SHW = Specification for Highway Works (current amendment)

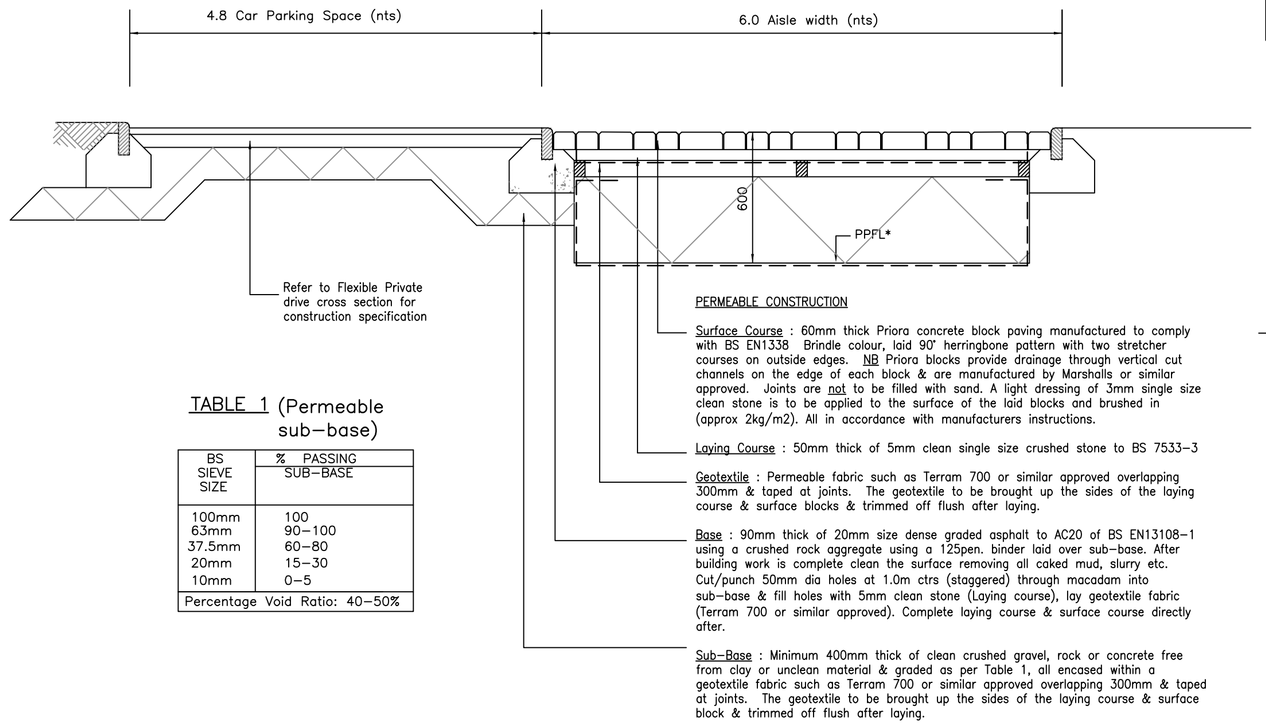


TABLE 1 (Permeable sub-base)

BS SIEVE SIZE	% PASSING SUB-BASE
100mm	100
63mm	90-100
37.5mm	60-80
20mm	15-30
10mm	0-5
Percentage Void Ratio: 40-50%	

PERMEABLE CONSTRUCTION

Surface Course : 60mm thick Priora concrete block paving manufactured to comply with BS EN1338 Brindle colour, laid 90° herringbone pattern with two stretcher courses on outside edges. NB Priora blocks provide drainage through vertical cut channels on the edge of each block & are manufactured by Marshalls or similar approved. Joints are not to be filled with sand. A light dressing of 3mm single size clean stone is to be applied to the surface of the laid blocks and brushed in (approx 2kg/m2). All in accordance with manufacturers instructions.

