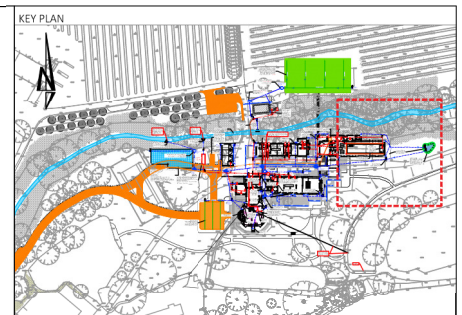


**KEY:**

- EXISTING STORM WATER DRAIN (PRIVATE)
- EXISTING FOUL WATER DRAIN (PRIVATE)
- EXISTING DRAIN TO BE ABANDONED/ GRUBBED UP
- STORM WATER MANHOLE (1200/1350/1500 PCC)
- STORM WATER INSPECTION CHAMBER (PPIC 4500 / 6000)
- STORM WATER INSPECTION CHAMBER (PPIC 3000)
- STORM WATER PUMP
- LINEAR DRAINAGE CHANNEL (WIDE/SLOT/MATERIAL TBC)
- RISING MAIN - PUMPED STORM WATER
- RAIN WATER DOWN PIPE (ROOF CATCHMENT AREA)
- INTERNAL STORM WATER GULLY
- PERMEABLE DRAINAGE SYSTEM WITH CARRIER DRAIN TO STORM WATER DRAINAGE SYSTEM. TO CONTAIN TYPE 3 SUB-BASE APPROX. 350MM DEPTH TO UTILISE AS STORM WATER ATTENUATION.
- FREE DRAINING PERMEABLE DRAINAGE SYSTEM TO CONTAIN TYPE 3 SUB-BASE APPROX. 350MM DEPTH TO UTILISE AS STORM WATER ATTENUATION.
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- HEADWALL (AN ALLOWANCE FOR BUILT IN SITU WITH GUARD RAIL)
- PERMEABLE ASPHALT SURFACE, TARMAC ULTIPOREOUS TENNILEY ASPHALT SURFACE OR SIMILAR PRODUCT. PITCH TO HAVE TYPE 3 SUB-BASE WITH MINIMUM 30% VOID CONTENT IN ACCORDANCE WITH DFT 1998 (BS 7533) TO ACT AS ATTENUATION.
- WATERCOURSE / BROOK
- BASEMENT LAYOUT
- FOUL WATER MANHOLE (1200 PCC)
- FOUL WATER INSPECTION CHAMBER (PPIC 4500)
- FOUL WATER INSPECTION CHAMBER (PPIC 3000)
- FOUL WATER PUMP
- FLOOR DRAIN (TRAPPED)
- SOIL STACK TO BELOW GROUND.
- RISING MAIN - PUMPED STORM WATER
- FOUL WATER FOR POOL BACKWASH. TO BE COLLATED SEPARATELY AND HELD IN CHLORINE SEPARATION TANK. CONTENTS TO BE EMPTIED BY VACUUM TRUCK AND DEPOSITED AT A LICENSED SITE. THIS FOUL WATER IS NOT TO ENTER THE TREATMENT PLANT OR DISCHARGE IN TO THE WATERCOURSE.
- ABOVE GROUND CAST IRON DUCT FOR FOUL WATER. FURTHER COORDINATION NEEDED WITH M&E ENGINEER AND STRUCTURAL ENGINEER FOR FIXINGS TO EXISTING BRIDGE
- BIO-RETENTION AREAS. RWPS TO DRAIN TO SUBGRADE MEDIUM WRAPPED IN GEOMEMBRANE WITH FILTER DRAIN CONNECTED TO STORM NETWORK



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  - All drainage to be laid soffit to soffit unless otherwise shown.
  - The Contractor is to verify the line, level and diameter of existing sewers before commencing drainage works.
  - All foul drainage to be minimum 100mm diameter, all surface water drainage to be minimum 150mm diameter unless otherwise shown.
  - Cover levels shown on this drawing refer to approximate surface levels. It is the contractors responsibility to ensure that access covers and frames are set at the final surface levels.
  - Where possible the contractor is to orientate manhole biscuits and covers to locate them parallel to kerbs and paving.
  - The Contractor should comply with h5(g) 47 "Avoiding Danger from Underground Services" when excavating around existing services.
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  - Contractor to provide temporary screens in each of the down stream manholes during the construction period of the development in accordance with SFA 2.9.10 and the local sewerage undertakers requirements.
  - All in-situ concrete and precast concrete components to be manufactured using Sulphate Resisting Portland Cement, (SRPC) to BS 4027, if required, subject to soil conditions. Manhole components to be to BS EN 1917:2002.
  - All ironwork to be kits marked by BSI or certified by equal inspection authority.
  - All redundant connections to be capped off and grouted from the down stream manhole.
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**REVISIONS**

