i-Transport LLP
85 Gresham Street, London, EC2V 7NQ

Tel: 020 3705 9215

Technical Note

Project No: ITL16195
Project Title: Broadwater Gardens
Title: HCC Highways Response
Ref: NM/MD/ITL16195-007
Date: 19 February 2021

SECTION 1 Section Header

1.1 HG Group has appointed i-Transport LLP to provide highways and transport advice in relation to their planning application for the redevelopment of the BioPark site in Welwyn Garden City for 289 dwellings. A planning application (planning ref: 6/2020/3420/MAJ) was submitted to Welwyn Hatfield Borough Council (WHBC) in December 2020 for the following:

> ***"Demolition of existing buildings and construction of residential units (Use Class C3) and community hub (Use Class E/F.2), with public realm and open space, landscaping, access, associated car and cycle parking, refuse and recycling storage and supporting infrastructure".***

1.2 Hertfordshire County Council (HCC), as the local highway authority, published a response to the application dated 10 February 2021. In their response they have requested further information and details on a number of points, namely relating to the proposed site access junction. Further, initial comments were provided via WHBC that required undertaking a Stage 1 Road Safety Audit (RSA) at the site access junction. This was produced and submitted, alongside a Designer's Response, to HCC dated 29 January 2021 (report ref: ITL16195-006).

1.3 As summary of their concerns raised, and the response to each point, is provided within this note.

1.4 1) Access Design – Refuse Vehicle Tracking

> ***"It can be seen that upon entering the site, the body of the vehicle has the potential to overrun onto the shared footway / cycleway. No mitigation to reduce this risk to pedestrians or cyclists has been proposed".***

1.4.1 The swept path analysis of the large refuse vehicle demonstrates there is potential for the body of the vehicle to slightly overhang the shared footway/ cycleway along the northern side of the access road. This slight body overhang is considered to not be a highways safety issue due to the following:

- The refuse vehicle will have sufficient visibility to see if any pedestrians and/or cyclists are traveling along the footway in this location;
- The vehicle will be traveling at very low speeds as it enters the junction;
- Pedestrians and cyclists are unlikely to be traveling along the very edge of the footway in this location;
- Refuse vehicles in WHBC are large (at over 12m in length), and therefore are the largest vehicle anticipated to access the site with any regularity. Even then, it is unlikely that such vehicle will need to enter the site more than twice per week;
- The period of time that either a pedestrian or refuse vehicle would occupy the space in question is fleeting; with the likelihood of such an event occurring simultaneously being vanishingly small;
- Increasing the road width to allow for an infrequent vehicle movement, at the detriment of reducing pedestrian infrastructure, is not promoting active travel modes and thus contrary to HCC's Local Transport Plan objectives which seek to prioritise and encourage walking and cycling; and
- This issue was not raised in the Stage 1 RSA.

1.4.2 Notwithstanding the above points, the masterplan has been amended to provide a 5.5m width carriageway in this area. The updated site access junction arrangement is illustrated in drawing ITL16195-GA-005A.

1.4.3 As a result of the above, there is a minimum width of 1.75m of available footway. This is sufficient for a wheelchair and/or pushchair to pass and oncoming pedestrian in this area, as set out in Manual for Streets (MfS) (ref: see Figure 6.8 of MfS).

1.5 2) Access Design – Refuse Vehicle Tracking

"refuse vehicle tracking shows incursion into the opposing carriageway when starting the left turn manoeuvre [from Broadwater Road] which could cause conflict with vehicles travelling in the opposing direction leading to possible head on collisions or side swipe collisions'

1.5.1 As set out in the Designer's Response (report ref: ITL16195-006) the easing of the radius at the site access junction to accommodate the infrequent movement of a large refuse vehicle is not required due to the following:

- The refuse vehicle trip attraction will occur up to twice per week (for refuse and recycling). Such movements are therefore infrequent;
- Manual for Streets states that local roads should be designed to accommodate service vehicles, without allowing their requirements to dominate the layout. It notes that on streets with low traffic flows and speeds, it may be assumed that vehicles will be able to use the full width of the carriageway to manoeuvre;
- The easing of the radius has the potential to encourage higher speeds of all other vehicles entering the junction;
- A larger radius will also increase the crossing width for pedestrians across the junction. Again, this is at the detriment of providing good quality walking and cycling provision;
- During the pre-application meeting HCC Highways officers recommended a 4.8m carriageway in this location would be preferred and should be encouraged to support walking and cycling. Even widening the access to 5.5m will not remove the need for such a manoeuvre; and
- The site has been occupied for many years as an employment site, which attracted both refuse collection vehicles, and large servicing vehicles. The analysis of the Personal Injury Accident (PIAs) data presented in the supporting documents, and the additional analysis presented by HCC in their response for a longer study period, demonstrates that such usage did not result in any recorded PIAs. The proposal merely seeks to formalise the existing access to the BioPark Drive, with enhanced pedestrian facilities, and therefore does not result in the need for accessing vehicles to travel into the opposing traffic lane any more than the current alignment. The number of large vehicles accessing the site, and therefore needing to travel into the opposing carriageway, will be reduced as a result of the change of use of the site to residential.

