# Drainage Maintenance and Management Schedule

**The Civil Engineering Practice**
11 Tungsten Building
George Street
Fishersgate
Sussex
BN41 1RA
01273 424424
reception@civil.co.uk
www.civil.co.uk

| | |
|---|---|
| **Project** | **Land West of Hook Lane, Westergate** |
| **Project Number** | **23582** |
| **By** | Stuart Magowan |
| **Date** | 9 March 2023 |

## 1 Introduction

1.1 The Surface Water system on site drains surface water from roofs via catchpits and distributions tanks into a lined permeable stone located below the access road and parking areas.

1.2 The parking areas are permeable and drain directly to the permeable stone below permeable surfacing.

1.3 The permeable stone discharges surface water at a restricted rate of 2l/s to the existing drainage ditch approximately 85m west of the north west site boundary.

1.4 The permeable stone provides storage for all rainfall event up to the 100 year plus climate change event.

1.5 The permeable stone and permeable road and parking construction provides suitable water quality mitigation to meet the level of risk on the site.

## 2 Schedule of Maintenance

2.1 Once appointed the Contractor will prepare a site specific method statement for the control of silt and other pollutants during construction. CIRIA Report C532, Control of water pollution from construction sites, provides further guidance on this.

2.2 The Contractor will maintain the proposed drainage system during construction and until the handing over of the site.

2.3 Upon completion the Principal Contractor will collate the data sheets, operation and maintenance details of all materials used in the construction of the site drainage system.

2.4 These details will issued to the Management Company for their records.

2.5 Upon completion management of shared drainage facilities (where not adopted by a Statutory Undertaker) will be passed on to a Management Company appointed by the

Developer on behalf of the Residents. The Management Company will be funded by the residents.

2.6 In the event that the Management Company becomes unable to discharge its duties within two years of first appointment the Developer will endeavour to appoint an alternative on behalf of the Residents.

2.7 Maintenance of individual property drainage connections is the responsibility of the individual property owners.

2.8 The following maintenance schedule details the typical tasks to be undertaken at different intervals.

| Maintenance Schedule | Required Action | Frequency |
|---|---|---|
| Regular Maintenance | Manage vegetation and remove nuisance plants – aesthetics | As required |
| | Litter and debris removal – catchpits | Monthly or as required |
| | Cleaning of gutters and any filters on downpipes | 3 Monthly |
| | Remove sediment and debris from silt trap chambers, channel drains and inlet chambers | 6 monthly |
| | Visual inspection of permeable paving for defects and settlement | Annually |
| | Sweeping / brushing of permeable paving | Every 2 years |
| | Surface and foul water pipework – jetting / rodding | Every 2 years or as required |
| Corrective Maintenance | Remove debris / blockages to silt traps / channel drains / headwalls | As required |
| | Repairs to access chambers / manhole covers | As required |
| | Replace any broken permeable blocks / surface, remedial works to any depressions or rutting | As required |
| | Inspect inlet, outlet from downpipes, channel drains, headwalls and gullies for blockages, standing water and clear | As required |
| | Reconstruct storage structures if performance deteriorates or failure occurs | As required |
| Monitoring | Inspect silt traps and note the rate sediment has accumulated | Monthly in the first year and then annually |
| | Inspect storage structures to ensure they are fully emptying | Annually |

**Indicative Schedule of Maintenance for the Proposed Drainage System**

2.9 Any parts, materials or products that require replacement or come to the end of the manufacture's recommended design life will be replaced by the Management Company or individual property owner as required.

| Component | Inspection Frequency | | | | | |
|---|---|---|---|---|---|---|
| | 1 Month | 3 Months | 6 Months | 1 Year | After leaf fall in Autumn | 2 Years |
| Gullies, Channels and Gutters | | ✓ | | | ✓ | |
| Catchpits | ✓ | | | | ✓ | |
| Surface and Foul Water Pipework | | | | | | ✓ |
| Permeable Paving | | | | ✓ | | |
| Flow Controls | | | ✓ | | | |
| Storage Facilities | | | | ✓ | | |

**Inspection Frequency Summary**

## 3 Design Life

3.1 The design life of the development is likely to exceed the design life of the components within the SuDS network. During the routine drainage inspections it may be determined that some components have reached the end of their functional life cycle.

3.2 Where possible repairs should be the first option considered however if repairs are unviable it will be necessary for the property owner / Management Company to replace the faulty component.

