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18 August 2026

Your Ref: DC/26/0592

Dear Alice Johnson,

Amended Submission - Reserved Matters Application at Lower Broadbridge Farm, Broadbridge Heath

On behalf of our client, Taylor Wimpey UK LTD ("the Applicant"), we are pleased to enclose a revised submission for the reserved matters application (ref. DC/26/0592) for scale, appearance, layout and landscaping at Lower Broadbridge Farm, Broadbridge Heath ("the Site") following the consultation responses received from the Lead Local Flood Authority ("LLFA"); the Council's Landscape Officer; the Council's Housing Officer; and the Council's Senior Conservation Officer.

Resubmission

Following productive engagement with Officers of the Council, a number of amendments have been made to the design and layout of the proposed development. The principal changes and how they respond to the consultation comments received are set out below:

Response to Senior Conservation Officer and Planning Officer

- In response to the Senior Conservation Officer's comments, the perimeter block on the north-eastern corner of the Site has been amended to revise the house orientation and types to introduce housing that actively fronts onto the existing farm track access road to the east. The secondary street has been recategorised as a shared surface to reduce hardstanding, coupled with more focused planting to create a softer environment.
- The House Types along the main routes through the Site have been amended following the Planning Officer and Senior Conservation Officer's comments to provide architectural merit and articulation to buildings. These changes have included amendments to the materials (the north-eastern corner has introduced a more rural appearance and merges the character with the north and western side boundaries; and some dwellings now have full height boarding rather than half height), and introduction of a large number of hipped roofs and chimneys to break ridge lines.
- The sub-station has been relocated to allow less obstructed views and removal of a more functional building within the area of open space to the northern part of the Site.

Heritage Response

- The heritage consultants, Tetra Tech, has reviewed the proposed amendment in relation to the impact on the heritage assets and consider the relocation of the substation results in an improvement to the setting of the listed

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buildings located north of the access way, compared to the original RMA submission, through the removal of the built structure and replacement with additional landscaping.

- House plots are reorientated to present more active frontages to the access road, which is currently more readily affected by use for commercial haulage vehicles approaching and leaving the commercial site previously associated with the Grade II farmhouse. A grass verge and additional landscaping between the Site and the accessway boundary helps to mitigate any adverse effects on setting arising from this commercial usage, and to separate the new development from the old.
- In addition, a variety of roof forms, materials and details presented at different angles and distances to the Site boundary creates architectural interest without aping traditional built forms. In their opinion the revised masterplan design and choice of material palette does not result in additional adverse effects on heritage values above and beyond those already identified and approved in relation to the outline application.

Response to Landscape Officer

- Full details of how this submission has responded to the comments made by the Landscape Officer can be found appended to this covering letter. A summary of the key changes are however set out below.
- Additional landscaping and planting has been incorporated around the houses in the north-eastern part of the Site and within the public open space, responding to comments from the Senior Heritage and Landscape Officers.
- The two principal attenuation basins have been redesigned with more sympathetic and varied bank gradients to provide a more naturalistic appearance. Planting around the attenuation features has also been enhanced to provide a wider mosaic of habitat types and soften their appearance within the wider landscape.
- The layout has been further reviewed to safeguard and appropriately integrate the Site's high-value and principal trees, reducing instances of Root Protection Area encroachment and improving stand-offs between proposed development and retained trees. In particular, the northern attenuation basin has been pulled away from the Site boundary to remove impacts on the Root Protection Areas of retained trees. The Council's Arboricultural Officer has confirmed that there are no significant arboricultural concerns with the proposals.
- Significant additional tree planting has been introduced within the northern open space and along the eastern boundaries to strengthen the landscape structure of the development. Tree species have been diversified and amendments made to hedge planting, planting mixes, bulb planting and the wider planting specification.
- The allocation and design of open space typologies have been reviewed, with an amended typologies plan demonstrating policy-compliant provision across the Site. The open spaces have also been enhanced to better reflect the Parks and Gardens typology identified within the OSSR. Improvements to the LEAP include an inclusive play item, seating and associated detailed design amendments.
- Following an updated assessment of the acoustic requirements of the development, the extent of acoustic fencing has been reduced. Where fencing remains necessary, planting has been introduced at its base to soften its appearance and reduce its visual impact.

Response to Housing Officer

- A revised housing mix, including the replacement of one bed flats with two bed flats, and increasing the number of family sized affordable homes, following correspondence with the Council's Housing Officer and advice from the Registered Provider.

Response to Lead Local Flood Authority

- The revised submission is accompanied by an updated Drainage Strategy Report and a Technical Note responding specifically to the comments raised by the LLFA. The drainage proposals have been amended as part of the revised scheme, including the enlargement of the drainage basins and reduction in their side gradients.

Highways

- A Highways Technical Note also accompanies the revised submission and addresses the relevant amendments to the scheme and consultation responses.

Response to Environmental Health Officer

- The Applicant has provided a separate formal response (24th June 2026) to comments received from the Environmental Health Officer. As set out in this correspondence, the Council is politely encouraged to acknowledge that for the Outline scheme, levels within 1-2dB of BS8233 guideline values (i.e. up to 57dB) were accepted through the Statement of Common Ground at Appeal. Our modelling for the Reserved Matters scheme as submitted, demonstrates that only a small number of gardens are now subject to noise levels of 57dB, with the numbers being considerably lower than the Outline, demonstrating a marked improvement. The layout was amended significantly through the pre-application stage to minimise exposed gardens through building orientation, enhanced boundary treatments, and positioning of acoustic barriers on the Site. This needs to be balanced with good placemaking principles.

The following documentation/drawings are submitted in response to the statutory consultee comments:

Site Layout Plans

- Location Plan (7564 PL-01 Rev B) – Unamended
- Block Plan (7564 PL-02 Rev E)
- Site Layout (7564 PL-03 Rev M)
- Detailed Layout Sheet 1 (7564 PL-04 Rev I)
- Detailed Layout Sheet 2 (7564 PL-05 Rev K)
- Tenure Plan (7564 PL-06 Rev F)
- Storey Heights Plan (7564 PL-07 Rev E)
- Dwelling Size Plan (7564 PL-08 Rev E)
- Parking Plan (7564 PL-09 Rev F)
- Materials Plan (7564 PL-10 Rev G)
- Accessibility Plan (7564 PL-11 Rev G)
- Affordable Housing Plan (7564 L-01 Rev G)

Accommodation Schedule

- Accommodation Schedule (7564-D10)

Street Scenes

- Proposed Street Scenes – Sheet 1 (7564-PL-70 Rev B)
- Proposed Street Scenes – Sheet 2 (7564-PL-71 Rev D)
- Proposed Street Scenes – Sheet 3 (7564-PL-72 Rev E)
- Proposed Street Scenes – Sheet 4 (7564-PL-73 Rev D)

- Proposed Street Scenes – Sheet 5 (7564-PL-74 Rev E)

House Types

- Proposed Plan and Elevations – EMAW22 – EMAW22 (7564 PL-20 Rev B)
- Proposed Plan and Elevations – EMAP22 – EMAP22 (7564 PL-21 Rev C)
- Proposed Plan and Elevations – EMAP32 – EMAP32 (7564 PL-23 Rev B)
- Proposed Plan and Elevations – EMAP41 – EMAP41 (7564 PL-24 Rev B)
- Proposed Plan and Elevations – EMAP41 – EMAP32 (7564 PL-25 Rev A)
- Proposed Plan and Elevations – EMAP22 – EMTP31 (7564 PL-27 Rev C)
- Proposed Plan and Elevations – EMAP31 – EMTP31 (7564 PL-28 Rev B)
- Proposed Plan and Elevations – EMT31 (7564 PL-29 Rev C)
- Proposed Plan and Elevations – EMT31-BESPOKE2B (7564 PL-30 Rev D)
- Proposed Plan and Elevations – EMB32 – EMB32 (7564 PL-31 Rev D)
- Proposed Plan and Elevations – EMT32 (7564 PL-32 Rev B)
- Proposed Plan and Elevations – EMT33 (7564 PL-33 Rev D)
- Proposed Plan and Elevations – EMT33 – EMB32 (7564 PL-34 Rev C)
- Proposed Plan and Elevations – BESPOKE2B- BESPOKE2B Sheet 1 (7564 PL-35 Rev E)
- Proposed Plan and Elevations – BESPOKE2B – EMA34 (7564 PL-36 Rev D)
- Proposed Plan and Elevations – EMT41 Sheet 1 (7564 PL-37 Rev C)
- Proposed Plan and Elevations – BESPOKE3B (7564 PL-38 Rev C)
- Proposed Plan and Elevations – BESPOKE3B – BESPOKE3B (7564 PL-39 Rev C)
- Proposed Plan and Elevations – EMA44 (7564 PL-40 Rev C)
- Proposed Plan and Elevations – EMT45 (7564 PL-41 Rev B)
- Proposed Plan and Elevations – EMA46 Sheet 1 (7564 PL-42 Rev B)
- Proposed Plan and Elevations – EMA46 Sheet 2 (7564 PL-43 Rev C)
- Proposed Plan and Elevations – EMA48 Sheet 1 (7564 PL-44 Rev C)
- Proposed Plan and Elevations – EMA48 Sheet 2 (7564 PL-45 Rev C)
- Proposed Plan and Elevations – EMTP31 and EMAP41 (7564 PL-47 Rev A)
- Proposed Plan and Elevations – EMA34 (7564 PL-48 Rev A)
- Proposed Plan and Elevations – EMT21 (7564 PL-49 Rev A)
- Proposed Plan and Elevations – BESPOKE2B-BESPOKE2B Sheet 2 (7564 PL-50 Rev A)
- Proposed Plan and Elevations – EMT41 Sheet 2 (7564 PL-51)
- Proposed Plan and Elevations – EMA48 Sheet 3 (7564 PL-52)
- Proposed Plan and Elevations – EMT42 (7564 PL-53)
- Proposed Plans – Flat Blocks Sheet 1 (7564 PL-60 Rev F)
- Proposed Elevations – Flat Blocks Sheet 1 (7564 PL-61 Rev E)
- Proposed Plans – Flat Blocks Sheet 2 (7564 PL-62 Rev D)
- Proposed Elevations – Flat Blocks Sheet 2 (7564 PL-63 Rev C)

Please note that the drawings 'Proposed Plan and Elevations – EMA46 Sheet 1 (7564 PL-42 Rev B)', 'Proposed Plans and Elevations - EMAP22-EMAP32 (7564 PL-22)' and 'Proposed Plans and Elevations - EMAP41-EMAP22 (7564 PL-26)' have been removed and is not replaced.

Ancillary Buildings

- Proposed Plan and Elevations – Garages, Cycle Stores and Substation (7564 PL-46 Rev B)

Landscaping

- Response to Landscape Officers Comment Dated 11 June 2026 (**Appendix 1**)

- Hard Landscape Proposals Sheet 1 of 5 (CSA/7945/100 Rev A)
- Hard Landscape Proposals Sheet 2 of 5 (CSA/7945/101 Rev A)
- Hard Landscape Proposals Sheet 3 of 5 (CSA/7945/102 Rev A)
- Hard Landscape Proposals Sheet 4 of 5 (CSA/7945/103 Rev A)
- Hard Landscape Proposals Sheet 5 of 5 (CSA/7945/102 Rev A)
- Soft Landscape Proposals Sheet 1 of 6 (CSA/7945/105 Rev A)
- Soft Landscape Proposals Sheet 2 of 6 (CSA/7945/106 Rev A)
- Soft Landscape Proposals Sheet 3 of 6 (CSA/7945/107 Rev A)
- Soft Landscape Proposals Sheet 4 of 6 (CSA/7945/108 Rev A)
- Soft Landscape Proposals Sheet 5 of 6 (CSA/7945/109 Rev A)
- Soft Landscape Proposals (CSA/7945/110 Rev A)
- LEAP Proposals (CSA/7945/111 Rev A)
- Landscape Masterplan (CSA/7945/112 Rev A)
- Open Space Typologies Plan (CSA/7945/113 Rev E)

Drainage

- Response to LLFA Comment dated 27 May 2026 (**Appendix 2**)
- Drainage Strategy Report by Perega (W24149-PER-XX-XX-RP-C-00001 Rev P5; dated 17/08/2026)

Transport

- Highways Technical Note by Perega (W24149-PER-XX-XX-RP-C-00002 Rev P4; dated 17/08/2026)

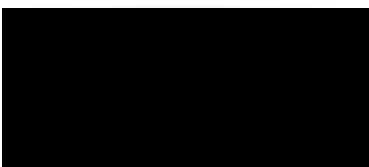
Unilateral Undertaking Obligations

Separate Covering Letters and submissions are made in respect of the discharge of obligation applications:

- S106/26/022 - Application to discharge the obligation under Schedule 3, Clause 1 [submission of the Open Space Plan] of the legal agreement under the application DC/22/1052 (application as amended by DC/25/1886)
- S106/26/0023 - Application to discharge the obligation under Schedule 2, Clause 3 [submission of the Affordable Housing Scheme] of the legal agreement under the application DC/22/1052 (application as amended by DC/25/1886)

I trust that the amended submission addresses the concerns raised and that you have sufficient information to progress the application positively without delay. If you have any questions on any of the information, please do not hesitate to contact me.

