AS GEOGRAPHY

Paper 2 Human Geography and Geography Fieldwork Investigation

7036/2

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FIGURE 1a for use with Question 1

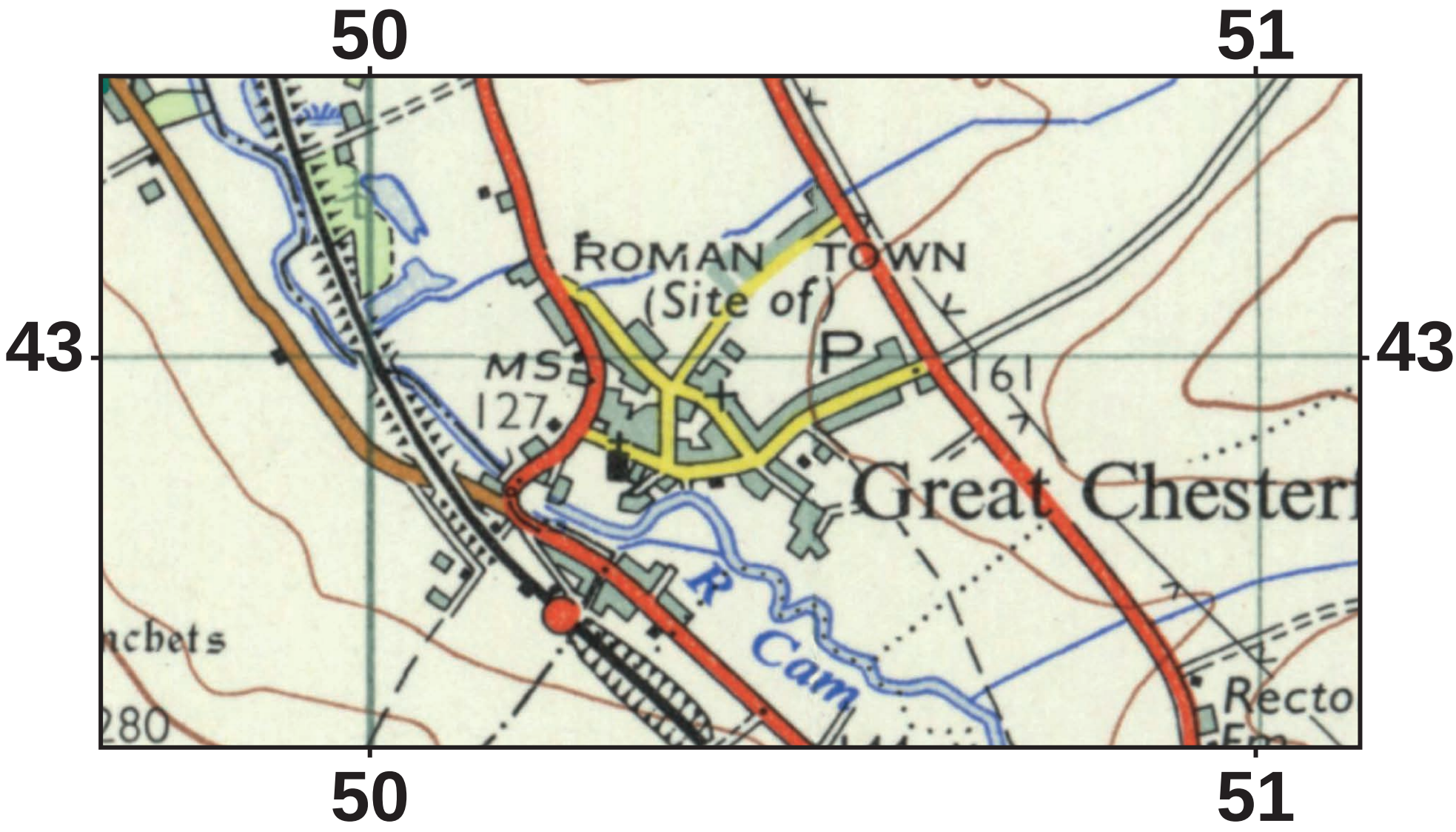


FIGURE 1b for use with Question 1

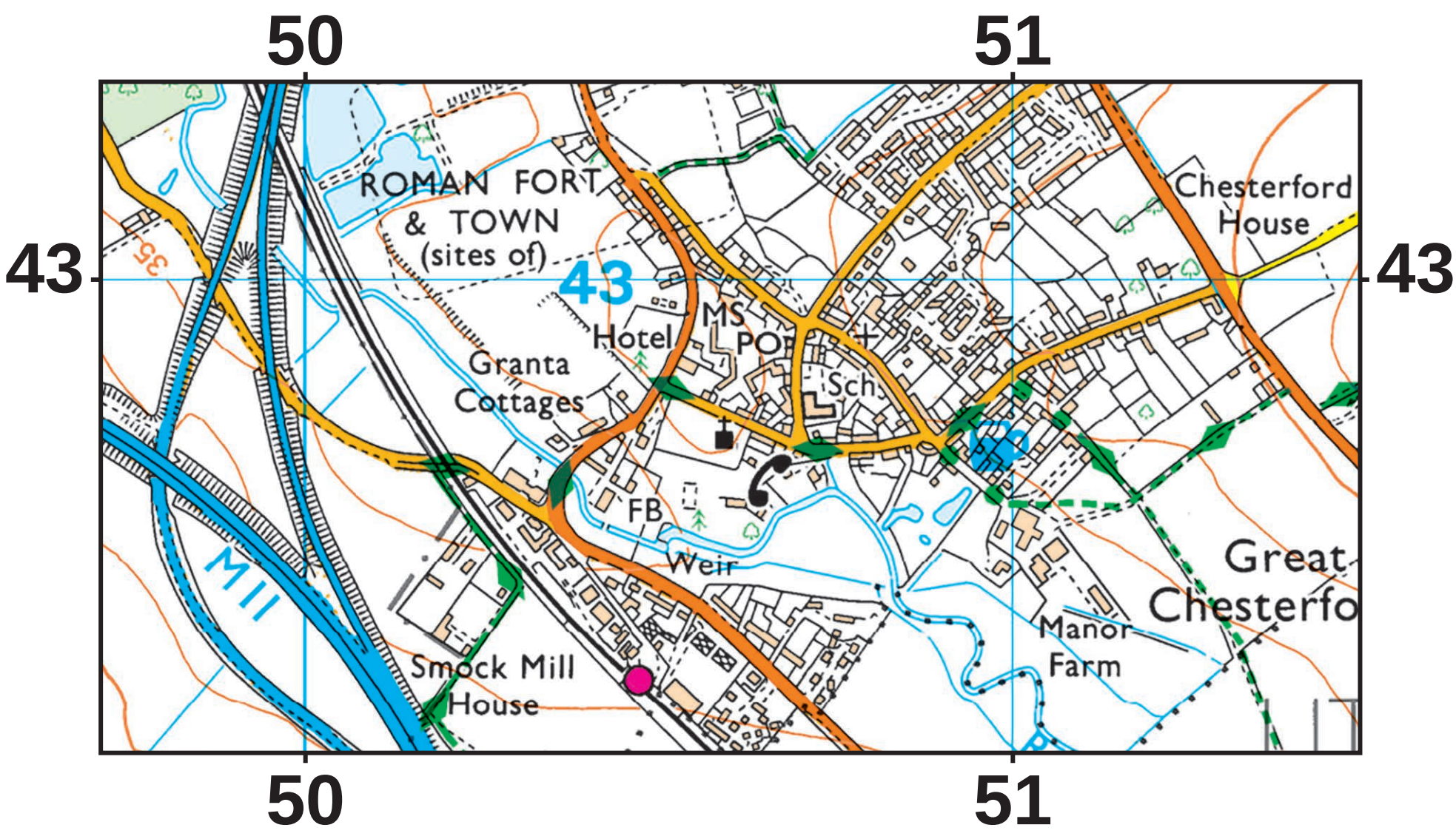


FIGURE 2 for use with Question 2

[Turn over]

FIGURE 3 for use with Question 3

BACKGROUND

The student was aware that several residents of the village where he lived felt that a housing development built in 2010 on the edge of the village had impacted on its place character in several ways. Social media posts on a local community forum suggested that residents felt this housing development had its own more 'urban' place character which was quite different to the rest of the village, and this may have changed the character of the village as a whole.

