

11 Luard Road
Design Statement



justine rattray architecture

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Acronyms used in this report:

CCC Cambridge City Council
JRA Justine Rattray Architecture

This document has been produced to be read in conjunction with the formal submission drawings and planning application form. All drawings and images in this document are indicative for illustrative purposes only and are not to be scaled. Please refer to the planning drawings as listed in appendix 3 for accurately scaled drawings.

Document Control:

Revision 02

Background:

The design statement

- The house is not listed and the site is not in a conservation area therefore a full Design and Access Statement is not required.

However due to the recognised quality of the local character and the work carried out to analysis it; it was deemed appropriate by CCC to provide a Design Statement.
- Whilst the appearance of the proposal has been considered holistically from all sides of the building this document is weighted towards the frontage of the house facing the public street as requested by CCC.
- This design statement is to be read alongside the formal drawings submitted with this planning application; *please refer to Appendix 3 for an issue sheet of the formal submission drawings*

The site

- The site is privately owned by Mr and Mrs Johnson for whom Justine Rattray Architecture is acting on behalf of.
- There are three TPO trees on site in the garden. No pruning of the TPO trees or any other trees is required for this project. *Please refer to Appendix 1 for the position of the TPO trees.*

The project

- The existing roof has a number of complex roof junctions that are prone to failure and difficult to maintain. This is as a result of numerous extensions over the life of the house. The condition of the tiles, lead junctions and flat roofs are poor, the majority of which are in need of replacement.
- The majority of the existing walls are solid and therefore thermally insufficient. The existing roof is not to current standards and therefore also thermally inadequate.
- There is a need for additional bedrooms and a desire not to add to the issues mentioned above as a result of further piecemeal extension; instead there is an opportunity to create a comprehensive solution to the house's appearance.

Design Drivers:

The brief

- Improve the condition, maintenance and architectural detailing of the roof.
- Improve the thermal performance of the house.
- Provide additional accommodation within the new roof space.
- Enhance the aesthetic of the house by creating a more coherent form that relates to the local character and which optimises high quality architectural detailing and materials.

This is to be achieved through:

- The removal of the existing roofs and construction of a new roof that is less prone to failure, safer to maintain, is thermally more efficient and provides suitable room for accommodation within the roof space.
- Installation of external wall insulation.
- Alterations to the elevations (including the removal of the existing brick stair tower and flat roof elements) to integrate the new roof forms with the elevations and improve the overall attractiveness of the house.



Existing Front Elevation

Existing Back Elevation

Existing to be demolished

Design Drivers:

CCC Pre-Planning consultation

- Reference; 14/5397/PREAPH. Case Officer; Elizabeth Thomas
 - A 'Request for Pre-Application Planning Advice' (PREAPH) was received by CCC on the 4th September 2014 regarding this project.
 - Formal written feedback was then sent back from CCC to JRA on 30th September 2014.
- The feedback was that the initial proposal would detract from the character and appearance of neighbouring properties and overall street scene due to its bulk and mass of the square/rectangular roof-line and form.
- The feedback was discussed by phone between Justine Rattray (JRA) and Elizabeth Thomas (CCC) and a meeting arranged to review a revised design.
 - Justine Rattray (JRA) and the Client's Agent met with Elizabeth Thomas (CCC) on the 13th October 2014.

A revised design that reduced the height, scale and mass of the proposal and broke the visual roof-line up was presented along with a series of analysis drawings. These illustrated how the revised design had been informed by the character and appearance of the neighbouring properties and addressed the CCC local policy objectives.

Please refer to Appendix 2 for information tabled at the meeting.

- It was understood by JRA that CCC would not provide formal written feedback from the meeting so JRA emailed their notes of the meeting to Elizabeth Thomas (CCC) on the 16th October 2014.

Design response to the Pre-Planning consultation

- It was considered that the rectangular/square roof form of the initial proposal was a result of the visually uninterrupted straight ridge emphasised by the longer straight eaves below.
- The increased height of both the ridge and eaves also contributed to the overall rectangular form being of a larger bulk and mass that was deemed unsatisfactory.
- Therefore further analysis was carried out on the neighbouring houses to enable the characteristic forms and heights of their ridges and eaves to inform the revised design.
 - The analysis showed that within the variety of house types along Luard Road, key principles such as the number of storeys (2 plus 1 in the roof), eaves heights (over the first floor windows) and a pattern of projecting gables articulating the eaves along the street codified the varied character of the area. *Please refer to 'Analysis of the Local Characteristics' section of this document for more detail.*
 - The design was revised; the eaves height were lowered to above the first floor windows and articulated by strong gable forms that also visually break the ridge line. Gable windows, dormers and roof-lights were used to articulate the new accommodation within the roof space. *Please refer to 'The Design' section of this document for more detail.*



Main design changes highlighted on the revised design

Local planning policies

- The Cambridge Local Plan 2006 and the Cambridge Landscape Character Assessment April 2003 (as referenced by CCC as part of the pre-planning consultation) have been used during the design process to help understand Cambridge’s vision for the future and their key desired design drivers. This has informed our design approach so as to align with the CCC overall vision.

Please see below the key points drawn from the following relevant policies:

Cambridge Local Plan 2006, Policy 3/4 Responding to Context

- Respond to context
- Draw inspiration from the surrounding key characteristics

Cambridge Local Plan 2006, Policy 3/12 Creating Successful Places

- Attractive built frontages that positively enhance the street
- Use of high quality traditional and modern materials

Cambridge Local Plan 2006, Policy 3/14 Extending Buildings

- Reflect or successfully contrast with their form, use of materials and architectural detailing.
- Do not unreasonably overlook, overshadow or visually dominate neighbouring properties
- Do not adversely affect trees or important wildlife features

Cambridge Local Plan 2006, Policy 4/4 Trees

- Consider the likely future effect on the health of any trees close to the development.