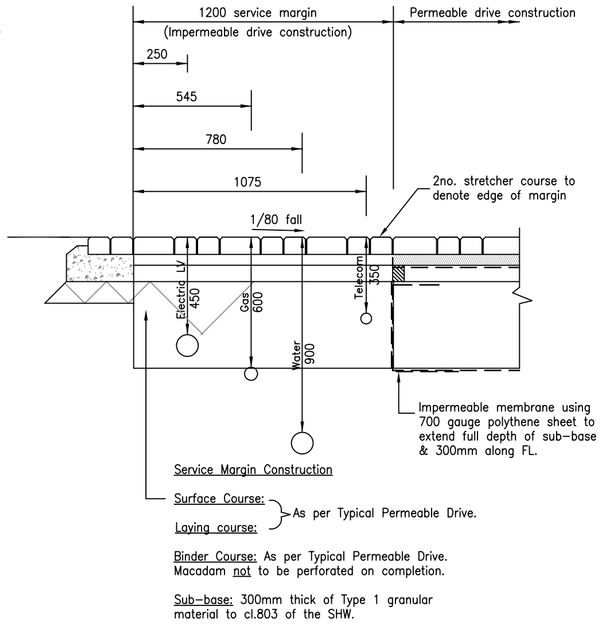
Laying Course : 50mm thick of 5mm clean single size crushed stone to BS 7533-3

Geotextile : Permeable fabric such as Terram 700 or similar approved overlapping 300mm & taped at joints. The geotextile to be brought up the sides of the laying course & surface blocks & trimmed off flush after laying.

Base : 90mm thick of 20mm size dense graded asphalt to AC20 of BS EN13108-1 using a crushed rock aggregate using a 125pen. binder laid over sub-base. After building work is complete clean the surface removing all caked mud, slurry etc. Cut/punch 50mm dia holes at 1.0m ctrs (staggered) through macadam into sub-base & fill holes with 5mm clean stone (Laying course), lay geotextile fabric (Terram 700 or similar approved). Complete laying course & surface course directly after.

Sub-Base : Minimum 400mm thick of clean crushed gravel, rock or concrete free from clay or unclean material & graded as per Table 1, all encased within a geotextile fabric such as Terram 700 or similar approved overlapping 300mm & taped at joints. The geotextile to be brought up the sides of the laying course & surface block & trimmed off flush after laying.

TYPICAL SHARED DRIVE CROSS SECTION
Scale 1:20



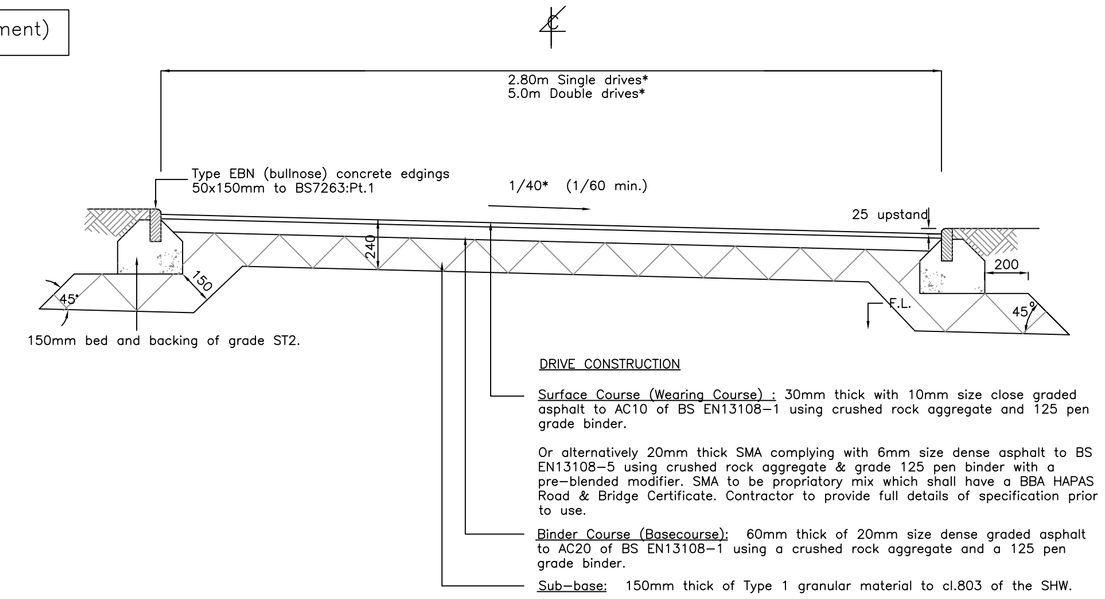
Service Margin Construction

Surface Course: } As per Typical Permeable Drive.
Laying course: }

Binder Course: As per Typical Permeable Drive. Macadam not to be perforated on completion.

Sub-base: 300mm thick of Type 1 granular material to cl.803 of the SHW.