AIM

The student decided to investigate if the housing development had a different place character to the older part of the village and whether this had impacted on the character of the whole village.

THEORY

The character of a place refers to the physical and human features of a place that help to distinguish it from another place. Many factors can affect the character of a

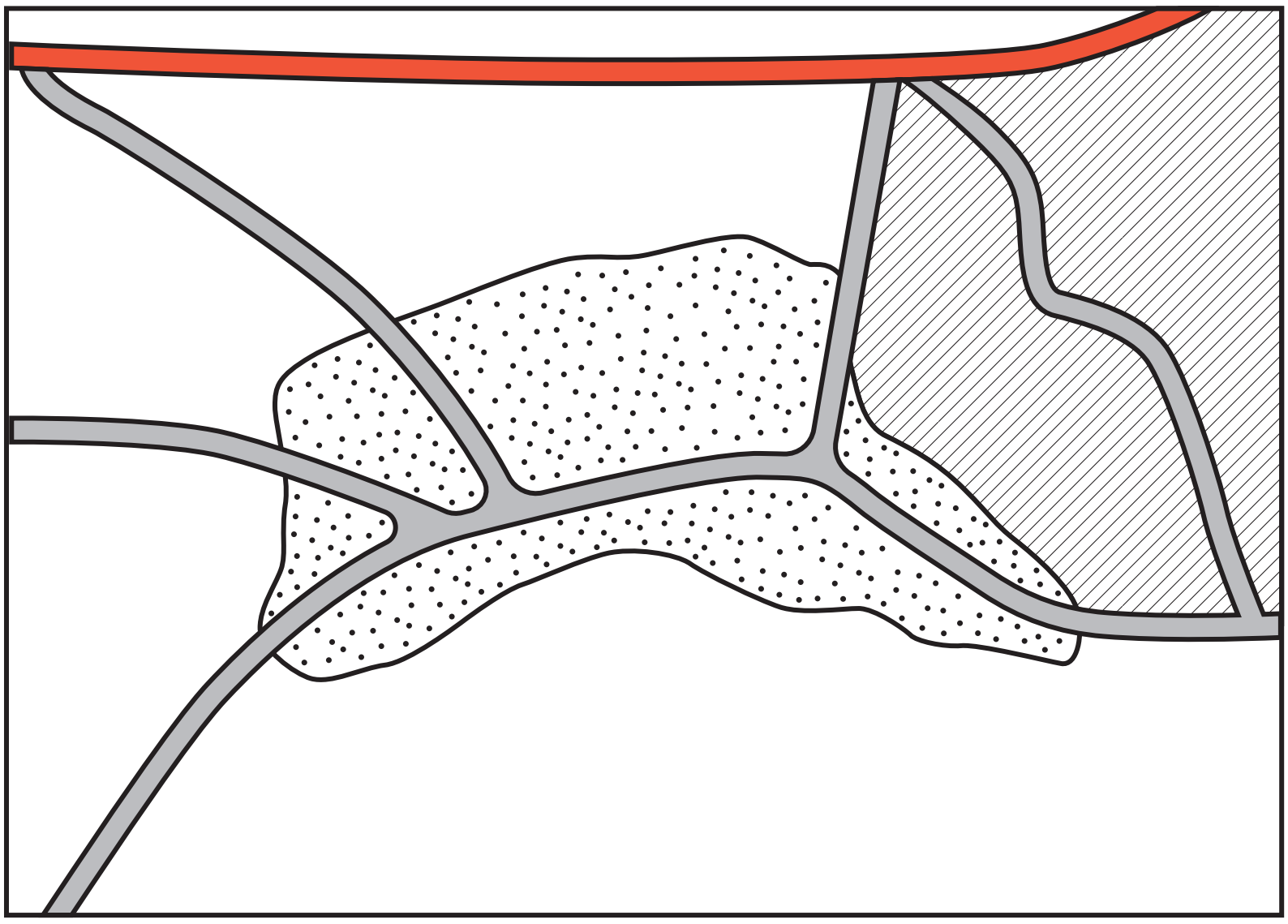
place such as physical geography, location, the built environment, infrastructure and also the demographic, economic and cultural characteristics of the area. Place character may also be influenced by links to other places.

