



COTSWOLD
TRANSPORT
PLANNING



Land to the rear of 74 Hookhams Lane,
Renhold

Technical Note- Response to Highway
Authority Comments

December 2019





DOCUMENT REGISTER

CLIENT:	[REDACTED]
PROJECT:	LAND TO THE REAR OF 74 HOOKHAMS LANE, RENHOLD
PROJECT CODE:	CTP-19-374

REPORT TITLE:	TECHNICAL NOTE- RESPONSE TO HIGHWAYS COMMENTS		
PREPARED BY:	[REDACTED]	DATE:	DECEMBER 2019
CHECKED BY:	[REDACTED]	DATE:	DECEMBER 2019

REPORT STATUS:	V2 FINAL ISSUE
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1 Introduction

- 1.1 Cotswold Transport Planning Ltd (CTP) has been instructed by GC Planning Partnership to provide highway and transport advice in relation the development of Land at 27 Hookhams Lane, Renhold, Bedfordshire.
- 1.2 A planning application was submitted to Bedford Borough Council (BBC) (Ref: 19/02194/MAO) for the demolition of one dwelling and erection of up to 28 dwellings at the application site with all matters reserved except for access. Following submission of the planning application, a consultation response has been received from highways officers at BBC, which raised a number of comments with the proposed development, although it is noted that many of these comments related to the submitted site layout plan, which is illustrative only at this stage.
- 1.3 This Technical Note therefore provides a response to the highways comments with amended and / or additional information as appropriate.



2 Review of Highways Comments

2.1 This section presents a review and response to the highways comments received from BBC. The comments are reproduced in bold italics below followed by the CTP response. For ease, the heading used in the highways consultation response have also been used here.

Access

A speed survey has been carried out for a 2.4M x 43M x 43M splay. Hookham's Lane is a classified road with a 30 mph speed limit where a 2.4M x 90M x 90M splay is normally required without a speed survey.

The speed survey carried out showed that there was more than 5% OGV traffic which is unacceptable. As neighbouring sites have had speed surveys with an OGV level of less than 5% this is a unexpected result. Therefore the applicant needs to check that the data reported is correct and to resubmit.

2.2 The speed survey was carried out to determine actual vehicle speeds for the purposes of calculating the required visibility splay at the access. As set out in the Transport Statement submitted in support of the planning application, 85th percentile speeds of 33.6mph were recorded, and as a result, visibility splays of 2.4m x 51m shown at the proposed access.

2.3 This visibility splay was calculated using the formula set out in Manual for Streets (MfS) 1 and 2.

2.4 The ATC survey results show a proportion of vehicles falling within Class 2. Having confirmed with the survey company, this is due to the vehicle classifications being determined by wheelbase separation and numbers of axles. As a result of increasing vehicle sizes, some larger cars and vans can be classified as Class 2, however they are not Heavy Goods Vehicles (HGVs) that would have different characteristics and so require a different consideration with regard to the visibility splay at the access.

2.5 There are only occasional vehicles that fall within classes 3-13, confirming that the proportion of HGVs recorded on Hookhams Lane is low, as is expected.

2.6 Based on the MfS methodology and recorded vehicle speeds, the visibility splays of 2.4m x 51m are sufficient to ensure that adequate visibility is provided at the access to ensure its safe operation.



The proposed access road is 6M wide with a reduced radii. A 6M access is only required for a bus route. The access road should be 5.5M wide with a 4-6M radius (not a 10M radius). It is correct to reduce the bellmouth of the access to assist pedestrians crossing the road.

- 2.7 The site access road has now been reduced in width to 5.5m as requested. In addition, the radii at the junction have been reduced to 6m. The revised site access proposal is shown in CTP drawing CTP-19-374 SK02 Rev B, which is provided at **Appendix A**. Swept path analysis has also been undertaken to confirm that the BBC refuse vehicle can satisfactorily enter and exit the site.

The existing access of number 76, must not be within the bellmouth of the site access.

- 2.8 The access to no. 76 Hookhams Lane is not within the bellmouth of the junction. The revised access drawing shows the location of the access to no. 76 to the south of the proposed site access junction.

The site access is required to have 2 x 1.8m pedestrian splays each side of the access, before the highway boundary. The access to number 76 must keep a 1.8M pedestrian splay before the highway boundary which is not affected by the proposed site access.

- 2.9 It is unclear why the proposed site access is required to have pedestrian visibility splays when a 2m footway is provided on both sides of the access to connect with the existing footway on Hookhams Lane. A 1.8m pedestrian splay will therefore be contained within this footway.

- 2.10 The pedestrian splay at the access to no. 76 Hookhams Lane will remain as existing. Due to the location of the access at the northern extent of the property boundary, it is currently not possible to provide a 1.8m pedestrian splay at the access to no. 76 without using land within the application site.

- 2.11 As such, the pedestrian splay will remain as at present since no. 76 lies outside of the application site boundary.

Accident Record

Four accidents have been identified near to the Norse Road roundabout. The accidents need to be investigated and analysed.



- 2.12 Accident data has been obtained from BBC for the period 01/01/2014 – 09/10/19. No more recent data is available. This data is provided in full at **Appendix B**. This data shows three recorded accidents near to Norse Road roundabout. Of these, one was classified as serious with the remaining two classified as slight.
- 2.13 The serious accident was recorded on Norse Road 10m to the south of the roundabout with Hookhams Lane and was the result of a vehicle leaving the carriageway and colliding with a tree. No other vehicles were involved.
- 2.14 One slight accident occurred on Hookhams Lane to the north of the roundabout and was the result of a cyclist overtaking a queue of traffic behind a van that was letting a pedestrian cross the road, and a car travelling in the opposite direction collided with the cyclist.
- 2.15 The final slight accident occurred on the roundabout and was the result of a car travelling from Hookhams Lane to Church Lane failing to see a cyclist on the roundabout and pulling onto the roundabout into the path of the cyclist.
- 2.16 This accident record is not considered to be indicative of any road safety issues on the local highway network. Three accidents over a five year period is not significant, whilst all of the accidents occurred in different locations and were the result of varying factors, none of which are considered to be highway design issue or indicative of any issues with the road layout.
- 2.17 In addition, the low number of vehicle movements generated by the proposed development is not considered to result in any material change in this existing accident record.

It is understood from residents that there have been two unreported minor accidents on Hookham's Lane at the point of the proposed access. Therefore a Road Safety Audit Stage 1 for the access junction is required, where mitigation would need to be considered and if necessary carried out with an s278 for works within the highway.

- 2.18 As the accidents referred to are unreported, there are no details available for further consideration. A Stage 1 Road Safety Audit (RSA) will be undertaken as part of the detailed design and technical approval of the site access by BBC following the granting of planning permission and prior to any construction of the access taking place.



