

REPORT

Drainage Impact Assessment

Cato Data Centre

Client: ILI Cato Ltd

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1 Introduction

This Drainage Impact Assessment (DIA) has been prepared for ILI Cato Ltd, to support the outline planning application for the Cato Data Centre (the 'Proposed Development'), located in Mossmorran, near Auchtertool in Fife, KY2 5XW (the 'Site').

The Drainage Impact Assessment has been written in accordance with National Planning Framework 4 (February 2023), with specific reference to Policy 22 which focuses on flood risk and drainage. The design guidance prepared by Fife Council has also been considered and applied when preparing the drainage strategy for the Site.

1.1 Site Location and Proposed Development

The Site is located on land close to Auchtertool in Fife. The Site covers an area of 72.9 hectares and comprises undeveloped grassland. The B925 road forms the southern boundary. The Site is approximately 5km west of Kirkcaldy and approximately 8km east of Dumfermline. The site location is shown in **Figure 1-1**.

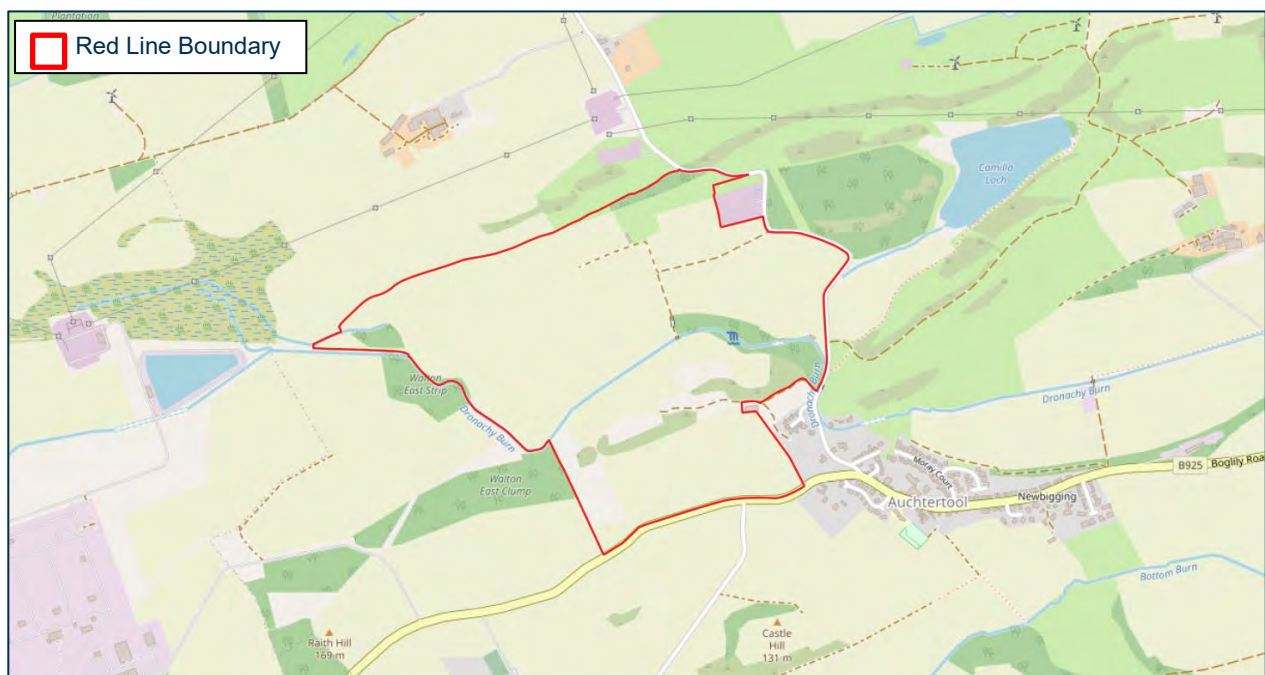


Figure 1-1: Site Location Plan (Source: [Copyright and License | OpenStreetMap](#))

The Proposed Development comprises a large data centre complex of data halls, cooling plant, electricity substations, emergency plant, gatehouse, access roads and associated landscaping and infrastructure. The proposed maximum developed area comprises approximately 30 hectares. Proposed Development plans are included in **Appendix A**.

2 Policy Context

This Surface Water Drainage Strategy has been developed in accordance with the guidance and legislation set out in the below documents:

2.1 National Policy

National Planning Framework 4 (The Scottish Government, 2023)

The National Planning Framework 4 was adopted by Scottish Ministers and Parliament in February 2023. This replaces the National Planning Framework 3 as well as the preceding Scottish Planning Policy. It provides a long-term national planning strategy for Scotland and sets out planning policies for a variety of topics, including flood risk and drainage.

2.2 National Guidance

Climate change allowances for flood risk assessment in land use planning Version 6 (February 2025)¹

This document was published by SEPA in February 2025 and sets out the climate change allowances across Scotland which should be applied when considering future increases in peak river flow, sea level rise and rainfall intensity. This information is also available on SEPA's interactive website².

2.3 Local Policy and Guidance

Design Guidance on Flooding and Surface Water Drainage Requirements v3.0 (Fife Council, November 2025)³

Fife Council prepared the design guidance document to aid developers in considering and managing flood risk and drainage at a site, prior to submitting a planning application. The design guidance document highlights the requirement to utilise Sustainable Drainage Systems (SuDS) in all new developments, following the SuDS hierarchy, in line with CIRIA C753 The SuDS Manual. The guidance specifies the discharge rates to use when designing the drainage systems for new developments, along with consideration of the water quality and a drainage layout.

As the proposed drainage strategy is for an outline application, the 'Planning Permission in Principle' guidance has been applied to the drainage strategy. The requirements are summarised in **Table 2-1**.

Appendices 3, 4 and 11 of the 'Design Guidance on Flooding and Surface Water Drainage Requirements' have been completed and will be submitted alongside this report.

¹ Climate change allowances for flood risk assessment in land use planning: https://www.sepa.org.uk/media/jjwpuxso/climate-change-allowances-guidance_v6.pdf

² <https://scottishsepa.maps.arcgis.com/apps/webappviewer/index.html?id=2ddf84e295334f6b93bd0dbbb9ad7417>

³ Design Guidance on Flooding and Surface Water Drainage Requirements v3.0: https://www.fife.gov.uk/__data/assets/file/0034/55996/Flooding-and-Surface-Water-Drainage-Guidance-v31.pdf

Table 2-1: Extract of Fife Council Design Guidance on Flooding and Surface Water Drainage Requirements v3.0

Point	Description
5.3.1	Outline drainage plan/sketch showing the proposed drainage network and location of connection into either a nearby sewer or discharge to a watercourse.
5.3.2	Preliminary calculations for required SuDS/attenuation volumes. Discharge rate to be no greater than the lesser of: • 1 in 5 year greenfield runoff rate • 4.0 l/s/ha To attain the flow rates above, the 1 in 200 year post development critical storm plus climate change allowance for the application site must be accommodated within the surface water drainage system without flooding.
5.3.3	A Simple Index Approach (SIA) confirming the suitability of proposed SuDS components in mitigating water quality risks to receiving waterbodies.
5.3.4	For certain applications at PPP stage, such as where there are known surface water flooding issues, we will require Scottish Water's approval of the proposed surface water drainage connection to their network.
5.3.5	Completed SuDS certification as per Appendix 3/Appendix 4.

3 Climate Change Allowance

Recent guidance under the UK Climate Change Projections 2018 (UKCP18)⁴ predict that future climate change will lead to changing UK regional weather patterns, resulting in increased rainfall during the winter and the occurrence of more extreme rainfall events during the summer months.

Climate change allowances vary across Scotland by region, with fluvial and surface water climate change allowances being based on River Basin Regions. The online GIS application 'Climate Change Allowances for Flood Risk Assessment in Land Use Planning'² provides guidance on the climate change allowances to use when assessing the risks from fluvial, tidal and surface water flooding.

The Site is located in the Tay River Basin Region, as shown in **Figure 3-1**. The peak rainfall intensity allowance up to 2100 in this region is 39%, and therefore this value has been used for the surface water drainage design, to apply a conservative approach.



Figure 3-1: River Basin Regions (excerpt)

⁴ Met Office Hadley Centre Climate Programme. UKCIP18. <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

4 Site Characteristics

4.1 Topography

Topographic data based on LiDAR was provided for use by the Client. This provided 1m contours upon which the surface water drainage design was based. The topographic data is included in **Appendix B**.

The topographic data indicates that the Site is located in a steep catchment. The northern boundary of the Site is at a minimum elevation of 122m AOD. Beyond the Site, to the north, levels increase to 148m AOD over a relatively short distance of 130m.

On the western boundary of the Site, levels are around 116m AOD. On the eastern boundary, levels are between 90m AOD and 128m AOD. Along the southern boundary, levels are between 105m AOD and 130m AOD. The Site levels are variable, with levels ranging from 115m AOD to 122m AOD from west to east.

4.2 Hydrological Setting

The Dronachy Burn crosses the Site, flowing from west to east. This watercourse comprises two tributaries which have a confluence on the western side of the Site. The watercourse is culverted beneath a former railway embankment at the eastern side of the Site. The presence of the watercourse results in the Site being partially located in an area shown on the Scottish Environment Protection Agency (SEPA) river flood maps as being within an area at 'High' likelihood of flooding. This means that part of the Site has a 10% or higher chance of flooding each year.

The SEPA surface water flood maps also display the risk from small watercourses. The surface water maps show the presence of several other burns and ditches which drain into the Dronachy Burn. The surface water maps also indicate a 'High' likelihood of flooding in the same location as the river flood maps, likely to be as a result of localised ponding and out of bank flows from the burns.

A Flood Risk Assessment (FRA) was prepared by Kaya Consulting Limited in September 2025 for the Proposed Development. Hydraulic modelling was carried out as part of the FRA, using a 1D-2D HEC-RAS approach. An 'existing' and 'proposed' model was developed, and both were run for the 1 in 200 year (plus climate change) with a blockage on the culvert downstream of the Site, to represent a conservative approach.

This concluded that by raising the finished floor levels across the Site (in the 'proposed' scenario) to a minimum of 0.6m above the flood levels, the out of bank flows and loss of floodplain storage could be managed through the creation of a new flood storage area adjacent to the Dronachy Burn. The proposed storage area would then discharge runoff back into the Dronachy Burn at a restricted rate, as well as providing ecological improvements through this new wetland feature. The location of the proposed flood storage/wetland area is to the southwest of the main development area, as shown in **Figure 4-1**.

