

Observatory Way, Mansfield

Transport Note

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Client:	Store First Self Storage Limited	Job No:	327513
Date:	14 September 2023	File Name:	TN01
Prepared by:	RW	Approved by:	LJ

1. Introduction

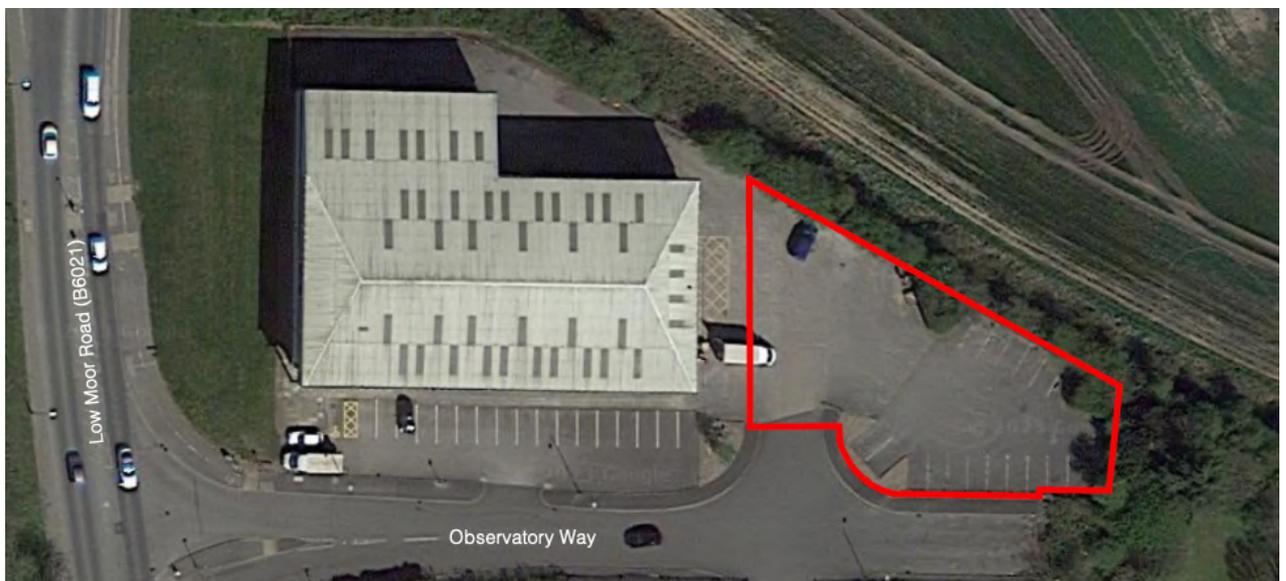
1.1 Preamble

1.1.1 Mode Transport Planning ('Mode') has been appointed by Store First Self Storage Limited (the 'Applicant') to provide transport planning and highways advice to support a planning application for a new self-storage unit off Observatory Way in Mansfield.

1.1.2 Store First are looking to expand their facility to provide 1no. additional self-storage unit with a Gross Floor Area (GFA) of 308sqm. The proposed development will replace an existing car parking area with 20no. spaces. The proposed development will provide 6no. new car parking spaces, resulting in the net loss of c.14no. spaces. The site will be accessed via an existing priority access on Observatory Way that serves the existing Store First facility.

1.1.3 The indicative site location is shown in [Figure 1.1](#).

Figure 1.1 : Indicative Site Location



1.1.4 This Transport Note (TN) has been prepared to assess the development proposals, with consideration to on-site car parking provision, expected trip generation, accessibility by sustainable modes of travel and servicing/delivery arrangements.

1.2 Methodology

1.2.1 The methodology for the TN adopts the guidance set out within the Ministry of Housing, Communities & Local Government document, ‘Transport Evidence Bases in Plan Making and Decision Taking’ (2014), which superseded the Department for Transport’s (DfT) ‘*Guidance on Transport Assessment*’ (2007). However, although the 2007 guidance has been superseded, it nonetheless remains instructive and has been used to inform the overall structure of the TN.

1.3 Report Structure

1.3.1 Following this introduction, the TN has been structured as follows:

- Chapter 2 describes the site location and local highway network;
- Chapter 3 outlines the development proposals, vehicular access, servicing and parking;
- Chapter 4 details accessibility by non-car modes, including public transport, cycle and on foot;
- Chapter 5 details the expected trip generation; and
- Chapter 6 summarises and concludes the findings of the report.

2. Existing Conditions

2.1 Local Highway Network

Observatory Way

2.1.1 Access to the site is taken from an existing priority junction on Observatory Way. The existing conditions along Observatory Way are summarised in [Table 2.1](#).

