

01 June 2021

David Elmore  
Welwyn Hatfield Borough Council  
The Campus  
Welwyn Garden City  
Herts  
AL8 6AE

Dear David Elmore,

**RE: LLFA Response – 6/2020/3222/MAJ, Former Volkswagen Van Centre, Comet Way, Hatfield, AL10 9TF**

Thank you for sending the letter from Hertfordshire County Council (HCC) as Lead Local Flood Authority (LLFA) dated 18 February 2021, regarding the planning application reference 6/2020/3222/MAJ, Former Volkswagen Van Centre, Comet Way. Unfortunately, we only received this response on 26 May 2021 which is disappointing as we would have liked to have had the opportunity to engage with the officers directly at HCC to address their comments. However, please see below our response to each of the LLFA comments:

**1. LLFA comment – Updated Modelling**

*“We are happy to see the usage of multifunctional features like green roofs. We note the final discharge from the site will be limited to 3.8 l/s, which corresponds to the 1 in 100 year greenfield runoff rate.*

*The proposed discharge rate provides betterment compare to the existing mechanism on the site. However, the applicant should aim to achieve greenfield runoff rates for the relevant rainfall events. No technical justification has been provided on why this cannot be achieved. Moreover, in the submitted FRA the applicant indicated that the final discharge will be limited to 1 l/s. Therefore, we would advise the discharge rate to be reduced and limited to 1 l/s or limited to greenfield runoff rates for the relevant rainfall events.*

*Post development calculations have been provided. We note green roofs and roof planters have been incorporated in the design and have been introduced in the drainage network model as such. Those SuDS systems are fully justified in term of SuDS benefits (landscape/public amenity); however, they should not be included in the calculation as part of the storage volume unless this volume is available for attenuation only and drain down times are included. Therefore, we would encourage the applicant to consider the usage of blue roof structures, as in our view those are suitable features for residential developments.*

*Moreover, the applicant should estimate half drain down times for all SuDS storage features, especially for the underground tank with 1.6m depth.*

*In the submitted model we also noted that margins for flood risk warnings have been removed. Therefore, the applicant should clarify this. In line with a standard design margins for flood risk warnings should be set at 300mm.”*

**Stantec response**

We are pleased to see the comment made by HCC regarding the positive use of multifunctional features which are to be provided and that the proposed discharge rates are acknowledged by HCC to provide a betterment compared to the existing mechanism on the site.

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### Discharge Rate of 1l/s

As detailed in the Drainage Statement, the site is an existing Pre-developed site (Brownfield) and is not Greenfield Development.

The Hertfordshire County Council LFRMS 2, The strategy for the management of local sources of flooding, paragraph 4.6.3 and Policy 15 is provided below regarding Previously developed sites.

#### **4.6.3. Peak Flow and Volume Control - Previously developed sites**

It is accepted that that rate and volume of runoff from previously developed land will be higher than on equivalent greenfield sites, however the redevelopment process presents opportunities for redesign of drainage to restore greenfield runoff characteristics.

HCC Guidance for SuDS in Hertfordshire provides an approach for meeting peak flow rate and volume requirements on previously developed land, in particular by requiring betterment of existing runoff conditions where Greenfield runoff cannot be achieved. Flow rate and storage volume calculations should be presented in a manner that is acceptable to the LLFA. For further guidance on the calculations that should be provided; please see HCC SuDS Guidance document.

#### **Policy 15: Runoff rates for previously developed sites**

Previously developed sites should aim to discharge at the original pre-development greenfield rate for the whole site area where possible. If not, a significant reduction in the current rate of discharge should be achieved and evidence provided as to why greenfield rates are not viable.

The volume of attenuation storage that would be required for the site should be based on the 1 in 100 year critical storm duration with an allowance for climate change and the allowable discharge rate.

The drainage has been designed to conform to the **aim** listed in Policy 15, to discharge at greenfield runoff rates, it was not possible for the drainage to be designed to achieve the lower 1l/s rate. The size of the tank would be of a large scale and future maintenance or potential tank replacement would be impractical, especially with the offsets to the proposed building and underground services. The reference to this rate in the FRA was made in error.

A service corridor is located to the immediate north of the tank, as illustrated in our supporting Drainage Strategy drawing, and this corridor would require a suitable offset from the proposed tank.

Increasing the size of the tank, by increasing its depth, was also not feasible because of the proposed outfall connection into the existing surface water sewer located in Goldsmith Way. Currently we achieve a gravity fed connection to this existing sewer at self-cleaning velocity. A deeper tank would prevent this and would therefore not conform to the recommendations within Sewers for Adoption.

To limit discharge rates to 1 l/s would also require the use of a small sized control, one of the smallest available on the current market or (as indicated by the HCC in their response) to manage a range of relevant greenfield runoff

events would require the implementation of a complex control. These types of controls would increase maintenance liability and are more prone to blockages therefore for this reason, in addition to the spatial constraints associated with the site, the aspiration to discharge to 1 l/s was discounted during the later stages of the design, we therefore reconsulted with Thames Water who agreed to the to the maximum proposed discharge rate of 3.8 l/s from the site.

Please note the consideration of the potential maintenance also conforms to Policy 20 of the Hertfordshire County Council LFRMS 2 documents where it is required for SuDS features to be designed with easy and affordable maintenance in mind.

