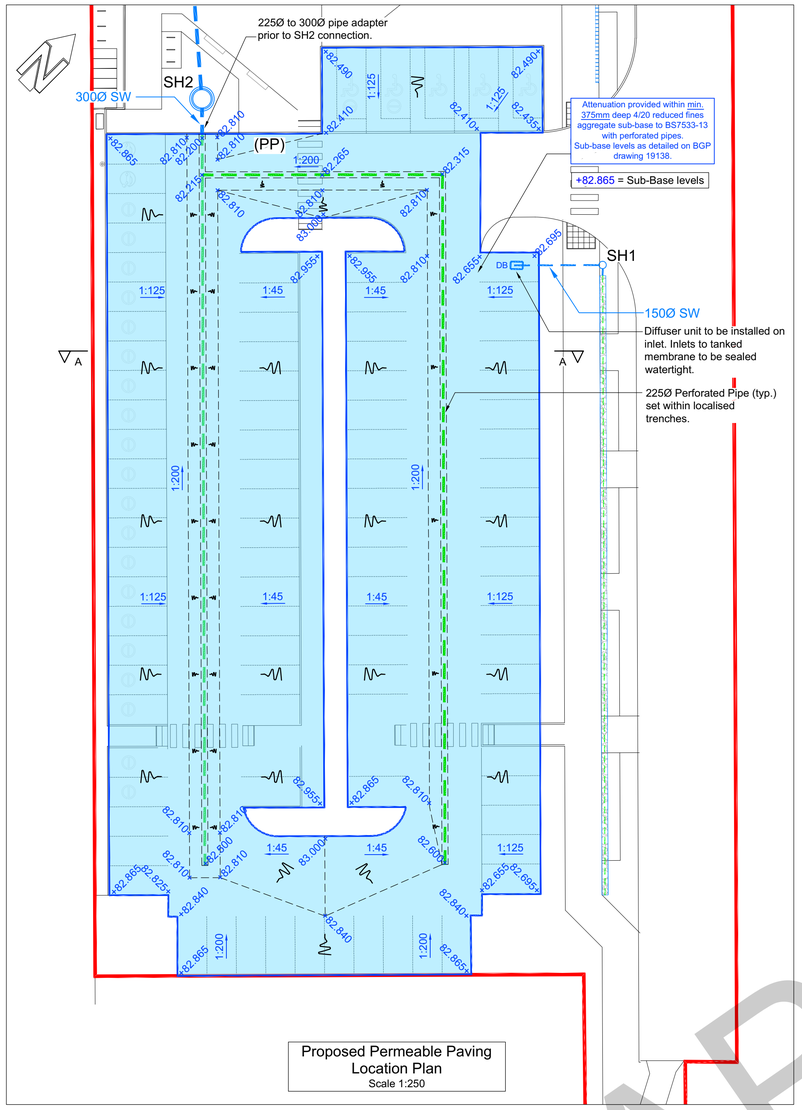


Proposed Permeable Paving Location Plan
Scale 1:250

Permeable Paving (4/20 coarse aggregate) Sub-base, Laying and Jointing Material Specification

Tables Reproduced from BS 7533-13:2009. Contractor to confirm below recommendations meet block paving manufacturers requirements.

A.1 Grading recommendations for sub-base material

Aggregates should conform to Table A.1.

Table A.1 **Sub-base grading**

Sieve size	Percentage passing	
mm	Coarse aggregate, 4/40	Coarse aggregate, 4/20
80	100	—
63	98–100	—
40	90–99	100
31.5	—	98–100
20	25–70	90–99
10	—	25–70
4	0–15	0–15
2	0–5	0–5
1	—	—

NOTE The gradings for 4/20 are typical and advice should be sought from the block manufacturer on specific gradings suitable for their product/system.

Note
The surface course should be inspected soon after completion and at regular intervals thereafter. Additional jointing material should be brushed in where necessary and inspected 6 months after installation to refill as required to ensure joints are fully reinstated as per the original construction.

A.2 Grading for laying and jointing material

Aggregates for laying and jointing material should conform to Table A.2.

Table A.2 **Laying course and jointing material grading**

BS sieve size (BS EN 993-1)	Percentage passing
mm	
14	100
10	98–100
6.3	80–99
2.0	0–20
1.0	0–5

NOTE These gradings are typical, advice should be sought from the block manufacturer on specific gradings suitable for their product/system.

Note
ALL 4/20mm coarse graded aggregate material must not be contaminated and must be protected during construction works from trafficking in accordance with Interpave Guidance

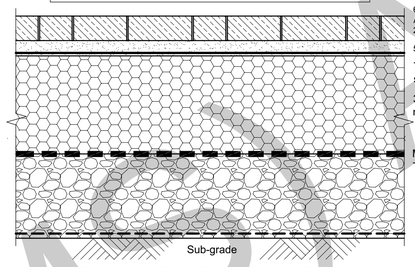
Note
Advice should be sought from the paving unit manufacturer about exactly what material is suitable for the laying course for that particular paving unit.

