

TOWN.



MIKHAIL RICHES

Mole

DESIGN AND ACCESS STATEMENT

DECEMBER 2020

CONTENTS

INTRODUCTION 3

CONTEXT, OPPORTUNITIES AND CONSTRAINTS 9

DESIGN EVOLUTION 15

PROPOSED DEVELOPMENT 27

LANDSCAPE AND THE PUBLIC REALM 60

SUSTAINABILITY AND THE CLIMATE EMERGENCY 85

PHASING AND DELIVERY 91

CONCLUSION 93



INTRODUCTION



"Time changes our perspective. What was new becomes old. What is old is to be treasured. It becomes our heritage.

"In my lifetime all of the cottages built in the 1840s have disappeared, along with the original railway works built in 1839. The second and third station have been demolished, together with the Gables and a good section of Church Street and Buckingham Street. The Science and Art Institute suffered a disastrous fire and was subsequently flattened. The works drafting office suffered the same fate. McCorquodale's print works has also gone...

"I don't know if this is a good thing or a bad thing. You could argue that this betrays a progressive spirit of continual improvement, sweeping away the old to make way for the new; or it can be regarded as rather sad that we are left with so few visible signs of Wolverton's long and rich heritage.

I'll leave you to make up your own mind."

Dr. Bryan Dunleavy, "Does Wolverton destroy its past?"

First published on www.wolvertonpast.co.uk on 26th November 2016.

Dr. Dunleavy is a native of Wolverton and the author of several books on its history.

Reproduced with kind permission.



1.0 INTRODUCTION

1.1 VISION

Does Wolverton destroy its past?

For us, after eight years preparing the ground to demolish and redevelop one of the town's most prominent buildings, it's a question freighted with meaning.

Few disagree that the Agora must go: even those with fond memories of its early 1980s heyday or an appreciation of its original architectural and social ambition generally acknowledge the building has reached the end of its useful life.

Throughout our involvement with this project, we've spoken with hundreds of Wolvertonians, in workshops, in meetings, in schools, and in the street. What we've heard from people about what should come after the Agora has reflected Bryan Dunleavy's beautifully articulated sense of, alternately, optimism and foreboding. Will redevelopment of the Agora make Wolverton better? Can redevelopment, given modern planning and development norms, deliver something worthy of Wolverton's past and fit for its future – especially if developers are in charge?

The conversation around this project has brought to life in Wolverton debates that rage in towns up and down the country, and more so in the pandemic age. Do only places that are as easy as possible to park in have a viable future? Or is the 21st Century reality that towns like Wolverton thrive only if they focus on being wonderful places for local people to spend time in safe streets and clean air?

Is Wolverton a victim of the supposedly inexorable decline of the high street - in which case why build more shops? Or could a more ambitious approach help it become a neighbourhood of choice for Milton Keynes? If new housing within walking distance from the railway station attracts lots of young professional commuters with money to spend is that a good thing or a bad thing for the town in the long run?

A thing we've learnt as a developer trying to blend profit with purpose is that we arguably get a much harder time from the people we consult, because they know we care, that we'll listen and, if it's

not right, that we'll do something about it. One of the pleasures of this project has been the countless rich and varied conversations we have had with people from all walks - from bona fide experts to those who simply care deeply about the place and know what they like - about architecture, Wolverton's history, Victorian authenticity and how these might shape our approach.

We're confident the proposals set out in this document won't please everyone – something would probably be amiss if they did. But more important is that, for all the losses and erasures of wonderful old Wolverton, there is still an enormous weight of history, character and beauty against which what we offer will be robustly compared for better or worse.

So... vision? We're not sure we need one, or if it's even for developers to have 'visions' of how a 180-year-old railway town should be regenerated. Besides, Wolvertonians have their own vision, set out in their Neighbourhood Plan, of a "vibrant, attractive and distinctive neighbourhood... that reflects the town's rich and proud railway heritage and its diverse business and residential population." Hear hear to that.

And beyond this, we hope to set an example for how new development can contribute towards hitting 'net zero' carbon and building climate resilience as Milton Keynes continues to grow, and helping make lovely spaces for children and adults alike to play and enjoy the pleasures of living in town.

More than vision, what we hope we and our team have brought to this project is an understanding of the town's culture and economy and how its built form shapes them; skill to design and deliver beautiful streets and useful buildings that will give pleasure to people living in and visiting the town; investment to make sure that after years of false starts it finally happens...

...and a bit of love, Wolverton.

But we'll leave you to make up your own mind.

TOWN, November 2020.



1.0 INTRODUCTION

1.2 SCHEME OVERVIEW

The description of the proposed development is as follows:

"Redevelopment of the site of the Agora Centre, Wolverton and adjacent car park to provide 115 new homes (Use Class C3) and ancillary Cohousing Common House, nine ground floor commercial and community units comprising approximately 1,000 sqm (Use Classes E, F2(b) and Sui Generis); the reinstatement of Radcliffe Street between Church Street and Buckingham Street / The Square; together with associated areas of hard and soft landscaping, car and cycle parking, means of access and plant and equipment."

The proposed development comprises:

- 86 new rental homes (C3 Use) comprising one and two bed apartments and 2, 3 and 4 bed houses, 27 (31%) of which are to be let as affordable homes at Discounted Market Rent (DMR);
- 29 new homes for Still Green older people's Cohousing group, including 4 at Social Rent (14%), and a 146 sqm ancillary Common House (C3 Use);
- 903 sqm of commercial floorspace (Use Classes E and Sui Generis (Drinking Establishment));
- 105 sgm Community Unit (Use Classes E and F2(b))
- Provision of associated areas of public realm, including the reinstatement of Radcliffe Street totalling around 5,620 sqm of hard and soft landscaping; and
- Provision of a new sustainable mobility hub, including an upgraded bus stop on Church Street, a 10-bike Nextbike bike dock, an 8-bike Brompton Bike Hire Dock, and two car club spaces; in addition to new town centre and residential car and cycle parking.



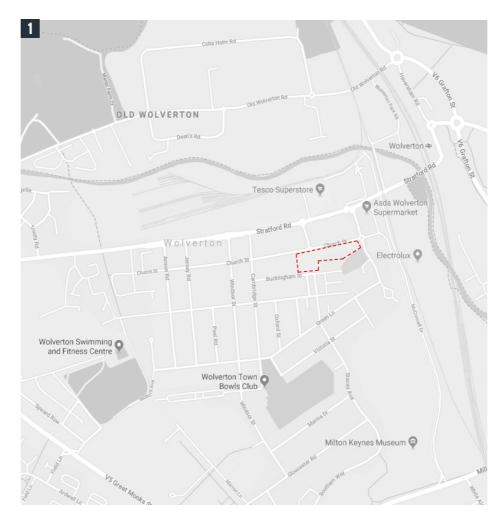
1. Axonometric view of the scheme

2.1 LOCATION AND SITE

The site is located in the centre of Wolverton, 4km north-northwest of central Milton Keynes. Milton Keynes is located in the south of England, around 80km north of London. It has a population of 229,941 (2011 census). With Bletchley and Newport Pagnell, Wolverton was one of the three original settlements about which the New Town of Milton Keynes was created and is historically a railway works town. With the railway works much reduced in scale, today Wolverton functions as a distinct settlement of over 12,000 people within the greater city of Milton Keynes; economically and institutionally integrated into Milton Keynes but, with its close-knit, Victorian, terraced street-based form, contrasting physically and culturally with the modern new town.

The site consists of the Agora Centre and its adjacent car park to the east. Church Street borders the site to the north, with St George's Way forming a small section of the east boundary. Opposite the site, the north side of Church Street is a mix of twoto three-storey buildings with commercial use at ground floor, with the larger grade II listed Wesleyan Chapel and King's Church Community Centre at the east end. Church Street to the west of the site becomes more residential with predominantly two-storey, back-of-pavement, Victorian terraced houses on either side.

Buckingham Street is located along the southern boundary and opens onto Market Square (widely known as The Square). Again, here the use at ground floor is mostly commercial at ground floor level. East and west of The Square, Buckingham Street also comprises two-storey, back-of-pavement, Victorian terraced houses on either side. The western edge of the site borders with the gable end of Victorian house and garden walls, with a back lane turning south onto Buckingham St. The south edge of the car park abuts the churchyard wall of grade II*-listed St George the Martyr, and the remains of the former backway which provides access to the rear of nos. 4 to 22 Buckingham Street.











- 1. Location Plan
- 2. Site Plan
- 3. View east along Church Street from the Agora
- 4. View east along Church Street including the bus stop
- 5. View west from St George's Way along Church Street

2.2 HISTORY







Historic maps show the west of the site originally comprised of Victorian terraced housing that followed the grain of narrow streets and backways. Radcliffe Street ran north-south through the site connecting The Square, Buckingham Street, Church Street and Stratford Road. A backway ran through the site from east to west providing access to the backs of houses along Church Street, Radcliffe Street and Buckingham Street.

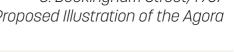
The Science and Art Institute was a large civic building that sat adjacent to St. George's Church to the east of the site. It was gutted by fire in the early 1970s and later demolished.

In the late 1970s, with the support of the Milton Keynes Development Corporation, the terraced housing on the west of the site was demolished and replaced by the Agora Centre, completed in 1979. Promoted at the time as a new heart of the town, the Agora Centre was designed by Wayland Tunley (a Development Corporation Architect) and combined retail, leisure and community use under one roof.

During its life, the Agora centre was never financially viable. There was not the expected demand for new retail units and the cost to run the building was much higher than expected. It was sold by the Development Corporation in the 1980s and since has passed through many private ownerships, all of which have struggled to find a viable solution for the building, leading to disinvestment and decline. The erasure of Radcliffe Street, combined with the angle at which the Agora Centre was built has meant the grid street pattern is broken. Therefore the pedestrian routes from Church Street to The Square have been interrupted and the 'movement economy', that is critical to a thriving , small-town high street, small-town high street, is damaged.

Acquired with vacant possession by Love Wolverton Ltd in 2019, it is now awaiting demolition following the granting of planning permission for its demolition in December 2019. Further details of the history of the site are given in the accompanying Heritage Statement.

> 1. Church Street, 1910 2. Science and Art Institute, 1864 3. Buckingham Street, 1967 4. Proposed Illustration of the Agora



2.3 OPPORTUNITIES AND CONSTRAINTS

The adjacent diagram illustrates the following opportunities and constraints affecting the development of the site.

- The site is located in a conservation area and adjacent to a number of listed buildings.
- There are attractive existing and potential views to the listed St George The Martyr church.
- There are mature trees on and around the site, some which are of high quality and an asset.
- The site sits between the commercial centres of Church Street and The Square, both have active retail frontages on the ground floor, and there is potential to re-connect them.
- The Square provides formal public amenity space with the potential to be improved.
- There are several pedestrian routes through the site which should be maintained and improved.
- Access to existing garages and back gardens on Buckingham Street needs to be maintained.
- Bus stopping and charging provision needs to be retained or reprovided.
- A number of utilities are present on the site, which need either to be diverted or designed around.

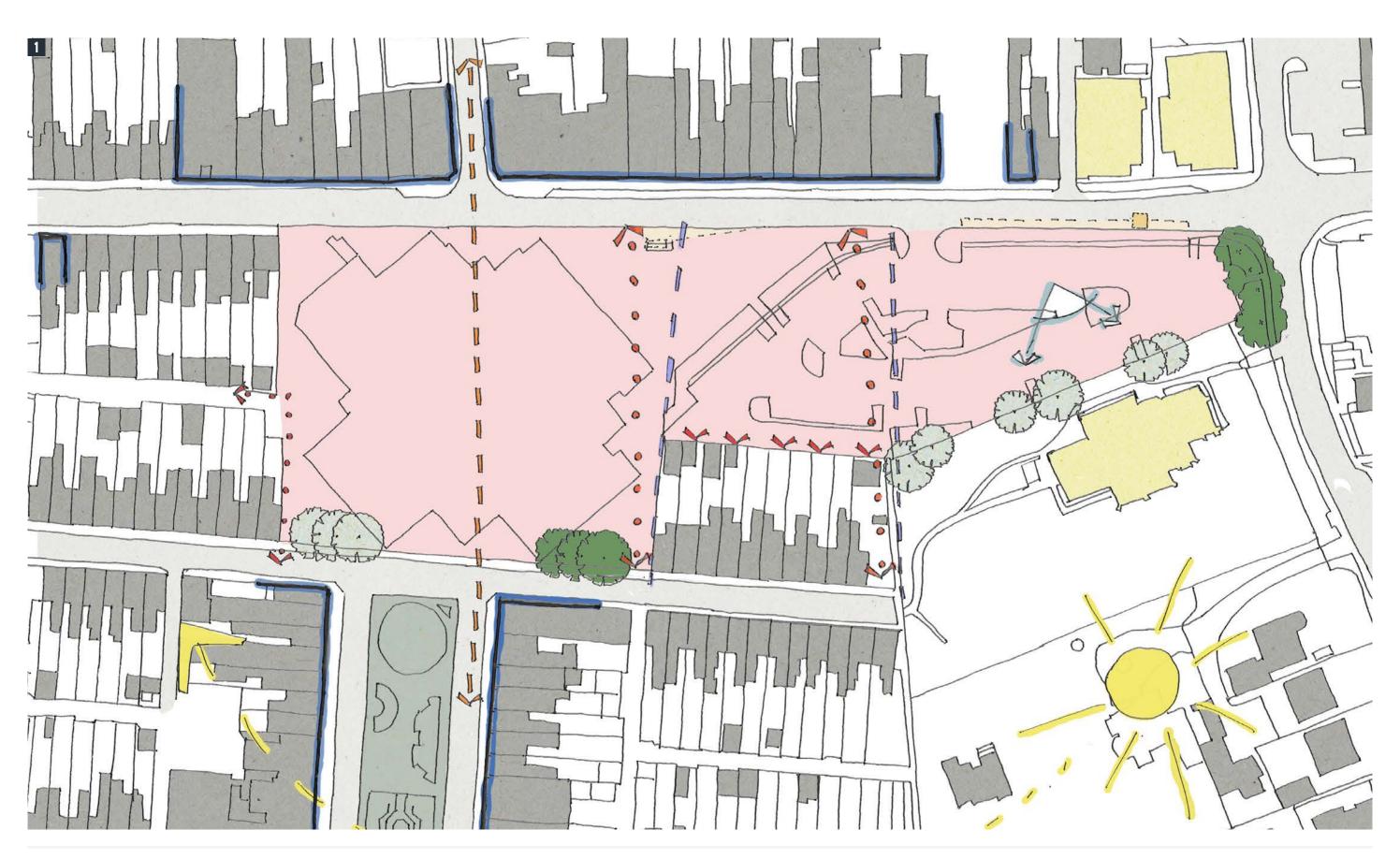
Beyond the physical/spatial opportunities and constraints, and arguably yet more compelling, are the opportunities afforded to contribute to the long-term health and wellbeing of Wolverton and its residents and provide a resilient response to the constraints imposed by the climate emergency (both mitigation of climate change and adaptation to already inevitable change) and the possibility of living indefinitely with pandemic conditions.

The nexus of these forces is the emergence of the '15 minute' city or neighbourhood as the urban scale supporting individual and social wellbeing by enabling most people to meet most their everyday needs within an easy and pleasant 15-minute walk or cycle of their home. As the climate gets hotter in the summer and wetter in winter, and as people spend more time at home and become more frequently or even permanently reliant on their immediate environment to serve their everyday material and psychological needs, it will become ever more important that homes, streets and neighbourhoods are equipped to help people thrive under conditions of stress.

Amid concern about the 'death of the high street' and the erosion of local identity, it is important to appreciate that Wolverton is endowed with many tools of long-term resilience: excellent local shops and services of which most residents live within a short walk; good housing often with plenty of outdoor space; decent public spaces that make it possible for the community to come together; and a terrific network of community organisations with the town's best interests at heart.

Regeneration of the Agora site affords the opportunity to strengthen this resilience by designing new streets and spaces that are preadapted for climate change and bring people together, offering homes that will be healthy and comfortable all year round and will be pleasant to work in as well as to live in despite using little energy; deepening the mix of amenities that serve local people and make the high street attractive; and linking the generation of renewable energy to the creation of new local assets that can be grown for the benefit of the town. Our full response to this 'resilience challenge' is set out in the accompanying Resilience Statement.

1. Opportunities and Constraints diagram



2.4 PLANNING POLICY CONTEXT

The key planning policy documents informing the design are:

- National Planning Policy Framework and Planning Policy Guidance
- Plan:MK (Milton Keynes Council, 2019)
- Wolverton Neighbourhood Plan (Wolverton & Greenleys Town Council, 2014)
- Agora Development Brief SPD (Milton Keynes Council, 2013)
- New Residential Development Design Guide (Milton Keynes Council, 2012)
- Wolverton Conservation Area Review, (Milton Keynes Council,

Key planning policy requirements and the scheme's response are described in full in the accompanying Planning Statement.



Plan:MK 2016 - 2031

Adopted March 2019





Wolverton Town Centre Neighbourhood Development Plan 2015 - 2025



Policies Map - Wolverton Town Centre

Adopted March 2019



AECOM

1. Key Planning Policy and Guidance Documents

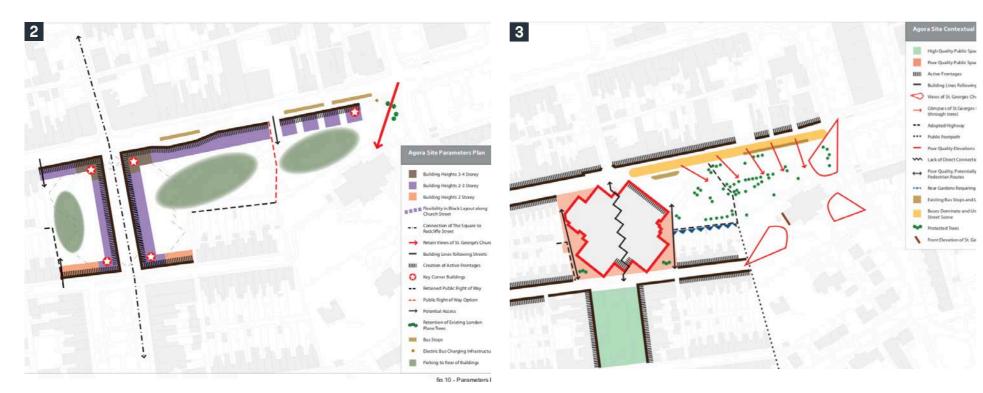
3.1 PAST WORK

The site has long been earmarked for redevelopment, with the Council and local community in Wolverton setting guidance, policy and indicative plans for the site, which formed the basis for initial design work by TOWN.

Wolverton Regeneration Strategy (2004; Milton Keynes Council, English Partnerships, Wolverton & Greenleys Town Council & SEEDA) proposed the redevelopment of the Agora Centre "to provide a high-quality mixed-use development that respects the historic urban structure of the town, complements its character and enhances the retail core". Its indicative plans included the replacement of the Agora Centre with a new central Market Hall located within the reinstated Radcliffe Street.



- 1. Indicative plan, Wolverton regeneration strategy (2004)
- 2. Parameter plan, Agora development brief SPD (2013)
- 3. Context plan, Agora development SPD (2013)
- 4. Policy W1- The Agora site, Wolverton Neighbourhood Plan (2014)



Policy W1 – The Agora s

Redevelopment proposals for the Agora site will be actively supported where they are consistent with the objectives set out below. The planning and design principles in the Agora Development Brief Supplementary Planning Document (adopted September 2013) are consistent with this policy and referenced below. Redevelopment proposals will:

- A. Follow the historic grid street pattern and reinstate Radcliffe Street as a direct highway link, which is pedestrian and cycle friendly, between The Square and Church Street. (Reconnection of the Grid)
- B. Provide an active retail frontage on the reinstated Radcliffe Street and Church Street with a mix of new ground floor units of modern size and standard, suitable for current retail, service and office requirements. (Scale and Orientation of New Development and Active Ground Floor Frontages)
- Include development fronting Church Street, with a priority of around the junction with Radcliffe Street. (Development along Church Street)
- Make a clear distinction between public and private spaces, particularly at the rear of buildings. (Public and Private Space)
- E. Incorporate public open space around the junction of Church Street and the new highway link to The Square, to improve the urban environment and support street markets and community events. (Street markets and community events)
- Retain views of St George's Church, in particular the spire, through breaks in development along Church Street. (Retention of Key Views)
- G. Be between two and four storeys in height with the taller buildings on the corners of the site and along the re-instated Radcliffe Street link between Church Street and The Square. (Building Heights)
- Where practicable ensure service yards do not conflict with private amenity space or private parking provision for residents or undermine the quality of the environment at the front. (Servicing)
- Except in new residential development where parking should be designated to each unit, all parking should be accessible to town centre users, and include an element of on-street parking. Existing adopted highway access should be retained and enhanced where practicable. (Parking and Existing Adoptable Highway Access)
- Integrate the existing Electric Bus Charging Infrastructure located in Church Street. (Electric Bus Charging Point Infrastructure)

continued

Policy W1 - The Agora site - continued

- K. Improve cycling and walking links within the town centre, retaining existing pedestrian links such as that between St George's Church and Church Street as practicable and viable. (Existing Adoptable Highway Access)
- L Include a mix of new housing which complements the existing provision and meets the particular needs of older people (extra care housing) and younger people (supported housing). Housing provided on the site should also meet the Lifetime Homes Standard, and best practice guidance in 'Safer Places' and 'Secured by Design'. Some dwellings should support home based working and all homes should have high speed broadband.
- M. Include a range of small to medium sized retail (50 to 1000 square metres) and office units and workshops suitable for current town centre businesses that may require relocation and new occupiers. (Allow for a range of land uses and unit sizes)
- N. Retain the existing London Plane trees and other trees where practicable replacing any trees lost as a result of development (Landscaping)
- Include the introduction of water efficiency measures and new green infrastructure in the form or sustainable urban drainage systems which reduce flood risk and add ecological value and interest to the development.
- P. Street materials and street furniture should comply with the Public Realm Design Manual. (Public Realm materials and street furniture)
- Q. Be of good design more in keeping with the Victorian architecture of the setting which preserves and enhances the character of the Conservation Area. Poor quality pastiche is not acceptable. (High quality architecture)
- R. Ensure redevelopment is accessible to all users. (Access to All)
- Subject to viability testing, new development will be zero carbon and resilient to the impact of climate change and served by a district heating network.
- T. Ensure that the necessary on and off-site infrastructure, for example school places, and community facilities are provided to support and mitigate the impact of development.

