Land South Of The Bungalow, Charlesfield

Technical Note

St Boswells LLP

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Report title	Technical Note	1031906

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
-	12 July 2021	Draft for client comment
A	14 July 2021	Final

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[redacted]		
Principal author	Checked by	Verified by
Signed by: Low, Graeme	Signed by: Low, Graeme	Signed by: Low, Graeme

Contents

1.0 Introduction

1.1 Purpose of This Report

Cundall has been commissioned by St Boswells LLP to provide transportation advice to support the development of two residential dwellings on land at Charlesfield, St Boswells. As part of the proposals, a new access is to be formed to serve the properties. This short technical note provides further information in relation to the proposals in response to comments raised by Scottish Borders Council (SBC) Roads in relation to planning application (21/000840/PPP).

1.2 Report Structure

Following this short introductory chapter, the report is set out as follows:

- Chapter 2 estimates the magnitude of trips generated by the proposed development;
- Chapter 3 reviews the proposed access arrangements in relation to transportation comments raised by SBC in relation to the proposals; and
- Chapter 4 provides a summary of the findings of the study.

2.0 Trip Generation

2.1 Introduction

The following section sets out the trip generation assumptions used to estimate the level of trips generated by the proposed residential development.

2.2 Trip Rates

TRICS v.7.8.2 has been used to establish the likely trips that could be generated by the proposed development. The following site selection criteria has been applied to select comparable sites from which to determine trip rates for the development:

- Use selection 03 – Residential, A – Houses Privately Owned;
- Sites located within Greater London and Ireland have been discounted;
- Edge of Town sites selected;
- Weekday surveys selected;
- Vehicle trip rates selected; and
- Sites within 6 - 20 units selected.

Applying the above criteria resulted in 6 comparable sites being returned and the associated TRICS outputs are provided in Appendix A. The TRICS database identifies the AM and PM peak hours to be 08:00 - 09:00 and 16:00 - 17:00 and Table 2.1 shows the vehicle trip rate and resultant peak hour trip generation for the proposed two residential dwellings which have been used to inform this technical note.

	AM Peak Hour		PM Peak Hour	
	Arrivals	**Departures**	**Arrivals**	**Departures**
Vehicle Rate (per dwelling)	0.145	0.231	0.188	0.085
Vehicle Generation (2 dwellings)	1	1	1	1

Table 2.1 Total Vehicle Trip Rates

As can be seen from the above summary, the proposed development is forecast to generate a maximum of 2 two-way vehicle movements in either the AM or PM peak hour. The development will therefore have a negligible impact both in terms of its capacity and safe operation on the operation of the adjacent road from which it is proposed to take access from.

3.0 Transportation Response

3.1 Introduction

The site is located at Charlesfield, St Boswells and is bound by existing residential properties to the north and Charlesfield Industrial Estate to the south. Proposals include the construction of two residential dwellings, with associated parking and the formation of a new access from the adopted road to the north.

This chapter provides additional transportation information to support the application in response to comments provided by SBC Roads on the initial planning application.

3.2 Proposed Vehicle Access

It is proposed to form a new access on the unclassified road located to the north of the site to serve the proposed two house residential development, with the access able to be constructed using land within the ownership of the applicant.

3.2.1 Visibility Review

SBC have identified a requirement to provide 2.4x120m visibility splays in association with the proposed access and the ability to provide this is shown in Figure 3.1 below, with the drawing included at a larger scale in Appendix B.

