THE KENYA NATIONAL EXAMINATIONS COUNCIL

SCHOOL BASED ASSESSMENT

Grade 10 Building Construction Project – 2026

Project Title: Site Preparation, Setting Out and Construction of a Strip Foundation

Deadline for submission: 31st October, 2026

INSTRUCTIONS TO LEARNERS

1. This project consists of **three tasks** as shown in the table below:

Task	**Area of assessment**	**Max. Score**
Task 1	Site preparation	20
Task 2	Setting out a strip foundation	20
Task 3	Excavation, strip foundation and foundation walling	50
Total		**90**

2. You will work in **groups of three**. Each learner must participate actively in all tasks.
3. Each group must prepare and maintain an **e-portfolio** as evidence of work done.
4. All work must be executed within a **period of 3 weeks** and submitted by **31st October, 2026**
5. Observe safety regulations when using tools such as slashers, pangas, jembes, mattocks, hammers, spades and rammers.
6. Each learner must show evidence of individual participation. Group work should not be done by one learner while others observe.
7. The final submission must include:

    i. Completed practical work.
    ii. Photos and short videos.
    iii. Tool and material checklist.
    iv. Brief report for each task.
    v. Group reflection on challenges and improvements.

INSTRUCTIONS TO SCHOOLS

1. The school should ensure that the project is completed within **three weeks** and that all final evidence and assessment records are submitted by **31st October, 2026**.
2. The school should identify a safe and suitable site within the school compound. The site should be:
    i. Accessible to learners.
    ii. Safe for practical work.
    iii. Slightly bushy or uneven to allow learners to practice site preparation.

3. The school should ensure that all required tools, materials and safety equipment are available before learners begin the project.
4. Learners should be organized into **groups of three.** Each group should be provided with a working area of **6.5 m x 4.5 m**. Ensure fair sharing of roles among group members. Assess learners **individually** using the scoring guide and assessment rubric provided.
5. For **Task 3,** minimize on the working space by selecting a few set outs in **Task 2,** by assigning each group a wall to perform the task.
6. Before the project begins, the teacher should brief learners on the following:
    i. The project tasks to be carried out.
    ii. Safety rules to be followed.
    iii. Correct use of tools and materials.
    iv. Evidence required for each task.
    v. Assessment criteria.
    vi. Deadline for submission.
7. Teachers should assess learners continuously during the practical work. Assessment should focus on both the **process** and the **final product**.
8. The school should provide the following for collection and storing of project evidence. This may include:
    i. Camera (Phones or Camcode)
    ii. Google Drive.
    iii. Computer.
    iv. Flash disk.

9. Learners should maintain an organized **e-portfolio** as evidence of work done. Each group should create one main folder using the following format: **SchoolName_BuildingConstruction_GroupNumber_2026.** Inside the main folder, the following subfolders should be created:
    i. Task 1_Site Preparation.
    ii. Task 2_Setting Out.
    iii. Task 3_Strip Foundation.
    iv. Reports.
    v. Reflections.
    vi. Teacher Observation Records.
10. The teacher should guide learners to name files clearly. Examples of file names include:
    i. Group1_Task1_Before Site Clearing_Photo1.
    ii. Group1_Task2_345Method_Video1.
    iii. Group1_Task3_Foundation walling_Video1.
    iv. Group1_Reflection_LearnerName.
11. Evidence kept by learners should clearly show:
    i. The condition of the site before work started.
    ii. Tools and materials selected for each task.
    iii. Learners participating in each activity.
    iv. Safety practices followed.
    v. Measurements being taken.
    vi. Application of the 3-4-5 method.
    vii. Excavation, concrete placing and wall construction.
    viii. Completed work.
    ix. Learners' reflections and lessons learnt.
12. The teacher should verify all evidence before final upload or submission. Verification should include checking that:
    i. Photos and videos are clear.
    ii. All learners must appear in the evidence.
    iii. The evidence matches the actual work done on site.
    iv. Each task has the required photos, videos, reports and reflections.
    v. The teacher observation checklist is completed for each group.