I would also like to take this opportunity to remind officers that we are providing between 95% and 98% reduction in surface water discharge rates. The reduction in impermeable areas at the site will also reduce the surface water volume being discharged to the public surface water sewer. Flooding will also not affect properties, up to the 1 in 100 (1.0%) annual probability plus climate change event, as this will be managed in the drainage system. This is a significant improvement to the existing situation.

We are confident, in our experience, that the proposed discharge rates and reasoning for applying the greenfield rate of the 1 in 100-year storm would be supported at an appeal, considering the significant benefits being afforded at the site. Whilst we acknowledge HCC's aspiration to try to maximise the betterment as far as possible, it was not technically feasible for this significantly low rate to be applied to the site.


The drainage proposal meets the requirements of the NPPF and delivers the aspirations of Policy 15 by limiting to a greenfield runoff rate, the volume of attenuation for the site has also been based on the 1 in 100 critical storm duration with an allowance for climate change.

#### Green Roofs

Green roofs were included within the development proposals for ecological enhancement, and the flood reduction role they play by slowing runoff rates from a roof structure, this is in accordance with the SUDS Hierarchy and also conforms to HCC own Policy as one of the **Most Sustainable** SuDS features. The LLFA Summary Guidance for Developers, for the Management of Surface Water Drainage states as follows in Section 3 regarding sustainable drainage techniques:

*"The SuDS hierarchy should be followed as you design the site. The methods at the top of the hierarchy are referred because they are beneficial in terms of sustainability, water quality and biodiversity. The hierarchy should be used in descending order, with any obstacles to the use of SuDS methods clearly justified. If the 'lack' of space is given as a reason for not implementing SuDs we will require evidence that an alternative layout and consideration of other SuDS techniques has been considered. If the 'cost' is given as a reason for not implementing SuDs system evidence should be provided to the LPA."*

### SuDS Heirachy

	SuDS technique	Flood reduction	Pollution reduction	Landscape and wildlife benefit
<b>Most Sustainable</b>  <b>Least sustainable</b>	Living roofs and walls	✓	✓	✓
	Basins and ponds	✓	✓	✓
	Filter strips and swales	✓	✓	✓
	Infiltration devices	✓	✓	✓
	Permeable surfaces and filter drains	✓	✓	
	Tanked and piped systems	✓		

Green roofs are represented within the supporting post development calculations for the site. However, these are included as a time area diagram, rather than as a storage feature, to represent the slowing of water prior to entering the onsite ground level drainage system, this is in accordance with the CIRIA SuDS Design Guide (Ref C753 dated 2015). As a worst-case scenario, we have also included within our post development calculations the green roofs as an additional impermeable area, this was to assess the potential impact if the green roof became saturated following a maintenance issue. The post development calculations show the drainage attenuation would still operate without increasing the flood risk to the site.

I would also direct officers to HCC's own guidance for developers which also lists the benefits of green roofs as a flood prevention (see the HCC SuDS Hierarchy table above), therefore, to exclude any benefit of these feature from the supporting post development calculations would be mistaken given they are promoted as a flood reduction measure.

We agree with HCC on the benefits provided by Blue Roofs, however, for this site we have not used the green roofs as a storage feature and therefore it is not considered necessary to change this to a blue roof.

#### Half-drain down time

The CIRIA SuDS Design Guide makes no mention on the need to provide a suitable half-drain down time for attenuation features not operating using infiltration. Also, there appears to be no requirement listed in local planning policy for any non-infiltrating attenuation feature to operate with a half drain down time. We would be grateful to receive confirmation from HCC officers on where the requirement for this standard is located, so we can ensure this is not missed in future.

We are of the opinion that draining non-infiltration features with a half drain down time can be counter intuitive when discharging to an existing watercourse or, as in this instance, to the existing external public surface water drainage system, as these can become surcharged or flood. Therefore, holding back surface water drainage on a site for longer can be beneficial to the wider drainage catchment.

However, for the avoidance of doubt, we have re-run the calculations to illustrate the likely half-drain down times for the proposed attenuation features for the 1 in 30 year plus 40% climate change event and the system operates

with a maximum drain down time of 552 minutes. A copy of the post development half-drain down time is appended to this letter.

### Margins for Flood Risk

We acknowledge the comments made by HCC on the margin for flood risk warnings. This was not included due to the use of porous paving with a shallow sub-base and the need to keep water within this part of the storage structure, therefore within the flood risk margin level. The software used can therefore give a false impression on the potential flood risk associated with the site. Following the request by HCC we have attached the 1 in 100 plus 40% climate change critical storm duration with the margin of flood risk now included. This shows, as expected, Flood Risk listed within the porous paving structures for the critical storm event, but still no flooding on the site.