Cambridge Landscape Character Assessment April 2003, Residential Post 1900 Suburb - Opportunities

- Environmental improvements
- Proposals are in keeping and respect the character of the area

Analysis of the local characteristics

- A study of the local character was undertaken through the use of publicly accessible electronic information, a photographic survey and time spent walking the local vicinity.
- A roof plan of the houses along Luard Road from Hills Road to No 27 Luard road was drawn. Over which a series of overlays were created to look at the presence and rhythm of the following:
 - Characteristics - roof form and house/site footprint
 - Orientation and proportions of the main ridge-lines
 - Pattern of roof forms such as gables, hips and eaves to the front and side of the properties
- Elevation (perspective) studies of the adjacent properties to 11 Luard Road (numbers 9 and 15/17) and other neighbouring houses (numbers 2, 3, 5 and 18) were drawn to consider the following:
 - The existing roof forms (roof-scape)
 - The existing eave heights, number of storeys and accommodation in the roof spaces
- Photographic survey was carried out to identify the existing local materials used.
- *Please refer to appendix 2b for the analysis work drawings presented at the pre-planning consultation meeting and below for how the analysis was used.*



Characteristic green frontage of Luard Road

Design Drivers:

What we learnt from the analysis

Existing Roof Plan Studies

- Luard Road is located in South Cambridge.
- To the North of Luard Road (and to the rear of the site) is Homerton College. Whilst the main College buildings date from 1850s, the accommodation for graduates has been purpose built in recent years in a contemporary manner and can be seen from the back garden of 11 Luard Road.
- To the East, Luard Road joins Hills Road, a main artery road into Cambridge from the south. The Character of this road varies dramatically along its length. In the local vicinity of Luard Road it is bound by a variety of old and new properties of traditional and contemporary forms and materials.
- The mature landscape of large trees and hedgerows along Luard Road forms a strong identity and character in the street.

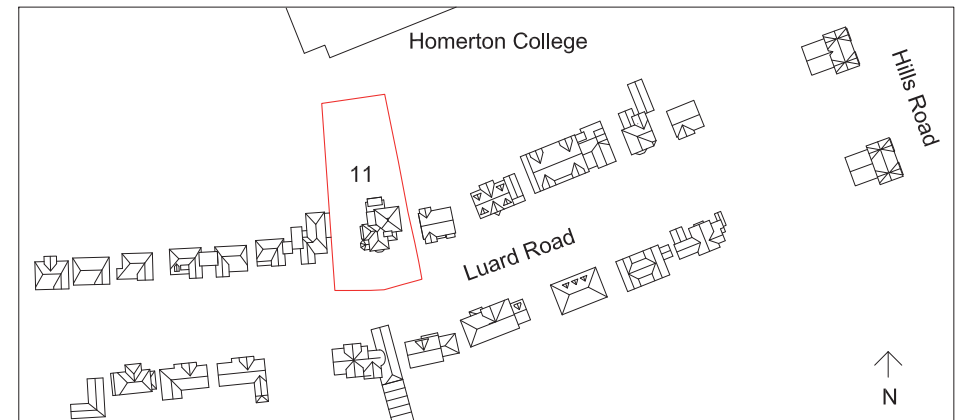
The houses are set back from the road and have generous side gardens between them.

The houses themselves are varied in age, style, size, proximity and materials that creates an interesting, articulated and varied, traditional and contemporary architectural pallet and local character. However there are common principles that codify the varied pallet; It is these common principles that we have drawn out in the following studies to inform the proposed design.

The analysis has been shown along side the written text for ease of reading, however please refer to Appendix 2b for the original analysis drawings presented as part of the pre-planning consultation.



Google image of Luard Road



Roof plan of Luard Road with **existing** 11 Luard Road illustrated

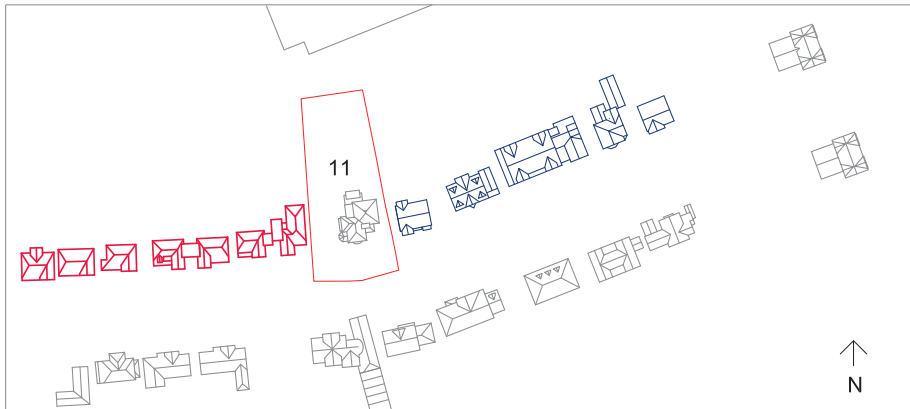
Design Drivers:

Existing Roof Plan Studies

Key character types adjacent to 11 Luard Road - based on overall form and house/site footprint. 11 Luard Road sits between a row of houses to the West (of one character type) and a more diverse group of houses to the South and East. The houses to the West are of a similar style and form. Their roofs are hipped to the front and side and the front eaves line, although broken by projecting gables, are often longer and lower. They are a combination of detached and semi-detached houses.