## 4 Emergency Plan

4.1 Potential flood and maintenance indicators:

- Manholes or inspections chambers overflowing
- Gullies overflowing or ponding
- Channel drains overflowing or ponding
- Other visual indicators of the drainage system not performing as it should

4.2 Should any of the items above occur then immediate action as outlined below should be undertaken:

- Inspect for blockages in the problem area
- Should the problem not be identified via an initial inspection:
    - For unadopted onsite drainage the Management Company should appoint a suitable drainage engineer to inspect and survey the system and jet any blockages
    - For adopted onsite drainage the relevant statutory undertaker should be alerted
    - Where it is suspected that there is a problem with the downstream drainage network the Owner or relevant statutory undertaker of that system should be alerted

FOR CONTINUATION
SEE INSET PLAN BELOW

N

-2m 0 2m 4m 6m 8m

MAINTENANCE OF PRIVATE DRAINAGE SYSTEMS

1. All private gravity drain runs should be jetted clear every two years with a visual inspection of each manhole.

2. A full CCTV survey should be carried out every ten years to ensure the structural integrity of the system.

3. All gully pots and any catch pits should be vacuum cleaned twice annually once in the spring and again after leaf fall in autumn.

4. All channel drains should be cleaned of leaves after leaf fall in autumn and the sumps cleaned. Channel drains should be jetted every two years.

5. Ring Soakaways should be visually inspected annually to check for silting or contamination. Any build-up of silt at the base of the soakaway should be removed during dry conditions when the soakaway is empty or vacuum cleaned at other times.

6. The upstream manholes leading to Trench Soakaways should be visually inspected annually to check for indications of silting of the soakaway.

7. Distribution pipes should be jetted clear every two years with a visual inspection of the manholes immediately up and downstream of these facilities.

8. Inspection of flow control devices should be undertaken at six monthly intervals to ensure that no blockages occur which could restrict flow.

9. Ponds and open watercourses should be inspected in April and November to ensure vermin guards are intact and unobstructed and weed cutting should be undertaken as required to ensure that flow is not obstructed or storage capacity reduced by excess vegetation growth

MAINTENANCE OF PERMEABLE PAVING

1. Permeable paving should be visually inspected annually for ponding, spread of blocks, deformation or potholes which could indicate sedimentation or blockages of outlets, filter drains and screens. If found any potholes or areas of settlement should be excavated and fully reconstructed.

2. Permeable bituminous areas should be vacuum swept twice annually, once in the spring and again after leaf fall in autumn.

3. 15 years after completion of construction the bitumen surface course should be inspected and if necessary tested to ensure adequate permeability, skid resistance and cohesion of the surface course remain. Should this be inadequate the surface course should be planned and a new bitumen surface course laid. Inspections should be repeated at five year intervals after the initial inspection.

4. Permeable block paving areas should be swept (but not vacuumed) twice annually, once in the spring and after leaf fall in autumn and redressed with 2-4mm gritstone if required.

5. Permeable block paving areas should be redressed with 2-4mm clean gritstone on a five yearly basis or sooner if visual inspection requires.

6. Every twenty five years or sooner if visual inspection requires blocks should be lifted and the underlying sand and membrane should be renewed and blocks relaid with any broken blocks being replaced. The sub base should remain undisturbed.

7. Every 50 years on lifting of the block paving and removal of the sand and membrane the subbase should be inspected, any soft spots or areas of rutting or settlement be removed and fully reconstructed before replacement of the membrane, sand and blocks.

8. Any material that is removed for replacement shall be reused if possible or recycled at an appropriately licensed facility.

GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.

2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.

3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

1. All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.

2. All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class Z bedding.

3. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.

4. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.

5. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.

6. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.

