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Surface Water and SuDS Assessment Rev0

173–175 Station Road,
West Drayton,
UB7 7NQ

26 March 2026

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This document has been prepared solely as a Surface Water and SuDS Assessment for Nitin Hirani. Base Energy accepts no responsibility or liability for any use that is made of this document other than by the Client for the purposes for which it was originally commissioned and prepared.

1. Introduction

This Surface Water and Sustainable Drainage (SuDS) Statement has been prepared for proposals at 173–175 Station Road, West Drayton, UB7 7NQ.

A Site location plan is provided in **Appendix A**.

Site Context

The site comprises two semi-detached apartment blocks served by an asphalt car park to the front and a hard-surfaced side access.

The existing site layout is shown in **Appendix B**.

Proposals are for an extension to create 4 additional residential units on an area of existing hardstanding, along with associated parking.

The proposed site layout is provided in **Appendix C**.

2. Planning Policy

Hillingdon Local Plan Part 1 (Adopted November 2012)

Policy EM6: Flood Risk Management

The Council will require all development across the borough to use sustainable urban drainage systems (SuDS) unless it can be demonstrated that it is not viable. The Council will encourage SuDS to be linked to water efficiency methods.

The Council may require developer contributions to guarantee that the long-term maintenance and performance of SuDS is to an appropriate standard.

London Plan 2021

Policy SI 13 Sustainable Drainage states:

A *Lead Local Flood Authorities should identify – through their Local Flood Risk Management Strategies and Surface Water Management Plans – areas where there are particular surface water management issues and aim to reduce these risks. Increases in surface water run-off outside these areas also need to be identified and addressed.*
B *Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. There should also be a preference for green over grey features, in line with the following drainage hierarchy:*
1) rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation)
2) rainwater infiltration to ground at or close to source
3) rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens)
4) rainwater discharge direct to a watercourse (unless not appropriate)
5) controlled rainwater discharge to a surface water sewer or drain
6) controlled rainwater discharge to a combined sewer.

C *Development proposals for impermeable surfacing should normally be resisted unless they can be shown to be unavoidable, including on small surfaces such as front gardens and driveways.*
D *Drainage should be designed and implemented in ways that promote multiple benefits including increased water use efficiency, improved water quality, and enhanced biodiversity, urban greening, amenity and recreation***.**

9.13.1 *London is at particular risk from surface water flooding, mainly due to the large extent of impermeable surfaces. Lead Local Flood Authorities have responsibility for managing surface water drainage through the planning system, as well as ensuring that appropriate maintenance arrangements are put in place. Local Flood Risk Management Strategies and Surface Water Management Plans should ensure they address flooding from multiple sources including surface water, groundwater and small watercourses that occurs as a result of heavy rainfall.*

9.13.2 Development proposals should aim to get as close to greenfield run-off rates as possible depending on site conditions. *The well-established drainage hierarchy set out in this policy helps to reduce the rate and volume of surface water run-off***.**
Rainwater should be managed as close to the top of the hierarchy as possible. There should be a preference for green over grey features, and drainage by gravity over pumped systems*. A blue roof is an attenuation tank at roof or podium level; the combination of a blue and green roof is particularly beneficial, as the attenuated water is used to irrigate the green roof.*

9.13.3 *For many sites,* ***it may be appropriate to use more than one form of drainage****, for example a proportion of rainwater can be managed by more sustainable methods, with residual rainwater managed lower down the hierarchy. In some cases, direct discharge into the watercourse is an appropriate approach, for example rainwater discharge into the tidal Thames or a dock. This should include suitable pollution prevention filtering measures, ideally by using soft engineering or green infrastructure.*
In addition, if direct discharge is to a watercourse where the outfall is likely to be affected by tide-locking, suitable storage should be designed into the system. However, in other cases direct discharge will not be appropriate, for example discharge into a small stream at the headwaters of a catchment, which may cause flooding. This will need to be assessed on a case-by-case basis, taking into account the location, scale and quality of the discharge and the receiving watercourse. The maintenance of identified drainage measures should also be considered in development proposals.

9.13.4 *The London Sustainable Drainage Action Plan complements this policy. It contains a series of actions to make the drainage system work in a more natural way with a particular emphasis on retrofitting.*

2.3 Non-Statutory Technical Standards for SuDS 2025

The National Sustainable Drainage Systems (SuDS) Standards (2025) provide updated, non-statutory guidance for the design, construction, and long-term management of SuDS in new developments. Their purpose is to promote high-quality, multifunctional drainage that manages flood risk, improves water quality, supports biodiversity, and enhances the character and amenity of places.

