
# 731-769 Great Western Hwy, Werrington

# Pre-Construction Concept Design Road Safety Audit

Prepared for:

Statewide Planning Pty Ltd

3 December 2020

The Transport Planning Partnership

# 731-769 Great Western Hwy, Werrington

# Pre-Construction Concept Design Road Safety Audit

Client: Statewide Planning Pty Ltd

Version: 01

Date: 3 December 2020

TTPP Reference: 17254

**Quality Record**

| Version | Date | Prepared by | Reviewed by | Approved by | Signature |
|---|---|---|---|---|---|
| 01 | 24/11/2020 | Doris Lee | Stephen Read | Stephen Read |  |
| 02 | 3/12/2020 | Doris Lee | Stephen Read | Stephen Read |  |

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# APPENDICES

# 1 Road Safety Audit Summary

| | |
|---|---|
| Audited project: | 731-769 Great Western Highway, Werrington |
| Client: | Statewide Planning Pty Ltd |
| Project manager: | Chris Demian |
| Email address: | chris.demian@demian.com.au |
| Telephone: | 8830 0400 |
| Audit Team: | Doris Lee (level 3 lead road safety auditor)<br>Stephen Read (level 3 road safety auditor) |
| Audit type: | Concept Design (Pre-Construction) |
| Commencement meeting: | N/A |
| Audit date: | 24 November 2020 |
| Completion meeting: | Not required |

The objective of this road safety audit is to examine and identify road safety concerns regarding the subdivision of 731-769 Great Western Highway, Werrington.

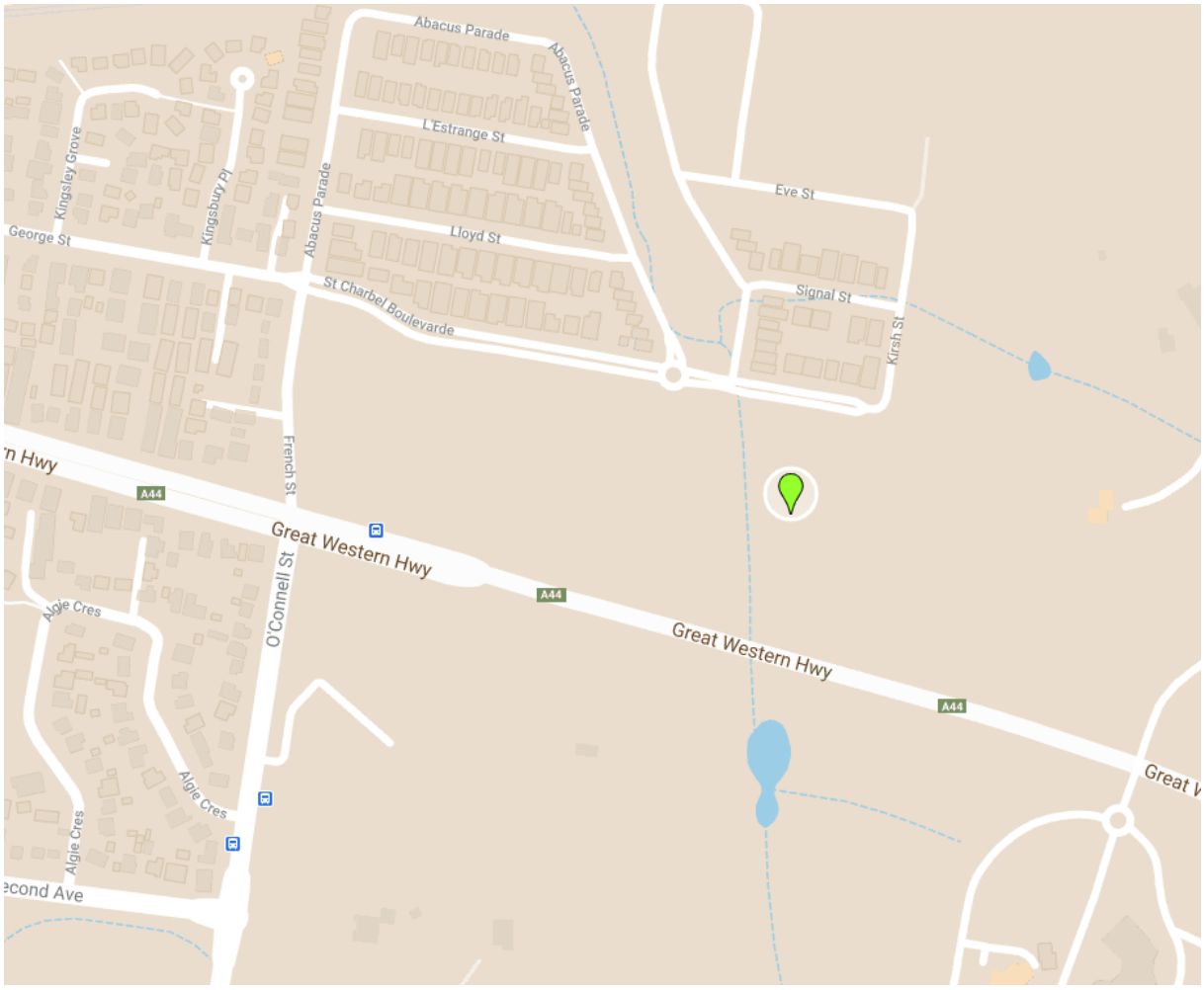
The findings of the road safety audit have been detailed in Section 4.3 of this report.

# 2 Introduction

## 2.1 Background

This report has been prepared on behalf of Demian Pty Ltd to present road safety audit findings that have been identified for the subdivision of 731-769 Great Western Highway, Werrington.

**Figure 2.1: Site location**



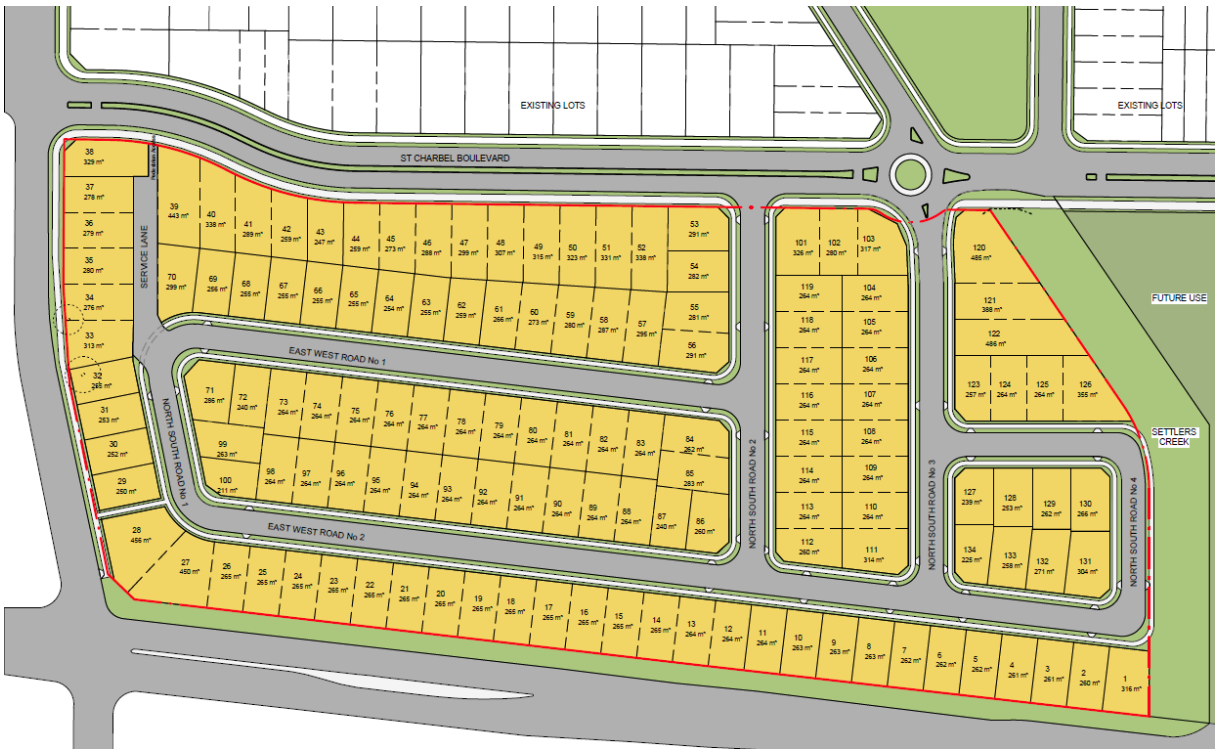

*Basemap course: Google Map*

The project involves the construction of six new internal roads and a service lane within the subdivision as shown in the site plan in Figure 2.2.

Primary access to the subdivision is via an existing roundabout at the St Charbel Boulevard and Abacas Parade intersection, with an addition of the southern leg to the North South Road No. 3.

Secondary access to the subdivision is via the St Charbel Boulevard and the North South Road No. 2 intersection under priority control.

**Figure 2.2: Site Plan**




## 2.2 Audit Objective

The objective of this Audit is to ensure that there are no fundamental flaws in the geometric layout in relation to road safety that will be costly to fix at a later date both in terms of cost and time.

## 2.3 Procedures and Reference Material

The procedures used are described in the following guidelines:

- Roads and Maritime Services' 2011 Guidelines for Road Safety Audit Practices
- Austroads Guide to Road Safety 2019: Part 6 Managing Road Safety Audits
- Austroads Guide to Road Safety 2019: Part 6A Implementing Road Safety Audits.

Austroads checklist was used by the audit team as a reference in this road safety audit. Key elements examined included:

- General topics – drainage, access to properties and adjacent developments
- Design issues – cross sections, roadway layout, shoulders and edge treatment

- Alignment details – geometry of horizontal and vertical alignment, sight distance, new/existing road interface, readability of the alignment by drivers
- Intersections
- Signs and lighting
- Traffic management.

## 2.4 Audit Team

The RSA was carried out by the following team:

- Doris Lee (RSA-02-0128) – level 3 road safety auditor (lead auditor)
- Stephen Read (RSA-02-0652) – Level 3 road safety auditor (team member)

Stephen and Doris are registered road safety auditors with the NSW Centre for Road Safety and are experienced in traffic engineering and design/ inspection of traffic management schemes.

# 3 Road Safety Audit Program

## 3.1 Commencement Meeting

A formal meeting was not held.

## 3.2 Audit

This desktop audit was undertaken in the office of The Transport Planning Partnership in St Leonards.

## 3.3 Completion Meeting

Not required.

# 4 Road Safety Audit Findings

## 4.1 Introduction

Table 4.1 provides specific details of the audit findings and a risk rating as high, medium or low. The risk ratings have been based on the risk matrix presented in Table 4.1, which has been adopted from the standard Austroads Risk Matrix.

**Table 4.1: Risk Matrix**

| Severity \ Likelihood | Highly probable | Occasional | Improbable |
|---|---|---|---|
| Major | High | High | Medium |
| Moderate | High | Medium | Low |
| Minor | Medium | Low | Low |

The terms in Table 4.1 are described below.

Likelihood:

- Highly probable: It is likely that more than one crash of this type could occur within a five-year period.
- Occasional: It is likely that less than one crash of this type could occur within a five-year period.
- Improbable: Less than one crash of this type could occur within a 10-year period.

