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MANCHESTER

Human response to vibration in residential environments (NANR209), technical report 2: measurement of response

Condie, JM, Steele, A, Whittle, N, Brown, P and Waddington, DC

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Social Survey Questionnaire

Introduction

My name is [] and I work for the University of Salford [show badge]. We are conducting a neighbourhood satisfaction survey on behalf of the Department for the Environment, Food and Rural Affairs and would really like to get your views. It should take no more than 25 minutes. Is that okay?

Before I start, can I just ask how long you have been living in this home?

[If the answer is less than 9 months, say: “Unfortunately we need to talk to people who have been here for more than 9 months. Thank you for your time.”]

[If the respondent answers that they do not have the time, ask: “Is there a better time for you?” If this is not possible ask: “Do you have a few minutes for me to just ask some brief questions?” If yes, complete the non-response sheet.]

Throughout the questionnaire we want to know your personal views and opinions rather than the opinions of other people you might live with. I will be writing down your answers but the information will be completely anonymous.

If there are any questions you don't want to answer, just let me know and if you're not happy, I'll move on to the next question

Full Address: _____

Postcode: _____

Telephone **[record at end]**: _____

Date of Interview: _____

Start time: _____ End time: _____

Complete after survey has been administered

I declare that this is a true record of an interview for this survey.

Interviewer name: _____

Signature: _____

Case study number: _____

Site Name/Number: _____

Proximity to Source: _____

SECTION A: Dwelling Information

This section is to be completed by the interviewer (not with respondent).

A1. In which of the following is the property situated?

- | | |
|-----------------------------------|--------------------------|
| Centre of a large city | <input type="checkbox"/> |
| Suburbs/Outskirts of a large city | <input type="checkbox"/> |
| Large town or small city | <input type="checkbox"/> |
| Small town | <input type="checkbox"/> |
| Village | <input type="checkbox"/> |
| Countryside | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

[If 'Other' record below]

A2a. What type of dwelling is the property?

- | | | |
|-----------------------------|--------------------------|--------------------|
| Detached | <input type="checkbox"/> | [Go to A3] |
| Semi-detached | <input type="checkbox"/> | [Go to A3] |
| Terraced | <input type="checkbox"/> | [Go to A3] |
| End terrace | <input type="checkbox"/> | [Go to A3] |
| Maisonette | <input type="checkbox"/> | [Go to A3] |
| Apartment/Flat | <input type="checkbox"/> | [Go to A2b] |
| Bedsit | <input type="checkbox"/> | [Go to A2b] |
| Mobile home/Caravan | <input type="checkbox"/> | [Go to A5] |
| Other [record below] | <input type="checkbox"/> | [Go to A3] |
-

A2b. Is the property:

- | | |
|---------------|--------------------------|
| Purpose built | <input type="checkbox"/> |
| Conversion | <input type="checkbox"/> |

[Go to A4]

A3. If the property is detached, semi-detached, terraced (including end terrace) or maisonette, how many storeys does it have?

[Record number] _____

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A4. If the property is an apartment, flat, bedsit or maisonette.

(a) On which floor is the entrance to the property?

[i.e. entrance to individual property, not the building in which it is located]

[Record floor number] _____

[G = ground floor, B = below ground]

How many floors are there in the whole building? _____

(b) Does the living space include the top floor of the building (i.e. directly below the roof or loft space)?

Yes

No

A5. In what type of residential area is the property located?

Residential/housing estate only (i.e. no commercial/industrial buildings)

Residential/housing estate with some commercial buildings (shops, offices etc.)

Residential/housing estate with some industrial facilities (factories) nearby

Primarily a commercial area with some residential (e.g. city centres)

Primarily an industrial area with some residential

Mixed residential/countryside

Mostly countryside

Other **[record below]**

SECTION B: Neighbourhood Satisfaction

This first set of questions is about this neighbourhood and how satisfied you are with it. We will talk about satisfaction with this home later on in the survey.

B1. To begin with we'd like to know what first attracted you to live in this neighbourhood. Was it because you:

| | Yes | No |
|----------------------------------------|--------------------------|--------------------------|
| Were born in this neighbourhood | <input type="checkbox"/> | <input type="checkbox"/> |
| Liked the neighbourhood | <input type="checkbox"/> | <input type="checkbox"/> |
| Wanted to be nearer family/friends | <input type="checkbox"/> | <input type="checkbox"/> |
| Wanted to be nearer to work | <input type="checkbox"/> | <input type="checkbox"/> |
| Wanted to be nearer your own community | <input type="checkbox"/> | <input type="checkbox"/> |
| Did not have a choice | <input type="checkbox"/> | <input type="checkbox"/> |
| Were there any other reasons? | <input type="checkbox"/> | <input type="checkbox"/> |

[If 'yes' to other reasons, ask: "What were the other reasons?" and record below]

[If respondent answers that they did not have a choice, route to B2; if not, route to B3]

B2. Do you mind telling me why you did not have a choice?

[Record below]

B3. When did you move into this neighbourhood?

Month _____ Year _____

[If respondent only states the year, ask: "Do you remember what month it was?"]

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B4. Looking at this card [**show card 1**], overall, how satisfied or dissatisfied are you personally with living in this neighbourhood? Would you say that you are very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied or very dissatisfied?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

B5. In giving this rating, are there particular aspects of this neighbourhood that you are thinking of?

