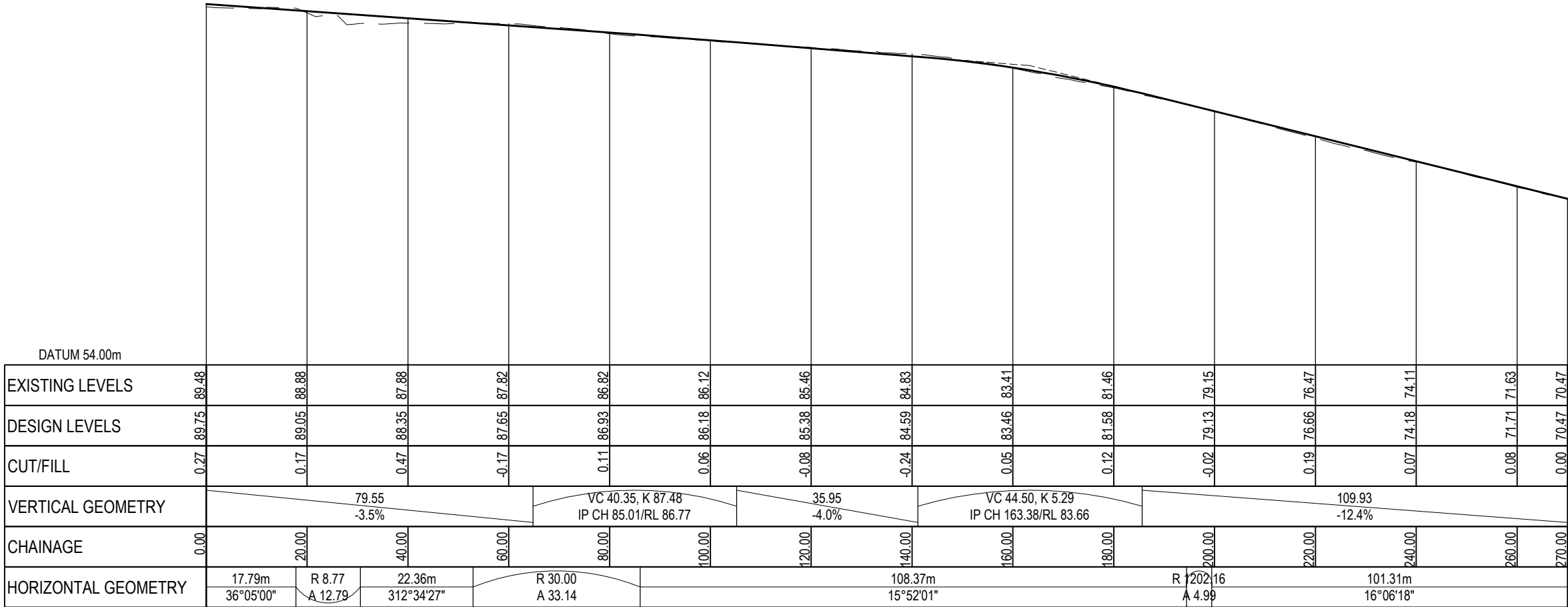


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 - PR PASSING BAY
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 - PR BUILDING PLATFORM AREA
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 - PR SWALE
 - PR BERM
 - BOLLARD LIGHT
 - STAGE BOUNDARY
 - EXISTING STREAMS
 - 10m STREAM SETBACK
 - RIPARIAN YARD
 - 20m SETBACK
 - WETLAND AREA
 - 100m SETBACK

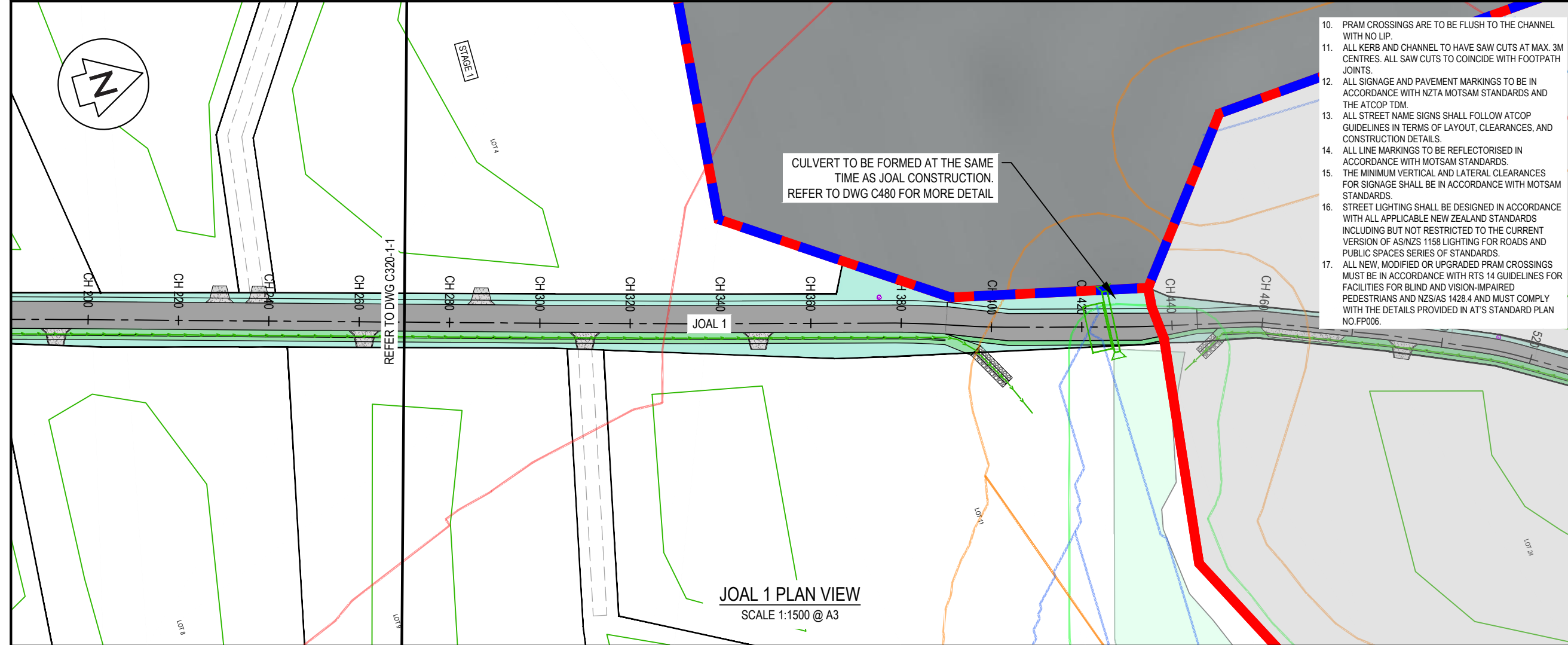
JOAL 1 PLAN VIEW
SCALE 1:1000 @ A3



RESOURCE CONSENT

PROPOSED - JOAL1 CH 000.00 TO CH 270.00
SCALE: 1:1000 H / 1:500 V

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| A | RC | KH | 03/25 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |
| <div><div>M</div><div>Maven Associates</div><div>09 571 0050</div><div>info@maven.co.nz</div><div>www.maven.co.nz</div><div>5 Owens Road, Epsom</div><div>Auckland 1023</div></div> | | | |
| Project | | | |
| DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP | | | |
| Title | | | |
| PROPOSED STAGE 1 JOAL/ROADING PLAN | | | |
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 1.DWG | | |
| Drawing no. | C320-1-1 | Rev | A |



NOTES

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- 20m SETBACK
- WETLAND AREA
- 100m SETBACK

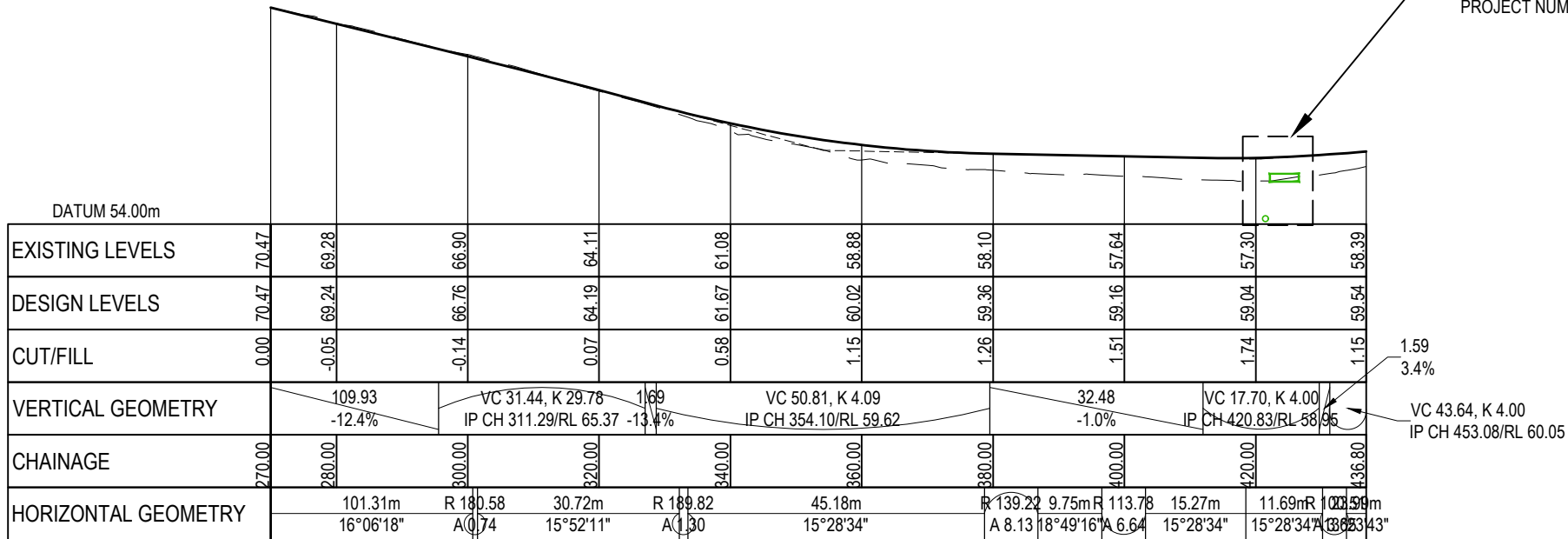
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M **Maven Associates**
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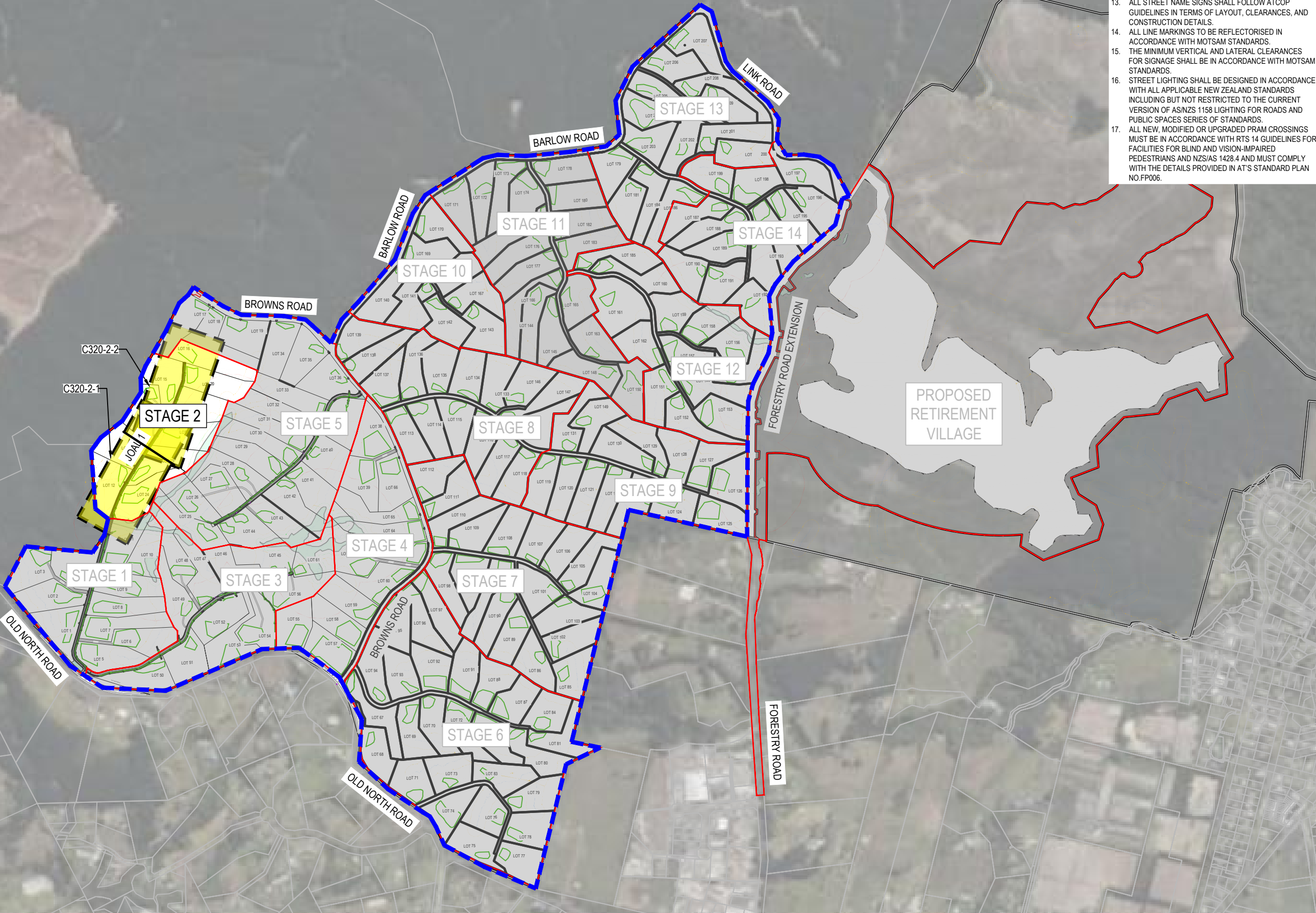
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 1
JOAL/ROADING
PLAN**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 1.DWG |
| Drawing no. | C320-1-2 |
| Rev | A |



RESOURCE CONSENT



10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
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| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 02/2025 |
| Checked | RW/KH | | 03/2025 |

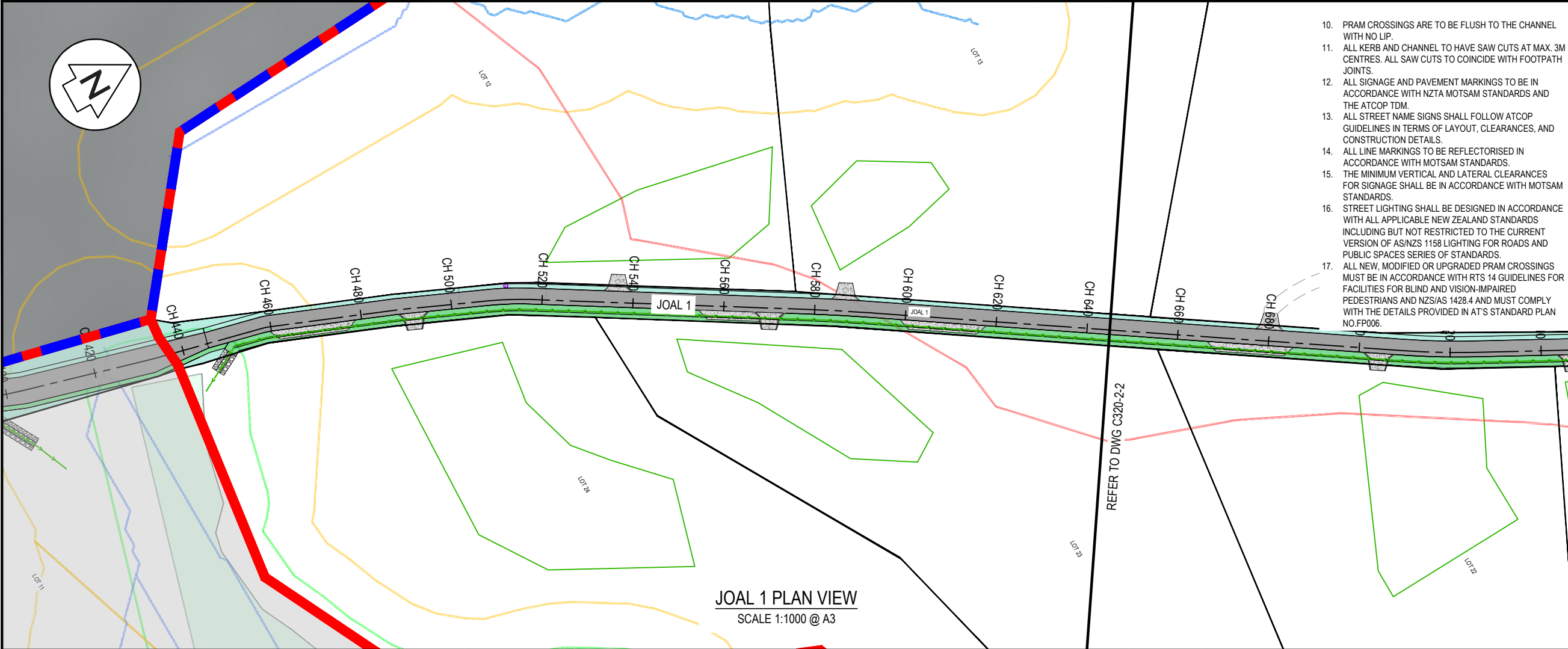
M Maven Associates
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 2
JOAL/ROADING
PLAN OVERVIEW**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:10,000 @ A3 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 2.DWG |
| Drawing no. | C320-2-0 |
| Rev | A |