- 2.19 Any recommendations resulting from the RSA would be incorporated into the final design of the access. The highways comments confirm that this RSA is not required to be undertaken as part of this outline planning application.

Site Layout

Refuse and fire access and turning

A refuse truck will not enter a private drive and therefore a roadside bin collection point is needed in front of the private drives for P1-P4 and P17-P20. The bin collection point must hold two domestic bins per dwelling.

- 2.20 A revised site layout plan has been produced and is provided at **Appendix C**. This now includes a bin collection point for Plots 1-4 with capacity for eight bins. It is noted that as the application is in outline only, with all matters reserved except access, the layout is illustrative only at this stage.

The refuse truck must be able to turn within the highway. It appears that a refuse truck would need to turn into the parking area by P27/P26 and into the private drive by P17.

- 2.21 Swept path analysis of the BBC refuse vehicle has been undertaken of the revised layout, and is contained at **Appendix D**. This demonstrates that a refuse vehicle can satisfactorily turn within the parking area between plots 24-25 and 26-27, and also within the junction adjacent to Plot 17. A bin collection point is then provided for Plots 17-20 so that the refuse vehicle does not need to enter the private drive.

A fire truck will only reverse from a private drive for 20M and all parts of each dwelling need to be within 45M for fire hoses. Therefore P20 is too far away for a fire engine to reach unless a turning point is included within the private drive.

- 2.22 Swept path analysis of a Bedfordshire fire tender has been undertaken as is also provided at **Appendix D**. This demonstrates that the vehicle can reverse 20m, without entering the private drive. All dwelling entrances are within 45m, however for any dwellings that are not within 45m, domestic residential sprinklers can be installed in accordance with Bedfordshire Fire & Rescue Service policy.



Private Drives

The private drive to P1-P4 needs to be a minimum of 4.2M wide. The private drive to P17-P20 has a curve in the road which results in a low vehicle visibility splay for P19.

- 2.23 The private drive leading to Plots 1-4 is now 4.8m wide. Adequate visibility is provided for all plots, including Plot 19. Given the location of Plot 19, the only vehicles that will be passing the access will be those accessing Plot 20.

Traffic calming and visitor spaces

For a residential road, traffic calming is required at junctions and at intervals of 60m. It is preferred to use the natural layout of the road to calm traffic instead of vertical traffic calming. The road layout should promote a speed of 20 mph or less for residential roads and 10 mph or less for shared spaces. Visitor parking spaces may be incorporated within traffic calming. On street visitor parking needs to be distributed throughout the site with 0.4 spaces per dwelling.

- 2.24 The highways comments indicate that matters relating to traffic calming and visitor parking can be addressed as part of a future reserved matters planning application when the detailed site layout plan will be submitted for approval.

Pedestrian Access

Pedestrian footways of a 1.2M width are required leading from the highway to front doors and the rear of properties connecting to the cycle stores and bin stores.

- 2.25 Pedestrian footways of 1.2m in width are provided at all Plots, including to front doors and rear cycle stores.

Gradient

The site has a variable gradient of 30-38, West to East and 33-38 North – South. The driveways need a straight highway cross over where the footway must not have a gradient of more 1.4M.

- 2.26 All crossovers, including gradients will be designed to BBC standards in due course. The highways comments confirm that crossover gradients can be addressed as part of a future reserved matters planning application when the site layout will be submitted for approval.



Trees and Hedges

The site plan shows trees and hedges planted next to the highway. The roots are required to have a tree pit to prevent the roots from damaging the highway. Trees and hedges must not be within the vehicle or pedestrian splay of each driveway access.

- 2.27 The detailed landscaping strategy will be determined as part of a future reserved matters planning application. The highways comments confirm this is an acceptable approach. This will include planting adjacent to highways to ensure it is clear of each access.

Parking and Driveways

The 4 bedroom dwellings are required to have 3 parking spaces where the double garage may count as one space. For the 3 bedroom dwellings, 2 parking spaces are required with a minimum of 2.7m W and 5.5m L. The parking spaces at the end of rows are required to be 3.2mW to allow for turning.

The length of each driveway should be designed either for one or two vehicles where 5.5mL is required for 1 vehicle and 11mL is required for 2 vehicles. The minimum internal area for a garage is 22m². For a twin driveway for two dwellings a 7m W with 0.7m space between neighbours' parking and a 1.2m access path on left and right side is required.

- 2.28 Parking spaces for all dwellings are now shown on the revised layout. All four bed dwellings have three spaces, and two / three bed dwellings are provided with two spaces. All parking spaces are provided to the required dimensions.
- 2.29 All driveways and garages now meet the minimum dimensions set out in the BBC parking standards.

Cycle Parking and Bin Stores

The required space need to be shown for long stay and short stay cycle parking in reference to the Bedford Borough Council Parking Standards. A detailed cycle parking plan is also required. The required space for bin storage for 3 bins at each property needs to be shown.

- 2.30 Cycle storage is shown in the rear gardens of each property, with a 1.2m access path for access. As set out in the highways comments, the detailed location of cycle parking