Suitable for Car loading only. If heavy construction traffic over-run is to occur during construction the contractor is to advise, if so a 70mm 'AC32 dense 40/60' base course is required. (Following construction and prior to installation of blocks and bedding layer. Tarmac base to be cleaned of dirt build-up with 75mm Ø holes punched through tarmac surface on a 750mm orthogonal grid and filled with compacted free draining laying course material.)

Note: Depth of construction to be lowered local to perforated pipes to create low lying trench.

Note

Permeable Blocks to be maintained in strict accordance with manufacturers recommendations and BGP SuDS Maintenance Document "ISH-BGP-19-XX-T-C-0003"

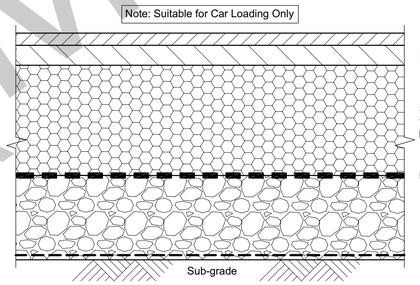


60mm Priora block laid in Herringbone pattern. Paving colour in accordance with Architects requirements and BS7533-3:2005.
2 - 6mm grit in accordance with Table A.2 brushed into joints from BS 7533-13
50mm (compacted thickness) 6mm aggregate in accordance with Table A.2.
Terram T1000 permeable geotextile membrane separation layer
375mm min. Coarse Graded Aggregate 4/20 to BS7533-13:2009 minimum 30% void ratio. Depth varies, see drainage drawings.
M380 Tanking Membrane by Marshalls or similar approved. To be lapped up at edges.
Min. 275mm Granular type 6f5 Capping*
Terram T1000 Geotextile (installed above subgrade)

Permeable Block Paving Parking Bays (Interpave Traffic Category 3)
Scale 1:10

④

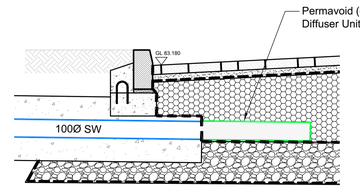
Note: Suitable for Car Loading Only



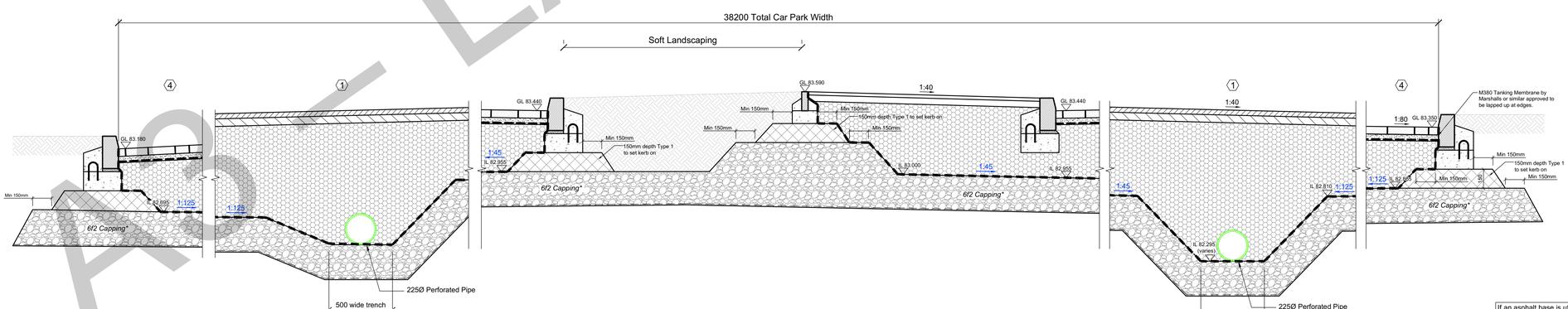
40mm AC10 C Surf 100/150
60mm AC20 Dense Binder 100/150
375mm min. Coarse Graded Aggregate 4/20 to BS7533-13:2009 minimum 30% void ratio. Depth varies, see drainage drawings.
M380 Tanking Membrane by Marshalls or similar approved. To be lapped up at edges.
Min. 275mm Granular type 6f5 capping*
Terram T1000 Geotextile (installed above subgrade)