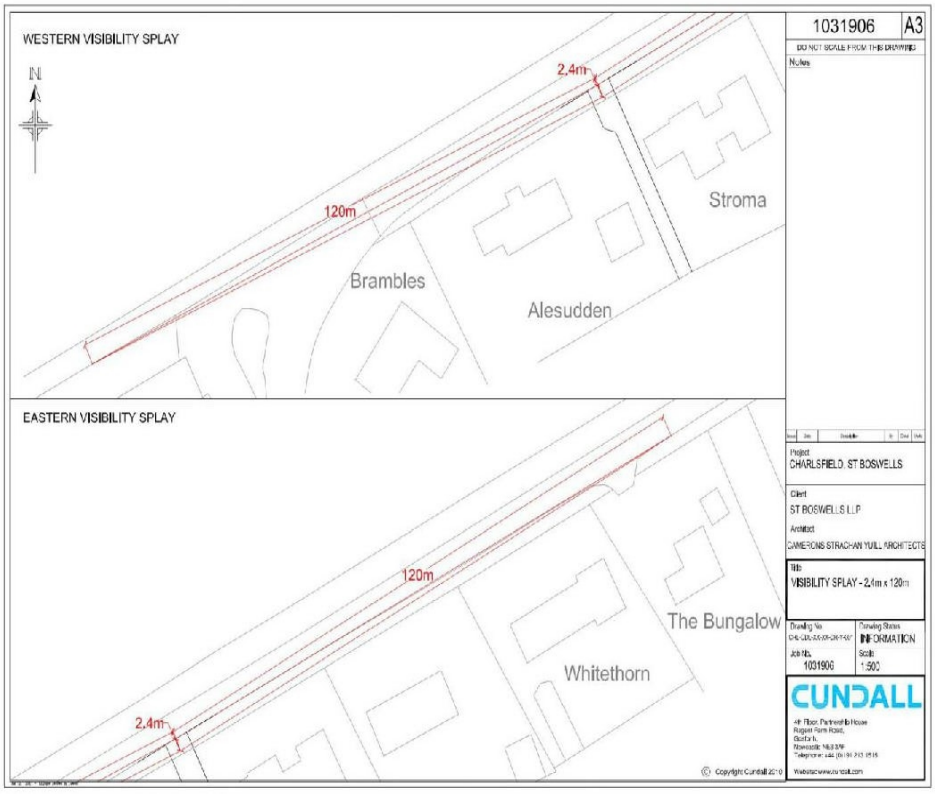


Figure 3.1 Junction Visibility

As can be seen from Figure 3.1, the required visibility can be achieved to the east. An existing junction is, however, located within the western visibility splay although the required visibility can be provided to traffic approaching from the

west. Whilst the junction is located approximately 70m to the west of the proposed access and therefore falls within the visibility splay, vehicles will be travelling at low speeds when accessing the unclassified road and travelling east towards the proposed access junction. It is therefore considered that the location of the nearby junction will not generate any safety issues which would have an impact on the intention to form a new access in the location being proposed, particularly with the low level of vehicle trips anticipated to be generated by the proposed development (2 two-way movements in either the AM or PM peak hours).

A review of Personal Injury Accident Data using the CrashMap database confirms that no accidents have been recorded in the vicinity of the site over the last ten years, demonstrating that the local road network currently operates in a safe manner. Figure 3.2 provides an extract from the database showing the road network located in the vicinity of the site.

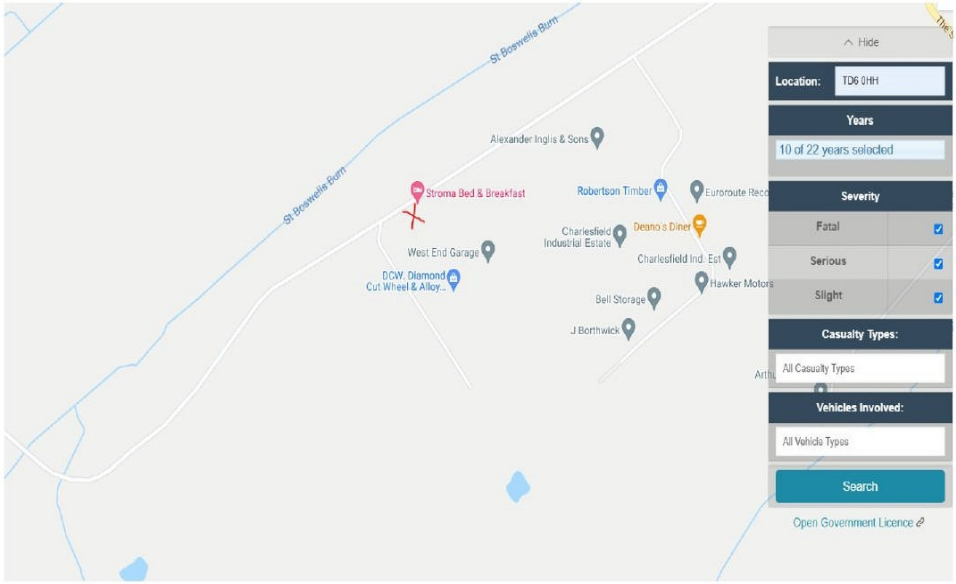


Figure 3.2 Accident History

It is considered that the formation of a new access to serve two properties will not have an impact on the road's current operation in terms of safety, given the negligeable level of trips generated by the proposed development.

