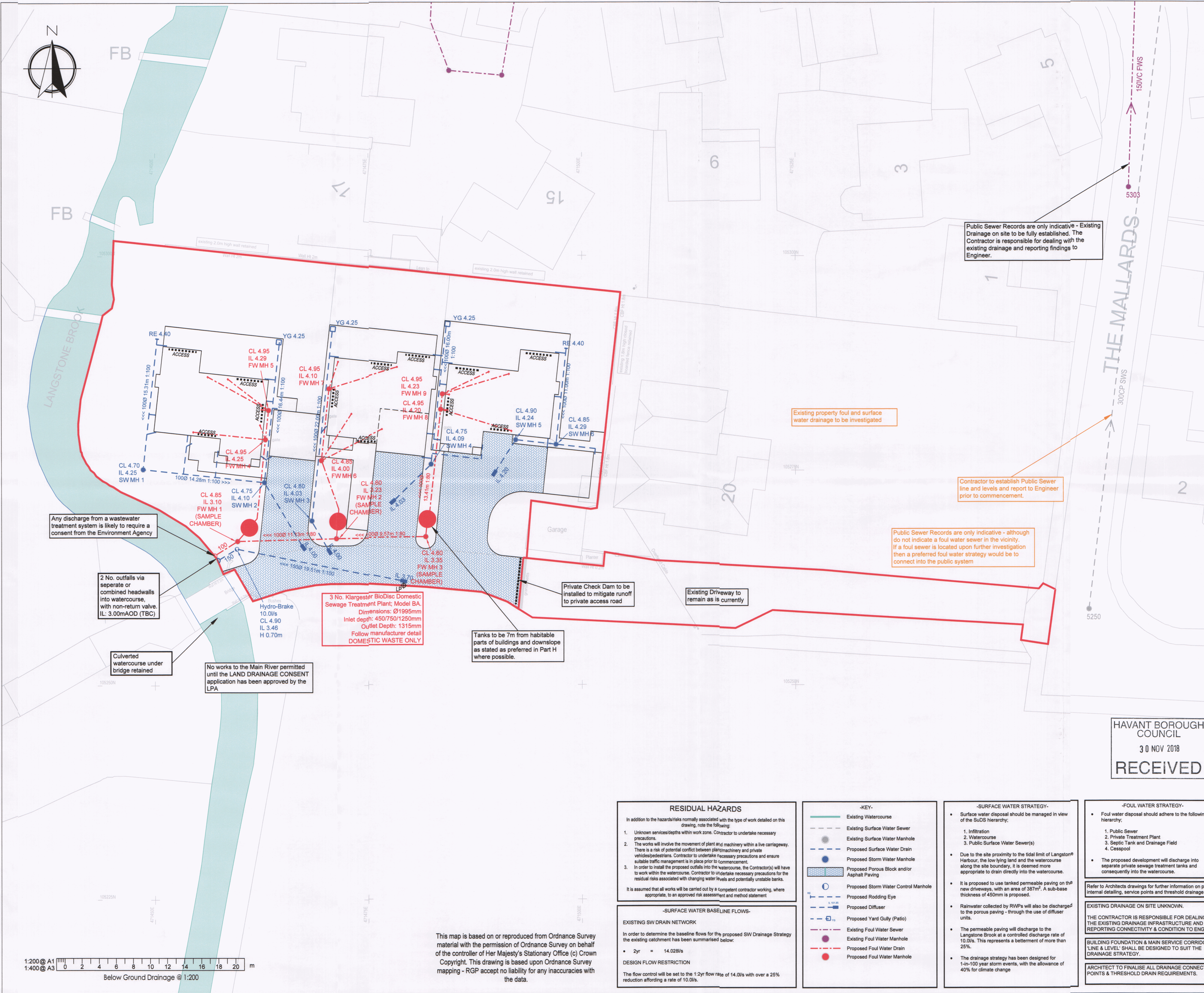




NOTES

1. This drawing is to be read in conjunction with all other RGP drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.

2. RGP accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.

3. Do not scale, work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.

5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.

6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. RGP logos and company information must be removed from copies if information is re-used.

7. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.

8. The main contractor is responsible for dealing with all occurrences of ground water during the construction period.

9. The contractor must comply with all current legislation relating to health & safety.

10. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any RGP drawings, the manufacturers instructions must be used.

11. Contractor to confirm all invert levels where connections are proposed prior to commencing any drainage works. Contractor to commence drainage works at the point of discharge.

DRAINAGE NOTES:

12. All drainage works to be constructed in strict accordance with specification of the local authority, building regulations, sewers for adoption, BS5301 & BS5176-1.

13. For location and setting out of building drainage points refer to architects drawings.

14. All pipe runs near buildings to comply with the Building Regulations Part H11. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN3 concrete.

15. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN3 concrete encasement (150mm thick).

16. Where a pipe, under a carriageway, has a depth of cover of less than 1.2m the pipe shall be laid with a concrete bed and surround.

17. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibroboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 35mm for pipes over 450mm nominal diameter.