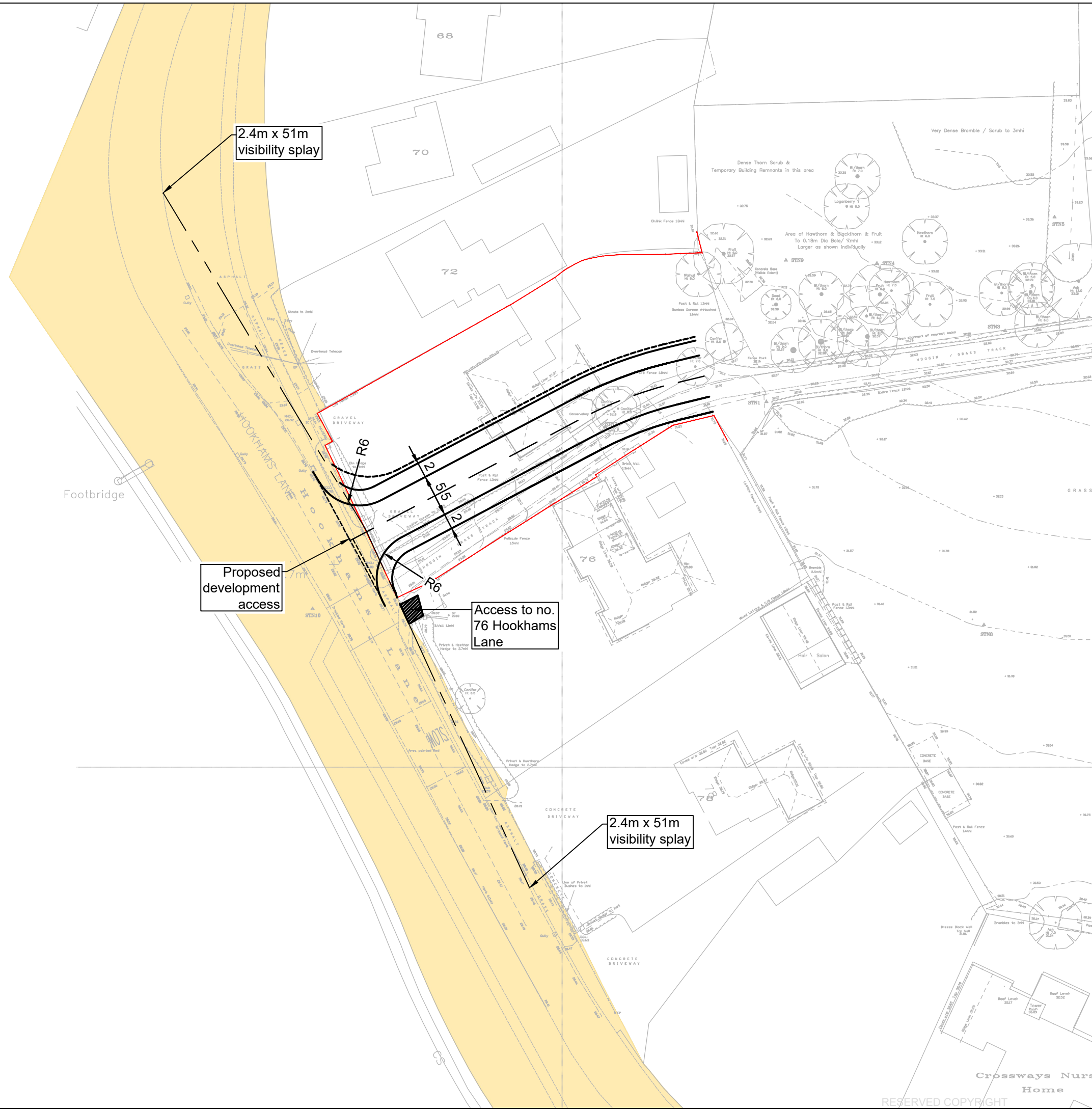
can form part of the reserved matters planning application when the detailed site layout plan will be submitted for approval.





3 Conclusions

- 3.1 Cotswold Transport Planning Ltd (CTP) has been instructed by [REDACTED] to provide highway and transport advice in relation the development of Land at 74 Hookhams Lane, Renhold, Bedfordshire.
- 3.2 A planning application was submitted to Bedford Borough Council (BBC) (Ref: 19/02194/MAO) for the demolition of one dwelling and erection of up to 28 dwellings at the application site and this Technical Note responds to the highways consultation response to this application.
- 3.3 The information contained within this Technical Note, including the revised site access and illustrative site layout drawings is considered sufficient to demonstrate that there are no highways or transport reasons why the proposed development cannot be granted outline planning permission, noting that the site layout will actually be approved as part of a future reserved matters planning application.
- 3.1 The key policy test in transport and traffic terms are the requirements as set out in paragraph 108 of the NPPF as:
- Appropriate opportunities for travel by sustainable transport modes can be taken up;
 - Safe and suitable access to the site can be achieved; and
 - There will be no significant impacts from the development on the transport network in terms of both capacity and congestion or highway safety.
- 3.2 The development complies with these requirements in full and as such, the development will not result in an unacceptable impact on highway safety and the residual cumulative impact on the road network will not be severe. Therefore, the development proposal should not be refused on highways grounds as it satisfies the requirements of paragraph 109 of the NPPF.

APPENDIX A: Revised Site Access Junction



 Extent of highway maintainable at public expense

 Site boundary

Rev	Date	Details	Drawn by	Checked by
B	29/12/19	Updated to include access to no. 76 Hookhams Lane	CE	KPS
A	29/11/19	Access amended to suit BBC Highways comments	CE	KPS



CLIENT: 

PROJECT:
**Land at Hookhams Lane
Renhold**

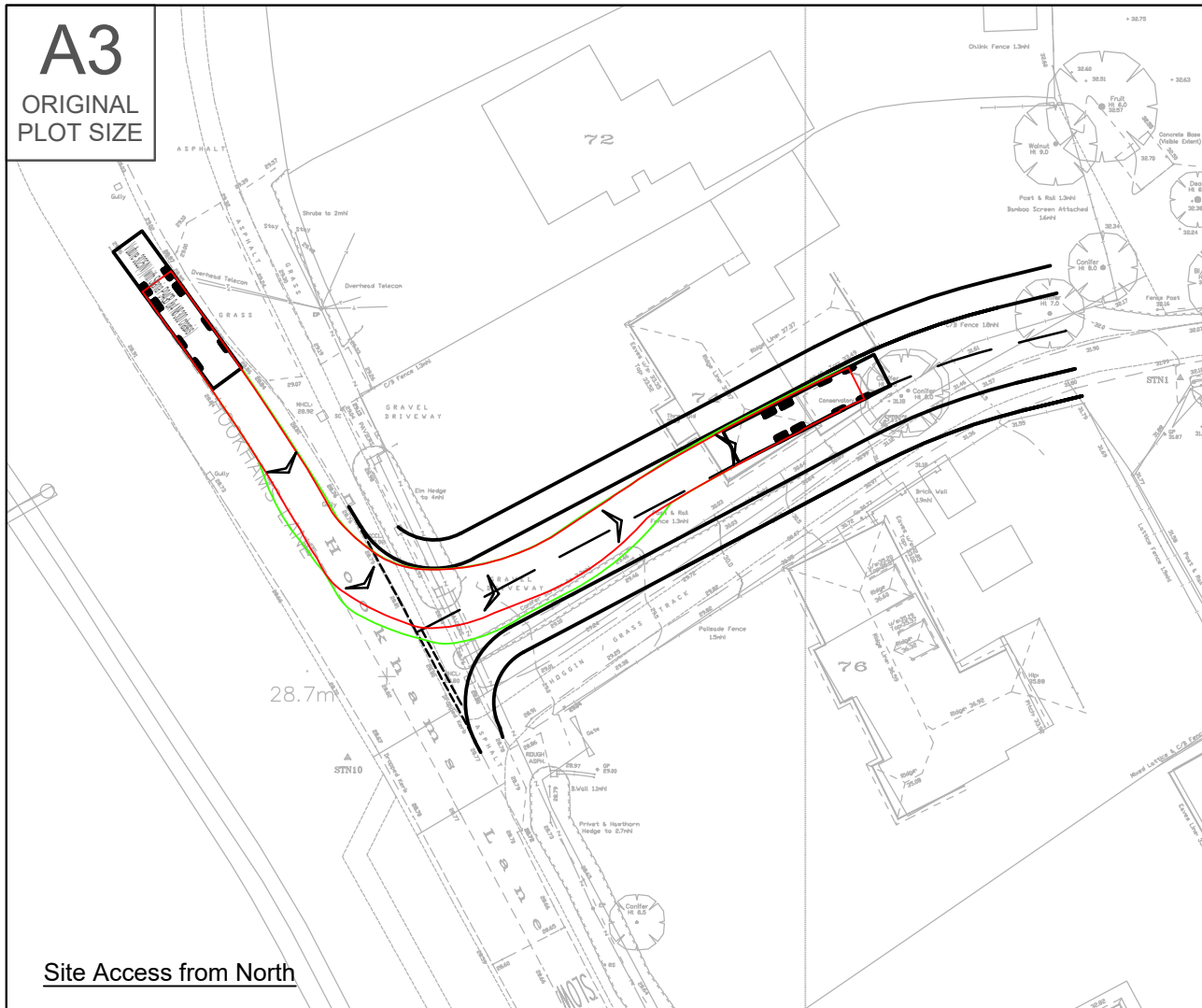
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Arrangement**

