S 3 HOLIDAY NOTES AND EXERCISE

Instructions

- Read these notes about Bonding
- Use the internet to search more about bricks and bonding to reinforce your understanding of this topic
- Using a scale of 1:10, draw all the bonds as shown starting from fig 2.2a up to 2.4e
- Use paper size A3 or A3 books for your drawing. These papers and books can be got from Nasser road in kampala
- Your work should be signed by your parent and handed in on the first day of reporting to school from the break.
- This work will constitute your UNEB coursework assesment marks f or year3.

THIS VIRUS CANT DEFEAT HUMANITY. WE SHALL BEAT IT SOON. Stay safe and see you soon.

BRICKWORK BONDING

This is the arranging of bricks in a predetermined pattern so as to eliminate straight joints and at the same time present a pleasant surface appearance. Types of bonding whose detail we shall look at in this chapter include stretcher bond, English bond and Flemish bond. Other types of bonding are discussed in the second part of this book (building theory). Before looking at the different types of bonds lets first look briefly at the different brick terminologies and some necessary dimensions. Fig 2.1 Shows some of the brick terminology and dimensions that will be necessary when drawing the brickwork details.

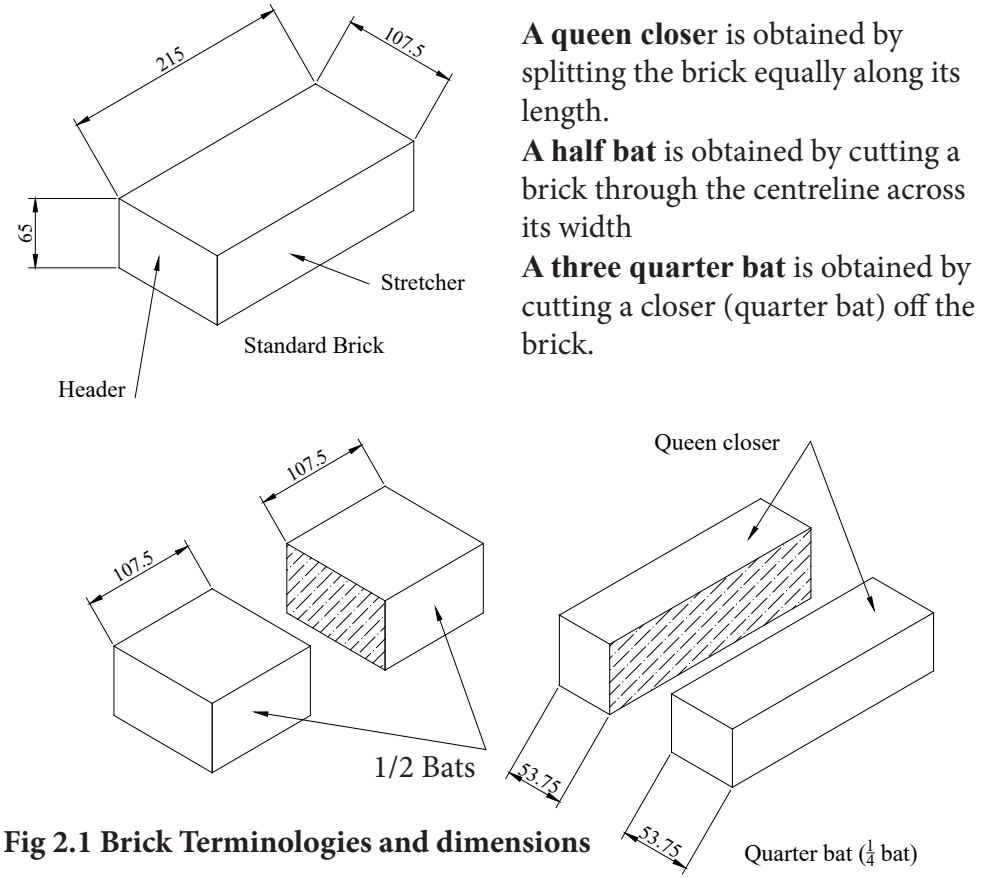


Fig 2.1 Brick Terminologies and dimensions

A queen closer is obtained by splitting the brick equally along its length.
A half bat is obtained by cutting a brick through the centreline across its width
A three quarter bat is obtained by cutting a closer (quarter bat) off the brick.