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P04	Landscape Plan updated	15.03.24	GJ	GJ	DB
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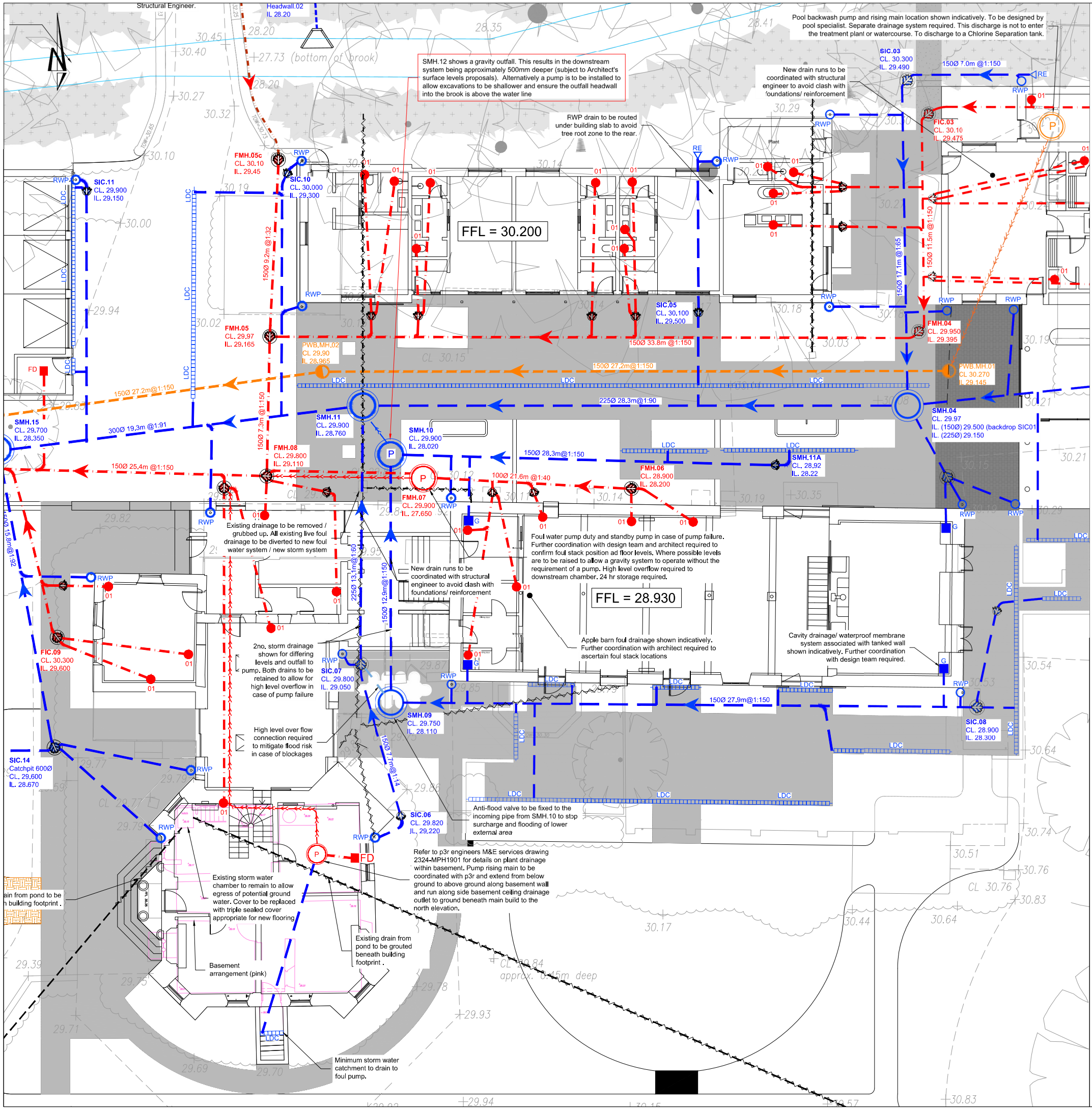
**Hydrock** Unit B1 Elmbridge Court Gloucester GL3 1JZ t: +44(0)1452 783970 e: gloucester@hydrock.com