The houses to the South and East are all detached and are of a more varied age, style and form. They are generally set within wider plots of land and are larger in footprint and taller in height.

11 Luard Road shares a similar scale in plot and footprint as those to the South and East but its existing roof form is more akin to the hipped roofs of the houses to the West.

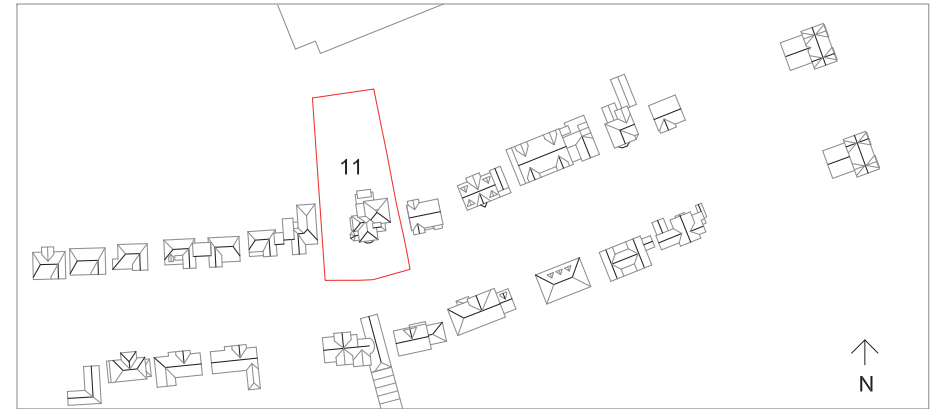


11 Luard Road sits between two character types highlighted in blue and red

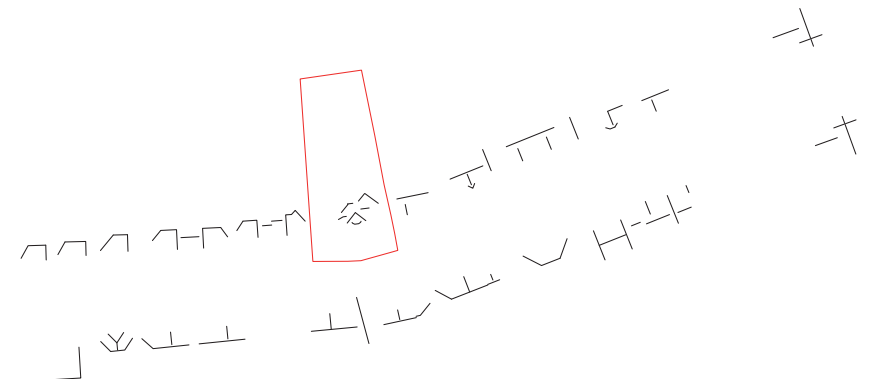
Main ridge lines - that define the street frontage. There is a combination of hip and non hipped roof-lines parallel to the road with ridges at either the same height or often slightly lower that project out at right angles to the road.

The majority of the main ridge-lines to the East and West are not hipped whilst those to the West are more commonly hipped. Only two of all the projecting ridges in the study area are hipped at the front (11 Luard Road being one of these).

As Existing, 11 Luard Road has a number of hipped roofs that although reflect the hipped form of the houses to the West, they are less coherent due to their plan form and alteration over time. This has resulted in uncharacteristic very short ridge-lines and hipped roofs and parapets facing the road.



There is a combination of ridge-lines parallel and perpendicular to the road



Design Drivers:

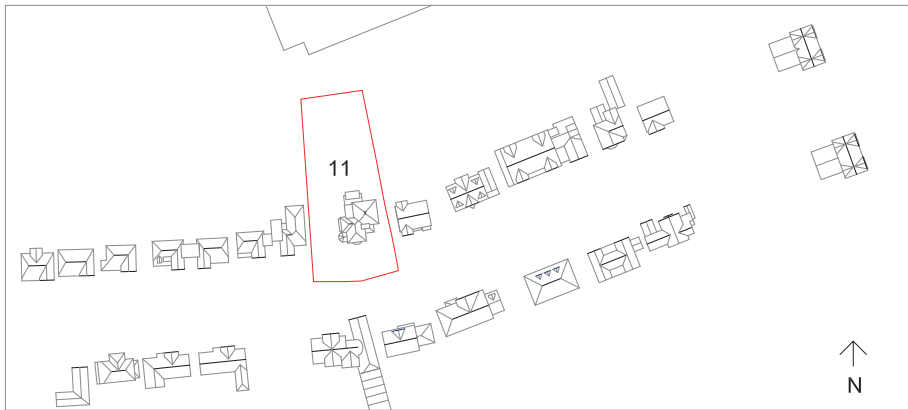
Existing Roof Plan Studies

Gables and ridge lines to Luard Road. Almost every house along Luard Road has a gable fronting the street. In the majority of houses this projects in-front of the main eaves-line (see elevations studies)