Bonding can be categorised into half brick wall bonding, one brick wall bonding and one and half brick wall bonding. The most commonly used types of bonding include the stretcher bond which is a half brick wall bond, English and Flemish bonds which can be either one brick or one and half brick thick. This section discusses the details of these bonds especially at the corners, T-junctions and piers.

STRETCHER BOND

This is a type of bond that consists of all stretchers in every course and is used for half brick walls and leaves of cavity walls.

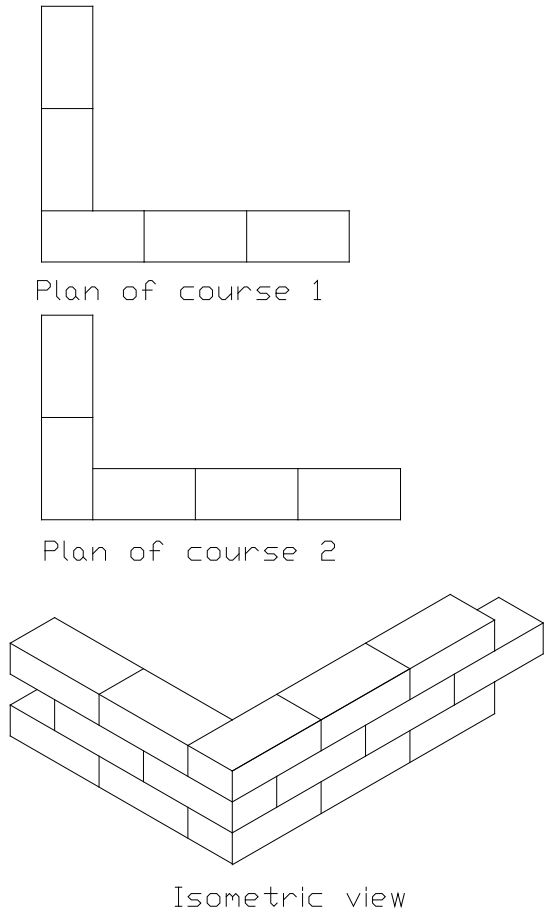


Fig 2.2a Stretcher bond corner

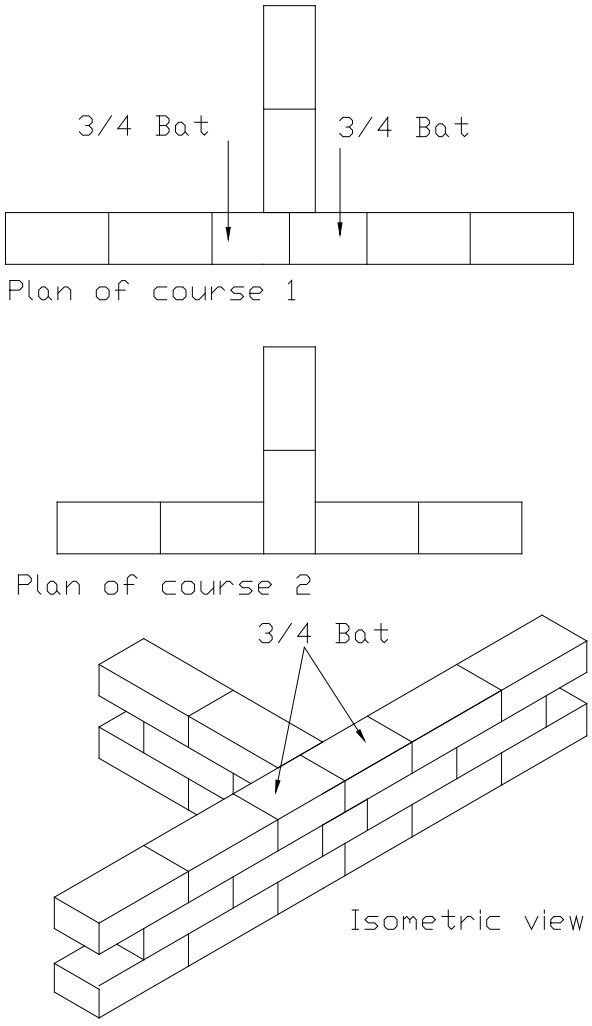