Severity:

- Major: The crash is likely to result in a fatality or serious injuries

  For example, high/medium speed vehicle collision, high/medium speed collision with a fixed object, pedestrian struck at high speed, and cyclist hit by car.
- Moderate: The crash is likely to result in minor injuries or large scale of property damage

  For example, some slow speed vehicle collisions, cyclist falls, and rear end crashes.
- Minor: The crash is likely to result in minor property damage or many near miss crash events

  For example, some slow speed collisions, pedestrian walks into object (no head injury), and car reverses into post.

Priority:

- High: Very important, and needs to be addressed urgently.
- Medium: Important, and needs to be addressed as soon as possible.
- Low: Needs to be considered as part of regular maintenance/planning program.

## 4.2 Responding to the Audit Report

As set out in the road safety audit guidelines, the responsibility for the road rests with the project manager, not with the auditor. The project manager is under no obligation to accept the audit findings. Neither is it the role of the auditor to agree to, or approve the project manager's responses to the audit.

The audit provides the opportunity to highlight potential road safety problems and have them formally considered by the project manager in conjunction with all other project considerations.

## 4.3 Road Safety Audit Findings

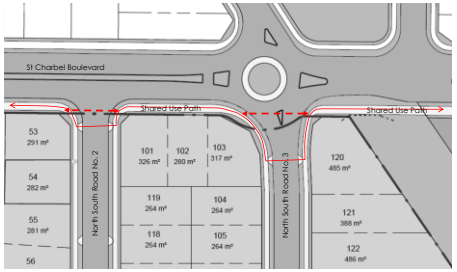
The audit findings are documented in Table 4.2 which provides:

- specific details of the road safety issues identified during the audit
- a risk level rating for each of the road safety audit findings.

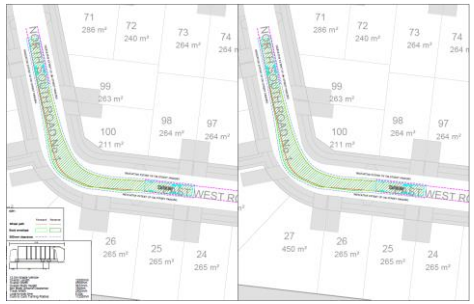
It should be acknowledged that positive attributes of the audited road section have not been discussed. Deficiencies that do not cause a safety problem are also not listed.

In-line with Transport for NSW's best practice recommendations have not been included in the road safety audit findings.

## Table 4.2: Road Safety Audit Findings

| Item No. | Location | Descriptions of Findings | Design/ Photo | Likelihood | Severity | Risk Rating | Designer Response |
|---|---|---|---|---|---|---|---|
| 1. | General | The kerb ramps are located at an offset from the pedestrian desire line along St Charbel Boulevard at North South Road No. 3 and Road No. 2 and other locations throughout the subdivision.<br>As these kerb ramps are not located along the pedestrian desire line, pedestrians are likely to cross at locations without the ramps. This may lead to slips, trips or falls.<br>Cyclists may be discouraged from using the shared use path on the south side of St Charbel Boulevard and ride on the road instead. This could increase the risk of a collision involving vehicles and cyclists on the roadway.<br>Additionally, the shared path narrows as it turns corners from St Charbel Boulevard into the local roads increasing the risk of conflicts between pedestrians and cyclists. |  | Occasional | Moderate | Medium | The location of the kerb ramps are consistent with the design of the existing roundabout, where they are placed at the shortest crossing distance. |
| 2. | Service Lane | There is no separation of pedestrians from vehicles on the service lane. There is a risk of pedestrians being struck within the roadway by a vehicle reversing into or out of the garage. |  | Improbable | Moderate | Low | A dedicated pedestrian footpath/ walkway of 1.5m has been added to the service lane area in order to aid in separating pedestrians from vehicles. |

| Item No. | Location | Descriptions of Findings | Design/ Photo | Likelihood | Severity | Risk Rating | Designer Response |
|---|---|---|---|---|---|---|---|
| 3. | St Charbel Boulevard and Abacas Parade intersection | The swept path diagram indicates the existing roundabout has insufficient width to accommodate the design vehicle (i.e. waste collection vehicle) as it would encroach the existing splitter island on the northern leg of the St Charbel Boulevard and Abacas Parade roundabout.<br>This may result in minor damage to vehicles or street signs and kerbs. |  | Occasional | Minor | Low | The existing island is to be trimmed accordingly to allow for clearance of waste collection vehicles. |
| 4. | Intersection of North South Road No. 1, East West Road No. 1 and the service lane | The design does not indicate the priority at the intersection of North South Road No. 1, East West Road No. 1 and the service lane. This may create ambiguous priority causing driver confusion and low speed crashes.<br><br>For example, a driver turning left from the service lane may assume they have priority over a vehicle turning right from North South Road No.1 to East West Road No.1. |  | Improbable | Minor | Low | Cobbled road/ pavement has been introduced at the entrance of the service lane to indicate priority at the intersection of North South Road 1 and East West Road 1. |
| 5. | General | Driveways shown on the plans are located immediately next to the adjacent driveways with no separation. This increases the crossing distance for pedestrians and cyclists which increases the risk of cyclists and pedestrians being stuck. There is also a risk of two vehicles manoeuvring at the same time and crossing each other's path. |  | Occasional | Minor | Low | The driveways are 3.5m wide and give pedestrians a 7.3 wide crossing (up to 7.6m wide when separation of driveways are included). |

| Item No. | Location | Descriptions of Findings | Design/ Photo | Likelihood | Severity | Risk Rating | Designer Response |
|---|---|---|---|---|---|---|---|
| | | | | | | | The risk is low due to the low traffic generated by the dwellings. This can be managed by providing the required sight distance to pedestrians. |
| 6. | Intersection of St Charbel Boulevard and North South Road No. 3<br><br>Intersection of St Charbel Boulevard and the North South Road No. 2 | The design does not include any line marking and signs to indicate the start and end of the existing shared use path on the south side of St Charbel Boulevard at the intersections with North South Road No. 2 and North South Road No. 3.<br>Pedestrians may not be aware of the presence of cyclists when entering the shared use path from the subdivision and therefore increasing the likelihood of collisions with cyclists. |  | Occasional | Minor | Low | Will be addressed in CC stage. |
| 7. | North South Road No. 1 and North South Road No. 4 | The design plan does not indicate any parking controls along the internal roads. It is not clear whether there is sufficient clearance for a design vehicle (e.g. waste collection vehicle) traversing the bends when there are parked cars on North South Road No. 1 and North South Road No. 4. |  | - | - | Note only | Will be addressed in CC stage. |

| Item No. | Location | Descriptions of Findings | Design/ Photo | Likelihood | Severity | Risk Rating | Designer Response |
|---|---|---|---|---|---|---|---|
| | | |  | | | | |

# 5 Concluding Statement

The findings and opinions in the report are based on the examination of the specific road and environs, and might not address all concerns existing at the time of the audit.

The auditors have endeavoured to identify features of the road that could be modified in order to improve safety, although it must be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe.

While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that anyone relying on it does so at their own risk without any liability to the Auditors.

Doris Lee
Level 3 Lead Road Safety Auditor
The Transport Planning Partnership

Stephen Read
Level 3 Road Safety Auditor
The Transport Planning Partnership

# Appendix A

## Design Drawings

# DEVELOPMENT APPLICATION

# STAGE 04

## 741-755 GREAT WESTERN HIGHWAY, WERRINGTON


1 1. LOCATION PLAN

1 : 5000

DRAWING LIST

| DWG NO. | TITLE | REV |
|---|---|---|
| DA 100 | COVER SHEET | B |
| DA 101 | SITE PLAN | B |
| DA 102 | SUBDIVISION | B |
| DA 103 | FOOTPRINTS | A |
| DA 104 | LOT AREA SCHEDULE | B |

SITE

TOTAL SITE AREA: 52200 m²

TOTAL NO. OF LOTS: 134

| ISSUE | DATE | REVISION | BY |
|---|---|---|---|
| C | 5/11/2020 | AMENDMENTS SUBDIVISION | |
| B | 15/09/2020 | AMENDED AS PER PRE-DA | CHD |
| A | 21/04/2020 | ISSUED FOR REVIEW | CHD |

IMPORTANT NOTES:

Do not scale from drawings. All dimensions to be checked on site before commencement of work. All discrepancies to be brought to the attention of the Designer. Larger scale drawings and written dimensions take preference. This drawing is copyright and the property of the author, and must not be retained, copied or used without the express authority of STATEWIDE PLANNING

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Parramatta NSW 2150
T: +61 2 8830 0400

PROJECT: STAGE 04
741-755 GREAT WESTERN HIGHWAY, WERRINGTON

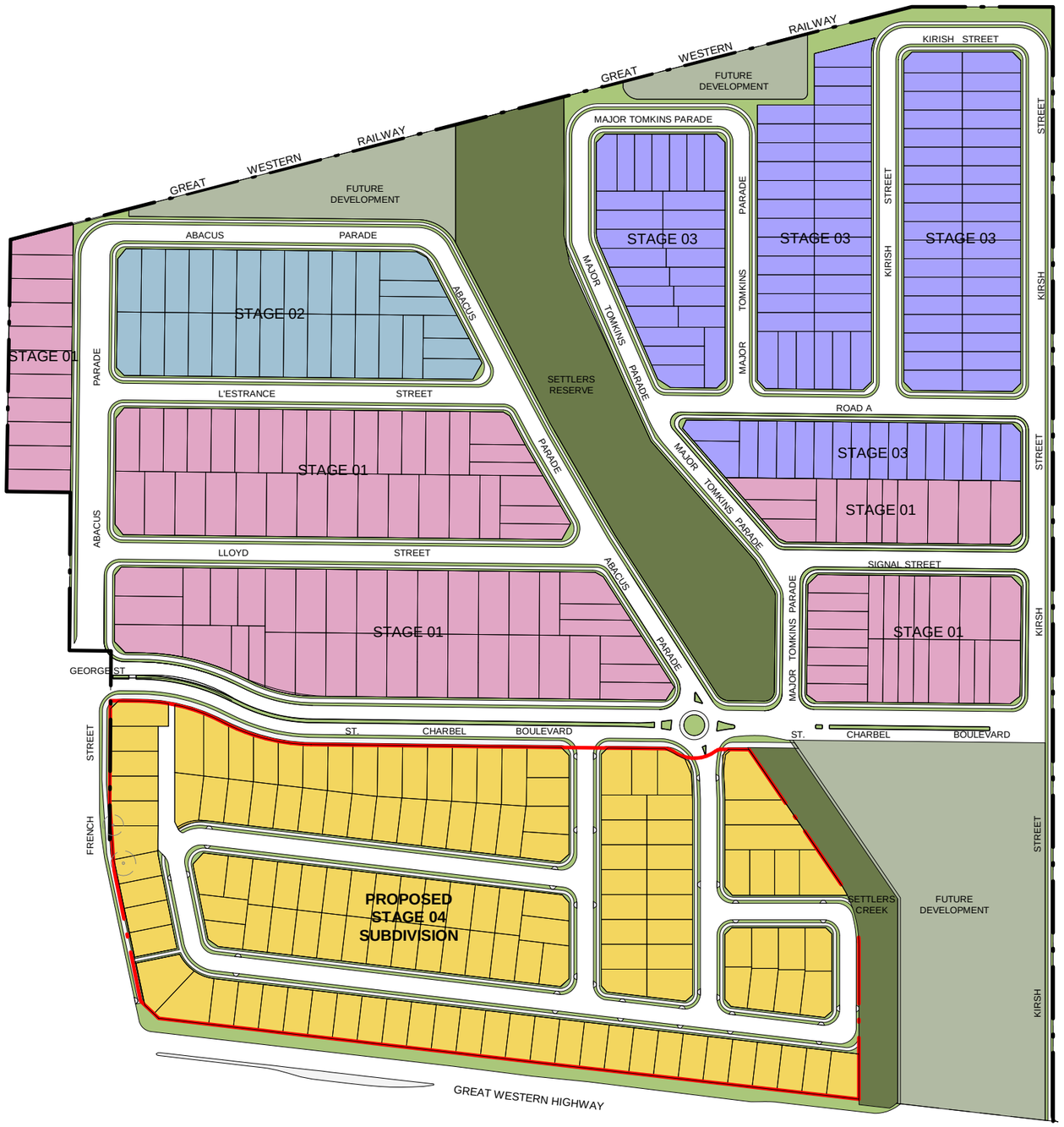
DRAWING TITLE: COVER SHEET

NORTH:

| PROJECT NO: | DATE: | DRAWING No: | REV: |
|---|---|---|---|
| Project Number | 5/11/2020 | DA101 | C |
| DRAWN BY: Author | SCALE: 1 : 5000 | | |



