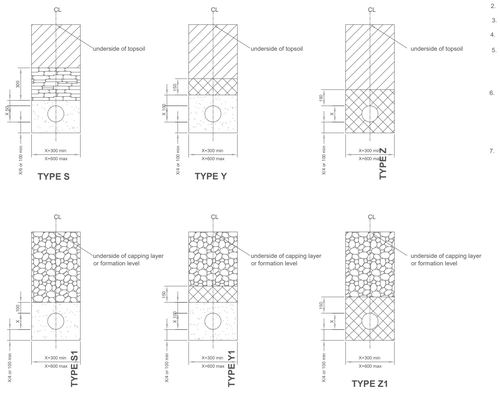
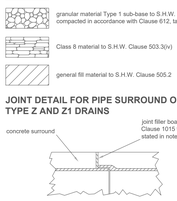


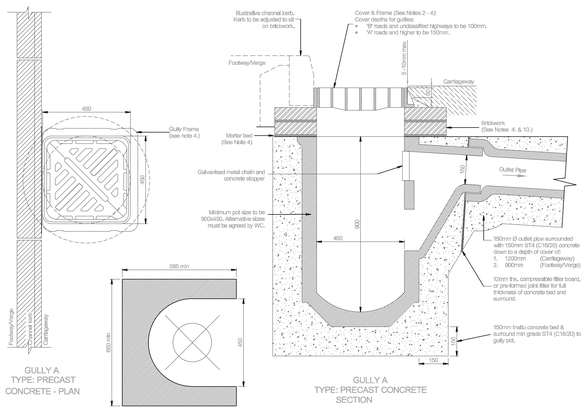
1. All dimensions are in millimetres unless stated otherwise.
2. Refer to Appendix S/1 for pipe and bedding alternatives.
3. Dimension 'X' denotes the external diameter of the pipe.
4. The joint detail for pipe surround on Type Z and Z1 drains is for flexible joints only.
5. For pipes with a nominal diameter below 450mm, the thickness of compressible joint filler board shall be 18mm. For pipes with a nominal diameter of 450mm or greater, but not exceeding 1200mm, the thickess of joint filler board shall be 36mm. For pipes exceeding 1200mm nominal diameter, the thickness of joint filler board shall be 54mm.
6. The work shown on this drawing could affect statutory undertakers apparatus and the contractor is required to verify the location and depth prior to the commencement of work and take all precautions necessary when working in the vicinity of such apparatus. Utility Information is produced from a digital source and no guarantee can be given regarding its accuracy. It is the recipients responsibility to check the accuracy of measurements given. Should discrepancy occur please contact the issuing authority to seek clarification.
7. The use of this drawing does not absolve the client of their responsibilities under Health & Safety: The Construction (Design & Management) Regulations 2015

KEY

- granular material to S.H.W. Clause 503.3(i)
- concrete to S.H.W. Clause 503.3(ii)
- granular material Type 1 sub-base to S.H.W. Clause 803 compacted in accordance with Clause 612, table 6/4 method 6
- Class 8 material to S.H.W. Clause 503.3(v)
- general fill material to S.H.W. Clause 505.2

