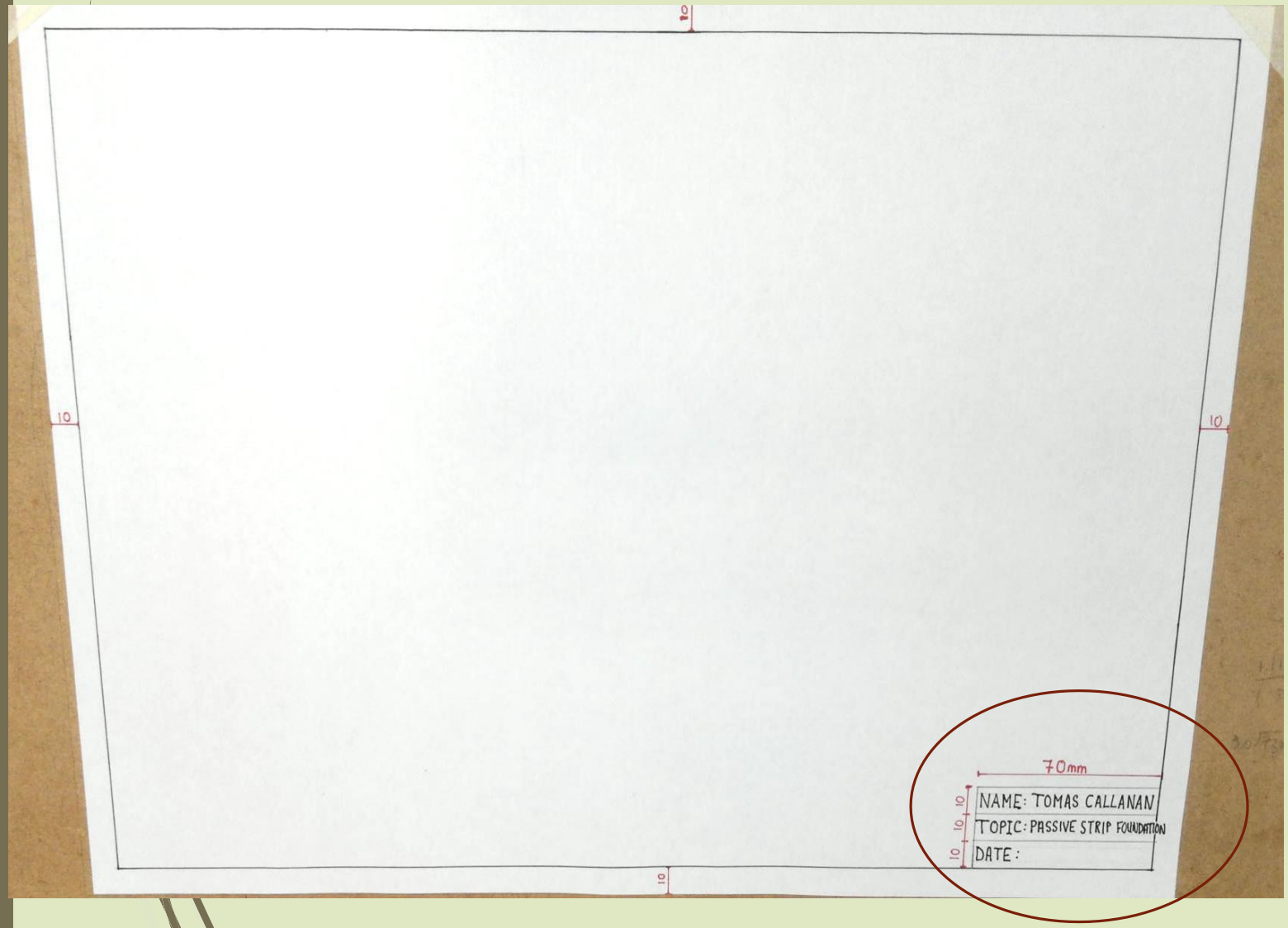
Introduction to A3 Construction Detail Drawing

No.1 Passive Strip Foundation Detail
No. 2 Passive IsoQuick Raft Foundation

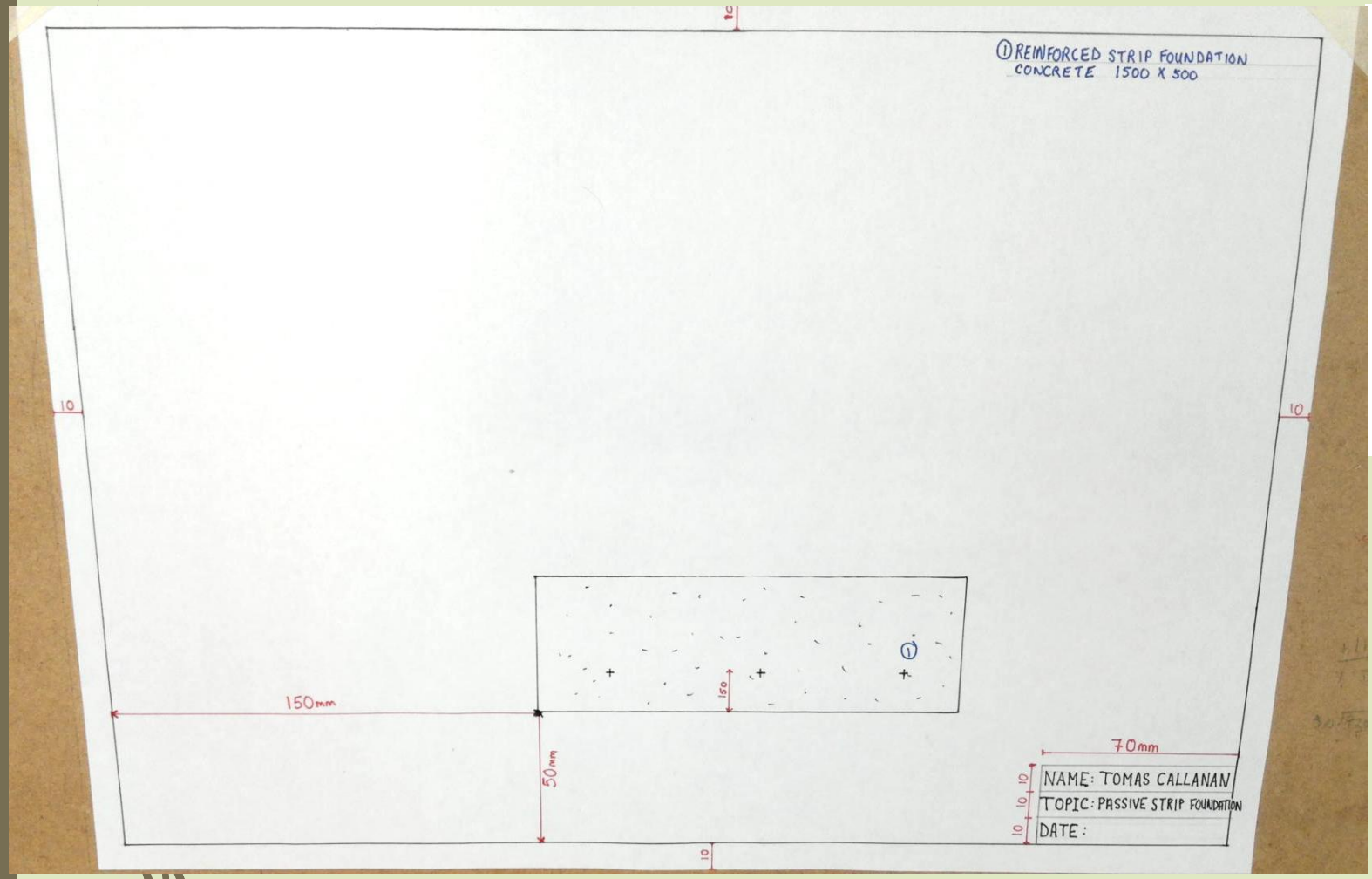
Key skills needed for Mandatory Exam Paper Question 1!!!