Yours sincerely



Matt Harris

Associate

M: [Redacted]
E: [Redacted]

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Appendix 1 – Full Response to Landscape Officers Comments Dated 11 June 2026

Landscape Officer Comment Point No.	Comment	Response
1-4	<i>1. In order to mitigate adverse effects on landscape character and visual amenity, and to comply with HDPF Policies 25, 26, 31 and 33, existing vegetation must be protected, conserved and enhanced.</i> <i>2. In order to safeguard the existing green infrastructure bounding and within the site, proposals must:</i> <i>a. Demonstrate compliance with BS 5837:2012 and as such, development within root protection areas (RPAs) should only be observed where unavoidable.</i> <i>b. Avoid existing trees and vegetation backing onto garden plots or being enclosed within residential curtilage whenever possible, to secure their long-term retention and sympathetic relationship with future occupants of the site.</i> <i>3. Where the areas of the site are undeveloped, we consider the layout can be adjusted to fully avoid RPAs, including SuDS features, noting that trees are highly susceptible to rapid decline due to sudden changes in their rooting medium, such as changes to hydrology, increased water levels or mounding.</i> <i>4. Proposals set within undulating or sloping topography must be considered sensitively and must naturally assimilate within the receiving landscape without significant cut and fill.</i> <i>Dramatic changes in topography will be resisted as they may give rise to adverse</i>	The layout of the scheme has progressed to ensure that proposed tree removal and retention is put forward as per the principles established under the outline planning permission. The site's high value and principal trees will therefore be retained and integrated within the detailed layout, without risk of harm or deterioration. It is noted that the Council's Arboricultural Officer is satisfied with the approach adopted within the detailed layout as submitted and has 'no significant arboricultural concerns'. The Council's Arboricultural Officer also notes the relationship with retained trees in the south-western corner of the site and acknowledges where improvements have been made in response to pre-application advice, which reduce the likelihood of trees receiving post-occupation pressure for unsympathetic works. Whilst tree protection measures have also been accepted in principle, the scheme has been reviewed to reduce instances of RPA encroachment as highlighted by the landscape officer. Those minor residual encroachments that remain are entirely within acceptable and manageable limits, as per BS5837:2012 design recommendations and tree protection guidance. Addressing Point 4, detailed design will set intended levels of the site, but it is not intended for any significant shifts in topography across the site. A suitably worded RM condition could be applied to the application requesting the submission of a final levels scheme once the full detailed design is complete.

	<i>effects on landscape character and visual amenity.</i>	
5-6	5. <i>It is noted that the HDC Arboriculturalist has raised no arboricultural concerns in regard to the existing mature treelines that bound the site, however, concern is raised on landscape grounds. These treelines are a key feature of the receiving landscape and positively contribute to its rural qualities. Their loss or deterioration would have an eroding effect on the local landscape character, thus the principles set under points 2 and 3 must be adhered to.</i> 6. <i>As per point 2b in particular, the boundaries of plots 16-21 must be altered to include a maintenance strip between the private gardens and the existing treeline. In addition, avoiding RPAs in private gardens is preferred and recommended where possible.</i>	Important boundary trees are to be retained and safely integrated within sustainable relationships; there will subsequently be no loss or deterioration. The principle of rear gardens backing onto the south-western boundary is established under the outline planning permission, albeit notable improvements have been made at the RMA stage to ensure that plots are set further away from retained trees. It is also noted that the HDC Arboriculturist has raised no concerns with the proposed relationship. Rear gardens have also been configured to ensure there will be a degree of choice between receiving sunlight or oversailing canopy and tree shade. The provision of choice is therefore proof of a reasonable relationship; wherein future occupants will be unlikely to pursue unsympathetic or unreasonable tree works. The trees and hedgerow are also shown outside of private ownership and will be maintained from the open aspect to the west and with direct access taken from the open space to south adjacent Plot 12.
7	<i>Adjustment of the northern attenuation basin further east is requested in order to avoid encroachment of T187 and to limit removal of G16, which is noted to provide partial screening. Altering the location would also provide opportunity to strengthen boundary planting. Please amend.</i>	The main northern attenuation basin has been fully redesigned and pulled away from the boundary to improve the relationship with retained trees and remove impacts on the RPA.
8	<i>A levels plan, preferably detailing existing and proposed contours in combination with the locations of root protection areas, is required at this stage in order to ensure the development naturally assimilates</i>	A suitably worded RM condition could be applied to the application requesting the submission of a final levels scheme once the full detailed design is complete. This could then be assessed by the LPA in tandem with the submission of details under Condition 10

	<i>within the receiving landscape, as per point 4.</i>	of the appeal, which requires a detailed Arboricultural Method Statement (AMS).
9	<i>The 3no. attenuation basins and surrounds are of key concern. As per the OSSR, these must not look like steep sided engineered structures, must blend aesthetically into surrounding contours, and must not have gradients exceeding 1:3. Further, safety fencing is not desirable in these locations, so changes to levels must be gentle. More detailed information is thus required, as above, and cross sections are recommended.</i>	The two largest drainage basins on site have been re-designed by the appointed engineers, in partnership with the appointed landscape architects, to introduce more sympathetic and varied bank gradients, providing an enhanced natural aesthetic appearance. The western-most basin is tightly constrained and so no changes are proposed to this basin. No gradients exceed 1:3.
10	<i>To a lesser degree, while no concern is raised regarding the road layout, the level of vegetation loss and tree removal is likely to be greater than indicated on account of earthworks related to the access road. Given the level of fragmentation already indicated, any further loss must be detailed more accurately in plan in order to provide appropriate mitigation measures.</i>	No further vegetation clearance is expected to be necessary to accommodate the access road. Final details will be confirmed and controlled through Condition 10 of the appeal (and/or the proposed condition outlined above re: levels).
11	<i>A plan demonstrating coordination of the landscape strategy with underground services and existing easement zones is required at this stage to ensure that it can be delivered and that it is not diluted later on in the process.</i>	At this stage of the design process, as applicants we do not currently have all the buried services and utilities information required to produce such a plan. This will be finalised at detailed design stage (construction drawings) in partnership with the statutory authorities following a successful planning consent. However, a further check of tree positions against the proposed drainage scheme has been undertaken to remove clashes. A suitably worded RM condition could be applied to the application requesting the submission of a final service coordination plan to demonstrate not clashes with proposed planting. We understand that this approach has been successfully undertaken on previous schemes in Horsham.

12	<i>Discrepancies are noted between the Landscape Proposals, Drainage Strategy (DS) and the Tree Protection Plan (TPP), therefore these must be updated to demonstrate consistency, as above.</i>	The re-submission pack has been reviewed to ensure consistency across submitted drawings.
13	<i>Multiple areas are noted where trees are proposed in proximity to underground services. The inclusion of tree root barriers is noted and welcomed within the Planting Specification, however in order to ensure that proposed trees have a sufficient volume of rooting medium in order to successfully establish and survive, the following is requested:</i> <i>a. The adjustment of service runs to use a single trench.</i> <i>b. Trees within and adjacent to hard landscape to be inclusive of root cells. Details to be included within the Planting Specification and Tree Pit Details.</i> <i>c. Relocation of the 6no. trees along the southwestern boundary within the existing sewer easement zone.</i>	a. As per Point 11 above. b. Details of root cells have been included in the planting specification. A suitably worded RM condition could be applied to the application requesting final tree pit details. c. Trees have been omitted to reflect the constraints imposed by the sewer easement.
14	<i>The Landscape Strategy has been significantly diluted, therefore major modification is required in order to deliver closer to previously submitted under DC/22/1052. Of key concern is the large reduction of proposed trees; there are currently only 173 proposed compared to 322 within the Landscape Strategy under DC/22/1052. This is most acute in open spaces, for example, the open space to the north only has 37 proposed trees compared to 100 previously indicated. Please amend.</i>	It is noted that the Landscape Strategy submitted with the outline application was not an approved document and there is no condition requiring compliance with the document. However, we accept that the strategy provides useful principles that have influenced the development of the submitted proposals. The re-submitted landscape proposals have carefully reviewed the aspirations of the original strategy and significant additional tree planting has been added to the northern open space and eastern boundaries to address the concerns raised and greatly increase the number of tree proposed on site.

15	<i>Species proposed also significantly deviate from those indicated under DC/22/1052. The previously submitted Landscape Strategy palettes had a much wider range of species selected for both biodiversity and amenity benefit. While slight changes are acceptable, the current degree of change is not supported, thus the schedule must be amended to reflect previously submitted species. We highlight the following in particular:</i> <i>a. Trees</i> <i>i. The previous palette included 14 different species of open space and native boundary trees and 12 further species of internal ornamental and street trees, amounting to 26 species overall. However, current proposals include a total of only 11 species (cultivars notwithstanding), some of which are newly proposed. Further diversity is required in combination with differentiation between internal/street trees and open space/boundary trees; please amend closer to previously submitted.</i> <i>b. Hedgerow</i> <i>i. Previously proposed mixed native hedgerow is absent from the scheme, both in plan and in the schedule. Please amend.</i> <i>ii. Internal hedgerows were to comprise Hornbeam (Carpinus betulus), Ligustrum ovalifolium (Privet), Osmanthus x burkwoodii, Skimma spp, Prunus spp and Escallonia spp. However, current proposals indicate solely Eleagnus x Ebbingei, Griselinia littoralis and Carpinus betulus. Please amend.</i>	a. Tree species have been reviewed across the site to provide greater diversity. b. Hedge planting has been reviewed and amended accordingly.
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16	<i>Acoustic fencing is absent from the southwestern parcel. Please clarify and amend accordingly.</i>	Refer to the submitted acoustic report. An updated assessment of the acoustic requirements for the site has brought about some reductions in the extent of acoustic fence required.
17	<i>Acoustic fencing was proposed as being 'encompassed' by native hedgerow planting, however this is now absent from proposals. Please reinstate.</i>	Planting to the base of the acoustic fence has been re-designed, with new planting introduced to reduce visual impact.
18	<i>The inspector noted under 168 of the Appeal Decision that the creation of a new wetland feature was to be delivered with measures to control and prevent the distribution of pollutants and contaminants to existing watercourses. This is absent from both the Landscape and Drainage strategies. Please amend and clarify.</i>	The appointed drainage engineers have reassessed the scheme for the need to provide a permeant wetland to deliver pollution control and concluded that this is not required. Please refer to separate drainage reports.
19	<i>The Landscape Strategy under DC/22/1052 incorporated shrub planting and marginal planting within attenuation basins, detailing wetland meadow in combination with marginal species as well as Dogwood (<i>Cornus sanguinea</i>), coppiced Willow (<i>Salix spp</i>), Alder (<i>Alnus glutinosa</i>), Downy Birch (<i>Betula pubescens</i>). Current proposals solely indicate meadow mixture, which is not supported. Please amend, noting that some marginal species proposed under DC/22/1052 require permanent levels of water, therefore this must also be detailed in proposals.</i>	The re-submitted scheme includes improvements to the levels of planting to the attenuation basins, providing a wider mosaic of habitat types, softening the appearance of the drainage features.
20-21	<i>20. The Landscape Strategy under DC/22/1052 incorporated extensive structural native planting to reinforce the boundaries, provide a green setting to the development and add to the localised green infrastructure. This is absent from current proposals; see example below of only 6no. trees being proposed along the northeastern boundary. Please amend.</i>	Refer to Point 14 above.

	<i>21. Similar to the above, the Landscape Strategy under DC/22/1052 proposed native tree, hedge and shrub planting along the eastern boundary to to maintain the green character of the road corridor and soften views of built form. This now appears to be almost entirely absent, in combination with the absent acoustic fencing hedgerow (point 17). Please amend.</i>	
22	<i>The fragmented treeline to the southwest previously indicated tree planting either side, extending and enhancing it as a landscape feature. While cognisant that this area is now proposed as amenity space, there remains scope for tree planting to the northeast of the treeline. Please amend.</i>	While we are unable to provide tree planting to the north of the treeline, due to required offsets from lighting columns, we have added some limited tree planting to the south of this area, whilst being cognisant of the need for the area to be amenity space.
23	<i>'A', 'B' and 'C' labels are noted within plans, however they are not included within the legend. These are assumed to be lighting bollards, however it is unclear. Please label accordingly to ensure no conflict with landscape proposals.</i>	These labels are lighting columns, as per the engineer's details, these have been added into the key for clarity.
24	<i>There is disproportionate use of Lonicera nitida and Lonicera pileata within the proposals, both of which provide minimal benefit yet comprise 20% of Shrub Mix 1 and 40% of Shrub Mix 2. Please remove Lonicera pileata and reduce quantities of Lonicera nitida, allowing for higher floristic diversity and more ornamental interest, in line with the previously submitted palette.</i>	Amendments have been made to the planting mixes.
25	<i>Bulb planting is noted within plans, however no bulbs are listed within the schedule. Please amend.</i>	Bulb planting has been reviewed and updated.
26	<i>As per 212 of the Appeal Decision, details of management of the open space and the</i>	Details of management of the landscape within the public open space is provided within the submitted Landscape Management Plan. While the Open Space Plan pursuant to

	<i>management company are required at this stage.</i>	Schedule 3, Clause 1 of the UU has been submitted to the Council and is under consideration through reference S106/26/0022. The definition of “Open Space Plan” within the UU does not require submission of details of the Management Company and no details of a Management Company are available at this stage. A full tender process and appointment of a management company will follow on from Reserved Matters consent, once detailed construction drawings are finalised and all management costs are then known.
27	<i>In addition, the Inspector made reference to evergreen varieties of trees to be determined during reserved matters, however none are proposed within the schedule. Please incorporate and amend.</i>	Amendments have been made to the planting proposals.
28	<i>215 and 217 of the Appeal Decision makes reference to proposed planted bunds. These appear to be absent from proposals, however a levels plan has not yet been submitted (see point 8). Please amend and/or clarify.</i>	Bunds have been excluded from the design of the acoustic fence, as they are not considered to be necessary to mitigate noise impacts on the dwellings on the site. Refer to Point 17.
29	<i>As per 206 of the Appeal Decision, details of the acoustic fence, including its appearance and location are necessary in the interests of the appearance of the proposed development and to ensure an acceptable level of amenity for future residents. Please provide details.</i>	The Inspector in considering Condition 13 and found it reasonable for the details of the acoustic fence to be provided prior to the commencement of condition and not necessary at the reserved matters stage. The acoustic fencing is being considered by the by the engineers and will be provided at a suitable time although heights of the acoustic barriers have been demonstrated and modelled at 3m. A suitably worded condition can be applied to the RM decision to control the final specification of the acoustic fence.
30	<i>Please amend boundary treatments to Plots 1 & 11 as brick wall as they abut amenity space.</i>	These boundary walls have been updated to suit.

