Appendix 5: Structural Engineer's Statement and Calculations

TAK Structures Construction Methodology Report, 20080 TAK Report 2021.02.05 Rev B, gives details of the construction sequence including drawings of the 11 stages of the basement construction.

As a rebuild, the house will be constructed in a sensible and orthodox manner from the bottom upwards. The leisure suite will have columns at around 5m centres, both ways, to support the ground floor slab and superstructure. These basement columns will be supported on piles within the basement box.

The basement will require the construction of a contiguous piled perimeter wall with an inner box of waterproof concrete.

The ground movement analysis assumes the basement walls are held stiff. This will be achieved during construction by wailer and bracing. In the permanent solution the walls will have capping beams and the lid to the basement.

As orthodox construction, there are no unusual features that require preliminary design calculations.

CONSTRUCTION METHODOLOGY

FOR

38 FROGNAL LANE, LONDON.

REV. B

TAK STRUCTURES

020 4530 8000 | info@takstructures.co.uk | www.takstructures.co.uk

TAK Structures Ltd Suite 1 10 Kennington Park Place London SE11 4AS
Company No: 12732402

Revision Notes

- Estimated pile loads updated.

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Outline of Temporary & Permanent Works

- Demolition of the existing house.
- Installation of contiguous piles to perimeter of basement and piles to basement columns.
- Construction of capping beam or installation of high-level wailer system with propping to hold the excavation stiff.
- Propping of the retaining wall to back of the pavement.
- Excavation of basement. This will require the interception of any seepages with a sump and pump, but formal dewatering techniques will not be required. The basement throughflow in 5.5.8 at 0.12l/s cis well within the capacity of a single sump pump.
- Casting of basement raft and perimeter walls in waterproof concrete
- Removal of wailer and completion of lid to basement box.
- Drainage strategy/SUDS proposals as SDA Drawing 1611 100

Superstructure

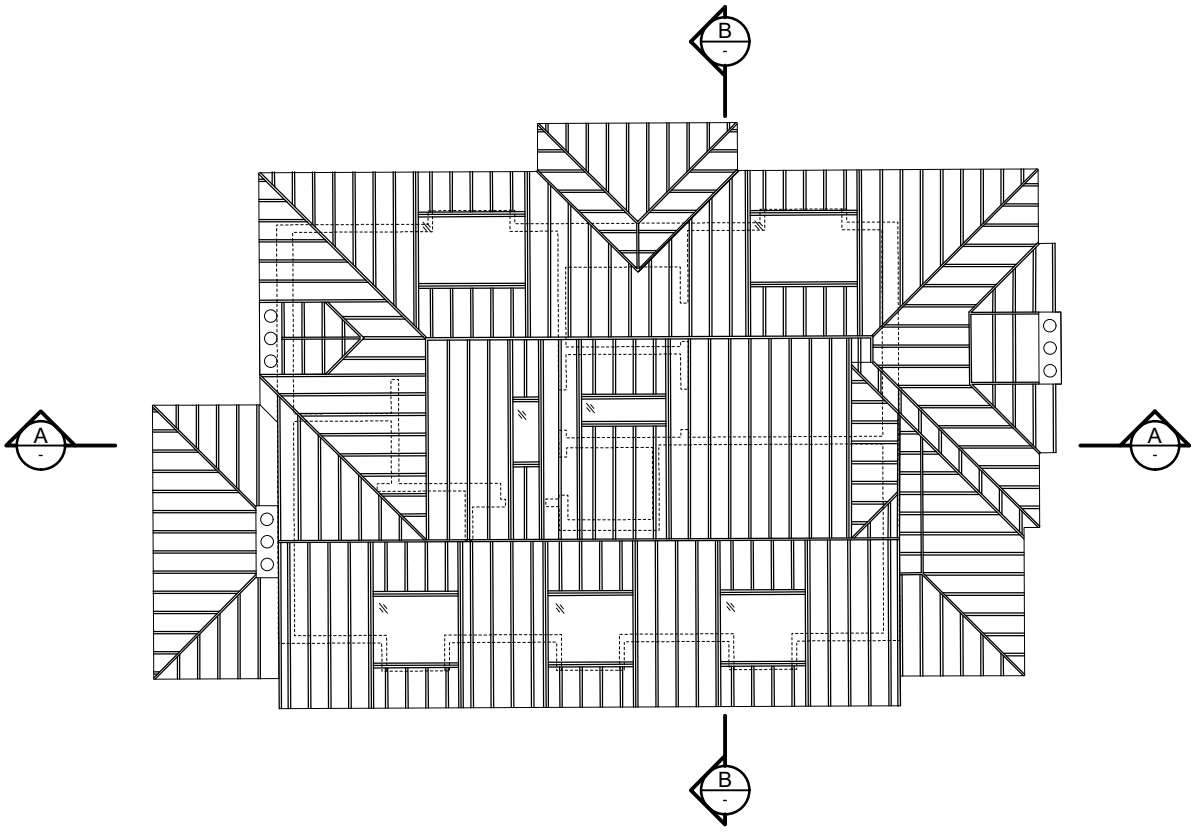
- The building will be an RC frame with 200mm thick slabs @ Basement & Levels 1 & 2, and a 400mm thick podium deck at ground floor level.
- The building will be clad with non-load bearing masonry.

Foundation

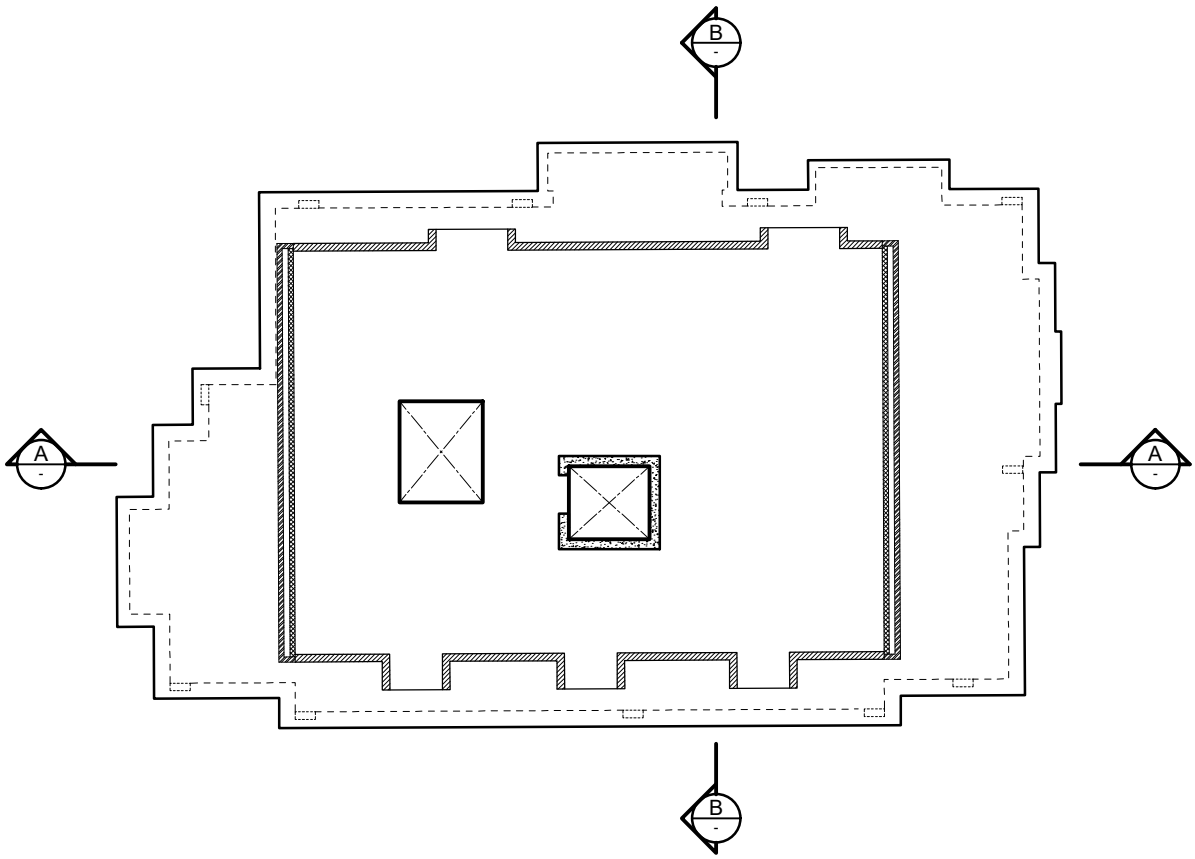
- The columns will be supported upon piled foundations, designed by specialist contractors using loads provided by *TAK Structures*.

Stability

- Stability for the frame will be provided by RC lift shaft at the centre of the property.

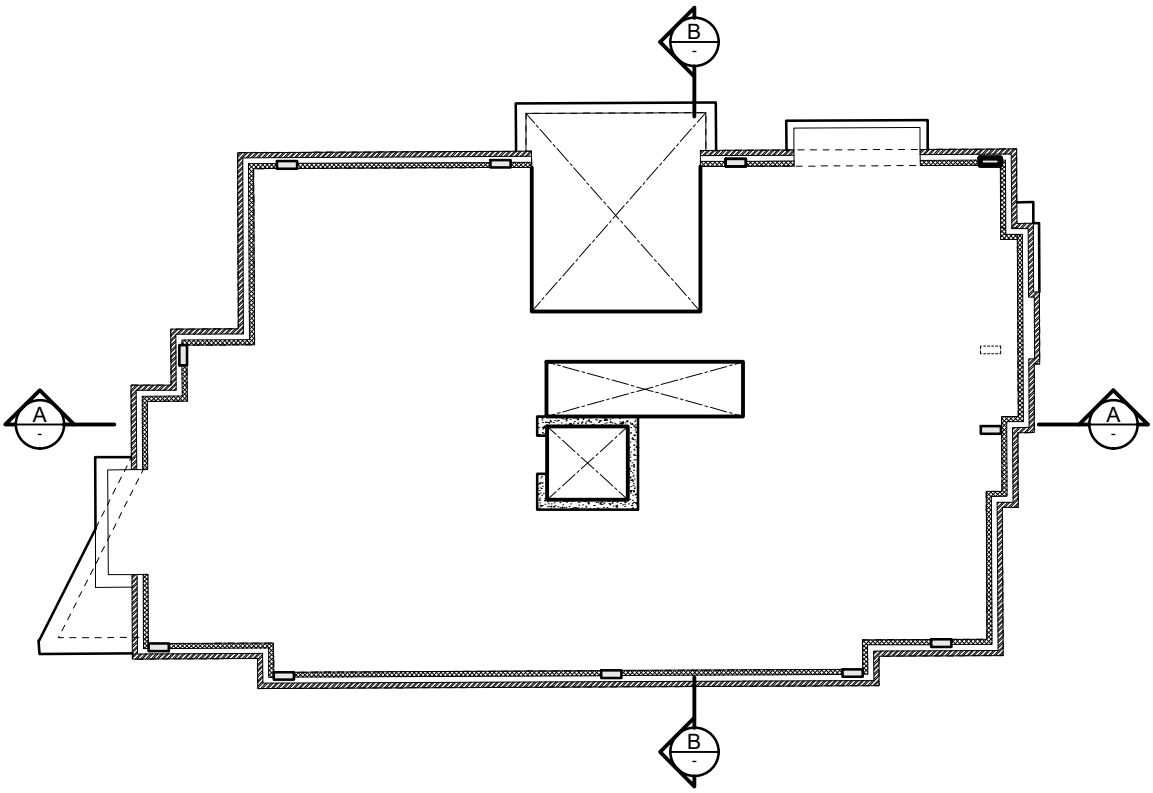


PLAN ON ROOF
(NOT TO SCALE)



