



**DBFL CONSULTING ENGINEERS**

**Registered Office**  
Ormond House  
Upper Ormond Quay  
Dublin 7 Ireland D07 W704  
  
+ 353 1 400 4000  
info@dbfl.ie  
www.dbfl.ie

**Cork Office**  
14 South Mall  
Cork Ireland  
T12 CT91  
  
+ 353 21 202 4538  
info@dbfl.ie  
www.dbfl.ie

**Waterford Office**  
Suite 8b The Atrium  
Maritana Gate Canada Street  
Waterford Ireland X91 W028  
  
+ 353 51 309 500  
info@dbfl.ie  
www.dbfl.ie

30 November 2022

South Dublin City Council  
County Hall, Tallaght  
Dublin 24  
D24 A3XC

**RE: Development within the Townlands of Cappagh, Clonburris Little Kishoge, Co. Dublin REG. REF. SDZ21A/0022**

Dear Sir/Madam

In response to Planning Conditions received from SDCC as part of a Planning and Development Grant received for the subject Clonburris T1A proposed development, please find below and enclosed the response to item 11 related to the SuDS features within the proposed development. Note that where relevant, additional information may be provided elsewhere by other members of the design team.

**Condition no. 11: SuDS**

*“Prior to the submission of the Commencement Notice within the meaning of Part II of the Building Control Regulations 1997 and prior to the commencement of any works on site, the applicant, owner or developer shall have lodged with the Planning Authority for written agreement, a revised SuDS/blue-green infrastructure proposal that demonstrate:*

*ii. Swales to be planted with native and pollinator perennial riparian wildflowers using local species. Full species lists for the SDZ can be found in Ecological Survey of Clonburris(FERS Ltd., 2018).”*

**DBFL Response**

Refer to Landscape Architect compliance responses.

*“iii. Details on how the SuDS elements function. “*

**DBFL Response**

Information on the function and purpose of SuDS have been included in section 3.3 of the IDR previously submitted as part of the FI submission. The IDR includes a table demonstrating suds feature performance relative to water Quality, Quantity, Biodiversity & Amenity.

*“iv. Drainage and Landscape proposals to be consistent regarding SuDS provision. There are still conflicts for example, swale located within the south-eastern local park should be included in the drainage engineers proposals and calculations for attenuation/ delivery of SuDS. “*

DBFL Consulting Engineers Limited  
trading as DBFL Consulting Engineers

VAT. No. IE6355828Q  
Company No. 335828



**Directors**  
Bill Bates BEng MSc PhD CEng MIEI MICE  
Colm Doyle BE CEng MIEI  
Fergal English BE CEng MIEI  
Paul Forde (Chairman) BE CEng Euring FIBruCE FIEI FConsE  
John Hayes BScEng CEng MIEI FConsE  
Thomas Jennings BEng MSc MIHT CMILT  
John Keane BScEng CEng MICE MIEI FConsE  
Tracy Kearney BA BAI MSc CEng MIEI  
Robert Kelly BAI MA PGradDip CEng MIEI  
Jim Lawler (Managing) BE DipComp CEng MIEI FConsE  
John Meaney AMIStructE IEng  
Dan Reilly BEng CEng MIEI MCWEM MIHT FConsE  
Kevin Sturgeon BEng MSc CEng PGradDip MIEI

**Consultant**  
Paddy G Darling BE BA CEng MIEI

**Associate Directors**  
Martin Bennett BE PGradDip CEng MIEI  
Liam Brehon BScEng CEng MIStructE DipH&R(Const) MIEI  
Aiden Burke BE MManglSc CEng Int PE (Int) MIEI  
Sarah Curran BA BAI CEng MIEI  
Noel Gorman BE CEng MIEI  
Brendan Keogh BA BAI PGradDip CEng MIEI  
Shane McGovern BE CEng MIStructE MIEI  
Mike Neylon BE CEng MIEI  
Colm Quirke BE CEng PMP MIEI  
Andrew Robertson BEng CEng MCIHT MScRSA FIEI  
David Sheehan BScEng CEng MIEI  
Neil Wilson BA BAI CEng MIEI