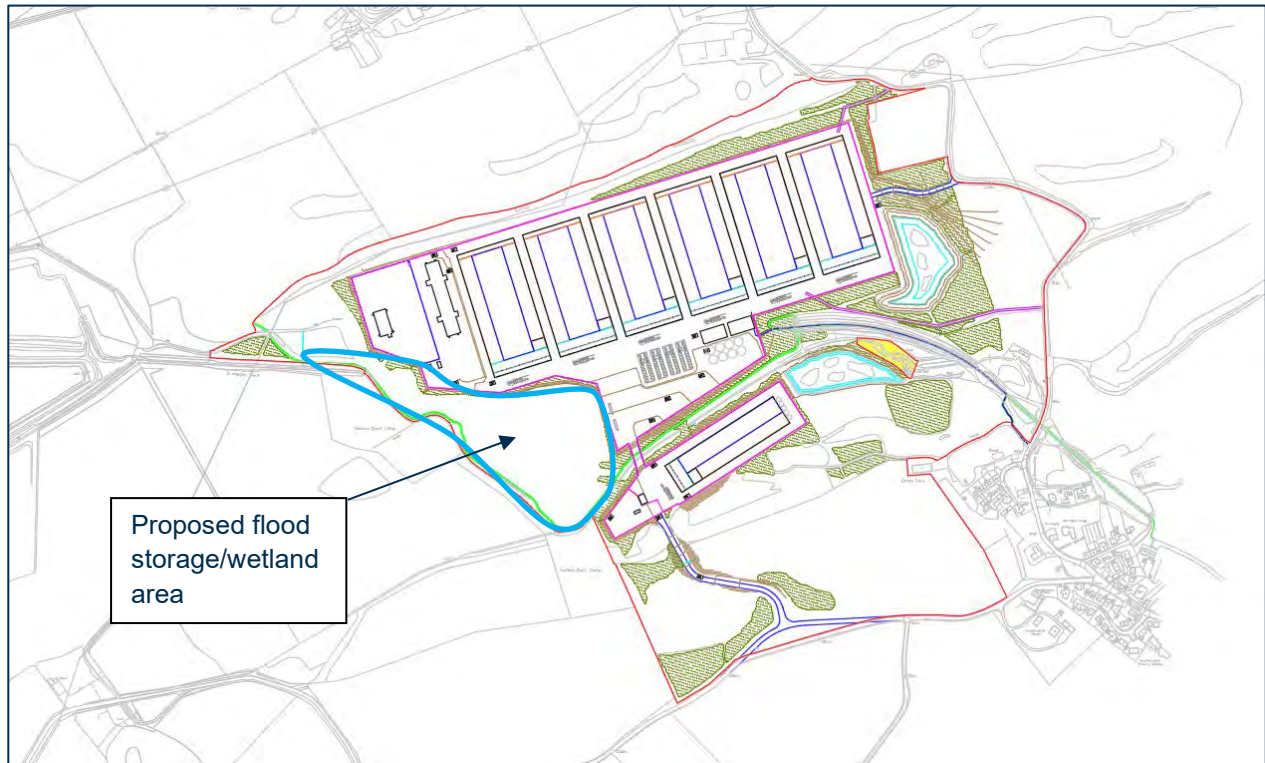


Figure 4-1: Location of Proposed Flood Storage Area

4.3 Contributing Catchment

With reference to the FEH Web Service⁵, the contributing catchment which could drain towards the Site is approximately 4.7km² (as shown on **Figure 4-2**).

A review of the wider catchment indicates that to the east and south it is predominantly rural and therefore surface water runoff rates are expected to be lower than that of urban areas.

It is likely that most of the contributing runoff will come from the rural catchment which should have capacity to absorb more regular rainfall events, and the topography of the local area suggests that runoff would be directed towards the burns and ditches (and ultimately the Dronachy Burn), rather than across the Site.

⁵ FEH Web Service: <https://fehweb.ceh.ac.uk/Map>

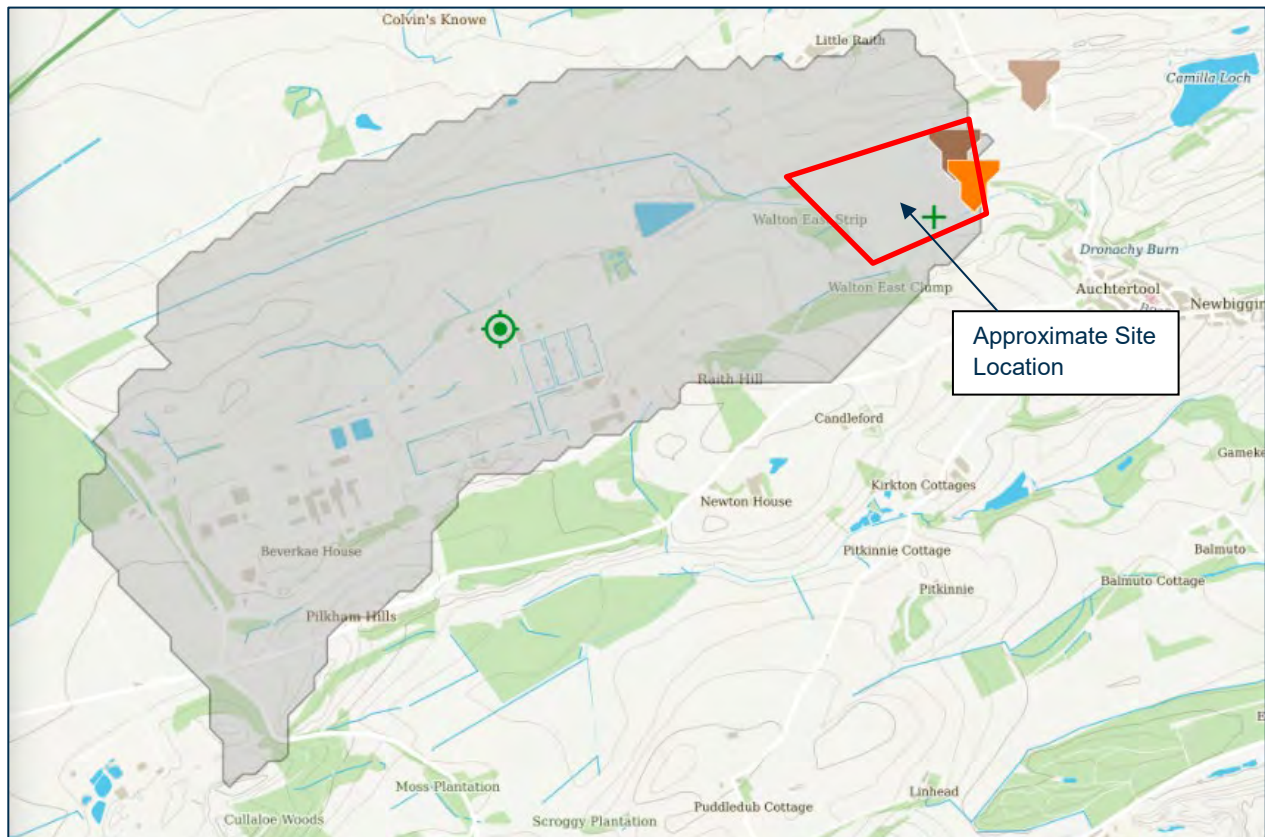


Figure 4-2: FEH Web Service Catchment Area

4.4 Public Sewer Records

Scottish Water potable water and wastewater records are included in **Appendix C**. These show the closest surface water and foul water sewers are located in Auchtertool, to the southeast of the Site. A potable water pipe crosses the eastern end of the Site.

There are no public sewers within the Site and, in accordance with the principles of the SuDS hierarchy, preference for a discharge to a watercourse has been considered rather than a discharge to a public sewer.

4.5 Ground Conditions

The British Geological Survey's (BGS) online data viewer⁶ indicates that the bedrock geology beneath the Site comprises Pathhead Formation – sedimentary rock cycles, Strathclyde Group type. Information on the BGS website indicates this is predominantly formed of mudstone and siltstone. The superficial deposits consist of Till and Devensian Diamicton. This type of geology generally has low infiltration potential.

Scotland's Environment⁷ mapping tool indicates that the hydrogeology beneath the Site is considered to be a 'Low to Moderately Productive Aquifer' which means that flow is virtually all through fracture and other discontinuities. This means that the underlying aquifer is unlikely to yield high volumes of groundwater.

⁶ British Geological Survey: <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/>

⁷ Scotland's Environment: <https://www.environment.gov.scot/>

4.6 Historical Activities and Notable Activities

The pre-application response from Fife Council (Ref. 25/00551/PREAPP, dated 2nd July 2025) highlights that part of the Site may be potentially contaminated due to it being located within 250m of a landfill site.

Given this potential risk, the proposed drainage strategy is based on attenuation and discharge rather than infiltration. The pre-application response also notes that the Site is located in a Coal Mining Low Risk Area.

The Site is located approximately 223m west of the Camilla Loch Site of Special Scientific Interest (SSSI). Therefore, it is important to treat runoff sufficiently to make sure that the water quality of discharged water will not have any impact on the nearby SSSI.

It is understood that there was once a railway crossing the Site, and there is still evidence of this within the Site where there are sections of the former railway embankment and railway bridge close to the Dronachy Burn. Sections of the watercourse towards the eastern side of the Site have been culverted beneath the former railway embankment.

5 Proposed Drainage Strategy

Sustainable Drainage Systems (SuDS) mimic the natural drainage system and provide a method of surface water drainage which can decrease the quantity of water discharged and reduce the risk of flooding. In addition to reducing flood risk, these features can improve water quality and provide biodiversity and amenity benefits.

The SuDS management train incorporates a hierarchy of techniques and considers all three SUDS criteria of flood reduction, pollution reduction, and landscape and wildlife benefits. In decreasing order of preference, the preferred means of disposal of surface water runoff is:

- Discharge to ground.
- Discharge to a surface water body.
- Discharge to a surface water sewer.
- Discharge to a combined sewer.

The philosophy of SuDS is to replicate as closely as possible the natural drainage from a site prior to its development and to treat runoff to remove pollutants, resulting in a reduced impact on the receiving watercourses. The benefits of this approach are as follows:

- Reducing runoff rates, thus reducing the flood risk downstream;
- Reducing pollutant concentrations, thus protecting the quality of the receiving water body;
- Groundwater recharge;
- Contributing to the enhanced amenity and aesthetic value of development areas; and
- Providing habitats for wildlife in developed areas, and opportunity for biodiversity enhancement.

The management of surface water has been considered in respect to the SuDS hierarchy in **Table 5-1**, as detailed in Building Regulations Part H and within the CIRIA 753 'The SUDS Manual', Section 3.2.3.

Table 5-1: CIRIA 753 Table 2, adapted from The SuDS Hierarchy

Hierarchy (most preferred first)	Suitable?	Comment
1. Store rainwater for later use	Yes	It is intended to utilise rainwater harvesting as part of the cooling water system, although this will not be included in the attenuation calculations as the system may not be empty during an extreme event.
2. Discharge to the ground (infiltration)	No	The underlying geology of mudstone/siltstone and diamicton is unlikely to have good permeability to manage higher return period storm events.
3. Discharge to surface water (watercourse, lake, canal etc)	Yes	Discharge to existing watercourse is proposed.
4. Discharge to surface water sewer, highway drain or another drainage system	No	Discharge to a watercourse is higher in the SuDS hierarchy than discharge to sewers, therefore this method is not proposed. In addition, there are no nearby public sewers to which a connection could be made.
5. Discharge to combined sewer		

6. Discharge to foul sewer

With reference to the Site's constraints, it is proposed to discharge surface water generated by the Proposed Development to a number of lined attenuation features across the Site. It is proposed that the attenuation features will ultimately outfall to the existing Dronachy Burn.

5.1 Site Specific SuDS

The suitability of SuDS components have been assessed in **Table 5-2** to determine which methods can be used within the Proposed Development.

Table 5-2: SuDS Selection Matrix

SuDS Component	Description	Constraints and Opportunities	Suitable?
1. Infiltration Devices & Soakaways	Infiltration can contribute to reducing runoff rates and volumes while supporting baseflow and groundwater recharge processes. The suitability and infiltration rate depends on the permeability of the surrounding soils.	Geology of diamicton, mudstone and siltstone likely to result in poor infiltration which would be unlikely to manage the higher return period events.	No
2. Filter Drains and Filter Strips	Filter drains are shallow trenches filled with stone gravel that create temporary subsurface storage for the attenuation, conveyance and filtration of surface water runoff. Filter strips are uniformly graded and gently sloping strips of grass or dense vegetation, designed to treat runoff from adjacent impermeable areas by promoting sedimentation, filtration and infiltration.	Filter drains/gravel trenches to be used for filtration of runoff across the Site and will be lined to prevent water from infiltrating to the underlying ground. Filter drains will discharge to pond(s) to manage larger storm events.	Yes
3. Pervious Surfaces	Pervious surfaces can be used in combination with aggregate sub-base and/or geocellular/modular storage to attenuate and/or infiltrate runoff from surrounding surfaces and roofs. Liners can be used where ground conditions are not suitable for infiltration.	Permeable surfaces will be provided at the western end of the Site to treat runoff before it is attenuated in geocellular crate storage.	Yes
4. Green & Blue Roofs	Green Roofs provide areas of visual benefit, ecological value, enhanced building performance and the reduction of surface water runoff. They are generally more costly to install and maintain than conventional roofs but can provide many long-term benefits and reduce the on-site storage volumes.	Green roofs may be included on the proposed buildings, but these have not been included as providing attenuation at this stage.	Possibly
5. Rainwater Harvesting	Rainwater Harvesting is the collection of rainwater runoff for use. It can be collected from roofs or other impermeable areas, stored, treated (where required) and then used as a supply of water for domestic, commercial and industrial properties.	Rainwater harvesting systems to be provided to re-use some of the roof runoff for cooling water systems across the Site.	Yes