3.2.2 Indicative Site Access

It is proposed to provide an access with a 5m width to enable a vehicle accessing the site to pass a vehicle waiting to leave the site. This arrangement will also enable a vehicle leaving the site to be visible to a second vehicle accessing the site and provide opportunity for this to wait prior to proceeding. The access road will be constructed on an alignment which will provide clear visibility for approximately 30m to enable the wider carriageway located at the northern end of the access, to provide an effective passing place and this arrangement is shown in Figure 3.3 and provided at a larger scale in Appendix B.

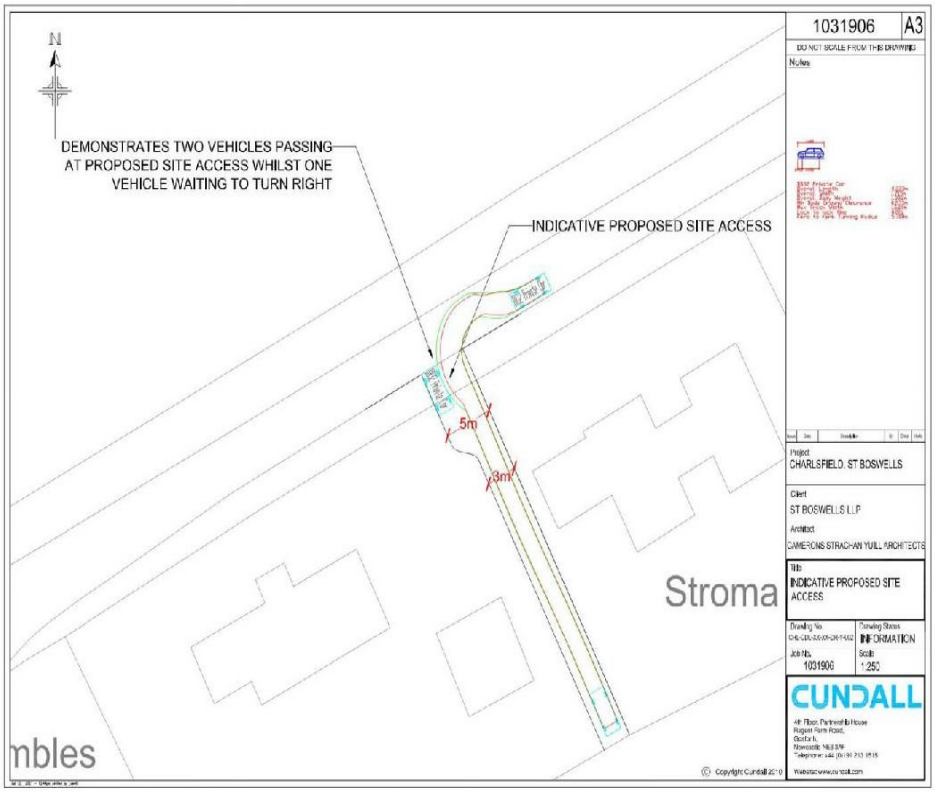


Figure 3.3 Proposed Site Access

AutoTrack has been used to review the operation of the proposed access junction based on a proposed width of 5m, with the results of the analysis shown in Figure 3.3. The analysis confirms that the proposed access arrangements can accommodate a vehicle accessing the site whilst another is waiting to turn right out of the site. It is unlikely, given the scale of the development proposals which is forecast to generate a maximum of 1 arrival and 1 departure in either peak hour, that two vehicles will meet at the access on a regular basis and it is considered that the proposed arrangement is sufficient to support the development proposals.

