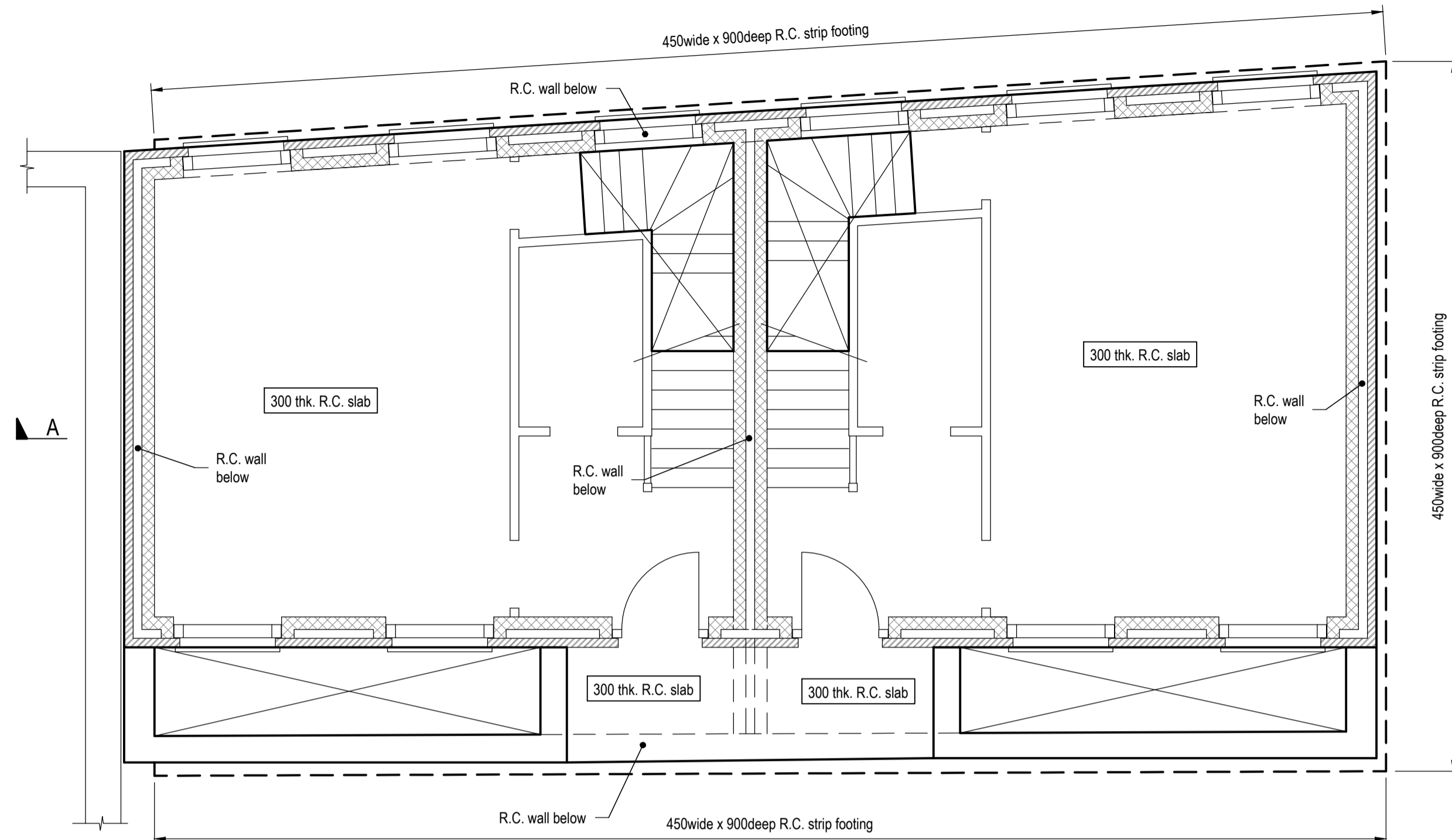
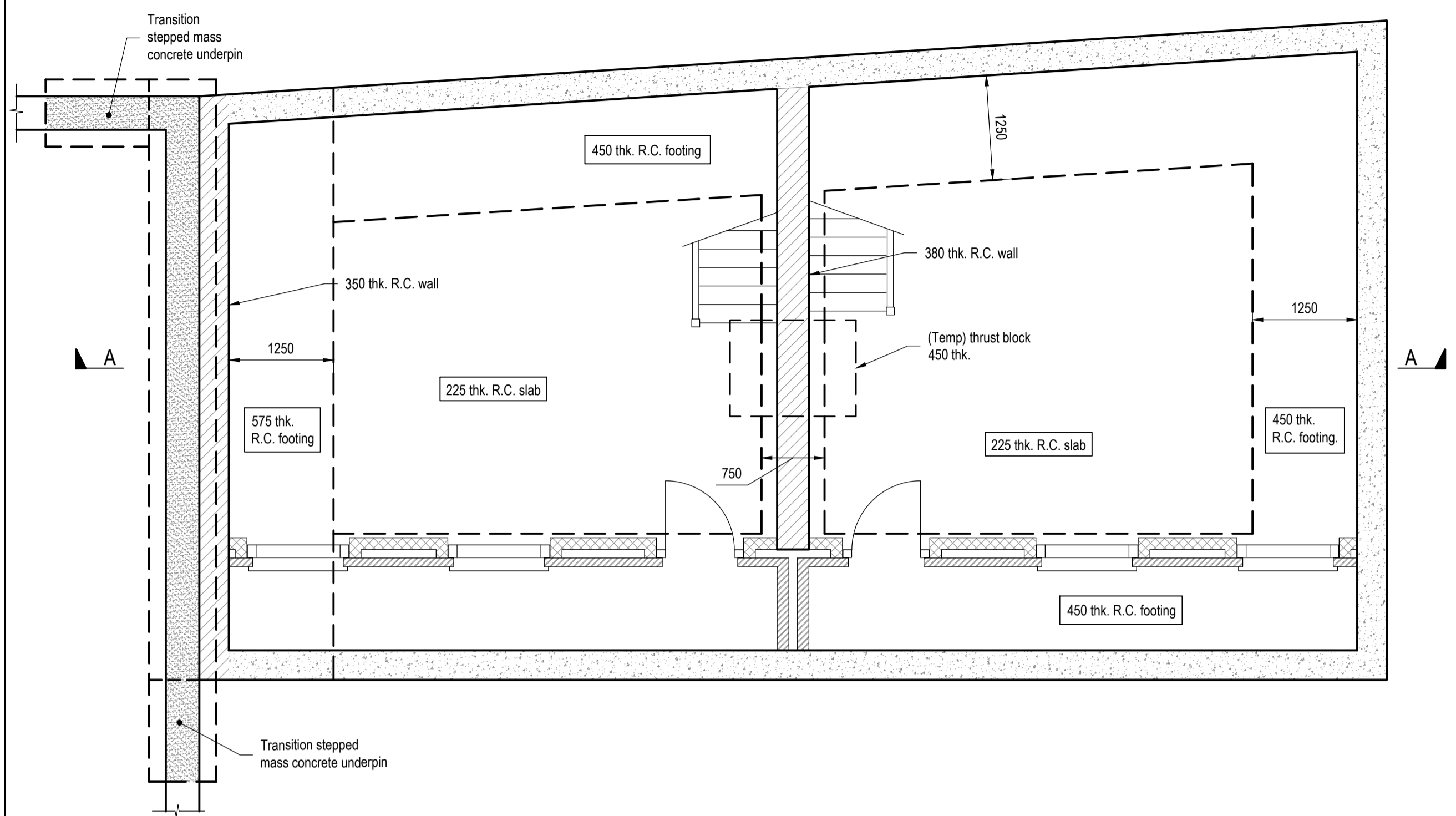