The **Agora Development Brief SPD** (2013; Milton Keynes Council) sets out a clear vision for the site, and provides detailed guidance and principles applicable to guide the redevelopment of the site, including indicative plans as well as use-mix parameters. The Parameters Plan includes the reinstatement of Radcliffe Street, proposed building heights, location of key corner buildings on the junctions of Radcliffe Street and active frontages along Radcliffe Street, Church Street and the Square with car parking located to the rear of new development blocks. It acknowledges the potential merits of redeveloping the Agora car park alongside the Agora Centre, subject to demonstrating that there would not be undue harm.

Wolverton Neighbourhood Plan (2015) describes a vision for where Wolverton town centre "as the heart of the town, is a vibrant, attractive and distinctive neighbourhood with a variety of retail, commercial, cultural, and leisure uses that reflects the town's rich and proud railway heritage and its diverse business and residential population". Policy W1 guides the redevelopment of the Agora site, based on 20 objectives.

3.2 2014-2016 PROPOSALS

In 2014 the Agora Centre came on the market, and TOWN was one of two bidders, eventually being the underbidder to Brickhill Estates. Planning permission (15/00913/FUL, now lapsed) was granted in 2016 for a scheme of 100 residential apartments with eight, large ground-floor retail units totalling c. 3,200 sqm, across six development blocks of two-to-four storeys, with the car park partially retained. The approved scheme, while criticised by officers for "pastiche" design and ultimately deemed unviable by the developer, who decided not to pursue redevelopment of the site nonetheless established an acceptable scale of development and further embedded the principle of the urban structure laid down in the SPD.

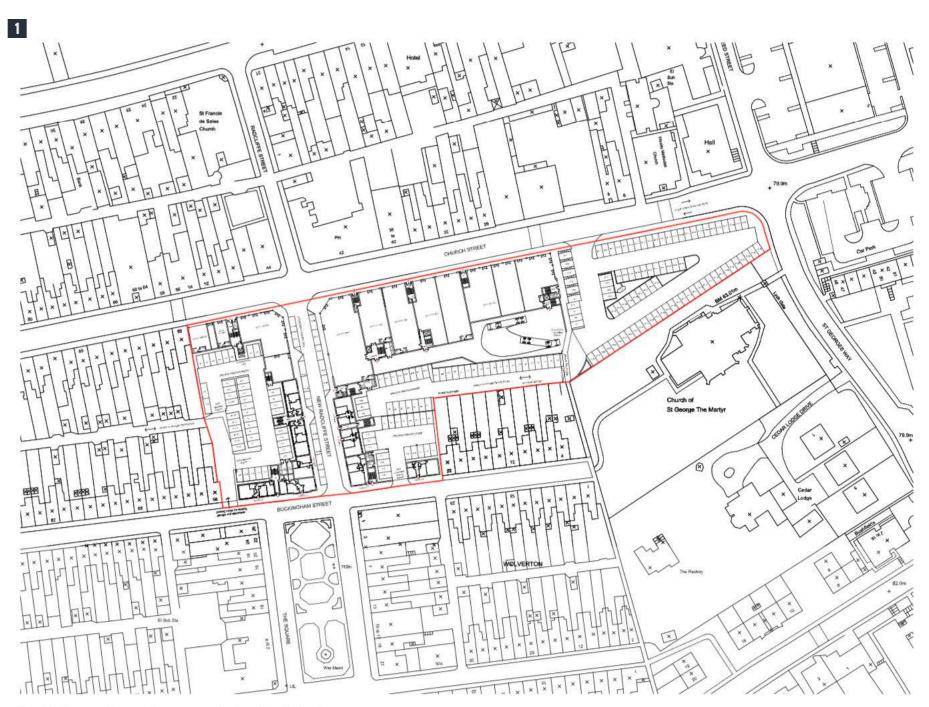


Fig 5.19 Proposed masterplan- not to scale [working drawing]

^{1.} Brickhill masterplan

^{2.} TOWN's early proposal, 'Love Wolverton' (2014)





WOLVERTON BUSINESS HUB

Located on the corner of Church Street and Radcliffe Street, a new business 'hub' would be a focus of Wolverton's burgeoning nome working community

With a cafe at ground level, the building would house microbusinesses in flexible upper floor workspaces with fast IT, backoffice support services and smart meeting rooms



Echoing the traditional, solid terraced streets that characterise Wolverton, terraced family houses would provide a strong, active frontage along Church Street.







The junction of Church Street and Creed Street would be improved and humanised through public realm works, and complemented by a new open space in front of St George's Church. Existing trees would be retained





Looking onto a new piece of public realm, a block of flats catering for older residents would help meet the needs of Wolverton's wider community.

This could give older people the chance to downsize and draw on support from others, all while continuing to live in the heart of the town





A MIXED COMMUNITY.

RADCLIFFE STREET.

Restoration of the historic street pattern by reinstating Radcliffe Street as a low-speed 'shared' street, creating a pedestrian- and cyle-friendly public

Larger floorplate retail would be located on

corners, with smaller floorplate, independent shops interspersed with housing along its length.

Complemented by a high-quality landscaping and public realm treatment, Radcliffe Street would

provide a compelling reason to venture down to the

realm connection between the Square and Church

LOVE WOLVERTON would be a place for everyone, and its mix of accommodation would reflect that - from small apartments for singles or couples starting out, substantial houses for established families and smaller properties for downsizers.

WLOVERTON

A quiet mews street, set back from Church Street, fronted on one side by garages and workshops, some with annex accommodation above; fronted on the other by smaller mews houses suitable for young families starting out.

SOLID, SPACIOUS, WARM & LIGHT.

Contemporary in design, but distinctly of Wolverton, housing throughout the scheme would be superinsulated, cheap to run, spacious and light. Homes would be adaptable to the needs and desires of residents, allowing people to shape the way they want to live

WWW.WEARETOWN.CO.UK

In preparing its unsuccessful bid, TOWN undertook initial capacity and design studies, which sought to resolve the positive proposals in the SPD and Neighbourhood Plan into a viable scheme providing:

- the restoration of the historic street pattern through the reinstatement of Radcliffe Street with a mix of large and small footprint retail units;
- a strong, active frontage along Church Street with terraced housing which echoes Wolverton's traditional character
- a new mews street or 'backway' within the rear of a long development block fronting Church Street; and
- public realm works and public space at the corner of Church Street and Creed Street.

This work, which was published on TOWN's website under an early "Love Wolverton" rubric, also gave early insight into the constraints and trade-offs likely to face any future scheme, including between the desire for extensive retail uses and the wish to ensure wide housing choice (not just flats), and between the need for a certain critical mass of development to enable viable regeneration and the parking requirements that would ordinarily apply.







3.3 2017-18 PRE-APPLICATION SCHEME

Having agreed terms to acquire the site, as part of informal due diligence, TOWN undertook further work (with URBED) on development options and held a pre application meeting on 14th March 2017 with MKC officers representing planning, urban design, conservation, transport and developer contributions to test key assumptions related to capacity, viability and design. This work introduced and tested the principles of:

- a larger development footprint, with no 'car park' retained and parking instead integrated fully into urban blocks, using undercroft parking in places;
- different options for active retail frontages, recognising that a lesser amount of retail, and in smaller units, than envisaged in the SPD or Neighbourhood Plan was a sensible response to changing market conditions and the non-implementation of the previous retail-heavy consent;
- greater massing on key corners (up to four storeys), to aid capacity and viability, emphasise urbanity, and allow greater density of apartments to free other parts of the plan up for family housing; and
- introducing the idea of a fronted east-west mews street off the reinstated Radcliffe Street, and smaller streets connecting it to Church Street, increasing the permeability of the site.

These proposals were well-received by officers, with steers given to consider carefully in architectural design the articulation of blocks and buildings to avoid overly bulk massing, make the buildings follow the hierarchy of streets, and provide clear justifications for departures from policy for example in respect of parking standards.









2. Plan of pre-application sheeme

3. Plan of pre-application sheeme

3.4 RIBA STAGE 1 (FEBRUARY 2019)

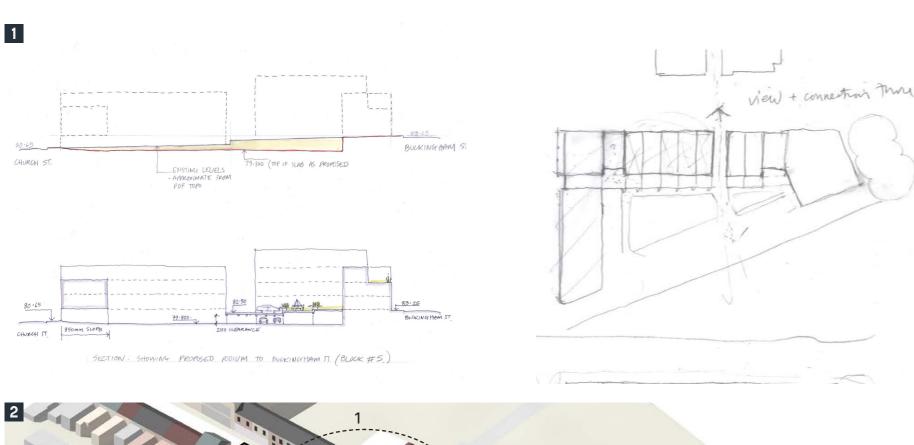
Following agreement over the acquisition of the Agora and adjacent car park, Love Wolverton Limited appointed award-winning architects Mikhail Riches and Mole Architects alongside URBED and a wider professional team in late 2018 to begin working towards a planning permission for a comprehensive town centre regeneration scheme.

The team began by refining and testing the work-to-date at a finer grained level and articulating the scheme typologically and aesthetically, including:

- questioning the rationale for large undercroft car parks either side of the reinstated Radcliffe Street given the urban location of the site and character of the existing Wolverton streets, and moving towards a strategy of trading parking for better-quality homes and shared and garden spaces;
- testing the focus of retail areas along parts of Radcliffe Street and Church Street, and proposing a locational strategy focused on corners rather than runs, therefore enabling a residential street with front doors to front doors on the new portion of Radcliffe Street;
- refining the concept of 9.5m 'little streets' and reconsidering the block structure to enable these to be connected to the axes of existing paths, creating a strong rectilinear grid;
- realigning Radcliffe Street to its former axis (rather than, previously, slightly offset);
- introducing the concept of shared back gardens open to the south, learning from emerging experience of similar conditions from the completed and inhabited Marmalade Lane (TOWN's first built scheme);
- beginning to consider (although not yet resolving) how to introduce, retain and frame views of St George's Church from existing and new streets;
- refining the block structure to retain valuable trees, seeding the idea of a 'pocket park' on Buckingham Street; and
- retaining the existing vehicular access to the rear of Buckingham Street, to the west of the site.

The draft RIBA Stage 1 scheme proposed 102 residential units, around 50% each of houses and apartments across five blocks of development prior to stakeholder and public consultation, together with 1,250 sqm of retail space.

Sketch proposals at RIBA stage 1
 Stage 1 axonometric of scheme





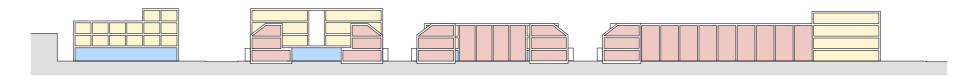
The first formal pre-application meeting with Milton Keynes Council took place in February 2019 (PPA01) to consider the draft RIBA Stage 1 scheme. The meeting was largely positive, with the direction of design travel largely endorsed and a number of important but relatively small concerns raised by Council officers:

- the strategy for management of communal green spaces;
- the need to justify back-to-back distances of less than 20m;
- the need for adequate surveillance of the new east-west mews street; and
- possible intrusion on views of St George's Church from Church Street.

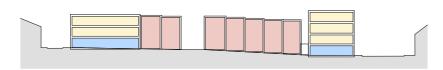
The scheme was then tested at a well-attended Stakeholder Workshop on 7th March 2019. Details of the event, the feedback received and how that feedback was addressed are given in the Statement of Community Involvement.



5



Section A-A



Section B-B

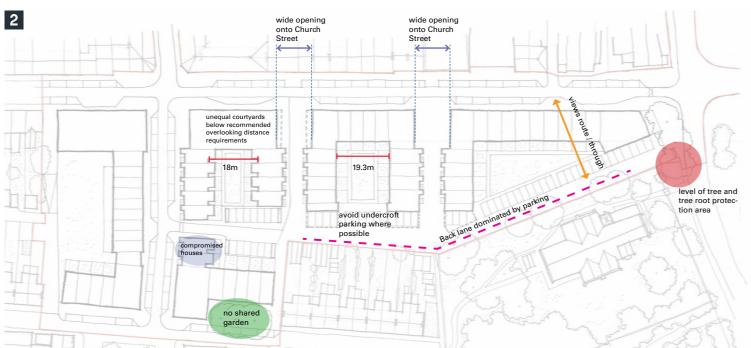
1. Plan of scheme at RIBA stage 12. Sections through scheme at RIBA stage 1

3.5 RIBA "STAGE 1.5" (APRIL 2019)

A second pre-application meeting was held in April 2019 with Milton Keynes Council (PPAO2), with the design team presenting an evolution of the scheme (referred to as "RIBA Stage 1.5") since the February meeting and the March Stakeholder Workshop. The principal changes discussed to the Stage 1 scheme were:

- development of the location of Block D and Block F at the
 eastern end of the site to introduce a broad visual connection
 between Church Street and St George's Church, with vehicular
 egress from the mews street rerouted onto Church Street via
 this 'cut' in the frontage. This was welcomed by officers;
- Block F evolving to four storeys to better meet the scale of adjacent heritage buildings, with step-backs and cutaways to avoid bulk and provide views of St George's Church. This was supported in principle subject to further refinement of the architectural design;
- development of massing and frontages along Church Street to introduce greater variation in the roofscape including more pitched roofs. Officers welcomed this but noted that pitched roofs are usually associated with buildings of two-to-three rather than three-to-four storeys and encouraged a clearer strategy for the massing and roofscape of each block and the street as whole. They also emphasised the need to ensure that the development did not present a series of large blocks on Church Street, including an uninterrupted run of parapets and set-back roofs or the appearance of a 'canyon' of commercial space;
- introduction of 'workshop-style' units at the rear of the blocks to introduce diversity of housing and provide surveillance of the back lanes. This was welcomed by officers;
- clearer delineation between private and public areas of open space through different characters/treatments; and
- introduction of one-way (westward) traffic along Church Street system to improve this key town centre street, and bus stop arrangements. Officers reserved their position on this pending further analysis.





1. Axonometric of scheme at RIBA "stage 1.5" 2. Plan diagram at RIBA "stage 1.5"

3.6 RIBA STAGE 2 (SUMMER - AUTUMN 2019)

The RIBA Stage 2 scheme was developed following the PPA02 meeting in readiness for a further PPA meeting (PPAO3) on 3rd June to be followed major public consultation - the "Public Review" - over three days from 13th to 15th June 2019.

Changes made to address the previous round of comments and further develop the scheme included:

- further developing the layout and arrangement of Blocks D and F to create a strong visual link between the listed Kings Community Centre, Methodist Church and St George's Church and to provide a stronger 'gateway' building at the eastern end of the site;
- reorientation of the houses in Block E to provide increased passive surveillance to the East-West Lane and improve the arrangement of the block's external garden and 'pocket park';
- rationalisation of Block A, replacing the unwieldy whole-block podium with deck gardens above the parking court, affording larger areas of private amenity space for the houses along Radcliffe Street and removing the possible need for active ventilation of the parking area;
- improvements to back-to-back distances in some blocks through the introduction of dwelling types with stepped rear elevations;
- greater clarity on the hierarchy and typology of corner buildings, accentuated through refined massing including greater detailing of dormers and parapets;
- development of elevations and roofscape, specifically along Church Street and Radcliffe Street, to provide a vertical rhythm, variety and interest to the streetscape; and
- confirmation that air source heat pumps were intended as the primary heating source and were to be housed discreetly on roofs and in gardens.

The changes were presented as important but relatively small refinements and were welcomed by officers, with the development of house types in particular as being "typical of Wolverton". At the same time, it was agreed further work was needed on refining some of the larger buildings including the four-storey building facing The Square, and Block F.

1. Axonometric of scheme at RIBA stage 2

- 2. Sketch images of development
- 3. Images from public consultation events











And the same of th





The emerging scheme was exhibited for Public Review at King's Community Church on 13th, 14th and 15th June 2019, with over 300 people attending and over 200 response forms filled in. A detailed account of the event and analysis of the feedback is given in the Statement of Community Involvement. The review highlighted widespread support for the redevelopment of the site, with positive feedback on the draft scheme proposals in relation to layout, mix of uses, streets, landscaping and phasing.

The most prominent critical themes arising from qualitative comments at the Public Review included the loss of the Agora car parking, whether the design was sufficiently in keeping with the character of Wolverton, concerns over four-storey corner buildings and desires for different levels of affordable housing and retail space – some comments seeking more, some less. While concerns about parking were anticipated, and considerably more varied than expected, criticism of the massing and appearance of key buildings largely echoed messages from officers, and we believe we have addressed these fully in the application proposals.

Concluding a summer of consultation, the draft proposals were presented at the Milton Keynes Council Development Review Forum on 6th July 2019. The scheme was largely welcomed as well-considered and comprehensive, with discussion focusing on:

- avoiding losing the 'chain of memory' of the Agora Centre,
 whilst ensuring that any memorialisation is integral rather
 than tokenistic for example by including referential 'stack
 bond' brick detailing. This has subsequently been embraced
 by the permanent marking of the Agora's 'footprint' within the
 landscaping of the scheme and the retention of the Brian Jarvis
 sign which is currently located on the western façade of the
 Agora on an elevation to The Square;
- flat and parapeted roofs as being uncharacteristic of Wolverton even if the latter are broadly 'Victorian'. Some flat and parapeted roofs are essential to accommodate necessary roof-mounted plant discreetly and provide good living environments in topfloor apartments, but the roofline has subsequently been refined to reduce perceptions of bulk and introduce more pitched elements; and
- potential facilitation of a working hub for entrepreneurs to rent tables - an option that has been considered and addressed in developing proposals for a community space within the scheme.

3.7 DEVELOPING THE FINAL SCHEME PROPOSALS (LATE 2019 - AUTUMN 2020)

Shortly after the summer 2019 consultation events, significant further design work was suspended owing to concerns about commercial viability of the scheme in a housing market that had become volatile in the aftermath of the EU referendum and was showing signs of contraction. A standalone application to demolish the Agora Centre was made and granted during this period. While the market picked up somewhat in early 2020, the suspension of work was necessarily extended by the coronavirus lockdown. Work recommenced in July 2020.

During the interregnum, consultation continued with Council highways and transport officers focused on details of car parking allocation and management, provision for buses on Church Street, specifically the location and design of a replacement waiting area for passengers with good visibility of incoming buses and sufficient circulation space around it, and tracking of the street and parking geometry.

As a result of these discussions, further changes have been made including:

- pulling back the corners of Blocks B and C to accommodate a large new bus stop in broadly the same location to now, with at least two metres' circulation space around the shelter at all points. This has also further reduced the massing of development along Church Street;
- reduced massing of Block F;
- small changes to the car parking and landscape layout to avoid the risk of clashes or overrunning from service vehicles;
- proposing that Radcliffe Street remains unadopted to enable an estate management agent-controlled, on-street parking and retain responsibility for maintenance of non-standard design elements.