Table 2.1 : Observatory Way – Existing Conditions

Road Classification	Unclassified	Footway Width	c.1.5m (both sides)
Road Type	Two-way single carriageway	Pedestrian Facilities	Pedestrian refuse island at junction with Low Moor Road (B6021)
Speed Limit	30 mph	Cycle Facilities	No

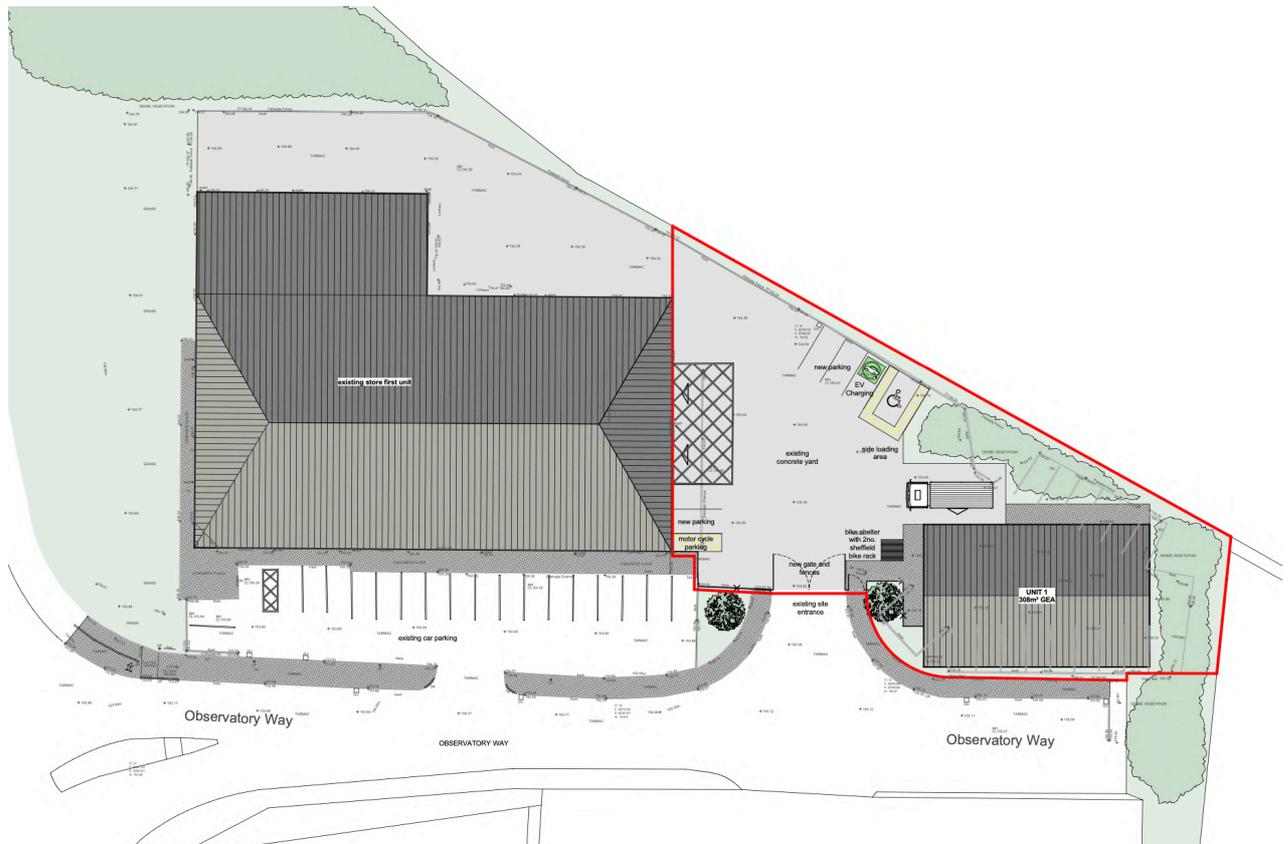
Carriageway Width	c.7.3m	Public Transport Provision	No
Adoption Status	Adopted	Streetlighting	Yes

3. Development Proposals

3.1 Proposed Use

- 3.1.1 The proposed development will provide 1no. additional self-storage unit with a Gross Floor Area (GFA) of 308sqm, which will replace an existing 20no. space car park.
- 3.1.2 As indicated, c.20no car parking spaces will be lost as a result of development, and 6no. new car parking spaces will be provided, resulting in the net loss of c.14no. spaces.
- 3.1.3 The proposed site layout is shown in **Figure 3.1** and is attached in **Appendix A**.

Figure 3.1 : Proposed Site Layout (source : Campbell Driver Partnership)



3.2 Site Access Arrangement

- 3.2.1 The site will be accessed via an existing priority access on Observatory Way that serves the existing Store First facility.

