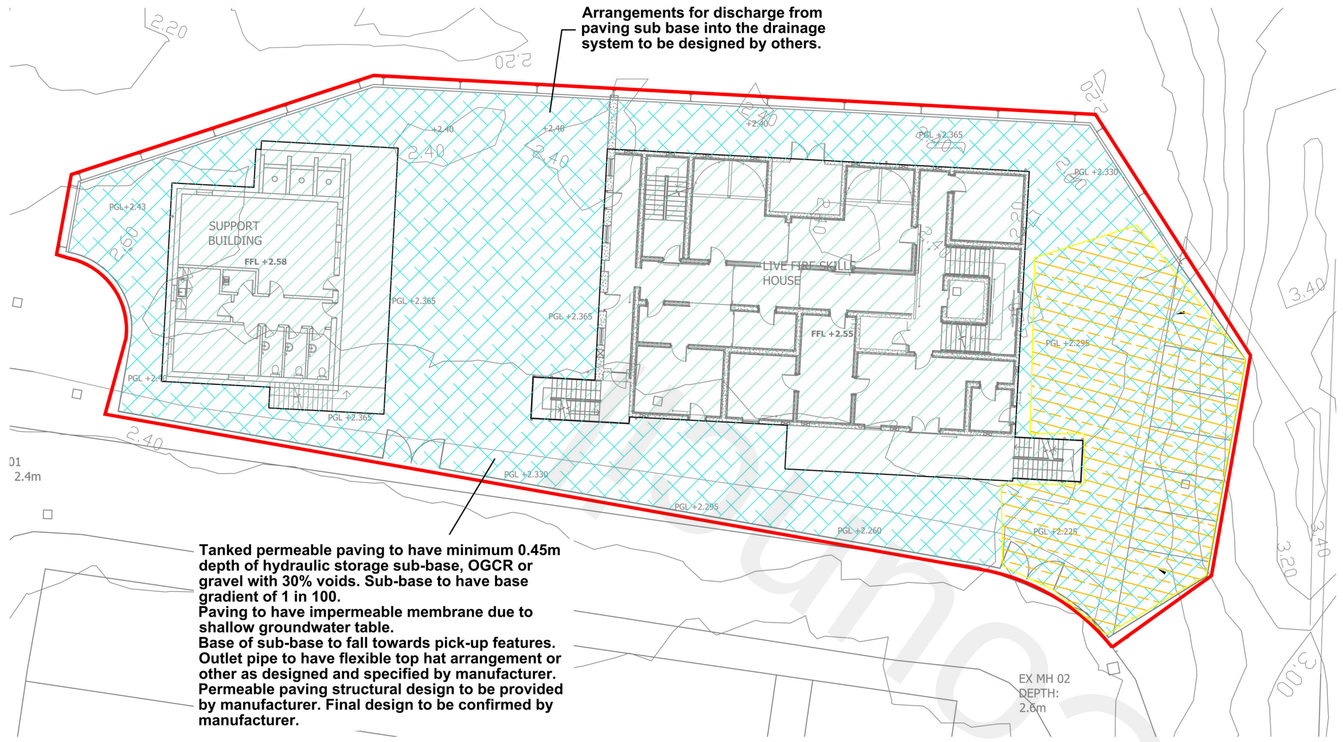


Contributing Areas

Scale 1:250 @ A1

Key:

- Permeable paving (Type C non infiltrating) (824m²)
- Building roof (604m²)

Drainage Strategy:

- Design based on strategy supplied by Adkins.
- Drainage strategy consists of permeable paving and an attenuation tank with controlled discharge to an existing surface water manhole which then discharges via an existing connection into the nearby watercourse.
- Permeable paving will discharge via perforated pick up drains or top hat type outlets. Base of storage sub-base to fall towards pick up / discharge points, all as manufacturer's design.
- Surface water will discharge to watercourse via existing outfall connected to the existing MH 02 manhole, subject to agreement by sewer/water authority and third party landowners.
- Discharge rate will be controlled by hydrobrake to 2 l/s, subject to approval.

Pollution hazard indices (Table 26.2 SuDS Manual)

Land Use	Pollution hazard level	Total suspended solids	Metals	Hydrocarbons
Non residential roofs	Low	0.3	0.2	0.05
Individual property driveways, residential car parks, low traffic roads	Low	0.5	0.4	0.4

Indicative SuDS mitigation indices (Table 26.4 SuDS Manual)

SuDS component	Total suspended solids	Metals	Hydrocarbons
Permeable paving	0.7	0.6	0.7
Total	0.7	0.6	0.7