No.1 Passive Strip Foundation Detail- First Steps



1. Set up your page by lining up your T-Square with the edge of the page.
2. Use masking tape to ensure your page is stuck to the table.
3. Draw a horizontal line 10mm from the bottom of the page
4. Draw another horizontal line from the top of the page 10mm down from the edge of the page.
5. Draw a vertical line 10 mm from the left hand side of the page as shown, also repeat the process on the right hand side.
6. From the bottom right hand side draw a box 70mm by 30 mm from the edge of your border you previously created.
7. Divide the box into (3) 10mm equal spacing's as shown abov
8. Draw a light 5mm line inside each spacing, this is where you will write your name in CAPITAL LETTERS, the name of the page and the date as shown above

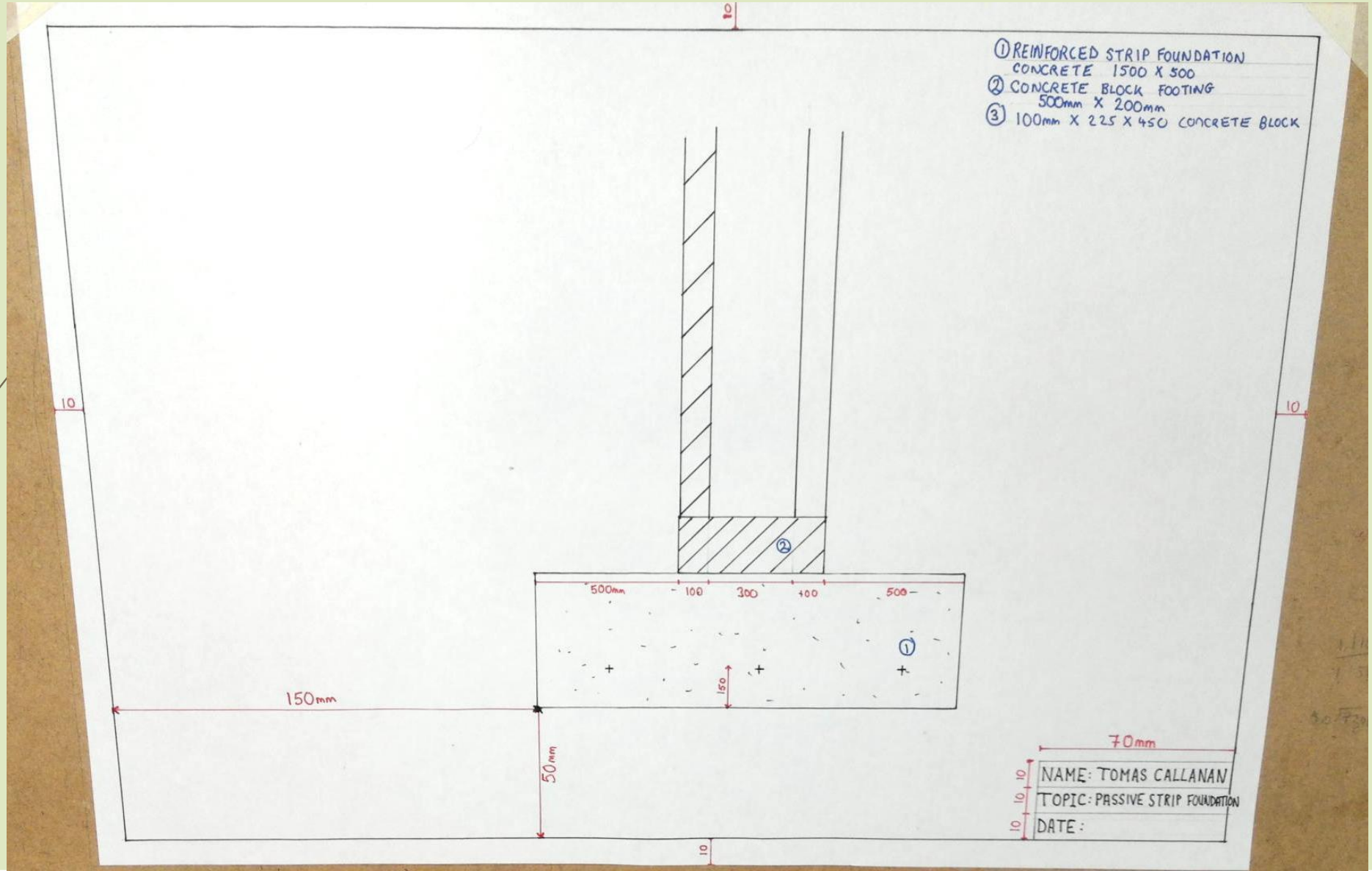
Passive Strip Foundation Detail- Next steps