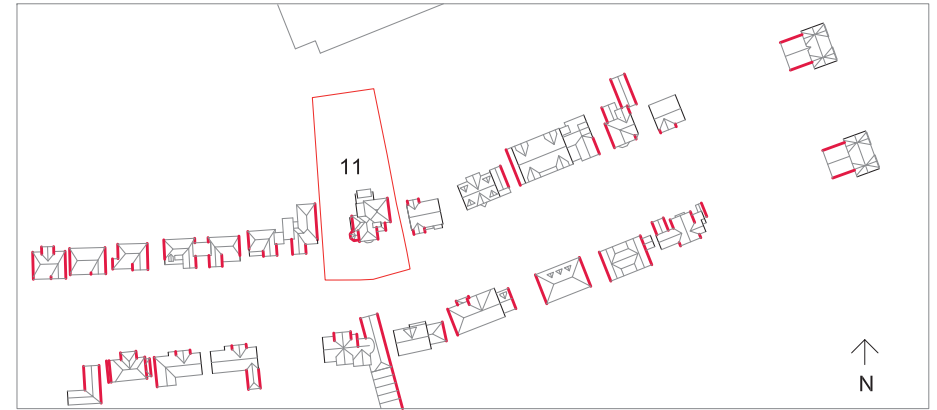
11 Luard Road currently is one of only four houses captured in the study area below not to have a gable form in-front of the main eaves-line. Two of these four houses have gable forms within the roof above the eaves line

Gables and hips/eaves to the sides of the properties. There are both gables and hips/eaves to the sides of the properties along Luard Road.

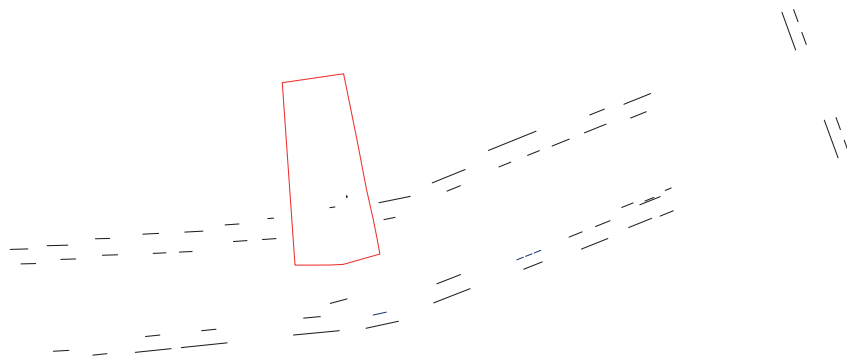
11 Luard Road currently sits between houses to the West whose roofs are generally hipped to the side of the properties and houses to the South and the East where the majority have a mix of gables, hips and eaves.



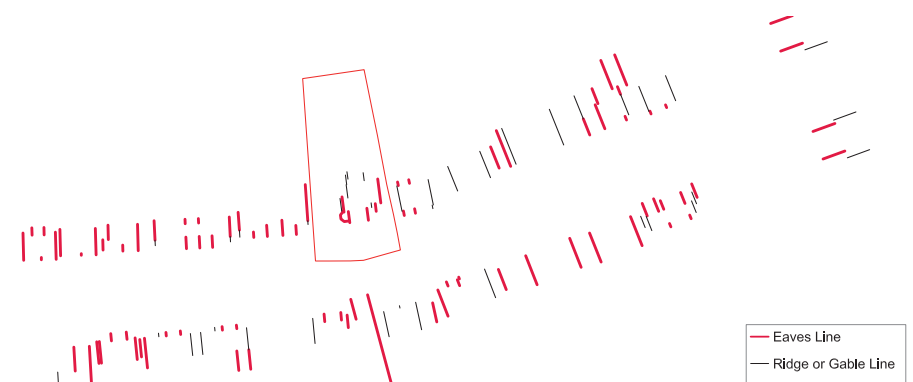
Majority of houses have gables fronting Luard Road



Majority of houses to the West of Luard Road are hipped and to the South and East are mixed



11 Luard Road, Cambridge



Existing Elevation Studies

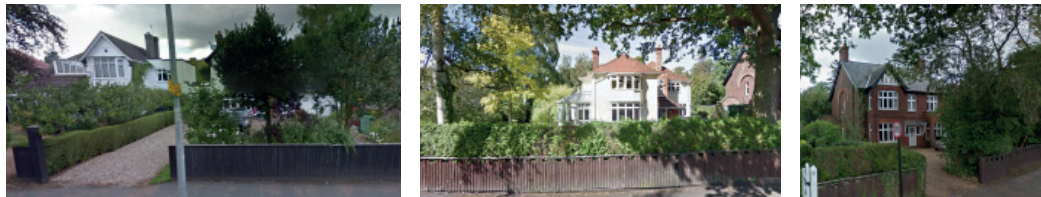
The elevation (perspective) studies show how the roof-form articulates the built frontages and street scene. The main ridge and eave-lines are predominantly parallel to the street and are often visually broken/interrupted by projecting gables. This creates a more articulated and less rectangular roof-line to each individual house and the street as a whole.

This articulation is further emphasised by the irregularity of the proportions of the gables as they also vary along the street creating a varied street scene with an overarching strong shared characteristic.

11 Luard Road currently does not share these characteristics owing to its continuous eave-line and little integration between its roof and its elevations.

The studies also illustrate the typical height of the eaves that creates a scale and mass of the houses and proportion of wall to roof. The eaves predominantly sit above the head of the first floor windows. Dormers, gable windows and roof-lights provide space and light to habitable rooms on the second floor within the roof spaces.