A3

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741-755 GREAT WESTERN HIGHWAY, WERRINGTON

DRAWING TITLE:
# STAGING PLAN

NORTH:

| PROJECT NO: | DATE: | DRAWING No: | REV: |
|---|---|---|---|
| Project Number | 5/11/2020 | DA102 | C |
| DRAWN BY: CHD | SCALE: 1 : 2500 | | |



A3


| ISSUE | DATE | REVISION | BY |
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PROJECT: STAGE 04
741-755 GREAT WESTERN HIGHWAY, WERRINGTON

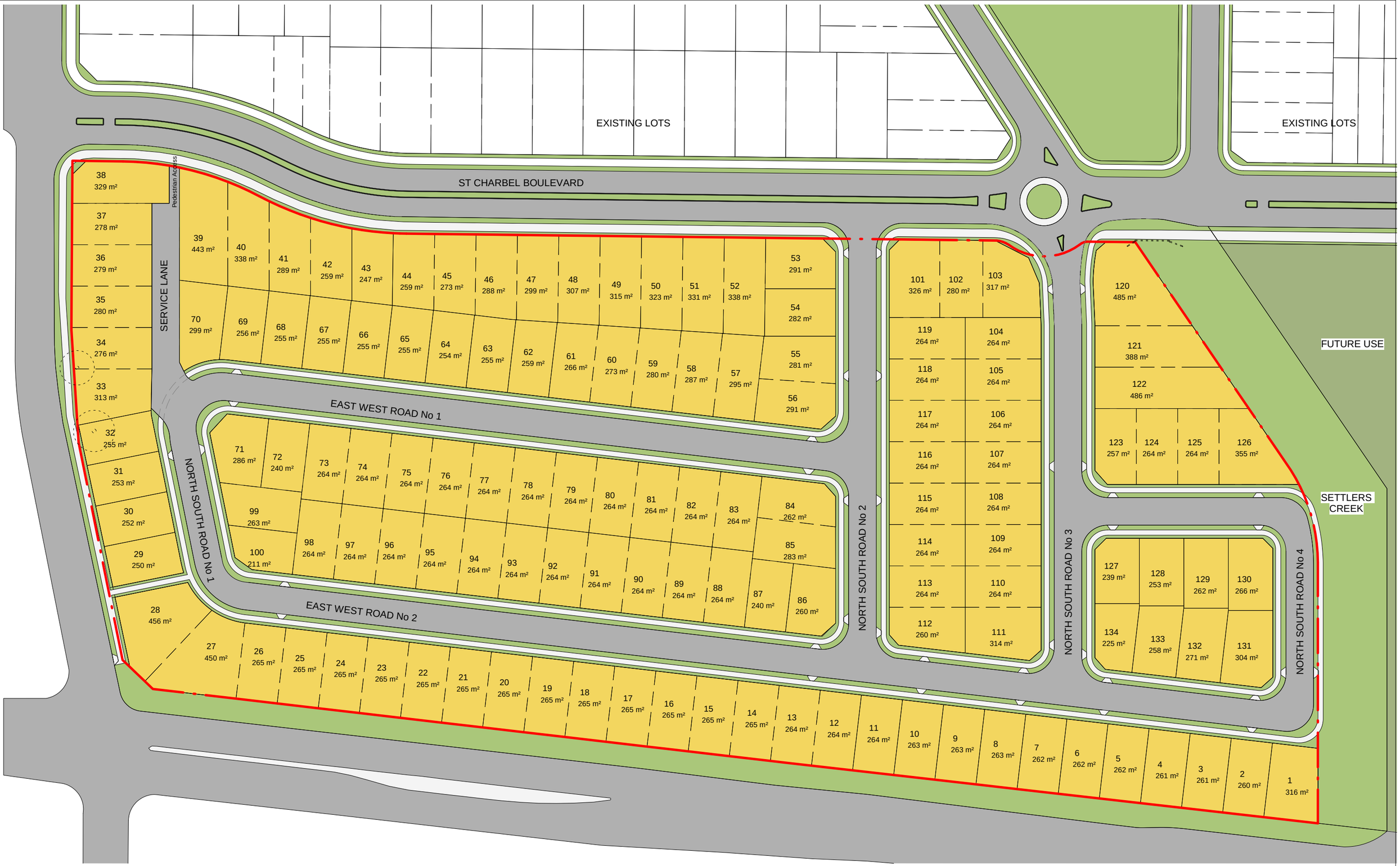
DRAWING TITLE:
# SITE PLAN

NORTH:

| PROJECT NO: | DATE: | DRAWING No: | REV: |
|---|---|---|---|
| Project Number | 5/11/2020 | DA103 | C |
| DRAWN BY: | SCALE: | | |
| CHD | 1 : 2500 | | |



A3

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PROJECT: STAGE 04
741-755 GREAT WESTERN HIGHWAY, WERRINGTON

DRAWING TITLE:
# SUBDIVISION PLAN

NORTH:

| PROJECT NO: | DATE: | DRAWING No: | REV: |
|---|---|---|---|
| Project Number | 5/11/2020 | DA104 | C |
| DRAWN BY: | SCALE: | | |
| CHD | 1 : 1000 | | |



A3


| ISSUE | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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PROJECT: STAGE 04
741-755 GREAT WESTERN HIGHWAY, WERRINGTON

DRAWING TITLE:
# FOOTPRINTS

NORTH:

| PROJECT NO: | DATE: | DRAWING No: | REV: |
|---|---|---|---|
| Project Number | 5/11/2020 | DA105 | C |
| DRAWN BY: CHD | SCALE: 1 : 1000 | | |



A3

| Lot Area Schedule | |
|---|---|
| Lot | Area |
| 1 | 316 m² |
| 2 | 260 m² |
| 3 | 261 m² |
| 4 | 261 m² |
| 5 | 262 m² |
| 6 | 262 m² |
| 7 | 262 m² |
| 8 | 263 m² |
| 9 | 263 m² |
| 10 | 263 m² |
| 11 | 264 m² |
| 12 | 264 m² |
| 13 | 264 m² |
| 14 | 265 m² |
| 15 | 265 m² |
| 16 | 265 m² |
| 17 | 265 m² |
| 18 | 265 m² |
| 19 | 265 m² |
| 20 | 265 m² |
| 21 | 265 m² |
| 22 | 265 m² |
| 23 | 265 m² |
| 24 | 265 m² |
| 25 | 265 m² |
| 26 | 265 m² |
| 27 | 450 m² |
| 28 | 456 m² |
| 29 | 250 m² |
| 30 | 252 m² |
| 31 | 253 m² |
| 32 | 255 m² |
| 33 | 313 m² |
| 34 | 276 m² |

| Lot Area Schedule | |
|---|---|
| Lot | Area |
| 35 | 280 m² |
| 36 | 279 m² |
| 37 | 278 m² |
| 38 | 329 m² |
| 39 | 443 m² |
| 40 | 338 m² |
| 41 | 289 m² |
| 42 | 259 m² |
| 43 | 247 m² |
| 44 | 259 m² |
| 45 | 273 m² |
| 46 | 288 m² |
| 47 | 299 m² |
| 48 | 307 m² |
| 49 | 315 m² |
| 50 | 323 m² |
| 51 | 331 m² |
| 52 | 338 m² |
| 53 | 291 m² |
| 54 | 282 m² |
| 55 | 281 m² |
| 56 | 291 m² |
| 57 | 295 m² |
| 58 | 287 m² |
| 59 | 280 m² |
| 60 | 273 m² |
| 61 | 266 m² |
| 62 | 259 m² |
| 63 | 255 m² |
| 64 | 254 m² |
| 65 | 255 m² |
| 66 | 255 m² |
| 67 | 255 m² |

| Lot Area Schedule | |
|---|---|
| Lot | Area |
| 68 | 255 m² |
| 69 | 256 m² |
| 70 | 299 m² |
| 71 | 286 m² |
| 72 | 240 m² |
| 73 | 264 m² |
| 74 | 264 m² |
| 75 | 264 m² |
| 76 | 264 m² |
| 77 | 264 m² |
| 78 | 264 m² |
| 79 | 264 m² |
| 80 | 264 m² |
| 81 | 264 m² |
| 82 | 264 m² |
| 83 | 264 m² |
| 84 | 262 m² |
| 85 | 283 m² |
| 86 | 260 m² |
| 87 | 240 m² |
| 88 | 264 m² |
| 89 | 264 m² |
| 90 | 264 m² |
| 91 | 264 m² |
| 92 | 264 m² |
| 93 | 264 m² |
| 94 | 264 m² |
| 95 | 264 m² |
| 96 | 264 m² |
| 97 | 264 m² |
| 98 | 264 m² |
| 99 | 263 m² |
| 100 | 211 m² |
| 101 | 326 m² |

| Lot Area Schedule | |
|---|---|
| Lot | Area |
| 102 | 280 m² |
| 103 | 317 m² |
| 104 | 264 m² |
| 105 | 264 m² |
| 106 | 264 m² |
| 107 | 264 m² |
| 108 | 264 m² |
| 109 | 264 m² |
| 110 | 264 m² |
| 111 | 314 m² |
| 112 | 260 m² |
| 113 | 264 m² |
| 114 | 264 m² |
| 115 | 264 m² |
| 116 | 264 m² |
| 117 | 264 m² |
| 118 | 264 m² |
| 119 | 264 m² |
| 120 | 485 m² |
| 121 | 388 m² |
| 122 | 486 m² |
| 123 | 257 m² |
| 124 | 264 m² |
| 125 | 264 m² |
| 126 | 355 m² |
| 127 | 239 m² |
| 128 | 253 m² |
| 129 | 262 m² |
| 130 | 266 m² |
| 131 | 304 m² |
| 132 | 271 m² |
| 133 | 258 m² |
| 134 | 225 m² |
| TOTAL | 37397 m² |

| ISSUE | DATE | REVISION | BY |
|---|---|---|---|
| C | 5/11/2020 | AMENDMENTS SUBDIVISION | |
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PROJECT: STAGE 04
741-755 GREAT WESTERN HIGHWAY, WERRINGTON

DRAWING TITLE:
# LOT AREA SCHEDULE

NORTH:

| PROJECT NO: | DATE: | DRAWING No: | REV: |
|---|---|---|---|
| Project Number | 5/11/2020 | DA106 | C |
| DRAWN BY: CHD | SCALE: | | |

12.5m Waste Vehicle

101
326 m²

102
280 m²

103
317 m²

119
264 m²

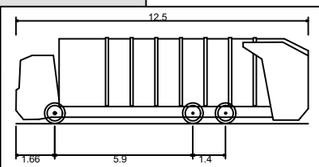
104
264 m²

120
485 m²

121

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




| 12.5m Waste Vehicle | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE: SWEPT PATH ANALYSIS
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 1

DATE STAMP: 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

By: Karl.magistrado
Date: 23 November 2020
Filename: 17254DA09 -SWEPT PATH-201123.dwg

SWEPT PATH ENCROACHES SPLITTER ISLAND.