[Record below]

Code if respondent mentions

- N**
- V**

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B6. Looking at this card [show card 2], how would you personally rate this neighbourhood on [insert neighbourhood characteristic]? Would you say that it is very good, good, neither good nor poor, poor or very poor?

| Aspect | Very good | Good | Neither good nor poor | Poor | Very poor | Don't know |
|---------------------------------------------|-----------|------|-----------------------|------|-----------|------------|
| Standard of schools | | | | | | |
| Childcare facilities | | | | | | |
| Public transport | | | | | | |
| Closeness to shops | | | | | | |
| Standard of health care services | | | | | | |
| Upkeep of roads | | | | | | |
| Parking facilities | | | | | | |
| Leisure facilities | | | | | | |
| How peaceful it is | | | | | | |
| How quiet it is | | | | | | |
| Standard of the parks and other open spaces | | | | | | |
| Closeness to place of worship | | | | | | |
| Reputation of neighbourhood | | | | | | |
| Appearance of buildings | | | | | | |

B7. Is there anything else that you personally particularly like about this neighbourhood?

[Record below]

[Prompt: "Why do you like this?"]

| | |
|------------------------------------|--------------------------|
| Code if respondent mentions | |
| N | <input type="checkbox"/> |
| V | <input type="checkbox"/> |

B8. Is there anything else that you personally particularly dislike about this neighbourhood?

[Record below]

[Prompt: "Why do you dislike this?"]

| | |
|------------------------------------|--------------------------|
| Code if respondent mentions | |
| N | <input type="checkbox"/> |
| V | <input type="checkbox"/> |

SECTION C: Satisfaction with Home

The next set of questions is about how satisfied you are with this home, where we are now, rather than this neighbourhood as a whole.

C1. Can you tell me why you first moved to this home here?

[Record below]

Code if respondent mentions

N

V

C2. Looking at this card **[show card 1]**, overall, how satisfied or dissatisfied are you personally with living in this home? Would you say that you are very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied or very dissatisfied?

Very satisfied

Satisfied

Neither satisfied nor dissatisfied

Dissatisfied

Very dissatisfied

C3. In giving this rating, are there any particular things that you are thinking about?

[Record below]

Code if respondent mentions

N

V

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C4. Is there anything else that you personally particularly like about living in this home?

[Record below]

[Prompt: “Why do you like this?”]

| Code if respondent mentions | |
|-----------------------------|--------------------------|
| N | <input type="checkbox"/> |
| V | <input type="checkbox"/> |

C5. Is there anything else that you personally particularly dislike about living in this home?

[Record below]

[Prompt: “Why do you dislike this?”]

| Code if respondent mentions | |
|-----------------------------|--------------------------|
| N | <input type="checkbox"/> |
| V | <input type="checkbox"/> |

C6. Can I just check again, when did you move into this home?

Month_____ Year_____

[If respondent only states the year, ask: “Do you remember what month it was?”]

C7. Do you want to move home?

- Yes **[Go to C8]**
No **[Go to C9]**
Don't know **[Go to C9]**

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C8. Why do you want to move?

[Record below]

| Code if respondent mentions | |
|-----------------------------|--------------------------|
| N | <input type="checkbox"/> |
| V | <input type="checkbox"/> |

C9. Looking at this list **[show card 3]**, which best describes your current situation with this home?

Do you or your family:

- | | |
|---------------------------------------------|--------------------------|
| Own outright or with a mortgage | <input type="checkbox"/> |
| Part-rent and part-own with a mortgage | <input type="checkbox"/> |
| Rent from a private landlord/letting agency | <input type="checkbox"/> |
| Rent from a Housing Association or Council | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

[If stating 'other' ask: "Can you tell me what that is?"]

[Record below]

C10. What kind of windows do you have here? Is it:

- | | None | Some | All |
|-------------------|--------------------------|--------------------------|--------------------------|
| Single glazing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Double glazing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Secondary glazing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Triple glazing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[If stating 'other' ask: "Can you tell me what kind they are?"]

[Record below]

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C11. [If property is a house or ground floor flat] Do you have a cellar or basement?

Yes

No

[If yes ask]

| | Yes | No |
|--------------------------------|--------------------------|--------------------------|
| Is it used as a living space? | <input type="checkbox"/> | <input type="checkbox"/> |
| Is it used as a working space? | <input type="checkbox"/> | <input type="checkbox"/> |
| Is it used for storage? | <input type="checkbox"/> | <input type="checkbox"/> |

C12. From any room in this home, can you see:

| | Yes | No |
|------------------------------------------------|--------------------------|--------------------------|
| A motorway or any motorway traffic | <input type="checkbox"/> | <input type="checkbox"/> |
| A dual carriageway road or traffic on one | <input type="checkbox"/> | <input type="checkbox"/> |
| A residential or estate road or traffic on one | <input type="checkbox"/> | <input type="checkbox"/> |
| A town or city road or traffic on one | <input type="checkbox"/> | <input type="checkbox"/> |
| A country lane or traffic on one | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other type of road | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to 'any other type of road' ask: "Can you tell me what type it is?"]

[Record below]

| | | |
|----------------------------------------------|--------------------------|--------------------------|
| A railway track or any type of passing train | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction activity | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION D: Vibration Questions

One of the things that we are interested in in this questionnaire is the impact of vibration and noise from sources both outside and inside this home. The next set of questions is about any vibration or shaking you personally experience whilst in this home. This includes vibration that you think may be caused by noise, but I will ask about the noise itself later on.