Notes.

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Legend:

:Mass concrete underpinning - wall thickness no less than masonry wall above.

:R.C. wall - wall thickness refer to plan.

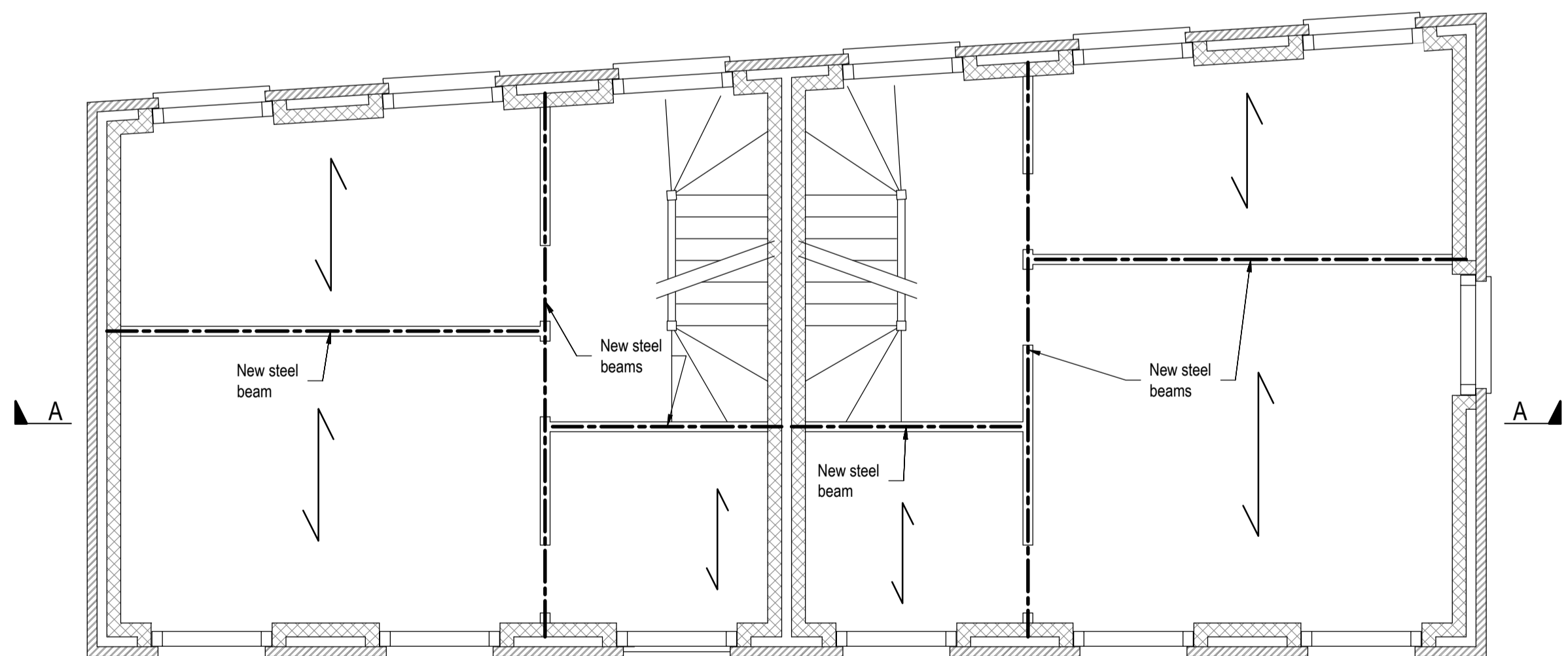
:350 thk. R.C. underpinning & 450wide x 900deep R.C. strip footing above.