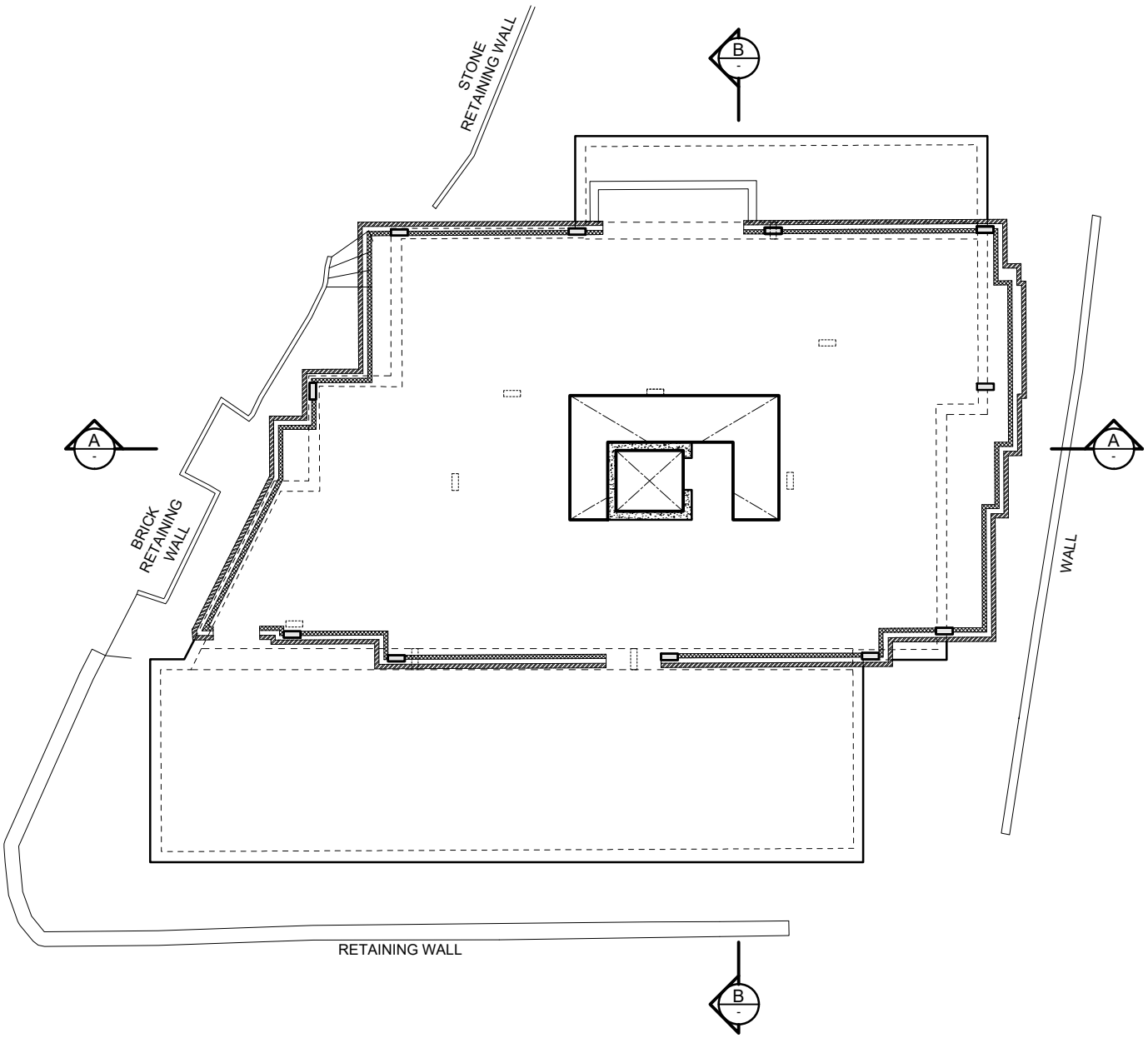
SECOND FLOOR PLAN

(NOT TO SCALE)



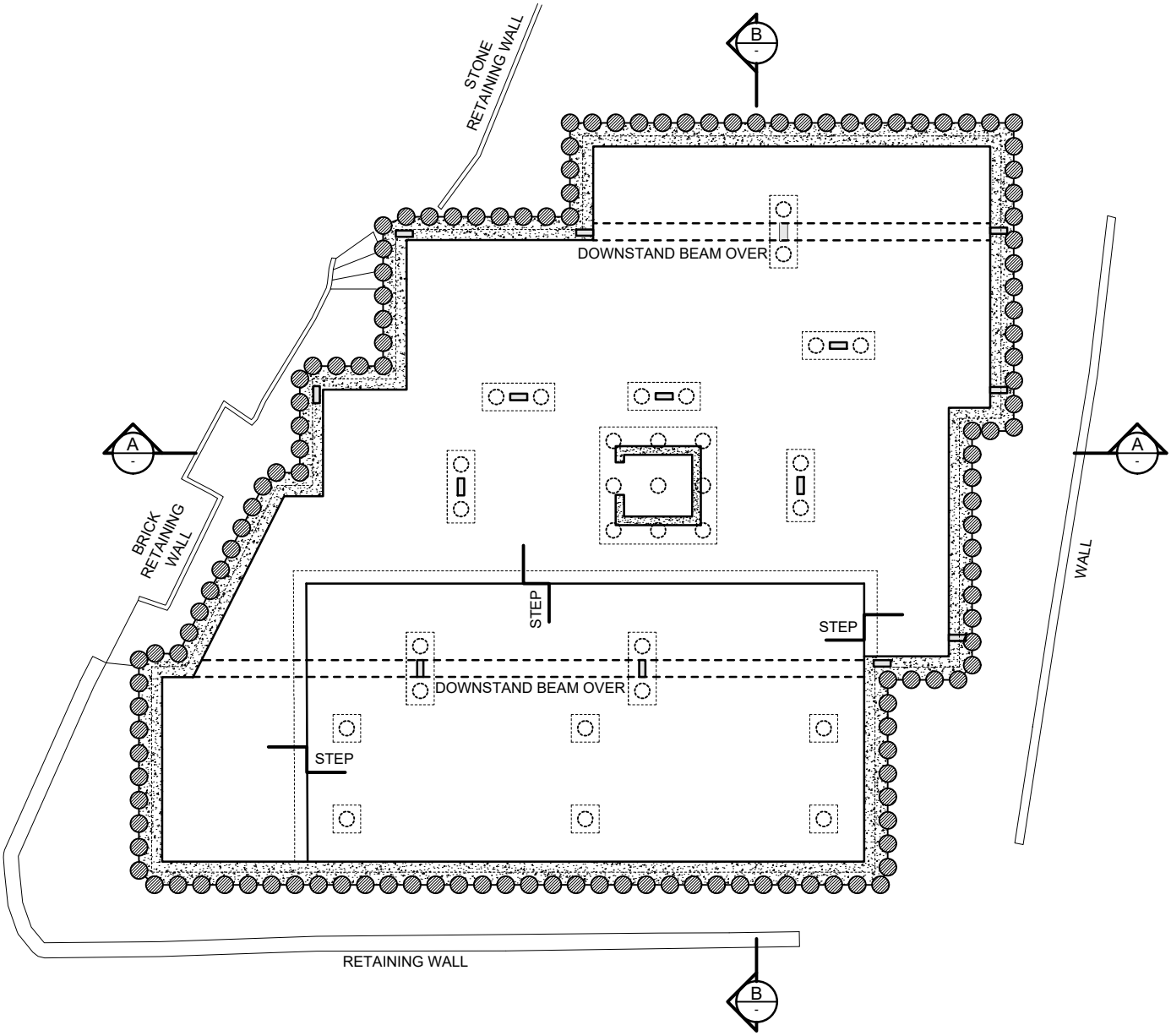
FIRST FLOOR PLAN

(NOT TO SCALE)



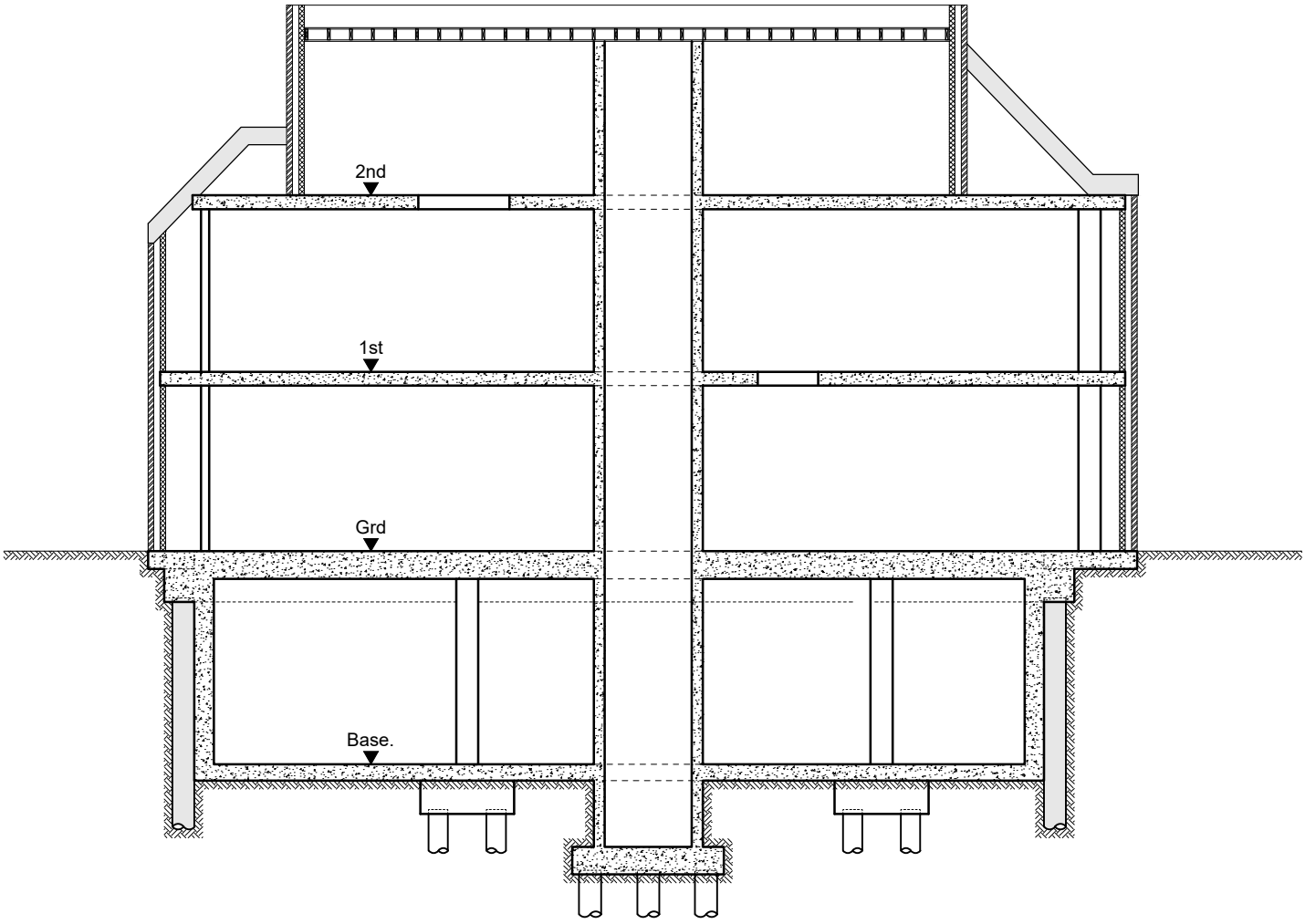
GROUND FLOOR PLAN

(NOT TO SCALE)



