

Proposed Sheringham Recycling Centre, Norfolk

Transport Statement

January 2023

On behalf of Norfolk County Council

Project Ref: 332210167 | Rev: A | Date: January 2023



Document Control Sheet

Project Name: Proposed Sheringham Recycling Centre

Project Ref: 332210167

Report Title: Transport Statement

Doc Ref: 332210167-TS-A
Date: January 2023

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Revision	Date	Description	Prepared	Reviewed	Approved
Α	23/1/2023	Updated planning application description	MJI	JC	MJI

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1 Introduction

1.1 Background

- 1.1.1 This Transport Statement (TS) has been prepared by Stantec UK Ltd for Norfolk County Council (NCC) Community and Environmental Services. It accompanies a planning application for a new recycling centre near Sheringham, to be located on Holt Road, off the A148, south of Sheringham, Norfolk.
- 1.1.2 The development will replace the existing Sheringham Recycling Centre, which would cease operation. The proposed recycling centre will be an improved facility that addresses future housing growth and increased rates of recycling. It will be situated on land acquired by NCC Community and Environmental Services on the opposite side of Holt Road to the existing facility, resulting in no significant change in location of the recycling centre.
- 1.1.3 The development is located along Holt Road, a short parallel route off the A148 south of Sheringham, served by two priority junctions approximately 500 metres apart. The development would deliver an improvement to the eastern priority junction, relocating it so that a perpendicular approach from Holt Road is provided, facilitating all movements with improved visibility.
- 1.1.4 The new recycling centre would result in no significant change in vehicular activity on Holt Road, being situated in a similar location as the existing facility. The site is a rework of the current recycling centre to improve efficiency. The analysis in this TS demonstrates that this will not have a detrimental impact on the local highway network.
- 1.1.5 The TS forms parts of the supplementary documentation that accompanies a detailed planning application for the proposed development, which is due to be submitted in early 2023. The new facility is anticipated to be operational by 2024 after a construction period of about six months.

1.2 Scoping and Report Structure

- 1.2.1 The Government's National Planning Policy Framework (NPPF) requires that a TS is prepared for developments which are likely to generate significant amounts of movement, so that the likely impacts of the proposal can be assessed. The scope and assessment methodology of this TS has been discussed with highways officers of NCC, the local highway authority for local roads in the vicinity of the site.
- 1.2.2 The TS investigates the impact of the recycling centre on flows at the Holt Road A148 during periods of peak highway flows, i.e., the weekday AM and PM peak hours. These impacts are considered to be minimal, since the catchment zone for the recycling area remains unaltered. Considerations are also made for seasonal variations in the rates of usage of recycling centres throughout a year.
- 1.2.3 Section 2 describes the development proposals in terms of the site layout, access, and parking provision. Section 3 sets out national and local planning policy and guidance, against which the impact of the development proposals will be assessed. Section 4 describes existing conditions for pedestrians, cyclists, and public transport in the vicinity of the site, as well as identifying the local road network and reviewing traffic flows.
- 1.2.4 Section 5 presents vehicular trip modelling of the proposed recycling centre. This is based on the existing data for the Sheringham site and growth assumptions provided by NCC Community and Environmental Services.



- 1.2.5 Section 6 assesses the impact of the proposed development, including analysis of traffic flows at the site access junction during peak periods. Section 7 presents a brief Framework Travel Plan for staff at the development, the aim of which would be to encourage a reduction in single occupancy staff vehicle trips generated by the site.
- 1.2.6 Section 8 presents the conclusions of the report.



2 Development Proposals

2.1 Site Location and Existing Use

- 2.1.1 The site is located approximately 2km south of Sheringham town centre, while the coastal town of Cromer is 6km to the east and the market town of Holt is 8km to the west.
- 2.1.2 The existing recycling centre and proposed site are located on Holt Road, a short road which runs parallel to the A148, to which it is linked at both ends via priority junctions approximately 500 metres apart. Holt Road serves the recycling centre, but is also the main entrance to the Hilltop Outdoor Centre, accessed via a private route from Holt Road, located west of the existing site.
- 2.1.3 The proposed recycling centre will be opposite the existing facility. Once opened, the existing facility will cease operation. The site of the proposed facility is currently agricultural land, acquired by NCC Community and Environmental Services to enable the development proposals.
- 2.1.4 Figure 1 illustrates the site location in both the wider context of Sheringham, Holt and Cromer and the local context on Holt Road, including the locations of the existing and proposed recycling centres.

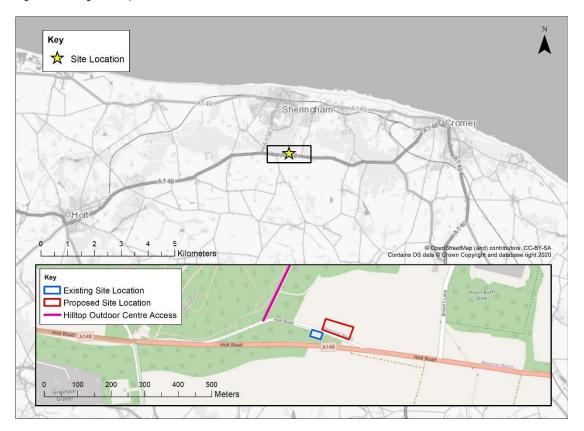


Figure 1: Existing and Proposed Site Location Plan

2.1.5 The site lies within the administrative boundary of North Norfolk District Council (NNDC) who are the Local Planning Authority. NCC are the Local Highway Authority for local roads around the site, including Holt Road and the A148 as well as the planning authority for waste. The planning application will therefore be determined by NCC, rather than NNDC.



2.1.6 The existing site is a roadside recycling centre with two gated accesses, and small parking area with approximately 8 car parking spaces. On site observations indicated that users often also park on each side of Holt Road, rather than entering the facility. Figure 2 is a photograph taken of the facility from the east of the site on Holt Road in September 2022.





2.1.7 Non-car access to the site is limited, with no bus stops located within proximity to the site, and similarly no walking or cycle infrastructure on Holt Road, as illustrated in Figure 2. Holt Road is the only highway connection to the site.

2.2 Proposed Development

2.2.1 The planning application description for the development is as follows:

Creation of a new recycling centre (RC) to deal with household waste and small amounts of trade waste. RC includes creation of a concrete pad and erection of new staff welfare office and reuse shop (with photovoltaic panels) for onsite sale of items suitable for reuse and ancillary small-scale sale of non-recycled items (Christmas trees, logs, compost bins and green waste sacks). Improvement to the existing junction between A148 Holt Road and layby accessing the recycling centre

2.2.2 The proposed recycling centre general arrangement plan is attached at Appendix A. Vehicular access would be via a new priority junction with Holt Road, as indicated on the general arrangement plan. The visibility splay requirements have been determined based on speed surveys undertaken along Holt Road, which indicate a free flow 85th percentile speed of 27-28mph. This survey data is described further in Section 4. Pedestrian and cycle access would not be provided as a part of the proposed development due to the nature of the site, meaning most trips will be undertaken by car or van for the transporting of heavy goods for disposal.