STATUS:
INFORMATION

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JOB NO: CTP-19-374	DRAWING NO: SK02	REVISION: B		



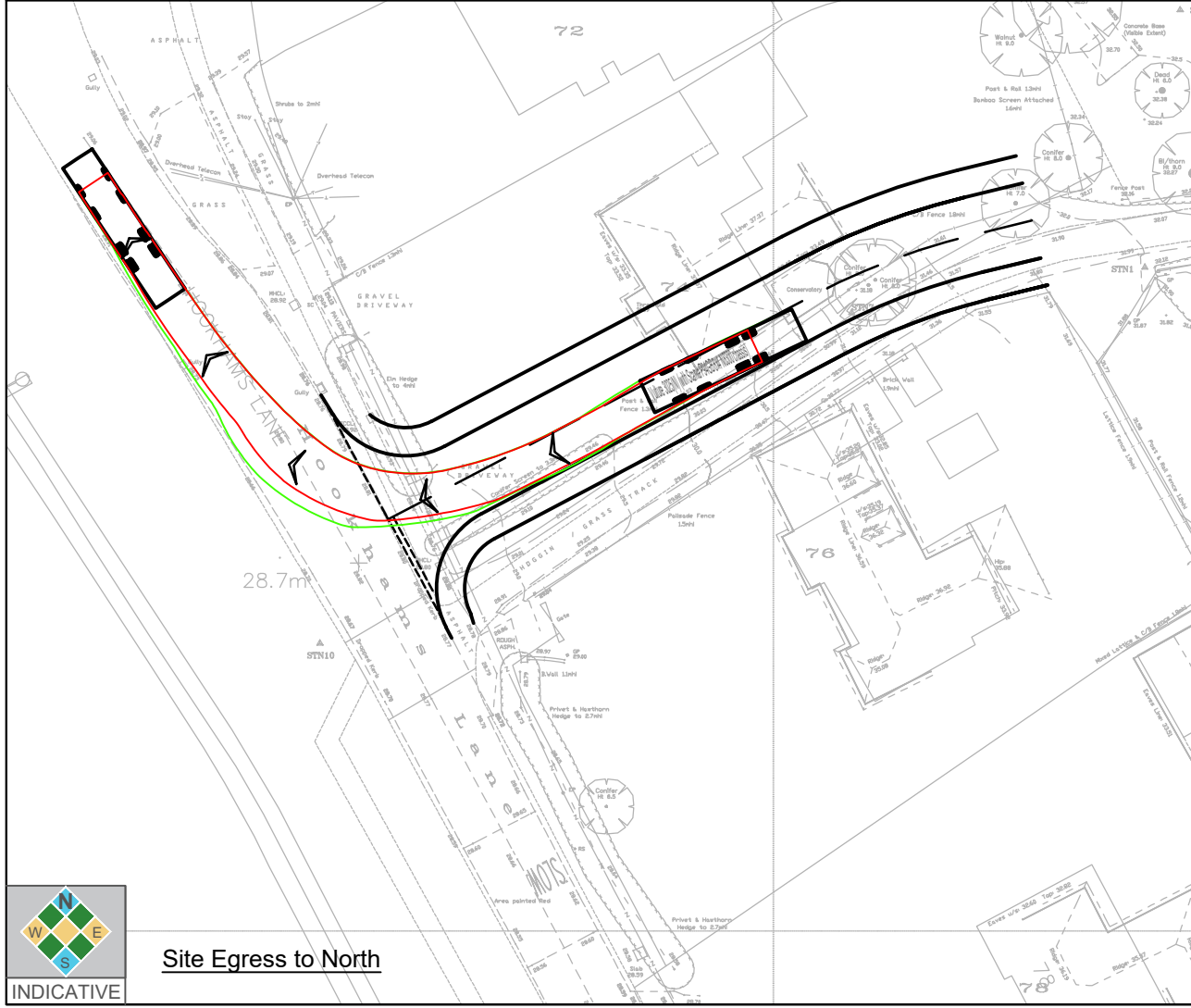
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ORIGINAL
PLOT SIZE