JOINT DETAIL FOR PIPE SURROUND ON TYPE Z AND Z1 DRAINS





NOTES
1. Do not scale from this drawing.
2. All gully grating and frames to be 'hinged' heavy duty ductile iron minimum grade D400 in accordance with BS EN124:1994 & Section 508 of the Specification of Highway Works-Type D400 "Aqua-Max" supplied by PAM (or similar approved)
3. All ironwork shall carry a BSI kite mark.
4. Frames shall be bedded on a gauged Class 1 (3:1) sand/cement mortar to Cl.2402 of SHW Mortar Designation (i), and either 2 or 3 courses of Engineering Brickwork Class 'B' to BS EN 771-1:2011.
5. Gully spacing is to be determined from the requirements of HA 102/00, Design Manual for Roads and Bridges, however; maximum area to be drained by one gully: 180 m 2
6. Gully pots used for carriageway gullies shall be of precast concrete using Sulphate Resisting Cement (SRC) in accordance with BS 5911, part 230, 2004.
7. All gullies to be trapped. Any variations to this i.e. 'non-trapped', 'leaf' or 'silt' type shall be qualified and WC shall review each location on an individual basis.
8. Selection of gully grating type shall be to suit the application area i.e carriageway, footway/cycleway and to the satisfaction of the Engineer.
9. Pipe bedding to highway drainage to be Type Z when located under carriageway, and Type T at all other times, as detailed on Specification of Highway Works HC/D no. F1.
10. 100mm thick 'U' shaped precast concrete riser slab to BS 5911 is an allowable alternative to brickwork
11. The work shown on this drawing could affect statutory undertakers apparatus and the contractor is required to verify the location and depth prior to the commencement of work and take all precautions necessary when working in the vicinity of such apparatus. Utility Information is produced from a digital source and no guarantee can be given regarding its accuracy. It is the recipients responsibility to check the accuracy of measurements given. Should discrepancy occur please contact the issuing authority to seek clarification.

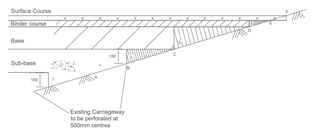
12. SURFACE WATER PIPES
Permitted Types as follows:

CLAY: 100-1200 diam
All pipe shall be Vitrified Clayware to BS EN 295-1:1991.

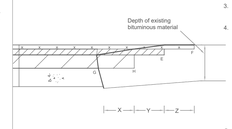
UPVC: 100-1100 diam
All pipes shall be to BS EN 1401-1:1998.
All pipes shall be ribbed 'twin wall' to provide a suitable network (pipes & couplings).

CONCRETE: 300 diam. min
All pipes shall be made with Sulphate resistant Cement to BS 5911-1:2002

TRANSVERSE JOINTS



LONGITUDINAL JOINTS



NOTES:
1. All dimensions are shown in millimetres.
2. Existing surfacing to be cut back to a clean edge & treated in accordance with Clause 706.
3. Construction materials & thicknesses shall be in accordance with Appendix 7/1.
4. Key to regulating materials & tack coats.
 1. Sub -Base
 2. Base regulating material
 3. Binder course regulating material
 4. Surface course regulating materials.

 B-F Plane as necessary to receive surface course.
 G-F Tack coat existing carriageway.
 E-F Plane as necessary to receive surface course.
 H-E Plane as necessary to receive binder course.
 G-H Plane as necessary to receive base.
5. Minimum joint laps

Type of joint	X	Y	Z
Transverse	1000	1000	1000
Longitudinal	100	100	100
45 deg.Skew	500	500	500

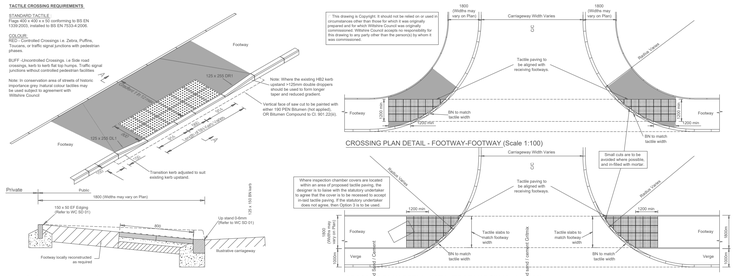
For Skews other than 45 degree joint laps are to be determined on a pro-rata basis.
6. Joints in surface course are to be perpendicular to, or parallel with, the carriageway centreline.
7. If the remaining depth of existing bituminous material between G and H is less than 100 it is to be excavated & replaced with full new carriageway construction.
8. The work shown on this drawing could affect statutory undertakers apparatus and the contractor is required to verify the location and depth prior to the commencement of work and take all precautions necessary when working in the vicinity of such apparatus. Utility Information is produced from a digital source and no guarantee can be given regarding its accuracy. It is the recipients responsibility to check the accuracy of measurements given. Should discrepancy occur please contact the issuing authority to seek clarification.