The student's hypothesis for this investigation was:

'The place character of the 2010 housing development is significantly different to the rest of the village.'

[Turn over]

FIGURE 4 for use with Question 3



0 200 m

N

KEY

- Pre-2010 housing
- 2010 housing development
- Key road routes through village
- Main road to town
- Farmland

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FIGURE 5 for use with Question 3

	OLD VILLAGE		NEW ESTATE	
Year	Number of houses sold	Number of crimes reported	Number of houses sold	Number of crimes reported
2010	12	6	45	8
2011	4	10	10	9
2012	5	7	8	7
2013	4	4	7	10
2014	6	10	7	8
2015	3	15	4	5
2016	2	6	10	6
2017	10	5	6	7
2018	4	5	6	8
2019	3	4	8	6

SOURCES

HOUSES SOLD – accessed from a property website which uses the government's Land Registry to source information about houses sold.

CRIMES REPORTED – accessed from a police website which records all crimes reported in a local area.

[Turn over]

FIGURE 6 for use with Question 3

Plan for Primary Data Collection

METHOD TO COLLECT DATA ON PLACE CHARACTER

A survey tool was designed by the student. It included five key characteristics of place character with four words to describe possible aspects of each of these. At each site surveyed a decision would be made about which of the four words for each place characteristic is a ‘best fit’ based on the student’s observations.