1.5.2 Notwithstanding these points, as set out above, the carriageway at the access has been widened and thus the updated swept path analysis of a refuse vehicle is provided in Drawing No. ITL16195-GA-010A. In addition, the swept path analysis if the most frequent vehicle movement likely to occur (a car passing another car) at the site access has also been updated and is illustrated in Drawing No. ITL16195-GA-011A.

1.6 3) Pedestrian Visibility Splays

"No pedestrian visibility splays at the access junction have been provided that account for conflicts with cyclists and vehicles".

1.6.1 The pedestrian visibility splays are shown in Drawing No. ITL16195-GA-013.

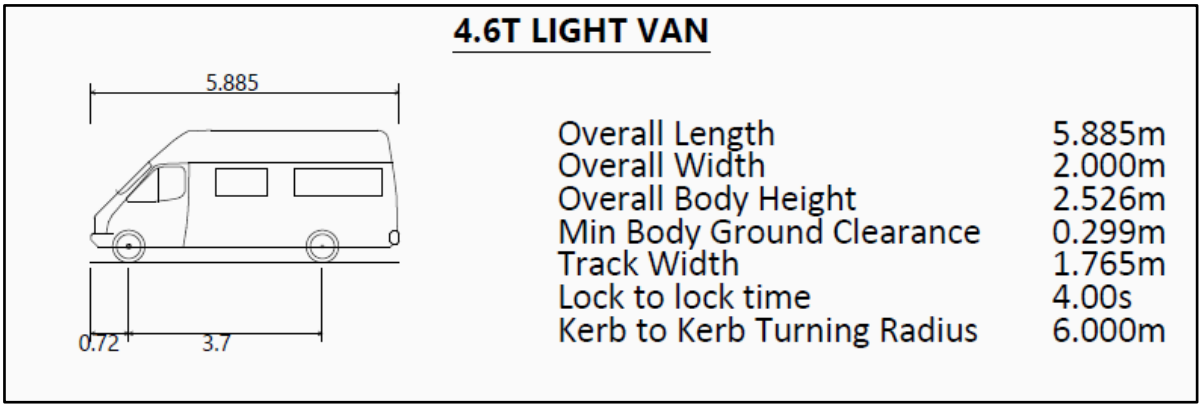
1.6.2 The drawing demonstrates the pedestrian visibility (at 25m (for a 20mph road)) into the site from the access junction.

1.7 4) Swept Path Analysis – Supermarket Delivery Vehicle

"It is requested that additional drawings are submitted that shows a box van (typical of online grocery deliveries and servicing vehicles) on a left-turn and also a right-turn into the site whilst a car is positioned at the give-way line."

1.7.1 A typical online grocery delivery is delivered in a vehicle similar to the 4.6t light van. The vehicle dimensions are provided In Image 1.2.

Image 1.2: Light Panel Van Dimensions



1.7.2 The swept path analysis of this vehicle at the site access, alongside a vehicle at the give way, is shown in Drawing No. ITL16195-GA-014A.

1.7.3 The drawing demonstrates sufficient width to allow for such vehicles to pass a car at the give way.

DRAWINGS

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY. DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.

SCALE BAR @ 1:500

0 5 10 25 50

i-Transport

85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215

www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
B	18.02.21	JMc	UPDATED SITE LAYOUT	MD	NM
A	11.12.20	JMc	UPDATED SITE LAYOUT	MD	NM

