



TRANSPORT ASSESSMENT

HAMPTON QUAY, LITTLEHAMPTON, WEST SUSSEX, BN17 5RA

**TRANSPORT ASSESSMENT
ON BEHALF OF
STOLON STUDIOS LTD**

Prepared by

Odyssey

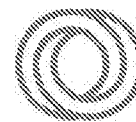
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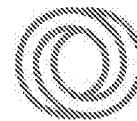
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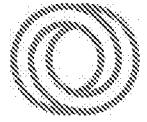
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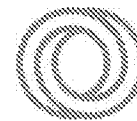
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1.0 INTRODUCTION

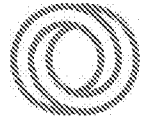
- 1.1 Odyssey have been instructed by Stolon Studios Ltd to prepare a Transport Assessment in support of an outline application, with all matters reserved except for access, for the proposed development at the land to be known as Hampton Quay, Littlehampton, West Sussex, BN17 5RA.
- 1.2 The site is located within the administrative boundary of Arun District Council (ADC) and the local highway network is controlled by West Sussex County Council (WSCC). The site location, adjacent to the River Arun, is shown on **Figure 1**.
- 1.3 The development site currently comprises of c.2.7 hectares of undeveloped land, it has previously been used as a caravan park. Vehicular access to the site is already in-situ from Bridge Road Roundabout on the A259.
- 1.4 The development proposal will see the site re-developed to provide 105 flats, 32 moorings on the river and ancillary restaurant / commercial land use with appropriate landscaping, amenity spaces, and parking provision.
- 1.5 A site plan showing the parking and servicing layout of the proposed development is presented in **Appendix A**.

Pre-Application Advice and Scoping

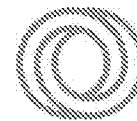
- 1.6 A Scoping Note was submitted to WSCC highways, via the formal pre-application advice service in July 2019 with a response received in September 2019. The note set out the development proposals, the study area for the TA, as well as trip rates based upon comparable development sites. This was updated in November 2019 to reflect amendments to the proposed scheme and submitted to WSCC for information. The latter version of the Scoping Note and the prior pre-app response WSCC is presented in **Appendix B**.

Assessment Methodology and Report Structure

- 1.7 Various sources have been utilised to inform this TA including desktop research, a site visit, traffic surveys, and design guidance published by ADC and WSCC. This report is structured as follows:



- **Section 2.0:** Reviews national and local planning policy relevant to the application;
- **Section 3.0:** Provides a detailed assessment of the existing site conditions, paying attention to existing sustainable infrastructure, services and the site's accessibility;
- **Section 4.0:** Presents the development proposals;
- **Section 5.0:** Calculates the traffic generation of the development site and describes the assignment and distribution methodology used;
- **Section 6.0:** Summarises the results of the capacity assessments conducted at the agreed junction locations on the local highway network; and
- **Section 7.0:** Summarises and concludes the report.



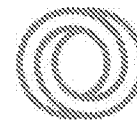
2.0 PLANNING POLICY

National Planning Policy Framework (NPPF)

- 2.1 The National Planning Policy Framework (NPPF – February 2019) provides a structure for development within the UK, with a ‘presumption in favour of sustainable development’.
- 2.2 Paragraph 84 of the NPPF states *“it will be important to ensure that development is sensitive to its surroundings, does not have an unacceptable impact on local roads and exploits any opportunities to make a location more sustainable (for example by improving the scope for access on foot, by cycling or by public transport). The use of previously developed land, and sites that are physically well-related to existing settlements, should be encouraged where suitable opportunities exist.”*
- 2.3 As such, the NPPF states in Paragraph 109 that *“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.”*
- 2.4 Paragraph 111 continues, *“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.”*

West Sussex County Council - Transport Plan 2011 - 2026

- 2.5 WSCC’s transport strategy is set out in the Transport Plan (LTP3). The plan was approved in 2011 and sets out the strategic long-term transport related objectives and strategies to be implemented up to 2026.
- 2.6 The objectives of LTP3 is *“to improve the quality of life for the people of West Sussex by:*
- *promoting economic growth*
 - *tackling climate change*
 - *providing access to services, employment & housing*
 - *improving safety, security & health”*



- 2.7 The LTP3 goes on to describe the long-term transport strategy for the County, as well as planning how this strategy should be implemented. Of note, the LTP3 makes reference to the A259, which the development site connects onto via Bridge Road roundabout. The relevant extracts to the development proposal are presented below:

“Part 1 – Long Term Strategy”

“A259 issues

The A259 plays a complementary role to the A27 and experiences heavy congestion in many places. This affects all vehicles including public transport, causing air quality and noise issues. Some junctions along the route have high casualty rates and are in need of improvements to address the casualty rates.”

“Part 2 – Implementation Plan”

“Littlehampton

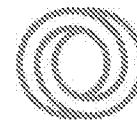
Littlehampton, together with Rustington, East Preston, Kingston and Angmering makes up a large urban area east of the river Arun. The focus for Littlehampton town centre is one of regeneration and new development is expected in the town to support this objective.

Access to Littlehampton from the east and west is generally good, although delays can be caused through the volume of traffic travelling on the A259 in the local area during peak hours. From the north access via the A284 and Wick level crossing suffers from delays, which, alongside the issues associated with the A27 around Arundel, contributes to poor connectivity.

New development will be required to integrate into the existing transport network and deliver enhancements to the infrastructure, stimulating regeneration, improving connectivity and encouraging long term sustainable travel behaviour.”

Arun District Council – Local Plan 2011-2031

- 2.8 ADC’s Local Plan, as adopted in 2018, set’s out the vision for Arun up to, and beyond 2031, prescribing guidance for developments, whilst encouraging sustainable development, and managing future growth to meet local need.



- 2.9 Chapter 15 of the Local Plan specifically relates to transport, which sets the following strategic objectives for transport within the district:

"Reduce the need to travel and promote sustainable forms of transport."

"Plan for climate change and work in harmony with the environment to conserve natural resources and increase biodiversity".

"Create vibrant, attractive, safe and accessible towns and villages that build upon their unique characters to provide a wide range of uses and which are a focus for quality shopping, entertainment, leisure, tourism and cultural activities."

"Promote strong, well integrated and cohesive communities, through the promotion of healthy lifestyles, provision of good quality accessible community facilities and a safe environment, which delivers an enhanced quality of life to all. This includes meeting the needs of a growing elderly population."

"Strengthen Arun's economic base and provide local job opportunities by increasing, diversifying and improving the quality of employment within the District through the provision of appropriate employment sites, better infrastructure, including road and rail access, quality affordable accommodation and the development of business support and partnerships."

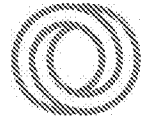
- 2.10 The following transport policies are prescribed within the Local Plan:

"Policy T SP1

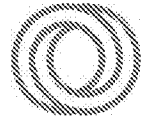
Transport and Development

To ensure that growth in the District strengthens Arun's economic base, reduces congestion, works to tackle climate change and promotes healthy lifestyles; the Council will ensure that development: provides safe access on to the highway network; contributes to highway improvements and promotes sustainable transport, including the use of low emission fuels, public transport improvements and the cycle, pedestrian and bridleway network.

The Council will support transport and development which:



- a. Is designed to reduce the need to travel by car by identifying opportunities to improve access to public transport services and passenger transport services whilst making provision for safe access to the highway network through improvements to the existing road network and the promotion of vehicles which use low-carbon energy;*
- b. Is incorporated into the District's green infrastructure network and gives priority to pedestrian and cycle movements;*
- c. Protects committed and indicative lines of major road schemes from development and, where applicable, contributes towards new road schemes which improve north-south links between Bognor Regis and Littlehampton and the A27, to ensure that they are delivered in line with strategic growth in the District;*
- d. Incorporates appropriate levels of parking in line with West Sussex County Council guidance on parking provision and the forthcoming Arun Design Guide taking into consideration the impact of development upon on-street parking and;*
- e. Is supported by an effective and deliverable Transport Assessment which demonstrates that the transport effects of development on the local and strategic road network can be satisfactorily mitigated and a Travel Plan, which is effective and deliverable, and;*
- f. Explains how the development has been designed to:*
 - i. accommodate the efficient delivery of goods and supplies;*
 - ii. give priority to pedestrian and cycle movements and have access to high quality public transport facilities;*
 - iii. create safe and secure layouts for traffic, cyclists and pedestrians whilst avoiding street clutter;*
 - iv. incorporate facilities for charging electric and plug-in hybrid vehicles (where charging facilities are to be omitted from the development, evidence of market demand and viability must be provided); and*
 - v. consider the needs of people with disabilities by all modes of transport.*



g. Provides improved crossing points over the railway line to improve transport links between the coast and the A27, in particular at Ford.”

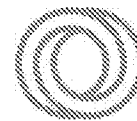
“Policy T DM1

Sustainable Travel and Public Rights of Way

New development must ensure ease of movement, prioritising safe pedestrian and cycle access to the green infrastructure network and access to public transport and community transport services where a need has been identified. Access to alternative modes of transport including public transport services, the public right of way and cycle networks, must be available and accessible to all members of the community.

Proposals for all new development must:

- a. Be located within easy access of established public transport service(s), existing pedestrian and cycle networks, the committed and aspirational cycle networks and the green infrastructure network which links the development with key destinations including places of work, education, leisure and town centres;*
- b. Where applicable, contribute to the extension of public transport services to serve the development and community transport services to ensure that a wide range of transport services are available to all residents;*
- c. Make provision for cycling and pedestrian facilities to meet the County Council Parking Standards, including cycle storage, convenient and secure cycle parking in association with retail and educational uses and sufficient secure parking and changing/showering facilities at places of work;*
- d. Contribute towards the provision of a joined up cycle network and Public Rights of Way network, taking into account the aspirational cycle network, which provides convenient, accessible, safe, comfortable and attractive routes for pedestrians and cyclists and; where appropriate, horse riders, both within the development and in the form of links between the development and;*
 - i. places of work, education, leisure and food retail;*



ii. the South Downs National Park,

iii. along the coast particularly between Bognor Regis and Littlehampton,

iv. along the coast to Chichester,

v. Bognor Regis to Arundel, and

vi. Littlehampton to Goring.”

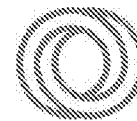
2.11 Parking provision and standards are set out in the recently adopted Parking Standards Supplementary Planning Document (SPD) (ADC, January 2020); these are discussed in greater detail at **Section 4.0**.

2.12 Within the Arun Local Plan, the development site has also been assigned as an ‘Economic Growth Area’ (EGA), of which is an area which the Council considers there needs to be a specific emphasis on skill development, employment, regeneration, culture, retail, and office development. The core aims of EGA are:

- *“improve the economic viability and vitality of the town centres by attracting new investment;*
- *enhance the environmental/architectural quality of the townscape and public realm through improvements to spaces, buildings and street works/furniture;*
- *create and enhance the physical/visual linkages between the Sea front and the town centre;*
- *improve the attractiveness of the retail environments to shoppers;*
- *increase the attractiveness of the towns as holiday destinations for visitors;*
- *improve the accessibility of the town centres and effectively manage the movement of people and vehicles within the town centres.”*

2.13 The relevant planning policy applicable to the development proposal is presented below:

“Policy EMP SP2 Economic Growth Areas



The Council will work with partners to enhance local employment opportunities within the following Economic Growth Areas identified on the Policies Map:

a. Littlehampton Economic Growth Area; and

b. Bognor Regis Economic Growth Area

Knowledge and cultural based employment as well as retail, leisure and office developments will be directed to the Economic Growth Areas to promote their vitality, viability and regeneration. The Council will support development of an appropriate scale in other settlements in the District to diversify and enhance the knowledge and cultural based opportunities.

Littlehampton Economic Growth Area

The Economic Growth Area includes the Harbour (east and west bank), Town Centre, industrial estates, part of the beach front, surrounding housing and a strategic allocation at West Bank. Development will be encouraged which delivers the comprehensive safeguarding of the Harbour as well as addressing flood risk, contaminated land, access and nature conservation issues and must also be consistent with other Local Plan policies. Such development will:

Improve and develop marina berthing, including additional moorings, providing that the development is not detrimental to the integrity of tidal defences or the ability to maintain or improve them;

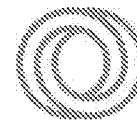
Provide new linkages between the East and West Bank areas at appropriate locations;

Provide for additional or enhanced commercial and leisure activities, including small scale retail, hotel, café and restaurant uses, and possibly an exhibition/visitor centre;

Provide for boat building or other marina-related commercial uses;

Improve and develop marina berthing, including additional moorings, provided that the development is not detrimental to the integrity of tidal defences or the ability to maintain and improve them;

Development in the wider Economic Growth Area will be encouraged which increases the vitality of the town centre. The redevelopment of the town centre site owned by the District Council (St.



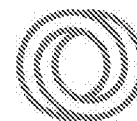
Martins Car park), along with improvements to the public realm will be key priorities but development should maintain appropriate levels of town centre parking. Development which supports the town's retail, leisure and tourism functions will be supported.

Proposals relating to operations on the East Bank at Railway Wharf will need to be compliant with the Joint Minerals Local Plan.

The Council will provide further guidance in relation to the regeneration opportunities of the Harbour and the EGA through a Supplementary Planning Document."