Proposed Ground Floor

Scale 1 : 50

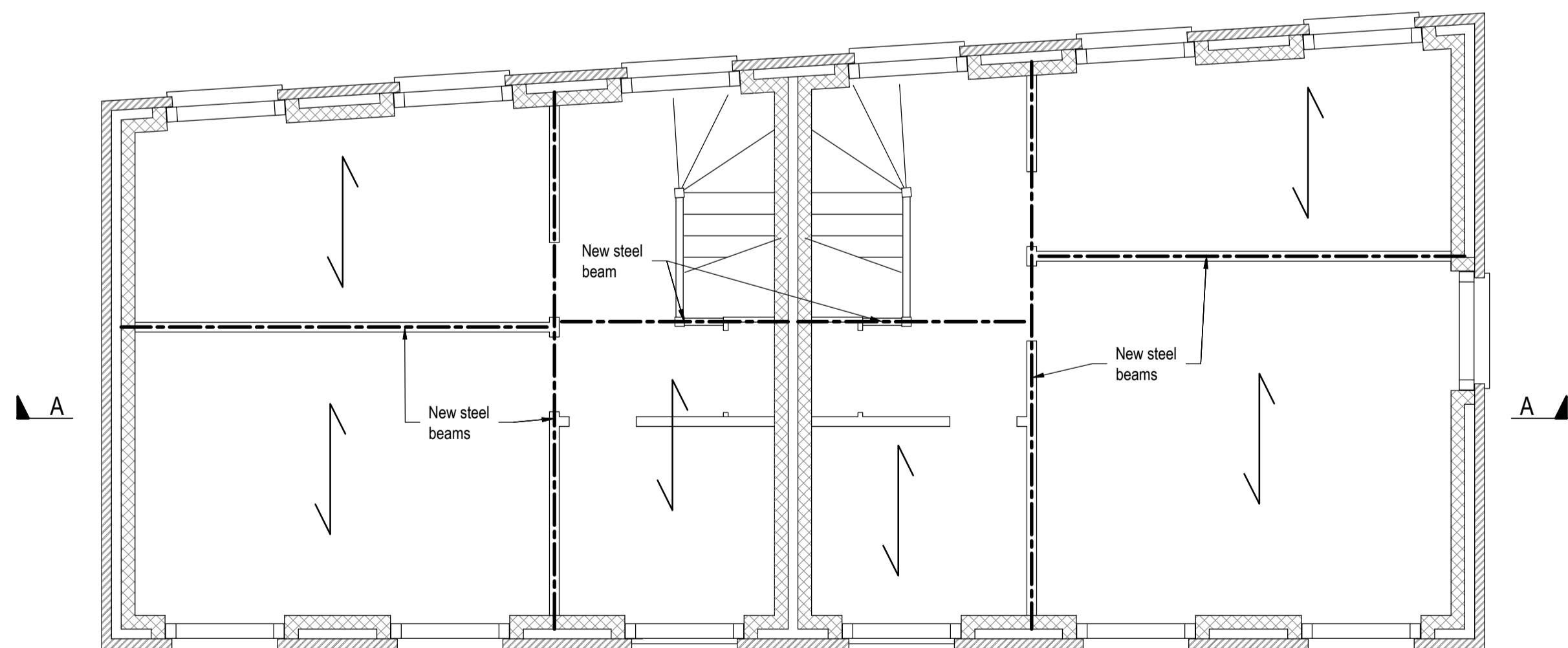
Proposed Basement

Scale 1 : 50



Proposed 1st. Floor

Scale 1 : 50