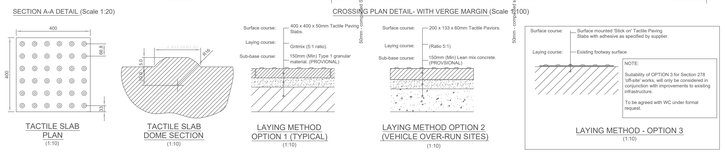
DO NOT SCALE this drawing. Use figured dimensions only.
The Contractor must check & verify all dimensions on site.
Any discrepancies must be reported immediately to the Engineer for clarification before proceeding.
This drawing is copyright and owned by Morgan Civil + Structural.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
Refer to the relevant Construction (Design and Management) documentation where applicable.
It is assumed that all works on this drawing will be carried out by a competent contractor, working where appropriate to an approved method statement.

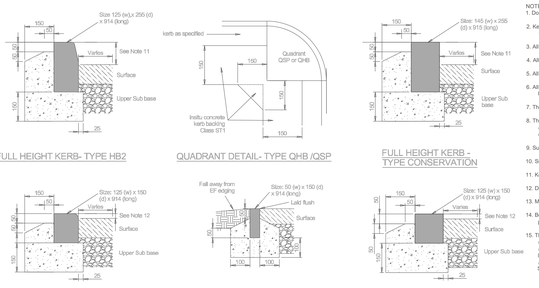
Notes
1. The adopting authority's standard details, where they exist, shall be used in preference to this standard detail.
2. All adoptable highway works shall be carried out in accordance with the specific requirements of Wokingham Borough Council's specification and the general requirements for highway construction contained in Volume 1 Series 1 of the Highways Agency's Manual of Contract Documents for highway works and any amendments thereto current at the time of tender issue date.
3. All dimensions are to be read in conjunction with all other relevant drawings/documents.
4. Do not scale from this drawing, use figured dimensions only. All dimensions are in meters.
5. All the above requirements shall apply unless otherwise stated in the Contract specific documents whereupon should there be a conflict or contradiction the contract specific documents shall be deemed to prevail.
6. The contractor is to check and verify all site dimensions and levels, including existing sewer invert levels and utilities, prior to start on site.
7. Positions of existing services/statutory undertakers apparatus adjacent to the proposed works are approximate only and must be confirmed on site.
8. This drawing is to be read in conjunction with and checked against all, engineering details, specifications, geotechnical and other relevant documentation/drawings.
9. Where trees adjacent to highways or drainage are proposed, root barriers (type to be approved) are required to prevent structural damage.
10. Any anomaly or contradictions between any of the above is to be reported immediately.
11. The contractor is to comply in all aspects with the current british standards, building regulations and building legislation etc.