It is proposed to maintain the 5m access width for a distance of 7m to enable a vehicle to pass a stationary vehicle on the basis of the analysis shown in Figure 3.3.

The first 6m of the access will be constructed using a bituminous finish, with the verge crossing constructed in accordance with Scottish Borders Council standard detail DC2 in line with SBC requirements.

The site layout will also ensure that parking will be provided for a minimum of two vehicles within the curtilage of the plot.

3.2.3 Servicing and Deliveries

It is expected that servicing and deliveries will be accommodated from the adjacent road network, as per the arrangement for existing properties in the vicinity of the site, with refuse bins pulled to the back of the kerb by the occupiers for collection.

4.0 Summary

Cundall has been commissioned by St Boswells LLP to provide transportation advice to support the development of two residential dwellings on land at Charlesfield, St Boswells.

This note has demonstrated that the proposed development will generate a minimal number of trips on an hourly basis, with a limited chance for a vehicle accessing the site to meet one which is leaving. Nevertheless, it is proposed to provide a 5m wide access for the initial 7m to enable a vehicle to pass a stationary vehicle waiting to leave the access.

The required visibility can be achieved in both directions and that there are no road safety concerns which would prevent the formation of a new development access on the unclassified road located to the north of the site.

The first 6m of the access will be constructed using a bituminous finish, with the verge crossing constructed in accordance with Scottish Borders Council standard detail DC2 in accordance with SBC requirements.

Space will be provided within the site to accommodate two parked vehicles and enable vehicles to access and leave the site in a forward gear. The site would, however, be expected to be serviced from the external road network.

Appendix A

Calculation Reference: AJDT-830401-210712-0757

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	KC	KENT	1 days
04	EAST ANGLIA		
	NF	NORFOLK	2 days
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	SY	SOUTH YORKSHIRE	1 days
10	WALES		
	VG	VALE OF GLAMORGAN	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: No of Dwellings
Actual Range: 8 to 19 (units:)
Range Selected by User: 5 to 20 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 09/09/20

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
Wednesday	4 days
Thursday	2 days
Friday	1 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	1 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 undertaking using machines.

Selected Locations:

Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	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:

Residential Zone	6
Village	2

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.

Secondary Filtering selection:

Use Class:
C3 8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Population within 1 mile:
1,001 to 5,000	3 days
5,001 to 10,000	1 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days

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

Population within 5 miles:
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	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	4 days
1.1 to 1.5	3 days
1.6 to 2.0	1 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 8 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 8 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 KC-03-A-05 DETACHED & SEMI-DETACHED KENT
ROCHESTER ROAD
NEAR CHATHAM
BURHAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 8
Survey date, FRIDAY 22/09/17 Survey Type, MANUAL

2 NF-03-A-03 DETACHED HOUSES NORFOLK
HALING WAY
THETFORD

Edge of Town
Residential Zone
Total No of Dwellings: 10
Survey date, WEDNESDAY 16/09/15 Survey Type, MANUAL

3 NF-03-A-10 MIXED HOUSES & FLATS NORFOLK
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 17
Survey date, WEDNESDAY 12/09/18 Survey Type, DIRECTIONAL ATC COUNT

4 SF-03-A-05 DETACHED HOUSES SUFFOLK
VALE LANE
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total No of Dwellings: 18
Survey date, WEDNESDAY 09/09/15 Survey Type, MANUAL

5 SH-03-A-06 BUNGALOWS SHROPSHIRE
ELLESMERE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total No of Dwellings: 16
Survey date, THURSDAY 22/05/14 Survey Type, MANUAL

6 SY-03-A-03 BUNGALOWS & DETACHED SOUTH YORKSHIRE
CHURCH LANE
NEAR BARNSLEY
WORSBROUGH
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 19
Survey date, WEDNESDAY 09/09/20 Survey Type, MANUAL

7 VG-03-A-01 SEMI-DETACHED & TERRACED VALE OF GLAMORGAN
ARTHUR STREET
BARRY

Edge of Town
Residential Zone
Total No of Dwellings: 12
Survey date, MONDAY 05/05/17 Survey Type, MANUAL