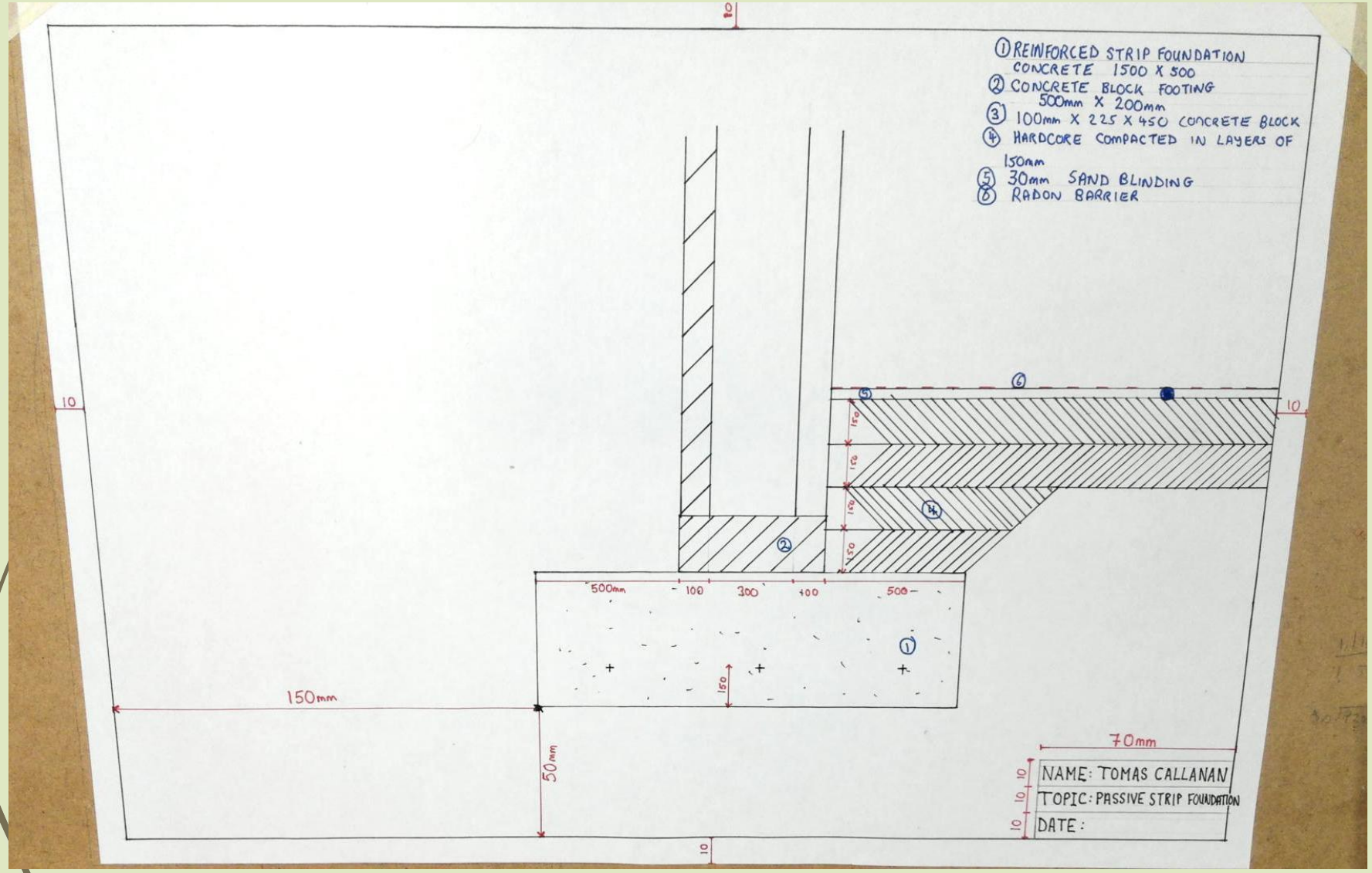
Step 2

1. Drawing is to scale **1:10,** so ensure every measurement you use has been scaled down ie Strip Foundation is 1500 x 500 so remember to scale it down by 10. The measurement you will draw will be ***150 x 50***
2. Start your drawing from the left hand side by measuring across 150mm and up 50mm
3. Start to draw your foundation 1500 by 500, make sure you put in the actual sizes in the annotation as shown

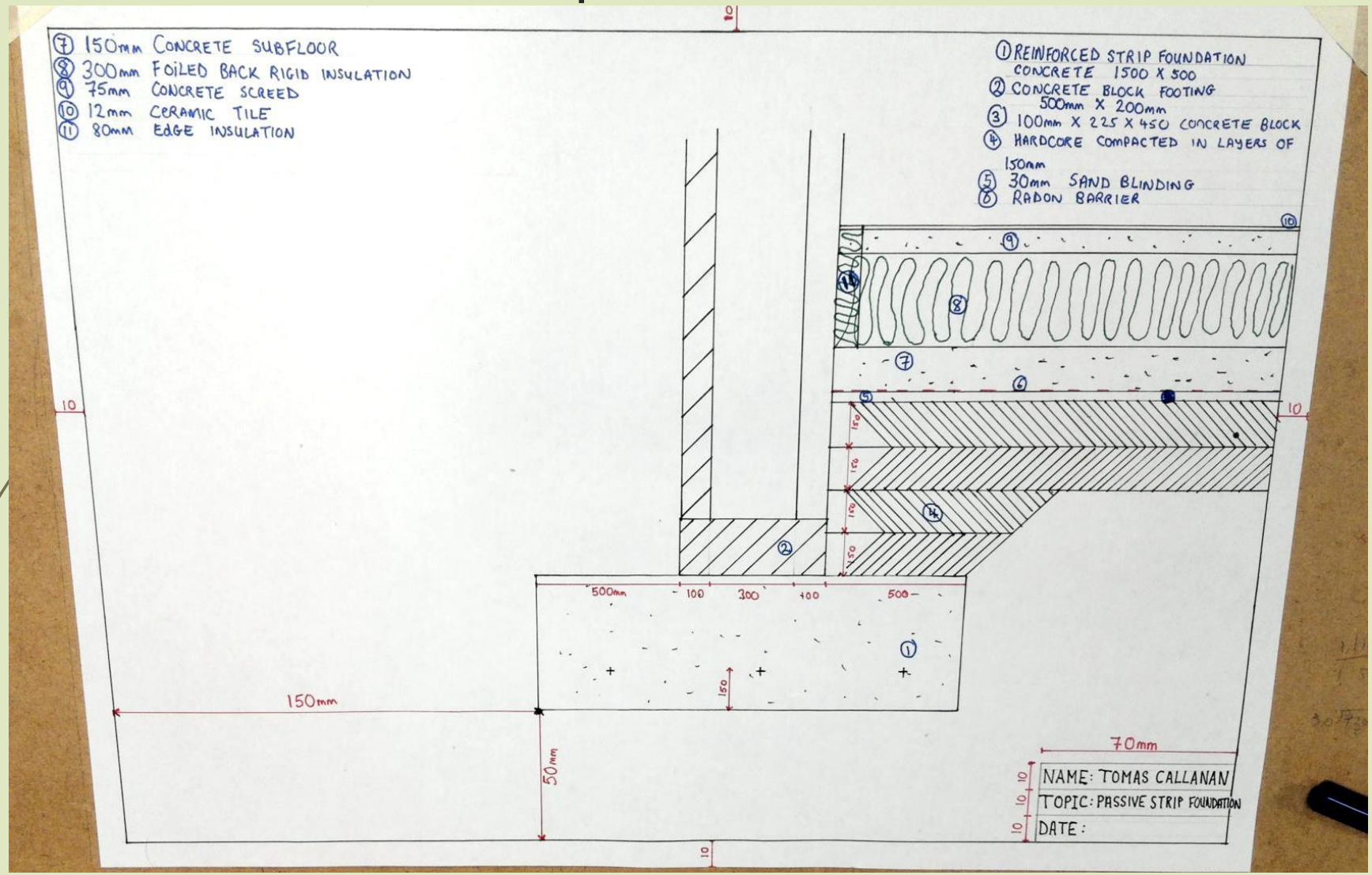
Passive Strip Foundation: Adding External Walls