SURFACE WATER DRAINS: BEDDING & TRENCH DETAILS



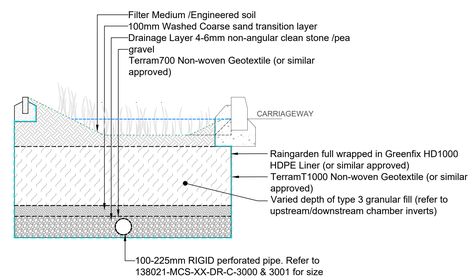


TACTILE PAVING OPTIONS & INSTALLATION DETAIL



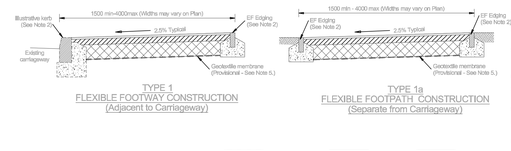
NOTES
1. Do not scale from this drawing. All Dimensions in mm's
2. Kerbs to be butt jointed. Where kerb alignments incur 'mitre' open joint tapers' between formed surfaces mortar jointing shall be used as directed by engineer.
3. All full length Precast kerbs are to be mechanically handled.
4. All precast concrete Kerbs & Edgings shall be to BS EN 1340 & laid to BS 7533-6.
5. All setts of natural stone shall be to BS EN 1342 & laid to BS 7533-7.
6. All Kerbs & Edgings bed & backing to be Concrete Class ST1 (C6/8), well compacted. Unless otherwise stated this shall be a minimum bed thickness of 150mm.
7. The minimum length of any cut kerb shall be 450mm (Half kerb).
8. The correct radius kerbs shall be used for all radii of 12m or less. For radii between 12m and 20m 600mm long straight units shall be used. Radius kerbs shall be used to form corners of layby's and tapers.
9. Suitable transition kerbs shall be used for all drop kerb and upstand variation locations.
10. Suitable quadrant kerbs shall be used to form corners of square areas and refuge islands.
11. Kerb up-stand to be denoted on relevant engineering drawing
12. Drop kerb upstand shall be 0-6mm for pedestrian crossings, 25mm for vehicular crossings.
13. Mortar shall comply with S.H.W Clause 2401.4 designation (i)
14. Bond coat to Clause 920 shall be applied to c/way surface in accordance with BS434: Pt 2 prior to laying extruded asphalt kerb
15. The work shown on this drawing could affect statutory undertakers apparatus and the contractor is required to verify the location and depth prior to the commencement of work and take all precautions necessary when working in the vicinity of such apparatus. Utility Information is produced from a digital source and no guarantee can be given regarding its accuracy. It is the recipients responsibility to check the accuracy of measurements given. Should discrepancy occur please contact the issuing authority to seek clarification.

KERBS, CHANNEL & EDGINGS

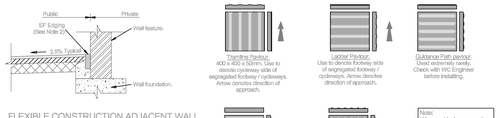


TYPICAL SECTION THROUGH RAINGARDEN ADJACENT TO CARRIAGEWAY
SCALE 1:20

GULLY A - PRECAST CONCRETE POT



NOTES
1. Do not scale from this drawing. All Dimensions in mm's
2. Refer to drawings WC-HCD-1100-D001-0 for Approved Kerb Type Selection.
3. Prior to the commencement of laying the formation shall be treated with an approved residual weedkiller.
4. The engineer may request inclusion of a non-woven separation membrane to mitigate weed/root intrusion.
5. The Engineer may increase the Sub-base to a depth of 225mm or include a geotextile membrane (Terram 1000 or similar approved) or geo-grid on formation where dictated by existing ground conditions.
6. None of the details on this drawing are suitable where 'no-dig' construction is required.
7. Where a footpath is proposed between walls, private land or other features then positive drainage will be necessary in order to prevent run off of highway surface water.
8. For AC 6 Dense Surf & AC 20 Dense bin, 160/220 may be used if hand laying in winter.
9. For cycleway construction machine laying is the default option for the surface course. Permission to hand lay must be sought from Wiltshire Council.
10. Tactile paving to be specified and installed in accordance with DETR guidance on the Installation of Tactile Paving 1998. Also refer to WC-HCD-1100-D003-3
11. The work shown on this drawing could affect statutory undertakers apparatus and the contractor is required to verify the location and depth prior to the commencement of work and take all precautions necessary when working in the vicinity of such apparatus. Utility Information is produced from a digital source and no guarantee can be given regarding its accuracy. It is the recipients responsibility to check the accuracy of measurements given. Should discrepancy occur please contact the issuing authority to seek clarification.



HISTORIC WALL SCENARIO
Where works are proposed directly adjacent an existing wall feature the Engineer shall review the edging requirement on a case by case basis.

FOOTWAY / CYCLEWAY CONSTRUCTION

FOOTWAY / CYCLEWAY - FLEXIBLE CONSTRUCTION TABLE SELECTOR

	FOOTWAY / CYCLEWAY TYPE 1 / 1A	CROSSOVER TYPE 1 (STANDARD)	CROSSOVER TYPE 2 (INDUSTRIAL)
SUB-BASE			
Type 1 / Type 2 (Clause 803)	150 (See Note 5) 225 min for Cycleways	225	270
BASE			
32mm Dense Asphalt Concrete Base 40/60 PEN	-	-	100
BINDER COURSE			
20mm AC Dense Bin 40/60 (or 160/220 see note 8)	60	60	60
SURFACE COURSE			
Heavy Traffic Option HRA 30/10 F Surf 40/60	-	25	25
HRA 40/6 Surf 160/220			
AC6 Dense Surf 100/150 (or 160/220 see note 8)	20	20	-
10mm Close Graded Asphalt Concrete Surface Course 100/150	-	-	30