SERVICE MARGIN CONSTRUCTION DETAIL
Refer to Combined Services Layout for location of margin
Scale 1/20



DRIVE CONSTRUCTION

Surface Course (Wearing Course) : 30mm thick with 10mm size close graded asphalt to AC10 of BS EN13108-1 using crushed rock aggregate and 125 pen grade binder.

Or alternatively 20mm thick SMA complying with 6mm size dense asphalt to BS EN13108-5 using crushed rock aggregate & grade 125 pen binder with a pre-blended modifier. SMA to be propriatory mix which shall have a BBA HAPAS Road & Bridge Certificate. Contractor to provide full details of specification prior to use.

Binder Course (Basecourse): 60mm thick of 20mm size dense graded asphalt to AC20 of BS EN13108-1 using a crushed rock aggregate and a 125 pen grade binder.

Sub-base: 150mm thick of Type 1 granular material to cl.803 of the SHW.

FLEXIBLE PRIVATE DRIVE CROSS SECTION
(Bitumen Macadam) Scale 1/20

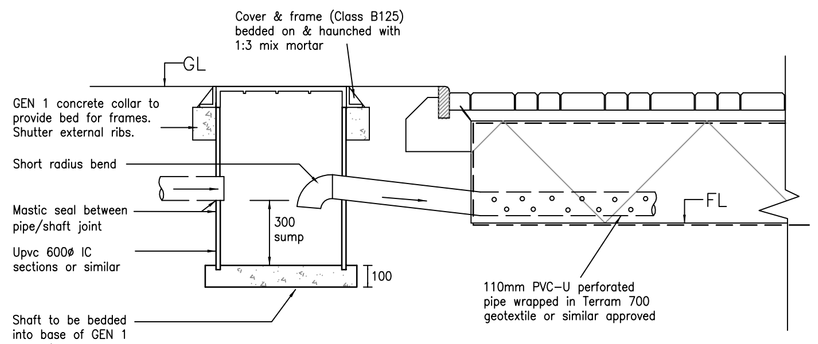
General Notes

1. The formation level (FL) shall be free of all vegetation and roots & shall be treated with a granular weed killer of the pre-emergent type.
2. The F.L. shall receive one pass of the designated roller to minimise any subsequent settlement.
3. If for any reason the F.L. is exposed to wet weather longer than 8 hours without a protective layer then the F.L. shall be reduced to a new level 200mm below the F.L. stated, or to a depth agreed with the Engineer on site. Any such material shall be classed as unacceptable.
4. Additional material required to make up levels in fill areas shall be of a well compacted granular material with a compacted CBR of 15% or greater and shall be laid and compacted in accordance with BS6031 (Code of Practice for Earthworks) An increase in width of 200mm beyond the kerb haunching will be required to facilitate adequate compaction at the edges.
5. CBR tests shall be taken once 2 above has been completed to determine/finalise the overall construction thickness, or trial holes can be taken prior to commencement of construction. These tests to be carried out by an Engineer.
6. All drive construction materials shall be laid and compacted in accordance with their respective British Standard.
   Macadams – BS 594987
   Type 1 – Series 800 of SHW.
   Kerbs – BS 7533-4
   Blocks – BS 7533-3
7. If the binder course is to be left as a running surface then it shall be sealed with coated grit immediately on compaction of the Binder course (basecourse).
8. A tack coat of K1-40 or A1-40 shall be applied to the binder course prior to the surface course being laid if the previous course is not to be covered immediately by the next layer. The rate of application shall be 0.4 L/m2.
9. Where possible surface course and binder course to the shared drives shall be machine laid using a mini-paver and compacted using a smooth wheeled roller 8-12t dead weight or equivalent. Private drives shall be hand laid.
10. Samples of Laying Course & sub-base material shall be made available to the Engineer for compliance testing 4 weeks prior to use. Random testing will be undertaken during the actual construction of the drives.

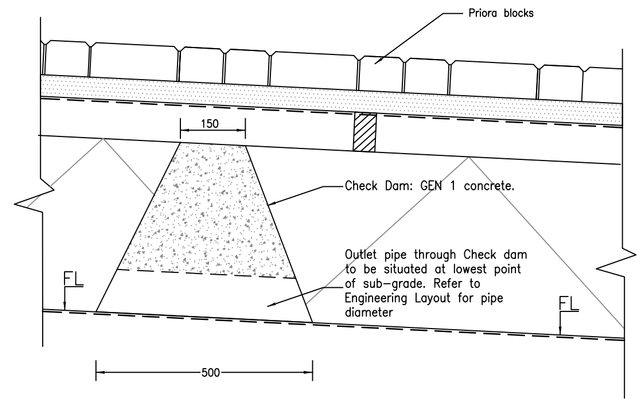
Grading & material certificates to be forwarded to BH Engineer for approval.

