

Key:

Red line boundary.

Proposed surface water drainage.

Proposed permeable pavement. Subbase wrapped in impermeable membrane at the sides and base, with perforated pipe collecting surface water run off. Formation levels to be designed independently to the proposed ground levels where needed so the water is conveyed towards the outfall. Contractor to allow for additional depth of permeable subbase to suit. See construction details drawing no. "T_21_2486-55-82".

Proposed channel drain - 300mm wide ACO S or similar approved with load class E600 or higher constructed to manufacturers specification.

Proposed underground storage tank - Polystorm R or similar approved constructed to manufacturers specification.

Proposed ditch diversion. Details including route, to be confirmed during future design stages.

Existing ditch to be retained.

Proposed combined sewer.

Proposed combined sewer rising main.

PS

Proposed pumping station.

Proposed swale.

Proposed filter drain.

Refer to drawing no.:
↑ "T_21_2486-55-26_Proposed Surface Water Drainage Layout-Sheet 06"

Multiple rising main runs to discharge into the existing ditch. Details to be confirmed pending receipt of the pumping station details.

Discharge into the existing ditch at a proposed rate of 175.65 l/s based on Qbar value as per the greenfield runoff rate - subject to change pending approval by Welsh Water, LLFA and the Council. Number and type of discharge points to be confirmed. The contractor is to undertake further investigations and confirm extent and depth of existing ditch to facilitate drainage design outfall. See notes for further information.

Discharge into the existing ditch at a proposed rate of 175.65 l/s based on Qbar value as per the greenfield runoff rate.

Proposed pumping station serving foul water and surface water drainage networks.

Proposed pipe connection from the existing ditch to run underneath the proposed paths. Details to be confirmed upon receipt of pumping station details.

Proposed ditch diversion.

Proposed multiple pumping stations serving foul water and surface water drainage networks subject to change pending confirmation of the supplier requirements. Layout of the pumping station compound is indicative only.

Extents of the proposed pavements in the area are indicative only and subject to change pending receipt of Pumping Station details and confirmation of access requirements. Proposed drainage strategy, including ground and chamber cover levels in the area are subject to change.

Notes

- Unless otherwise stated, all dimensions are in metres.
- Any discrepancies to be immediately reported to the Engineer.
- The drainage design for the area applied for in full is provided for approval, with the drainage design for the area applied for in outline provided for illustrative purposes (not for approval).
- The surface water network was sized to limit proposed discharge to 175.65 l/s based on Qbar value as per the greenfield runoff rate with no flooding. The proposals are subject to change pending approval by Welsh Water, LLFA and the Council.
- The proposed drainage strategy assumes satisfactory capacity at the connection point. Contractor to undertake further investigation as specified by the Overseeing Authorities to demonstrate existing conditions and detail risk of flooding to the adjacent properties.
- For hydraulic calculations refer to report no.: "T_21_2486-REP-55-01_Proposed Surface Water Drainage-InfoDrainage Summary".
- Coordination with landscape architect required during the subsequent design stages.
- Coordination with the MEP Engineer required in the subsequent design stages:
 - Building drainage connections are not shown and are subject to confirmation pending receipt of the locations of rainwater pipes, other drainage features.
 - Contractor to allow for building (i.e. all Units, Primary Substation, and Foul Water Treatment Plants) drainage and connections in the price estimates.
 - The proposals do not allow for surface water drainage connections from the basements. To be confirmed in the later design stages.
- Coordination with the Structural Engineer required in the subsequent design stages:
 - The proposed network is subject to change pending receipt of the foundation plans.
- The proposed surface water drainage network is subject to change during future design stages pending receipt of the outstanding information and delivery of clash detection.
- Petrol interceptors to be installed in all service yards and other areas where specified. Details to be confirmed in the future design stages. Contractor to make an allowance for petrol interceptors.
- Number and type of connections from channel drains, including dock levellers, into underground storage tanks are indicative only and will be confirmed in the future design stages.
- Size optimisation of the underground storage tanks is to be undertaken in the future design stages subject to confirmation by the hydraulic calculations.
- This drawing is to be read in conjunction with all relevant Civil Engineering drawings, reports, calculations and other documentation including but not limited to:
 - Drainage strategy drawings no.: "T-21-2486-55-01_Proposed Foul Water Drainage Strategy", "T-21-2486-55-02_Proposed Surface Water Drainage Strategy".
 - Drainage catchments drawings no.: "T-21-2486-55-11_Proposed Surface Water Drainage-Catchment Plan-Sheet 01" to "(...)-Sheet 08".
 - Proposed ground levels drawings no.: "T-21-2486-60-01_Proposed Ground-Contours & Levels-Layout-Sheet 01" to "(...)-Sheet 08".
 - Drainage construction details drawings no.: "T-21-2486-55-91_Proposed Drainage Details-Sheet 01" to "(...)-Sheet 03".
- All works within the highway boundary are indicative only and are subject to change pending confirmation from the overseeing authorities. Extents of tie-in of pavements to existing highway are subject to relevant S278 applications and associated technical documentation. This drawing does not cover the S278 agreement. For further information contact the appointed Consultant.

P05	12.01.2024	FJB	Updated to include Unit 02 substation.	WL	FJB
P04	06.11.2023	FJB	Updated to the latest layout. Key update.	WL	FJB
P03	29.06.2023	FJB	Drainage, key and notes update.	WL	FJB
P02	15.06.2023	FJB	Drainage and red line update.	WL	FJB
P01	02.06.2023	FJB	First issue.	WL	FJB

Rev	Date	By	Description	Chk	App
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PLANNING



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Project
**Bryn Lane, Wrexham,
Wrexham Industrial Estate, Phase 2**

Title
**Proposed Surface Water Drainage
Layout-Sheet 07**

Scale	Drawn	Revision
1:500@A1	F.J.BEDNARSKI	P05
Date	Checked	
02.06.2023	W.N.LLOYD	

Drawing No.:
T_21_2486-55-27