- 2.2.3 Off site, the proposed development will deliver a new priority T-junction of Holt Road with the A148, to replace the existing junction east of the development site. The layout is shown on the general arrangement plan prepared by Norfolk County Council, attached at Appendix B. The new junction will improve visibility for vehicles manoeuvring to Holt Road from the A148, with realignment of Holt Road east of the site providing a perpendicular approach to the A148, replacing the existing junction which has an acute angle of approach to the A148.
- 2.2.4 To encourage vehicles to use the proposed A148 / Holt Road priority junction, the development will require a left-turn when exiting the proposed recycling centre. This would be achieved through signage at the exit of the recycling centre directing vehicles to turn left. Alternatively, this may be more formally mandated through a Traffic Regulation Order (TRO), which is outside of the planning process and would require NCC Highways to progress the TRO.
- 2.2.5 The left-turn when exiting the site will reduce the number of vehicles travelling west to use the more acute existing A148/Holt Road junction. Although the existing western junction will remain in place, it is anticipated that the majority of movements at this junction will be left turners from the A148 eastbound onto Holt Road, a relatively straightforward manoeuvre.
- 2.2.6 The proposed recycling centre would expand on the parking provisions of the existing site, which has 8 marked car parking spaces and a general yard. The proposed site will have 10 car parking spaces for visitors. For staff, 4 car parking spaces will be provided. The provision of the additional parking on site will reduce the risk of the vehicles stopping on Holt Road and walking into the facility.
- 2.2.7 The site has been designed to accommodate the manoeuvring of large vehicles. Swept paths of the vehicles likely to use the recycling centre are included at Appendix C.
- 2.2.8 A full application is anticipated early in 2023, with the new recycling centre opening in 2024. As noted above, this will trigger the closure of the existing facility.

2.3 Construction Traffic

- 2.3.1 The construction period of the recycling centre is anticipated to last about 6 months and, as noted above, is anticipated to become operational in 2024.
- 2.3.2 A Construction Traffic Management Plan (CTMP) will be submitted to and approved by NCC prior to the start of construction of the development. The CTMP could be secured by means of a suitably worded planning condition.
- 2.3.3 The CTMP will need to consider the traffic management arrangements when the new Holt Road / A148 junction (shown on the drawing at Appendix B) is under construction, at which time traffic needing to access Holt Road will be required to use the western-most access with the A148.



3 Policy and Guidance

3.1 Introduction

- 3.1.1 This TS has been prepared in line with relevant national and local policies and guidance, as identified and detailed in this section. These are as follows:
 - National policies and guidance:
 - National Planning Policy Framework (2021);
 - Planning Practice and Guidance: Travel plans, Transport Assessments and Statements in Decision-Taking (2014); and
 - Local policies and guidance:
 - Local Transport Plan 4 Strategy 2021-2036

3.2 National Policies and Guidance

National Planning Policy Framework (2021)

3.2.1 The key aim of the revised National Planning Policy Framework (NPPF) is to promote and achieve sustainable development. This aim is highlighted in Paragraph 10 which states that 'at the heart of the Framework is a presumption in favour of sustainable development'. Chapter 9 of the NPPF covers the promotion of sustainable transport. The NPPF states that:

'Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- the potential impacts of development on transport networks can be addressed;
- opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised -for example in relation to the sale, location or density of development that can be accommodated;
- opportunities to promote walking, cycling and public transport use are identified and pursued;
- the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains;
- patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.'
- 3.2.2 Chapter 9 of the NPPF also states the following:
 - Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'
 - 'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'



Planning Practice and Guidance: Travel plans, Transport Assessments and Statements in Decision-Taking (2014)

- 3.2.3 The Planning Practice Guidance (PPG) provides guidance on:
 - whether a Transport Assessment or Transport Statement is required;
 - when a Travel Plan is required;
 - establishing a scope for the Transport Assessment and Travel Plan; and
 - what information is to be included in the Transport Assessment and Travel Plan.
- 3.2.4 This Transport Statement follows PPG and includes the following details:
 - information about the proposed development;
 - information about neighbouring uses, amenity and character, existing functional classification of the nearby road network;
 - data about existing public transport provision, including provision/ frequency of services;
 - a qualitative and quantitative description of the travel characteristics of the proposed development;
 - an analysis of the injury accident records on the public highway in the vicinity of the site access;
 - measures to improve the accessibility of the location; and
 - a description of the parking strategy of the development;

3.3 Local Policies and Guidance

Local Transport Plan 4 Strategy 2021-2036

3.3.1 The Local Transport Plan sets out NCC's plans, policies and programmes on transport and transport infrastructure. The plan details how NCC will deliver a transport network in Norfolk through identifying the projects and programmes important to NCC, and in their design and direct delivery. The plan contains a transport strategy that looks towards 2036. It will be accompanied by a separate Implementation Plan setting out in detail the short-term schemes, projects and measures that will implement over a three-year period. The implementation plan will be developed over the course of 2022.



- 3.3.2 The LTP has seven overall Objectives:
 - embracing the future;
 - delivering a sustainable Norfolk;
 - enhancing connectivity;
 - enhancing Norfolk's quality of life;
 - increasing accessibility;
 - improving transport safety; and
 - a well-managed and maintained transport network.

The Adopted Norfolk Minerals and Waste Core Strategy

3.3.3 This document is valid 1st January 2010 to 31st December 2026 and sets out the spatial vision for future mineral extraction and associated development and waste management facilities in Norfolk.

Policy CS6 - General waste management considerations

- 3.3.4 Waste sites will need to be developed on the following types of land either already in waste management us, identified in a Local Plan, previously-developed or contaminated or derelict land.
 - existing industrial/employment land or land identified for these uses in a Local Plan or Development Plan Document;
 - other previously-developed land; and
 - contaminated or derelict land.

Policy CS15 - Transport

3.3.5 The County Council will consider waste development proposals to be satisfactory in terms of access if they do not generate unacceptable impacts on the capacity or physicality of the highway network, unacceptable environmental damage and air quality impacts or risks of safety to the community.

North Norfolk Local Development Framework Core Strategy Policy SS2

3.3.6 Areas designated as Countryside development will be limited to listed land uses, waste management facilities are one of these listed land uses.



4 Baseline Transport Conditions

4.1 Non-Car Accessibility of the Sheringham Site

- 4.1.1 The site's accessibility by non-car modes of transport is limited. There are no existing footways connected to the site, and similarly there is no dedicated cycle infrastructure cyclists would be forced to share Holt Road with vehicular traffic. Holt Road is a single carriageway with a speed limit of 50 mph.
- 4.1.2 Most visitors to the site are likely to be travelling by car or van due to the bulky nature of the materials they will be carrying.

4.2 Local Highway Network

- 4.2.1 As described in Section 2, the existing and proposed recycling centres are located on Holt Road, a short parallel route connected at either end to the A148.
- 4.2.2 To understand existing traffic flows and speeds on Holt Road, a traffic survey company was commissioned to install Automatic Traffic Counters (ATC) either side of the recycling centre. The ATCs were installed for a period of one week between 28 April 2022 and 4 May 2022, recording the volume, classification and speed of vehicles. The ATCs were installed approximately 50m to the east and west of the existing recycling centre. The traffic data is attached at Appendix D.
- 4.2.3 The recorded hourly two-way traffic volumes and heavy goods vehicles (HGVs) for Friday 29 April 2022, Saturday 30 April 2022 and Sunday 1 May 2022 east of the recycling centre are summarised in Table 1. The 85th percentile speed recorded east of the site was 28.0mph.

