



Housing Health and Safety Rating System (HHSRS)

Case Studies

Group A
Protection Against
Accidents

Hazard A2
Falling on
Stairs etc.

Example A2.4
Pre-1920
Mid-terrace House
(Non-HMO)

Vulnerable Group
All persons aged
60 years and over

Multiple Locations
No

Related Hazards
No



Dwelling

Description

This property is a pre-1920, three-bedroomed mid-terraced house. It is in reasonable repair for its age. There are no leaks from the gutters or downpipes. There is no electrical inspection report, the energy performance certificate (EPC) is E, and battery powered smoke alarms have been provided in suitable locations.

The front door is straight off the pavement. There is a shallow step from the back door into a small, well-lit back yard. The house does not have a cellar, and the only toilet is in the upstairs bathroom.



1

Front view of property

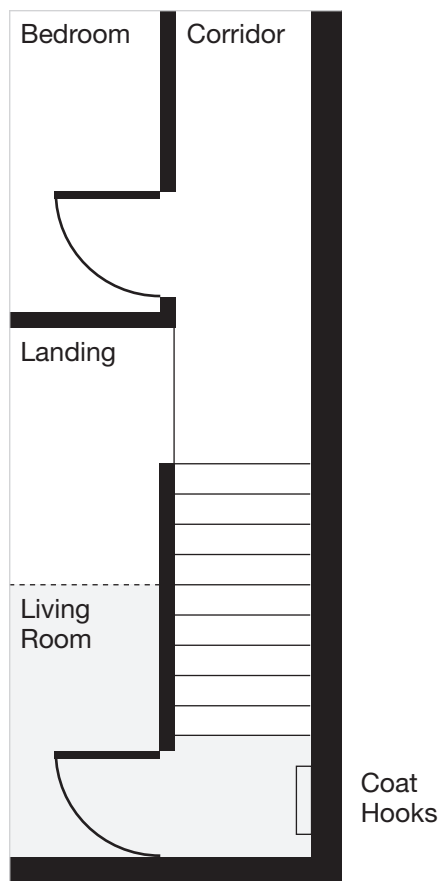
Deficiencies

Description

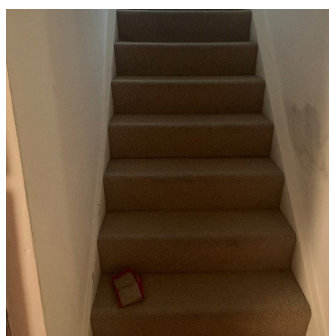
The straight flight of 13 steps has a pitch of 51 degrees, having risers of 250mm and treads 220mm deep. This flight leads from the ground-floor front room to the first-floor corridor, serving both the bathroom and third bedroom to the rear of the house .

The top landing that leads to the two main bedrooms is one further step up from the aforementioned corridor. There are no handrails to either side of the main flight of stairs. A set of coat hooks is positioned at the bottom of the stairs on the side wall.

The stairs and landing do not have any direct natural lighting, but a two-way light switch to the stairs, top and bottom, is sited in a convenient location. The carpet is loose on the first and second steps up from the bottom.



2
Partial floorplan showing
staircase



3
Staircase with no handrail



4
Loose carpet on staircase

Relevant Baseline Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject	Score	BI	Baseline Indicators
9 External Space	0 1 2 3	9.1	External yards, paths, steps, accessways and surrounds within the curtilage of the dwelling shall be in good repair, even and well drained. Accessways must be suitable non-slip surfaces, have adequate lighting and should not have slopes of sufficient gradient to present a falls risk. This includes consideration to unevenness, trip risks and poor slip resistance, to any steps or surfaces within external space that is provided, to the front door, yard and garden. Where there are drops of more than 300mm from paths, patios, steps, terraces or garden areas guarding will be necessary where there are high risks of falling. All boundaries should be clearly defined and enclosed by well-maintained and suitable walls or fences. This also applies to structure, accessways, security doors and lifts.
12 Walking Surfaces	0 1 2 3	12.1	Every interior and exterior stairway, ramp, deck, porch, balcony walkway, terrace, landing and hall shall be maintained structurally sound, in good repair, properly anchored and capable of supporting the imposed loads.
	0 1 2 3	12.2	Internal and external stairs must be safe, secure, in sound condition, free from defects and projections and well maintained. External stairs must be designed to allow water to drain away from the steps.
	0 1 2 3	12.3	Stair coverings must be securely and safely fastened. Treads on exterior stairways shall have non-slip surfaces, be firmly fixed and cover at least 75% of each tread.
	0 1 2 3	12.4	Every interior and exterior stairway with four or more risers shall have at least one structurally sound continuous handrail installed, between 900mm and 1000mm high, measured from the pitch line to the top of the handrail. The handrail shall be firmly fastened, capable of supporting a load of 140kg and in good condition.
	0 1 2 3	12.5	Minimum headroom on a staircase shall be 1900mm.
	0 1 2 3	12.6	There shall be landings at the top and bottom of all internal and external flights of stairs, with a minimum width of 750mm and length of 500mm.
14 Lighting and Services	0 1 2 3	14.2	Every hall, stairs and landing within the house, and every room used, or intended for use, by the occupant of the house shall have a suitable and adequate means of artificial lighting that is controllable and accessible which can allow lighting to be turned on and off and bulbs/fixtures to be changed and maintained safely. Two-way or PIR-activated lighting shall be provided to any internal staircase.