RESOURCE CONSENT



JOAL 1 PLAN VIEW
SCALE 1:1000 @ A3

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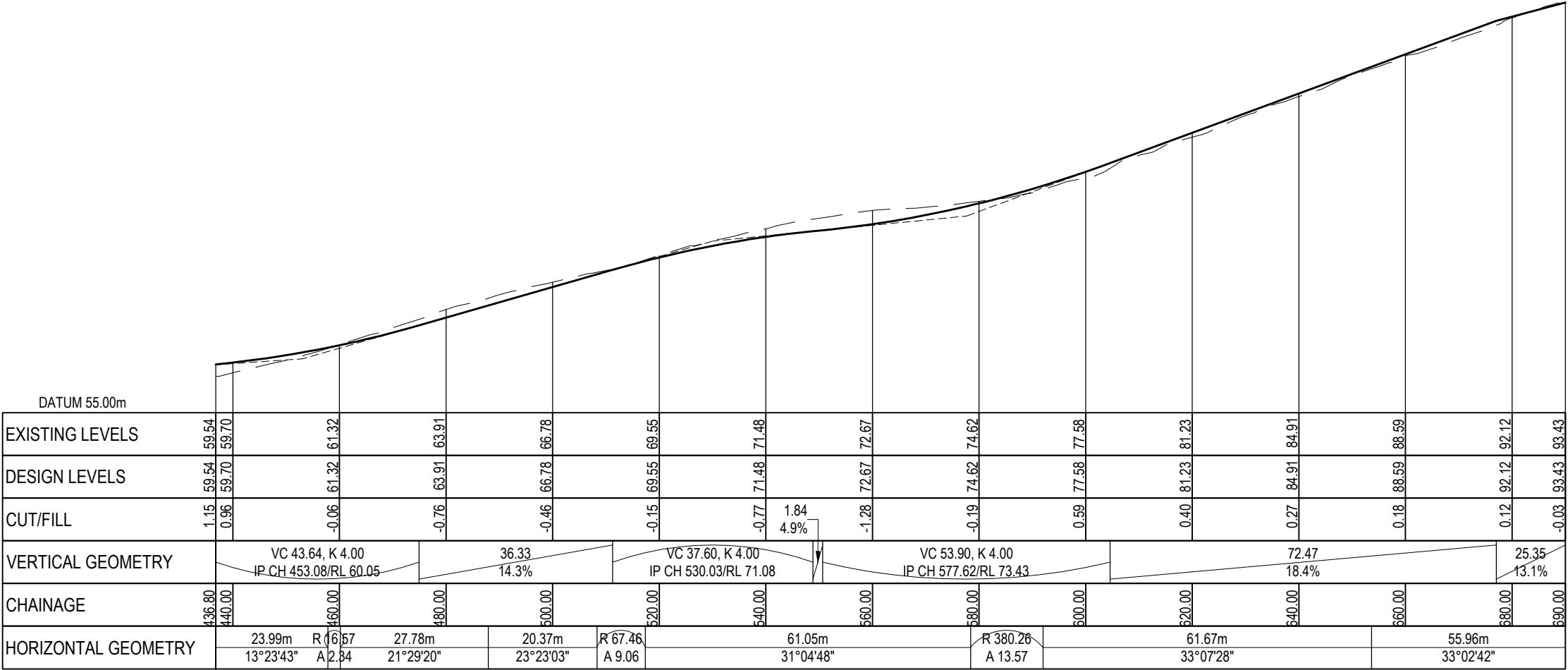
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| Rev | Description | By | Date |
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| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
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Project
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DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 2
JOAL/ROADING
PLAN**

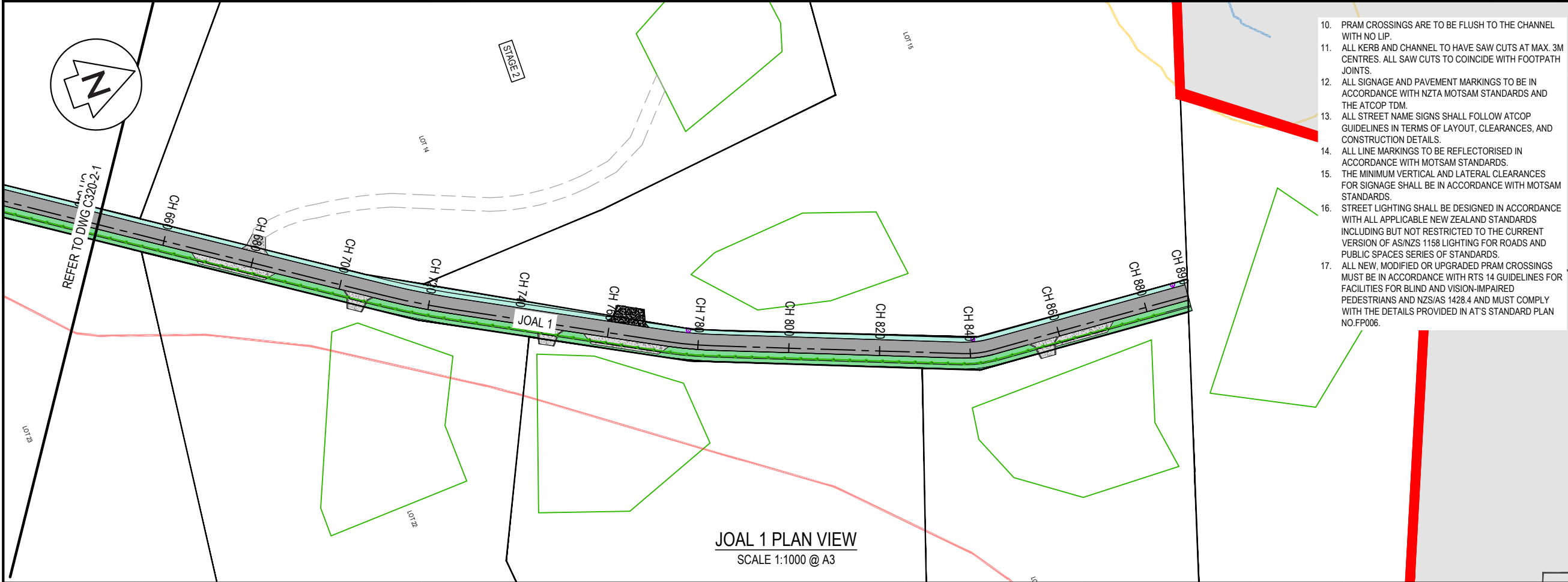
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| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 2.DWG |
| Drawing no. | C320-2-1 |
| Rev | A |



RESOURCE CONSENT

PROPOSED - JOAL1 CH 436.80 TO CH 690.00
SCALE: 1:1000 H / 1:500 V

DATE: 4/2/25 FILE PATH: F:\Maven\PROJECTS\147007 RIVERHEAD FOREST\DWG\H47007M.C320 LONG SECTIONS - STAGE 2.DWG

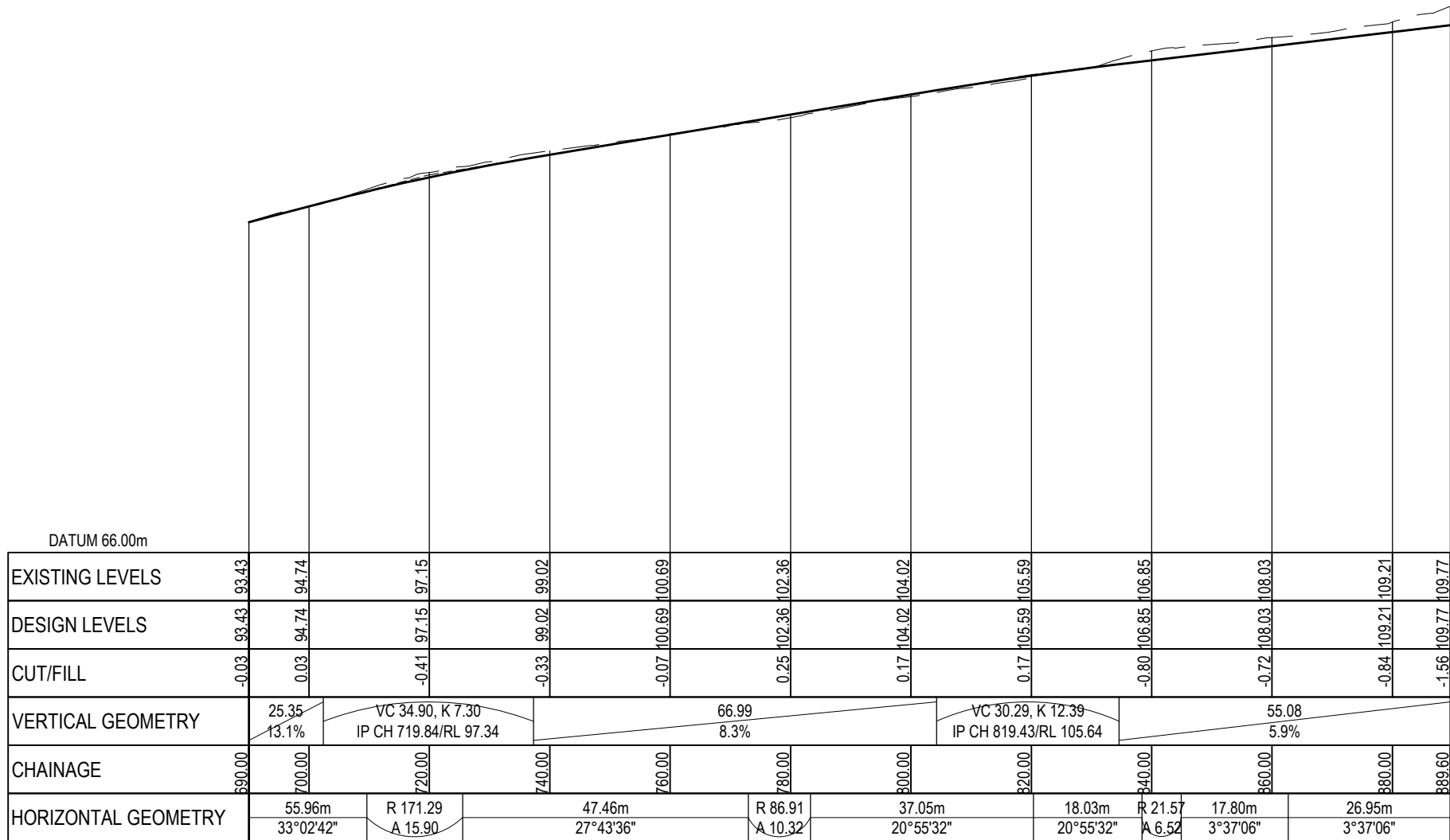


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- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK



PROPOSED - JOAL1 CH 690.00 TO CH 889.60
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

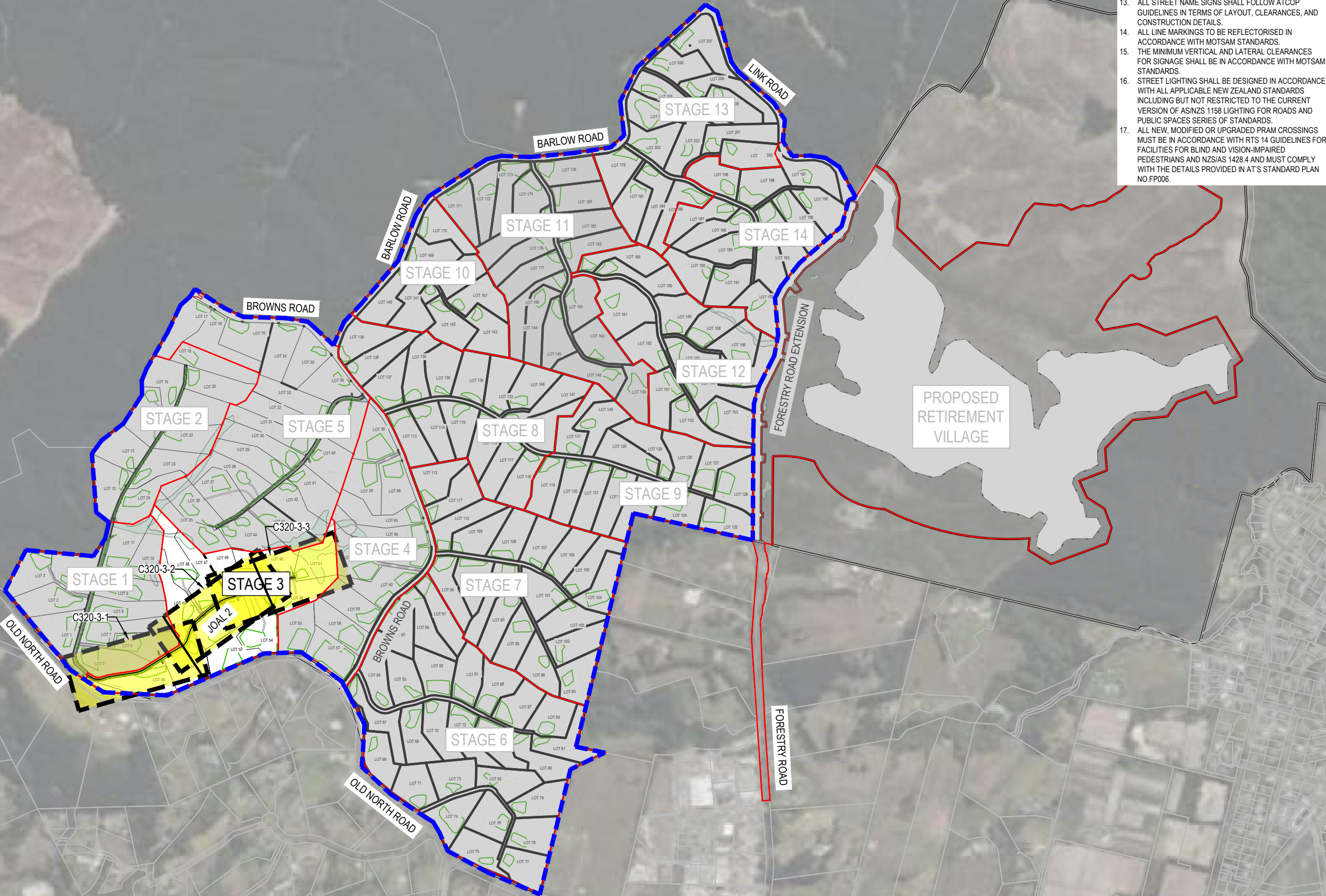
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| A | RC | MA | 03/2025 |
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Project
**DEVELOPMENT OF
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PARTNERSHIP**

Title
**PROPOSED STAGE 2
JOAL/ROADING
PLAN**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 2.DWG |
| Drawing no. | C320-2-2 |
| Rev | A |



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 8. REFER TO LONG SECTION FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.
 9. ALL DUCTS SHALL HAVE LOCATIONS MARKED ON KERB LINES IN ACCORDANCE WITH SPECIFICATION.

LEGEND:

- EX BDY
- PR BDY
- PR EXTENT WORK
- PR ROAD CENTRELINE
- PR PASSING BAY
- PR VEHICLE CROSSING
- PR BUILDING PLATFORM AREA
- PR CARRIAGEWAY
- PR SWALE
- PR BERM
- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK

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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

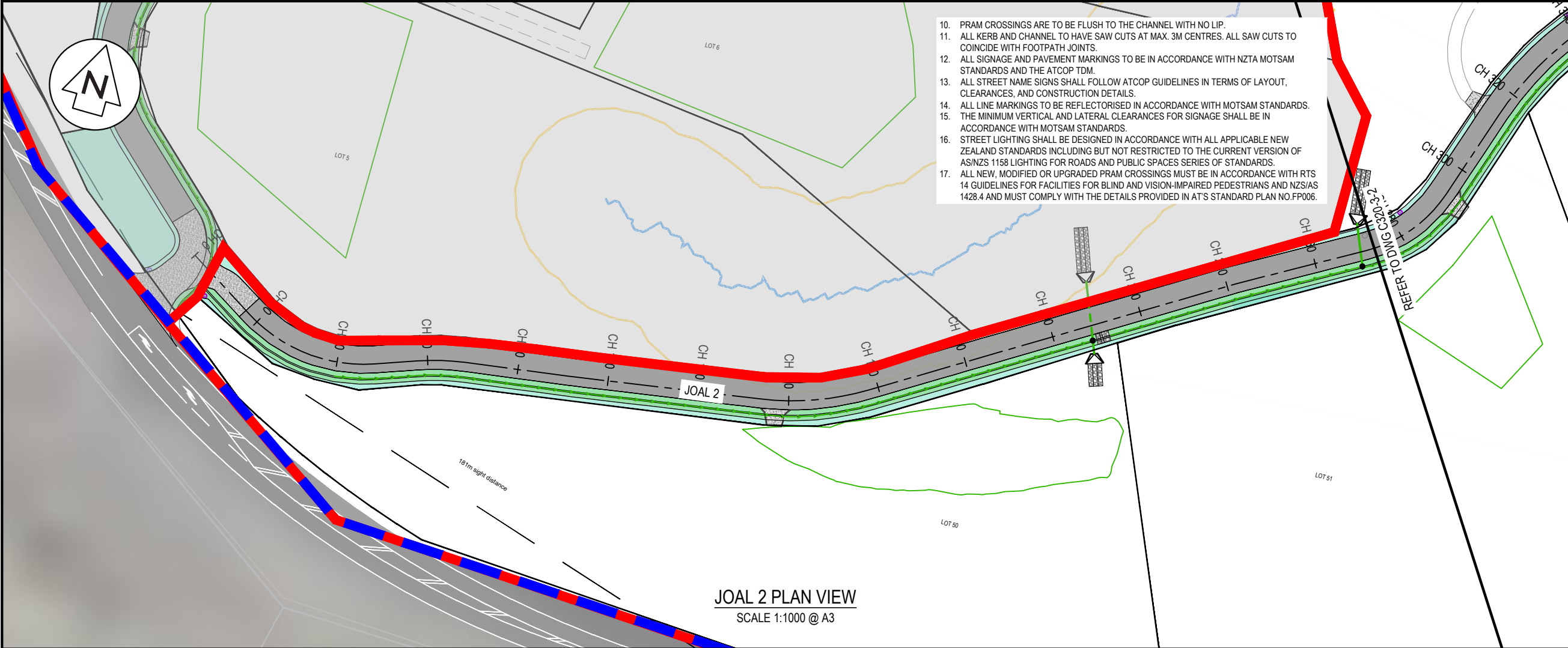
M **Maven Associates**
09 571 0050
info@maven.co.nz
www.maven.co.nz
5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 3
JOAL/ROADING
PLAN OVERVIEW**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:10,000 @ A3 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 3.DWG |
| Drawing no. | C320-3-0 |
| Rev | A |

