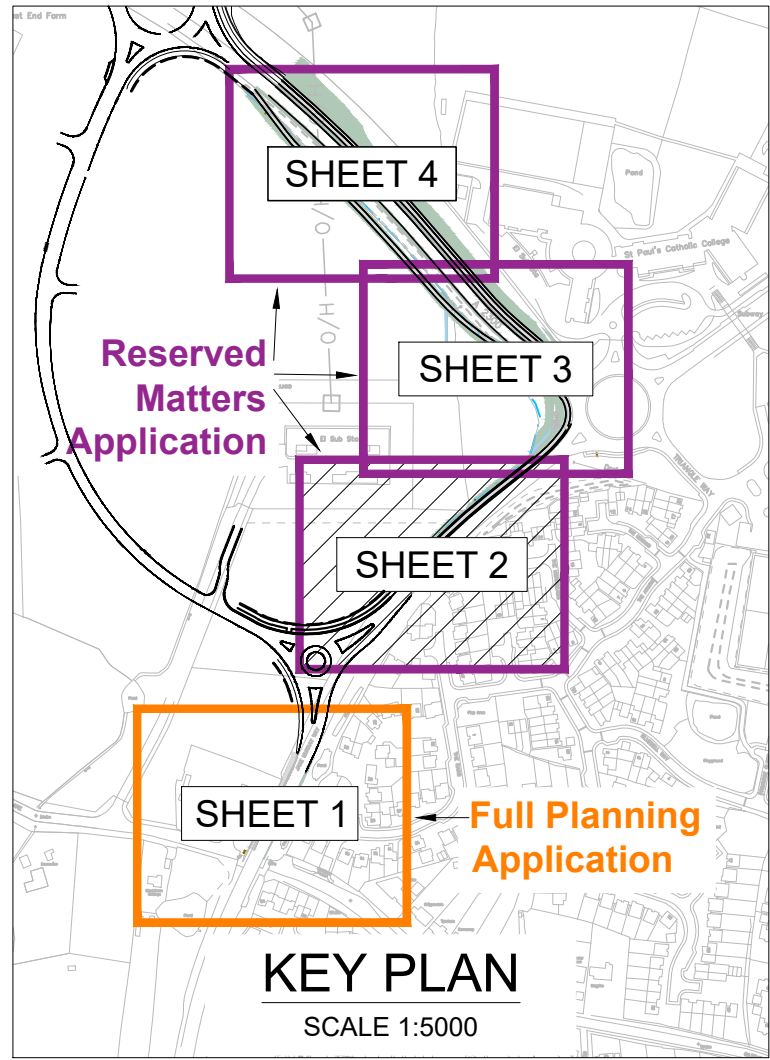




SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
UNUSUAL SIGNIFICANT HAZARDS

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION
C1. Underground services being struck / damaged. Record drawings, as-builts or tracing of services are likely to be incomplete and/or inaccurate to some extent and should not be relied upon.
C2. As well as unknown services, additional supplies or diversions may have been installed during adjacent phases of the development. New supplies are also proposed under this scheme, including street lighting electrical supply, with columns located closed to proposed filter drain.

MAINTENANCE / CLEANING
M1. Underground services in close proximity to drainage, including electrical supply to street lighting columns.

DECOMMISSIONING / DEMOLITION
D1. Underground services in close proximity to drainage, including electrical supply to street lighting columns.

FILTER DRAIN CAPACITY CHECK:

CATCHMENT:
PERMEABLE = 0.023 ha
IMPERMEABLE = 0.039 ha

RUN-OFF RATES, 1 IN 100 RETURN + 40% CC:
PERMEABLE = 25.76 l/s/ha
IMPERMEABLE = 204.76 l/s/ha

DISCHARGE RATE FROM CATCHMENT, 1 IN 100 RETURN + 40% CC:
(0.023 x 25.76) + (0.039 x 204.76) = **8.59 l/s**

CAPACITY OF 150Ø PIPE AT 1 IN 154 (TABLES FOR THE HYDRAULIC DESIGN OF PIPES, SEWERS AND CHANNELS 8TH EDITION, COLEBROOK-WHITE SOLUTIONS, Ks=0.006mm) = **18.705 l/s**

CONCLUSION: THE 150mmØ FILTER DRAIN PIPE (MIN. ALLOWED BY WSCC) HAS 218% OF THE REQUIRED CAPACITY.

