

REF: 22381_RFI RESPONSE 1 & 2_03 10 23

03/10/2023

The General Manager
Byron Shire Council
70 Station Street
MULLUMBIMBY NSW 2482

Re: Assessment of Proposed Ramp in Relation to Wheel Slippage for Waste Vehicle – 29 Shirley Street, Byron Bay

This office has been engaged by Chris Vitalie to assess the proposed ramp (attached to this letter) and check if there will be any issues with wheel slippage.

Greg Alderson & Associates (GAA) has undertaken a structural assessment of the proposed ramp with (max grade of 1:4.1) to check if the waste collection vehicle will slip on the ramp. See attached for supplied vehicle dimensions and masses.

Findings from our assessment reveal that the waste collection vehicle (loaded and unloaded) will not slip on the ramp and that the frictional force generated between the concrete driveway and vehicle tyre will provide adequate traction on the driveway.

The proposed concrete driveway must have the following :

- A heavy broom finish perpendicular to the direction of travel for the frictional resistance.
- The proposed driveway must also be constructed in accordance with NLRG Construction Manual Specification.

Have undertaken our assessment. We confirm that that the waste collection vehicle would not slip (including appropriate safety factors) on the proposed driveway if constructed with a heavy broom finished and in accordance with NRLG Construction Manual Specification.

The concrete driveway surface should be maintained and cleaned by the building manager to avoid mould, moss growth or oil/other contaminant buildup on the surface of the concrete driveway.

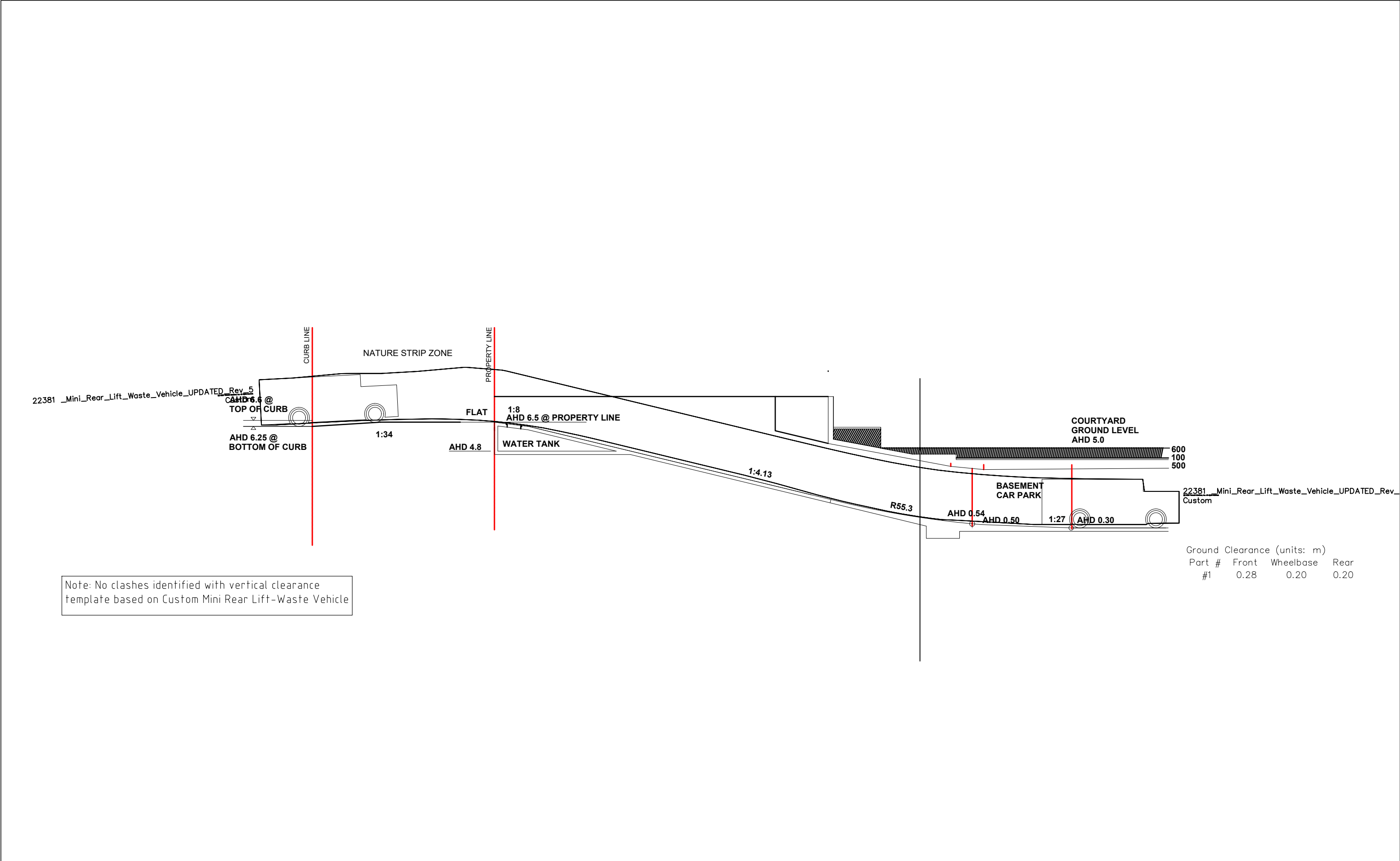
Yours faithfully,
Greg Alderson and Associates Pty Ltd