The standards place strong emphasis on early integration of SuDS in the site design process, promoting a holistic approach that mimics natural hydrology and treats rainfall as a valuable resource. A key change in the 2025 update is the prioritisation of rainwater reuse as the preferred destination for runoff, followed by infiltration, discharge to surface water bodies, and finally sewers as last resort.

The seven standards cover the full SuDS lifecycle:

1. Runoff Destination – Apply the runoff hierarchy, prioritising water reuse and infiltration where feasible.
2. Interception – Retain the first 5 mm of typical rainfall events through source-control features to reduce pollution and flow rates.
3. Peak Flow & Volume Control – Manage runoff for both frequent and extreme rainfall events, including climate change allowances, while ensuring safe exceedance routing.
4. Water Quality – Use a treatment-train approach to provide pollution mitigation appropriate to the site's risk profile.
5. Amenity – Deliver SuDS that positively contribute to public realm, landscape quality, and wellbeing.
6. Biodiversity – Maximise ecological value, integrating SuDS with habitat creation and local nature recovery objectives.
7. Construction, Operation & Maintenance – Ensure SuDS are buildable, resilient, and supported by clear, long-term maintenance arrangements.

Overall, the 2025 standards reinforce a shift towards SuDS as multifunctional green infrastructure, moving beyond simple drainage to systems that deliver environmental, social, and climate-resilience benefits. They inform site masterplanning, encourage multidisciplinary coordination, and highlight the importance of whole-life performance and maintenance.

3. Surface Water and SuDS

The proposed development extension will be located on an area of existing hardstanding. As such, the proposals will not increase the rates and volumes of surface water runoff from the site.

However, it is proposed to incorporate simple SuDS measures, in line with the London Plan.

The London Plan Hierarchy

The following outlines the most feasible ways to incorporate SuDS in line with the London Plan hierarchy.

1) Rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation)
There is the potential for simple rainwater recycling in the form of a water butt.

2) Rainwater infiltration to ground at or close to source
The British Geology Survey (BGS) Geology Maps indicate that the site is underlain by London Clay.

As such, we would not recommend a SuDS strategy that is based on infiltration of surface water (i.e. soakaways, Type A permeable paving).

Furthermore, in accordance with Approved Document Part H of the Building Regulations, infiltration-based Sustainable Drainage Systems (SuDS) should not be located within 5 metres of a building or highway.

Given the spatial constraints of the site, it is not feasible to accommodate an infiltration SuDS feature that satisfies this minimum offset requirement. As such, the provision of an infiltration-based drainage solution would not be compliant in this instance.

3) Rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens)
A simple rain planter can be provided. More details are provided overleaf.

4) Rainwater discharge direct to a watercourse (unless not appropriate)
There are no watercourses in the immediate vicinity of the site.

5) Controlled rainwater discharge to a surface water sewer or drain, and 6) Controlled rainwater discharge to a combined sewer.
It is understood that surface water runoff from the site currently discharges to the public sewer network.

It is proposed that surface water runoff will continue to discharge to the public sewer as existing, with the water butt and rain planter providing betterment when compared with the existing situation.

SuDS Option

SuDS aim to mimic natural drainage and can achieve multiple objectives such as removing pollutants from urban runoff at source, controlling surface water runoff from developments, ensuring that flood risk is not increased further downstream and combining water management with green space which can increase amenity and biodiversity value. When selecting SuDS, consideration needs to be given to a range of factors including the ground conditions, type of proposals, and the constraints of the site.

In line with the London Plan hierarchy, the following is proposed to provide betterment (when compared with the existing situation) in terms of surface water runoff from the site:

- **Simple rainwater recycling (water butt)**
- **Rain planter**

Water Butt

In order to provide a level of rainwater recycling, a water butt will be provided. Water butts afford the opportunity to reduce the impact on already stretched potable water supply by enabling future occupants to reuse water collected in the water butt, for example when watering the garden/or washing cars etc. If this supply is used frequently this may also ensure that some additional storage is available during an extreme rainfall event (noting that there is a possibility that the tank may be full before the onset of a storm and as such there is no guarantee as to the level of attenuation storage they can provided).