Proposed 2nd. Floor

Scale 1 : 50

REV.	AMENDMENTS	BY	DATE	CHECKED

PROJECT
Adjacent to Jack Straw's Castle

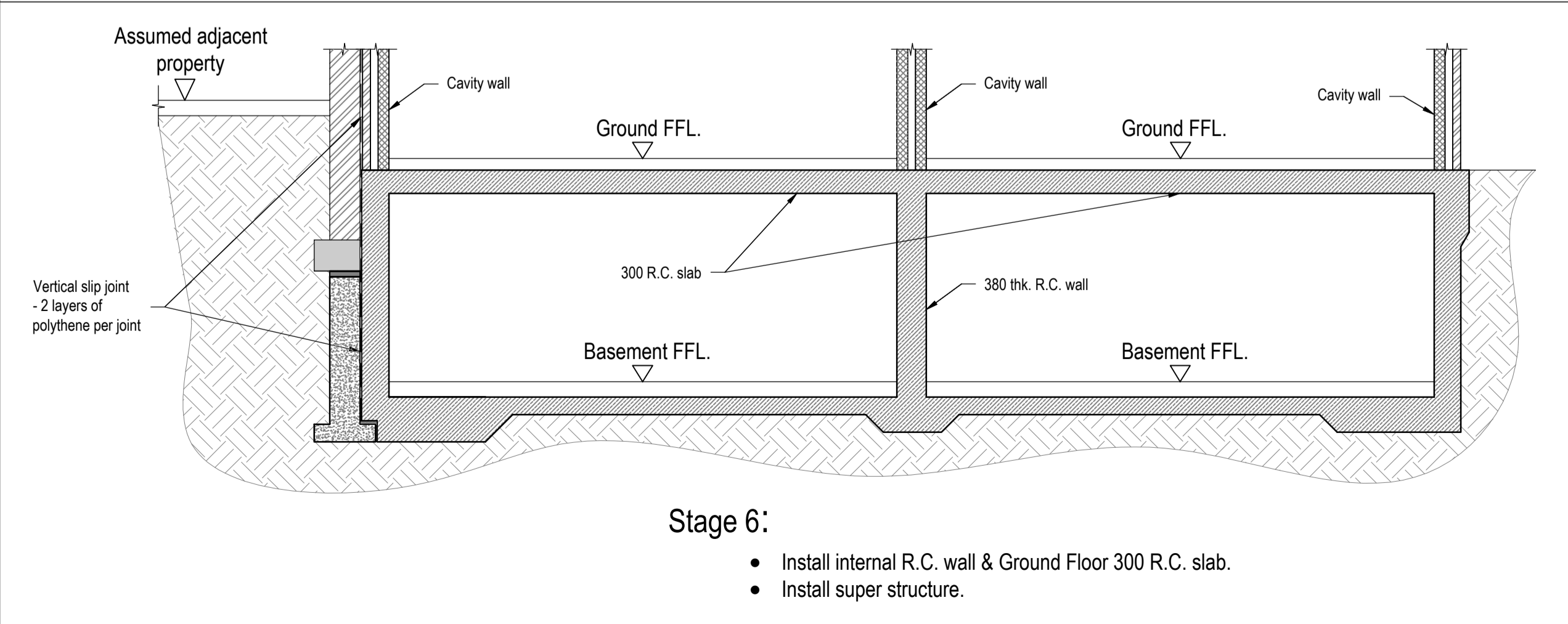