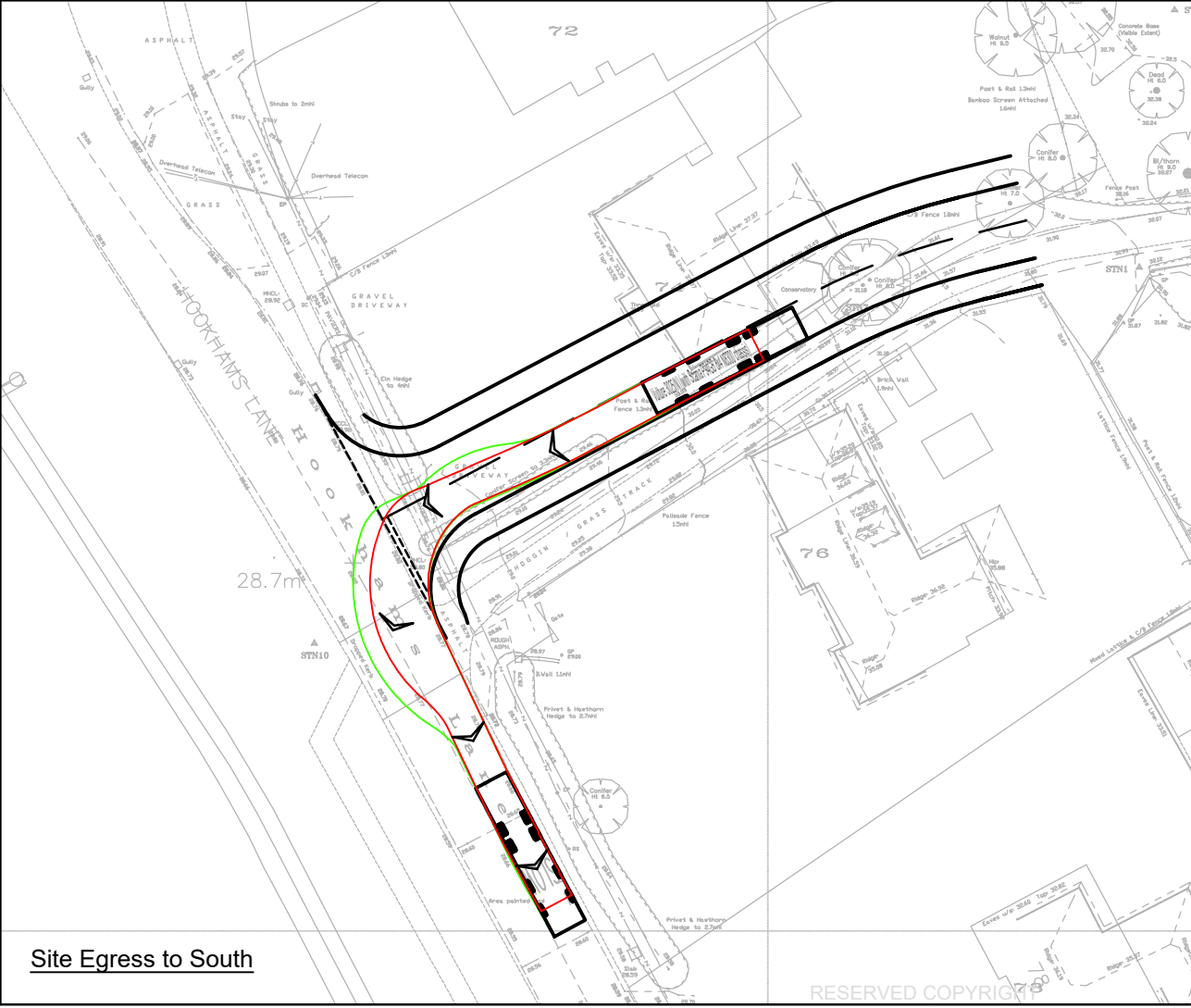
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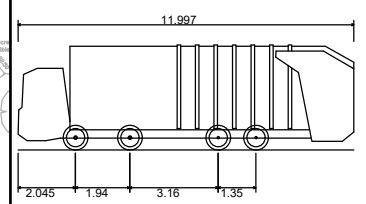
Site Access from South



Site Egress to North



Site Egress to South



Vulture 3025(N) (with Scania P94GB 8x4 N8300 chassis)
 Overall Length 11.997m
 Overall Width 2.500m
 Overall Body Height 3.749m
 Min Body Ground Clearance 0.302m
 Track Width 2.490m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 10.800m

Rev	Date	Details	Drawn by	Checked by
A	29/11/19	Swept path analysis revised to suit amended access	BJ	KPS



CLIENT:
 [Redacted]

PROJECT:
 Land at Hookhams Lane
 Renhold

TITLE:
 Proposed Site Access
 Arrangement

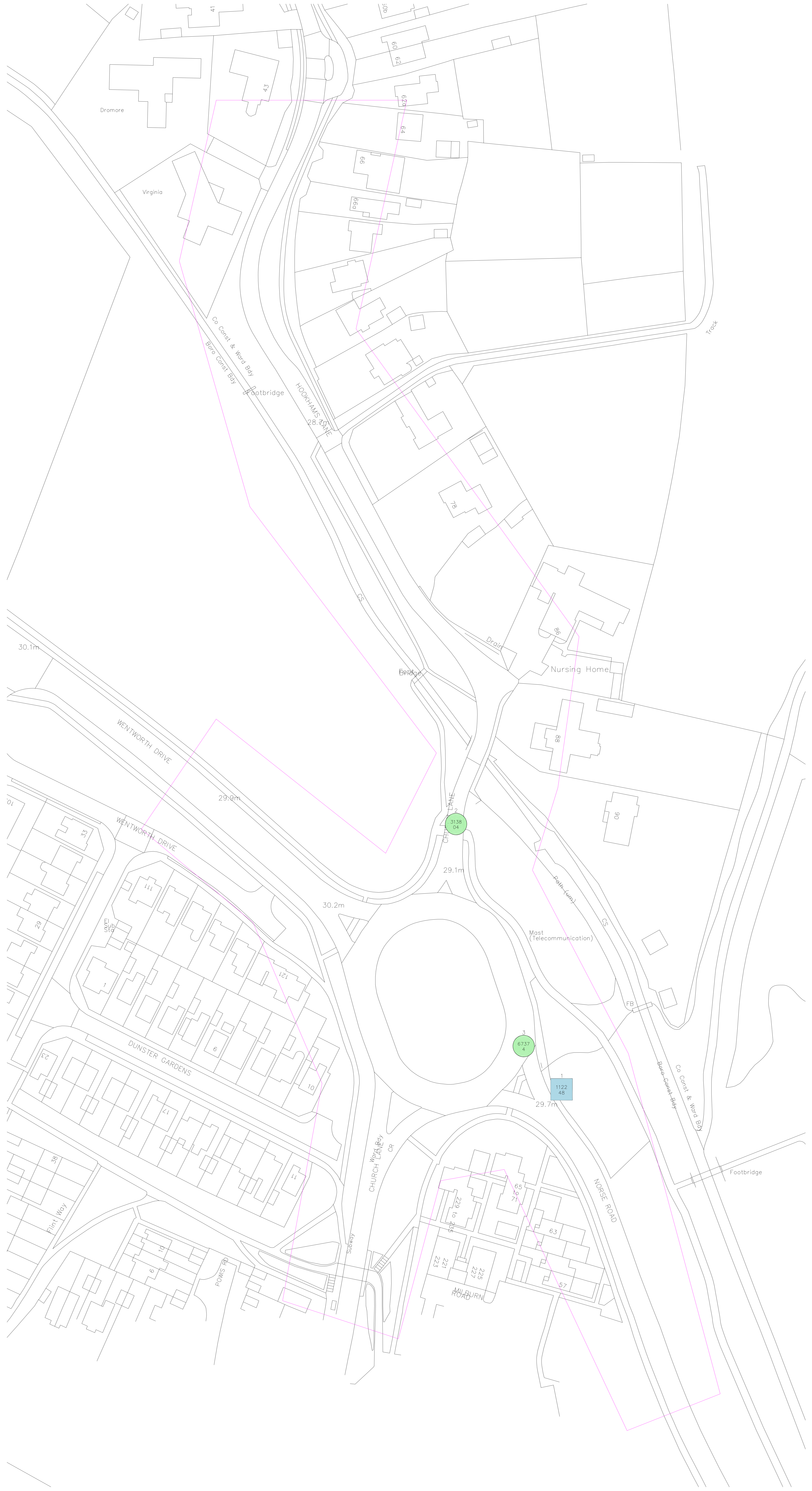
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JOB NO:	DRAWING NO:	REVISION:		
CTP-19-374	SP01	A		