31	<i>The private garden area boundaries of plots 16-21 must be clearly detailed in plan, however these need relocating in any case, as per point 6. Please amend.</i>	The boundaries to Plots 16-21 have been more clearly identified on the re-submitted plans.
32	<i>The following hatches and labels are unknown; please clarify and add details to proposals:</i> <i>a. What treatment is 'recreational footpath/cycleway'? Please note that Breedon self-binding gravel, CEDEC gravel, or similar is preferred in this location.</i> <i>b. What is garden separation fencing?</i> <i>c. What is the beige/stone hatch around the substation?</i>	a. More detailed recreational footpath specification provided. b. Confirmation is provided on the re-submitted plans. This is to be larch-lap panel fencing.. c. This area is now shown as a grass margin.
33-34	<i>33. While the generous provision of Natural and Semi-Natural (NSN) space is noted, it is regrettable that the provision of open space has reduced in size since that submitted at outline stage. Constraints are noted, however given this reduction in quantity in combination with the non-usable areas allocated to attenuation basins, improvements must be made to proposals in order to deliver a high-quality scheme that aligns with the requirements of the OSSR and complies with HDPF policies 32 and 43.</i> <i>We therefore request that the allocations better reflect the descriptions of typologies as set out within the OSSR. For example, the description of the Parks and Gardens typology is as follows:</i> <i>Covers urban parks and formal gardens (including designed landscapes), which provide accessible high-quality opportunities for informal recreation and community events.</i>	The allocations of open space typologies have again been reviewed on the re-submission pack and an amended typologies plan submitted with the application. The revised plan demonstrates how a policy compliant level of provision for all typologies has been made on the application site. The actual design of the open spaces has been re-designed to reflect the enhancements required to reflect the Parks and Gardens typology from the OSSR.

	<i>The areas highlighted are not considered to reflect this description, but rather a combination of Amenity Greenspace and NSN space. Please see section 8.2.2c of the OSSR and amend. We recommend the provision of ornamental planting with high horticultural and seasonal interest, generous provision of seating and public art.</i> <i>34. Further, while not of key concern, the Amenity Greenspace to the southwest of the scheme (light green, above right) should be redrawn to exclude NSN space (the existing mature treeline) for its quantity calculations.</i>	
35	<i>As per the OSSR, the following is required in regard to the LEAP:</i> <i>a. Dog fouling bin in addition to bin proposed. Note that these should continue to be located outside the play area.</i> <i>b. Proposals meet the minimum of five play opportunities, however an additional opportunity is requested to be provided that is inclusive and accessible for children with disabilities.</i> <i>c. Creatively designed and suitably located seating should be provided for children in order to encourage social play.</i>	<i>a. A combined litter and dog waste bin has been added.</i> <i>b. The play area scheme has been revised and now includes an inclusive play item (a basket swing) in the scheme.</i> <i>c. Seating is provided within the play space.</i>
36	<i>There appears to be a boundary treatment to the outside of the hedge bounding the LEAP – please can clarification be provided on what’s being proposed here?</i>	<i>The LEAP boundary treatment is a bow-top railing, and the specification can be found on the LEAP drawing.</i>
37	<i>Please amend trees lining the access road from the roundabout to reflect semi-mature.</i>	<i>As applicants we believe extra-heavy standard trees within verges are more than sufficient in scale within this scheme and see no reason to increase these in size. Larger stock carries the increased risk of failure and given changing climatic conditions, a focus on</i>

		smaller stock should be considered to minimise losses.
38	<i>Areas labelled 'Ornamental Shrub/Herbaceous/Grass Planting' solely comprise of shrubs, of which a high proportion are not deemed to be of high amenity or biodiversity benefit (see point 24). Please introduce herbaceous and grass planting in combination with flowering shrubs, particularly in areas within open space (such as the southwestern parcel), for amenity and biodiversity benefit.</i>	Amendments have been made to the planting proposals.
39	<i>Timber equipment is preferred to have steel footings to prolong longevity and avoid rotting. Please amend.</i>	Equipment is specified with steel footings; a note has been added to the LEAP drawing to confirm this.
40	<i>Play area signage is noted within LEAP proposals. Detailed design can be secured via condition, however can be provided at this stage if preferable.</i>	We are unable to provide a confirmed signage design at this stage as details of a management company are not yet know. Note: Signage is a requirement of the Open Space Plan. A suitably worded condition can be applied to the RM consent to control the final signage details.
41	<i>Interlocking rubber tiles are not recommended as they are prone to failure. Please amend safety matting to an alternative, compliant, impact absorbing surface, such as rubber mulch. Certified wood or bark chippings are also welcomed, subject to appropriate management measures; see point 26.</i>	The safety surface has been changed to bound rubber mulch.
42	<i>Please detail garden fence cut-outs within proposals, as per 159 of the Appeal Decision. The inclusion of habitat piles and bird and bat boxes is also recommended for completeness.</i>	This is a requirement for Condition 16 (C17 in the Appeal Decision) as part of the Biodiversity Enhancement Strategy for Protected and Priority Species, and a plan will be produced by the ecologists appointed on this project for submission prior to works above ground slab-level.

43-47	43. <i>We strongly recommend that chemical fertilisers, pesticides and herbicides including glyphosate are not to be applied at any time due to impacts on existing and proposed ecological features, particularly wildflower meadows. Alternative methods for weeding should be considered, except for Schedule 9 species; please refer to pan-uk.org for guidance and resources. The Planting Specification should be amended accordingly to remove mention of herbicides and reflect alternative methods or hand weeding alone by careful digging or selective scything.</i> 44. <i>As above, alternative methods are requested for establishing meadow planting. Please review.</i> 45. <i>Please amend tree planting notes in the Planting Specification to reflect:</i> <i>a. Tree pit size to be no deeper than the root system and at least one and a half times as wide.</i> <i>b. Base of tree pit should be left undisturbed unless significant drainage problems are apparent. As such, please remove geotextile wrapped drainage layer as it is considered unnecessary and introduces avoidable synthetic materials into the planting environment.</i> 46. <i>As above, please remove the geotextile weed suppressant membrane from the Ornamental Planting sections of the Planting Specification due to its limited effectiveness and the environmental concern associated with plastic degradation and microplastics pollution. The use of bark mulch, as also proposed, is sufficient.</i> 47. <i>Please add note to remove stakes and guards upon successful establishment or</i>	The planting specification has been reviewed in light of the comments.
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	<i>after 4 years of planting, whichever is sooner.</i>	
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Appendix 2 – Full Response to LLFA Comments Dated 27 May 2026

Natalie Biddulph
Flood Risk Management Team
Ground Floor
Northleigh
County Hall
Chichester
West Sussex
PO19 1RH

Quarry Court, Lime Quarry Mews,
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W24149-PER-XX-XX-LT-C-00001 P04
W24149

18 August 2026

perega.co.uk

Dear Natalie

Re: Response to LLFA Objection – DC/26/0592 – Land at Lower Broadbridge Farm, Billingshurst Road, Broadbridge Heath, Horsham, West Sussex, RH12 3LR

Thank you for your letter dated 27/05/2026 which details your objections to the proposed surface water drainage strategy for the development site. Please see below the table detailing your objections and our responses to those objections.

Please also find attached the updated drawings and calculations which have been update to accommodate your comments.

List of drawings and Calculations included with this letter:

- W24149-PER-XX-XX-DR-C-02021_P7 - Drainage Strategy 1 of 2
- W24149-PER-XX-XX-DR-C-02022_P7 - Drainage Strategy 2 of 2
- W24149-PER-XX-XX-SK-C-00019_P2 - Exceedance Plan
- W24149-PER-XX-XX-SK-C-00024_P2 - Drainage / Gas Main Sections
- W24149-PER-XX-XX-SK-C-00027_P2 - Pond & Ditch Easement
- W24149-PER-XX-XX-CA-C-02901_P4 - Basin 1 SW @ 7.0 ls
- W24149-PER-XX-XX-CA-C-02902_P4 - Basin 2 SE @ 3.1 ls
- W24149-PER-XX-XX-CA-C-02903_P4 - Basin 3 N @ 2.4 ls
- W24149-PER-XX-XX-CA-C-02904_P4 - Perm Paving @ 3.5 ls

Structural Engineering
Civil Engineering
Glass & Façade Engineering
Building Surveying
BIM & Information Management
Embodied Carbon Analysis
Expert Witness

Registered office:
Quarry Court, Lime Quarry Mews,
Guildford, Surrey GU1 2RD

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No. 06376815

VAT Registration No. 211 8019 07

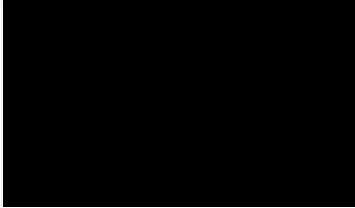


Table 1 - LLFA Objection Summary Table

Item	LLFA Objection	Perega Response	Status
1	Evidence of the Applicant's conformity with Standard 1, Priority 1 of the National Standards for SuDS (collection for non-potable use), as West Sussex is classified as a water stressed area.	The Outline scheme was consented prior to the publication of the National SUDS standards, which the FRA is pursuant to. The scheme has been developed without the inclusion of water butts or rain water harvesting.	
2	Please could we be provided with an updated drainage strategy layout, inclusive of the following. There appear to be a headwall to basin (S528) seemingly not in the bank, and the discharge headwall for this basin may be outside the redline boundary:	Please see included updated drawings. Drawings "W24149-PER-XX-XX-DR-C-02021 P7" and "W24149-PER-XX-XX-DR-C-02022 P7". Headwall locations have been amended to accommodate the watercourse layout and the updated basin layouts.	
2a	A 3m easement buffer illustrated for each watercourse bank top and attenuation basin bank top.	Please see included updated sketch "W24149-PER-XX-XX-SK-C-00027_P2 - Pond & Ditch Easement". Headwall locations have been amended to accommodate the watercourse layout and the updated basin layouts.	
2b	Hard bed levels for all watercourses on site	Please see included updated drawings. Drawings "W24149-PER-XX-XX-DR-C-02021 P7" and "W24149-PER-XX-XX-DR-C-02022 P7". Headwall locations have been amended to accommodate the watercourse layout and the updated basin layouts.	
2c	Confirmed headwall locations with invert levels and labelling confirming right to utilise the bank if outside the redline boundary	Please see included updated drawings. Drawings "W24149-PER-XX-XX-DR-C-02021 P7" and "W24149-PER-XX-XX-DR-C-02022 P7". Headwall locations have been amended to accommodate the watercourse layout and the updated basin layouts. " The land transfer agreement between Taylor Wimpey and the previous landowner includes provision of a drainage corridor, meaning part of the previous landowner's retained land measuring 75 meters by 5 meters, as shown edged green on the attached plan. This drainage corridor accommodates the right to discharge into the ditch. Our proposed outfall is within this drainage corridor. " See attached "Plan" showing the Drainage Corridor.	
2d	Any structures, including any culverting required for access purposes, subject to Ordinary Watercourse Consent to be labelled if applicable (see below advisory note).	We have engaged the council and had a kick-off meeting to discuss the requirements for the OWC applications. These discussions will continue once RM planning is granted.	Ongoing
2e	An exceedance route plan (this can be a separate document if required)	Please see attached drawing "W24149-PER-XX-XX-SK-C-00019 P2" for information	
2f	We also note there will be amendments to the existing watercourse, please ensure the plan includes the updated course as proposed:	There are no proposed amendments to the alignment of the existing watercourse. The only change proposed is to extend the culvert which discharges from the existing road to the watercourse to accommodate the new roundabout arm construction. This OWC application is being progressed by the consultant responsible for the roundabout design. We have included the layout and location of the proposed new headwall location and the extent of the embankment works to accommodate the new	