Arun District Council - Community Infrastructure Levy

- 2.14 ADC has submitted the 'Arun Community Infrastructure Levy (CIL) Draft Charging schedule' with supporting documents to an independent examiner.
- 2.15 The CIL is "a mandatory charge on new development, calculated on the change in net additional floorspace (m²)". "The charge applies pm a per square metre basis to new development of over 100m² of gross internal floorspace. In the case of new dwellings, there is no such threshold - CIL is charges per square metre whatever the size of the development."
- 2.16 The Draft charging schedule is replicated in **Table 2.1** (Note that the site is considered to be located in Zone 4 and 5):

**Table 2.1: Draft CIL Charging Schedule**

Development Type	Site Size	Zone	Rate of CIL
Residential*[1]			
	N/A	Zone 1	£0/m ²
	Sites of 10 and fewer units	Zone 2 and 3	£150/m ²
	Sites of 10 and fewer units	Zone 4 and 5	£100/m ²
	Sites of 11 and more units	Zone 2	£70/m ²
	Sites of 11 and more units	Zone 3 and 5	£100/m ²
	Sites of 11 and more units	Zone 4	£0/m ²
Flats*			
	N/A	Zone 2 and 3	£70/m ²
	N/A	Zone 4 and 5	£0/m ²
Older People's Housing Sheltered Housing and Extracare housing* [2]			
	N/A	Zone 2 and 3	£100/m ²
	N/A	Zone 4 and 5	£0/m ²
Retail			
Town Centre Shops	N/A	N/A	£0/m ²
Supermarkets and Retail Warehouse	N/A	N/A	£110/m ²
All other development	N/A	N/A	£0/m ²

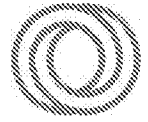
Notes:

* These charges apply to the creation of one or more dwellings. The charges also apply to residential extensions or annexes which are 100 square metres or more gross internal area. Where the residential extension or annexe is for the benefit of the owner/occupier, exemptions may apply.

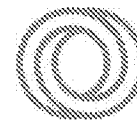
[1] The definition of residential development type does not include residential institutions, including purpose built student accommodation. Neither does it include development which is covered by a condition that limits it to holiday use only. Where this condition is not applied to static caravans or holiday rental units, these should be considered to be in residential use, or have the potential to be used for residential use.

[2] Older People's Housing is discussed in the LPVU, 2017. Paragraphs 4.67 - 4.70 of the report provides descriptions of the types of accommodation that this includes: "Sheltered or retirement housing is self-contained housing, normally developed as flats and other relatively small units. Where these schemes are brought forward by the private sector there are normally warden services and occasionally non-care support services (laundry, cleaning etc.). Extracare housing is sometimes referred to as very sheltered housing or housing with care...". This development type does not include residential institutions such as care homes.

[3] Supermarket should be defined as shopping destinations in their own right where weekly food shopping needs are met and which can also include non-food floorspace as part of the overall mix. The majority of custom at supermarkets



arrives by car, using the large adjacent car parks provided. (see paragraph 7.11 of CILVU, 2018). Retail warehouse should be defined as large stores specialising in the sale of comparison goods (such as carpets, furniture, and electrical goods) DIY items and other ranges of goods catering mainly for car borne customers. (see paragraph 7.11 of CILVU, 2018).

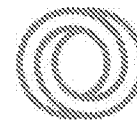


3.0 EXISTING CONDITIONS AND SITE ACCESSIBILITY

- 3.1 The development site is located to the north east of Littlehampton, adjacent to the A259 and the River Arun. Refer to **Figure 1** for the site's location.
- 3.2 The site comprises c.2.7ha of undeveloped land, however it has previously been used as a caravan park. Vehicular access to the site is already in-situ from Bridge Road Roundabout on the A259.
- 3.3 The development proposal will see the site re-developed to provide 105 flats, 32 moorings on the river and ancillary restaurant / commercial land use with appropriate landscaping, amenity spaces, and parking provision.
- 3.4 A site plan showing the parking and servicing layout of the proposed development is presented in **Appendix A**.

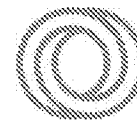
Local Highway Network

- 3.5 As noted above the development site already benefits from access via its own arm of the Bridge Road Roundabout. This roundabout connects the A259 and the B2187 (Bridge Road), in addition to providing access to Broad Piece which serves a small out of town shopping complex and a large Tesco supermarket.
- 3.6 The B2187 provides access to the town centre and coastline of Littlehampton, whilst the A259 connects Littlehampton to Bognor to the west, Arundel to the north and Goring-on-Sea, Worthing and Brighton to the east.
- 3.7 On approach to Bridge Road Roundabout the A259 is subject to a 60mph speed limit (national speed limit for a single carriageway), and the B2187 is subject to a 30mph speed limit.
- 3.8 The highways which form Bridge Road Roundabout presently lacks provision for pedestrians and cyclists, with a cycle lane which stops to the south of the A259 bridge over the River Arun, and no footpaths or pedestrian crossing provided. There are however improvements proposed to the local highway which will see pedestrian and cycle facilities improved on the Bridge Road Roundabout as discussed below:



Local Highway Improvements Works

- 3.9 At the time of preparing this TA WSCC had commissioned a Strategic Transport Investment Programme to identify the priority for investment and the potential scope of work required to improve the A259 Bognor Regis to Littlehampton corridor. This programme will most likely propose alterations to Bridge Road Roundabout. Correspondence has been undertaken with WSCC to ascertain the delivery of the finding of the Strategic Transport Investment Programme, refer to **Appendix B**, however the results are still forthcoming. It is anticipated the alterations to Bridge Road Roundabout will be in line with the works identified in the Arun Transport Study 2016 and the 'Kingley Gate' S106 agreement.
- 3.10 The Arun Transport Study 2016, identified Bridge Road Roundabout as having a capacity risk, and as such mitigation measures, primarily in the form of widening the A259 northbound entry and exit was proposed to address the forecasted capacity issues, refer **Appendix C**. More detailed analysis undertaken for this and the Church Lane TA, refer below, indicates however that this may not be necessary.
- 3.11 There have also been a number of consented developments in the locality of which have been granted with S106 highways contributions secured. The most notable nearby consented development, and almost complete, is 'Kingley Gate' located on the A259 to the north of the site. As part of the planning consent (reference LU/355/10/), a S106 agreement (March 2012) was secured which included details of the contribution towards highway works, as detailed within Schedule 9 of the S106 agreement, a copy of which is presented in **Appendix D**.
- 3.12 Part 2 within Schedule 9 of the S106 Agreement details the contributions payable towards the Bridge Road Roundabout improvements, to include the provision of *'a new footway and or cycleway on the northern side of the A259 connecting to the south-east corner of the site to New Courtwick substantially in accordance with the works shown in drawing ITB3164-GA-009'*. The discussed drawing can also be seen in **Appendix D**.
- 3.13 Slightly further afield from the development site, the 'A259 Littlehampton Corridor' is currently in the process of being improved. An overview plan of the proposed works which are in the process of being conducted is presented in **Appendix E**, and comprise of widening the carriageway



between Wick Roundabout, east to the Bodyshop Roundabout, the provision of a new roundabout, the Fitzalan Link Roundabout, and the creation of a new cycle path and footpath.

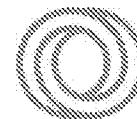
- 3.14 To the west of the site along the A259 further highways improvements are proposed at the roundabout of the A259 and Church Lane, referred to as 'Climping Roundabout', and at the 'Oystercatcher' junction between the A259 and B2233. Plans of the proposed highways improvement works are presented in **Appendix F**. These works comprise the enlargement of Climping junction to increase its capacity, and the alteration of the Oystercatcher junction from a priority junction to a roundabout; both are to be delivered in association with the development of 300 dwellings on land adjacent to the A259 at Church Lane, Climping.

Existing Traffic Conditions

- 3.15 Further to the pre-application scoping agreed with WSCC Highways, it has been agreed to assess the traffic impact of the proposed development, based upon the traffic model data as provided by WSCC, supplemented by turning count data. Given that there are ongoing works to the A259 corridor to the north east of the site, turning data has been sourced from the approved Transport Assessment for the Climping development at Church Lane. **Appendix G** contains both the model dataset as provided by WSCC and the Climping turning data. Comparison of the two shows that the turning data from the TA for Church Lane compares robustly with the traffic model data.

Highway Safety Review

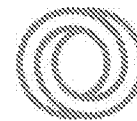
- 3.16 Road Traffic Collision (RTC) data have been obtained from Sussex Police for the latest 5-year period available (01/07/2014 – 30/06/2019), which was the latest data at the time of request. The map showing the locations of the RTC's in proximity to the site is presented in **Appendix H**. It is not possible to append the full report of the RTC collisions owing to GDPR.
- 3.17 The study area selected includes c a 500m radius around Bridge Road Roundabout, including the approaching arms of the A259, Broad Piece and the B2187 Bridge Road. **Table 3.1** below summarises the RTC data including the severity and road user type involved.

**Table 3.1: Road Traffic Collision Summary**

Location of RTC	Vehicles Involved	Severity	Incident Summary	Month / Year
Broad Piece J/W Bridge Road Roundabout	Car & Motorcycle	Slight	Car rear-ended motorcycle stopped at junction	February 2015
B2147 Bridge Road J/W Bridge Road Roundabout	Car & Pedal Cycle	Slight	Pedal cycle travelling on roundabout when car pulled out and hit pedal cycle	June 2015
B2187 Bridge Road J/W Riverside Industrial Estate	Car & Motorcycle	Slight	Car pulled out of the industrial estate and failed to see motorcycle approaching resulting in a collision	November 2015
B2187 Bridge Road J/W Riverside Industrial Estate	Cars	Serious	Car travelling at excessive speed and loses control, colliding with other car	October 2015
A259 J/W Bridge Road Roundabout	Cars	Slight	Collision of two cars on roundabout	June 2016
A259 190m south of J/W Eldon Way	Cars	Slight	Collision due to car overtaking	October 2016
A259 J/W B2187 Bridge Road	Cars	Slight	Car has approached the roundabout at speed and has lost control and crashed	February 2017
B2187 Bridge Road J/W Riverside Industrial Estate	Car & Motorcycle	Slight	Car pulled out of the industrial estate and failed to see motorcycle approaching resulting in a collision	April 2017
A259 J/W B2187 Bridge Road	Car	Slight	Car driver lost control, skidded and collided with barrier and a lamppost	August 2018
A259 c.300m south of J/W B2187 Bridge Road	Motorcycle	Slight	Fox ran across path of rider making him lose control	August 2018
A259 c.250m south of J/W B2187 Bridge Road	Car & Pedal Cycle	Serious	Cycle crossed the path of the car resulting in a collision	October 2018
A259 northern arm of roundabout	Motorcycle	Serious	Motorcycle loses grip on road and collides with centre island kerb	April 2019

3.18 A total of 12 RTCs occurred within the study area on the roads connecting to Bridge Road Roundabout, nine of which were recorded to have a severity rating of slight, and three had a severity rating of serious. There were no 'fatal' recorded RTC's.

3.19 Three of the RTCs were as a result of vehicles exiting Riverside Industrial Estate, of one which was serious.



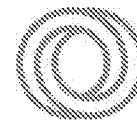
- 3.20 Of the remaining nine incidents, seven occurred on Bridge Road Roundabout, one occurred on the A259 to the north of Bridge Road Roundabout, and one occurred to the south of Bridge Road Roundabout.
- 3.21 Of the RTCs which occurred on Bridge Road Roundabout, one had a severity rating of serious, and was as a result of a motorcycle losing grip and control. The remaining accidents all had a severity rating of slight and can be attributed to drivers and road users not looking correctly, driving at speed, and failing to judge the situation correctly.
- 3.22 The accidents which have therefore occurred on and in the immediate vicinity of Bridge Road Roundabout do not demonstrate that there is an inherent highways safety concern which needs to be addressed.

Sustainable Accessibility

- 3.23 Sustainable accessibility is one of the key themes of the NPPF and an important factor in the determination of planning applications. Guidance published by The Chartered Institution of Highways & Transportation (CIHT) recommends maximum distances of 2km for walking and 5km for cycling to key destinations, as such this guidance benchmarks the accessibility of the site.
- 3.24 The remainder of this section reviews the existing accessibility of the site to local facilities and amenities via sustainable travel modes, with **Figure 2** also illustrating the site's accessibility.

Walking and Cycling

- 3.25 A plan of the public rights of way in the vicinity of the site are presented in **Appendix I**. As can be seen the site is host to a short Public Right of Way (PRoW) to the north of the site, which provides access to the bottom of a set of steps connecting to the carriageway of the A259. Slightly further afield there are PRoWs which run adjacent to the western bank of the River Arun, and which also connect Tesco to Lineside Industrial Estate.
- 3.26 As discussed in paragraph 3.11, Bridge Road Roundabout is subject to pedestrian and cycle highways improvement works as part of the S106 agreement for the Kingley Gate Development. These proposed works will improve the connectivity of the site to the nearest amenities (namely the Tesco supermarket) and this route will be actively encouraged through the site's Travel Plan as the primary walking and cycling route to and from the site to residents and visitors. The use of

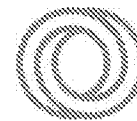


the PROW located to the north of the site is therefore expected to minimal, but will remain open as present for use.

- 3.27 At present a cycle lane is provided adjacent to the northbound carriageway of the A259 Bridge Road, approaching Bridge Road Roundabout, up to the point of the bridge over the river Arun. Further cycles lanes are provided from the roundabout on Broad Piece to Lineside Industrial Estate, which in turn connect to cycle paths and cycle routes which connect to Littlehampton town centre to the south and to Wick Roundabout to the north east.
- 3.28 The highway works at Bridge Road Roundabout, as identified at **Appendix D**, will give the site full connectivity to the existing footway and cycleway network, most notably linking facilities to those already present on Broad Piece.