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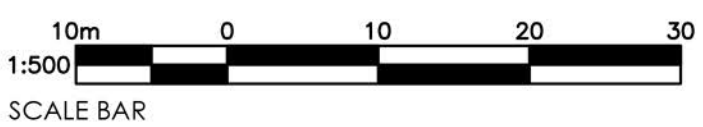
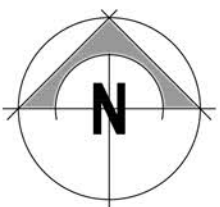
APPENDIX B: Accident Data



Accident Date BETWEEN '01-Jan-2014' AND '09-Oct-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
1	E06000055	112248	Serious	Tuesday	13/09/2016	23:08	507760/252080						
Location: NORSE ROAD UNSPECIFIED ROAD OR LOCATION 10 METRES SOUTH OF JUNCTION WITH CHURCH LANE C40 1st Rd: U0 2nd Rd: C40													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	R'dabt Give	Dark/lights lit	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Lt hand bend	SE	NW On main	Junt appr	No	None	Offside	Tree	Female	70	N/R
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Female	70	Serious	No	Not ped	Not ped	Not ped	Other			
2	1	Passenger	Male	76	Slight	Front	Not ped	Not ped	Not ped	Other			
Description: V1 has been travelling along Norse Road heading towards roundabout on Church Lane. V1 has left the carriageway into a small woodland area, where it has collided with a tree.													
User Information:					Contributory Factors: 503V001B 505V001B								
2	E06000055	313804	Slight	Friday	29/06/2018	08:08	507721/252178						
Location: HOOKHAMS LANE 1st Rd: U 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Single c'way	NotJCT	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	S	N On main	Not at	No	None		None	Female	26	N/R
2	Pedal Cycle	No	Start	E	W On main	Not at	No	None		None	Male	12	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	12	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 was entering Hookhams Lane from the roundabout. On the other side of the road was a queue of traffic where a pedestrian crossing over the road has been covered by a white van. As V1 has been driving down Hookhams Lane, a 12 year old male on a bicycle (V2) has come out from behind the van into the road. Driver of V1 has a short period of time to react managing to brake but has collided with the male causing him to fall off his bicycle hitting his head, knee and ankle.													
User Information:					Contributory Factors: 801C001A 802C001B								
3	E06000055	67374	Slight	Monday	02/05/2016	09:15	507746/252096						
Location: NORSE ROAD UNSPECIFIED ROAD OR LOCATION CHURCH LANE C40 1st Rd: U0 2nd Rd: C40													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	R'dabt Give	Daylight	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	NW	SE On main	Leave r'about	No	None		None	Male	81	-ve
2	Pedal Cycle	No	Going ahead	N	S On main	Mid junction	No	None		None	Male	37	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	37	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 was travelling southbound from Hook Lane Renhold to Church Lane round the roundabout. V1 was travelling eastbound from Wentworth Drive to Norse Road. V2 was coming past the Norse Road junction, as v1 attempted to pull off the roundabout v1 pulled directly into v2's path causing him to fall off into the road.													
User Information:					Contributory Factors: 405V001A 403V001A 505V001B								