### **2. LLFA comment – Clarification of the submitted surface water drainage.**

*“We note that some of car parking areas, located outside of the building footprint, will be provided with permeable paving with sub-base. However, there are some parking spaces where these structures cannot be provided. Therefore, the applicant should clarify how surface water from those areas will be captured and treated prior to reaching the piped network.*

*Moreover, it should be clarified and identify on a plan how the rest of undercroft parking will be drained, as no information has been provided.*

*As the LLFA, we are assessing surface water drainage within the application’s red line boundary. Therefore, the applicant should clarify how they intend to drain new proposed footpaths around the building.*

*On the submitted drainage plan the proposed depth of the cellular storage does not match with the cross section drawing included. We would advise this should be consistent and the layout plan should be updated. In addition, depth of permeable paving sub-base structure should be also clarified.*

*Any changes based on our comments above should be supported by an updated report, modelling and an updated drainage layout. The applicant should ensure the drainage strategy report matches with the provided FRA.”*

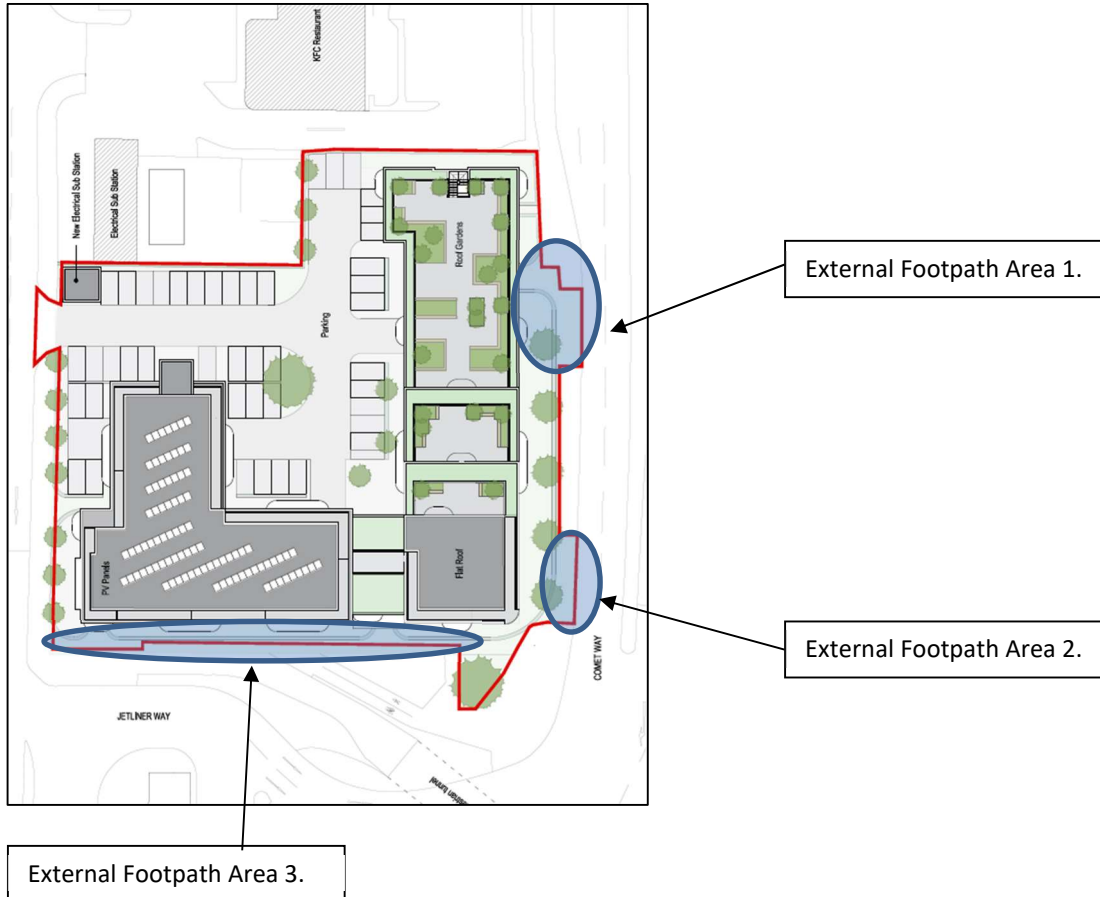
### **Stantec response**

The car parking impermeable areas on the site will drain to the adjacent lined porous paving areas. Our drainage strategy drawing has been updated and attached to make this clearer. Our post development calculations had included these impermeable areas and showed this can operate as shown.

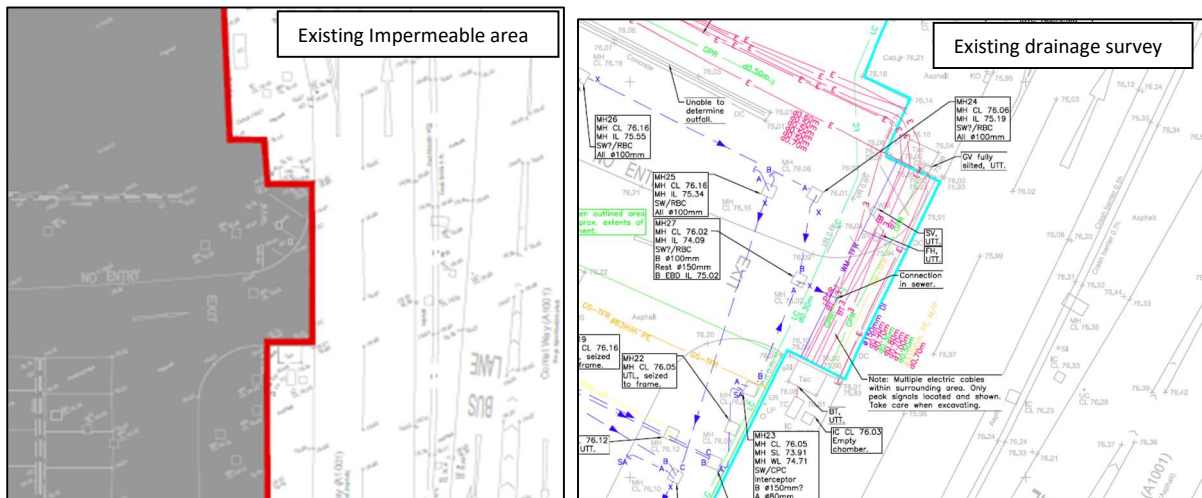
We acknowledge the undercroft parking drainage was not referenced in the drainage statement as this will form part of the internal building drainage and services design. However, we do acknowledge that some minimal rainwater egress may occur from the entrance of vehicles and in the winter, snow accumulation from cars also needs to be considered. The drainage for this area will likely discharge to the foul sewer. The development proposals were issued as part of the pre-application request to Thames Water and an assumption made on the potential overall rate applicable to the foul drainage for the site. No objection was raised by Thames Water; however, to ensure this will be captured at the detail design stage reference has been made to this on the updated drainage strategy drawing.

