



Project name: Ekin Road

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Urban Design Narrative
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Maximising the potential of the site – High Density Low Rise

The emerging proposal for Ekin Road estate is for a High Density Low Rise development of predominantly 2/3 storey houses and a single 4 storey apartment block. Due to the low rise nature of the homes (houses and low rise apartment blocks), the nature of this type of urban design typology is that the total footprint of the buildings are much larger than a High Density High Rise development previously explored. Therefore, to maximise the area of the site, requires increasing the quantum of urban blocks by proposing tighter urban grains.

The emerging proposal follows the urban design principles of High Density Low Rise development that have been tested and proven successful in recent developments such as Goldsmith Street (Norwich), Accordia (Cambridge) and Ironworks, Mill Road (Cambridge):

- **Traditional back to back urban grain.**
Placing frontages opposites one another and gardens adjacent to one another helps to provide active streets and secure rear gardens. As the north, east and south of the site is bounded by adjacent houses' rear gardens, our emerging proposal places new homes rear gardens to back onto the adjacent houses' rear gardens in line with this key urban design guidance. This sets out the structure of a "traditional" street pattern that has been tried and tested to provide for well overlooked and active streets and is recommended by publications such as Homes England's Building for a Healthy Life
- **Reduced back to back distance.**
A traditional back to back distance is circa 20m (with 10m deep back garden for each house). To increase the quantum of urban blocks, the emerging proposal proposes a variation of back to back distances:
 - Where new homes back onto existing homes, a minimum of 20m is proposed to the existing homes. This strategy is applied throughout the emerging proposal unless, existing site constraints restricts this and requires a reduced back garden depth bespoke design solution. In this instance, the emerging proposal will seek to ensure that no existing rear gardens are overlooked and is impacted with regards to daylight/sunlight and outlook such as a house typology without rear windows on the first floor (done successfully at other places in Cambridge such as Ironworks) and thorough daylight/sunlight testing.
 - Where new homes form the urban block, rear gardens are designed to be circa 10m back to back. To minimise overlooking, houses along one side of the urban block would be designed without rear facing windows above ground floor.

The intent is for the emerging proposal not to cause undue negative affect to existing adjacent homes and for new homes to be provided with suitable amenity space to sit outside, put washing out and some planting whilst maximising building footprint and quantum of homes.

- Variation of streets including small mews
A traditional street designed to Highways Adoptable standard is circa 10m wide (6m wide road with min 2m wide pedestrian pathways either side). To increase the quantum of urban blocks, the emerging proposal proposes a variation of street widths, which have been designed to fit the location on site, such as shared surface mews streets where roads serve fewer homes and narrower secondary streets to allow more space for the proposed homes and gardens. Some of these streets would not meet the width requirements of Highways Adoptable standards and therefore, may need to be deemed private road and be privately maintained by the Council. The street types proposed for the emerging scheme can be found in BPTW's PreApplication 01 document ERD1-BPTW-XX-XX-DO-A-0201-P03-S3 section 2.

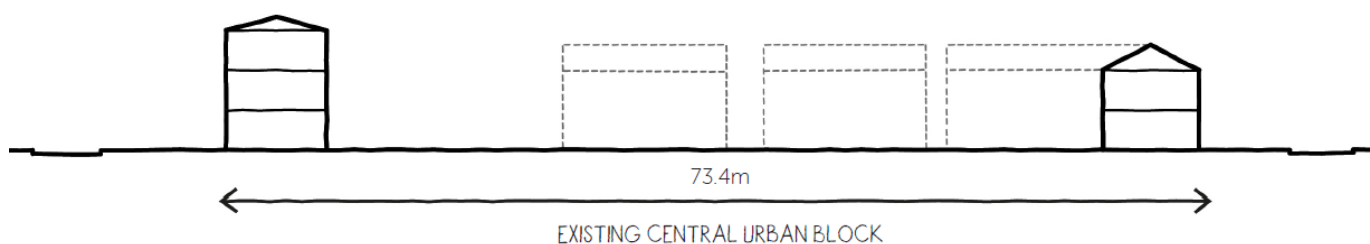
Existing and Proposed Site Urban Grain

- Existing Site Urban Grain

The existing Ekin Estate is currently formed of the following:

- Half of an urban block of houses to the north, east and south, to form a complete back to back urban grain with existing houses on Keynes Road, Ditton Lane, and the industrial units to the south of the site.
- A central urban block in the middle of the site, formed of two apartment blocks and eight houses
- An urban block to the west of the site, however the frontages of the individual buildings are unclear, with backs and fronts of buildings misaligned leading to illegible wayfinding and low natural surveillance.
- A central loop road currently adopted by Highways (however may not meet current Highways standards) forms the main street network with a dead end branch to the west and a small loop to the east.
- The only vehicular entrance is from Keynes Road to the north.