7. Any discrepancy between the drawing and site should be reported immediately to the Engineer.

8. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

DRAINAGE KEY:

Existing Sewers
- Existing Storm Sewer
- Existing Foul Sewer

Private Storm Drainage
- PS / PS(cp) — Inspection Chamber / Catchpit
- RE — Rodding Eye
- dt — Distribution Tank (Single)
- Permeable Sub Base
- Fin drain

Private Foul Drainage
- PF — Inspection Chambers

Adoptable Highway Drainage
- g — Road Gully

Adoptable Foul Drainage
- F — Inspection Chambers

| REV. | DATE | INT | DESCRIPTION | CHK |
|---|---|---|---|---|
| E | 09.03.23 | AJD | Minor amendments | SRM |
| D | 17.02.23 | MJP | Updated subbase depth and Hydrobrake | SRM |
| C | 02.11.22 | MJP | PS20, PS25, Hydrobrake, and permeable paving updated | SRM |
| B | 12.08.22 | MJP | Updated subbase depth. PS28 & PS29 IL | SRM |
| A | 28.07.22 | AJD | Updated to suit block plans | SRM |

Issue Status: FOR APPROVAL


The Civil Engineering Practice
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George Street
Fishersgate
Sussex
BN41 1RA

01273 424424
reception@civil.co.uk
www.civil.co.uk


CLIENT: Oceanview Developments

PROJECT: Land West Of Hook Lane, Hook Lane, Westergate

TITLE: Site Layout - Drainage

| DRAWN | DATE | PROJECT NO. |
|---|---|---|
| A Davies | July 2022 | 23582 |
| ENGINEER: S Magowan | CHECKED: SRM | ORG. No. 202 REV. E |

SCALE: 1:200 @ A1, 1:400 @ A3

INSET PLAN
(Scale 1:200)

ADOPTABLE FOUL

| MH No. | MANHOLE DIAMETER (mm) | MANHOLE TYPE | COVER LEVEL (m) | INVERT LEVEL (m) | DEPTH TO SOFFIT (m) | EASTING (m) | NORTHING (m) | COVER TYPE |
|---|---|---|---|---|---|---|---|---|
| F12 | 450 | Type E | 10.240 | 9.575 | 0.515 | 493454.036 | 104556.645 | B125 |
| F13 | 450 | Type E | 10.261 | 9.319 | 0.792 | 493454.608 | 104576.369 | B125 |
| F14 | 450 | Type E | 10.346 | 9.148 | 1.048 | 493454.903 | 104589.496 | B125 |
| F15 | 600 | Type D | 10.443 | 9.003 | 1.290 | 493453.303 | 104607.386 | B125 |
| F16 | 600 | Type D | 10.312 | 9.093 | 1.068 | 493453.303 | 104593.872 | D400 |
| F17 | 450 | Type D | 10.478 | 9.296 | 1.032 | 493422.857 | 104593.903 | D400 |
| F18 | 450 | Type E | 10.456 | 9.539 | 0.766 | 493388.385 | 104605.802 | D400 |
| F19 | 450 | Type E | 10.600 | 9.661 | 0.788 | 493389.572 | 104624.055 | D400 |
| F20 | 450 | Type E | 10.502 | 9.589 | 0.763 | 493383.715 | 104604.092 | D400 |
| F21 | 450 | Type E | 10.557 | 9.800 | 0.607 | 493422.946 | 104598.648 | B125 |
| F22 | 450 | Type E | 10.550 | 9.700 | 0.700 | 493408.265 | 104603.641 | B125 |
| F23 | 450 | Type D | 10.483 | 9.410 | 0.924 | 493406.784 | 104599.451 | D400 |