**Associates**  
Conor Brady BEng CEng MIStructE MIEI  
Kevin Burke BA MSc  
John Carr BE MEng CEng MIEI  
Michael Connelly BEng CEng MIEI  
Chris Curley IT/BIM Manager  
David Dolan BE CEng MIEI  
Nick Fenner MEng CEng MIEI  
Chash Gajanayaka BEng CEng MIStructE  
Ross Griffin BE PGradDip CEng MIEI  
Brendan Manning BEng CEng MIEI  
Niall O'Hare BEng MSc CEng MICE MIEI  
Karl Von Loggerenberg BEng MSc CEng MIStructE MIEI



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**DBFL Response**

Landscape and Civil Engineering drainage drawings have been coordinated for this compliance submission. The attenuation volumes are provided on a regional basis and are included in the parent permission (CSLS application SDZ20A/0021) for the regional attenuation. The detention basins/attenuation structures as indicated are in line with the agreed "Surface Water Management Plan" (SWMP) for the overall Clonburris Strategic Development Zone (SDZ). They are also permitted in their current form under the CSLS application SDZ20A/0021.

" v. Inclusion of all above ground SUDS features in attenuation calculation. "

**DBFL Response**

Refer to item 11 (iv).

"vi. Paths in Public Open Spaces used to attenuate water to be a permeable solid surface rather than self-binding gravel. "

**DBFL Response**

This item is addressed in the landscape design. SDCC noted a bound surface is required rather than gravel due to concerns about gravel displacement during flood events. Impermeable surface may be appropriate since it would drain to surrounding SuDS feature.

"The revised SuDS shall address the following:

*The Clonburris SDZ strategy requires a green infrastructure based approach to drainage and stormwater management. SuDS are to be designed as an ecological resource designed into the street, public squares and open space network. These shall be of a high quality, designed as a series of 'wet' and 'dry' landscape elements to achieve a multifunctional space for amenity, biodiversity and surface water management. It is essential that open spaces accommodating SUDS measures such as attenuation ponds and swales are designed in order to achieve a balance between surface water management and high-quality open space. The scheme requires:*

*- A system of infiltration trenches, tree pits, permeable paving, swales, green roofs, and other elements that should direct surface water to attenuation areas."*

**DBFL Response**

DBFL have included a revised overview SuDS layout, drawing CLB-1A-94-SW-DTM-DR-DBFL-CE-1320, which illustrates the location and extent of the SuDS features included in the surface water drainage design. The SuDS features include swales, tree pits, bio-retention areas, permeable paving for all parking spaces and green roofs on apartment buildings. The drawing includes an indication of storage volumes provided in various the SuDS features. However, we reiterate that the attenuation volume calculations are provided regionally and detailed in the regional infrastructure permission. Volume provided in site level suds are additional to this.

"- Swales designed as linear landscape elements to enhance streetscape and neighbourhood character and identity."

**DBFL Response**

Swales and bioretention areas have been provided along street 7 south of the Link Street and along Street 11 north of the Link street to intercept runoff from the roads. Refer to the SuDS Overview Layout, drawing CLB-1A-94-SW-DTM-DR-DBFL-

DBFL Consulting Engineers Limited  
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VAT. No. IE6355828Q  
Company No. 335828



**Directors**

Bill Bates BEng MSc PhD CEng MIEI MICE  
Colm Doyle BE CEng MIEI  
Fergal English BE CEng MIEI  
Paul Forde (Chairman) BE CEng Eurling FIBStructE FIEI FConsEI  
John Hayes BScEng CEng MIEI FConsEI  
Thomas Jennings BEng MSc MIHT CMILT  
John Keane BScEng CEng MICE MIEI FConsEI  
Tracy Kearney BA BAI MSc CEng MIEI  
Robert Kelly BAI MA PGradDip CEng MIEI  
Jim Lawler (Managing) BE DipComp CEng MIEI FConsEI  
John Meaney AMIStructE IEng  
Dan Reilly BEng CEng MIEI MCIWEM MIHT FConsEI  
Kevin Sturgeon BEng MSc CEng PGradDip MIEI