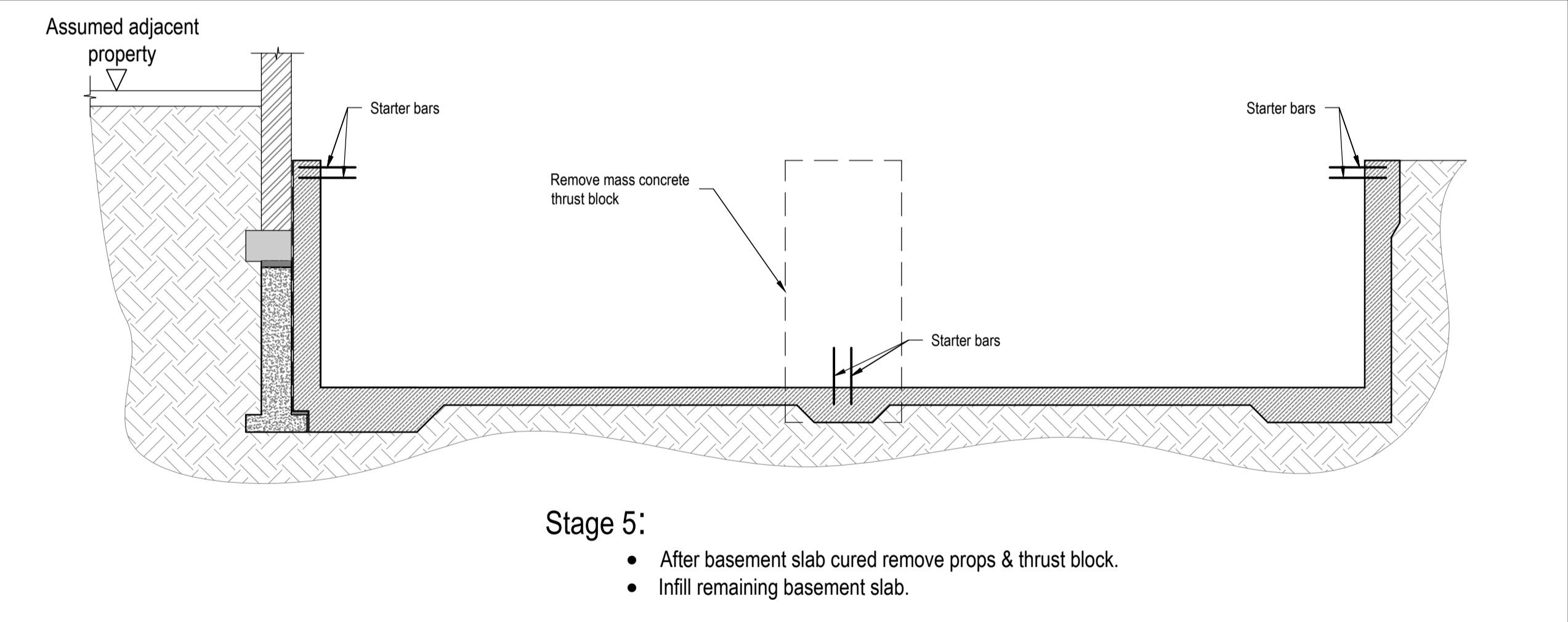
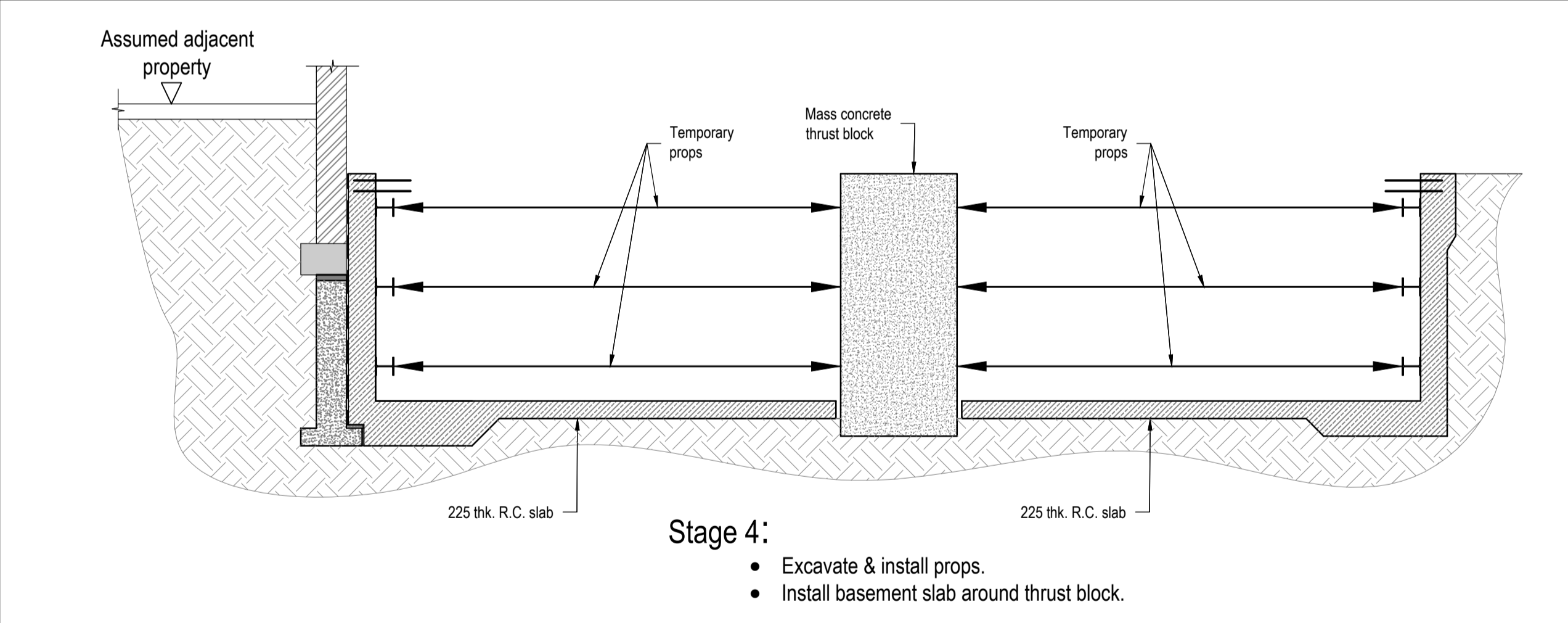
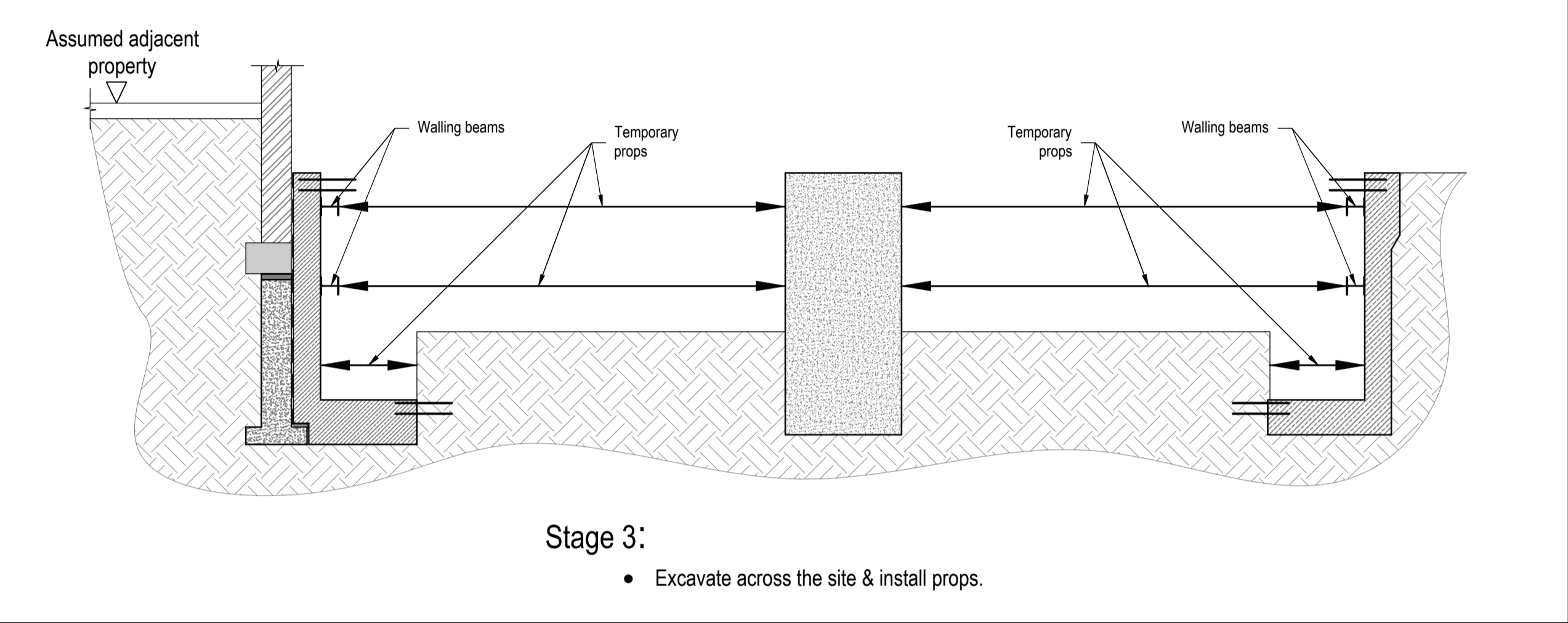
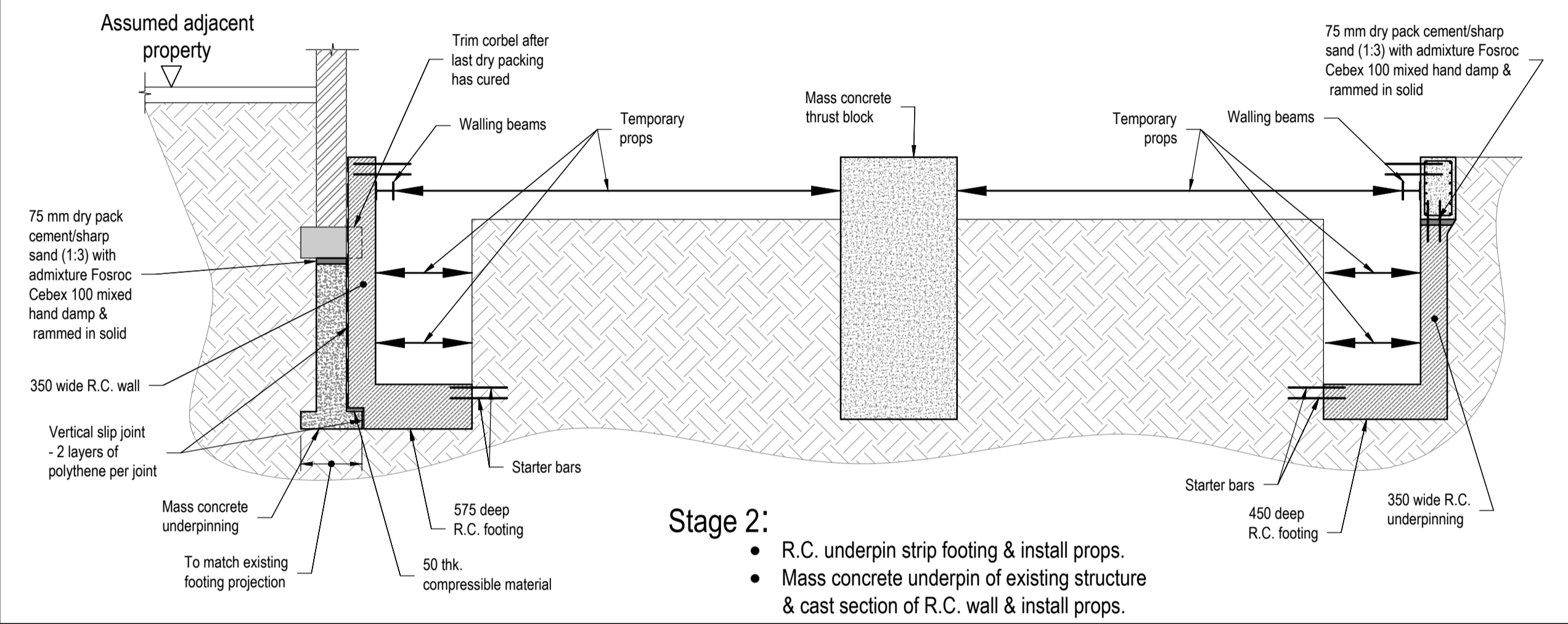
