Proposed Recycling Waste Transfer Station

177 Newton Road, Wetherill Park

TRAFFIC AND PARKING ASSESSMENT REPORT

14 February 2017

Ref 16717

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

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LIST OF ILLUSTRATIONS

Document Verification

Location:	177 Newtown Road, Wetherill Park	**Job Number**		16717	
Revision	**Details**	**Prepared**		**Approved**	
		By	**Date**	**By**	**Date**
Draft 01	Initial Draft for Review	DL	16/01/17	RV	14/02/17

1. INTRODUCTION

This report has been prepared to accompany a development application to Council for a proposed recycling waste transfer station to be located at 177 Newton Road, Wetherill Park (Figures 1 and 2).

The proposed development involves the demolition/removal of the existing building on the site to facilitate the construction of a new proposed recycling waste transfer station which has been designed to accommodate all truck sizes up to and including 19m long semi-trailers.

The proposed development is expected to have a maximum of 12 staff on-site.

Off-street car parking is to be provided for a total of 16 cars in a new at-grade car parking area which is to be located on the southern portion of the site, in accordance with Council's requirements. The proposed recycling waste transfer station will *not* be open to the public.

Vehicular access to the site is to be retained via the two existing shared driveways located on opposite ends of the Newton Road site frontage.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking and loading facilities for compliance with the relevant codes and standards

- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site.

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LOCATION
FIGURE 1

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SITE
FIGURE 2

2. PROPOSED DEVELOPMENT

Site

The subject site is located on the northern side of the Newton Road, between Coates Place and McKay Close. Vehicular access to the site is provided via separate 6m wide entry and exit driveways. The site occupies an area of approximately 9,888m^2.

The subject site is currently occupied by an existing warehouse building which is to be demolished. The existing warehouse building has an estimated floor area of approximately 1,951m² and is used by *Careys Freight Lines* as a freight transport company, as shown in the recent aerial image below.

Source: Nearmap

All Vehicular and pedestrian access to the site is provided via the two existing 6m wide driveways located at opposite ends of the Newton Road site frontage.

Proposed Development

The proposed development involves the demolition of the existing freight transport warehouse building on the site to facilitate the construction of a new recycling waste transfer station. The facility will *not* be open to the public.

Two new 19m long weighbridges are proposed on the entry and exit driveways respectively. A small office and ancillary amenities are proposed adjacent to these weighbridges.

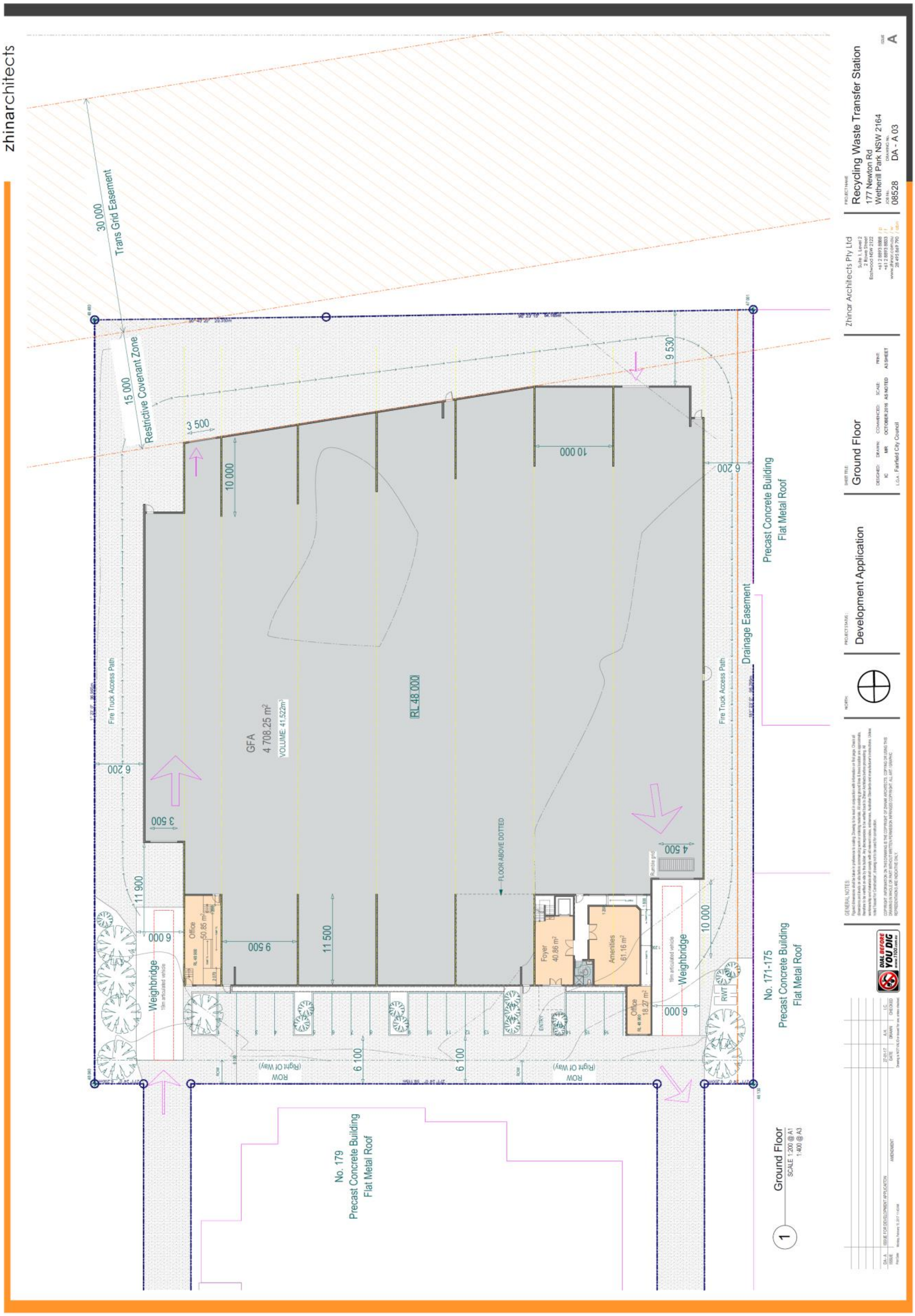
There will be a maximum of 12 staff on-site.