12.5m Waste Vehicle

12.5m Waste Vehicle

101
326 m²

102
280 m²

103
317 m²

120
485 m²

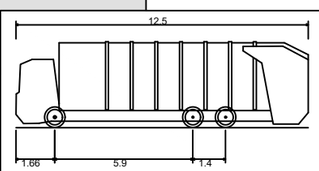
119
264 m²

104
264 m²

121

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




| 12.5m Waste Vehicle | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT
731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE
SWEPT PATH ANALYSIS
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 2

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

By: KarlJmagistrado
Date: 23 November 2020
Filename: 17254DA09 -SWEPT PATH-201123.dwg

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

12.5m Waste Vehicle

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

122
486 m²

123
257 m²

124
264 m²

125
264 m²

NORTH SOUTH ROAD No 3

127
239 m²

128
253 m²

134
225 m²

133

132

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

12.5m Waste Vehicle

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

122
486 m²

123
257 m²

124
264 m²

125
264 m²

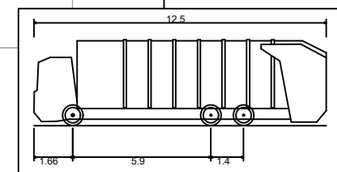
NORTH SOUTH ROAD No 3

127
239 m²

134
225 m²

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




| 12.5m Waste Vehicle | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT

731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE

SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #3 - NORTH SOUTH ROAD #4
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 3

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09 -SWEPT PATH-201123.dwg
Date: 23 November 2020
By: Karl.magistrado

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

12.5m Waste Vehicle

NORTH SOUTH ROAD No 3

122
486 m²

123
257 m²

124
264 m²

125
264 m²

127
239 m²

128
253 m²

129
262

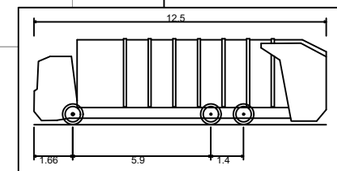
134
225 m²

133
258 m²

132

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




| 12.5m Waste Vehicle | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
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ttpp transport planning

PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

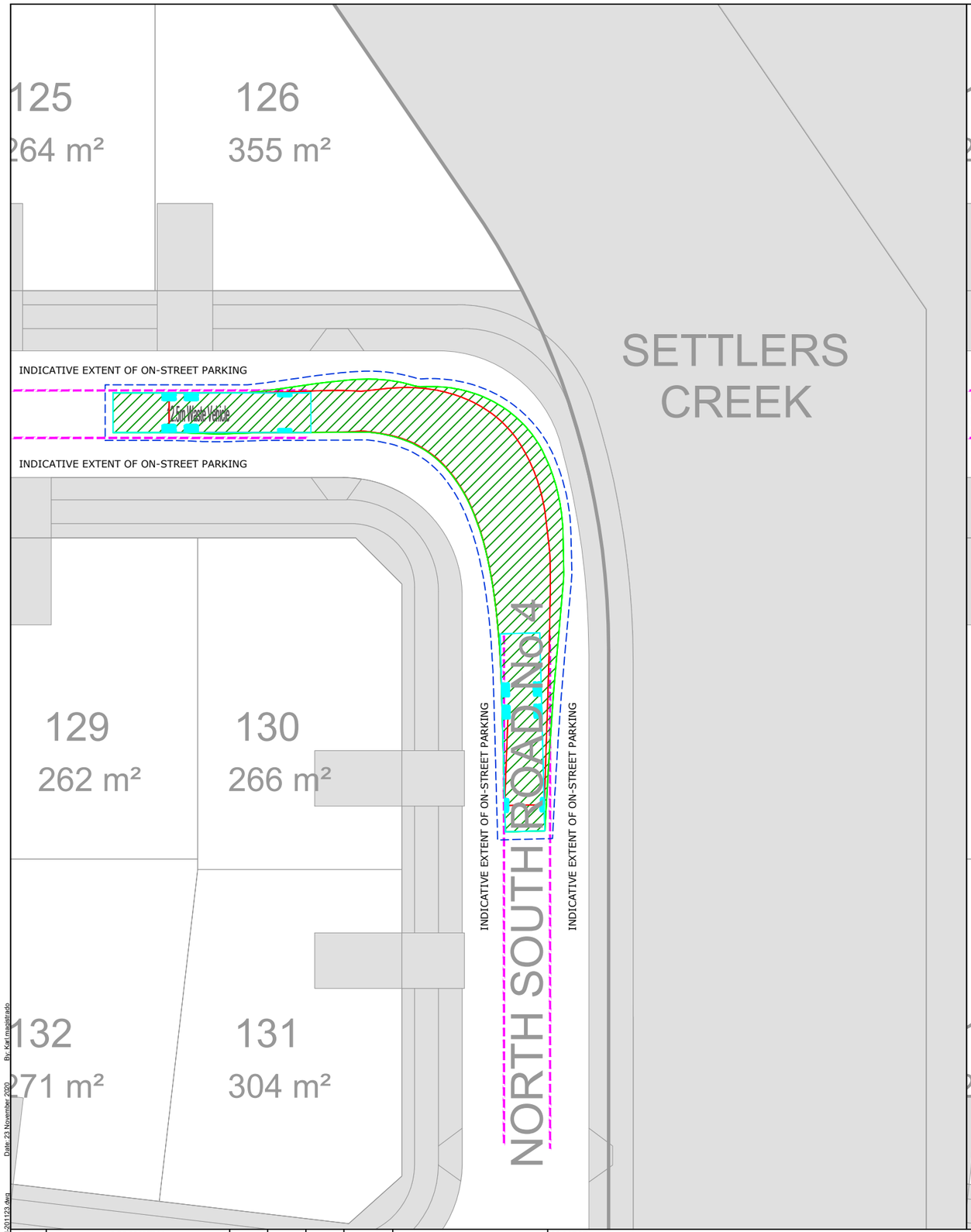
TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #3 - NORTH SOUTH ROAD #4
12.5m WASTE TRUCK

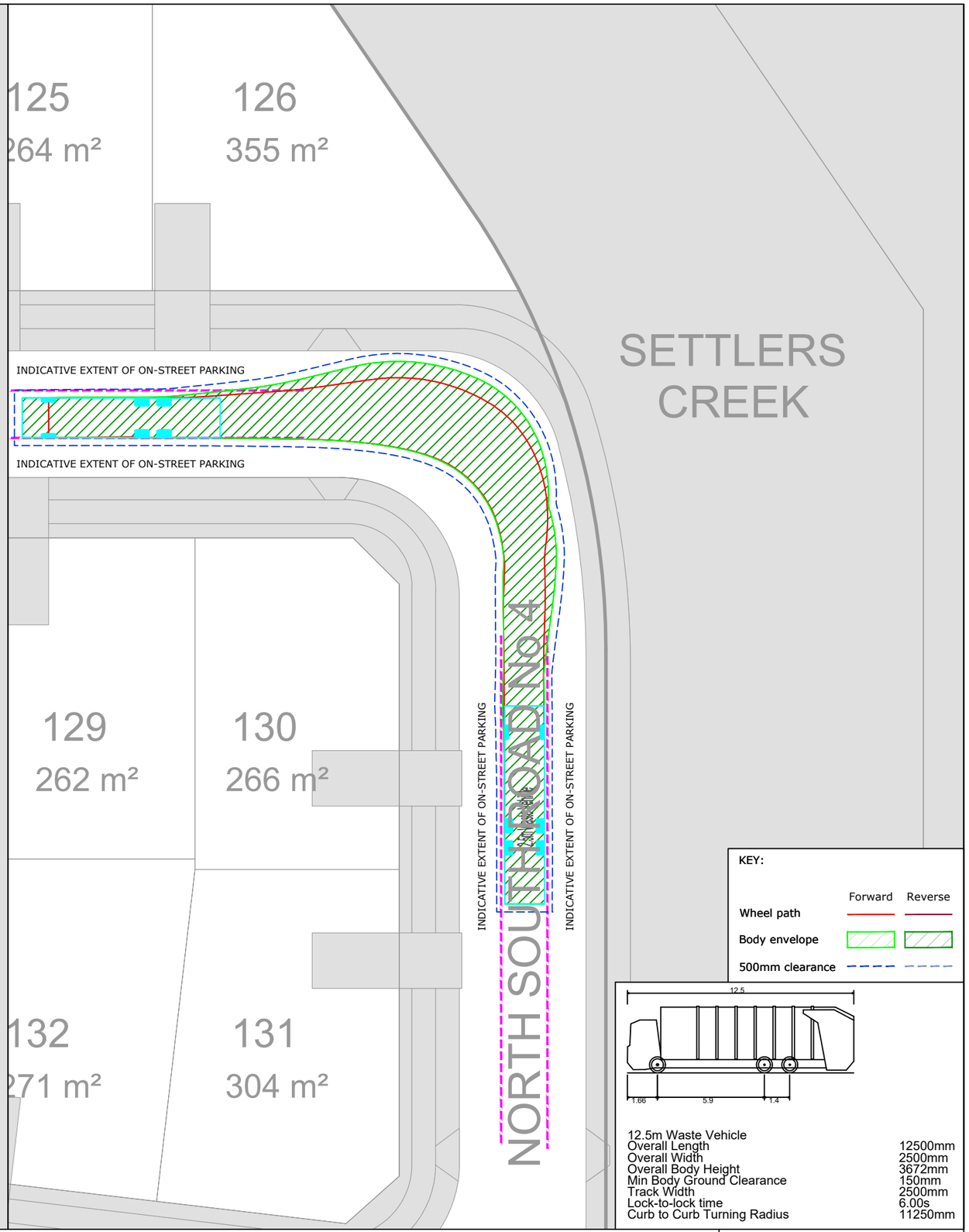
DWG No. 17254DA09
FIGURE 4

DATE STAMP: 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09 -SWEPT PATH-201123.dwg Date: 23 November 2020 By: Karl.magalltrade




KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




12.5m Waste Vehicle

| | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #4
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 5