BASEMENT PLAN

(NOT TO SCALE)



SECTION A
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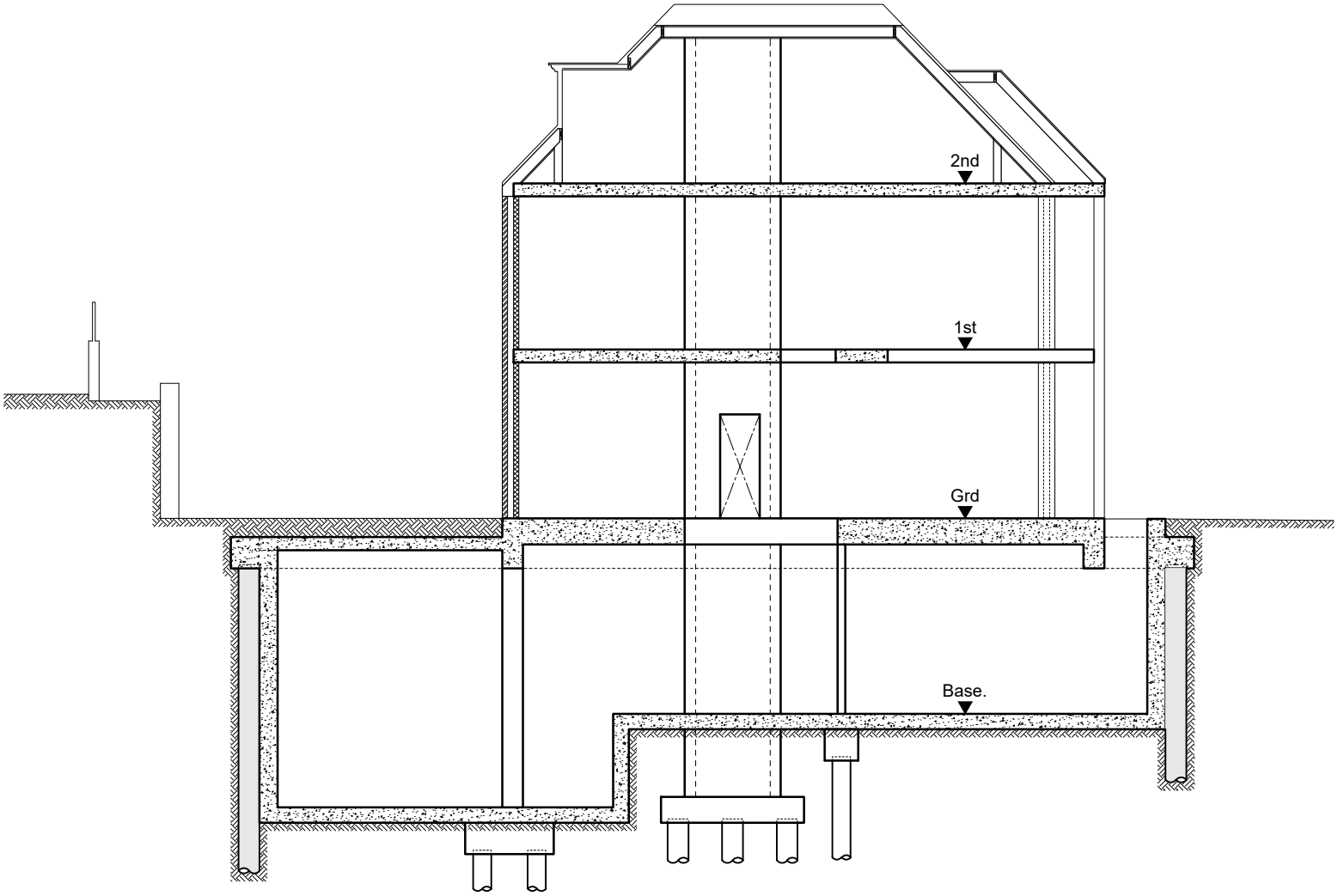
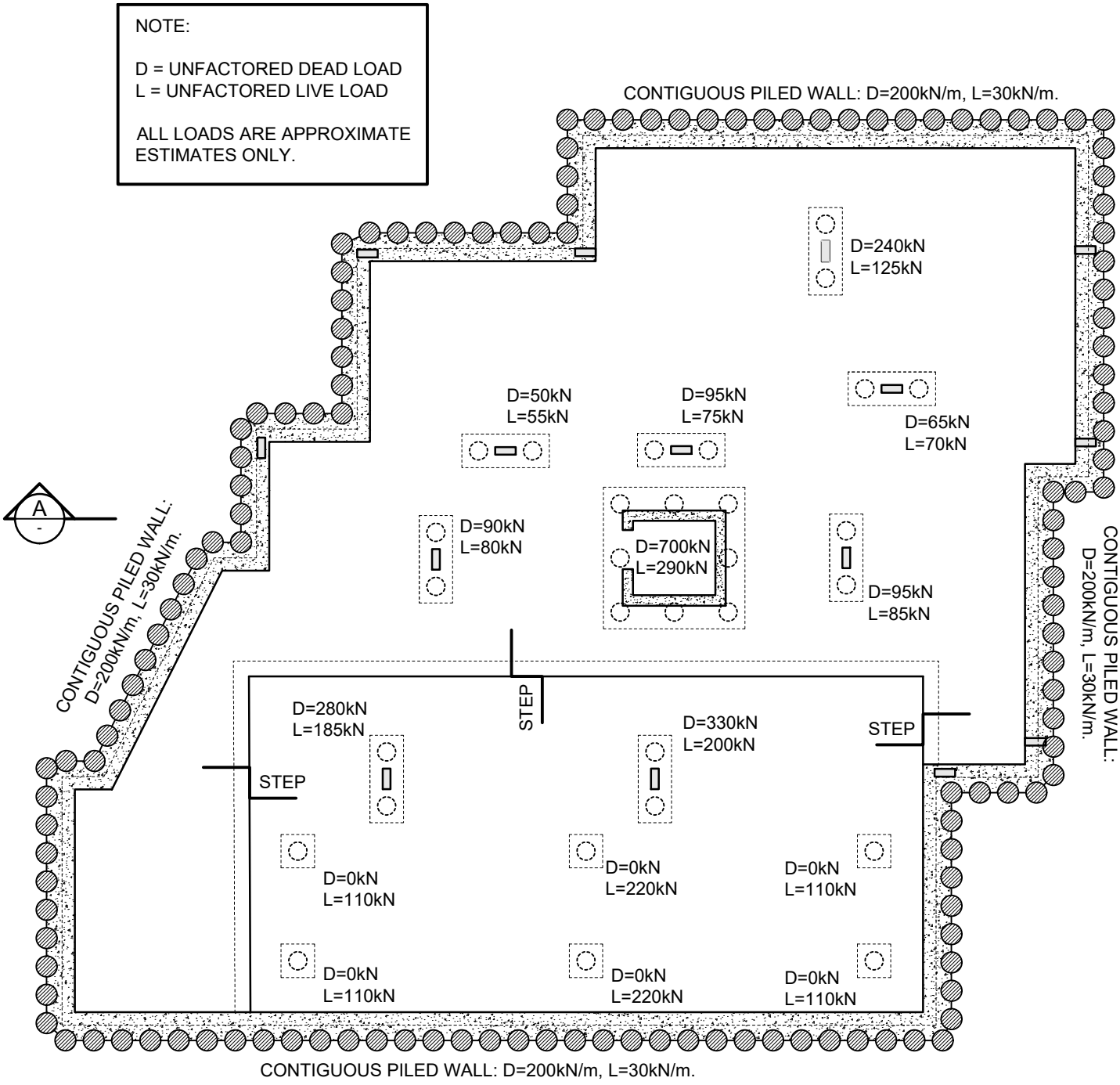
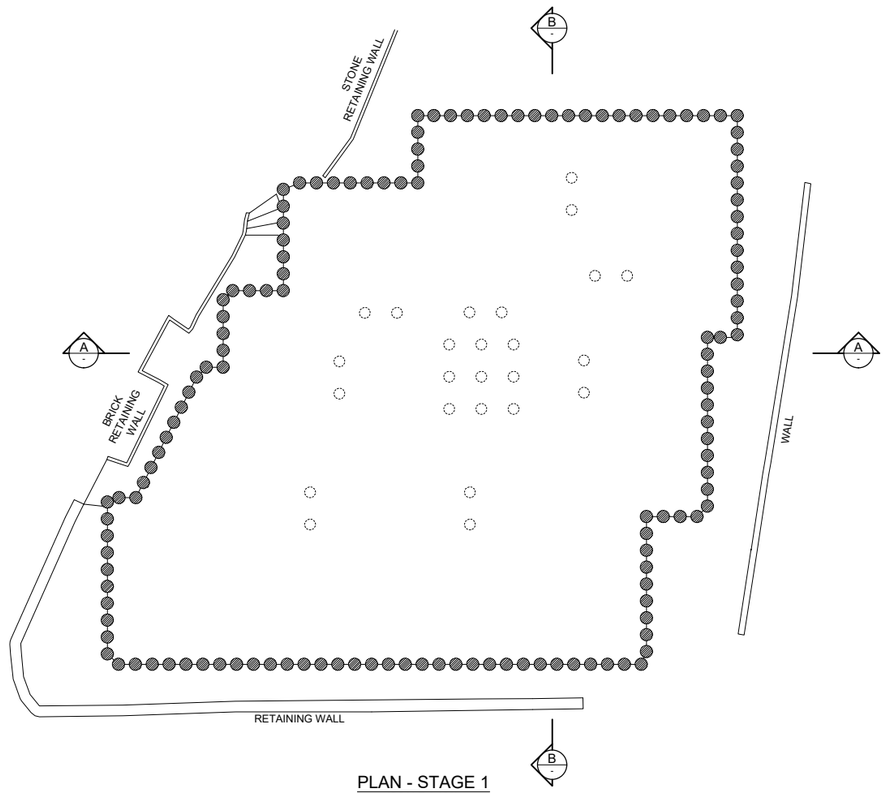


SECTION B
(SCALE 1:50) -



PILE LOADS

(NOT TO SCALE)

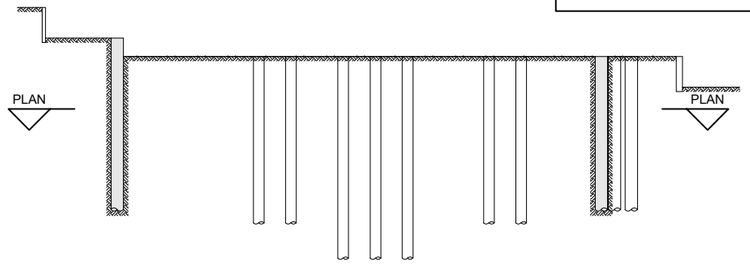


PLAN - STAGE 1
(SCALE 1:100)

STAGE 1

DRILL PILE SHAFT THEN POUR CONCRETE IN SITU TO REQUIRED PERMANENT LEVELS.