PRIVATE

| MH No. | MANHOLE DIAMETER (mm) | MANHOLE TYPE | COVER LEVEL (m) | INVERT LEVEL (m) | DEPTH TO SOFFIT (m) | EASTING (m) | NORTHING (m) | COVER TYPE |
|---|---|---|---|---|---|---|---|---|
| PS2 | 180 | Type E | 10.505 | 9.883 | 0.522 | 493439.253 | 104609.674 | A15 |
| PS3 | 500 | Catchpit | 10.615 | 9.772 | 0.742 | 493439.253 | 104598.619 | A15 |
| PS4 | 500 | Catchpit | 10.563 | 9.737 | 0.726 | 493428.073 | 104598.257 | B125 |
| PS5 | 450 | Type E | 10.617 | 9.751 | 0.766 | 493429.407 | 104598.853 | A15 |
| PS6 | 450 | Type E | 10.511 | 9.906 | 0.505 | 493434.709 | 104613.419 | A15 |
| PS7 | 450 | Type E | 10.514 | 9.992 | 0.422 | 493426.688 | 104616.337 | A15 |
| PS9 | 500 | Catchpit | 10.497 | 9.873 | 0.524 | 493397.455 | 104618.714 | A15 |
| PS10 | 450 | Type E | 10.518 | 9.993 | 0.425 | 493409.255 | 104620.874 | A15 |
| PS12 | 450 | Type E | 10.542 | 9.767 | 0.675 | 493391.787 | 104632.449 | A15 |
| PS13 | 450 | Type E | 10.300 | 9.194 | 0.881 | 493322.086 | 104657.401 | A15 |
| | | | | | | | | |
| PS15 | 450 | Type E | 10.400 | 9.453 | 0.722 | 493369.060 | 104641.069 | A15 |
| PS17 | 450 | Type E | 10.425 | 9.909 | 0.416 | 493366.817 | 104616.178 | A15 |
| PS18 | 500 | Catchpit | 10.495 | 9.746 | 0.649 | 493382.092 | 104610.624 | A15 |
| PS20 | 450 | Type E | 10.285 | 9.701 | 0.434 | 493440.934 | 104577.529 | A15 |
| PS23 | 450 | Type E | 10.273 | 9.865 | 0.309 | 493443.645 | 104567.349 | A15 |
| PS25 | 500 | Catchpit | 10.528 | 9.618 | 0.760 | 493440.986 | 104589.957 | A15 |
| PS27 | 500 | Catchpit | 10.551 | 9.651 | 0.800 | 493394.887 | 104608.915 | A15 |
| PS28 | 500 | Catchpit | 10.586 | 9.720 | 0.766 | 493390.220 | 104632.168 | A15 |
| PS29 | 500 | Catchpit | 10.516 | 9.720 | 0.696 | 493384.808 | 104621.163 | B125 |
| PS30 | 500 | Catchpit | 10.511 | 9.511 | 0.900 | 493379.698 | 104599.791 | D400 |
| PS33 | 500 | Catchpit | 10.266 | 9.870 | 0.296 | 493453.749 | 104562.300 | A15 |
| PS34 | 500 | Catchpit | 10.415 | 9.700 | 0.615 | 493426.348 | 104589.603 | B125 |
| PS36 | 500 | Catchpit | 10.280 | 9.870 | 0.310 | 493453.415 | 104567.384 | B125 |
| PS38 | 500 | Catchpit | 10.552 | 9.800 | 0.652 | 493409.114 | 104602.848 | B125 |
| PS39 | 180 | Type E | 10.495 | 9.495 | 0.900 | 493407.559 | 104599.898 | A15 |
| PS40 | 500 | Catchpit | 10.529 | 9.800 | 0.629 | 493409.240 | 104611.701 | B125 |
| RE1 | 110 | Rodding Eye | 10.436 | 9.986 | 0.350 | 493449.563 | 104609.674 | A15 |
| RE11 | 110 | Rodding Eye | 10.518 | 10.068 | 0.350 | 493416.304 | 104618.293 | A15 |
| RE16 | 110 | Rodding Eye | 10.457 | 10.007 | 0.350 | 493370.194 | 104625.443 | A15 |
| RE22 | 110 | Rodding Eye | 10.285 | 9.800 | 0.335 | 493440.872 | 104562.653 | A15 |
| RE26 | 110 | Rodding Eye | 10.245 | 9.882 | 0.264 | 493454.006 | 104577.529 | A15 |
| RE29 | 110 | Rodding Eye | 10.512 | 10.050 | 0.362 | 493378.901 | 104636.543 | A15 |
| RE31 | 110 | Rodding Eye | 10.364 | 9.628 | 0.635 | 493368.716 | 104603.785 | A15 |
| RE32 | 110 | Rodding Eye | 10.244 | 9.959 | 0.185 | 493453.491 | 104553.401 | A15 |
| PF1 | 300 | Type E | 10.225 | 9.575 | 0.550 | 493453.237 | 104561.811 | A15 |
| PF2 | 300 | Type E | 10.225 | 9.575 | 0.550 | 493453.695 | 104570.819 | A15 |
| PF3 | 450 | Type E | 10.325 | 9.675 | 0.550 | 493453.561 | 104587.644 | A15 |
| PF4 | 450 | Type E | 10.559 | 9.959 | 0.500 | 493450.904 | 104606.670 | A15 |
| PF5 | 450 | Type E | 10.556 | 9.900 | 0.556 | 493423.220 | 104600.354 | B125 |
| PF6 | 450 | Type E | 10.545 | 9.900 | 0.545 | 493409.218 | 104605.367 | B125 |
| PF7 | 450 | Type E | 10.562 | 9.875 | 0.587 | 493400.937 | 104607.055 | A15 |
| PF8 | 450 | Type E | 10.605 | 9.775 | 0.730 | 493389.885 | 104628.859 | B125 |
| PF9 | 450 | Type E | 10.604 | 9.775 | 0.729 | 493387.817 | 104624.694 | B125 |
| PF10 | 450 | Type E | 10.575 | 9.775 | 0.700 | 493385.269 | 104616.747 | B125 |
| PF11 | 450 | Type E | 10.567 | 9.727 | 0.740 | 493385.815 | 104613.101 | D400 |
| PF12 | 450 | Type E | 10.558 | 9.775 | 0.683 | 493383.535 | 104612.015 | B125 |
| PF13 | 450 | Type E | 10.503 | 9.803 | 0.600 | 493382.695 | 104606.580 | B125 |
| PF14 | 450 | Type E | 10.510 | 9.810 | 0.600 | 493380.952 | 104601.235 | D400 |