Anthony Mallam
Senior Structural Engineer
BE(civil) hons, MIEAust, NER, CPEng, RPEQ

Attached:

- Proposed Ramp/Vehicle Specification

CHARTERED PROFESSIONAL ENGINEERS & SCIENTISTS.



REV	REVISION DESCRIPTION	BY	DATE	THIS DRAWING IS CONFIDENTIAL AND IS THE PROPERTY OF GREG ALDERSON AND ASSOCIATES. IT MUST NOT BE DISCLOSED TO A THIRD PARTY, REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE	GREG ALDERSON & ASSOCIATES ABN 58 594 160 789 43 Main Street CLUNES NSW 2480 Ph: 02 6629 1552 E: office@aldersonassociates.com.au Web: aldersonassociates.com.au	Client: VITALE PROPERTY GROUP PTY LTD Site address: 29 SHIRLEY STREET BYRON BAY NSW 2481	Title: WASTE VEHICLE VERTICAL SWEPT PATH Project: 29 SHIRLEY STREET UNIT DEVELOPMENT	FOR INFORMATION			
C	UPDATED VEHICLE DIMS	AB	29/07/2022					Drawn:	Scale:	Checked:	Date:
D	UPDATED VEHICLE LENGTH	AB	16/08/2022					AB	1:200		23/02/2023
E	UPDATED VEHICLE DIMS	AB	23/02/2023					Checked:	Original Size:		Revision:
								AE	A3	No. in set: 05 of 05	E
								Job Number:	Drawing Number:		
								22381	22381-CIV-SP-05		