Fig 2.2b Stretcher bond T-Junction

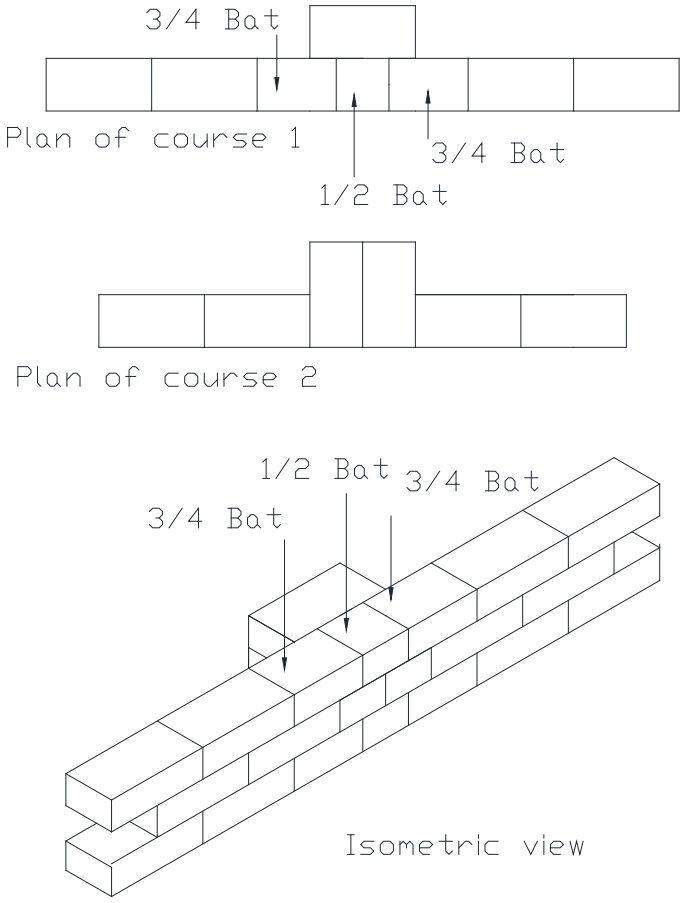


Fig 2.2c Stretcher bond Attached Pier or Pilaster

ENGLISH BOND

This type of bond consists of stretchers throughout the length of one course and headers throughout the next course. It's important to note how a stopped end is bonded with the three quarter bats. This applies to all the sides that need to be stopped in an English bond. Fig 2.3a,b,c and d show various details of a one brick thick English bond whereas Fig 2.3e and f show Details of a one and half brick thick English bond.

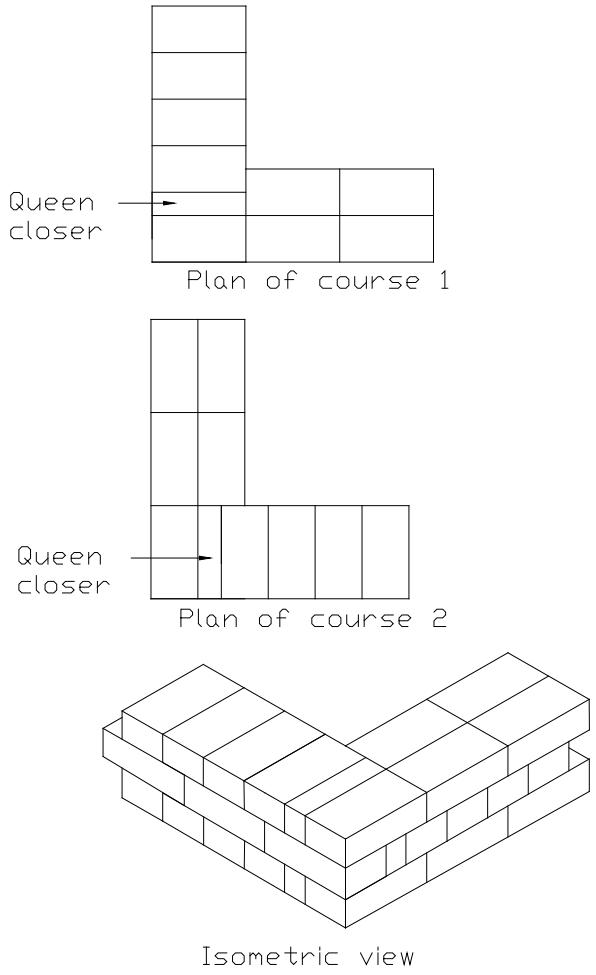


Fig 2.3a English bond corner (one brick thick)