During this period, Block C is east of Block B and south of Church Street, with the two Little Streets on either side, was co-designed alongside Still Green Cohousing



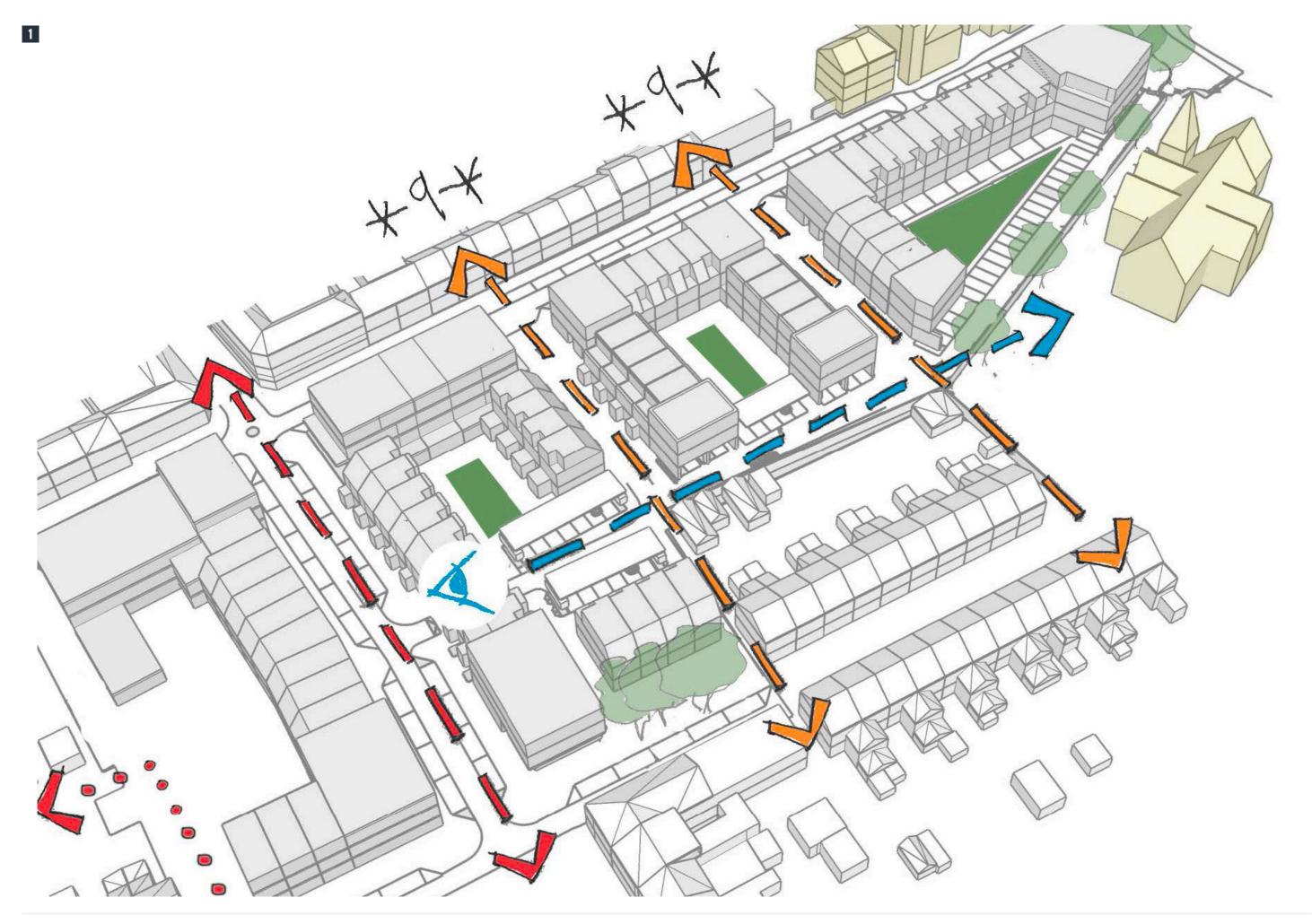
1. Axonometric of the Proposed Development

4.1 DESIGN PRINCIPLES

The design principles behind the proposed development represent a synthesis and a summary of all that the design team has learned - through studying the context and the work that has gone before, generating and testing ideas and seeking feedback from stakeholders and the community - married with our own understanding of what makes for good homes, streets and neighbourhoods.

- 1. Reinstate Radcliffe Street and reinforce Wolverton's grid of streets by maximising connectivity of new streets and paths to existing ones, making the site inviting and permeable to all.
- 2. Activate the public realm by providing many residential front doors to the street and locating ground-floor retail uses where they will be prominent and connective in the wider town-centre economy.
- 3. Assist Wolverton's evolution as a healthy, sustainable town by making opportunities for new shops and services that complement the existing high street, and offering attractive choices for walkers, cyclists and bus passengers.
- 4. Build fine-grained urban blocks that make good use of the site while being sensitive and responsive to the existing context of varied domestic and civic building scales, interesting rooflines and important views.
- 5. Give buildings a contemporary 'Wolvertonness' through proportioning, materials and detailing that show continuity with and affection for Victorian design and contribute to the townscape.

- Offer a good mix of dwellings that are spacious, economical to run, easy to ventilate, warm in winter and cool in summer, have generous outside space, and provide a choice of homes for households of varying sizes and means, and as such support the health and wellbeing of the people living in them.
- 7. Make streets for people, not cars: shared-use and car-free streets that offer safe and rewarding places for children to play and for residents to form bonds through neighbourly interaction, which are age-friendly, and which receive good natural surveillance.
- 8. Connect the landscape of the site to the wider town centre by using familiar paving materials and lighting that tie in visually with existing streets, ecologically-sensitive and connective planting, and framing views that compose new buildings with old
- 9. Provide amenity space that treats people as part of nature: garden courtyards where socialising, horticulture and natureplay is symbiotic with habitat for birds, bees and insects.
- 10. Mitigate the impact of development on the climate but taking opportunities to reduce embodied and in-use carbon emissions and incorporate renewable energy generation.



4.2 LAYOUT

The layout consists of a grid of streets that are fronted and overlooked by the blocks they define.

The primary street axes are formed by Church Street, which runs east-west along the northern boundary of the site, and Radcliffe Street, which is reinstated north-south through the site on approximately its historic axis, connecting Church Street with Buckingham Street and The Square.

A secondary street network is overlaid by the creation of 'The Mews Street' running east-west between Radcliffe Street and St George's Way approximately along the route of the former Back Lane between Church Street Buckingham Street, two short, north-south 'Little Streets' between Mews Street and Church Street, and 'The Cut', a cut-through between Blocks D and F opposite Hovis Lane. 'The Little Streets' connect with or maintain existing pedestrian paths and rights of way, forming a granular and permeable grid that weaves the site tightly into its context and offers several choices of route for pedestrians and cyclists.

The resulting structure is of six small blocks that front these streets and are accessed from them by frequent front doors across short setbacks. With the exception of Block F, these take the form of perimeter blocks which define public space to the front and private and semi-private space in courtyards behind and give each dwelling within at least two aspects. Corners on the primary street network are turned by ground-floor retail/commercial spaces with apartments above, with the longer sides of each block formed of residential dwellings with doors to the street. Blocks B, C, D and E are left 'open' (albeit secured) on the south side to bring sunlight into the courtyards. Block A, the largest block, incorporates rear semi-basement parking in a full perimeter block. Block F, at the narrower east end of the site, takes the form of a pavilion block marking the beginning and end of the high street and conversant in scale with King's Church opposite.

The outcome of this layout should be a set of 'healthy streets' that are pleasant and inviting to walk and cycle down whether or not you live in them, easy to navigate, and which contribute to a bustling high-street atmosphere on Church Street and The Square and, on the smaller streets, a more tranquil, domestic feel where

people can relax and enjoy face-to-face social contact.

BLOCK F CHURCH STREET LITTLE STREET **BLOCK D** LITTLE STREET BLOCK C BLOCK B RADCLIFFE STREET MEWS STREET **BLOCK E** BUCKINGHAM STREET

1. Illustrative masterplan

4.3 ACCESS AND MOVEMENT



Vehicular access is obtained from Church Street via the reinstated Radcliffe Street, with one-way southbound movement to Buckingham Street. Radcliffe Street in turn provides access via a left turn to the Mews Street along which residents' parking is located in a mix of on-street bays and undercroft. This route also maintains continuity of access to the rear of existing plots on Buckingham Street. Vehicular egress from the Mews Street, which is one-way west-to-east for vehicles, is onto Church Street via the Cut

Vehicle access to the semi-basement parking area within Block A is from Buckingham Street via the existing backway, to which access remains unaffected for existing properties west of the site on Church Street and Buckingham Street.

Bi-directional pedestrian and cycle movement will be allowed and encouraged on all streets. The existing pedestrian route from Buckingham Street to Church Street east of the Agora is maintained, becoming the new Little Street between Blocks B and C north of the Mews Street. The other new Little Street, between Blocks C and D, provides a pedestrian connection between Church Street and the existing footpath past St George's Church leading to Green Lane.

A more formal, signed cycle route will be provided west to east from Church Street to St George's Way via Radcliffe Street and the Mews Street, allowing for potential one-way east-to-west treatment of Church Street between Creed Street and Radcliffe Street.

It is proposed that Radcliffe Street, Mews Street and The Cut will be designated public rights of way, even where unadopted.

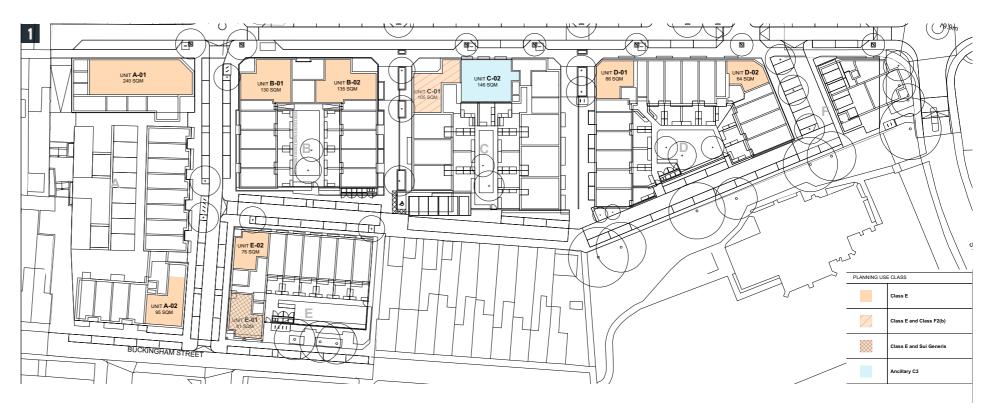
4.4 MIX OF USES

The development provides a total of 115 residential dwellings, 903sqm of commercial retail space and 105sqm of community space.

The volume of development is the result of a careful weighing of planning policy, market insight, and urban design and spatial considerations within an overarching framework of viability that sets a requirement for a basic quantum of development such that the 'abnormal' requirements of the site – demolition, asbestos removal, service diversions and reinforcements and infrastructure delivery – can be afforded and policy requirements of the site met. The two most pressing considerations are:

- Achieving a wide mix of dwellings types and sizes and giving each dwelling a high standard of amenity. This means houses as well as flats and so favours a low-rise form with a larger footprint over taller, bulkier blocks that could be concentrated on a smaller part of the site; and
- Providing the right amount of retail space, and making it
 work hard for the high street. This has driven the strategy of
 distributing retail space to prominent corners where light and
 flexible 'neighbourhood'-scale spaces can be made and which
 extends and connects the existing retail fronts of Church Street
 and the Square rather than lumpier or larger-floorplate units
 that rely on anchor occupiers or car-based trade.

The total residential sales and lettings area is 9,416sqm, divided approximately equally between two- and three-storey houses, of which there are 56, and single-level flats, of which there are 69. This mix is achieved at a net residential density of approximately 100 dwellings per hectare, and represents an appropriate strategy for balancing efficient and viable land use in town centre location with the maintenance of a balanced housing mix with wide appeal and accessibility. The number of dwellings (and net density) is lower than the allocation for the site in Plan:MK at 140 dwellings, but this would only have been achievable either with an entirely flatted or otherwise an unacceptably dense scheme.

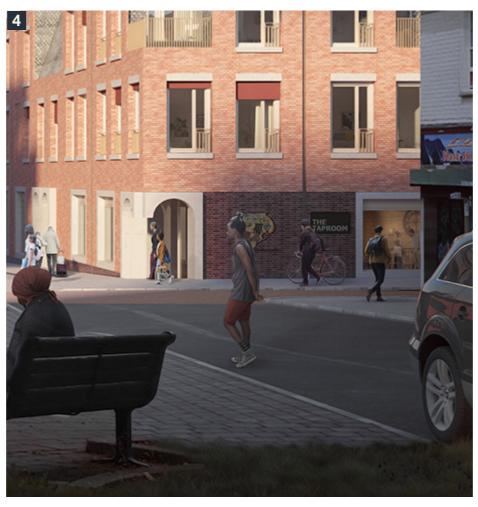


2	*				Dwelling numbers				Accessibility				
		Dwelling sizes			/	Rental		Still Green Cohousing					
Туре		NDSS	sqm	Average sqm	% +/- NDSS	DSS	Market Rent	Affordable Private Rent	Market Sale	Social Rent	M4(1)	M4(2)	M4(3)
1b1p	Flat	37	88	44	19%	2	0	0	0	2	0	2	0
1b2p	Flat	50	1,151	55	10%	21	10	5	4	2	6	13	2
2b3p	Flat	61	1,802	64	5%	28	12	4	12	0	2	26	0
2b4p	Flat	70	1,254	78	12%	16	9	0	7	0	2	11	3
2b4p	House	80	731	81	2%	9	3	6	0	0	5	4	0
3b5p	Flat	86	439	110	28%	4	0	3	1	0	0	1	3
3b5p	House	99	856	107	8%	8	5	3	.0	0	8	0	0
3b6p	Flat	95	102	102	7%	1	0	0	1	0	0	1	O
3b6p	House	108	1,398	108	0%	13	9	4	0	0	0	13	0
4b7p	House	121	1,658	128	5%	13	11	2	0	0	0	13	0
Total		77	9,477	82	6.7%	115	59	27	25	4	23	84	8

^{1.} Plan of scheme highlighting commercial units

^{2.} Table of dwelling numbers





5 Block	Commercial (Use Class E)	Community (Use Class F2(b) and Use Class E)	Drinking Establishment (Use Class E and Sui Generis)	Total
А	335	-	-	335
В	260	-	-	260
С	-	105	-	105
D	149.5	-	-	149.5
E	75	-	83.5	158.5
Total	819.5	105	83.5	1,008

Retail comprises 10% of the overall sales and lettings area, spread across eight separate units. Four of these, comprising 60% of the space, are located on the 'primary' corners where Radcliffe Street meets Church Street and the Square where footfall will be high. Unit A1 is, at 240sqm, by some way the largest unit in the development and will be let to a convenience grocery store. Below the floor-area threshold for Sunday trading restraints, this store will belatedly replace the former Co-op in the Agora centre on approximately the same site. Units close to the Square will be powered and ventilated for catering uses, encouraging a small cluster of cafes and restaurants to emerge and reinforcing the potential role of the Square as an urban lingering space of high quality.

Shops will be constructed in concrete frame with exposed walls, soffits and services and extensive glazing to maximise occupier flexibility and offer a welcoming, visible face to the street. Siting the units on street corners will 'double load' their public realm function, afford opportunities to 'spill out' with displays and seating, making for engaging views along the street. Signage will be carefully regulated to ensure a unified, high-quality approach in accordance with local guidance.

Additionally, a 105sqm community space (use class F2(b)) is proposed within Block C, for transfer by long lease to Future Wolverton to be held for the benefit of the community. Located adjacent to the Church Street bus stop and with extensive glazed street frontage, this will be a highly visible and accessible facility. TOWN has been working with Future Wolverton and others to assess the value and potential uses of such a space, and a proposal is in development for a much-needed dedicated space for young people, on which consultation will take place in due course. It is proposed that the initial programme is more flexible and that the initial core daytime use will be as a homeworker's 'hub' where local people who either work from home normally or are required to do can rent desk space cheaply and for short periods in a sociable – and, as need be, socially distanced – environment with broadband, a meeting room and the facilities of Wolverton on the doorstep.

3. CGI showing commercial frontage 4. CGI showing commercial frontage 5. Table showing Commercial & Community Mix (sqm)

4.5 SCALE AND MASSING

Scale and massing respond to the surrounding context and broadly follow the storey heights set out in the Agora Development Brief SPD. Predominantly, the proposal continues the two-to-three storey terraced grain of the town, with larger, four-storey blocks on important corners as identified by the SPD, and a smaller domestic scale of two-storey terraces on Buckingham Street.

Scale, and particularly the articulation of elevations and rooflines to achieve a refined streetscape and avoid overbearing, has been an important theme of pre-application consultation and community involvement and carefully considered in preparing the final proposals.



1. Axonometric of full scheme

4.5.1 CHURCH STREET









The buildings along Church Street provide a varied elevation, primarily at two and three storeys, responding to the predominantly two-storey building heights in the existing street. Blocks B and D intersperse pitched roofs picking up the lines of the eaves of buildings opposite, as well as large dormers and cutaway corner balconies. Block C, between them, has a stepped, three-storey parapet. Along the street, corners have been cut away and chamfered and elevations stepped back to vary the buildings line and provide relief in the street wall. Vertically-proportioned windows with deep reveals, decorative porch and ground-floor window surrounds and recessed downpipes provide a sense of verticality and a fine grain.

West of Radcliffe Street there is a step up in scale coinciding with the change in context provided by the Queen Victoria pub, and, further along Church Street on the south side, the three-storey house at no. 55; and responding to the Agora Development Brief SPD requirement to highlight key corner buildings. The corner of reinstated Radcliffe Street, arguably the most prominent in the town, is marked by a four-storey apartment block holding a convenience supermarket unit at ground floor level. The bulk is softened by the articulation of the facades, with horizontal banding, tall vertical windows, recessed and projecting brickwork and 'inset' balconies.

This is followed heading west by a terrace of duplex houses above the ground-floor retail units which have roof terraces shielded by a pitched parapet aligned with the eaves of no. 55.

^{2.} View of Church Street (Block D)

^{3.} View of Church Street (Block C)

^{4.} View of Church Street (Block A)

4.5.2 RADCLIFFE STREET AND THE SQUARE

The focusing of new commercial and retail uses on prominent corners allows the reinstated Radcliffe Street to be conceived as a mainly residential street activated by frequent front doors to two-to-three-storey townhouses, bookended by larger apartment buildings with active ground floor uses which denote the importance of this street and its corners in the town's street hierarchy. The gentle slope of the street, about a two-metre rise from north to south, is reinstated and accentuated by the stepping of buildings (and their porched front doors) in pairs.

Facing The Square, a four-storey building with a ground-floor restaurant space provides an important marker and a visually interesting building at the head of The Square. With its eaves height relating both to the neighbouring Masonic Hall and to Foundation House on higher ground to the south, this building is accentuated through the design of its elevations, decorative detail and materiality - black metal arches echoing details of the nearby railways works. Modulated following stakeholder and community feedback to reduce its perceived bulk, the building now steps back at the fourth storey and the balconies read as projections from a set-back principal elevation, softening the perception of bulk without losing presence.

West, the scale of Block A steps down to two storeys to meet the existing terraced houses adjacent along Buckingham Street. East, Block E steps back along Buckingham Street to create a small, informal public space - the 'pocket park' - around the existing London Plane trees, again responding in scale to the adjacent houses in Buckingham Street. The public path abutting the gable end of the existing Buckingham Street houses is retained, connecting to the Little Street to the north and to Church Street.







- 1. View of The Square
- 2. View of new Radcliffe Street from the south
- 3. View of Block E from The Square

4.5.3 ST. GEORGE'S WAY AND THE EAST END

The junction of St. George's Way and Church Street is a key location within the masterplan. A building here naturally serves as a marker of the beginning/end of the high street and creates a key view when approaching from the north/east. The increased mass and height at this end of Church Street, established by the Wesleyan Chapel and King's Community Centre on the north side, commands a response that is related in scale and helps to define this important arrival point into the town centre, as was the case with the former Science and Art Institute which stood on the plot until the early 1970s.

Block F is a proposed four-storey pavilion building containing 14 apartments. The plan of the building has been developed in response to feedback on early designs such that it now occupies a smaller plot which in turn allows a strong visual connection to be made via the cut-through between Church Street and St George the Martyr church. The language of repeating, vertically-proportioned windows is continued, and concrete banding emphasises the rhythm of the elevations. Arched corner balconies and cutaway corners soften any sense of bulk and give visual permeability at the corners, affording glimpsed views of the church and retained mature trees, and of the prospect of Church Street.







1. View of Church Street looking west from Glyn Square 2. View of Mews Street looking west from St. George's Way 3. View of St. George's Church from Mews Street, looking east

4.5.4 MEWS STREET AND THE CUT

Mews Street, running east-west between Radcliffe Street and St George's Way, is a secondary route serving a range of functions. Like a familiar Wolverton 'backway', it provides access to the rear garages and gates of existing Buckingham Street houses and to the courtyards of Blocks B, C and D as well as areas of residential parking. However it is also fronted and overlooked by north-facing houses in Block E and by a first-floor 'workshop' unit to the rear of Block C, which takes its cues from similar structures found in backways across the town and acts as a 'sentry' to the street - addressing concerns raised during pre-application about the sufficiency of natural surveillance of this street.

The character of the street is informal and green, with fronts and gable ends of dwellings interspersed with courtyard boundary walls and fences giving glimpses of shared gardens, the Little Streets and The Cut to the north, and existing pedestrian paths to the south. Terminating the newly opened view looking east is a superb perspective of St George's church. This is a street one might choose as a pedestrian to avoid the bustle of Church Street, take one's time, smell the greenery and enjoy glimpses of domestic life.

East of Block D, the Mews Street continues in a shared, shaded pedestrian and cycle path to St George's Way, while egressing vehicles turn left into the Cut to join Church Street. The Cut is a short, wide plaza with perpendicular parking which is on an axis with Hovis Lane and looking south, frames a fine view of St George's.







1. View of Mews Street 2. View of St. George's Church from Church Street

4.5.5 LITTLE STREETS



Wolverton has a dense, urban grain of which a characteristic feature is 9.5m-wide, front-to-front streets which subdivide the primary street network and make attractive, pedestrian-friendly, residential places. Oxford Street and Bedford Street are good examples, but the proposals have been influenced in particular by the historic 'little streets' of Wolverton – Ledsam Street, Glyn Square, Young Street and Creed Street – that were built by the London and North Western Railway Company between 1840 and 1846 to house its workers but have since been demolished.

Our proposed two new Little Streets follow this geometry and scale, with two- to three-storey buildings facing across 9.5m streets that are vehicle-free and thus operate as spaces for social exchange and informal play. Large dormers alternating with pitched roofs echo the generous gables of the historic street, and paired front doors and small planted setbacks give rhythm and a sense of domesticity.