Cover Types

Carriageway: D400

Drives: B125 or C250

Non vehicular areas: A15

See Drawing 23582/203 - Surface Finishes Layout Plan

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3. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.

4. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.

5. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.

6. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.

7. Any discrepancy between the drawing and site should be reported immediately to the Engineer.

8. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

| REV | DATE | INT | DESCRIPTION | CHK |
|---|---|---|---|---|
| D | 09.03.23 | AJD | Drawing updated | SRM |
| C | 17.02.23 | MJP | Table regarding cover types added | SRM |
| B | 16.02.23 | MJP | Updated suit updated plan | SRM |
| A | 12.08.22 | MJP | Updated subbase depth. PS28 & PS29 IL | SRM |

Issue Status: PRELIMINARY

The Civil Engineering Practice
11 Tungsten Building
George Street
Fishersgate
Sussex
BN41 1RA

01273 424424
reception@civil.co.uk
www.civil.co.uk

CLIENT: Oceanview Developments

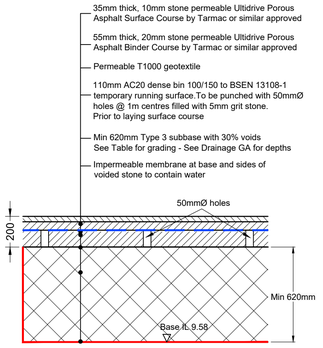
PROJECT: Land West Of Hook Lane, Hook Lane, Westergate

TITLE: Manhole Schedule

DRAWN: A Davies | DATE: July 2022 | PROJECT NO.: 23582

ENGINEER: S Magowan | CHECKED: SRM

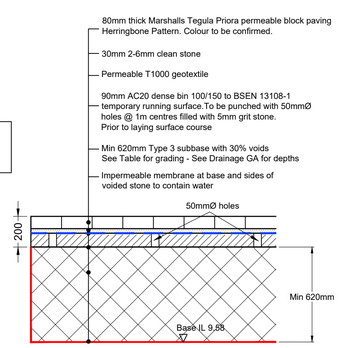
SCALE: NTS | ORG. No.: 250 | REV.: D



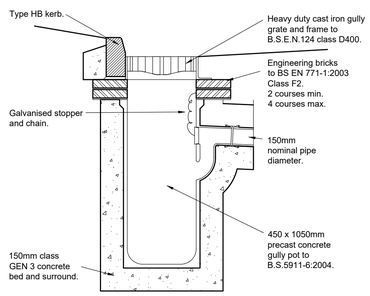

Grading of Sub-base stone

| SIEVE SIZE | % PASSING |
|---|---|
| 100mm | 100 |
| 63mm | 90-100 |
| 37.5mm | 60-90 |
| 5mm | 15-30 |
| 10mm | 0-5 |

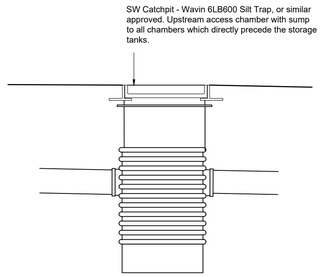
TYPE A - PERMEABLE TARMAC ACCESS ROAD CONSTRUCTION WITH TEMPORARY RUNNING COURSE
(Scale 1:20)