Public Transport - Buses

- 3.29 The nearest bus stop is situated c.400m walk from the bottom of the access road into the site and provides access to Compass Travel's route 12 bus service, which operates from Tesco, via Littlehampton town centre, to Rustington Sainsburys with hourly weekday daytime services.
- 3.30 Most notably the site benefits from access to both the central and eastern parts of the Coastliner 700 route which serve Littlehampton. Stops located on the B2187 Bridge Road are within c.450m walk of the site which are served by the Littlehampton to Bognor Regis and Chichester leg of the overall Coastliner route; at Chichester connections can then be made to the western part of the route to Havant and Portsmouth. The eastern part of the route from Littlehampton to Worthing and Brighton is accessible within a c.750m walk from via Clun Way, reached via Broad Piece and the footway / cycleway route to Lineside Way. The Chichester services for the Coastliner 700 typically run up to every 20 minutes, with services every day including early morning and late evenings, whilst those to Brighton typically run every 10 minutes.
- 3.31 The bus service timetables and network maps are presented in **Appendix J**, whilst the stops and routes in the locality of the site are shown on **Figure 2**.



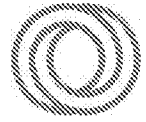
- 3.32 The development site is therefore within walking distance of frequent bus services, which provide access to the town centre of Littlehampton, but also other town / city centres and shopping areas, notably Chichester, Bognor Regis, Worthing and Brighton.

Public Transport - Rail

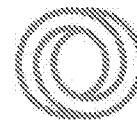
- 3.33 The site is just over 1km from Littlehampton railway station, which is served by Southern trains. Littlehampton is a terminus station, typically benefitting from four services an hour departing to destinations between and including London Victoria and Brighton (both via Worthing & Hove), Portsmouth and Southsea, and Bognor Regis. Refer to **Appendix J** for the service timetables and network maps.
- 3.34 The station is located within a 15 minute walk, 4 minute cycle, and if people so wish within a short bus journey from the site, thereby allowing for accessible and sustainable travel modes onward travel to key destinations.

Local Facilities and Amenities

- 3.35 The development site is well located for access to several key facilities and amenities, the most notable of which is the Tesco Superstore and Petrol Station, which is located within a 400 metre walk of the site.
- 3.36 To demonstrate this, an assessment of access to such facilities within acceptable maximum walking (2km) and cycling (5km) distances using existing routes has been undertaken. **Table 3.2** summarises these facilities, while **Figure 2** illustrates their location relative to the site.

**Table 3.2: Local Facilities**

Facility / Amenity	Distance	Journey Time	
		Walking	Cycling
Education			
Ladybird Nursery School	1,100 metres	14 minutes	4 minutes
White Meadows Primary School	1,500 metres	19 minutes	5 minutes
The Littlehampton Academy	2,000 metres	25 minutes	7 minutes
Medical			
Tesco Pharmacy	400 metres	5 minutes	2 minutes
Wick Surgery	900 metres	11 minutes	3 minutes
Pub / Restaurant			
Arun View Inn	800 metres	10 minutes	3 minutes
The Steam Packet	800 metres	10 minutes	3 minutes
Shopping / Supermarkets			
Littlehampton Town Centre	1,300 metres	16 minutes	5 minutes
Tesco	400 metres	5 minutes	2 minutes



4.0 DEVELOPMENT PROPOSALS

4.1 The development proposals will see the site re-developed to provide the following:

- 105 flats – 26 x one bed (two habitable rooms), 40 x two bed (three habitable rooms) and 39 x three bed (four habitable rooms);
- 32 moorings on the river;
- Ancillary restaurant (170sqm) and commercial (110sqm) land uses; and
- Landscaping, amenity spaces, and parking provision – a total of 202 car parking and 121 cycle parking spaces are proposed.

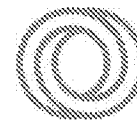
4.2 A site plan showing the parking and servicing layout of the proposed development is presented in **Appendix A**.

4.3 Vehicular access to the site will be via the already in-situ from Bridge Road Roundabout on the A259, refer **Drawing 18-270/001A**.

4.4 Footways and footpaths are also proposed to link the site to the Bridge Road Roundabout, as best illustrated on the plans in **Appendix A**, which will in turn connect to the improvement works at the roundabout shown in **Appendix D**. A footpath is also proposed along the river frontage which will both function to serve the site now but also enable future connection to further sections of riverside footway / cycleway as other land adjacent is redeveloped / improved, in particular to the south towards Littlehampton town centre.

Car Parking

4.5 As discussed in **Section 2.0**, car and cycle parking will be proposed in accordance with the target parking standards as set out in the ADC Parking Standards SPD. The SPD applies a zonal approach with Zone 2 being defined as “*Peri-rural (large villages or small settlements close to towns e.g. Angmering, Barnham)*” and Zone 4 “*Urban (within towns but not in a central location)*”. The site is just located in Zone 2 but lies on the boundary with Zone 4, the zones being allocated



in accordance with ward boundaries rather than reflecting the precise locational characteristics such as with the site being on the existing urban edge of Littlehampton. **Table 4.1** summarises the target parking standards for each zone.

Table 4.1: Residential Car Parking Standards (per dwelling)

No. of Bedrooms	No. of Habitable Rooms	Parking Behaviour Zone 2	Parking Behaviour Zone 4
1	1 to 3	2	1
2	4	2	1
3	5 to 6	2	2
Visitor provision		0.2	0.2

4.6 The development proposal will be provided with parking reflecting its location on the boundary between the two zones and its flatted nature. On the basis of Zone 2 the provision would equate to 231 spaces, whilst in Zone 4 it would equate to 126 or 165 depending on whether habitable rooms or bedrooms are applied. A provision of 182 spaces is proposed, based upon an average of one space per one bedroom flat, 1.5 per two bedroom and two per three bedroom flat, together with visitors parking. A further four spaces are proposed to serve the moorings in order to provide for visitors.

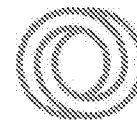
4.7 **Table 4.2** below sets out the parking standards for the non-residential uses.

Table 4.2: Non-Residential Parking Requirements

Land Use	Parking Standard
A1 Retail	1 space per 14sqm
A3 Café and Restaurant Land Use	1 space per 5sqm of public area
	2 spaces per bar for staff

4.8 As these land uses are principally ancillary to the moorings and residential uses the maximum provision of 24 spaces based on the floorspace is not considered to be appropriate. Therefore, a total provision of 16 spaces, akin to the restaurant requirement only, is proposed.

4.9 **Drawing 18-270/004A** demonstrates swept path analysis for the car parking.



Cycle Parking

- 4.10 The Parking Standards SPD also set out provision for the cycle parking which will be expected to be incorporated into new developments, extracted as follows:

Table 4.3: Residential Cycle Parking Standards

Dwelling Type	Dwelling Size	Cycle Provision per Unit
Flats	Up to 3 rooms (1 & 2 bed)*	1
Flats	4+ rooms (3+ bed)	1
Total	-	-

- 4.11 Cycle parking provision in line with the above residential parking standards will be provided, thus 105 spaces. Four spaces will also be provided to serve the moorings.

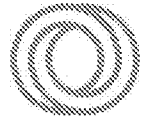
Table 4.4: Non-Residential Cycle Parking Standards

Land Use	Cycle Parking Standard
A1 Retail	1 space per 100sqm for customers
	1 space per 100sqm for staff
A3 Café and Restaurant Land Use	1 space per 25 sqm
	1 space per 4 staff

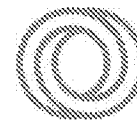
- 4.12 Likewise cycle parking for the proposed retail and restaurant will be provided in line with the above standards, equating to 12 spaces.

Service Vehicle and Emergency Access

- 4.13 Servicing and emergency vehicles will access the site via the existing access from Bridge Road Roundabout.
- 4.14 Swept path analysis of the proposed layout has been undertaken for a large refuse vehicle and fire tender, **Drawings 18-270/002A** and **18-270/003A** illustrate respectively.



- 4.15 Provision has also been made for the Environment Agency and WSCC to access the riverbank and sluice gate located adjacent to the site; **Drawings 18-270/005A** and **18-270/006A** illustrate a tanker and excavator respectively.

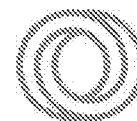


5.0 TRAFFIC GENERATION, DISTRIBUTION AND ASSIGNMENT

- 5.1 This section sets out how much traffic the proposed development is likely to generate and where on the local highway network it will travel to and from.

Traffic Generation

- 5.2 To assess the forecasted vehicle trips which the development could generate the TRICS database has been interrogated for the different land uses which are proposed on site. A summary of the network peak hour trip rates, agreed during scoping, are presented in **Table 5.1** below, the full datasets as provided by TRICS are presented in **Appendix L**.
- 5.3 It is noted that the forecasted vehicle trip rate, as presented in **Table 5.1** below, does not include trip rate data for the 32 moorings proposed. In part this is due to a lack of TRICS data for this particular land use but moreover owing to the recreational nature of the moorings it is unlikely that vehicle trips will be made in the peak hours. It is also expected that future residents of the flats will occupy the moorings, thereby eliminating additional vehicle trips. The vehicle trip rate presented below is therefore considered to be representative of all the proposed land uses.

**Table 5.1: Proposed Vehicle Trip Rates, Hampton Quay**

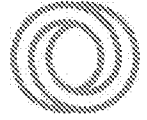
	AM Peak			PM Peak		
	(08:00 – 09:00)			(17:00-18:00)		
	Arr.	Dep.	Two-Way	In	Out	Two-Way
Residential (Flats) Land Use						
Trip Rate per Dwelling	0.06	0.22	0.28	0.22	0.10	0.32
Traffic Generation for 105 Dwellings	6	23	29	23	11	33
Restaurant Land Use						
Trip Rate per 100sqm	0.00	0.00	0.00	0.89	0.34	1.23
Traffic Generation for 170sqm	0	0	0	2	1	2
Retail Land Use						
Trip Rate per 100sqm	10.44	9.76	20.20	11.70	10.69	22.39
Traffic Generation for 110sqm	11	11	22	13	12	25
Whole Development						
Traffic Generation for whole development	17	34	51	37	23	60

Note: Some arithmetic errors due to rounding's

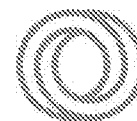
- 5.4 As can be seen the development will generate only one vehicle per minute during both the AM and PM peak hours, and furthermore this is considered to be robust given the ancillary nature of the restaurant and retail uses. The proposed development is therefore not considered to result in a 'severe' impact upon the local highway network.

Development Traffic Assignment and Distribution

- 5.5 An assessment of the operation of Bridge Road Roundabout has been undertaken using the traffic flow data from the agreed TA prepared for Church Lane site in Climping; as set out in **Section 3.0**, as this was more robust than the modelled flows from WSCC even when comparing the former's 2026 flows with the 2031 WSCC flows.
- 5.6 The Junctions 9 (ARCADY) model used in the agreed TA has been updated to include the site access arm; **Appendix G** contains the original model information for ease of reference.



- 5.7 For the purpose of this assessment, the 2026 with development scenario as analysed for the Climping development has been utilised as a future 2026 baseline traffic flow with committed development.
- 5.8 The likely traffic distribution on Bridge Road Roundabout from the proposed development has been calculated based upon that which currently arrives and departs to and from the Broad Piece arm of the roundabout, which is also a cul-de-sac. The assignment and distribution is illustrated on turning diagrams / matrices contained in **Appendix M**.



6.0 TRAFFIC IMPACT ASSESSMENT

- 6.1 A Junctions 9 (ARCADY) capacity assessment of the Bridge Road Roundabout has been undertaken for the robust 2026 scenario, consistent with the agreed Church Lane, Climping TA.

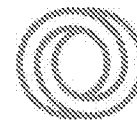
Table 6.1: Bridge Road Roundabout

Arm	AM		PM	
	RFC	Queue	RFC	Queue
	2026 Base + Committed Development + Development			
1 - B2187 Bridge Road	0.10	0.1	0.12	0.1
2 - A259 (South)	0.19	0.2	0.22	0.3
3 - Site Access	0.01	0.0	0.01	0.0
4 - A259 (North)	0.16	0.2	0.14	0.2
5 - Broad Piece	0.06	0.1	0.10	0.1

- 6.2 As can be seen in **Table 6.1** above, Bridge Road Roundabout in the future, as was demonstrated in the Climping TA, will operate well within capacity in both the AM and the PM peak periods. As such the development proposal is not considered to result in a 'severe' impact. No highway capacity improvements are therefore required to the Bridge Road Roundabout.
- 6.3 No further testing of junctions beyond the Bridge Road Roundabout is considered to be necessary given that the traffic generation has been immediately distributed in three directions away from the junction, the highest directional flow being about 15 vehicles to the A259 south in the AM peak and from the A259 south in PM peak, a change of only 1%.

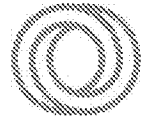
Travel Plan

- 6.4 The developer is committed to reducing as much as possible the traffic impact of the proposed development. As such, the detailed planning application will be accompanied by a residential Travel Plan which will have the primary aim of reducing the single occupancy vehicle trips of the development proposal.