The external (outer edge of the proposed building) of existing and retained footpaths, have been referenced on the updated drainage strategy drawing. For clarification the existing and re-surfaced proposed areas are shown below along with the drainage proposed for each location.

Proposed Masterplan

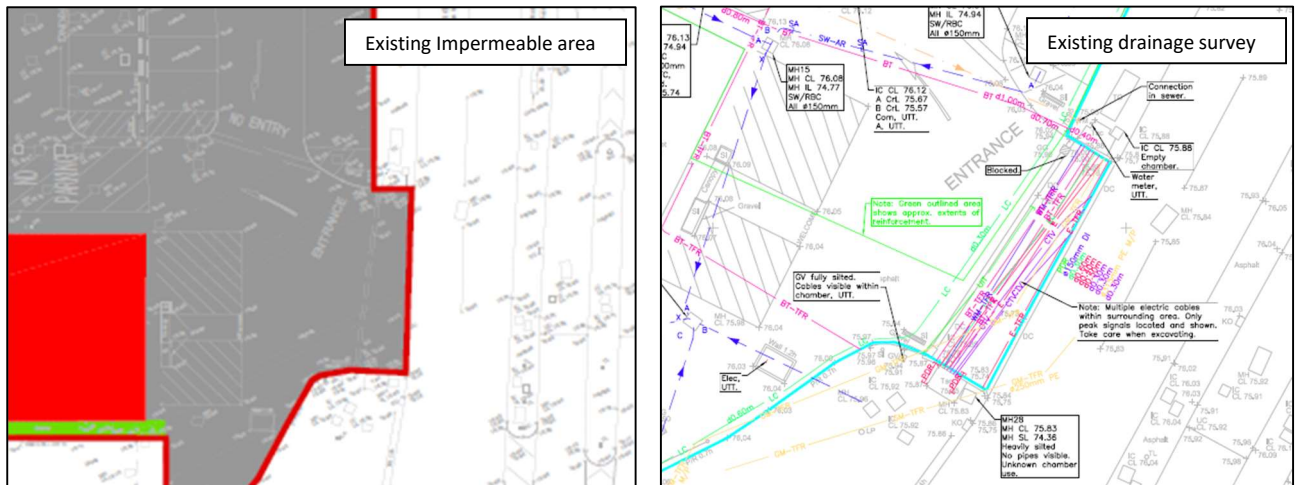


Area 1



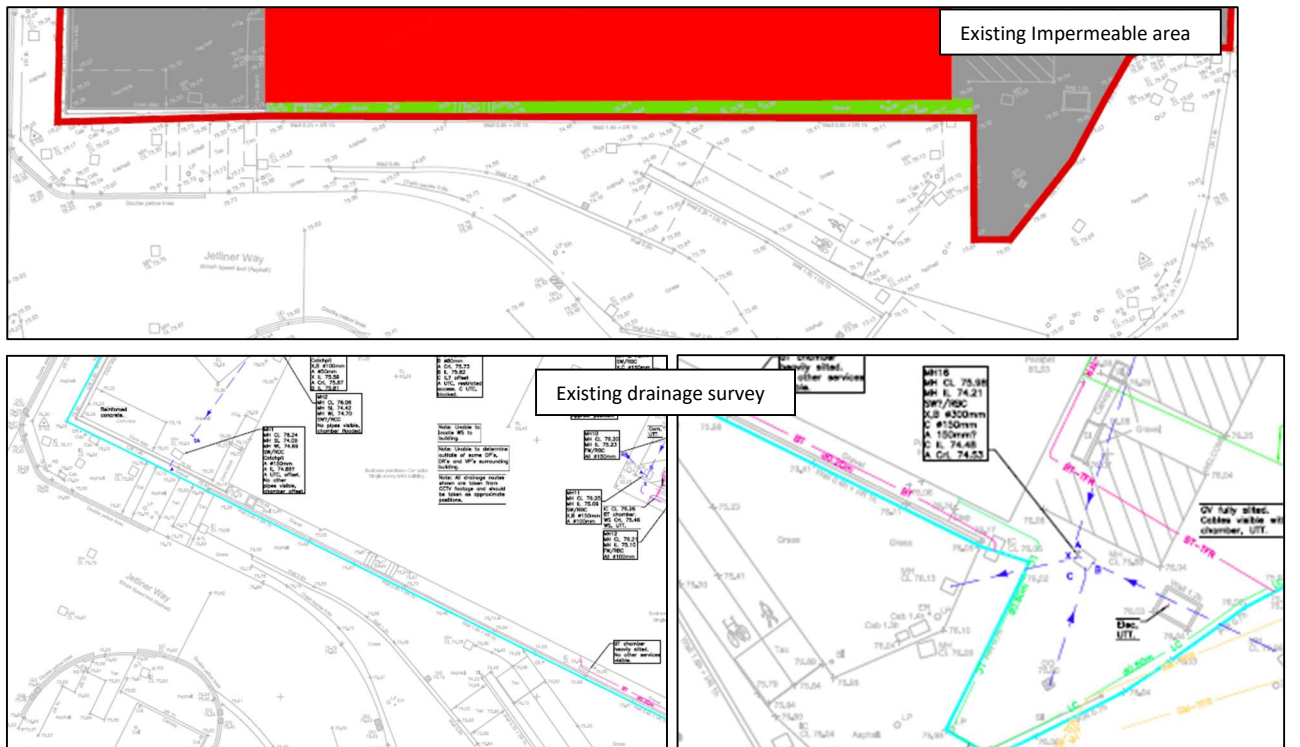
This existing area drains to the existing surface water sewer located within Comet Way. The footpath and small area of highway is to be resurfaced and tie in as existing highway with discharge to the existing surface water sewer in Comet Way.