Table 1: Observed Two-Way Traffic and HGV Volumes and on Holt Road - East of Existing Site

4.70	Frie	day	Satu	ırday	Sur	nday
ATC Location	Total Traffic	HGVs	Total Traffic	HGVs	Total Traffic	HGVs
07:00-08:00	3	1	2	2	2	0
08:00-09:00	33	6	11	1	7	0
09:00-10:00	29	4	37	3	28	3
10:00-11:00	37	1	34	1	38	3
11:00-12:00	40	6	20	2	32	1
12:00-13:00	25	2	30	5	53	4
13:00-14:00	29	7	30	4	37	2
14:00-15:00	31	1	30	3	34	1
15:00-16:00	49	3	23	0	25	0
16:00-17:00	29	0	27	4	21	1
17:00-18:00	28	1	7	0	8	1
18:00-19:00	11	1	1	0	2	1
Total	344	33	252	25	287	17

Source: TSP ATC Surveys (28 April 2022 – 4 May 2022)

4.2.4 The recorded hourly two-way traffic volumes and heavy goods vehicles (HGVs) for Friday 29 April 2022, Saturday 30 April 2022 and Sunday 1 May 2022 west of the recycling centre are summarised in Table 2. The 85th percentile speed recorded west of the site was 26.6mph.



Table 2: Observed Two-Way Traffic and HGV Volumes and on Holt Road – West of Existing Site

ATC	Frie	day	Satu	rday	Sur	ıday
ATC Location	Total Traffic	HGVs	Total Traffic	HGVs	Total Traffic	HGVs
07:00-08:00	4	2	2	1	2	0
08:00-09:00	20	2	13	1	11	1
09:00-10:00	17	2	32	0	28	5
10:00-11:00	24	1	38	1	35	1
11:00-12:00	25	2	20	0	34	1
12:00-13:00	27	2	28	1	43	3
13:00-14:00	33	4	30	2	34	1
14:00-15:00	31	1	49	2	22	1
15:00-16:00	52	7	25	0	18	0
16:00-17:00	16	0	22	0	18	0
17:00-18:00	30	1	3	0	7	1
18:00-19:00	11	1	1	0	2	1
Total	290	25	263	8	254	15

Source: TSP ATC Surveys (28 April 2022 – 4 May 2022)

- 4.2.5 Table 1 and Table 2 demonstrate that Holt Road is a lightly trafficked road with relatively low vehicular speeds in the vicinity of the existing recycling centre. The day with the greatest traffic flows is Friday. The peak hourly vehicle movements are recorded from 12:00-13:00 on Sunday, east of the site, when 52 two-way vehicular trips were recorded.
- 4.2.6 Typically, the wider highway network is at its busiest on weekdays, and in particular during the typical AM and PM peak hour of 08:00-09:00 and 17:00-18:00. The assessment undertaken hereafter in this TS focusses on a weekday, given that Table 1 and Table 2 above demonstrate that this is when Holt Road is most trafficked. Section 6 describes the impact of the proposed development, with particular focus on its impact during these typical weekday peak hours and its impact on Holt Road traffic flows.
- 4.2.7 The free flow 85th percentile speeds observed on Holt Road have informed the appropriate visibility splay for the proposed site access, as shown on the general arrangement drawing at Appendix A.

4.3 Road Traffic Accident Record

4.3.1 Road traffic accident data was obtained from NCC for the latest available 5-year period covering 2017-2022. Data was obtained for a 750m radius of the site. The data indicates there were a total of 11 injuries, none of which were fatal. The data is summarised in Table 3.



Table 3: Road Traffic Accident Record

Location	Date	Severity	Vehicles Involved	Number of Casualties	Pedestrian s involved
	31/01/2022	Slight	1	1	0
A148 / Holt Road (west)	29/11/2017	Slight	1	1	0
	05/03/2019	Serious	3	3	0
A148 / Holt Road (east)	23/07/2020	Slight	2	2	0
A148 / Pretty Corner Lane /	21/04/2019	Serious	2	1	0
Gibbet Lane	06/04/2021	Slight	1	1	0
A440 / Halway Daad	12/09/2021	Slight	2	1	0
A148 / Holway Road	27/07/2019	Serious	2	1	0
Total	14	11	0		

4.3.2 The accident record and plot are attached at Appendix E. Table 3 shows that there was a total of 8 incidents, 5 of which were slight and 3 of which were serious. 2019 contained the greatest number of incidents, when 3 occurred. There were no fatal injuries recorded, and incidents did not occur in any clusters. The accident data does not indicate that the highway layout itself is a main contributory cause of the accidents recorded.



5 Development Trip Modelling

5.1 Introduction

- 5.1.1 Trips generated by the development will be predominantly car-based, due to the nature of the proposed development, similarly to the existing site. Few trips are likely to be made by non-car modes, due to the limited accessibility and infrastructure supporting non-car modes. The nature of the site means that the majority of trips would be by car or van, regardless of non-car accessibility, due to the bulky nature of goods being taken to the site.
- 5.1.2 The assessment of development trips in this section assumes that all trips to and from the proposed site will be by car or van, reflecting existing travel patterns to and from the existing recycling centre.
- 5.1.3 The vehicular trip generation has been calculated based on observed flows at the existing Sheringham recycling centre. The catchment area of the existing and proposed recycling centres are anticipated to be identical. It is therefore considered that the number of vehicular trips would remain unchanged. An allowance for the seasonal variation in rates of recycling and anticipated population growth within the catchment area have been made for the future year assessments. The future years assessed are set out in the following section.

5.2 Assessment Scenarios

- 5.2.1 In line with national and NCC guidance, future year assessments have been undertaken for the anticipated opening year of the proposed development and 5 years after anticipated opening. As noted in previous sections, the site is anticipated to be operational in 2024. Each future year assessment will consider the impact of proposed development traffic i.e. compare scenarios with and without the development proposals. The assessment is limited to weekdays, given that the typical peak periods on the wider network are on weekdays.
- 5.2.2 The scenarios considered within this TS are set out below:
 - 2024 Future Baseline without Development
 - 2024 Future Baseline with Development
 - 2029 Future Baseline without Development
 - 2029 Future Baseline with Development

5.3 Existing Site Trip Generation

5.3.1 To derive the existing recycling centre trip generation, a Manual Classified Count (MCC) of the existing recycling centre access was undertaken on Friday 29 April 2022, to record the number of vehicles travelling to and from the recycling centre across a typical weekday between 07:00 – 19:00. The MCC recorded vehicles entering the site as well as vehicles parking at the roadside on Holt Road and accessing the site on foot, so that total trips at the existing site were recorded. Table 4 summarises the observed number of vehicles travelling to / from the site from each direction by hour. It was assumed that vehicles parking on the south side of Holt Road arrived from the east and departed to the west and vice versa for those parking on the north side of Holt Road. The traffic data is attached at Appendix D.



