

**POND 1 DETAILS**  
 DESIGN BASED ON IMPERMEABLE AREA OF 0.230HA.

POND COVER LEVEL = 75.50m  
 INVERT LEVEL = 75.80m  
 MAX DEPTH OF WATER = 0.70m  
 PLAN AREA = 92.9m<sup>2</sup>

STORAGE VOLUME OF 42.2m<sup>3</sup> IS REQUIRED TO ACCOMMODATE STORAGE FOR ALL STORM EVENTS UP TO AND INCLUDING A 1 IN 100 YEAR RETURN PERIOD WITH A 40% CLIMATE CHANGE ALLOWANCE.

**ORIFICE OUTFLOW CONTROL**  
 DIAMETER = 0.05m  
 COEFFICIENT OF DISCHARGE = 0.60  
 INVERT LEVEL = 74.70m

**WEIR OVERFLOW CONTROL**  
 COEFFICIENT OF DISCHARGE = 0.54  
 WIDTH = 0.5m  
 CREST LEVEL = 75.30m

**SWALE 2 DETAILS**  
 DESIGN BASED ON IMPERMEABLE AREA OF 0.241HA.

TOP OF BANK LEVEL = 73.30m  
 INVERT LEVEL = 72.60m  
 BASE WIDTH = 2.00m  
 LENGTH = 60.00m  
 MAX DEPTH OF WATER = 0.70m

STORAGE VOLUME OF 100.4m<sup>3</sup> IS REQUIRED TO ACCOMMODATE STORAGE FOR ALL STORM EVENTS UP TO AND INCLUDING A 1 IN 100 YEAR RETURN PERIOD WITH A 40% CLIMATE CHANGE ALLOWANCE.

**ORIFICE OUTFLOW CONTROL**  
 DIAMETER = 0.05m  
 COEFFICIENT OF DISCHARGE = 0.60  
 INVERT LEVEL = 72.50m

**WEIR OVERFLOW CONTROL**  
 COEFFICIENT OF DISCHARGE = 0.54  
 WIDTH = 0.5m  
 CREST LEVEL = 73.10m

**POND 2 DETAILS**  
 DESIGN BASED ON IMPERMEABLE AREA OF 0.102HA AND DISCHARGE FROM POND 1 AND SWALE 2.

POND COVER LEVEL = 73.10m  
 INVERT LEVEL = 72.10m  
 MAX DEPTH OF WATER = 0.70m  
 FREEBOARD = 0.30m  
 PLAN AREA = 344.0m<sup>2</sup>

STORAGE VOLUME OF 249.7m<sup>3</sup> IS REQUIRED TO ACCOMMODATE STORAGE FOR ALL STORM EVENTS UP TO AND INCLUDING A 1 IN 100 YEAR RETURN PERIOD WITH A 40% CLIMATE CHANGE ALLOWANCE.

POND TO HAVE PERMANENT WATER LEVEL AND DRY BENCH TO MAXIMIZE AMENITY AND BIO-DIVERSITY BENEFITS.

**HYDRO-BRAKE OUTFLOW CONTROL**  
 INVERT LEVEL = 72.00m  
 DESIGN FLOW = 5 l/s

**SWALE 1 DETAILS**  
 DESIGN BASED ON IMPERMEABLE AREA OF 0.302HA AND DISCHARGE FROM POND 1.

TOP OF BANK LEVEL = 75.00m  
 INVERT LEVEL = 74.20m  
 BASE WIDTH = 1.00m  
 LENGTH = 60.00m  
 MAX DEPTH OF WATER = 0.80m

STORAGE VOLUME OF 114.7m<sup>3</sup> IS REQUIRED TO ACCOMMODATE STORAGE FOR ALL STORM EVENTS UP TO AND INCLUDING A 1 IN 100 YEAR RETURN PERIOD WITH A 40% CLIMATE CHANGE ALLOWANCE.