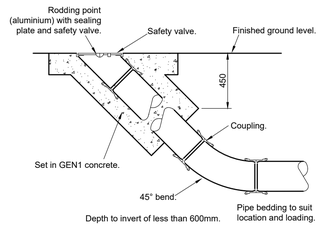

TYPE B - PERMEABLE BLOCK PAVING CAR PARK BAY CONSTRUCTION WITH TEMPORARY RUNNING COURSE
(Scale 1:20)



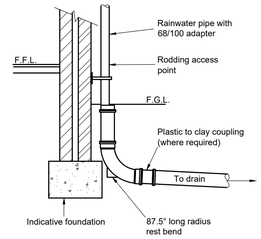

TYPICAL ROAD GULLY
(Scale 1:20)




CATCHPIT CHAMBER
(Scale 1:20)



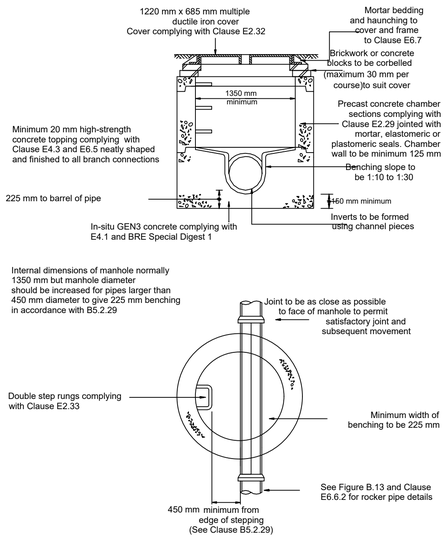

DETAIL OF RODDING EYE
(Scale 1:25)




TYPICAL RAINWATER PIPE DETAIL
(Scale 1:25)

FIGURE B.15
TYPICAL MANHOLE DETAIL - TYPE C

Depth from cover level to soffit of pipe less than 1.5 m
Maximum pipe size 450 mm diameter
Rigid material construction

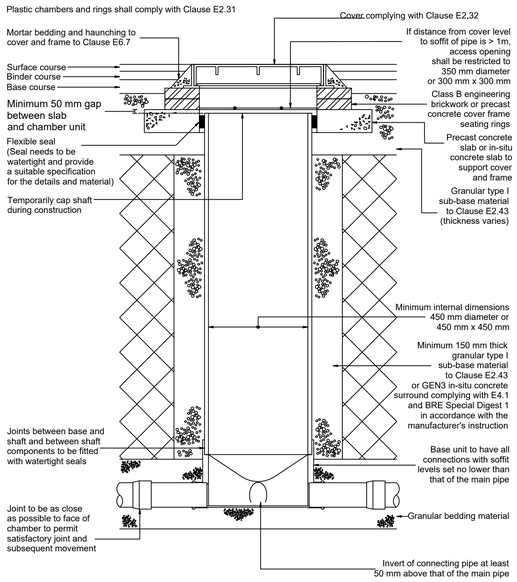



Note: The use of precast concrete chamber units to E2.29 with 150 mm GEN3 in-situ concrete complying with E4.1 and BRE Special Digest 1 in place of brickwork construction is permitted.

Not to scale

FIGURE B.18
TYPICAL INSPECTION CHAMBER DETAIL - TYPE D

Depth from cover level to soffit of pipe up to 2 m
Flexible material construction for use in areas subject to vehicle loading

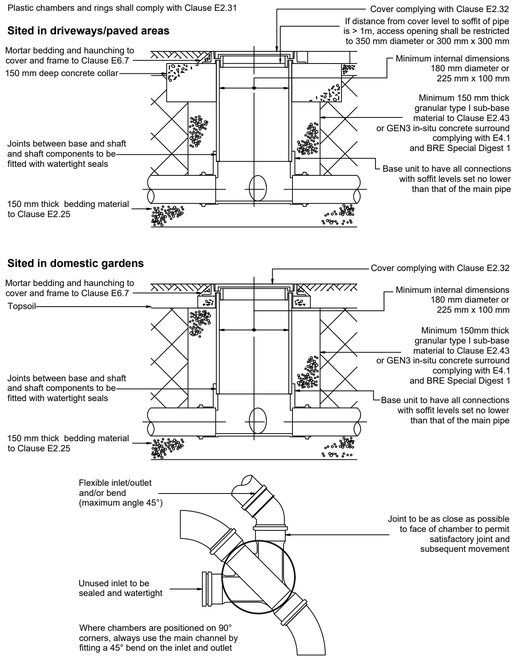



Note: Where the access chamber is in the highway (including any footway), the highway authority can have specific requirements.