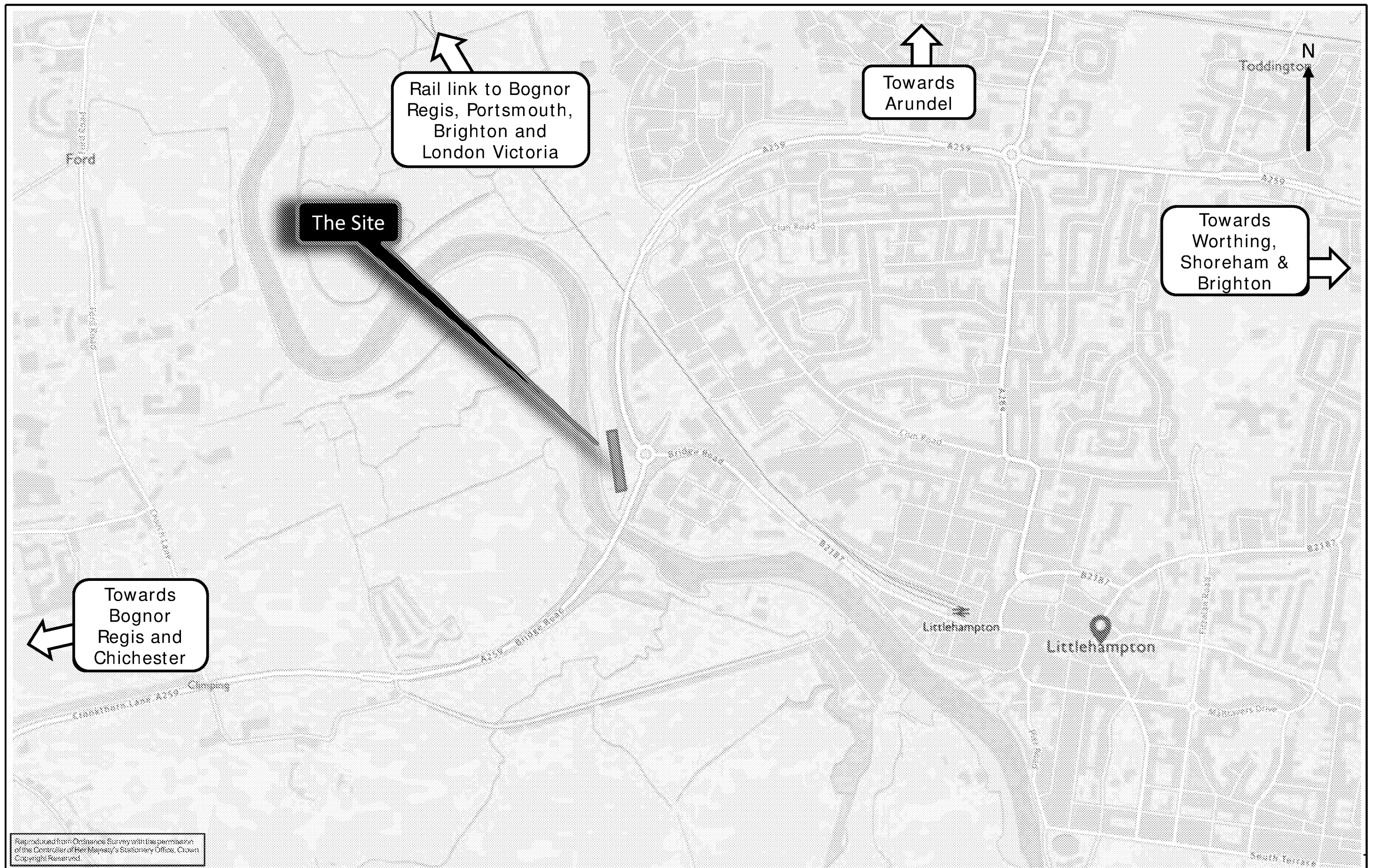
7.0 SUMMARY AND CONCLUSIONS

- 7.1 Odyssey have been instructed by Stolon Studios Ltd to prepare a Transport Assessment in support of planning application for the proposed development of land at Hampton Quay, Littlehampton, West Sussex, BN17 5RA.
- 7.2 The development site currently comprises of c.2.7 hectares of undeveloped land, it has previously been used as a caravan park. Vehicular access to the site is already in-situ from Bridge Road Roundabout on the A259.
- 7.3 The development proposal will see the site re-developed to provide 105 flats, 32 moorings on the river and ancillary restaurant / commercial land use with appropriate landscaping, amenity spaces, and parking provision.
- 7.4 A review of the local area and existing site conditions has shown that the site is sustainable, with access to bus and rail services by walking and cycling. Existing bus stops are located within a 450m walk of the site, and Littlehampton railway station and town centre is just over a kilometre walk or cycle of the site. Committed highway works will provide pedestrian and cycle improvements at the Bridge Road Roundabout, connecting the site to the existing footway and cycleway network.
- 7.5 A range of other local facilities, amenities and employment opportunities are also located within acceptable walking (2km) and cycling (5km) distances of the site.
- 7.6 An assessment of the development's traffic generation and impact upon the local highway network clearly shows a minimal effect upon the existing and expected future highway conditions with less than one vehicle movement per minute being generated during the AM and PM peak hours onto the Bridge Road Roundabout. Beyond this junction the highest direction increase in flow is only 15 vehicles equivalent to only a 1% change in traffic.
- 7.7 The developer is nonetheless committed to reducing the traffic impact of the development on the local highway and will prepare and implement a residential Travel Plan to help promote active and suitable modes of travel, instead of using the car.



- 7.8 Based upon the findings of this TA, the impact of the proposals is not 'severe' as prescribed by NPPF, and represents a sustainable development, and as such should be permitted from a highways and transport perspective.

FIGURES



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 ODYSSEY DEVELOPING JOURNEYS	Elizabeth House 39 York Road London SE17NQ Telephone: 0207 6202444 Fax: 0207 6201168 E: info@odysseyconsult.co.uk W: www.odysseyconsult.co.uk	Job Title	HAMPTON QUAY LITTLEHAMPTON, WEST SUSSEX	Client	STOLON STUDIOS LTD	Scale	Date	Designed			
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		Drawn				TN	Checked	RJH	Approved	RJH	
		Drawing Title	SITE LOCATION PLAN			Job No	18-270	Figure No	FIGURE No.1	Rev	-