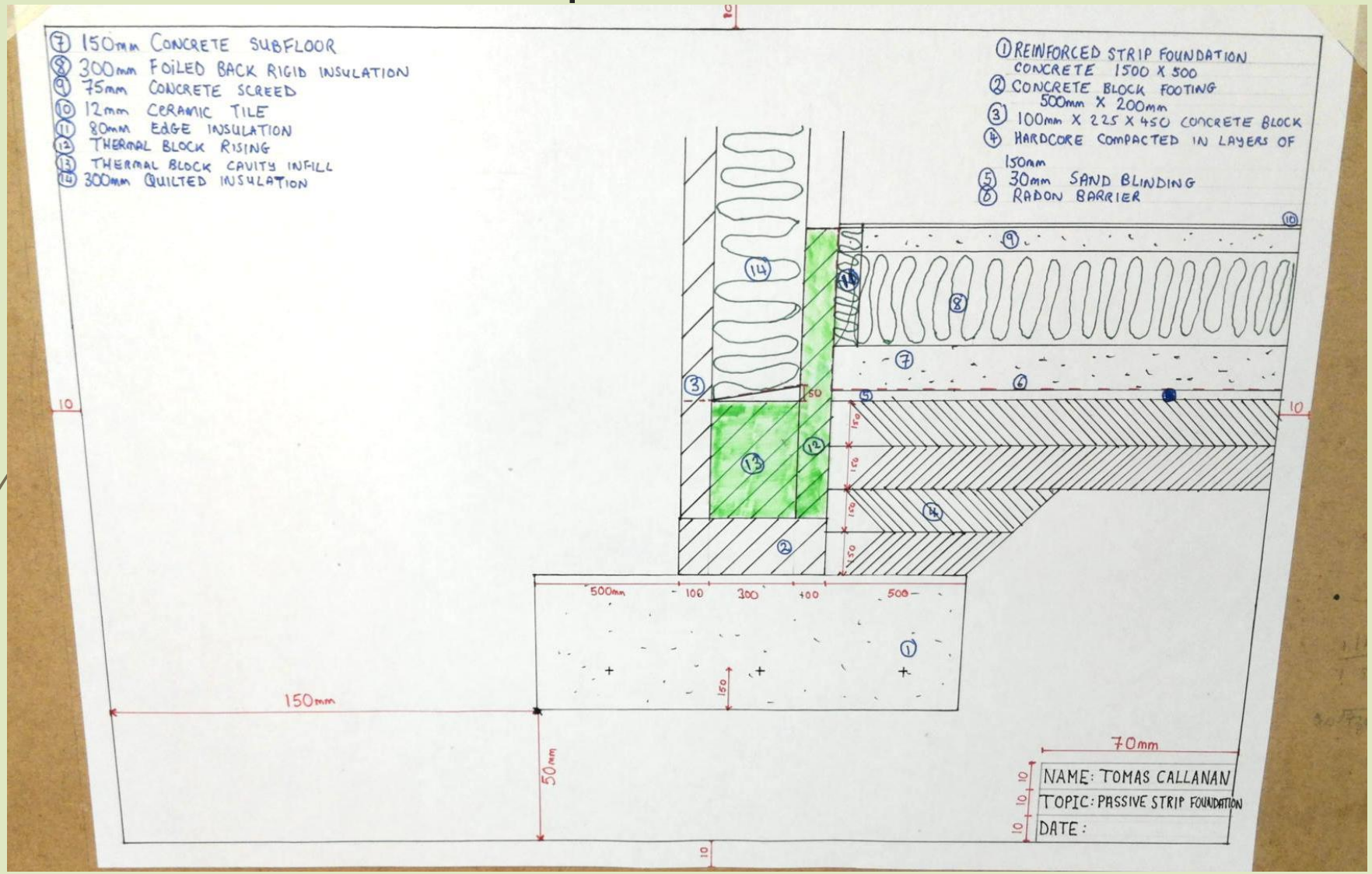
Passive Strip Foundation: Hardcore and Sand



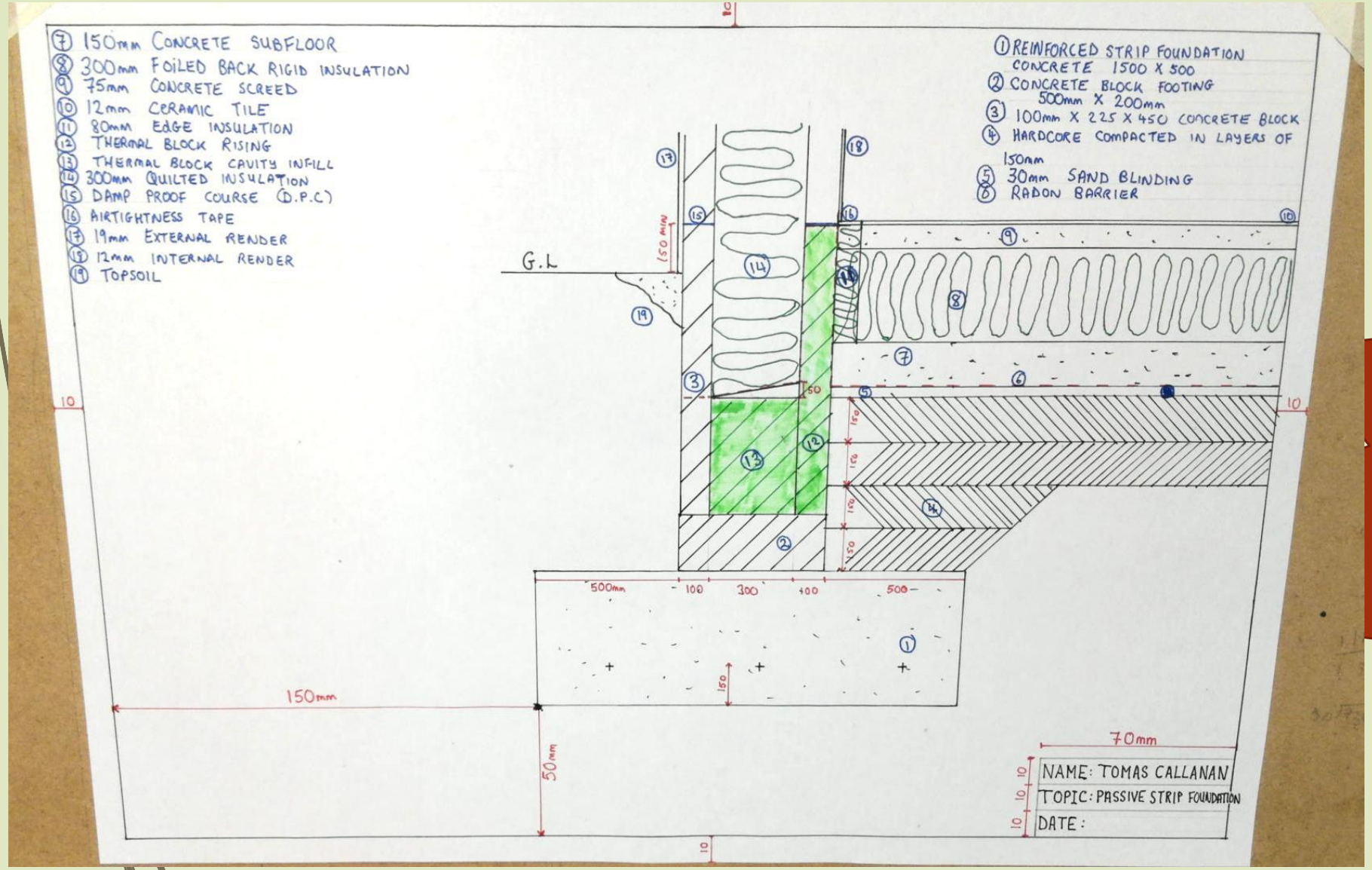
Passive Strip Foundation: Concrete Floor