A. TOOLS AND MATERIALS REQUIRED PER GROUP

No.	ITEM	DESCRIPTION	QUANTITY
1	Slasher	__	1
2	Panga/ Machete	__	1
3	Jembe	__	1
4	Rake	__	1
5	Axe	__	1
6	Wheelbarrow	__	1
7	mattock	__	1
8	spade	__	1
9	Measuring tape	__	3
10	Wooden pegs	900 x 50 x 50 mm	16
11	Profile boards	1000 x 50 x25 mm	8
12	Builders string	Nylon (25 m long)	3
13	Spirit level	450 mm in length	3
14	Marking powder	Sufficient	
15	Claw Hammer	__	3
16	Steel square	__	3
17	Rammer	__	3
18	Cement	Portland cement	2 bags
19	Fine aggregates	River sand	300 kgs
20	Coarse aggregates	__	600 kgs
21	Blocks/stones	450 x 225 x150mm	12
22	Wire Nails	50 mm	Sufficient
23	Plumb bob	__	3

B. SAFETY GEAR

No.	Safety Gear	Quantity
1	Safety boots	One pair per learner
2	Gloves	One pair per learner
3	Dust mask	One per learner
4	First aid kit	At least one per working area
5	Overall	One per learner.

PREAMBLE

Your school has experienced an increase in staff and therefore requires additional office space. The school administration intends to construct a small office block within the school compound. The selected site is bushy, uneven and contains some waste materials.

As Grade 10 Building Construction learners, you are required to participate in preparing the site, setting out the foundation and constructing a section of a strip foundation and foundation wall.

TASK 1: SITE PREPARATION **(20 Marks)**

In your group of three:

1. Visit the site identified by the teacher.
2. Observe and record the following:
    i. Type of vegetation.
    ii. Nature of the ground slope.
    iii. Type of waste materials found.
    iv. General soil condition.
3. Select and assemble the correct tools for site preparation.
4. Clear the vegetation from the site.
5. Dispose of waste in the designated disposal zones provided by the school.
6. Strip the topsoil from the working area.
7. Leave the site clean, safe and ready for setting out.
8. Prepare a short report showing:
    i. Tools used.
    ii. Procedure followed.
    iii. Safety measures observed.
    iv. Challenges faced.
    v. Lessons learnt.

9. Keep the evidence in the folders created in the computers for each group. The evidence should include:

    - The report
    - The photos (Site before clearing, during clearing, after clearing)
    - Short videos showing learners clearing, sorting waste and stripping topsoil

TASK 2: SETTING OUT A STRIP FOUNDATION **(20 Marks)**

1. **Figure 1** shows a floor plan of an office, use it to perform the following tasks.

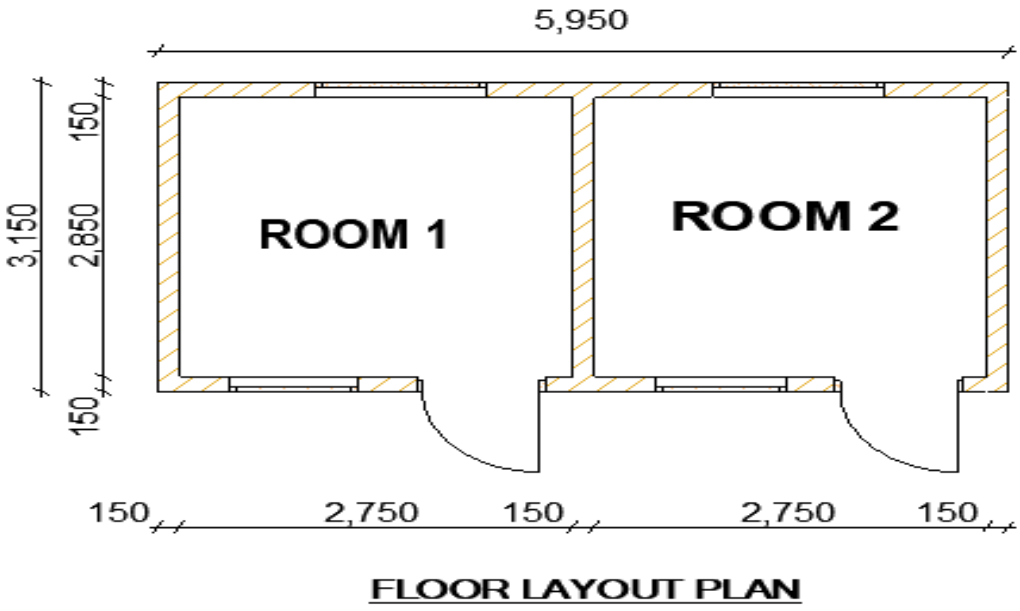


Fig. 1: Floor plan details

i. Use appropriate hand tools and equipment to set out a strip foundation using the 3-4-5 method.

ii. Write a brief report that includes:

   I. Tools used.
   II. Procedure followed.
   III. Measurements taken.
   IV. Challenges encountered and how they were solved.