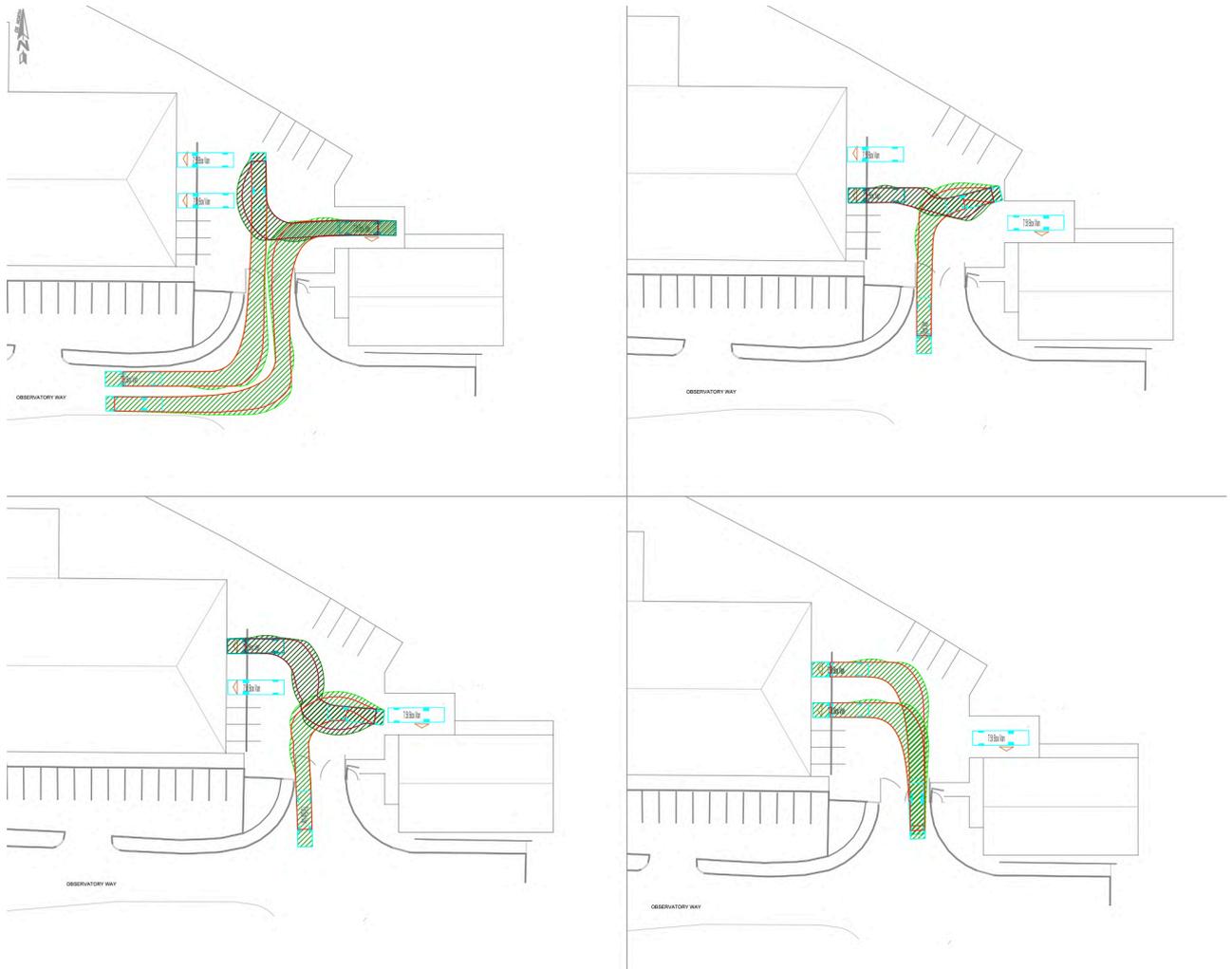
3.2.2 A new gate will be added to the existing access.

3.3 Servicing

3.3.1 Swept path analysis has been undertaken for a 7.5t box van, which is the largest vehicle expected to visit the site. The analysis shows that a 7.5t box van can enter and exit via the existing access in a forward gear and manoeuvre safely around the site.

3.3.2 Swept path analysis is shown in [Figure 3.2](#) and in drawing [J32-7513-PS-001](#) attached in [Appendix B](#).

Figure 3.2 : Swept Path Analysis – 7.5t Box Van



3.3.3 As shown in [Figure 3.2](#), all existing loading bays can be served independently by a 7.5t box van.

3.4 Parking

- 3.4.1 As stated previously, c.20no car parking spaces will be lost as a result of development, and 6no. new car parking spaces will be provided, resulting in the net loss of c.14no. spaces.
- 3.4.2 NCC’s adopted parking standards are outlined in Section 4.2 of their Highway Design Guide, *Commercial Parking*.
- 3.4.3 The local car parking standards for a B8 land use are shown in [Table 3.1](#), with other parking standards shown in [Table 3.2](#).