DRAWINGS

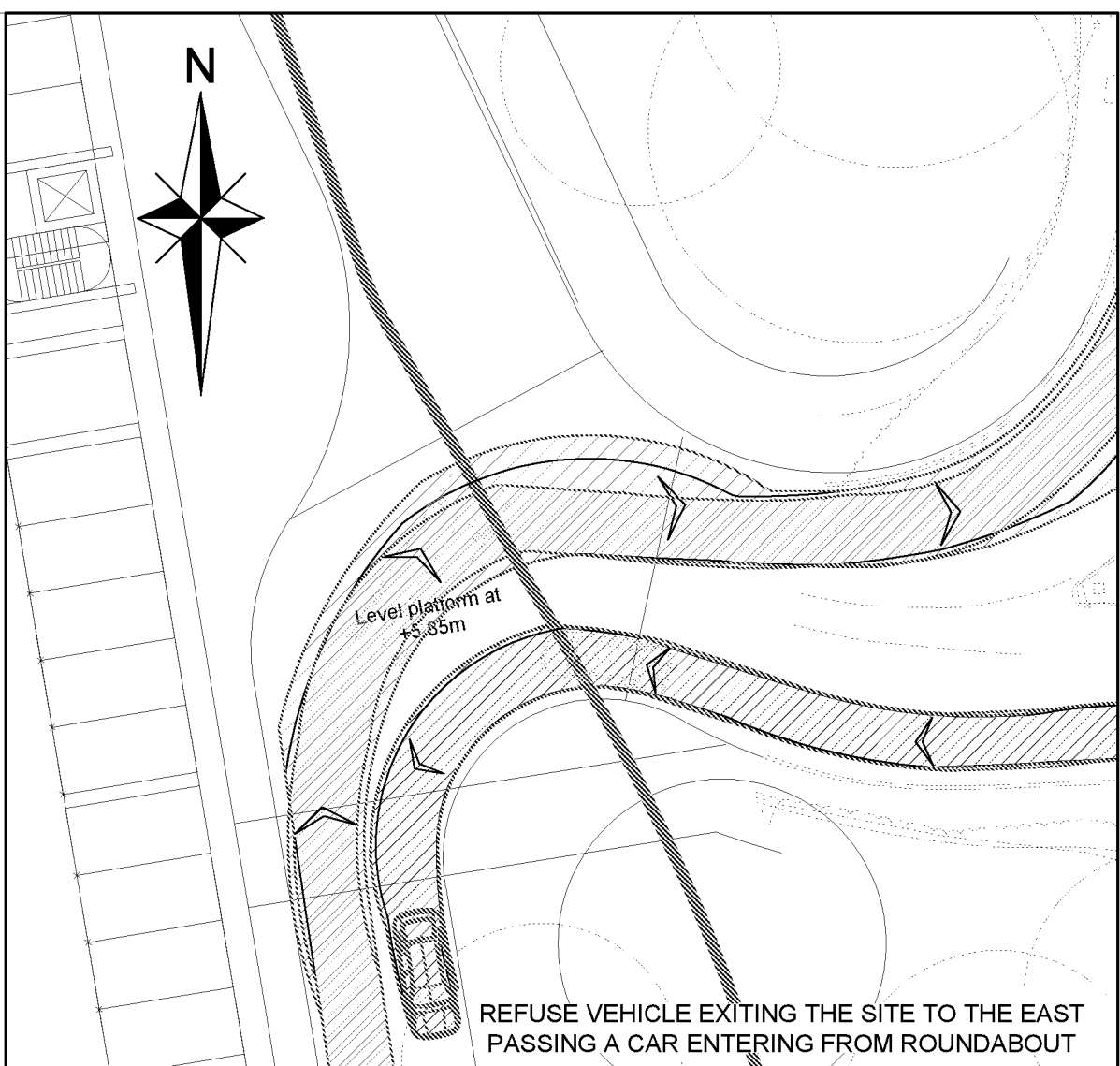
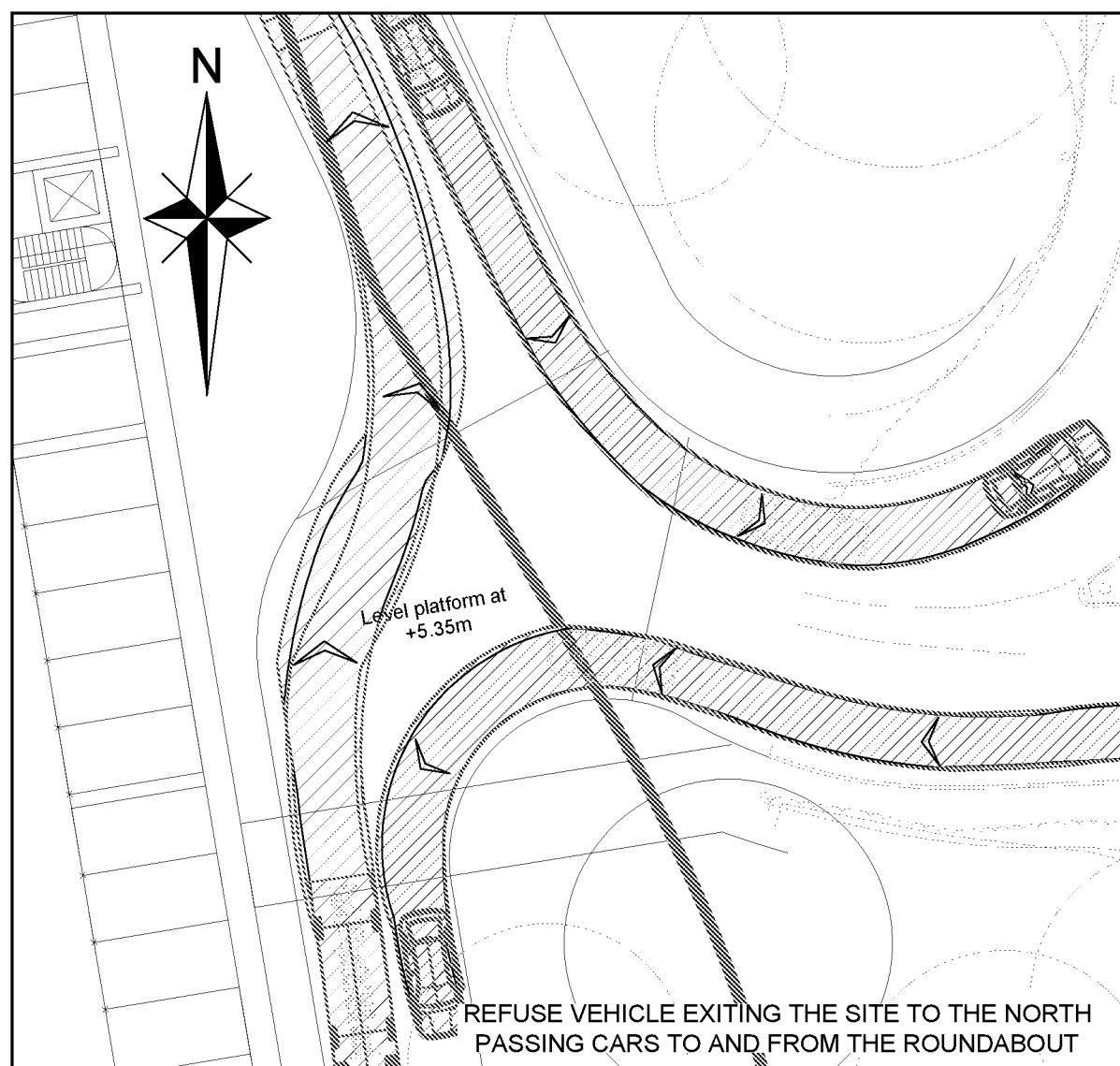
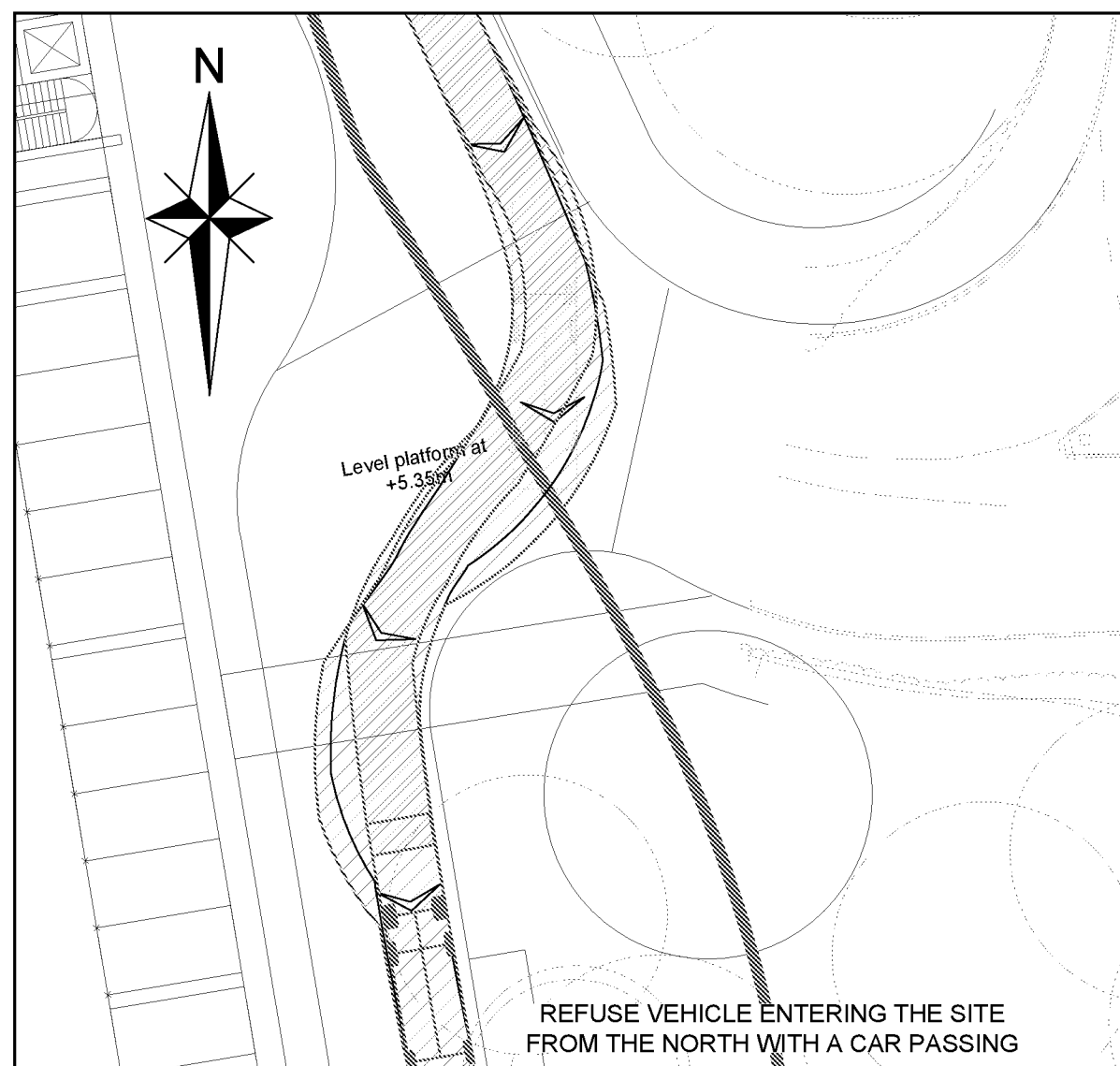
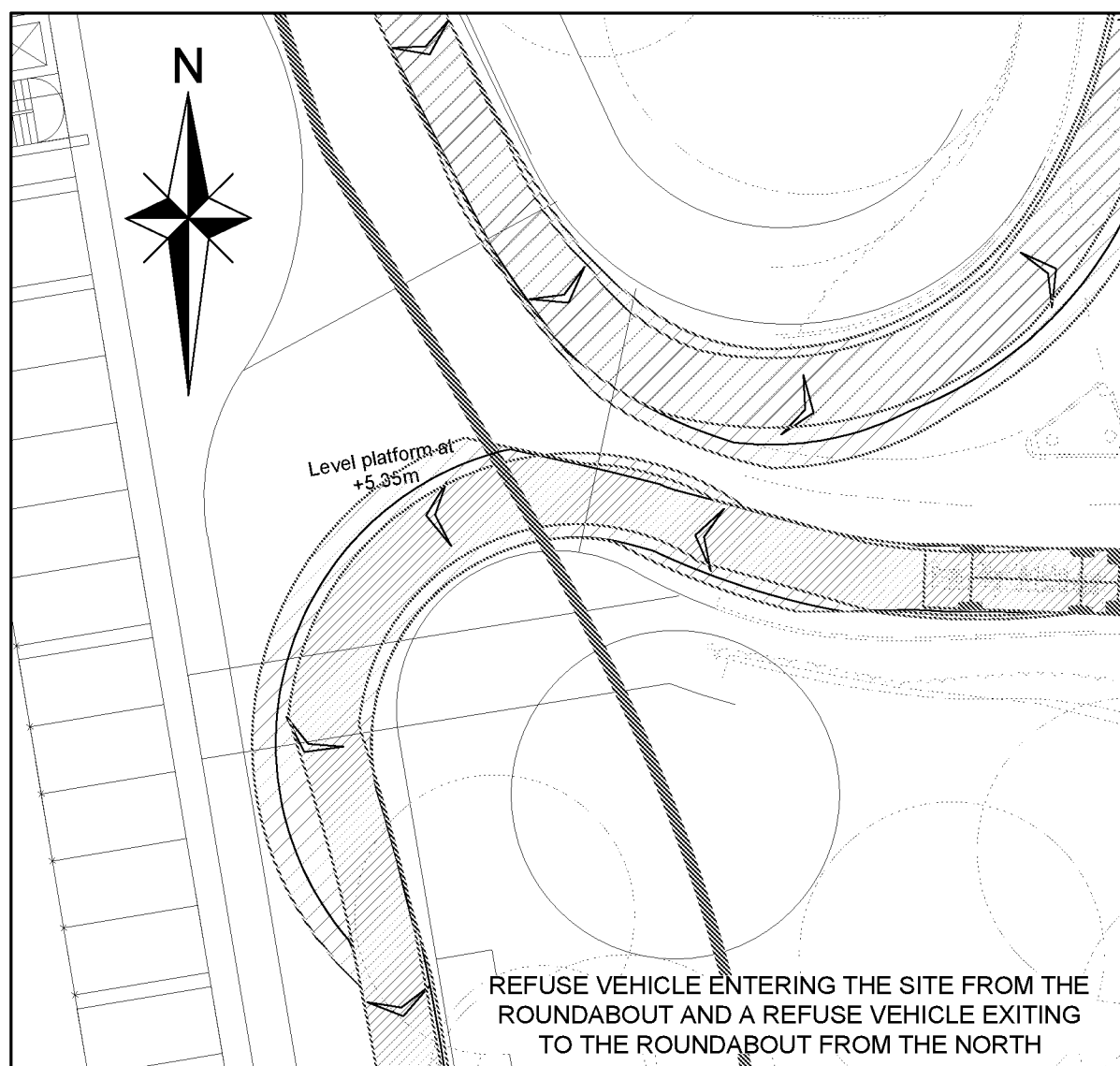
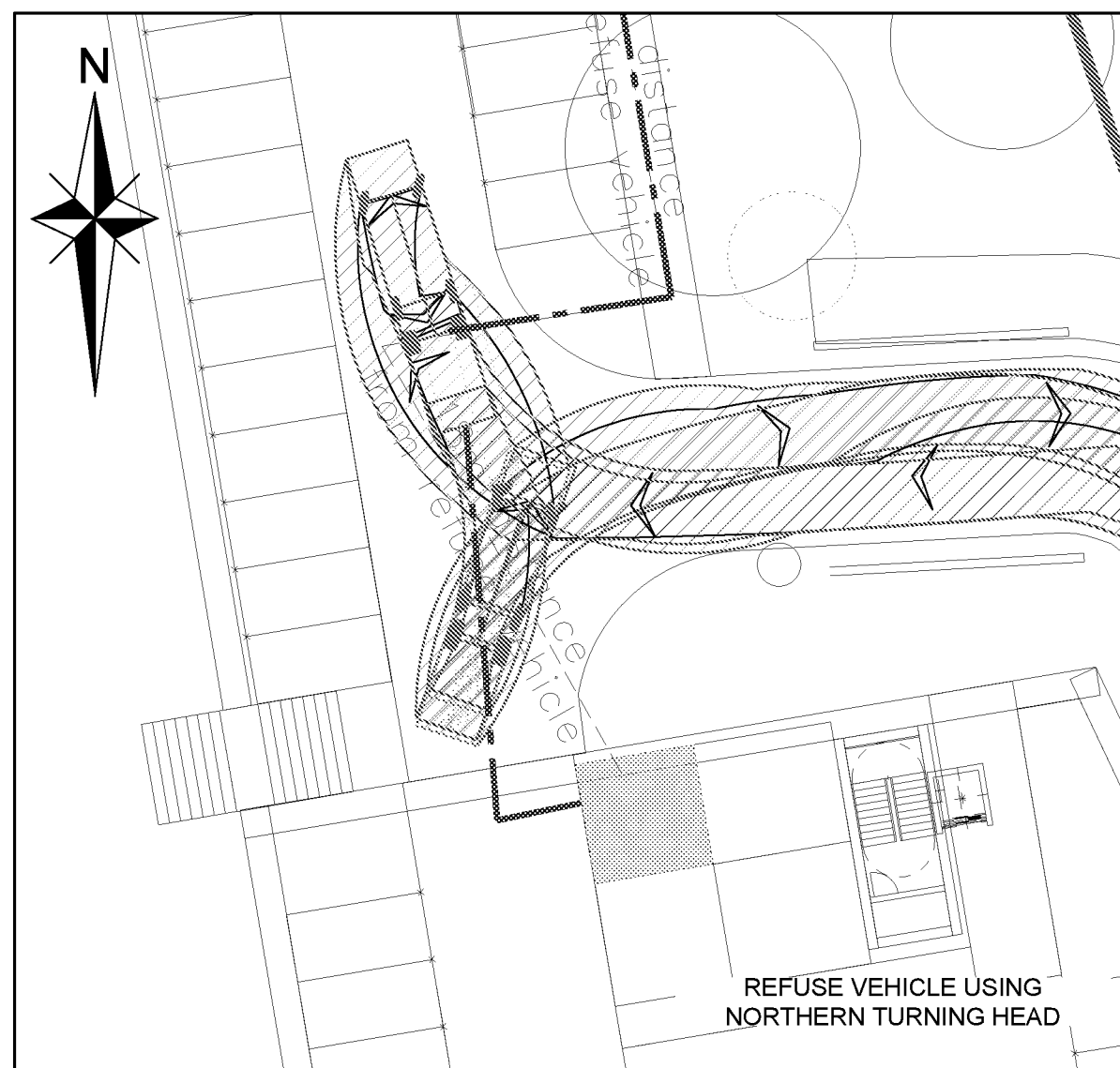
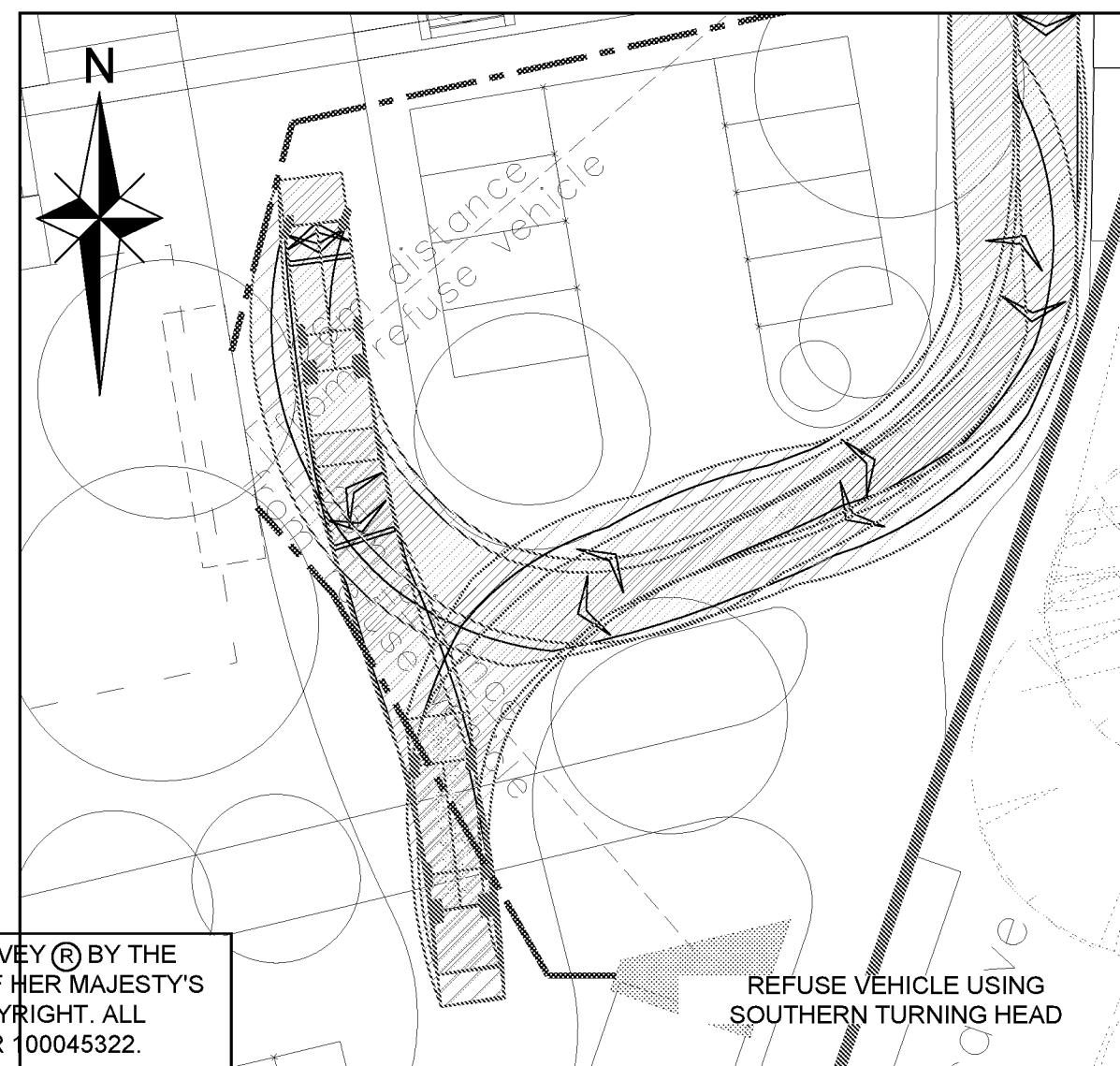
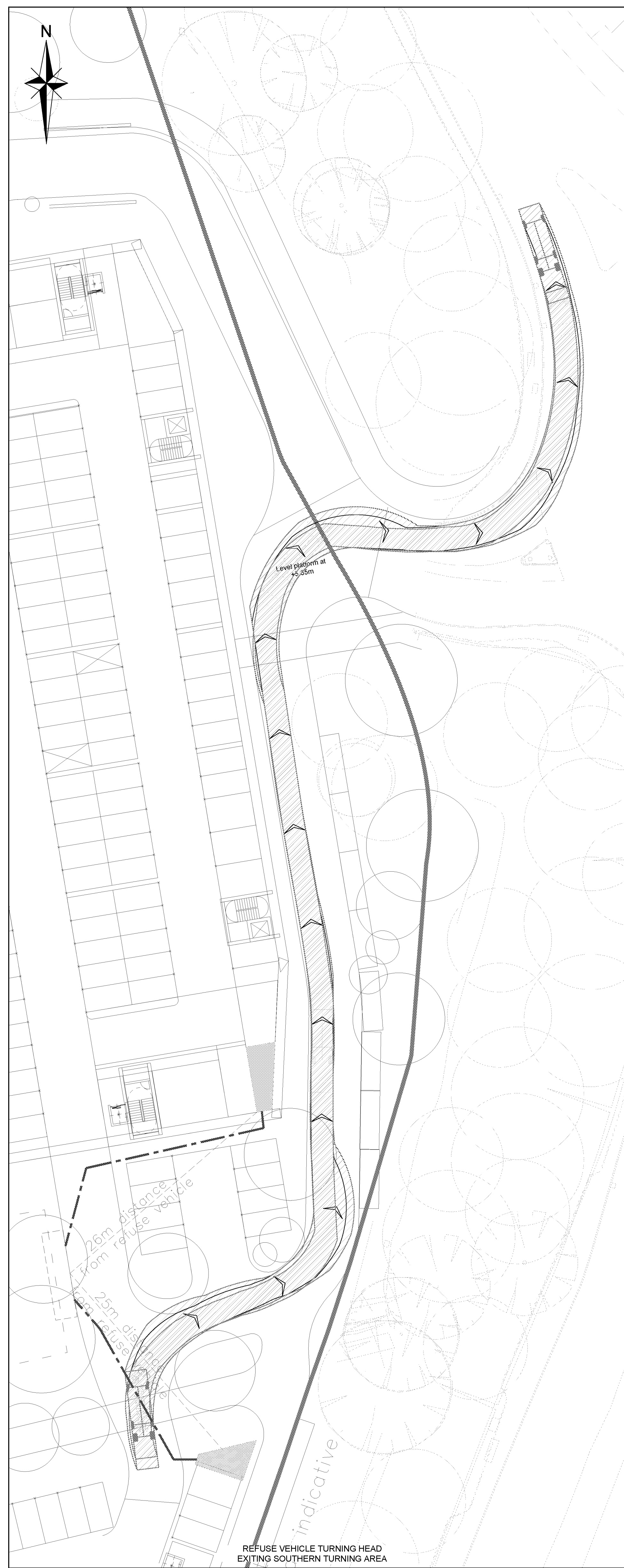
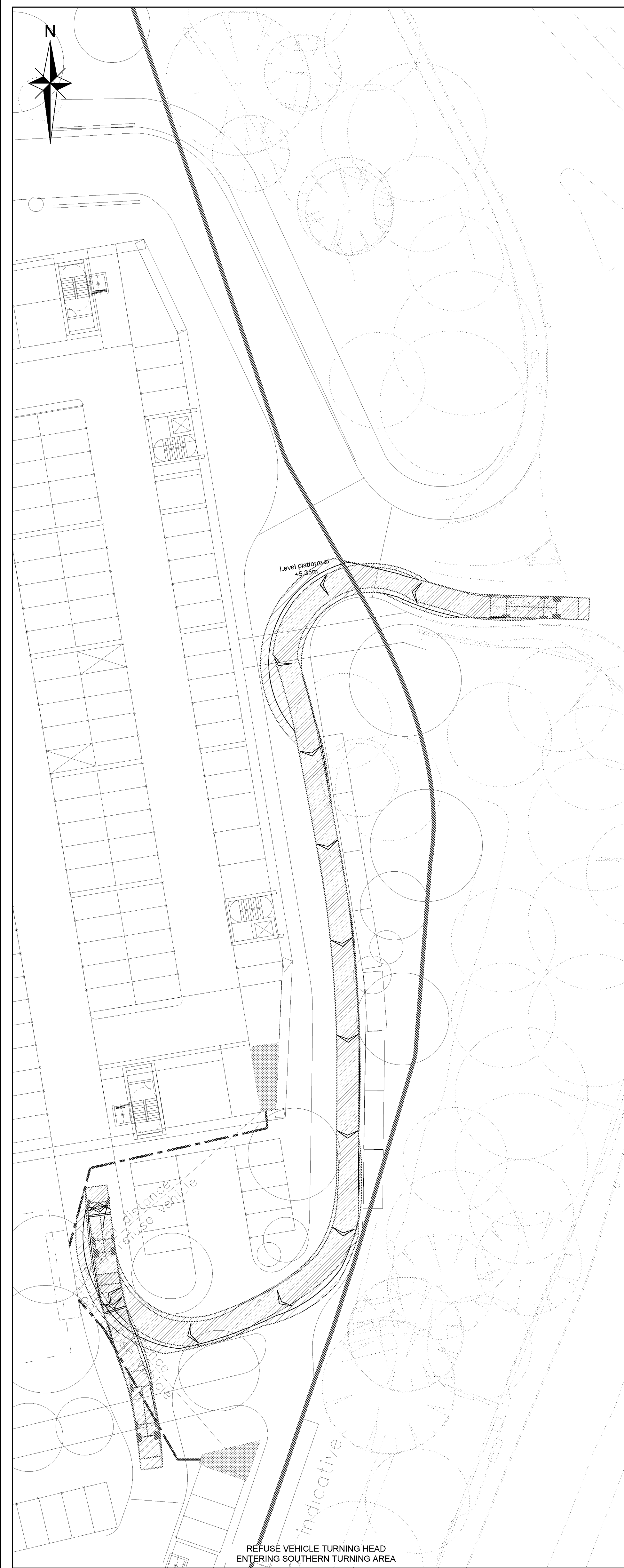