18. All private building drainage shall be constructed in strict accordance with BS5176-1, unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of $\sim 1:100 = 1 \text{ in } 400 \sim 1:100 = 1 \text{ in } 80$ for foul drains and 1 in 100 for surface water drains.

19. All pipes, bends and junction for private building drainage shall be UPVC conforming to BS4660 and BS5481 as appropriate and shall be laid in accordance with the manufacturer's specification.

20. All gully connections other than at manholes to be 'Y' junctions. All road gully connections to be 150mm diameter.

21. All stub stacks to be fitted with air admittance valves where branch drain exceeds 12m except at the head of the run. Soil vent pipes located at the head of a run to terminate to fresh air.

22. All connections to be soffit to soffit unless otherwise noted.

23. All concrete and concrete products to be in accordance with BRE 363 for sulphates.

24. The locations and sizes of all sumps and rmps shall be cross referenced against the architects drawings during setting out.

25. The precise depth and location and size of existing pipes or manholes where connections or diversion are proposed must be confirmed and reported to the engineer prior to commencement.

RGP SUPPORTING DRAWINGS:

Dwg No.	Dwg Title
001	Engineering Layout - Levels, Contours & FFIs
003	Engineering Layout - Surface Finishes and Levels
004	Construction Details
005	Drainage Details
006	Setting Out Layout

DRAFT

Rev.	Date	Amendments	Drawn	Appr.
-	9/11/2018	Draft	D.J.L.	MA

HAVANT BOROUGH COUNCIL
30 NOV 2018
RECEIVED

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:
1. Unknown services/depts within work zone. Contractor to undertake necessary precautions.
2. The works will involve the movement of plant and machinery within a live carriageway. There is a risk of potential conflict between plant/machinery and private vehicles/pedestrians. Contractor to undertake necessary precautions and ensure suitable traffic management is in place prior to commencement.
3. In order to install the proposed outfalls into the watercourse, the Contractor(s) will have to work within the watercourse. Contractor to undertake necessary precautions for the residual risks associated with changing water levels and potentially unstable banks.
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

-SURFACE WATER BASELINE FLOWS-

EXISTING SW DRAIN NETWORK

In order to determine the baseline flows for the proposed SW Drainage Strategy the existing catchment has been summarised below:
• 2yr = 14.028l/s
DESIGN FLOW RESTRICTION
The flow control will be set to the 1:2yr flow rate of 14.0l/s with over a 25% reduction affording a rate of 10.0l/s.

-KEY-

Existing Watercourse

Existing Surface Water Sewer

Existing Surface Water Manhole

Proposed Surface Water Drain

Proposed Storm Water Manhole

Proposed Porous Block and/or Asphalt Paving

Proposed Storm Water Control Manhole

Proposed Rodding Eye

Proposed Diffuser

Existing Yard Gully (Patio)

Existing Foul Water Sewer

Existing Foul Water Manhole

Proposed Foul Water Drain

Proposed Foul Water Manhole

-SURFACE WATER STRATEGY-

• Surface water disposal should be managed in view of the SuDS hierarchy;
1. Infiltration
2. Watercourse
3. Public Surface Water Sewer(s)
• Due to the site proximity to the tidal limit of Langstone Harbour, the low lying land and the watercourse, it is deemed more appropriate to drain directly into the watercourse.
• It is proposed to use tanked permeable paving on the new driveways, with an area of 387m². A sub-base thickness of 450mm is proposed.
• Rainwater collected by RWP's will also be discharged to the porous paving - through the use of diffuser units.
• The permeable paving will discharge to the Langstone Brook at a controlled discharge rate of 10.0l/s. This represents a betterment of more than 25%.
• The drainage strategy has been designed for 1-in-100 year storm events, with the allowance of 40% for climate change

-FOUL WATER STRATEGY-

• Foul water disposal should adhere to the following hierarchy;
1. Public Sewer
2. Private Treatment Plant
3. Septic Tank and Drainage Field
4. Cesspool
• The proposed development will discharge into separate private sewage treatment tanks and consequently into the watercourse.
Refer to Architects drawings for further information on plot internal detailing, service points and threshold drainage details.
EXISTING DRAINAGE ON SITE UNKNOWN.
THE CONTRACTOR IS RESPONSIBLE FOR DEALING WITH THE EXISTING DRAINAGE INFRASTRUCTURE AND REPORTING CONNECTIVITY & CONDITION TO ENGINEER.
BUILDING FOUNDATION & MAIN SERVICE CORRIDOR LINE & LEVEL: SHALL BE DESIGNED TO SUIT THE DRAINAGE STRATEGY.
ARCHITECT TO FINALISE ALL DRAINAGE CONNECTION POINTS & THRESHOLD DRAIN REQUIREMENTS.

This map is based on or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationary Office (c) Crown Copyright. This drawing is based upon Ordnance Survey mapping - RGP accept no liability for any inaccuracies with the data.

1:200 @ A1
1:400 @ A3
Below Ground Drainage @ 1:200