The urban grain of the existing site is generous, with large back to back garden distances as shown in the sectional diagram below:



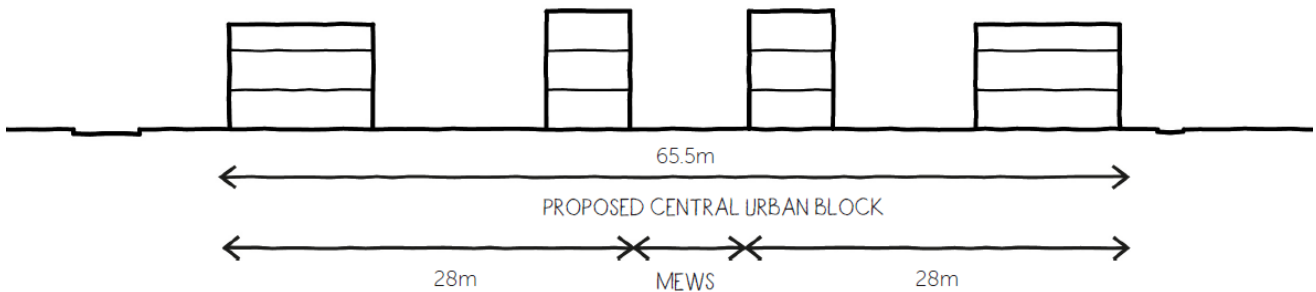
- Emerging Site Urban Grain

Utilising the urban design principles of High Density Low Rise development set out above, the emerging proposal for Ekin Road estate contains the following:

- Half of an urban block of houses to the north, east and south and south west, to form a complete back to back urban grain with existing houses on Keynes Road, Ditton Lane, and the industrial units to the south of the site.
- 5 urban blocks across the middle of the site. This increase in number of urban blocks (from 2no to 5no) is made possible by the introduction of smaller, wide fronted mews houses with shallow rear gardens and 9m front to front distances.

- A primary road designed to Highways Adoptable road standard running east-west at the north of the site with secondary, tertiary and mews road branching from this main primary road.

The urban grain of the emerging proposal is made tighter to maximise the site area as shown in the sectional diagram below where a mews is introduced to provide additional houses in the centre of an urban block:



The diagram below is an overlay of the proposed and existing urban grain (in dashed red) to highlight the densification of the site:



Existing Homes

The below summary provides a narrative from an urban design and architectural perspective explaining the design considerations which affect the groups of semi detached houses to the north, east and centre of the site which is proposed to be demolished as part of the emerging proposal and row of semi detached houses to the south, which will be retained .

It is our understanding that all apartment buildings, maisonettes, and bungalows on site are to be demolished as they have significant maintenance and structural issues and are well below the current standards the council applies to new developments. It is also our understanding that refurbishment to these

buildings have been ruled out as it will only provide short term improvements but is unable to provide long term benefits such as improvements to legibility, wayfinding, and connections, increase safety through increased active frontage and natural surveillance and increased public amenity which the emerging proposal seeks to achieve.

Houses to the North (4 houses: no.1, 3, 97 and 99 Ekin Road)

- Site Arrangement – Impact on location of Primary East - West Road

The existing 4 houses form part of the urban block to the north of the site. With the apartment blocks and bungalows demolished, the 4 houses would be the only buildings retained in the existing urban block and its retention would restrict the reorganisation and improvement to the rest of the urban block as set out below:

- The existing houses have a circa 13m deep rear garden and are circa 7.2m long. Therefore, the frontage of the houses is approximately 20m south of the north boundary. The houses also have large front gardens of circa 9m deep therefore the overall plot boundary of the properties is circa 30m south of the north boundary.
 - Although the orientation of the houses in the emerging proposal is similar to that of the existing houses (ie. Half an urban block of houses to form back to back urban grain with existing houses on Keynes Road), to maximise the quantum of urban blocks and new building footprint, the emerging design must keep to minimum rear garden depths, building depths and front garden depths as much as possible, especially as the houses to the north of the site determines the location of the primary east-west road and the layout of the street pattern running to the south.
 - The emerging proposed new homes are designed to have circa 6m deep rear gardens (much like the homes on Ekin Close) with a typical narrow frontage house typology (10m deep) resulting in building frontage circa 16m and plot boundary circa 20m from the north boundary. This enables the primary east west street to move northwards by approximately 10m which creates more space for the central urban blocks. This allows for approximately 3no homes per urban block (i.e 15-18 homes increase across the site)
- Urban Design and Architecture – Impact on entrance wayfinding, natural surveillance, and existing tree line.
 - One of the issues of the existing estate is that some of the areas are inaccessible, difficult to navigate and feels unsafe due to low permeability and lack of overlooking. The emerging design seeks to improve this by increasing legibility, wayfinding, and natural surveillance across the site.
 - The northern houses are located at an important junction of the main vehicular access road from Keynes Road. Currently the side boundaries of the plots are directly adjacent to the pedestrian footway and are bounded with high level fencing. As the houses are placed centrally in their plots with few side windows, this results in an illegible and poorly overlooked entrance into the site.
 - The emerging proposal seeks to provide more green space and trees at the entrance to the site to open up the corners of the street and improve legibility and wayfinding. The new houses' will have prominent side windows or main entrance directly overlooking the site entrance which will improve natural surveillance and create a more welcoming entrance onto the site.