**Consultant**

Paddy G Darling BE BA CEng MIEI

**Associate Directors**

Martin Bennett BE PGradDip CEng MIEI  
Liam Brehon BScEng CEng MIStructE DipH&S(Const) MIEI  
Aiden Burke BE MManglSc CEng Int PE (Int) MIEI  
Sarah Curran BA BAI CEng MIEI  
Noel Gorman BE CEng MIEI  
Brendan Keogh BA BAI PGradDip CEng MIEI  
Shane McGovern BE CEng MIStructE MIEI  
Mike Neylon BE CEng MIEI  
Colm Quirke BE CEng PMP MIEI  
Andrew Robertson BEng CEng MCIHT MScRSA FIEI  
David Sheehan BScEng CEng MIEI  
Neil Wilson BA BAI CEng MIEI

**Associates**

Conor Brady BEng CEng MIStructE MIEI  
Kevin Burke BA MSc  
John Carr BE MEng CEng MIEI  
Michael Connelly BEng CEng MIEI  
Chris Curley IT/BIM Manager  
David Dolan BE CEng MIEI  
Nick Fenner MEng CEng MIEI  
Chash Gajanayaka BEng CEng MIStructE  
Ross Griffin BE PGradDip CEng MIEI  
Brendan Manning BEng CEng MIEI  
Niall O'Hare BEng MSc CEng MICE MIEI  
Karl Von Loggerenberg BEng MSc CEng MIStructE MIEI



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CE-1320, for the location and extent of these swales. Refer to the Landscape Architect Masterplan for further details on the swale and bioretention area planting.

*“- Surface water to be captured and treated within the curtilage of each site using green roofs, rainwater gardens, filter trenches or bio retention units.”*

**DBFL Response**

- Extensive green roofs have been specified on all apartment buildings.
- Bio-retention areas/raingardens have been specified where possible to intercept surface water runoff from adjacent roads. Refer to the SuDS Overview Layout, drawing CLB-1A-94-SW-DTM-DR-DBFL-CE-1320, for the location and extent of the abovementioned SuDS features.
- SuDS tree pits have been provided in a large number of these street trees, which will receive road runoff. Where SuDS trees are alongside the carriageway, DBFL have detailed the SuDS trees to collect road surface water runoff through direct infiltration at the tree base, with overflow pipes provided and routed to the surface water pipe network. Where street trees are located away from the carriageway, gully connections from the surface water pipe network to the tree pits are provided (with overflow allowance back to SW network).
- trees are located away from the carriageway, gully connections from the surface water pipe network to the tree pits are provided (with overflow allowance back to SW network).
- The large apartment blocks at the entrance have been updated to include green roofs

DBFL believes that the SuDS measure initially included as part of the planning submission, with the addition of the above mentioned SuDS features provides a large suite of well distributed measures to provide a robust means to manage surface water for the site.

*“- The perimeter attenuation areas to be profiled to enable walkways, high quality planting, amenity edges, and habitat establishment.”*

**DBFL Response**

The detention basins as indicated are in line with the agreed “Surface Water Management Plan” (SWMP) for the overall Clonburris Strategic Development Zone (SDZ). They are also permitted in their current form under the CSLS application SDZ20A/0021. This application refers only to a slight change in shape in the permitted basin. It is therefore considered that the basins as designed are generally appropriate. SDCC previously noted the desire to try incorporate some form of low flow area in the base of the Basins fed by local surface water runoff at FI stage. DBFL have incorporated a low flow area in the basins in conjunction with the landscape design in the form of bioretention areas fed from nearby swales and other bioretention areas that collect road surface water runoff. Any accumulation of surface water routed to these bioretention areas will infiltrate through the porous build-up, and into the adjacent attenuation tanks beneath the detention basin. Walkways are provided within the detention basin as per the landscape masterplan and will be constructed with bound material to prevent loss of material from surface water flowing across the walkways.