D1. Thinking about the last 12 months or so, when indoors at home, have you felt any vibration or shaking anywhere that you think was caused by:

| | Yes | No |
|-------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Cars, lorries, buses and other road vehicles | <input type="checkbox"/> | <input type="checkbox"/> |
| Aeroplanes | <input type="checkbox"/> | <input type="checkbox"/> |
| Helicopters | <input type="checkbox"/> | <input type="checkbox"/> |
| The railway, including passenger trains, freight trains, track maintenance or any other activity from the railway | <input type="checkbox"/> | <input type="checkbox"/> |
| Underground trains like the tube or metro | <input type="checkbox"/> | <input type="checkbox"/> |
| Trains in tunnels | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction activity, including building, demolition and road works | <input type="checkbox"/> | <input type="checkbox"/> |
| Quarrying or mining | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances inside this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | <input type="checkbox"/> | <input type="checkbox"/> |
| An unidentified source | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other source | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to ‘any other source’ ask: “Can you tell me what the source is?”]

[Record below]

[If the respondent has answered ‘yes’ to any above, route to D2; if not, route to D5]

D2. When you have felt vibration, have you felt it:

| | Yes | No |
|----------------------------------------------------|--------------------------|--------------------------|
| From the floor | <input type="checkbox"/> | <input type="checkbox"/> |
| When you have been sitting on a chair | <input type="checkbox"/> | <input type="checkbox"/> |
| When you have been lying on a bed | <input type="checkbox"/> | <input type="checkbox"/> |
| When you have touched any surfaces with your hands | <input type="checkbox"/> | <input type="checkbox"/> |
| From any other surfaces in this home | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to ‘any other surfaces’ ask: “Where else have you felt it?”]

[Record below]

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D3. Can you tell me where in this home you have felt the vibration or shaking, starting with where you have felt it the most?

[Record room and floor below. If unsure, ask: “On which floor is that?” after the response]

| | Room | Floor |
|----|-------|-------|
| 1. | _____ | _____ |
| 2. | _____ | _____ |
| 3. | _____ | _____ |
| 4. | _____ | _____ |

D4. Has feeling vibration or shaking of the floor, chair, bed or other surfaces bothered, annoyed or disturbed you personally when you have been:

| | Yes | No |
|-----------------------------------------------------------------------------------|--------------------------|--------------------------|
| Watching the television | <input type="checkbox"/> | <input type="checkbox"/> |
| Listening to the radio or music | <input type="checkbox"/> | <input type="checkbox"/> |
| Talking to someone in person or on the telephone | <input type="checkbox"/> | <input type="checkbox"/> |
| Reading or doing any other quiet activities | <input type="checkbox"/> | <input type="checkbox"/> |
| Writing, drawing, painting or doing any other activity requiring a steady surface | <input type="checkbox"/> | <input type="checkbox"/> |
| Resting | <input type="checkbox"/> | <input type="checkbox"/> |
| Sleeping | <input type="checkbox"/> | <input type="checkbox"/> |
| Using any rooms in this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Doing anything else | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to ‘doing anything else’ ask: “Can you tell me what that was?”]

[Record below]

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We'd now like to find out if you have heard or seen anything rattle, vibrate or shake in this home over the last 12 months or so.

D5. Thinking about the last 12 months or so, when indoors at home, have you heard or seen things rattle, vibrate or shake that you think was caused by:

| | Yes | No |
|-------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Cars, lorries, buses and other road vehicles | <input type="checkbox"/> | <input type="checkbox"/> |
| Aeroplanes | <input type="checkbox"/> | <input type="checkbox"/> |
| Helicopters | <input type="checkbox"/> | <input type="checkbox"/> |
| The railway, including passenger trains, freight trains, track maintenance or any other activity from the railway | <input type="checkbox"/> | <input type="checkbox"/> |
| Underground trains like the tube or metro | <input type="checkbox"/> | <input type="checkbox"/> |
| Trains in tunnels | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction activity, including building, demolition and road works | <input type="checkbox"/> | <input type="checkbox"/> |
| Quarrying or mining | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances inside this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | <input type="checkbox"/> | <input type="checkbox"/> |
| An unidentified source | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other source | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to 'any other source' ask: "Can you tell me what the source is?"]

[Record below]

[If the respondent has answered 'no' to all above, route to D9]

D6. Have you personally ever heard or seen any rattling, vibrating or shaking of:

| | Yes | No |
|-----------------------------------------------------|--------------------------|--------------------------|
| The windows | <input type="checkbox"/> | <input type="checkbox"/> |
| The doors | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other part of this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Crockery, like plates, or glasses in your cupboards | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other objects in this home | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to 'any other part of this home' or 'any other objects in this home' ask: "What other things have you heard or seen rattle, vibrate or shake in this home?"]

[Record below]

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D7. Can you tell me where in this home you have heard or seen things rattle, vibrate or shake, starting with where you have heard or seen it the most?