Car parking is proposed for a total of 16 cars in a new open car parking area to be located on the southern portion of the site. No change is proposed to the 6m wide vehicular access driveways serving the site, with the existing site access driveways to be retained in their current configuration.

Loading/servicing for the proposed development is expected to be undertaken by a variety of commercial vehicles including small, medium and large rigid trucks up to and including 19m long articulated semi-trailers, with the proposed site layout designed to accommodate the *swept turning path* requirements of these 19m long semi-trailers.

A potential adaptation plan has also been prepared illustrating how additional car parking (total 54 spaces) could be provided on the site if the proposed recycling waste transfer station use was changed to a more conventional industrial use in the future.

Plans of the proposed development have been prepared by *Zhinar Architects Pty Ltd* and are reproduced in the following pages.


zhinarchitects
Trans Grid Easement
30 000
Restrictive Covenant Zone
15 000
GFA
4 708.25 m²
RL 48.000
Fire Truck Access Path
Drainage Easement
Precast Concrete Building
Flat Metal Roof
No. 171-175
Precast Concrete Building
Flat Metal Roof
No. 179
Precast Concrete Building
Flat Metal Roof
Weighbridge
Office
Foyer
Amenities
ROW (Right of Way)
FLOOR ABOVE DOTTED
Ground Floor
Development Application