Passive Strip Foundation- Wall Detail

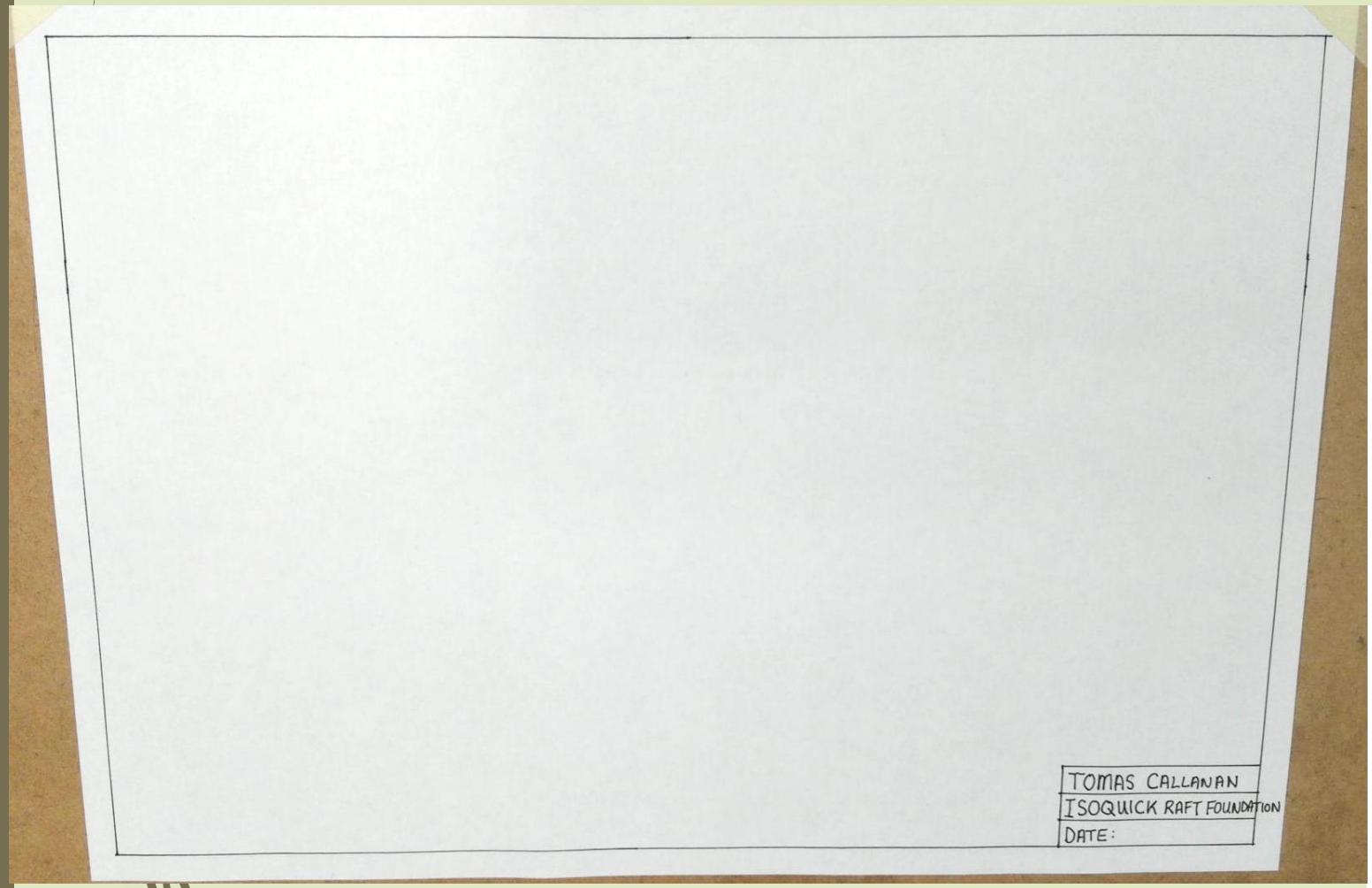


Passive Strip Foundation- Final Details



Congrats you have completed your first scale drawing well done!!!

