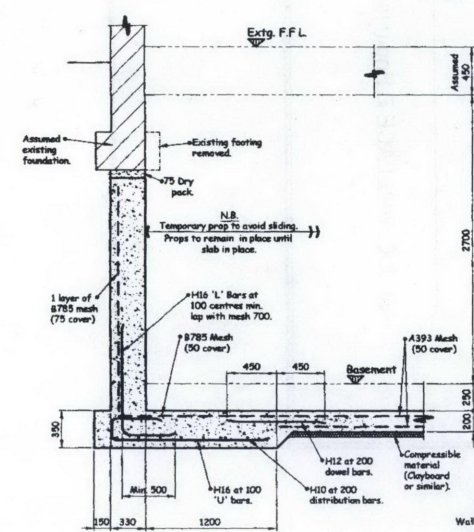
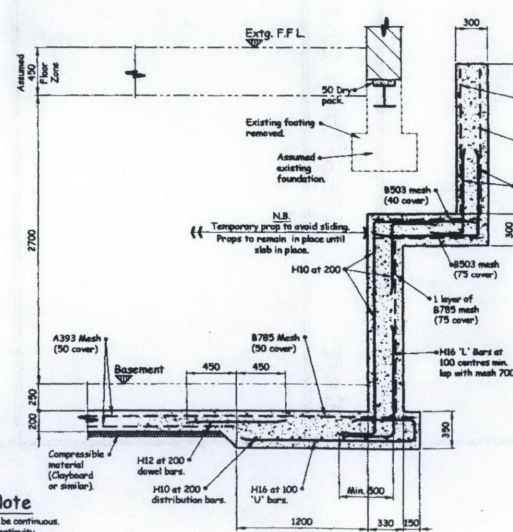


Basement Proposed Underpinning Plan.
Scale 1:50 at A1



Section 1 - 1
Scale 1:25 at A1



Section 2 - 2
Scale 1:25 at A1

Reinforcement Note

Wall and Foundation reinforcement shall be continuous.
If loose bars are used to provide continuity
the area of loose bars shall not be less
than the area of reinforcement specified.
Laps shall be not less than 45 times the lesser bar diameter.

Underpinning Notes

- U1. All reinforced concrete cast on the ground shall be placed on 50mm. of concrete binding in a nominal 1:8 mix unless otherwise noted.
- U2. Foundations have been designed to impose a net bearing pressure of 800kN/m² on London Clay and 1250kN/m² on Sand and Gravel, at depths shown. The bearing strata shall be approved by the Local Authority's Building Inspector, before laying blinding, or casting foundations. Any additional excavation shall be replaced with a nominal 1:8 mix concrete. But in the event of extensive additional excavation being required, the Engineer must be informed immediately and fresh instructions obtained.
- U3. Concrete mix for foundations shall be a 635 mix with a minimum Ordinary Portland cement of 300kg/m³ and a maximum water/cement ratio of 0.60. Concrete shall be left for at least 48 hours before dry packing.
- U4. Concrete cover to the reinforcement shall be as detailed on the drawings but never less than 35mm.
- U5. The minimum depth of the underpinning, (measured from the underside of the existing footing, to the underside of the new), shall be 500mm and shall be formed on a strich, capable of sustaining a permissible net ground pressure of 100kN/m² on London Clay and 150kN/m² on sand and gravel.
- U6. The underside of the existing wall or foundation shall be trimmed and cleared of all mud and debris, before dry packing. The dry pack shall be a 1:3 mix and well rammed in horizontal layers, not exceeding 75mm thick. Dry packing shall be left 24 hours before work is commenced on adjacent underpin.
- U7. The central area of excavation shall not be carried out until the perimeter underpinning has been completed.
- U8. Backfilling behind retaining walls shall be a 1:20 mix, using Ordinary Portland Cement.

N.B.

The underpin numbering for identification purposes only.
The sequence of underpinning is to be agreed on site, with the District Surveyor and should follow the traditional 1, 4, 2, 5, 3 pattern.
But at all times the minimum requirements for the laps, between the construction of adjacent pile must be adhered to.
See underpinning notes for the minimum sequence requirements.
Underpinning to be a maximum length of 1200mm.
Provide corner bars in underpinning stems, to ensure mesh reinforcement is held in place during concreting.

Notes

1. This drawing remains the copyright of Vincent and Rymill and is not to be copied, altered or changed without permission.
2. All dimensions are in millimetres unless otherwise noted.
3. Do not scale off this drawing.
4. All temporary works shall be the responsibility of the main contractor. But should advice be given, by the Engineer. No responsibility will be accepted, unless the advice is confirmed in writing, by the Contractor, prior to the works being carried out.
5. The Contractor shall be responsible for the stability of the existing structure on the site, as well as the adjoining sites. The Contractor must take all necessary precautions to safeguard this. Adequate shoring shall be installed during the works, to ensure the stability of the structure. Such shoring is to be adequately founded.
6. Any deviation from the details shown, must be notified to the Engineer, by the Contractor, in writing, before being carried out.
7. All new steelwork to be grade 275. To be cleaned at works to Sa 2.5 and primed with High Build zinc phosphate primer to 75 microns minimum dft. Primer to be touched up on site where damaged by transit or erection.
8. All concrete padstones to be in 10mm. maximum aggregate size 1:3 mix (cement:aggregate/fines).
9. All structural timber to be grade C16 or C24 as noted. All timber to be treated.
10. For fire protection to steelwork see Architects details.

Rev	Details	Date
Consulting Civil & Structural Engineers Lakeside Country Club, Wharf Road, Frintley Green, Camberley, Surrey GU16 6PT Telephone : 01252 854 242 Fax : 01252 854 288 Email: info@vincentrymill.co.uk		
21 Kidderpore Gardens London NW3		
Structural Elements		
Scale at A1	Date	Job No
1:50 1:25	Feb 2012	12A11
		Org No
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