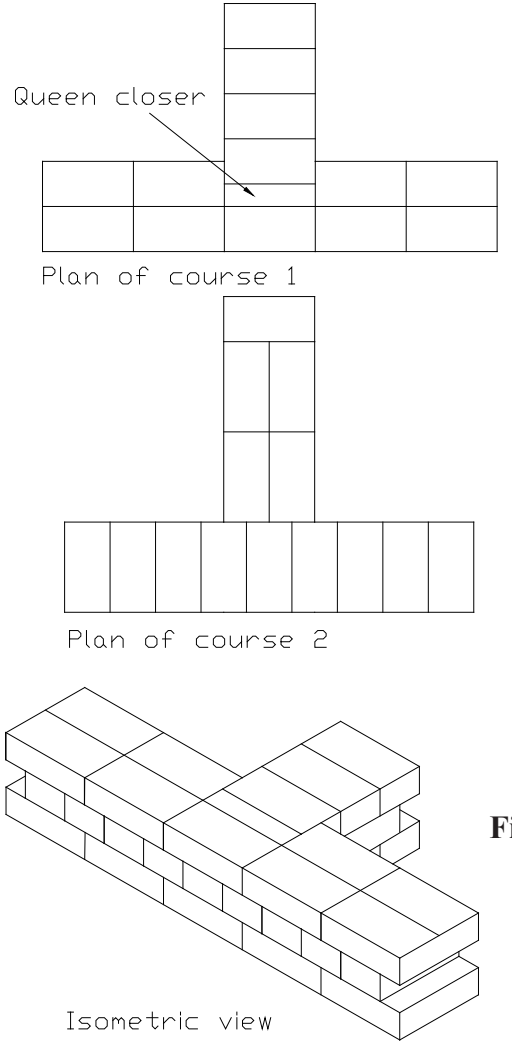


Fig 2.3b English bond T-junction (one brick thick)