APPENDIX C: Revised Site Layout Plan



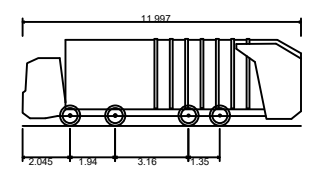
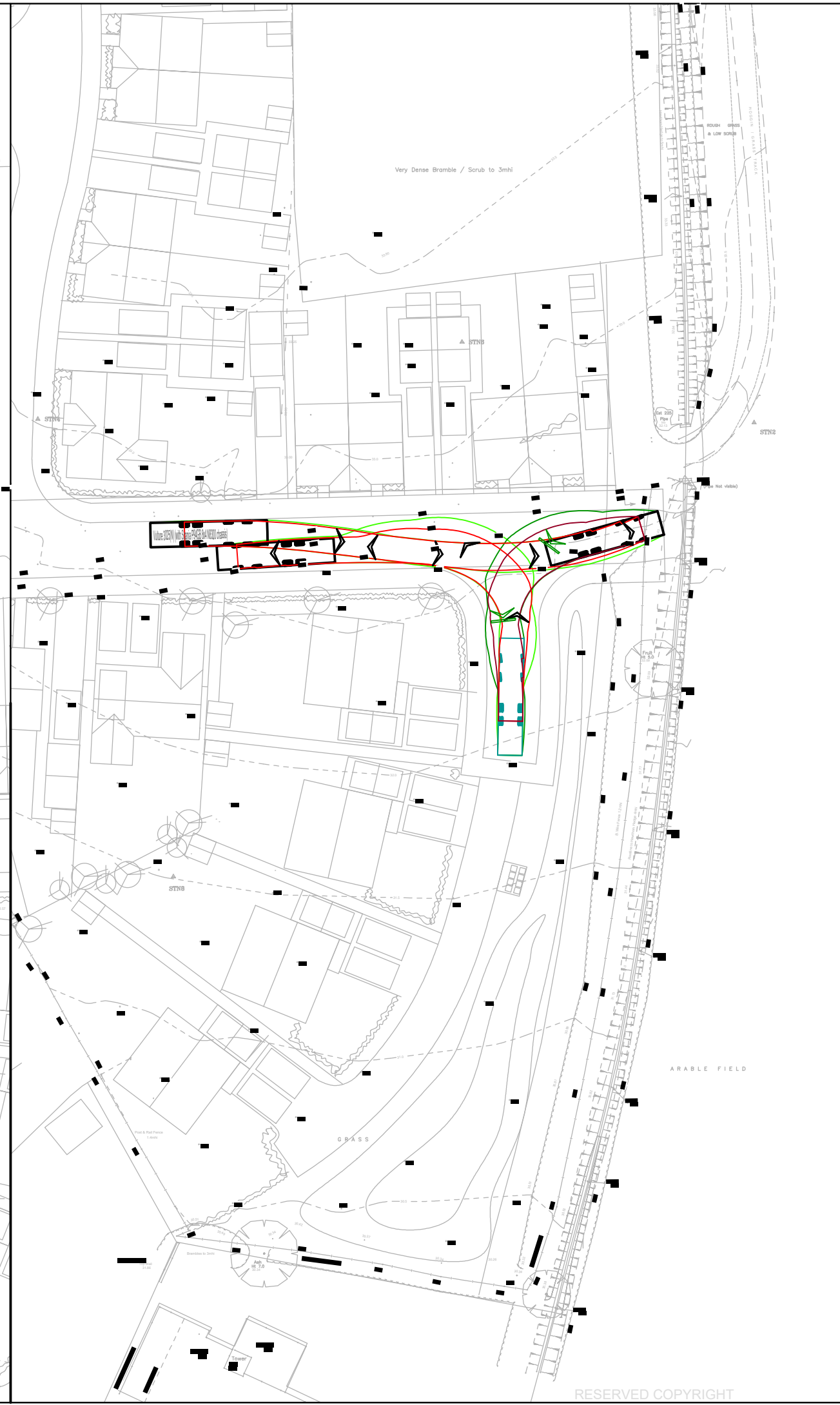
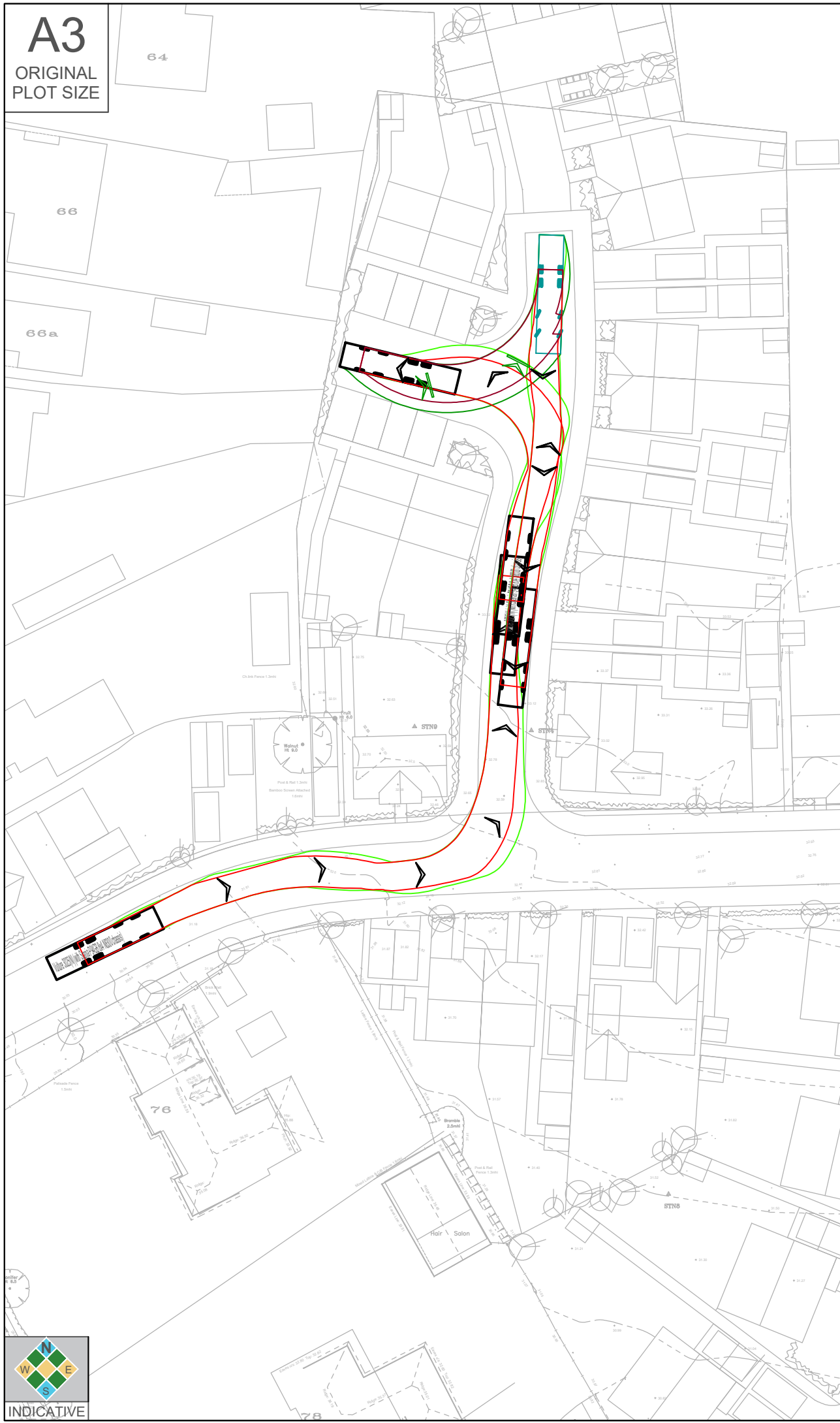
Project
Land to the rear of
74 Hookhams Lane, Bedford.
Title
Proposed Indicative Site Plan

Client
Sarrosos Ltd
Drawn RF
Scale 1:500@A3
Checked Approved
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L&S Lines & Squares Ltd
81 London Road
Knebworth
Herts SG3 6HG
Project No. LS556
Drawing No. P01

APPENDIX D: Swept Path Analysis

A3
ORIGINAL
PLOT SIZE



Vulture 3025(N) (with Scania P94GB 8x4 N8300 chassis)
 Overall Length 11.997m
 Overall Width 2.500m
 Overall Body Height 3.749m
 Min Body Ground Clearance 0.302m
 Track Width 2.490m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 10.800m

Rev	Date	Details	Drawn by	Checked by



CLIENT:

