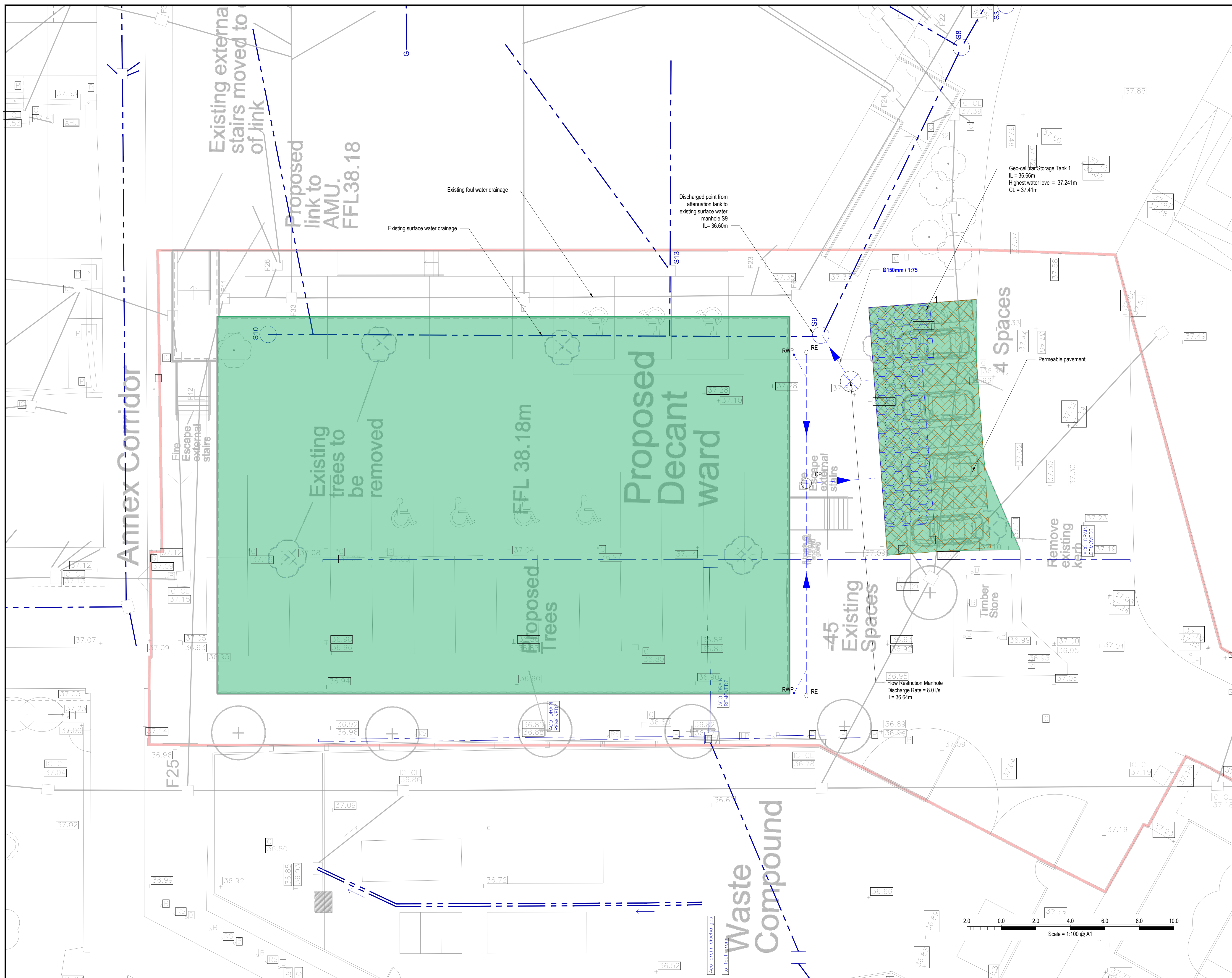


Appendix K

Proposed Surface Water Drainage Strategy



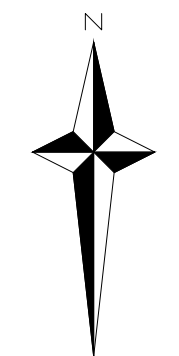
- ## NOTES
1. Dimensions not to be scaled.
 2. Site layout from Oxford Architects (Ref: 19103-OA-A-B1-DR-2002-00, date: 17/09/2019).
 3. Topographical survey from Stiline Geomatic Surveyors (Ref: 712HH01, date: September 2019).
 4. Site drainage survey from Nexus Planning Ltd.
 5. SuDS features sized based on MicroDrainage calculations.
 6. Refer to the Flood Risk Assessment for the surface water drainage strategy.