Area 2



This area is to be resurfaced and tie into the existing footpath along Comet Way. The topographical and CCTV drainage survey shows this part of the site falls towards Comet Way and overland flow here will discharge into the highway gullies located along Comet Way. Multiple existing services are located within this area and therefore a similar approach to drainage will limit the impact to these existing external services.

Area 3



A small area of gravel is in the southern portion of this area. Existing hard standing, footpath and roof area is also located within this part of the redline boundary extent. Two existing surface water outfalls are in the far eastern and western extent of this southern area, these outfalls accept surface water runoff from this southern area and other parts of the site. The area ties into an existing public footpath also located along the southern edge, along Jetliner Way. The proposed external footpath is to tie in with the existing footpath and to keep the required

cross fall, therefore it will naturally fall towards Jetliner Way. Surface water will therefore be as in the existing situation and discharge to the sewer in Jetliner Way.

There was an error in tank depth made on the drainage section shown on the surface water drainage strategy drawing, this should be 1.6m depth, this has been updated. Depth of porous paving sub-base from our calculations is also referenced on the updated drainage drawing.

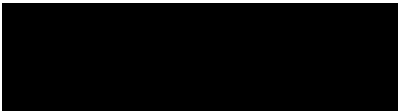
We note the request for an updated report. Unfortunately, due to the delay in receiving the letter of objection we are unable to provide the council with this in such a short timescale. However, this letter contains sufficient information for the LLFA to remove their objection and appreciate the officer's consideration to this.

### **Conclusion**

We hope the information contained will assist you and the officer and alleviates any concerns on the drainage strategy for the site.

The surface water and foul drainage has been designed in full accordance with both national and local policy and we would respectfully direct officers and members of the committee to the significant benefits that the development will be delivering.

Yours sincerely




**Stephanie Knowles**  
Associate Civil Engineer  
on behalf of Stantec UK Ltd

Encs:

- Post development 1 in 30 rainfall plus 40% cc Half-drain down time
- Post development 1 in 100 rainfall plus 40% cc inc Flood Margin
- Surface Water Drainage Strategy Ref 47179/400/002 Rev A
- Copy of the LLFA Objection Letter dated 18 February 2021



Stantec UK Ltd		Page 1
Caversham Bridge House Waterman Place Reading, RG1 8DN	47179 Comet Way Hatfield Proposed Drainage Half Drain Time 30yr+cc	
Date 27/05/2021 13:10 File 47179_COMET WAY HATFIELD...	Designed by eedney Checked by SK	
Innovyze	Network 2020.1	

30 year Return Period Summary of Critical Results by Half Drain Time (Rank 1)  
for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m <sup>3</sup> /ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Offline Controls	0	Number of Time/Area Diagrams	3
Number of Online Controls	2	Number of Storage Structures	6	Number of Real Time Controls	0

Synthetic Rainfall Details


Rainfall Model	FEH
FEH Rainfall Version	2013
Site Location	GB 521649 208769 TL 21649 08769
Data Type	Point
Cv (Summer)	0.900
Cv (Winter)	0.900

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	ON
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880
Return Period(s) (years)	30
Climate Change (%)	40

**Half Drain**

PN	US/MH Name	Duration (mins)	US/CL (m)	Time (mins)	Status
1.000	681A	15	75.510		OK
2.000	RWDP1	2880	76.500		OK
2.001	PP1	2880	76.400	528	OK
3.000	RWDP2	2880	76.500		OK
2.002	PP2	2880	76.350	504	OK
4.000	RWDP3	2880	76.500		OK
2.003	PP3	2880	76.320	528	OK
2.004	PP4	2880	76.240	480	OK
2.005	PP5	2880	76.220	360	SURCHARGED
2.006	CPIT	2880	76.200		OK
2.007	FLOW CONTROL	2880	76.200	552	OK
1.001	SITE CONNECTION	2880	75.970		OK
1.002	571C	15	76.100		OK