Table 3.1 : NCC Minimum Car Parking Standards (source : NCC)

Land Use	Location	Minimum Car Parking
Storage and Distribution	Urban town centre / edge of town centre	1 space / 300 sqm
	Rest of urban town	1 space / 180 sqm
	Rural town centre or edge of centre	1 space / 200 sqm
	Rest of rural town	1 space / 150 sqm
	Out of any town	1 space / 120 sqm

Table 3.2 : NCC Parking Standards (source : NCC)

Minimum Disabled Parking	Minimum Servicing Provision	Minimum Cycle Parking	Minimum EVCP
One bay or 5% of total parking spaces whichever is greater	One lorry space for every 400 sqm	Short stay - 1 / 1,000 sqm Long stay - 1 / 500 sqm	Minimum of 1 space up to 10 spaces plus 10% of spaces thereafter to be fitted with a fast charge socket plus a further 10% infrastructure only

- 3.4.4 Based on the location of the proposed development, the ‘Rest of urban town’ standards in [Table 3.1](#) apply.
- 3.4.5 In accordance with the adopted parking standards the proposed development will provide 6no. car parking spaces, of which, 1no. will be a disabled space, and 1no. will provide EV charging. The proposed development will also provide 1no. motorcycle parking space, and 2no. cycle parking spaces, of which one will be a long stay space and one will be a short stay space.
- 3.4.6 Based on occupier requirements and the fact that this is a self-storage facility, there is no requirement for a lorry space to be provided.

4. Sustainable Accessibility and Active Travel

- 4.1.1 As the proposed development will be only expanding the existing store first facility to provide additional customer storage units, there will be no increase in the number of employees and there will be no changes to the site's accessibility by sustainable transport modes. The current accessibility options available to employees and visitors utilising sustainable transport modes, such as public transportation, cycling, or walking, will remain unchanged.
- 4.1.2 Furthermore, it is important to note that the proposed development will not have any impact on the on-site cycle parking provision or internal walking routes. Both the existing on-site cycle parking facilities and internal walking routes will remain unchanged and unaffected by the proposed development.

5. Trip Generation

5.1 TRICS Trip Rates

- 5.1.1 A trip generation exercise has been undertaken in order to quantify the impact this development will have on the local highway network. The TRICS database has been used to generate trip rates using the *'Employment – Warehousing (Self Storage)'* land use category.
- 5.1.2 In line with the *'TRICS Good Practice Guide 2021'*, no surveys were excluded on the basis of geographical region. The study undertaken by TRICS revealed that there is a significantly higher correlation between location type and trip rates than there is between region and trip rates.
- 5.1.3 The guidance recommends that regional selection should not be a major consideration when applying trip rate calculation filtering criteria, as location type was found to be the most influential factor in terms of trip generation. Therefore, only the 'Edge of Town' and 'Suburban Area' location types were selected.
- 5.1.4 The TRICS trip rates and resulting trips during the AM peak and PM peak are summarised in [Table 5.1](#). Full TRICS Outputs are attached in [Appendix C](#).

Table 5.1 : TRICS Trip Generation (per 100sqm of GFA) - Vehicles

TRICS Land Use Category	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Trip Rate						
<i>'Employment – Warehousing (Self Storage)'</i>	0.118	0.085	0.203	0.141	0.127	0.203

TRICS Land Use Category	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Proposed Development (308 sqm)	1	1	2	1	1	2

5.1.5 As presented in [Table 5.1](#), the proposed development is expected to generate **2** two-way trips during the AM peak hour and **2** two-way trips during the PM peak hour. As such, it is expected that the proposed development will have a negligible impact in terms of traffic generation.

5.1.6 Overall, it can be concluded that the proposed development will not have a severe impact on the local highway network, which is the threshold stated by NPPF (Paragraph 111) under which development should not be refused on highways grounds.

6. Summary and Conclusion

6.1 Summary

6.1.1 Mode Transport Planning has been appointed by Store First Self Storage Limited to provide transport planning and highways advice to support a planning application for a new self-storage unit off Observatory Way in Mansfield.

6.1.2 Store First are looking to expand their facility to provide 1no. additional self-storage unit with a Gross Floor Area (GFA) of 308sqm. The proposed development will replace an existing car parking area with 20no. spaces. The proposed development will provide 6no. new car parking spaces, resulting in the net loss of c.14no. spaces. The site will be accessed via an existing priority access on Observatory Way that serves the existing Store First facility.

6.1.3 This note has been prepared in accordance with current policy, guidance and best practice. The results of the analysis in this note demonstrates that:

- Swept path analysis demonstrates that the largest vehicle expected to enter the site, a 7.5t panel van, can enter and exit the site in a forward gear, and manoeuvre safely within the site;
- The current sustainable transport options available to employees and visitors will remain unchanged and existing on-site cycle parking facilities and internal walking routes will remain unaffected by the proposed development;
- Expected trip generation will be negligible, and is expected to only generate **2** two-way trips during the AM peak hour and **2** two-way trips during the PM peak hour;
- The proposed level of car, disabled, EV, cycle and motorcycle parking has been provided in accordance with Nottinghamshire County Council’s adopted parking standards;

- Overall, it can be concluded that the proposed development will not have a severe impact on the local highway network, which is the threshold stated by NPPF (Paragraph 111) under which development should not be refused on highways grounds.