Other Relevant Matters

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Score					Matters affecting Likelihood of Harm
0	1	2	3		Tread lengths
0	1	2	3		Riser heights
0	1	2	3		Tread and riser variation
0	1	2	3		Nosing length
0	1	2	3		Nosing differentiation
0	1	2	3		Handrails
0	1	2	3		Handrail grip
0	1	2	3		Guarding
0	1	2	3		Flight length
0	1	2	3		Lighting
0	1	2	3		Doors onto stairs

Score					Matters affecting Harm Outcomes
0	1	2	3		Flight length
0	1	2	3		Stair pitch
0	1	2	3		Projections
0	1	2	3		Surface hardness

Likelihood of Harm

Scale Points

Likelihood of harm from this hazard over the next twelve months

Very Likely	1 in 1	
	1 in 2	
	1 in 3	
	1 in 5	
Likely	1 in 10	
	1 in 20	
	1 in 30	
Example Dwelling	1 in 50	
Unlikely	1 in 100	
	National Average	1 in 200
		1 in 300
		1 in 500
Very Unlikely	1 in 1,000	
	1 in 2,000	
	1 in 3,000	
	1 in 5,000	

Score

1 in 50

Justification of Scoring

Likelihood of Harm

The steep 51 degree pitch of the stairs, loose carpeting and lack of natural lighting increase the risk of slips, trips and missteps, particularly when descending the stairs. Absence of a handrail on either side substantially increases the risk for any misstep to result in a fall that requires medical intervention, particularly for someone in the vulnerable age group.

Harm Outcomes

Extreme		Severe		Serious		Moderate		
Death, permanent paralysis, etc.		Heart attack, serious fractures, etc.		Chronic stress, severe concussion, etc.		Broken fingers, moderate cuts, etc.		
Very Likely	50.0	Very Likely	50.0	Very Likely	50.0	Example Dwelling	48.0	
	30.0		30.0		Example Dwelling		30.0	
	20.0	Example Dwelling	20.0	National Average	20.0	National Average	68.0	
Likely	10.0	National Average	10.0		10.0		These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100%	
	5.0		5.0	5.0				
Example Dwelling + National Average	2.0		2.0	2.0				
	1.0		Unlikely	Unlikely	1.0			
	0.5				0.5			
	0.2		0.2		0.2			
	0.1	Very Unlikely	0.1	Very Unlikely	0.1			
0.0	0.0		0.0					
Score		Score		Score			Score	
2.0%		20.0%		30.0%			48.0%	

Justification of Scoring

Harm Outcomes

The steep pitch of the staircase could result in a longer fall before a person can steady themselves. Falls that continue to the bottom of the stairs could cause the person to collide with the solid wall opposite the foot of the stairs due to the lack of space, increasing the risk of severe concussion or broken bones when compared to falling onto an open area of flooring. Serious and severe harm outcomes have been increased to reflect this with a corresponding reduction in moderate harm.

Safety Ratings

Scenario 1
As described in this document

Key

Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Medium	1,000
	Low	100

Likelihood of Harm 1 in 50		
Extreme 2.0%	Severe 20.0%	Serious 30.0%
		Moderate 48.0%
Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Example Dwelling Medium	990
	National Average Low	183 100

Score
990

Scenario 2

After works meeting baseline indicators

Likelihood of Harm
1 in 200

Extreme 2.0%	Severe 10.0%	Serious 30.0%	Moderate 58.0%
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Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Medium	1,000
	Example	198
	National Average	183
	Low	100

Score
183

Justification of Scoring

After works meeting baseline indicators

The BIs would require the loose stair carpet to be secured and a handrail mounted at a height of between 900mm and 1000mm above the stairs, capable of supporting a load of 140kg. The pitch of the stairs remains steep, with a facing wall at the bottom, therefore the likelihood of harm remains slightly higher than the national average for this age and type of property.

Scenario 3

After further improvements

Likelihood of Harm

Extreme	Severe	Serious	Moderate
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Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Medium	1,000
	Low	100

Score

Justification of Scoring

After further improvements

No further works are required.

Other Relevant Legislation and Guidance

Updates

Matters for consideration listed in this section were correct at the time of publication. For the most up-to-date legislation and guidance in these areas, please visit the [gov.uk](https://www.gov.uk) website.