



TRAFFIC SOLUTIONS PTY LTD

Reference No : 22.23.015

14 October 2022

The General Manager
Parramatta City Council
PO Box 32
Parramatta NSW 2124

Dear Sir,

Revised Traffic and Parking Statement - Proposed Child Care Centre, 23 King Street, Dundas Valley

Traffic Solutions Pty Ltd has been engaged by the applicant to provide Council with an assessment of the potential traffic and parking implications of a revised proposal for a 44 place Long Day Care Centre at the subject location.

This assessment has been undertaken with reference to plans prepared by ArtMade Architects, Project No 20584, Drawing Numbers A02.01, A03.01, A03.02, A04.01 and A05.01 issue A and dated 8th May 2020.

Eleven (11) parking spaces are proposed including 1 disabled car space with vehicle access via a 6.1m wide driveway direct to King Street. The proposed driveway location is satisfactory and will provide good sight distance in both directions along King Street. The available sight distance easily exceeds the desirable 69m distance suggested by AS/NZS 2890.1:2004 for 50km/h.

PARKING

Geometric design requirements for car park layouts are specified in the 'Australian/New Zealand Standard, Parking Facilities Part 1; Off Street Car Parking (AS/NZS 2890.1) of 2004 and Australian/New Zealand Standard, Parking Facilities Part 6: Off street Parking for People with Disabilities of 2009. Part 1 of this standard classifies this development as a Class 3 off-street car parking facility requiring a category 1 driveway. The following table provides a comparison on the requirements of AS/NZS 2890.1 and AS/NZS 2890.6 applicable to the car parking proposal.

FEATURE	AS/NZS 2890.1 & AS/NZS 2890.6 REQUIREMENT	PROPOSED	CONFORMS TO STANDARD
Parking Space	5.4m x 2.4m long term parking space 5.4m x 2.6m car space 5.0m x 2.3m small car space 6.2m x 2.1m obstructed parallel end space. Additional 300mm when adjacent a wall	5.4m x 2.4m staff spaces 5.4m x 2.6m parent spaces 5.0 x 2.3m small staff space 6.2m x 2.1m parallel space Additional 300mm provided to spaces adjacent a wall	YES
	5.4m x 2.4m plus 5.4m x 2.4m shared zone for disabled car space	5.4m x 2.4m plus 5.4m x 2.4m shared zone for disabled car space	YES

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FEATURE	AS/NZS 2890.1 & AS/NZS 2890.6 REQUIREMENT	PROPOSED	CONFORMS TO STANDARD
Aisle Width	5.8m min	5.8m min	YES
Blind Aisle	1.0m	2.4m and turning area provided	YES
Driveway Width	Category 1 d/w = 3m – 5.5m Category 2 d/w = 6m – 9m Note: Driveways are normally combined, but if separate, both entry and exit widths should be 3.0m min.	6.1m	YES
Car park Grades	1 in 20 (5%) for 1 st 6m	Car park at grade < 4.5% for 1 st 21m	YES
Headroom	2.3m desirable 2.2m minimum 2.5m above disabled space	2.6m min 3.0m over disabled space	YES
Pedestrian sight line splay	2m (along frontage) x 2.5m (into site)	No obstruction, sight line splay indicated on architectural plans	YES

Accordingly, this development proposal adheres to the above Australian Standard Requirements.

CAR PARKING

An indication of the parking requirements of child care centres can be obtained by referencing the Roads and Maritime Services “*Guide to Traffic Generating Developments, Section 5 – Parking Requirements for Specific Landuses*” of October 2002. This document states that off-street parking should be provided at the rate of one space for every four children in attendance.

Council’s Development Control Plan (*Development Control Plan 2011*) specifies the same parking requirements.

Utilising this rate, the requirements for a 44 place child care centre is 11 car parking spaces.

Consequently, the proposed child care centre satisfies the Roads and Maritime Services and Council’s parking requirements with the provision of 11 off-street parking spaces.