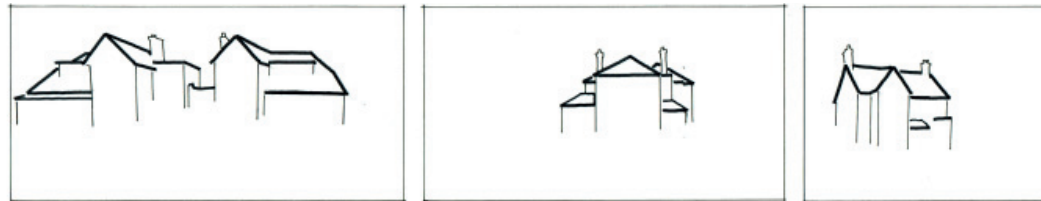
Existing 11 Luard Road and adjacent properties



17 and 15 Luard Road

11 Luard Road- **existing**

9 Luard Road



Roofscape analysis of the **existing** No 11 Luard Road and the adjacent properties



Eave height analysis of the **existing** No 11 Luard Road and the adjacent properties

Other properties along Luard Road

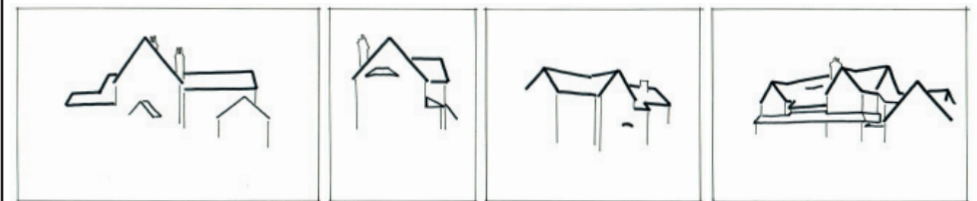


2 Luard Road

3 Luard Road

18 Luard Road

5 Luard Road



Roofscape analysis of other existing houses along Luard Road



Eave height analysis of other existing houses along Luard Road

Design Drivers:

Existing Materials

Traditional local characteristic materials:



Red Brick



Painted Render



White timber
(or UPVC) windows



Clay tiles

Feature characteristic materials:



Timber boarding



Timber detailing



Tile hanging



Painted or untreated stone

Other contemporary materials used and integrated into the local character:



Metal cladding/roofing

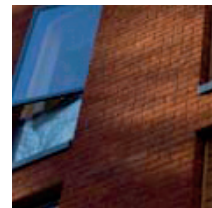


Opaque glass



Polyester powder coated
feature windows

Homerton College contemporary extension materials:



Red brick



Untreated timber cladding



Polyester powder
coated windows



Copper metal cladding

Proposed Roof-Form

The existing roof is proposed to be removed due to its poor condition, thermal inadequacy, complexity and little potential for conversion. A new roof-form that is less prone to failure, safer to maintain, is thermally more efficient and provides suitable room for accommodation within the roof space is being proposed.

Drawing inspiration from the main roof-forms along Luard Road, the new roof-form is characterised by perpendicular ridge lines that project in front of a parallel ridge-line behind. Gable side walls reflect those of houses to the East and South and the new gables to the front articulate the main eaves-line and define the new frontage. The design integrates both contemporary design and local characteristics to create an attractive frontage that positively enhances Luard Road street scape.

The new gable to the front also frames the existing bay window and provides room for a more attractive standing seam roof that does not clash with the eaves line over the bay.

The roofs over the projecting rooms to the West and the conservatory remain as secondary roofs common to a number of other properties in the area. A new standing seam roof is proposed at the front, over the porch and WC. This is a contemporary form yet relates to the standing seam roof over the bay window and presence of porch roofs along the street.

Proposed 11 Luard Road and adjacent properties



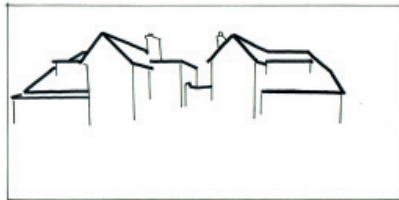
17 and 15 Luard Road



11 Luard Road- **proposed**



9 Luard Road



Roofscape analysis of the **proposed** No 11 Luard Road and the adjacent properties



Eave height analysis of the **proposed** No 11 Luard Road and the adjacent properties

Other properties along Luard Road



3 Luard Road



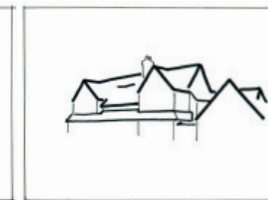
18 Luard Road



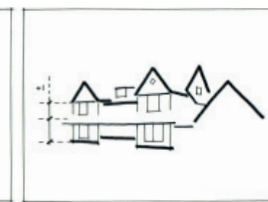
5 Luard Road



11 Luard Road- **proposed**



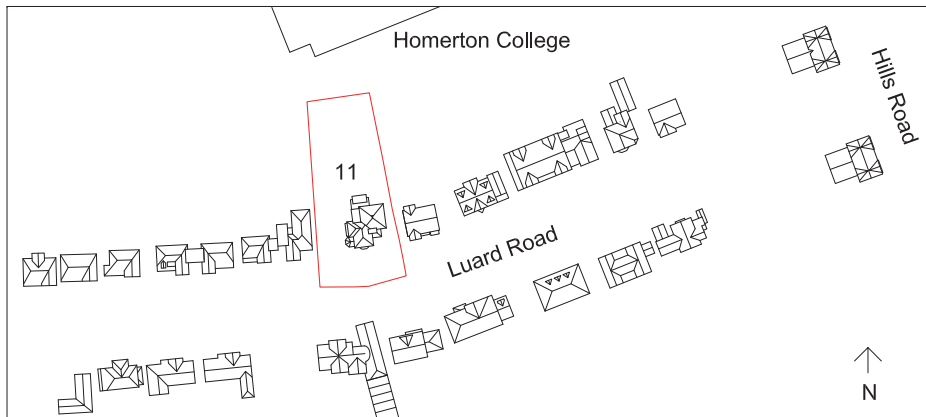
Roofscape analysis of other existing houses along Luard Road and the **proposed** No 11