Like Marmalade Lane in Cambridge, the Little Streets should be conceived of as examples of what can happen on urban streets that are totally free of traffic. Not grand or particularly long, they will afford the opportunity for the 'indicator species' of successful public spaces – vulnerable users such as young children and the elderly – to domesticate and inhabit them, with planting, seating and toys animating them, and the natural rhythms of the day dictating when they are used for different sources of wellbeing – play, sun, shade, unwinding and neighbourly chat.

4.6 PRIVATE AMENITY AND SECURITY

The proposed scheme will deliver regeneration of an important, town-centre site, in a context is that is markedly different from the rest of Milton Keynes in terms of development form and approach to private amenity space. The scheme embraces density and the variety of different forms of amenity it offers.

4.6.1 PRIVACY AND OVERLOOKING

Milton Keynes Council's New Residential Development Design Guide SPD states "4.10.1 As a rule of thumb, for new residential developments, back-to-back privacy distances of 22 metres (measured from first floor level) should be the objective."

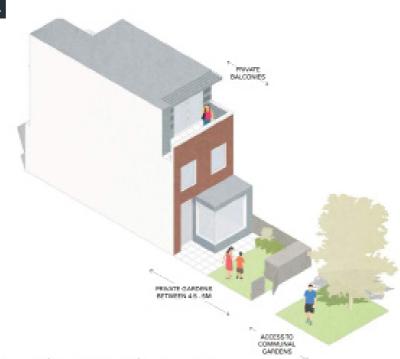
The development generally meets this requirement, with the following exceptions.

- 1. The introduction of 'workshop' type flats in Block A, which provides overlooking to the access route west of the block, creates a back-to-back distance of 14m between this type (Type A1) and the houses fronting Radcliffe Street (Type A6). This will be mitigated by the fenestration design and planters incorporated to act as a visual buffer and help with perceived overlooking. Unit type A1 has a window to the bathroom, which will be opaque glazed and set at high level to avoid direct overlookina.
- 2 Block B back-to-back distance between the houses on the west and east flanks is 16.5m at first floor level. This is a function of the tight geometry of the block necessary to form the surrounding street grid combined with the provision of dwellings plans sufficiently deep to provide useful internal rooms. Rooms at ground floor are given increased privacy by planting in rear gardens, and rooms are set back at the top floor to achieve fuller distances. Planting in the shared courtyards will act as a visual buffer between houses and rooms on the first floor. All dwellings affected are new and will be released simultaneously so no existing amenity distances are compromised.
- 3. In Block C, the workshop studio-flat at the south of the block faces the end unit on the south east corner and the backto-back distance is 18 metres. This has been mitigated by staggering the windows over the two facades to avoid direct overlooking.









- 1. Overlooking courtyard in Block A
- 2. Overlooking courtyard in Block B
- 3. Overlooking courtyard in Block C
- 4. Diagram showing typical rear treatment to courtyard

1. Table of shared courtyard and amenity space

4.6.2 EXTERNAL AMENITY SPACE

Milton Keynes Council's New Residential Development Design Guide SPD states "4.13.1 Provision should be made for private gardens where family housing is proposed. Gardens for family housing should be a minimum of 10 metres in depth, although they can be shorter (say 7-8 metres) for wide frontage units" and "4.13.5 Within flatted developments, each apartment must have access to private open space. This can be provided in the form of private gardens for ground floor flats, balconies, roof gardens or terraces, or private shared gardens."

The dense urban location, and the vision of a neighbourly community, precludes long private gardens. Instead, external amenity space is being provided using a variety of different solutions which blend wholly private space with the opportunity for expansive recreation afforded by shared semi-private and public realms.

All houses have private back gardens varying in length from 4.5m to 5m, with the exception of the two-duplex houses in Block A which have full roof terraces instead. Additionally, in Blocks B, D and E, residents will have access to generous shared courtyard gardens that are reserved for residents of the block.

The New Residential Development Design Guide SPD states: "4.13.11 The minimum area for usable communal space is 50 square metres, plus 5 square metres per additional unit over five units." We set out the area of usable communal space in the various blocks in the adjacent diagram. The number of units sharing the communal gardens, the total areas of the communal spaces and how that relates to policy is summarised in the table below.

In theory, and in usual practice, these courtyards could be subdivided and enclosed to private curtilages. But as shared communal gardens, they serve a wider social and environmental purpose by encouraging neighbourliness, affording opportunities for informal play, and allowing extensive connected habitats to form part of the landscape. With active management they offer a better social and environmental solution than increasing the lengths of private gardens.

Three- and four-bed houses further benefit from roof terraces at second-floor level, accessed from master bedrooms. However, with all houses having at least two double bedrooms, residents will have the option to use a different room for the master bedroom and utilise these light, airy top-floor rooms with their own quasi-'private' outside space as additional/alternative living or working spaces, which makes the houses well adapted for the indefinite reality of pandemic homeworking.

In Blocks A, E and F, apartments have private balconies large enough for the occupants to dine around a table and chairs. In Blocks B and D, top-floor apartments have 'cutaway' corner balconies, while at first floor, where balconies would be closer to the noise receptors of Church Street, it is felt that private amenity is better served by enclosing all space within larger flats and providing full height windows with juliette-style balconies. All flats within Blocks B and D also benefit from access to their respective shared courtyard.

In Block C, following co-design with the members of Still Green Cohousing Group, flats are to be accessed from an external deck around the courtyard perimeter which will be articulated and projected to provide balcony spaces overlooking the shared courtyard garden which serves all residents and is accessed from the Common House. Flats that do not have deck balconies are given inset balconies on the street side of the dwelling.

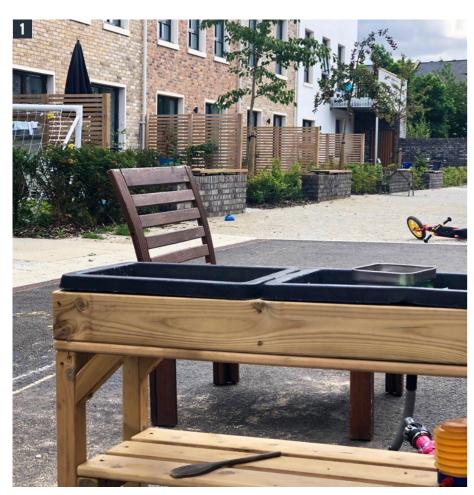
Throughout, balconies and terraces have been located and designed to provide prospect of the surrounding streets and spaces and refuge from the town centre bustle, being wholly or largely inset from the building line and as such functioning as extended 'rooms' within the dwelling.

1 Block	Average private garden area per house (sqm)	Average additional amenity space (private ablconies) per house (sqm)	Area of communal garden	Total number of units with access to shared garden	Total number of units with access to shared garden	, , ,	Achieved communal amenity space (m²)
В	22.3	9.1	200	18 (houses and flats)	18 (houses and flats)		1
С	23.4	8.9	240	12 (houses and flats)	12 (houses and flats)	5 units @ 50m² Plus 7 x 5m² = 85m² total	1
D	23.3	4.8	256	19	19	5 units @ 50m² Plus 14 x 5m² = 120m² total	
E	20.6	6.4	186	(houses and flats)	(houses and flats)	5 units @ 50m² Plus 7 x 5m² = 85m² total	1

4.6.2 EXTERNAL AMENITY SPACE

The proposed development does not provide a formal play area, but informal and adventurous play - which is more positively associated with child development outcomes than traditional segregated 'play areas' - is extensively allowed for in the shared courtyard gardens and the Little Streets. TOWN's Marmalade Lane scheme has demonstrated the potential and value of car-free streets in encouraging safe urban play and addressing simultaneously the needs of children and adults for neighbourliness and recreation.

- 1. The car-free street at Marmalade Lane by TOWN and Mole
- 2. Shared garden at Marmalade Lane by TOWN and Mole
- 3. Plan showing Basement Parking in Block A



4.6.3 SECURITY

Security is designed into the development through the long-proven means of natural surveillance or 'eyes on the street', manifested in many front doors and habitable-room windows onto each street, together with the classic perimeter-block distinction between public fronts and secure private backs. Appropriate lighting is proposed to balance the requirements of security with other considerations (see Lighting Statement).

As set out in the landscape section below, the 'open' edges of Blocks B, C, D and E are to be secured by suitable walls and railings with key-fob or code-operated resident gates. Lobby areas to apartment buildings will be similarly controlled.

Access to the semi-basement parking area in Block A will be secured by automated keyholder gates with separate entrances for pedestrians and vehicles





4.7 DAYLIGHT AND SUNLIGHT

Daylight and sunlight has been considered using the methodology in the Building Research Establishment's guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (2011).

4.7.1 EXISTING BUILDINGS

The closest properties to the scheme are located on Buckingham Street along the southern of the site boundary, and along Church Street on the site's northern boundary.

Properties on Buckingham Street, south-east of the site (No. 22 to 4) and to the south-west of the site (No. 56) would be unaffected by the proposed development owing to their orientation, i.e. south-facing, and the scale and orientation of the proposed development.

Properties north of the site along the north side of Church Street, from King's Church Community Centre as far west as 56 Church Street, have the potential to be affected. Only one property, 6 Church Street, has residential use at ground floor level, with the remaining properties in this run having predominantly commercial retail ground floors, which are less sensitive. A few properties are understood to have residential uses at upper floors.

The tallest blocks along Church Street with actual or potential residential uses opposite have been assessed using the BRE 25-degree 'rule of thumb'. The results are shown in the diagrams below.

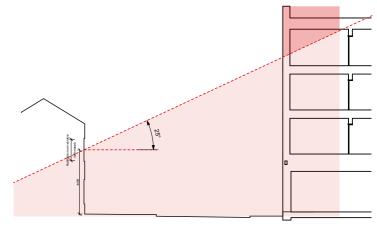
As can be seen, there is marginal overshadowing impact from Blocks A and C which will affect sunlight to windows on the north side of Church Street when the sun is low in its arc. This worst-case scenario is not considered sufficient to warrant a full daylight/sunlight assessment. The development as a whole is of what the BRE terms "reasonable scale", i.e. four storeys maximum, and there is considerable distance – approximately 12.5m – between the proposed development and the assessed dwellings.

4.7.2 PROPOSED BUILDINGS

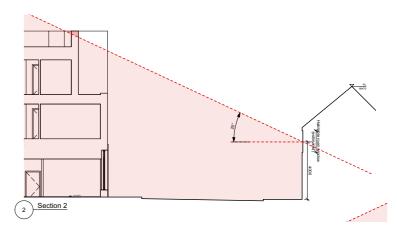
The masterplan and individual dwellings have been designed following the guidance within BRE's Site Layout Planning for Daylight and Sunlight (2011) and the National Design Guide, creating high-quality residential accommodation with good amenity. This includes:

- proposing buildings being a reasonable scale, i.e. no larger than four storeys;
- 98% of units being either dual- or triple-aspect, with at least one main window wall facing within 90 degrees of due south;
- open, rear, south-facing courtyards in Block's B, C, D and E; and
- no recesses to the facades at the corner of any internal courtyards.

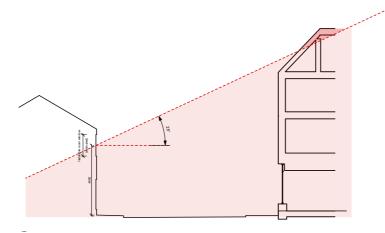
Significantly, the proposal to deploy solar shading to prevent overheating means that fixed means of controlling solar gain, such as louvres or brises-soleil, or simply shrinking the size of windows, do not need to be pursued. On this basis it is not considered necessary to undertake more formal daylight/sunlight assessment of the proposed development.



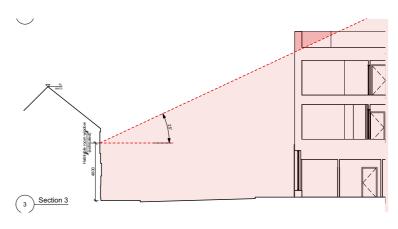
BLOCK A- CHURCH STREET



BLOCK C- CHURCH STREET



BLOCK A- CHURCH STREET



BLOCK C- CHURCH STREET

4.8 CHARACTER AND MATERIALITY

Wolverton has a strong local character, defined by red brick, terraced streets with more formal fronts and looser back lanes. The consistent use of red brick throughout the town adds to the cohesive character of the streets; this is broken up by variation in the degree of articulation to individual and groups of houses, which developed as the terraces were built in blocks of two to six houses at a time by 'gang builders'. There is a subtle variety of window surround details including stone lintels and decorative projecting brickwork courses. Front entrances are often paired and streets are characterised by regular vertical windows. Wolverton typically has retail on corners, often on a chamfered corner (see image 4, right from 1967), with more ornate robust architectural detailing which contrasts against the simple palette of brick.

Despite the homogeneity of the red brick material, there is considerable variation throughout the town in the degree of articulation introduced through inset porches, bay windows, front gardens, projecting brickwork details and occasional quirky features such as large Dutch gables. A complementary palette of materials consists of decorated red brickwork, glazed red and 'blue' bricks, stone quoins on wall corners and decorative stone window and door surrounds.

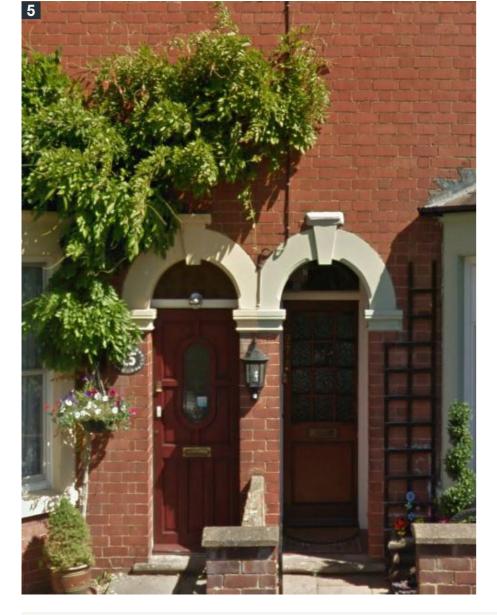






- 1. A Wolverton "Little Street"
- 2. Paired front entrances
- 3. A Back Lane
- 4. Chamfered Corner from 1967
- 5. Concrete Arches above front entrances
- 6. A Wolverton "Little Street"
- 7. Glazed Brick detail
- 8. Dutch gables
- 9. Brick and Chimney details













4.8 CHARACTER AND MATERIALITY

Our proposal continues these traditions. Red brick is the predominant facing material, deployed on street-facing elevations throughout. Window openings, with a constant language of lintels, sills and reveals, deeply-inset porches, slate tiles on visible roofs and recessed rainwater goods that vertically emphasise plot divisions complete the common palette.

Beyond this though there are subtle variations that articulate each block and street and introduce a richer mix of materials, colours and textures that situate the scheme in Wolverton's tradition: reconstituted stone bands that pick out layers of apartments, complex soldier-brick courses, glazed brick features below shop windows, variations in the colour and texture of window surrounds, and many different takes on the humble porch.

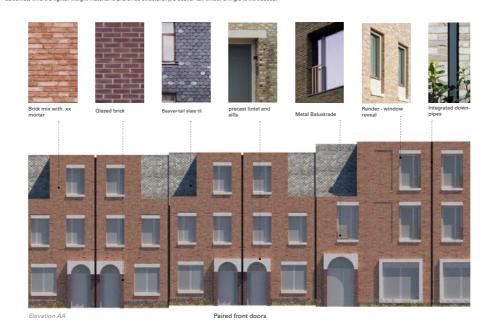
Windows will be aluminium-faced timber composite, with highperformance double-glazing, and generally inward-opening. Windows on the east, south and west elevations will typically have external blinds which can be drawn to prevent solar gain and overheating. "Window tax" bricked-up windows are not a common feature in Wolverton but are used sparingly to continue to the rhythm of the facades where the inclusion of a glazed window would create unacceptable overlooking or expose essential circulation or services to the street.

Taking scale and materiality together, the 'feel' of the architecture for people walking past or through the development should be familiar, with a sense of proportion and rhythm, and visual cues from the materials and details, that give continuity with the Victorian streets. Even people who do not 'like' the architecture, or might prefer a more literal reading of Victorian precedent, should perceive that the streets belong and that they belong in them.

On the rear, private elevations to blocks, a freer and more diverse approach is taken to materiality, with timber, coloured render and glazed brick deployed to give a softer, less austere and more playful and domesticated, but still durable, quality to these elevations and the spaces they frame. These materials mostly consume much less embodied energy than traditional fired brick, and so help to keep the embodied carbon 'deficit' of the scheme as a whole lower than otherwise.

1. Material studies by Mikhail Riches 2. Material studies by Mole





Block D - South Elevation

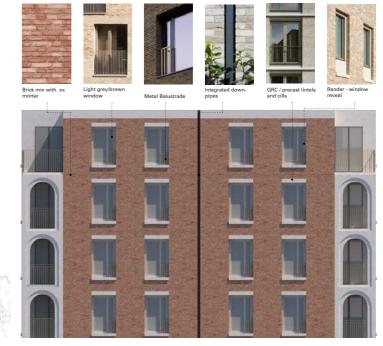


Block E - West Street Elevation





Block F - West Elevation



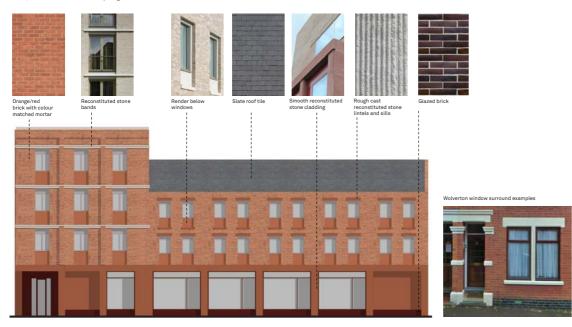


Block A Church Street elevation

Corner apartment block and retail

The tall corner apartment block is given a vertical emphasis through full height brickwork openings. Brick piers and horizontal banding in pale reconstituted stone frame the openings and add depth.

The retail units form a strong, heavy base to the building. The openings are framed in simple, monolithic elements of reconstituted stone, with a darker band below the openings



Block A Terraces

Front elevation

The terraced houses pick up details found around Wolverton, in particular the double arches over paired entrances, and a band of dark brick at ground level. The colours of the brickwork, render panels, sills and lintels are all of a similar tone to pick up on the homogeneity of Wolverton's red brick houses.





Door and window detail examples in Wolverton

Block A Rear Internal Elevations

Rear Internal elevations

The materials to the internal elevations are simpler aesthetic and are proposed in softer materials, warm tones of roughcast lime render with colours high-lighting individual apartment entrances and back doors to gardens using glazed brick or tile. An intimate scale is sought by breaking up the massing of the building by using slate roof and wall tiles on the top floor levels. Architectural expression has a gentle verticality using a set back recessed render panel belot the windows.



Block C Little Streets

Front elevations

The apartments in this block have been configured to appear as a short terrace of larger houses, to tie in with the terraces that complete the other side of the street. A dark glazed brick runs up to sill level, providing a solid base to the building. Here the ground floor entrances are emphasised with a triple brick arch, with heavy quions at the base.



4.9 HOUSING TYPOLOGIES

The accompanying Housing Statement sets out the detailed housing strategy and mix, including the delivery of generously-sized dwellings that are on average 7.5% larger than Nationally Described Space Standards, and high levels of amenity, with 98% of dwellings being dual- or triple- aspect; all houses having gardens and 84% of flats having private balconies or terraces.

This section of the DAS explains the design of residential accommodation in each Block to meet that strategy

4.9.1 BLOCK A (MOLE ARCHITECTS)

Block A is the largest and westernmost block, fronting Church Street, Radcliffe Street and Buckingham Street. It contains 25 dwellings in addition to two retail units.

The north and south corners to Radcliffe Street each comprise three stacked 'oversized' apartments meeting M4(3) accessibility standards, situated above retail units. Type A2, on the north corner, is an 88sqm 2b4p apartment. It is triple-aspect and has a south-facing balcony. Access is by a glazed core from Radcliffe Street. Type A3, on the south corner, is 115sqm 3b5p apartment. It is dual aspect and has a full-width balcony looking south over The Square.

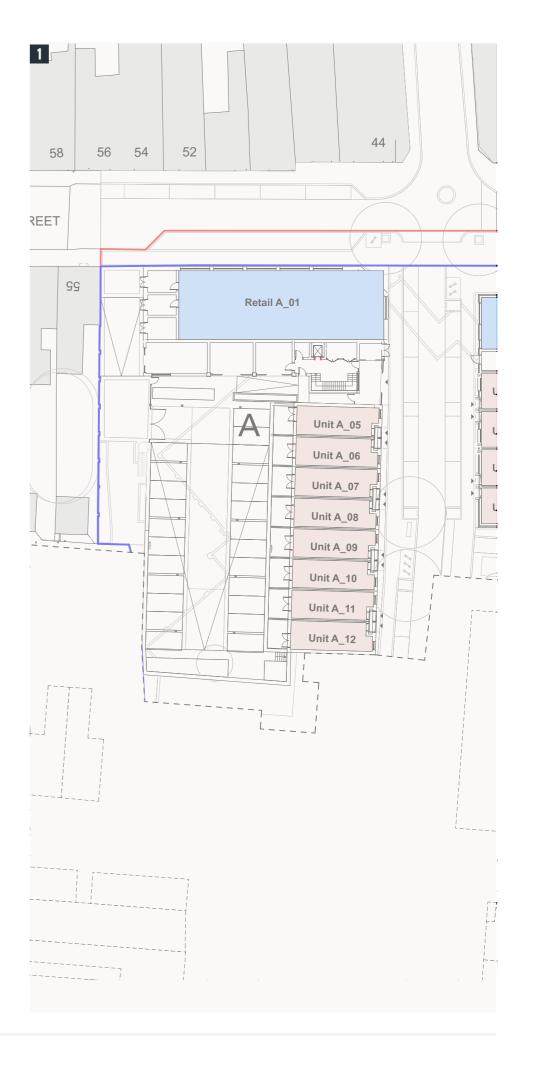
On the north side of Block A, sited above the convenience retail unit below, are five Type A3 duplex units. These are 80sqm 2b4p dwellings over two storeys, each with dual aspect and a large roof terrace providing generous outside space. They are accessed via a short shared deck from the glazed core off Radcliffe Street. Accessibility standard is M4(2).