SuDS Component	Description	Constraints and Opportunities	Suitable?
6. Swales	Swales are designed to convey, treat and attenuate surface water runoff and provide aesthetic and biodiversity benefits. They can replace conventional pipework as a means of conveying runoff; however space constraints of some sites can make it difficult incorporating them into the design.	Not required as other SuDS measures are better suited to the Site.	No
7. Rills and Channels	Rills and Channels keep runoff on the surface and convey runoff along the surface to downstream SuDS components. They can be incorporated into the design to provide a visually appealing method of conveyance. They also provide effectiveness in pre-treatment removal of silts.	Alternative SuDS measures implemented.	No
8. Bioretention Systems	Bioretention systems can reduce runoff rates and volumes and treat pollution through the use of engineer soils and vegetation. They are particularly effective in delivering interception but can also be an attractive landscape feature whilst providing habitat and biodiversity.	A new wetland area has been included within the Site to provide flood storage, but this is not required to provide water treatment or attenuation storage for the onsite drainage system.	No
9. Retention Ponds and Wetlands	Ponds and Wetlands are features with a permanent pool of water that provide both attenuation and treatment of surface water runoff. They enhance treatment processes and have great amenity and biodiversity benefits. Often a flow control system at the outfall controls the rates of discharge for a range of water levels during storm events.	Two ponds will be included in the eastern end of the Site to store water prior to discharging at a restricted rate.	Yes
10. Detention Basins	Detention Basins are landscaped depressions that are usually dry, except during and immediately following storm events, and can be used as a recreational or other amenity facility. They are generally appropriate to manage high volumes of surface water from larger sites, such as a neighbourhood.	Not required as alternative SuDS measures implemented.	No
11. Geo-cellular Systems	Attenuation storage tanks are used to create a below-ground void space for the temporary storage of surface water before infiltration, controlled release or use. The inherent flexibility in size and shape means they can be tailored to suit the specific characteristics and requirements of any site.	Geocellular systems will be utilised in some parts of the development, to provide additional storage where there are spatial constraints for above ground features.	Yes

SuDS Component	Description	Constraints and Opportunities	Suitable?
12. Proprietary Treatment Systems	Proprietary treatment systems are manufactured products that remove specific pollutants from surface water runoff. They are especially useful where site constraints preclude the use of other methods and can be useful in reducing the maintenance requirements of downstream SuDS.	These could be provided to complement the other SuDS solutions. For example additional hydrocarbon interceptors and silt traps will be used at suitable locations (such as where there are car parks)	Yes

Given the considerations above and the Proposed Development use, it is recommended that runoff from the roofs of the buildings and other impermeable areas will be directed to filter drains/gravel filled trenches and a pipe network, which will capture the water and direct it into ponds located towards the eastern end of the Site. In locations where there is limited space, it is proposed that permeable surfaces (gravelled) will be utilised for water treatment with geocellular crate storage systems beneath, to provide the required attenuation volumes.

5.2 Greenfield Runoff Rates

Greenfield runoff rates were estimated using the ICP SuDS method in the InfoDrainage software. The red line boundary covers an area of 72.9 hectares, and the maximum developable area will cover approximately 30 hectares. The runoff rates for 1 hectare have been estimated for the QBAR (1 in 2 year approx.), 1 in 1 year, 1 in 5 year, 1 in 30 year, 1 in 100 year and 1 in 200 year events, and scaled to the proposed impermeable areas in **Table 5-3**. The InfoDrainage greenfield runoff rate outputs are included in **Appendix D**.

Table 5-3: Greenfield Runoff Rates

Return Period	Greenfield Runoff Rate 1 hectare (l/s)	Greenfield Runoff Rate: Maximum developable area 30 Ha (l/s)
QBAR	5.9	177
1 in 1	5.2	156
1 in 5	7.0	210
1 in 30	11.2	336
1 in 100	15.6	468
1 in 200	17.7	531

Fife Council's 'Design Guidance on Flooding and Surface Water Drainage Requirements v3.0' document states:

"The proposed discharge rate from a development site should be in accordance with Fife Council requirements. Fife Council require a discharge rate to be no greater than the lesser of:

- 1 in 5 year greenfield runoff rate
- 4.0 l/s/ha



In order to attain the flow rates above, the 1 in 200 year post development critical storm plus climate change allowance for the application site must be accommodated within the surface water drainage system without flooding.”

With reference to **Table 5-3**, the 1 in 5 year greenfield runoff rate is 7.0 l/s, which is greater than 4.0 l/s/ha. Therefore, the proposed drainage strategy will be designed based on a discharge rate of 4.0 l/s/ha.

5.3 Attenuation Strategy

An attenuation and discharge strategy is proposed to manage the surface water runoff from the impermeable areas of the Proposed Development. Only the developed impermeable areas are considered for determining the attenuation needed. The undeveloped permeable areas remain as greenfield and discharge via existing drainage routes at the existing rates. Therefore, it is necessary to model the pipe network in InfoDrainage to confirm the pipe sizes and size of the proposed attenuation features to prevent flooding upstream in the system. The various components of the drainage strategy are discussed below.

5.4 Surface Water Attenuation Volumes

As the Site is very large, it is necessary to divide the Proposed Development into separate catchments and drain each catchment to a separate attenuation feature. The approximate catchment areas are shown on **Figure 5-1**. The attenuation features have been sized based on the catchment areas and the allowable discharge rate of 4.0 l/s/ha. All features have been sized to manage a 1 in 200 year (+39% climate change) storm event. The catchment areas, attenuation features, attenuation volumes and discharge rates have been summarised in **Table 5-4**.

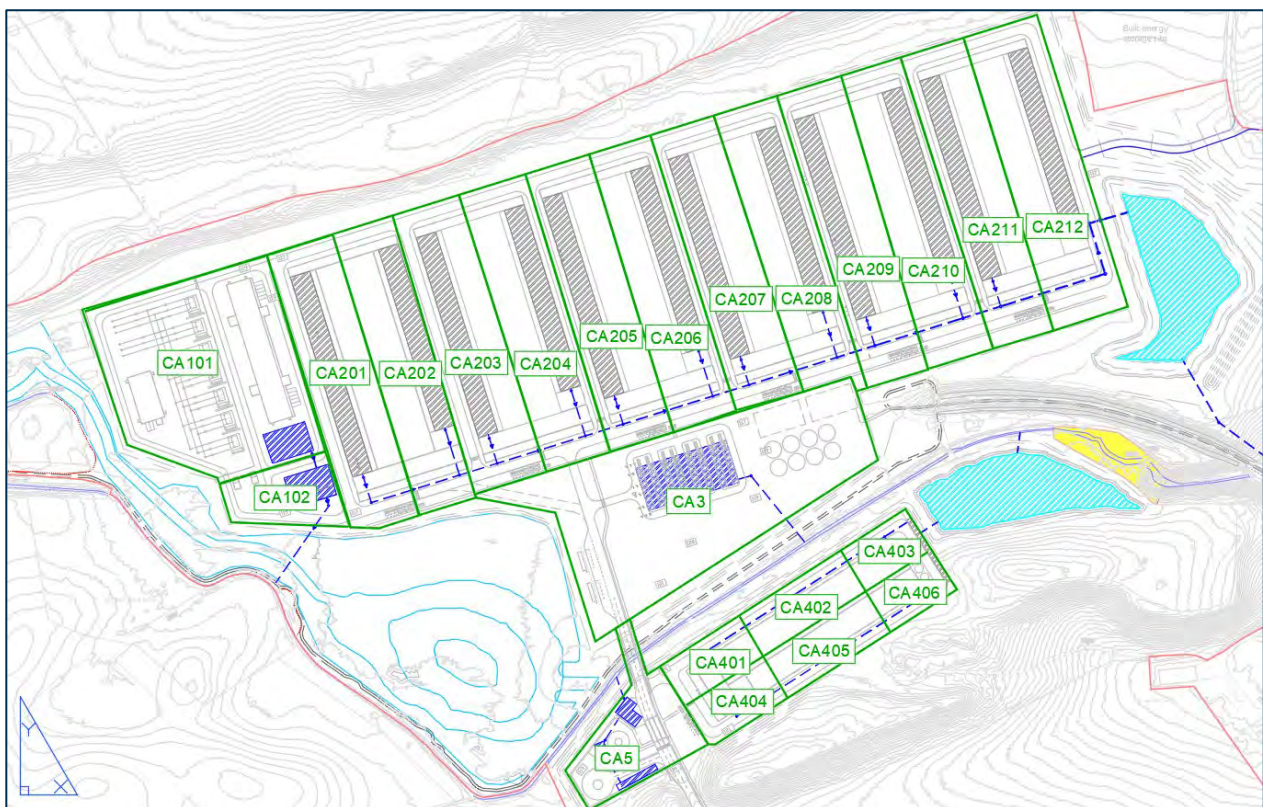


Figure 5-1: Catchment Areas for InfoDrainage Model

Table 5-4: Summary of Catchment Areas, Attenuation Features and Discharge Rates

Catchments/Subb-Catchments	Catchment Areas		Attenuation Feature	Attenuation Volume (m³)	Allowable Discharge Rate (l/s)	Modelled Discharge Rate to Watercourse(l/s)
	Sub-Catchment Area (Ha)	Total Catchment Area (Ha)				
CA101	2.46	2.95	T101 Gravel Surface+Geocellular Crate Storage	178+2050	11.8	11.8
CA102	0.49		T102 Gravel Surface+Geocellular Crate Storage	158+1980		
CA201	1.28	16.35	T201 Gravel Trench	860	65.4	62.9
CA202	1.35		T202 Gravel Trench	740		
CA203	1.34		T203 Gravel Trench	860		
CA204	1.28		T204 Gravel Trench	740		
CA205	1.33		T205 Gravel Trench	860		
CA206	1.34		T206 Gravel Trench	740		
CA207	1.40		T207 Gravel Trench	860		
CA208	1.36		T208 Gravel Trench	740		
CA209	1.39		T209 Gravel Trench	860		
CA210	1.38		T210 Gravel Trench	740		
CA211	1.38		T211 Gravel Trench	860		
CA212	1.52		T212 Gravel Trench	740		
N/A	N/A		P1 Pond	13,400		
CA3	2.81	2.81	T301 Gravel Surface + Geocellular Crate Storage	594+3990	11.2	11.0
CA401	0.28	1.76	T401 Gravel Trench	111	7.0	5.1
CA402	0.39					
CA403	0.22					
CA404	0.29					
CA405	0.37					
CA406	0.21					
N/A	N/A		P2 Pond	4,800		
CA5	0.75	0.75	T501 + T502 + T503 (Gravel Surface	280+260+540	3.0	2.9

			+Geocellular Crate Storage)			
TOTAL		24.62			98.4	93.7

A combination of SuDS features will be used across the Site to provide water quality and biodiversity benefits as well as attenuation. Details of the features have been provided in the following sections.

5.4.1 Rainwater Harvesting

A rainwater harvesting system will be included in the Proposed Development which would collect runoff from the roof areas (of one or more buildings) and recycle this for use in the onsite cooling water system. This will follow the SuDS hierarchy by implementing the most sustainable option, while reducing the water use at the Site. It is envisaged that rainwater harvesting may also be used for irrigation/grounds maintenance across the Site too.

As rainwater harvesting systems can become full and cannot be relied upon to provide attenuation for a series of storm events occurring in sequence, the volume available in the rainwater harvesting system has not been included in the attenuation calculations. This means that a conservative approach has been applied, with all the attenuation being provided in the gravel trenches, geocellular crate storage system and ponds.

5.4.2 Gravel Filled Trenches

A number of gravel filled trenches will be located adjacent to the buildings, and runoff from the roofs and nearby hardstandings will be drained to the trenches. The trenches will be lined to prevent water infiltrating to the underlying ground. The gravel will have stone sizes 20-40mm to enable filtration of runoff and reduce siltation.

The gravel filled trenches have been modelled in InfoDrainage as tanks with 33% void space, which has been accounted for in the 'Attenuation Volume' column of **Table 5-4**.