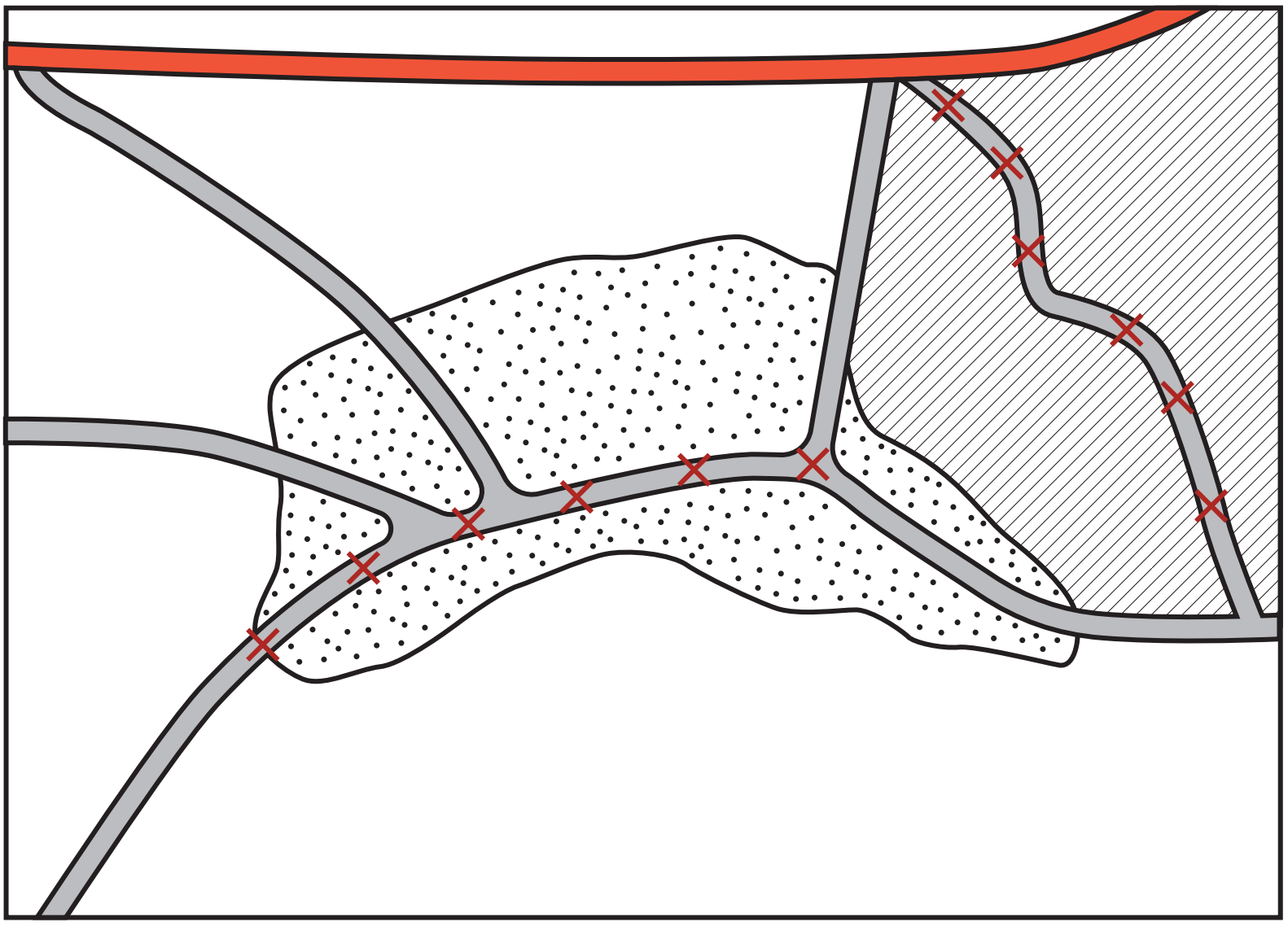
SAMPLING STRATEGY

The data collection sites will be situated 200 m apart along a line transect that follows the main access road through each of the areas of the village. Six sites would be surveyed for ‘place character’ in each area on one day in September.

RISK ASSESSMENT

The data collection will be done in daylight and a first-aid kit carried at all times in the event of slips and trips. A mobile phone will be carried in case of an emergency.

FIGURE 7 for use with Question 3



0 200 m

N

KEY

- Pre-2010 housing
- 2010 housing development
- Key road routes through village
- Main road to town
- Farmland
- Sampling point

[Turn over]

FIGURE 8 for use with Question 3

SITE 1
Circle the word in each category that best describes this place

CHARACTERISTIC		
Visual	monotonous	varied
Security	comfortable	safe
Tranquillity	peaceful	vacant
Pleasure	pleasant	attractive
Building form	varied	historical

CHARACTERISTIC	
striking	historical
unsettling	threatening
busy	noisy
beautiful	unpleasant
modern	similar

[Turn over]

FIGURE 9 for use with Question 4

BACKGROUND

The student was aware that several residents in the village where she lived believed that a new housing development built in 2020 on the edge of the village had impacted on how fast rainfall now drained into the local stream after a storm event. There had been some recent evidence of 'flash flooding' after summer storms where the amount of water in the stream had risen rapidly and flooded surrounding farmland.

AIM

The student decided to investigate whether the housing development might be linked to an increase in overland flow to the stream, which might help to explain why water levels in the stream are rising rapidly after storm events.