RESOURCE CONSENT

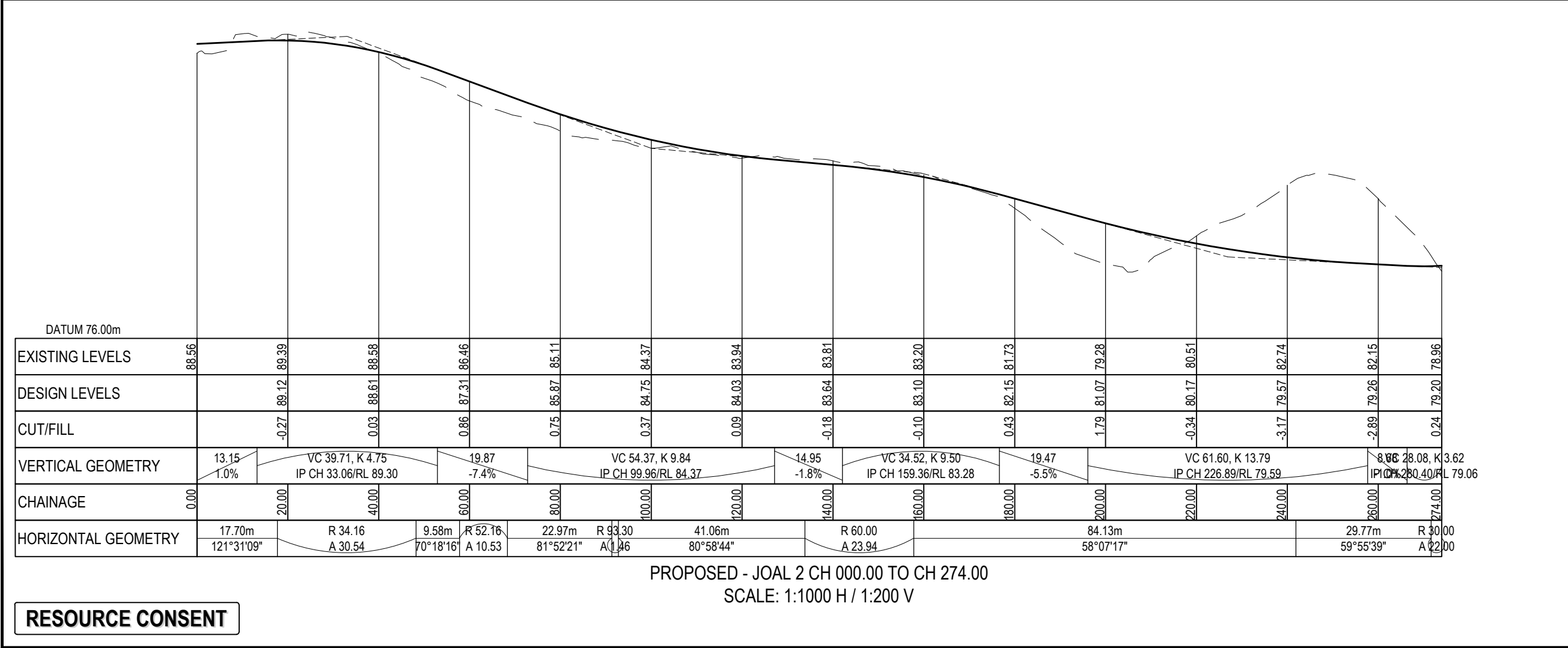


NOTES

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- PR BERM
- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK



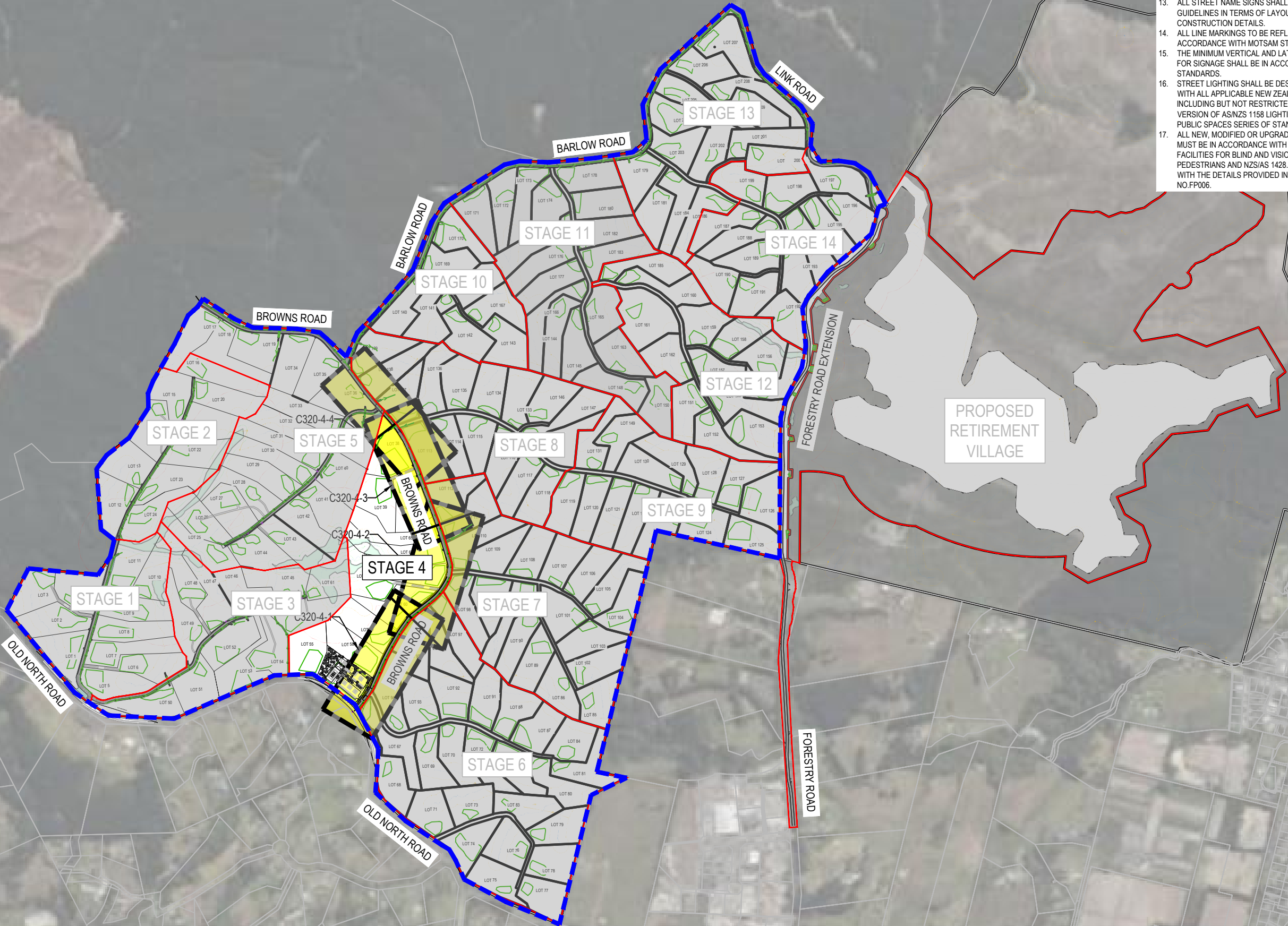
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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

M **Maven Associates**
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Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 3
JOAL/ROADING
PLAN**

| | | | |
|-------------|---|-----|----------|
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 3.DWG | | |
| Drawing no. | C320-3-1 | Rev | A |



10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
11. ALL KERB AND CHANNEL TO HAVE SAW CUTS AT MAX. 3M CENTRES. ALL SAW CUTS TO COINCIDE WITH FOOTPATH JOINTS.
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17. ALL NEW, MODIFIED OR UPGRADED PRAM CROSSINGS MUST BE IN ACCORDANCE WITH RTS 14 GUIDELINES FOR FACILITIES FOR BLIND AND VISION-IMPAIRED PEDESTRIANS AND NZS/AS 1428.4 AND MUST COMPLY WITH THE DETAILS PROVIDED IN AT'S STANDARD PLAN NO.FP006.

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- PR CARRIAGEWAY
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- 20m SETBACK
- WETLAND AREA
- 100m SETBACK

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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 02/2025 |
| Checked | RW/KH | | 03/2025 |

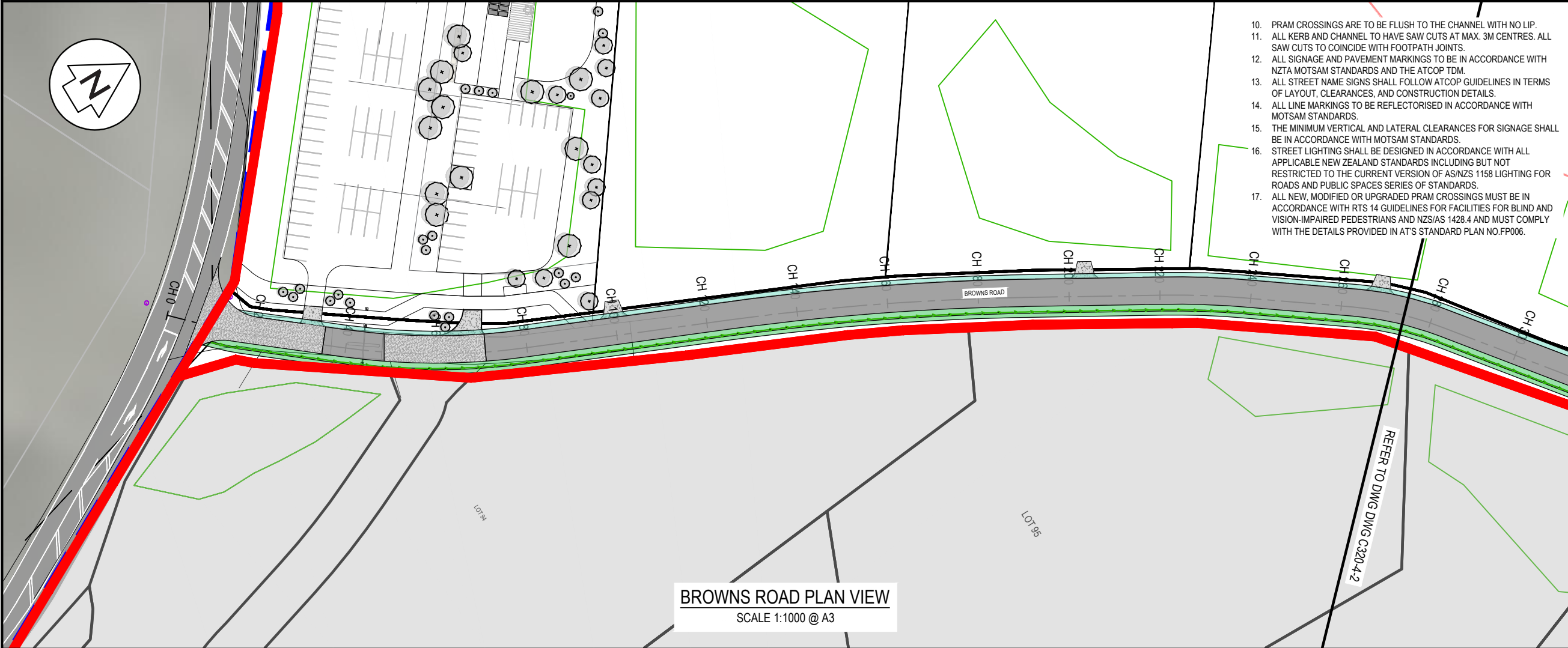
M **Maven Associates**
09 571 0050
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Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 4
JOAL/ROADING
PLAN OVERVIEW**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:10,000 @ A3 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 4.DWG |
| Drawing no. | C320-4-0 |
| Rev | A |

RESOURCE CONSENT

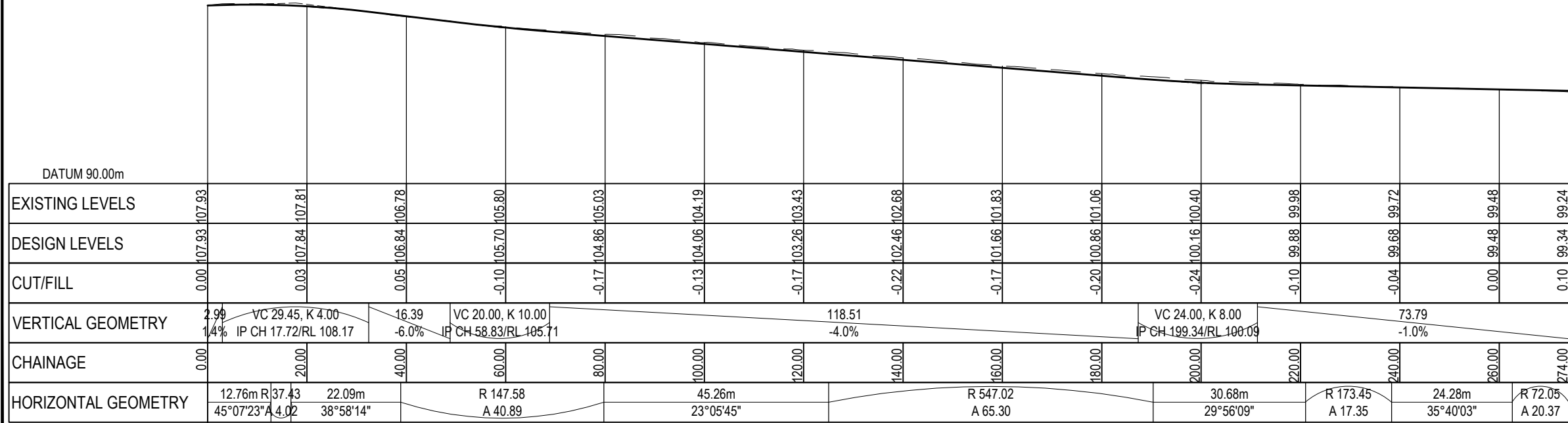


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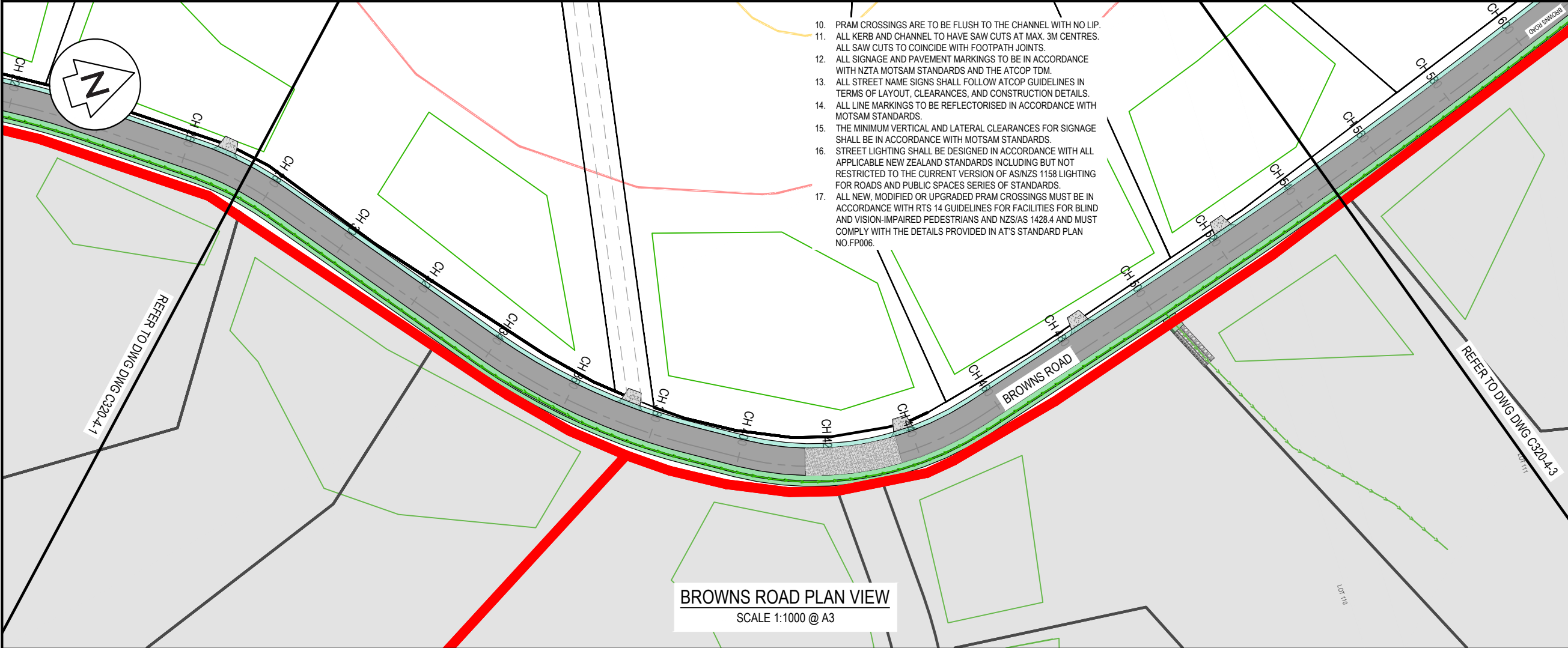
BROWNS ROAD PLAN VIEW
SCALE 1:1000 @ A3



PROPOSED - BROWNS ROAD CH 000.00 TO CH 274.00
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |
| <div><div>M</div><div>Maven Associates</div><div>09 571 0050</div><div>info@maven.co.nz</div><div>www.maven.co.nz</div><div>5 Owens Road, Epsom</div><div>Auckland 1023</div></div> | | | |
| Project | | | |
| DEVELOPMENT OF | | | |
| RIVERHEAD FOREST | | | |
| FOR RANGITOOPUNI | | | |
| DEVELOPMENTS LIMITED | | | |
| PARTNERSHIP | | | |
| Title | | | |
| PROPOSED STAGE 4 | | | |
| JOAL/ROADING | | | |
| PLAN | | | |
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 4.DWG | | |
| Drawing no. | C320-4-1 | Rev | A |



NOTES

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- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK

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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
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M **Maven Associates**
09 571 0050
info@maven.co.nz
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5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