The gravel filled trenches will have a free flowing outfall, but the presence of the gravel will slow the flow through these features. At the downstream end of each trench there will be a connection to a pipe network which will direct the filtered runoff into a large attenuation pond to the east of the Proposed Development.

5.4.3 Permeable Surfaces

Permeable surfaces have been utilised in several locations. These will provide filtration of the runoff prior to it being attenuated in a geocellular crate storage tank. Permeable surfaces are assumed to be gravel surfaces of 0.6m depth, with stone sizes 20-40mm to enable filtration to occur. These areas have been located immediately above the geocellular crate storage tanks into which they will discharge. In some locations, such as T301, the permeable surface will be on a car park, with the attenuation tank being located beneath the car park. It will be necessary to make sure the system has been designed to withstand vehicle movement in this location. It is also recommended that a hydrocarbon interceptor is located on the outlet from the tank to remove oil based pollutants.

The permeable surfaces have been represented in the InfoDrainage model as 0.6m depth areas which have 33% void space, upstream of the attenuation features which they will discharge into.

5.4.4 Geocellular Crate Storage

These are used across the Proposed Development alongside the permeable surfaces. Geocellular storage tanks can be flexible in shape and size and have been modelled as having 95% void space. As noted previously, where the geocellular crate storage has been used in car parking areas, it will be necessary to make sure the system has been designed to withstand vehicle movements and loading.

Hydrobrake controls will be used to restrict the discharge rate from the geocellular systems. Given these are below ground systems, it is important to carry out regular inspections and maintenance tasks to reduce the build up of silt and debris. This maintenance requirement has been considered further in **Section 6**.

5.4.5 Ponds

Two large ponds provide most of the attenuation for the Proposed Development. These are located to the east and southeast of the Site. The main attenuation feature is the pond (P1) located to the north of the Dronachy Burn, which will receive most of the runoff from the gravel filled trenches and discharge it to the Burn towards the eastern end of the Site.

The second pond (P2) is located to the south of the Dronachy Burn, so it will provide attenuation for the runoff from the hardstandings which are south of the watercourse.

Both ponds will be lined with a geotextile liner to prevent infiltration from occurring. The purpose of the ponds is to further filter the runoff, through the use of settlement, as well as providing sufficient attenuation volume for the storm events.

Pond P1 has a surface area of 7,000m², has 1:3 side slopes and will be approximately 2.2m deep. This will provide 13,400m³ of attenuation volume. It is proposed that there will be a permanent water level within this pond (below the inlet/outlet of the pond), which will provide ecological and biodiversity benefits. The attenuation volume to manage a 1 in 200 year (+39%CC) event will be provided above the permanent water level.

Pond P2 has a surface area of 7,500m², 1:3 side slopes and will be approximately 1m deep. This will provide 4,800m³ of attenuation volume. It is proposed that there will be a permanent water level within this pond (below the inlet/outlet of the pond), which will provide ecological and biodiversity benefits. The attenuation volume to manage a 1 in 200 year (+39%CC) event will be provided above the permanent water level.

Hydrobrake controls will be used on each of the ponds to restrict the discharge rate to the watercourse. The outfalls from the ponds will be via a pre-cast concrete headwall to the Dronachy Burn, at two separate locations. It is recommended that the outfall location is surveyed to confirm the cover and invert level of the proposed outfall at detailed design stage.

The drainage system was designed as a pipe network in InfoDrainage with all features, controls and outfall included. This demonstrated that the system can manage up to and including a 1 in 200 year (+39% CC) event with no flooding of the system.

The InfoDrainage results including the full network are in **Appendix E**, and the proposed surface water drainage layout is included in **Appendix F**.

5.5 Design Standards

This drainage strategy applies to an outline design, however, should it be progressed into detailed design, the details must comply with:

- CIRIA C753: The SuDS Manual (2015);
- Sewers for Scotland; and
- Fife Council's Design Criteria Guidance Note on Flooding and Surface Water Management Plan Requirements v3.0

5.6 Water Quality

The drainage system has been designed to meet the water quality requirements set out by Table 26.2 of the CIRIA SuDS Manual C753 which sets out the specific pollution hazard indices for various land uses.

As specific indices for a data centre are not included, it is considered suitable to use the values for 'Non-residential parking with infrequent change (e.g. schools, offices, <300 traffic movements a day).' This is because there are unlikely to be many vehicle movements at the Site once it has been constructed i.e. during the operational development lifetime.

In addition, the values for 'Commercial/Industrial Roofing: Low potential for metal leaching' has been used. The Pollution Hazard Indices are summarised in **Table 5-5**.

Table 5-5: Summary of Pollution Hazard Indices (Extracted from the CIRIA SuDS Manual C753 Simple Index Approach Tool)

Land Use	Pollution Hazard Level	Total suspended Solids (TSS)	Metals	Hydrocarbons
Non-residential parking with infrequent change (e.g. schools, offices, <300 traffic movements a day)	Low	0.50	0.40	0.40
Commercial/Industrial Roofing: Low potential for metal leaching	Low	0.30	0.40	0.05
TOTAL	Low	0.80	0.80	0.45

Surface water runoff from the Site is considered to be generally uncontaminated. Sediment traps and filters should be installed on the manholes and control chambers and the downstream SuDS devices to reduce the incidence of blockage or silting up. Sediment traps and hydrocarbon interceptors have been included as mitigation measures.

Table 5-6: SuDS Component Pollution Mitigation Extracted and adapted from the CIRIA SuDS Manual C753 Simple Index Approach Tool – Non-residential parking with infrequent change and Commercial/Industrial Roofing

SuDS Component	Pollution Mitigation Indices		
Land Use	Total suspended Solids (TSS)	Metals	Hydrocarbons
Filter Drain/Gravel Trench	0.40	0.40	0.40
Hydrocarbon Interceptor/Sediment Trap	$(0.50)/2 = 0.25$	$(0.2)/2 = 0.10$	$(0.8)/2 = 0.40$
Pond	$(0.70)/2 = 0.35$	$(0.70)/2 = 0.35$	$(0.50)/2 = 0.25$
Total Pollution Mitigation Provided	1.0	0.85	1.05
Requirement	0.80	0.80	0.45

Outcome	Acceptable	Acceptable	Acceptable
---------	------------	------------	------------

Table 5-6 shows that the proposed mitigation measures are acceptable based on the highest of the pollution hazard indices.

5.7 Exceedance Events

Should an event occur which is greater than the drainage system has been designed for, runoff would likely flow from the Proposed Development to the south and southeast, following the topography of the Site towards the watercourse.

Although the existing ground levels across the Site will be amended to enable a level platform to be provided for the development, the surrounding land is very steep. It is therefore unlikely that excess flows would flow offsite to pose a flood risk to others. It is anticipated that runoff would instead enter the Dronarchy Burn.

In the unlikely event that exceedance flows exit the Site, it is unlikely that this would result in a significant flood risk to people or premises, given the surrounding area is largely undeveloped.

6 Maintenance of the Proposed Drainage System

6.1 Adoption and Maintenance

All onsite SuDS and drainage systems will be privately maintained by an appointed management company. A long-term maintenance regime should be agreed with the site owners before adoption. In addition to a long-term maintenance regime, it is recommended that all drainage elements implemented on the Site should be inspected following the first rainfall event post-construction and monthly for the first quarter following construction.

General maintenance of key SuDS components are provided in **Table 6-1**. Further details on typical maintenance requirements for gravel trenches, ponds, geocellular crate storage and permeable surfaces are included in **Table 6-2** to **Table 6-5**.

Table 6-1: General Maintenance Requirements (Source: CIRIA SuDS Manual C753)

TYPICAL KEY SUDS COMPONENTS OPERATION AND MAINTENANCE ACTIVITIES			
Operation and Maintenance Activity	SuDS Component		
	Pond	Filter Drain/ Gravel Trench	Geocellular Crate Storage
Regular Maintenance			
Inspection	✓	✓	✓
Litter/debris removal	✓	✓	✓
Grass cutting	✓	✓	x
Weed/invasive plant control	-	-	-
Shrub management	-	x	x
Shoreline vegetation management	✓	x	x
Aquatic vegetation management	✓	x	x
Occasional Maintenance			
Sediment management	✓	✓	✓
Vegetation replacement	-	x	x
Vacuum sweeping and brushing	x	x	x
Remedial Maintenance			
Structure rehabilitation/repair	-	-	✓
Infiltration surface reconditioning	x	-	-

Key:

Will be Required	✓	May be Required	-	Not Normally Required	x
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Table 6-2: Specific Maintenance Requirements: Filter Drains/Gravel Trenches (Source: CIRIA SuDS Manual C753)

SPECIFIC MAINTENANCE REQUIREMENTS		
Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Remove litter (including leaf litter) and debris from filter drain surface, access chambers and pre-treatment devices	Monthly (or as required)
	Inspect filter drain surface, inlet/outlet pipework and control systems for blockages, clogging, standing water and structural damage	Monthly
	Inspect pre-treatment systems, inlets and perforated pipework for silt accumulation, and establish appropriate silt removal frequencies	Six monthly
	Remove sediment from pre-treatment devices	Six monthly or as required
Occasional Maintenance	Remove or control tree roots where they are encroaching on the sides of filter drain, using recommended methods (e.g. NJUG, 2007 or BS 3998:2010)	As required
	At locations with high pollution loads, remove surface geotextile and replace, and wash or replace overlying filter medium	Five yearly or as required
	Clear perforated pipework of blockages	As required

Table 6-3: Specific Maintenance Requirements: Ponds (Source: CIRIA SuDS Manual C753)

SPECIFIC MAINTENANCE REQUIREMENTS		
Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Remove litter and debris	Monthly
	Cut grass – public areas	Monthly (during growing season) or as required
	Cut grass – meadow grass in and around pond	Half yearly (spring – before nesting season and autumn)
	Manage other vegetation and remove nuisance plants	Monthly (at start, then as required)
	Inspect marginal and bankside vegetation and remove nuisance plants (for the first 3 years)	Monthly (at start, then as required)
	Inspect outlets, inlets, banksides, structures, pipework etc for evidence of blockages and/or physical damage	Monthly
	Inspect water body for signs of poorly water quality	Monthly (May-October)
	Inspect silt accumulation rates in any forebay and in main body of the pond and establish appropriate removal frequencies; undertake contamination testing once some build up has occurred, to inform management and disposal options.	Half yearly
	Check any penstocks and other mechanical devices	Half yearly
	Hand cut submerged and emergent aquatic plants (at minimum of 0.1m above pond base; include max 25% of pond surface)	Annually
	Remove 25% of bank vegetation from water's edge to a minimum of 1m above water level	Annually
	Tidy all dead growth before start of growing season	Annually
	Remove sediment from inlets, outlets and forebay	Annually (or as required)
	Remove sediment and planting from one quadrant of the main body of ponds without sediment forebays	Every 5 years or as required
Occasional Maintenance	Remove sediment from main body of big ponds when pool volume is reduced by 20%	With effective pre-treatment, this will only be required rarely, e.g. every 25-50 years

Remedial Actions	Repair erosion or other damage by reseedling or re-turfing	As required
	Replant, where necessary	As required
	Aerate pond when signs of eutrophication are detected	As required
	Repair/rehabilitation of inlets, outlets and overflows	As required
	Realign rip-rap or repair other damage	As required

Table 6-4: Specific Maintenance Requirements: Attenuation Storage Tanks (Source: CIRIA SuDS Manual C753)

SPECIFIC MAINTENANCE REQUIREMENTS		
Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually.
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter, remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays.	Annually or as required
Remedial Actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to make sure they are in good condition and operating as designed.	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Five yearly or as required

Table 6-5: Specific Maintenance Requirements: Pervious Surfaces (Source: CIRIA SuDS Manual C753)

SPECIFIC MAINTENANCE REQUIREMENTS		
Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment.
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying.	As required – once per year on less frequently used pavements.
Remedial Actions	Remediate any landscaping which , through vegetation maintenance or soil slip, has been raised to within 50mm of the level of paving	As required
	Remediate work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material.	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 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 hour after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

6.2 Visual Inspection/Sweep

This should include a systematic review of the drainage infrastructure. Each element should be inspected to determine if remedial actions are needed. Where access chambers are provided, these should be used to access below ground infrastructure:

- Rodding eyes / inspection chambers should be provided at both ends of all pipes; these should be used to determine the level of silt within the system.
- Non-man entry inspection chambers are provided for any below ground elements.