KEY

- Application Site Boundary
- Existing Surface Water Drainage
- Proposed Surface Water Drain
- Existing Foul Water Drainage
- Proposed RWP
- Proposed Rodding Eye
- Impermeable Area managed by the storage tank Area: 817m²
- Proposed permeable pavement
- 1
- Geo-cellular Storage Tank 1:**
Total Area: 38.6m²
Depth: 0.6m (4 No Permeability Units)
CL: 37.41m AOD
IL: 36.66m AOD
Max. Water level: 37.241m AOD (1% AEP+40% CC)
Max. Water depth: 0.581m deep (1% AEP+40% CC)
Max. Outflow rate: 8.0/s (1% AEP+40% CC)
Max. Volume: 21.3m³ (1% AEP+40% CC)
- Outflow Control:**
Hydro-Brake Opposite
Model: MD-SHE-0137-8000-0600-8000
Orifice: 137mm

DRAINAGE STRATEGY

- All surface water run-off from the proposed development within Area 1 are to be discharged by gravity to the existing surface water manhole Ref. S9 which currently serves the Hillington Hospital campus.
- The surface water discharge rate has been restricted to a 50% reduction in existing run-off rate of approximately 16l/s for the 817m² of impermeable area of Area 1.
- The surface water run-off will be managed by a geo-cellular storage tank prior to discharge.
- The SuDS features have been designed to cater for all storm events up to and including the 1 in 100 year + 40% climate change storm event.