Zhinar Architects Pty Ltd
Recycling Waste Transfer Station
177 Newton Rd
Wetherill Park NSW 2164
08528
DA - A.03
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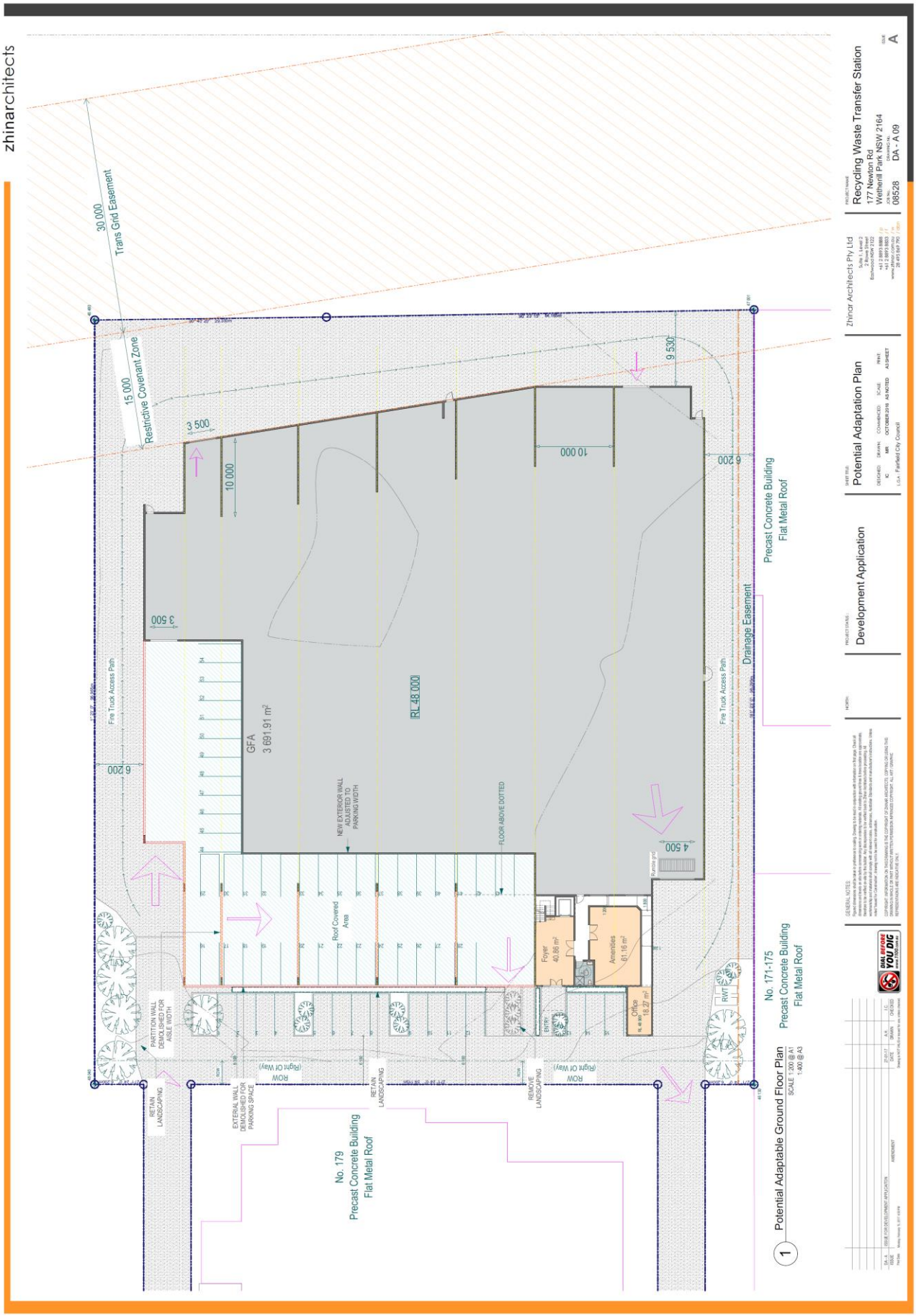
zhinarchitects
30.000
Trans Grid Easement
15.000
Restrictive Covenant Zone
3.500
10.000
9.530
10.000
6.200
3.500
6.200
GFA
3 691.91 m²
RL 48.000
NEW EXTERIOR WALL ADJUSTED TO PARKING WIDTH
FLOOR ABOVE DOTTED
Fire Truck Access Path
Fire Truck Access Path
Drainage Easement
4.500
Roof Covered Area
Foyer 40.86 m²
Amenities 61.16 m²
Office 16.37 m²
RWT
Precast Concrete Building
Flat Metal Roof
No. 171-175
Precast Concrete Building
Flat Metal Roof
No. 179
Precast Concrete Building
Flat Metal Roof
PARTITION WALL DEMOLISHED FOR AISLE WIDTH
RETAIN LANDSCAPING
EXTERNAL WALL DEMOLISHED FOR PARKING SPACE
ROW (Right Of Way)
RETAIN LANDSCAPING
REMOVE LANDSCAPING
ROW (Right Of Way)
1 Potential Adaptable Ground Floor Plan
SCALE 1:200 @ A1
1:400 @ A3
Potential Adaptation Plan
Development Application
Zhinar Architects Pty Ltd
Recycling Waste Transfer Station
177 Newton Rd
Wetherill Park NSW 2164
08528
DA - A 09
A

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

The Horsley Drive is classified by the RMS as a *Regional Road* and provides the key east-west road link in the area. It typically comprises a 4 lane dual carriageway (ie; 2 lanes in each direction), with opposing traffic flows separated by a wide landscaped median island.