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09 -SWEPT PATH-201123.dwg
Date: 23 November 2020
By: Karl.magdziarz


| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

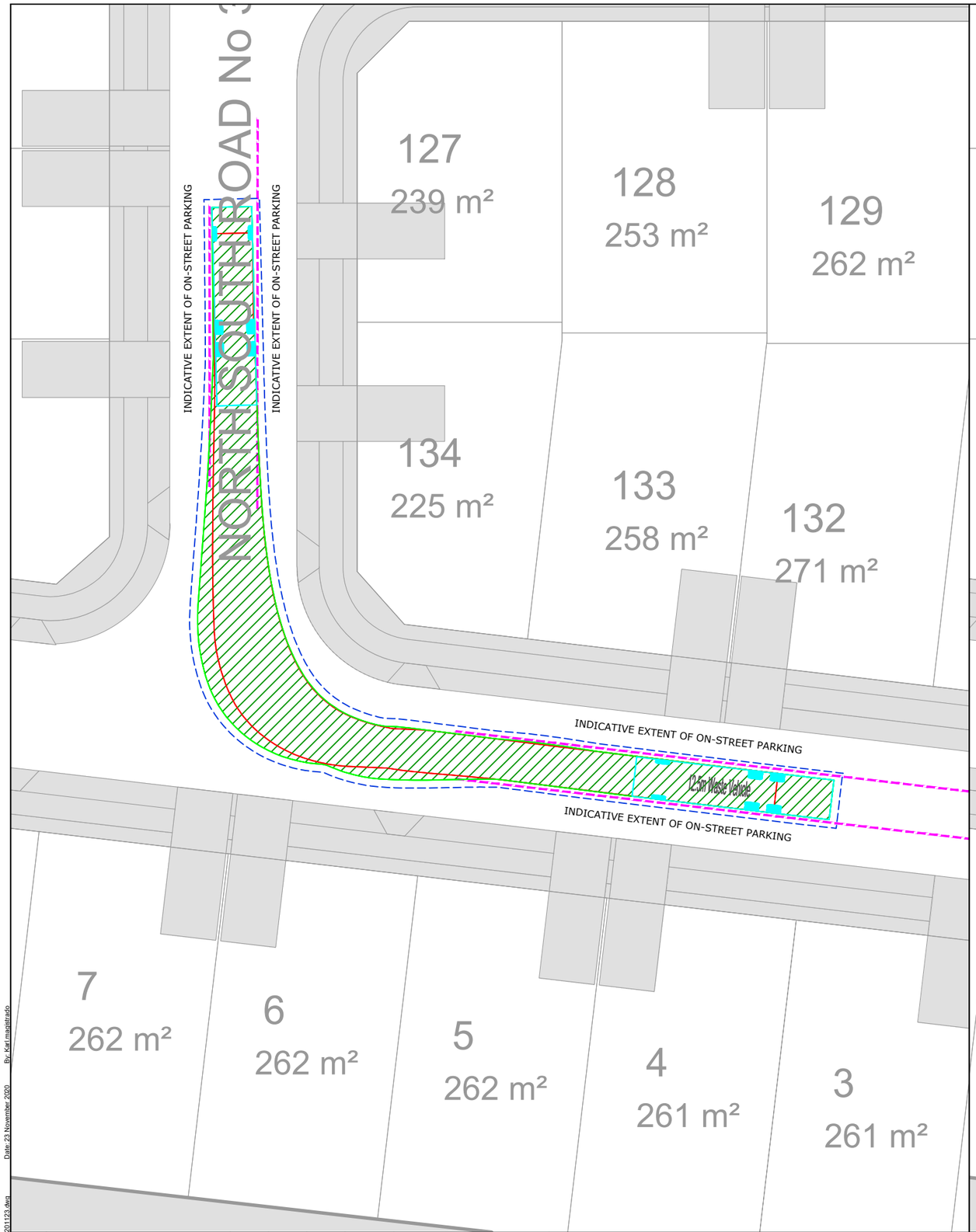
TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #4 - EAST WEST ROAD #2
12.5m WASTE TRUCK

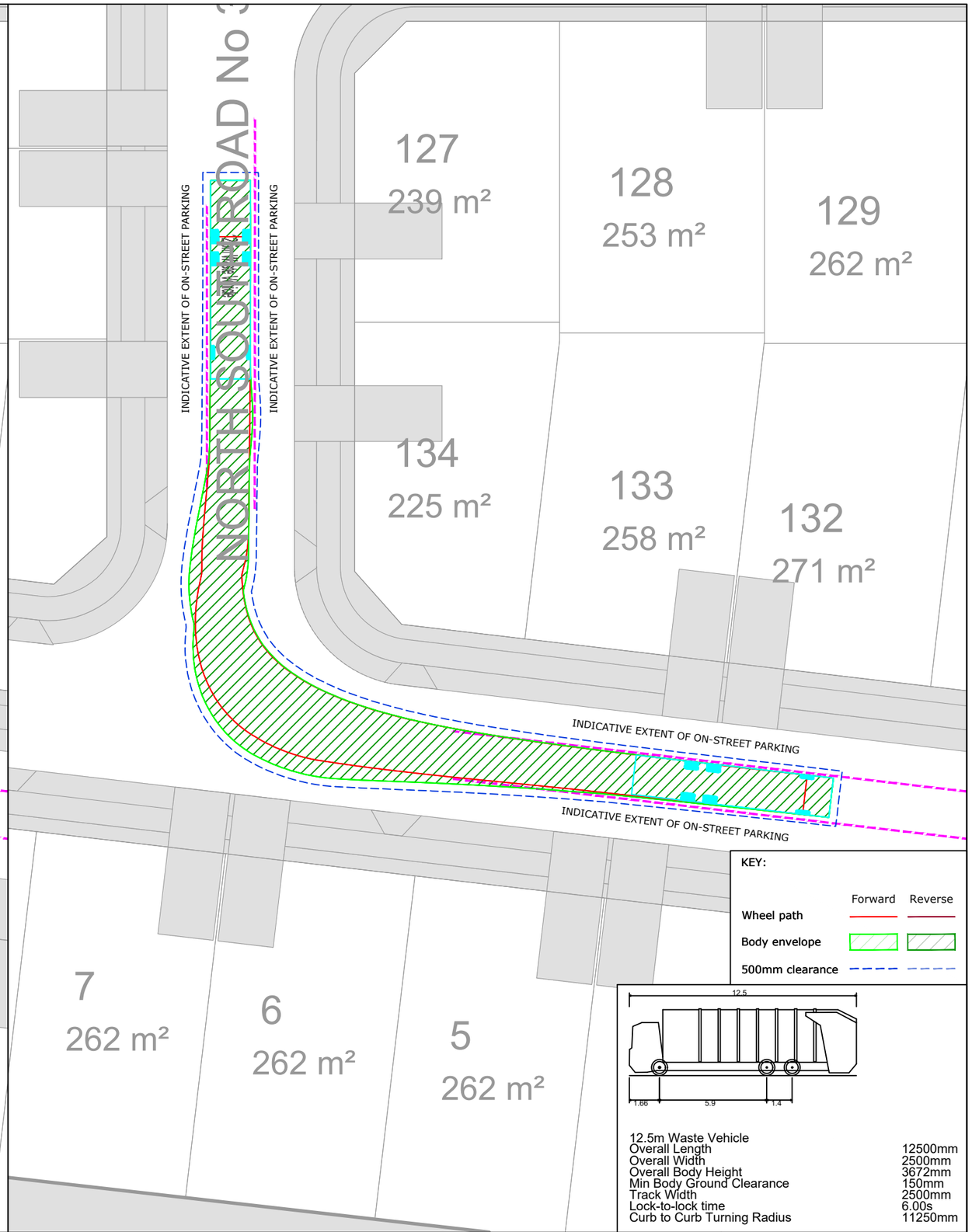
DWG No. 17254DA09
FIGURE 6

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09_SWEPT PATH-201123.dwg
Date: 23 November 2020
By: Karl.mastrando




| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT
731-769 GREAT WESTERN HIGHWAY, WERRINGTON

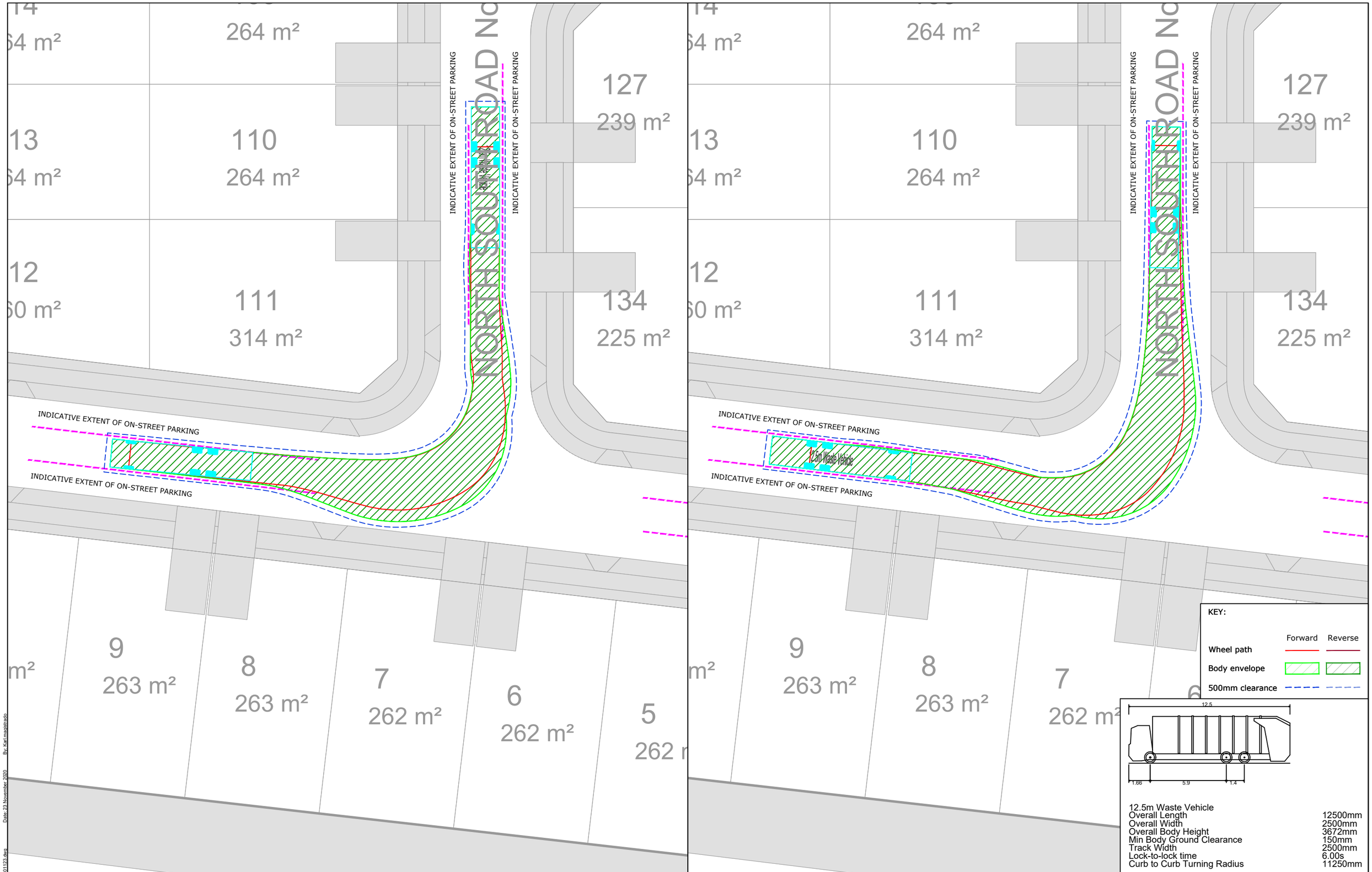
TITLE
SWEPT PATH ANALYSIS - EAST WEST ROAD #2 - NORTH SOUTH ROAD #3
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 7