P1	First Preliminary Issue	19.12.2019 AQ	KR
Rev.	Description	Date	Chkd



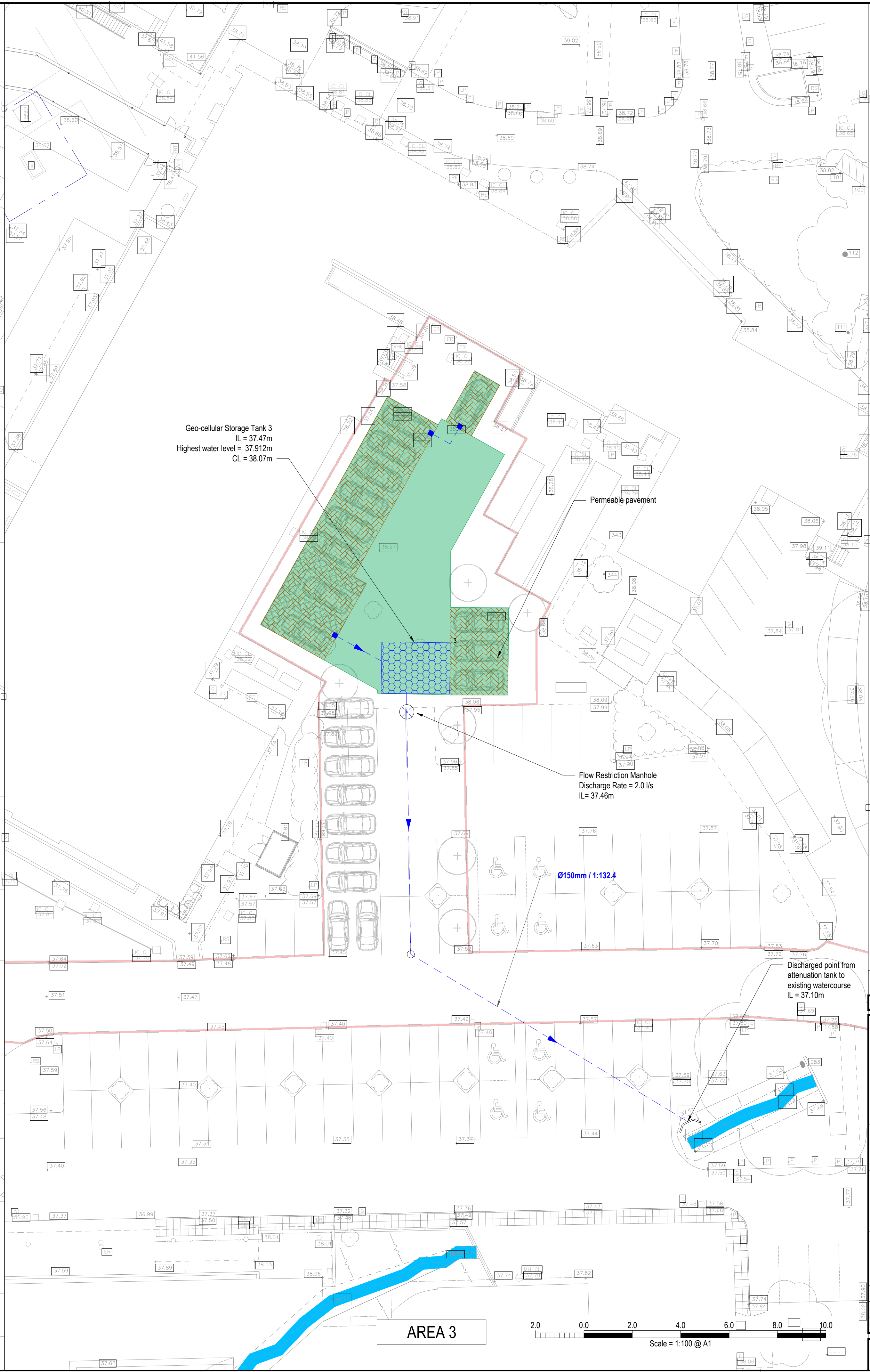
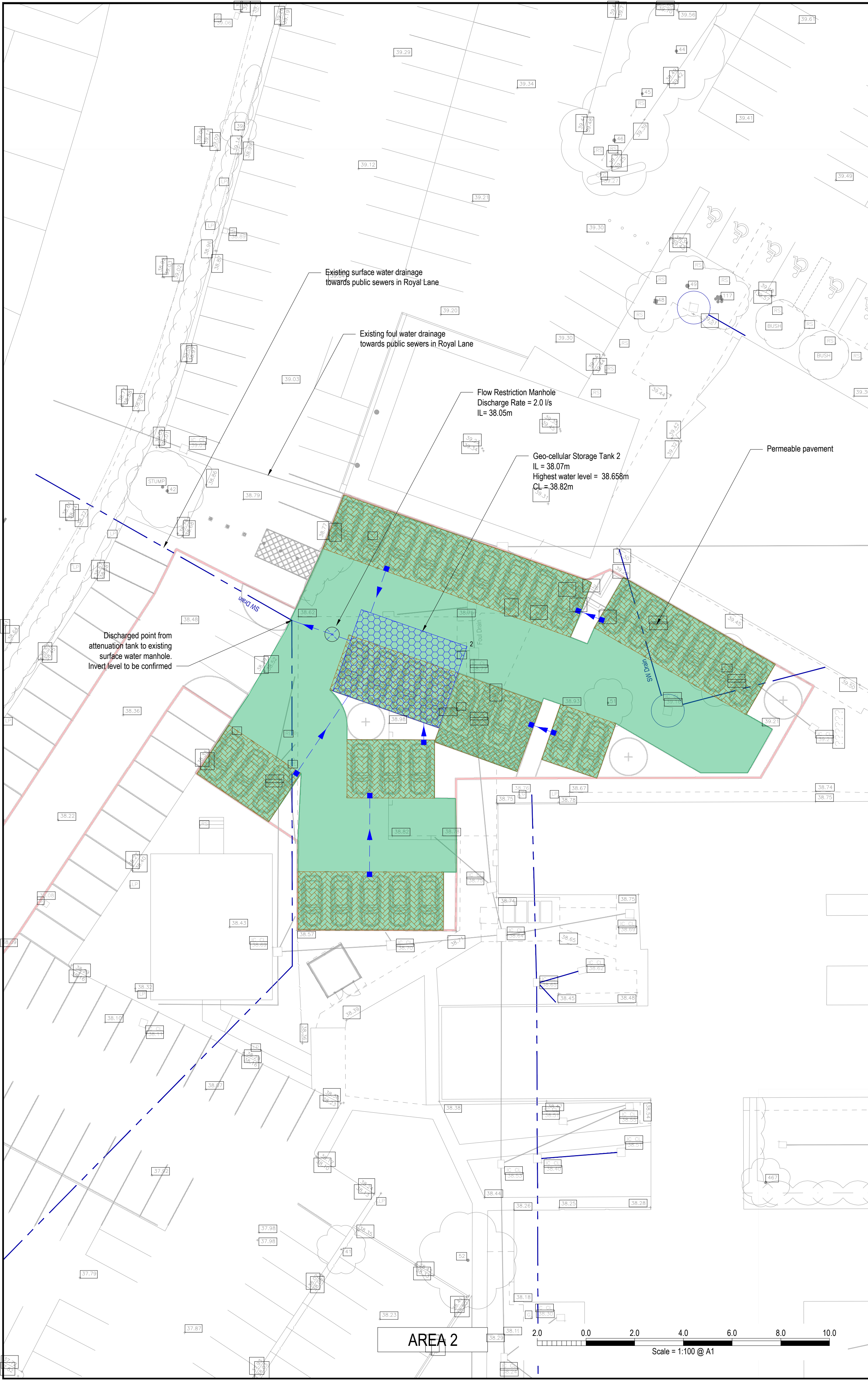
Client : Nexus Planning Ltd