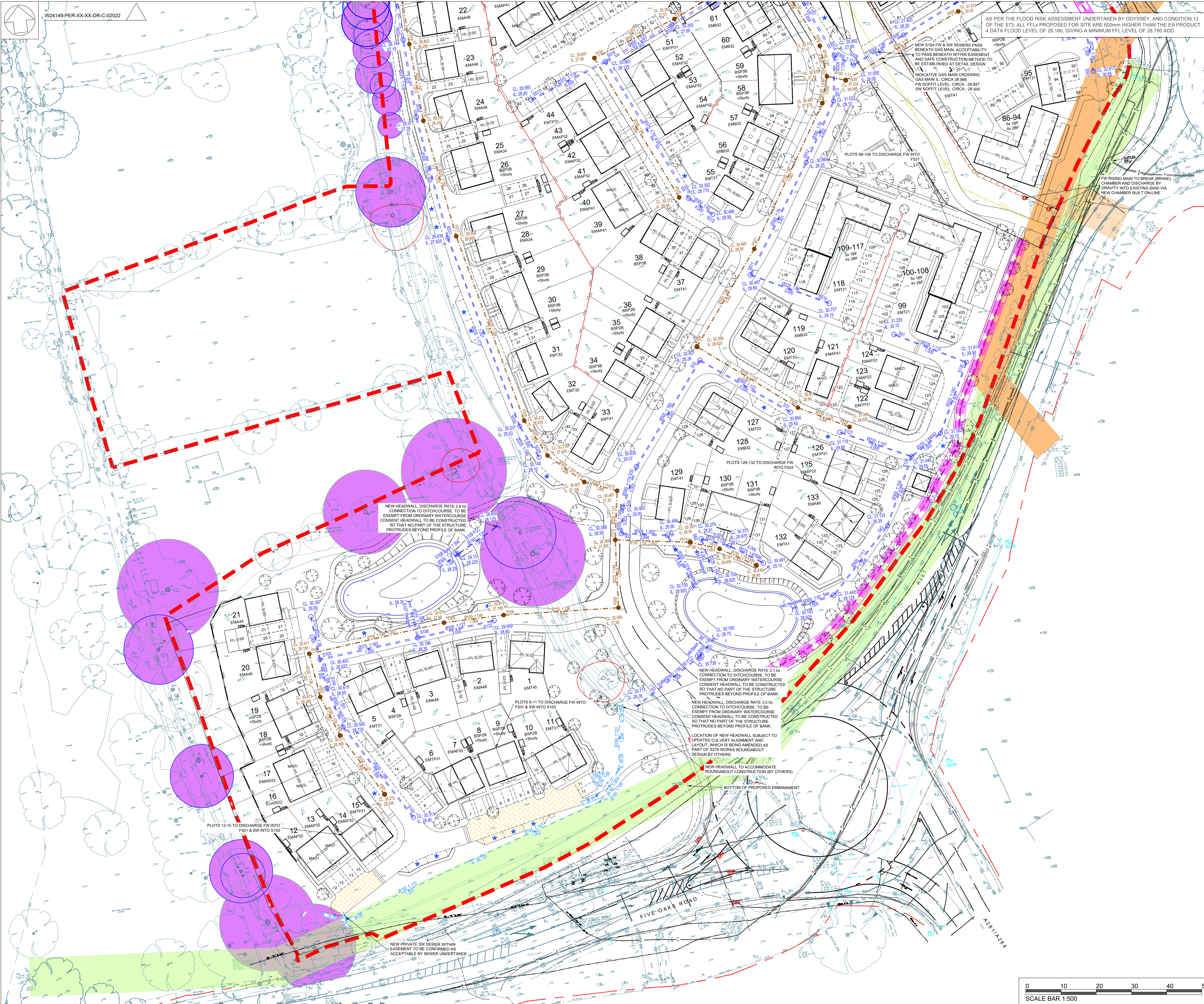
Item	LLFA Objection	Perega Response	Status
		roundabout, for information, on our updated drainage drawings (included with this letter)	
3	Confirmation of the below having been resolved, as this may affect the drainage layout if the easement is not feasible: 	We have confirmed we are able to install the SW and FW pipeline below the existing gas main. See section details in drawing "W24149-PER-XX-XX-SK-C-00024 P02". Negotiations with SGN are ongoing to agree these SW and FW crossings. We do not believe there is a risk to the SW or FW drainage design due to the gas pipeline	Ongoing
4	Please provide winter drainage calculation results (utilising a cv of 1 as has been correctly applied by the Applicant to the summer values)	Please see attached the updated calculations.	
5	Further information is required as to how the CIRIA pollution indices will be adequately mitigated against (in accordance with Standard 4 of the National standards for SuDS). The Applicant states the below in their submission, which we would need to be confirmed/resolved as this may affect layout and materials used: <i>5.1.6 Based on Table 8, the site is classified as Low pollution hazard level due to the presence of only residential traffic and driveways – although the number of traffic movements from the 133 properties will need to be assessed against the Low pollution hazard index criteria.</i> <i>5.1.7 Some roads are proposed as block paving and may utilise permeable paving as required to reduce the pollution index, as required, prior to discharge to the watercourse.</i>	The transport assessment concluded that 604 vehicle movements in a typical weekday. This has been assumed as the worst case and it has been assumed the split between the catchments would be circa 200 vehicle trips each. As such, we have concluded that the roads should be classed as Low Traffic Roads (residential roads and general access roads < 300 traffic movements/day) and the mitigation indices for an attenuation basin is sufficient to accommodate the pollution indices from the Low Traffic Roads. Please see updated drainage drawings which detail the permeable paving proposed to be installed as part of the development.	

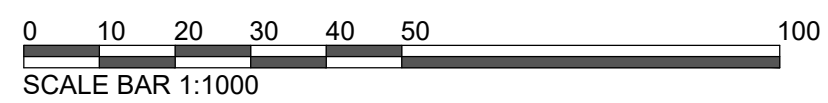
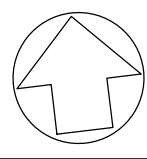
We trust the above and included are sufficient to accommodate the removal of your objection to the proposed SW and FW drainage scheme for this site.



Gregory Schmidt BEng (Hons)
Associate – Head of Civil Engineering







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LEGEND:

- EXISTING PUBLIC SW SEWER
- EXISTING PUBLIC FW SEWER
- PRIVATE SW SEWER
- PRIVATE FW SEWER
- S104 SW SEWER
- S104 SW MANHOLE
- 1:100 yr +45% CC Exceedance
- 1:250 yr +40% CC Exceedance
- 1:500 yr +45% CC Exceedance
- FLOOD ROUTE

P02	UPDATED TO ACCOMMODATE UPDATED SITE LAYOUT AND POND LAYOUT	GS	18/08/2026	ACN
P01	ISSUED FOR INFORMATION	RGM	08/07/2026	GS
Rev	Description	By	Date	Chkd

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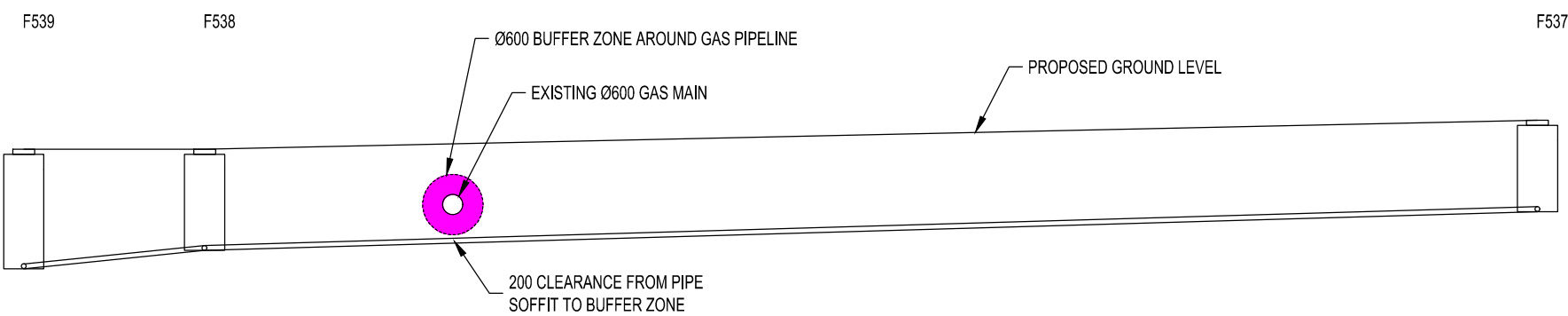
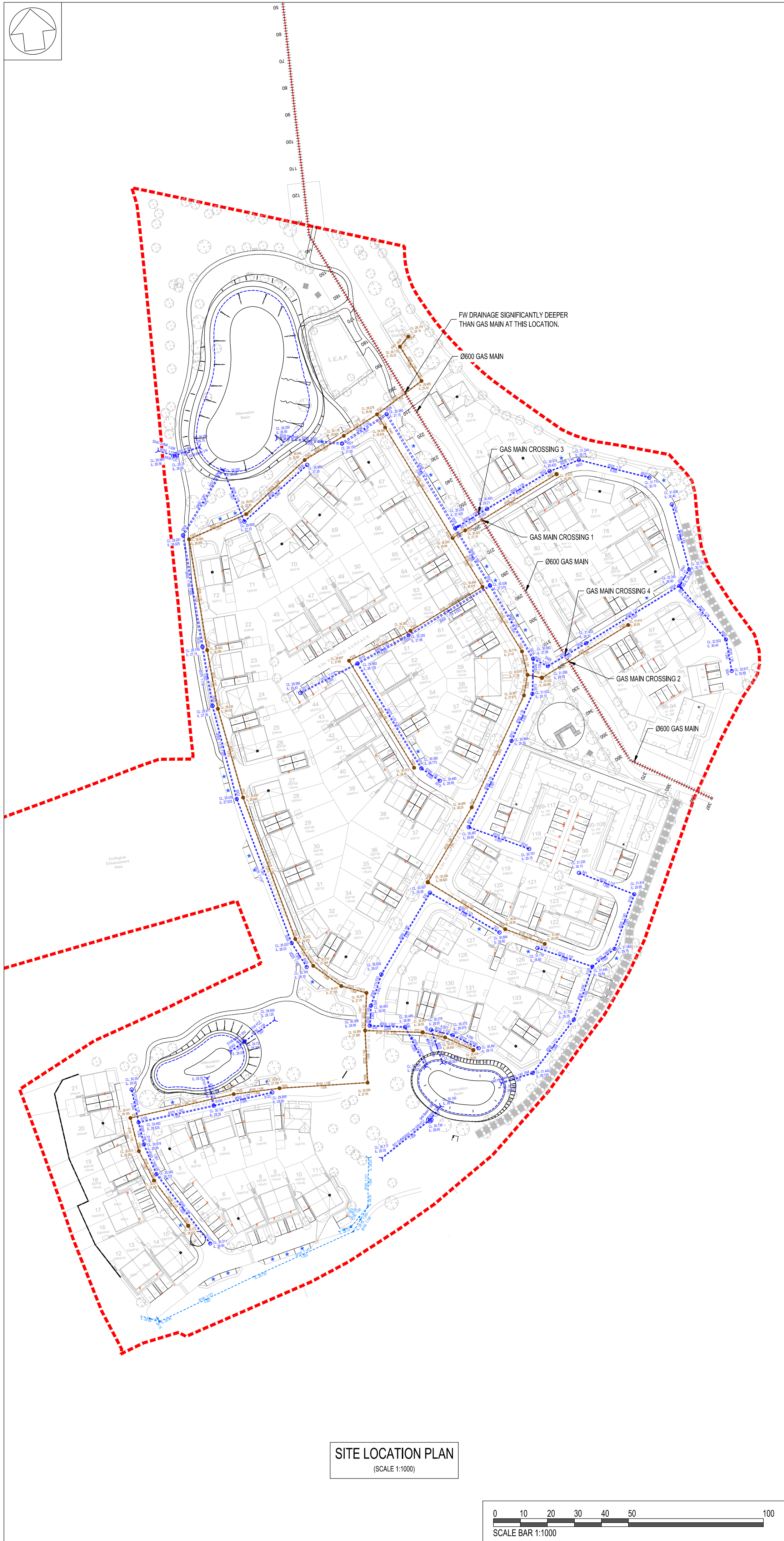
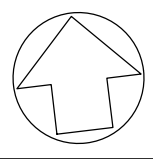
Client

Taylor Wimpey

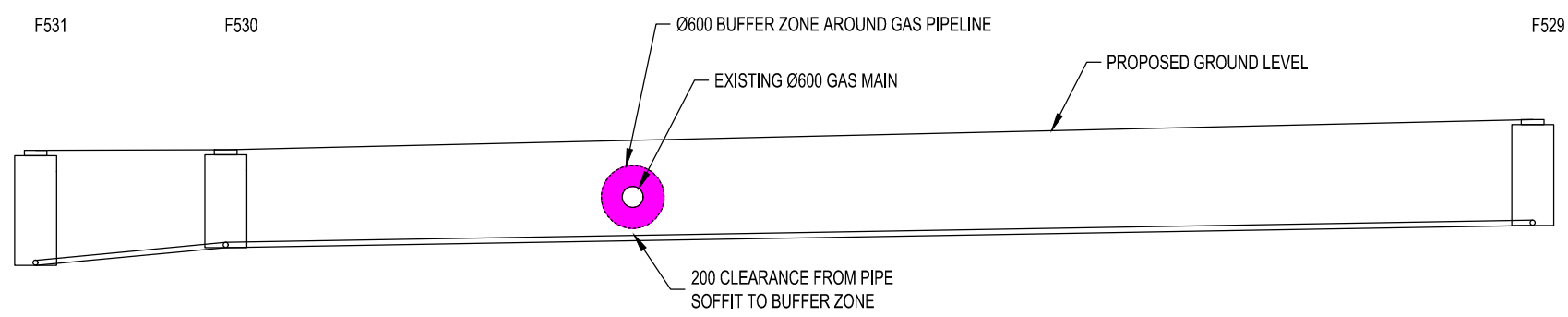
Project
**BROADBRIDGE FARM
HORSHAM**

Title
**SURFACE WATER FLOODING
EXCEEDANCE PLAN**

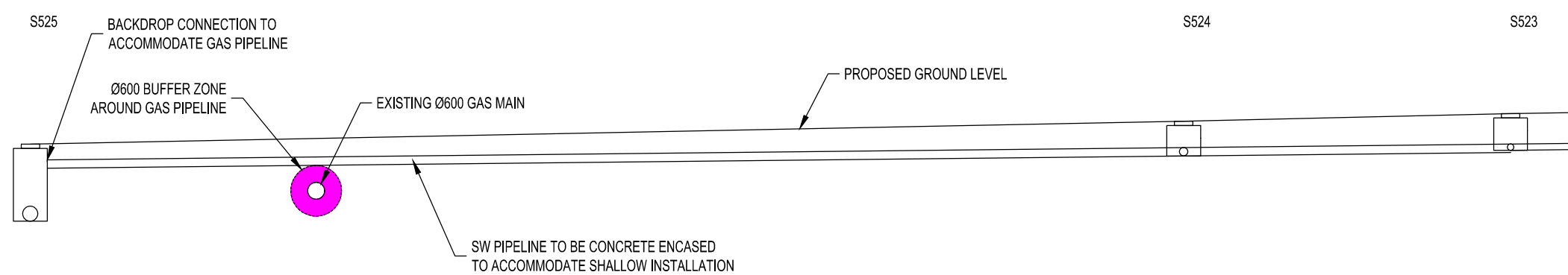
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Project Code	Originator	Zone	Level	Type	Role	Drawing No.
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Suitability Code			Status			Revision
S2			INFORMATION			P02