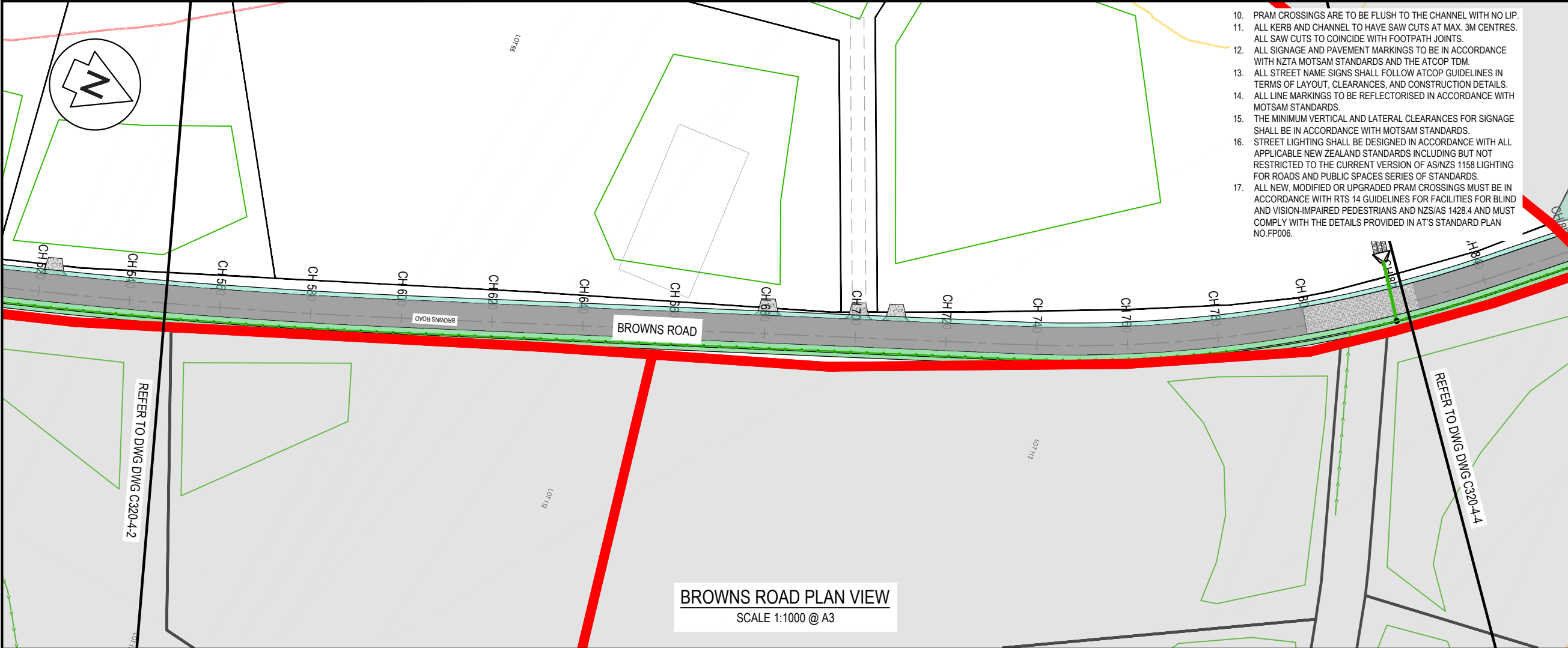
Title
**PROPOSED STAGE 4
JOAL/ROADING
PLAN**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 4.DWG |
| Drawing no. | C320-4-2 |
| Rev | A |

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|---------------------|--|--------|---|--------|---|--------|---|--------|------------------------------------|--------|----------------------|
| DATUM 90.00m | | | | | | | | | | | |
| EXISTING LEVELS | 99.24 | 99.18 | 98.83 | 98.15 | 97.45 | 96.86 | 96.43 | 96.50 | 96.66 | 96.11 | 94.89 |
| DESIGN LEVELS | 99.34 | 99.28 | 98.99 | 98.38 | 97.68 | 96.98 | 96.57 | 96.37 | 96.18 | 95.94 | 95.28 |
| CUT/FILL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| VERTICAL GEOMETRY | VC 29.98, K 11.99 IP CH 300.12/RL 99.08 | | VC 15.00, K 6.00 IP CH 368.34/RL 96.69 | | VC 24.00, K 7.33 IP CH 444.91/RL 95.93 | | VC 40.00, K 5.42 IP CH 498.91/RL 93.62 | | VC 120.53 IP CH 548.00/RL 95.07 | | |
| CHAINAGE | 274.00 | 280.00 | 300.00 | 320.00 | 340.00 | 360.00 | 380.00 | 400.00 | 420.00 | 440.00 | 460.00 |
| HORIZONTAL GEOMETRY | R 72.05 A 20.37 | | 55.48m 51°51'55" | | R 138.00 A 50.16 | | 11.04m 31°02'24" | | R 67.19 A 55.86 | | 42.08m 343°24'21" |

PROPOSED - BROWNS ROAD CH 274.00 TO CH 548.00
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

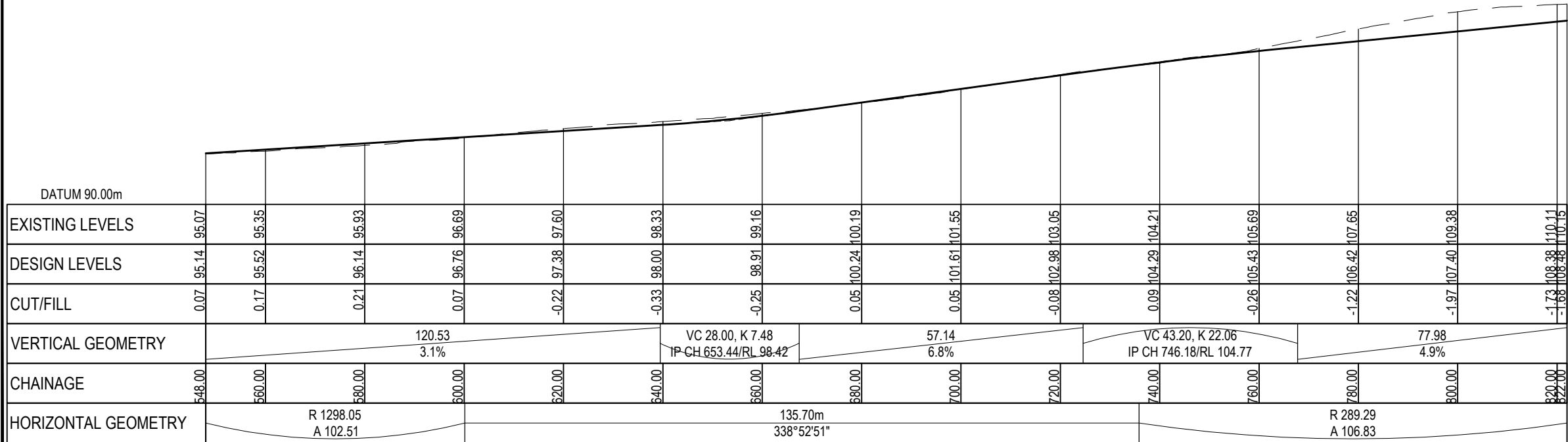


10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
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 - 10m STREAM SETBACK
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK

BROWNS ROAD PLAN VIEW
SCALE 1:1000 @ A3



RESOURCE CONSENT

PROPOSED - BROWNS ROAD CH 548.00 TO CH 822.00
SCALE: 1:1000 H / 1:500 V

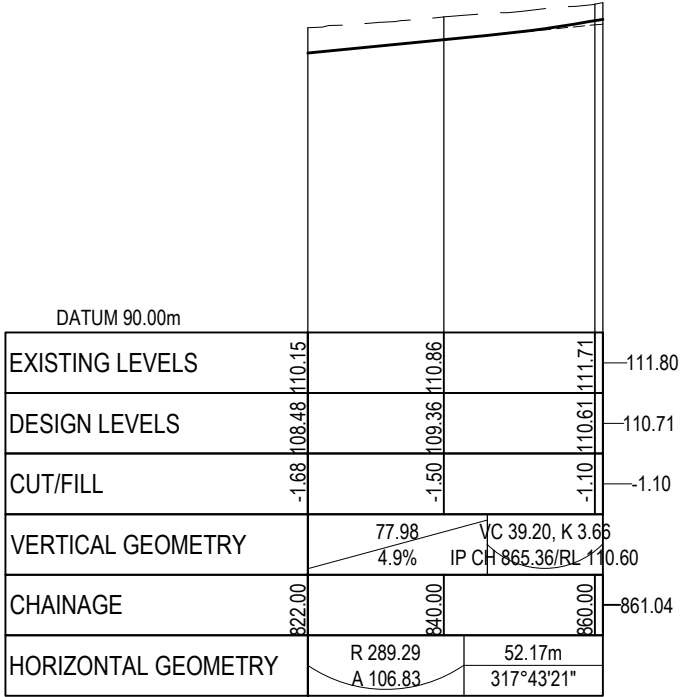
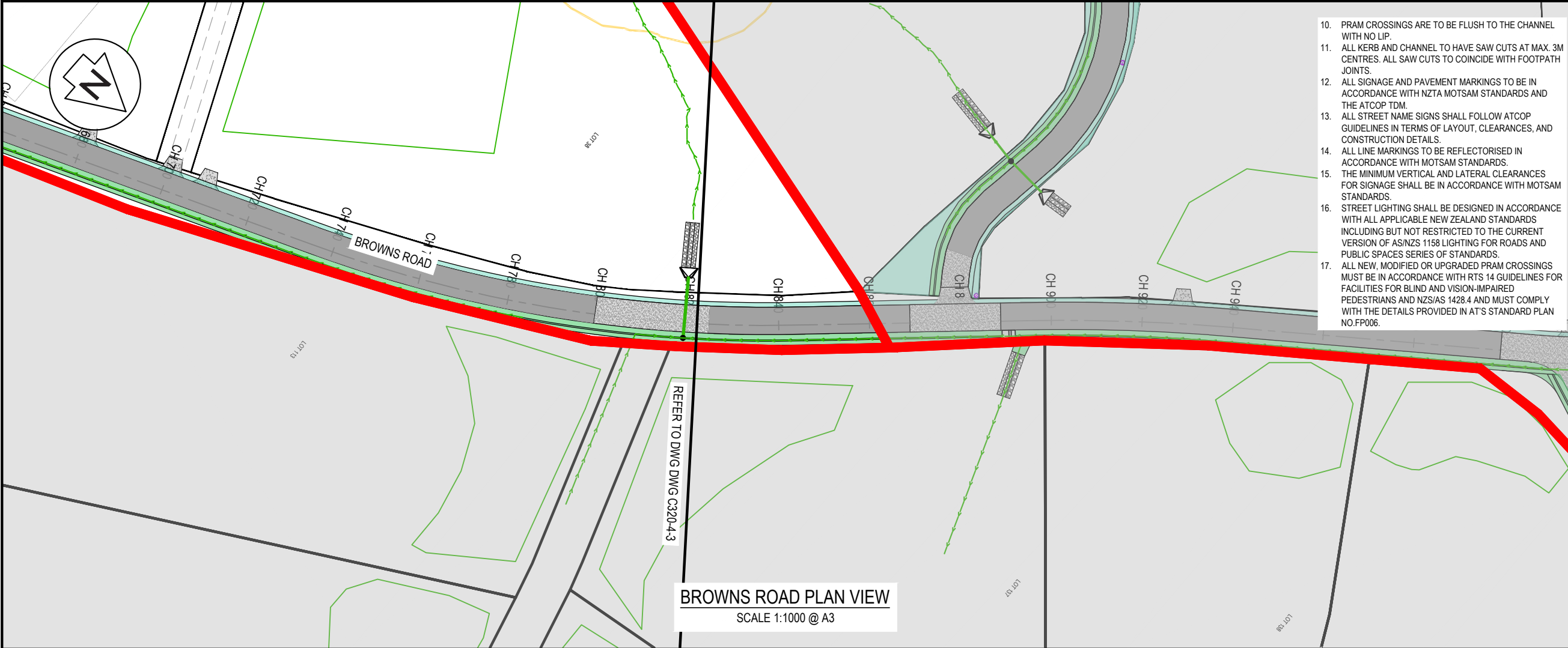
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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |



Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 4
JOAL/ROADING
PLAN**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 4.DWG |
| Drawing no. | C320-4-3 |
| Rev | A |



PROPOSED - BROWNS ROAD CH 822.00 TO CH 861.04
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

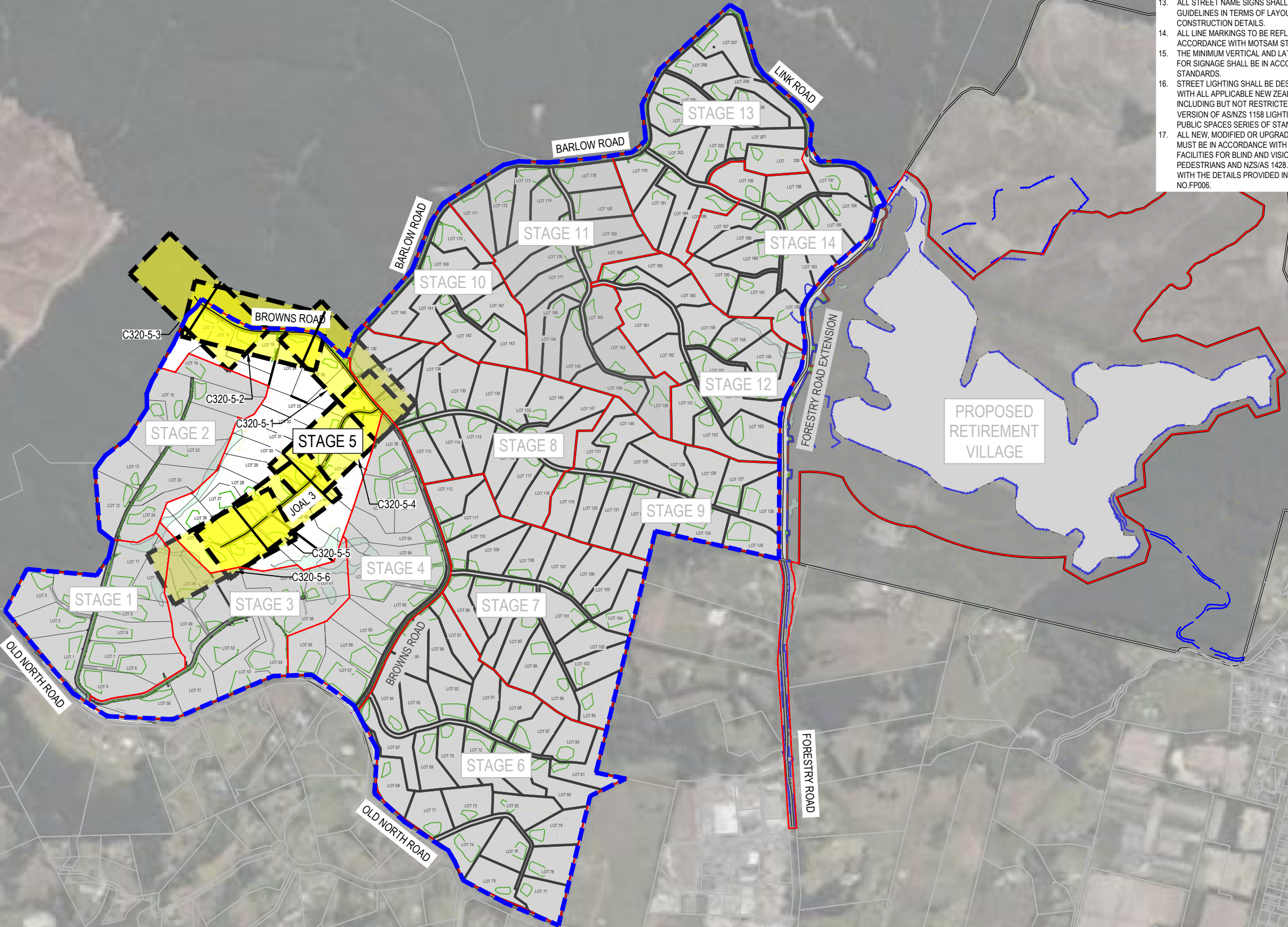
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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
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| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |
| <div><div><div>M</div><div>MAVEN</div></div><div><div>Maven Associates</div><div>09 571 0050</div><div>info@maven.co.nz</div><div>www.maven.co.nz</div><div>5 Owens Road, Epsom</div><div>Auckland 1023</div></div></div> | | | |
| Project | | | |
| DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP | | | |
| Title | | | |
| PROPOSED STAGE 4 JOAL/ROADING PLAN | | | |
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 4.DWG | | |
| Drawing no. | C320-4-4 | Rev | A |



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12. ALL SIGNAGE AND PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH NZTA MOTSAM STANDARDS AND THE ATCOP TDM.
13. ALL STREET NAME SIGNS SHALL FOLLOW ATCOP GUIDELINES IN TERMS OF LAYOUT, CLEARANCES, AND CONSTRUCTION DETAILS.
14. ALL LINE MARKINGS TO BE REFLECTORISED IN ACCORDANCE WITH MOTSAM STANDARDS.
15. THE MINIMUM VERTICAL AND LATERAL CLEARANCES FOR SIGNAGE SHALL BE IN ACCORDANCE WITH MOTSAM STANDARDS.
16. STREET LIGHTING SHALL BE DESIGNED IN ACCORDANCE WITH ALL APPLICABLE NEW ZEALAND STANDARDS INCLUDING BUT NOT RESTRICTED TO THE CURRENT VERSION OF AS/NZS 1158 LIGHTING FOR ROADS AND PUBLIC SPACES SERIES OF STANDARDS.
17. ALL NEW, MODIFIED OR UPGRADED PRAM CROSSINGS MUST BE IN ACCORDANCE WITH RTS 14 GUIDELINES FOR FACILITIES FOR BLIND AND VISION-IMPAIRED PEDESTRIANS AND NZS/AS 1428.4 AND MUST COMPLY WITH THE DETAILS PROVIDED IN AT'S STANDARD PLAN NO.FP006.

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. CONTRACTOR IS TO AVOID USING GPS FOR SET OUT OF THE KERB LEVELS WHERE GRADIENTS ARE LESS THAN 1%.
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 8. REFER TO LONG SECTION FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.
 9. ALL DUCTS SHALL HAVE LOCATIONS MARKED ON KERB LINES IN ACCORDANCE WITH SPECIFICATION.