6.3 During Construction

The surface water runoff generated during construction has the potential to have higher concentrations of oils and sediments from heavy machinery and earthworks respectively. As such, it is necessary to devise appropriate surface water management plans tailored to specific construction activities and receptors of runoff. Specific considerations are:

- Provision of appropriate bunding / containment for potentially hazardous materials / chemicals;
- Re-fuelling of plant and equipment to take place only within designated areas, with suitable pollution containment;
- Good housekeeping on site to prevent accidental spillages, and spill kits to be provided as appropriate;
- Vehicle washdown areas / wheel cleaning to be located in areas with appropriate pollution control measures;
- If water/spray dust suppression is needed, the runoff should be directed to a temporary containment area, and should not be allowed to discharge to soakaways;
- The installed surface water drainage network should be routinely inspected during construction; and,
- Suitable protection measures should be in place during construction to protect the watercourse and groundwater resources.

6.4 Spillage: Emergency Action

Most spillages on development sites are of compounds that do not pose a serious risk to the environment if they enter the drainage in a slow and controlled manner, with time available for natural breakdown in a treatment system. Therefore, small spillages of oil, milk or other known organic substances should be removed, where possible, using soaking mats, with residual spillage allowed to bio-remediate in the drainage system. In the event of a serious spillage, either by volume or of unknown or toxic compounds, then this should be isolated with soil, turf, or fabric and block outlet pipes from chamber(s) downstream of the spillage with a bung(s). (A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric).

Contact the SEPA Pollution hotline on 0800 80 70 60 and report environmental events using this form: <https://www2.sepa.org.uk/EnvironmentalEvents>

6.5 Commissioning the Drainage System

A pre-occupation commissioning survey to confirm that all elements of the surface water drainage system operate as per the design should be undertaken. This survey should include a CCTV survey of all below ground drainage assets. If any defects are identified, these should be rectified prior to use of the development.

6.6 Replacement of Elements

Should replacement of any element be required, this should be undertaken in accordance with the manufacturer's specifications, and in a planned and controlled manner. **Working on live drainage systems can pose a health and safety hazard and should only be undertaken by a competent contractor.**

In addition, due to the historic railway embankments and steep topography in the surrounding area, a geotechnical engineer should be consulted before any of the drainage system is constructed, to advise on any measures or amendments to the design which might be required. A Designers Risk Assessment is included as **Appendix G**.

7 Conclusions

Haskoning UK Ltd has been instructed by ILI Cato Ltd, to support the outline planning application for the Cato Data Centre (the 'Proposed Development'), located in Mossmorran, near Auchtertool in Fife, KY2 5XW (the 'Site').

The Drainage Impact Assessment has been written in accordance with National Planning Framework 4 (February 2023), with specific reference to Policy 22 which focuses on flood risk and drainage.

The Site covers 72.9 hectares and comprises undeveloped grassland. It is approximately 5km west of Kirkcaldy and approximately 8km east of Dumfermline.

The Proposed Development is for a data centre, comprising a complex of data halls, cooling plant, electricity substations, emergency plant, gatehouse, access roads, associated landscaping and infrastructure.

Infiltration was not considered to be viable at the Site to manage significant impermeable areas, given the underlying bedrock of Pathhead Formation – sedimentary rock cycles, Strathclyde Group (mudstone and siltstone) and superficial deposits consist of Till and Devensian Diamicton Peat. This type of geology likely has low infiltration rates.

As the Site is very large, there will be a number of different SuDS features used across the Proposed Development. The attenuation features (ponds, gravel trenches and geocellular crate storage) have been designed to manage up to and including a 1 in 200 year (+39% climate change) storm event, and discharge runoff at 4 l/s/ha, which is the Fife Council requirement for new surface water drainage systems.

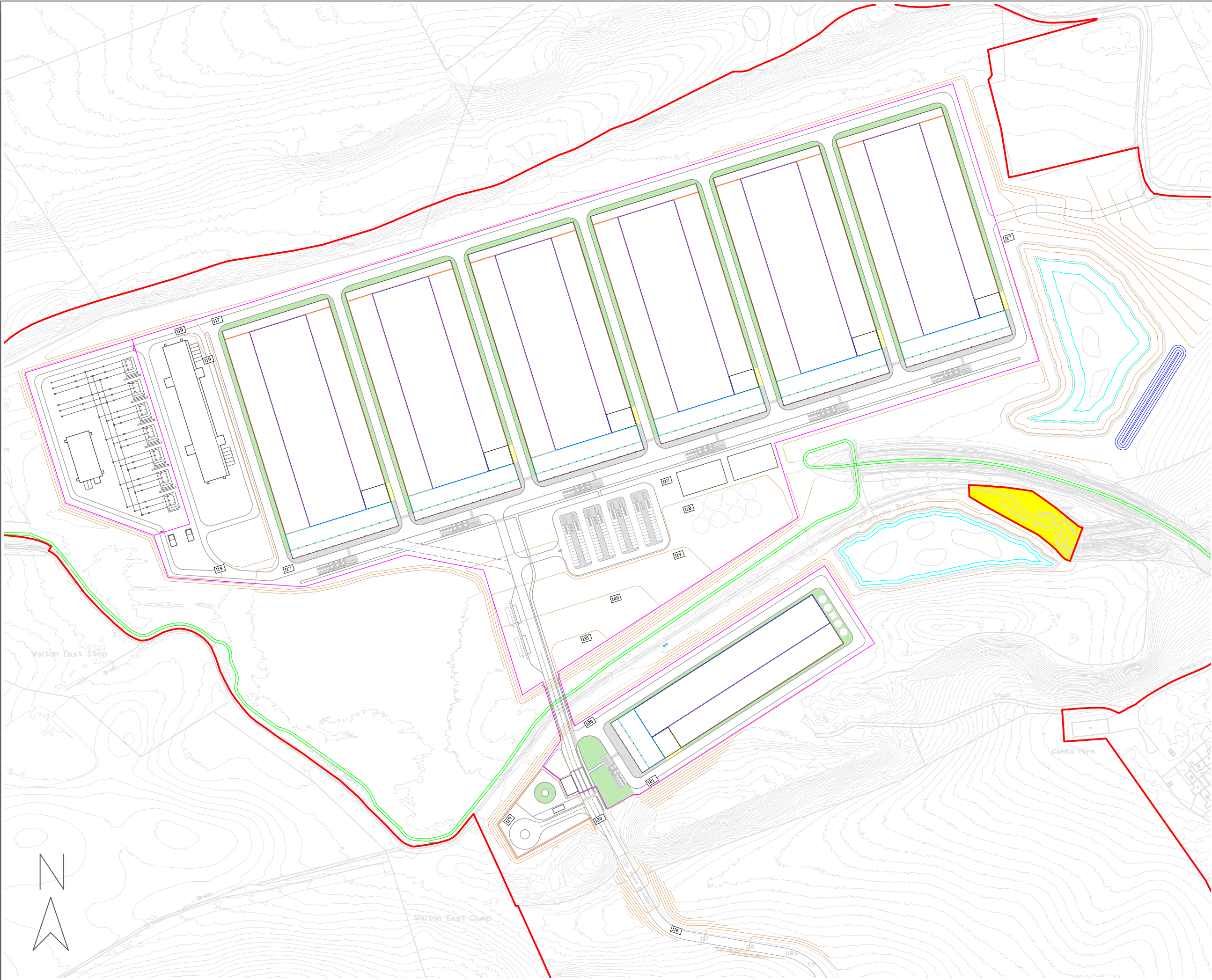
It is proposed that impermeable areas will drain to lined gravel filled trenches located adjacent to the buildings and hardstandings. These will serve to filter the runoff before discharging it via a pipe network to large attenuation ponds. In some areas, pervious surfaces will be used to filter the runoff before it is directed into geocellular storage crates. Hydrocarbon interceptors and silt traps will be used to provide additional treatment of runoff. It is proposed that rainwater harvesting will be included in the development to re-use runoff within the onsite cooling system, but this has not been included in the drainage design due to the finite capacity of rainwater harvesting systems. Therefore, the drainage design has taken a conservative approach.

The system was modelling in InfoDrainage and demonstrated to manage up to and including the 1 in 200 year (+39% CC) event, with no flooding occurring.

In an exceedance event, flows will follow the natural topography to the south and southeast of the Site and towards the existing watercourse.

All elements of the proposed drainage system will remain private and the responsibility for maintenance will be with the site owner, or a maintenance company set up by the developer. Maintenance and management tasks have been considered for each part of the proposed surface water drainage strategy.

Appendix A: Proposed Development Drawings



Cato

- Site
- Excluded area
- Security fence
- Stock fence
- Public walking route
- Road
- Substation & Energy centre
- Data hall
- Office space
- Generator & plant compound
- Loading bay
- Bridge area (approx)
- Parking (inc accessible and EV spaces)
- Cycle shelter
- Landscape bund
- Pond / wetland
- Levels unchanged
- Levels proposed

Notes
All conoturs shown in 1m intervals.

New bridge over burn assumed to be approx 14 metres wide concrete deck approx 120m surface, 119m underside, 114.5m path surface beneath, span as required, all subject to future design exercise.

Scale 1:3000 at A3

0 30 60
metres

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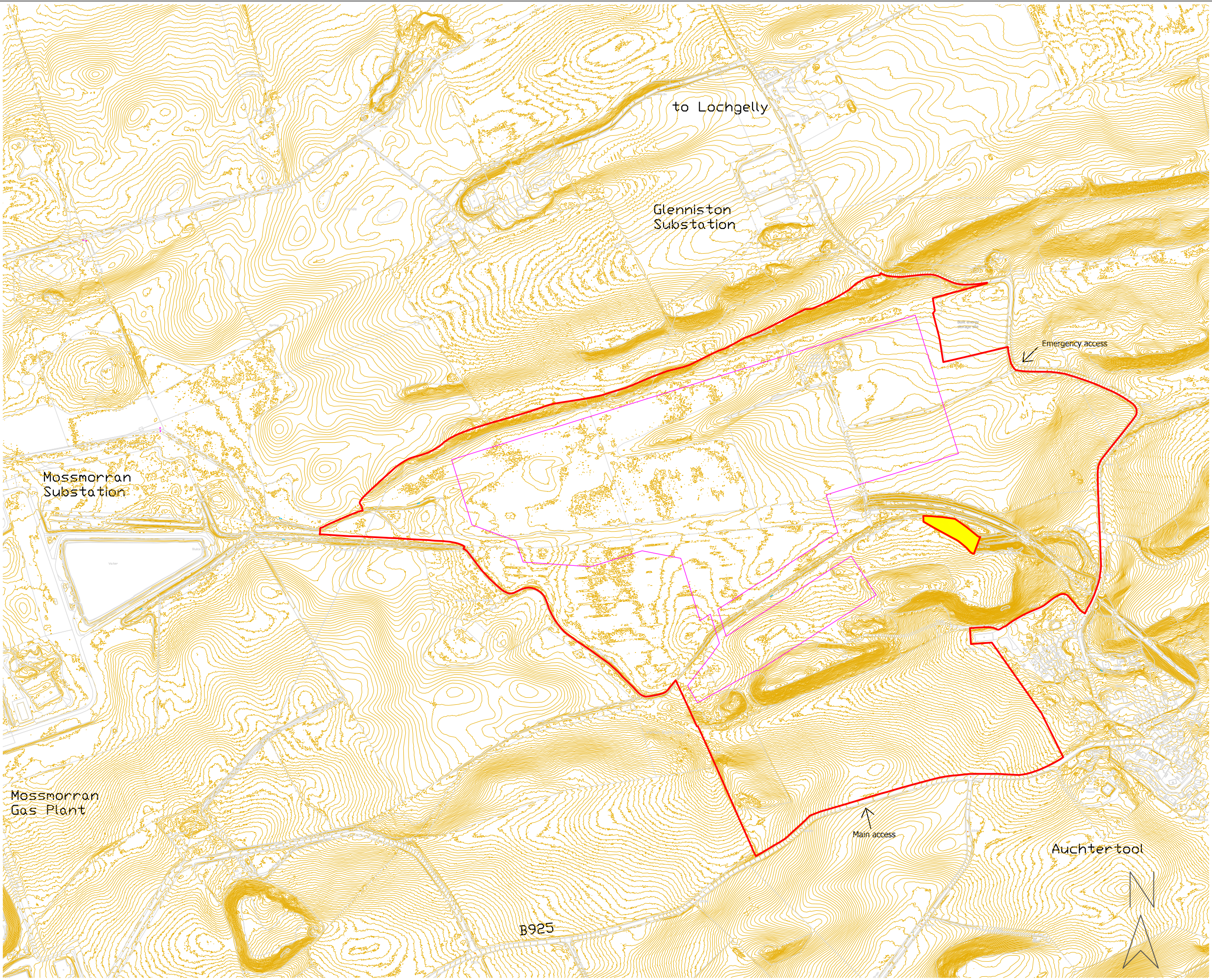
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Development area layout
Final draft