Stantec UK Ltd		Page 1
Caversham Bridge House Waterman Place Reading, RG1 8DN	47179 Comet Way Hatfield Proposed Drainage	
Date 27/05/2021 13:16 File 47179_COMET WAY HATFIELD...	Designed by eedney Checked by SK	
Innovyze	Network 2020.1	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

Simulation Criteria

Areal Reduction Factor 1.000    Additional Flow - % of Total Flow 0.000  
Hot Start (mins) 0    MADD Factor \* 10m<sup>3</sup>/ha Storage 2.000  
Hot Start Level (mm) 0    Inlet Coefficient 0.800  
Manhole Headloss Coeff (Global) 0.500    Flow per Person per Day (l/per/day) 0.000  
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0    Number of Offline Controls 0    Number of Time/Area Diagrams 3  
Number of Online Controls 2    Number of Storage Structures 6    Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FEH  
FEH Rainfall Version 2013  
Site Location GB 521649 208769 TL 21649 08769  
Data Type Point  
Cv (Summer) 0.900  
Cv (Winter) 0.900

Margin for Flood Risk Warning (mm) 300.0    DVD Status ON  
Analysis Timestep Fine Inertia Status ON  
DTS Status ON

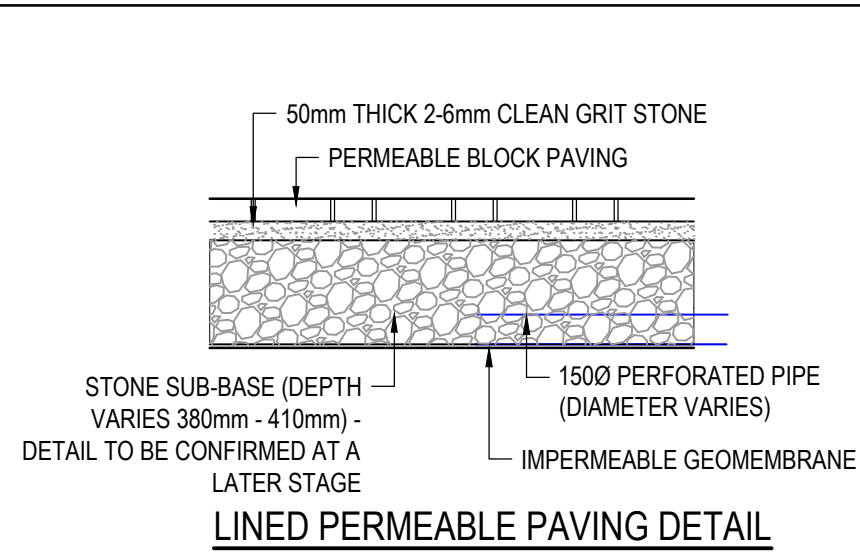
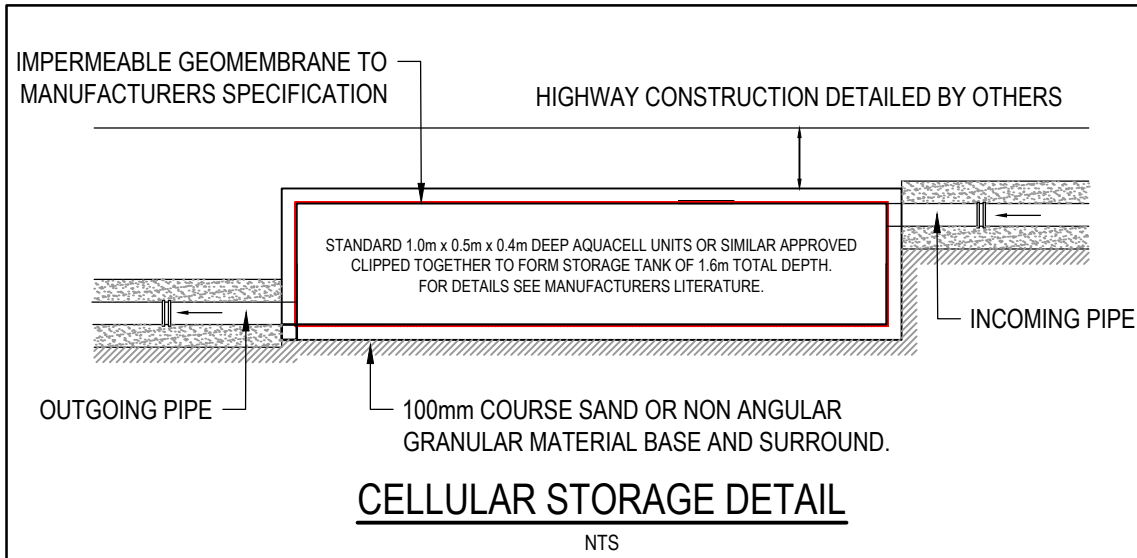
Profile(s) Summer and Winter  
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720,  
960, 1440, 2160, 2880, 4320, 5760, 7200, 8640,  
10080  
Return Period(s) (years) 100  
Climate Change (%) 40