STATUS: FOR INFORMATION

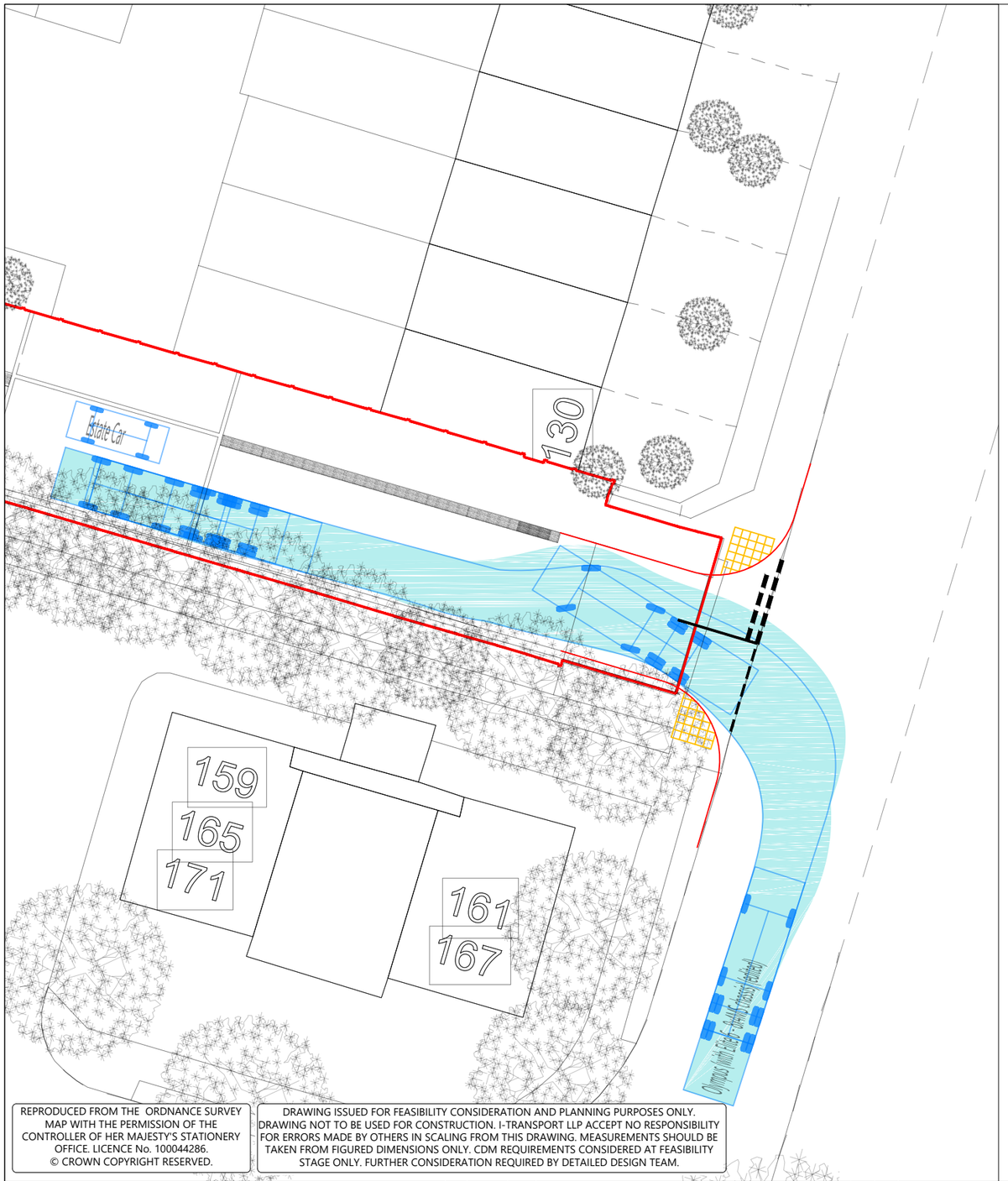
TITLE: SITE ACCESS

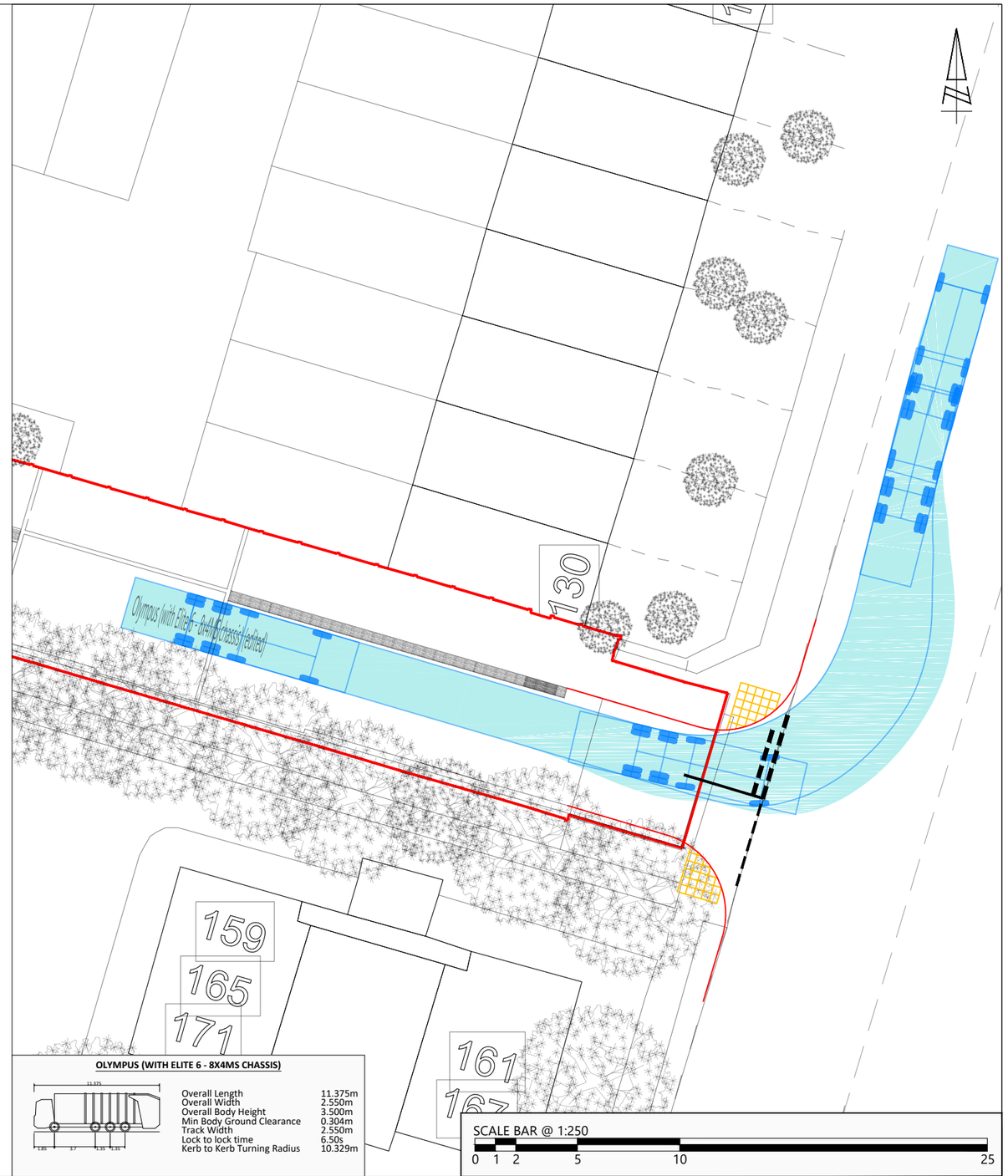
PROJECT: BROADWATER GARDENS

CLIENT: WELWYN PARK HOMES LTD

DRAWN:	CHECKED:	APPROVED:
JMc	MD	NM
PROJECT No:	SCALE @ A3:	DATE:
ITL16195	1:500	24.11.20
DRAWING No:		REV:
ITL16195-GA-005		B

L:\ADMIN\CAD Related\Templates\T- DRAWING.DWG





OLYMPUS (WITH ELITE 6 - 8X4MS CHASSIS)

Overall Length	11.375m
Overall Width	2.550m
Overall Body Height	3.500m
Min Body Ground Clearance	0.304m
Track Width	2.550m
Lock to lock time	6.50s
Kerb to Kerb Turning Radius	10.329m

SCALE BAR @ 1:250

0 1 2 5 10 25

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY. DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.

i-Transport

85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215

www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
A	18.02.21	JMc	UPDATED SITE LAYOUT	MD	NM