Drawing number	Status
J407/065/08022026	Draft



Appendix B: Topographic Survey



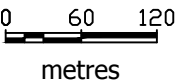
Cato

- Site
- Excluded area
- Development area
- ~ Existing ground levels (0.5m contour)

Site at Auchtertool,
Mossmorran, Fife
KY2 5XW

Ordnance Survey grid
reference 321000 691000

Scale 1:6000 at A3



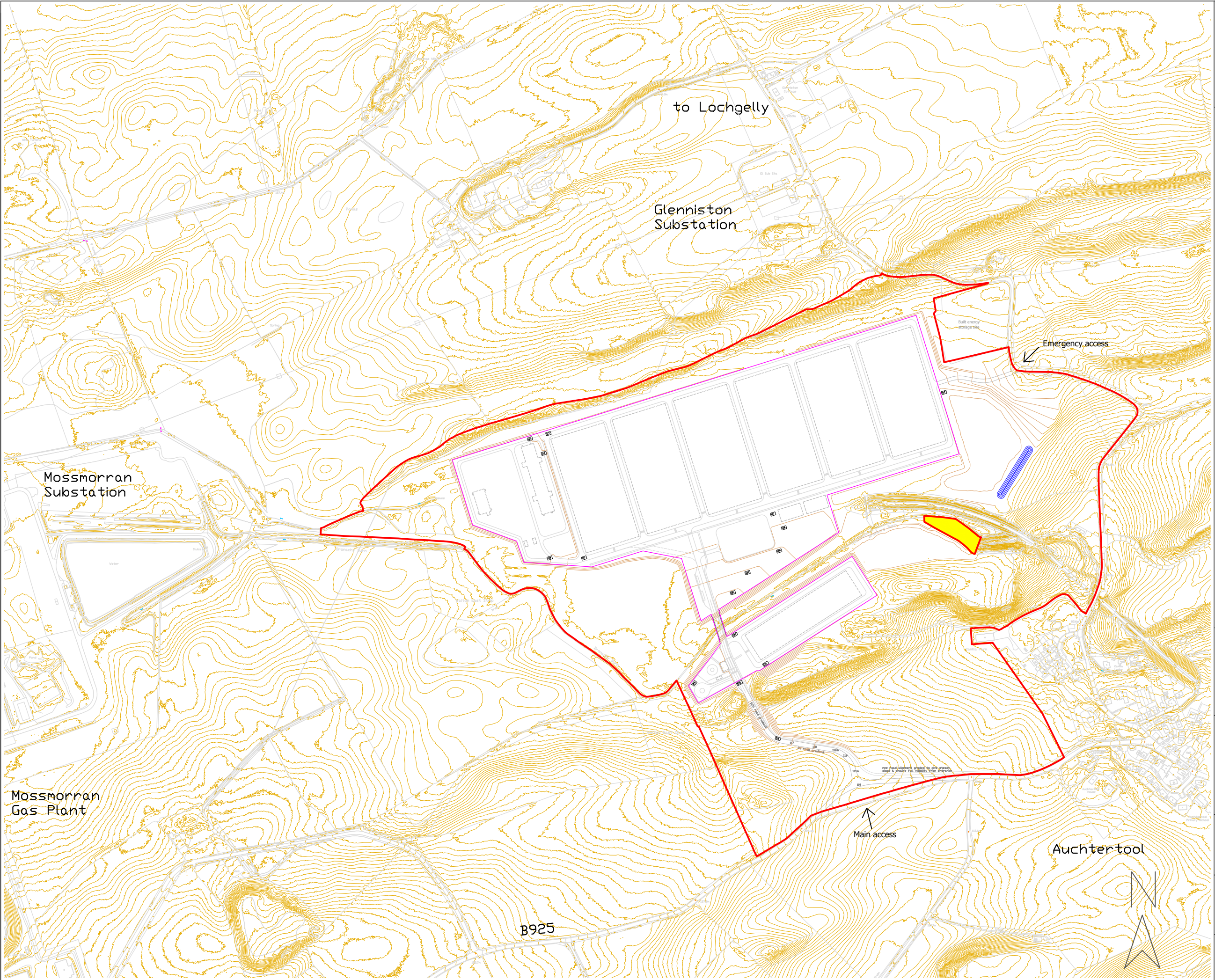
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Topography - Levels Existing

Drawing number
J407/068/2603026

Status
Draft



Cato

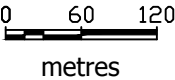
- Site
- Excluded area
- Development area
- Road
- Potential building
- Landscape bund
- Levels proposed (1m contour)
- Levels unchanged (1m contour)
- Bridge area (approx)

Notes
New bridge over burn assumed to be approx 14 metres wide concrete deck approx 120m surface, 119m underside, 114.5m path surface beneath, span as required, all subject to future design exercise.

Site at Auchtertool, Mossmorran, Fife KY2 5XW

Ordnance Survey grid reference 321000 691000

Scale 1:6000 at A3



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Topography - Levels proposed

Drawing number
J407/069/26032026

Status
Draft

Appendix C: Scottish Water Sewer Records



Appendix D: Greenfield Runoff Rates

ICP SuDS Greenfield Runoff Rates (1 Hectare) (InfoDrainage Rural Runoff Calculator)

UK and Ireland Rural Runoff Calculator

ICP SUDS / IH 124 ADAS 345 FEH ReFH2 Greenfield Volume

Method ☒ ICP SUDS ☐ IH 124

Area (ha)

SAAR (mm)

Soil

Region

Additional Options

Urban

Return Period (years)

Growth Curve

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 5 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 2	5.9	5.9	7.0	5.2	11.2	15.6

UK and Ireland Rural Runoff Calculator

ICP SUDS / IH 124 ADAS 345 FEH ReFH2 Greenfield Volume

Method ☒ ICP SUDS ☐ IH 124

Area (ha)

SAAR (mm)

Soil

Region

Additional Options

Urban

Return Period (years)

Growth Curve

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 200 (years) (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 2	5.9	5.9	17.7	5.2	11.2	15.6

Appendix E: InfoDrainage Results

Project:	Date: 03/03/2026		
	Designed by: 928620	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		





Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH201	FEH: 200 years: +39 %: 240 mins: Summer	117.750	116.700	117.222	0.522	91.3	0.923	0.000	86.5	1004.627	Surcharged
MH203	FEH: 200 years: +39 %: 360 mins: Summer	117.210	116.160	117.115	0.955	166.0	1.687	0.000	166.0	3507.055	Flood Risk
MH204	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.921	116.917	0.996	147.9	1.761	0.000	147.8	8077.048	Flood Risk
MH205	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.860	116.915	1.055	171.6	1.865	0.000	171.5	9854.514	Flood Risk
MH206	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.660	116.914	1.254	182.4	2.215	0.000	181.1	11462.271	Flood Risk
MH207	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.600	116.913	1.313	221.7	2.320	0.000	220.1	12926.262	Flood Risk
MH208	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.498	116.912	1.414	261.0	3.598	0.000	259.2	14793.077	Flood Risk
MH209	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.455	116.911	1.456	300.2	3.706	0.000	298.6	16643.293	Flood Risk
MH210	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.353	116.910	1.557	329.8	3.961	0.000	328.5	17971.771	Flood Risk
MH211	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.309	116.909	1.600	370.0	5.026	0.000	368.0	19797.242	Flood Risk
MH212	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.187	116.907	1.720	368.0	5.406	0.000	365.7	19746.734	Flood Risk
MH213	FEH: 200 years: +39 %: 2160 mins: Summer	117.000	115.128	116.907	1.779	413.9	5.589	0.000	412.5	21860.555	Flood Risk
MH202	FEH: 200 years: +39 %: 240 mins: Summer	117.370	116.320	117.179	0.859	147.9	1.517	0.000	145.4	2067.085	Flood Risk
MH 301	FEH: 200 years: +39 %: 5760 mins: Summer	118.000	115.936	116.147	0.211	11.0	0.238	0.000	11.0	5100.204	OK
MH102	FEH: 200 years: +39 %: 2160 mins: Summer	119.000	115.773	115.860	0.087	11.8	0.099	0.000	11.8	2464.825	OK
MH101	FEH: 200 years: +39 %: 2160 mins: Summer	119.000	115.907	117.665	1.757	37.1	4.472	0.000	36.9	2444.512	Surcharged
MH501	FEH: 200 years: +39 %: 2880 mins: Winter	119.000	116.457	118.223	1.766	14.4	1.997	0.000	14.3	1177.134	Surcharged

Project:	Date: 03/03/2026			
	Designed by: 928620	Checked by:	Approved By:	
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:			

MH401	FEH: 200 years: +39 %: 30 mins: Summer	120.0 00	117.8 00	117.8 75	0.075	28.2	0.085	0.000	4.1	3.197	OK
MH404	FEH: 200 years: +39 %: 30 mins: Summer	120.0 00	117.8 00	118.1 44	0.344	138.3	0.389	0.000	129.5	119.961	OK
MH405	FEH: 200 years: +39 %: 30 mins: Summer	119.0 00	117.4 10	118.11 2	0.702	305.3	0.794	0.000	279.0	272.239	Surcharg ed
MH406	FEH: 200 years: +39 %: 30 mins: Summer	118.5 00	117.0 31	117.9 39	0.908	380.5	1.027	0.000	378.3	359.406	Surcharg ed
MH403	FEH: 200 years: +39 %: 30 mins: Summer	118.5 00	117.0 31	117.8 56	0.825	268.8	2.593	0.000	242.2	250.126	Surcharg ed
MH402	FEH: 200 years: +39 %: 30 mins: Summer	119.0 00	117.4 10	117.8 98	0.488	184.7	0.552	0.000	164.4	163.601	OK
MH502	FEH: 200 years: +39 %: 2880 mins: Winter	119.0 00	116.3 74	118.2 23	1.849	10.1	3.266	0.000	10.0	1036.631	Surcharg ed
IC201	FEH: 200 years: +39 %: 180 mins: Summer	117.7 50	116.8 28	117.3 52	0.523	93.4	0.592	0.000	93.0	893.621	Surcharg ed
IC202	FEH: 200 years: +39 %: 240 mins: Summer	117.4 87	116.5 71	117.3 01	0.730	70.8	0.826	0.000	69.0	1065.335	Flood Risk
IC203	FEH: 200 years: +39 %: 360 mins: Summer	117.2 41	116.3 08	117.1 52	0.845	45.1	0.955	0.000	45.1	1098.676	Flood Risk
IC204	FEH: 200 years: +39 %: 480 mins: Summer	117.0 00	116.0 77	116.9 67	0.890	46.5	1.007	0.000	46.4	962.609	Flood Risk
IC205	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	116.0 45	116.9 16	0.871	32.5	0.985	0.000	32.4	1792.666	Flood Risk
IC206	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	116.0 31	116.9 15	0.884	29.1	1.000	0.000	26.3	2063.238	Flood Risk
IC207	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	115.9 76	116.9 14	0.938	42.7	1.060	0.000	42.6	1924.821	Flood Risk
IC208	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	116.0 04	116.9 13	0.909	43.2	1.028	0.000	42.9	1895.930	Flood Risk
IC209	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	115.9 30	116.9 12	0.982	44.9	1.111	0.000	44.6	1878.539	Flood Risk
IC210	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	115.9 36	116.9 10	0.974	35.3	1.102	0.000	35.1	1358.460	Flood Risk
IC211	FEH: 200 years: +39 %: 2160 mins: Summer	117.0 00	115.6 88	116.9 10	1.221	46.5	1.381	0.000	46.5	1867.449	Flood Risk
MH103	FEH: 200 years: +39 %: 2160 mins: Summer	119.0 00	115.7 37	115.8 19	0.081	11.8	0.000	0.000	11.8	2464.825	OK
IC401	FEH: 200 years: +39 %: 30 mins: Summer	118.4 19	116.7 87	117.6 23	0.837	708.5	0.946	0.000	707.7	723.299	Surcharg ed

