



SEPARATE OUTFALLS FROM THE PRINCES LOCH AND THE BASIN SYSTEMS WILL ENTER THE MILL LADE BURN.

3 BASIN SYSTEM WILL PROVIDE TREATMENT VIA A FILTERED LOW FLOW CHANNEL. IT WILL ALSO PROVIDE ATTENUATION FOR ALL FLOWS UP TO AND INCLUDING THE 30 YEAR +35% CC STORM EVENTS). THESE BASINS ARE PROPOSED TO BE ADOPTED AND MAINTAINED BY SCOTTISH WATER

**IMPERMEABLE AREA NOTE:**  
 1. COMMERCIAL PLOTS ASSUMED TO HAVE 100% IMPERMEABLE AREA.  
 2. RESIDENTIAL PLOTS ASSUMED TO HAVE 60% IMPERMEABLE AREA WITH AN ADDITIONAL 10% TO ACCOUNT FOR POSSIBLE URBAN CREEP.  
 3. ROADS ASSUMED TO HAVE 100% IMPERMEABLE AREA.

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**SURFACE WATER TREATMENT NOTE:**  
 1. ALL RESIDENTIAL PLOTS TO PROVIDE RELEVANT TREATMENT AT SOURCE TO ALIGN WITH THE POLLUTION MITIGATION INDICES REQUIRED AS IS BEST PRACTICE. A SECOND TREATMENT FEATURE WILL BE PROVIDED VIA THE FILTERED LOW FLOW CHANNEL THROUGHOUT THE BASIN SYSTEM.  
 2. THE ROAD NETWORK OUTWITH THE PLOT BOUNDARIES WILL BE TREATED VIA ROAD SIDE FILTER TRENCHES AND THE FILTER MEDIA IN THE BASIN SYSTEM.

**SURFACE WATER ATTENUATION NOTE:**  
 1. ALL RESIDENTIAL PLOTS AND ROADS WITHIN PHASE 2 WILL BE ATTENUATED TO THE AGREED DISCHARGE RATE OF 2.6 l/s/ha.  
 2. ALL NECESSARY ATTENUATION WILL BE PROVIDED WITHIN THE 3 BASINS AND PRINCES LOCH UP TO THE 200 YEAR +35% CC.

Only figured dimensions to be used. Dimensions to be verified on site. Any discrepancies should be referred to the Engineer prior to work being put in hand. This drawing is the property of Waterman Infrastructure & Environment Limited, and the drawing is issued on the condition that it is not copied, reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the consent in writing of Waterman Infrastructure & Environment Limited. Pickfords Wharf, Clerk Street, London SE1 9DG. 1 020 7928 7888 1 020 7902 0992

### GENERAL NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS, ARCHITECTS OR OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.
- THE CONTRACTOR MUST ENSURE AND WILL BE HELD RESPONSIBLE FOR THE OVERALL STABILITY OF THE BUILDING/STRUCTURE/EXCAVATION AT ALL STAGES OF THE WORK.
- ALL WORK BY THE CONTRACTOR MUST BE CARRIED OUT IN SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
- ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES AND REGULATIONS.
- PLEASE REFER TO DRAWING 17684-WIE-92-ZZ-DR-C-00001 FOR THE DRAINAGE STRATEGY.

### LEGEND

- DENOTES PROPOSED FOUL WATER PIPE
- DENOTES PROPOSED SURFACE WATER PIPE
- DENOTES PROPOSED PHASE 1 DRAINAGE
- DENOTES PROPOSED FOUL WATER RISING MAIN
- DENOTES PROPOSED ADOPTED BASIN

**ROAD NETWORK**  
 TOTAL AREA: 0.30Ha  
 IMPERMEABLE AREA: 0.30Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 101m<sup>3</sup>  
 200 YEAR + 35% CC = 191m<sup>3</sup>

**COMMERCIAL AREAS NOTE:**  
 1. ALL COMMERCIAL PLOTS WILL PROVIDE APPROPRIATE SURFACE WATER TREATMENT AND ATTENUATION WITHIN THE THE RESPECTIVE PLOTS.  
 2. A SITE WIDE DISCHARGE RATE BASED ON THE GREENFIELD RUNOFF HAS BEEN AGREED AS 2.6 l/s/ha. THIS WILL ALSO APPLY TO THE COMMERCIAL PLOTS  
 3. THE COMMERCIAL PLOTS WILL HAVE A SEPARATE DISCHARGE POINT FROM THE REST OF THE DEVELOPMENT, CONNECTING TO THE MILL LADE BURN NORTH OF PLOT C1

PRINCES LOCH (SERVING AS ATTENUATION FOR ALL FLOWS FROM 30 YEAR STORM UP TO 200 YEAR +35% CC STORM EVENTS) FLOW FROM BASINS ENTER VIA OVERLAND DEPRESSIONS.  
 THE LOCH IS A LANDSCAPE FEATURE THAT WILL HAVE A PERMANENT POOL OF WATER UNAFFECTED BY THE DRAINAGE SYSTEM. THIS LOCH AREA WILL BE PRIVATELY MAINTAINED.  
 ATTENUATION VOLUME ABOVE PERMANENT WATER LEVEL: 5824m<sup>3</sup>  
 APPROXIMATE DEPTH INCREASE DURING 200 YEAR EVENT: 0.30m

**BASINS NOTE:**  
 1. TOTAL ATTENUATION VOLUME REQUIRED: 5615m<sup>3</sup>  
 2. TOTAL IMPERMEABLE AREA DRAINING TO BASIN: 17.39Ha  
 3. ALLOWABLE DISCHARGE RATE - 145.60 l/s

**WWPS NO.4**  
 FOUL DRAINAGE FROM PLOT 6A, 6B AND FUTURE PHASE 3 PLOTS DRAIN TO WASTE WATER PUMPING STATION 4 BEFORE BEING PUMPED UP PASSED THE ACCESS TO PLOT 6 BEFORE JOINING THE GRAVITY FOUL SEWER IN THE ROAD BETWEEN THE SCHOOLSITE AND PLOT 6B.