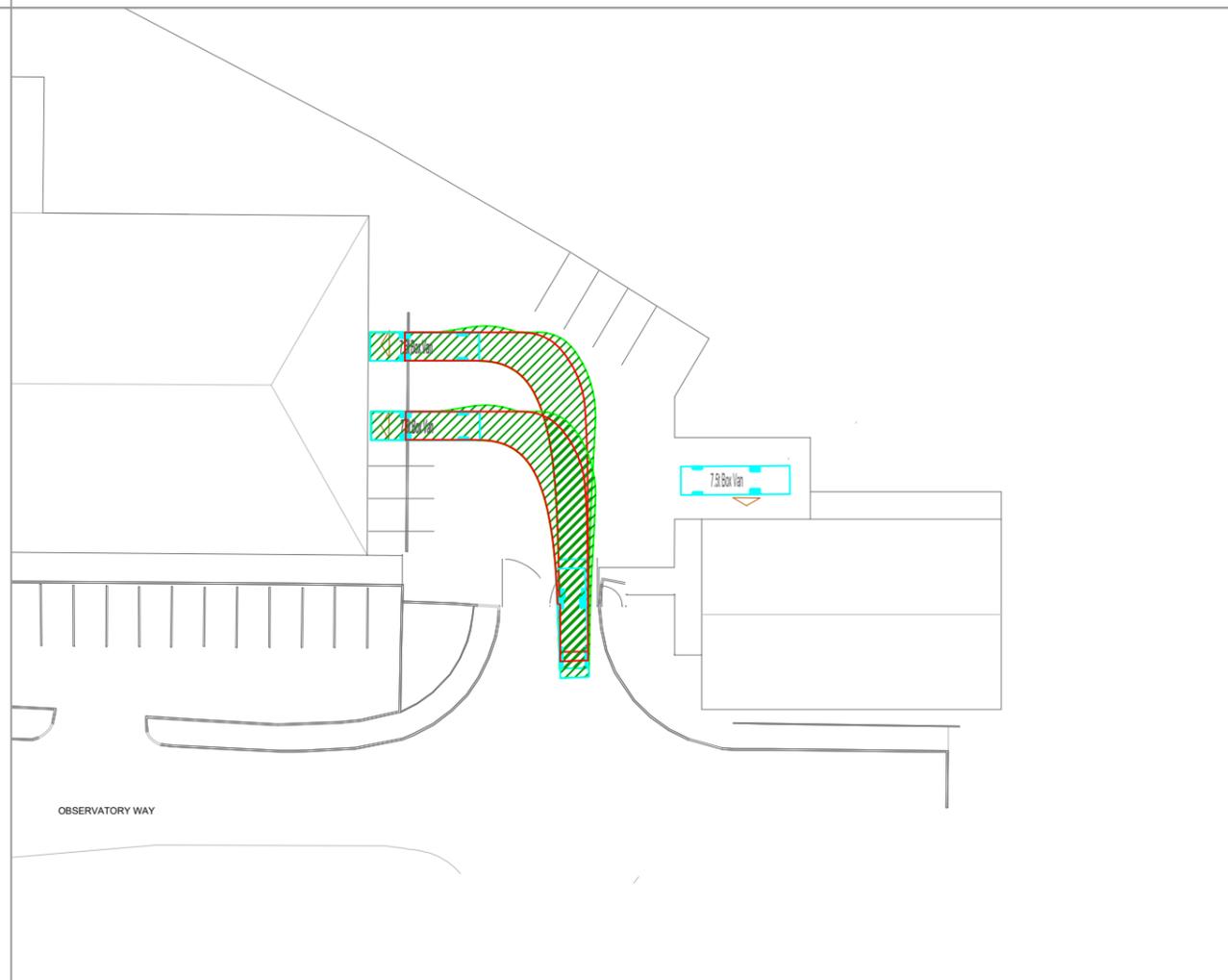