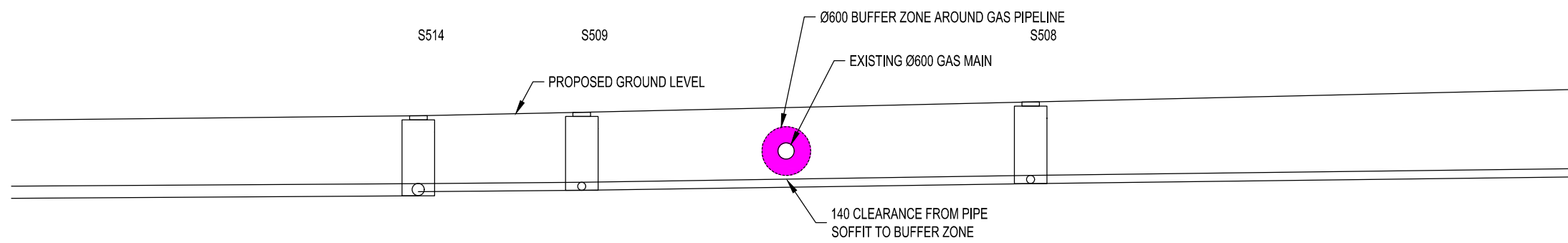
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SCALE 1:200



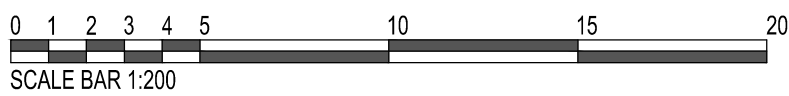
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SCALE 1:200



3 GAS MAIN CROSSING 3
SCALE 1:200



4 GAS MAIN CROSSING 4
SCALE 1:200



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P02	UPDATED TO ACCOMMODATE UPDATED SITE AND POND LAYOUTS. ISSUED FOR INFORMATION	GS	18/08/2026	ACN
P01	ISSUED FOR INFORMATION	GS	08/07/2026	ACN
Rev	Description	By	Date	Chkd

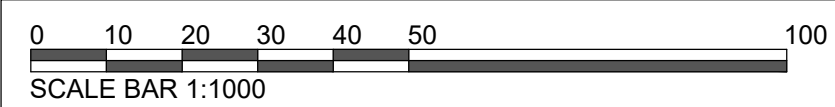
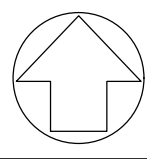
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Client

Taylor Wimpey

Project BROADBRIDGE FARM HORSHAM					
Title GAS MAIN LAYOUT DRAINAGE SECTIONS					
Perega Project No.	W24149	Checked	-	Passed	-
Size	A1	Scale	1:500		
Project Code	W24149	Originator	PER	Zone	XX
Level	XX	Type	SK	Role	C
Drawing No.	00024	Suitability Code	S2	Status	INFORMATION
Revision	P02				



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CONSTRUCTION

- EXISTING HIGH PRESSURE GAS MAIN RUNS THROUGH THE SITE REQUIRES A BUFFER OF 6M
- IN CLOSE PROXIMITY TO ROOT PROTECTION ZONES.
- EXISTING LIVE SERVICES RUNNING THROUGH THE SITE.

MAINTENANCE

- ANY EXCAVATION WORKS NEAR THE HIGH PRESSURE GAS PIPELINE TO BE UNDERTAKEN UNDER PERMIT TO WORK AND NEED TO NOTIFY THE UTILITY COMPANY

DEMOLITION

- CARE TO BE TAKEN DURING SITE CLEARANCE AND SITE STRIP WORKS AROUND EXISTING UTILITIES

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LEGEND

- DEVELOPMENT SITE BOUNDARY
- 3m EASEMENT AROUND DRAINAGE FEATURES
- PROPOSED ACOUSTIC FENCE LAYOUT

P02	SITE LAYOUT UPDATED TO SUIT LATEST SITE CHANGES	ACN	17/08/2026	GS
P01	ISSUED FOR INFORMATION	ACN	14/08/2026	GS
Rev	Description	By	Date	Chkd

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Quarry Court, Lime Quarry Mews, Guildford, GU1 2RD

Client

01483 565 886

Taylor Wimpey

Project

**BROADBRIDGE FARM
HORSHAM**

Title

POND AND DITCH EASEMENT

Perega Project No.			Checked	Passed	Size	Scale
W24149			GS	-	A1	1:1000
Project Code	Originator	Zone	Level	Type	Role	Drawing No.
W24149	PER	XX	XX	SK	C	00027
Suitability Code			Status			Revision
S2			PRELIMINARY			P02

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	1440	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

30 | 60 | 120 | 240 | 360 | 480 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
30	0	0	0	100	45	0	0
100	0	0	0				

Node S109 FCC Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	28.225	Product Number	CTL-SHE-0077-2800-1200-2800
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.8	Min Node Diameter (mm)	1200

Node S108 Basin 1 SW Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	10.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	28.250	Main Channel Slope (1:X)	250.0
Safety Factor	1.0	Time to half empty (mins)	720	Main Channel n	0.025

Inlets

S107 Headwall

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	92.0	0.0	0.300	137.3	0.0	0.600	191.7	0.0	0.900	255.1	0.0	1.200	327.6	0.0	1.500	409.1	0.0
0.100	106.1	0.0	0.400	154.4	0.0	0.700	211.8	0.0	1.000	278.3	0.0	1.300	353.8	0.0			
0.200	121.2	0.0	0.500	172.6	0.0	0.800	233.0	0.0	1.100	302.4	0.0	1.400	380.9	0.0			

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S103	18	29.049	0.149	37.9	0.1682	0.0000	OK
240 minute winter	S126	236	28.904	0.179	8.8	0.2025	0.0000	OK
240 minute winter	S104	236	28.904	0.254	9.7	0.2874	0.0000	OK
30 minute summer	S121	18	29.073	0.073	17.3	0.1048	0.0000	OK
240 minute winter	S105	236	28.904	0.379	17.1	0.4287	0.0000	SURCHARGED
240 minute winter	S122	236	28.904	0.304	4.2	0.4352	0.0000	SURCHARGED
240 minute winter	S106	236	28.904	0.554	22.0	0.7930	0.0000	SURCHARGED
240 minute winter	S107 Headwall	236	28.904	0.614	20.9	0.0000	0.0000	OK
240 minute winter	S108 Basin 1 SW	236	28.904	0.654	12.0	0.0000	0.0000	SURCHARGED
240 minute winter	S109 FCC	236	28.904	0.679	2.9	1.2000	0.0000	SURCHARGED
30 minute winter	S110 Headwall	20	28.168	0.043	2.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S103	1.000	S126	38.0	0.978	0.467	1.2596	
240 minute winter	S126	1.001	S104	8.8	0.708	0.100	0.6436	
240 minute winter	S104	1.002	S105	9.7	0.778	0.113	0.5634	
30 minute summer	S121	2.000	S105	17.3	1.614	0.205	0.1326	
240 minute winter	S105	1.003	S106	16.4	0.620	0.105	3.1488	
240 minute winter	S122	3.000	S106	4.1	0.593	0.041	1.5608	
240 minute winter	S106	1.004	S107 Headwall	20.9	0.581	0.154	1.1859	
240 minute winter	S107 Headwall	Flow through Pond	S108 Basin 1 SW	12.0	0.035	0.000	90.1123	
240 minute winter	S108 Basin 1 SW	1.006	S109 FCC	2.9	0.304	0.041	0.4418	
240 minute winter	S109 FCC	1.007	S110 Headwall	2.7	0.643	0.178	0.0578	131.9

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S103	18	29.073	0.173	48.2	0.1961	0.0000	OK
240 minute winter	S126	236	29.046	0.321	11.0	0.3629	0.0000	SURCHARGED
240 minute winter	S104	236	29.046	0.396	12.3	0.4477	0.0000	SURCHARGED
30 minute summer	S121	17	29.081	0.081	22.0	0.1159	0.0000	OK
240 minute winter	S105	236	29.046	0.521	21.0	0.5891	0.0000	SURCHARGED
240 minute winter	S122	236	29.046	0.446	5.2	0.6381	0.0000	SURCHARGED
240 minute winter	S106	236	29.046	0.696	26.7	0.9959	0.0000	SURCHARGED
240 minute winter	S107 Headwall	236	29.046	0.756	26.0	0.0000	0.0000	OK
240 minute winter	S108 Basin 1 SW	236	29.046	0.796	14.6	0.0000	0.0000	SURCHARGED
240 minute winter	S109 FCC	236	29.046	0.821	2.9	1.4505	0.0000	SURCHARGED
120 minute winter	S110 Headwall	56	28.168	0.043	2.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S103	1.000	S126	48.3	1.021	0.593	1.5373	
240 minute winter	S126	1.001	S104	11.1	0.735	0.126	0.8434	
240 minute winter	S104	1.002	S105	11.8	0.802	0.138	0.5919	
30 minute summer	S121	2.000	S105	22.0	1.648	0.260	0.2082	
240 minute winter	S105	1.003	S106	19.9	0.609	0.127	3.1490	
240 minute winter	S122	3.000	S106	4.7	0.587	0.047	1.5608	
240 minute winter	S106	1.004	S107 Headwall	26.0	0.598	0.191	1.1859	
240 minute winter	S107 Headwall	Flow through Pond	S108 Basin 1 SW	14.6	0.035	0.000	120.3582	
240 minute winter	S108 Basin 1 SW	1.006	S109 FCC	2.9	0.318	0.042	0.4418	
240 minute winter	S109 FCC	1.007	S110 Headwall	2.7	0.643	0.178	0.0578	165.0

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S103	19	29.429	0.529	69.9	0.5980	0.0000	SURCHARGED
480 minute winter	S126	464	29.323	0.598	9.2	0.6767	0.0000	SURCHARGED
480 minute winter	S104	464	29.323	0.673	9.5	0.7615	0.0000	SURCHARGED
480 minute winter	S121	464	29.323	0.323	3.6	0.4627	0.0000	SURCHARGED
480 minute winter	S105	464	29.323	0.798	17.2	0.9029	0.0000	SURCHARGED
480 minute winter	S122	464	29.323	0.723	4.3	1.0350	0.0000	SURCHARGED
480 minute winter	S106	464	29.323	0.973	23.0	1.3928	0.0000	SURCHARGED
480 minute winter	S107 Headwall	464	29.323	1.033	22.8	0.0000	0.0000	OK
480 minute winter	S108 Basin 1 SW	464	29.323	1.073	12.7	0.0000	0.0000	SURCHARGED
480 minute winter	S109 FCC	464	29.323	1.098	2.8	1.9406	0.0000	SURCHARGED
30 minute winter	S110 Headwall	16	28.168	0.043	2.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S103	1.000	S126	67.2	1.061	0.826	2.2864	
480 minute winter	S126	1.001	S104	8.5	0.665	0.097	0.8434	
480 minute winter	S104	1.002	S105	9.4	0.713	0.110	0.5919	
480 minute winter	S121	2.000	S105	3.6	0.961	0.043	0.4920	
480 minute winter	S105	1.003	S106	17.0	0.504	0.109	3.1490	
480 minute winter	S122	3.000	S106	4.2	0.490	0.042	1.5608	
480 minute winter	S106	1.004	S107 Headwall	22.8	0.561	0.168	1.1859	
480 minute winter	S107 Headwall	Flow through Pond	S108 Basin 1 SW	12.7	0.022	0.000	192.1819	
480 minute winter	S108 Basin 1 SW	1.006	S109 FCC	2.8	0.204	0.040	0.4418	
480 minute winter	S109 FCC	1.007	S110 Headwall	2.7	0.643	0.178	0.0578	273.2

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	1440	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

30 | 60 | 120 | 240 | 360 | 480 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
30	0	0	0	100	45	0	0
100	0	0	0				