WHERE EARTH NEEDS TO BE RETAINED TO NOT UNDERMINE EXISTING STRUCTURES OR TREES IN CLOSE PROXIMITY, POUR CONCRETE UP TO GROUND LEVEL.



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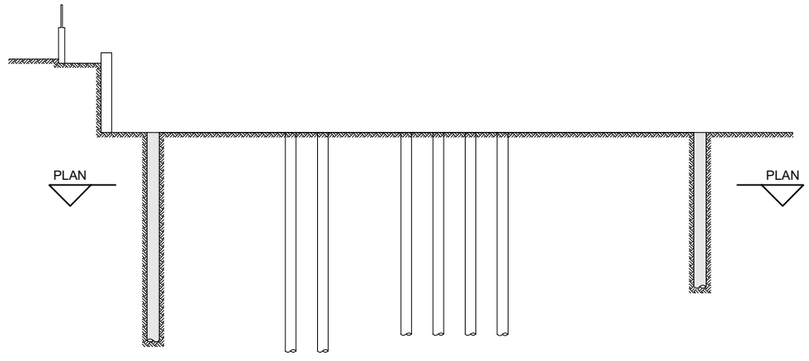

SECTION B
(SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

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2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

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2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

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4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
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REV	BY	CHKD	DATE	NOTES

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P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 1
DRAWING No.: 20080_TAK_GA-01
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP

PROJECT: 38 FROGNAL LANE HAMPSTEAD

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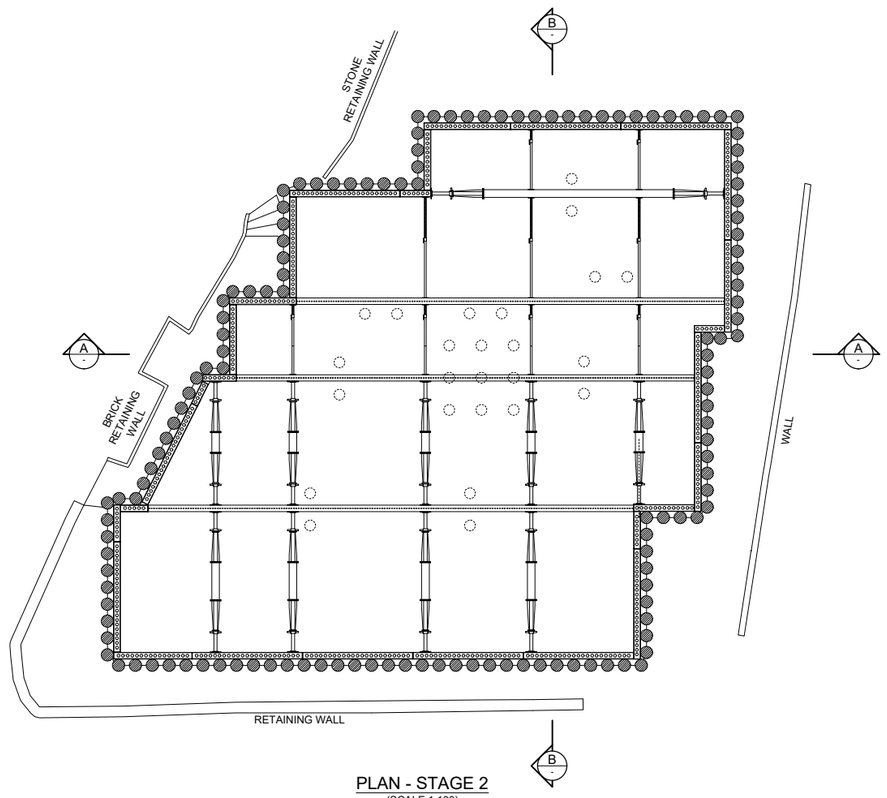
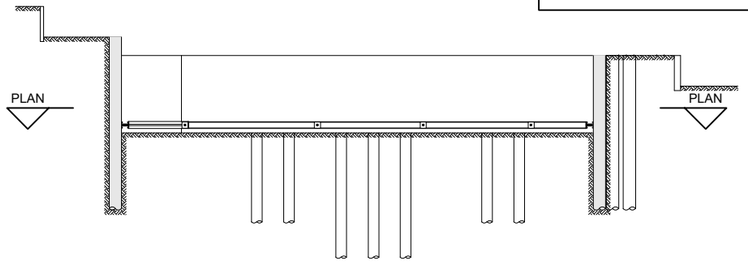


PLAN - STAGE 2
(SCALE 1:100)

STAGE 2

EXCAVATE DOWN TO HALF THE REQUIRED DEPTH, THEN INSTALL WAILING BEAMS & PROPS.

PILES ARE TO BE DESIGNED TO CANTILEVER IN TEMPORARY CONDITION.



SECTION A
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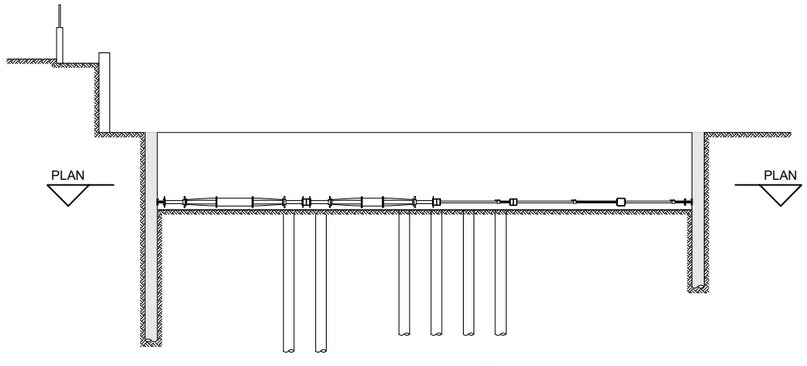

SECTION B
(SCALE 1:100)

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ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
  METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

REV	BY	CHKD	DATE	NOTES
P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 2
DRAWING No.: 20080_TAK_GA-02
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP

PROJECT: 38 FROGNAL LANE HAMPSTEAD

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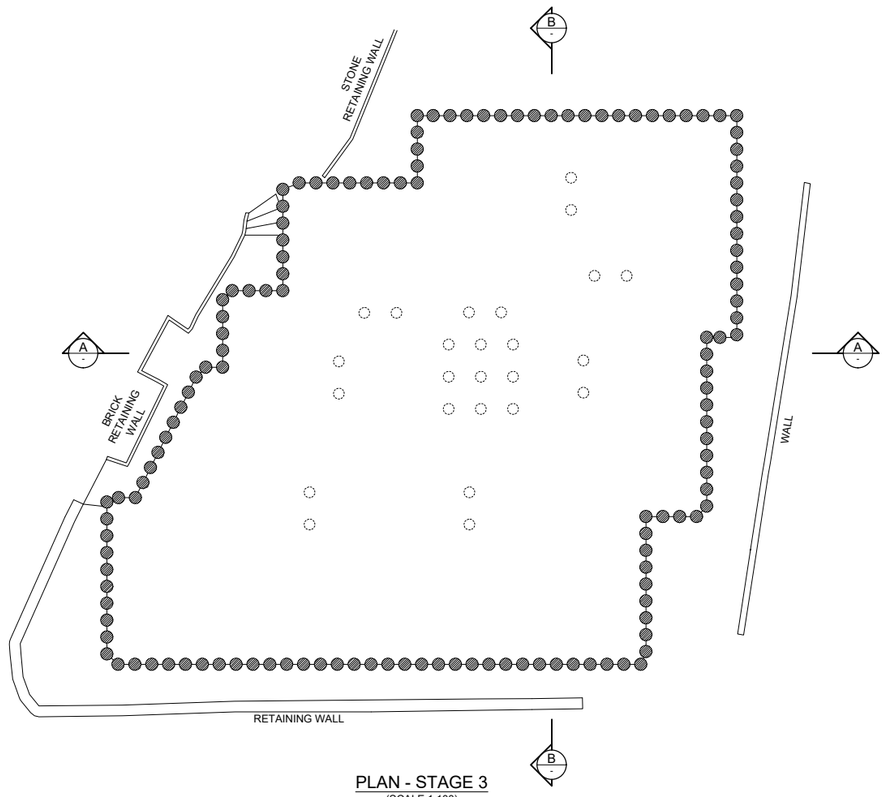
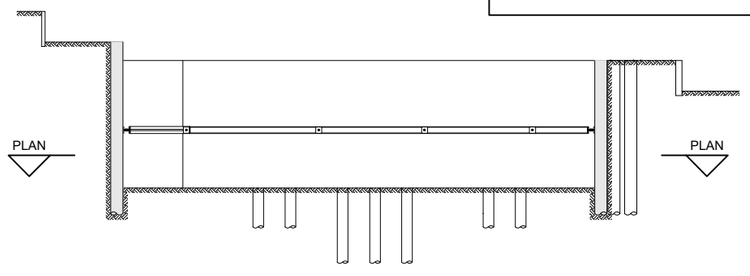


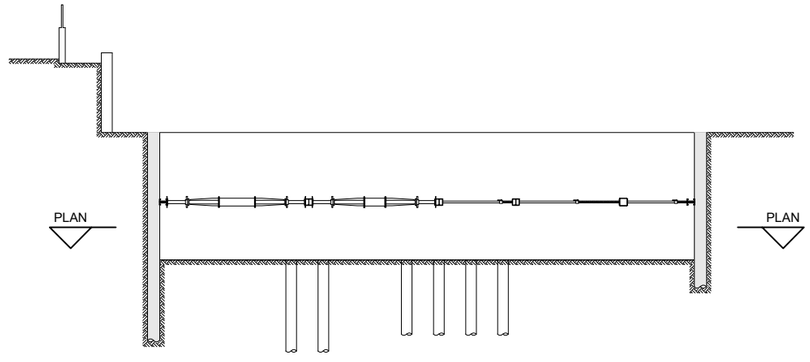
PLAN - STAGE 3
(SCALE 1:100)

STAGE 3

CONTINUE TO EXCAVATE DOWN TO REQUIRED DEPTH.