THEORY

Saturated soil or the impermeable surfaces of a housing development mean rainfall after a storm will flow over the surface (overland flow). This could mean the soil between the housing development and

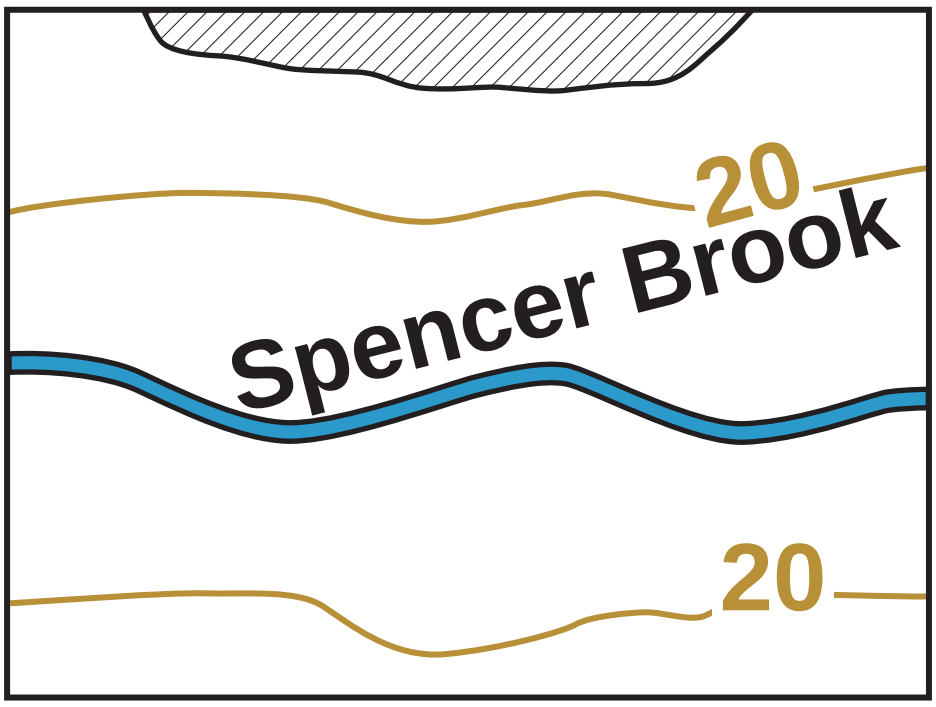
the stream is likely to become saturated after a storm event and increase the rate of overland flow south towards the stream. It may lead to rapid increases in volume of water moving in the stream (discharge).

The student's hypothesis for this investigation was:

'Rates of overland flow are higher on land to the north of the stream where new housing development has taken place.'

[Turn over]

FIGURE 10 for use with Question 4



0 100 m

N

KEY

New housing

20 20 m contour

Stream

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[Turn over]

FIGURE 11 for use with Question 4

	2019		2021	
Day	Rainfall (mm)	Discharge (cumecs)	Rainfall (mm)	Discharge (cumecs)
1	4.20	0.94	2.33	0.30
2	2.40	0.37	0.00	0.28
3	1.80	0.32	2.10	0.26
4	0.00	0.29	1.30	0.25
5	0.00	0.27	0.00	0.24
6	4.30	0.26	0.00	0.23
7	0.00	0.84	0.00	0.22
8	2.70	0.25	2.10	0.21
9	1.80	0.34	6.00	0.23
10	0.00	0.25	0.00	2.43

SOURCES

RAINFALL – accessed from a website publishing data collected from a weather station operated by an amateur weather enthusiast in the area local to Spencer Brook.

DISCHARGE – river flow data from a gauging station on Spencer Brook. The station sends live data on river discharge to the Environment Agency, which is checked and published on a government website.