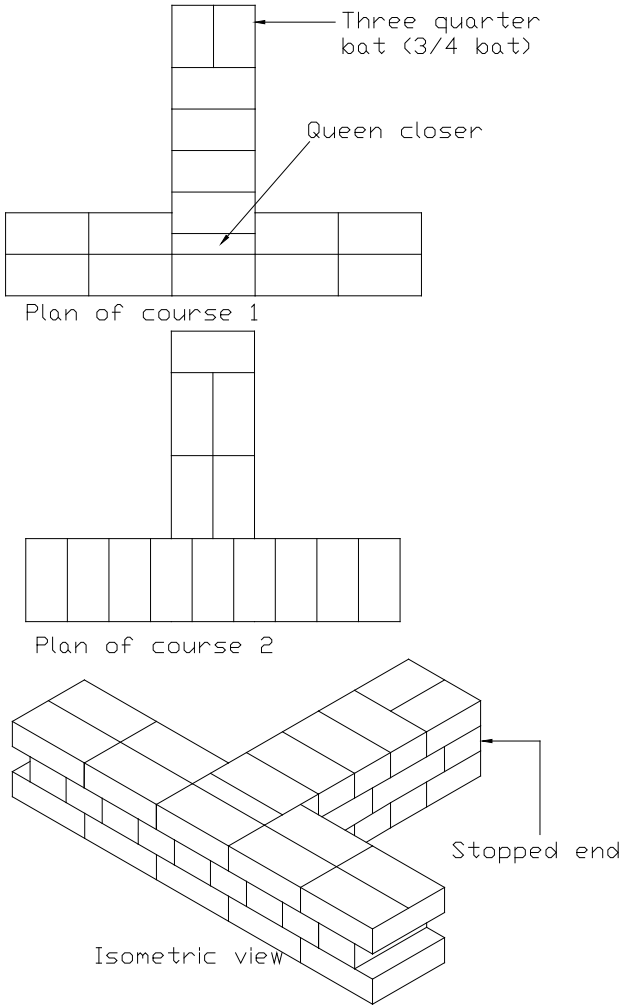


Fig 2.3c English Bond T-junction with a stopped end

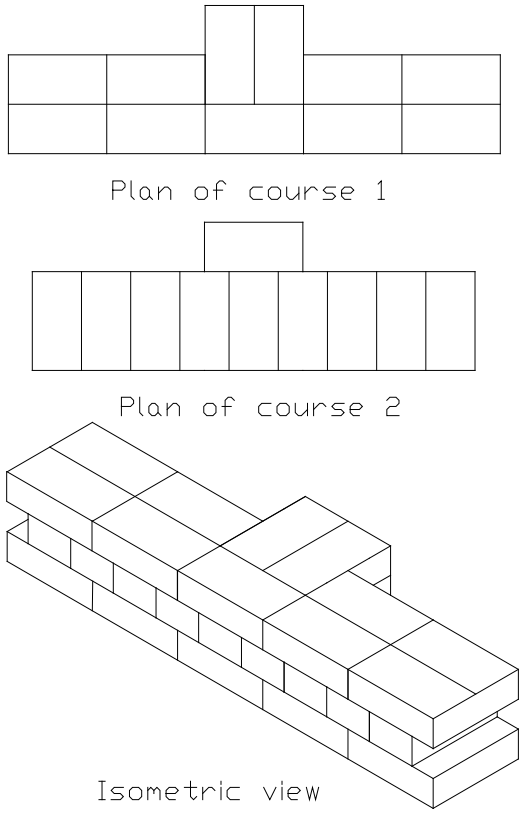


Fig 2.3d English Bond Attached Pier or pilaster (one brick thick)

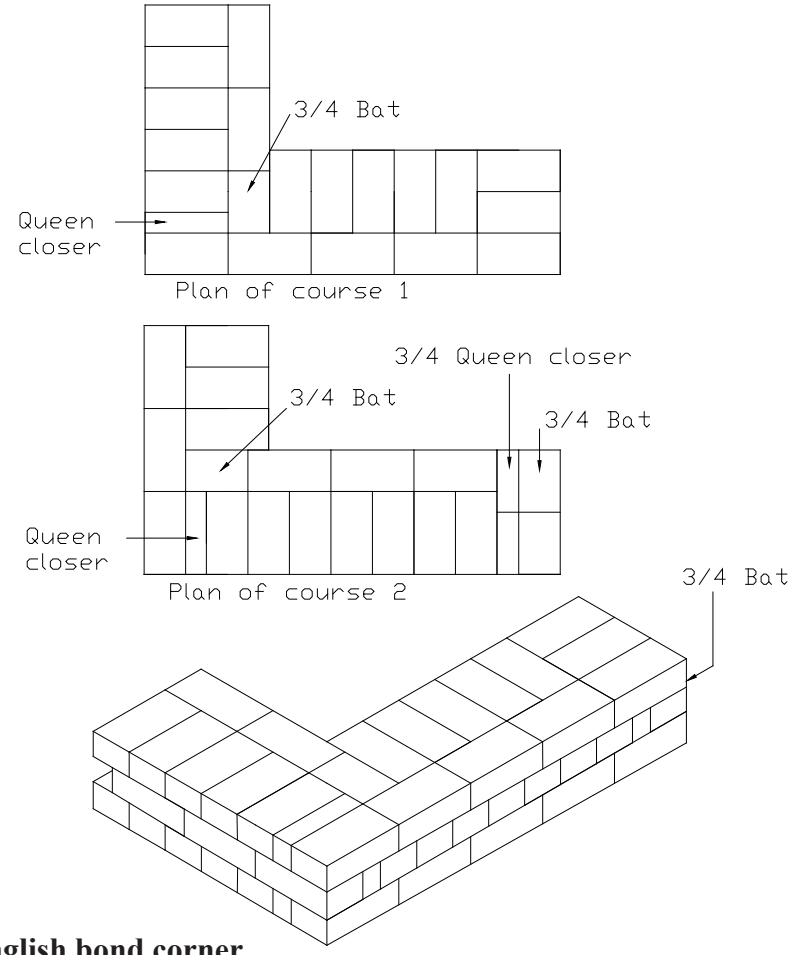


Fig 2.3e English bond corner (one and half brick thick)