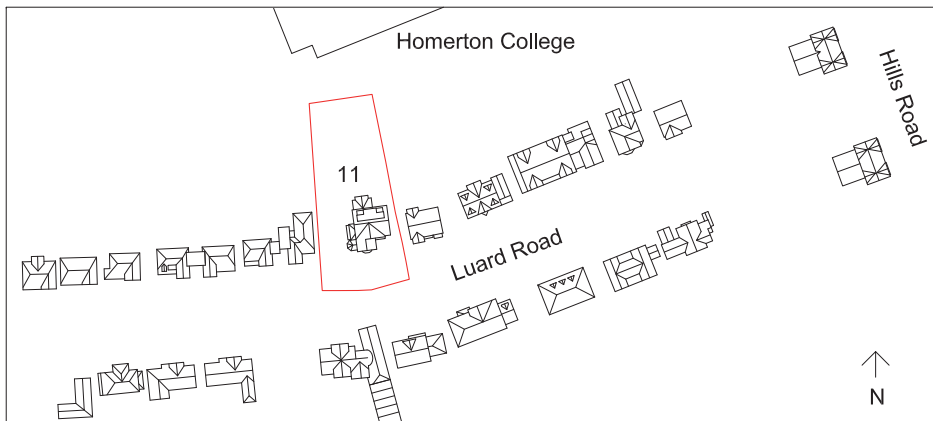
Eave height analysis of other existing houses along Luard Road and the **proposed** No 11

The Design:

Proposed Roof Form



Roof Plan of Luard Road with the **existing** 11 Luard Road illustrated

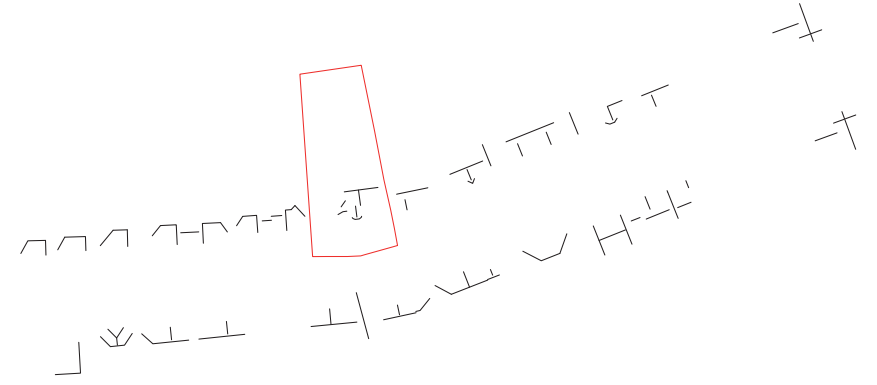


Roof Plan of Luard Road with the **proposed** 11 Luard Road illustrated

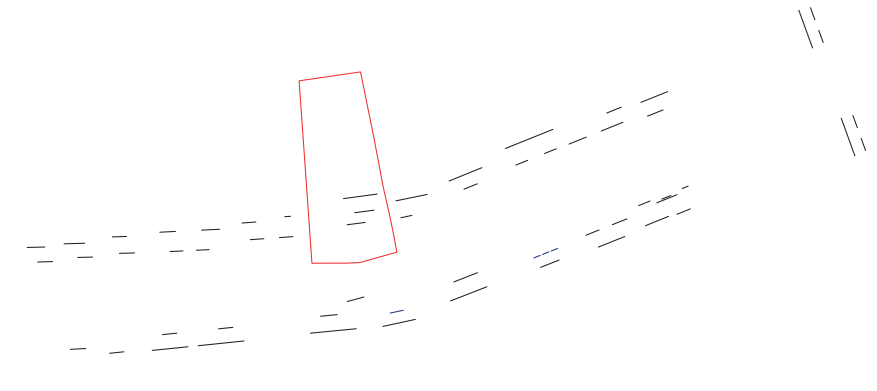
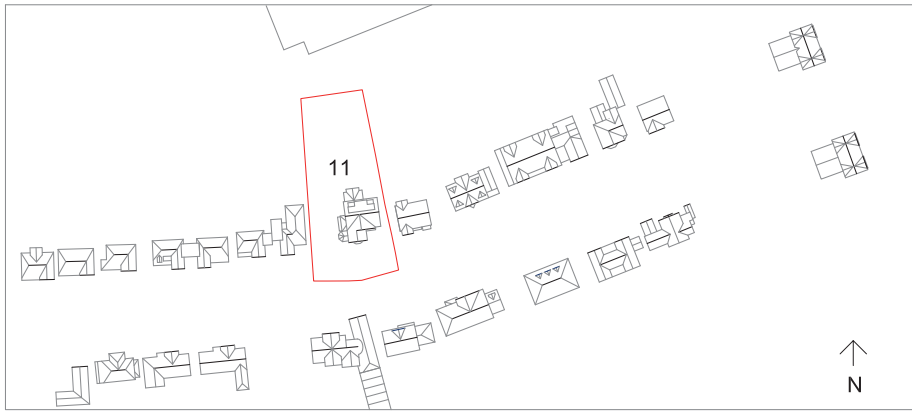
The Design:

Roof plan diagrams illustrating how the **proposed** 11 Luard Road reflects the characteristics of the neighbouring properties along Luard Road