*“- Open spaces to have ‘important Sustainable Urban Drainage System functions’ with ‘SuDS features such as major detention ponds and swales’ and ‘Retention and enhancement of selected hedgerow’.”*

**DBFL Response**

Major detention basins have been designed and approved separately as part of the CSLS ref. SDZ20A/0021. Smaller SuDS features such as bio-retention areas have been added to these detention basins to allow for localised wet areas/stream areas,

DBFL Consulting Engineers Limited  
trading as DBFL Consulting Engineers

VAT. No. IE6355828Q  
Company No. 335828



**Directors**  
Bill Bates BEng MSc PhD CEng MIEI MICE  
Colm Doyle BE CEng MIEI  
Fergal English BE CEng MIEI  
Paul Forde (Chairman) BE CEng Euring FIBStructE FIEI FConsEI  
John Hayes BScEng CEng MIEI FConsEI  
Thomas Jennings BEng MSc MIHT CMILT  
John Keane BScEng CEng MICE MIEI FConsEI  
Tracy Kearney BA BAI MSc CEng MIEI  
Robert Kelly BAI MA PGradDip CEng MIEI  
Jim Lawler (Managing) BE DipComp CEng MIEI FConsEI  
John Meaney AMIStructE IEng  
Dan Reilly BEng CEng MIEI MCWEM MIHT FConsEI  
Kevin Sturgeon BEng MSc CEng PGradDip MIEI

**Consultant**  
Paddy G Darling BE BA CEng MIEI

**Associate Directors**  
Martin Bennett BE PGradDip CEng MIEI  
Liam Brehon BScEng CEng MIStructE DipH&S(Const) MIEI  
Aiden Burke BE MManglSc CEng Int PE (Int) MIEI  
Sarah Curran BA BAI CEng MIEI  
Noel Gorman BE CEng MIEI  
Brendan Keogh BA BAI PGradDip CEng MIEI  
Shane McGovern BE CEng MIStructE MIEI  
Mike Neylon BE CEng MIEI  
Colm Quirke BE CEng PMP MIEI  
Andrew Robertson BEng CEng MCIHT MScRSA FIEI  
David Sheehan BScEng CEng MIEI  
Neil Wilson BA BAI CEng MIEI

**Associates**  
Conor Brady BEng CEng MIStructE MIEI  
Kevin Burke BA MSc  
John Carr BE MEng CEng MIEI  
Michael Connelly BEng CEng MIEI  
Chris Curley IT/BIM Manager  
David Dolan BE CEng MIEI  
Nick Fenner MEng CEng MIEI  
Chash Gajanayaka BEng CEng MIStructE  
Ross Griffin BE PGradDip CEng MIEI  
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adding to the amenity of the basin. For proposed hedgerow details, refer to the landscape masterplan. Further SuDS features have been specified in smaller open spaces where available.

*"- Local Parks and Squares to 'include local level SuDS function with small swales and bioretention areas and Retention and enhancement of selected hedgerow. "*

**DBFL Response**

Local level swales and bio-retention areas form part of all proposed open spaces as shown on the surface water layout and the SuDS Overview Layout, drawing CLB-1A-94-SW-DTM-DR-DBFL-CE-1320.

*"- Local Links to incorporate 'Tree lined street and avenues' and 'small scale SUDS features such as swales, where appropriate"*

**DBFL Response**

Local Streets and Homezones of the proposed development have street trees and where possible bioretention areas and swales to received surface water runoff from adjacent roads. Refer to the enclosed drawing CLB-1A-94-SW-DTM-DR-DBFL-CE-1320 for the location of these roadside SuDS features.

Yours sincerely

Dieter Bester  
Chartered Civil Engineer  
DBFL CONSULTING ENGINEERS

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Tracy Kearney BA BAI MSc CEng MIEI  
Robert Kelly BAI MA PGradDip CEng MIEI  
Jim Lawler (Managing) BE DipComp CEng MIEI FConsEI  
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Dan Reilly BEng CEng MIEI MCIWEM MIHT FConsEI  
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