[Record room and floor below. If unsure ask: “On which floor is that?” after the response]

| | Room | Floor |
|----|-------|-------|
| 1. | _____ | _____ |
| 2. | _____ | _____ |
| 3. | _____ | _____ |
| 4. | _____ | _____ |

D8. Has hearing or seeing things rattle, vibrate or shake bothered, annoyed or disturbed you when you have been:

| | Yes | No |
|-----------------------------------------------------------------------------------|--------------------------|--------------------------|
| Watching the television | <input type="checkbox"/> | <input type="checkbox"/> |
| Listening to the radio or music | <input type="checkbox"/> | <input type="checkbox"/> |
| Talking to someone in person or on the telephone | <input type="checkbox"/> | <input type="checkbox"/> |
| Reading or doing any other quiet activities | <input type="checkbox"/> | <input type="checkbox"/> |
| Writing, drawing, painting or doing any other activity requiring a steady surface | <input type="checkbox"/> | <input type="checkbox"/> |
| Resting | <input type="checkbox"/> | <input type="checkbox"/> |
| Sleeping | <input type="checkbox"/> | <input type="checkbox"/> |
| Using any rooms in this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Doing anything else | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to ‘doing anything else’ ask: “Can you tell me what that was?”]

[Record below]

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[If the respondent has not identified that they feel vibration or hear or see any effects of it, go to E1]

D9. Thinking about the last 12 months or so, when indoors at home, how bothered, annoyed or disturbed have you been by feeling vibration or shaking or hearing or seeing things rattle, vibrate or shake caused by **[insert source identified in D1 and D5]**? Would you say not at all, slightly, moderately, very or extremely?

[Show card 4]

[Repeat question for all sources identified at D1 and/or D5]

[For sources not noticed at D1 and D5, record as ‘Don’t notice’]

| Source | Don't notice | Not at all | Slightly | Moderately | Very | Extremely |
|-------------------------------------------------------------------------------------------------------------------|--------------|------------|----------|------------|------|-----------|
| Cars, lorries, buses or other road vehicles | | | | | | |
| Aeroplanes | | | | | | |
| Helicopters | | | | | | |
| The railway, including passenger trains, freight trains, track maintenance or any other activity from the railway | | | | | | |
| Underground trains (i.e. tube or metro) | | | | | | |
| Trains in tunnels | | | | | | |
| Construction activity, including building, demolition and road works | | | | | | |
| Quarrying or mining | | | | | | |
| Footsteps, slamming doors, domestic appliances inside this home | | | | | | |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | | | | | | |
| Unidentified source/don't know | | | | | | |
| Other things [record below] | | | | | | |
| _____ | | | | | | |
| _____ | | | | | | |

[If respondent is bothered, annoyed or disturbed, mark Section F (Yellow section) as a reminder to complete this section]

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Next is a 0–10 opinion scale for how bothered, annoyed or disturbed you were when you felt or feel vibration here at home [show card 5]. If you are not at all annoyed choose 0, if you are extremely annoyed choose 10; if you are somewhere in between, choose a number between 1 and 10.

D10. Thinking about the last 12 months or so, when indoors at home, what number from 0 to 10 best shows how bothered, annoyed or disturbed you have been by feeling vibration or shaking or hearing or seeing things rattle, vibrate or shake caused by [insert source identified at D1 and/or D5]?

[Repeat question for all sources identified at D1 and/or D5]

[For sources not noticed at D1 and D5, record as 'Don't notice']

| Source | Don't notice | Not at all | | | | | | | | | | | Extremely | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------|--------------|------------|---|---|---|---|---|---|---|---|---|----|-----------|---|---|---|---|---|---|---|---|---|----|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Cars, lorries, buses or other road vehicles | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Aeroplanes | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Helicopters | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| The railway, including passenger trains, freight trains, track maintenance or any other activity from the railway | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Trains in tunnels | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Underground trains (i.e. tube or metro) | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Construction activity, including building, demolition and road works | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Quarrying or mining | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Footsteps, slamming doors, domestic appliances inside this home | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Footsteps, slamming doors, domestic appliances from neighbouring homes | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Unidentified source/don't know | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Other things [record below] | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

D11. In the future, do you think the level of vibration you experience whilst indoors at home will get worse, get better or remain the same?

Worse Better Same

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D12. Can I ask why you think that?

[Record below]

D13. We would like to know if you are concerned that the vibration may damage this home or your possessions inside it in any way. **[Show card 4]**

Are you not at all concerned, slightly concerned, moderately concerned, very concerned or extremely concerned?

- | | | |
|------------------|--------------------------|--------------------|
| No - Not at all | <input type="checkbox"/> | [Go to D15] |
| Yes - Slightly | <input type="checkbox"/> | [Go to D14] |
| Yes - Moderately | <input type="checkbox"/> | [Go to D14] |
| Yes - Very | <input type="checkbox"/> | [Go to D14] |
| Yes - Extremely | <input type="checkbox"/> | [Go to D14] |

D14. Are you concerned about damage to:

| | Yes | No |
|-----------------------------------|--------------------------|--------------------------|
| The way this home looks | <input type="checkbox"/> | <input type="checkbox"/> |
| The structure of this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Your possessions inside this home | <input type="checkbox"/> | <input type="checkbox"/> |
| The value of this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Anything else | <input type="checkbox"/> | <input type="checkbox"/> |

[If 'yes' to 'Anything else' ask: "What other things?"]

[Record below]

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D15. How sensitive would you say you are personally to vibration in general? Would you say you are not at all sensitive, slightly sensitive, moderately sensitive, very sensitive or extremely sensitive?

[Show card 4]

- | | |
|------------|--------------------------|
| Not at all | <input type="checkbox"/> |
| Slightly | <input type="checkbox"/> |
| Moderately | <input type="checkbox"/> |
| Very | <input type="checkbox"/> |
| Extremely | <input type="checkbox"/> |

D16. Looking at this scale **[show card 6]** and given all that you have said, over the last 12 months or so, how acceptable have you found the level of vibration you have experienced in this home. Would you say it has been very acceptable, acceptable, neither acceptable nor unacceptable, unacceptable or very unacceptable?