Raft Foundation- Similar Set Up



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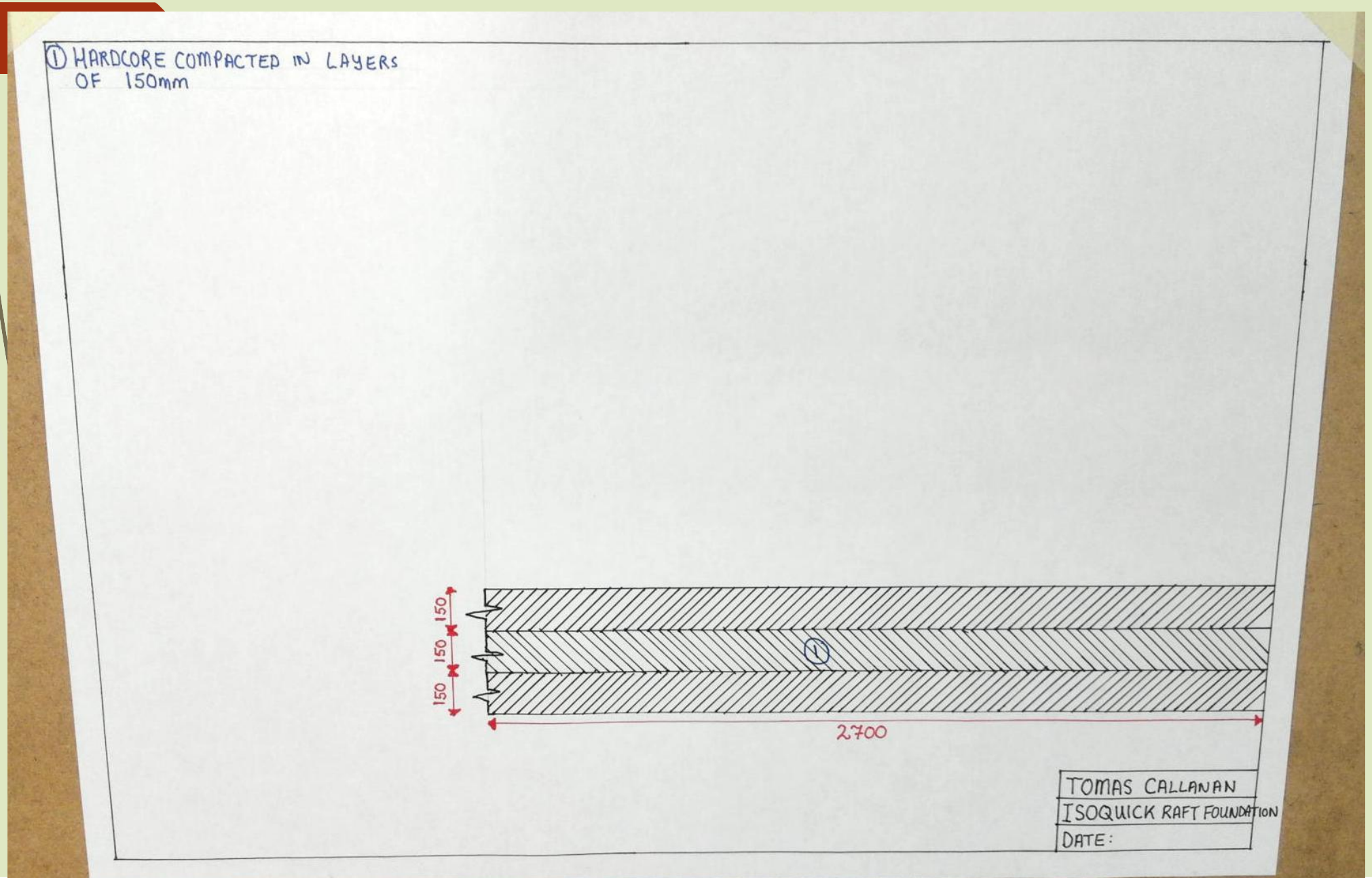
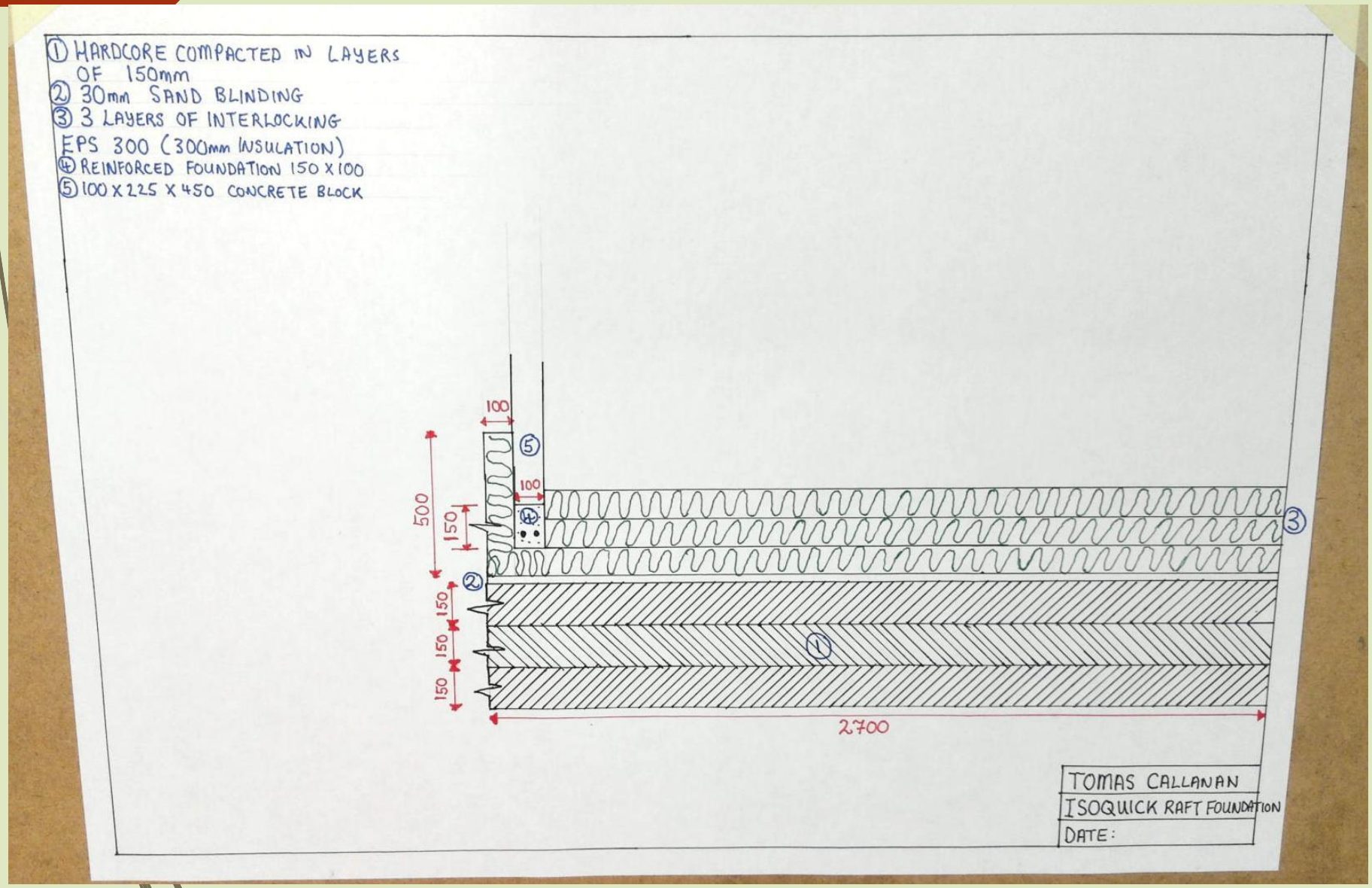
Passive Raft Foundation- Adding Hardcore