FL Formation Level
GL Ground Level
PPFL Permeable Paving Formation level

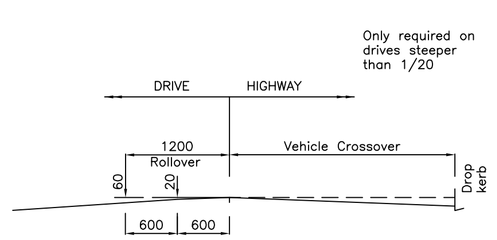
* Refer to Engineering layout for width, levels etc.



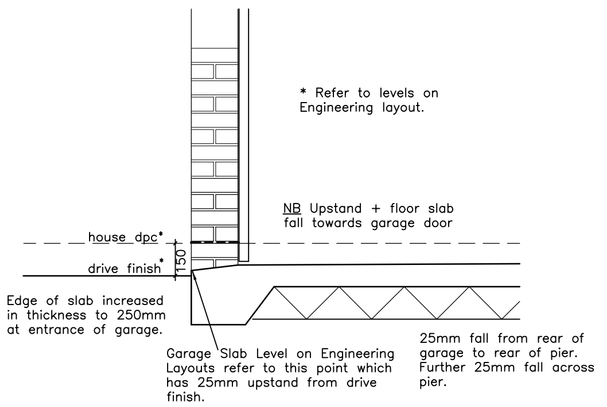
SECTION A-A
Scale 1/20



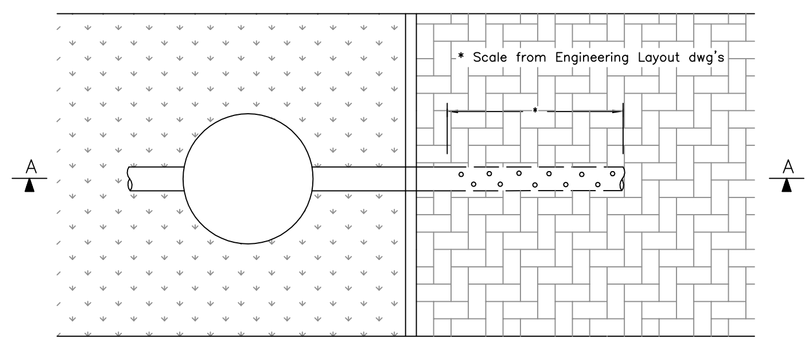
CHECK DAM IN PERMEABLE DRIVE
Scale 1/10



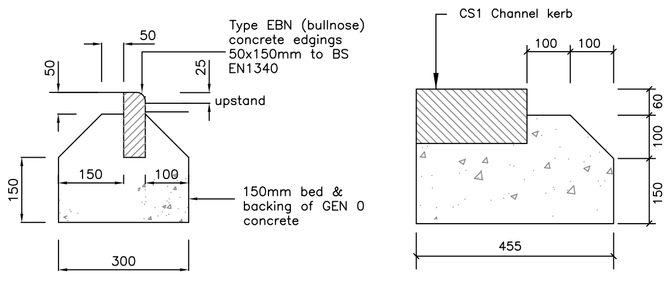
ROLLOVER DETAIL
Scale 1/50



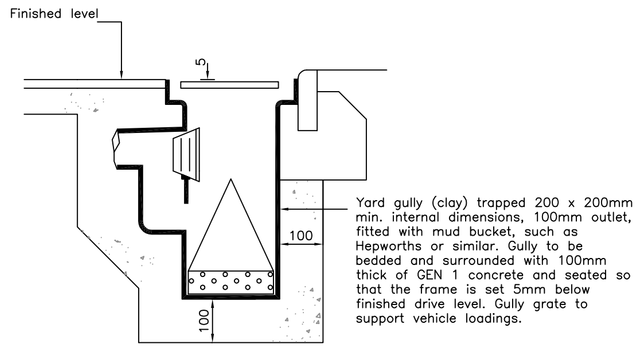
Garage Slab Detail
Scale 1/20



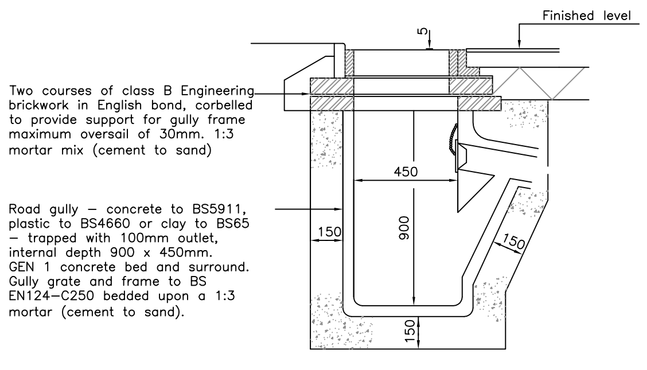
PLAN
PIPE DISTRIBUTION
Scale 1/20



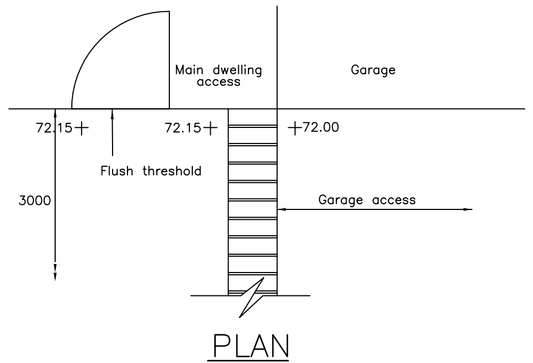
KERB RESTRAINTS
Scale 1/10



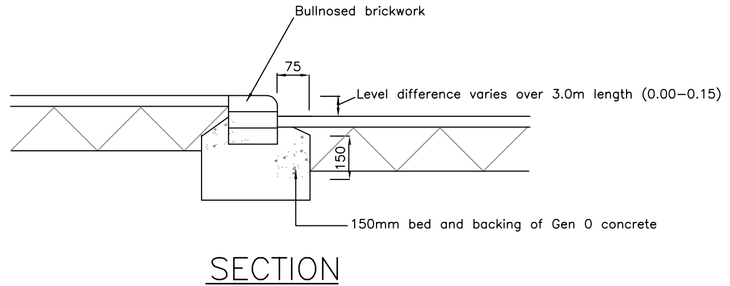
YARD GULLY (yg)
Scale 1/10



ROAD GULLY (rg)
Scale 1/20

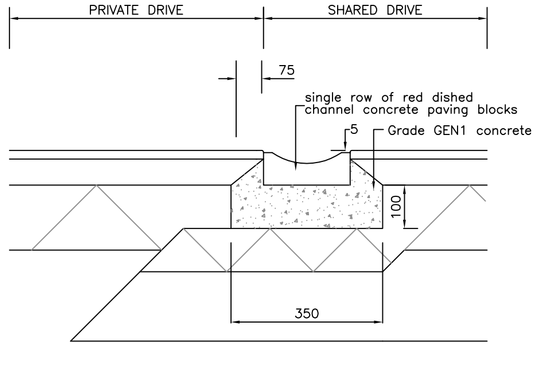


PLAN



SECTION

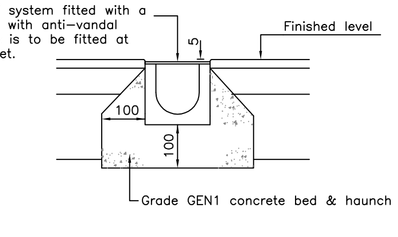
SPLIT DRIVE LEVEL DETAIL
(To accommodate flush threshold to main access)
Scale 1/20



DISHED CHANNEL (dc)
Can be used as an alternative to demarcation block*
Scale 1/10

*Refer to Engineering Layout

Channel drain such as Kascade 'K' system fitted with a galvanised mesh plate and secured with anti-vandal locking catches. A gully/trash box is to be fitted at the outlet complete with mud bucket.



CHANNEL DRAIN (cd)
Can be used as an alternative to demarcation block*
Scale 1/10

Rev	Date	Details	By

Drainage Authority Approval Date

Highway Authority Approval Date

Do not scale from this drawing. Use written dimensions only. When shown relationships between slab levels and ground levels are to be checked on site. Any discrepancy or suggested modification to be reported to design and Engineering Director.
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SITE

HAMPTON PARK
LITTLEHAMPTON, WEST SUSSEX

DRAWING TITLE

PRIVATE DRIVE DETAILS

DRAWN BY	DATE	DRAWING NO.	REV
NM	OCT 2015	LITL-506	
SCALE: AS SHOWN	CHECKED/DATE		