**ORIFICE OUTFLOW CONTROL**  
 DIAMETER = 0.05m  
 COEFFICIENT OF DISCHARGE = 0.60  
 INVERT LEVEL = 74.10m

**WEIR OVERFLOW CONTROL**  
 COEFFICIENT OF DISCHARGE = 0.54  
 WIDTH = 0.5m  
 CREST LEVEL = 74.80m

SURFACE WATER FROM ROOFS TO BE COLLECTED AND DISCHARGED VIA POSITIVE DRAINAGE.

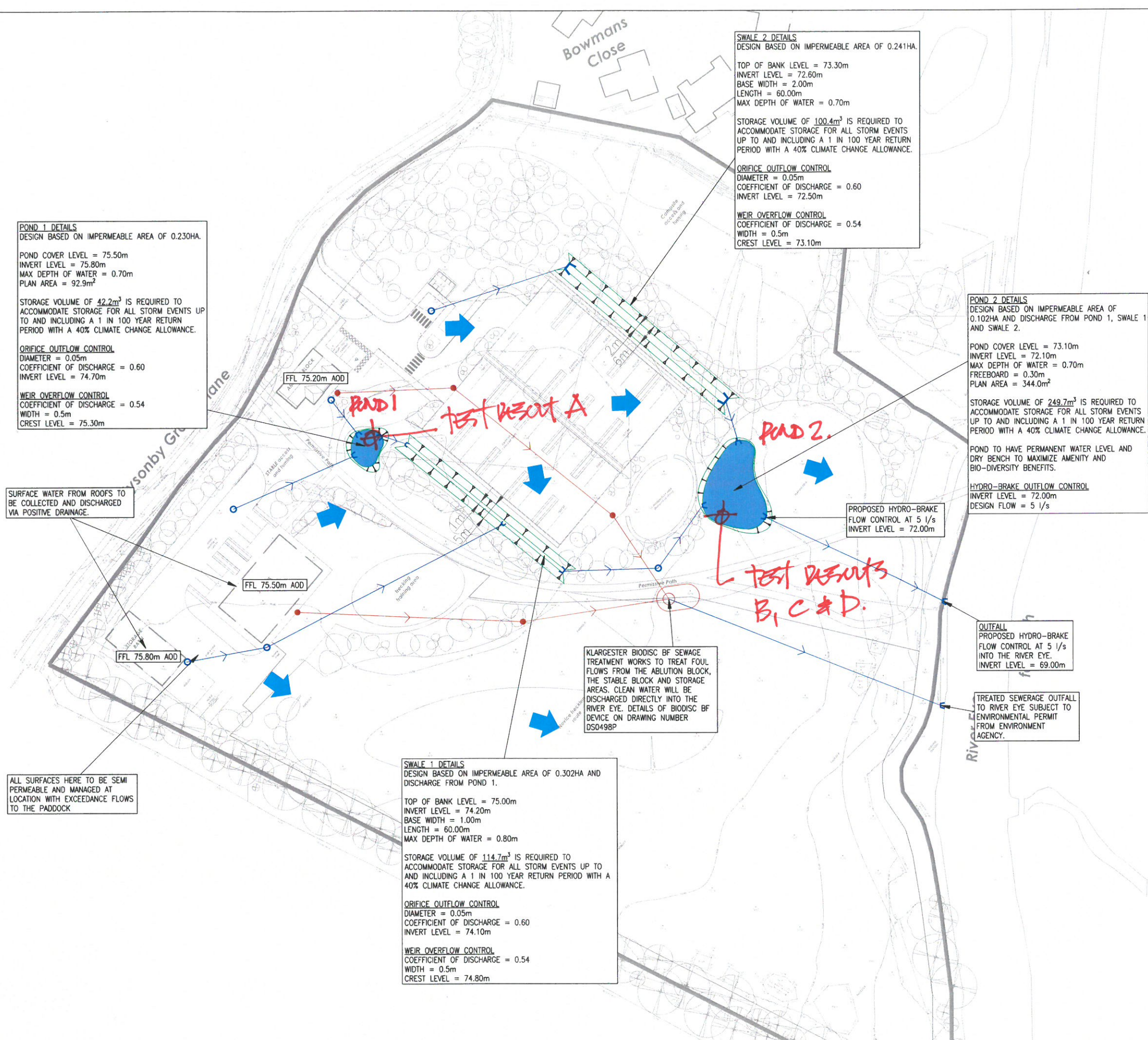
ALL SURFACES HERE TO BE SEMI PERMEABLE AND MANAGED AT LOCATION WITH EXCEEDANCE FLOWS TO THE Paddock