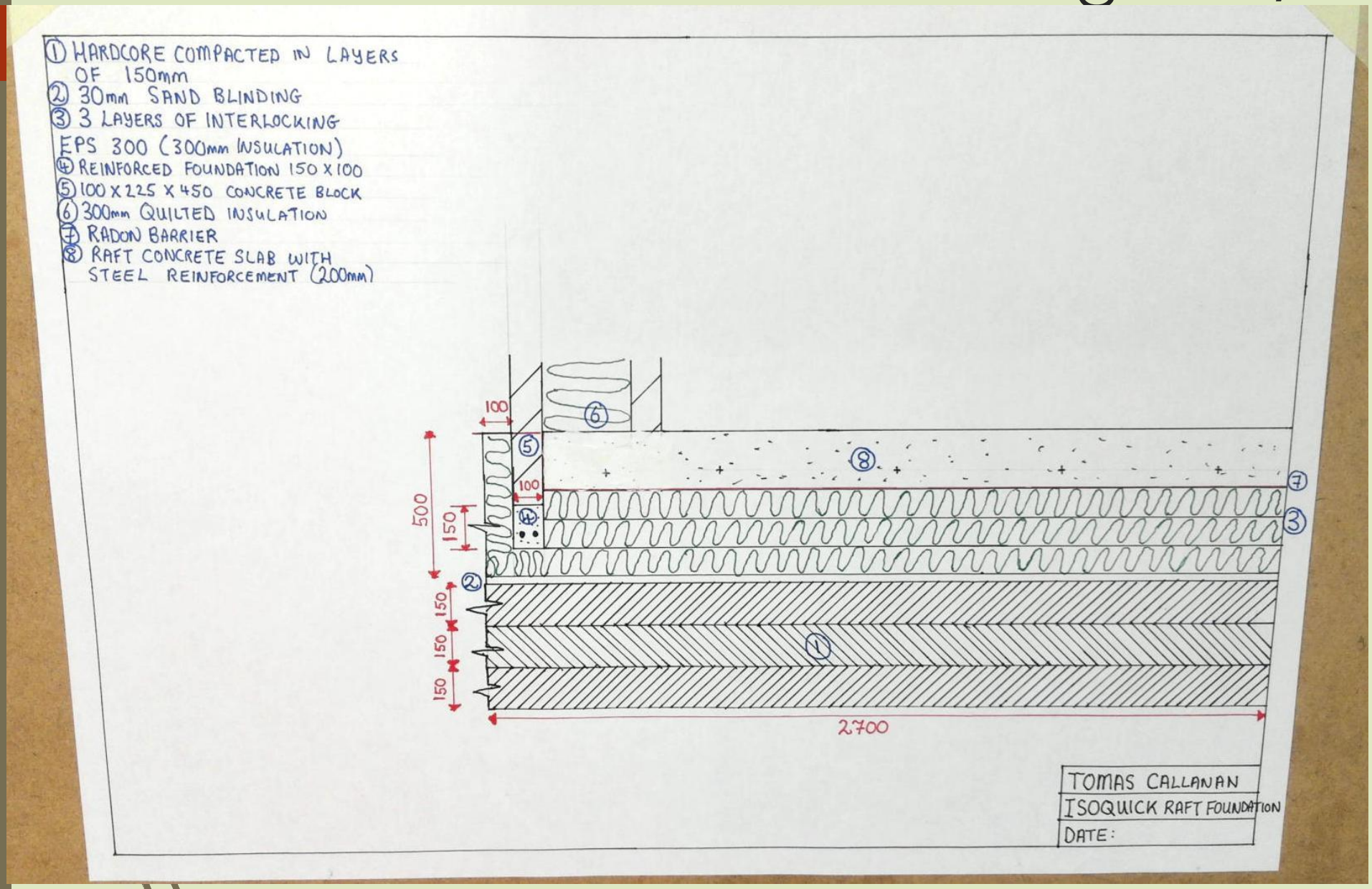
Since this is our second A3 drawing, neatness and accuracy are key components in marking schemes.

Passive Raft Foundation- Adding Insulation and Foundation



Step 2: In this step you are adding 3 layers of EPS 300 and also a small foundation underneath your external wall. This small foundation is needed to support the weight of the wall and roof in the superstructure

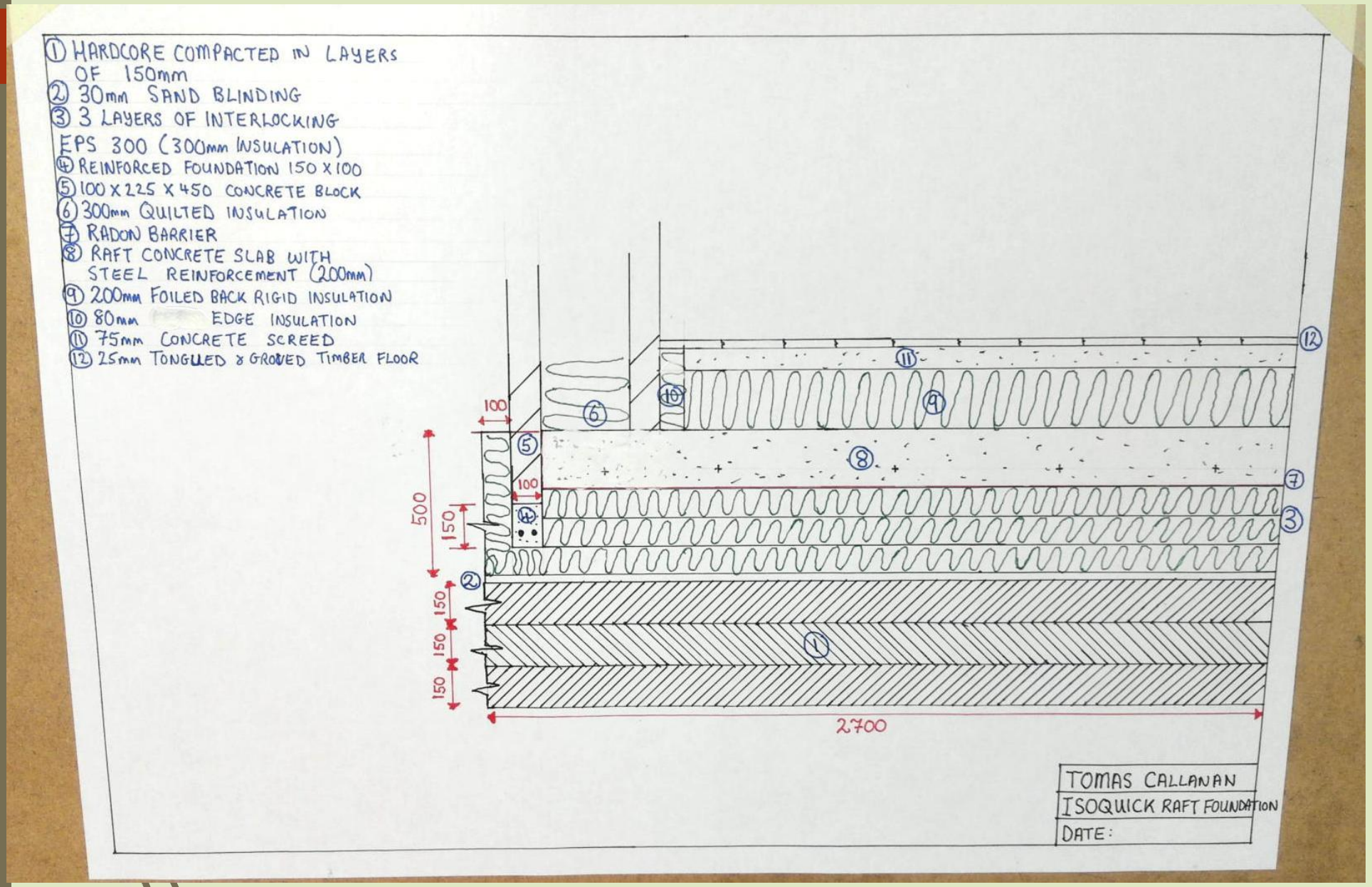
Passive Raft Foundation- Adding Raft/ Radon Barrier