EXISTING MH REF:38 (WBLR PHASE 1B)
CL:27.76
IL:26.40
INCLUDES SUMP.
BUILT WITH 225mmØ STUB PIPE FOR PHASE 3 FILTER DRAIN CONNECTION.

150mmØ TO 225mmØ
ADAPTER REQUIRED
FOR CONNECTION
TO EXISTING STUB
PIPE AT MH38

WBLR PHASE 1 DRAIN
RUN OUTFALLING TO
ATTENUATION BASINS
WITH CONTRILLED
DISCHARGE TO THE
TRIBUTARY OF THE
POOK BOURNE

NOTE: CARRIAGEWAY DRAINAGE
(GULLIES AND COMBINED KERB
DRAINAGE UNITS) INSTALLED BY
WBLR PHASE 1 ARE NOT SHOWN.
REFER TO WBLR PHASE 1
DRAWINGS FOR DETAILS.

SOP	Position X	Position Y
FDC01	529533.577	119986.857
FDC02	529561.554	120012.239
FDC03	529595.513	120039.291

NON-PERFORATED PIPE TO
CONNECT TWO SECTIONS
OF FILTER DRAIN

FDC01
CL: 27.952
PIPE IL: 27.216

FDC02
CL: 28.243
PIPE IL: 27.493

NOTES:

- ALL DIMENSIONS IN METRES UNLESS OTHERWISE STATED.
- THE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH REQUIREMENTS OF WSCC.
- WORKS TO DITCHES AND CULVERTS ARE SHOWN ON DRAWINGS 19442-WIE-ZZ-XX-DR-C-950041 TO 950044
- ALL MANHOLES TO BE CATCHPITS WITH 450mm SUMP UNLESS OTHERWISE STATED.
- THE FOLLOWING WSCC STANDARD DETAILS APPLY:
 - S278/38/11 = PCC ROAD GULLY AND PIPE MATERIALS
 - S278/38/33 = PIPE BEDDING
 - S278/38/36 = LATERAL CONNECTIONS
 - WSCC-SD1-1100-031 COMBINED DRAINAGE AND KERB BLOCK
- FOR FILTER DRAIN CATCHPIT MH DETAIL - SEE S278/38/29 'FILTER DRAIN COLLECTOR'. CATCHPITS TO BE FITTED WITH C250 GRADE COVER (DUE TO VERY LOW RISK OF VEHICULAR OVER-RUN).
- FOR FILTER DRAIN TRENCH DETAIL - REFER TO DETAIL ON SHEET 2 OF THIS DRAWING SET.
- PIPE SIZES BASED ON POLYPIPE RIDGIDRAIN PRODUCT.
- COMBINED DRAINAGE KERB UNITS TO BE INSTALLED IN ACCORDANCE WITH WSCC STANDARD DETAIL AND MANUFACTURERS GUIDELINES.
- REDUNDANT GULLIES SHALL BE INFILLED OR REMOVED (DEPENDANT ON WHETHER THEY WILL OBSTRUCT OTHER WORKS) AS DETAILED IN APPENDIX 5/1
- IF EXISTING SUB-SURFACE DRAINAGE IS ENCOUNTERED THE CONTRACTOR SHALL NOTIFY THE CLIENT OR THEIR REPRESENTATIVE WHO SHALL LIAISE WITH THE HIGHWAY AUTHORITY TO AGREE AND INSTRUCT ANY WORKS THAT MAY BE REQUIRED.

This drawing should not be scaled. Dimensions to be verified on site.
Any discrepancies should be referred to the Engineer prior to work being put in hand.