CLIENT: RICHARD PARR ASSOCIATES

PROJECT: WEST BRADLEY HOUSE GLASTONBURY

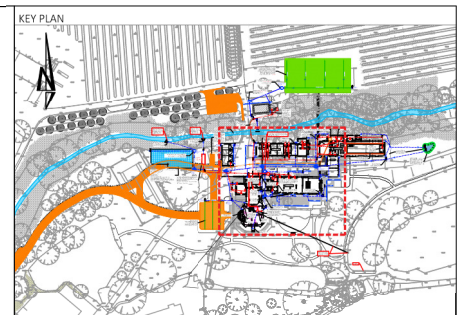
TITLE: DRAINAGE LAYOUT SHEET 1

HYDROCK PROJECT NO. 28421	SCALE @ A1 1:100
STATUS DESCRIPTION SUITABLE FOR INFORMATION	S2
DRAWING NO. 28421-HYD-XX-XX-DR-C-7001	REVISION P04



**KEY:**

- EXISTING STORM WATER DRAIN (PRIVATE)
- EXISTING FOUL WATER DRAIN (PRIVATE)
- EXISTING DRAIN TO BE ABANDONED/ GRUBBED UP
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- STORM WATER INSPECTION CHAMBER (PPIC 4500 / 6000)
- STORM WATER INSPECTION CHAMBER (PPIC 3000)
- STORM WATER PUMP
- LDC
- LINEAR DRAINAGE CHANNEL (WIDE/SLOT/MATERIAL TBC)
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- WATERCOURSE / BROOK
- BASEMENT LAYOUT
- FOUL WATER MANHOLE (1200 PCC)
- FOUL WATER INSPECTION CHAMBER (PPIC 4500)
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- FOUL WATER PUMP
- FLOOR DRAIN (TRAPPED)
- SOIL STACK TO BELOW GROUND.
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**Hydrock**

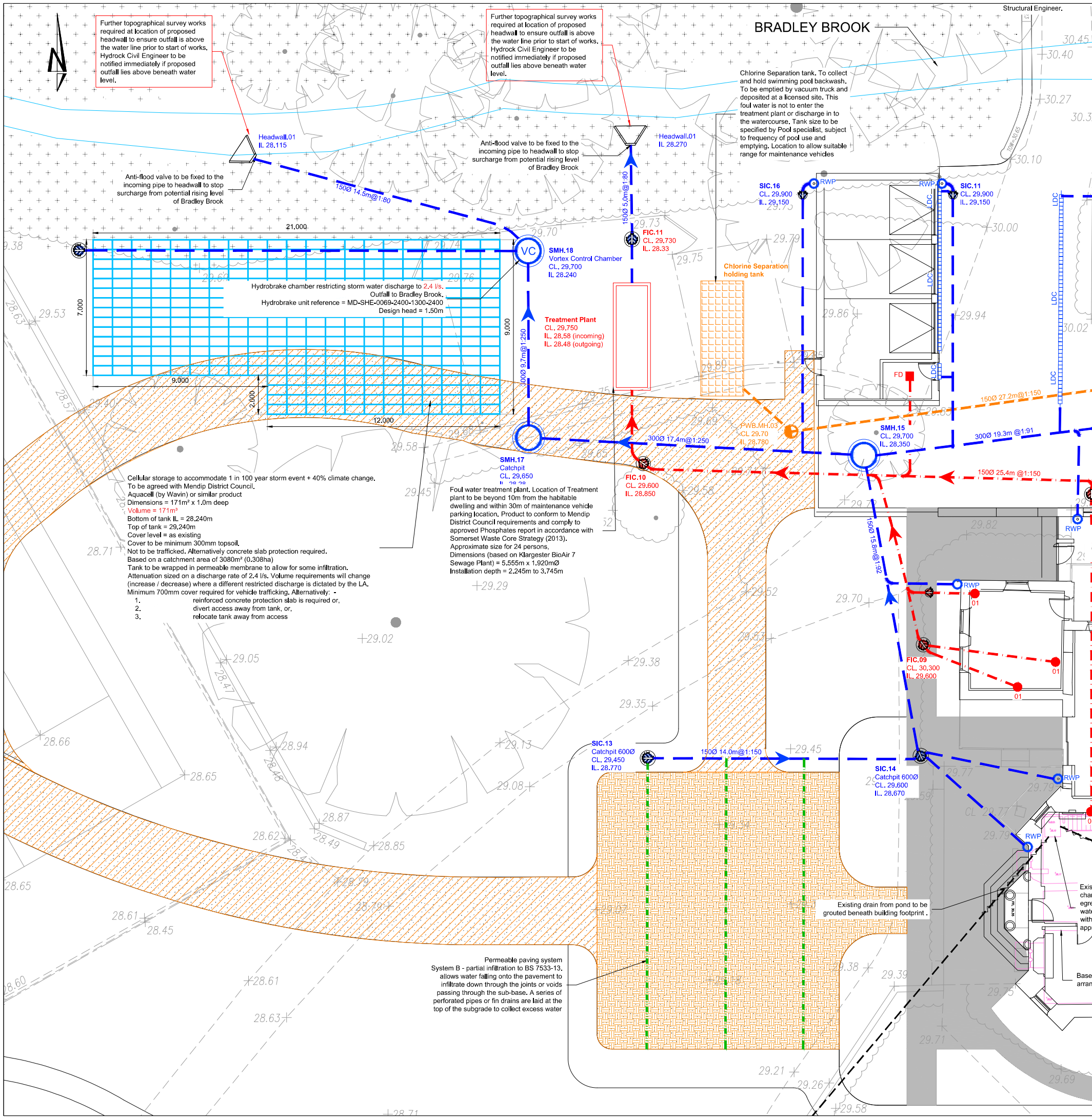
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e: gloucester@hydrock.com