- | | |
|-------------------------------------|--------------------------|
| Very acceptable | <input type="checkbox"/> |
| Acceptable | <input type="checkbox"/> |
| Neither acceptable nor unacceptable | <input type="checkbox"/> |
| Unacceptable | <input type="checkbox"/> |
| Very unacceptable | <input type="checkbox"/> |

SECTION E: Noise Questions

Moving on from any vibration or shaking you may experience when in this home, the following set of questions is about noise you may hear whilst inside this home. We have already talked about the noise of things rattling or shaking in this home which might be caused by vibration, so now we just want to know about the actual noise from the sources. For example, when we say the noise of cars, lorries and other road vehicles, we don't want to know about the noise of the windows shaking when they pass, but the noise of things like the engines, brakes, doors slamming and things like that. Is that okay?

E1. Thinking about the last 12 months or so, when indoors at home, have you heard any noise that you think was caused by:

| | Yes | No |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Cars, lorries, buses and other road vehicles | <input type="checkbox"/> | <input type="checkbox"/> |
| Aeroplanes | <input type="checkbox"/> | <input type="checkbox"/> |
| Helicopters | <input type="checkbox"/> | <input type="checkbox"/> |
| The railway, including passenger trains, freight trains, train horns, track maintenance, any noise from nearby stations, people or vehicles going to or from the stations or any other activity from the railway | <input type="checkbox"/> | <input type="checkbox"/> |
| Underground trains (i.e. tube or metro) | <input type="checkbox"/> | <input type="checkbox"/> |
| Trains in tunnels | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction activity, including building, demolition and road works | <input type="checkbox"/> | <input type="checkbox"/> |
| Quarrying or mining | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances inside this home | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | <input type="checkbox"/> | <input type="checkbox"/> |
| An unidentified source | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other source | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to 'any other source' ask: "Can you tell me what the source is?"]

[Record below]

[If respondent states 'no' to all above, route to source-specific vibration sections if relevant, or to Section Y if not]

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

E2. Has hearing noise from these sources bothered, annoyed or disturbed you when you have been:

| | Yes | No |
|---------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Watching the television | <input type="checkbox"/> | <input type="checkbox"/> |
| Listening to the radio or music | <input type="checkbox"/> | <input type="checkbox"/> |
| Talking to someone in person or on the telephone | <input type="checkbox"/> | <input type="checkbox"/> |
| Reading or with any other quiet activities | <input type="checkbox"/> | <input type="checkbox"/> |
| Writing, drawing, painting or any doing any other activity requiring a steady surface | <input type="checkbox"/> | <input type="checkbox"/> |
| Resting | <input type="checkbox"/> | <input type="checkbox"/> |
| Sleeping | <input type="checkbox"/> | <input type="checkbox"/> |
| Using any rooms in your house | <input type="checkbox"/> | <input type="checkbox"/> |
| Opening any windows in your house | <input type="checkbox"/> | <input type="checkbox"/> |
| Doing anything else | <input type="checkbox"/> | <input type="checkbox"/> |

[If yes to 'doing anything else' ask: "Can you tell me what that was?"]

[Record below]

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

E3. Thinking about the last 12 months or so, when indoors at home, how bothered, annoyed or disturbed have you been by hearing noise caused by **[insert source identified in E1]**? Would you say not at all, slightly, moderately, very or extremely?

[Show card 4]

[Repeat question for all sources identified in E1]

| Source | Don't notice | Not at all | Slightly | Moderately | Very | Extremely |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|----------|------------|------|-----------|
| Cars, lorries, buses or other road vehicles | | | | | | |
| Aeroplanes | | | | | | |
| Helicopters | | | | | | |
| The railway, including passenger trains, freight trains, train horns, track maintenance, any noise from nearby stations, people or vehicles going to or from the stations or any other activity from the railway | | | | | | |
| Trains in tunnels | | | | | | |
| Underground trains (i.e. tube or metro) | | | | | | |
| Construction activity, including building, demolition and road works | | | | | | |
| Quarrying or mining | | | | | | |
| Footsteps, slamming doors, domestic appliances inside this home | | | | | | |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | | | | | | |
| Unidentified source/don't know | | | | | | |
| Other things [record below] | | | | | | |
| | | | | | | |
| | | | | | | |

[If respondent is bothered, annoyed or disturbed, mark Section G (Blue section) as a reminder to complete this section]

Next is the 0–10 opinion scale for how bothered, annoyed or disturbed you have been when you have heard noise here at home **[show card 5]**. If you are not at all annoyed choose 0, if you are extremely annoyed choose 10; if you are somewhere in between choose a number between 1 and 10.

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

E4. Thinking about the last 12 months or so, when indoors at home, what number from 0 to 10 best shows how bothered, annoyed or disturbed you have been by hearing noise caused by [insert source identified at E1]?