Project : Hillingdon Hospital
Uxbridge, UB8 3NN
Proposed Decant Ward

Title : Surface Water Drainage Strategy
Area 1

Project Engineer :	A. Quigley	Scale :	1:100 @ A1
Project Director :	K Rayner	Date :	December 2019
Status :	PRELIMINARY		

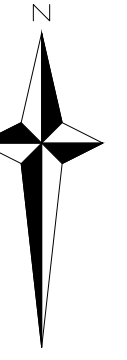
Drawing No. CV8190857 - SK05	Rev P1
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- NOTES
1. Dimensions not to be scaled.
 2. Site layout from Oxford Architects (Ref: 19103-OA-A-B1-DR-2002-00, date: 17/09/2019).
 3. Topographical survey from Stirling Geomatic Surveyors (Ref: 712HH01, date: September 2019).
 4. Site drainage survey from Nexus Planning Ltd.
 5. SuDS features sized based on MicroDrainage calculations. Refer to the Flood Risk Assessment for the surface water drainage strategy.

- KEY
- Application Site Boundary
 - Existing Surface Water Drainage
 - Proposed Surface Water Drain
 - Existing Foul Water Drainage
 - Proposed Headwall
 - Proposed distribution / collection tank
 - Impermeable Area managed by the storage tanks
Area 2: 813m²
Area 3: 320m²
 - Proposed permeable pavement
- 2
Geo-cellular Storage Tank 2:
Total Area: 65.2m² (7.1m wide x 9.2m long)
Depth: 0.8m (4 No Permeable Units)
CL: 38.82m AOD
IL: 38.07m AOD
Max. Water level: 38.658m AOD (1% AEP+40% CC)
Max. Water depth: 0.588m deep (1% AEP+40% CC)
Max. Outflow rate: 2.0 l/s (1% AEP+40% CC)
Max. Volume: 36.4m³ (1% AEP+40% CC)
- 3
Geo-cellular Storage Tank 3:
Total Area: 24.1m² (4.2m wide x 5.7m long)
Depth: 0.45m (3 No Permeable Units)
CL: 38.07m AOD
IL: 37.47m AOD
Max. Water level: 37.912m AOD (1% AEP+40% CC)
Max. Water depth: 0.442m deep (1% AEP+40% CC)
Max. Outflow rate: 2.0 l/s (1% AEP+40% CC)
Max. Volume: 10.1m³ (1% AEP+40% CC)
- Outflow Control:
- Storage Tank 2:
Hydro-Brake Optimum®
Model: MD-SHE-0073-2000-0600-2000
Ø Office: 73mm
- Storage Tank 3:
Hydro-Brake Optimum®
Model: MD-SHE-0075-2000-0450-2000
Ø Office: 75mm

- DRAINAGE STRATEGY
- All surface water run-off from the proposed development within Area 2 are to be discharged by gravity to the existing surface water manhole which currently serves the Hillingdon Hospital campus.
 - All surface water run-off from the proposed development within Area 3 are to be discharged by gravity to the adjacent watercourse to the south-east.
 - The surface water discharge rate has been restricted to the practical value of 2 l/s for the 813m² of impermeable area of Area 2, as well as, the 320m² of impermeable area of Area 3.
 - The surface water run-off for both Area 2 and Area 3 will be managed by geo-cellular storage tanks prior to discharge.
 - The SuDS features have been designed to cater for all storm events up to and including the 1 in 100 year + 40% climate change storm event.



P1	First Preliminary Issue	19.12.2019	KR
Rev.	Description	Date	Chkd

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Client : Nexus Planning Ltd

Project : Hillingdon Hospital
Uxbridge, UB8 3NN
Proposed Decant Ward

Title : Surface Water Drainage Strategy
Area 2 & 3

Project Engineer : A. Quigley Scale : 1:200 @ A1
Project Director : K Rayner Date : December 2019
Status : PRELIMINARY

Drawing No. CV8190857 - SK06 Rev P1



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