Project:		Date:													
		03/03/2026													
Report Details:		Designed by:										Checked by:		Approved By:	
Type: Junctions Summary		928620													
Storm Phase: Phase		Company Address:													
IC501	FEH: 200 years: +39 %: 2880 mins: Winter	119.0 00	116.1 31	116.1 71	0.039	2.7	0.000	0.000	2.7	731.751	OK				

Project:	Date: 03/03/2026		
	Designed by: 928620	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		





Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resid ent Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
P1	FEH: 200 years: +39 %: 2160 mins: Summer	116.906	116.906	1.906	1.906	412.5	11294.011	0.000	0.000	62.9	13339.090		5.442
P2	FEH: 200 years: +39 %: 5760 mins: Summer	116.407	116.407	0.407	0.407	41.1	2757.441	0.000	0.000	5.1	2032.649		77.573
T101	FEH: 200 years: +39 %: 2160 mins: Summer	117.664	117.664	1.664	1.664	95.8	1422.922	0.000	0.000	37.1	2452.459	1395	30.667
T102	FEH: 200 years: +39 %: 2160 mins: Summer	117.664	117.664	1.864	1.864	61.4	1416.713	0.000	0.000	11.8	2465.103	1665	28.326
T201	FEH: 200 years: +39 %: 120 mins: Summer	117.401	117.401	0.551	0.551	401.2	527.326	0.000	0.000	94.9	737.672	80	8.163
T202	FEH: 200 years: +39 %: 240 mins: Summer	117.331	117.331	0.731	0.731	286.5	603.296	0.000	0.000	70.8	1065.634	160	-21.878
T203	FEH: 200 years: +39 %: 360 mins: Summer	117.170	117.170	0.820	0.820	223.3	784.746	0.000	0.000	45.1	1099.644	260	-36.668
T204	FEH: 200 years: +39 %: 480 mins: Summer	116.986	116.986	0.886	0.886	179.4	700.369	0.000	0.000	46.5	964.616		-50.631
T205	FEH: 200 years: +39 %: 2160 mins: Summer	116.916	116.916	0.816	0.816	65.7	781.197	0.000	0.000	32.5	1793.965		-36.050

Project:	Date: 03/03/2026			
	Designed by: 928620	Checked by:	Approved By:	
	Report Details: Type: Stormwater Controls Summary Storm Phase: Phase			
Company Address:				

Status
OK
OK
OK
OK
OK
Flood Risk
Flood Risk
Flood Risk
Flood Risk

Project:		Date: 03/03/2026			
		Designed by: 928620	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address:			

T206	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 15	116.9 15	0.815	0.81 5	93.8	2037. 801	0.00 0	0.000	26.5	1628.7 30	1880	9.431
T207	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 14	116.9 14	0.814	0.81 4	68.6	708.0 79	0.00 0	0.000	42.7	1926.6 68	1865	9.568
T208	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 13	116.9 13	0.813	0.81 3	67.2	670.9 75	0.00 0	0.000	43.2	1898.5 12		-35.550
T209	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 12	116.9 12	0.812	0.81 2	68.3	777.2 91	0.00 0	0.000	44.9	1880.4 49		-35.369
T210	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 10	116.9 10	0.810	0.81 0	51.0	668.6 15	0.00 0	0.000	35.3	1361.0 14		-35.074
T301	FEH: 200 years: +39 %: 2880 mins: Summer	117.3 05	117.3 05	1.305	1.30 5	111.1	3718. 370	0.00 0	0.000	11.0	2673.8 01		6.822
T401	FEH: 200 years: +39 %: 30 mins: Summer	117.8 11	117.8 11	1.011	1.011	754.4	79.99 8	0.00 0	0.000	708. 5	723.39 9	5	27.852
T501	FEH: 200 years: +39 %: 2880 mins: Winter	118.2 23	118.2 23	1.673	1.67 3	19.2	254.2 89	0.00 0	0.000	14.4	1179.3 24	2840	9.763
T211	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 10	116.9 10	0.810	0.81 0	67.9	775.1 08	0.00 0	0.000	46.5	1869.7 60		-34.989
T212	FEH: 200 years: +39 %: 2160 mins: Summer	116.9 07	116.9 07	0.807	0.80 7	74.8	666.0 40	0.00 0	0.000	67.5	2150.0 88	1855	10.298
T502	FEH: 200 years: +39 %: 2880 mins: Winter	118.2 23	118.2 23	1.823	1.82 3	14.3	242.4 17	0.00 0	0.000	10.1	1039.6 06		9.071
T503	FEH: 200 years: +39 %: 2880 mins: Winter	118.2 22	118.2 22	2.022	2.02 2	10.0	499.5 38	0.00 0	0.000	2.7	731.79 8		8.123

Project:	Date: 03/03/2026			
	Designed by: 928620	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:			

OK
OK
Flood Risk
Flood Risk
Flood Risk
OK
OK
OK
Flood Risk
OK
OK
OK

Appendix F: Surface Water Drainage Layout

STORM WATER CONTROLS PROPERTIES									
FEATURE		DEPTH (m)	AREA (m²)	TOTAL VOLUME (m³)	POROSITY (%)	EFFECTIVE VOLUME (m³)	COVER LEVEL (mAOD)	TOP OF TANK (mAOD)	INVERT LEVEL (mAOD)
T101	GRAVEL	0.6	900	540	33	178	119.00	118.40	116.00
	TANK	2.4	900	2160	95	2050			
T102	GRAVEL	0.6	800	480	33	158	119.00	118.40	115.80
	TANK	2.6	800	2080	95	1980			
T201	GRAVEL	0.9	2900	2610	33	860	117.75	N/A	116.85
T202	GRAVEL	0.9	2500	2250	33	740	117.50	N/A	116.60
T203	GRAVEL	0.9	2900	2610	33	860	117.25	N/A	116.35
T204	GRAVEL	0.9	2500	2250	33	740	117.00	N/A	116.100
T205	GRAVEL	0.9	2900	2610	33	860	117.00	N/A	116.100
T206	GRAVEL	0.9	2500	2250	33	740	117.00	N/A	116.100
T207	GRAVEL	0.9	2900	2610	33	860	117.00	N/A	116.100
T208	GRAVEL	0.9	2500	2250	33	740	117.00	N/A	116.100
T209	GRAVEL	0.9	2900	2610	33	860	117.00	N/A	116.100
T210	GRAVEL	0.9	2500	2250	33	740	117.00	N/A	116.100
T211	GRAVEL	0.9	2900	2610	33	860	117.00	N/A	116.100
T212	GRAVEL	0.9	2500	2250	33	740	117.00	N/A	116.100
T301	GRAVEL	0.6	3000	1800	33	594	118.00	117.40	116.00
	TANK	1.4	3000	4200	95	3990			
T401	GRAVEL	1.4	240	336	33	111	118.50	N/A	116.80
	TANK	0.6	160	96	33	32			
T501	TANK	1.85	160	296	95	281	119.00	118.40	116.55
	TANK	0.6	140	84	33	28			
T502	TANK	2	140	280	95	266	119.00	118.40	116.40
	TANK	0.6	260	156	33	51			
T503	GRAVEL	2.8	260	728	95	692	119.00	118.40	116.20

MANHOLE INFORMATION			
NAME	DIAMETER (M)	COVER LEVEL (mAOD)	INVERT LEVEL
MH101	1.8	119.00	115.91
MH102	1.2	119.00	115.77
MH103	1.2	119.00	115.74
IC201	1.2	117.75	116.83
MH201	1.2	117.75	116.70
IC202	1.2	117.49	116.57
MH202	1.5	117.37	116.32
IC203	1.2	117.24	116.31
MH203	1.5	117.21	116.16
IC204	1.2	117.00	116.08
MH204	1.5	117.00	115.92
IC205	1.2	117.00	116.05
MH205	1.5	117.00	115.86
IC206	1.2	117.00	116.03
MH206	1.5	117.00	115.66
IC207	1.2	117.00	115.98
MH207	1.5	117.00	115.60
IC208	1.2	117.00	116.00
MH208	1.8	117.00	115.50
IC209	1.2	117.00	115.93
MH209	1.8	117.00	115.46
IC210	1.2	117.00	115.94
MH210	1.8	117.00	115.35
IC211	1.5	117.00	115.69
MH211	2	117.00	115.31
MH212	2	117.00	115.19
MH213	2	117.00	114.13
MH213	1.2	115.00	113.80
MH301	1.2	118.00	115.94
MH401	1.2	120.00	117.80
MH402	1.2	119.00	117.41
MH403	1.2	118.50	117.03
MH404	1.2	120.00	117.80
MH405	1.2	119.00	117.41
MH406	1.2	118.50	117.03
IC401	1.2	118.42	116.79
MH501	1.5	119.00	116.46
MH502	1.5	119.00	116.37
IC501	1.2	119.00	116.13

NB:PROPOSED WETLANDS TO PROVIDE HABITAT AND ADDITIONAL STORAGE CAPACITY DURING EXCEEDANCE EVENTS.

CA5 OUTLET
IL=115.50
BED LEVEL= 115.00m
CA5 HYDROBRAKE CONTROL
Ø=300mm
IL=115.90m
ALLOWABLE DISCHARGE RATE=2.9 L/S
IC501
MH502
MH501

CA1 HYDROBRAKE CONTROL
Ø=300mm
IL=115.74m
ALLOWABLE DISCHARGE RATE=11.8L/S
CA1 OUTLET
IL=115.05
BED LEVEL= 115.00m

CA3 OUTLET
IL=113.05
BED LEVEL= 113.00m

CA3 HYDROBRAKE CONTROL
Ø=300mm
IL=115.94m
ALLOWABLE DISCHARGE RATE=11.0L/S

CA4 OUTLET
IL=114.05
BED LEVEL= 114.00m

CA4 HYDROBRAKE CONTROL
Ø=600mm
IL=116.00m
ALLOWABLE DISCHARGE RATE=5.1L/S
P2
AREA AT TOP=7500m²
AREA AT BOTTOM=6600 m²
SLOPE=1:3
TOTAL VOLUME=4800m³
BANK LEVEL=117.00
BED LEVEL=116.00

P1
AREA AT TOP=7000m²
AREA AT BOTTOM=5000 m²
SLOPE=1:3
TOTAL VOLUME=12000m³
BANK LEVEL=117.00
BED LEVEL=115.00

CA2 HYDROBRAKE CONTROL
Ø=600mm
IL=115.00m
ALLOWABLE DISCHARGE RATE=62.9L/S
MH214
CA2 OUTLET
IL=95.50
BED LEVEL= 95.00m

- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN UNLESS NOTED OTHERWISE.
- THIS DRAWING IS TO BE USED FOR THE STATED PURPOSE OF ISSUE ONLY AND MUST NOT BE USED FOR ANY OTHER PURPOSE THAN THAT INDICATED.
- ONLY WRITTEN DIMENSIONS SHALL BE USED. CRITICAL DIMENSIONS AND LEVELS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO WORK COMMENCEMENT.
- ANY DISCREPANCIES IN DIMENSIONS OR DETAILS ON OR BETWEEN THESE DRAWINGS SHALL BE DRAWN TO THE ATTENTION OF THE PROJECT MANAGER FOR CLARIFICATION.
- PROPOSED LEVELS FROM LIDAR INFORMATION, SUBJECT TO CONFIRMATION VIA TOPOGRAPHICAL SURVEY.