Not to scale

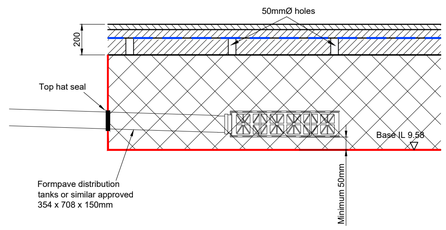
FIGURE B.23
TYPICAL INSPECTION CHAMBER DETAIL - TYPE E

Depth from cover level to soffit of pipe up to 2 m
Flexible material construction

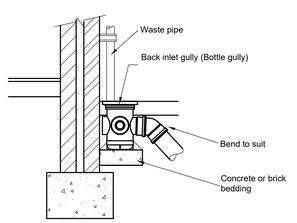



Note: Where the access chamber is in the highway (including any footway), the highway authority can have specific requirements.

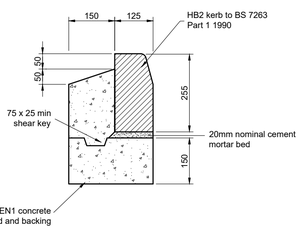
Not to scale




DIFUSER TANK DISCHARGE TO SUBBASE
(Scale 1:20)

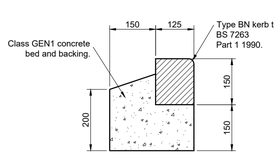



TYPICAL BACK INLET GULLY (UPVC)
(Scale 1:20)

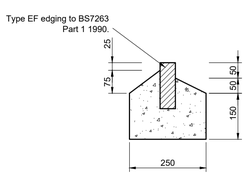



Unless otherwise stated all HB2 kerbs shall have a 125mm upstand from the carriageway

HB2 KERB DETAIL
(Scale 1:10)




BN KERB DETAIL
(Scale 1:10)




EF EDGING DETAIL
(Scale 1:10)


-10 0 10 20 30 40mm

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1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.

2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.

3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

1. All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.

2. All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class Z bedding.

3. All private building drainage shall be constructed in strict in accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.

4. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.

5. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.

6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.

7. All svps shall have rodding access plates fitted at their bases (ground floor level).

8. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.

9. Any discrepancy between the drawing and site should be reported immediately to the Engineer.

10. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

| REV | DATE | INT | DESCRIPTION | CHK |
|---|---|---|---|---|
| B | 17.02.23 | MJP | Updated subbase depth & difuser tank | SRM |
| A | 12.08.22 | MJP | Updated subbase depth | SRM |

*Issue Status* PRELIMINARY


**The Civil Engineering Practice**
11 Tungsten Building
George Street
Fishersgate
Sussex
BN41 1RA

01273 424424
reception@civil.co.uk
www.civil.co.uk

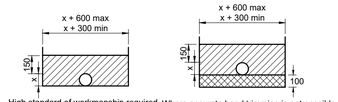

CLIENT: Oceanview Developments

PROJECT: Land West Of Hook Lane, Hook Lane, Westergate

TITLE: Construction Details

| DRAWN | DATE | PROJECT NO. |
|---|---|---|
| A Davies | July 2022 | 23582 |
| ENGINEER | CHECKED | DRG. No. / REV. |
| S Magowan | SRM | 251 B |

SCALE: As Shown @ A1

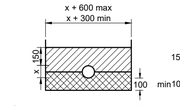



CLASS D PIPE BEDDING

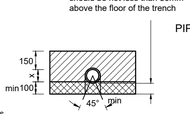



CLASS N PIPE BEDDING

| PIPE BORE | BEDDING CLASS | Fields and gardens MIN | MAX | Light traffic roads MIN | MAX | Heavy traffic roads MIN | MAX |
|---|---|---|---|---|---|---|---|
| 100mm | D or N | 0.4 | 4.2 | 0.7 | 4.1 | 0.7 | 3.7 |
| | F | 0.3 | 5.8 | 0.5 | 5.8 | 0.5 | 5.5 |
| | B | 0.3 | 7.4 | 0.4 | 7.4 | 0.4 | 7.2 |
| 150mm | D or N | 0.6 | 2.7 | 1.1 | 2.5 | -- | -- |
| | F | 0.6 | 3.9 | 0.7 | 3.8 | 0.7 | 3.3. |
| | B | 0.6 | 5.0 | 0.6 | 5.0 | 0.6 | 4.6 |
| 225mm | D or N | -- | -- | -- | -- | -- | -- |
| | F | 0.6 | 2.5 | 1.2 | 2.1 | -- | -- |
| | B | 0.6 | 3.3 | 0.8 | 3.2 | 0.9 | 2.4 |