Node S50 FCC Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	28.650	Product Number	CTL-SHE-0081-3100-1200-3100
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	3.1	Min Node Diameter (mm)	1200

Node S49 Basin 2 SE Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	10.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	28.650	Main Channel Slope (1:X)	250.0
Safety Factor	1.0	Time to half empty (mins)	1170	Main Channel n	0.040

Inlets

S45 Headwall | S63 Headwall | S40 Headwall



Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	200.0	0.0	0.250	239.4	0.0	0.500	282.3	0.0	0.750	328.7	0.0	1.000	378.7	52.7	1.300	443.3	120.8
0.050	207.6	0.0	0.300	247.7	0.0	0.550	291.3	0.0	0.800	338.4	10.2	1.050	389.1	63.7	1.350	454.6	132.7
0.100	215.3	0.0	0.350	256.1	0.0	0.600	300.4	0.0	0.850	348.3	20.7	1.100	399.6	74.7	1.400	466.0	144.7
0.150	223.2	0.0	0.400	264.7	0.0	0.650	309.7	0.0	0.900	358.3	31.2	1.150	410.4	86.1	1.450	477.5	156.9
0.200	231.2	0.0	0.450	273.4	0.0	0.700	319.1	0.0	0.950	368.4	41.8	1.250	432.2	109.1	1.500	489.2	169.2

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S41	17	30.223	0.123	29.1	0.1766	0.0000	OK
30 minute summer	S130	18	30.106	0.206	43.0	0.2330	0.0000	OK
30 minute summer	S42	18	29.945	0.195	51.9	0.2209	0.0000	OK
30 minute summer	S127	18	29.883	0.083	14.7	0.1185	0.0000	OK
30 minute summer	S128	18	29.741	0.191	68.9	0.2160	0.0000	OK
30 minute summer	S43	18	29.548	0.198	76.6	0.2244	0.0000	OK
360 minute winter	S44	352	29.338	0.238	11.2	0.3405	0.0000	OK
360 minute winter	S45 Headwall	360	29.339	0.649	11.1	0.0000	0.0000	OK
30 minute summer	S31	18	29.580	0.080	15.9	0.1147	0.0000	OK
30 minute summer	S32	17	29.433	0.173	51.0	0.2480	0.0000	OK
30 minute summer	S33	19	29.384	0.314	55.0	0.4486	0.0000	SURCHARGED
30 minute summer	S34	19	29.347	0.347	71.1	0.4972	0.0000	SURCHARGED
360 minute winter	S35	352	29.336	0.386	10.9	0.5519	0.0000	SURCHARGED
360 minute winter	S36	352	29.336	0.436	12.3	0.6233	0.0000	SURCHARGED
360 minute winter	S40 Headwall	352	29.337	0.647	11.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S41	1.000	S130	29.1	0.959	0.587	0.6623	
30 minute summer	S130	1.001	S42	42.7	1.144	0.986	0.8027	
30 minute summer	S42	1.002	S128	51.7	1.512	0.912	0.3581	
30 minute summer	S127	2.000	S128	14.7	0.835	0.293	0.4226	
30 minute summer	S128	1.003	S43	68.6	1.419	0.631	1.0088	
30 minute summer	S43	1.004	S44	76.1	1.528	0.683	1.2413	
360 minute winter	S44	1.005	S45 Headwall	11.1	0.933	0.110	1.1732	
360 minute winter	S45 Headwall	Flow through Pond	S49 Basin 2 SE	19.8	0.024	0.000	169.2417	
30 minute summer	S31	3.000	S32	15.9	0.563	0.159	0.8463	
30 minute summer	S32	3.001	S33	51.8	1.004	0.636	1.9461	
30 minute summer	S33	3.002	S34	49.7	0.766	0.592	0.8576	
30 minute summer	S34	3.003	S35	70.1	0.995	0.771	0.5236	
360 minute winter	S35	3.004	S36	10.6	0.593	0.155	0.9212	
360 minute winter	S36	3.005	S40 Headwall	11.8	0.673	0.190	1.1199	
360 minute winter	S40 Headwall	Flow through Pond	S49 Basin 2 SE	19.8	0.024	0.000	169.2417	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S60	352	29.336	0.236	2.1	0.3372	0.0000	SURCHARGED
360 minute winter	S61	352	29.336	0.361	4.0	0.5160	0.0000	SURCHARGED
360 minute winter	S62	352	29.336	0.426	3.9	0.6091	0.0000	SURCHARGED
360 minute winter	S63 Headwall	352	29.336	0.646	3.6	0.0000	0.0000	OK
360 minute winter	S49 Basin 2 SE	352	29.335	0.685	19.8	0.0000	0.0000	SURCHARGED
360 minute winter	S50 FCC	352	29.335	0.785	14.4	3.5527	0.0000	SURCHARGED
60 minute summer	S51 Outfall	35	28.383	0.033	3.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S60	4.000	S61	2.1	0.498	0.038	0.4304	
360 minute winter	S61	4.001	S62	3.9	0.649	0.084	0.3259	
360 minute winter	S62	4.002	S63 Headwall	3.6	0.596	0.085	0.4946	
360 minute winter	S63 Headwall	Flow through Pond	S49 Basin 2 SE	19.8	0.024	0.000	169.2417	
360 minute winter	S49 Basin 2 SE	1.007	S50 FCC	14.4	0.499	0.105	0.4630	
360 minute winter	S50 FCC	1.008	S51 Outfall	3.1	0.716	0.026	0.0759	234.9

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S41	19	30.440	0.340	37.0	0.4869	0.0000	SURCHARGED
30 minute summer	S130	19	30.317	0.417	52.6	0.4716	0.0000	SURCHARGED
30 minute summer	S42	19	30.050	0.300	63.1	0.3390	0.0000	SURCHARGED
30 minute summer	S127	18	29.894	0.094	18.7	0.1351	0.0000	OK
30 minute summer	S128	19	29.774	0.224	84.3	0.2535	0.0000	OK
30 minute summer	S43	19	29.586	0.236	93.4	0.2671	0.0000	OK
480 minute summer	S44	472	29.498	0.398	16.6	0.5696	0.0000	SURCHARGED
480 minute winter	S45 Headwall	472	29.501	0.811	11.0	0.0000	0.0000	OK
30 minute summer	S31	20	29.705	0.205	20.2	0.2937	0.0000	OK
30 minute summer	S32	20	29.697	0.437	64.3	0.6259	0.0000	SURCHARGED
30 minute summer	S33	20	29.607	0.537	57.9	0.7687	0.0000	SURCHARGED
30 minute summer	S34	20	29.561	0.561	81.9	0.8023	0.0000	SURCHARGED
480 minute winter	S35	472	29.497	0.547	10.1	0.7831	0.0000	SURCHARGED
480 minute winter	S36	472	29.497	0.597	11.4	0.8549	0.0000	SURCHARGED
480 minute winter	S40 Headwall	472	29.498	0.808	11.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S41	1.000	S130	35.1	0.975	0.708	0.8742	
30 minute summer	S130	1.001	S42	52.0	1.308	1.200	0.8543	
30 minute summer	S42	1.002	S128	63.1	1.587	1.112	0.4074	
30 minute summer	S127	2.000	S128	18.7	0.833	0.373	0.5212	
30 minute summer	S128	1.003	S43	84.2	1.452	0.774	1.2089	
30 minute summer	S43	1.004	S44	94.1	1.570	0.846	1.4945	
480 minute summer	S44	1.005	S45 Headwall	16.6	0.968	0.164	1.2675	
480 minute winter	S45 Headwall	Flow through Pond	S49 Basin 2 SE	20.0	0.026	0.000	222.4496	
30 minute summer	S31	3.000	S32	19.8	0.567	0.198	1.8028	
30 minute summer	S32	3.001	S33	53.8	1.014	0.661	2.4774	
30 minute summer	S33	3.002	S34	55.2	0.784	0.657	0.8576	
30 minute summer	S34	3.003	S35	78.2	1.111	0.860	0.5236	
480 minute winter	S35	3.004	S36	9.8	0.577	0.143	0.9212	
480 minute winter	S36	3.005	S40 Headwall	11.0	0.633	0.178	1.1199	
480 minute winter	S40 Headwall	Flow through Pond	S49 Basin 2 SE	20.0	0.026	0.000	222.4496	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S60	472	29.497	0.397	2.1	0.5687	0.0000	SURCHARGED
480 minute winter	S61	472	29.497	0.522	3.8	0.7476	0.0000	SURCHARGED
480 minute winter	S62	472	29.498	0.588	3.5	0.8409	0.0000	SURCHARGED
480 minute winter	S63 Headwall	472	29.499	0.809	4.7	0.0000	0.0000	OK
480 minute winter	S49 Basin 2 SE	472	29.497	0.847	20.0	0.0000	0.0000	SURCHARGED
480 minute winter	S50 FCC	472	29.497	0.947	14.2	4.2861	0.0000	SURCHARGED
120 minute winter	S51 Outfall	58	28.383	0.033	3.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S60	4.000	S61	2.0	0.464	0.036	0.4304	
480 minute winter	S61	4.001	S62	3.5	0.625	0.076	0.3259	
480 minute winter	S62	4.002	S63 Headwall	3.4	0.542	0.079	0.4946	
480 minute winter	S63 Headwall	Flow through Pond	S49 Basin 2 SE	20.0	0.026	0.000	222.4496	
480 minute winter	S49 Basin 2 SE	1.007	S50 FCC	14.2	0.481	0.103	0.4630	
480 minute winter	S50 FCC	1.008	S51 Outfall	3.1	0.716	0.026	0.0759	306.1

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.62%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S41	19	31.332	1.232	53.6	1.7624	0.0000	FLOOD RISK
30 minute summer	S130	19	31.098	1.198	73.7	1.3555	0.0000	SURCHARGED
30 minute summer	S42	19	30.603	0.853	86.3	0.9653	0.0000	SURCHARGED
30 minute summer	S127	19	30.247	0.447	27.2	0.6402	0.0000	SURCHARGED
30 minute summer	S128	19	30.191	0.641	113.3	0.7245	0.0000	SURCHARGED
30 minute summer	S43	19	29.901	0.551	126.1	0.6227	0.0000	SURCHARGED
720 minute winter	S44	705	29.833	0.733	11.6	1.0486	0.0000	SURCHARGED
720 minute winter	S45 Headwall	705	29.834	1.144	11.3	0.0000	0.0000	OK
30 minute summer	S31	18	30.443	0.943	29.3	1.3497	0.0000	SURCHARGED
30 minute summer	S32	18	30.407	1.147	87.3	1.6414	1.9174	FLOOD
30 minute summer	S33	19	30.263	1.193	84.7	1.7067	0.0000	SURCHARGED
30 minute summer	S34	19	30.187	1.187	118.6	1.6990	0.0000	FLOOD RISK
30 minute summer	S35	19	30.059	1.109	112.1	1.5869	0.0000	SURCHARGED
30 minute summer	S36	19	29.878	0.978	128.2	1.3988	0.0000	SURCHARGED
720 minute winter	S40 Headwall	690	29.830	1.140	11.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S41	1.000	S130	48.1	1.210	0.971	0.8742	
30 minute summer	S130	1.001	S42	70.6	1.774	1.627	0.8543	
30 minute summer	S42	1.002	S128	85.2	2.141	1.501	0.4180	
30 minute summer	S127	2.000	S128	23.9	0.834	0.477	0.8531	
30 minute summer	S128	1.003	S43	112.6	1.600	1.035	1.4684	
30 minute summer	S43	1.004	S44	125.6	1.783	1.128	1.7554	
720 minute winter	S44	1.005	S45 Headwall	11.3	0.816	0.112	1.2675	
720 minute winter	S45 Headwall	Flow through Pond	S49 Basin 2 SE	16.9	0.030	0.000	347.8219	
30 minute summer	S31	3.000	S32	27.1	0.585	0.271	2.0848	
30 minute summer	S32	3.001	S33	78.7	1.118	0.967	2.4774	
30 minute summer	S33	3.002	S34	79.0	1.122	0.940	0.8576	
30 minute summer	S34	3.003	S35	112.1	1.593	1.233	0.5236	
30 minute summer	S35	3.004	S36	106.2	1.509	1.554	0.9212	
30 minute summer	S36	3.005	S40 Headwall	125.7	1.786	2.031	1.1199	
720 minute winter	S40 Headwall	Flow through Pond	S49 Basin 2 SE	16.9	0.030	0.000	347.8219	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.62%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S60	705	29.830	0.730	2.2	1.0441	0.0000	SURCHARGED
720 minute winter	S61	705	29.830	0.855	4.0	1.2228	0.0000	SURCHARGED
720 minute winter	S62	705	29.830	0.920	3.9	1.3158	0.0000	SURCHARGED
720 minute winter	S63 Headwall	705	29.831	1.141	3.8	0.0000	0.0000	OK
720 minute winter	S49 Basin 2 SE	705	29.830	1.180	16.9	0.0000	0.0000	SURCHARGED
720 minute winter	S50 FCC	705	29.829	1.279	16.2	5.7878	0.0000	SURCHARGED
720 minute winter	S51 Outfall	705	28.383	0.033	3.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S60	4.000	S61	2.1	0.432	0.037	0.4304	
720 minute winter	S61	4.001	S62	3.9	0.568	0.084	0.3259	
720 minute winter	S62	4.002	S63 Headwall	3.8	0.484	0.088	0.4946	
720 minute winter	S63 Headwall	Flow through Pond	S49 Basin 2 SE	16.9	0.030	0.000	347.8219	
720 minute winter	S49 Basin 2 SE	1.007	S50 FCC	16.2	0.401	0.118	0.4630	
720 minute winter	S50 FCC	1.008	S51 Outfall	3.1	0.717	0.026	0.0763	351.5

