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Our Ref: AS/SKT/JG
Date: 10 August 2023

Gavin Wu
Millmount
Ponteland Road
Newcastle upon Tyne
NE5 3AL

SENT BY EMAIL ONLY

Dear Gavin,

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RE: GRANT STREET: IN SUPPORT OF DISCHARGE OF PLANNING CONDITION 3 – DRAINAGE

Fairhurst as Consultant Engineers supported the Client on this proposed development of a two storey Children's Assessment Centre located on the vacant land adjacent to Grant Street, Jarrow.

The Client via JDDK (the Architect) has requested to provide all the relevant information to discharge planning condition 3 of the successful planning application, ref ST/0895/22/LAA. This letter is deemed sufficient to provide the required information to discharge the following condition:

Planning Condition 3: Drainage

No drainage works to serve the development herby permitted shall commence until a detailed drainage scheme for the disposal of foul and surface water from the development has been submitted to and approved in writing by the Local Planning Authority (in consultation with the LFFA).

The drainage scheme shall be consistent with the design principles set out in the drawing 149100/2021 Rev. D and the accompanying drawings that it states in its notes - 149100/2022 Rev. D, 149100/2023 Rev. C, 149100/2024 Rev. C, 149100/2025 Rev. C, 149100/2026 Rev. C, 149100/2027 Rev. C - all received 16/02/2023 and it shall include a detailed development layout, civil engineering details (including details of the SuDS features - long and cross sections), connection points / discharge rates to any public sewer (including evidence that the connection points / discharge rates have been agreed with Northumbrian Water), maintenance requirements, programme and maintenance responsibilities for all SuDS features and hydraulic calculations

The agreed details shall then be carried out.

To ensure that the discharge of surface / foul water from the site does not increase the risk of flooding in accordance with South Tyneside Local Development Framework Policies ST2 and DM1 and the NPPF.

Nature of SuDS / Drainage on site

There are two type of SuDS features to be installed within the development. One is to be permeable paving located within the main car park / entrance to the site. The second is to be a rain garden located adjacent to the permeable paving in a garden to the front of the property. The specific location of each feature can be found on drawing 149100-2021-G.

The rain garden is to provide an aesthetic calming feature as well as treatment, prior to discharging via a hydro brake at 3.0 l/s into Northumbrian Water's combined sewer located on Grant Street.

The permeable paving in the car parking area is to be used as a level of treatment and attenuation before discharging via a perforated pipe into the aforementioned hydro brake and into Northumbrian Water's combined sewer located on Grant Street.

Chairman: R B McCracken *Senior Partner:* S J Holmes
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General Maintenance Requirements

All of this information is based on upon the guidance provided within CIRIA SuDS Manual 2015.

Where maintenance is required on any of the features located on the site, this should be undertaken by a competent management company through regular / scheduled visits. These can be divided into the following:

- Regular Maintenance: Basic tasks done a frequent and predictable schedule.
- Occasional Maintenance: Tasks that are likely to be required only periodically and much less frequently.

South Tyneside Council (STC) are the responsible party for the maintenance requirements on this development and will be provided with a 'Maintenance Record' to make them aware of the function and maintenance requirements of the drainage system. STC will need to confirm the exact details of whom they intend to undertake the management and maintenance requirements for the Grant Street development.

The regular maintenance, occasional maintenance and the remedial actions required for the permeable paving is to be in accordance within Chapter 20: Pervious Pavements Table 20.15 within the SuDS Manual 2015.

Table 1 below highlights the generic operation and maintenance requirements for the Grant Street site.

Table 1: Operation and Maintenance Requirements for Permeable Paving

Maintenance Schedule	**Required Action**	**Typical Frequency**
Regular maintenance	Brushing and vacuuming	Once a year, after autumn leaf fall or reduced frequency as required or based upon site specific observations of clogging or manufacturers recommendations
Occasional Maintenance	Removal of weeds or management using glyphospate applied directly to the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remedial work to any depressions, rutting or cracked and broken blocks considered to be detrimental to the structural performance or poses as a hazard to users, and replace lost jointing material.	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 – 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required take remedial action	Three monthly, 48 hours after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

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Funding Arrangements

It is expected that the development will have a lifespan of above 50 years. Permeable paving has an approximate lifespan of between 25-30 years, so replacement of sub-base materials will be required at some point within the lifespan of the development. As this is a South Tyneside Council scheme, they will be responsible for the overall funding arrangements for the Grant Street development.

It is expected that all of the information that is stated above is sufficient to discharge planning condition 3 following the successful planning application with reference ST/0895/22/LAA.

Yours sincerely

[redacted]

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Senior Engineer

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