On the south side of Block A are four Type A5 terraced houses. Related in scale and form to the existing Buckingham Street terraces adjacent, these are 84sqm 2b4p houses with private gardens to the rear. Accessibility standard is M4(2).

The principal Radcliffe Street frontage is comprised of eight three-storey Type A6 houses, which are 107sqm 3b5p dwellings with accessibility level M4(1). These dwellings are laid out to provide living accommodation at first floor level, with access from the living room to a garden raised on a podium above the car park to the rear. The ground floor accommodates a double bedroom with a small external terrace to the rear, and a study-bedroom to the front. The top floor has a large master bedroom and bathroom, and an external west-facing balcony.

On the west side of the block, above the semi-basement parking area, are two 50sqm 1b2p 'workshop' units. Aping the structures found in Wolverton backways, these complete the perimeter of the block, overlook the access route to the parking area, and provide interesting living spaces with vaulted pitched roofs incorporating rooflights which avoid overlooking to and from other dwellings. They have private terraces, and meet accessibility level M4(1).

- 1. Block A Floor Plan 00
- 2. Block A Floor Plan 01
- 3. Radcliffe Street Elevation
- 4. The Square/Buckingham Street Elevation
- 5. Western Elevation
- 6. Church Street Flevation





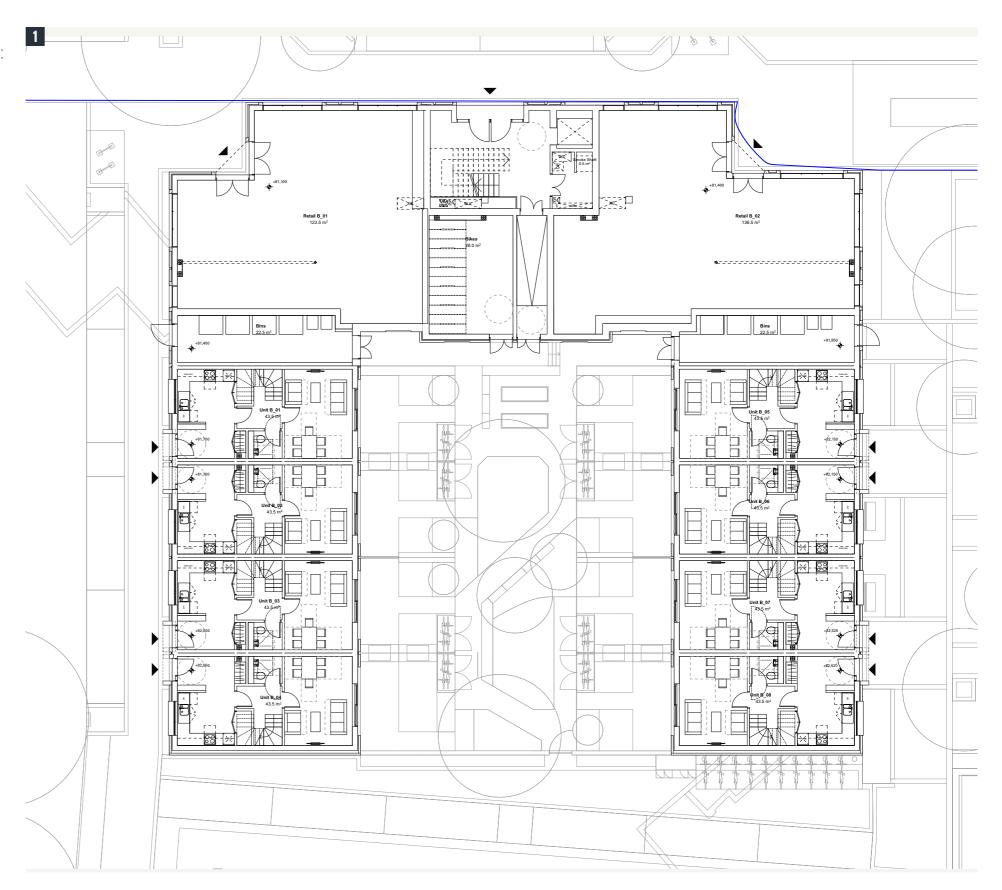
4.8.2 BLOCK B (MIKHAIL RICHES ARCHITECTS)

Block B is east of Radcliffe Street and south of Church Street, facing the Queen Victoria pub to the north. It contains 18 dwellings: two storeys each of five apartments above ground-floor retail facing Church Street, and two 'flanks' each of four three-storey terraced houses on the east and west fronts.

The flats are accessed by a lift and stair core off Church Street, which bisect the two corner retail units. A short corridor from the lobby on each level provides access to apartments. On each floor, these comprise three 2b3p and one 2b4p apartment (the larger apartment accommodated by the asymmetry of the block plan at its corners) and a single, central 1b2p apartment. The two-bed units are dual-aspect and the one-bed is single-aspect to the south, with a projecting balcony. On the first floor, the two-bed units are given maximal internal space rather than balconies, as balconies would obtain limited sunlight and potentially be exposed to noise and other intrusions in this location (these dwellings, like others, have use of the shared courtyard garden accessed via the lobby). At the second floor, cutaway and inset balconies are introduced to these dwellings.

The eight west- and east-facing houses are all three-storey Type MR2. These are 107.5sqm 3b5p dwellings with private gardens giving onto the shared courtyards, and large second-floor roof terraces accessed off the stair core. As described above, these dwellings are 16.5m back-to-back at first floor level but this increases to 23.8 at second floor level where the master bedroom is located.

- 1. Ground Floor Plan
- 2. Church Street (North) Elevation
- 3. East Elevation
- 4. South Elevation
- 5. West Elevation
- 6. Section through rear garden
- 7. Section A
- 8. Section B
- 9. Section C
- 10. Section Location Map





4.8.3 BLOCK C (MOLE ARCHITECTS)

Block C is east of Block B and south of Church Street, with the two Little Streets on either side, and has been co-designed with Still Green Cohousing. It comprises 29 dual- and triple-aspect apartments, all at accessibility level M4(2), plus ancillary communal facilities for residents contained in a 'Common House'. There is no retail in this Block but on the north-west corner there is a 100sqm ground-floor unit proposed as a flexible community space, with access from Church Street.

Access to the Still Green community is via an entrance lobby on the north-east corner from Church Street. This gives access to the Common House, a 145sqm communal space containing a laundry, large kitchen, dining area, residents lounge, guest bedroom and multi-use room, and a large cycle and scooter store. The Common House opens out onto the courtyard garden via a glazed southfacing elevation. The lobby also provides access to the shared courtyard where a lift and, on the other side of the common house, main staircase are located. These give access to first- and second-floor decks which in turn provide access to upper-floor apartments.

There are six apartments at ground-floor level - three 77sqm 2b4p units on the east flank and three 61sqm 2b3p units on the west. These have front doors on the Little Streets either side of the block, but will often be accessed from the courtyard via their small private terraces. As with many apartments within the block, the second bedrooms of these units are designed with wide sliding doors to allow them to function as extensions of living space where not needed as bedrooms.

On the first and second floors, further two-bed apartments are 'stacked' above the ground floor units described above. Above the Common House, lobby and community space fronting Church Street, one-, two- and three-bed apartments are provided, creating a range of types and sizes of spaces for the community as a whole, including 1b1p and 1b2p apartments intended for Social Rent which will be maximally affordable and highly suitable for low-income older people in need of a supportive environment. At the second floor, the stepping back of the elevation with pitches and cutaways makes some dwellings slightly smaller than their 'pairs' below.

Access to upper-floor dwelling is by way of a deck running around the internal face of the block, with additional fire staircases at each end. This is a secure and sociable method of access in 'intentional' communities and increases opportunities for neighbourly interaction as well as providing an extension of residents' private space overlooking the courtyard from their generously-glazed living spaces. Small projecting balconies are added to the deck to provide formally private spaces for residents; corner dwellings that do not have deck 'frontage' have inset balconies on the street side of the dwelling.

At first floor, the deck additionally gives access to a 1b2p 'workshop' unit, with parking undercroft, of similar concept to those in Block A, although with slightly different layout and fenestration. This unit overlooks the Mews Street and projects a short way into the Little Street to the west, partially terminating the view.

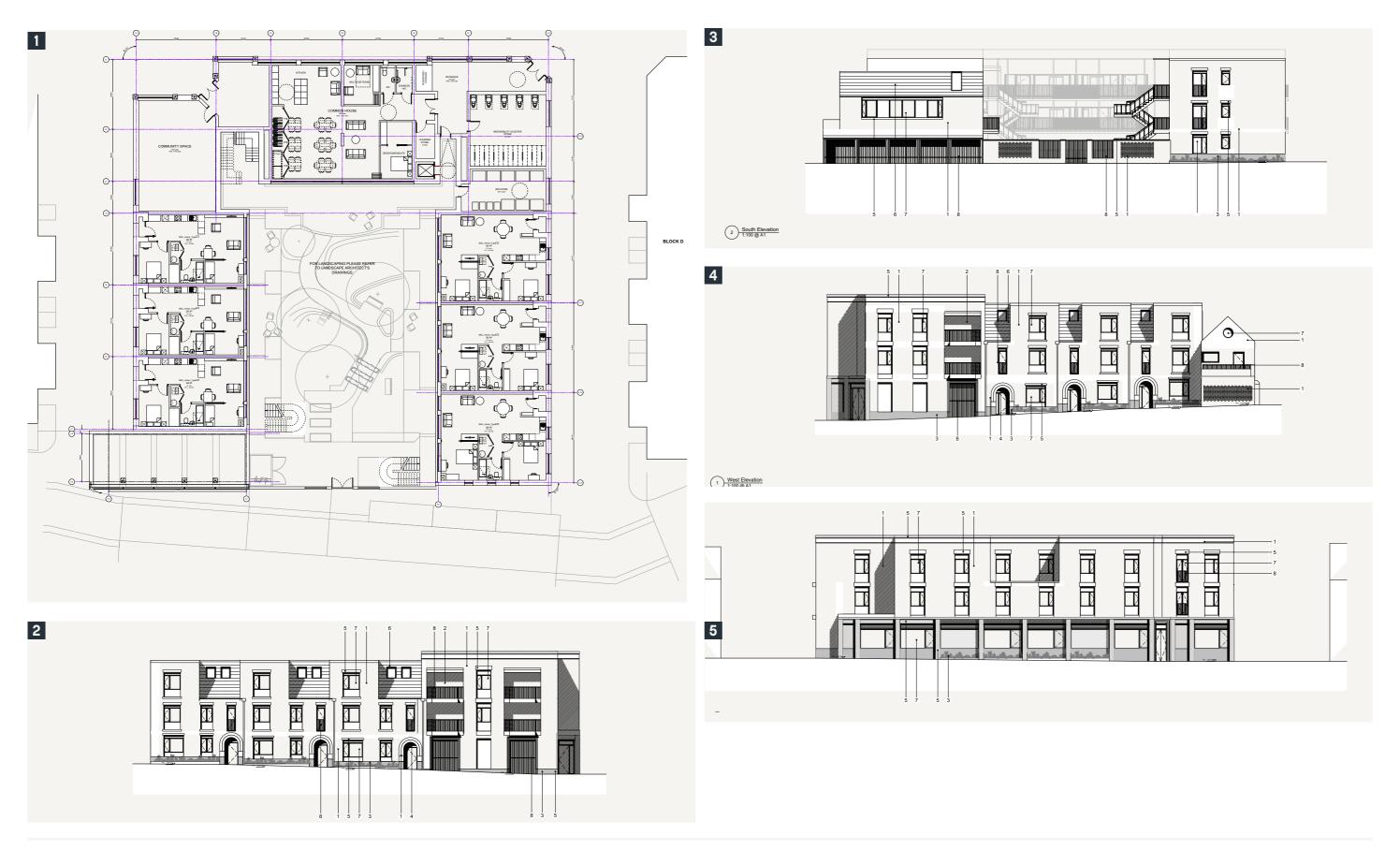
1. Ground Floor Plan

2. East Elevation

3.South Elevation

4. West Elevation

5. North Elevation



4.8.4 BLOCK D (MIKHAIL RICHES ARCHITECTS)

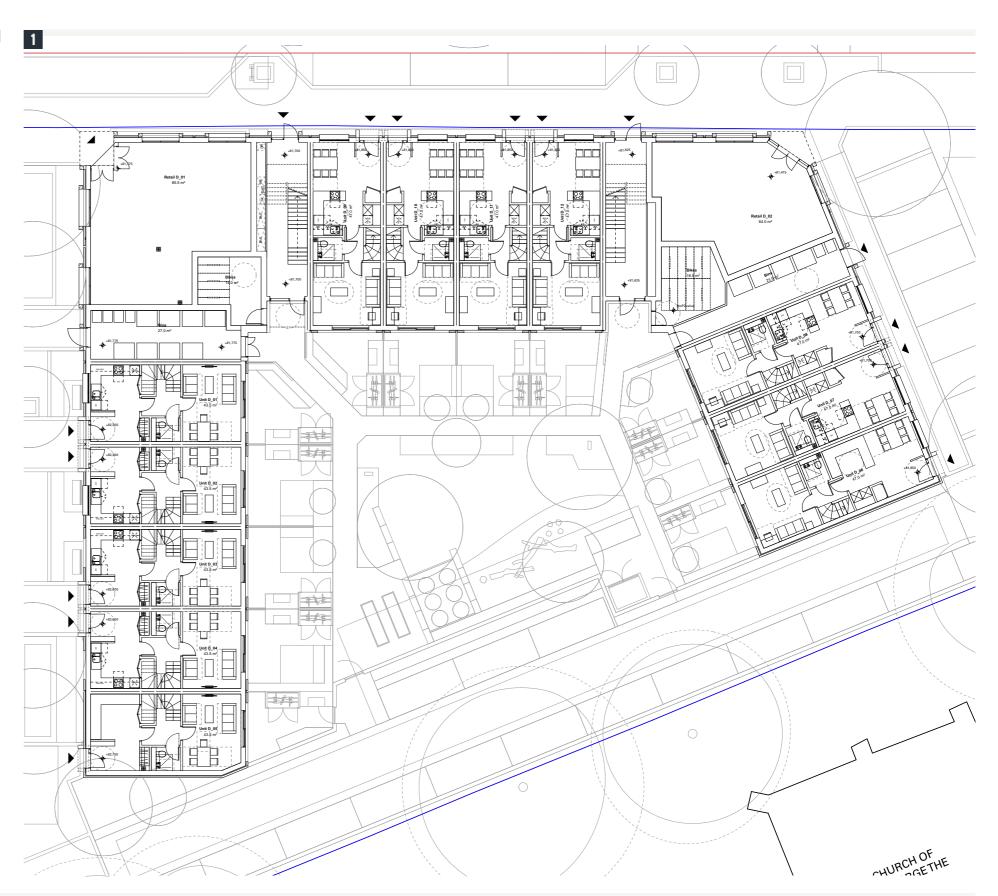
Block D is east of Block C along Church Street, opposite the Central Jamia Mosque and nos. 6 and 8 Church Street. It contains 20 dwellings comprising two sets of four flats above retail on the Church Street corners, and 12 houses along the sides. It is three storeys throughout.

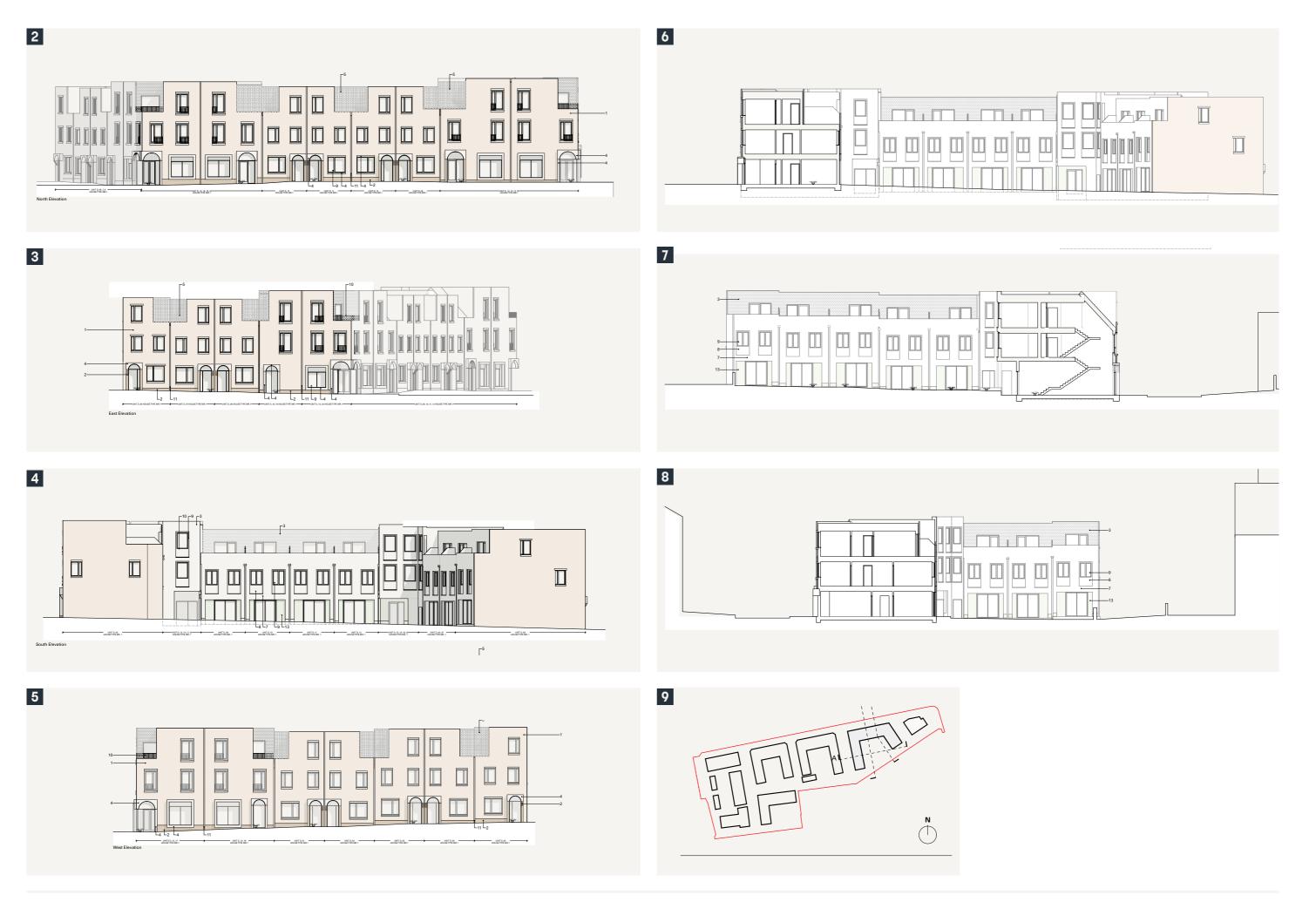
The apartments in Block D are dual-aspect walk-ups accessed by lobbies off Church Street, meeting accessibility standard M4(1). On the north east corner each floor has one 2b3p and one 2b4p unit, and on the north west corner each floor has two large 1b2p units. A similar approach is taken to external space as with Block B, with the top-floor apartments having external balconies and all benefitting from access via the lobby to the shared courtyard garden.

On the west side of the block, facing a Little Street, are five 3b5p dwellings of Type MR2 described in detail for Block B above.

Additionally there are seven Type MR1 4b7p 128sqm houses: four on the north side fronting Church Street and three on the east side fronting the Cut. As with the MR2 type, these are generously-sized family houses, here with three double bedrooms and a study-bedroom. As well as private garden and shared courtyard garden access, the type has a second floor balcony to the master bedroom.