Victoria Street / Elizabeth Street (south of Victoria Street) are classified by the RMS as *Regional Roads* which perform the function of a *collector route* linking The Horsley Drive and Cumberland Highway. They typically carry two traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a central median island.

Newton Road is a local, unclassified road which is primarily intended to provide vehicular and pedestrian access to frontage properties. It typically carries 1 traffic lane in each direction, with kerbside parking generally permitted on both sides of the road.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 70 km/h SPEED LIMIT in the Horsley Drive
- a 60 km/h SPEED LIMIT in Newton Road and Victoria Street
- a ROUNDABOUT located along Newton Road where it intersects with Victoria Street.

Regional Road

State Road

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ROAD HIERARCHY
FIGURE 3


N
W
E
S
NEWTON
RD
60
HEXHAM
RD
MCKAY
CL
NEWTON
PL
WALKER
BUSHELLS
PL
RD
VICTORIA
60
ST
PL
ORMSBY
Key:
Roundabout
60 Speed Limit
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING TRAFFIC CONTROLS
FIGURE 4

Projected Traffic Generation

The traffic implications of the development proposal primarily concern the effects of the *additional* traffic flows generated as a result of the development and its impact on the operational performance of the adjacent road network during commuter peak periods.

An indication of the traffic generation potential of the development proposal is typically provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002).*

However, the RMS *Guidelines* does not nominate a traffic generation rate which is applicable to recycling waste transfer stations.

Advice from the proponent indicates that the proposed development is expected to generate approximately 35 deliveries per day, with peak traffic activity of approximately 7 deliveries per hour expected to occur around 1pm.

Traffic activity during commuter peak periods is expected to be minimal, and will largely comprise the arrival/departure of staff.

By way of comparison, reference to the traffic generation rates nominated in the RMS *Guidelines* indicates that the existing uses of the site could be expected to generate up to 20 vph during commuter peak periods.

In the circumstances, it is reasonable to conclude that the proposed change of use to a transfer/recycling facility will not have any unacceptable traffic implications in terms of road network capacity, particularly given the proposed operational times of the projected traffic activity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

Given the industrial nature of the local area, there are generally no kerbside parking restrictions which apply along both sides of Newton Road.

Off-Street Car Parking Provisions

The off-street car parking requirements applicable to most development proposals are specified in the *Fairfield Citywide Development Control Plan 2013, Chapter 12 – Car Parking* document.

However the DCP does not nominate a parking rate for recycling waste transfer stations, noting that:

> ***Recycling waste transfer station:*** to be determined by a car parking survey of a comparable facility

In in this instance, the proposed development will have a maximum of 12 employees and will *not* be open to the public.

The proposed development makes provision for a total of 16 off-street car parking spaces, thereby comfortably satisfying the *maximum* parking needs of the proposed development.

The geometric design layout of the proposed car parking facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6* in respect of parking bay dimensions, ramp gradients and aisle widths.