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	1440	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

30 | 60 | 120 | 240 | 360 | 480 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
30	0	0	0	100	45	0	0
100	0	0	0				

Node S539 FCC Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	26.650	Product Number	CTL-SHE-0071-2400-1200-2400
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.4	Min Node Diameter (mm)	1200

Node S538 Basin 3 N Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	10.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	26.750	Main Channel Slope (1:X)	500.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.015

Inlets

S528 Headwall | S537 Headwall

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	1125.0	0.0	0.300	1234.6	0.0	0.600	1349.2	0.0	0.900	1468.9	0.0	1.200	1593.8	0.0	1.500	1723.7	0.0
0.100	1161.0	0.0	0.400	1272.2	0.0	0.700	1388.5	0.0	1.000	1510.0	0.0	1.300	1636.5	0.0			
0.200	1197.5	0.0	0.500	1310.4	0.0	0.800	1428.5	0.0	1.100	1551.6	0.0	1.400	1679.8	0.0			

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S503	18	30.604	0.074	19.8	0.1066	0.0000	OK
30 minute summer	S540	18	29.604	0.080	19.8	0.0901	0.0000	OK
30 minute summer	S541	18	29.036	0.077	19.8	0.0867	0.0000	OK
30 minute summer	S501	18	30.365	0.115	27.5	0.1304	0.0000	OK
30 minute summer	S502	18	30.047	0.097	40.7	0.1092	0.0000	OK
30 minute summer	S504	19	29.014	0.214	92.3	0.2423	0.0000	OK
30 minute summer	S508	19	28.797	0.497	113.5	0.5616	0.0000	SURCHARGED
30 minute summer	S509	19	28.605	0.555	107.0	0.6281	0.0000	SURCHARGED
30 minute summer	S510	1	29.150	0.000	0.0	0.0000	0.0000	OK
30 minute summer	S511	18	28.945	0.145	56.5	0.2069	0.0000	OK
30 minute summer	S512	20	28.625	0.275	67.7	0.3111	0.0000	OK
30 minute summer	S513	20	28.558	0.458	80.4	0.5185	0.0000	SURCHARGED
30 minute summer	S514	19	28.492	0.642	199.1	0.9186	0.0000	SURCHARGED
30 minute summer	S515	18	29.001	0.051	7.1	0.0580	0.0000	OK
30 minute summer	S516	17	28.904	0.129	55.6	0.1852	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S503	2.000	S540	19.8	1.650	0.235	0.4614	
30 minute summer	S540	1.000	S541	19.8	1.620	0.253	0.3054	
30 minute summer	S541	1.001	S504	19.8	0.785	0.252	0.1776	
30 minute summer	S501	15.000	S502	27.5	1.400	0.473	0.3900	
30 minute summer	S502	15.001	S504	40.7	2.162	0.386	0.5437	
30 minute summer	S504	1.002	S508	94.2	1.603	0.763	2.5170	
30 minute summer	S508	1.003	S509	101.7	1.485	0.744	1.1666	
30 minute summer	S509	1.004	S514	106.5	1.525	1.053	0.4247	
30 minute summer	S510	3.000	S511	0.0	0.000	0.000	0.1239	
30 minute summer	S511	3.001	S512	56.4	1.500	0.451	1.6782	
30 minute summer	S512	3.002	S513	64.9	1.301	0.510	1.3182	
30 minute summer	S513	3.003	S514	80.2	1.448	0.822	0.9114	
30 minute summer	S514	1.005	S521	193.4	1.425	0.758	5.0632	
30 minute summer	S515	4.000	S516	7.1	0.902	0.058	0.0685	
30 minute summer	S516	4.001	S519	55.9	1.650	0.248	1.9586	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S517	18	28.477	0.077	17.4	0.1103	0.0000	OK
30 minute summer	S519	20	28.399	0.274	108.7	0.3925	0.0000	OK
30 minute summer	S520	20	28.392	0.442	107.1	0.5001	0.0000	OK
30 minute summer	S521	19	28.349	0.774	322.9	1.1074	0.0000	SURCHARGED
30 minute summer	S522	18	30.190	0.090	19.2	0.1283	0.0000	OK
30 minute summer	S523	18	29.847	0.097	25.5	0.1389	0.0000	OK
30 minute summer	S524	18	29.529	0.104	61.1	0.1490	0.0000	OK
30 minute summer	S525	19	28.229	0.804	393.0	1.1508	0.0000	SURCHARGED
30 minute summer	S526	19	27.837	0.687	400.1	0.9831	0.0000	SURCHARGED
30 minute summer	S527	19	27.614	0.614	408.4	0.8788	0.0000	SURCHARGED
1440 minute winter	S528 Headwall	1440	27.429	0.659	39.1	0.0000	0.0000	OK
30 minute summer	S529	19	28.242	0.142	4.7	0.1608	0.0000	OK
30 minute summer	S530	19	28.241	0.211	43.4	0.2389	0.0000	OK
30 minute summer	S531	18	27.846	0.221	69.6	0.2498	0.0000	OK
30 minute summer	S532	18	27.563	0.213	82.8	0.3047	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S517	5.000	S519	17.4	0.823	0.095	0.8675	
30 minute summer	S519	4.002	S520	107.1	1.630	0.365	2.7483	
30 minute summer	S520	4.003	S521	110.1	1.048	0.372	5.6465	
30 minute summer	S521	1.006	S525	304.6	1.410	0.803	5.2736	
30 minute summer	S522	6.000	S523	19.2	1.234	0.323	0.4182	
30 minute summer	S523	6.001	S524	25.5	1.649	0.333	0.1793	
30 minute summer	S524	6.002	S525	61.1	2.215	0.263	1.8827	
30 minute summer	S525	1.007	S526	385.9	1.787	1.067	10.6321	
30 minute summer	S526	1.008	S527	400.2	1.853	0.949	4.2731	
30 minute summer	S527	1.009	S528 Headwall	408.3	1.890	1.318	5.2070	
1440 minute winter	S528 Headwall	Flow through Pond	S538 Basin 3 N	27.4	0.005	0.000	831.3940	
30 minute summer	S529	8.000	S530	4.5	0.189	0.107	0.3404	
30 minute summer	S530	8.001	S531	41.4	1.166	1.051	2.0291	
30 minute summer	S531	8.002	S532	68.7	1.291	0.827	1.8973	
30 minute summer	S532	8.003	S533	82.5	1.349	0.551	1.3583	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S533	1440	27.428	0.278	4.8	0.3978	0.0000	OK
1440 minute winter	S534	1410	27.428	0.503	4.8	0.7198	0.0000	SURCHARGED
30 minute summer	S535	18	27.493	0.143	32.9	0.2050	0.0000	OK
1440 minute winter	S536	1440	27.427	0.327	2.2	0.4675	0.0000	SURCHARGED
1440 minute winter	S537 Headwall	1410	27.433	0.663	8.6	0.0000	0.0000	OK
1440 minute winter	S538 Basin 3 N	1410	27.426	0.676	27.4	0.0000	0.0000	SURCHARGED
1440 minute winter	S539 FCC	1410	27.426	0.776	11.0	3.5098	0.0000	SURCHARGED
30 minute winter	S540 Outfall	907	26.593	0.033	2.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S533	8.004	S534	4.8	0.484	0.020	5.4729	
1440 minute winter	S534	8.005	S537 Headwall	4.4	0.410	0.027	4.5226	
30 minute summer	S535	9.000	S536	33.0	1.079	0.711	0.9571	
1440 minute winter	S536	9.001	S537 Headwall	2.2	0.556	0.046	0.8286	
1440 minute winter	S537 Headwall	Flow through Pond	S538 Basin 3 N	27.4	0.005	0.000	831.3940	
1440 minute winter	S538 Basin 3 N	1.011	S539 FCC	11.0	-0.295	0.098	0.6922	
1440 minute winter	S539 FCC	1.012	S540 Outfall	2.2	0.749	0.106	0.0193	318.6

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S503	18	30.616	0.086	25.2	0.1224	0.0000	OK
30 minute summer	S540	20	29.768	0.244	25.2	0.2762	0.0000	SURCHARGED
30 minute summer	S541	20	29.715	0.756	26.3	0.8549	0.0000	SURCHARGED
30 minute summer	S501	18	30.385	0.135	35.0	0.1522	0.0000	OK
30 minute summer	S502	19	30.079	0.129	51.7	0.1455	0.0000	OK
30 minute summer	S504	20	29.694	0.894	101.8	1.0115	0.0000	SURCHARGED
30 minute summer	S508	19	29.375	1.075	117.8	1.2153	0.0000	SURCHARGED
30 minute summer	S509	19	29.154	1.104	115.8	1.2483	0.0000	SURCHARGED
30 minute summer	S510	20	29.341	0.191	9.9	0.2736	0.0000	OK
30 minute summer	S511	20	29.325	0.525	71.8	0.7520	0.0000	SURCHARGED
30 minute summer	S512	20	29.207	0.857	88.6	0.9697	0.0000	SURCHARGED
30 minute summer	S513	19	29.118	1.018	89.1	1.1513	0.0000	SURCHARGED
30 minute summer	S514	19	29.030	1.180	209.9	1.6892	0.0000	SURCHARGED
30 minute summer	S515	18	29.008	0.058	9.1	0.0660	0.0000	OK
30 minute summer	S516	20	28.984	0.209	70.8	0.2992	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S503	2.000	S540	25.2	1.798	0.299	0.9772	
30 minute summer	S540	1.000	S541	26.3	1.644	0.335	0.9926	
30 minute summer	S541	1.001	S504	34.6	0.871	0.441	0.2788	
30 minute summer	S501	15.000	S502	35.0	1.478	0.602	0.4701	
30 minute summer	S502	15.001	S504	50.5	2.167	0.479	0.8338	
30 minute summer	S504	1.002	S508	95.6	1.592	0.774	2.8532	
30 minute summer	S508	1.003	S509	109.1	1.549	0.798	1.1666	
30 minute summer	S509	1.004	S514	115.2	1.636	1.140	0.4247	
30 minute summer	S510	3.000	S511	10.0	-0.386	0.178	0.8999	
30 minute summer	S511	3.001	S512	74.3	1.511	0.594	2.5096	
30 minute summer	S512	3.002	S513	71.2	1.327	0.560	1.3446	
30 minute summer	S513	3.003	S514	83.3	1.456	0.854	0.9114	
30 minute summer	S514	1.005	S521	208.0	1.431	0.815	5.0632	
30 minute summer	S515	4.000	S516	9.1	0.881	0.074	0.1550	
30 minute summer	S516	4.001	S519	70.8	1.662	0.314	3.9394	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S517	20	28.896	0.496	63.9	0.7091	0.0000	SURCHARGED
30 minute summer	S519	19	28.964	0.839	136.2	1.2002	0.0000	SURCHARGED
30 minute summer	S520	19	28.936	0.986	116.5	1.1154	0.0000	SURCHARGED
30 minute summer	S521	19	28.872	1.297	346.6	1.8566	0.0000	SURCHARGED
30 minute summer	S522	18	30.203	0.103	24.4	0.1474	0.0000	OK
30 minute summer	S523	18	29.862	0.112	32.4	0.1607	0.0000	OK
30 minute summer	S524	18	29.543	0.118	77.7	0.1695	0.0000	OK
30 minute summer	S525	19	28.675	1.250	465.4	1.7891	0.0000	SURCHARGED
30 minute summer	S526	19	28.129	0.979	469.3	1.4010	0.0000	SURCHARGED
30 minute summer	S527	19	27.823	0.823	478.3	1.1776	0.0000	SURCHARGED
1440 minute winter	S528 Headwall	1410	27.616	0.846	28.5	0.0000	0.0000	OK
30 minute summer	S529	19	28.476	0.376	5.9	0.4253	0.0000	SURCHARGED
30 minute summer	S530	19	28.472	0.442	53.5	0.4998	0.0000	SURCHARGED
30 minute summer	S531	19	27.901	0.276	87.2	0.3124	0.0000	OK
1440 minute winter	S532	1440	27.606	0.256	5.2	0.3670	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S517	5.000	S519	-41.8	0.798	-0.228	2.6221	
30 minute summer	S519	4.002	S520	116.5	1.668	0.397	3.3630	
30 minute summer	S520	4.003	S521	124.0	1.044	0.419	5.6577	
30 minute summer	S521	1.006	S525	349.9	1.620	0.922	5.2736	
30 minute summer	S522	6.000	S523	24.4	1.302	0.411	0.5039	
30 minute summer	S523	6.001	S524	32.4	1.745	0.423	0.2153	
30 minute summer	S524	6.002	S525	77.7	2.249	0.334	1.9671	
30 minute summer	S525	1.007	S526	451.3	2.089	1.248	10.6321	
30 minute summer	S526	1.008	S527	467.8	2.166	1.109	4.2731	
30 minute summer	S527	1.009	S528 Headwall	477.8	2.212	1.542	5.2591	
1440 minute winter	S528 Headwall	Flow through Pond	S538 Basin 3 N	24.1	0.005	0.000	1084.0201	
30 minute summer	S529	8.000	S530	7.2	0.200	0.170	0.4155	
30 minute summer	S530	8.001	S531	51.7	1.301	1.313	2.2071	
30 minute summer	S531	8.002	S532	85.7	1.357	1.031	2.2311	
1440 minute winter	S532	8.003	S533	5.2	0.638	0.035	2.1172	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S533	1410	27.605	0.455	5.9	0.6515	0.0000	SURCHARGED
1440 minute winter	S534	1440	27.605	0.680	5.9	0.9738	0.0000	SURCHARGED
30 minute summer	S535	19	27.634	0.284	41.8	0.4062	0.0000	SURCHARGED
1440 minute winter	S536	1440	27.606	0.506	2.8	0.7247	0.0000	SURCHARGED
1440 minute winter	S537 Headwall	1410	27.610	0.840	12.6	0.0000	0.0000	OK
1440 minute winter	S538 Basin 3 N	1440	27.605	0.855	24.1	0.0000	0.0000	SURCHARGED
1440 minute winter	S539 FCC	1440	27.605	0.955	11.9	4.3196	0.0000	SURCHARGED
960 minute winter	S540 Outfall	390	26.593	0.033	2.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S533	8.004	S534	5.9	0.484	0.025	6.6387	
1440 minute winter	S534	8.005	S537 Headwall	5.5	0.401	0.033	4.5226	
30 minute summer	S535	9.000	S536	41.0	1.109	0.884	1.2442	
1440 minute winter	S536	9.001	S537 Headwall	2.6	0.557	0.055	0.8286	
1440 minute winter	S537 Headwall	Flow through Pond	S538 Basin 3 N	24.1	0.005	0.000	1084.0201	
1440 minute winter	S538 Basin 3 N	1.011	S539 FCC	11.9	0.353	0.107	0.6922	
1440 minute winter	S539 FCC	1.012	S540 Outfall	2.2	0.749	0.106	0.0193	342.8