- 1. Ground Floor Plan
- 2. North Elevation
- 3. East Elevation
- 4. South Elevation
- 5. West Elevation
- 6. Section A
- 7.0000.00.7
- 7. Section B
- 8. Section C
- 9. Section Location Map





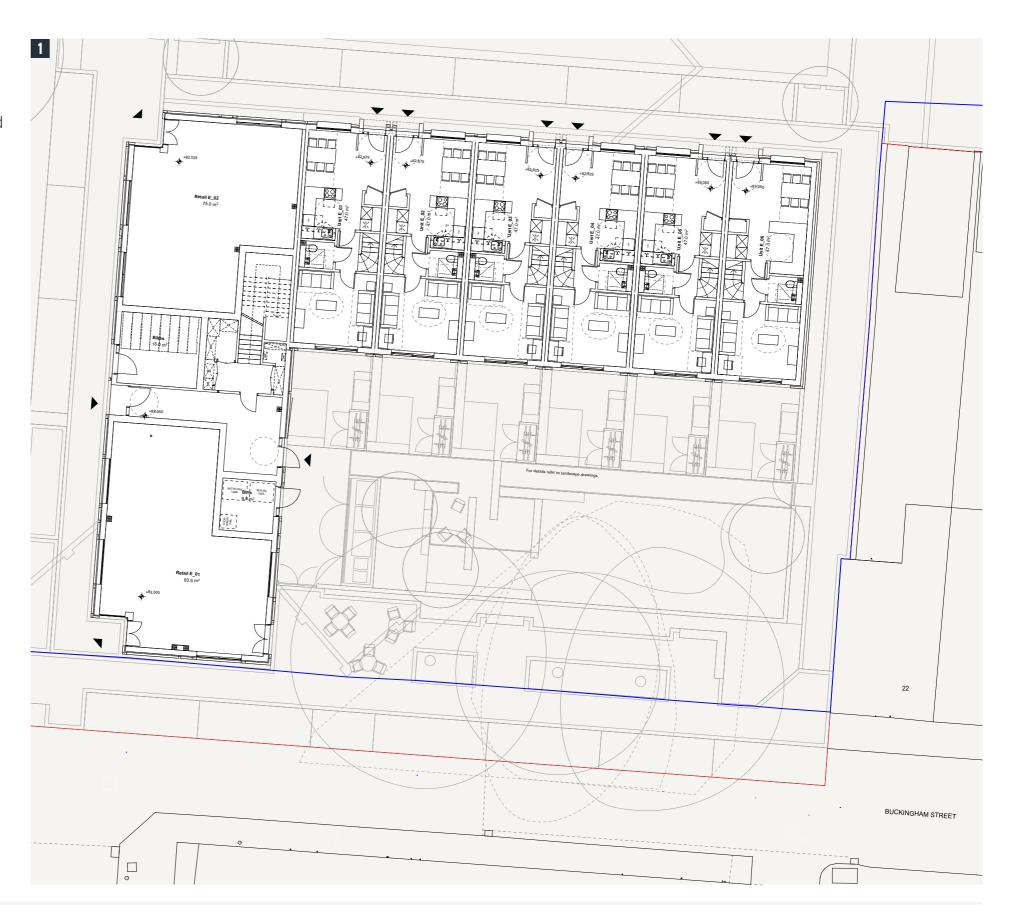
4.8.5 BLOCK E (MIKHAIL RICHES ARCHITECTS)

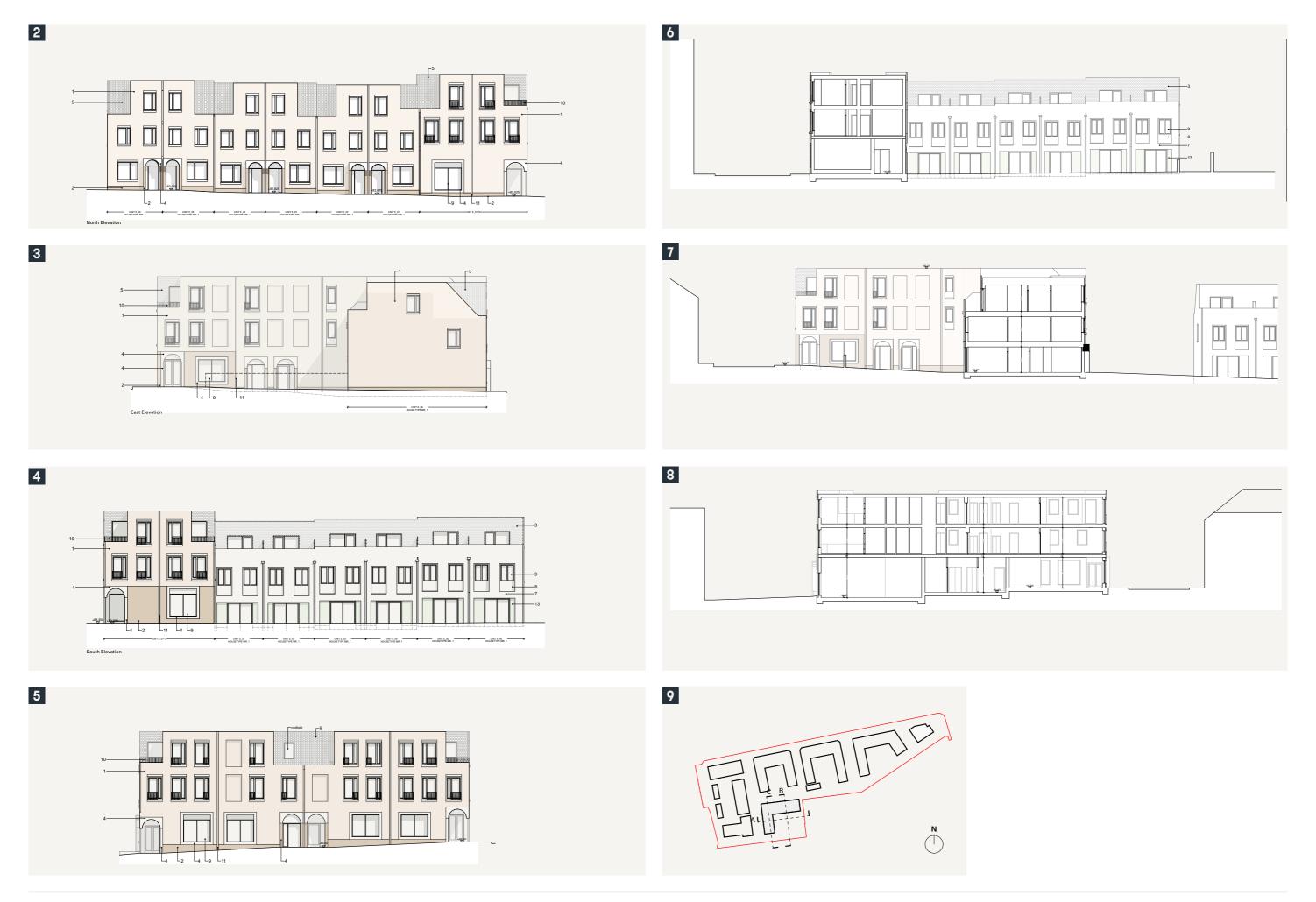
Block E is a three-storey block, L-shaped in plan, comprising six apartments over retail fronting Radcliffe Street and the Square, and six houses fronting the Mews Street.

The apartments consist of one 56sqm 1b2p, one 70sqm 2b3p and one 83sqm 2b4p each on the first and second floors. They are accessed by a lobby and staircase off Radcliffe Street bisecting the two retail units beneath. The flats are walk-ups and meet accessibility level M4(2). The top floor units have cutaway corner balconies, and all units have access via the lobby to the shared garden running behind the houses to the east.

The six houses are 4b7p units of Type MR1 described in detail for Block D above.

- 1. Ground Floor Plan
- 2. North Elevation
- 3. East Elevation
- 4. South Elevation
- 5. West Elevation
- 6. Section A
- 7. Section B
- 8. Section C
- 9. Section Location Map





4.8.6 BLOCK F (MIKHAIL RICHES ARCHITECTS)

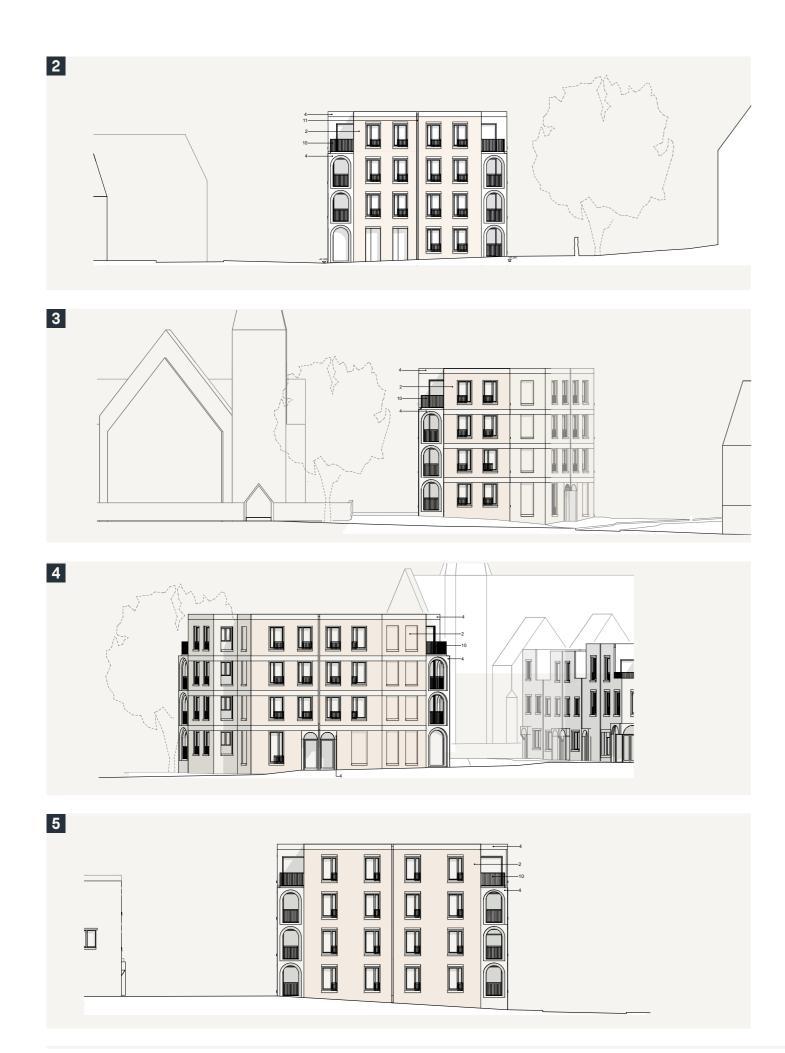
Block F is the easternmost block, located at the end of Church Street opposite King's Church Community Centre. This is a fourstorey 'marker' building which provides 14 dual-aspect apartments.

Access is via a lobby from Church Street with lift and staircase. At ground-floor level, there are two 61sqm 1b2p flats. On each of the upper floors, there are two 61sqm 2b3p flats (which 'stack' above the ground-floor one-beds) and a 50sqm 1b2p unit.

All apartments in Block F have arched 'cutaway' corner balconies/ terraces which afford exceptional views of St George's church and/ or along the Mews Street or Church Street.



- 1. Ground Floor Plan
- 2. West Elevation
- 3. East Elevation
- 4. North Elevation
- 5. South Elevation



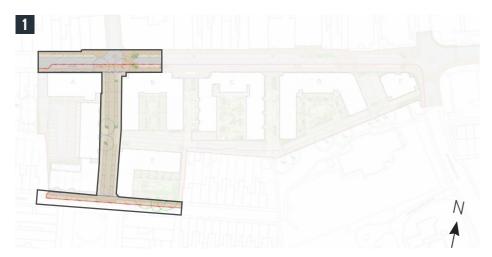
5.1 LANDSCAPE

In a dense development in a prominent, town-centre location, high-quality, resilient landscape and public realm that works hard visually and functionally is critical to the making of a successful place. Informed by the design principles set out in Section 4.1, this section describes our proposals for the design and furnishing of streets, the pocket park and private and courtyard gardens, including details of proposed materials, planting, ecological design and landscape lighting

5.1.1 PUBLIC REALM

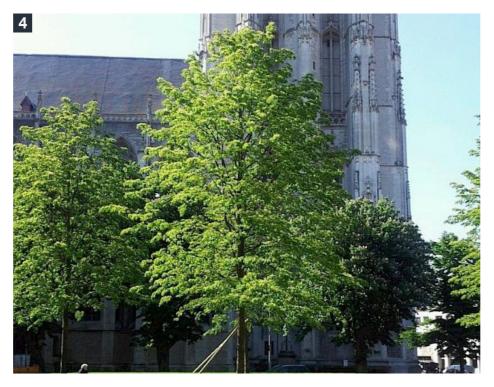
The strategy for the public realm is primarily a strategy for good streets.

- The layout, scale and massing of the development has taken care to create well-proportioned streets with a sense of enclosure and safety.
- Street paving layouts and materials have been selected to reflect the local character and reflect the Wolverton Public Realm Design Manual. A diverse range of materials is deployed to help define spaces, edges and thresholds and to communicate that a street is first and foremost a public place for walkers and cyclists first in which drivers are 'guests'. Materials are chosen for their robustness and longevity, ensuring safe and secure access for all users. Directional paving patterns are integrated to reflect movement routes.
- The recent heritage of the site is celebrated by the incorporation into the public realm of the perimeter footprint of the Agora Centre using flush granite setts, inspired by Church Street's traditional kerbs.
- Planting of trees and structured planting is conceived to soften the hardscape of streets and create dynamic seasonal interest through the year.
- Street furniture benches, cycle parking, bins and signage is carefully considered for optimal convenience and comfort and minimal clutter.
- The public realm is designed to be age- and disability-friendly, with short distances between places of rest and shade, safe crossing points with continuous footways, minimal trip hazards and tactile paving where required. Seasonal variation and sensory interest in planting, and contrasting colours and tones to vertical objects as opposed to paving, will aid visibility. These build on the armature of strong building lines and clear grid of streets in helping people with dementia and other agerelated conditions navigate streets and spaces.









- 1. Plan highlighting relevant areas
- 2. Hybrid linear space with diverse planting provides close up sensory experiences and helps reduce the visual impact of parked cars, Tuinbouwstraat, Groningen
- 3. Example of type of trees used (Tilia Cordata 'Greenspire')
- 4. Example of type of trees used (Tilia Cordata 'Greenspire') in an urban setting,

5.1.2 RADCLIFFE STREET

The single most important physical element of the proposed development is the reinstatement of Radcliffe Street. Spatially, this restores a vital north-south connection between the town centre's two focal mixed-use areas - Church Street and The Square - and thus repairs the original 'movement economy' that made Wolverton a bustling Victorian town. This spatial importance means that Radcliffe Street will naturally become a movement route of choice for pedestrians and cyclist through the town centre. The opportunity, though, is to make it significantly more than this: a street that people gravitate to because it is beautiful and welcoming and simply a delightful place to be.

Great care has been taken to consider the design of Radcliffe Street - its geometry, edges, materials, planting and furnishing - and to 'cascade' that design through other streets - the Mews Street, the Little Streets - to produce a unified and cohesively high-quality public realm scheme that ties the site fully into its surroundings (and sets a benchmark for future interventions in the town).

Radcliffe Street is generally 11.5m wide between building lines. Towards the south and north ends, building are set at back-ofpavement; in the central section, where fronted by houses, small setbacks are given. With the prevailing building heights at 3-4 storeys (12-16m above street-level), with occasional two-storey eaves, the proportion of street width to building heights (street enclosure ratio) will give a pleasing sense of enclosure. The gentle upward slope of the street from south to north, a subtle change of axis in the centre where it meets Mews Street, and the articulation of the buildings with their many front doors and windows and varied roofline, will make for attractive townscape and thus a street people want to walk down..

Radcliffe Street will be a vehicular street, with one-way movement southbound which will discourage unnecessary vehicle movements. The carriageway has been designed to be as narrow as possible, allowing space for on-street car parking interspersed with planting, and a minimum two-metre footway either side.

A continuous footway (blended crossing) across the junction with Mews Street establishes pedestrian priority the length of the street. The short privacy setbacks to houses fronting Radcliffe Street provide opportunities for planted 'façade gardens', softening the street edges and defining the threshold between public and private.

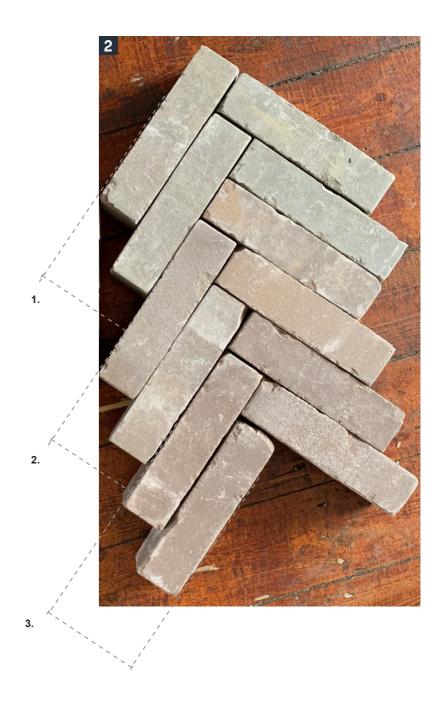
Despite its public importance it is not proposed to offer Radcliffe Street for adoption, and to limit the public right of way for vehicles to the northern section between Church Street and the Mews Street. This will allow for the southern section of the street to be closed to traffic for short periods from time to time to allow markets, festivals and street parties to be held.



1. Lotis Clay Paver Size: 200x54x65mm Pattern: Colour: Light grey Texture: Sanded Finish: Tumbled

2. Triton Clay Paver Size: 200x50x65m Pattern: 45° harringbone Colour: Grey Texture: Sanded

3. Dione Clay Payer Size: 200x50x65mm Pattern: Stack bond Stretcher bond Colour: Brown Texture: Sanded



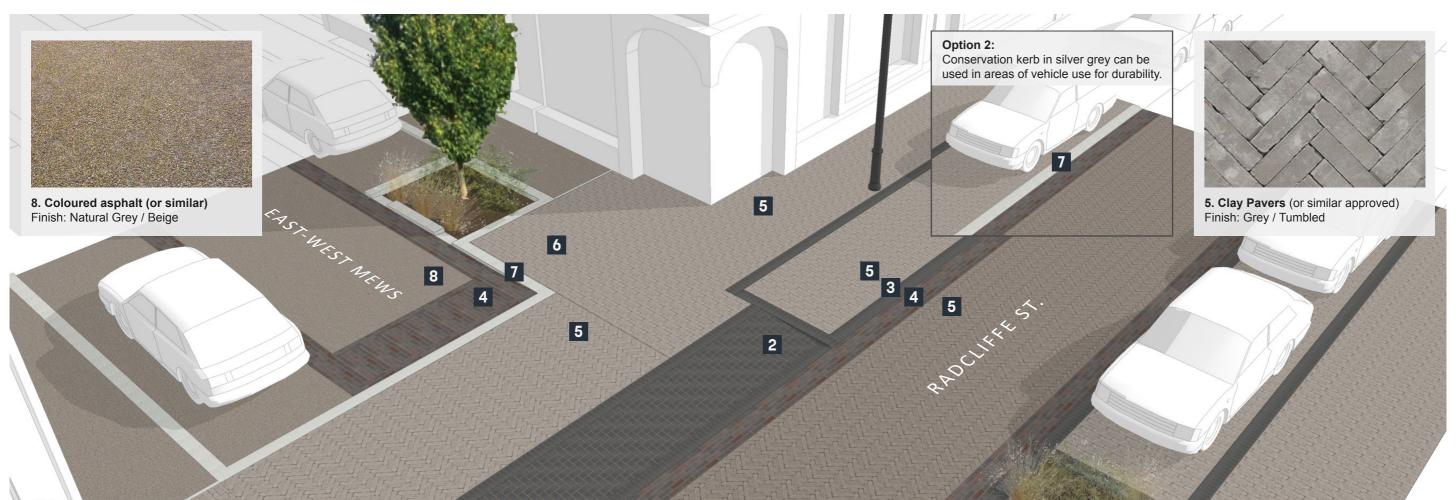
1. Material samples 2. Material samples

Material design key:

- 1. Concrete pavers (or similar approved)
- 2.Staffordshire blue clay pavers (or similar approved)3. Staffordshire blue bullnosed (or similar approved)
- 4. Staffordshire blue brindle pavers (or similar approved)
- 5. Clay pavers (or similar approved)
- 6. Resin bound gravel (or similar approved)
- 7. Conservation kerb silver grey (or similar approved)
- 8. Coloured asphalt (or similar approved)



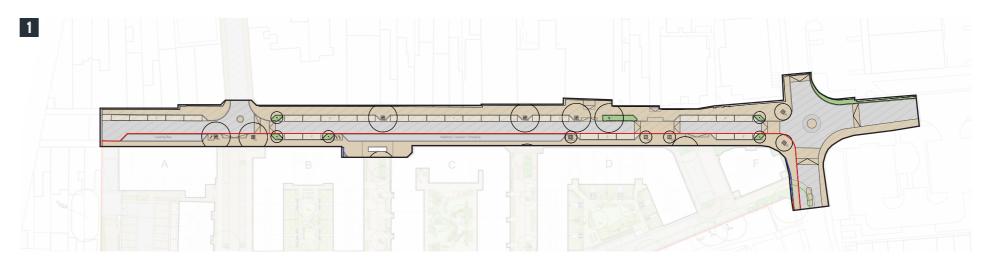




5.1.3 CHURCH STREET

Church Street is an existing adopted street and, while the proposed scheme makes proposals for wider changes to the street including one-way vehicle movement, the main design focus of the proposed development is on improving the public footpath adjacent to the site on the south side of Church Street, and improving the stopping arrangements for buses and the experience for bus users.

After exploring many options, the proposal is to retain the bus stop at the same point along Church Street as now. The stop will move forward into what is currently the sole off-street bus bay, and the southern side of the carriageway of Church Street where buses currently stand will be formalised with a treatment that intersperses stopping/standing space for 4 buses with 7 additional on-street public car parking spaces and 'build outs' that provide places for landscaping (including street trees) and points of easier crossing for pedestrians. The landscaping palette will be similar to that for Radcliffe Street.