Loading/Servicing Provisions

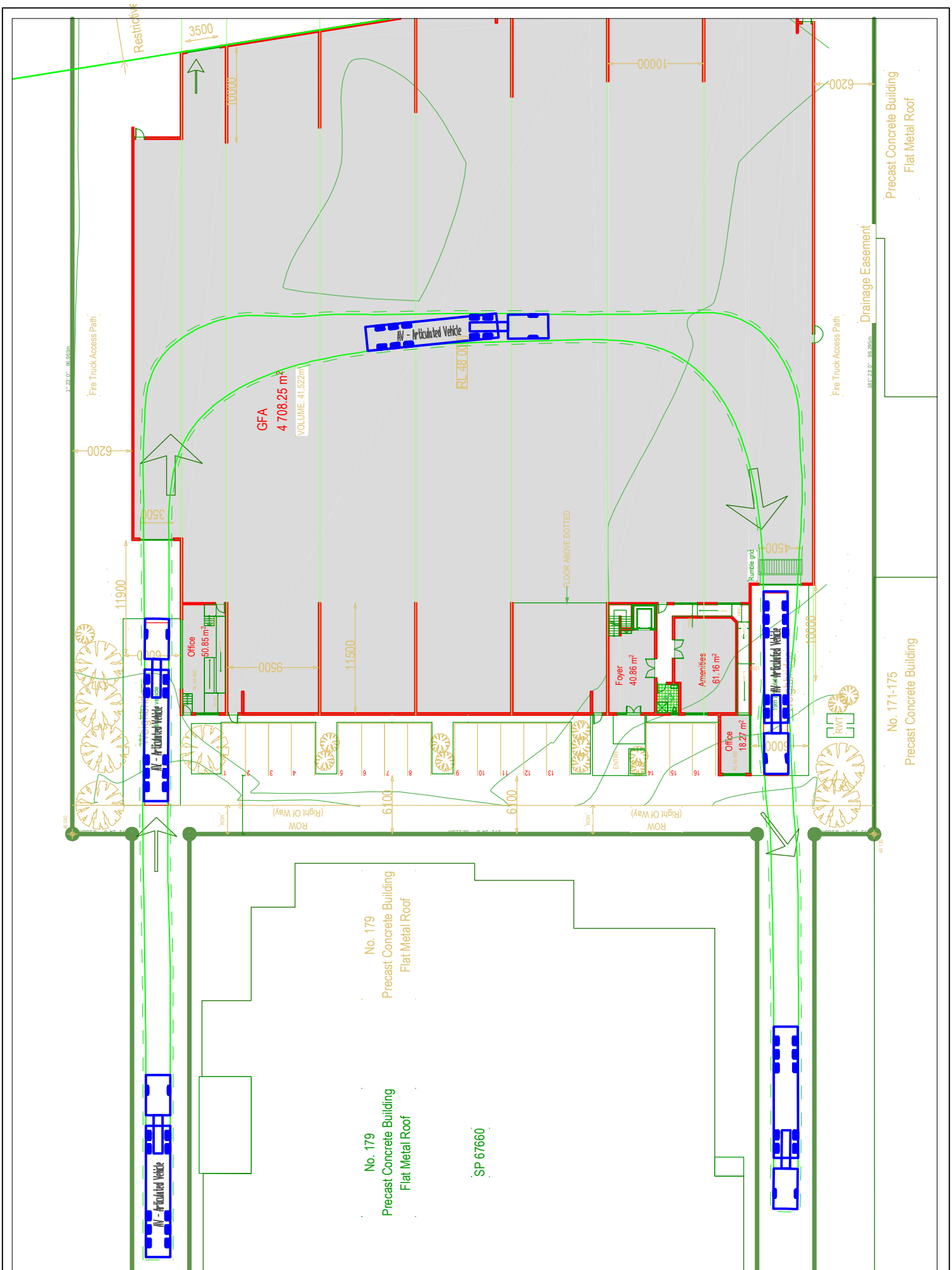
The waste transfer/recycling facility is expected to be undertaken by a variety of commercial vehicles up to and including 19m long articulated semi-trailers, with the majority of vehicles expected to comprise rigid "boggie" trucks. The manoeuvring areas have been designed to accommodate the swept turning path requirements of all trucks sizes up to and including 19m long semi-trailers, allowing them to enter and exit the site in a forward direction at all times.

A number of *swept turning path* diagrams for 19m long semi-trailers have been prepared using the *Autodesk Vehicle Tracking 2017* program in accordance with the requirements of *AS2890.1 – 2002*, confirming that these vehicles will be able to enter and exit the site whilst travelling in a forward direction at all times. The *swept turning path* diagrams are reproduced in the following pages.

In addition, a *swept turning path* diagram has also been prepared to illustrate a large fire truck traversing the perimeter fire truck access path based on a 12.5m long HRV rigid truck. The *swept turning path* confirms that a large fire truck will be able to negotiate the perimeter fire truck access path in a forward direction without difficulty.

The geometric design layout of the proposed loading facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities AS2890.2* in respect of loading bay dimensions, garage door opening widths and service area requirements.

In summary, the proposed parking and loading facilities satisfy the relevant requirements specified in both Council's requirements as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking or loading implications.