8 WK-03-A-02 BUNGALOWS WARWICKSHIRE
NORBERTH WAY
COVENTRY
POTTERS GREEN
Edge of Town
Residential Zone
Total No of Dwellings: 17
Survey date, THURSDAY 17/10/13 Survey Type, MANUAL

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	8	15	0.068	8	15	0.154	8	15	0.222
08:00 - 09:00	8	15	0.145	8	15	0.231	8	15	0.376
09:00 - 10:00	8	15	0.077	8	15	0.197	8	15	0.274
10:00 - 11:00	8	15	0.214	8	15	0.162	8	15	0.376
11:00 - 12:00	8	15	0.137	8	15	0.137	8	15	0.274
12:00 - 13:00	8	15	0.162	8	15	0.197	8	15	0.359
13:00 - 14:00	8	15	0.145	8	15	0.145	8	15	0.290
14:00 - 15:00	8	15	0.197	8	15	0.145	8	15	0.342
15:00 - 16:00	**8**	**15**	**0.222**	**8**	**15**	**0.239**	**8**	**15**	**0.461**
16:00 - 17:00	8	15	0.171	8	15	0.154	8	15	0.325
17:00 - 18:00	8	15	0.188	8	15	0.085	8	15	0.273
18:00 - 19:00	8	15	0.214	8	15	0.162	8	15	0.376
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.940			2.008			3.948

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 columns) 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.*

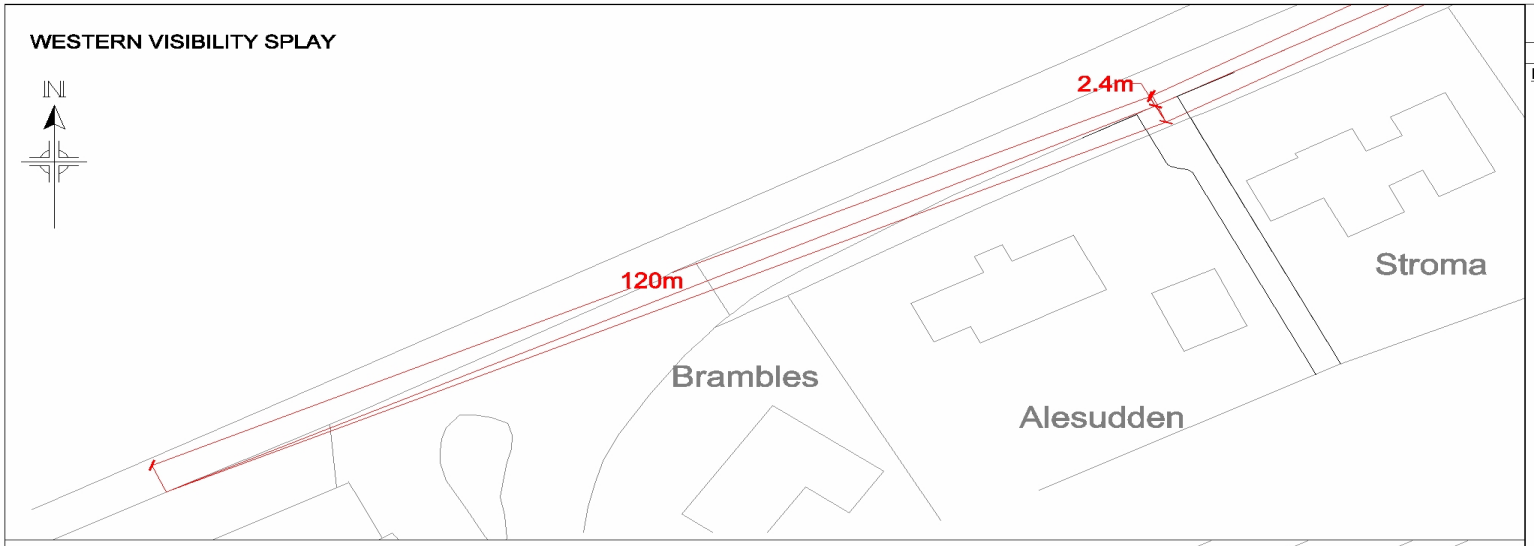
Parameter summary

Trip rate parameter range selected:	8 - 19 (units:)
Survey date date range:	01/01/13 - 09/09/20
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