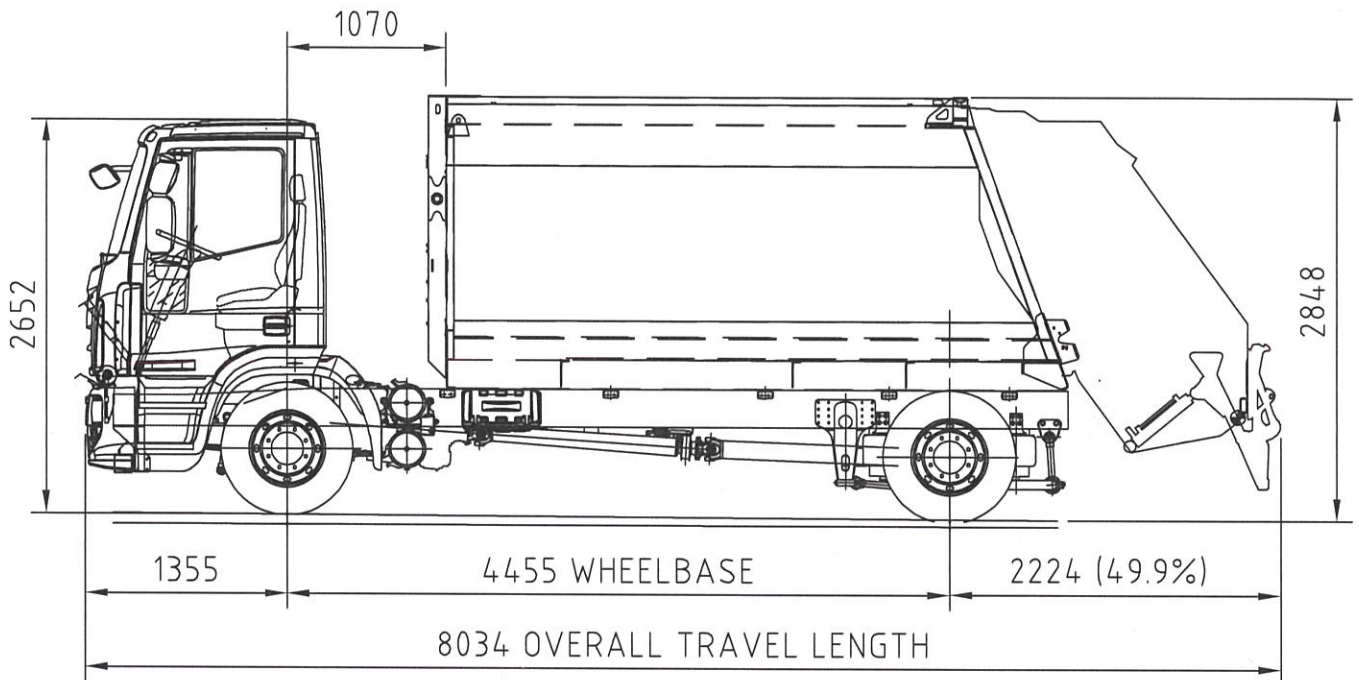
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SALES DATA SHEET

ACN 004 992 090

BUCHER
municipal

PRODUCT NAME		DATE	REVISION	SHEET	SD-JS14EJTA-V259
JS REARLOADER		02/06/2020	01	1 OF 1	
PRODUCT CODE	PRODUCT SIZE/CAPACITY	SALES MARKET			PRODUCT FUNCTION VARIATION
REARLOADER	14m	AUSTRALIA			
BODY OPTIONS					
VEHICLE MAKE		VEHICLE MODEL		AXLE CONFIGURATION	WHEELBASE
IVECO		ML160 E25		4x2	4455 (STD)
CAB/CHASSIS OPTIONS					VCS CODE
AIRBAG SUSP. AUTO TRANS.					2/F4DT1136

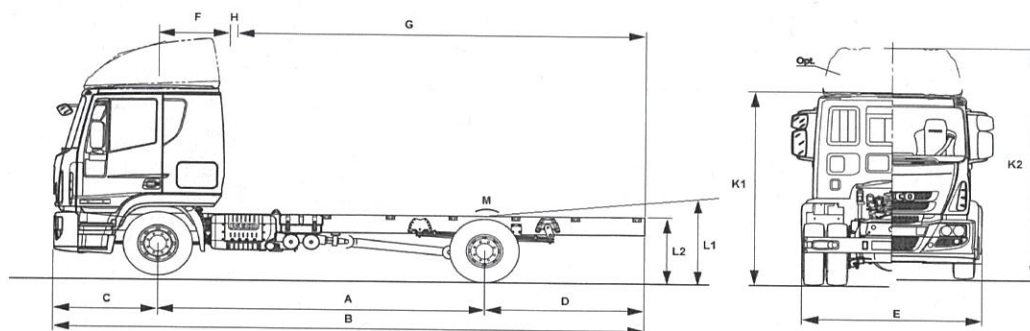


	FRONT (kg)	REAR (kg)	TOTAL (kg)
TRUCK *	3,020	1,800	4,820
JS14 - ECOPACK BODY	561	3,089	3,650
DRIVER	80	0	80
ADD'L 175L FUEL	98	58	156
UNDERBODY BINLIFTER	-125	375	250
TARE	3,634	5,322	8,956
PAYLOAD **	848	3,678	4,527
GROSS	4,482	9,000	13,482
MAX RATED LOAD ***	5,800	9,000	15,000