2. Keep the evidence in the folders created in the computers for each group. The evidence should include:
   - The report
   - The photos (Pegging, profile boards, string lines and final setting out)
   - Short videos showing learners applying the 3-4-5 method

TASK 3: EXCAVATION, STRIP FOUNDATION AND FOUNDATION WALLING

(50 Marks)

Working in groups of three:

1. Excavate the trench according to the given dimensions in **figure 2** on already set out plan in task 2**.**
2. Place and compact the blinding layer where required.
3. Mix concrete in the correct ratio as shown in the **figure 3**.
4. Lay the strip foundation to the required width and thickness.
5. Set out and construct a three-course block wall in stretcher bond. Each learner to build a course
6. Prepare a short report showing:

    i. Tools and materials used.
    ii. Procedure followed.
    iii. Measurements used.
    iv. Concrete mix used.
    v. Safety precautions observed.
    vi. Challenges faced.
    vii. Lessons learnt.
    viii. Areas for improvement.

7. Keep the evidence in the folders created in the computers for each group. The evidence should include:
    - The report
    - The photos (during the construction)
    - Short videos showing learners laying foundation and walling

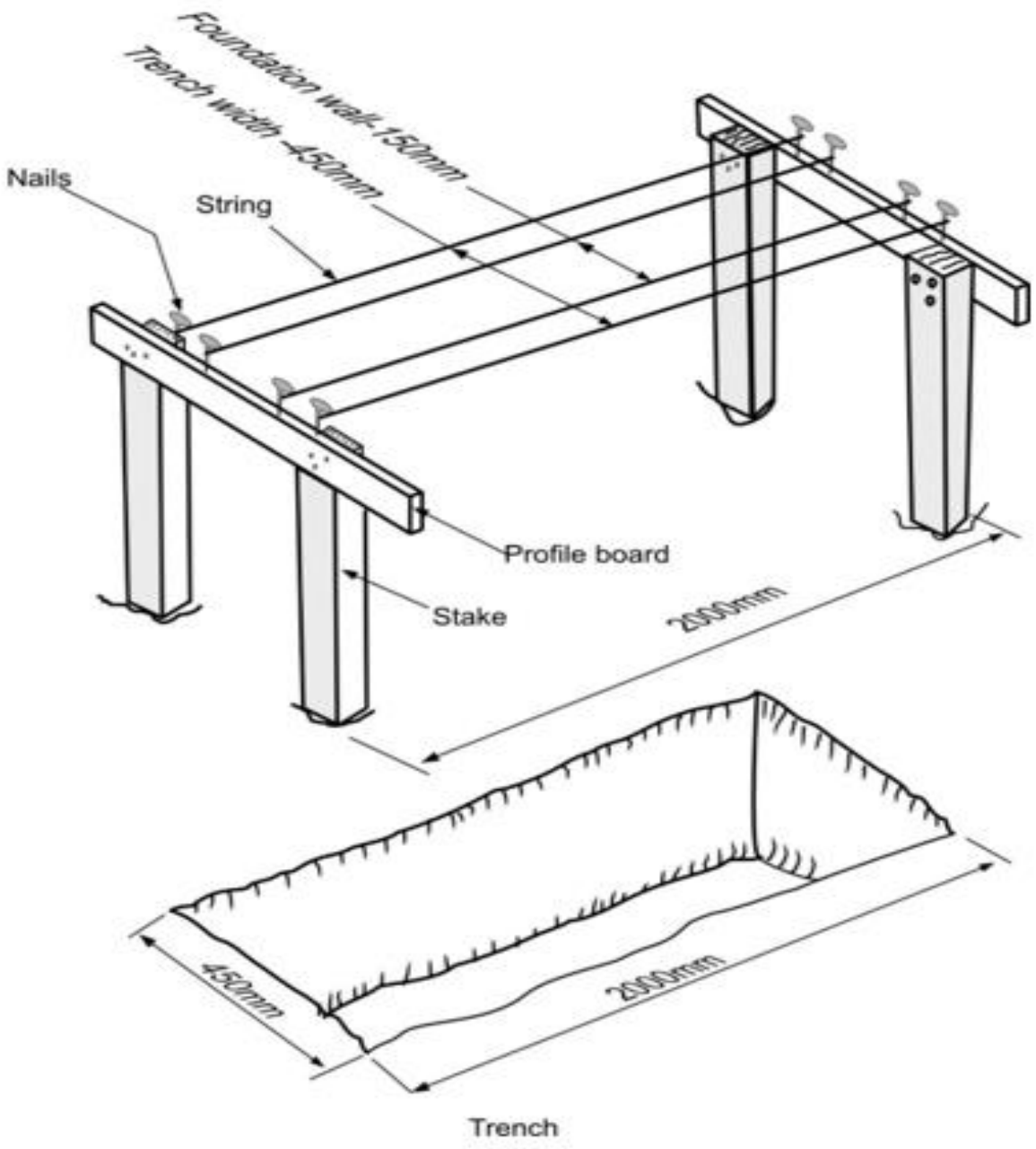


Fig. 2: Profile and Trench Details

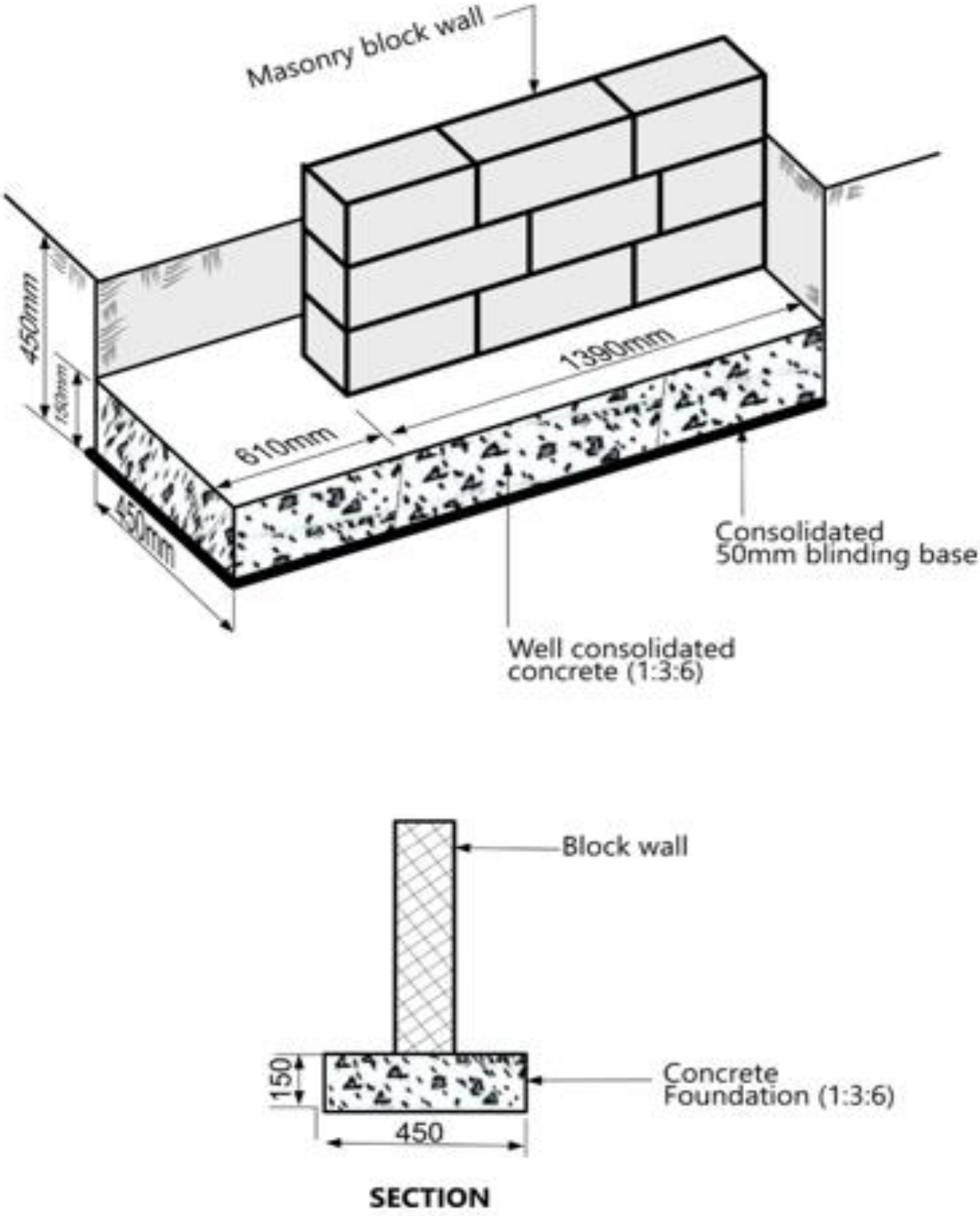


Fig. 3: Strip foundation details