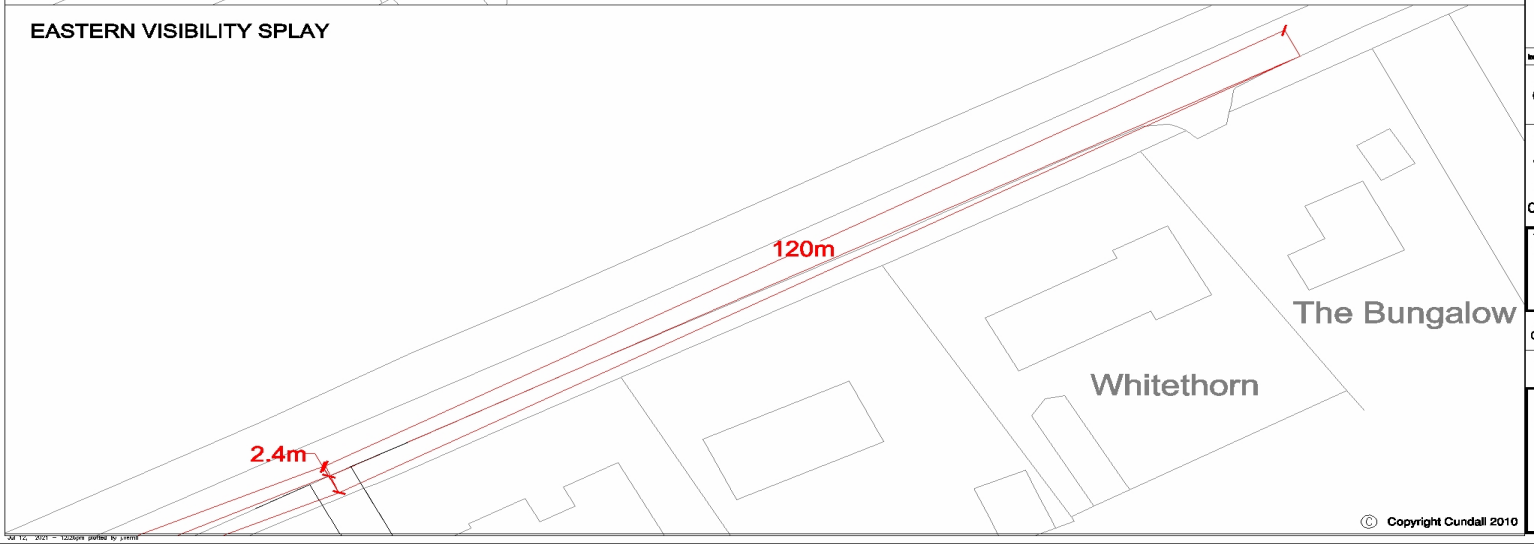
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

Appendix B

WESTERN VISIBILITY SPLAY



EASTERN VISIBILITY SPLAY



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DO NOT SCALE FROM THIS DRAWING