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09 -SWEPT PATH-201123.dwg
Date: 23 November 2020
By: Karl.magdaraio




| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT

731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE

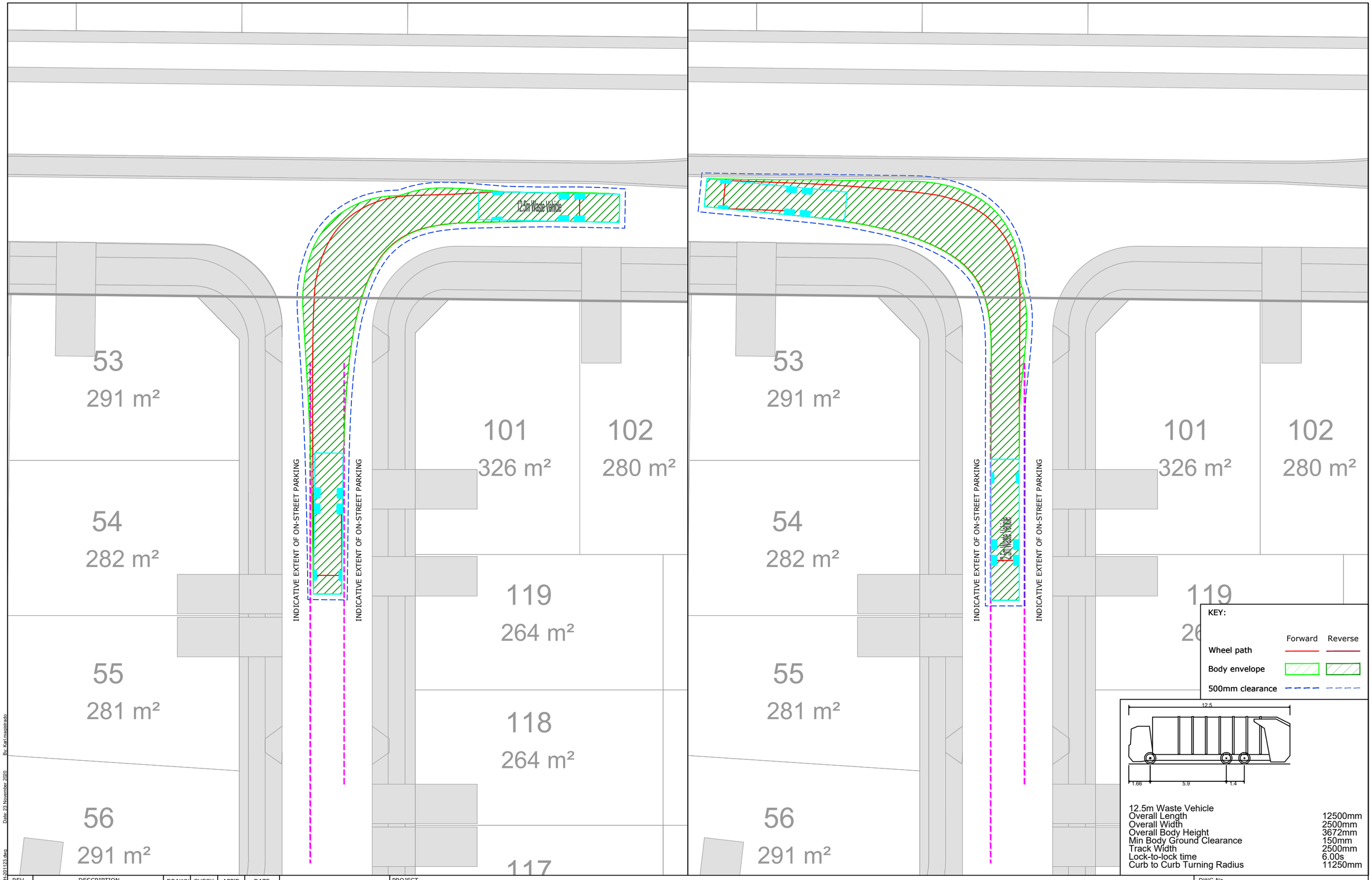
SWEPT PATH ANALYSIS - EAST WEST ROAD #2 - NORTH SOUTH ROAD #3
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 8

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09 -SWEPT PATH-201123.dwg Date: 23 November 2020 By: Karl.magdtrado




| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

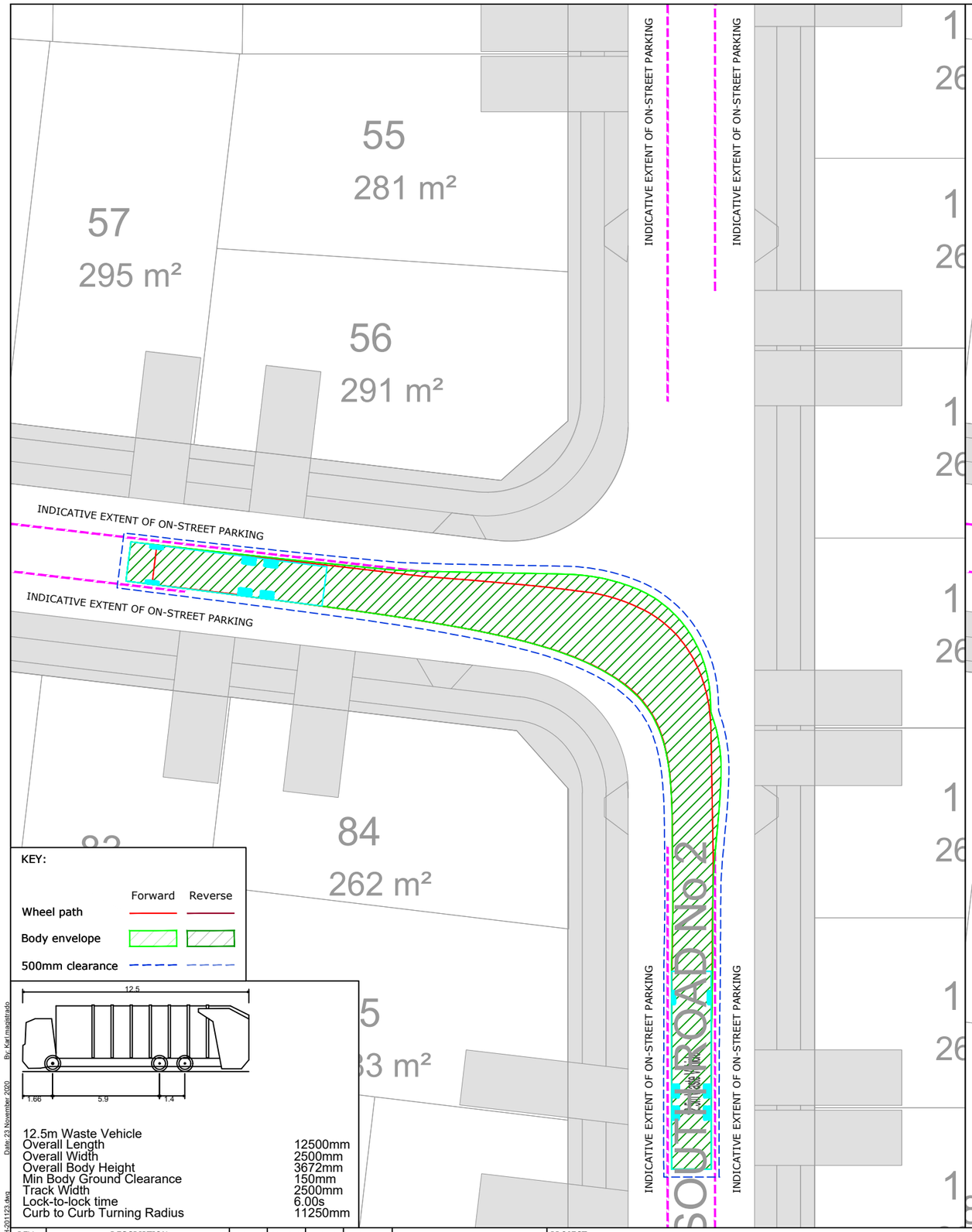
ttpp transport planning

PROJECT
731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE
SWEPT PATH ANALYSIS - ST CHARBEL BOULEVARD - NORTH SOUTH ROAD #2
12.5m WASTE TRUCK

DWG No. 17254DA09 FIGURE 9
DATE STAMP 23 NOVEMBER 2020
PROJECT No. 17254
SCALE 1:300 @A3
REV. A

Filename: 17254DA09_SWEPT PATH-201123.dwg
Date: 23 November 2020
By: Karl.magistrado




By: Karl.maistrato
Date: 23 November 2020
Filename: 17254DA09 -SWEPT PATH-201123.dwg

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT
731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE
SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #2 - EAST WEST ROAD #1
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 10

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

12.5m Waste Vehicle

55
281 m²

57
295 m²

56
291 m²

84
262 m²

83
264 m²

85
283 m²

SOUTH ROAD No 2

INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

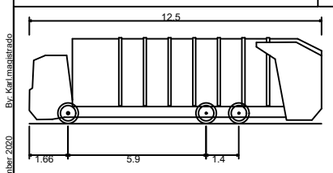
INDICATIVE EXTENT OF ON-STREET PARKING

INDICATIVE EXTENT OF ON-STREET PARKING

SOUTH ROAD No 2

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




| | |
|---|---|
| 12.5m Waste Vehicle | |
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT

731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE

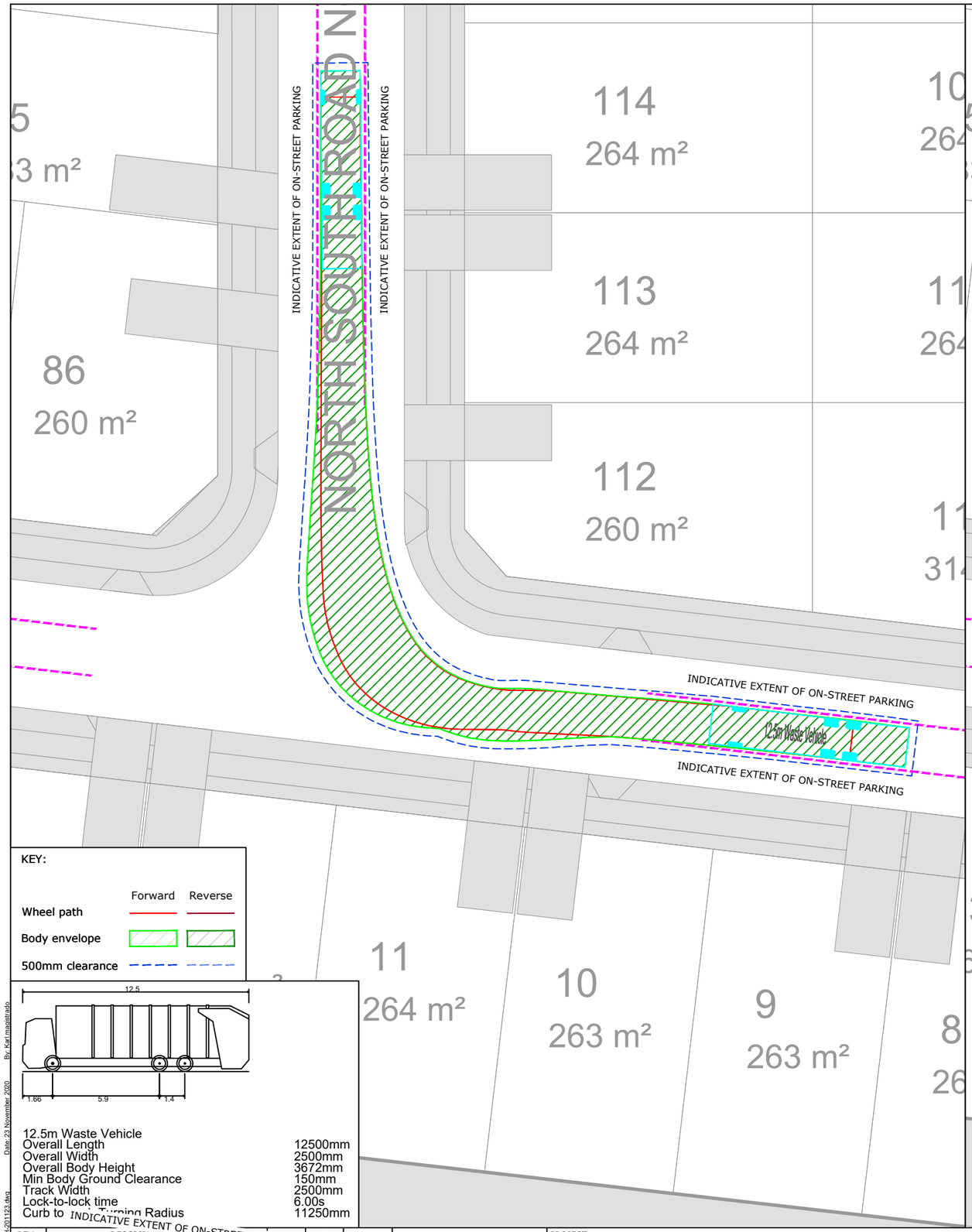
SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #2 - EAST WEST ROAD #1
12.5m WASTE TRUCK