STATUS: FOR INFORMATION

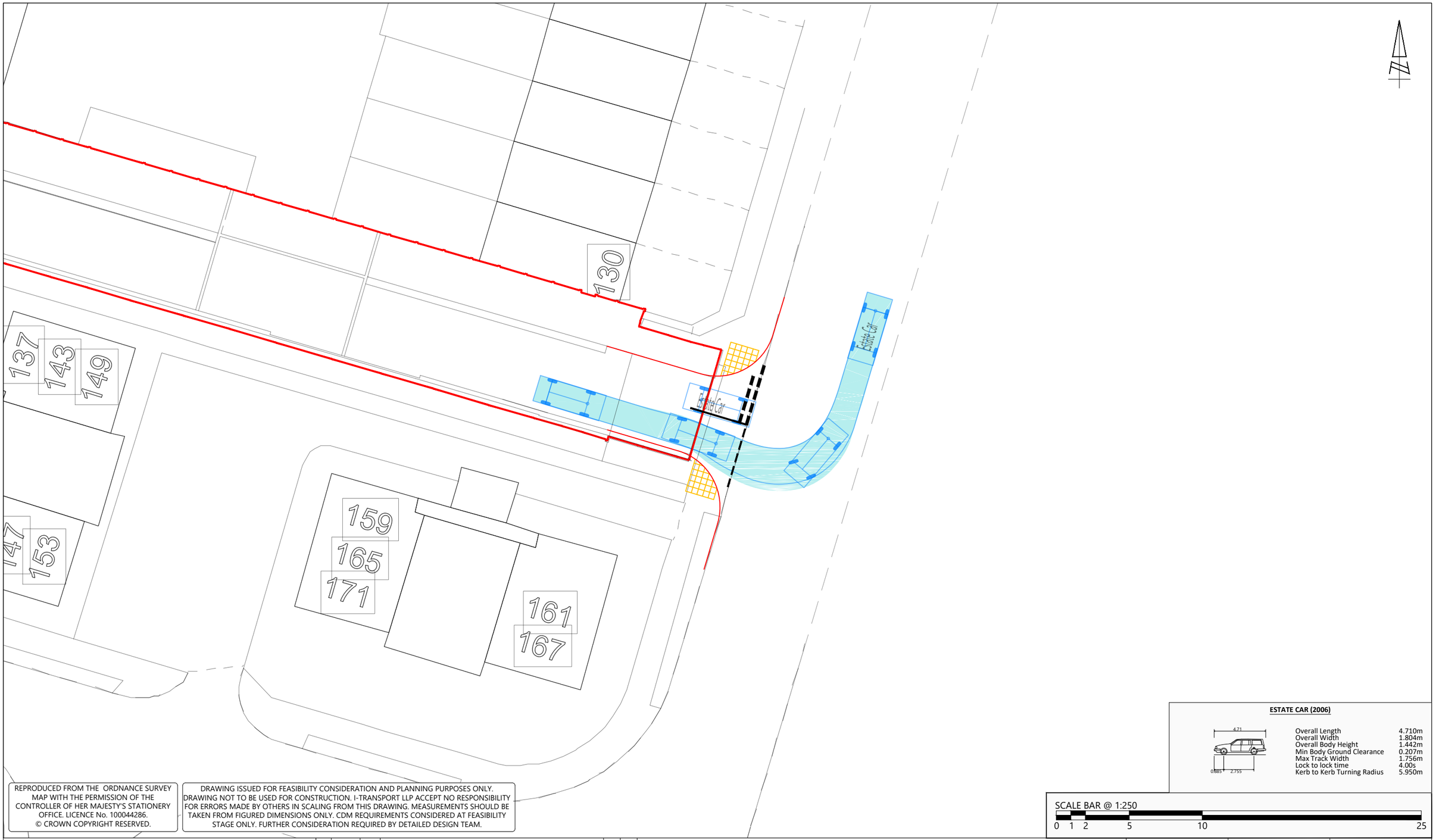
TITLE: SITE ACCESS VEHICLE TRACK ANALYSIS - REFUSE VEHICLE

PROJECT: BROADWATER GARDENS

CLIENT: WELWYN PARK HOMES LTD

DRAWN:	CHECKED:	APPROVED:
JMc	MD	NM
PROJECT No:	SCALE @ A3:	DATE:
ITL16195	1:250	26.01.21
DRAWING No:		REV:
ITL16195-GA-010		A

L:\ADMIN\CAD Rates\Templates\IT - DRAWING.DWG



ESTATE CAR (2006)

Overall Length	4.710m
Overall Width	1.804m
Overall Body Height	1.442m
Min Body Ground Clearance	0.207m
Max Track Width	1.756m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.950m

SCALE BAR @ 1:250

0 1 2 5 10 25

i-Transport

85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215

www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
A	18.02.21	JMc	UPDATED SITE LAYOUT	MD	NM