Step 3:

- First add your Radon barrier ensure to bring it up and through the wall.
- Add your raft foundation next.
- Then add your 300mm insulation
- Finally your internal wall 100mm

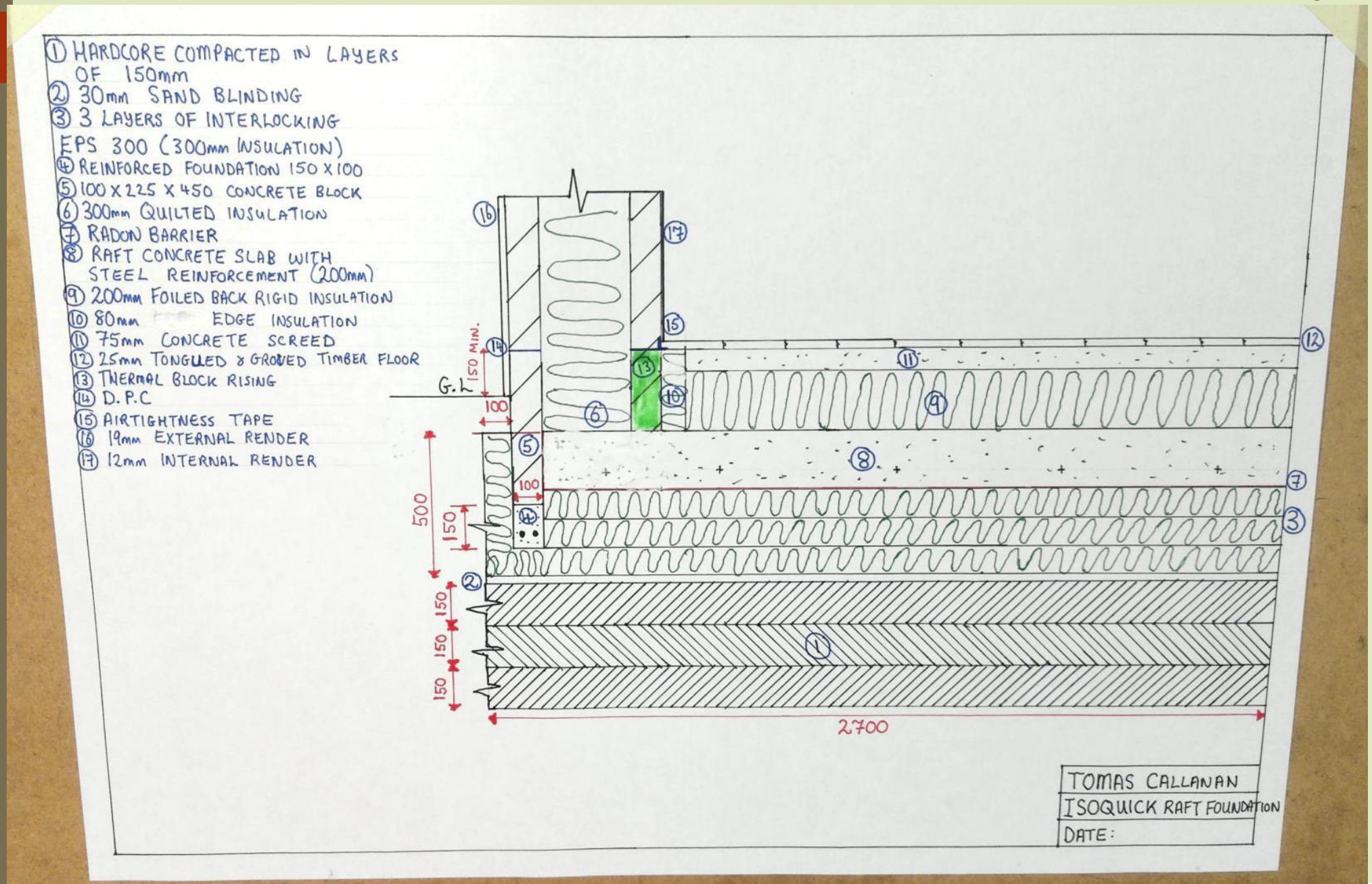
Passive Raft Foundation- Adding Insulation and Floor



Step 4:

- Add 200mm of insulation
- Next add your 80mm of edge insulation to stop cold bridging
- Then add the 75mm concrete screed
- Finally add your 25mm Timber floor

Passive Raft Foundation- Final Steps



Final Steps:

- Highlight in green the Thermal Block wall
- Add DPC to the wall at the height of the floor
- Add airtightness tape in-between the timber floor and the wall
- Finally add the external and internal render to the wall

Key Measurements Assessment

Strip Foundation

Size of Strip Foundation: _____ Scale 1:10= _____

Size of Hardcore: _____ Scale 1:10= _____

Size of External Wall _____ Scale 1:10= _____

Size of Insulation (l Wall) _____ Scale 1:10= _____

Size of blockwork _____ Scale 1:10= _____

Size of cavity (including insulation) _____ Scale 1:10= _____

Size of the sand binding _____ Scale 1:10= _____

Size of ground floor _____ Scale 1:10= _____

Size of minimum ground line height _____ Scale 1:10= _____

Raft Foundation

Size of Raft Foundation (thickness) _____ Scale 1:10= _____

Size of Hardcore: _____ Scale 1:10= _____

Size of External Wall _____ Scale 1:10= _____

Size of Insulation (Wall) _____ Scale 1:10= _____

Size of blockwork _____ Scale 1:10= _____

Size of cavity (including insulation) _____ Scale 1:10= _____

Size of the sand binding _____ Scale 1:10= _____

Size of screed _____ Scale 1:10= _____

Size of minimum ground line height _____ Scale 1:10= _____

Size of external plaster _____ Scale 1:10= _____

Size of internal plaster _____ Scale 1:10= _____