[Repeat question for all sources identified at E1]

[For sources not noticed at E1, record as 'Don't notice']

| Source | Don't notice | Not at all | | | | | | | | | | | Extremely |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|---|---|---|---|---|---|---|---|---|----|-----------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Cars, lorries, buses or other road vehicles | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Aeroplanes | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Helicopters | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| The railway, including passenger trains, freight trains, train horns, track maintenance, any noise from nearby stations, people or vehicles going to or from the stations or any other activity from the railway | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Trains in tunnels | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Underground trains (i.e. tube or metro) | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Construction activity, including building, demolition and road works | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Quarrying or mining | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Footsteps, slamming doors, domestic appliances inside this home | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Footsteps, slamming doors, domestic appliances from neighbouring homes | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Unidentified source/don't know | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Other things [record below] | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

E5. How sensitive would you say you are personally to noise in general? Would you say you are not at all sensitive, slightly sensitive, moderately sensitive, very sensitive or extremely sensitive?

[Show card 4]

- Not at all
- Slightly
- Moderately
- Very
- Extremely

E6. Looking at this scale **[show card 6]** and given all that you have said, over the last 12 months or so, how acceptable have you found the level of noise you have experienced in this home. Would you say very it has been acceptable, acceptable, neither acceptable nor unacceptable, unacceptable or very unacceptable?

- Very acceptable
- Acceptable
- Neither acceptable nor unacceptable
- Unacceptable
- Very unacceptable

For railway sites only

SECTION F: Railway Vibration

[This section is only to be completed if the respondent has previously identified that they have been bothered, annoyed or disturbed by railway vibration]

You previously said that you have been bothered, annoyed or disturbed by vibration from the railway whilst in this home. The next set of questions is more specific to vibration from the nearby railway.

F1. Thinking about the last 12 months or so, when indoors at home, how bothered, annoyed or disturbed have you been by feeling vibration or hearing or seeing things rattle, vibrate or shake caused by **[insert sources below]**? Would you say not at all, slightly, moderately, very or extremely?

[Show card 4]

[Repeat question for all sources]

| Source | Don't notice | Not at all | Slightly | Moderately | Very | Extremely |
|-------------------------------------------------|--------------|------------|----------|------------|------|-----------|
| Passing passenger trains | | | | | | |
| Passing freight trains | | | | | | |
| Railway maintenance | | | | | | |
| Other railway activity [Record below] | | | | | | |
| _____ | | | | | | |
| _____ | | | | | | |

F2. Thinking about the last 12 months or so, when indoors at home, what number from 0 to 10 best shows how bothered, annoyed or disturbed you have been by feeling vibration or hearing or seeing things rattle, vibrate or shake caused by **[insert source identified at F1]**?

[Show card 5]

[Repeat question for all sources identified at F1]

[For sources not noticed at F1, record as 'Don't notice']

| Source | Don't notice | Not at all | | | | | | | | | | | Extremely | | |
|-------------------------------------------------|--------------|------------|---|---|---|---|---|---|---|---|---|----|-----------|---|----|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 8 | 9 | 10 |
| Passing passenger trains | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| Passing freight trains | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| Railway maintenance | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| Other railway activity [Record below] | | | | | | | | | | | | | | | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

F3. Looking at this scale [**show card 6**], and thinking about the last 12 months or so, when indoors at home, how acceptable have you found the level of vibration you have experienced caused by the railway. Would you say it has been very acceptable, acceptable, neither acceptable nor unacceptable, unacceptable or very unacceptable?

- Very acceptable
- Acceptable
- Neither acceptable nor unacceptable
- Unacceptable
- Very unacceptable

F4. In giving this rating, are there particular aspects of the vibration that you are thinking of?

[Record below]

We would now like to find out if the vibration from the railway has bothered, annoyed or disturbed you more or less at different times of the day.

F5. Thinking about the last 12 months or so, when indoors at home how bothered, annoyed or disturbed have you been by feeling vibration or hearing or seeing things rattle, vibrate or shake caused by the railway between [**insert time of day**]? Would you say not at all, slightly, moderately, very or extremely?

[Show card 4]

[Repeat question for each time of day]

| Time of day | Not at all | Slightly | Moderately | Very | Extremely |
|-----------------------|------------|----------|------------|------|-----------|
| Day (7am to 7pm) | | | | | |
| Evening (7pm to 11pm) | | | | | |
| Night (11pm to 7am) | | | | | |

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

F6. Thinking about the last 12 months or so, when indoors at home, what number from 0 to 10 best shows how bothered, annoyed or disturbed you have been by feeling vibration or hearing or seeing things rattle, vibrate or shake caused by the railway between **[insert time of day]**?

[Show card 5]

[Repeat question for each time of day]

| Time of day | Not at all | | | | | | | | | | | Extremely | | | | | | | | | | |
|-----------------------|------------|---|---|---|---|---|---|---|---|---|----|-----------|---|---|---|---|---|---|---|---|---|----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Day (7am to 7pm) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Evening (7pm to 11pm) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Night (11pm to 7am) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

F7. Compared with the last quarter of an hour or so, would you say that you usually experience:

- More vibration from the railway
- Less vibration from the railway
- The same amount of vibration from the railway

F8. Do you have any other comments about vibration from the railway that we have not discussed?

[Record below]

For railway sites only

Section G: Railway Noise

[This section is only to be completed if the respondent has previously identified that they have been bothered, annoyed or disturbed by railway noise]

You previously said that you have been bothered, annoyed or disturbed by noise from the railway whilst in this home. The next set of questions is more specific to noise from the nearby railway.

G1. Thinking about the last 12 months or so, when indoors at home, how bothered, annoyed or disturbed have you been by hearing noise caused by **[insert sources below]**? Would you say not at all, slightly, moderately, very or extremely?