Table 4: Existing Site Vehicular Trip Generation – Weekday in April

Time Period	Hol	t Road (E	ast)	Holi	t Road (W	/est)		Total Vehicular Trip Generation		
	In	Out	Total	In	Out	Total	In	Out	Total	
07:00-08:00	0	1	1	2	0	2	2	1	3	
08:00-09:00	7	3	10	1	6	7	8	9	17	
09:00-10:00	12	9	21	6	7	13	18	16	34	
10:00-11:00	12	15	27	9	7	16	21	22	43	
11:00-12:00	15	20	35	12	6	18	27	26	53	
12:00-13:00	7	10	17	10	8	18	17	18	35	
13:00-14:00	7	17	24	19	10	29	26	27	53	
14:00-15:00	6	21	27	21	5	26	27	26	53	
15:00-16:00	16	19	35	20	17	37	36	36	72	
16:00-17:00	9	13	22	5	2	7	14	15	29	
17:00-18:00	0	0	0	0	0	0	0	0	0	
18:00-19:00	0	0	0	0	0	0	0	0	0	
Total	91	128	219	105	68	173	196	196	392	

Source: TSP MCC Survey (29 April 2022)

- 5.3.2 The existing vehicular trip generation set out in Table 4 represents a typical weekday in April. To account for the seasonality of use of the Sheringham Recycling Centre, these trips have been factored up so that they represent the busiest period of the year. By assessing the existing and proposed development during the busiest period of the year, the assessment undertaken in this TS will form a robust assessment of peak demand.
- 5.3.3 NCC Community and Environmental Services team provided data on the monthly variation in net weight of recycled materials at the Sheringham recycling centre, so that the peak month could be identified. The data and monthly ranks are summarised in Table 5.

Table 5: Sheringham Monthly Variation in Net Weight of Recycled Materials

Month	Net Weight of Recycled Materials (Tonnes)	Monthly Rank
April 2021	282.96	4
May 2021	251.26	7
June 2021	318.65	1
July 2021	300.11	2
August 2021	291.86	3
September 2021	277.71	5
October 2021	236.42	8
November 2021	195.17	9
December 2021	143.98	12
January 2022	187.23	10
February 2022	163.48	11
March 2022	259.31	6

Source: NCC Community and Infrastructure



5.3.4 Table 5 demonstrates that April ranks fourth highest in terms of net weight of recycled materials processed per month, while June ranks first. The respective monthly weight figures for April and June have been used to derive a factor of 1.126, to uplift from April to June. In other words, typically there is 12.6% more recycled material processed in June than in April. Applying this increase to the existing weekday vehicular trip generation from Table 3 results in the peak existing weekday vehicular trip generation set out in Table 6. This data now represents a typical weekday in June, when recycling demand is greatest.

Time Period	Hol	t Road (E	ast)	Holt	Road (W	/est)		Total Vehicular Trip Generation		
	In	Out	Total	In	Out	Total	In	Out	Total	
07:00-08:00	0	1	1	2	0	2	2	1	3	
08:00-09:00	8	3	11	1	7	8	9	10	19	
09:00-10:00	14	10	24	7	8	15	20	18	38	
10:00-11:00	14	17	30	10	8	18	24	25	48	
11:00-12:00	17	23	39	14	7	20	30	29	60	
12:00-13:00	8	11	19	11	9	20	19	20	39	
13:00-14:00	8	19	27	21	11	33	29	30	60	
14:00-15:00	7	24	30	24	6	29	30	29	60	
15:00-16:00	18	21	39	23	19	42	41	41	81	
16:00-17:00	10	15	25	6	2	8	16	17	33	
17:00-18:00	0	0	0	0	0	0	0	0	0	
18:00-19:00	0	0	0	0	0	0	0	0	0	
Total	102	144	247	118	77	195	221	221	441	

Source: TSP MCC Survey (29 April 2022) and NCC Community and Infrastructure Services

- 5.3.5 To derive future baseline traffic flows for 2024 and 2029, anticipated growth in the Sheringham Recycling Centre catchment was accounted for. It was confirmed by NCC Community and Environmental Services that applying growth of 1.5% per annum would represent a robust assessment of growth in demand at Sheringham Recycling Centre.
- 5.3.6 Applying two years of growth to the peak existing site vehicular trip generation from Table 6 results in the 2024 future baseline vehicular trip generation set out in Table 7.



Table 7: 2024 Future Baseline Vehicular Trip Generation – Weekday in June at Existing Site

Time Period	Hol	t Road (E	ast)	Holf	Road (W	/est)		al Vehicular Trip Generation	
	In	Out	Total	In	Out	Total	In	Out	Total
07:00-08:00	0	1	1	2	0	2	2	1	3
08:00-09:00	8	3	12	1	7	8	9	10	20
09:00-10:00	14	10	24	7	8	15	21	19	39
10:00-11:00	14	17	31	10	8	19	24	26	50
11:00-12:00	17	23	41	14	7	21	31	30	61
12:00-13:00	8	12	20	12	9	21	20	21	41
13:00-14:00	8	20	28	22	12	34	30	31	61
14:00-15:00	7	24	31	24	6	30	31	30	61
15:00-16:00	19	22	41	23	20	43	42	42	84
16:00-17:00	10	15	26	6	2	8	16	17	34
17:00-18:00	0	0	0	0	0	0	0	0	0
18:00-19:00	0	0	0	0	0	0	0	0	0
Total	106	149	254	122	79	201	227	227	455

Source: TSP MCC Survey (29 April 2022) and NCC Community and Infrastructure Services

5.3.7 Applying seven years of growth to the peak existing site vehicular trip generation from Table 6 results in the 2029 future baseline vehicular trip generation set out in Table 8.

Table 8: 2029 Future Baseline Vehicular Trip Generation – Weekday in June at Existing Site

Time Period	Hol	t Road (E	ast)	Hol	t Road (W	/est)		Total Vehicular Trip Generation		
	In	Out	Total	In	Out	Total	In	Out	Total	
07:00-08:00	0	1	1	2	0	2	2	1	4	
08:00-09:00	9	4	12	1	7	9	10	11	21	
09:00-10:00	15	11	26	7	9	16	22	20	42	
10:00-11:00	15	19	34	11	9	20	26	27	54	
11:00-12:00	19	25	44	15	7	22	34	32	66	
12:00-13:00	9	12	21	12	10	22	21	22	44	
13:00-14:00	9	21	30	24	12	36	32	34	66	
14:00-15:00	7	26	34	26	6	32	34	32	66	
15:00-16:00	20	24	44	25	21	46	45	45	90	
16:00-17:00	11	16	27	6	2	9	17	19	36	
17:00-18:00	0	0	0	0	0	0	0	0	0	
18:00-19:00	0	0	0	0	0	0	0	0	0	
Total	114	160	274	131	85	216	245	245	490	

Source: TSP MCC Survey (29 April 2022) and NCC Community and Infrastructure Services



5.4 Proposed Site Trip Generation

- 5.4.1 As noted above, the catchment area of the existing and proposed recycling centres are anticipated to be identical. In addition, both sites will not be operational simultaneously, as the proposed site is a direct replacement of the existing facility. The existing recycling centre will cease to operate upon opening of the proposed recycling centre. It is therefore considered that demand at the proposed recycling centre and trip generation associated with both sites will be identical to the existing facility for all future assessment years.
- 5.4.2 As set out in Section 2, the development proposals include the provision of a new priority T-junction of Holt Road with the A148, east of the site. The location of the proposed junction is illustrated on the general arrangement plan, attached at Appendix B. The site will require a left turn when exiting the proposed recycling centre. Although the volumes of traffic are not anticipated to change, this proposal will result in a redistribution of traffic on Holt Road. Vehicles which currently exit the recycling centre westbound on Holt Road will no longer be permitted to do so, instead being required to exit in an eastbound direction.
- 5.4.3 The 2024 Future Baseline vehicular trip generation has been updated to account for the reassignment of trips on Holt Road. Table 9 sets out the 2024 Future Baseline with Development vehicular trip generation at the proposed site.