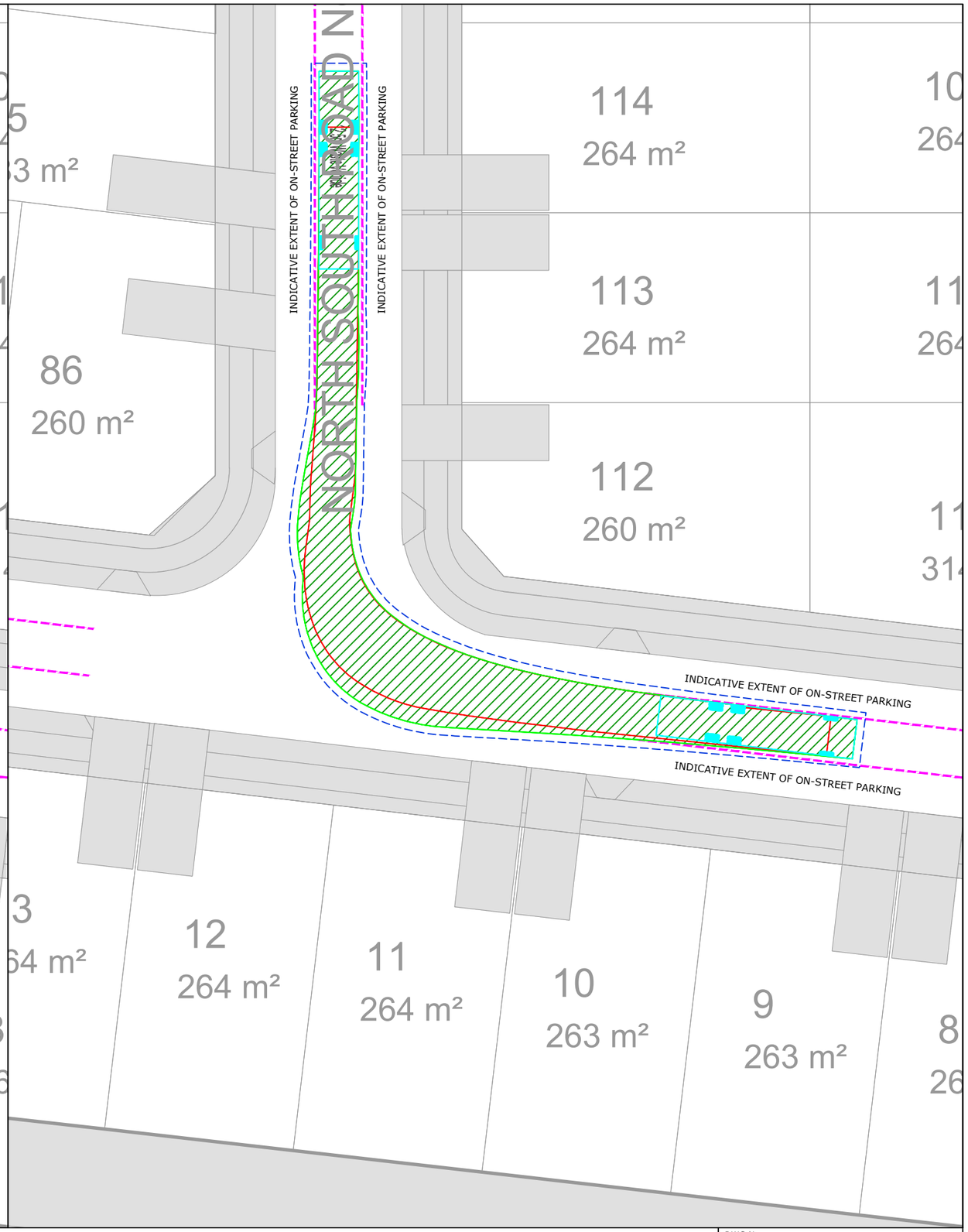
DWG No. 17254DA09
FIGURE 11

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

Filename: 17254DA09 -SWEPT PATH-201123.dwg By: Karl magistrado Date: 23 November 2020




| REV. | DESCRIPTION | | | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

ttpp transport planning

PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #2 - EAST WEST ROAD #2
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 12

DATE STAMP 23 NOVEMBER 2020

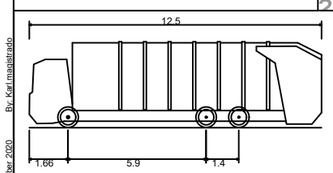
| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |

By: Karl.maistrado
Date: 23 November 2020
Filename: 17254DA09 -SWEPT PATH-201123.dwg

264 m²
262 m²
85
283 m²
88
264 m²
87
240 m²
86
260 m²
NORTH SOUTH ROAD No 2
13
264 m²
12
264 m²
11
264 m²
10
263
12.5m Waste Vehicle

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




12.5m Waste Vehicle

| | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |


Filename: 17254DA09 -SWEPT PATH-201123.dwg Date: 23 November 2020 By: Karl.maistrado


| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
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ttpp transport planning

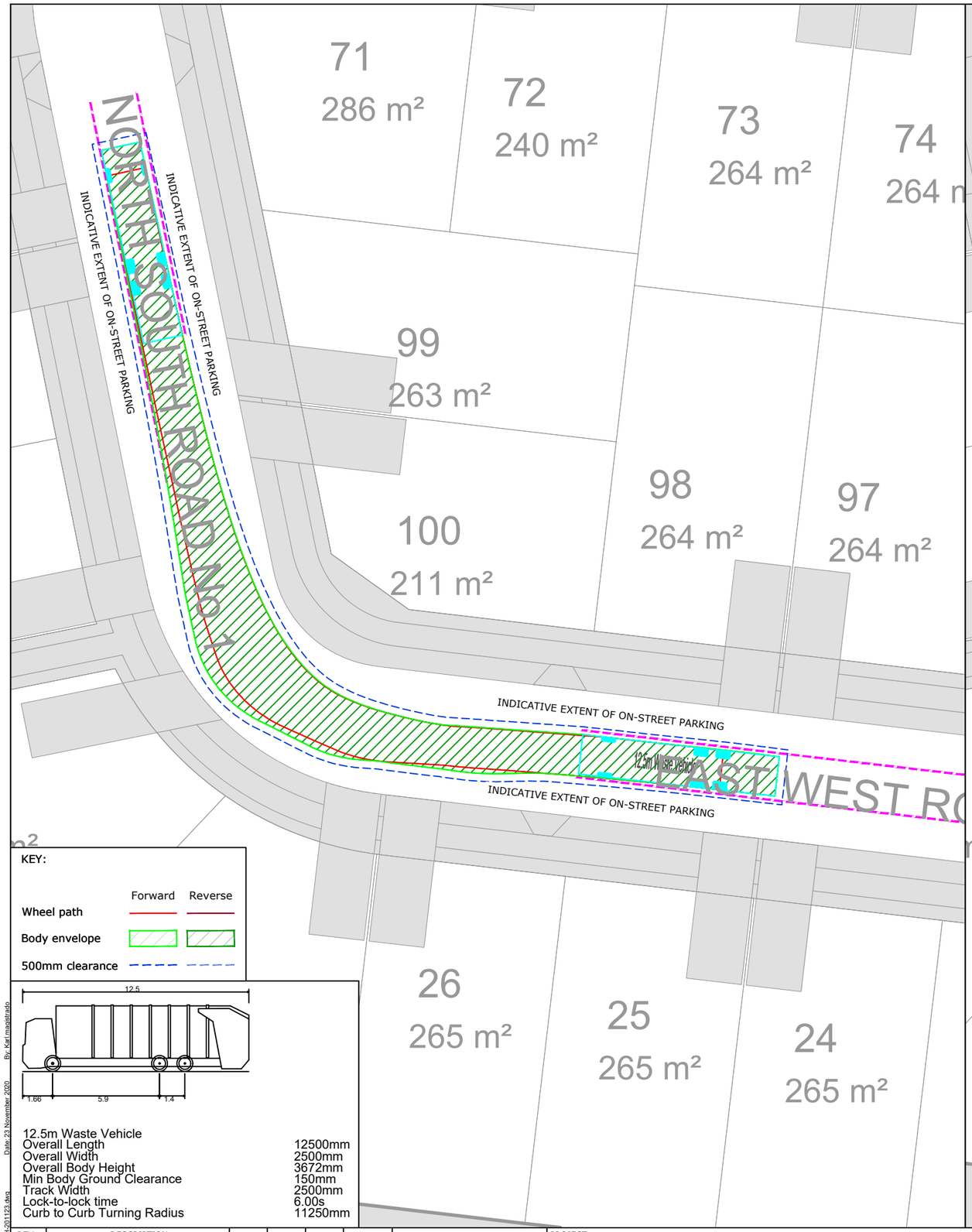
PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