**CLIENT**  
RICHARD PARR ASSOCIATES

**PROJECT**  
WEST BRADLEY HOUSE  
GLASTONBURY

**TITLE**  
DRAINAGE LAYOUT  
SHEET 2

HYDROCK PROJECT NO. 28421	SCALE @ A1 1:100
STATUS DESCRIPTION SUITABLE FOR INFORMATION	STATUS S2
DRAWING NO. 28421-HYD-XX-XX-DR-C-7002	REVISION P04



Further topographical survey works required at location of proposed headwall to ensure outfall is above the water line prior to start of works. Hydrock Civil Engineer to be notified immediately if proposed outfall lies above beneath water level.

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### BRADLEY BROOK

Chlorine Separation tank. To collect and hold swimming pool backwash. To be emptied by vacuum truck and deposited at a licensed site. This foul water is not to enter the treatment plant or discharge in to the watercourse. Tank size to be specified by Pool specialist, subject to frequency of pool use and emptying. Location to allow suitable range for maintenance vehicles.

Anti-flood valve to be fixed to the incoming pipe to headwall to stop surcharge from potential rising level of Bradley Brook

Anti-flood valve to be fixed to the incoming pipe to headwall to stop surcharge from potential rising level of Bradley Brook

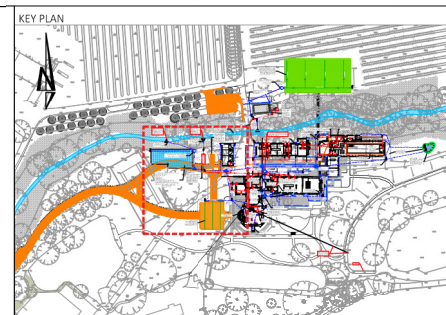
Cellular storage to accommodate 1 in 100 year storm event + 40% climate change. To be agreed with Mendip District Council, Aquacell (by Wavin) or similar product. Dimensions = 171m<sup>2</sup> x 1.0m deep. Volume = 171m<sup>3</sup>. Bottom of tank IL = 28.240m. Top of tank = 29.240m. Cover level = as existing. Cover to be minimum 300mm topsoil. Not to be trafficked. Alternatively concrete slab protection required. Based on a catchment area of 3080m<sup>2</sup> (0.308ha). Tank to be wrapped in permeable membrane to allow for some infiltration. Attenuation sized on a discharge rate of 2.4 l/s. Volume requirements will change (increase / decrease) where a different restricted discharge is dictated by the LA. Minimum 700mm cover required for vehicle trafficking. Alternatively: - reinforced concrete protection slab is required or, - divert access away from tank, or, - relocate tank away from access

Foul water treatment plant. Location of Treatment plant to be beyond 10m from the habitable dwelling and within 30m of maintenance vehicle parking location. Product to conform to Mendip District Council requirements and comply to approved Phosphates report in accordance with Somerset Waste Core Strategy (2013). Approximate size for 24 persons. Dimensions (based on Klargestor BioAir 7 Sewage Plant) = 5.555m x 1.920m. Installation depth = 2.245m to 3.745m

Permeable paving system System B - partial infiltration to BS 7533-13, allows water falling onto the pavement to infiltrate down through the joints or voids passing through the sub-base. A series of perforated pipes or fin drains are laid at the top of the subgrade to collect excess water

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PROJECT  
WEST BRADLEY HOUSE  
GLASTONBURY

TITLE  
DRAINAGE LAYOUT  
SHEET 3

HYDROCK PROJECT NO. 28421	SCALE @ A1 1:100
STATUS DESCRIPTION SUITABLE FOR INFORMATION	STATUS S2
DRAWING NO. 28421-HYD-XX-XX-DR-C-7003	REVISION P04