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Sydney, Australia

PROJECT
WASTE TRANSFER FACILITY

N

DRAWING TITLE
19.0M SEMI-TRAILER TURNING PATHS
Entry/Exit Path

1:500 @ A4

ADDRESS
177 Newton Road,
Wetherill Park

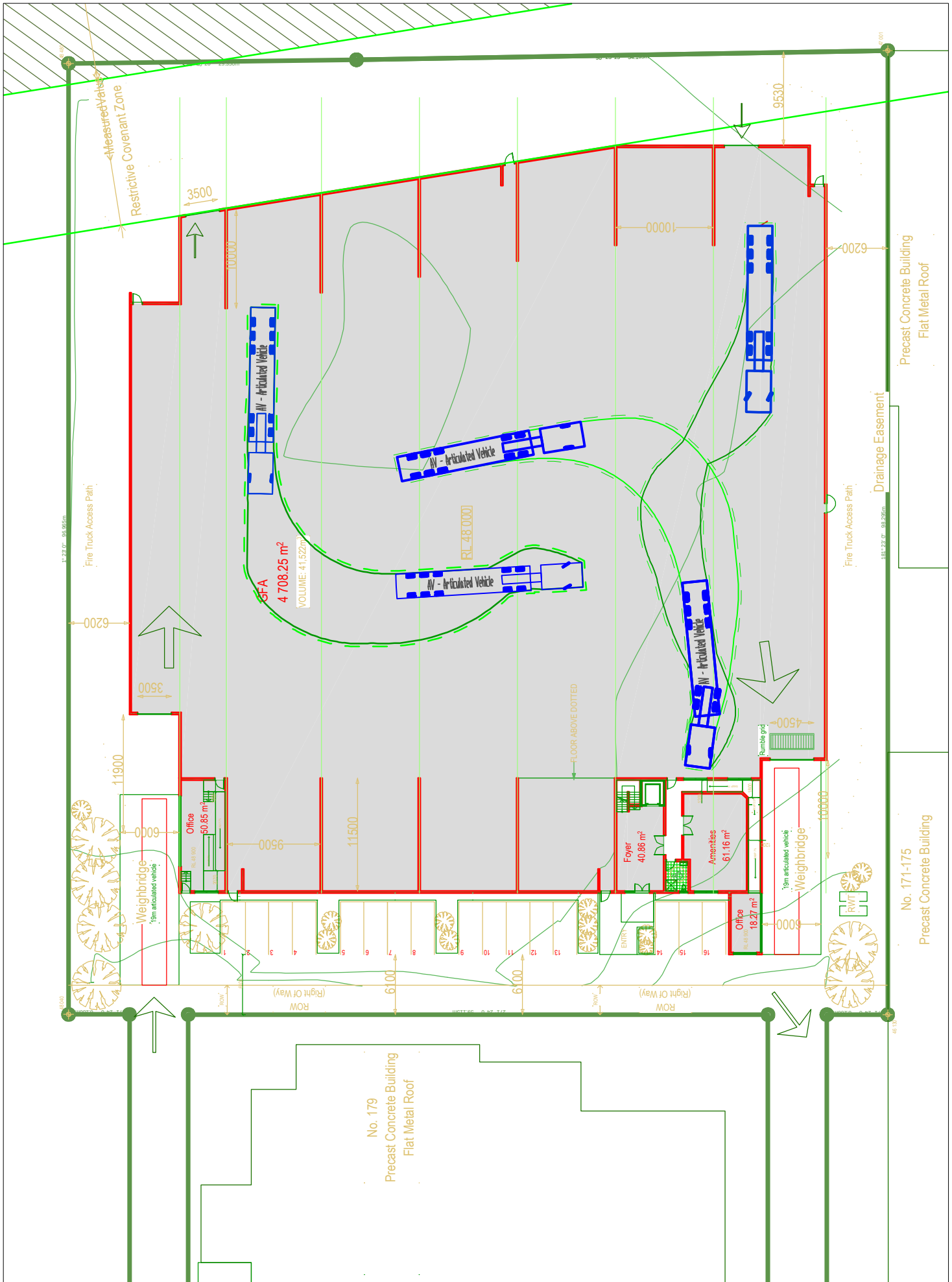
PROJECT NO.
16717

DATE DRAWN
2017-2-14

REVIEWED
ROBERT VARGA

PREPARED
DONALD LEE

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants



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Sydney, Australia