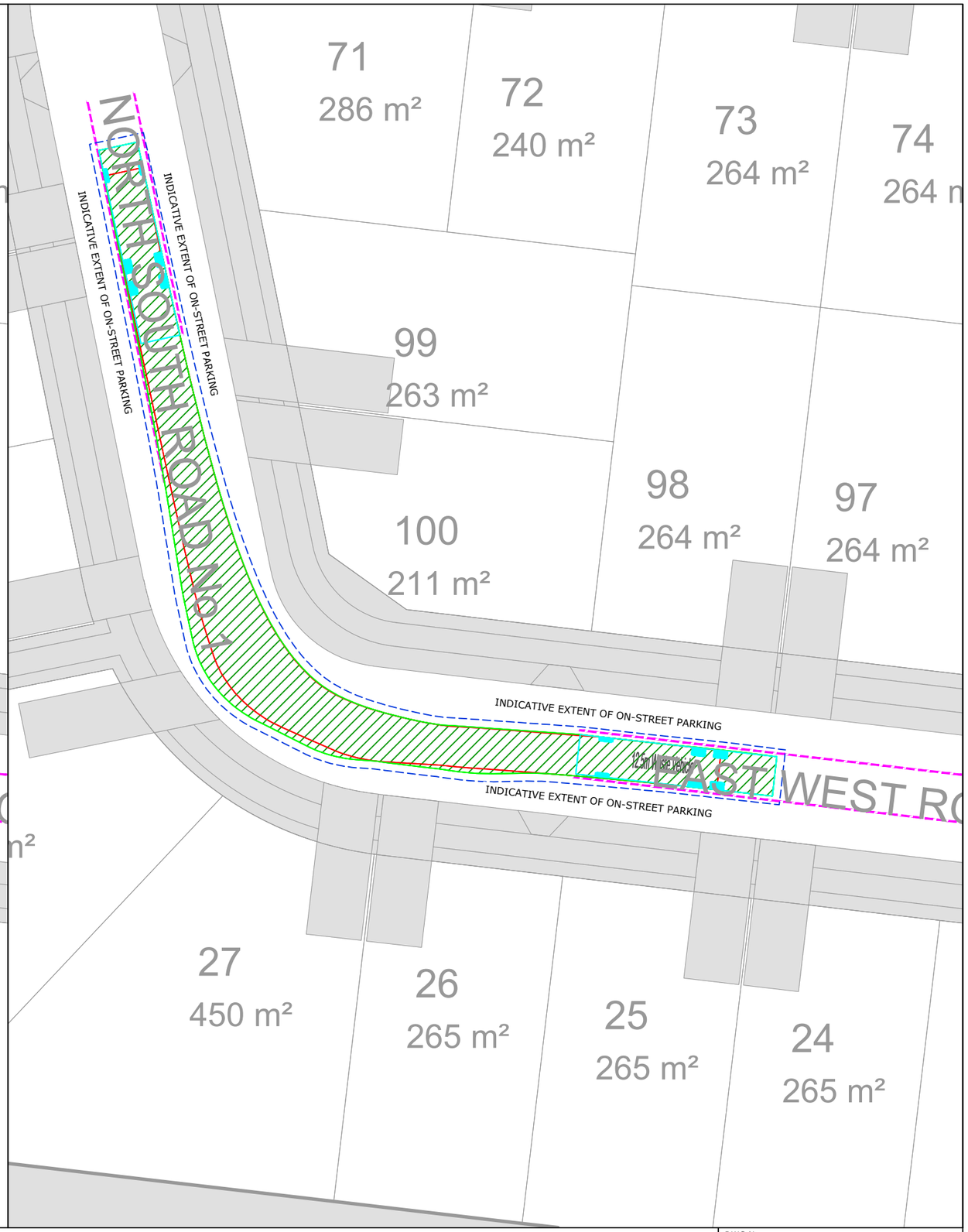
TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #2 - EAST WEST ROAD #2
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 13

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:300 @A3 | A |




| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

By: Karl.maistrato
Date: 23 November 2020
Filename: 17254DA09 -SWEPT PATH-201123.dwg

ttpp transport planning

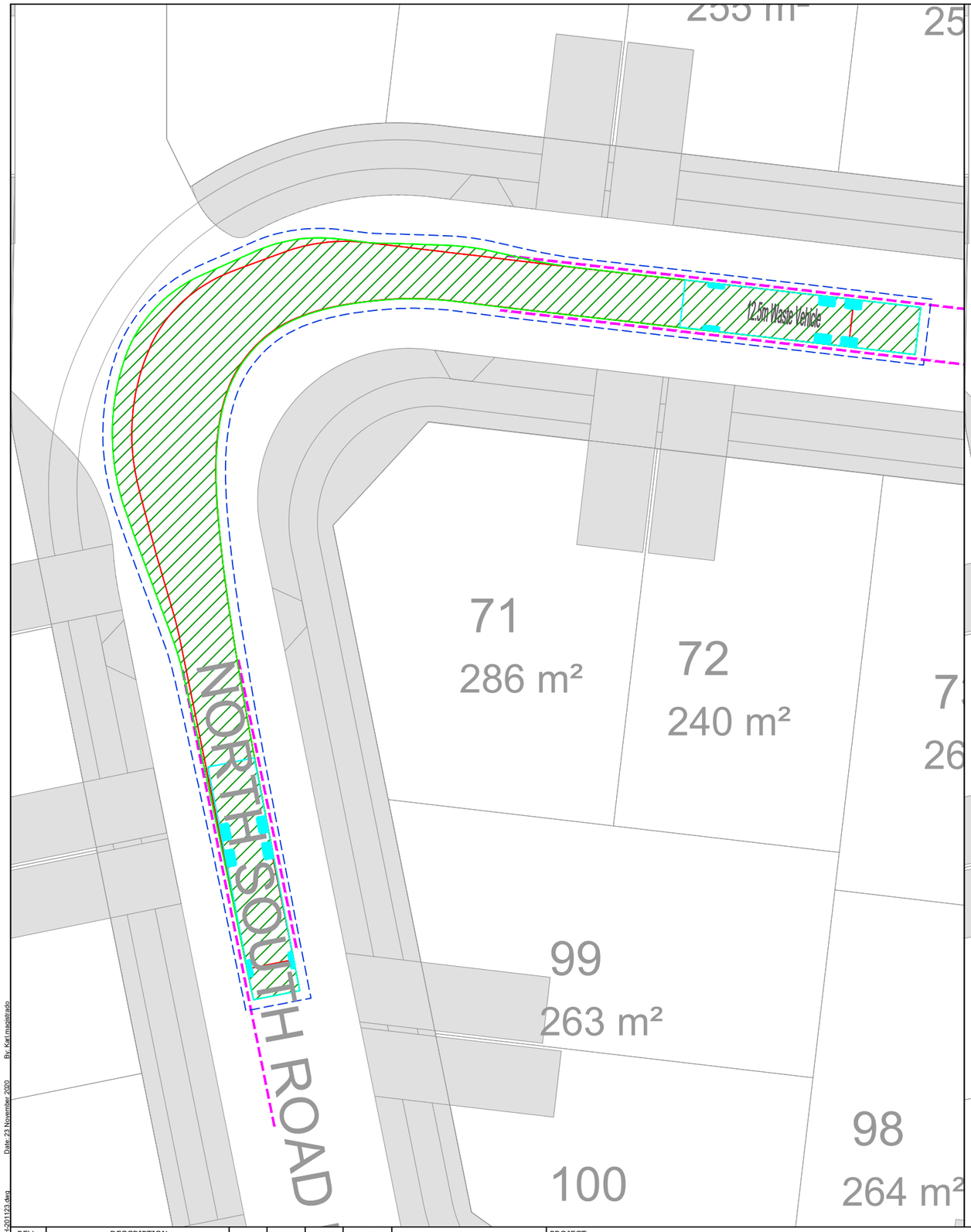
PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

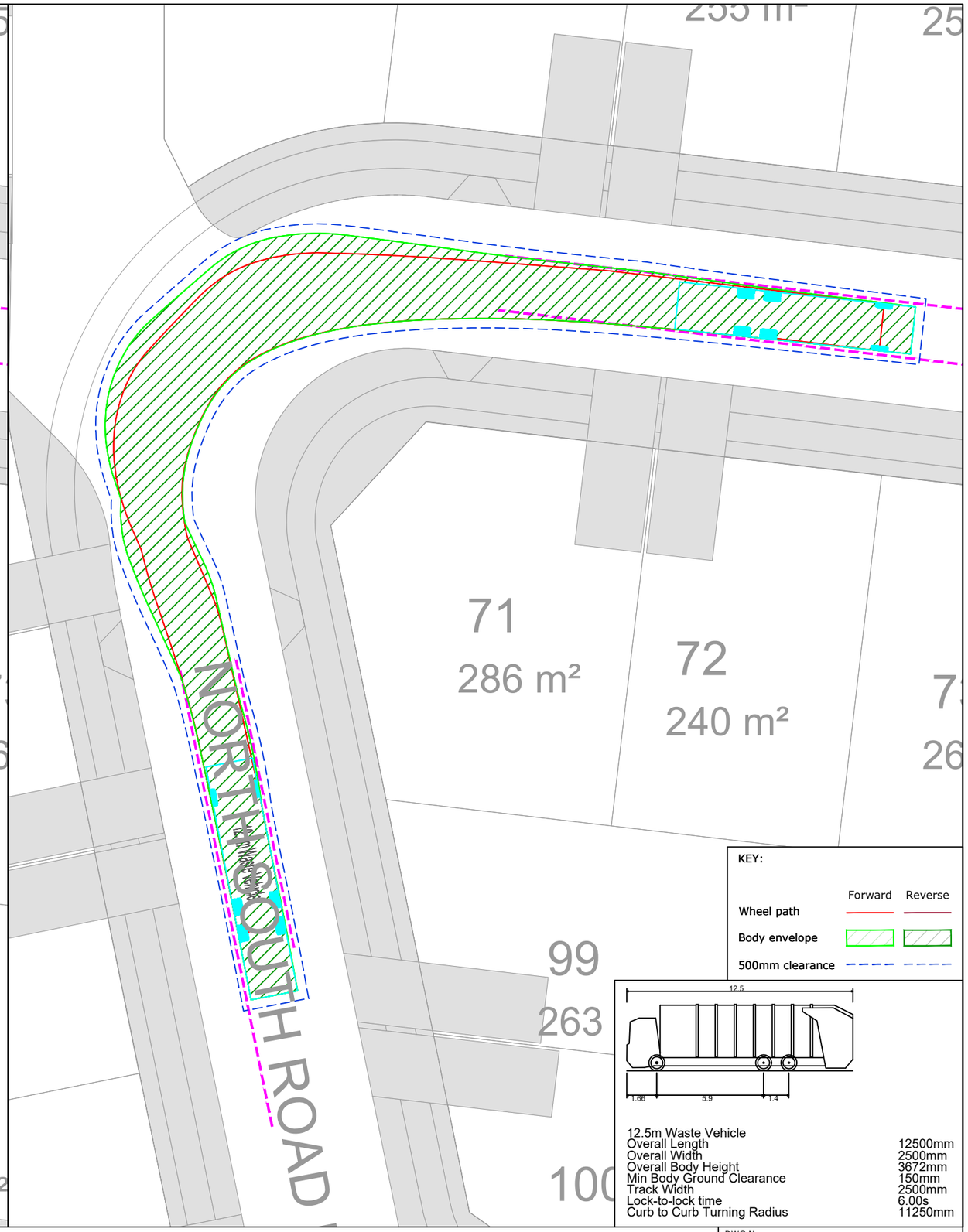
TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #1 - EAST WEST ROAD #2
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 14

DATE STAMP 23 NOVEMBER 2020

PROJECT No. 17254 | SCALE 1:300 @A3 | REV. A




KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel path | | |
| Body envelope | | |
| 500mm clearance | | |




| 12.5m Waste Vehicle | |
|---|---|
| Overall Length | 12500mm |
| Overall Width | 2500mm |
| Overall Body Height | 3672mm |
| Min Body Ground Clearance | 150mm |
| Track Width | 2500mm |
| Lock-to-lock time | 6.00s |
| Curb to Curb Turning Radius | 11250mm |

| REV. | DESCRIPTION | DRAWN | CHECK | APP'D | DATE |
|---|---|---|---|---|---|
| A | ISSUE FOR DISCUSSION | KM | OF | KH | 23/11/20 |

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PROJECT: 731-769 GREAT WESTERN HIGHWAY, WERRINGTON

TITLE: SWEPT PATH ANALYSIS - NORTH SOUTH ROAD #1 - EAST WEST ROAD #1
12.5m WASTE TRUCK

DWG No. 17254DA09
FIGURE 15

DATE STAMP 23 NOVEMBER 2020

| PROJECT No. | SCALE | REV. |
|---|---|---|
| 17254 | 1:250 @A3 | A |

By: Karl.magistrado
Date: 23 November 2020
Filename: 17254DA09 -SWEPT PATH-201123.dwg

The Transport Planning Partnership
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