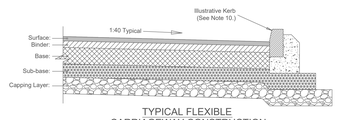
NOTES
1. 160/220 pen binder may be considered for use during winter months but prior approval for its use MUST be obtained from Wiltshire Council.
2. 40/60 Pen binder shall NOT be used for hand laying.
3. Minimum PSV value stated, Table 3 HD36/06 and appropriate site categorisation / investigatorly level to be checked by the developer to ensure the site layout does not demand higher min PSV value.
4. Maximum AAV value stated, Table 3.2 HD36/06 to be checked by developer to traffic flows do not demand lower maximum AAV values.
5. Permitted option ONLY where surface texture is NOT a consideration
6. Capping layers to MCHW Clause 613 Types 6F1, 6F2, 6F4 and 6F5
7. Sub-Base layers to MCHW Clauses 803, 804, 805 and 806.
8. * Not permitted where pavements are designed for more than 20msa.
9. Where a CBR value is less than 2.5% an alternative subgrade design involving geotextiles or soil stabilisation must be considered by the developer.
10. Refer to drawings WC-HCD-1100-D001-for Approved Kerb Type Selection.
11. Prior to the commencement of laying the formation shall be treated with an approved residual weedkiller.
12. The Engineer may request inclusion of a non-woven separation membrane to mitigate weed/root intrusion.
13. The Engineer may increase the Sub-base depth or include a geotextile or geogrid on formation where site ground conditions are considered to be sub-standard.
14. Not suitable where 'no-dig' construction is required.
15. Asphalt Concrete to be in accordance with BS EN 13108-01 and BS 594987.
16. Hot Rolled Asphalt to be in accordance with BS EN 13108-04 and BS 594987.
17. Where block paviors are the proposed surface course they must to be in accordance with BS 7533-2:2001Category II Trafficking. Prior approval required.
18. Total carriageway construction depth must be greater than 450mm to negate susceptibility to frost penetration, irrespective of CBR value.
19. More major roads shall have a bespoke pavement design in accordance with DMRB standards.
20. Carriageway widening to widths of less than 1m; Base and sub-base to be replaced with ST4 concrete with the same overall construction depth as the standard construction.
21. PSV requirements shall be declared in accordance with HD 36/06 table 3.1.
22. CBR values to be obtained from site investigation report and laboratory testing. The WC / Atkins Engineer may request additional tests.
23. The work shown on this drawing could affect statutory undertakers apparatus and the contractor is required to verify the location and depth prior to the commencement of work and take all precautions necessary when working in the vicinity of such apparatus. Utility Information is produced from a digital source and no guarantee can be given regarding its accuracy. It is the recipients responsibility to check the accuracy of measurements given. Should discrepancy occur please contact the issuing authority to seek clarification.

ROAD CATEGORISATION

	AR1	AR2	AR3	AR4	AR5	AR6	AR7
	Estate Distributor Road / Industrial Estate Road	Estate Link Roads		Estate Loop Roads & Cul-De -Sacs			
SURFACE COURSE							
AC 10 close surf 100/150/1 (or 40/60)20 dec 40mm thick				Cluase 912 Min PSV 55 Max AAV 164			
AC 10 close surf 100/150/1 (or 40/60)20 dec 40mm thick			Cluase 912 Min PSV 55 Max AAV 164				
AC 14 close surf 100/150/1or 40/60)2 dec 40mm thick			Cluase 912 Min PSV 55 Max AAV 164				
HRA 30/14F Surf 40/60 dec 40mm thick with 6/10 coated chippings 14/20mm	Cluase 911 Min PSV 50 Max AAV 164 HRA 30/10 Min PSV 55 Max AAV 164						
HRA 35/14 (or 10) F Surf 40/60 dec 40mm thick5	Cluase 911 Min PSV 50 Max AAV 124						
BINDER							
20mm Dense AC Bin 40/60 PEN 60mm thick	Cluase 906 - 909 PSV N/AV Annex B Appendix 911						
BASE							
32mm Dense AC Base 40/60 PEN 100mm thick	Cluase 906 - 909 PSV N/A Appendix 911						
32mm Dense AC Base 40/60 PEN 125mm thick		Cluase 906 - 909 PSV N/A Appendix 911					
32mm Dense AC Base 40/60 PEN 100mm thick				Cluase 906 - 909 PSV N/A Appendix 911			