Ideally, an overflow should be provided to prevent the rainwater tank from overflowing. This could be via a perforated hose to allow the tank to empty after a rainfall event thus making capacity for the next event.

Rain Planter

In order to provide a level of rainwater recycling, a water butt will be provided. Water butts afford the opportunity for future occupants to reuse water collected in the water butt, for example when watering the garden/or washing cars etc. If this supply is used frequently this may also ensure that some additional storage is available during an extreme rainfall event.

However, it is not recommended that water butts are used for storm water storage as there is a possibility that they maybe full before the onset of a storm and as such there is no guarantee that these types of system will provide additional storage when required.

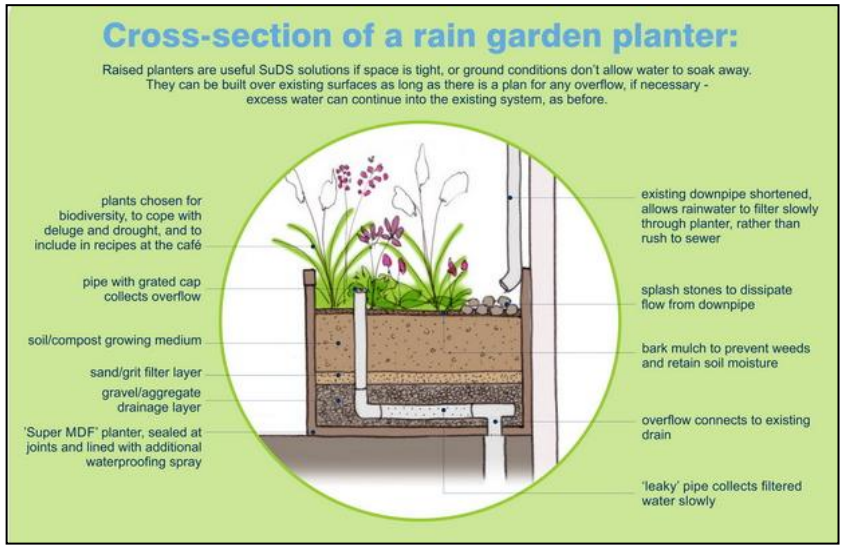
Rain Planter

An area of rain garden or a rain planter will be incorporated into the proposals.

A rain planter offers the opportunity to manage rainwater runoff from hard surfaces after downpours by planting an attractive, low maintenance wildlife-friendly space.

Typical Design

- *Freeboard – 100mm*
- *Topsoil – 300mm (ratio of approximately 50% sand, 30% topsoil and 20% compost)*
- *Subbase –300mm*
- *Planting to be shrubs / wildflowers / perennial flowering plants*
- *The downpipe will feed water directly onto the rain garden. Stones or gravel will be used to dissipate the energy of the water and prevent heavy flows from washing away soil.*
- *Underdrain and orifice*



SuDS Delivery and Implementation Notes

- *The proposed SuDS strategy has been developed based on current understanding of the site layout, proposed development, and anticipated ground conditions. The final detailed design will be confirmed at the detailed design stage, informed by site-specific investigations where required.*
- *The siting, design, and construction of all SuDS features will be agreed with Building Control, and all systems will be installed in accordance with the recommendations of the SuDS manufacturer, installer, and relevant best practice guidance.*
- *All surface water runoff generated by the development will be managed within the curtilage of the site, ensuring that the development does not increase flood risk to neighbouring land or the wider catchment.*
- *The surface water drainage strategy will operate on a gravity-based system only. No pumped drainage systems are proposed, thereby improving long-term resilience, reliability, and ease of maintenance.*
- *Where connection to the public sewer network is required, the necessary discharge consents will be obtained from the relevant Water Company prior to implementation.*

- *Appropriate water quality and pollution control measures, such as permeable paving, filter strips and/or oil separators where necessary, will be incorporated to ensure that surface water runoff is adequately treated prior to discharge, in line with SuDS best practice and water quality objectives.*

SuDS Maintenance

Operation and maintenance schedules are provided below (taken from Ciria C753 The SuDS Manual): these, or similar schedules, will be adopted by the property owner.