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S503	20	31.366	0.836	36.6	1.1963	0.4663	FLOOD
30 minute summer	S540	20	31.308	1.784	38.4	2.0176	0.0000	SURCHARGED
30 minute summer	S541	20	31.263	2.304	40.9	2.6054	0.0000	SURCHARGED
30 minute summer	S501	20	31.763	1.513	50.7	1.7107	0.0000	SURCHARGED
30 minute summer	S502	20	31.628	1.678	65.8	1.8975	0.0000	SURCHARGED
30 minute summer	S504	20	31.242	2.442	120.6	2.7619	0.0000	SURCHARGED
30 minute summer	S508	20	30.650	2.350	148.3	2.6576	0.0000	SURCHARGED
30 minute summer	S509	19	30.224	2.174	157.5	2.4587	0.0000	SURCHARGED
30 minute summer	S510	20	30.470	1.320	34.6	1.8892	0.0000	FLOOD RISK
30 minute summer	S511	19	30.487	1.687	104.1	2.4141	1.3918	FLOOD
30 minute summer	S512	19	30.343	1.993	91.7	2.2543	0.0000	SURCHARGED
30 minute summer	S513	19	30.196	2.096	109.8	2.3708	0.0000	SURCHARGED
30 minute summer	S514	19	30.006	2.156	287.9	3.0853	0.0000	SURCHARGED
30 minute summer	S515	18	29.831	0.881	57.5	0.9964	0.0000	SURCHARGED
30 minute summer	S516	19	29.829	1.054	112.5	1.5082	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S503	2.000	S540	36.1	1.924	0.428	1.5287	
30 minute summer	S540	1.000	S541	40.9	1.694	0.521	0.9926	
30 minute summer	S541	1.001	S504	53.7	1.350	0.684	0.2788	
30 minute summer	S501	15.000	S502	43.8	1.531	0.752	0.7895	
30 minute summer	S502	15.001	S504	59.6	2.160	0.565	1.0490	
30 minute summer	S504	1.002	S508	122.8	1.745	0.994	2.8532	
30 minute summer	S508	1.003	S509	150.4	2.136	1.100	1.1666	
30 minute summer	S509	1.004	S514	159.6	2.267	1.579	0.4247	
30 minute summer	S510	3.000	S511	-34.6	-0.870	-0.618	0.9450	
30 minute summer	S511	3.001	S512	70.9	1.550	0.568	2.5096	
30 minute summer	S512	3.002	S513	87.7	1.341	0.689	1.3446	
30 minute summer	S513	3.003	S514	108.9	1.547	1.117	0.9114	
30 minute summer	S514	1.005	S521	290.4	1.833	1.137	5.0632	
30 minute summer	S515	4.000	S516	-44.4	0.873	-0.362	0.5800	
30 minute summer	S516	4.001	S519	108.4	1.665	0.481	5.0110	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S517	18	29.585	1.185	144.7	1.6957	24.3261	FLOOD
30 minute summer	S519	19	29.699	1.574	173.6	2.2530	0.0000	FLOOD RISK
30 minute summer	S520	18	29.689	1.739	127.1	1.9667	0.0000	SURCHARGED
30 minute summer	S521	19	29.680	2.105	395.2	3.0129	0.0000	SURCHARGED
30 minute summer	S522	18	30.230	0.130	35.4	0.1861	0.0000	OK
30 minute summer	S523	19	29.990	0.240	47.1	0.3435	0.0000	SURCHARGED
30 minute summer	S524	19	29.882	0.457	111.9	0.6543	0.0000	SURCHARGED
30 minute summer	S525	19	29.469	2.044	547.3	2.9244	0.0000	SURCHARGED
30 minute summer	S526	19	28.677	1.527	574.4	2.1852	0.0000	SURCHARGED
30 minute summer	S527	19	28.221	1.221	589.2	1.7475	0.0000	SURCHARGED
1440 minute winter	S528 Headwall	1470	27.967	1.197	40.8	0.0000	0.0000	OK
30 minute summer	S529	19	29.530	1.430	11.2	1.6172	0.0000	SURCHARGED
30 minute summer	S530	19	29.525	1.495	76.0	1.6904	0.0000	SURCHARGED
30 minute summer	S531	19	28.192	0.567	124.8	0.6411	0.0000	SURCHARGED
1440 minute winter	S532	1410	27.964	0.614	7.5	0.8789	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S517	5.000	S519	-115.4	-1.047	-0.629	2.6221	
30 minute summer	S519	4.002	S520	127.1	1.705	0.433	3.3630	
30 minute summer	S520	4.003	S521	124.1	1.043	0.419	5.6577	
30 minute summer	S521	1.006	S525	401.0	1.857	1.057	5.2736	
30 minute summer	S522	6.000	S523	35.4	1.397	0.596	0.8192	
30 minute summer	S523	6.001	S524	47.4	1.872	0.619	0.4607	
30 minute summer	S524	6.002	S525	103.3	2.248	0.444	2.8782	
30 minute summer	S525	1.007	S526	547.0	2.532	1.512	10.6321	
30 minute summer	S526	1.008	S527	574.0	2.657	1.361	4.2731	
30 minute summer	S527	1.009	S528 Headwall	590.5	2.733	1.906	5.2591	
1440 minute winter	S528 Headwall	Flow through Pond	S538 Basin 3 N	27.1	0.012	0.000	1623.7991	
30 minute summer	S529	8.000	S530	14.4	0.361	0.338	0.4155	
30 minute summer	S530	8.001	S531	74.8	1.882	1.900	2.2726	
30 minute summer	S531	8.002	S532	124.0	1.763	1.493	2.4322	
1440 minute winter	S532	8.003	S533	7.5	0.689	0.050	2.4501	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S533	1440	27.962	0.812	8.6	1.1624	0.0000	SURCHARGED
1440 minute winter	S534	1440	27.962	1.037	8.1	1.4839	0.0000	SURCHARGED
30 minute summer	S535	18	28.287	0.937	60.5	1.3411	0.0000	SURCHARGED
1440 minute winter	S536	1410	27.961	0.861	3.9	1.2317	0.0000	SURCHARGED
1440 minute winter	S537 Headwall	1410	27.967	1.197	20.3	0.0000	0.0000	OK
1440 minute winter	S538 Basin 3 N	1440	27.960	1.210	27.1	0.0000	0.0000	FLOOD RISK
1440 minute winter	S539 FCC	1440	27.960	1.310	8.7	5.9265	0.0000	FLOOD RISK
1440 minute winter	S540 Outfall	1440	26.595	0.035	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S533	8.004	S534	8.1	0.476	0.034	6.6388	
1440 minute winter	S534	8.005	S537 Headwall	7.9	0.389	0.048	4.5226	
30 minute summer	S535	9.000	S536	57.7	1.451	1.243	1.2442	
1440 minute winter	S536	9.001	S537 Headwall	3.8	0.545	0.079	0.8286	
1440 minute winter	S537 Headwall	Flow through Pond	S538 Basin 3 N	27.1	0.012	0.000	1623.7991	
1440 minute winter	S538 Basin 3 N	1.011	S539 FCC	8.7	0.356	0.078	0.6922	
1440 minute winter	S539 FCC	1.012	S540 Outfall	2.5	0.771	0.118	0.0209	386.9

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	1440	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

30 | 60 | 120 | 240 | 360 | 480 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
30	0	0	0	100	45	0	0

Node S905 FCC Online Orifice Control

Flap Valve	x	Invert Level (m)	28.500	Design Flow (l/s)	2.5	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Depth (m)	1.100	Diameter (m)	0.033		

Node S901 FCC Online Orifice Control

Flap Valve	x	Invert Level (m)	28.950	Design Flow (l/s)	1.0	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Depth (m)	0.676	Diameter (m)	0.024		

Node S900 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	5.000	Depth (m)
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	29.050	Length (m)	22.500	Inf Depth (m)
Safety Factor	1.0	Time to half empty (mins)	352	Slope (1:X)	96.0	

Node S908 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	8.000	Depth (m)
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	29.150	Length (m)	17.500	Inf Depth (m)
Safety Factor	1.0	Time to half empty (mins)	240	Slope (1:X)	50.0	

Node S904 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	5.500	Depth (m)
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	28.720	Length (m)	40.000	Inf Depth (m)
Safety Factor	1.0	Time to half empty (mins)	132	Slope (1:X)	50.0	

Node S904 Paving Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	28.720
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	42

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	20.0	20.0	0.200	20.0	23.2	0.201	0.0	23.2	0.919	0.0	23.2

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S900 Paving	118	29.447	0.397	3.8	9.4626	0.0000	FLOOD RISK
120 minute winter	S908 Paving	118	29.447	0.297	3.7	5.3224	0.0000	SURCHARGED
120 minute winter	S901 FCC	118	29.447	0.497	1.6	0.1407	0.0000	SURCHARGED
120 minute winter	S902	120	28.750	0.025	0.8	0.0279	0.0000	OK
120 minute winter	S903	120	28.472	0.022	0.8	0.0036	0.0000	OK
120 minute winter	S904 Paving	100	29.324	0.604	10.4	18.8878	0.0000	SURCHARGED
120 minute winter	S905 FCC	100	29.323	0.823	2.7	0.2328	0.0000	SURCHARGED
120 minute winter	S906	112	28.391	0.041	2.8	0.0065	0.0000	OK
120 minute winter	S907 Headwall	112	28.241	0.041	2.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S900 Paving	1.000	S901 FCC	-1.2	0.302	-0.057	0.1275	
120 minute winter	S908 Paving	2.000	S901 FCC	1.6	0.677	0.029	0.0376	
120 minute winter	S901 FCC	1.001	S902	0.8	0.429	0.061	0.0743	
120 minute winter	S902	1.002	S903	0.8	0.470	0.057	0.0714	
120 minute winter	S903	1.003	S906	0.8	0.465	0.048	0.0295	
120 minute winter	S904 Paving	3.000	S905 FCC	2.7	0.525	0.073	0.0874	
120 minute winter	S905 FCC	3.001	S906	2.0	0.627	0.092	0.0317	
120 minute winter	S906	1.004	S907 Headwall	2.8	0.734	0.161	0.0585	50.2

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S900 Paving	232	29.661	0.611	3.4	16.6807	0.0000	FLOOD RISK
240 minute winter	S908 Paving	232	29.661	0.511	4.0	14.1410	0.0000	FLOOD RISK
240 minute winter	S901 FCC	232	29.661	0.711	2.3	0.2012	0.0000	FLOOD RISK
240 minute winter	S902	232	28.752	0.027	1.0	0.0306	0.0000	OK
240 minute winter	S903	232	28.474	0.024	1.0	0.0039	0.0000	OK
120 minute winter	S904 Paving	88	29.639	0.919	19.1	38.1199	2.8900	FLOOD
60 minute summer	S905 FCC	57	29.638	1.138	3.4	0.3219	0.0000	FLOOD RISK
240 minute winter	S906	196	28.395	0.045	3.4	0.0071	0.0000	OK
120 minute winter	S907 Headwall	120	28.244	0.044	3.4	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S900 Paving	1.000	S901 FCC	0.5	0.114	0.026	0.1275	
240 minute winter	S908 Paving	2.000	S901 FCC	2.0	0.158	0.036	0.0376	
240 minute winter	S901 FCC	1.001	S902	1.0	0.453	0.074	0.0847	
240 minute winter	S902	1.002	S903	1.0	0.496	0.068	0.0814	
240 minute winter	S903	1.003	S906	1.0	0.488	0.058	0.0334	
120 minute winter	S904 Paving	3.000	S905 FCC	2.8	0.572	0.075	0.0874	
60 minute summer	S905 FCC	3.001	S906	2.4	0.658	0.108	0.0356	
240 minute winter	S906	1.004	S907 Headwall	3.4	0.770	0.191	0.0662	105.9