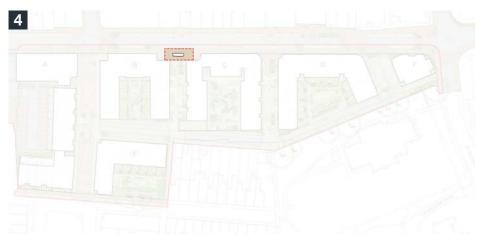


- 1. Plan highlighting Church Street
- 2. CGI of Church Street looking west
- 3 Mock up of possible bus shelter design (to be approved by condition)
- 4. Location of the bus stop
- 5. Bus stop on Stratford Road
- 6. Bus stop precedent



Church Street is more than just a bus 'stop'; it is effectively the northern terminus of the Milton Keynes bus network. As such, it ought to be a nice place to wait for or get off a bus, and warrants a shelter that is more than the usual standard structure and which has a presence in relation to the new development around it. The bus stop will also terminate the view north from the western Little Street, and so has some townscape significance.

Wolverton already has a good example of enhanced bus stop provision in the form of the Stratford Road stop with a green roof, and this could be considered here. However, we consider that a more permanent structure, built with materials and proportions reflective of the adjacent development but with its own identity, would be worthy of the location. Opposite is a provisional scheme for such a stop, which observes good practice design for visibility and passenger comfort and safety. This will be further developed and approval sought by discharge of a planning condition.







5.1.4 THE MEWS STREET

The east-west Mews Street is proposed as a shared-surface street inspired by the Dutch woonerven 'home-zones' or 'living streets'. A home-zone views the street as a social space with pedestrian safety and comfort in mind over vehicular priority, but still incorporates required parking bays and allows access for emergency and service vehicles. Surface treatments, subtle changes in geometry and features such as planting and SUDs (Sustainable Urban Drainage System) calm the low volume of traffic and allow people to inhabit the space.

We propose the use of 'façade gardens' - narrow front garden strips to houses that are differentiated by a change in surface materials. These offer valuable private spaces for residents to place plants and benches and help to define the public-to-private threshold, greening the street in the process. Similar narrow planted margins to the rear boundaries of blocks north of the Mews Street will continue this effect along its length and, overlaid on the variable geometry of the street along its length, make for a green and welcoming street.

Mews Street uses columnar trees that are suitable to be planted close to buildings and deciduous light-canopy species to allow daylight to penetrate through in the winter months as well as provide excellent shading conditions during summer months. Chosen species have been informed by arboricultural and ecology reports and recommendations. Structural planting and hedges will help reduce the visual impact of parked cars and contribute to the site's micro green-grid for ecological enhancement.

SuDS are proposed for inclusion in the Mews Street. These are ecologically effective as they imitate natural drainage processes to reduce the quantity and improve the quality of stormwater runoff from the development, as well as providing amenity and encouraging biodiversity (see Section 5.4 for more details).

Paving of the Mews Street will be in a mix of coloured asphalt and pavers, providing a continuity of identity with Radcliffe Street but also sensory cues - sound, texture - that indicate a very low speed environment for vehicles in which people can safely linger. Street paving selection will complement the strategy for SuDS and drainage, in order for surface water runoff including rainwater from the streets to be directed and transported through water rills (exposed drainage channels) into the planted SuDS along the verge.

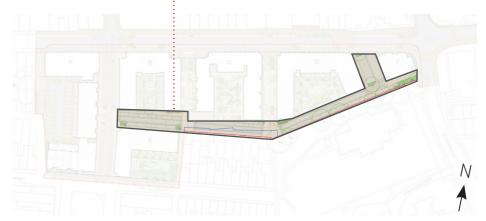
Drainage channels also play a vital role in ensuring water is managed appropriately within the street scape and public realm. Drainage channels will integrated within street paving and parking bays to direct surface water runoff and rainwater from disconnected downpipes into the planted areas, linking the drainage swales together as a sustainable urban drainage system.







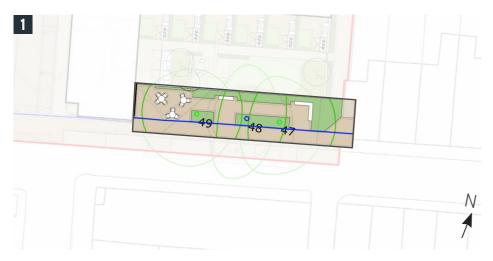




1. Plan highlighting key area

2. Large paved surface areas without kerbs provides opportunities for street-play, Schilderswijk, Den Haag (left) and De Woerd, Utrecht (right) 3. Hybrid linear space with diverse planting provides close up sensory experiences and helps reduce the visual impact of parked cars, Tuinbouwstraat, Groningen

5.1.5 POCKET PARK















The Pocket Park proposed for Buckingham Street, south and west of Block E, provides opportunities for shade and shelter under three retained mature London plane trees, accessible to all.

Spatially little more than a widening of Buckingham Street, the compact and linear form of the Pocket Park reflects the intention that it feel like a 'tucked away', even incidental, place that offers a restful contrast with the bustle of the neighbouring Square – a place to shelter from the sun or rain, read a book, or chat while children play between the trees. The area also offers the potential for 'spillout' space from the café/bar unit at the south end of Block E, and will be overlooked by this unit and the apartments above for safety.

The public realm street paving design extends into the Pocket Park, with a differentiated pattern to define the space. Low walls and benches with back supports will provide seating. A wall at the rear of the space will define its boundary and provide privacy for the backs of houses in Block E.

Evergreen and sensory planting is favoured in the Pocket Park to create a tranquil and calming space requiring low maintenance and complementing the character of the existing trees. Butterfly and bee-friendly plants will also be selected.

1. Plan highlighting key area
2. Flush granite kerbs for the Agora Centre footprint
3. Concrete pavers
4. Seating to include back support
5. Low wall seating and informal play along edges of pocket park
6. Narcissus 'Thalia'
7. Carpinus betulus hedge
8. Anemone × hybrida 'Honorine Jobert'
9. Montage view to illustrate the concept of the pocket park.
10. Carpinus betulus hedge

5.1.6 SHARED COURTYARD GARDENS

Blocks B, D and E incorporate shared courtyard gardens for the use of all residents within the relevant block.

Apartment residents will access the shared garden via a lobby; house residents will access the shared garden as an extension of their private back garden, with the threshold defined by low planting to retain a visual connection with the communal space. Private rear gardens are delineated from one another by air source heat pump enclosures, cycle stores and timber fencing up to 1.8m in height with hedge planting and climbers to aid privacy screening.

The communal gardens provide a shared space for adjoining residents that gives each more amenity than they would have if all space were 'privatised' – for socialising, relaxing, incidental nature-play and horticultural food-growing. The spaces are designed with grassy areas, new trees and vegetation to provide more secluded spots as well as open ones. Key features include:

- horticultural growing beds which residents can use to grow fresh vegetables, fruits and herbs. Growing fresh food can be a communal experience which can help to facilitate social connections between residents; it can also provide an educational experience for adults as well as children whether it be a new gardening technique or opportunities to use the harvested produce in new recipes. Herb gardens are also known to relieve stress, with their aesthetical features and scents; and
- nature-play spaces, which are envisaged as part of the courtyards owing to the provision of large family houses.
 Nature-play space refers to enabling children to play, explore, move and connect with nature in a way that is instinctive to them and enables them to actualise their drive to play freely. Nature-play offers children a wide range of learning experiences including problem-solving, self-confidence and motivation, social skills, risk management through working within one's own capabilities, and learning to respect and preserve nature by gaining a valuable relationship with it.

Inspiration has been taken from the existing character of Wolverton in considering the boundaries of the communal gardens. The landscape approach is to complement the architectural approach and detailing of brick, stone and railing proposed treatments with planting that is robust and easy to maintain but also offers textures, colours and interest throughout the year.

Block C comprises the Still Green Cohousing communal garden. In line with the custom-build ethos and process of the Still Green development, members of Still Green will be engaged in further detailed design work to develop the landscaping and planting strategy for the block. As such, less detail is provided than for other blocks and should be subject to an appropriate planning condition.

















- 1. Traditional cast iron wall mounted railing and gate design
- 2. Modern steel or cast iron design, example: Acordia, Cambridge
- 3. Timber communal entrance gate for privacy and cast iron wall mounted railing design
- 4. Hedge planting where needed to retain level of privacy
- 5. Perforated brick wall to retain level of privacy by block E
- 6. Fagus sylvatica (Beech) hedge has marcescent leaves that remain attached through winter
- 7. Temporary solution whilst planting is establishing for first 2-3 years
- 8. Plan highlighting key area (Block B)
- 9. Plan highlighting key area (Block D)

- 10. Plan highlighting key area (Block E)
- 11. Willow branches allow structures to be build and creative nature play opportunities,
- example at Wagnis Riem, Munich
- 12. Diverse range of planting offers seasonal interest for nature-play,
- 13. Sustainably reusing garden waste within the site to create hibernacula structures offers learning experiences, example at Groene Mient, Den Haag
- 14. Variety of seating areas, planting for nature play and open space for communal activities,
- example: Baugruppe Schwiebusser Straße, Berlin, Germany



5.1.7 LITTLE STREETS

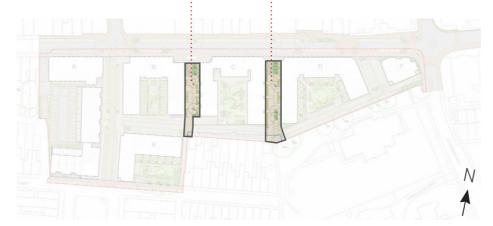
The Little Streets, modelled on the 'lost' early Wolverton streets of Young Street and Ledsam Street and today's Bedford Street and Oxford Street, offer an opportunity to celebrate Wolverton's heritage in the landscape while introducing a thoroughly modern public realm typology in which the total absence of vehicles allows people to thrive.

The landscape strategy for the Little Streets is to make spaces that are richly detailed and landscaped but not over-programmed and so allow the people living on and using the streets to inhabit them flexibly. Key precedents are TOWN's Marmalade Lane in Cambridge, Copenhagen's 'potato rows' and Dutch streets such as Korte Houtstraat, Haarlem – each of which shows in a subtly different way how streets vacant of cars can be adapted and occupied by people. Each of the two Little Streets is fronted on one side by apartments within the Still Green Cohousing community, and family housing on the other. Thus the streets are likely to be inhabited by different generations at different times of the day, week and year, for play and repose.

The proposed paving of the Little Streets adopts patterns inspired by the orthogonal paved grid design from Bedford Street and Oxford Street. These paved patterns are used as water rills (exposed drainage channels) to manage surface water runoff; to visually break up the street and to connect front doors or homes with the central space, inviting residents to use the street and define their space. Raised planters in red and blue brick will be incorporated to provide a soft landscape framework.

Similar to the Mews Street, façade gardens will be provided to invite residents to personalise the thresholds to their home with plants and seating and encourage sociability on the street. Integrated wire trellis structures will be provided to allow vertical climbing plants to grow onto the side of the buildings and provide richer entrance spaces; some may be planted at the outset with different types of species to create diversity and seasonal interest; others may be left to residents to plant their own climbing plants.







- 2. Paved drainage channel along Staffordshire blue bullnosed kerb
- 3. Paved drainage channel in back lanes
- 4. Paved patterns in residential streets
- 5. Drainage channel and red, brown brindle and Staff. blue pavers (left)
- 6. Bedford Street character definition of spaces and edges through paving and use of planting in raised beds



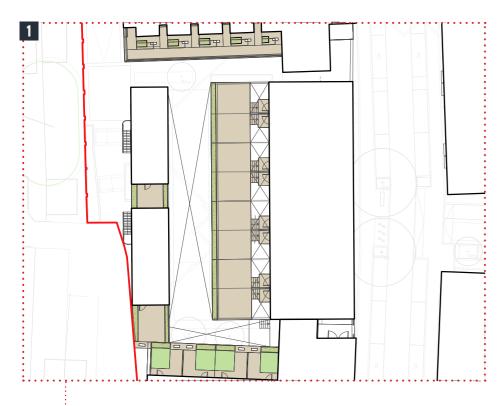








5.1.8 BLOCK A REAR COURT















Block A uses the site's topography to accommodate car parking in an enclosed semi-basement parking area. Private gardens to houses front Radcliffe Street are raised on a first-floor podium and the two 'workshop' units have parking spaces below. This leaves large openings in the parking area to allow good levels of daylight and natural cross ventilation in the undercroft.

Rain-gardens (or naturally planted SuDS) are used to the north and south near the communal entrances to improve the spatial experience and manage some of the surface water run-off into the parking area.

Planters along the edge of the raised gardens help to control and screen views into the undercroft and onto the adjacent neighbouring gardens. A combination of structured, hanging and climbing vegetation will help to control these views whilst diversifying the spatial experience and giving ecological benefits.

The back-lane west of Block A provides access to the workshop units and parking area. Steps to the workshop units, with raised planters incorporated, are used to improve the spatial experience and entrance. The raised planters are planted with a mix of structural shrubs and climbers to provide seasonal interest all year round.

1. Plan highlighting key area (Block A courtyard) 2. Planters along the edge help screen views into adjacent gardens. These can be planted with structured and hanging vegetation.

3. Openings for rain gardens and to increase daylight at ground level

4. First floor gardens to benefit from tree canopies 5. Raised planters provide privacy screening and improve the spatial experience

6. Pavers around coloured asphalt

5.2 TREE PLANTING STRATEGY

To mitigate the loss of existing trees on the Agora Centre site that will be removed to facilitate development, 55 new trees will be planted in the streets and communal areas of the site to enhance the ecological value.

The tree species proposed are chosen to provide ecological value, seasonal interest, structure, tolerate and improve polluted environments, for ease of maintenance, disease resistance, suitability to site climate, soil conditions and to create attractive spaces. The selected species have also been informed by the arboricultural and ecology reports and recommendations.

5.2.1 STREET TREES

The public open space uses a mix of different tree sizes dependent on the location and space available within the streets. The Tilia Cordata 'Greenspire' (Small leaved lime) is a fast growing, tidy, medium sized tree with an initially conical crown, becoming broad and rounded with age. It is very well suited for urban environments and tolerates a range of soil conditions, including moist and well-drained soils. It has a very high value and important food source for bees, with pale yellow-white flowers in late spring. The foliage turns golden yellow, creating a colourful autumn display. Suited to both sun and partial shade, it works well repeated across the site, unifying the scheme and forming part of the identity of the site. The trees have been positioned at junctions and connecting streets.

To contrast the larger trees, columnar trees are used that have a narrow upright form that is maintained into maturity and are suited to be planted close to buildings. They provide architectural structure within the street and contribute to the micro green grid of the site. The Quercus robur 'Fastigiata Koster' is an excellent tree with multiple ecologic benefits, however due to the recent Oak Processionary Moth (OPM) pest involving all parts of the UK, the import ban has reduced numbers available. Should the proposed Oak trees not be available or suitable for the site, the species can be substituted with the Carpinus betulus 'Frans Fontaine' or Acer camestre 'William Caldwell'.

The Betula pendula (Silver birch) species forms the identity of the Little Streets and communal gardens. It is an attractive native tree with a deciduous light canopy that allows daylight to penetrate through in the winter months and provide excellent shading conditions during summer months. It is a medium to fast growing tree with fairly small diamond-shaped foliage that has a rich yellow autumn colour. The trunk has silvery-white bark which is particularly outstanding on dark winter days.

The Pyrus calleryana 'Chantileer' trees are used as the focal points in the Little Streets. It is a medium sized tree with a tidy, narrow, conical crown and attractive clusters of white blossom in March-April. In autumn the foliage has a fine show of colour in shades of red and more often yellow, providing an all-year round changing seasonal interest.

The north-ends of the Little Streets are planted with a Carpinus betulus multistem (Hornbeam) tree to provide screening from the road and bus alighting and layover. It is a fairly slow growing and densely branched tree, conical when young, later growing to ovoid or rounded.

5.3.2 COMMUNAL AND PRIVATE GARDEN TREES

Along side the Silver birch trees, the communal gardens uses a mix of fruit trees for ecological benefits and for seasonal variation. The species selected are suited to urban environments and a very high value and important food source for bees.

The proposed Prunus sargentii 'Rancho' multi-stem has single pink flowers in mid-spring that are immediately followed by glossy reddish-brown spring leaves turning green in the summer. The crowning glory of this tree is the autumn foliage with its shades of orange and red in mid-October.

The Malus baccata 'Street Parade' is a small tree with a fairly narrow crown and is used in both the East-West Mews and communal gardens. It starts to flower from late April with pink flower buds that turn bright white when open and is an important food source for bees.

Edible fruit tree species in private back gardens to be chosen in consultation with residents to facilitate choice and personalisation by residents and encourage maintenance adoption by residents.



Latin Name	Common Name	Mature h/w (m)	Soil Vol. (m3)	Quantity	Girth/Dia. (cm)	Height (cm)	Root Zone	Specification
alm and Communal Gardens								
Tilia cordata 'Greenspire'	Small Leaved Lime	12-17/5	17	10	20-25	500-550	Root-balled	Semi-mature; clear stem minimum 200cm
Quercus robur 'Fastigiata Koster'	Oak Fastigiate Koster	17-22/ 1-4	18	3	18-20	500-600	Root-balled	Heavy Standard; clear stem 175-200cm
Carpinus betulus 'Frans Fontaine'	Hornbeam 'Frans Fontaine'	10-18/ 1-3	12	8	20-25	500-550	Root-balled	Semi-mature; clear stem minimum 200cm
Carpinus betulus	Common Hornbeam	12+/8+	17	2	N/A	450-500	Root-balled	Multi-stem; bushy; 3 stems minimum
Acer campestre 'Streetwise'	Field maple	7-12/4-8	15	3	20-25	500-550	Root-balled	Semi-mature; clear stem minimum 200cm; 5 brks
Betula pendula	Silver Birch	12+/8+	15	13	14-16 / N/A	350-400 /	Root-balled	Extra Heavy Standard; clear stem 175-200cm; 5 bre
						350-450		Multi-stem; bushy; 3 stems minimum
Pyrus calleryana ' Chanticleer'	Callery pear 'Chanticleer'	8-10/ 4-5	12	2	18-20	450-500	Root-balled	Extra Heavy Standard; clear stem 175-200cm; 5 brl
Malus baccata 'Street Parade'	Crab Apple 'Street Parade'	3-7/1-3	8	6	18-20	450-500	Root-balled	Extra Heavy Standard; clear stem 175-200cm; 5 brl
Prunus sargentii 'Rancho'	Sargent's Cherry	3-7/ 1-3	8	3	N/A	350-500	Root-balled	Multi-stem; branched; 3 stems minimum
Prunus Amanogawa	Cherry 'Amanogawa'	4-8/2.5-4	12	1	6-8	200-300	Bare-rooted	Light Standard; clear stem 100-150cm; 3 breaks
Amelanchier laevis 'R.J. Hilton'	Smooth serviceberry	2.5-4/2.5-4	8	6	N/A	200-300	Bare-rooted	Multi-stem; branched; 3 stems minimum
ack Gardens - Edible fruit trees and espalier	tree (see note) may include:							
Malus domestica 'Cox's Orange Pippin' (D)	Apple 'Cox's Orange Pippin'	1.2-1.8/1.5					11.5L - 15L	Self fertile, Root stock: M27 (extremely dwarfing)
Malus domestica 'Red Windsor'	Apple 'Red Windsor'	1.8/1.8]				11.5L - 15L	Self fertile, Root stock: M27 (extremely dwarfing)
Pyrus communis 'Beth' (D)	Pear 'Beth'	3/2.5]				11.5L - 15L	Root stock: Quince C or Quince 'Eline' (very dwarfin
			0.1+	18	N/A	120		pollination group 'C'
Pyrus communis 'Concorde' (D)	Pear 'Concorde'	3/2.5]				11.5L - 15L	Root stock: Quince C or Quince 'Eline' (very dwarfin
								pollination group 'C'
Prunus avium 'Stella' (F)	Cherry 'Stella'	1.5/2.5	<u> </u>				11.5L - 15L	Root stock: Colt Cordon (very dwarfing)
	·		Total:	75				









T02 *Quercus robur* 'Fastigiata Koster'

T03 Carpinus betulus 'Frans

Fontaine'







T04 Carpinus betulus

T05 Acer campestre

T06 Betula pendula







T07 Pyrus calleryana 'Chanticleer'

T08 Malus baccata 'Street Parade'

T09 Prunus sargentii 'Rancho' multistem





T10 Prunus Amanogawa

T11 Amelanchier lamarckii T12 Small fruit and/or espalier fruit trees

5.3 ORNAMENTAL PLANTING STRATEGY

A variety of shrubs, perennials and grasses will be planted within the boundaries of properties, at key threshold spaces, communal areas, public realm and SuDS to create attractive borders with varying heights and a range of textures. Species will be selected to suite specific soil, drainage and lighting conditions of the different areas of the site. Climbing plants will be planted within the East-West Mews and Little Streets to create richer entrance spaces and street scenes.