PROJECT:
**Land at Hookhams Lane
 Renhold**

TITLE:
**Swept Path Analysis
 Refuse Vehicle**

STATUS:
Information

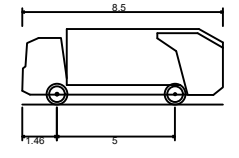
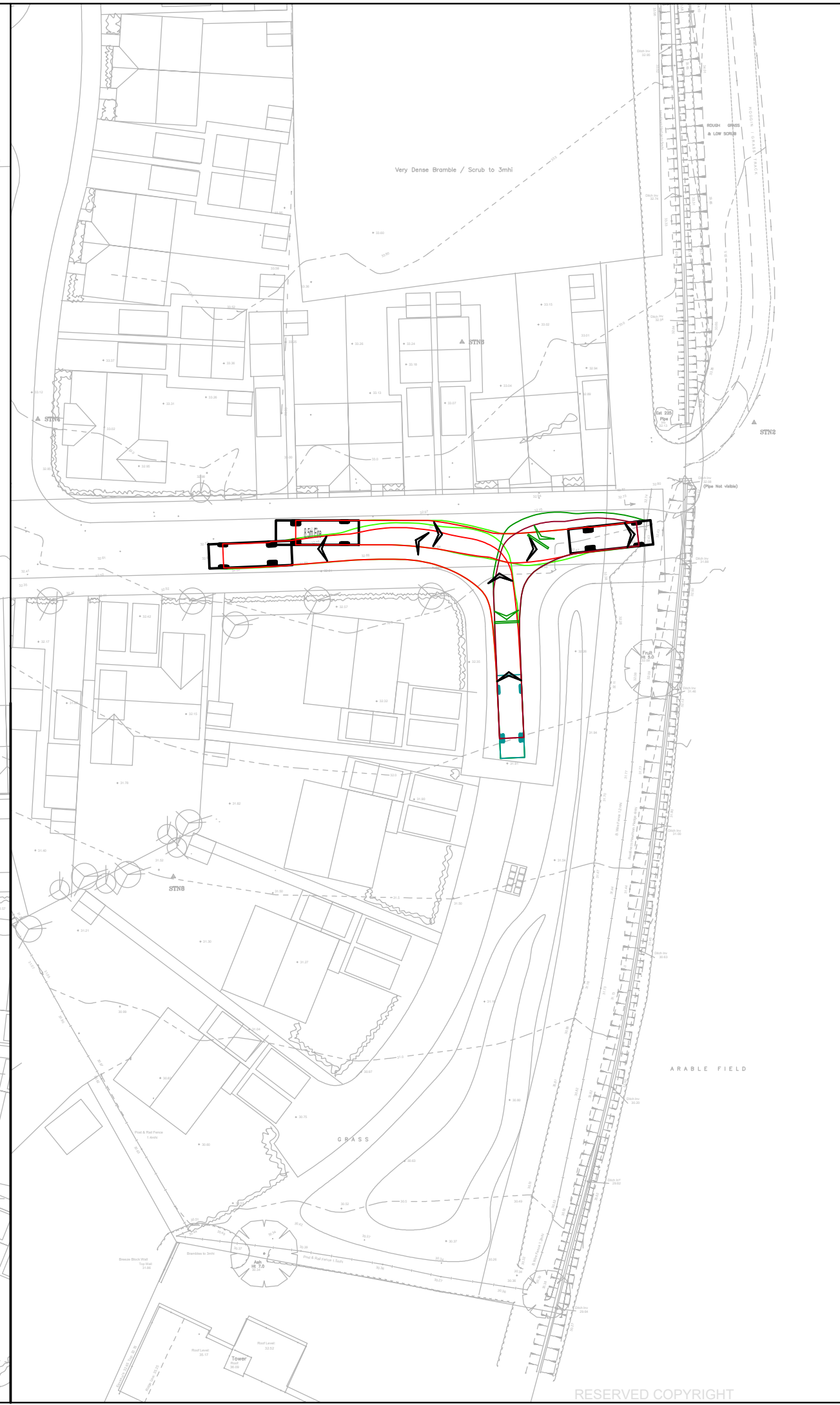
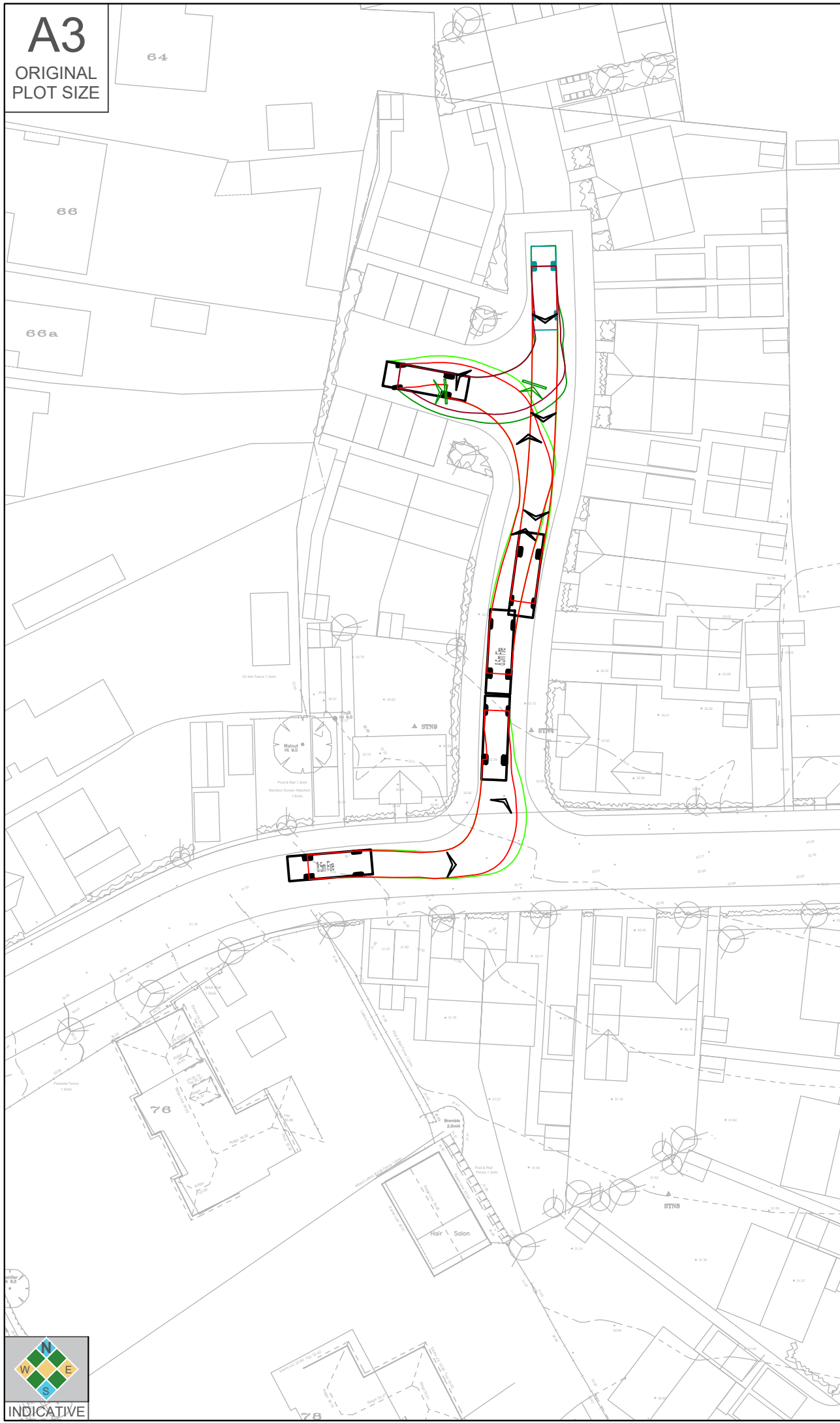
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JOB NO: CTP-19-374	DRAWING NO: SP02	REVISION: B
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A3
ORIGINAL
PLOT SIZE



8.5m Fire Tender
 Overall Length 8.500m
 Overall Width 2.490m
 Overall Body Height 3.204m
 Min Body Ground Clearance 0.409m
 Track Width 2.490m
 Lock to lock time 5.50s
 Kerb to Kerb Turning Radius 7.820m

Rev	Date	Details	Drawn by	Checked by



CLIENT: [REDACTED]

PROJECT:
**Land at Hookhams Lane
Renhold**

TITLE:
**Swept Path Analysis
Fire Tender**

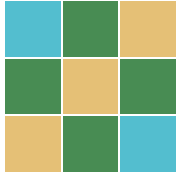
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TRANSPORT
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