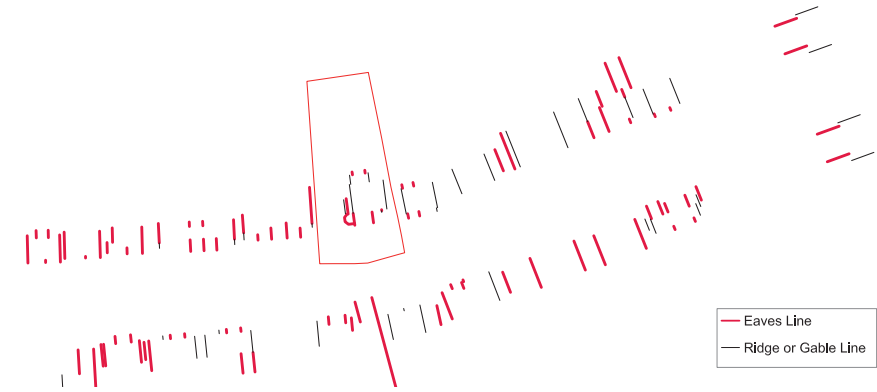
Parallel and perpendicular ridges



Gables sit in front of the ridge



Similar mix of side gables & eaves



— Eaves Line
— Ridge or Gable Line

Proposed Chimneys

The house currently has three chimneys that are visually very dominant as a result of the less governing roof forms. Chimneys are a common architectural feature in the area and play an important part in the local character.

We were keen to retain the articulation of the chimney form within the new design. However it was also important not to retain redundant chimneys that do not aid the modern lifestyle of the house simply for decorative purposes. Therefore

- The chimney at the front is to be retained as existing to enable fires within the larger front reception room.
- The chimney to the eastern bedroom is to be removed as it is no longer in use and unlikely to be required in the future. It's base has already been removed at ground floor and it is unlikely to be required as a traditional chimney or any other use in the existing or proposed bedrooms.
- The western chimney behind the front chimney is to be removed and rebuilt to accommodate the altered internal plan and retain its use as a working chimney and its external characteristic profile.

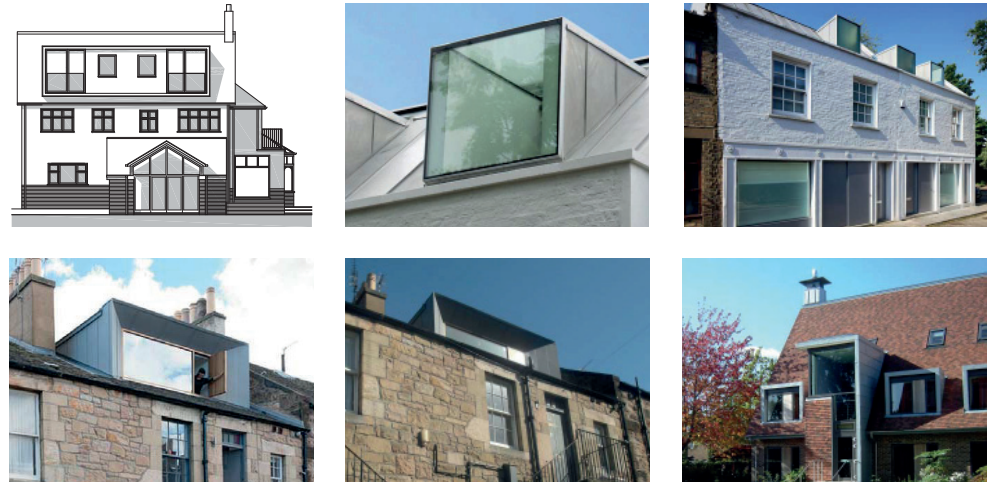


Sketch perspective highlighting the **proposed** chimney profiles

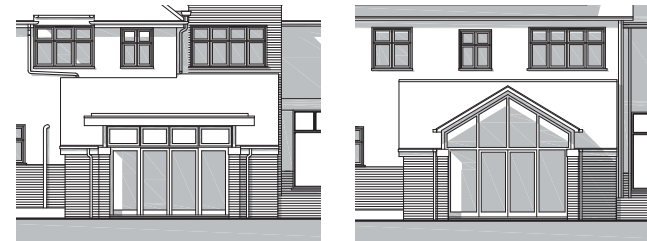
Proposed Rear Dormer

At the back of the property, which faces the more contemporary Homerton College building, is a new dormer that successfully contrasts the local traditional roof forms. It reflects the presence of new innovative contemporary architecture that is becoming an integrated part of the local character through the use of high quality contemporary architectural detailing and materials typically achieved.

See below the proposed back elevation and precedent images of contemporary dormers.



The roof over the garden room at the back of the property is altered; the existing flat roof is replaced with a pitched roof. The proportions of the flat roof are heavy in contrast to the rest of the house and as such it is not aesthetically pleasing. The new pitch roof will allow for more light internally and better reflect the proportions of the rest of the house.



Existing Garden Room

Proposed Garden Room

New Frontage and Elevations

Proposed Frontage

Installation of external wall insulation (EWI) is proposed to improve the thermal properties of the existing solid brick walls. The new layer of insulation is proposed to be approximately 90mm thick and finished in render and brick slips similar to the existing finishes and local traditional materials of the neighbouring houses.

At the front, the existing parapet brick stair tower is replaced by a gable roof with a contemporary full height window above the entrance. This new full height feature window extends up to the eaves to articulate the new accommodation within the roof space and echo the character of gable windows within the larger gables along the road.

The new gable roof over the front rooms reflects the characteristic gables of Luard road. It improves the architectural setting of the bay window and creates a more proportionally attractive frontage. A contemporary column is proposed to support the projecting gable roof and tie the main roof to the lower new porch roof. This is a new feature to the house that adds to the diverse architectural flourishes along the street.