- LEGEND:
- EX BDY
 - PR BDY
 - PR EXTENT WORK
 - PR ROAD CENTRELINE
 - PR PASSING BAY
 - PR VEHICLE CROSSING
 - PR BUILDING PLATFORM AREA
 - PR CARRIAGEWAY
 - PR SWALE
 - PR BERM
 - BOLLARD LIGHT
 - STAGE BOUNDARY
 - EXISTING STREAMS
 - 10m STREAM SETBACK
 - RIPARIAN YARD
 - 20m SETBACK
 - WETLAND AREA
 - 100m SETBACK

| | | | |
|---------|------------------|----|---------|
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| | | | |
| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

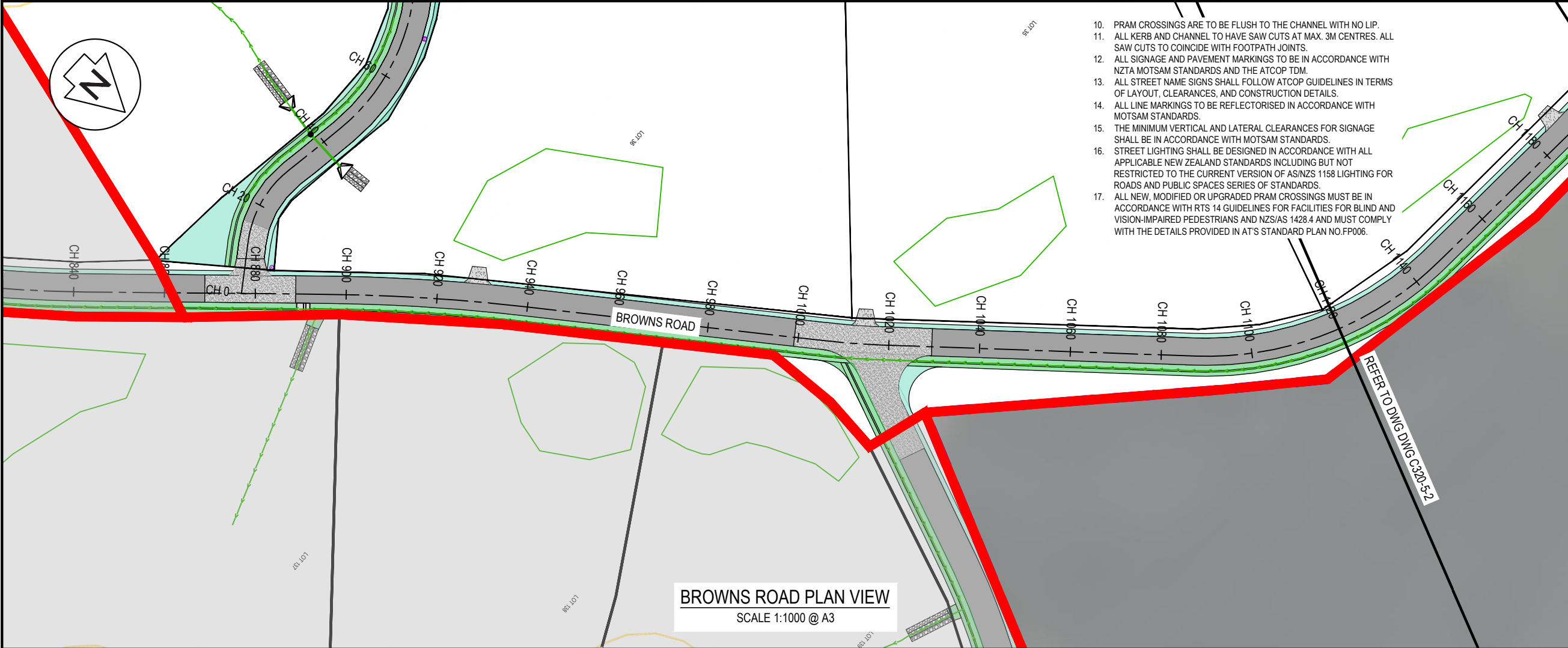
M Maven Associates
09 571 0050
info@maven.co.nz
www.maven.co.nz
5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 4
JOAL/ROADING
PLAN OVERVIEW**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:10,000 @ A3 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 5.DWG |
| Drawing no. | C320-5-0 |
| Rev | A |

DRAFT FOR REVIEW

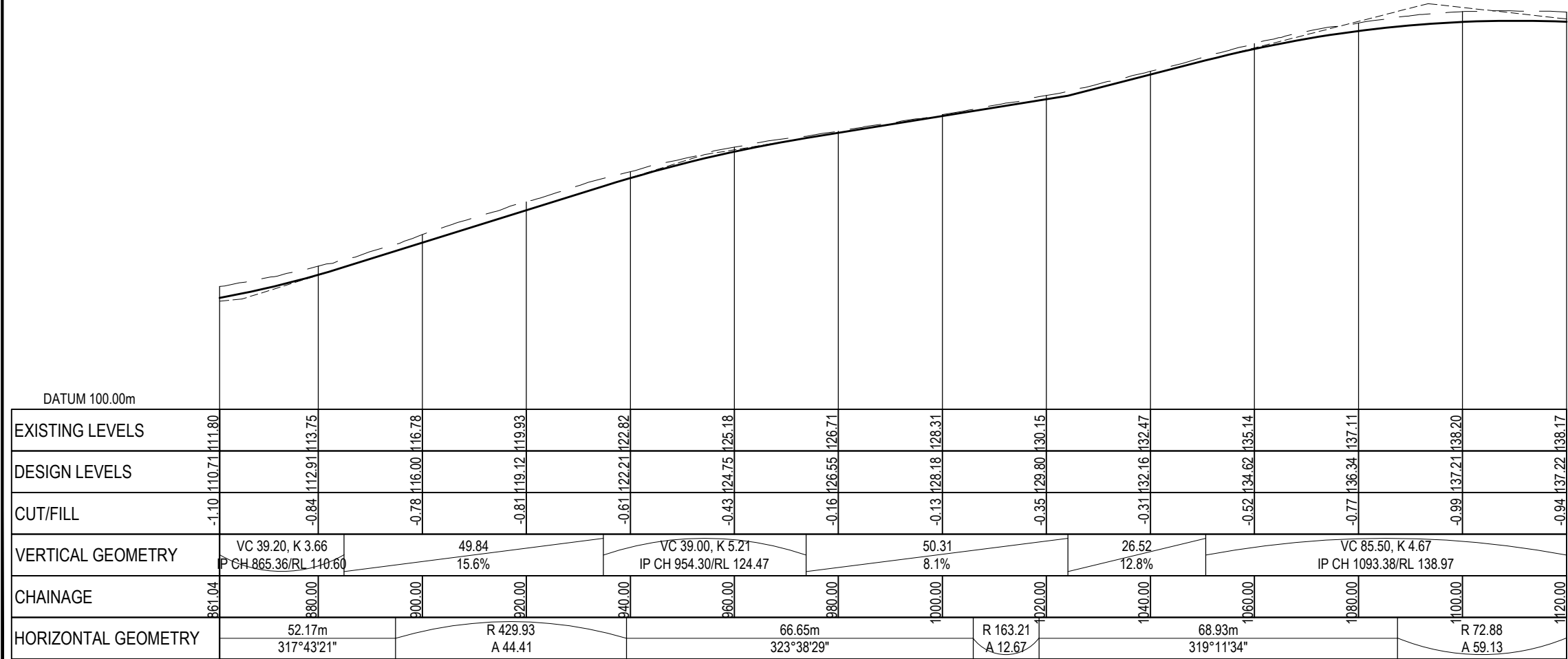


NOTES

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LEGEND:

- EX BDY
- PR BDY
- PR EXTENT WORK
- PR ROAD CENTRELINE
- PR PASSING BAY
- PR VEHICLE CROSSING
- PR BUILDING PLATFORM AREA
- PR CARRIAGEWAY
- PR SWALE
- PR BERM
- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK



RESOURCE CONSENT

PROPOSED - BROWNS ROAD CH 861.04 TO CH 1120.00

SCALE: 1:1000 H / 1:500 V

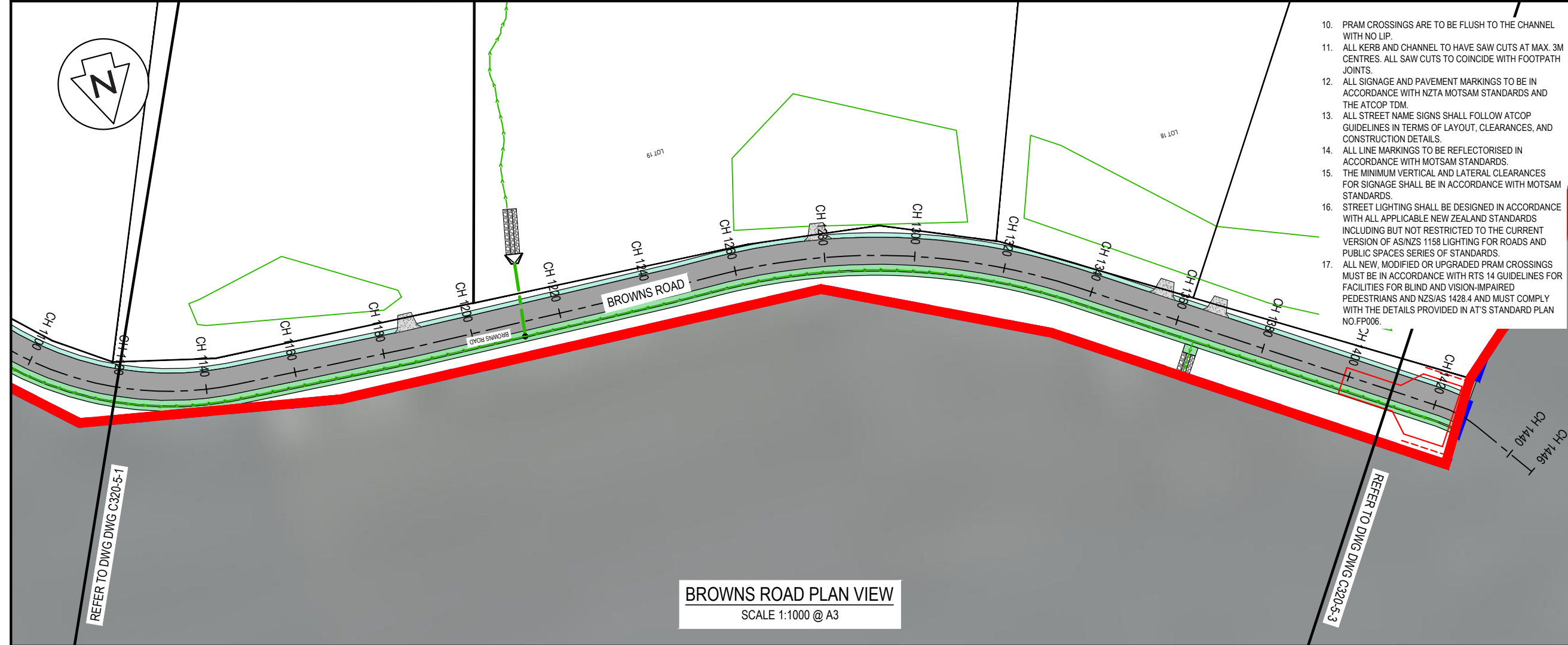
| | | | |
|---------|------------------|----|---------|
| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

Maven Associates
09 571 0050
info@maven.co.nz
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5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 5
JOAL/ROADING
PLAN**

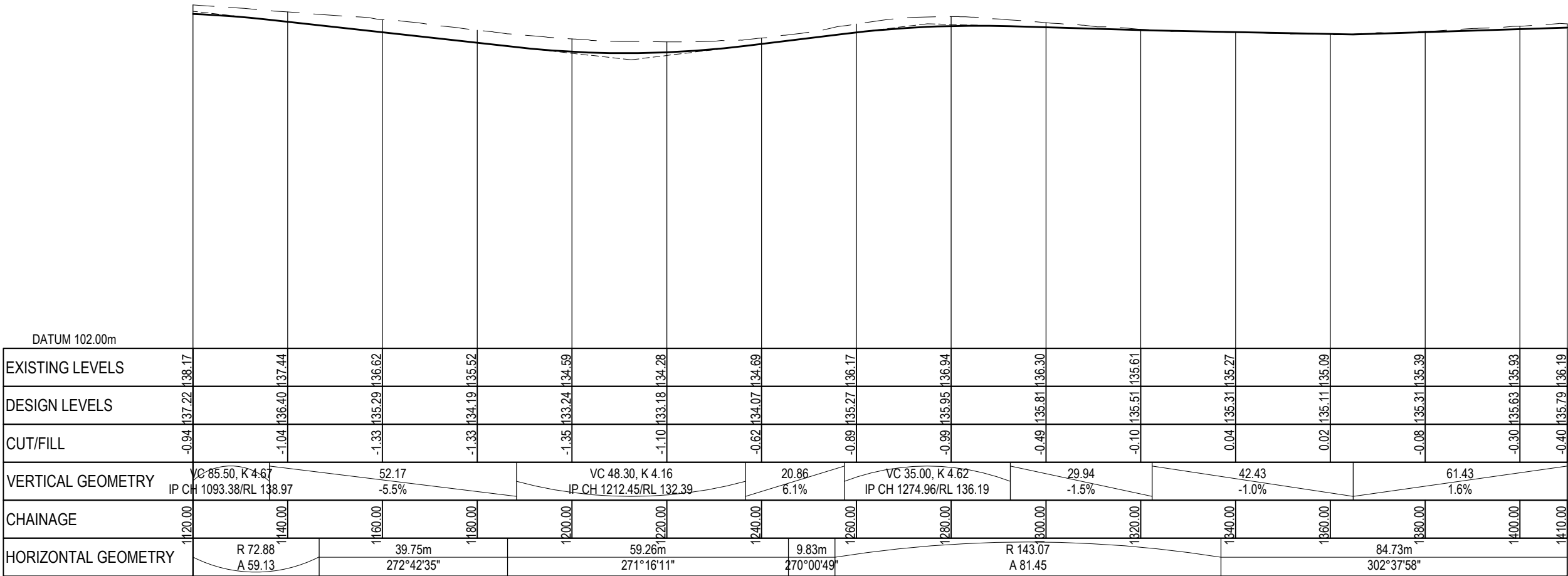
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|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 5.DWG |
| Drawing no. | C320-5-1 |
| Rev | A |



10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
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- PR PASSING BAY
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- PR BUILDING PLATFORM AREA
- PR CARRIAGEWAY
- PR SWALE
- PR BERM
- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK



RESOURCE CONSENT

PROPOSED - BROWNS ROAD CH 1120.00 TO CH 1410.00
SCALE: 1:1000 H / 1:500 V

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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |
| <div><div>M</div><div>Maven Associates</div><div>09 571 0050</div><div>info@maven.co.nz</div><div>www.maven.co.nz</div><div>5 Owens Road, Epsom</div><div>Auckland 1023</div></div> | | | |
| Project | | | |
| DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP | | | |
| Title | | | |
| PROPOSED STAGE 5 JOAL/ROADING PLAN | | | |
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 5.DWG | | |
| Drawing no. | C320-5-2 | Rev | A |



BROWNS ROAD PLAN VIEW
SCALE 1:1000 @ A3

10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
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 - PR BERM
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 - STAGE BOUNDARY
 - EXISTING STREAMS
 - 10m STREAM SETBACK
 - RIPARIAN YARD
 - 20m SETBACK
 - WETLAND AREA
 - 100m SETBACK

| | | | | | |
|---------------------|----------------------|-------------------|----------------------|---------|--|
| DATUM 102.00m | | | | | |
| EXISTING LEVELS | | | | | |
| DESIGN LEVELS | | | | | |
| CUT/FILL | | | | | |
| VERTICAL GEOMETRY | 61.43 1.6% | | 19.99 -2.2% | | |
| CHAINAGE | 1410.00 | 1420.00 | 1440.00 | 1446.26 | |
| HORIZONTAL GEOMETRY | 84.73m 302°37'58" | R 23.90 A 8.85 | 15.74m 323°50'42" | | |

PROPOSED - BROWNS ROAD CH 1410.00 TO CH 1446.26
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

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|---------|------------------|----|---------|
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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

M **Maven Associates**
09 571 0050
info@maven.co.nz
www.maven.co.nz
5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 5
JOAL/ROADING
PLAN**

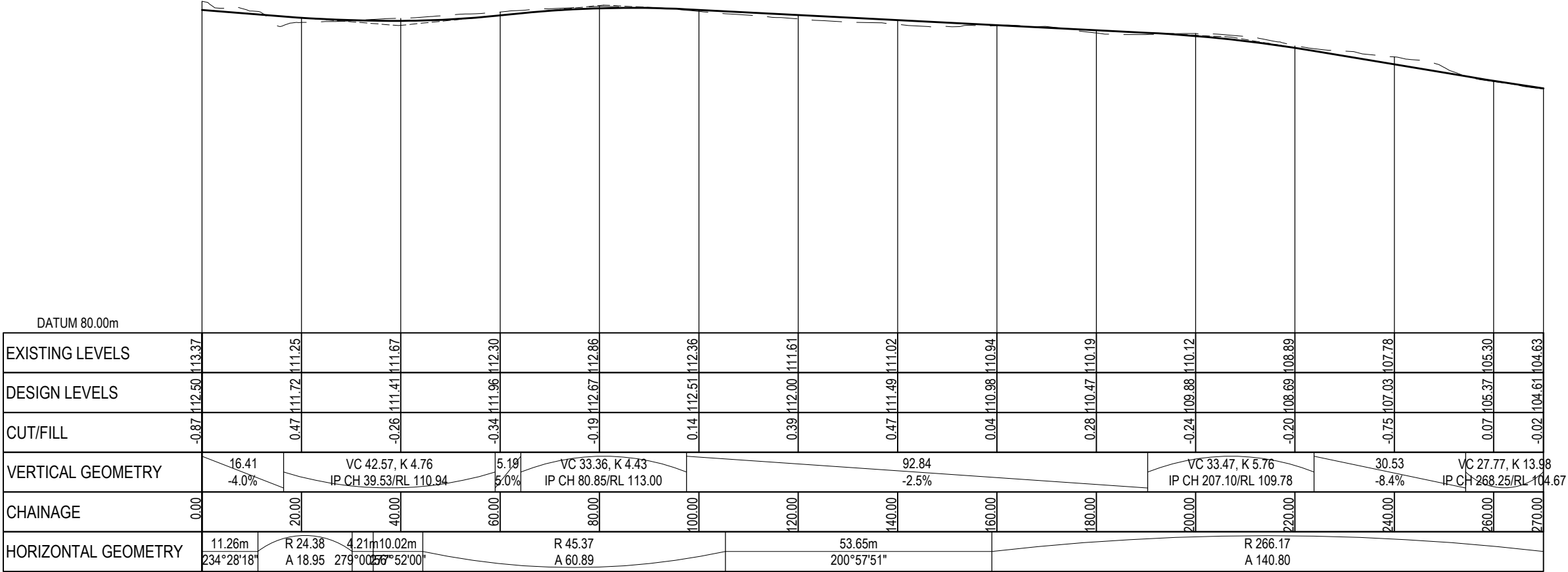
| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 5.DWG |
| Drawing no. | C320-5-3 |
| Rev | A |