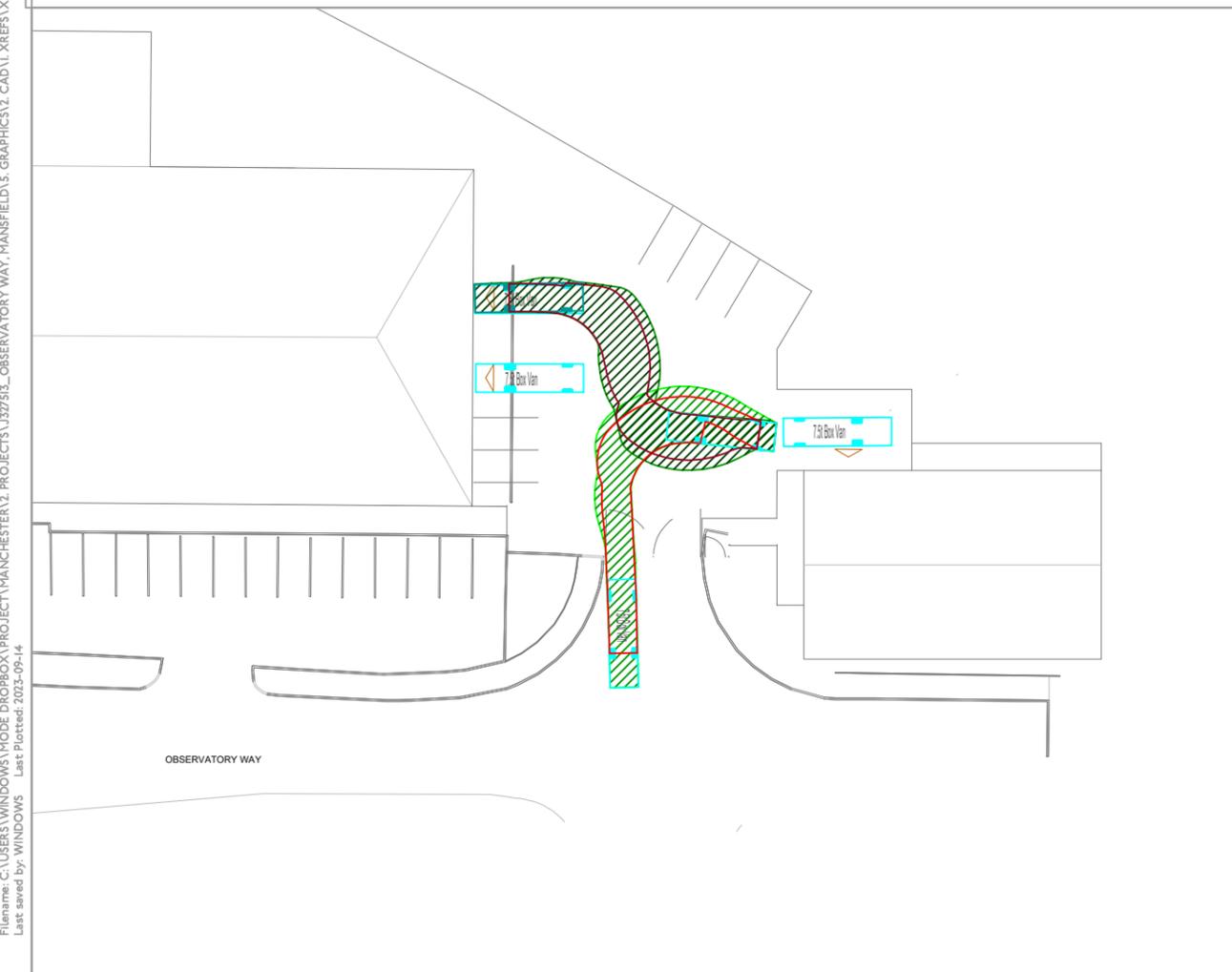
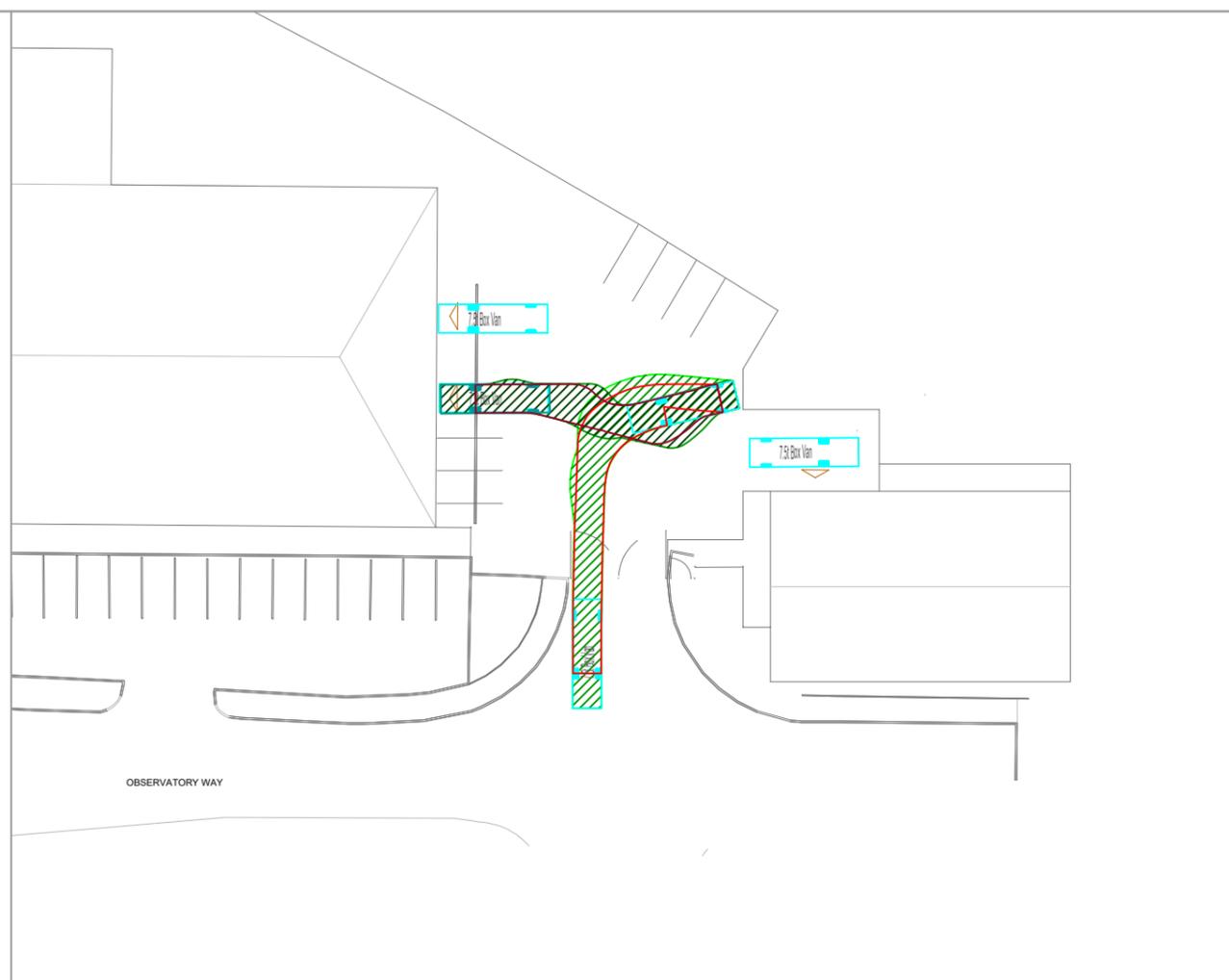