TRAFFIC

An estimation of the traffic generation of the proposed development can be calculated by referring to the Roads and Maritime Services ‘*Guide to Traffic Generating Developments, Section 3 – Landuse Traffic Generation*’ of October 2002. The guide specifies the following peak hour generation rates:

Centre Type	Peak Vehicle Trips/Child		
	7.00–9.00am	2.30–4.00pm	4.00–6.00pm
Pre-school	1.4	0.8	—
Long day care	0.8	0.3	0.7
Before/after care	0.5	0.2	0.7

Accordingly, the estimated traffic generation of this development calculates as:

Children number and centre type	AM Peak Hour	PM Peak Hour
44 place long day care	$44 \times 0.8 = 35.2$	$44 \times 0.7 = 30.8$
Total	35 Trips	31 Trips

The estimated traffic generation of the proposal is in the order of 35 and 31 trips in the morning and evening peak hours, respectively. The RMS defines a vehicle trip as a one-way vehicular movement from one point to another excluding the return journey. Accordingly, the estimated trips will be in the order of 18 in and 17 out in the morning peak hour and 16 in and 15 out in the evening peak hour.

This traffic generation on average equates to 1 car either approaching or departing the centre every 1 minutes and 43 seconds in the morning and 1 car either approaching or departing every 1 minutes and 56 seconds in the evening. This minor increase in traffic flow will not have any unacceptable impacts upon the operation of King Street or the surrounding road network.

ISSUES RAISED BY COUNCIL ON PREVIOUS APPLICATION

The following responds to the traffic related issues raised by Council in an email from Mr. Darren Wan in an email dated 30th April 2020.

Dot point 1 – Aisle width

The amended plans now depicted an aisle width of 6.1m with columns protruding 0.3m in from the southern boundary. This results in a minim aisle width of 5.8m which complies with AS/NZS 2890.1:2004.

Dot point 2 – Additional swept turning paths.

Additional swept paths are attached for Council’s review which indicate that adequate manoeuvring area has been provided to permit all vehicles to exit the site as proposed in a forward direction, even when the car park is full. With regards to the parallel parking space number 1, the architectural plans indicate this car space is to be allocated as a staff parking space, this car space will benefit from the ability to arrive before child drop off and after child pick up.

Dot point 3 – Driveway gradient

The architectural plan A05.01, sections and external finishes (section AA) provides the finished RL’s which indicate a maximum gradient of 1:22 (4.5%) inside the site which complies with AS/NZS 2890.1:2004. The gradient across the footpath is depicted at 1%, however, this is subject to Council’s preferred level at the boundary which is expected to be conditioned on any development consent.

Dot point 4 – Pedestrian sight lines

The architectural plan A03.01, ground floor plan provides the AS/NZS 2890.1:2004 required sight line splay for pedestrians with an appropriate notation.

MANOEUVRING

To depict how vehicles can manoeuvre within the development, turning paths have been generated using AUTOCAD VEHICLE TRACKING software. Attached for Council's consideration are AUTOCAD drawings depicting the AS/NZS 2890.1:2004, B85 car design car undertaking the more difficult manoeuvres including undertaking a 3-point turn utilising the turning area to enable this vehicle to exit the site in a forward direction should the car park be full.

CONCLUSIONS

The preceding assessment has revealed the following:

- The access driveway proposed to serve the development is suitably located and will provide very good sight distance in both directions along King Street.
- The proposed development satisfies the related geometric design specifications contained in the Australian Standards for off street parking and vehicular access.
- The off-street parking provided in the proposed development satisfies the requirements specified by the RMS and Council's Development Control Plan.
- The proposal has a potential net increase in estimated peak hour traffic flows in the order of 35 and 31 vehicle trips in the morning and evening peak hours respectively, which will not have any unacceptable impacts upon King Street or the surrounding road network.
- The turning areas proposed is sufficient to enable drivers to turn around and exit in a forward direction, should the car park be at capacity.

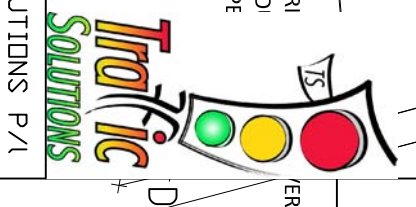
Should you require any additional information or clarification of the contents of this letter please contact me on the numbers provided.