The below diagrams shows the impact of the street pattern if the houses to the North are to be retained vs the emerging proposal where the houses to the north are excluded from the design:



The above sketch shows that by including the northern houses, would result in an efficient urban grain with large front gardens for the adjacent new development in comparison to the proposal below.



Houses to the East (6 houses: no. 13-23 (odd) Ekin Road)

- Site Arrangement – New road to the east of the site
 - The current arrangement of the houses and apartments to the east of the site, which form a loop around some parking spaces and trees, creates long rear gardens and an awkward garden space to the rear of the apartment block. With the adjacent apartment block demolished, the retained 6 houses, especially with the irregular plot boundary to no.23 Ekin Road and angle of the site boundary presents a very limited opportunity to propose an efficient arrangement of homes in place of the apartment block.
 - The eastern area of the site presents an opportunity to better connect the passageway to the south east of the site (leading to Ditton Lane) to Ekin Close to improve not only connectivity but also natural surveillance and therefore safety of pedestrian movement through the site.
 - The emerging proposal proposes a new mews street to the east of the site to directly connect a new small area of green at the entrance of the south east pedestrian footpath to

Ekin Close and reconfigured existing green (with retained trees) leading to a more permeable estate.

- The exclusion of the houses to the east also allows for a much tighter and more efficient urban block arrangement. A series of wide frontage, shallow houses are proposed to back onto the existing houses on Ditton Lane and a small urban block of 8 houses is proposed within the footprint of the existing apartment building and carparking.
- Urban Design and Architecture – Relationship to Ekin Close
 - One of the complexities to the estate is the sitting of Ekin Close, a development of 6 new houses tucked away to the north east of the site, accessible via a narrow driveway between no.13 Ekin Road and the adjacent apartment block. This results in an unsafe environment as well as negative outlook with house frontages facing a long and high rear garden fence.
 - The emerging design proposes new homes orientated north south which faces onto Ekin Close to provide increased natural surveillance and activity.
 - As the east west route has been moved north, it also becomes better aligned with the entrance to Ekin Close. This allows easier access, including a pedestrian footpath and clear sight lines from one end of the street to the other. This helps with natural surveillance and brings the houses on Ekin Close into the neighbourhood.
- Existing building conditions

It is also our understanding that the semi detached houses no.17 Ekin Road and no.19 Ekin Road currently have subsidence issues and therefore, work would be required in the near future to remedy the situation.

The below diagrams shows the impact of the street pattern if the houses to the East are to be retained (image on the left) vs the emerging proposal where the houses to the East are excluded from the design (image on the right):



Houses to the Centre (8 houses: no. 2-16 (even) Ekin Road)

- Site Arrangement – Impact on new mews and location of secondary road to the east
The existing 8 houses form the north eastern part of the central urban block. With the adjacent apartment blocks demolished, the retained 8 houses would restrict the reorganisation and improvement to the rest of the urban block as set out below:
 - The existing 8 houses to the centre of the site is arranged in relation to the houses to the north of the site. Therefore, if the houses to the north of the site are to be demolished and the primary east west street is to be moved northward, this would result in a deep front garden to the existing house and misalignment to the surrounding new houses adjacent to them as they would be designed to a more efficient and tighter urban grain arrangement.
- Urban Design and Architecture – Impact on entrance wayfinding and green access route
 - No.2-12 (even) Ekin Road houses are located at a prominent junction; at the end of the main vehicular entrance to the estate from Keynes Road. The emerging proposal proposes a focal point building in this location which would act as a gateway and wayfinding point for the estate. In our view, a strong architectural presence to the estate is required at this main juncture, to be in keeping with the updates and improvements to the rest of the estate.
 - A new green route is proposed to the east of the site, with play along the way to connect a new green to the south east of the site and existing (but rearranged) green open space, with two category B trees to the north east of the site. The sitting of 2no of the existing houses (no.14 and no.16 Ekin Road) would restrict this key public amenity proposal.

Houses to the South (14 houses: no. 33-59 (odd) Ekin Road)

- Site Arrangement, Urban Design and Architecture

The southern most area of the site has been highlighted, by Cambridge City Council Planning Case Officer and Urban Design Officer as a potential area for height; as it is less constrained with regards to proximity to adjacent existing houses. Previous emerging proposals have sought to maximise the potential of the site by increasing density to the south; by proposing mid rise apartment blocks.

However, unlike the houses to the north, east and centre of the site, the 14no houses to the south of the site forms a complete urban block, with frontages actively facing the road to the north and rear garden facing the boundary and industrial units to the south. Therefore, from a “traditional” urban design perspective, the houses and the urban block are able to be integrated within the overall arrangements of the new emerging layout to form a cohesive, successful urban design.

Similarly, from an architectural design perspective, the row of semi detached houses form a cohesive architectural language across the south of the site that can be incorporated into the wider new, contemporary architectural language proposed during further design development.