STATUS: FOR INFORMATION

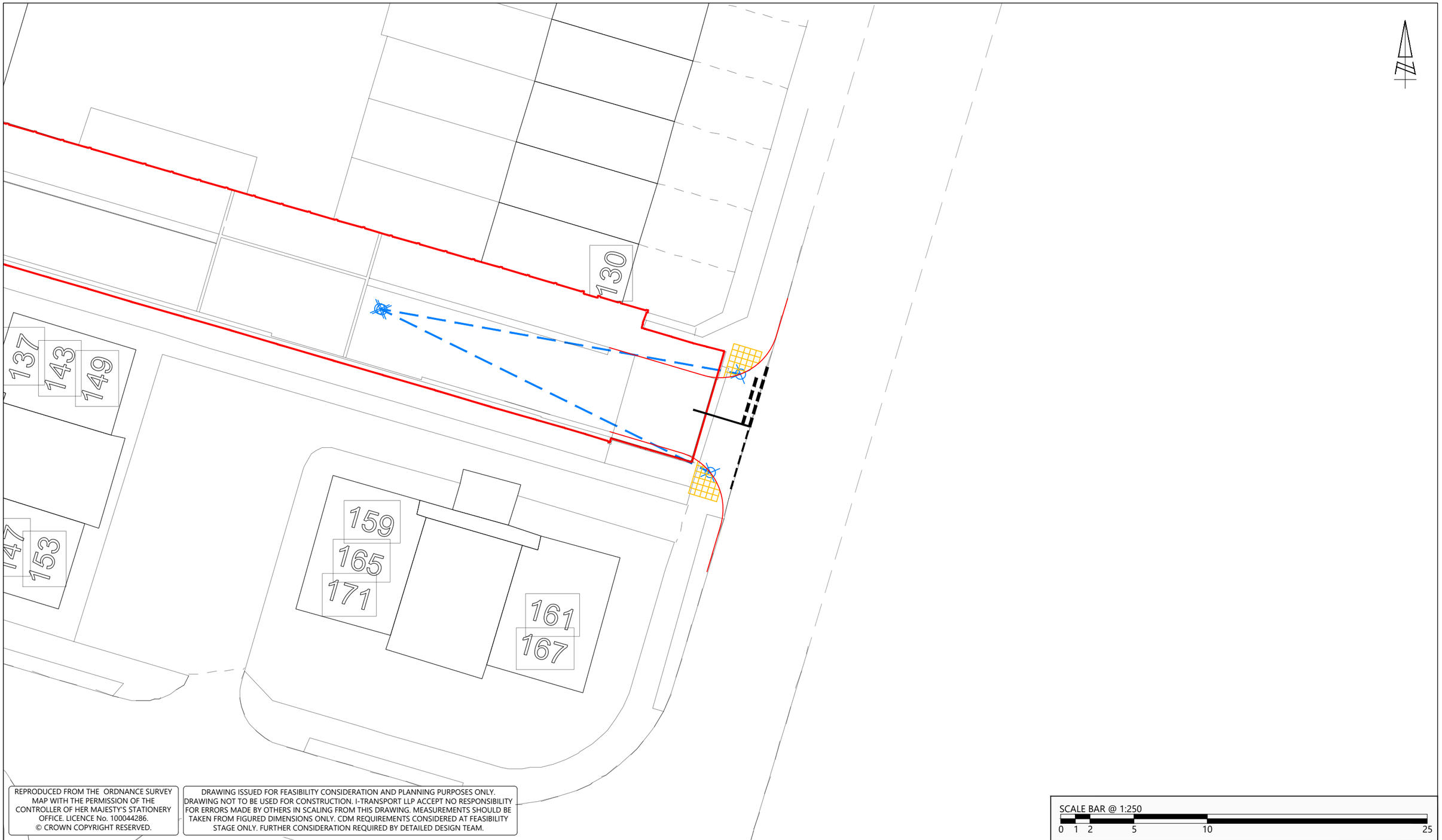
TITLE: SITE ACCESS VEHICLE TRACK ANALYSIS - ESTATE CAR

PROJECT: BROADWATER GARDENS

CLIENT: WELWYN PARK HOMES LTD

DRAWN:	CHECKED:	APPROVED:
JMc	MD	NM
PROJECT No:	SCALE @ A3:	DATE:
ITL16195	1:250	26.01.21
DRAWING No:		REV:
ITL16195-GA-011		A

L:\ADMIN\CAD Related\Templates\IT- DRAWING.DWG



DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY. DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.