LEGEND

SITE LAYOUT

- EXISTING WATER COURSE
- SITE BOUNDARY
- AREA NOT CURRENTLY OWNED BY DEVELOPER

SITE DRAINAGE

- PROPOSED SURFACE WATER PIPEWORK
- PROPOSED GRAVEL + ATTENUATION TANK
- PROPOSED GRAVEL TRENCH
- PROPOSED ATTENUATION BASIN

PO2	24/01/26	STAGE 2 ISSUE	LMc	LW	HW
PO1	21/01/26	INITIAL ISSUE	LMc	LW	LW
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT

ILI CATO LTD

PROJECT

CATO DATA CENTRE

TITLE

PROPOSED DRAINAGE LAYOUT



DRAWN	LMc	CHECKED	LW	APPROVED	LW
DATE	MARCH 2026	SCALE	1:2000	REF.	PCB136
DRAWING No.	PCB136-HAS-ZZ-ZZ-B-C-0001	STABILITY	REVISION	A3	C01

NB:TREATMENT VOLUME
TREATMENT VOLUME CALCULATED BASED ON FIRST 5mm OF RAINFALL WITHIN CATCHMENT AREA AS PER CIRIA C753 GUIDANCE.

NB:DRAINAGE FEATURES
DRAINAGE FEATURES SHOWN INDICATIVELY, SUBJECT TO CHANGE DURING FURTHER DESIGN PHASES.
FEATURES SIZED WITH A DISCHARGE RATE OF 4 l/s/ha IN ACCORDANCE WITH FIFE COUNCIL GUIDANCE

NB:SITE LEVELS
PROPOSED SITE LEVELS SHOWN INDICATIVELY, SUBJECT TO CHANGE DURING FURTHER DESIGN STAGES.

NB:DRAINAGE NETWORK
PROPOSED DRAINAGE NETWORK SUBJECT TO CHANGE IN LATER TO DESIGN PHASES DUE TO CONFIRMATION OF SITE LAYOUT.
NETWORK LOCATION AND SIZING TO BE CONFIRMED DURING LATER PHASES.



Appendix G: Designers Risk Assessment

Designers Risk Assessment

Date: 31 March 2026
 Our reference: PC8136
 Classification: Project related

Risk (5 = Very High, 4 = High, 3 = Moderate, 2 = Low, 1 = Very Low)	Impact [a]	Likelihood [b]	Total Risk [a*b]	Advice / Mitigation (Mitigation only needed for risks > 9)	Residual Impact [c]	Mitigated Likelihood [d]	Residual Risk [c*d]
Working near water. Working near water is a hazardous activity with the potential for fatal accidents.	5	5	25	Appropriate safety briefings and training for any operatives / site visitors when working near water.	4	2	8
Working in a confined space. A confined space is a place which is substantially enclosed (though not always entirely), and where serious injury can occur from hazardous substances or conditions within the space or nearby, i.e., inspections chambers / culverts.	4	5	20	Confined space entry only to be conducted by confined space qualified personnel.	4	1	4
Working on live drainage infrastructure. Exposure to potential contaminants (syringes, hydrocarbons) or biological agents (fungi, parasites, rodents, leptospirosis) within the drainage infrastructure	3	5	15	All works on live drainage systems must be undertaken by suitably qualified and experienced contractors.	3	1	3
Deep excavations for drainage assets. To provide new drainage infrastructure, inspection chambers and pipe runs may be greater than 2m. Risks include: + Conflict with unknown services + Deep excavation, risk of collapse + Exposure of public too deep excavations + Risk of flooding of excavation	4	2	8	Appropriate temporary works to be designed by competent designer, prior to undertaking any deep excavations.	3	1	3
Working within an area at risk of flooding. Portions of the site are identified as being at risk of flooding for a range of annual exceedance probabilities. Risks include: + Loss of plant or equipment in floodwaters + Loss of containment of hazardous materials if flooded (silos / stockpiles) + Risk to people from flood waters	3	2	6	Use of a Flood Warning and Evacuation Plan during construction.	2	2	4
Disposal of debris / waste within existing drainage system. All debris removed from drainage systems shall be hazardous, due to the risk of contamination with hydrocarbons / metals.	3	4	12	Clearance of material from existing drainage infrastructure to be undertaken by competent contractor, licenced to dispose of hazardous waste.	2	2	4
Lifting Inspection Chamber Covers. Risks associated with Manual Handling Risk of damaged / defective covers	3	4	12	Appropriate training and equipment to be used when lifting covers. If cover is noted to be defective, temporary protection measures to be implemented until an appropriate permanent replacement can be installed. Asset owner to be notified immediately.	2	2	4
Drainage Jetting / CCTV. Potential for the public to be exposed to open chambers Slipping hazard associated with jetting operations. Risk of pressurised water / debris causing injury to operators and the public.	4	4	16	Any CCTV Drainage / Jetting works to be undertaken in an area segregated from the public, and suitable signage and barriers deployed as appropriate.	2	1	2
Swale side slopes. Swale side slopes to be set to 1 in 3, but this needs to be confirmed as acceptable by suitable geo-technical studies	2	2	4	No specific mitigation measures needed	2	2	4
Existing utilities. Risk of encountering live above and or below ground utility services and causing harm to individual(s) and affecting services of existing properties	3	3	9	Appropriate site investigations should be undertaken, including for example the use of CAT scanners, to determine the locations of any below ground utilities or services. Any discrepancies between the mapped locations and the actual locations should be recorded.	2	2	4
Below ground obstructions. Previously developed sites may have buried obstructions (foundations / filled in basements) not in evidence from site walk-over / topographic survey	4	2	8	No specific mitigation measures needed – however if below ground obstructions are noted these should be recorded	2	2	4
Perched Groundwater. Localised perched groundwater could be present within impermeable soil strata.	2	2	4	No specific mitigation measures needed – however if groundwater is encountered advice should be sought from a Geo-technical Engineer	2	2	4

Project Related

Risk (5 = Very High, 4 = High, 3 = Moderate, 2 = Low, 1 = Very Low)	Impact [a]	Likelihood [b]	Total Risk [a*b]	Advice / Mitigation (Mitigation only needed for risks > 9)	Residual Impact [c]	Mitigated Likelihood [d]	Residual Risk [c*d]
Seasonal groundwater variation. Groundwater fluctuation within permeable soil material may result in false negative flood risks if groundwater measurements are taken at during 'dry periods'.	2	2	4	No specific mitigation measures needed – however if groundwater is encountered advice should be sort from a Geo-technical Engineer	2	2	4
Flood defence / main river by-laws. Local by-law distances may require a set-back from the top of bank / back of flood defence to facilitate future maintenance / flood protection measures	3	3	9	Any works within the by-law distance of a Main River or Ordinary Watercourse are likely to need consent before the works start.	2	2	4
Culverted Watercourses. Ordinary watercourses may be located within culverts within the site boundary. Stakeholders may have an ambition to de-culvert and provide naturalised channel, which can cause a constraint on developable area.	4	3	8	Any culverted watercourses on site, as a minimum should be protected, and construction activities within 4m of the outside edge of the culvert should be undertaken with reference to a specific risk management plan	2	2	4
Works to the Public Surface Water Sewer Network.	4	3	9	Any connection to the Public Surface Water Sewer system will need to be consented by the Public Sewer Authority (Discharge Consent)	3	2	6
Management of exceedance surface water flows. During exceedance flood events, natural flood management techniques are at risk of failure due to overtopping (and scour) or earthen embankments / slopes	4	2	8	No specific mitigation measures needed – however, if adverse weather is predicted (including weather warnings from the Met Office) then planned construction activities should be reviewed to minimise the risk to operatives, and third parties	4	2	8
Floodplain compensation. If level for level / volume for volume floodplain compensation is required, this will need to be provided in advance of the activities that necessitate the compensation, to ensure no loss of active floodplain during construction.	4	3	12	Any required floodplain compensation must be completed prior to undertaking the construction of structures / landscaping that require floodplain compensation.	2	2	4
Existing Flood Defences. Existing flood defences will need to be maintained and protected throughout the works.	5	4	20	Any works to existing flood defences will need to be consented by the appropriate Risk Management Agency. All works to flood defences should be closely supervised, and a specific plan in place to deal with potential flooding occurring during works to flood defences	4	1	8
Previously developed areas / fly tipping. Demolition waste / fly-tipping has the potential to contain hazardous materials / waste, especially asbestos.	3	2	6	No specific mitigation measures needed – however if fly tipping is encountered this should be reported and cleared by appropriately licenced contractors.	3	2	6
Ground data accuracy. LiDAR data has known deficiencies especially in areas of dense vegetation or rapidly changing terrain (sub-ground service yards / different age wood plantations / multi-grade separated junctions).	4	3	12	Where ground levels are critical, on-site survey should be undertaken to calibrate flood model outputs, before starting construction.	2	2	4
Ordnance Survey Mapping. Ordnance Survey mapping does not record the 'true' property boundary.	4	2	8	No specific mitigation measures needed, where issues are anticipated consultation with the Land Registry may be required to confirm the property boundaries.	2	2	4
Ground works. Unexploded ordinance	5	1	5	No specific mitigation measures needed – if suspected unexploded ordinance is encountered this should be report to the Police as an Emergency, and their advice should be followed.	4	1	4
Electrified Fences (farming). Electrified fences / wires used in farming may not be adequately signed.	2	1	2	No specific mitigation measures needed – however prior to conducting site inspections, a risk briefing from the site operator must be undertaken.	2	1	2

Appendix 11 - Planning Permission in Principle Checklist

Point	Description	Provided Y (Yes), N (No), N/A
3.0	Flood Risk Assessment.	Y (another consultant)
5.3.1	An outline drainage plan/sketch.	Y
5.3.2	Preliminary calculations for any attenuation volume required.	Y
5.3.3	Confirmation of the SuDS treatment train.	Y
5.3.4	Evidence of engagement with Scottish Water	N/A - Not discharging to a public sewer
5.3.5	Completed SuDS certification as per Appendix 1 and Appendix 2 or Appendix 3 and Appendix 4 (depending of tier of development) . (For a single dwelling, only Appendix 1 is required)	Y

Appendix 3 - SuDS Design Compliance Certificate - Tier 2 Major Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in designing the sustainable drainage system for the below named development in accordance with the current editions of CIRIA C753: The SuDS Manual 2015, Sewers for Scotland and Fife Council's – Design Guidance on Flooding and Surface Water Drainage Requirements.

ePlanning Reference No

Name of Development Cato Data Centre

Name of Developer ILI Cato Ltd

Name and Address of Designers Company

Haskoning UK Ltd, Westpoint, Peterborough Business Park, Lynch Wood, Peterborough PE2 6FZ

.....

.....

Name of Designer Mark Donoghue

Position Held Principal Engineer, Environment, Resilience & Renewables, Haskoning UK Ltd

Engineering Qualifications⁴ MEng CEng MICE

Signed Mark Donoghue

Date 25/03/26

Drawing No's relative to this certificate

.....

PC8136-HAS-ZZ-ZZ-D-C-0001 Cato Data Centre Proposed Drainage Layout

.....

⁴ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.

Appendix 4 - SuDS Independent Check Certificate – Tier 2 Major Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in the below named development with a view to securing that:

1. It has been designed in accordance with the current editions of CIRIA C753: The SuDS Manual 2015, Sewers for Scotland and Fife Council's – Design Criteria Guidance Note on Flooding and Surface Water Management Plan Requirements.
2. It shall be accurately translated into detail drawings and schedules.
3. I hereby confirm that I hold professional indemnity insurance for £5 million pounds and append a copy of the certificate of insurance.

ePlanning Reference No.....

Name of Development Cato Data Centre

Name of Developer ILI Cato Ltd

Name and Address of Checkers Company (this can be someone from the same company but cannot be the same person that signed the related Design Check Certificate).

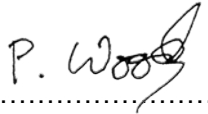
.....
Haskoning UK Ltd

.....
Westpoint, Peterborough Business Park, Peterborough PE2 6FZ, United Kingdom

Name of Checker..... Patrick Woods

Position Held..... Principal Engineer

Engineering Qualifications⁵..... CEng MICE C.WEM BEng

Signed 

Date 25th March 2026

⁵ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.