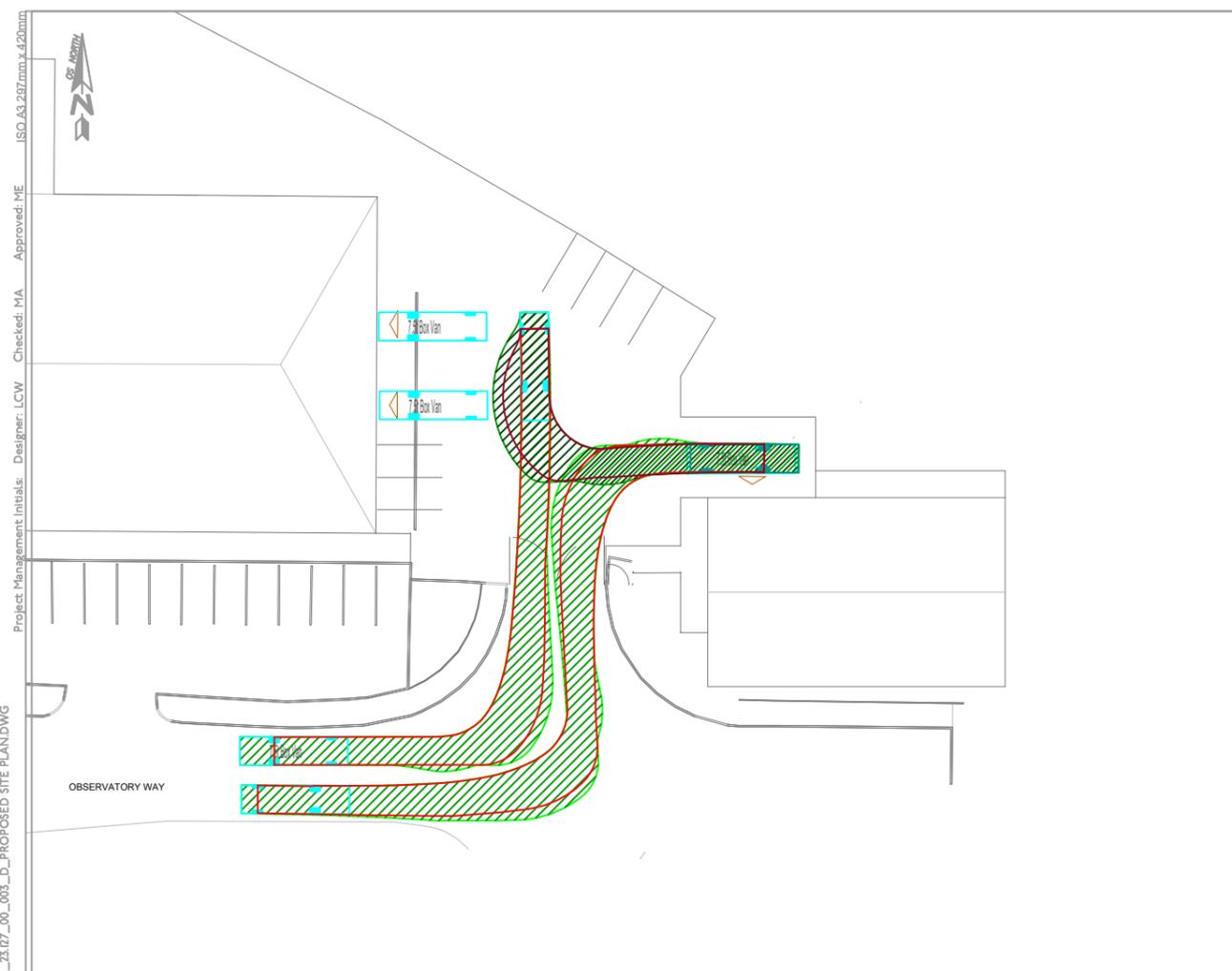
6.2 Conclusion