KLARGESTER BIODISC BF SEWAGE TREATMENT WORKS TO TREAT FOUL FLOWS FROM THE ABLUTION BLOCK, THE STABLE BLOCK AND STORAGE AREAS. CLEAN WATER WILL BE DISCHARGED DIRECTLY INTO THE RIVER EYE. DETAILS OF BIODISC BF DEVICE ON DRAWING NUMBER DSD498P

OUTFALL PROPOSED HYDRO-BRAKE FLOW CONTROL AT 5 l/s INTO THE RIVER EYE. INVERT LEVEL = 69.00m

TREATED SEWERAGE OUTFALL TO RIVER EYE SUBJECT TO ENVIRONMENTAL PERMIT FROM ENVIRONMENT AGENCY.

PROPOSED HYDRO-BRAKE FLOW CONTROL AT 5 l/s INVERT LEVEL = 72.00m



- NOTES:**
- DO NOT SCALE THIS DRAWING.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SPECIALIST DESIGN DRAWINGS AND DETAILS.
  - ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE. ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
  - THIS DRAWING IS FOR STRATEGY PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.
  - DESIGN BASED ON EXISTING LEVELS AND SUBJECT TO CHANGE WITH EXTERNAL WORKS DESIGN / CONFIRMATION OF FFLS.
  - DRAINAGE STRATEGY IS SUBJECT TO AGREEMENT WITH RELEVANT THIRD PARTIES, INCLUDING ENVIRONMENT AGENCY, LOCAL PLANNING AUTHORITY, INTERNAL DRAINAGE BOARD, LEAD LOCAL FLOOD AUTHORITY AND WATER AUTHORITY.
  - CONCRETE PROTECTION TO BE PROVIDED TO ANY PIPES WITH LOW COVER.
  - THE DRAINAGE STRATEGY WILL NEED UPDATING IF THE LAYOUT IS REVISED.
  - DETAILS OF KLARGESTER BIODISC BF SEWAGE TREATMENT WORKS ON DRAWING NUMBER DSD498P.

- KEY**
- PROPOSED SURFACE WATER DRAIN
  - PROPOSED FOUL DRAIN
  - PROPOSED CONCRETE STORM MANHOLE
  - PROPOSED CONCRETE FOUL MANHOLE
  - POND
  - SWALE
  - OVERLAND FLOW ROUTE FROM THE DEVELOPMENT
  - PROPOSED KLARGESTER BIODISC BF SEWAGE TREATMENT PLANT

E	NEW SITE LAYOUT	RC	HR	TR	10.02.21
D	CHANGES TO SEWER NETWORK AND DETAILS ON KLARGESTER SEWERAGE TREATMENT PLANT	RC	HR	TR	08.02.21
C	UPDATED SWALE 1 INVERT	HR	HR	TR	25.05.20
B	REVISED FOUL PIPING & FLOOR LEVELS	HR	HR	TR	17.05.20
A	SITE LAYOUT REVISED	VP	HR	TR	19.05.20
		RC	HR	TR	21.04.20

REV: AMENDMENTS: DRN: CHK: APP: DATE:

PROJECT: **LEISURE DEVELOPMENT SYSONBY GRANGE LANE MELTON MOWBRAY**

DRAWING TITLE: **PROPOSED DRAINAGE STRATEGY**

CLIENT: **EDREN HOMES LIMITED**

DRAWING NUMBER: **25605\_01\_070\_01**

REVISION:	SHEET SIZE:	SCALE:
E	A1	1:500

STATUS: **FOR INFORMATION / APPROVAL**

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