SECTION A - (SCALE 1:100)



SECTION B - (SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

3. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

REV	BY	CHKD	DATE	NOTES
P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 3
DRAWING No.: 20080_TAK_GA-03
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP
PROJECT: 38 FROGNAL LANE HAMPSTEAD

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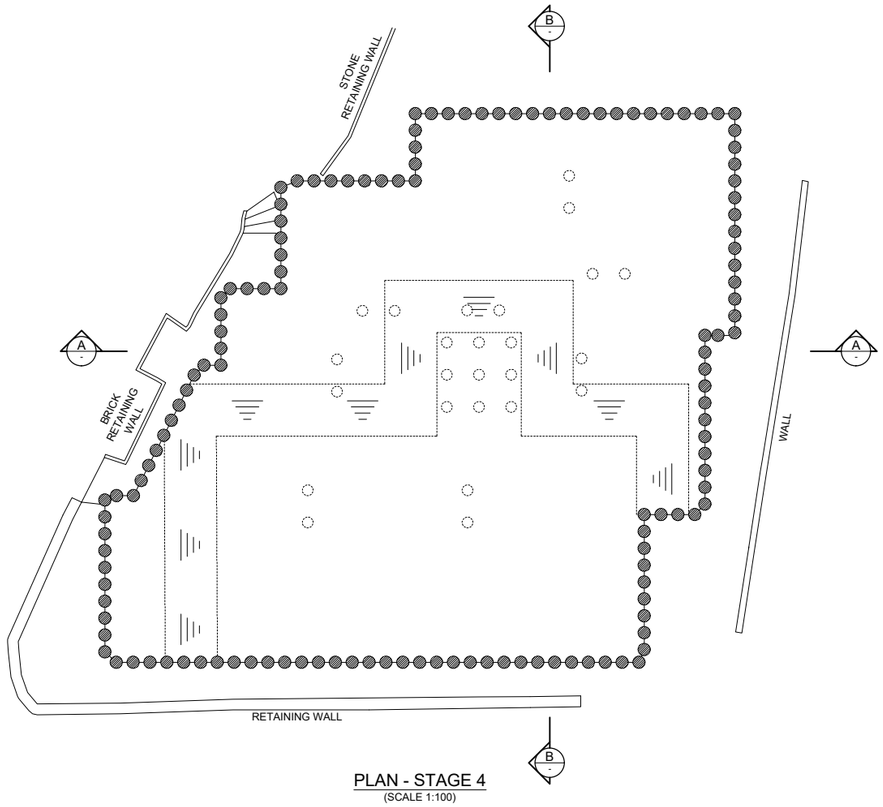
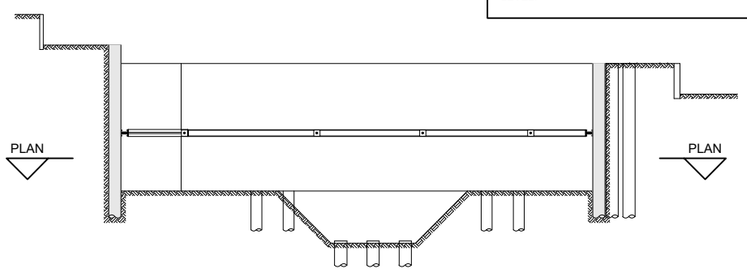


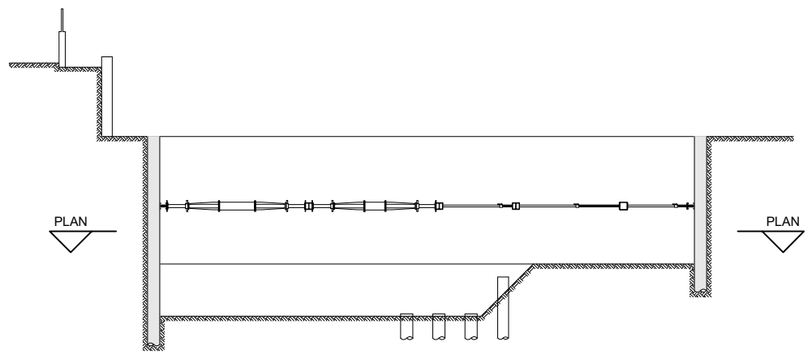
PLAN - STAGE 4
(SCALE 1:100)

STAGE 4

EXCAVATE FURTHER DOWN TO POOL AND LIFT PIT LEVEL.



SECTION A
(SCALE 1:100)



SECTION B
(SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

3. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

REV	BY	CHKD	DATE	NOTES
P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 4
DRAWING No.: 20080_TAK_GA-04
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP

PROJECT: 38 FROGNAL LANE HAMPSTEAD

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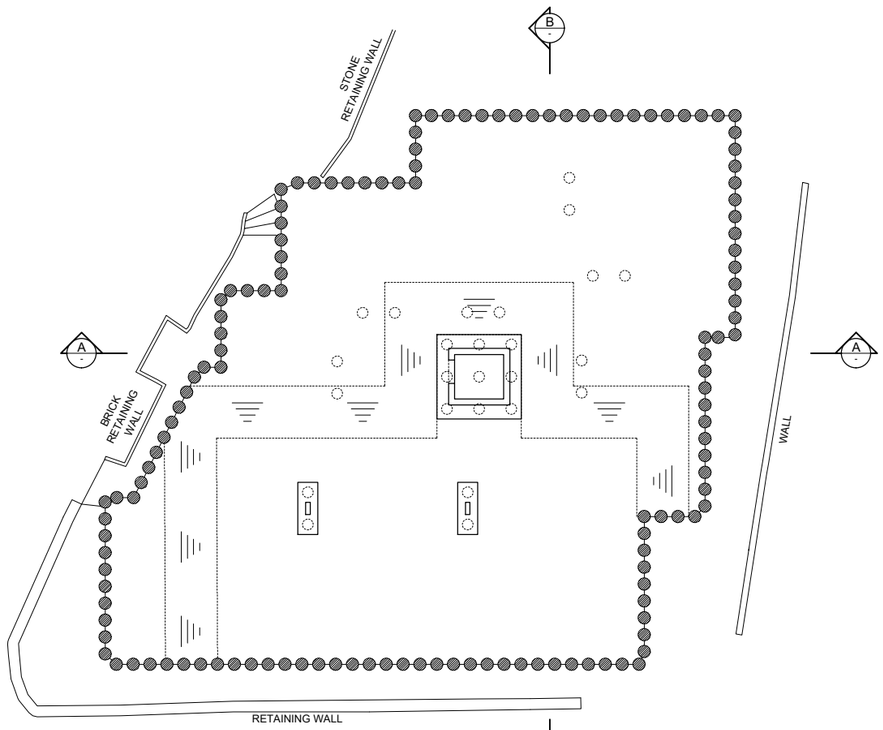
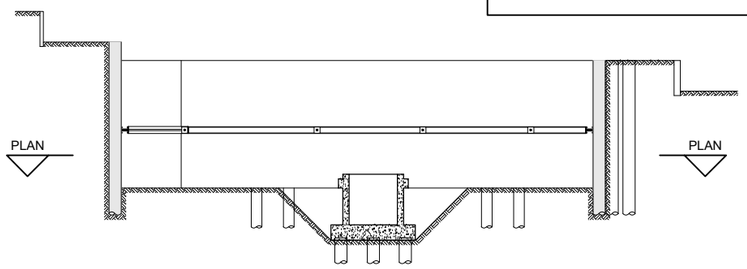


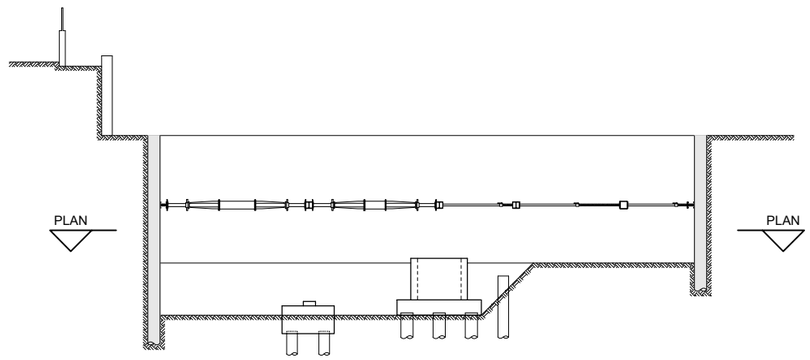
PLAN - STAGE 5
(SCALE 1:100)

STAGE 5

CAST LIFT PIT AND PILE CAP FOUNDATIONS



SECTION A - (SCALE 1:100)



SECTION B - (SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

3. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
  METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

REV	BY	CHKD	DATE	NOTES
P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 5
DRAWING No.: 20080_TAK_GA-05
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP
PROJECT: 38 FROGNAL LANE HAMPSTEAD

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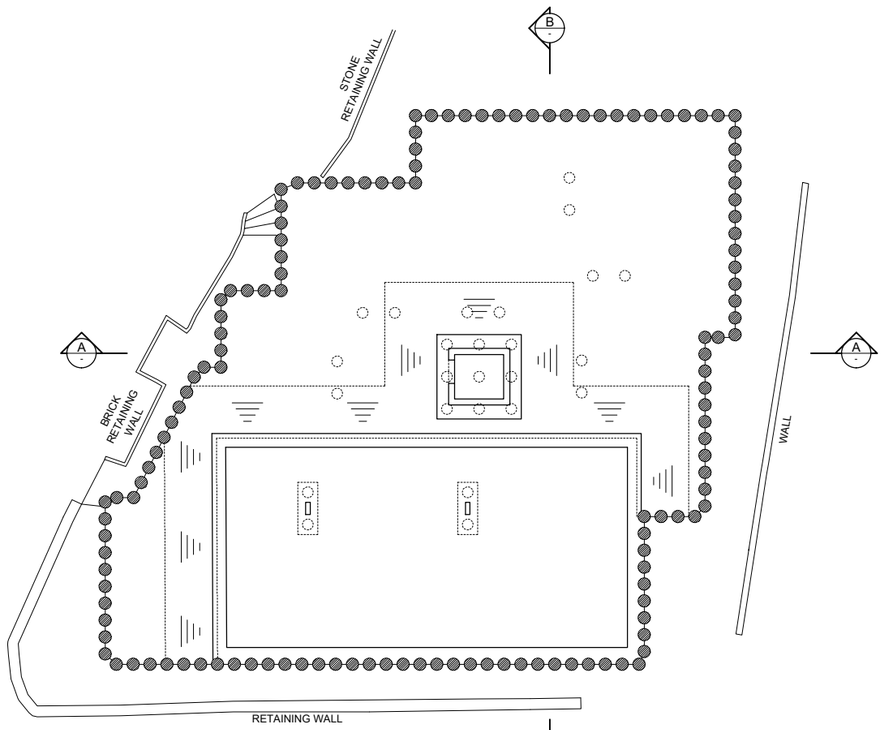
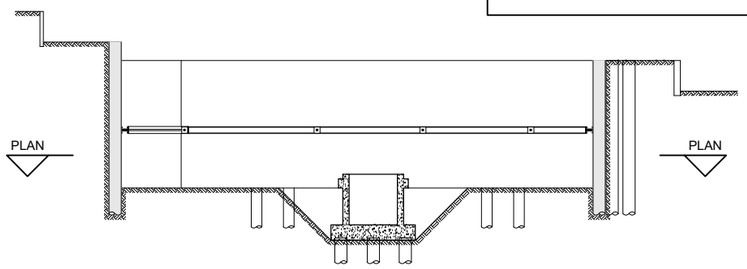


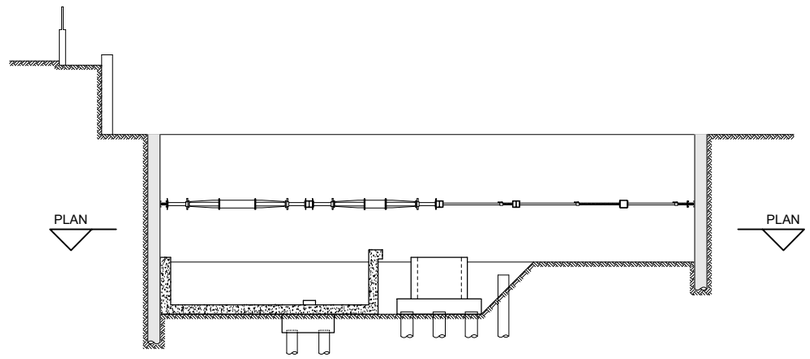
PLAN - STAGE 6
(SCALE 1:100)

STAGE 6

CAST BASE & WALLS OF SWIMMING POOL.