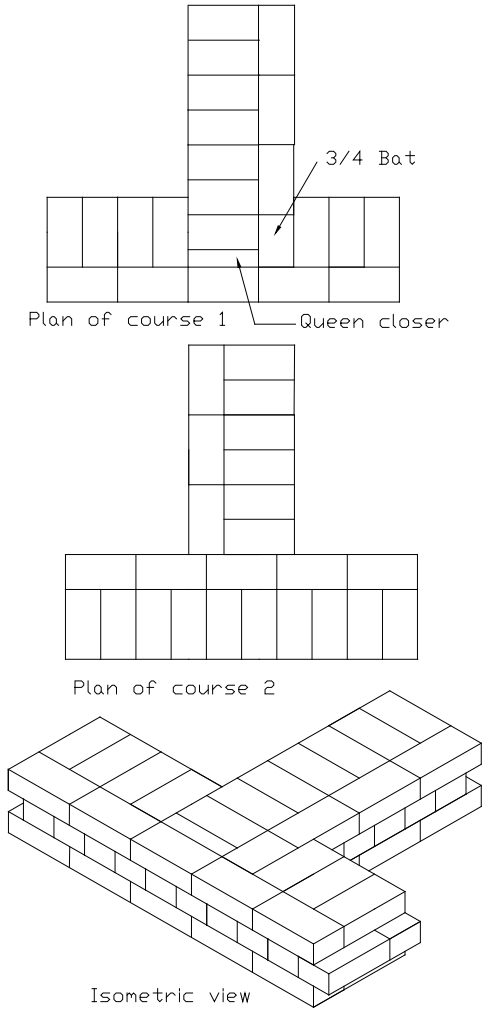
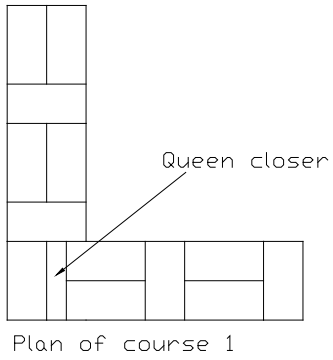
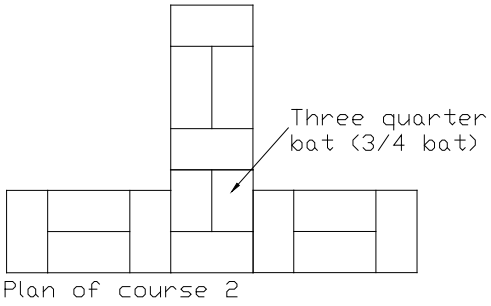


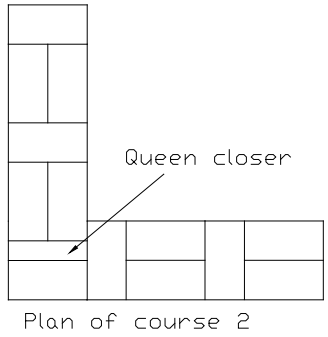
Fig 2.3f English bond T-junction (one and half brick thick)

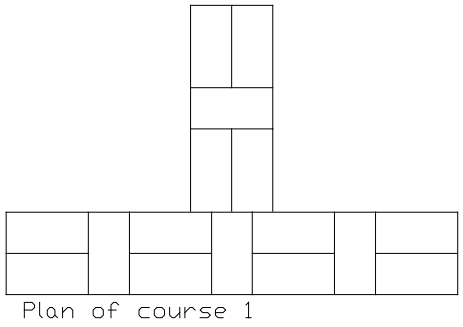
FLEMISH BOND

This bond consists of alternate headers and stretchers in the same course. Figs 2.4a, b and d show the plans of course 1 and 2, and the isometric views of a corner, T-junction, and a pier bonded in Flemish bond. Fig 2.4c Shows how a stopped end is bonded and its important to note that also in this case three quarter bats are used. Fig 2.4e shows how a Flemish bond can be set in a one and half brick thick wall.