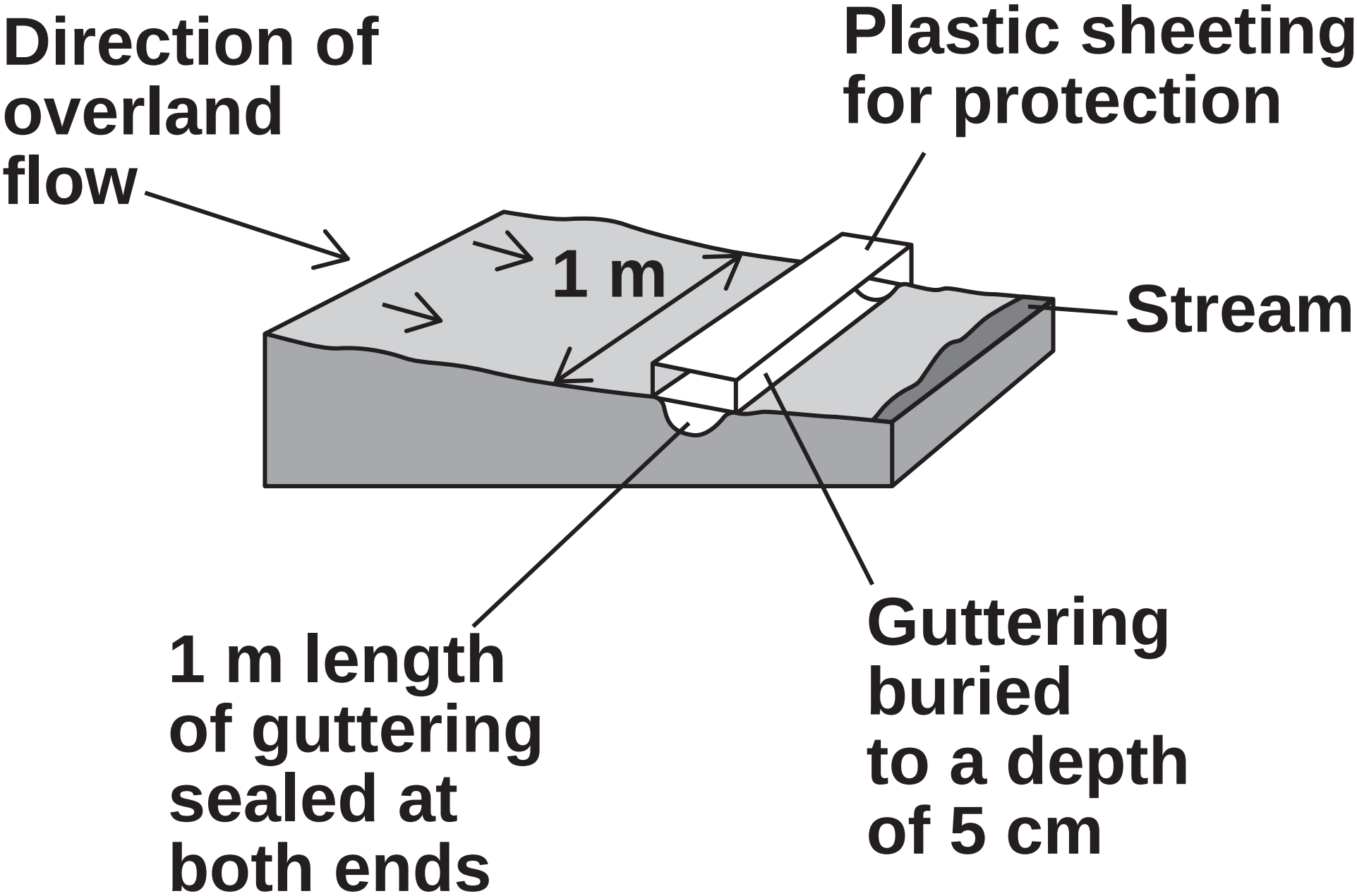
[Turn over]

FIGURE 12 for use with Question 4

Plan for Primary Data Collection

Method to collect overland flow samples

A one-metre-long length of guttering with both ends closed will be buried in the soil to a depth of 5 cm so the upper edge is parallel with the soil surface. A small plastic roof will be erected over the guttering to avoid direct precipitation into the gutter. Water levels will be measured after a significant storm event.