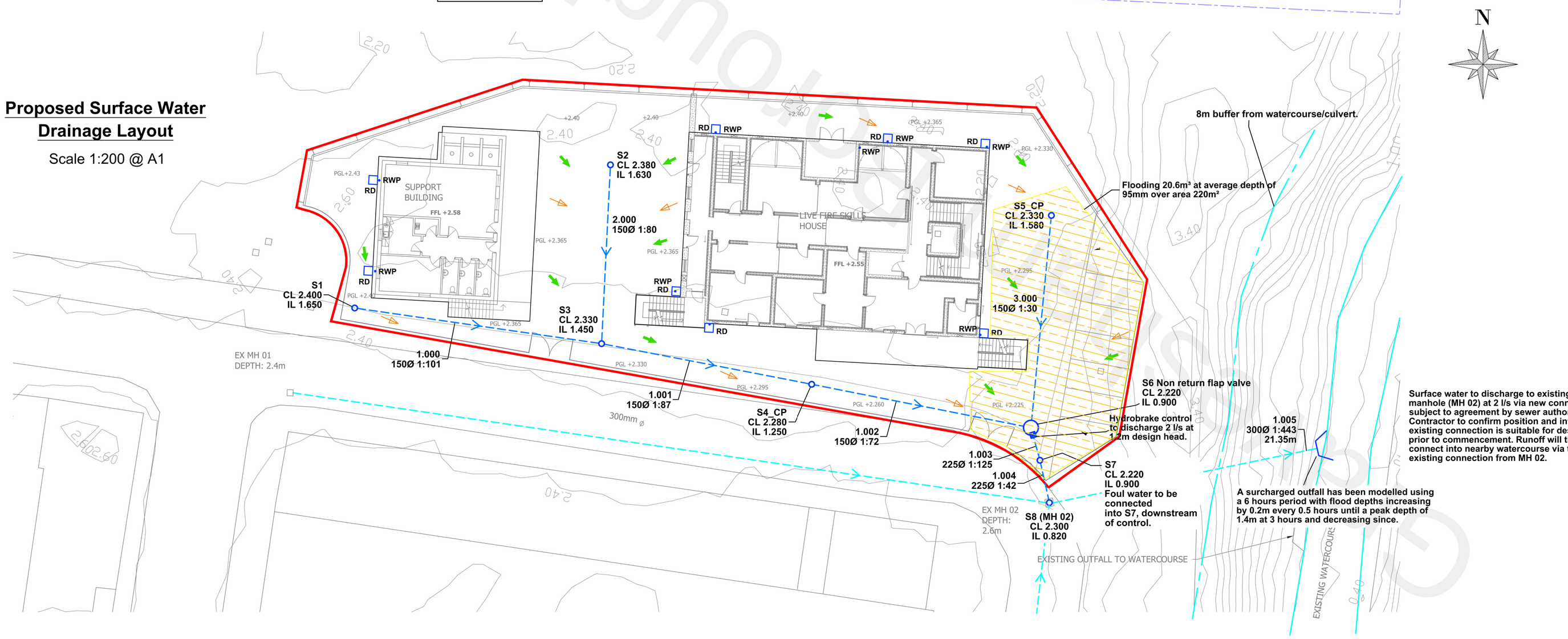
Notes.

1. Do not scale from this drawing.
2. All dimensions are in millimeters unless otherwise stated.
3. This drawing to be read in conjunction with all other relevant drawings and documents.
4. All drainage to be constructed to SSG Design and Construction Guidance, current british standards and building regulations and other relevant standards.
5. Exact locations of rain water downpipes and other internal drainage down pipes to be confirmed by architect / M&E engineer. Internal SVPs and other internal foul drainage to be designed by M&E engineer. Rain water pipes to discharge directly to permeable paving surface. Above ground drainage and pipes to be designed by M&E engineer.
6. Contractor to confirm locations of existing services prior to commencement on site and to arrange for any necessary diversions, lowering or protection works as required.
7. All specialist drainage components such as attenuation tanks, flow control and pumping stations to be designed and installed as per manufacturers requirements.
8. Cover levels to be confirmed by landscape architect. Cover levels and invert levels are in meters unless otherwise stated. If cover levels change from assumed then drainage design should be re-assessed, especially in regards to extreme events.
9. Assumed linear drains not required at building thresholds, to be confirmed by external levels consultant.
10. Private surface water pipes to be 150Ø with minimum fall of 1:150 unless otherwise stated.
11. Permeable paving and outlets to be as manufacturer design and recomendations.
12. Proposed ground levels will influence the storage capacity of the permeable paving and the position of the drainage pick up features. When proposed ground levels are complete the permeable paving design should be reviewed to ensure sufficient storage is provided and that the drainage pick up features are positioned correctly.
13. Permeable paving sub-base should fall towards the drainage pick up features. Perforated pick up drains should fall towards the discharge point.
14. Minimum cover to thermoplastic pipes in garden or patio areas 0.6m, in driveway 0.9m, in road 1.2m, otherwise concrete protection will be required.
15. Access chamber cover class A15 for garden and patio, B125 for driveway, C250 for lightly trafficked roads or small private carparks.
16. As the site has previously been developed an existing suitable discharge point may already be present on the site.
17. Discharge is to watercourse. A surcharged outfall has been modelled to account for rising water levels.
18. Design is for planning purposes only and not for construction. Design should be confirmed prior to construction to ensure all available information is considered and any assumed information should be verified.
19. Design should be reviewed in light of any additional information or on validation or otherwise of any assumptions.

Existing Culvert

Proposed Surface Water Drainage Layout

Scale 1:200 @ A1



Key:

- RWP — Rain water pipe
- RD — SELSource Rainwater Diffuser with orifice control chamber, or similar
- Surface water drain
- Existing surface water drain
- CP — Catchpit
- Surface manhole with: S1 / CL 2.400 / IL 1.700 — Reference number / Cover level / Invert level
- Outfall
- Overland flow routes
- Spot level, assumed
- Watercourse/culvert
- Watercourse/culvert 8m buffer
- Flooding extent

0 4m 8m 12m 16m 20m

10mm = 2m (1:200 @ A1)

Signed off By:
Mehrdad Bahari, PhD, CEng,MICE
For Construction
13/01/2023

Rev	Date	Detail	Drwn	Chkd
P02	22.02.23	Location of the culvert of site	DS	MG
P01	13.01.23	Initial issue	DS	MG

Client: Adkins Consultants Ltd — Surveying, Administration & Management for the Construction Industry

Project: Specialist Firearms Command SCO19, Wharf Road, Gravesend

Drawing Title: Proposed Surface Water Drainage Layout

GeoSmart Information

Suite 9-11, 1st Floor, Old Bank Buildings, Bellstone, Shrewsbury, SY1 1HU

Drawn by:	Checked by:	Date:
DS	MG	Jan. 2023
Scale: As shown		Status: Preliminary
Drawing No: 77443.02 100		Issue: P02