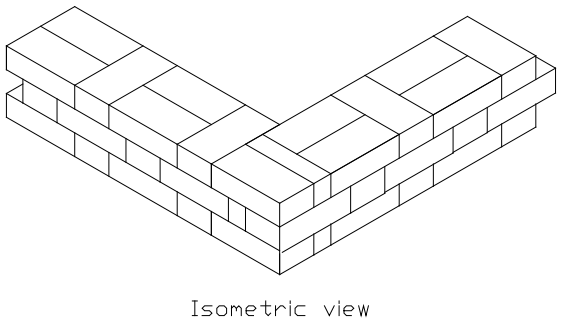


Fig 2.4a Flemish bond corner (one brick thick)

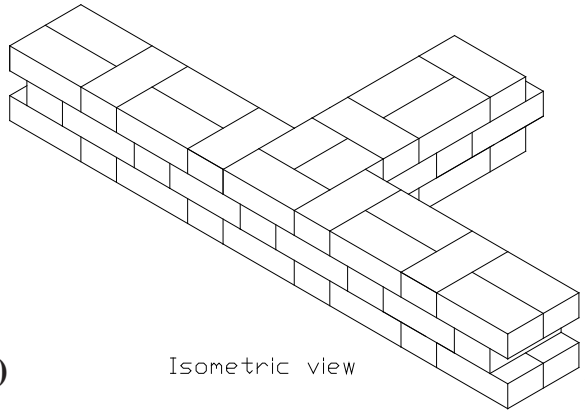
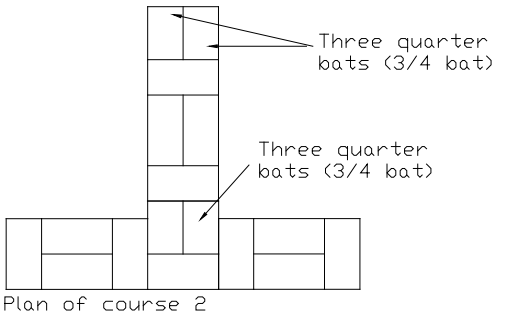
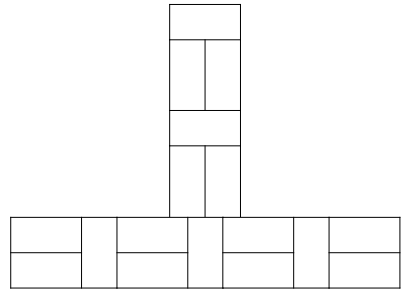


Fig 2.4b Flemish bond T-junction (one brick thick)





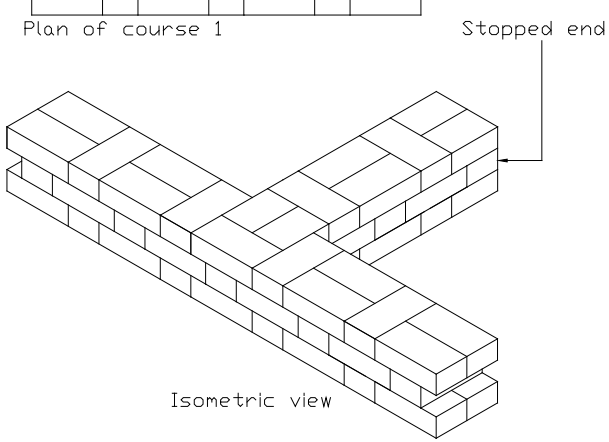


Fig 2.4c Flemish bond T-junction with a stopped end (one brick thick)