10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
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 - PR CARRIAGEWAY
 - PR SWALE
 - PR BERM
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 - STAGE BOUNDARY
 - EXISTING STREAMS
 - 10m STREAM SETBACK
 - RIPARIAN YARD
 - 20m SETBACK
 - WETLAND AREA
 - 100m SETBACK

JOAL 3 PLAN VIEW
SCALE 1:1000 @ A3

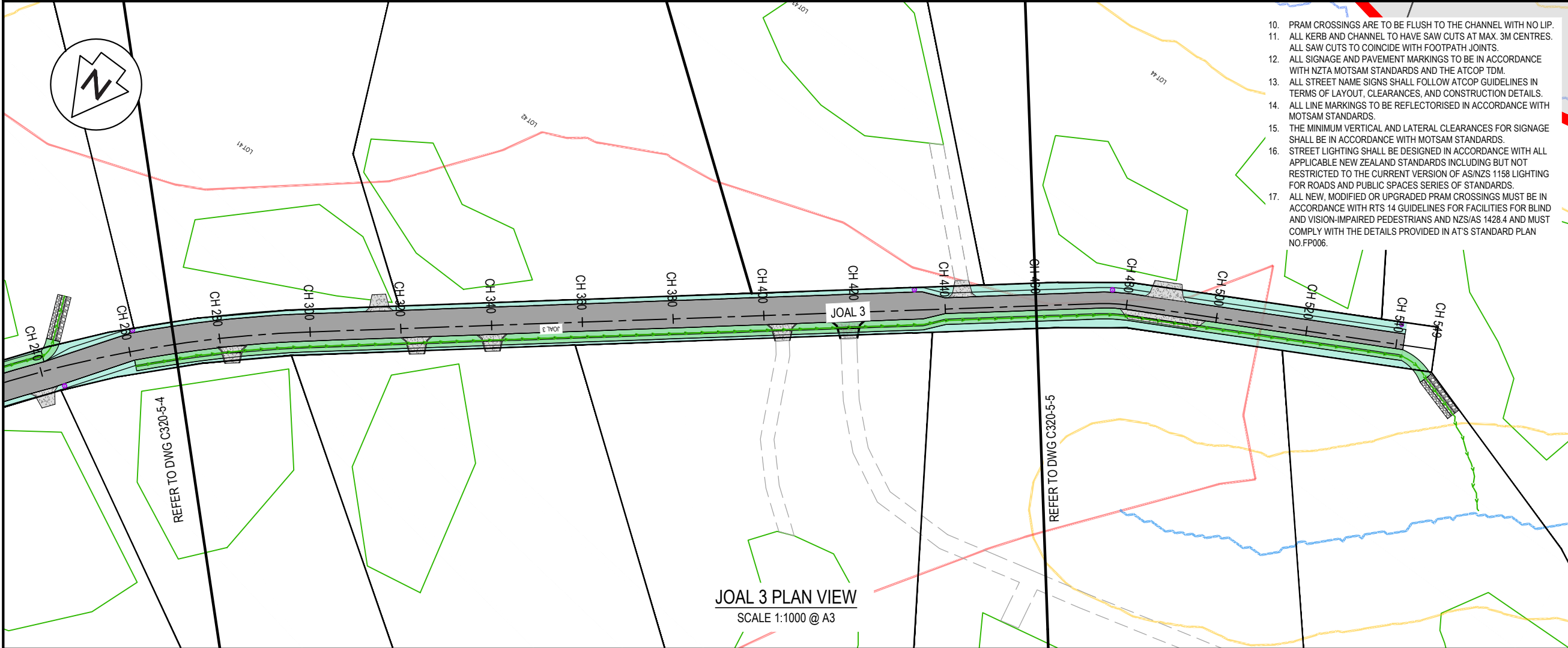


RESOURCE CONSENT

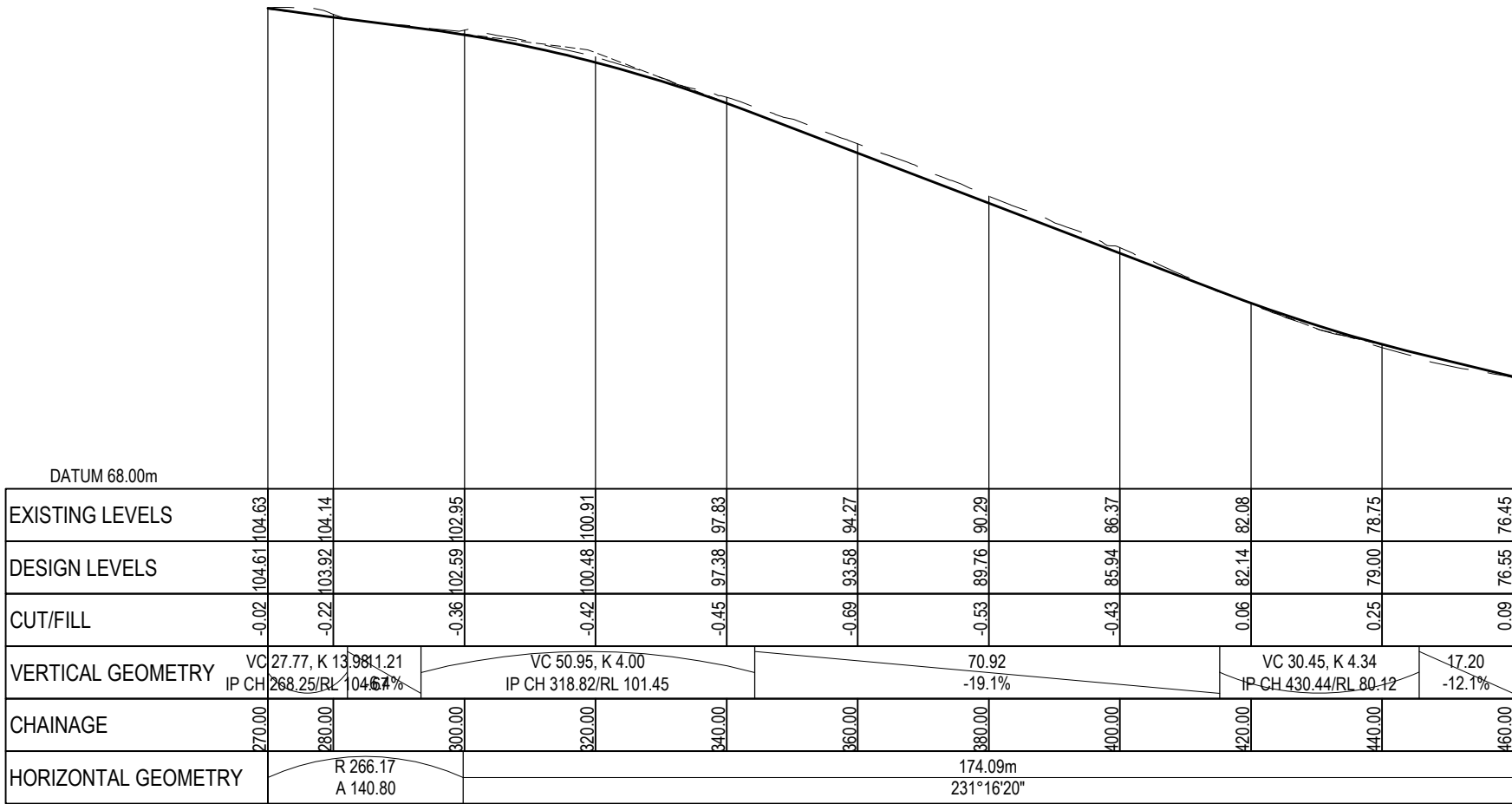
PROPOSED - JOAL 3 CH 000.00 TO CH 270.00
SCALE: 1:1000 H / 1:500 V

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| A | RESOURCE CONSENT | MA | 03/2025 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |
| <div><div>M</div><div>Maven Associates</div><div>09 571 0050</div><div>info@maven.co.nz</div><div>www.maven.co.nz</div><div>5 Owens Road, Epsom</div><div>Auckland 1023</div></div> | | | |
| Project | | | |
| DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP | | | |
| Title | | | |
| PROPOSED STAGE 5 JOAL/ROADING PLAN | | | |
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 5.DWG | | |
| Drawing no. | C320-5-4 | Rev | A |

DATE: 4/05/25 FILEPATH: F:\Maven\PROJECTS\147007 RIVERHEAD FOREST\DWG\147007-M-C320 LONG SECTIONS - STAGE 5.DWG



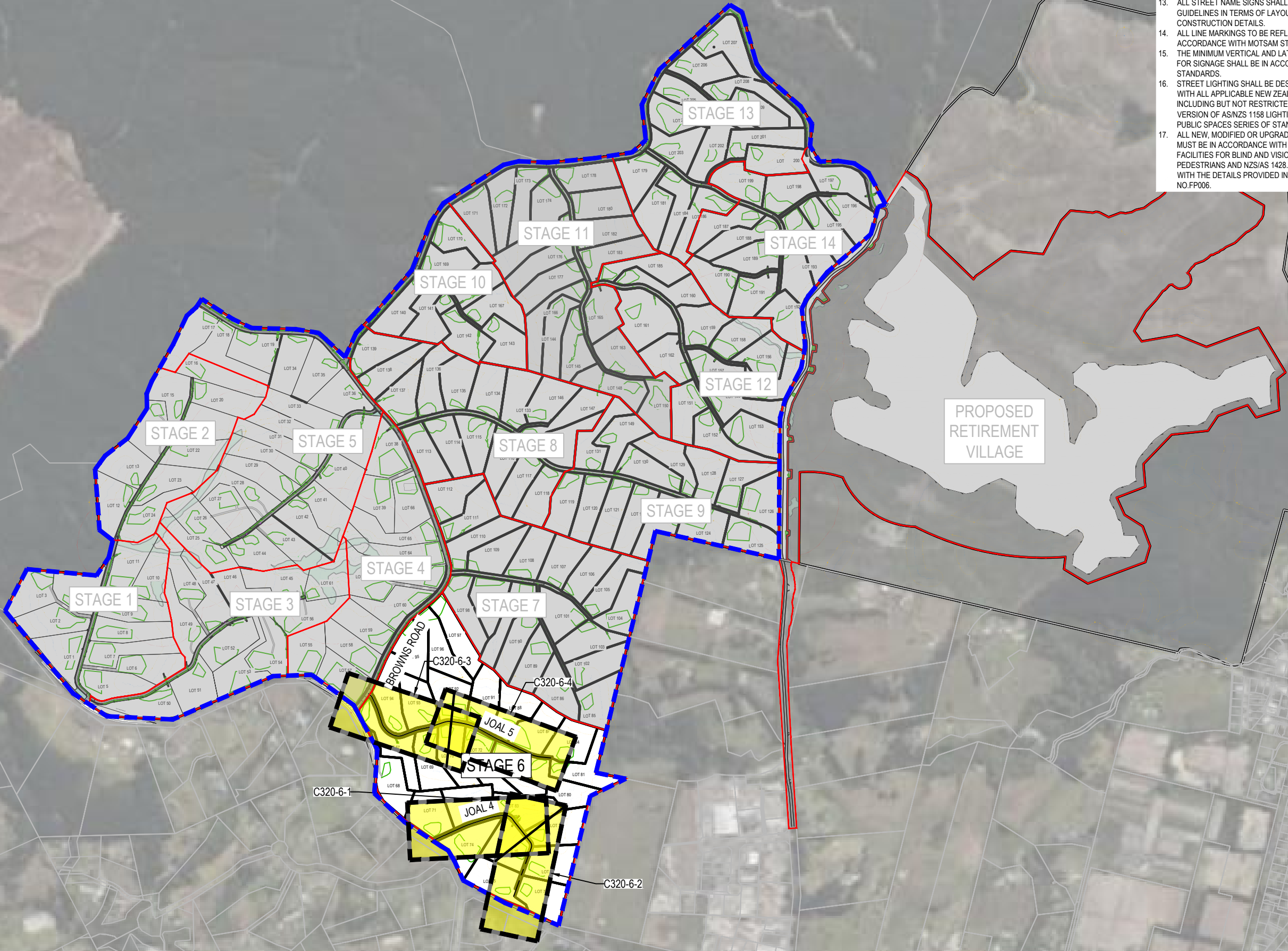
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|---------|---|--|--|
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| --- | PR BERM | | |
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| --- | STAGE BOUNDARY | | |
| --- | EXISTING STREAMS | | |
| --- | 10m STREAM SETBACK | | |
| --- | RIPARIAN YARD | | |
| --- | 20m SETBACK | | |
| --- | WETLAND AREA | | |
| --- | 100m SETBACK | | |



RESOURCE CONSENT

PROPOSED - JOAL 3 CH 270.00 TO CH 460.00
SCALE: 1:1000 H / 1:500 V

| A | RESOURCE CONSENT | MA | 03/2025 |
|---|---|-----|---------|
| Rev | Description | By | Date |
| | | | |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |
| <div><div><div>M</div><div>MAVEN</div></div><div><div>Maven Associates</div><div>09 571 0050</div><div>info@maven.co.nz</div><div>www.maven.co.nz</div><div>5 Owens Road, Epsom</div><div>Auckland 1023</div></div></div> | | | |
| Project | | | |
| DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP | | | |
| Title | | | |
| PROPOSED STAGE 5 JOAL/ROADING PLAN | | | |
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 5.DWG | | |
| Drawing no. | C320-5-5 | Rev | A |



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 8. REFER TO LONG SECTION FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.
 9. ALL DUCTS SHALL HAVE LOCATIONS MARKED ON KERB LINES IN ACCORDANCE WITH SPECIFICATION.

- LEGEND:
- EX BDY
 - PR BDY
 - PR EXTENT WORK
 - PR ROAD CENTRELINE
 - PR PASSING BAY
 - PR VEHICLE CROSSING
 - PR BUILDING PLATFORM AREA
 - PR CARRIAGEWAY
 - PR SWALE
 - PR BERM
 - BOLLARD LIGHT
 - STAGE BOUNDARY
 - EXISTING STREAMS
 - 10m STREAM SETBACK
 - RIPARIAN YARD
 - 20m SETBACK
 - WETLAND AREA
 - 100m SETBACK

| | | | |
|---------|-------------|----|---------|
| | | | |
| | | | |
| A | RC | KH | 03/2025 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

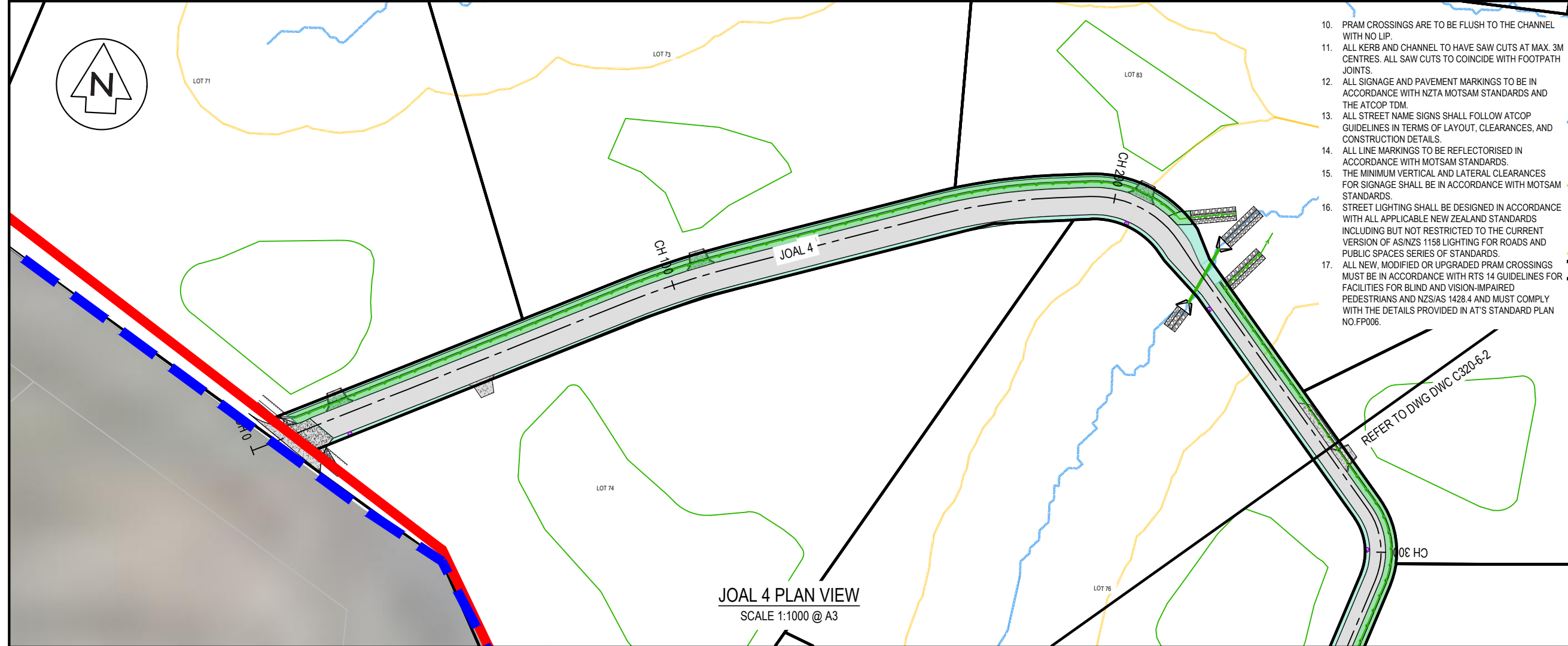
M **Maven Associates**
09 571 0050
info@maven.co.nz
www.maven.co.nz
5 Owens Road, Epsom
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 6
JOAL/ROADING
PLAN OVERVIEW**

| | | | |
|-------------|---|-----|---|
| Project no. | 147007 | | |
| Scale | 1:10,000 @ A3 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 6.DWG | | |
| Drawing no. | C320-6-0 | Rev | A |