SAMPLING STRATEGY

The data collection sites will be situated 100 m apart along a line transect that approximately follows the 20 m contour line above the river. Six sites would be constructed either side of the river. The amount of run-off will be measured 2 hours after a significant rainfall event on one day in September.

RISK ASSESSMENT

The data collection will be done in daylight and a first-aid kit carried at all times in the event of slips and trips. A mobile phone will be carried in case of an emergency.

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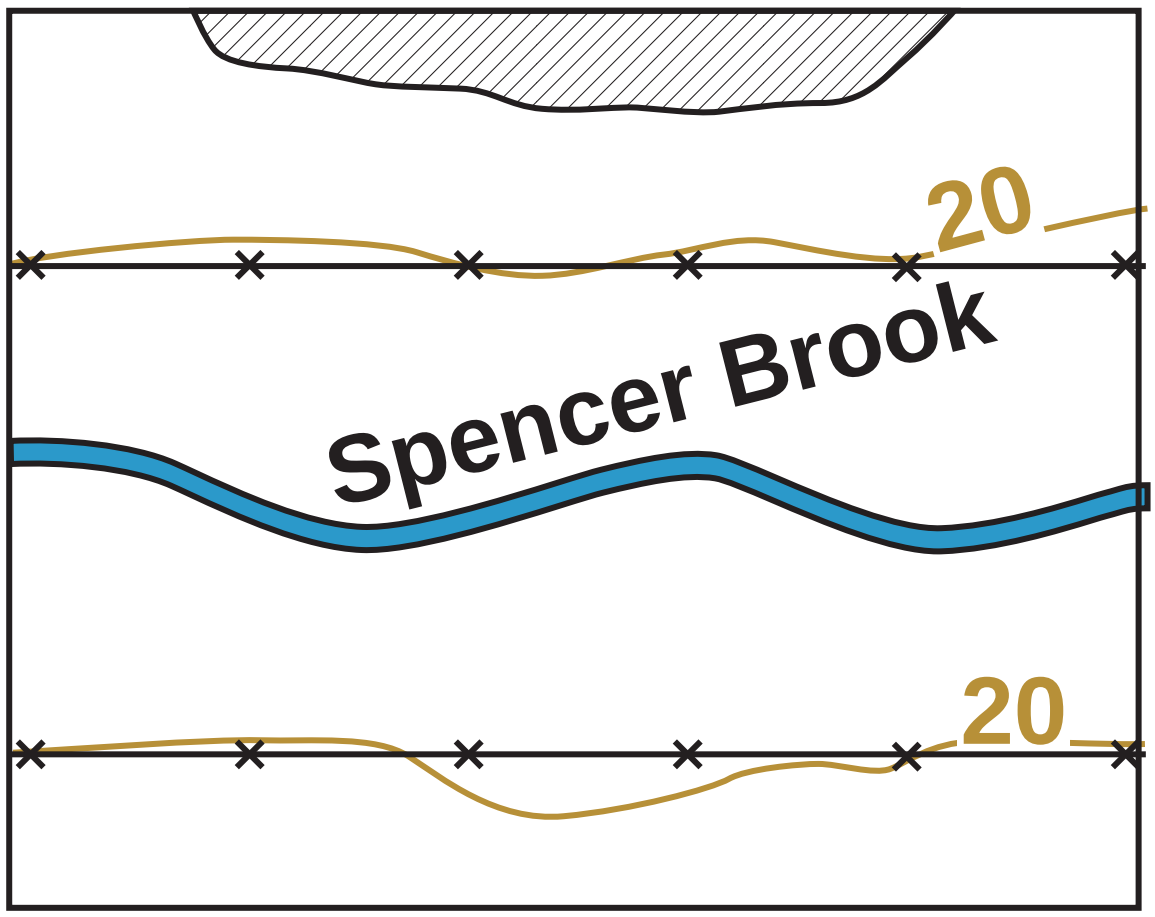
FIGURE 13 for use with Question 4



KEY

New housing

20 m contour

Stream

Sampling point

END OF FIGURES

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