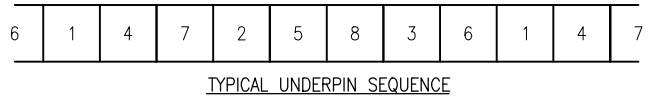


PROPOSED LOWER GROUND FLOOR PLAN
SCALE 1:50



TYPICAL UNDERPIN SEQUENCE

THE UNDERPIN SEQUENCE IS TO BE AGREED ON SITE WITH THE DISTRICT SURVEYOR BUT AT ALL TIMES THE MINIMUM REQUIREMENTS FOR THE TIME LAPSE BETWEEN THE CONSTRUCTION OF ADJACENT PINS MUST BE ADHERED TO. SEE UNDERPINNING NOTES FOR MINIMUM SEQUENCE REQUIREMENTS.

AT NO TIME SHALL MORE THAN 20% OF ANY WALL BE UNDERMINED.

UNDERPINNING SECTIONS TO BE A MAX LENGTH OF 1200mm

A DENOTES SECTION TYPE

PROVIDE CORNER BARS IN UNDERPINNING STEMS TO ENSURE MESH REINFT IS HELD IN PLACE DURING CONCRETING

WHERE UNDERPIN TOES OVERLAP AT CORNERS, MAIN REINFORCEMENT SHALL BE FULLY CONTINUOUS THROUGHOUT.

BASEMENT FLOOR SLAB SHALL BE 250mm THICK REINFORCED WITH A393 MESH IN TOP (40mm COVER) AND A252 MESH IN BOTTOM (75mm COVER). CAST ONTO 150mm THICK 'CELLCORE' OR SIMILAR APPROVED VOID FORMER.

EXISTING LIFT PIT/SHAFT FOUNDATIONS TO BE INVESTIGATED PRIOR TO COMMENCEMENT OF UNDERPINNING AND DETAILS TO BE RELAYED TO THE STRUCTURAL ENGINEER.

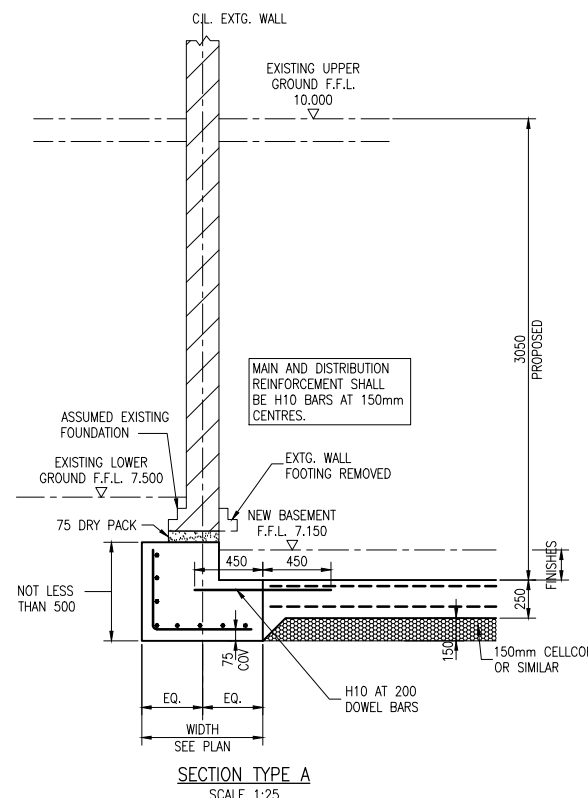
/// DENOTES WHERE UNDERPIN TOE MAIN AND DISTRIBUTION REINFORCEMENT SHALL BE FULLY CONTINUOUS THROUGHOUT.

UNDERPINNING NOTES

- U1. ALL REINFORCED CONCRETE CAST ON THE GROUND SHALL BE PLACED ON 50mm OF CONCRETE BLINDING IN A NOMINAL 1:8 MIX UNLESS OTHERWISE NOTED.
- U2. FOUNDATIONS HAVE BEEN DESIGNED TO IMPOSE A NET BEARING PRESSURE OF 100kN/m² ONTO A COHESIVE SOIL AT THE 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 35N MIX WITH A MINIMUM 380kg OF SULPHATE RESISTING CEMENT PER CUBIC METRE AND A MAXIMUM WATER/CEMENT RATIO OF 0.45. 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.

UNDERPINNING NOTES - CONT

- 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 THE UNDERSIDE IS TO BE DUG TO A STRATA CAPABLE OF SUSTAINING A PERMISSIBLE NET GROUND PRESSURE OF 100kN/m².
- U6. THE UNDERSIDE OF THE EXISTING WALL OR FOUNDATION SHALL BE TRIMMED AND CLEANED 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 AT LEAST 24 HOURS BEFORE WORKS ARE COMMENCED ON ADJACENT UNDERPINS.
- U7. THE CENTRAL AREA OF EXCAVATION SHALL NOT TO BE CARRIED OUT UNTIL THE PERIMETER UNDERPINNING HAS BEEN COMPLETED.
- U8. BACKFILLING BEHIND LIGHTWELL RETAINING WALLS IF REQUIRED SHALL BE A 1:20 MIX USING SULPHATE RESISTING CEMENT.