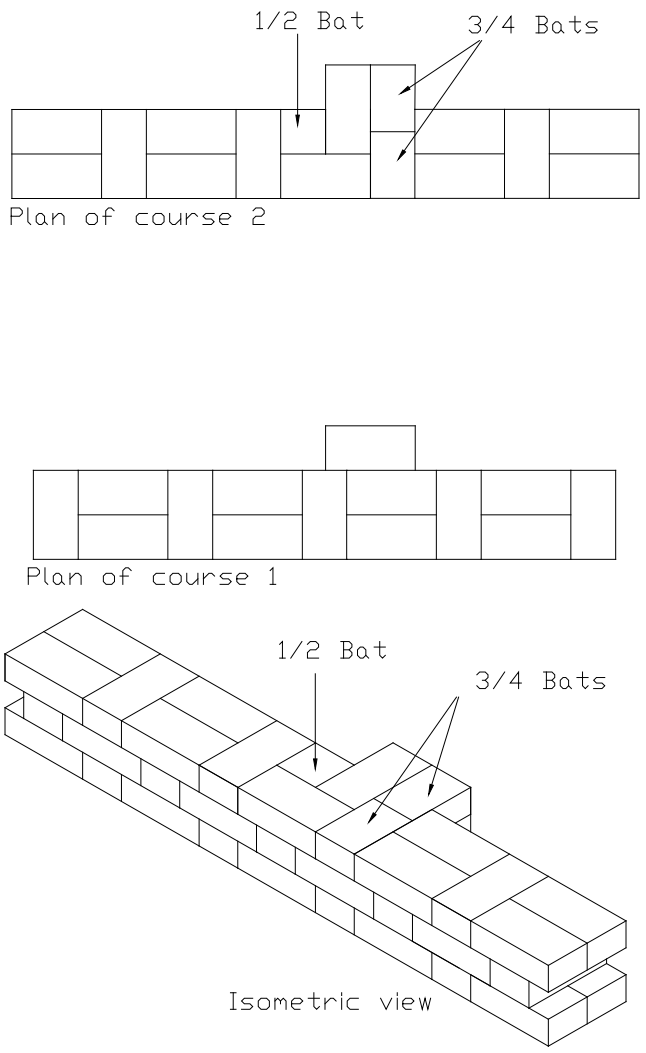


Fig 2.4d Flemish bond Attached Pier or pilaster (one brick thick)

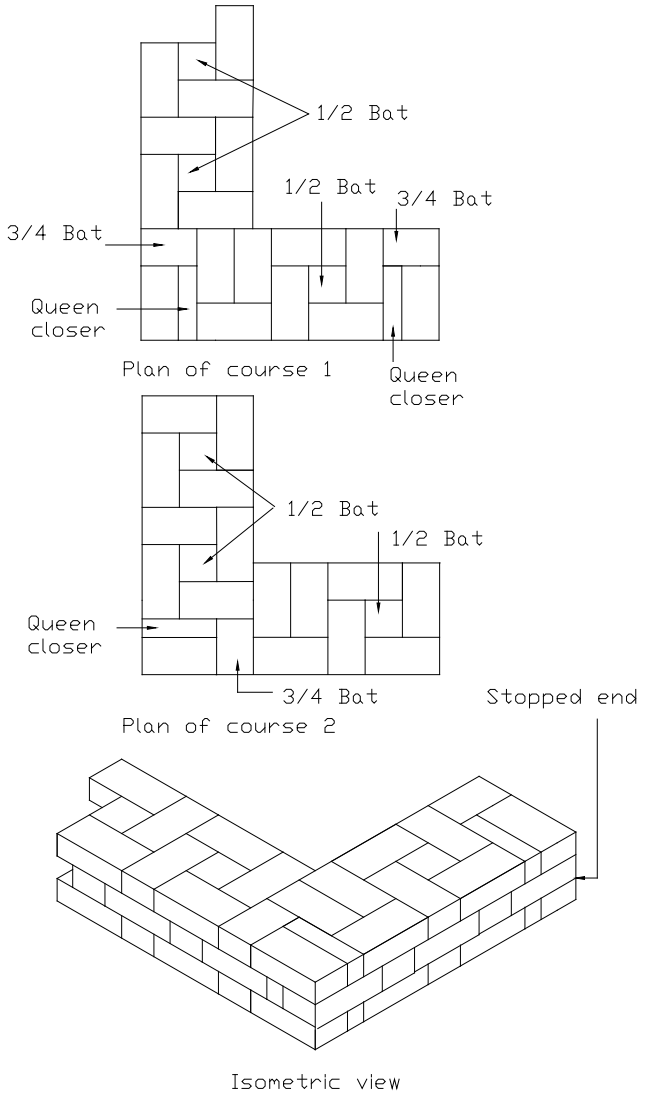


Fig 2.4e Flemish bond corner (one and half brick thick)