Table 9: 2024 Future Baseline wit	- Davida I	. T	i I+ D I O'4-
Table 4. 2024 Future Baseline Mit	n i jevelonment veniciliar	Trin Generation — Weekn	av in liline at Pronoseo Site

Time Period	Holt Road (East)		Holt Road (West)			Total Vehicular Trip Generation			
	In	Out	Total	In	Out	Total	In	Out	Total
07:00-08:00	0	1	1	2	0	2	2	1	3
08:00-09:00	8	10	19	1	0	1	9	10	20
09:00-10:00	14	19	32	7	0	7	21	19	39
10:00-11:00	14	26	39	10	0	10	24	26	50
11:00-12:00	17	30	48	14	0	14	31	30	61
12:00-13:00	8	21	29	12	0	12	20	21	41
13:00-14:00	8	31	39	22	0	22	30	31	61
14:00-15:00	7	30	37	24	0	24	31	30	61
15:00-16:00	19	42	60	23	0	23	42	42	84
16:00-17:00	10	17	28	6	0	6	16	17	34
17:00-18:00	0	0	0	0	0	0	0	0	0
18:00-19:00	0	0	0	0	0	0	0	0	0
Total	106	227	333	122	0	122	227	227	455

Source: TSP MCC Survey (29 April 2022) and NCC Community and Infrastructure Services

5.4.4 Likewise, the 2029 Future Baseline vehicular trip generation has been updated to account for the reassignment of trips on Holt Road. Table 10 sets out the 2029 Future Baseline with Development vehicular trip generation at the proposed site.



Table 10: 2029 Future Baseline with Development Vehicular Trip Generation – Weekday in June at Proposed Site

Time Period	Holt Road (East)		Holt Road (West)			Total Vehicular Trip Generation			
	In	Out	Total	In	Out	Total	In	Out	Total
07:00-08:00	0	1	1	2	0	2	2	1	4
08:00-09:00	9	11	20	1	0	1	10	11	21
09:00-10:00	15	20	35	7	0	7	22	20	42
10:00-11:00	15	27	42	11	0	11	26	27	54
11:00-12:00	19	32	51	15	0	15	34	32	66
12:00-13:00	9	22	31	12	0	12	21	22	44
13:00-14:00	9	34	42	24	0	24	32	34	66
14:00-15:00	7	32	40	26	0	26	34	32	66
15:00-16:00	20	45	65	25	0	25	45	45	90
16:00-17:00	11	19	30	6	0	6	17	19	36
17:00-18:00	0	0	0	0	0	0	0	0	0
18:00-19:00	0	0	0	0	0	0	0	0	0
Total	114	245	359	131	0	131	245	245	490

Source: TSP MCC Survey (29 April 2022) and NCC Community and Infrastructure Services



6 Development Transport Impacts

6.1 Introduction

- 6.1.1 This section assesses the impact of the proposed development using the trip generation derived in Section 5.
- 6.1.2 Given that the existing and proposed facilities will create limited demand via walking, cycling or public transport, it is considered that there are no non-car impacts of the development proposals. The remainder of this section focusses on the vehicular impact of the proposals.

6.2 Impact on Weekday Peak Hours

- 6.2.1 As noted in Section 4, typically the wider highway network is most sensitive to additional traffic during the weekday AM and PM peak hours.
- 6.2.2 The proposed development is forecast to generate the same number of trips as the existing facility. No additional trips are forecast to be added to the wider highway network. The impact on the wider network, including the A148 is considered negligible.

6.3 Impact on Holt Road

- 6.3.1 As noted in the previous section, the proposed relocation of the Sheringham Recycling Centre would result in no change in total vehicular trip generation. Therefore, the total traffic using Holt Road is not forecast to change. However, the proposals do result in some redistribution of traffic. This section sets out the anticipated changes to traffic flows on Holt Road east and west of the proposed site.
- 6.3.2 The ATCs, which were in place at the time of the MCCs on Friday 29 April 2022 as set out in Table 1 and Table 2, have been compared with the observed existing site vehicular trip generation (Table 4) to derive the components of traffic on Holt Road i.e. to derive traffic associated with the recycling centre and other traffic not associated with the recycling centre. The resultant components of two-way traffic on Holt Road east and west of the existing site are summarised in Table 11.



Table 11: Recycling Centre and Non-Recycling Centre Associated Two-Way Traffic on Holt Road

	Н	olt Road (Eas	t)	Holt Road (West)				
Time Period	Recycling Centre Traffic (Table 3)	Non- Recycling Centre Traffic	Total Traffic (ATC)	Recycling Centre Traffic (Table 3)	Non- Recycling Centre Traffic	Total Traffic (ATC)		
07:00-08:00	1	2	3	2	2	4		
08:00-09:00	10	23	33	7	13	20		
09:00-10:00	21	8	29	13	4	17		
10:00-11:00	27	10	37	16	8	24		
11:00-12:00	35	5	40	18	7	25		
12:00-13:00	17	8	25	18	9	27		
13:00-14:00	24	5	29	29	4	33		
14:00-15:00	27	4	31	26	5	31		
15:00-16:00	35	14	49	37	15	52		
16:00-17:00	22	7	29	7	9	16		
17:00-18:00	0	28	28	0	30	30		
18:00-19:00	0	11	11	0	11	11		
Total	219	125	344	173	117	290		

Source: TSP MCC and ATC Surveys (29 April 2022)

- 6.3.3 Table 11 demonstrates that approximately 36% and 40% of weekday traffic on Holt Road is not associated with the recycling centre, east and west of the site respectively.
- 6.3.4 Given that there are no significant development proposals in the vicinity of Holt Road and the local nature of the road, it is anticipated that the volume of non-recycling centre traffic will remain constant over time, including in both future assessment years. The non-recycling centre traffic has therefore been carried forward and combined with the forecast trip generation to derive future Holt Road traffic flows.
- 6.3.5 The comparative 2024 Future Baseline and 2024 Future Baseline with Development traffic on Holt Road traffic flows is summarised in Table 12.



Table 12: Proposed Development Impact on 2024 Total Two-Way Holt Road Traffic Flows

	Н	olt Road (Eas	it)	Holt Road (West)			
Time Period	2024 Future Baseline	2024 Future Baseline With Dev	Change	2024 Future Baseline	2024 Future Baseline With Dev	Change	
07:00-08:00	3	3	0	4	4	0	
08:00-09:00	35	42	+7	21	14	-7	
09:00-10:00	32	40	+8	19	11	-8	
10:00-11:00	41	49	+8	27	18	-8	
11:00-12:00	46	53	+7	28	21	-7	
12:00-13:00	28	37	+9	30	21	-9	
13:00-14:00	33	44	+12	38	26	-12	
14:00-15:00	35	41	+6	35	29	-6	
15:00-16:00	55	74	+20	58	38	-20	
16:00-17:00	33	35	+2	17	15	-2	
17:00-18:00	28	28	0	30	30	0	
18:00-19:00	11	11	0	11	11	0	
Total	379	458	+79	318	239	-79	

Source: Stantec Trip Modelling

- 6.3.6 Table 12 demonstrates that in 2024, proposed relocation of the Sheringham Recycling Centre is forecast to result in the 79 daily two-way vehicular trips being redistributed to the east from the west during peak activity at the recycling centre. The maximum hourly redistribution is 20 trips from 15:00-16:00.
- 6.3.7 This is considered to have a negligible effect, given that existing traffic volumes on Holt Road are low. The redistribution of traffic results in a greater number of vehicles being directed to the new proposed junction of Holt Road with the A148. A total of 79 daily vehicular trips are diverted away from the existing western junction, which is considered to be a positive impact of the proposed development given the improved visibility at the proposed eastern junction and limited visibility for vehicles exiting onto the A148 at the western junction.
- 6.3.8 The comparative 2029 Future Baseline and 2029 Future Baseline with Development traffic on Holt Road traffic flows is summarised in Table 13.