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GENERAL NOTES

KEY:

--- EXISTING KERB LINE TO BE REMOVED

WSCC HIGHWAY DRAINAGE:

EXISTING - RETAINED:

- HIGHWAY MH / DRAIN RUN
- HIGHWAY MH / DRAIN RUN INSTALLED DURING WBLR PHASE 1
- ROAD GULLY
- ROAD GULLY AT MINOR KERB RE-ALIGNMENT*

* IT IS ANTICIPATED THAT GULLY POT CAN BE RETAINED AND BRICKWORK ADJUSTED / RE-BUILT TO ALLOW MINOR RELOCATION OF GRATING AND FRAME. CONTRACTOR TO ALLOW FOR NEW GRATING AND FRAME HOWEVER WSCC MAY ACCEPT EXISTING IS RE-USED SUBJECT TO INSPECTION.

EXISTING - TO BE REMOVED / ABANDONED:

- GX## ROAD GULLY & GULLY LEAD
- CONCRETE V-CHANNEL

NEW / PROPOSED:

- G## ROAD GULLY
- DRAIN RUN / GULLY LEAD, 150Ø
- FDC## FILTER DRAIN CATCHPIT: 600x450mm (INTERNAL) WITH SUMP UNLESS INDICATED NOT REQUIRED. (CIRCLE IS FOR IDENTIFICATION ON DRAWING ONLY, DOES NOT REPRESENT ACTUAL SIZE)
- FILTER DRAIN, 150Ø HALF PERFORATED, PERFORATIONS LAID UPWARDS

COMBINED DRAINAGE AND KERB SYSTEM:
MARSHALLS BEANY BLOCK:

- STANDARD GREY HALF BATTERED SYMMETRICAL TOP UNIT ON BASE 205

OF## HALF BATTERED SYMMETRICAL ACCESS COVER, ON BASE 205 OUTFALL UNIT, ON TRAPPED GULLY UNIT (150mmØ OUTFALL)

AC## HALF BATTERED SYMMETRICAL ACCESS COVER ON BASE 205 UNIT

SE STANDARD GREY STOP END UNIT (HANDED TO SUIT, TO TRANSITION BETWEEN BEANY BLOCK AND STANDARD HB2 KERB) WITH MIN. 150mm ST1 CONCRETE BED AND BACKING. OPEN END OF ADJACENT BASE UNIT TO BE CAPPED OFF WITH GALVANISED STEEL BASE END CAP.

ORDINARY WATERCOURSE
(DITCHES & CULVERTS - SEE NOTE 3)

- EXISTING DITCH
- PROPOSED / RE-ALIGNED DICHTH
- EXISTING CULVERT
- PROPOSED / EXTENDED CULVERT

P04	15.10.25	GRASSCRETE VERGE AND EDGING REMOVED	MK
P03	20.05.25	KERB/DRAIN BEANY BLOCK TOP UNITS CHANGED FROM STRAIGHT BACK TO SYMMETRICAL TO AGREE WITH WSCC DETAIL. NOTE ADDED TO FILTER DRAIN SECTION.	SP
P02	25.04.25	AMENDMENTS FOLLOWING CLIENT COMMENTS	SP
P01	25.03.25	FIRST ISSUE	SP

Rev	Date	Description	By
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Amendments