Water Butt

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	*The water butt should be routinely checked for litter – leaves can become trapped in the water butt which could lead to blockage of the taps and overflow*	*Monthly*
	Where appropriate, and if safe to do so, the water butt should be cleaned annually to prevent smells associated with stagnant water, and to remove any algae.	*Annually*

Rain Planter

Maintenance Schedule	Required Action	Typical Frequency
During Establishment Period (Years 1 and 2)	Watering Weeding Litter picking Pruning and trimming Check / clean channels, inlets and outlets Mulching	Weekly 3 Monthly Annually or as required
Following Establishment Period (Year 3 onwards)	Weeding Litter picking Pruning and trimming Check / clean channels, inlets and outlets Replanting	6 Monthly Annually or as required

4. Conclusions

This Surface Water and SuDS Statement has been prepared to support the proposed extension at 173–175 Station Road, which will create four additional residential units on an area of existing hardstanding.

The proposed development is located on an area that is already hard-surfaced, and as such, the proposals will not increase the rates or volumes of surface water runoff from the site. Nevertheless, to provide betterment and comply with Hillingdon Local Plan Policy EM6 and the London Plan 2021 Policy SI 13, the proposals will incorporate simple SuDS measures.

The proposed SuDS strategy includes:

- Rainwater recycling via a water butt, providing opportunities for occupants to reuse rainwater for irrigation or other non-potable uses.
- Rain planter / bioretention feature, managing runoff from hard surfaces, enhancing amenity, and promoting biodiversity.

Surface water runoff will continue to discharge to the existing public sewer, with the water butt and rain planter providing partial attenuation and improved management compared with the current situation.

The strategy has been designed to:

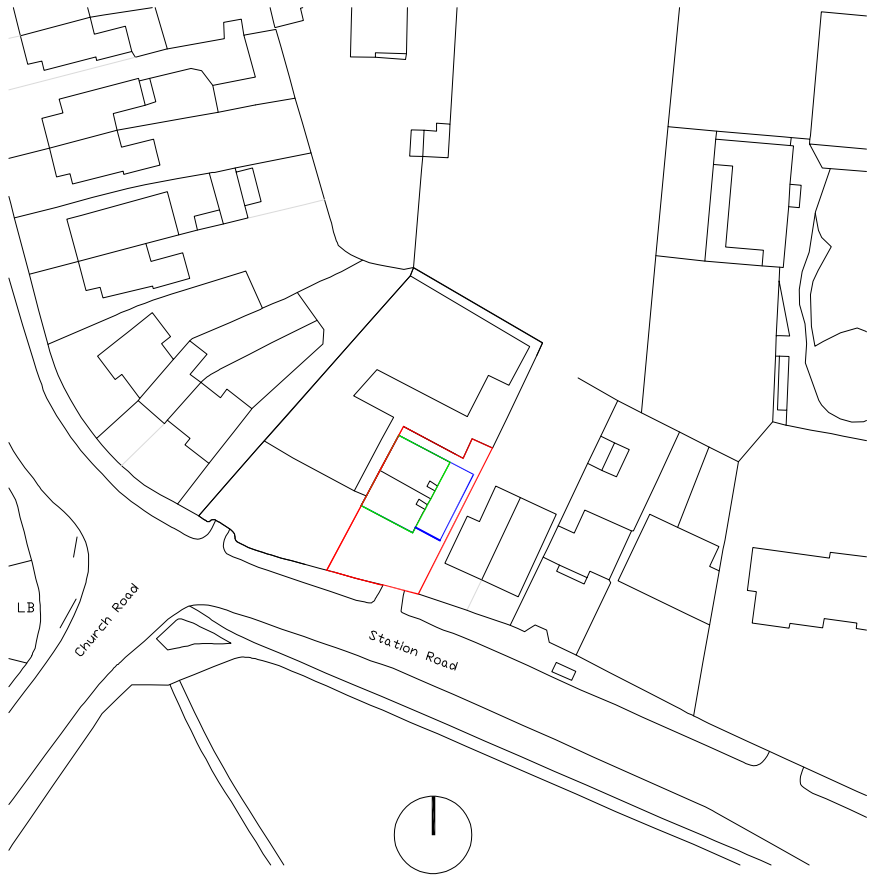
- Manage surface water as close to the source as possible, in line with the London Plan drainage hierarchy.
- Provide betterment over the existing runoff regime.
- Ensure the SuDS features are maintainable and effective for the lifetime of the development, with clear maintenance schedules provided.
- Promote additional benefits such as water efficiency, amenity, and biodiversity enhancement.