Asphalt Concrete Access Road (MPA (1) Heavier Usage)
Scale 1:10

①



Typical Diffuser Detail
Scale 1:20



Section A - A
Scale 1:20

If an asphalt base is utilised, 50mm Ø holes on a 2m orthogonal grid is to be provided within the tarmac base layer beneath the bedding to enable surface water to pass into the subbase. A geotextile is to be provided over the holes to prevent the bed migrating

- DO NOT SCALE -

Notes

1. All works to be carried out in accordance with:
 - 1.1 Design and Construction Guidance (DCG) and Sewerage Sector Guidance (SSG) for all sewers proposed to be offered for adoption. (note - the SSG replaces Sewers for Adoption (SfA) for all new developments)
 - 1.2 BS EN 752 - 'Drain and Sewer Systems Outside Buildings'
 - 1.3 Current applicable Building Regulations
 - 1.4 BGP Specifications
 - 1.5 Manufacturer installation guidance and requirements
2. All levels shown are in metres and are relative to ordnance datum (m AOD).
3. Connection to United Utilities sewers are only to be carried out under an S106 agreement by UU approved term contractors unless agreed otherwise between both parties. (organised by main contractor)
4. Invert levels of all existing chambers and connection points are to be confirmed and engineer advised prior to commencement of any Drainage Works.
5. Where proposed sewers connect into existing sewers, the existing sewers must to be checked for line, level and condition preferably by a CCTV survey
6. Concrete bed and surround is required to all gully leads and to all pipes in highways/hardstanding where cover to pipe <1200mm
7. All pipes to be either extra strength V.C. to BS 65 or PVC certified to WIS 4-35-01 and BS/EN13476 or concrete pipes Class 120 to BS/EN 1916/BS5911-1 2002.
8. All RWP and slab penetration (PU) locations are indicative and accurate positions should be taken from the Architects drawings. All slab penetrations to be roddable above ground level via access pipe.
9. Existing sewer positions are indicative and are not to be used in conjunction with design. Contractor to confirm location.
10. All existing drainage to be cleaned and jetted as part of the contract
11. All RWP connections to be 100Ø and Surface water sewers to be 150Ø unless noted otherwise.
12. All FW drains to be 150Ø between inspection chambers/manholes and 100Ø unless noted otherwise elsewhere.
13. Contractor is responsible for positioning MHs so they do not compromise line or level of kerbing or other delineation at the juncture of two surface materials.
14. Cover levels shown are indicative and may vary on site. The contractor should adjust levels to suit site conditions
15. All internal manholes to be Type 'PPIC' with double seal covers u.n.o
16. All drainage beneath foundations / slab and building footprint is to be 150mm GEN3 concrete surround.
17. Other services are not shown on this drawing, however their presence must be anticipated. The contractor is to confirm prior to commencing any works, the location and depth of all services that may affect the works the manufacturers requirements and recommendations.

S.H.E.
Do not excavate until all underground services have been identified and marked out. Refer to service providers drawings and to the utilities survey drawings. Unknown underground services may exist. Check for services by carrying out a scan with a cable avoidance tool.

Legend

Proposed SW Drain
Site Boundary
225Ø Perforated Pipe
Extent of 4/20 Sub-base Attenuation (Car Parking)

*Capping Requirements

CBR Value (%)	Thickness of Capping Layer (mm)
> 5%	Not Required
> 2% - 5%	275
< 2%	525mm or by specialist

Notes

Where a capping layer is required it shall achieve a CBR value of not less than 15% when tested in accordance with Test Method 7 of B.S.1377.

Selected granular fill material used as capping materials shall comply with the requirements of the Manual of Contract Documents for Highway Works – CC 601 - Earthworks.

The capping requirements indicated are based on assumed Site Investigation findings.

Final capping requirements are subject to insitu CBR testing in line with the above table. Testing is to be carried out at subgrade level to confirm CBR%. CBR testing is to be carried out at 10m ctrs longitudinally along carriageways or a 10m grid in expanses of hardstanding area. Findings are to be reported to the engineer.

NOT FOR CONSTRUCTION

AMENDMENT	BY	REV	CHK	DATE
Stage 4 Issue	JN	C02	JJH	07.09.2026
Stage 4 Issue	JN	C01	JJH	18.06.2026

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Client	Cumberland Council
Project	ISH Hub
BGP Project No.	21T2034
Drawing Title	Permeable Car Park Details

Drawn	Date	Checked	Date	Size	Scale	Rev.
JN	JUN '26	JJH	JUN '26	A1	1:250	C02

Location	Originator	Volume	Level	Form	Role	Unique No.
ISH	BGP	19	XX	D	C	19138

File Reference
ISH-BGP-19-XX-D-C-19138

In instances where this drawing completes or partly completes a contract, BGP Consulting Limited will consider that it's product has been validated, unless in a period not exceeding 90 working days, the client advises to the contrary.

A3 LAP (MS) Authorised