Project
WBLR Phase 3

Title
DRAINAGE -
CARRIAGEWAY & FOOTWAY
SHEET 2

Client
Homes England
Jackson

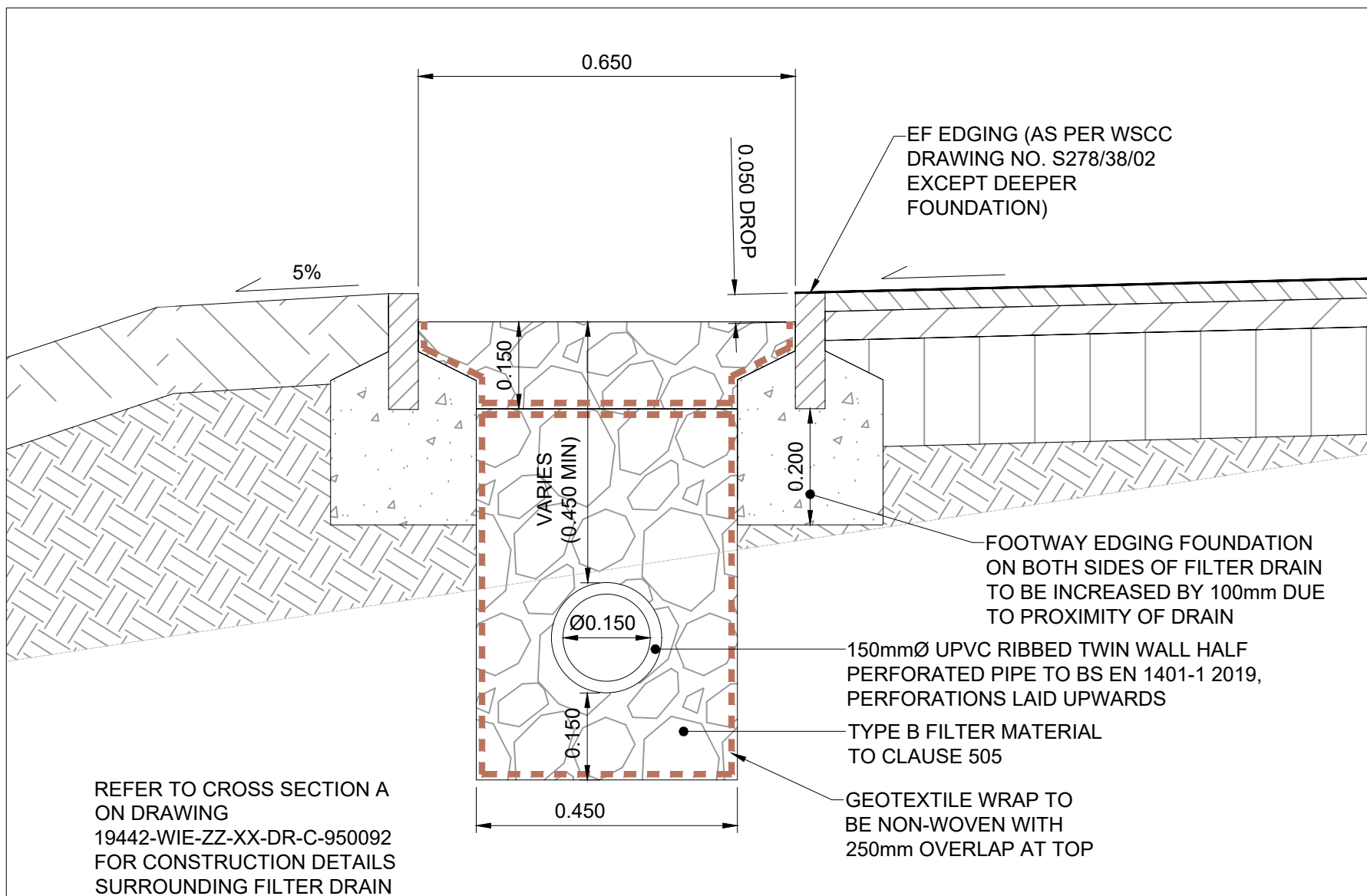
waterman
Crown House 2 - 8 Gloucester Road Redhill Surrey RH1 1FH
1 01342 893800 1 03333 444 501
mail@watermangroup.com www.watermangroup.com

FOR TECHNICAL APPROVAL

Designed By	JH/SP	Checked By	SP	Waterman Ref	WIE19442
Drawn By	SP	Date	MAR 25	Scales @ A1	1:250

Project	Originator	Volume	Level	Type	Role	Number	Revision
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19442-WIE-ZZ-XX-DR-C-900502 P04



FILTER DRAIN TYPICAL DETAIL
SCALE 1:10 @A1