SECTION A - (SCALE 1:100)



SECTION B - (SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

3. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS', WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
  METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

REV	BY	CHKD	DATE	NOTES
P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 6
DRAWING No.: 20080_TAK_GA-06
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP
PROJECT: 38 FROGNAL LANE HAMPSTEAD

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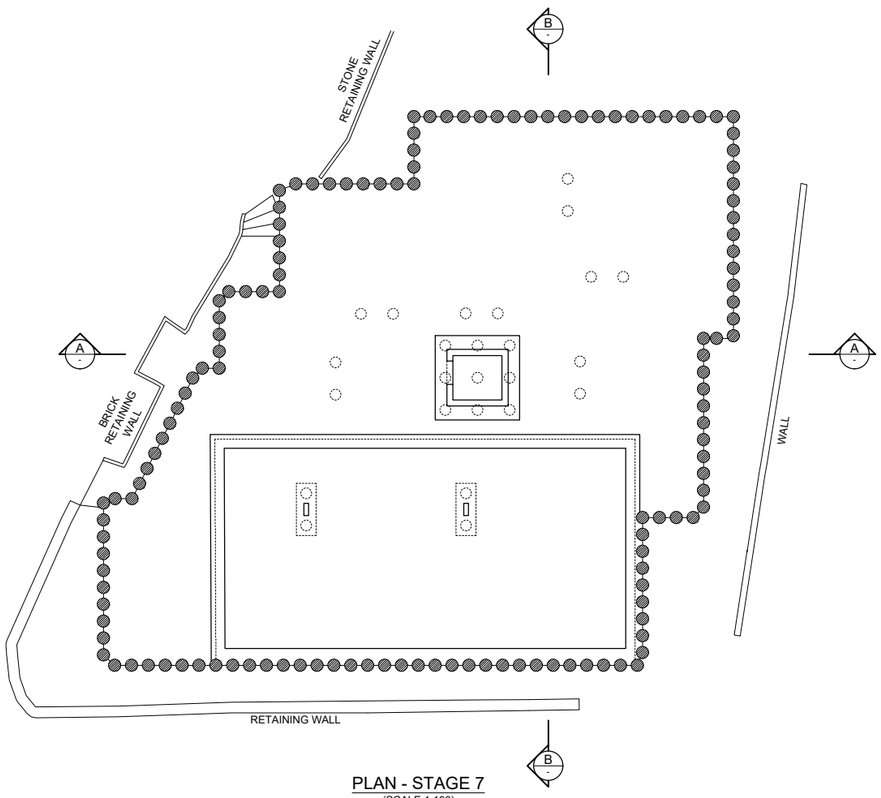
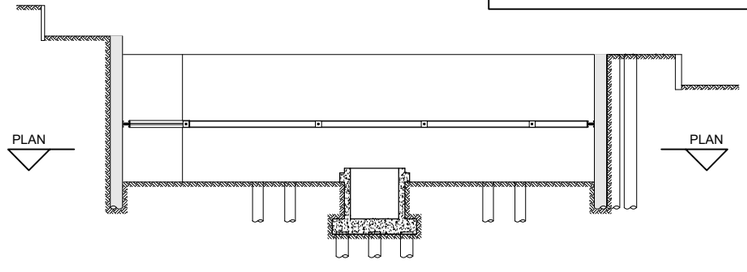


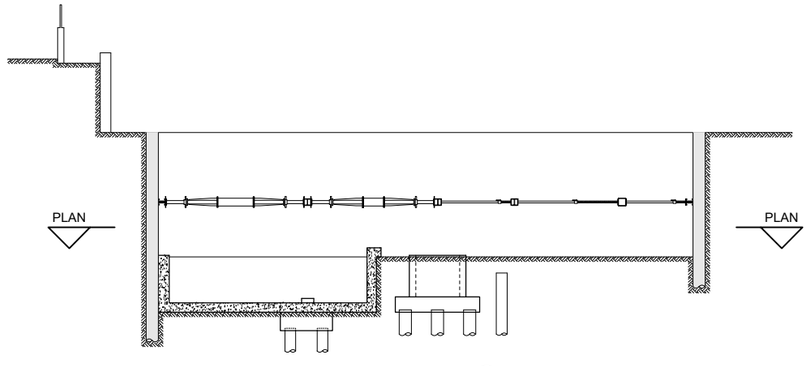
PLAN - STAGE 7
(SCALE 1:100)

STAGE 7

BACKFILL AROUND THE SWIMMING POOL.



SECTION A - (SCALE 1:100)



SECTION B - (SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWINGS.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

3. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
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- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
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- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

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P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 7
DRAWING No.: 20080_TAK_GA-07
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP

PROJECT: 38 FROGNAL LANE HAMPSTEAD

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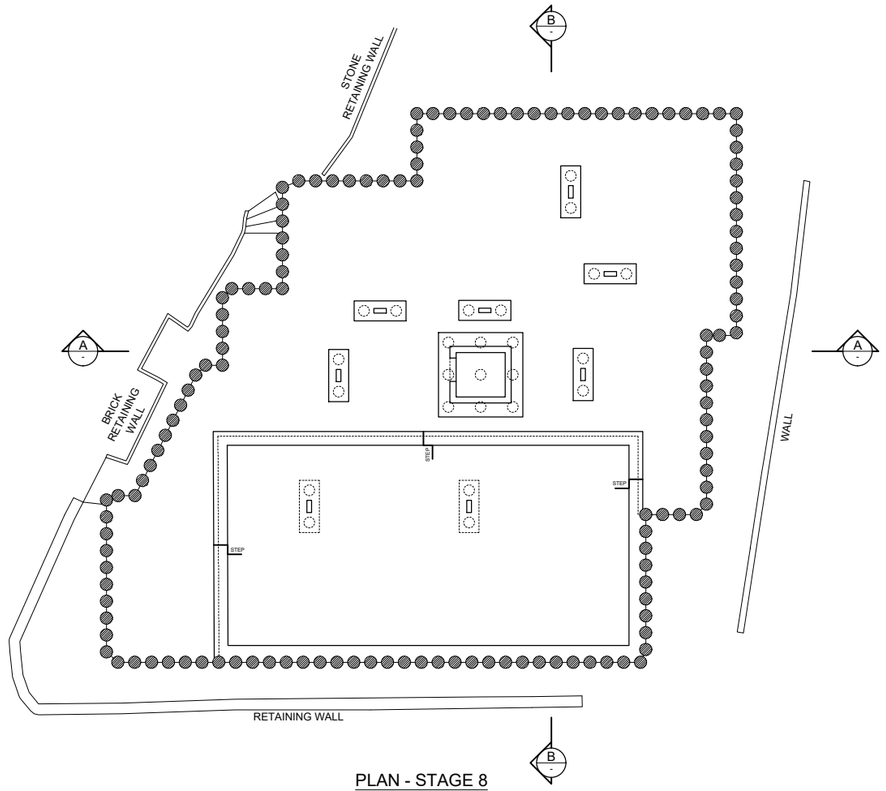
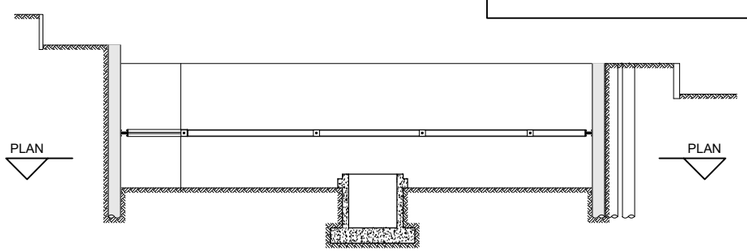


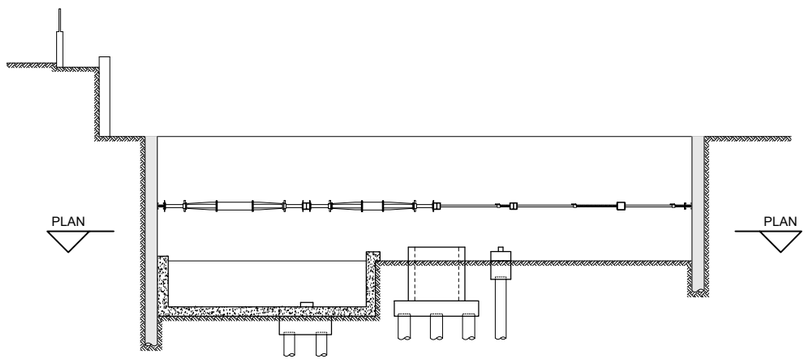
PLAN - STAGE 8
(SCALE 1:100)

STAGE 8

CAST UPPER LEVEL PILE CAPS.



SECTION A
(SCALE 1:100)



SECTION B
(SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

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7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

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5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

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UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

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7. LOADING

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WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

- DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DESIGN TEAM DETAILS & SPECIFICATIONS
- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
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- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES

REV	BY	CHKD	DATE	NOTES

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P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

BY	RH
CHKD	MS
SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 8
DRAWING No.: 20080_TAK_GA-08
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP

PROJECT: 38 FROGNAL LANE HAMPSTEAD

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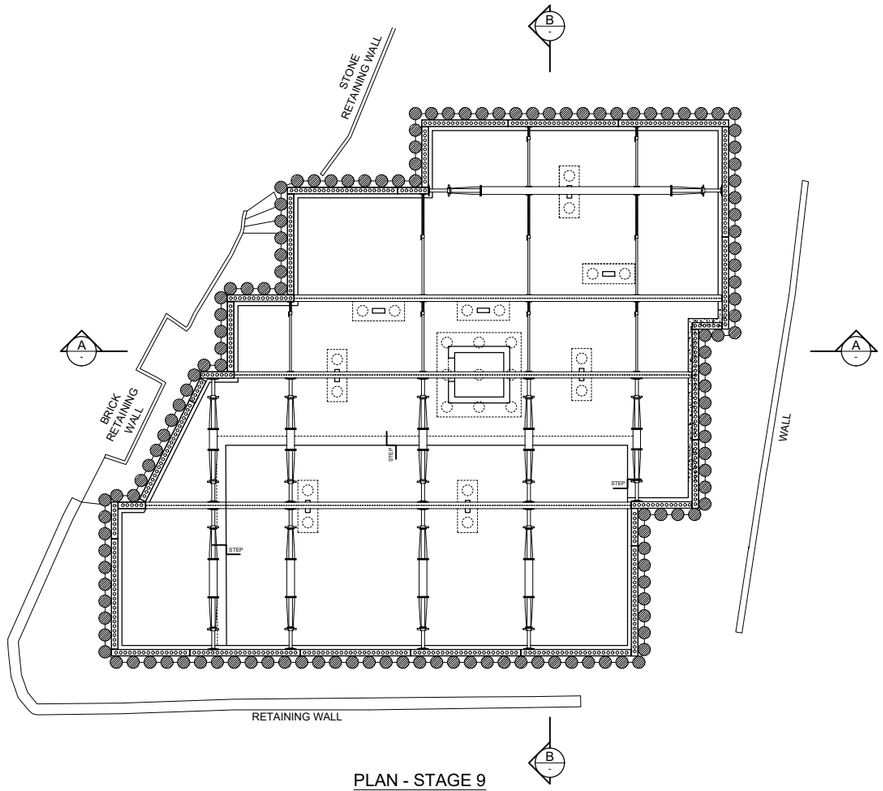
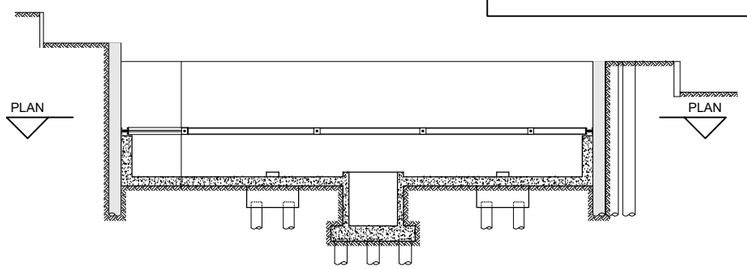