Notes

Issue	Date	Description	By	Chkd	Verfd

Project
CHARLSFIELD, ST BOSWELLS

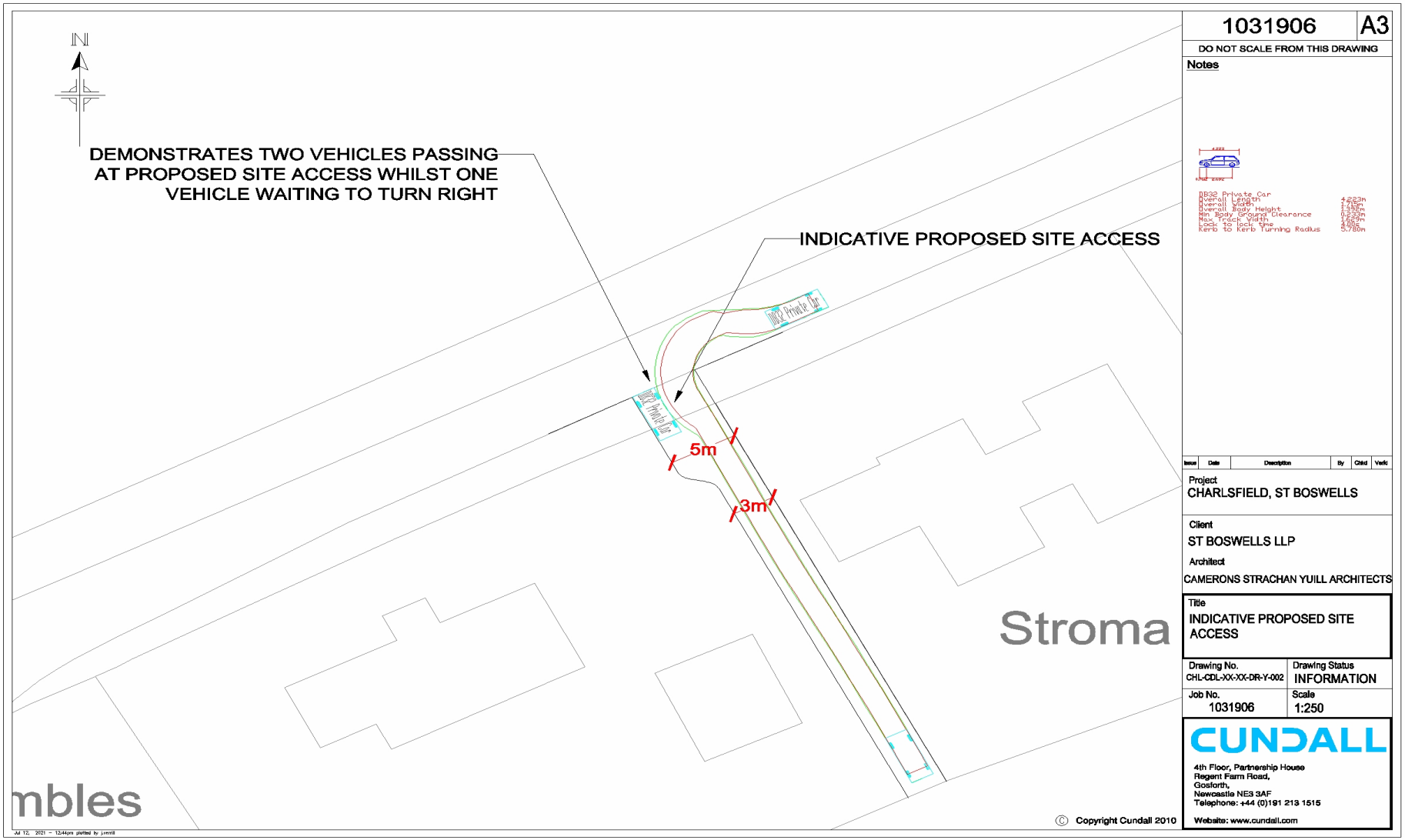
Client
ST BOSWELLS LLP

Architect
CAMERONS STRACHAN YUILL ARCHITECTS

Title
VISIBILITY SPLAY - 2.4m x 120m

Drawing No.	Drawing Status
CHL-CDL-XX-XX-DR-Y-001	INFORMATION
Job No.	**Scale**
1031906	1:500

CUNDALL
4th Floor, Partnership House
Regent Farm Road,
Gosforth,
Newcastle NE3 3AF
Telephone: +44 (0)191 213 1515
Website: www.cundall.com



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DO NOT SCALE FROM THIS DRAWING

Notes

DB32 Private Car

Overall Length	4.283m
Overall Width	1.783m
Overall Body Height	1.395m
Min Body Ground Clearance	0.239m
Max Track Width	1.683m
Lock to lock Time	4.0s
Kerb to Kerb Turning Radius	5.780m

Issue	Date	Description	By	Chkd	Verfd

Project
CHARLSFIELD, ST BOSWELLS

Client
ST BOSWELLS LLP

Architect
CAMERONS STRACHAN YUILL ARCHITECTS

Title
INDICATIVE PROPOSED SITE ACCESS

Drawing No.	Drawing Status
CHL-CDL-XX-XX-DR-Y-002	INFORMATION
Job No.	**Scale**
1031906	1:250

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