In conclusion, the proposed SuDS measures provide a practical, sustainable, and policy-compliant approach to surface water management. The development will not exacerbate flood risk, and the implementation of rainwater recycling and rain planters represents a betterment over the existing situation, consistent with the objectives of local and London-wide planning policy.

Appendices

Appendix A: Location Plan

Site Boundary
Existing Footprint
Proposed Footprint



Drawing: Location Map Scale: 1:1250 (A3) Site: 173 - 175 Station Road, West Drayton, UB7 7NQ

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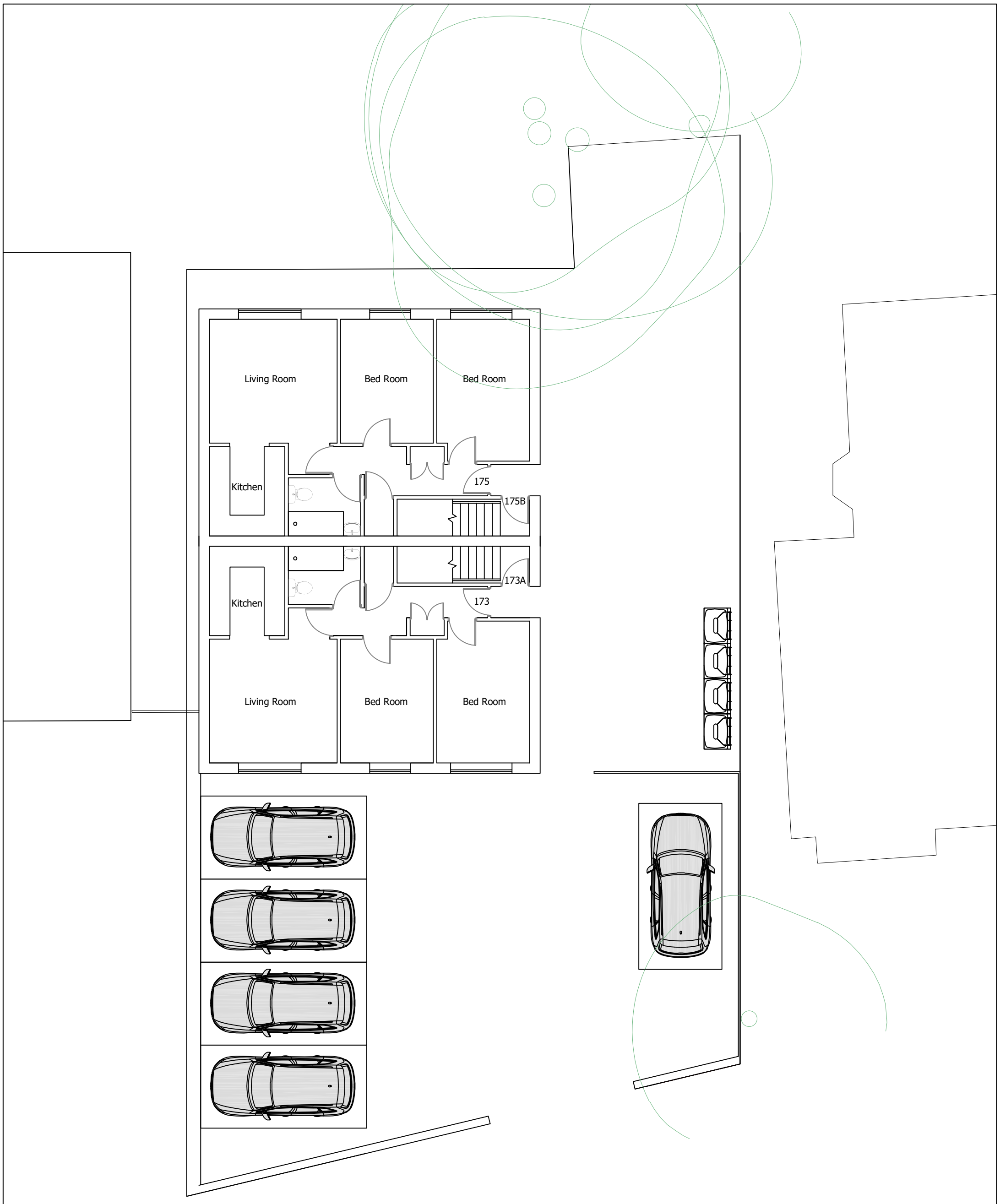
Appendix B: Existing Site Plan