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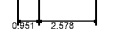
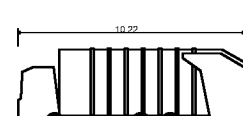

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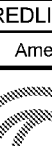
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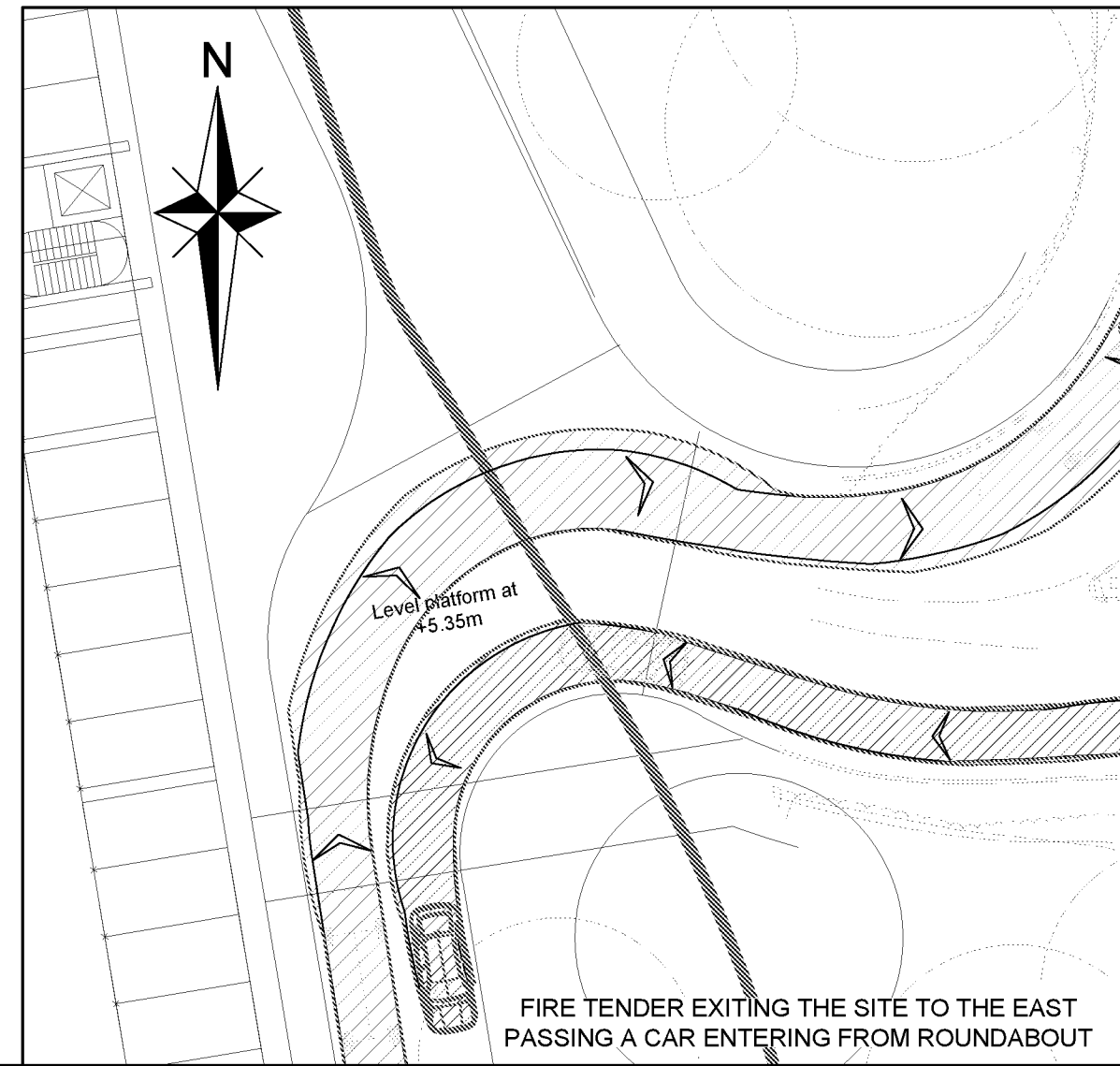
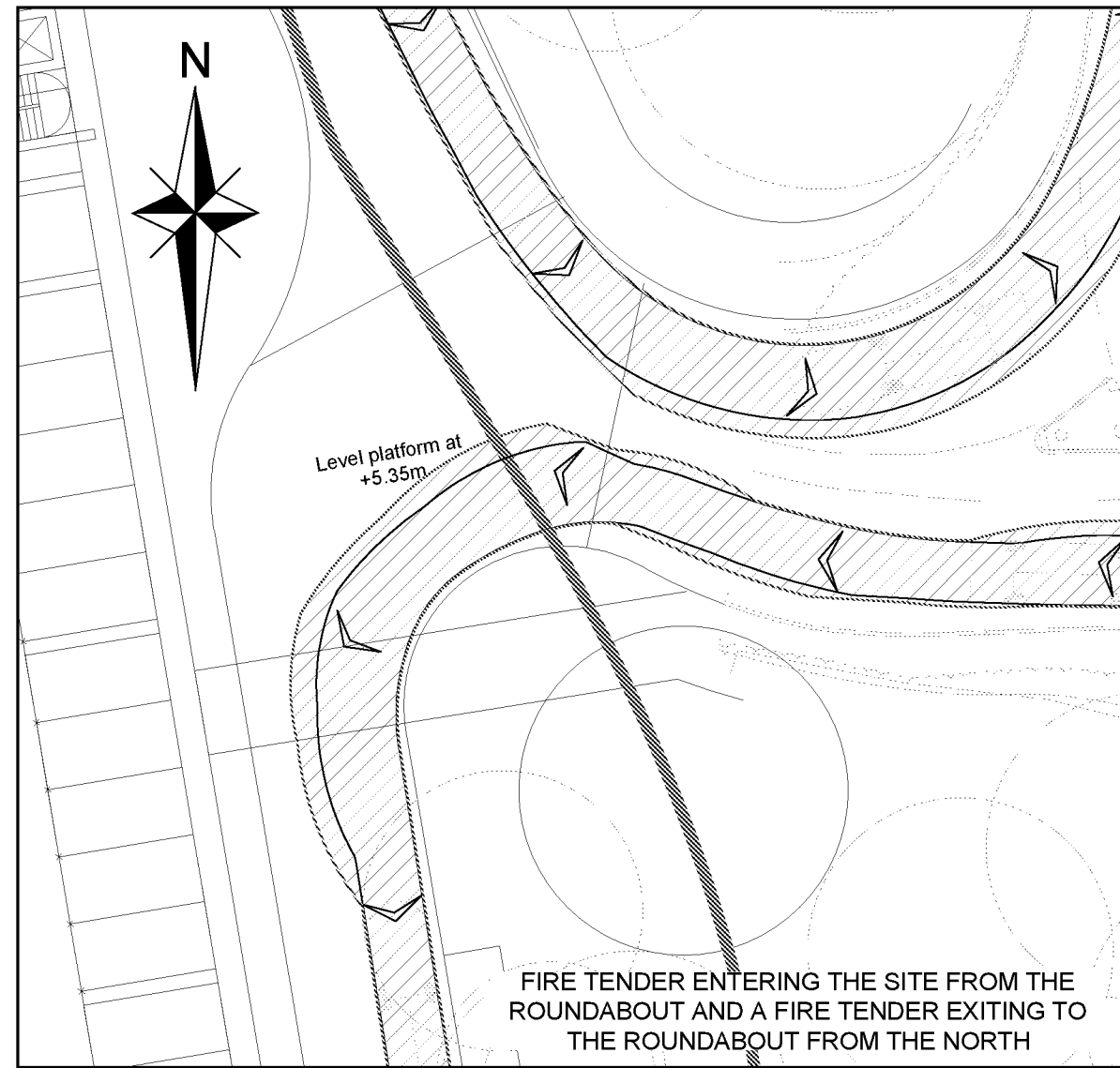