6.2.1 In conclusion, based on the evidence and analysis within this report, there should be no highways or transport planning reasons that prevent this planning application from being approved.

APPENDIX A

Proposed Site Layout

APPENDIX B Swept Path Analysis



- notes:
1. this drawing is to be read in conjunction with all other relevant drawings, any discrepancies, errors or omissions to be brought to the attention of overseeing organisation.
 2. all dimensions to be checked before commencement of work on site.
 3. all dimensions in metres unless otherwise stated.
 4. the design is subject to approval of nottinghamshire county council.
 5. drawing based on topographical survey.

issue/revision

l/r	date	issued	description
-	14/09/2023		

client: store first self storage limited
project: observatory way, mansfield
project number: J327513
scale: 1:500@A3
drawing title:
swept path analysis
drawing number:
J32-7513-PS-001

APPENDIX C TRICS Trip Rates

Calculation Reference: AUDIT-754101-230814-0859

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : E - WAREHOUSING (SELF STORAGE)
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	SD SWINDON	1 days
05	EAST MIDLANDS	
	NG NOTTINGHAM	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	CU CUMBERLAND	1 days
	TW TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 1350 to 5500 (units: sqm)
 Range Selected by User: 1350 to 14000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 15/10/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Thursday	1 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	3
Development Zone	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	7 days - Selected

Secondary Filtering selection:

Use Class:

B8 5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS@.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 1 days
10,001 to 15,000 2 days
25,001 to 50,000 2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000 1 days
75,001 to 100,000 1 days
125,001 to 250,000 1 days
250,001 to 500,000 1 days
500,001 or More 1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0 2 days
1.1 to 1.5 3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling within a radius of 5-miles of selected survey sites.

Travel Plan:

No 5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CU-02-E-01 MILLBROOK ROAD CARLISLE KINGSTOWN IND. ESTATE Edge of Town Industrial Zone Total Gross floor area: 3100 sqm <i>Survey date: FRIDAY 15/10/21</i>	BOX CLEVER SELF STORAGE CUMBERLAND	<i>Survey Type: MANUAL</i>
2	NG-02-E-02 LENTON LANE NOTTINGHAM Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: 2860 sqm <i>Survey date: THURSDAY 17/11/16</i>	BIG YELLOW SELF STORAGE NOTTINGHAM	<i>Survey Type: MANUAL</i>
3	NY-02-E-01 OAKNEY WOOD ROAD SELBY Edge of Town Industrial Zone Total Gross floor area: 1350 sqm <i>Survey date: TUESDAY 21/09/21</i>	SELF STORAGE NORTH YORKSHIRE	<i>Survey Type: MANUAL</i>
4	SD-02-E-01 DRAKES WAY SWINDON Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: 4925 sqm <i>Survey date: WEDNESDAY 21/09/16</i>	BIG YELLOW SELF STORAGE SWINDON	<i>Survey Type: MANUAL</i>
5	TW-02-E-01 STONEYGATE CLOSE GATESHEAD Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 5500 sqm <i>Survey date: MONDAY 13/06/16</i>	1ST STORAGE TYNE & WEAR	<i>Survey Type: MANUAL</i>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AN-02-E-01	COVID-19
SF-02-E-01	COVID-19

TRIP RATE for Land Use 02 - EMPLOYMENT/E - WAREHOUSING (SELF STORAGE)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	3547	0.045	5	3547	0.017	5	3547	0.062
08:00 - 09:00	5	3547	0.118	5	3547	0.085	5	3547	0.203
09:00 - 10:00	5	3547	0.186	5	3547	0.164	5	3547	0.350
10:00 - 11:00	5	3547	0.169	5	3547	0.158	5	3547	0.327
11:00 - 12:00	5	3547	0.118	5	3547	0.096	5	3547	0.214
12:00 - 13:00	5	3547	0.226	5	3547	0.231	5	3547	0.457
13:00 - 14:00	5	3547	0.147	5	3547	0.124	5	3547	0.271
14:00 - 15:00	5	3547	0.158	5	3547	0.186	5	3547	0.344
15:00 - 16:00	5	3547	0.147	5	3547	0.152	5	3547	0.299
16:00 - 17:00	5	3547	0.118	5	3547	0.124	5	3547	0.242
17:00 - 18:00	5	3547	0.062	5	3547	0.141	5	3547	0.203
18:00 - 19:00	5	3547	0.023	5	3547	0.028	5	3547	0.051
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.517			1.506			3.023

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	1350 - 5500 (units: sqm)
Survey date date range:	01/01/15 - 15/10/21
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.