[show card 4]

| Noise | Don't hear | Not at all | Slightly | Moderately | Very | Extremely |
|----------------------------------------------------------|------------|------------|----------|------------|------|-----------|
| Passage of trains | | | | | | |
| Train horns | | | | | | |
| Noise from stations such as loud speakers | | | | | | |
| Goods yards (shunting, freight handling) | | | | | | |
| Railway/track maintenance | | | | | | |
| People going to or from the station (in cars or walking) | | | | | | |
| Other railway activity [Record below] _____ | | | | | | |
| | | | | | | |

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

G2. Thinking about the last 12 months or so, when indoors at home, what number from 0 to 10 best shows how bothered, annoyed or disturbed you have been by hearing noise caused by [insert source identified at G1]?

[Show card 5]

[Repeat question for all sources identified at G1]

[For sources not noticed at G1, record as 'Don't notice']

| Source | Don't notice | Not at all | | | | | | | | | | Extremely | |
|----------------------------------------------------------|--------------|------------|---|---|---|---|---|---|---|---|---|-----------|--|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Passage of trains | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Train horns | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Noise from stations such as loud speakers | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Goods yards (shunting, freight handling) | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Railway/track maintenance | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| People going to or from the station (in cars or walking) | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Other railway activity [Record below] | | | | | | | | | | | | | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| _____ | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |

G3. Looking at this scale [show card 6], and thinking about the last 12 months or so, when indoors at home, how acceptable have you found the level of noise you have experienced caused by the railway? Would you say very acceptable, acceptable, neither acceptable nor unacceptable, unacceptable or very unacceptable?

- Very acceptable
- Acceptable
- Neither acceptable nor unacceptable
- Unacceptable
- Very unacceptable

G4. In giving this rating, are there particular aspects of the noise that you are thinking of?

[Record below]

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

We would now like to find out if the noise from the railway bothers, annoys or disturbs you more or less at different times of the day.

G5. Thinking about the last 12 months or so, when indoors at home, how bothered, annoyed or disturbed have you personally been by hearing noise caused by the railway between **[insert time of day]**? Would you say not at all, slightly, moderately, very or extremely?

[Show card 4]

[Repeat question for each time of day]

| Time of day | Not at all | Slightly | Moderately | Very | Extremely |
|-----------------------|------------|----------|------------|------|-----------|
| Day (7am to 7pm) | | | | | |
| Evening (7pm to 11pm) | | | | | |
| Night (11pm to 7am) | | | | | |

G6. Thinking about the last 12 months or so, when indoors at home, what number from 0 to 10 best shows how bothered, annoyed or disturbed you have been by hearing noise caused by the railway between **[insert time of day]**?

[Show card 5]

[Repeat question for each time of day]

| Time of day | Not at all | | | | | | | | | | | Extremely | | | | | | | | | | |
|-----------------------|------------|---|---|---|---|---|---|---|---|---|----|-----------|---|---|---|---|---|---|---|---|---|----|
| Day (7am to 7pm) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Evening (7pm to 11pm) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Night (11pm to 7am) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

G7. Compared with the last quarter of an hour or so, would you say that you usually hear:

- More noise from the railway
- Less noise from the railway
- The same amount of noise from the railway

G8. Do you have any other comments about noise from the railway that we have not discussed?

[Record below]

Section Y: Personal and Occupancy Information

This is the final section of the questionnaire. We would just like to finish by getting some basic information about you.

Y1. During a typical weekday, that is, Monday to Friday, what times are you usually at home? Are you at home between:

| | Yes | No |
|-----------------|--------------------------|--------------------------|
| 06:01 and 09:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 09:01 and 12:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 12:01 and 15:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 15:01 and 18:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 18:01 and 21:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 21:01 and 00:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 00:01 and 03:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 03:01 and 06:00 | <input type="checkbox"/> | <input type="checkbox"/> |

Y2. During a typical weekend, that is, Saturday and Sunday, what times are you usually at home? Are you at home between:

| | Yes | No |
|-----------------|--------------------------|--------------------------|
| 06:01 and 09:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 09:01 and 12:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 12:01 and 15:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 15:01 and 18:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 18:01 and 21:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 21:01 and 00:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 00:01 and 03:00 | <input type="checkbox"/> | <input type="checkbox"/> |
| 03:01 and 06:00 | <input type="checkbox"/> | <input type="checkbox"/> |

Y3. Do you mind me asking how old you are?

[Record specific age] _____

If respondent does not want to give their age ask "Would you mind telling me which age group you fit into?" [Show card 7]

- | | |
|-------|--------------------------|
| 17–24 | <input type="checkbox"/> |
| 25–39 | <input type="checkbox"/> |
| 40–49 | <input type="checkbox"/> |
| 50–59 | <input type="checkbox"/> |
| 60–74 | <input type="checkbox"/> |
| 75–84 | <input type="checkbox"/> |
| 85+ | <input type="checkbox"/> |

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

Y4. Thinking about the people who you live with:

- i) How many members of the household are there, including you? _____
- ii) How many members of the household are aged 18 or over? _____
- iii) How many members of the household are aged under 18? _____

Y5. From this list [**show card 8**], how would you describe your ethnicity?