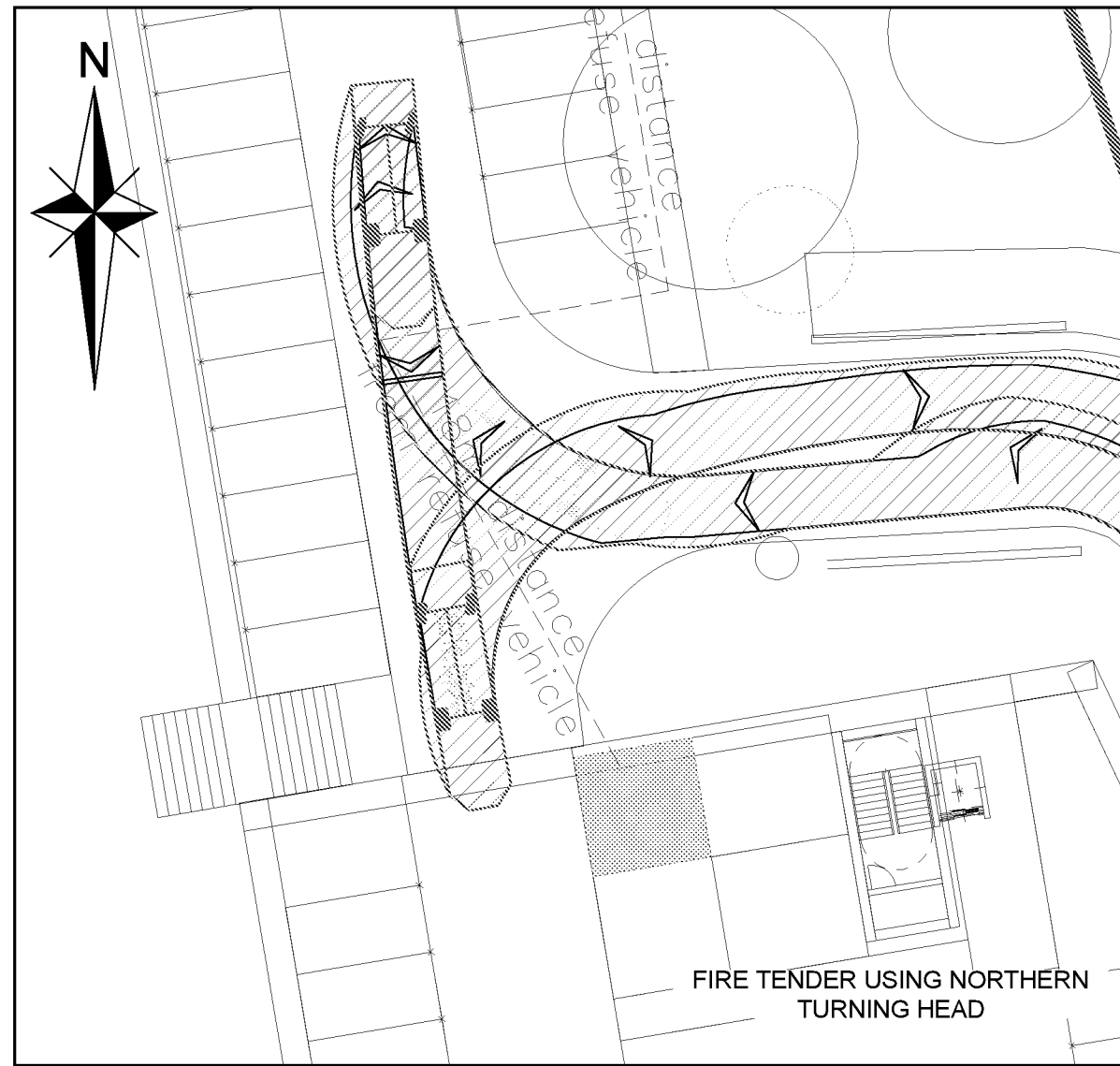
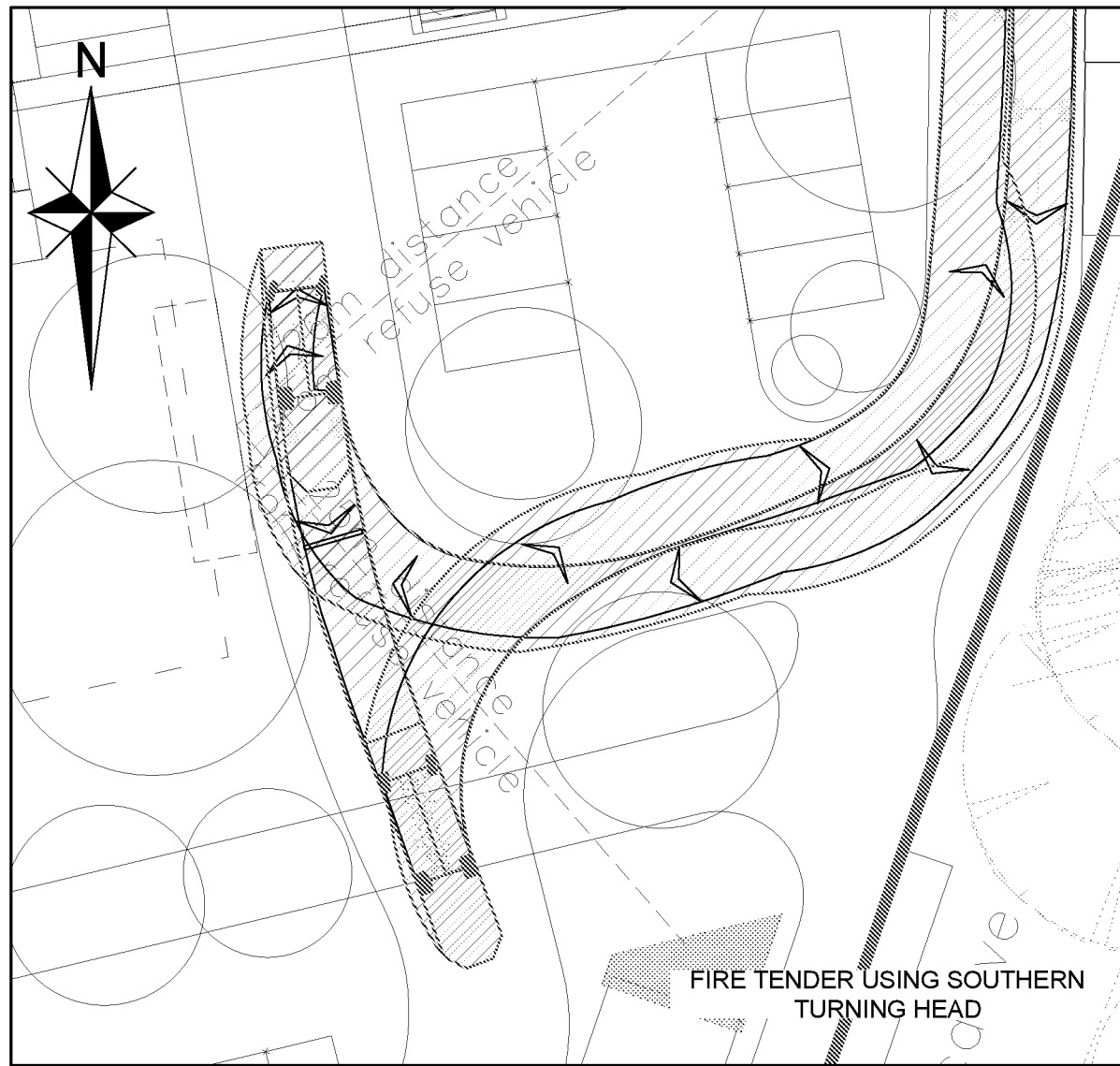
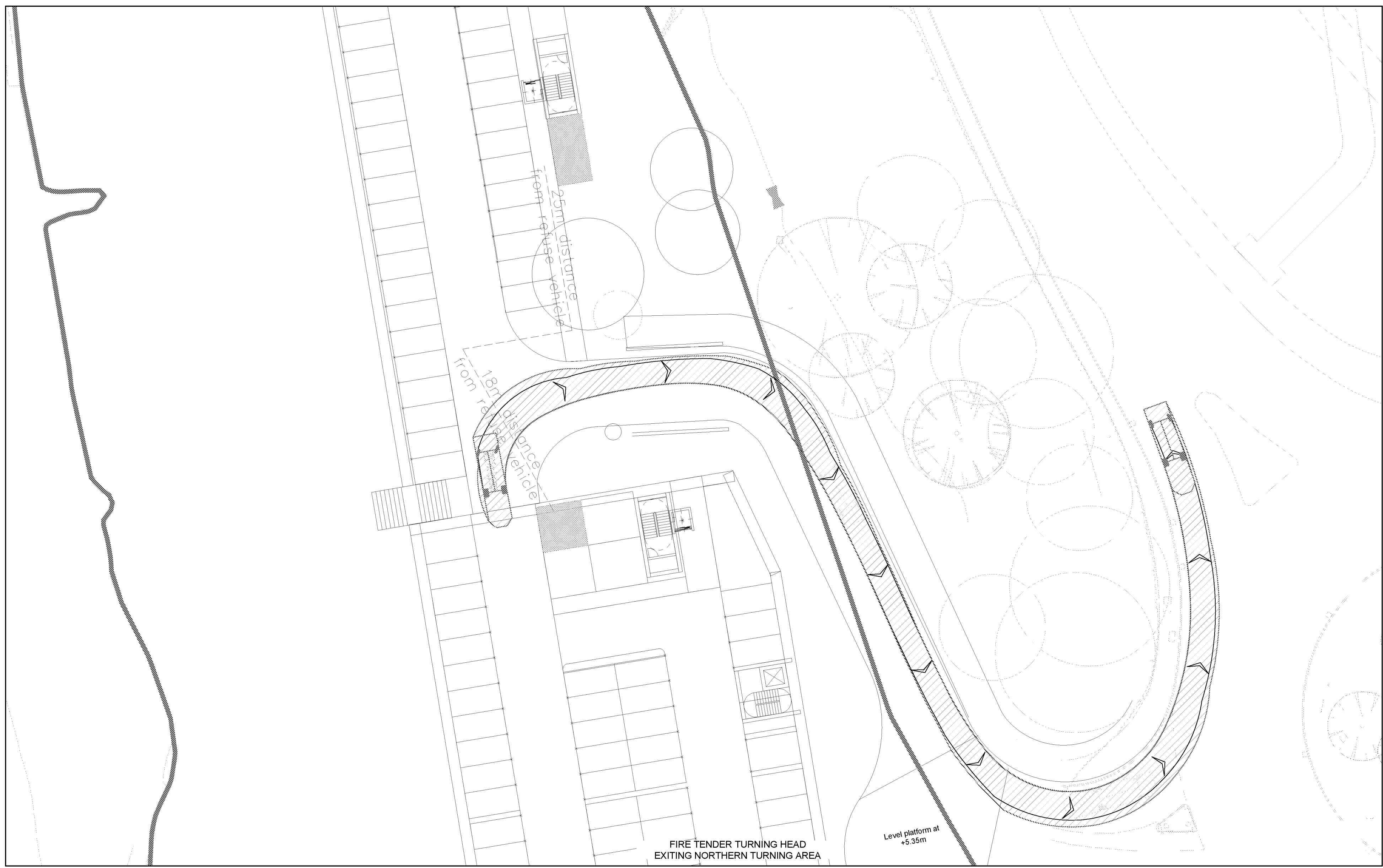
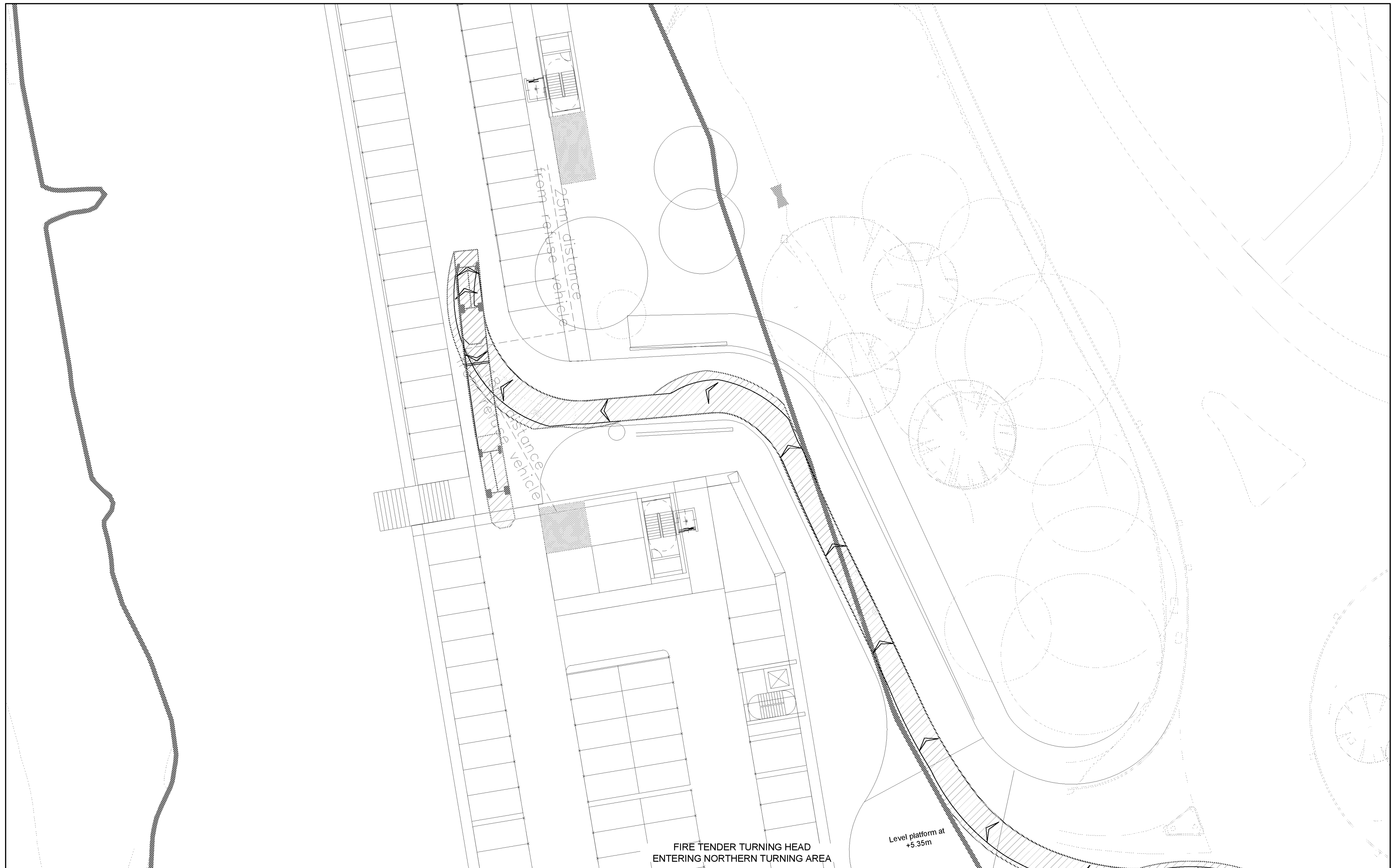
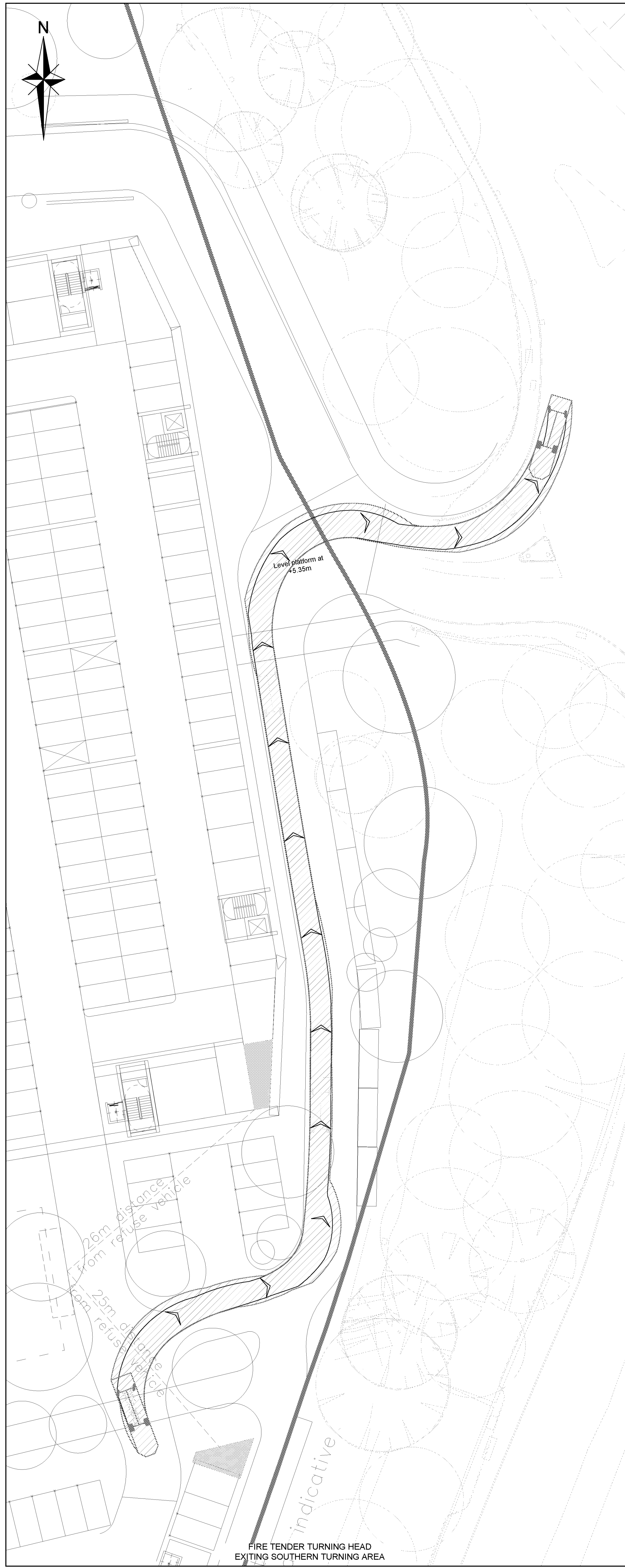
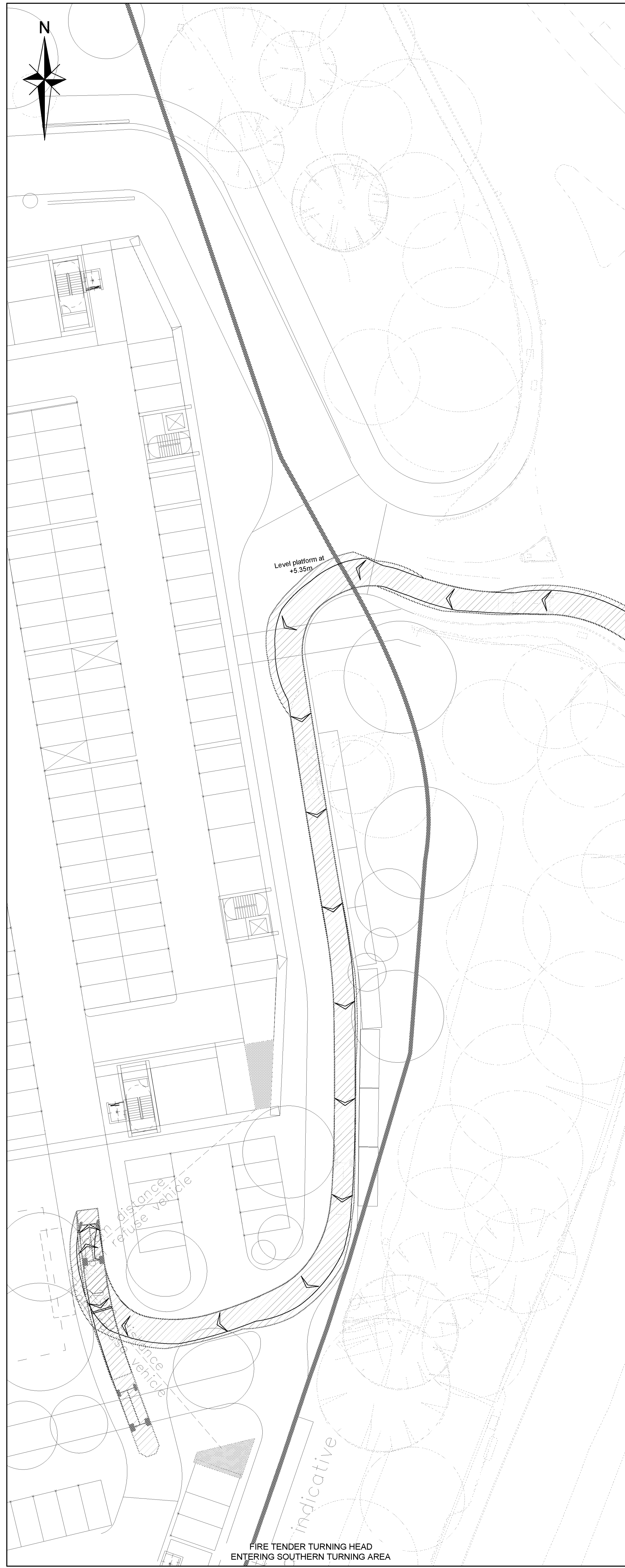
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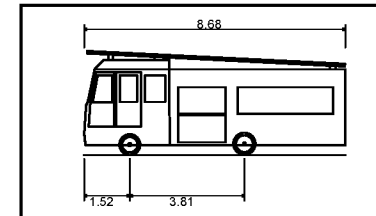
 SITE BOUNDARY
 REFUSE STORES
 REFUSE DRAG DISTANCES (MAX. 30m)