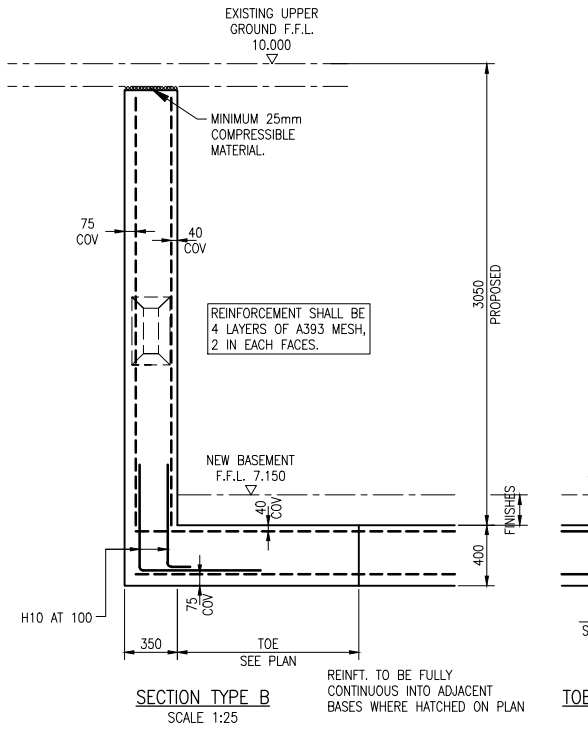
SECTION TYPE A
TOE TO TOE JUNCTION
SCALE 1:25

REINFORCEMENT NOTE

WALL AND FOUNDATION REINFORCEMENT SHALL BE CONTINUOUS. IF LOOSE BARS ARE USED TO PROVIDE CONTINUITY THE AREA OF THE LOOSE BARS SHALL NOT BE LESS THAN THE AREA OF THE BARS SPECIFIED.

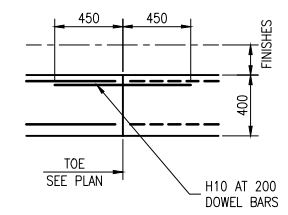
LAPS SHALL NOT BE LESS THAN 45 TIMES THE LESSER BAR DIAMETER.

THE LEVELS INDICATED ON THE SECTIONS ARE FOR REFERENCE ONLY. ALL DIMENSIONS SHOULD BE CHECKED ON SITE PRIOR TO CONSTRUCTION.



SECTION TYPE B
TOE TO SLAB JUNCTION
SCALE 1:25

SECTION TYPE B
TOE TO SLAB JUNCTION
SCALE 1:25



JOGGLE JOINT
SCALE 1:25

NOTES

1. THIS DRAWING REMAINS THE COPYRIGHT OF MMP DESIGN 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 AND EARTHWORKS ON THE SITE AND ADJOINING SITES AND MUST TAKE ALL NECESSARY PRECAUTIONS TO SAFEGUARD THIS. ADEQUATE SHORING SHALL BE INSTALLED DURING THE WORKS TO ENSURE STABILITY OF THE STRUCTURE AND SUCH SHORING IS TO BE ADEQUATELY FOUND.
6. ANY DEVIATION FROM THE DETAILS SHOWN MUST BE NOTIFIED TO THE ENGINEER BY THE CONTRACTOR IN WRITING BEFORE BEING CARRIED OUT.
7. THE LOCAL AUTHORITY'S BUILDING INSPECTOR AND THE ENGINEER ARE TO BE INFORMED BY THE CONTRACTOR IN WRITING AT LEAST 48 HOURS PRIOR TO THE WORKS STARTING ON SITE AND THEIR AGREEMENT OBTAINED THAT WORK CAN COMMENCE.
8. FIRE PROTECTION TO ALL STRUCTURAL MEMBERS SHALL ACHIEVE NOT LESS THAN A 1 HOUR STANDARD.
9. ALL NEW STRUCTURAL TIMBER SHALL BE GRADE SC4 (OR C24) TO BS. 4978 UNLESS OTHERWISE NOTED AND SHALL BE TREATED WITH AN APPROVED TIMBER PRESERVATIVE, INCLUDING CUT ENDS AND NOTCHES.
10. ALL STRUCTURAL STEELWORK SHALL BE MILD STEEL AND PAINTED WITH 1 COAT OF RED OXIDE AT THE FABRICATION WORKS AND 1 COAT ON SITE AFTER ERECTION, EACH COAT WITH A DRY FILM THICKNESS OF NOT LESS THAN 50 MICRONS. STEELWORK TO BE ENCASED IN CONCRETE SHALL BE UNPAINTED.
11. ALL STEELWORK CONNECTION DESIGNS AND FABRICATION DETAILS SHALL BE PREPARED BY THE APPOINTED SPECIALIST STEELWORK CONTRACTOR UNLESS OTHERWISE NOTED.
12. THE CONCRETE MIX FOR PADSTONES SHALL BE A 1:4 MIX.
13. BRICKWORK SHALL BE CONSTRUCTED USING BRICKS WITH A MINIMUM CRUSHING STRENGTH OF 27.5N/mm² AND BLOCKWORK SHALL BE CONSTRUCTED USING BLOCKS WITH A MINIMUM CRUSHING STRENGTH OF 2.8N/mm² UNLESS OTHERWISE NOTED. ALL MASONRY SHALL BE LAID IN CLASS (iii) MORTAR.

Rev.	Revision	Date

Client

Project

**31 HEATH DRIVE
LONDON
NW3 7SB**

Title

**PROPOSED BASEMENT EXTENSION
AND ALTERATIONS
STRUCTURAL DETAILS - SHEET 3**

Drawing Status:

BUILDING REGULATIONS

Date: MAY/2105	Drawn by: SB
Scales: AS NOTED AT A1	Checked:

MMP DESIGN
Consulting Civil & Structural Engineers

First Floor Unit 6
Union Park
Packet Boat Lane
Uxbridge UB8 2GH
Tel: 01895 430700 Fax: 01895 430550
Email: mail@mmpdesign.co.uk

Job No. 4467	Dwg. No. 03	Rev.
---------------------	--------------------	------