SCALE BAR @ 1:250

0 1 2 5 10 25

i-Transport

85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215

www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
A	18.02.21	JMc	UPDATED SITE LAYOUT	MD	NM

STATUS: FOR INFORMATION

TITLE: SITE ACCESS - 20mph PEDESTRAIN VISIBILITY

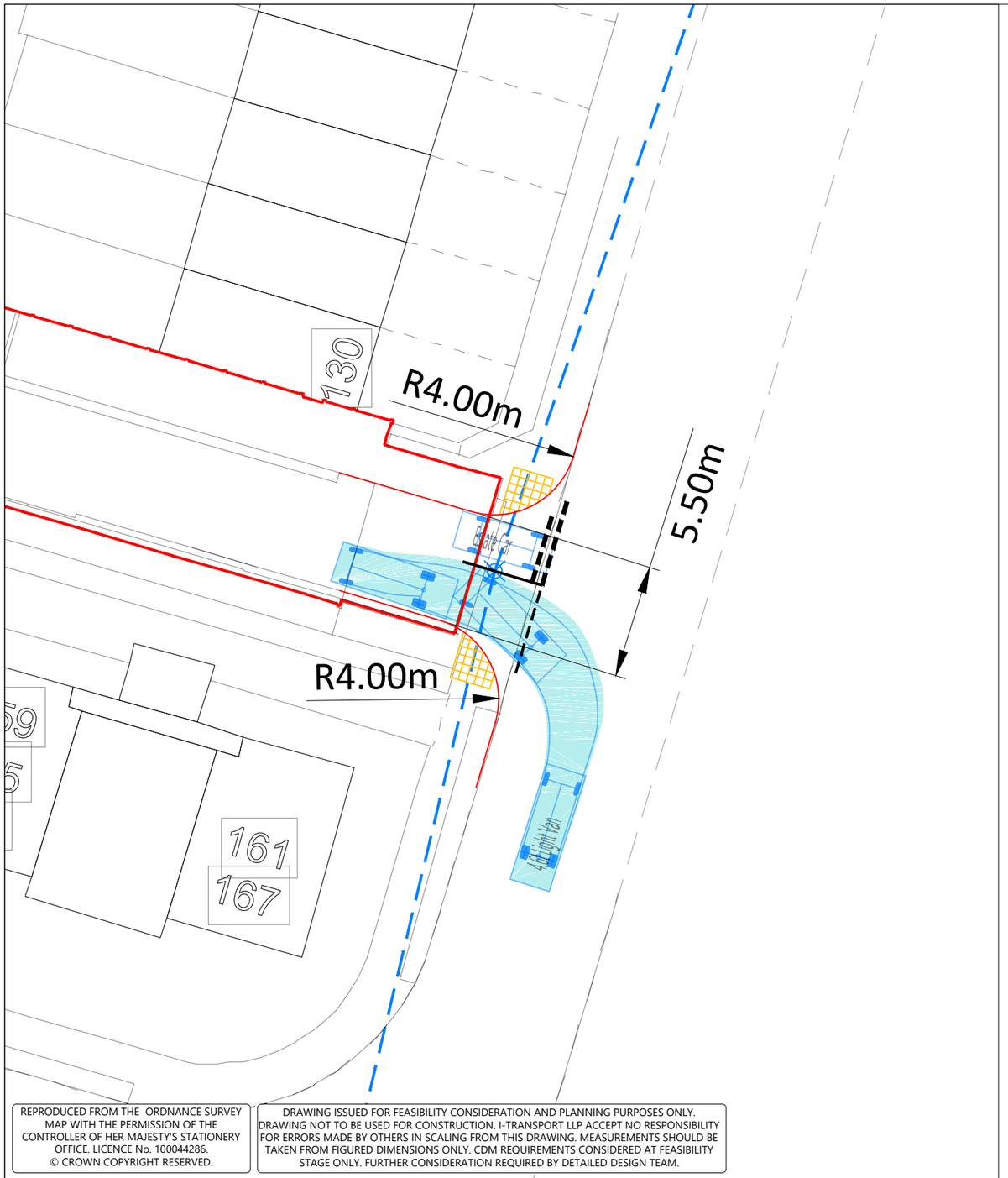
PROJECT: BROADWATER GARDENS

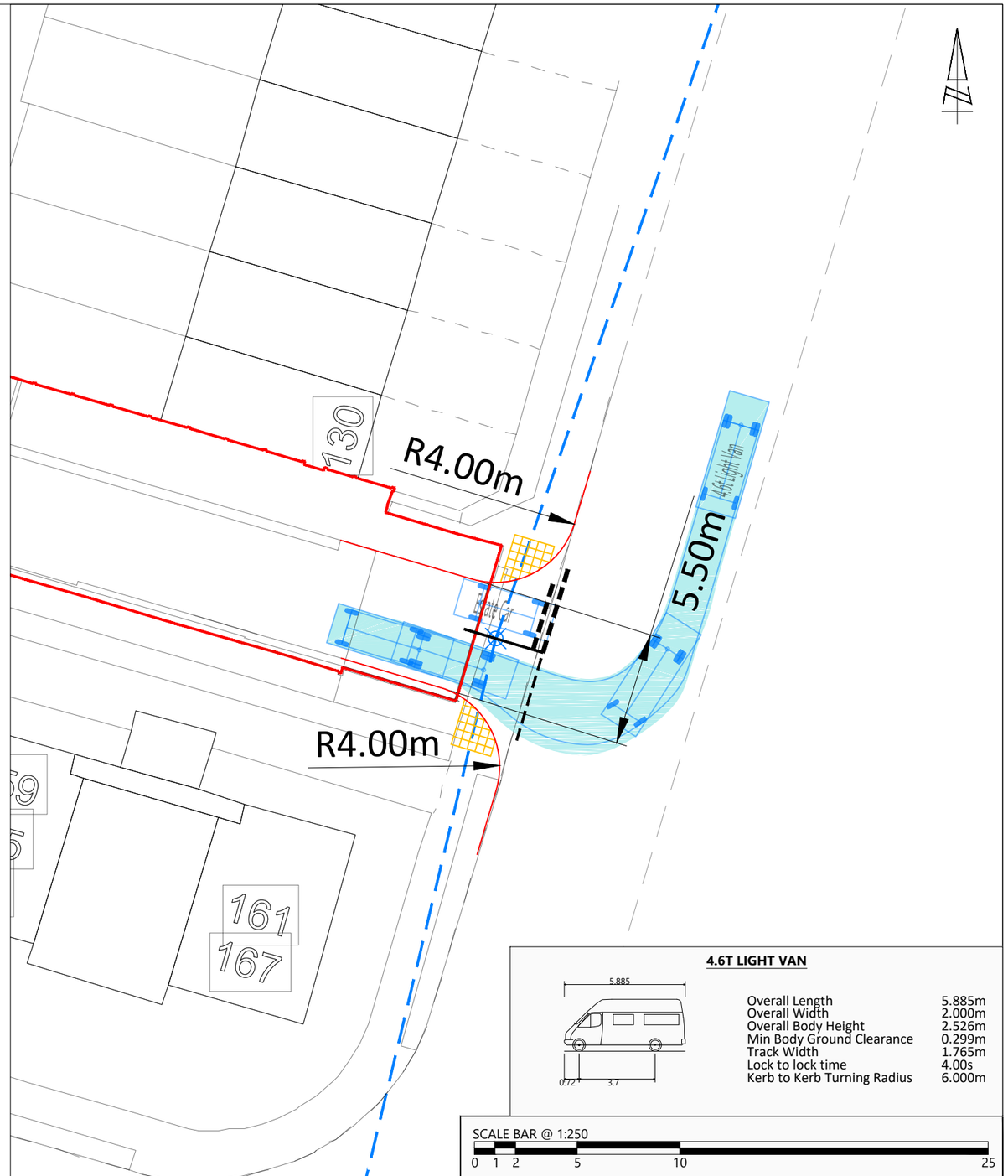
CLIENT: WELWYN PARK HOMES LTD

DRAWN:	CHECKED:	APPROVED:
JMc	MD	NM
PROJECT No:	SCALE @ A3:	DATE:
ITL16195	1:250	16.02.21

DRAWING No: ITL16195-GA-013 REV: A

L:\ADMIN\CAD Related\Templates\iT - DRAWING.DWG





4.6T LIGHT VAN

Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.000m

SCALE BAR @ 1:250

0 1 2 5 10 25

i-Transport
85 Gresham Street, London, EC2V 7NQ
Tel: 020 3705 9215
www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
A	18.02.21	JMc	UPDATED SITE LAYOUT	MD	NM

STATUS: FOR INFORMATION

TITLE: SITE ACCESS VEHICLE TRACK ANALYSIS - 4.6T LIGHT VAN (SUPERMARKET DELIVERY VAN)

PROJECT: BROADWATER GARDENS

CLIENT: WELWYN PARK HOMES LTD

DRAWN:	CHECKED:	APPROVED:
JMc	MD	NM
PROJECT No:	SCALE @ A3:	DATE:
ITL16195	1:250	16.02.21
DRAWING No:		REV:
ITL16195-GA-014		A

L:\ADMIN\CAD Related\Templates\IT- DRAWING.DWG

i-Transport – Basingstoke | Manchester | London | Leeds
www.i-transport.co.uk