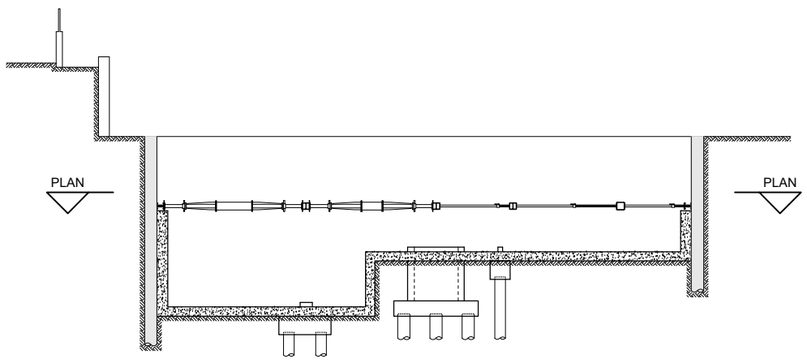
PLAN - STAGE 9
(SCALE 1:100)

STAGE 9

CAST THE REMAINDER OF THE BASEMENT SLAB & WALLS UP TO JUST BELOW THE WAILERS.



SECTION A
(SCALE 1:100)



SECTION B
(SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

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5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

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WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

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SCALE @ A1	AS SHOWN
DATE	04/02/2021

DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 9
DRAWING No.: 20080_TAK_GA-09
DRAWING STATUS: PRELIMINARY
REV.: P1

CLIENT: MRPP

PROJECT: 38 FROGNAL LANE HAMPSTEAD

TAK STRUCTURES
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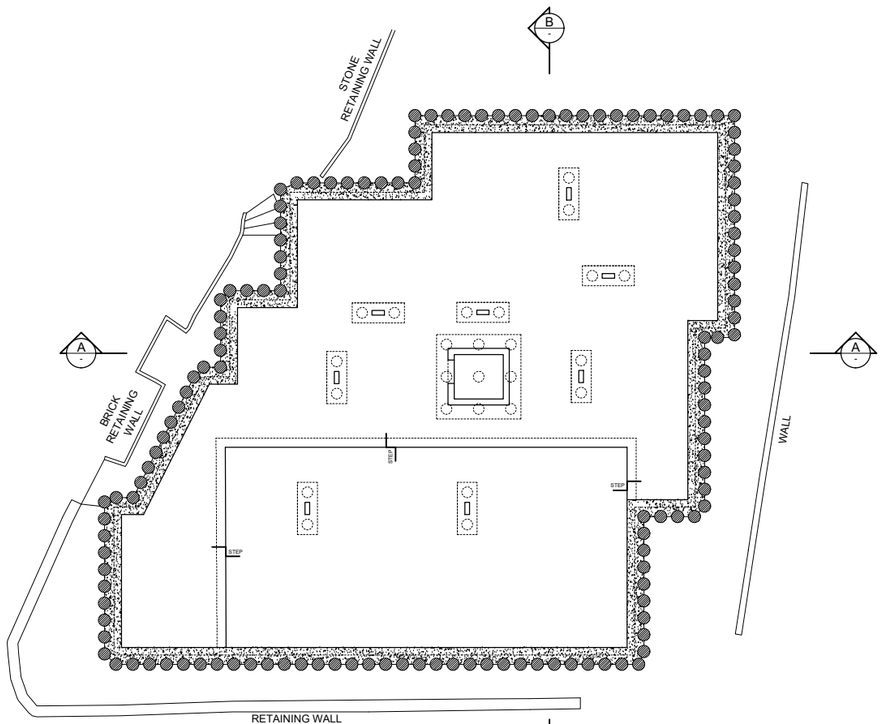


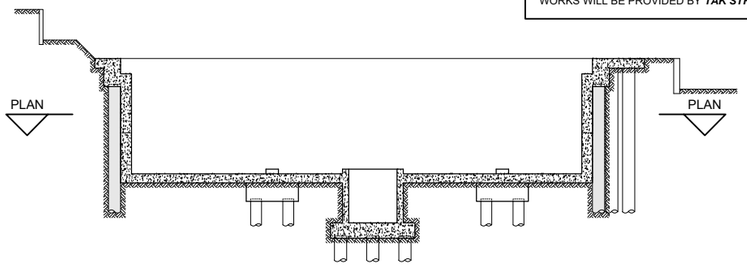
PLAN - STAGE 10
(SCALE 1:100)

STAGE 10

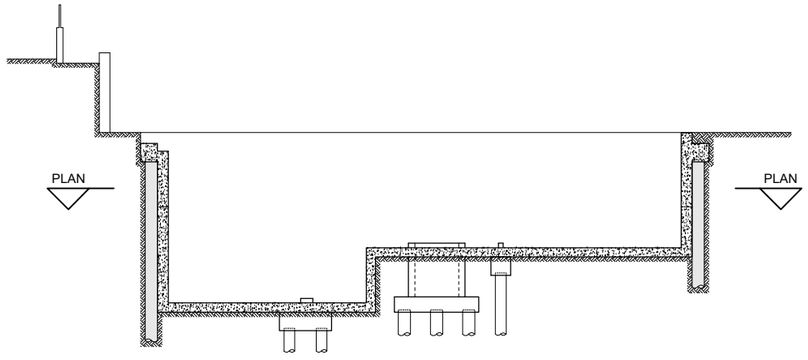
REMOVE THE WAILERS & CAST THE REMAINDER OF THE BASEMENT WALLS & THE CAPPING BEAM.

IN AREAS WHERE THE PILES ARE PREVENTING THE SURROUNDING STRUCTURES OR TREES FROM BEING UNDERMINED, CUT THE PILES DOWN TO THE REQUIRED SIZE IN MAX. 1m SEGMENTS, THEN CAST THE 1m CAPPING BEAM SEGMENT BEFORE MOVING ON TO THE NEXT SEGMENT IN THE SEQUENCE.

A SEQUENCING PLAN & TIME FRAME FOR THESE WORKS WILL BE PROVIDED BY ***TAK STRUCTURES***.



SECTION A
(SCALE 1:100)



SECTION B
(SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

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VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

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CONCRETE

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2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

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6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

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CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

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3. CONCRETE SUPPLIERS

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4. PLACING

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7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

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- FIRE PROTECTION SPECIFICATION TO STRUCTURAL ELEMENTS TO ARCHITECT DETAIL & BUILDING CONTROL APPROVAL
- ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL
- ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBORING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD
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REV	BY	CHKD	DATE	NOTES

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P1	RH	MS	04/02/2021	PRELIMINARY ISSUE

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CHKD	MS
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DRAWING TITLE: BASEMENT CONSTRUCTION STAGE 10
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PROJECT: 38 FROGNAL LANE HAMPSTEAD

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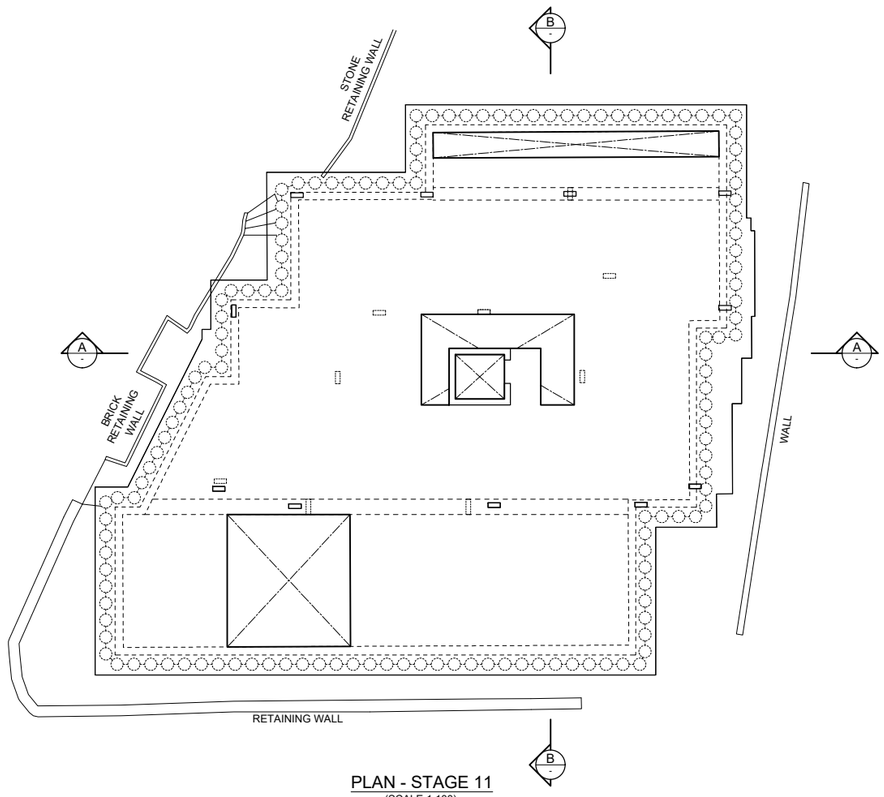
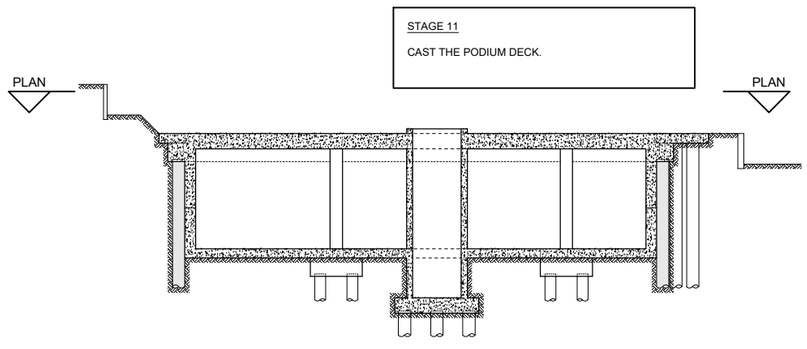


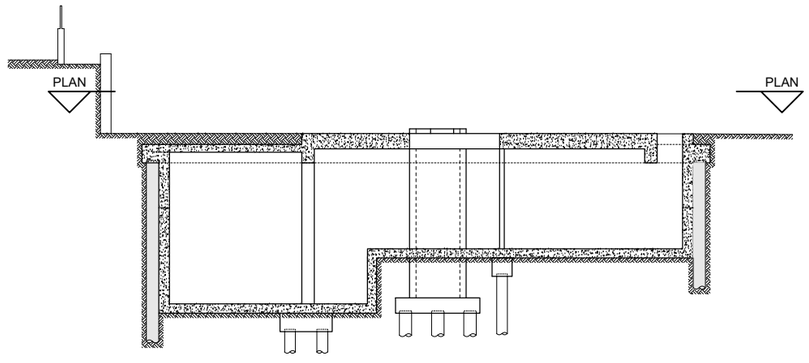
PLAN - STAGE 11
(SCALE 1:100)

STAGE 11

CAST THE PODIUM DECK.