PROJECT
WASTE TRANSFER FACILITY

N

DRAWING TITLE
19.0M SEMI-TRAILER TURNING PATHS
Sample Parking Spaces

1:500 @ A4

ADDRESS
177 Newton Road,
Wetherill Park

PROJECT NO.
16717

DATE DRAWN
2017-2-14

REVIEWED
ROBERT VARGA

PREPARED
DONALD LEE

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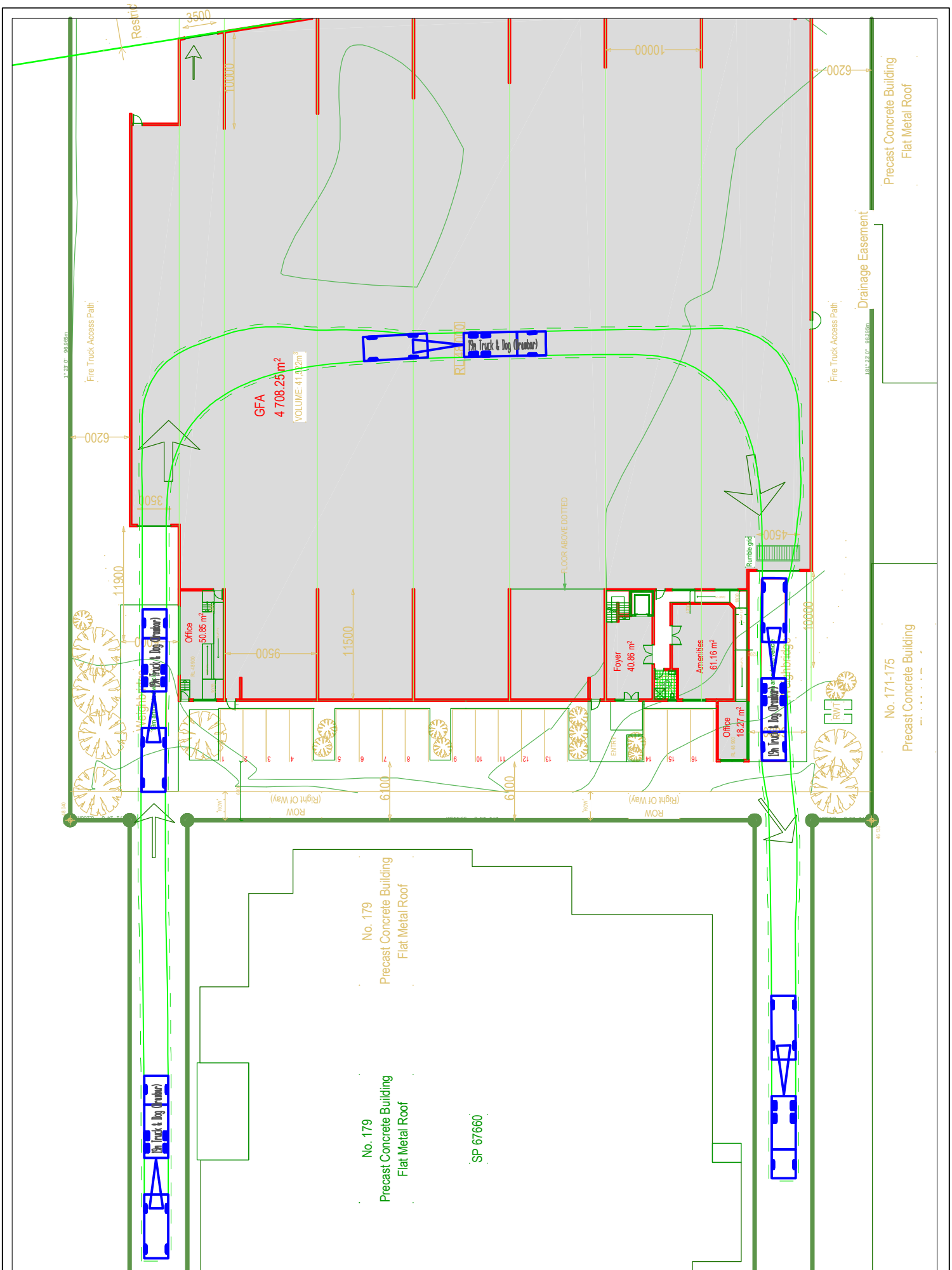

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PROJECT
WASTE TRANSFER FACILITY