January 2023 ²⁰



Table 13: Proposed Development Impact on 2029 Total Two-Way Holt Road Traffic Flows

	Н	olt Road (Eas	Holt Road (West)				
Time Period	2029 Future Baseline	2029 Future Baseline With Dev	Change	2029 Future Baseline	2029 Future Baseline With Dev	Change	
07:00-08:00	3	3	0	4	4	0	
08:00-09:00	35	43	+7	22	14	-7	
09:00-10:00	34	43	+9	20	11	-9	
10:00-11:00	44	52	+9	28	19	-9	
11:00-12:00	49	56	+7	29	22	-7	
12:00-13:00	29	39	+10	31	21	-10	
13:00-14:00	35	47	+12	40	28	-12	
14:00-15:00	38	44	+6	37	31	-6	
15:00-16:00	58	79	+21	61	40	-21	
16:00-17:00	34	37	+2	18	15	-2	
17:00-18:00	28	28	0	30	30	0	
18:00-19:00	11	11	0	11	11	0	
Total	399	484	+85	333	248	-85	

Source: Stantec Trip Modelling

- 6.3.9 Table 13 demonstrates that in 2029, proposed relocation of the Sheringham Recycling Centre is forecast to result in the 85 daily two-way vehicular trips being redistributed to the east from the west during peak activity at the recycling centre. The maximum hourly redistribution is 21 trips from 15:00-16:00.
- 6.3.10 As noted above, this is considered to have a negligible effect, given that existing traffic volumes on Holt Road are low. A total of 85 vehicular trips are diverted to the proposed junction with improved visibility.

6.4 Summary of Impact

6.4.1 Based on the information set out above, it is therefore considered that the overall impact of the proposed development is positive. The site will offer a greatly improved facility, reduce the risk of parked vehicles on Holt Road, provide an improved junction of Holt Road and the A148 and redistribute traffic away from the existing western A148 / Holt Road junction which has an acute approach and poor visibility.



7 Framework Travel Plan

7.1 Introduction

7.1.1 The Framework Travel Plan seeks to reduce the share of single occupancy vehicle trips generated by staff of the proposed recycling centre, and to support more sustainable forms of travel. Its primary aim is to promote travel choices for staff (although some measures could be applied to visitors), to encourage staff to reduce their reliance on single occupancy car access and increase car sharing.

7.2 Aims and Objectives

7.2.1 The key aim of this Framework Travel Plan is to promote travel choices, with measures to encourage staff to reduce their reliance on single occupancy car travel and increase car sharing. The primary objective of the Travel Plan will be to reduce the single occupancy car mode share, compared to the scenario assuming no implementation of a Travel Plan.

7.3 Implementation, Management and Monitoring

- 7.3.1 This Framework Travel Plan is the first phase in the process towards preparing the full Travel Plan for the proposed recycling centre. The Full Workplace Travel Plan will be prepared prior to full completion.
- 7.3.2 NCC will have the overall responsibility for preparing and implementing the Travel Plan and will appoint a Travel Plan Co-ordinator (TPC) to take responsibility for the development and management of the Travel Plan and will be accountable for its delivery and monitoring. The role of the TPC could be undertaken by a member of recycling centre workforce.