CLASS B PIPE BEDDING



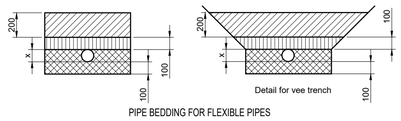

CLASS F PIPE BEDDING

PIPE BEDDING FOR RIGID APPLIES (NON ADOPTIVE DRAINS)

LEGEND:

- Selected fill: free from stones larger than 40mm, lumps of clay over 100mm, timber frozen material and vegetable matter
- Granular material: should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B.
- Selected fill or granular fill free from stones larger than 40mm

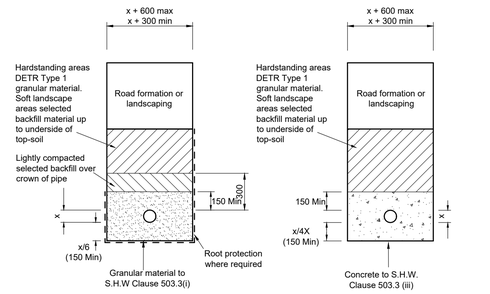
'x' - Denotes external pipe diameter.




PIPE BEDDING FOR FLEXIBLE PIPES

## PIPE BEDDING DETAILS (NON ADOPTABLE DRAINS)

(Not To Scale)




CLASS S PIPE BEDDING

SOFT LANDSCAPE AREAS OR COVER >1.2m

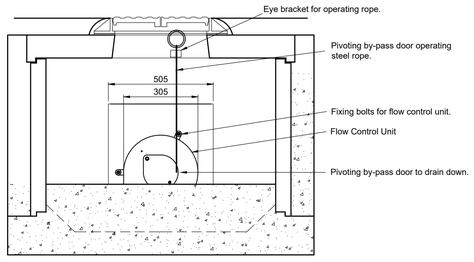
(Scale 1:25)

CLASS Z PIPE BEDDING

COVER 0.9m TO 1.2m IN VEHICULAR LOADING

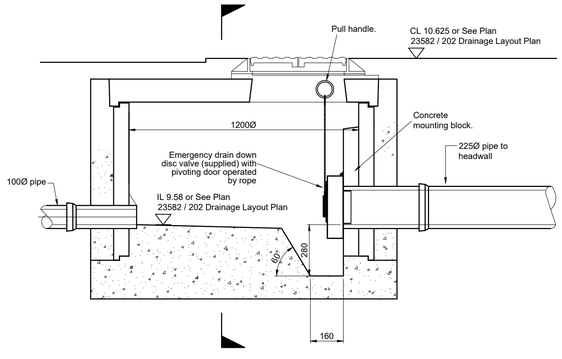
(Scale 1:25)

## ADOPTABLE PIPE BEDDING DETAILS



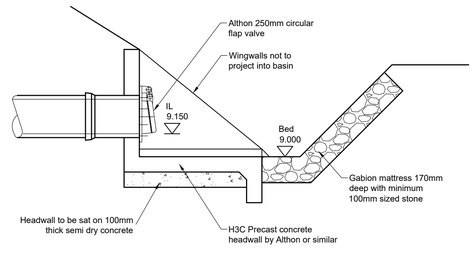

SECTION

(Scale 1:20)




FLOW CONTROL VORTEX MANHOLE

(Scale 1:20)




HEADWALL DETAIL

(Scale 1:20)



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| REV. | DATE | INT | DESCRIPTION | CHK |
|---|---|---|---|---|
| C | 09.03.23 | AJD | Hydrobrake detail updated | SRM |
| B | 17.02.23 | MJP | Outfall pipe changed to 225mm | SRM |
| A | 12.08.22 | MJP | Minor note update | SRM |

Issue Status: PRELIMINARY


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| ENGINEER | CHECKED | ORG. No. / REV. |
| S Magowan | SRM | 252 C |

SCALE: As Shown @ A1

ARUN DISTRICT COUNCIL A1-ACD/DOC