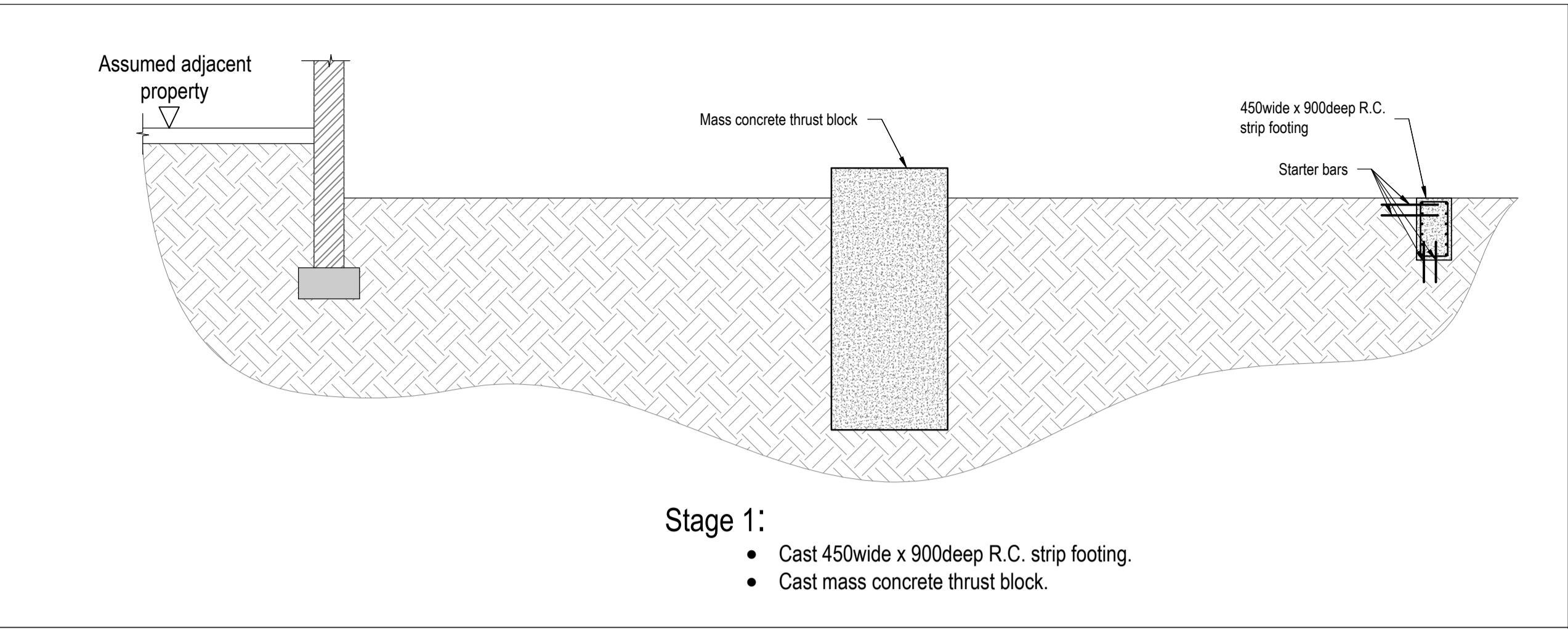
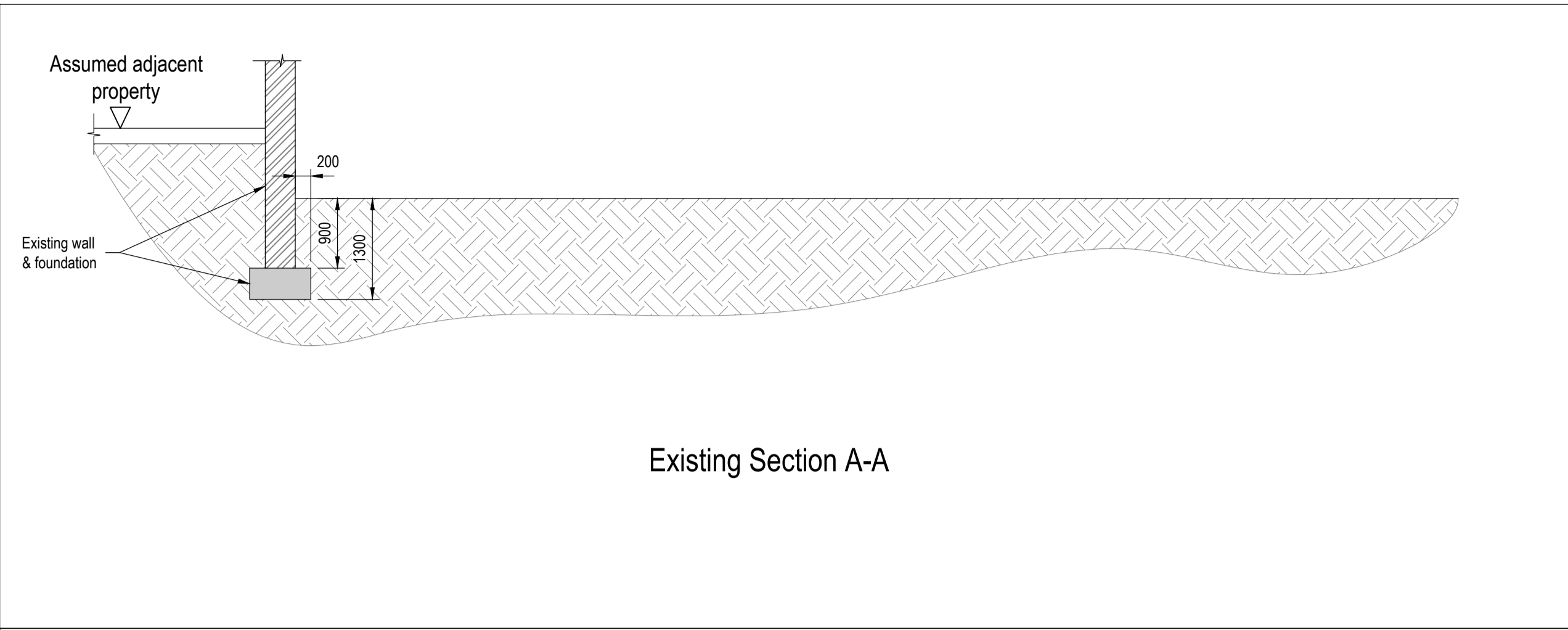
TITLE
Indicative Basement and Ground & 1st. & 2nd. Floor