**WWPS NO.3**  
 FOUL DRAINAGE FROM ALL COMMERCIAL PLOTS / PLOT 4A & PLOT 11 TO DRAIN TO WASTE WATER PUMPING STATION 3 BEFORE BEING PUMPED UP BETWEEN PONDS 2 AND 3 IN PHASE 1 PRIOR TO FINAL CONNECTION TO A GRAVITY SYSTEM WITHIN THE ROAD.

COMMERCIAL PLOTS TO FLOW NORTH TO SEPARATE OUTFALL ON THE MILL LADE

**PLOT C1**  
 TOTAL AREA: 2.03Ha  
 IMPERMEABLE AREA: 2.03Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 693m<sup>3</sup>  
 200 YEAR + 35% CC = 1318m<sup>3</sup>  
 ALLOWABLE DISCHARGE RATE: 5.29 l/s

**PLOT C3 WEST**  
 TOTAL AREA: 0.70Ha  
 IMPERMEABLE AREA: 0.70Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 239m<sup>3</sup>  
 200 YEAR + 35% CC = 455m<sup>3</sup>  
 ALLOWABLE DISCHARGE RATE: 1.83 l/s

**PLOT C2**  
 TOTAL AREA: 1.02Ha  
 IMPERMEABLE AREA: 1.02Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 349m<sup>3</sup>  
 200 YEAR + 35% CC = 664m<sup>3</sup>  
 ALLOWABLE DISCHARGE RATE: 2.66 l/s

**PLOT C3 EAST**  
 TOTAL AREA: 2.16Ha  
 IMPERMEABLE AREA: 2.16Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 737m<sup>3</sup>  
 200 YEAR + 35% CC = 1401m<sup>3</sup>  
 ALLOWABLE DISCHARGE RATE: 5.62 l/s

**PLOT 4A**  
 TOTAL AREA: 3.64Ha  
 IMPERMEABLE AREA: 2.55Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 888m<sup>3</sup>  
 200 YEAR + 35% CC = 1650m<sup>3</sup>

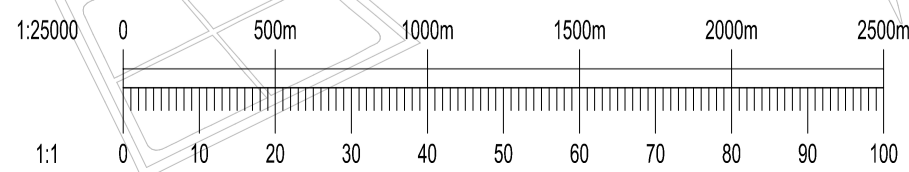
**PLOT 5A**  
 TOTAL AREA: 3.38Ha  
 IMPERMEABLE AREA: 2.67Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 909m<sup>3</sup>  
 200 YEAR + 35% CC = 1727m<sup>3</sup>

**PLOT 5B**  
 TOTAL AREA: 4.46Ha  
 IMPERMEABLE AREA: 3.12Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 1063m<sup>3</sup>  
 200 YEAR + 35% CC = 2021m<sup>3</sup>

**PLOT 9A / 9B**  
 TOTAL AREA: 5.10Ha  
 IMPERMEABLE AREA: 3.57Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 1217m<sup>3</sup>  
 200 YEAR + 35% CC = 2314m<sup>3</sup>

**PLOT 6A / 6B**  
 TOTAL AREA: 6.75Ha  
 IMPERMEABLE AREA: 4.72Ha  
 STORAGE REQUIREMENT:  
 30 YEAR + 35% CC = 1609m<sup>3</sup>  
 200 YEAR + 35% CC = 3059m<sup>3</sup>

**BLINDWELLS SCHOOL PLOT**  
 (DRAINING SEPARATELY THROUGH PHASE 1)



Rev	Date	Description	By
P05	14.01.21	AMENDED AS REQUESTED	PM
P04	08.01.21	AMENDED AS PER CLIENTS COMMENTS	AG
P03	08.01.21	LEGEND ADDED	PM
P02	18.12.20	AMSC PLANNING ISSUE	PM
P01	27.11.20	DRAFT PLANNING ISSUE	CON

**Project**  
 BLINDWELLS

**Title**  
 PHASE 2 DRAINAGE STRATEGY

**Client**  
 HARGREAVES SERVICES (BLINDWELLS) LTD



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**Status**  
 PLANNING

Designed By	PM	Checked By	TM	Waterman Ref	WIE17684
Drawn By	PM	Date	24/11/2020	Scales @ A1	1:2500

Project	Originator	Volume	Level	Type	Role	Number	Revision
17684-WIE-92-ZZ-DR-C-00001							P05