RESOURCE CONSENT



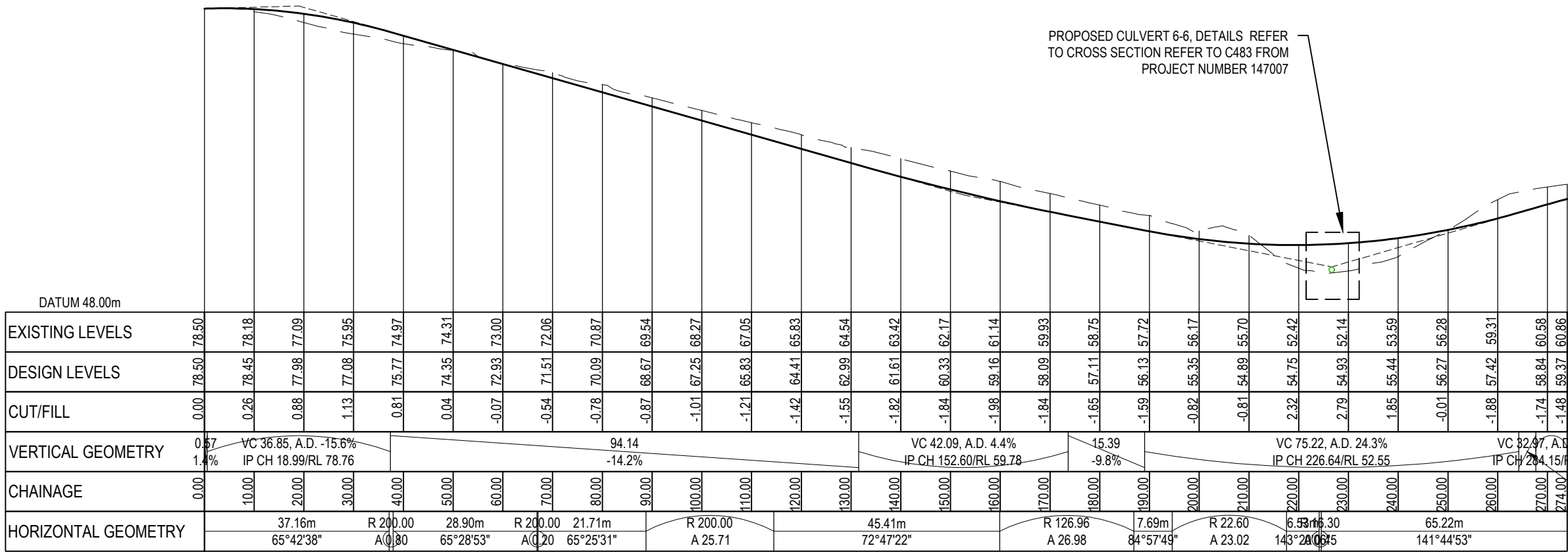
10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
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17. ALL NEW, MODIFIED OR UPGRADED PRAM CROSSINGS MUST BE IN ACCORDANCE WITH RTS 14 GUIDELINES FOR FACILITIES FOR BLIND AND VISION-IMPAIRED PEDESTRIANS AND NZS/AS 1428.4 AND MUST COMPLY WITH THE DETAILS PROVIDED IN AT'S STANDARD PLAN NO.FP006.

NOTES

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- RIPARIAN YARD
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- WETLAND AREA
- 100m SETBACK



PROPOSED - Alignment - JOAL 4 CH 0+00.00 TO CH 2+74.00
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

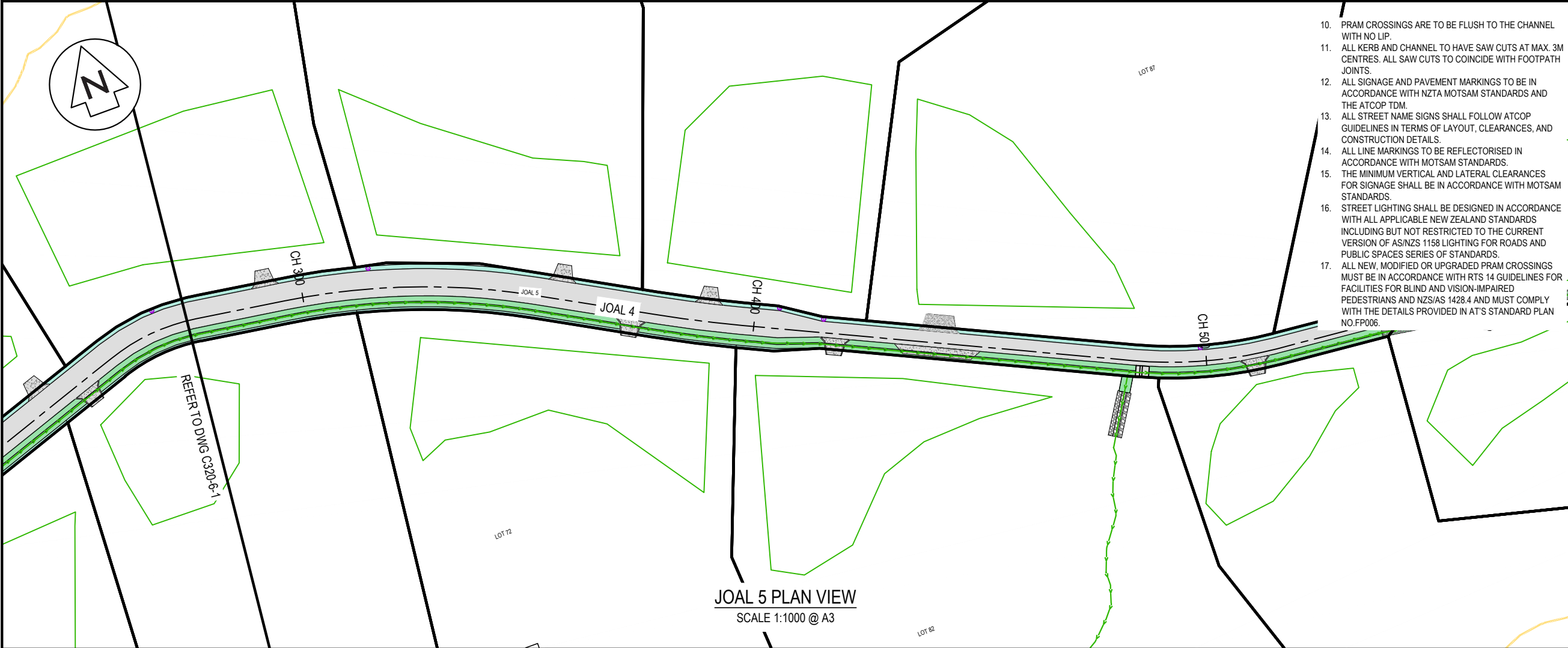
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| A | RC | | KH | 03/2025 |
| Rev | Description | | By | Date |
| | | | By | Date |
| Survey | LANDPRO | | | 03/2023 |
| Design | KH | | | 03/2025 |
| Drawn | MA | | | 03/2025 |
| Checked | RW/KH | | | 03/2025 |

M **Maven Associates**
09 571 0050
info@maven.co.nz
www.maven.co.nz
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Project
**DEVELOPMENT OF
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FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 6
JOAL/ROADING
PLAN**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 6.DWG |
| Drawing no. | C320-6-1 |
| Rev | A |



JOAL 5 PLAN VIEW
SCALE 1:1000 @ A3

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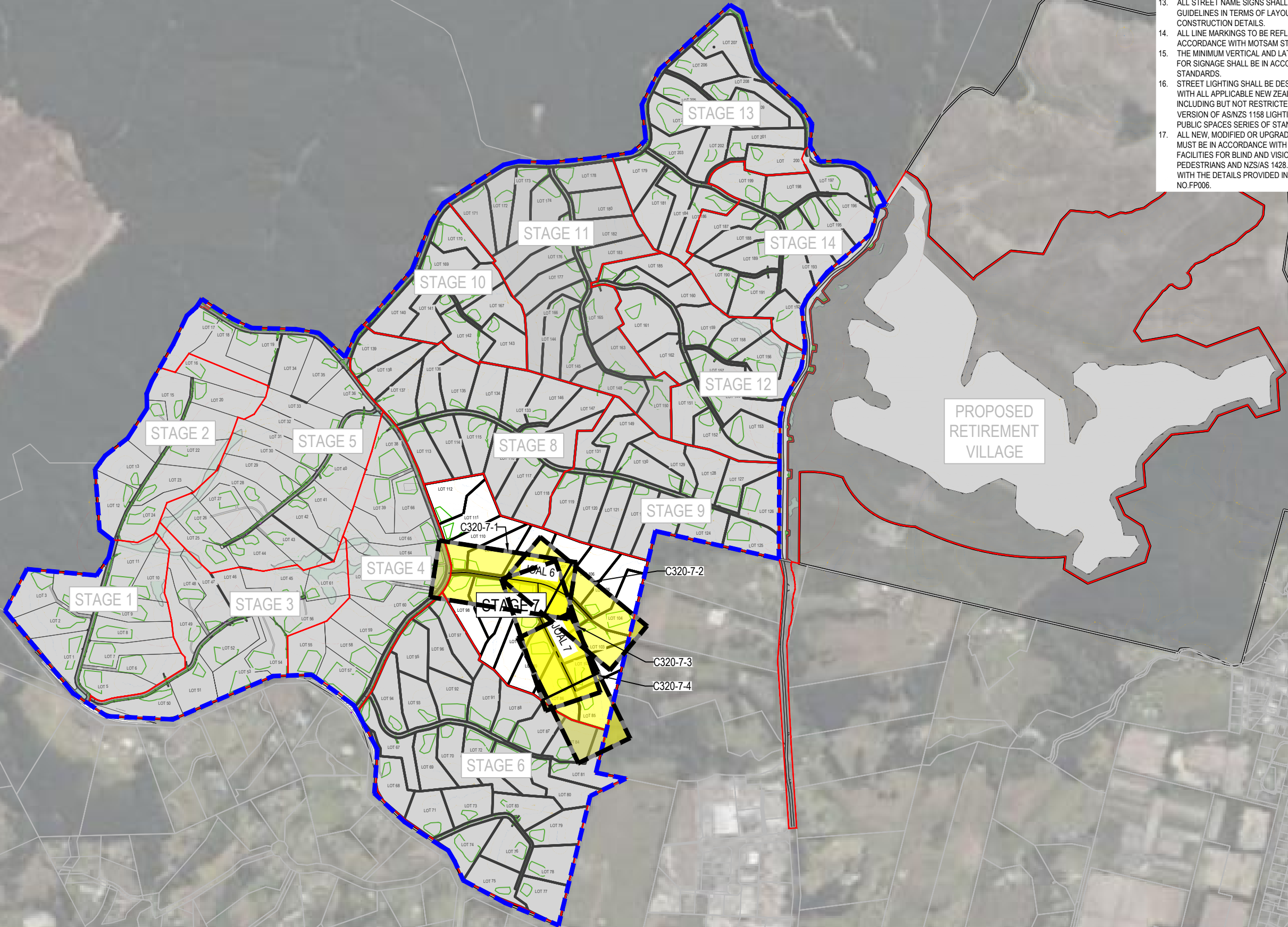
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| Project | | | |
| DEVELOPMENT OF | | | |
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| Project no. | 147007 | | |
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| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 6.DWG | | |
| Drawing no. | C320-6-4 | Rev | A |



10. PRAM CROSSINGS ARE TO BE FLUSH TO THE CHANNEL WITH NO LIP.
11. ALL KERB AND CHANNEL TO HAVE SAW CUTS AT MAX. 3M CENTRES. ALL SAW CUTS TO COINCIDE WITH FOOTPATH JOINTS.
12. ALL SIGNAGE AND PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH NZTA MOTSAM STANDARDS AND THE ATCOP TDM.
13. ALL STREET NAME SIGNS SHALL FOLLOW ATCOP GUIDELINES IN TERMS OF LAYOUT, CLEARANCES, AND CONSTRUCTION DETAILS.
14. ALL LINE MARKINGS TO BE REFLECTORISED IN ACCORDANCE WITH MOTSAM STANDARDS.
15. THE MINIMUM VERTICAL AND LATERAL CLEARANCES FOR SIGNAGE SHALL BE IN ACCORDANCE WITH MOTSAM STANDARDS.
16. STREET LIGHTING SHALL BE DESIGNED IN ACCORDANCE WITH ALL APPLICABLE NEW ZEALAND STANDARDS INCLUDING BUT NOT RESTRICTED TO THE CURRENT VERSION OF AS/NZS 1158 LIGHTING FOR ROADS AND PUBLIC SPACES SERIES OF STANDARDS.
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- PR SWALE
- PR BERM
- BOLLARD LIGHT
- STAGE BOUNDARY
- EXISTING STREAMS
- 10m STREAM SETBACK
- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK

| | | | |
|---------|-------------|----|---------|
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| | | | |
| A | RC | KH | 03/25 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

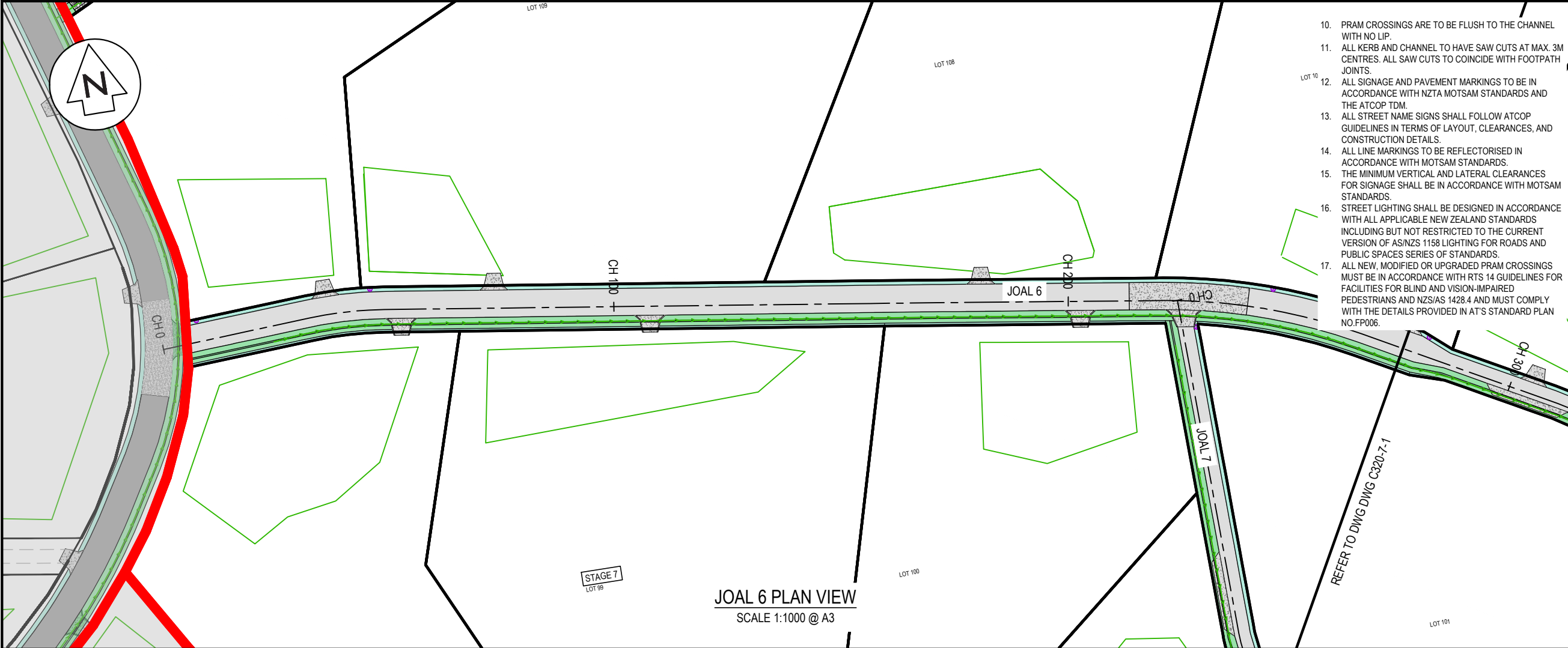
M **Maven Associates**
09 571 0050
info@maven.co.nz
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Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 7
JOAL/ROADING
PLAN OVERVIEW**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:10,000 @ A3 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 7.DWG |
| Drawing no. | C320-7-0 |
| Rev | A |

RESOURCE CONSENT



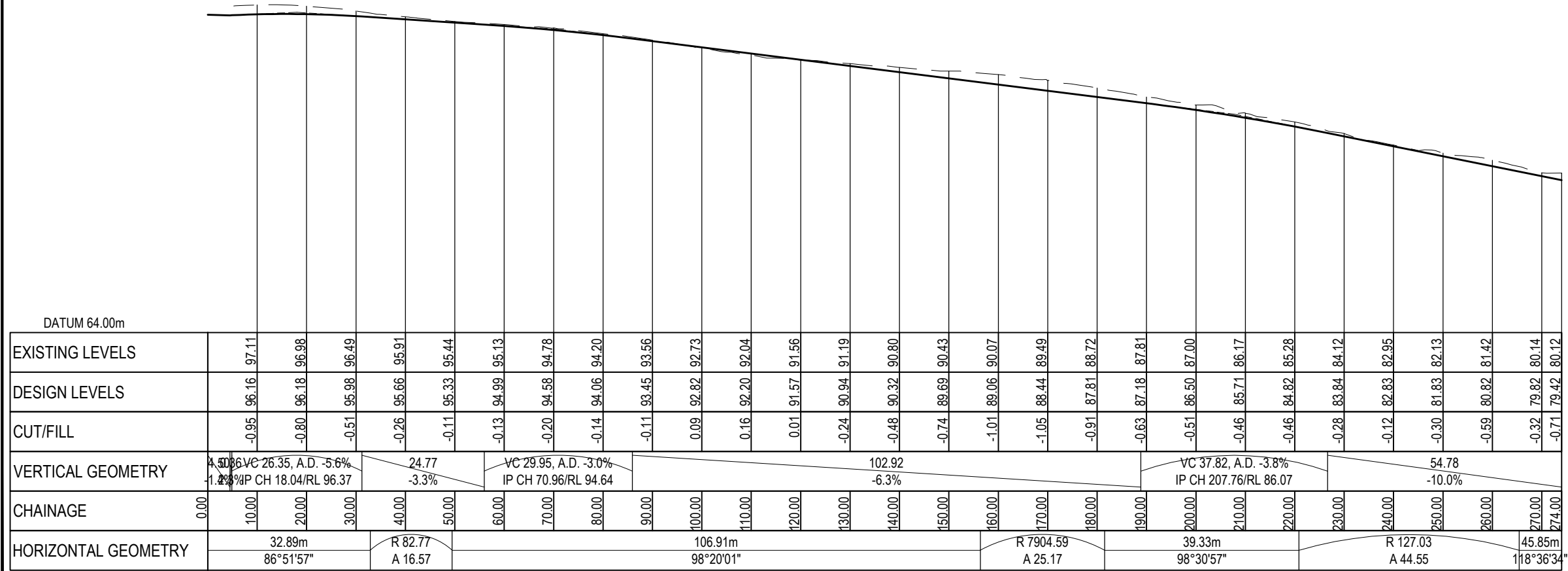
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- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK



PROPOSED - Alignment - JOAL 6 CH 0+00.00 TO CH 2+74.00
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

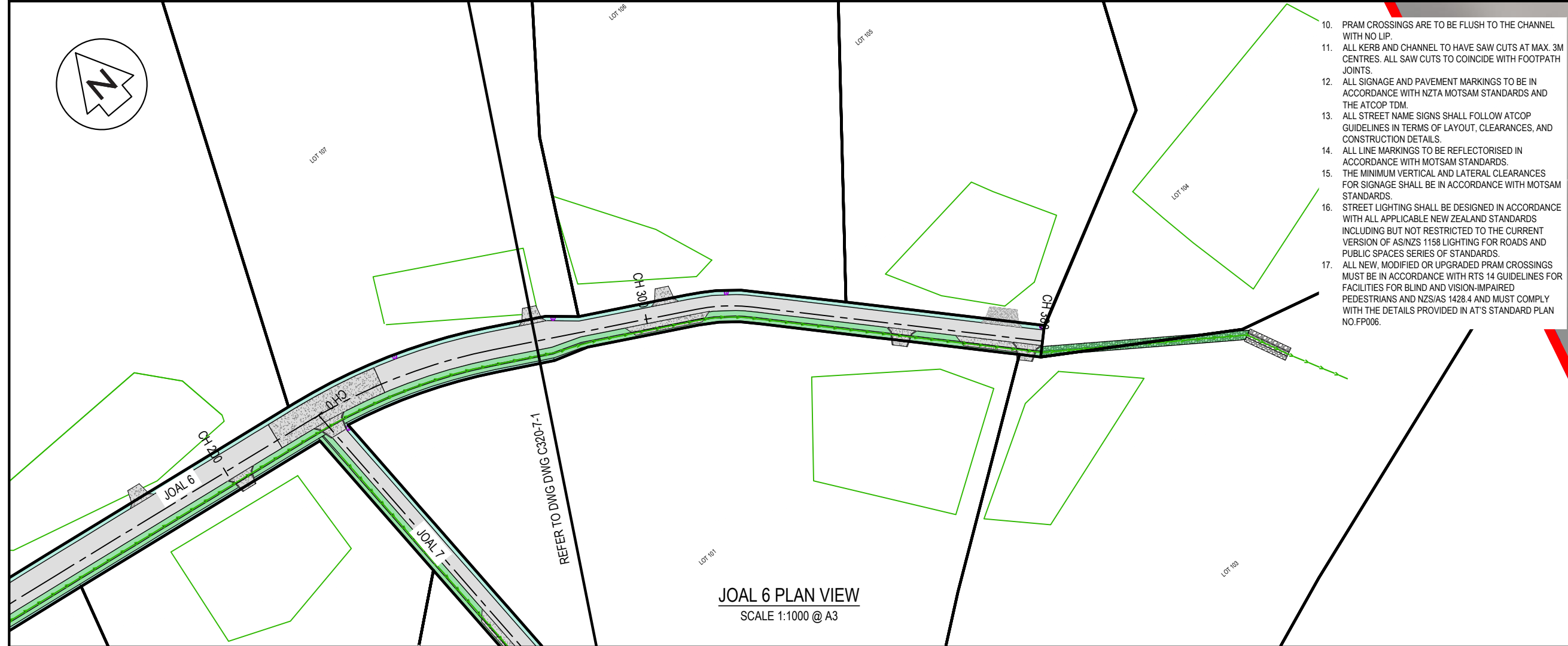
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| A | RC | KH | 03/25 |
| Rev | Description | By | Date |
| | | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

M Maven Associates
09 571 0050
info@maven.co.nz
www.maven.co.nz
5 Owens Road, Epsom
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 7
JOAL/ROADING
PLAN**

| | |
|-------------|---|
| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 7 DWG |
| Drawing no. | C320-7-1 |
| Rev | A |



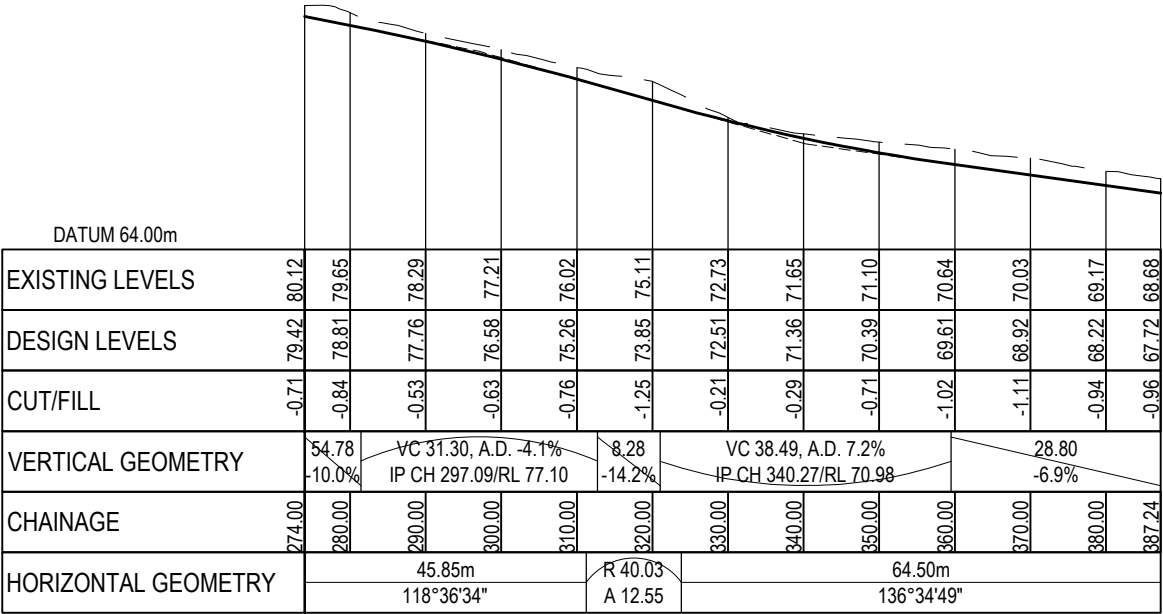
JOAL 6 PLAN VIEW
SCALE 1:1000 @ A3

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- RIPARIAN YARD
- 20m SETBACK
- WETLAND AREA
- 100m SETBACK



PROPOSED - Alignment - JOAL 6 CH 2+74.00 TO CH 3+87.24
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

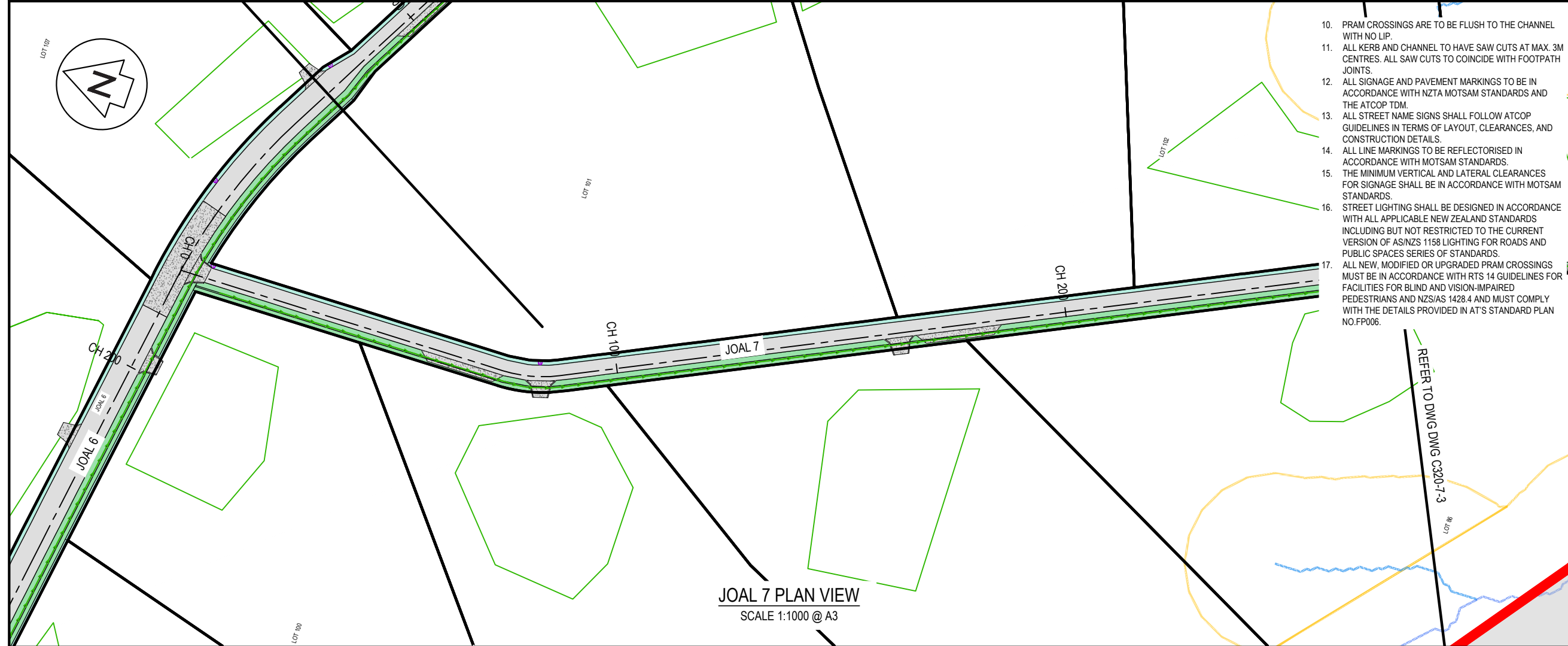
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| A | RC | KH | 03/25 |
| Rev | Description | By | Date |
| Survey | LANDPRO | | 03/2023 |
| Design | KH | | 03/2025 |
| Drawn | MA | | 03/2025 |
| Checked | RW/KH | | 03/2025 |

M **Maven Associates**
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**PROPOSED STAGE 7
JOAL/ROADING
PLAN**

| | | | |
|-------------|---|-----|----------|
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 7.DWG | | |
| Drawing no. | C320-7-2 | Rev | A |



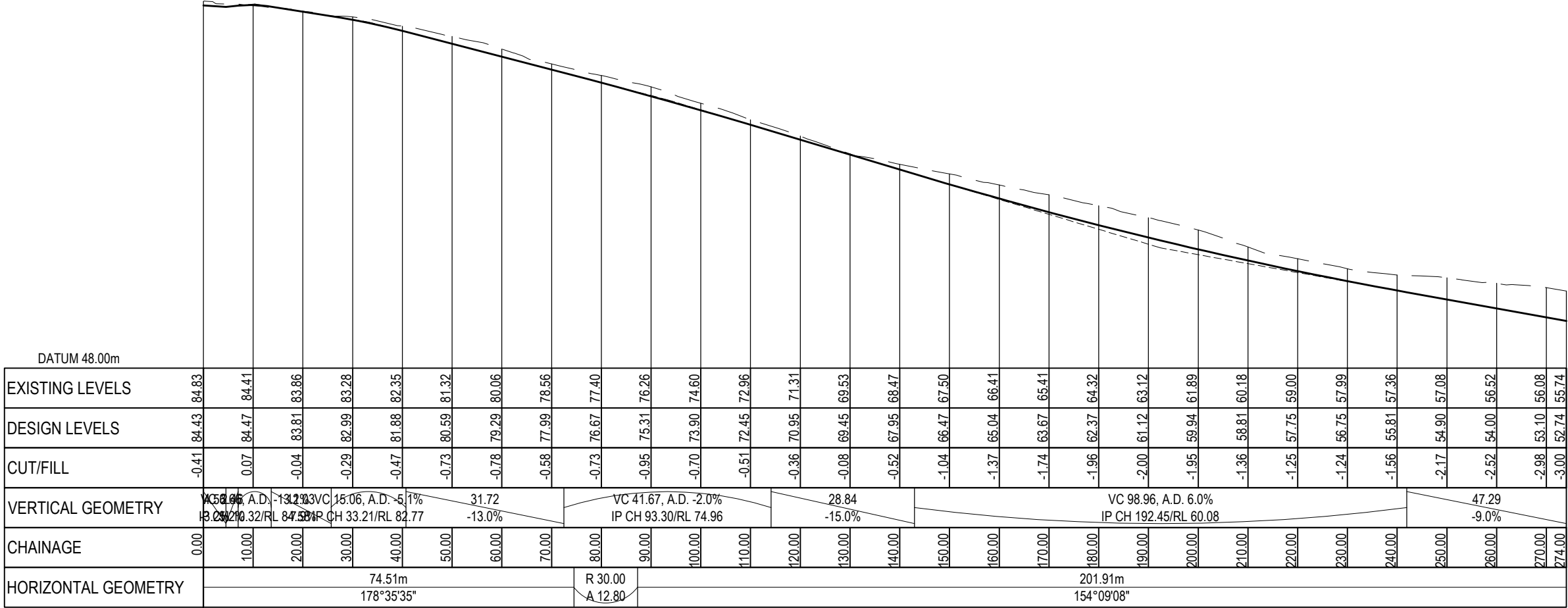
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JOAL 7 PLAN VIEW
SCALE 1:1000 @ A3



RESOURCE CONSENT

PROPOSED - Alignment - JOAL 7 CH 0+00.00 TO CH 2+74.00
SCALE: 1:1000 H / 1:500 V

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|---------|-------------|----|---------|
| A | RC | KH | 03/25 |
| Rev | Description | By | Date |
| Survey | LANDPRO | | 03/2023 |
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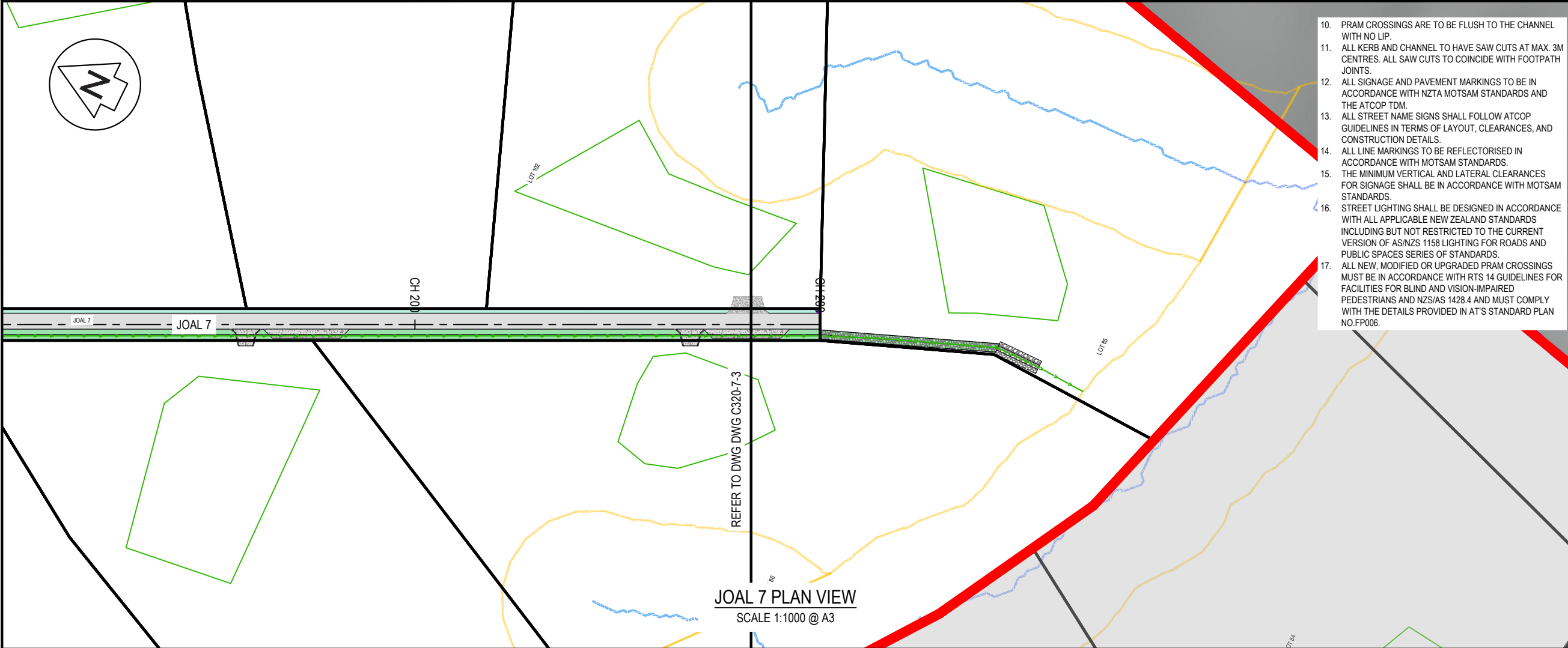
Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**PROPOSED STAGE 7
JOAL/ROADING
PLAN**

| | | | |
|-------------|---|-----|----------|
| Project no. | 147007 | | |
| Scale | 1:1000 | | |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 7.DWG | | |
| Drawing no. | C320-7-3 | Rev | A |



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JOAL 7 PLAN VIEW
SCALE 1:1000 @ A3

| | | | |
|---------------------|-----------------------|--------|--------|
| DATUM 48.00m | | | |
| EXISTING LEVELS | 55.74 | 54.59 | 51.66 |
| DESIGN LEVELS | 52.74 | 52.20 | 51.38 |
| CUT/FILL | -3.00 | -2.39 | -0.28 |
| VERTICAL GEOMETRY | 47.29 -9.0% | | |
| CHAINAGE | 274.00 | 280.00 | 289.22 |
| HORIZONTAL GEOMETRY | 201.91m 154°09'08" | | |

PROPOSED - Alignment - JOAL 7 CH 2+74.00 TO CH 2+89.22
SCALE: 1:1000 H / 1:500 V

RESOURCE CONSENT

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| Project no. | 147007 |
| Scale | 1:1000 |
| Cad file | 147007-M-C320 LONG SECTIONS - STAGE 7.DWG |
| Drawing no. | C320-7-4 |
| Rev | A |