ARCHITECTS
Quinlan Terry Architect

DRAWING No.
4423-SM01

DATE	24.01.2017
SCALE	As shown @ A1
DRAWN	AR
CHECKED	RT
REVIEWED	-

Suggested structural proposal to be confirmed after full structural inspection. Not suitable for tender or construction.



Notes.

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REV.	AMENDMENTS	BY	DATE	CHECKED
A	Assumed adjacent property level amended.	AR	22.09.2017	RT

PROJECT
Adjacent to Jack Straw's Castle

TITLE
Suggested Method of Works

ARCHITECTS
Quinlan Terry Architect

DRAWING No.	DATE	24.01.2017
4423-SM02A	SCALE	As shown @ A1
	DRAWN	AR
	CHECKED	RT
	REVIEWED	-

Suggested Method of Works

This suggested method is a suggestion only and the contractor may submit alternative proposals. The method of works and all temporary works including design and erection are to be the full responsibility of the main contractor.

Suggested structural proposal to be confirmed after full structural inspection. Not suitable for tender or construction.



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Job No.	Sheet No.	Rev.
4423	P1	A
Member/Location		

Job Title	Drg. Ref.	Made by	Date	Chd.
ADJACENT TO JACK STRAW'S CASTLE	RETAINING WALL	RT	JAN 2017	JM