January 2023 ²²

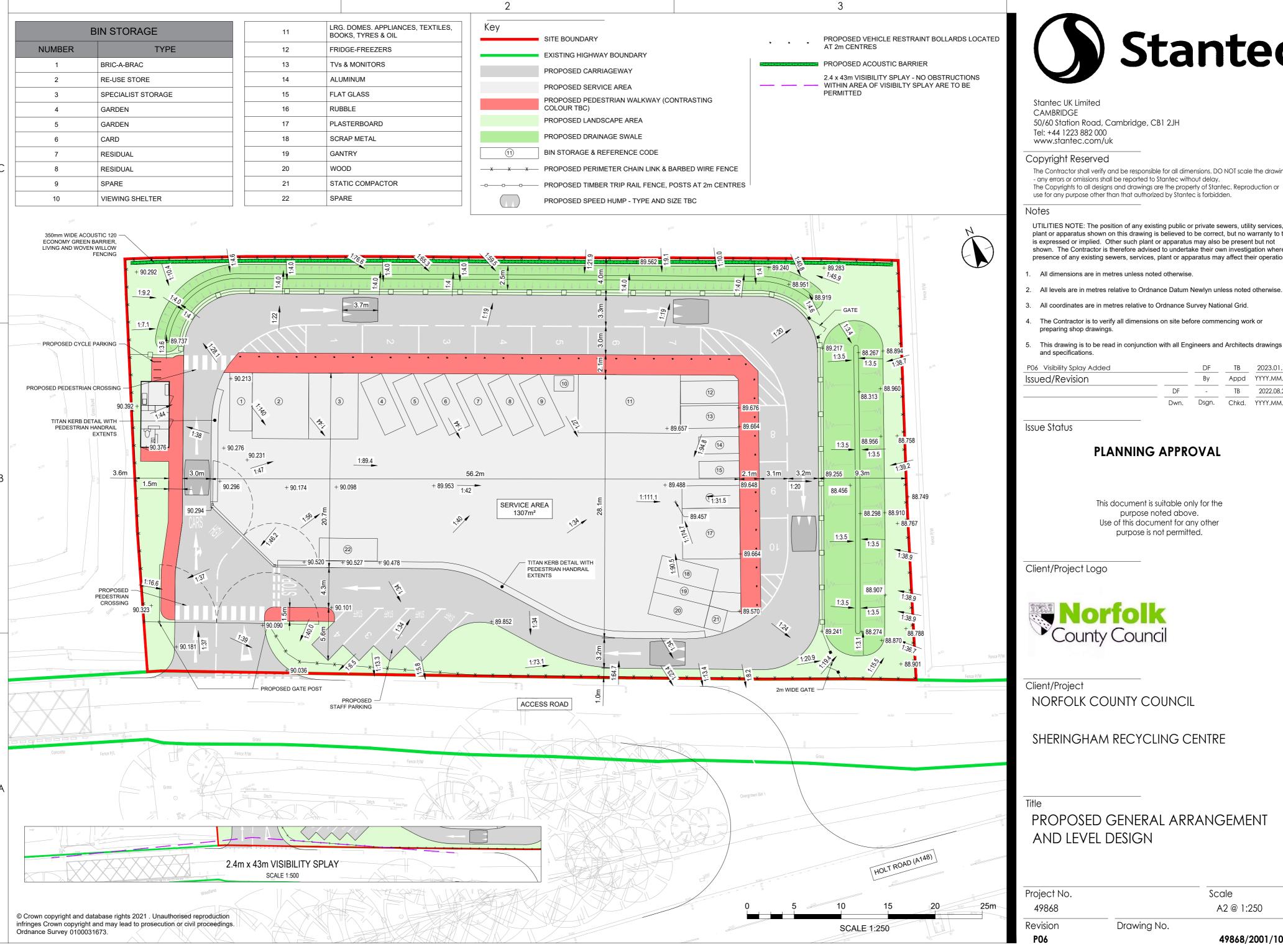


8 Conclusion

- 8.1.1 This Transport Statement (TS) has been prepared by Stantec UK Ltd for Norfolk County Council (NCC) Community and Environmental Services. It accompanies a planning application for the proposed Sheringham Recycling Centre, located on Holt Road.
- 8.1.2 The development would accommodate demand from the existing Sheringham recycling centre, which would cease operation. Modelling of the development's vehicular trips has been based on data obtained for the existing recycling centre.
- 8.1.3 There would be an increase of 2 car parking spaces for visitors and 4 staff car parking spots compared to the existing Sheringham Recycling Centre once the proposed site is fully operational. The site has been designed to allow vehicles to circulate the site and parking areas are clearly demarcated, unlike the existing facility.
- 8.1.4 A Framework Travel Plan is presented in this report to encourage non-car travel, and which could form the basis of a more detailed Workplace Travel Plan for staff.
- 8.1.5 The proposed development is forecast to generate the same number of trips as the existing facility. No additional trips are forecast to be added to the wider highway network. The impact on the wider network, including the A148 is considered negligible.
- 8.1.6 The proposed development includes the provision of a new priority T-junction from Holt Road with the A148. The proposed site will require visitors to turn left when exiting the site. This results in a redistribution in traffic on Holt Road, such that more traffic is directed towards the proposed junction and away from the western A148 / Holt Road junction which has an acute approach angle.
- 8.1.7 Based on the information set out above, it is therefore considered that the overall impact of the proposed development is positive. The site will offer a greatly improved facility, reduce the risk of parked vehicles on Holt Road, provide an improved junction of Holt Road and the A148 and redistribute traffic away from the existing western A148 / Holt Road junction which has an acute approach and poor visibility.
- 8.1.8 Based on the assessments described in this report, it is considered that the residual cumulative impacts of the development are not severe. Therefore, there should be no reason on transport grounds why the proposed development should be prevented or refused.



Appendix A Proposed General Arrangement Plan





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PROPOSED GENERAL ARRANGEMENT

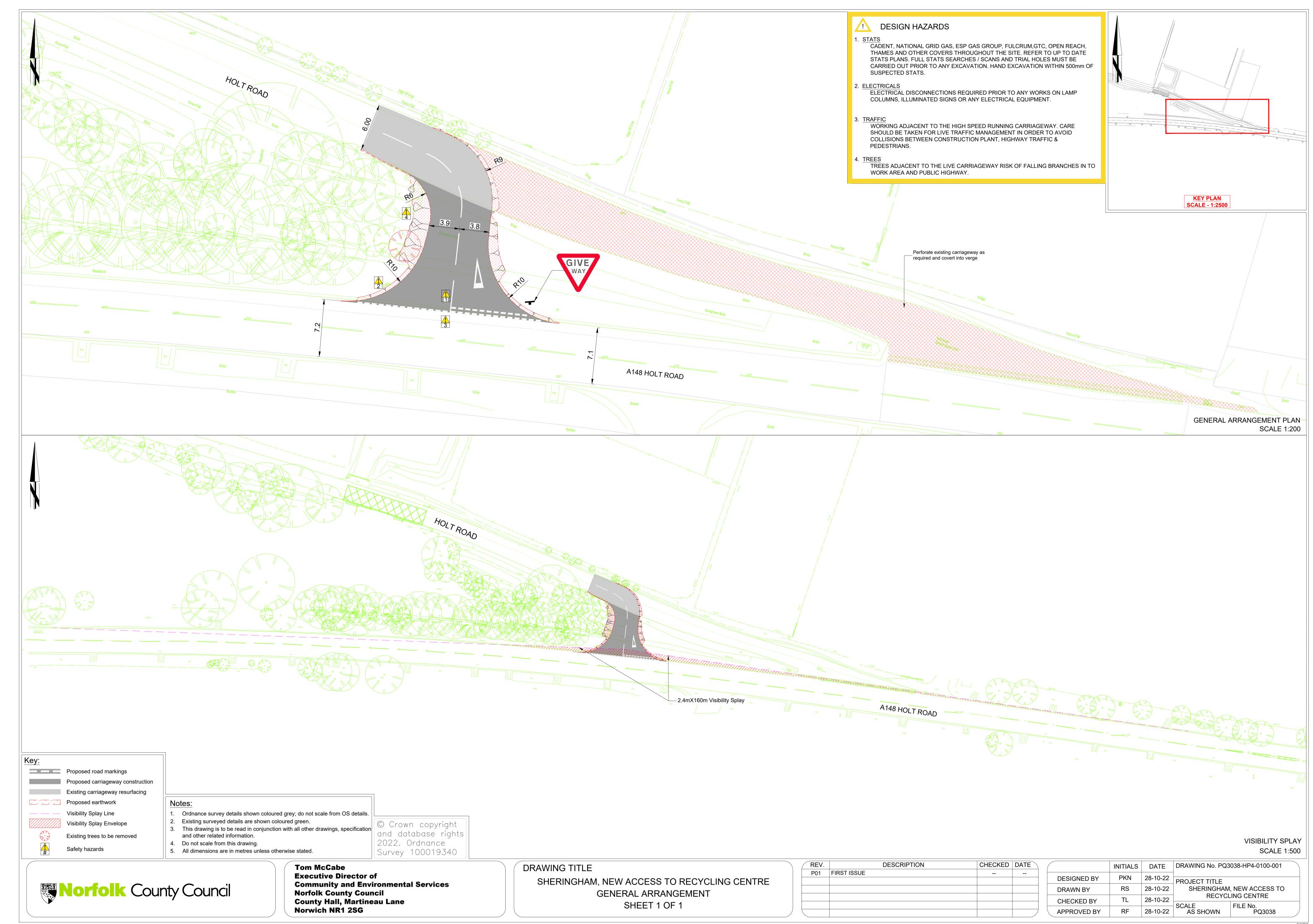
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Appendix B Proposed Layout of A148 / Holt Road Junction