Yours sincerely



Craig Hazell
Director

Date _____ Signature _____



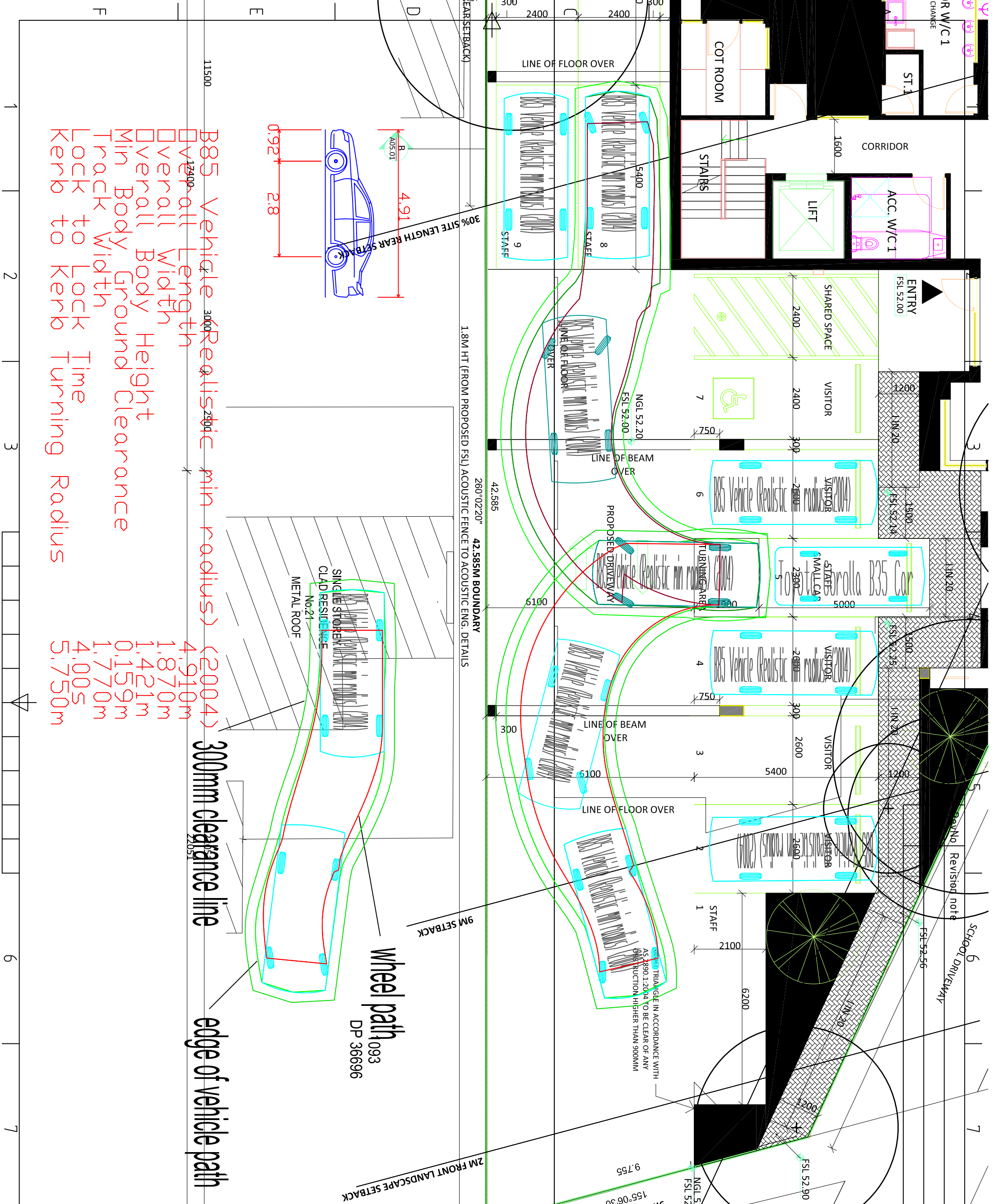
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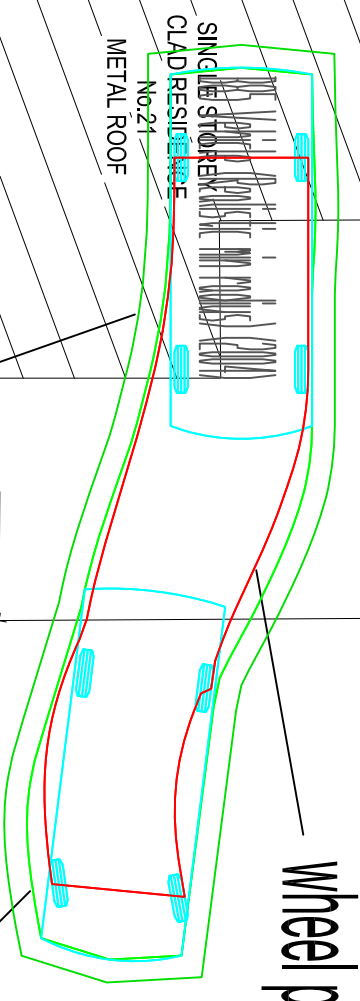
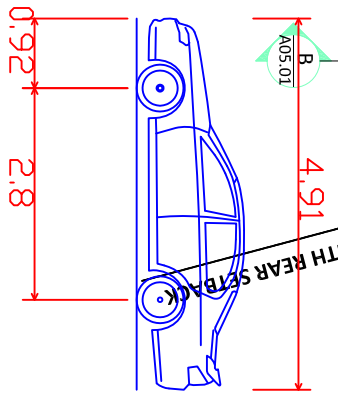
Title
 AS/NZS 2890.1:2004
 B85 car swept
 turning path