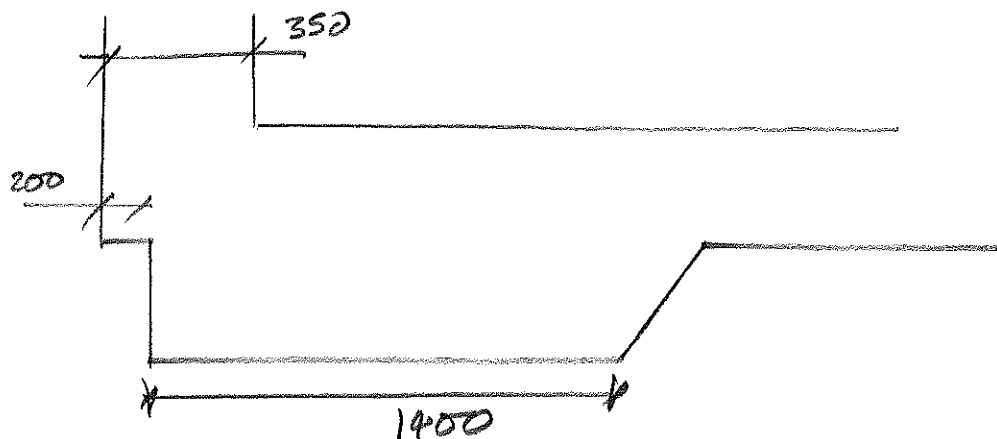
RETAINING / UNDER PIN DESIGN

BEARING PRESSURE CUR

ATTACHES 3.4m OF 350 R.C. WALL, 3.75m OF 225 BASEMENT SLAB,
 3.75 OF 300 R.C. GROUND FLOOR SLAB, 2.5m OF 1ST, 2ND TIMBER
 FLOOR & 2.5m OF TIMBER ROOF & 9m OF 300 CAVITY WALL!

DEAD LOAD:	kN/m	LIVE LOAD:	kN/m
$3.4 \times 0.35 \times 24.5 =$	29	$3.75 \times 2.5 =$	10
$3.75 \times 0.225 \times 24.5 =$	29	$3.75 \times 2.5 =$	10
$3.75 \times 0.3 \times 24.5 =$	29	$2.5 \times 2.5 \times 2 =$	13
$(2.5 \times 0.6) \times 2 =$	3	$2.5 \times 0.75 =$	2
$2.5 \times 1.6 =$	4		
$9 \times 5 =$	45		
	<u>139 kN/m</u>		<u>35 kN/m</u>

TOTAL = 174 kN/m (CUR)



$$\sigma = \frac{174 \text{ kN}}{1400} = \underline{\underline{125 \text{ kN/m}^2}}$$

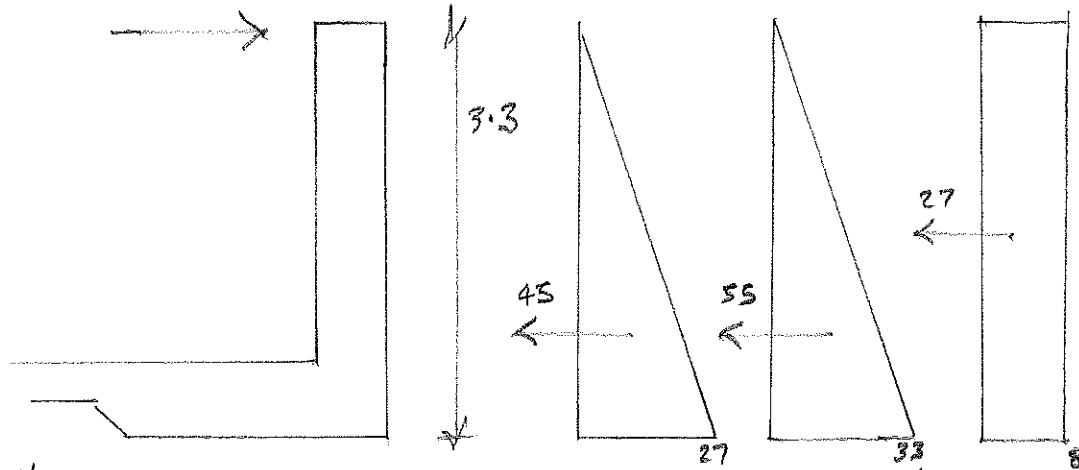
From GEA. report SAFE CAPACITY = 175 kN/m²
 ∴ O.K. ✓



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Job No.	Sheet No.	Rev.
4423	P2	
Member/Location		
Drg. Ref.	RETAINING WALL CALCS	
Made by	Date	Chd.
PT	JAN 2017	JM

Job Title
 ADDITION TO JACK STAIN'S CASTLES



$K_0 = 0.8$
 ACTIVE / REST

$$\begin{aligned} \text{SOIL} &= 3.3 \times 10 \times 0.8 = 27 \text{ kN/m}^2 \\ \text{WATER} &= 3.3 \times 10 = 33 \text{ kN/m}^2 \\ \text{SURCHARGE} &= 10 \times 0.8 = 8 \text{ kN/m}^2 \end{aligned}$$

ASSUME NO GROUND FLOOR PROP:

$$\begin{aligned} \therefore \text{Max CAST B.M.} &= (45+55) \times 1.1 + 27 \times 1.7 = 156 \text{ kNm/m (CHAR)} \\ &\times 1.5 = 234 \text{ kNm/m (ULT)} \end{aligned}$$

$$k = \frac{234}{1000 \times 300^2 \times 40} = 0.07$$

$$A_s = \frac{234}{0.95 \times 460 \times 0.91 \times 300} = 1961 \text{ mm}^2/\text{m} \quad \text{B25-150} = 3270 \text{ mm}^2/\text{m}$$

$$\frac{\text{SPAN}}{d} = \frac{3300}{300} = 11 \quad \text{M.F. REQ} = 1.6$$

$$\frac{M}{bd^2} = 2.6 \quad f_s = 172 \quad \therefore \text{M.F.} = 1.3$$

$$\therefore 1.23 \text{ PER FOR COMP: } A'_s = \frac{1000 \times 300}{100} = 3000 \text{ mm}^2/\text{m}$$

PROVIDE B25-150 BOTH FACES ✓