PN	US/MH Name	Duration (mins)	US/CL (m)	Water	Surcharged	Flooded	Pipe		Status
				Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Maximum Vol (m <sup>3</sup> )	Flow (l/s)	
1.000	681A	15	75.510	72.110	-1.350	0.000	0.000	0.0	OK
2.000	RWDP1	180	76.500	76.043	-0.017	0.000	0.145	1.2	OK
2.001	PP1	180	76.400	76.042	0.082	0.000	9.151	5.8	SURCHARGED
3.000	RWDP2	180	76.500	76.040	-0.050	0.000	0.107	1.4	OK
2.002	PP2	180	76.350	76.038	0.108	0.000	16.564	7.5	SURCHARGED
4.000	RWDP3	180	76.500	76.039	-0.011	0.000	0.151	2.9	OK
2.003	PP3	180	76.320	76.035	0.135	0.000	12.307	14.0	FLOOD RISK
2.004	PP4	180	76.240	76.026	0.206	0.000	25.839	10.7	FLOOD RISK
2.005	PP5	180	76.220	76.019	0.949	0.000	25.004	5.4	FLOOD RISK
2.006	CPIIT	480	76.200	74.995	1.310	0.000	1.737	5.3	SURCHARGED
2.007	FLOW CONTROL	480	76.200	74.987	1.427	0.000	53.539	3.8	SURCHARGED
1.001	SITE CONNECTION	480	75.970	72.052	-1.323	0.000	0.117	3.8	OK

Stantec UK Ltd		Page 2
Caversham Bridge House Waterman Place Reading, RG1 8DN	47179 Comet Way Hatfield Proposed Drainage	
Date 27/05/2021 13:16 File 47179_COMET WAY HATFIELD...	Designed by eedney Checked by SK	
Innovyze	Network 2020.1	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

PN	US/MH Name	Duration (mins)	US/CL (m)	Water Surcharged			Flooded		Pipe	
				Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Maximum Vol (m <sup>3</sup> )	Flow (1/s)	Status	
1.002	571C	480	76.100	72.036	-1.309	0.000	0.410	3.8	OK	



- NOTES**
1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION.
  2. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
  3. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN UNLESS NOTED OTHERWISE.
  4. ALL COORDINATES ARE IN METRES RELATIVE TO ORDNANCE SURVEY NATIONAL GRID.
  5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS AND ARCHITECTS DRAWINGS AND SPECIFICATIONS.
  6. CONNECTION AND LOCATION OF MANHOLE TO PUBLIC SEWER SUBJECT TO AGREEMENT WITH THAMES WATER UTILITIES (TWU) LTD.
  7. MODEL NODES ARE FROM MICRODRAINAGE FOR THE INCLUSION OF ATTENUATION FEATURES WITHIN THE DRAINAGE MODEL AND WILL NOT BE CONSTRUCTED.
  8. DETAIL DESIGN OF DRAINAGE FOR UNDERCROFT PARKING TO BE AGREED AT LATER STAGE SUBJECT TO TWU LTD APPROVAL.



**KEY:**

- PROPOSED SURFACE WATER DRAINAGE
- PROPOSED SURFACE WATER MANHOLE/CATCHPIT
- PROPOSED PERMEABLE PAVING
- IMPERMEABLE SURFACE
- PROPOSED DEVELOPMENT
- PROPOSED GREEN ROOF
- PROPOSED ROOF PLANTERS
- PROPOSED CELLULAR STORAGE
- EXISTING SURFACE WATER MANHOLE
- EXISTING SURFACE WATER DRAINAGE
- PROPOSED PERFORATED PIPE
- PROPOSED MODEL NODE - SEE NOTE 7
- PROPOSED LANDSCAPE AREAS
- PROPOSED DOWNPIPE CONNECTION
- PROPOSED DEMARCATION CHAMBER
- PROPOSED RAINWATER DIFFUSER UNIT
- EXCEEDANCE FLOW ROUTE
- SITE BOUNDARY
- PROPOSED FOOTPATHS
- PROPOSED DUMMY PIPES - SEE NOTE 7
- IMPERMEABLE SURFACE TO DRAIN TO PERMEABLE PAVING VIA OVERLAND FLOW

**CONSTRUCTION (DESIGN & MANAGEMENT) REGULATIONS 2015 (CDM REGULATIONS 2015)**

THE PROPOSED SURFACE WATER DRAINAGE ARRANGEMENTS ARE BASED ON THE FOLLOWING INFORMATION AVAILABLE AT THE TIME:

- TOPOGRAPHIC SURVEY HAS BEEN PROVIDED BY SURVEY SOLUTIONS DRAWING REF 25372se-01 DATED 06.11.19.
- PROPOSAL DRAWING PROVIDED BY BRYANT & MOORE ARCHITECTS REF. 19\_386\_PL07 DATED NOVEMBER 2020

AT THIS STAGE OF DESIGN IT HAS NOT BEEN POSSIBLE TO ELIMINATE ALL THE HEALTH AND SAFETY RISKS AND RESIDUAL RISKS TO THE PROPOSED GROUND WORKS, FOR EXAMPLE, IN RELATION TO THE LOCATION OF UNDERGROUND UTILITIES & GROUND CONDITIONS. SUCH RESIDUAL RISKS NEED TO BE MITIGATED AGAINST BY THE CLIENT AND COMMUNICATED TO FUTURE DESIGN TEAMS SO THAT AN ATTEMPT CAN BE MADE TO DESIGN THEM OUT AS THE DETAILED DESIGN IS PROGRESSED AND SITE CONSTRAINTS ARE FULLY UNDERSTOOD. ANY RISKS THAT ARE NOT DESIGNED OUT DURING THE DETAILED DESIGN STAGE MUST BE COMMUNICATED FURTHER TO THE CONSTRUCTION TEAM AND END USER SO THAT ADEQUATE MITIGATION MEASURES CAN BE PLANNED FOR AND MANAGED.

SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status		
<b>FOR PLANNING</b>		
<b>COMET WAY, HATFIELD</b>		
<b>PROPOSED SURFACE WATER DRAINAGE</b>		
Client		
<b>COMET WAY HATFIELD LTD</b>		
Date of 1st Issue	Designed	Drawn
12.11.2020	EE	JS
A3 Scale	Checked	Approved
1:500	EE	-
Drawing Number	Revision	
<b>47179/4001/002</b>	<b>A</b>	

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Director of Environment & Infrastructure:  
Mark Kemp



Sukhdeep Jhooti  
Welwyn Hatfield Borough Council  
The Campus  
Welwyn Garden City  
Hertfordshire  
AL8 6AE

**Post Point CHN 215**  
**Hertfordshire County Council**  
**County Hall, Pegs Lane**  
**HERTFORD SG13 8DN**

Contact Julia Puton  
Email [FRMConsultations@hertfordshire.gov.uk](mailto:FRMConsultations@hertfordshire.gov.uk)

Date 18 February 2021

**RE: 6/2020/3222/MAJ – Former Volkswagen Van Centre, Comet Way, Hatfield, AL10 9TF**

Dear Sukhdeep,

Thank you for your consultation in relation to the above planning application for the Demolition of existing buildings and construction of new building comprising 118 residential apartments, layout of parking areas, landscaping, electricity substation and ancillary development at Former Volkswagen Van Centre, Comet Way, Hatfield, AL10 9TF.

We understand this application seeks full planning permission for a major development, and we have assessed the Flood Risk Assessment report prepared by Stantec UK Limited project reference 47179/4001/FRA dated November 2020, the Drainage Statement prepared by Stantec UK Limited project reference 47179/4001/DS dated November 2020 and the additional information submitted to support this application. However, the information provided to date does not provide a suitable basis for an assessment to be made of the flood risks arising from the proposed development.

We therefore object to the grant of planning permission and recommend refusal on this basis for the following reasons.

Details of how surface water arising from a development is to be managed is required under the NPPF for all Major Planning Applications as amended within the NPPG from the 6 April 2015. Therefore, for the LLFA to be able to advise the Local Planning Authority that there is no flood risk from surface water an application for full planning permission should include the following:

1. Updated modelling with any supporting information.
2. Clarification of the submitted surface water drainage strategy.

**Overcoming our objection**

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1. We are happy to see the usage of multifunctional features like green roofs. We note the final discharge from the site will be limited to 3.8 l/s, which corresponds to the 1 in 100 year greenfield runoff rate.

The proposed discharge rate provides betterment compare to the existing mechanism on the site. However, the applicant should aim to achieve greenfield runoff rates for the relevant rainfall events. No technical justification has been provided on why this cannot be achieved. Moreover, in the submitted FRA the applicant indicated that the final discharge will be limited to 1 l/s. Therefore, we would advise the discharge rate to be reduced and limited to 1 l/s or limited to greenfield runoff rates for the relevant rainfall events.

Post development calculations have been provided. We note green roofs and roof planters have been incorporated in the design and have been introduced in the drainage network model as such. Those SuDS systems are fully justified in term of SuDS benefits (landscape/public amenity), however they should not be included in the calculation as part of the storage volume unless this volume is available for attenuation only and drain down times are included. Therefore, we would encourage the applicant to consider the usage of blue roof structures, as in our view those are suitable features for residential developments.

Moreover, the applicant should estimate half drain down times for all SuDS storage features, especially for the underground tank with 1.6m depth.

In the submitted model we also noted that margins for flood risk warnings have been removed. Therefore, the applicant should clarify this. In line with a standard design margins for flood risk warnings should be set at 300mm.

2. We note that some of car parking areas, located outside of the building footprint, will be provided with permeable paving with sub-base. However, there are some parking spaces where these structures cannot be provided. Therefore, the applicant should clarify how surface water from those areas will be captured and treated prior to reaching the piped network.

Moreover, it should be clarified and identify on a plan how the rest of undercroft parking will be drained, as no information has been provided.

As the LLFA, we are assessing surface water drainage within the application's red line boundary. Therefore, the applicant should clarify how they intend to drain new proposed footpaths around the building.

On the submitted drainage plan the proposed depth of the cellular storage does not match with the cross section drawing included. We would advise this should be consistent and the layout plan should be updated. In addition, depth of permeable paving sub-base structure should be also clarified.

Any changes based on our comments above should be supported by an updated report, modelling and an updated drainage layout. The applicant should ensure the drainage strategy report matches with the provided FRA.

### **Informative to the LPA**

The applicant can overcome our objection by submitting information which covers the deficiencies highlighted above and demonstrates that the development will not increase risk elsewhere and where possible reduces flood risk overall and gives priority to the use of sustainable drainage methods.

If this cannot be achieved, we are likely to maintain our objection to the application.

We ask to be re-consulted when the amended surface drainage assessment will be submitted. We will provide you with bespoke comments within 21 days of receiving formal re-consultation. Our objection will be maintained until an adequate surface water management scheme has been submitted.

Yours sincerely,

Julia Puton  
SuDS Officer  
Hertfordshire County Council