SECTION A - (SCALE 1:100)



SECTION B - (SCALE 1:100)

CONTIGUOUS PILED WALL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL PERIMETER PILES SHOWN REPRESENT A CONTIGUOUS PILING SCHEME THE SETTING OUT OF THE PERIMETER PILES IS INDICATIVE ONLY AND THE FINAL SETTING OUT IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BUT THE OVERALL MINIMUM DIMENSIONS FOR THE BASEMENT MUST BE MAINTAINED.

VERTICAL LOADING = 230KN/m² LINE LOAD GENERALLY
(NOTE: LINE LOAD SPREAD INTO PILES THROUGH THE R.C CAPPING BEAM).

HORIZONTAL LOADING (SURCHARGE) = TO BE CONFIRMED.

3. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

4. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE GRADE-RC40. (SEE ***TAK STRUCTURES LTD*** CONCRETE SPECIFICATION)

7. THE PERIMETER CONTIGUOUS PILED WALL IS TO BE DESIGNED AS A CANTILEVER IN THE TEMPORARY CONDITION AND THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

8. ALL LOADS GIVEN ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0

9. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES:
75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:50

10. SETTING OUT OF CONTIGUOUS PILED WALL OR BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

GENERAL NOTES

1. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS, AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.

3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DESIGN TEAM DETAILS AND SPECIFICATIONS.

4. THE FIRE PROTECTION SPECIFICATION OF STRUCTURAL ELEMENTS TO BE TO ARCHITECTS DETAILS AND BUILDING CONTROL APPROVAL.

5. ALL STRUCTURAL WORKS TO BE COMPLETED TO THE APPROVAL OF BUILDING CONTROL.

6. ALL TEMPORARY WORKS AND STABILITY OF THE BUILDING AND NEIGHBOURING BUILDINGS TO BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION PERIOD. METHOD STATEMENTS AND SEQUENCE OF WORKS MAY BE REQUIRED BEFORE WORK COMMENCES.

7. DEPTH OF ALL FOUNDATIONS TO BE APPROVED BY BUILDING CONTROL BEFORE ANY CONCRETING IS UNDERTAKEN

CONCRETE

1. MASS CONCRETE FOUNDATION TO BE A MINIMUM OF GEN1/ST2 MIX OR AS NOTED ON DRAWING.

2. REINFORCED CONCRETE FOUNDATIONS OR SLABS TO BE A MINIMUM OF OR RC32/40 OR AS NOTED ON DRAWING.

3. PADSTONES TO BE MASS CONCRETE ST5 PRESCRIBED MIX.

4. MINIMUM COVER TO REINFORCEMENT IN BURIED CONCRETE TO BE 50mm UNLESS OTHERWISE NOTED ON DRAWINGS.

PILING

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

2. ALL BEARING PILES ARE SHOWN ARE TO BE AS NOTED ON PLAN.

3. PILING CONTRACTOR IS TO BE RESPONSIBLE FOR THE DESIGN OF THE PILING MAT.

4. THE FINAL DESIGN OF ALL THE PILES IS TO BE THE RESPONSIBILITY OF THE PILING CONTRACTOR, BASED ON THE LOADS PROVIDED.

5. POSITION OF ALL UNDERGROUND SERVICES IS TO BE RECORDED AND ANY DIVERSIONS UNDERTAKEN, PRIOR TO ANY WORKS COMMENCING.

6. ALL CONCRETE USED IS TO BE:

- GRADE RC-40 TO DS-2 & AC-2 WITH SLEEVES THROUGH MADE GROUND.
- (SEE TAK CONCRETE SPECIFICATION & SITE INVESTIGATION REPORT)

7. ALL LOADS GIVEN WITHIN PILING SCHEDULE ARE WORKING LOADS AND THE FACTOR OF SAFETY FOR DESIGN IS TO BE 3.0. IF FACTOR OF SAFETY IS TO BE REDUCED A SERIES OF TEST PILES WILL NEED TO BE IDENTIFIED BY CONTRACTOR.

8. ALL PILING TO BE INSTALLED IN ACCORDANCE WITH THE INSTITUTION OF CIVIL ENGINEERS SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'. WITH THE FOLLOWING TOLERANCES: 75mm OUT OF POSITION - VERTICAL ALIGNMENT = 1:75.

9. SETTING OUT OF BEARING PILES IS TO BE THE RESPONSIBILITY OF THE NOMINATED PILING CONTRACTOR.

CALTITE SYSTEM CONCRETE SPECIFICATION

1. CONCRETE

ALL CONCRETE WITHIN BASEMENT AREA MUST CONFORM TO CURRENT EUROPEAN STANDARD SPECIFICATIONS AND BE DESIGNED, WITHOUT ADDITIVES, FOR A COMPRESSIVE STRENGTH COMPLYING WITH THE REQUIREMENTS OF RC40 (DS-1). THE CONCRETE MUST CONTAIN A MINIMUM OF 335KG/M3 CEM1 (PORTLAND CEMENT) (THE CEMENT CONTENT BEING STATED ON THE DELIVERY DOCKETS) AND HAVE A W/C RATIO NOT IN EXCESS OF 0.45. MIXES INCORPORATING BLENDED CEMENTS MAY BE USED SUBJECT TO AGREEMENT OF CEMENTAID.

2. ADMIXTURES

ALL CONCRETE SHALL CONTAIN CEMENTAID EVERDURE CALTITE IMPERMEABILITY INGREDIENT AT THE RATE OF 30 LITRES PER M3. IN ADDITION, CEMENTAID SUPERPLASTET SHALL BE INCLUDED AT 1% BY WEIGHT OF CEMENT (E.G. IF CEMENT CONTENT IS 350KG/M3, 3.5 LITRES OF SUPERPLASTET IS USED). FOR SPECIAL CONDITIONS, THIS RATE MAY BE VARIED BETWEEN 0.5% AND 1.5% AS AGREED BY CEMENTAID. AN ALTERNATIVE SUPERPLASTICISER CONFORMING TO BS EN 934-2 MAY BE USED INSTEAD OF CEMENTAID SUPERPLASTET SUBJECT TO THE WRITTEN AGREEMENT OF CEMENTAID. THE WATER REQUIREMENT IS TO BE REDUCED ACCORDINGLY TO ALLOW FOR THE EFFECT OF THE INGREDIENTS ON THE CONCRETE SLUMP.

3. CONCRETE SUPPLIERS

NOT ALL CONCRETE SUPPLIERS ARE APPROVED FOR SUPPLYING EVERDURE CALTITE SYSTEM QUALITY CONCRETE. THE CONTRACTOR SHOULD CHECK WITH CEMENTAID FOR APPROVED SUPPLIERS BEFORE ORDERING CONCRETE. CEMENTAID APPROVAL DOES NOT REMOVE RESPONSIBILITY FOR BASIC CONCRETE QUALITY, IN RESPECT OF ITS COMPRESSIVE STRENGTH OR MINIMUM CEMENT CONTENT, FROM THE CONCRETE PRODUCER OR THE CONTRACTOR.

4. PLACING

CONCRETE SHALL NOT BE PLACED AT CONCRETE TEMPERATURES BELOW 5°C, NOR ABOVE 30°C, AND MUST BE PLACED ACCORDING TO CURRENT CODES OF PRACTICE AND CEMENTAID RECOMMENDATIONS. CONCRETE RECEIVED FROM THE BATCH PLANT WHICH CANNOT BE PLACED FREE FROM HONEYCOMBS SHALL BE REJECTED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO FILL EVERY PART OF THE FORMS, TO FORCE CONCRETE UNDER AND AROUND REINFORCEMENT WITHOUT DISPLACING IT, TO WORK BACK COARSE AGGREGATE FROM THE FACE AND TO REMOVE ALL AIR BUBBLES AND VOIDS. COMPACTION SHALL BE ASSISTED BY A SUFFICIENT NUMBER OF APPROPRIATE IMMERSION TYPE VIBRATORS. THESE SHALL NOT BE HELD AGAINST FORMS OR REINFORCING STEEL, NOR USED FOR SPREADING INTO PLACE. VIBRATORS SHALL NOT BE HELD IN ONE PLACE SO LONG AS TO RESULT IN SEGREGATION OF CONCRETE MATERIALS OR FORMATION OF LAITANCE ON THE SURFACE.

UNLESS OTHERWISE AGREED IN WRITING, POUR SIZES MUST BE WITHIN THE LIMITS OF CURRENT CODES OF PRACTICE. IF IN DOUBT, PLEASE CONTACT CEMENTAID TO DISCUSS.

5. FINISHING

ALL CONCRETE TO BE PROPERLY FINISHED ACCORDING TO THE ARCHITECT'S OR CONSULTING STRUCTURAL ENGINEER'S SPECIFICATION

6. CURING AND COOLING

PROPER CURING SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 8110 OR EQUIVALENT. FOR SLABS, CURING SHOULD START IMMEDIATELY AFTER FINISHING AND AS SOON THE CONCRETE CAN WITHSTAND A MAN'S WEIGHT WITHOUT MARKING. FOR LARGER SLABS, CURING SHOULD BE DONE IN SECTIONS AS THE CONCRETE IS FINISHED. THIS IS ESPECIALLY THE CASE WITH POWER-FLOAT FINISHES WHERE COMMENCEMENT OF CURING MUST NOT BE DELAYED. FOR WALLS, THE TOP SURFACE MUST BE APPROPRIATELY COVERED AS SOON AS FINISHING IS COMPLETE. CURING OF THE WALLS THEMSELVES MUST COMMENCE IMMEDIATELY THE FORMWORK IS REMOVED. ALL CONCRETE SURFACES TO BE PROTECTED FROM DIRECT SUNLIGHT AND FROST BY APPROPRIATE COVERING DURING THE CURING PERIOD. THE CURING TIME SHOULD BE FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT OR LONGER AS SPECIFIED. SPRAY-ON CURING MEMBRANES ARE NOT RECOMMENDED.

7. LOADING

LOADING OF THE STRUCTURE IS NOT PERMITTED UNTIL THE CONCRETE HAS REACHED THE STRENGTH SPECIFIED.

8. SITE ATTENDANCE

A REPRESENTATIVE OF CEMENTAID IS TO BE IN ATTENDANCE AT THE BATCH PLANT AND ON SITE DURING ALL EVERDURE CALTITE POURS. CEMENTAID IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST THREE WORKING DAYS BEFORE THE FIRST INTENDED PLACEMENT OF CALTITE SYSTEM CONCRETE AND, THEREAFTER, AT LEAST 24 HOURS BEFORE EACH PLACEMENT. SITE ATTENDANCE DOES NOT CONSTITUTE SUPERVISION.

WATERPROOFING NOTE

WATERPROOF CONCRETE ADDITIVE TO BE PLACED IN ALL CONCRETE FOR:

1. BASEMENT SLAB.

2. LIFT PIT AND WALLS.

3. ALL LINING WALLS.

4. 1000mm STRIP AROUND PODIUM PERIMETER.

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