N

DRAWING TITLE
19.0M TRUCK & DOG TURNING PATH
Entry/Exit Path

1:500 @ A4

ADDRESS
177 Newton Road,
Wetherill Park

PROJECT NO.
16717

DATE DRAWN
2017-2-14

REVIEWED
ROBERT VARGA

PREPARED
DONALD LEE

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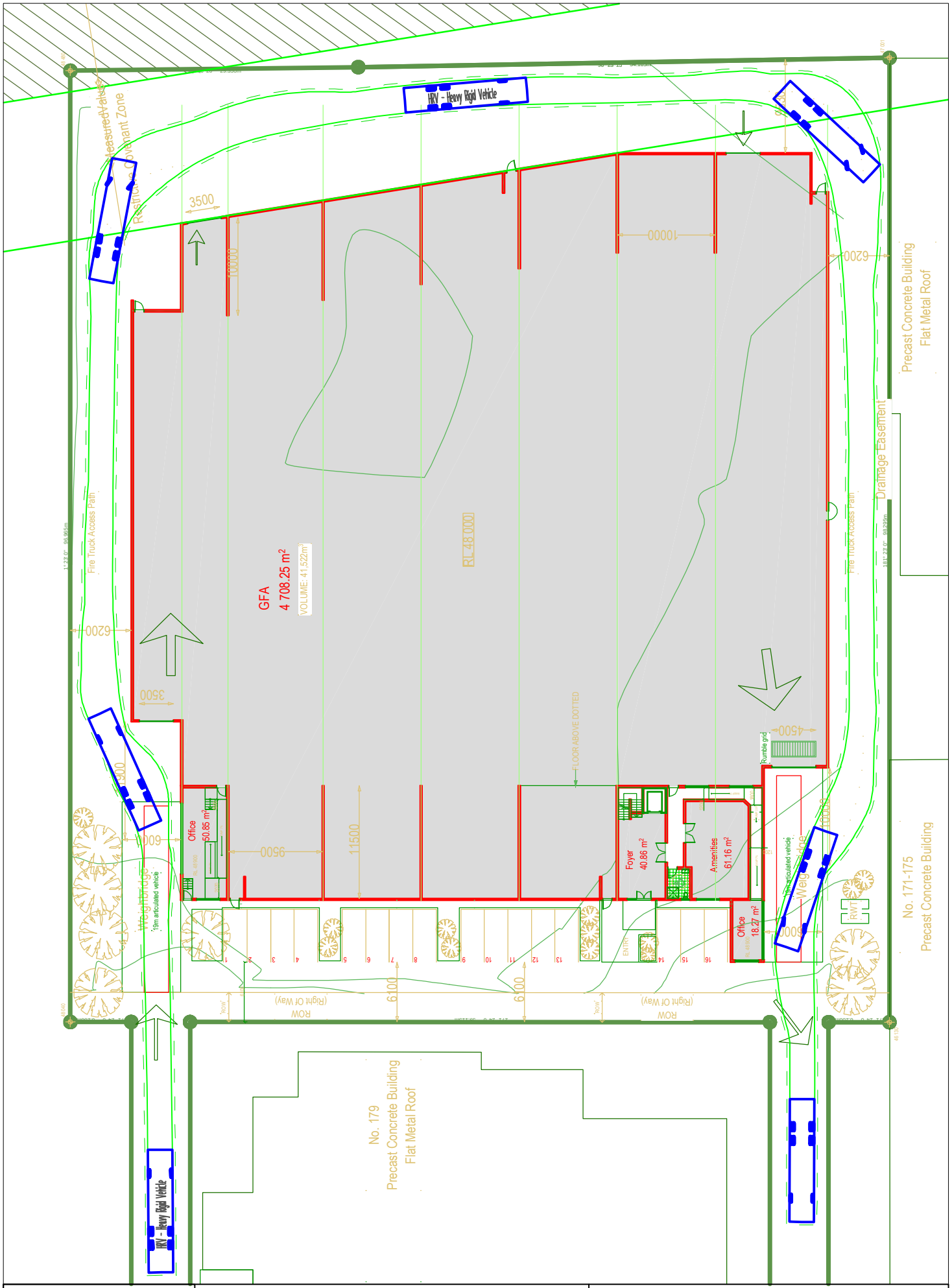

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Neutral Bay, NSW 2089
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Sydney, Australia

PROJECT
WASTE TRANSFER FACILITY

N

DRAWING TITLE
12.5M HRV TURNING PATH
Fire Truck Access

1:500 @ A4

ADDRESS
177 Newton Road,
Wetherill Park

PROJECT NO.
16717

DATE DRAWN
2017-2-14

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