Street view of 11 Luard Road - **proposed**
from the South East



Street view of 11 Luard Road - **proposed**
from the South



11 Luard Road - **proposed**



5 Luard Road



2 Luard Road



Proposed Side Elevations

At the sides, the new gable elevations are of similar proportions and heights as the other houses of similar size along Luard Road.

Their increased height compared to the existing does not negatively impact, visually dominate or adversely overshadow the adjacent properties as a result of the distance between the properties.

Overlooking has been addressed by the omission of any new side windows and the recessing of the rear patio doors and balconies within the new dormer on the back of the house (see dormer below).

The existing patio doors on the west elevation are proposed to be replaced to allow opening windows into the master bedroom to aid ventilation and security. The balustrade is also to be replaced with a more contemporary style balustrade more in keeping with the new architectural materials used within the new entrance.



Proximity and relationship of the proposed 11 Luard Road with the adjacent properties.
For illustrative purposes the mature landscaping has been dashed and dotted so to clearly show the houses behind.

The Design:

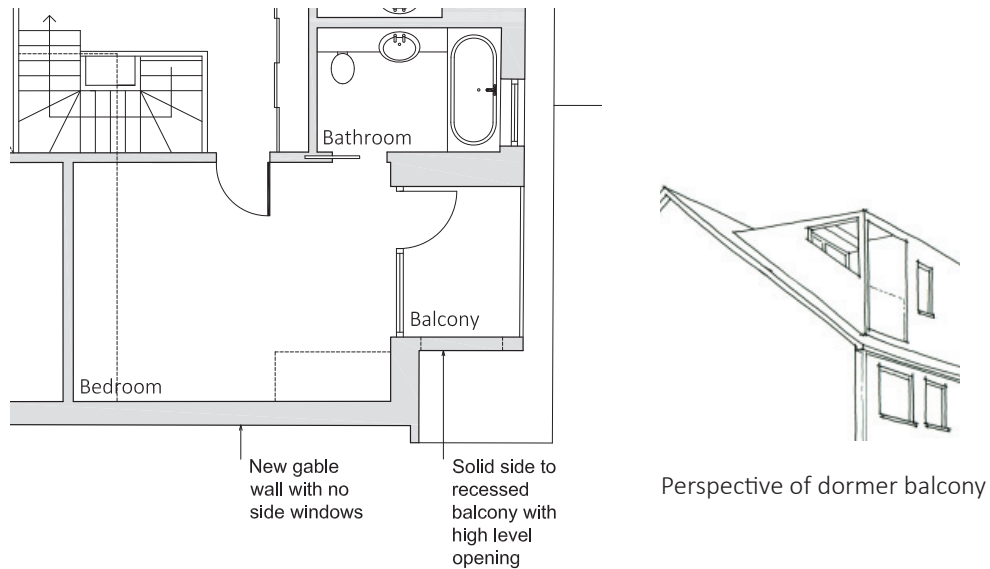
Proposed Back Elevation

At the rear, the new dormer sits above the new eaves line that is at the approximate level of the existing higher eaves. The dormer is punctuated by two small bathroom windows and recessed balconies in front of patio doors to the new bedrooms.

Rather than projecting balconies, the new balconies are set within the dormer with high level openings to the sides to reduce overlooking from both the new bedrooms and the balcony itself.

The dormer is proposed to be entirely clad in a zinc cladding, enhancing it's contemporary form and reflecting that of the roof level metal cladding of Homerton College that it faces. *Please refer to design materials for more detail.*

Two of the existing windows on the first floor are proposed to be repositioned to help with the overall symmetry of the rear elevation as a whole.



Second floor proposed dormer balcony



View of Homerton College student accommodation from the back garden 11 Luard Rd

The Design:

Proposed Materials

The design concept for the materials is to use similar traditional local characteristic materials for the main finishes and integrate contemporary finishes to emphasise the architectural features.

The new traditional pitched roofs are proposed to be tiled with reddish brown clay tiles and the new standing seam roofs to the bay window, porch and rear dormer to be zinc.

The use of lead or zinc for the standing seam roofs were considered during the design process as both offer the right architectural properties and are both found in the local pallet of materials. A bronzed toned zinc was chosen as the preferred material as it offers a warmer colouring that is more subtle against the reds and browns of the brick and clay tiles.

The use of brick slips or zinc were considered for the new chimney. Zinc cladding was the preferred material to reflect its contemporary construction.

The new finishes to the external wall insulation fixed to the external face of the external walls will be brick slips and a subtle coloured render above (similar to the existing finishes).

The new entrance door and feature stair window will be polyester powder coated aluminium of a similar colour to the bronzed zinc.

The new column is to be a composite steel and timber column.

Proposed main materials:



Red Brick

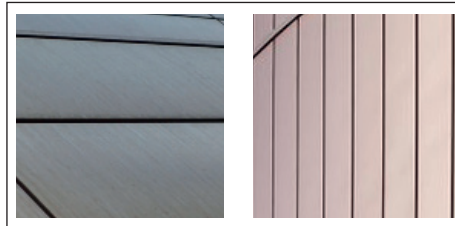


Painted Render



Clay tiles

Proposed feature materials:



Bronzed zinc



Polyester powder coated aluminum feature windows



Steel and timber column

Please see separate document for Appendices:

11 Luard Road Design Statement APPENDIX, contains:

1. Drawing J03 002, illustrating the position of the TPO trees on site
- 2a. Revised design presented at the pre-planning consultation meeting with CCC on the 13th October 2014
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