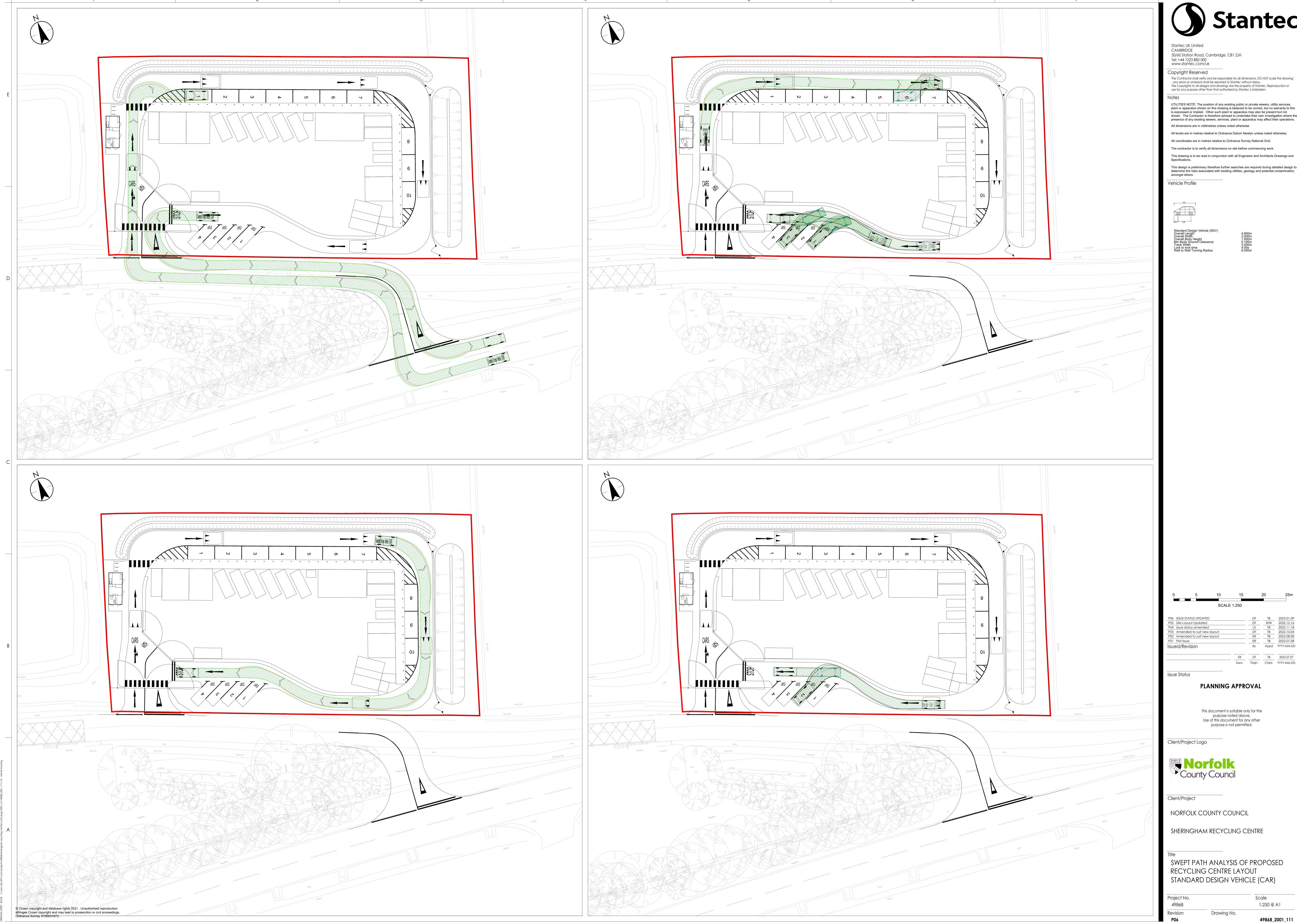


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JC 01/08/18



Appendix C Swept Path Drawings



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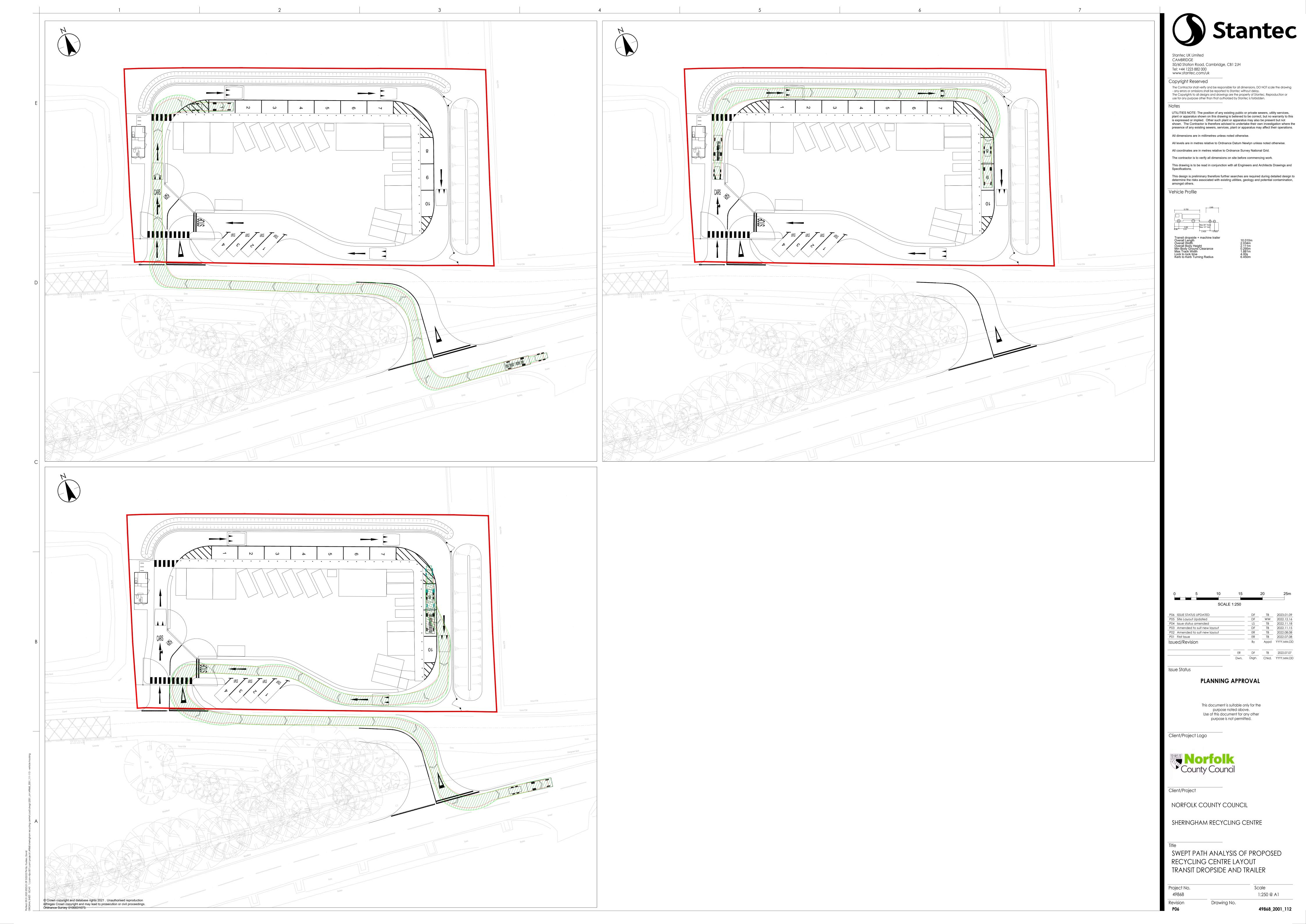
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SWEPT PATH ANALYSIS OF PROPOSED RECYCLING CENTRE LAYOUT STANDARD DESIGN VEHICLE (CAR)

Scale 1:250 @ A1







50/60 Station Road, Cambridge, CB1 2JH

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This drawing is to be read in conjunction with all Engineers and Architects Drawings and

This design is preliminary therefore further searches are required during detailed design to determine the risks associated with existing utilities, geology and potential contamination,

Volvo 8x4 5100 W/B Steel Suspn Boughton Hooklift

P04 Issue status amended P03 Amended to suit new layout 02 Amended to suit new layout

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NORFOLK COUNTY COUNCIL

SHERINGHAM RECYCLING CENTRE

RECYCLING CENTRE LAYOUT HOOKLIFT TRUCK

Scale 1:250 @ A0

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