		
Overall Width	4.520m	
Wheel Track	1.520m	
Overall Height	1.520m	
Overall Width w/o Mirrors	1.280m	
Minimum Turning Clearance	1.280m	
Overall Length	1.520m	
Wheel to Wheel Spacing	1.520m	
Wheel to Axle Spacing	1.520m	
Wheel to Rear Turning Radius	3.100m	
		
Overall Length	1.520m	
Overall Width	1.520m	
Overall Height	1.520m	
Min. Body Internal Clearance	1.520m	
Wheel to Wheel Spacing	1.520m	
Wheel to Rear Turning Radius	1.520m	

	REFLINE UPDATED Amendments	MS	CEN-987654	2067/20	Date
	ODYSSEY				
Company Name Address Line One Address Line Two Telephone Number	Telephone: 0125 252 1144 Fax: 0125 252 1145 E: info@odysseycar.co.uk W: www.odysseycar.co.uk				
Title	HAMPTON QUAY, LITTLETON VEHICLE				
Hire Job Title	REFUSE HEAVY SWEEP PATH ANALYSIS				
Cost	STOLON STUDIO				
No.	Date	Designed			
JR 250 @A0	JUNE 20	MS			
Drawn by	Checked	Approved			
RJH	RJH	RJH			
No.	Drawing No.	Rev A			
18-270	18-270/002	1			



SITE BOUNDARY



0832 Fire Appliance
Overall Length 8.660m
Overall Width 2.450m
Overall Body Height 3.450m
Min Body Ground Clearance 0.335m
Max Truck Width 2.570m
Lock to Lock Time 6.00s
Pitch to King Turning Radius 9.00m

A REDLINE UPDATED MS: ESR/RJH 26/07/20
Rev: Amendments Date Date Date Date



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Web: www.odysseyconsult.co.uk

Job Title: HAMPTON QUAY, LITTLEHAMPTON

Drawing Title: FIRE TENDER SWEEP PATH ANALYSIS

Client: STOLON STUDIO

Scale: 1:250 @A0 Date: JUNE 20 Designed: MS

Drawn: MS Checked: RJH Approved: RJH

Job No: 18-270 Drawing No: 18-270/003 Rev: A