

Scope

Hutchinson Whitlam Associates attended the site of the replacement dwelling at Overdale Langho on Tuesday 12th of September, to inspect trial pits on the existing foundations, identify ground conditions at the site and advise on the most suitable surface water drainage strategy.

Site Description and Results

Three trial pits were excavated, one at the front of the existing property (TP1), one at the rear (TP2) and one at a possible soakaway position in the garden (TP3).

These trial pits highlighted the ground was consistent across the site and consisted of a thin layer of topsoil (max 200mm) overlying firm to stiff clay, becoming stiff with depth.

The natural clay soil will provide a suitable foundation on which to construct the foundations for the new dwelling, although the foundation depth will need to be adjusted to account for the Leylandi tree's adjacent to the boundary on the neighbouring plot. Clay samples will be sent to the laboratory for testing to determine its volume change potential in accordance with NHBC's "building near trees guidance".

The anticipated safe bearing capacity of the clay soil is thought to be between 100-150kN/m.

Surface Water Drainage

The current dwelling, as with the neighbouring properties discharge all surface water directly to the combined sewer that runs across the site. This was evident following inspection of the manholes at the rear of the property.

The firm/stiff clay identified across the plot was typical of local geology and was clean with negligible quantities of granular material. This soil type is associated with very poor infiltration rates and is therefore considered to be unsuitable for the discharge of water through infiltration (soakaways). The inspection was taken following a very brief period of rain and there remained standing water in the pit.

In addition to the poor infiltration characteristics, the site has a small footprint which could hamper the position of a soakaway. Once the approved building is constructed, maintaining a 5m clearance from any building, plus a 2m clearance from any boundary, would severely hamper the position of a soakaway.

It is therefore concluded that as infiltration is not possible and there is no watercourse near to the property, discharging surface water to the combined sewer as it currently does, is the best course of action.



Figure 1 - TP3



Figure 2 - Shallow Topsoil overlying clay

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New Dwelling – Overdale, Langho

15.09.23

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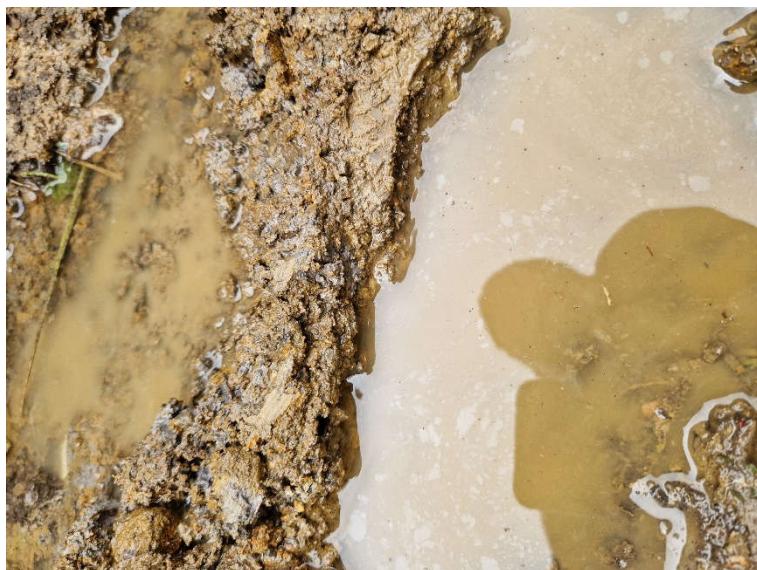


Figure 3 - Standing Water



Figure 4 - Existing Surface water discharged to public sewer

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Project	Replacement Dwelling - Overdale, Langho				Job no.
Calcs for	Trial Pit 3				Start page no./Revision
Calcs by	Calcs date	Checked by	Checked date	Approved by	Approved date
MB	15/09/2023				1

TRIAL PIT LOG

Trial pit reference TP3 Sheet 1 of 1

Water	Reduced Level (m)	Legend	Depth (m)	Description
	0.00			
	-0.20	X X X X X X X X	(0.20) 0.20	TOPSOIL
	-1.20	- - - - - -	(1.00)	Firm to stiff brown CLAY becoming stiff with depth. Occasional cobbles
			1.20	Trial pit ends

Not shown to scale

Additional notes: No Groundwater encountered. Standing water following short period of rain