* TRUCK TARE ESTIMATED FROM TRUCK SPEC SHEETS

** PAYLOAD WEIGHTS ESTIMATED ONLY AND MAY DIFFER

*** PAYLOAD LIMITED BY REAR LEGAL LIMIT



Plated/Design Weight

	GVW (Kg)	GTW (Kg)	Front (Kg)	Rear (Kg)
Plated Weight	15990	19490	5800	10900
Design Weight	15990	19490*	6100	11000

* A GTW of 32500kgs is permissible provided a 9 or 12 speed gearbox and the drawbar pack are specified
For Front (Kg) axle capacity upgrade – see Order Guide

Kerb Weight

Weights are for the S model to a standard specification and include water, oils, 5 litres of AdBlue and 20 litres of fuel but exclude driver.

Kerb weights are subject to a manufacturing tolerance of +/- 5%.

For /P model add 155kg to the Rear (Kg) axle kerb weight.

A sleeper cab standard roof adds 100kg (70/30kg) to the kerb weight. A high roof sleeper adds 160kg (120/40kg) to the kerb weight.

Wheelbase (mm)	3105	3690	4185	4455	4815	5175	5670	6570
Front (Kg)	3092	3112	3137	3147	3182	3192	3227	3262
Rear (Kg)	1418	1498	1503	1508	1543	1553	1638	1693
Total (Kg)	4510	4610	4640	4655	4725	4745	4865	4955
Maximum Body/Payload (Kg) @ GVW	11480	11380	11350	11335	11265	11245	11125	11035

Dimensions (mm)

A	Wheelbase	3105	3690	4185	4455	4815	5175	5670	6570
B	Overall length (over bumpers)	5690	6702	7512	7917	8547	9132	9942	11447
C	Front overhang	1362	1362	1362	1362	1362	1362	1362	1362
D	Rear overhang	1313	1740	2055	2190	2460	2685	3000	2735
E	Cab width (over wings)	2420	2420	2420	2420	2420	2420	2420	2420
F	C/line f/axle to back of cabequip	day	385	385	385	385	385	385	385
	sleeper		965	965	965	965	965	965	965
G	Usable frame length	day	3943	4955	5765	6170	6800	7385	8195
	sleeper		4375	5185	5590	6220	6805	7615	9120
H	Cab gap	120	120	120	120	120	120	120	120
K1	Cab height (unladen*)	std roof	2765	2765	2765	2765	2763	2762	2761
	high roof		3420	3420	3420	3417	3415	3415	3415
L1	Frame height at centre line of axle	S	1041	1039	1037	1038	1038	1036	1035
	/P		904	903	903	903	903	903	902
L2	Frame height at end of frame	S	1080	1084	1085	1085	1086	1086	1087
	/P		886	886	886	886	886	886	886
M	Wheel bump clearance	150	150	150	150	150	150	150	150
	Turning circle (wall to wall)	12340	14080	15540	16340	17400	18480	19940	22600

* Reduce by 3mm for air suspension models

Tyres and Wheels

	Tyre Size		Tread		Wheels (8 stud)	
	Front	Rear	Front	Rear	Front	Rear
Standard	285/70R19.5	285/70R19.5	On Road	Traction	7.50 x 19.5	7.50 x 19.5
Optional	305/70R19.5	305/70R19.5	On Road	Traction	8.25 x 19.5	8.25 x 19.5
Optional	11R22.5	11R22.5	On/Off Road	On/Off Road	7.50 x 22.5	7.50 x 22.5