Drawing: Existing Ground Floor Plan Scale: 1:100 (A3) Site: 173 - 175 Station Road, West Drayton, UB7 7NQ

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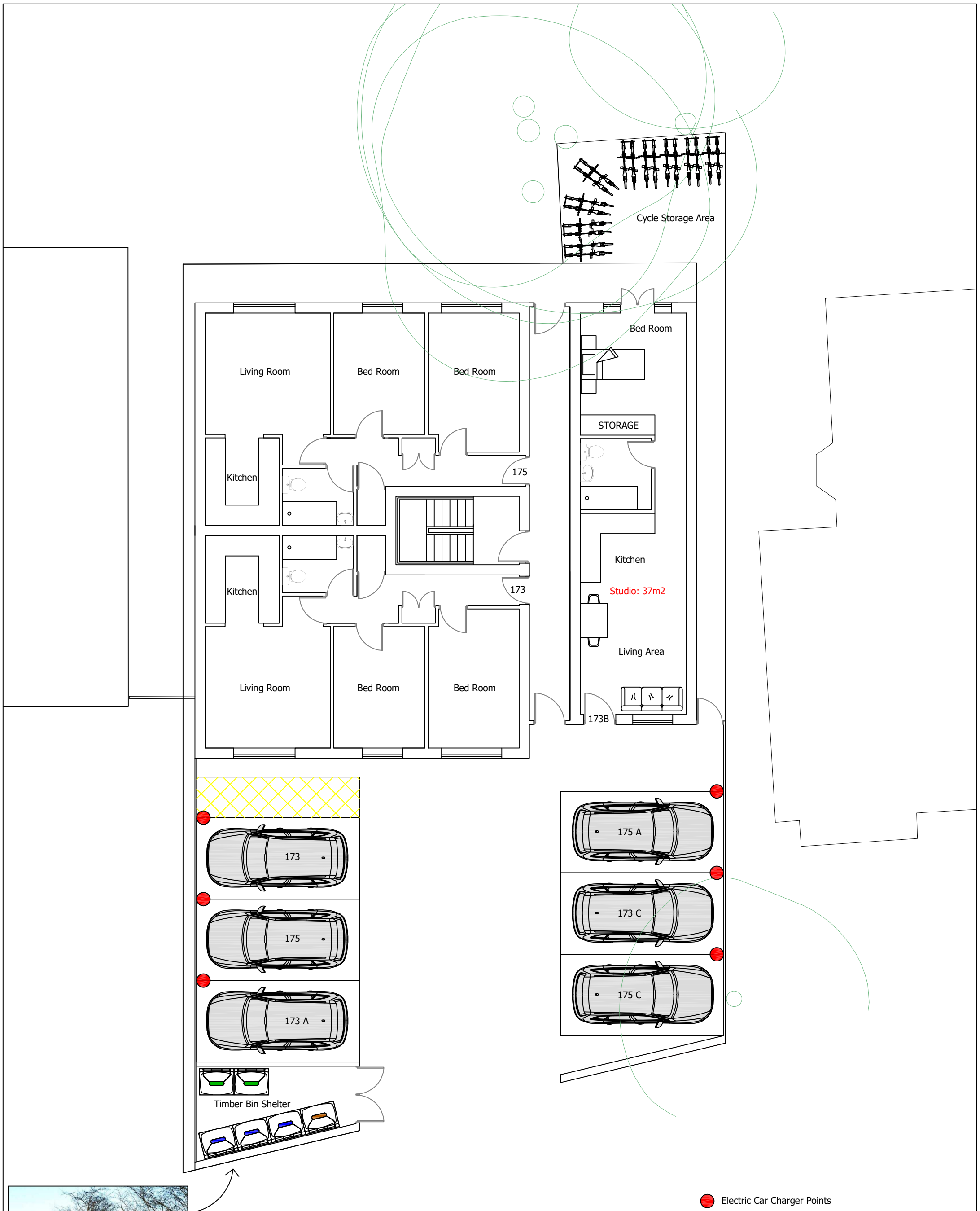
Appendix C: Proposed Site Plan



Drawing: Proposed Ground Floor Plan Scale: 1:100 (A3) Site: 173 - 175 Station Road, West Drayton, UB7 7NQ

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