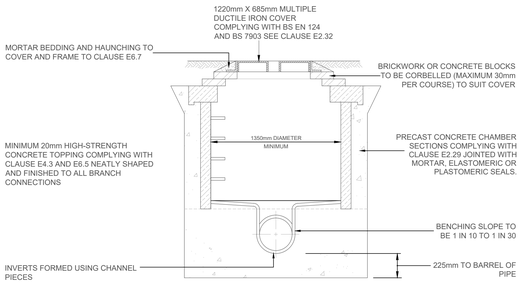
SUB BASE & CAPPING LAYER

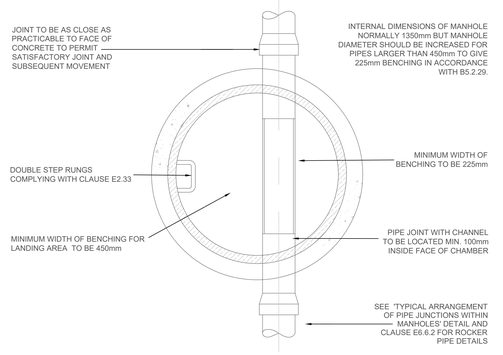
Subgrade CBR	Capping Layer Thickness (mm)		Sub Base Thickness (mm)	Foundation Type
CBR= 15%			200	1
	150	and	150	2
CBR= 10% - 15%	250*(note 8.)	or	230*(note 8.)	1
	170	and	180	2
CBR= 5% - 10%	390* (note 8.)	or	320*(note 8.)	1
	210	and	240	2
CBR= 2.5% - 5%	550*(note 8.)	or	450*(note 8.)	1
	250	and	350	2
CBR =2.5%	SEE NOTE 9.			



FLEXIBLE CONSTRUCTION (SPEED LIMIT 40MPH OR LESS)

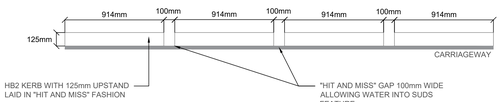
FLEXIBLE CARRIAGEWAY - TIE IN & STRIP WIDENING



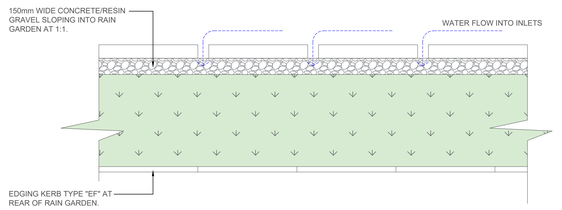


TYPICAL MANHOLE DETAIL - TYPE C

DEPTH FORM COVER TO SOFFIT OF PIPE LESS THAN 1.5m
MINIMUM RIGID PIPE SIZE 450mm DIAMETER. RIGID MATERIAL CONSTRUCTION.
NOT TO SCALE



HIT AND MISS KERBING - SECTION VIEW
SCALE 1:20



HIT AND MISS KERBING - PLAN VIEW
SCALE 1:20

Rev	Date	Description	By
P01	04/03/26	First Issue	AM

Client
Redcliffe Homes

Project
Woodlands Road, Mere

Title
Section 38 Adoptable Highway Details Sheet 1

Drawing Status
APPROVAL

Drawn	Checked	Approved	Date	Scale @ A0
AM	NT	NT	FEB 2026	N.T.S

Project No.	Drawing No.	Revision
138021	138021-MCS-XX-DR-C-6000	P01

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