A. White

- British
- Irish
- Romany Gypsy
- Irish Traveller
- Other white background please specify _____

B. Mixed

- White & Black Caribbean
- White & Black African
- White & Asian
- Other mixed background please specify _____

C. Asian or Asian British

- Indian
- Pakistani
- Bangladeshi
- Other Asian background please specify _____

D. Black or Black British

- Caribbean
- African
- Other black background please specify _____

E. Chinese or other ethnic group

- Chinese
- Any other please specify _____

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Y6. From this list [show card 9] what best describes your employment status. Are you:

| | Yes | No |
|------------------------------|--------------------------|--------------------------------------------|
| Employed | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y7] |
| Self-employed/business owner | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y7] |
| Student | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y8] |
| Retired | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y8] |
| Unemployed | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y8] |
| Carer/homemaker | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y8] |
| Volunteer worker | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y8] |
| Other | <input type="checkbox"/> | <input type="checkbox"/> [If yes go to Y8] |

[If yes to 'other' ask: "How would you describe your employment status?"]

[Record below]

Y7. We would like to ask a few questions about your work.

a. What type of industry is it in?

[Record below]

b. What is your job title

[Record below]

c. Are you employed in shift work?

Yes

No

[If yes, ask: "Can you summarise what the shifts are?"]

[Record below]

Y8. Is there anything else you would like to say about noise and vibration in this home?

[Record below]

Appendix 1 – NANR209 – Human Response to Vibration in Residential Environments: Railway specific questionnaire

Y9. Record if respondent is

Male

Female

Thank you for your time and for taking part in this survey.

The research is for the Department for the Environment, Food and Rural Affairs and, as you have seen, is particularly looking at how people respond to vibration and noise experienced within their homes. The purpose of this survey was to gather information about how you feel about the nearby railway and the vibration and noise you experience from it. We were not able to tell you this at the start as we did not want to influence your answers.

In order to provide some context to your answers we would like, if possible, to take some vibration measurements inside your home. This will involve a member of our team placing a small measuring device on the floor for no more than half an hour so that we can measure how much vibration there is in this home. It is powered by a battery so they will not need to plug it in and you won't need to do anything with it. Is it okay for them to do this?

If you would like any further information about the project, I can give you the phone numbers of the project managers at the University of Salford who will be able to answer any more questions you have about the project. Would you mind if we recorded your telephone number in case we need to contact you again? It will not be passed on to any other organisations or made public in any way. **[Record on front sheet if given]**

Thank you once again for taking part.

Allowed vibration measurement

Yes

No

SECTION Z: Interviewer Assessment of Vibration and Noise

Z1. Whilst in the property, did you feel vibration of any of the following?

| | Yes | No |
|-------------------------------|--------------------------|--------------------------|
| The floor | <input type="checkbox"/> | <input type="checkbox"/> |
| The chair you were sitting on | <input type="checkbox"/> | <input type="checkbox"/> |
| Other [Record below] | <input type="checkbox"/> | <input type="checkbox"/> |

Z2. What do you think this was caused by?

| | Yes | No |
|-------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Cars, lorries, buses and other road vehicles | <input type="checkbox"/> | <input type="checkbox"/> |
| Aeroplanes | <input type="checkbox"/> | <input type="checkbox"/> |
| Helicopters | <input type="checkbox"/> | <input type="checkbox"/> |
| The railway, including passenger trains, freight trains, track maintenance or any other activity from the railway | <input type="checkbox"/> | <input type="checkbox"/> |
| Underground trains (i.e. tube or metro) | <input type="checkbox"/> | <input type="checkbox"/> |
| Trains in tunnels | <input type="checkbox"/> | <input type="checkbox"/> |
| Quarrying or mining | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction activity, including building, demolition and road works | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances inside the home | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | <input type="checkbox"/> | <input type="checkbox"/> |
| An unidentified source | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other source [record source below] | <input type="checkbox"/> | <input type="checkbox"/> |

Z3. While in the dwelling did you hear or see any of the following?

| | Yes | No |
|---------------------------------------------------|--------------------------|--------------------------|
| Rattling of windows | <input type="checkbox"/> | <input type="checkbox"/> |
| Rattling of objects [record objects below] | <input type="checkbox"/> | <input type="checkbox"/> |
| <hr/> | | |
| Swaying of pendulum lights | <input type="checkbox"/> | <input type="checkbox"/> |
| Other [record below] | <input type="checkbox"/> | <input type="checkbox"/> |

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Z4. While in the dwelling, did you hear noise from the following?

| | Yes | No |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Cars, lorries, buses and other road vehicles | <input type="checkbox"/> | <input type="checkbox"/> |
| Aeroplanes | <input type="checkbox"/> | <input type="checkbox"/> |
| Helicopters | <input type="checkbox"/> | <input type="checkbox"/> |
| The railway, including passenger trains, freight trains, train horns, track maintenance, any noise from nearby stations, people or vehicles going to or from the stations or any other activity from the railway | <input type="checkbox"/> | <input type="checkbox"/> |
| Underground trains (i.e. tube or metro) | <input type="checkbox"/> | <input type="checkbox"/> |
| Trains in tunnels | <input type="checkbox"/> | <input type="checkbox"/> |
| Quarrying or mining | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction activity, including building, demolition and road works | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances inside the home | <input type="checkbox"/> | <input type="checkbox"/> |
| Footsteps, slamming doors, domestic appliances in neighbouring homes | <input type="checkbox"/> | <input type="checkbox"/> |
| An unidentified source | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other source [record source below] | <input type="checkbox"/> | <input type="checkbox"/> |

Z5. Any other comments you would like to make about vibration and/or noise in this property?

[Record below]