Date 13/10/22 Scale 1:100 @ A3

Client
 File No. 22.23.015 Dwg No. 1



- B85 Vehicle (Realistic min radius) (2004)
- Overall Length 4.910m
- Overall Width 1.870m
- Overall Body Height 1.421m
- Min Body Ground Clearance 0.159m
- Track Width 1.770m
- Lock to Lock Time 4.005
- Kerb to Kerb Turning Radius 5.750m



1 2 3 4 5 6 7 8

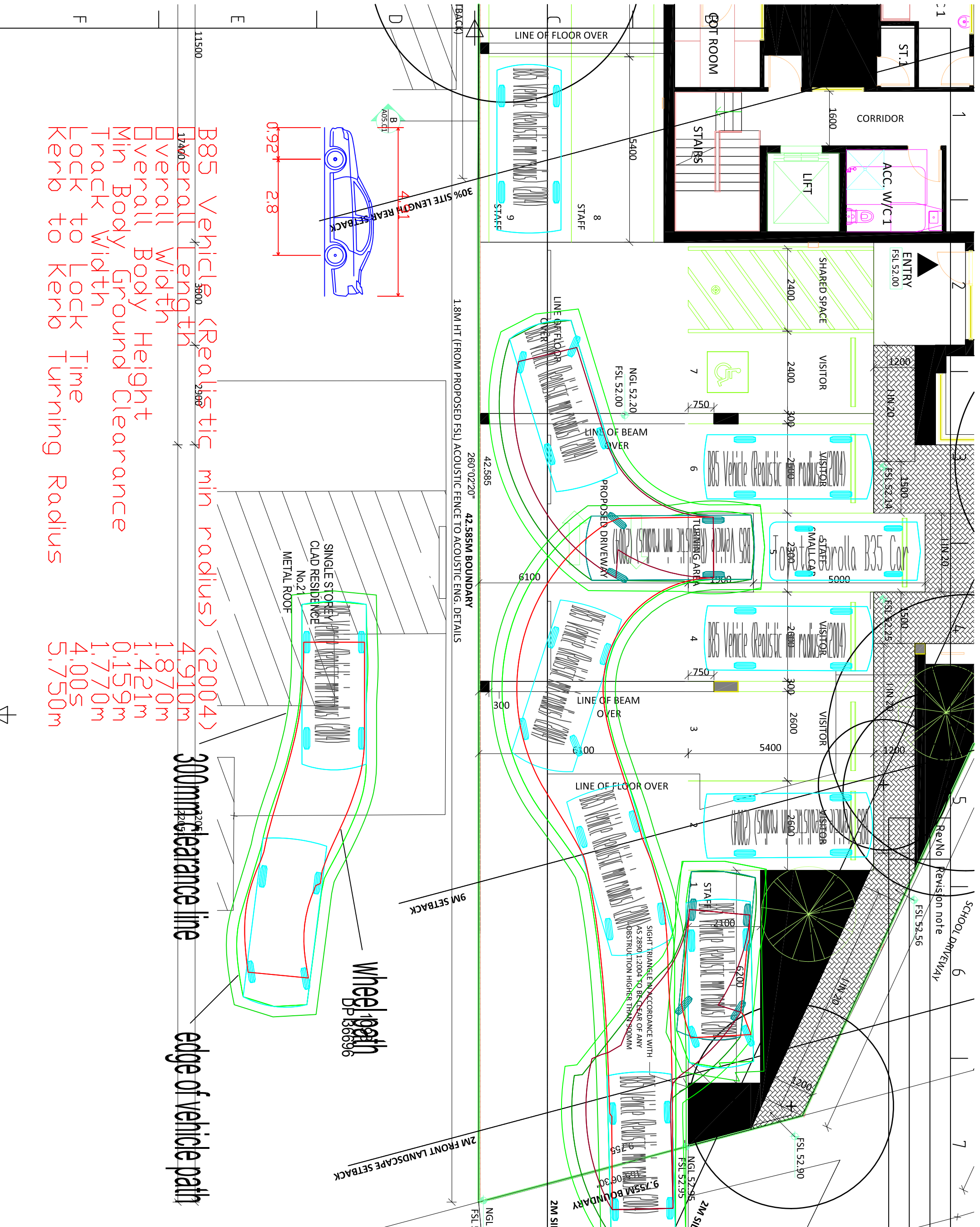
A B C D E F

Date Signature

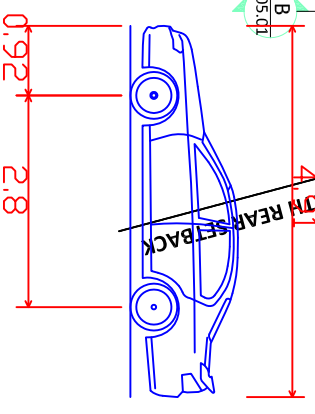


KING STREET

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Address 23 King Street Dundas Valley	
Title AS/NZS 2890.1:2004 B85 car swept turning path	
Date 13/10/22	Scale 1:100 @ A3
Client	
File No. 22.23.015	Dwg No. 2



- B85 Vehicle (Realistic min radius) (2004) 4.910m
- Overall Length 3900 4.910m
- Overall Width 1740 1.870m
- Overall Body Height 1.421m
- Min Body Ground Clearance 0.159m
- Track Width 1.770m
- Lock to Lock Time 4.005
- Kerb to Kerb Turning Radius 5.750m



300mm clearance line
edge of vehicle path
wheel path
9.55M BOUNDARY

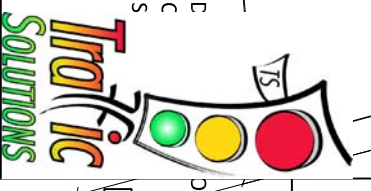




885 Vehicle (Realistic min radius) (2004)
Overall Length 4.910m
Overall Width 1.870m
Overall Body Height 1.421m
Min Body Ground Clearance 0.159m
Track Width 1.770m
Lock to Lock Time 4.005
Kerb to Kerb Turning Radius 5.750m

30mm clearance line
wheel path
edge of vehicle path

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Title AS/NZS 2890.1:2004
 B85 car swept turning path
 Date 13/10/22 Scale 1:100@A3
 Client
 File No. 22.23.015 Dwg No. 3