SHRUB PLANTING

Specimen shrubs will generally be in 10L pot sizes where available. The specimen shrub planting will be complemented by a variety of other shrub planting, ranging from 2-10L pot sizes dependent on availability. This combination will form a strong palette of shrubs to provide structure and all year-round interest. Shrub planting may include species such as:

•	Lavandula angustifolia	Lavender
•	Lonicera ligustrina	Honeysuckle
•	Potentilla fruticosa 'Abbotswood'	Shrubby cinquefoil
•	Prunus laurocerasus 'Otto Luyken'	Cherry Laurel

PERENNIAL PLANTING, GRASSES AND FERNS

The shrub planting will also be complemented by a mix of perennials and grasses to create sensory interest and ecological value. Ferns will be used in the shady and less well drained soil conditions of the site, such as the undercroft of block A. Pot sizes for perennials, grasses and ferns will range from 2-10L dependent on availability and may include species such as:

PERENNIALS:

Achillea ptarmica	Sneezewort
Geranium sanguineum	Bloody cranesbill
Nepeta racemosa 'Walker's Low'	Catmint
Oenothera lindheimeri 'Siskiyou Pink'	Gaura 'Siskiyou Pink'
Persicaria amplexicaulis 'Firetail'	Red Bistort 'Firetail'
Salvia nemorosa 'Caradonna'	Balkan Clary
Verbena bonariensis	Verbena Grasses:
Stipa tenuissima	Mexican Feather
Carex testacea	New Zealand sedge

FERNS:

Dryopteris affinis
 Polystichum setiferum
 Scaly male fern
 Soft shield fern

HEDGE PLANTING

Hedge planting at approximately 1m high is proposed within both the public realm and communal gardens to provide structure to the edges of mix planting borders and open spaces. Hedge planting is also used in some private back gardens to contribute to ensuring adequate privacy to people's homes and gardens. The hedges may include species such as:

•	Carpinus betulus	Hornbeam
•	Fagus sylvatica	European beech
•	Prunus Iusitanica	Laurel

CLIMBERS

Climbing plants will be planted within the East-West Mews and Little Streets and are supported by metal wires or trellises. Climbers may include species such as:

•	Wisteria sinensis 'Alba'	Chinese wisteria
•	Parthenocissus tricuspidata	Boston ivy

RAISED HORTICULTURAL PLANTERS

The raised horticultural planters are for community use and suggested to be for food growing. Their location is illustrative, as it is felt that the precise location and mix of species of fruit, vegetables and herbs to be grown in the planters is best to be agreed in consultation with the proposed residents. This is to facilitate choice and personalisation by residents, combined with local knowledge to encourage maintenance adoption by residents.

AMENITY GRASS

The private back gardens of the proposed dwellings and the communal amenity grass areas will be laid with wear tolerant turf grass.

WILDFLOWER MEADOW

The communal gardens in Blocks B and D include informal nature play and therefore a wildflower meadow mix near the central open space is appropriate.

Grass species may include:

•	Agrostis capillaris	Common Bent
•	Anthoxanthum odoratum	Sweet Vernal-grass(w)
•	Briza media	Quaking Grass (w)
•	Cynosurus cristatus	Crested Dogstail
•	Festuca ovina	Sheep's Fescue
•	Festuca rubra	Red-fescue
•	Phleum bertolonii	Smaller Cat's-tail (w)
•	Trisetum flavescens	Yellow Oat-grass (w)

Wildflower species may include:

 Achillea millefolium Agrimonia eupatoria Centaurea nigra Daucus carota Galium album Galium verum Geranium pratense Knautia arvensis Leontodon hispidus Leucanthemum vulgare Malva moschata Plantago lanceolata Primula veris Prunella vulgaris Ranunculus acris Ranunculus bulbosus Rhinanthus minor 	Yarrow Agrimony Common Knapweed Wild Carrot Hedge Bedstraw Lady's Bedstraw Meadow Crane's-bill Field Scabious Rough Hawkbit Oxeye Daisy Musk Mallow Ribwort Plantain Cowslip Selfheal Meadow Buttercup Bulbous Buttercup
Ranunculus bulbosus	



3. Stipa tenuissima 4. Lonlcrea pilleata 5. Potentilla trutlcosa 'Abbotswood' 6. Verbena bonariensis 7. Achillea fillpenduline 'Gold Plate' 8. Sporobolus heteropls 9. Lonicera ligustrina

12. Persicaria amplexicaulis 'Firedance' 13. Fagus sylvatica 14. Carpinus betulus 15. Lavanda angustitolis 'Hidcote' 16. Parthenocissus tricuspidata 17. Wisteria simensis 'Alba'

5.4 ECOLOGY

5.4.1 ECOLOGICAL STRATEGY

The Ecological Strategy provides a plan to mitigate significant environmental impacts with regards to ecology and encourages an increase in biodiversity. The ecology strategy is shown on the adjacent plan and outlined in the following section.

The specific ecological enhancements and mitigation measures identified at this stage are illustrated in the adjacent ecology strategy plan and are as follows:

- Retaining existing London Plane trees in the Pocket Park of the
- Planting of new trees and shrubs of native species including: oak, silver birch, lime, hornbeams, crab apples and cherry trees to provide new habitats and encourage an increase in biodiversity. The proposal for the communal gardens include new climbers, shrubs and wildlife-friendly plantings such as lavender and hardy geraniums to attract bees and butterflies to the site;
- Provision of SuDS (or rain gardens) to increase planting within the streets, manage surface water runoff and connect with the micro green network of the site;
- Provision of new green corridors/links to connect to the existing network of green infrastructure and wildlife corridors;
- Implementation of lighting solutions that prevent vertical lighting on trees across the site and provide appropriate lux levels, measures such as flat cut-off lanterns, baffles, louvres and cowls and appropriate lighting columns to avoid light spillage unto tree canopies.

5.4.2 FAUNA

The specific fauna disruption mitigation measures identified at this stage are illustrated in the adjacent ecology strategy plan and are as follows:

- Nesting birds swifts, house martins and black redstart have been reported locally. Provision of 8-10 swift boxes suitable for use for nesting, attached to the east, west and north elevations of the proposed buildings in blocks B, C and D, will help breeding birds within the local area. In addition, Swift Boxes contribute to the wider interest and support from local residents and established group 'Save Wolverton's Swifts and Martins'.
- Pollinators 8-12 BeeBricks and/or BeePosts to be included near flour beds within the communal gardens of blocks B, C and D, to support nesting for bees;
- Provision of new tree and dense shrub planting to support habitats for song thrushes and dunnocks;
- Other fauna It is considered very unlikely that other species such as great crested newts, reptiles or other small mammals such as badgers or otters will occur at the site, as confirmed in the ecological assessment submitted with the planning application..

















- 1. Diverse range of species to improve biodiversity and local ecology
- 2. Swift boxes and nesting bird boxes
- 3. Bee post and bee bricks bug hotels to support nesting for bees and small insects
- 4. Ecology strategy plan



5.5 STREET FURNITURE AND PLAY MATERIALS

STREET FURNITURE & PLAY MATERIALS PRINCIPLES

The plan on the right illustrates the proposed street furniture and play materials; the plan is coded in reference to the images on the right showing precedents of such street furniture and play material features; and aims to bring together the various elements and character areas detailed throughout the landscape statement.

STREET FURNITURE

Street furniture will play a major role in offering opportunities to interact and socialise between residents. Introducing a range of seating spaces in the street & public realm will invite spontaneous conversations with neighbours and will offer opportunities for a wide range of street-play activities. This is also essential to activate the use and quality of the proposed street.

POCKET PARK

The pocket park will offer a quiet, pleasant and restful place well connected with The Square but also a little tucked away on Buckingham Street. Street furniture such as benches within this space will complement and enhance the calm and tranquil character of the hard and soft landscaping.

COURTYARD AND STILL GREEN COHOUSING COMMUNAL GARDENS

Nature play space within the communal gardens is designed and envisaged part of the courtyards. The scheme will be home to many families and incorporating natural play space will be a key element.

Nature play space refers to enabling children to play, explore, move and connect with nature. Children play instinctively with natural elements; they are natural experts. As such: play is the process whereby children fulfil their drive to affiliate with nature, and natural environments provide optimal settings for children to engage and actualise their drive to play.

BLOCK E COMMUNAL GARDEN

The communal garden in Block E will offer play equipment set within a soft grassed area to encourage play and socialisation amongst children living in Block E and their families.





















- 1. Informal seating
- 2. Resting bench
- 3. Wall-top seating with back support
- 4. Bus stop seating
- 5. Raised planter leaning walls
- 6. Bike stands
- 7. A horticultural growing bed
- 8. Nature play logs
- 9. Willow structures
- 10. Low feature walls



5.6 LANDSCAPE LIGHTING

MAIN ROADS

The existing lamp posts on Church Street near the Agora Centre use traditional hanging lanterns with flower baskets and flexible spring loaded arms for festival and advertising banners.

The lighting design chosen for the main roads of the development reflect those of the L1 General Highway Lighting in the Wolverton Public Realm Design Manual, to maintain the quality and character of the town centre.

The proposed main roads will include 6-8m tall single- and double-headed lamp posts as well as new bollard or wall mounted lighting near bike stands and seating areas, where required. Wall mounted lights for private and communal residential entrances; and required lighting for the retail units.

MEWS STREET

The Mews Street will use a mix of bollard and low column lighting. Low mounting heights will help reduce light pollution along the existing trees and effects on bats, birds and insects. Lighting will only be installed where needed to illuminate the paving for accessibility, visibility and security.

LITTLE STREETS AND PEDESTRIAN AREAS

The Little Streets use primarily bollard lighting with some recessed low-wall lighting around the raised planters. Private front door entrances will include wall mounted lights which will contribute to the street scene as well.

COMMUNAL AND PRIVATE AREAS

Low bollard lighting and recessed low wall lighting will be used along paths, communal entrances and private garden entrances only. Private back-door entrances will include wall mounted lights. Security lighting with motion sensors will be installed only where required.















- 1. Existing lighting columns on Church Street
- 2. Bollard lighting near bike stands and seating, where required
- 3. Modern low column and bollard lighting, and some up-lighting of proposed trees
- 4. Examples of path lighting
- 5. Examples of wall lighting
- 6. Landscape lighting strategy plan





6.1 ENVIRONMENTAL SUSTAINABILITY

The development has ambitions for environmental sustainability commensurate with the climate emergency, on which the headline is a potential 80% reduction in calculated carbon emissions compared to the Part L requirements, and a 70% reduction from the Plan:MK minimum. The Sustainability Statement describes our strategy in full, which is enabled and supported by the following key design moves.

6.1.1 ORIENTATION AND ROOF-SCAPE

Within the framework established by the grid of streets, building and roof orientation has been optimised for passive thermal performance and to maximise the extent of usable roofs for PV. The use of parapeted roofs for apartment buildings also allows ASHPs and other plant to be located on roofs, avoiding consuming valuable floorspace elsewhere without being visually intrusive to the street. Rooftop plant will be accessible via suitably positioned access hatches. ASHPs for houses are positioned discreetly in enclosures in rear private gardens.

As a part of the overall energy strategy for the site, the scheme is expected to utilise individual air source heat pumps (ASHPs) to extract heat from the air and heat the new buildings, as well as roof-mounted photovoltaic (PV) panels that will feed a proposed community electricity microgrid.

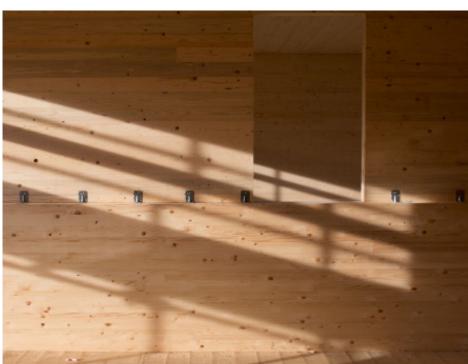




1. Image of AHSP from TOWN's Marmalade Lane 2.CGI exert showing of PV roof panel on Block A

6.1.2 LOW EMBODIED AND OPERATIONAL CARBON, MODERN METHODS OF CONSTRUCTION







The scheme has been designed in the expectation that the residential elements will be constructed out of cross laminated timber (CLT), with the use of structural concrete limited as far as economically possible to foundations and retail podia, where more substantial transfer structures are required.

The use of CLT would provide the basis for a faster construction process with less noise, waste and dust than traditional methods, and for more easily achieving levels of airtightness, fabric efficiency and insulation levels above the requirements of Building Regulations. In turn, this building method will help to reduce operating energy costs for future residents.

The requirement for brick facing to public elevations creates a substantial embodied carbon liability, which we have sought to mitigate by proposing lighter-weight, lower-embodied carbon facing materials such as timber, render and composite materials to private courtyard elevations.

1. CLT Construction at Marmalade Lane 2. Timber panel construction at Marmalade Lane

6.1.3 RESIDENT WELLBEING

With climate change bringing much hotter forecast summer temperatures and the Covid-19 pandemic highlighting the problems faced by people living in accommodation that overheats, becomes stuffy and lacks external space, care has been given to future-proofing the scheme for these scenarios.

The layout and articulation of the scheme means that almost all dwellings are dual- or triple -aspect, providing cross-ventilation and ensuring availability of daylight when one aspect requires shading against solar gain. All dwellings have at least one form of outside amenity space, most two, and some three.

To help prevent overheating, which is an increasing problem in energy-efficient buildings with good glazing and low thermal mass, a passive strategy is put forward which comprises high levels of ventilation through provision of large windows which are side-hung or casement and offer safe natural ventilation at night through secure latching windows. Moveable external blinds may be used on selected elevations to prevent solar gain before it enters the dwelling.

These measures will meet ventilation requirements during the warmer months, whilst mechanical ventilation and heat recovery (MVHR) (or, where appropriate, mechanical extract ventilation) will be used during the heating season.



6.1.4 PLACE-BASED MEASURES

Measures to mitigate and adapt to climate change and ecological impact are suffused through the scheme as described in the landscape section above: new and retained trees for shade, SuDS for storm-water management, garden courtyards for amenity and biodiversity, and green edges and facades for urban cooling and connecting the 'areen arid'.

Everyday, town-centre amenities within a short walk, the creation of walkable and cyclable streets within the development which connect to a highly walkable town centre, bus and train services close by and the provision of an on-site car club and bike hires scheme are all geared to making it easy and attractive to live without depending on private vehicles, and for healthy walking and evaling habit to form and cycling habit to form.

1. Image of secure blind system

6.2 WASTE AND RECYCLING



The submitted plan (left) shows the location and quantum for residential refuse storage and collection.

Generally, refuse storage is within communal bin stores located in each development block for both apartments and houses. These are positioned close to the collection points along Church Street, Radcliffe Street and Buckingham Street. Refuse will not be collected from the Mews Street, and this has been discussed and agreed with MK Highways during pre-application consultation.

Further details can be found in the accompanying Transport Assessment, specifically within the Site Waste Management Plan, and within the submitted plan.

6.3 CYCLE AND CAR PARKING

6.3.1 CYCLES

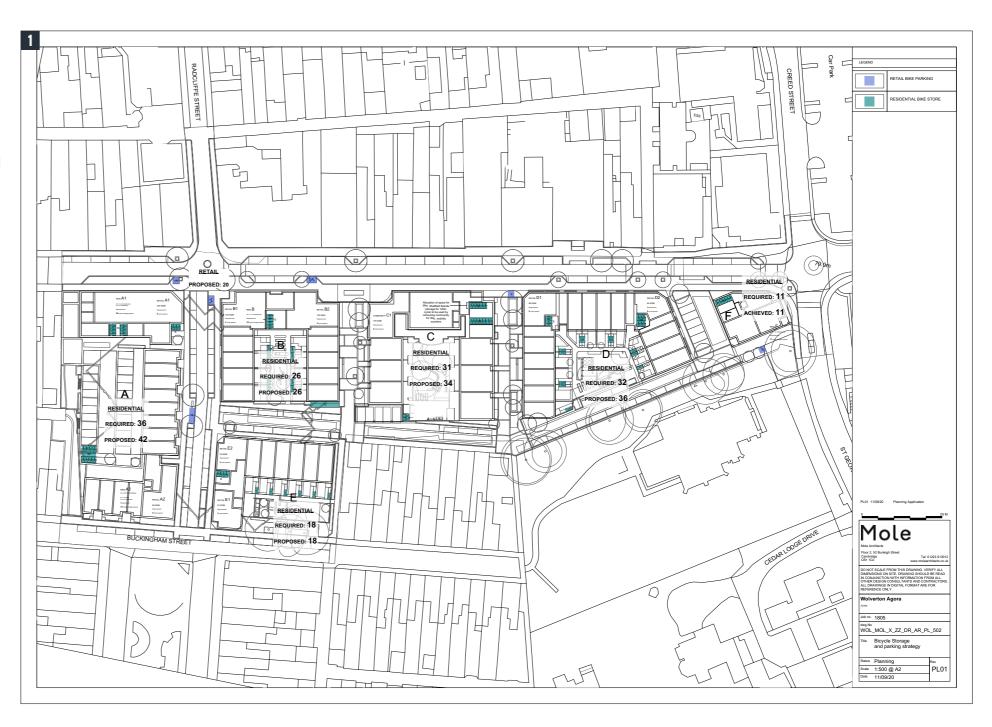
The submitted plan (right) shows cycle storage and parking across the scheme, comprising 167 secure spaces for new residential dwellings and 20 publically accessible spaces for the retail units and town centre visitors.

For residential dwellings, cycle stores will be located within each development block, will have fob access or similar, and will be covered by CCTV. The provision of 167 spaces exceeds the requirements of Milton Keynes Council Parking Standards SPD.

For the retail units and town centre visitors, bike stands will be provided within the public realm on Church Street, Radcliffe Street and the Mews Street and form a part of the language of the street as described in the Landscape Design Statement. The provision of 20 spaces exceeds the requirements of Milton Keynes Council Parking Standards SPD.

The scheme also provides an 8-Bike Brompton Bike Hire Dock with eight bikes, and 10-bike NextBike dock (with five bikes initially), these are located to the south of Block B on the back lane, creating further activity along this important east-west route.

The permeable masterplan has been designed to encourage cycle movement through the scheme and across Wolverton.



Cycle parking strategy
 Car parking strategy

6.3.2 CAR PARKING



In keeping with the character of Wolverton, car parking is largely provided on-street through the development. The proposed provision is as follows:

- 88 residential spaces are provided across the development, including:
 - 24 spaces in the undercroft in Block A;
 - 19 spaces on Radcliffe Street;
 - 38 spaces on the Mews Street; and
 - seven spaces in the Cut between Blocks D and F.
- 18 spaces are available for town centre parking on Church Street and Buckingham Street, including two spaces designated for two electric car club cars on Buckingham Street.

As detailed in the Transport Assessment, the residential car parking will be allocated, leased and managed by a managing agent.

Further details on both cycle and car parking can be found in the accompanying Transport Assessment.

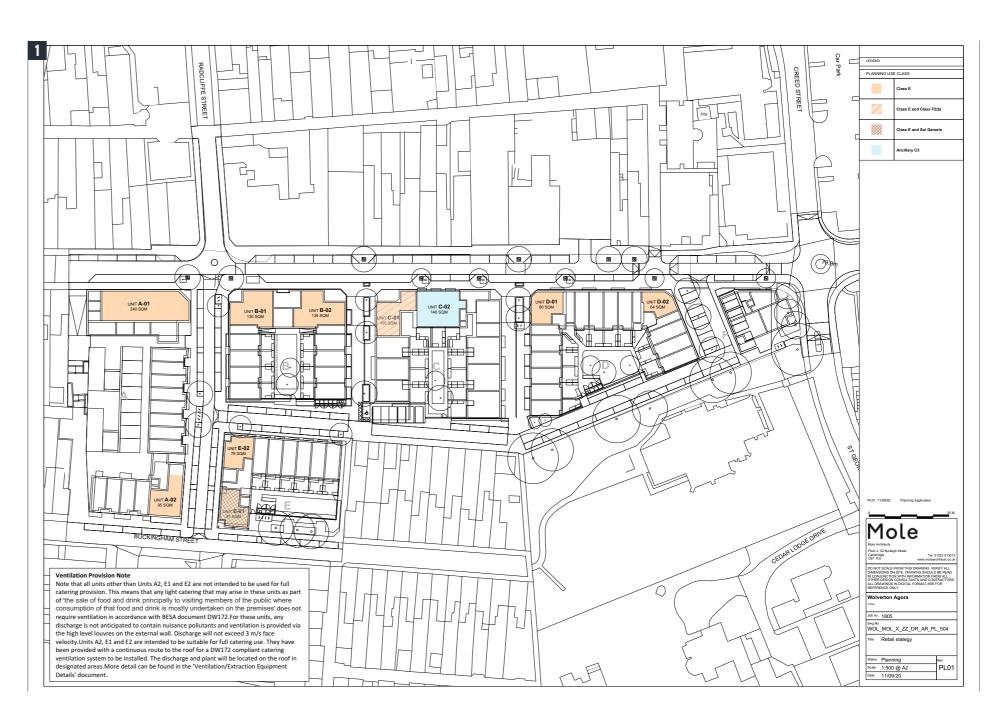
6.4 RETAIL VENTILATION

The ventilation strategy for the commercial elements of the development ensure they any nuisance pollutants are exhausted at roof-level.

Across the scheme, there are only three locations which are appropriate for full-catering, specifically A-02, E-01 and E-02. These units utilise designated routes for discharge to roof level. The co-location of these units will create a cluster of food offerings on the southern edge of the site fronting onto the new section of Radcliffe Street and The Square.

Within the remaining units, high-level façade louvres are provided for both intake and discharge of air to suit usage. This will enable partial catering offer, including reheating and the provision of cold foods such as toasted sandwiches. It will be made clear to tenants that no nuisance pollutants will be discharged to the façade louvres.

Further details can be found in the accompanying Ventilation/ Extraction Equipment Details by Max Fordham.



PHASING AND DELIVERY



7.0 PHASING AND DELIVERY

7.1 PHASING AND DELIVERY

It is likely that the development will come forward as one staged phase, beginning on the site of the Agora Centre with Block A followed by Blocks B and E, before moving onto the delivery of Blocks F, D and C on what is currently the car park. This broad approach was supported by local residents and stakeholders at the Public Review.

Construction is expected to take around 20 months and blocks would be occupied through a process of staged completions over 4-6 months, starting with the blocks either side of Radcliffe Street broadly where the Agora sits now.

The Agora car park will remain open to informal public use while the Agora Centre is demolished and its site remediated, and closed when required by the contractor to commence groundworks.



BCONCLUSION



8.0 CONCLUSION

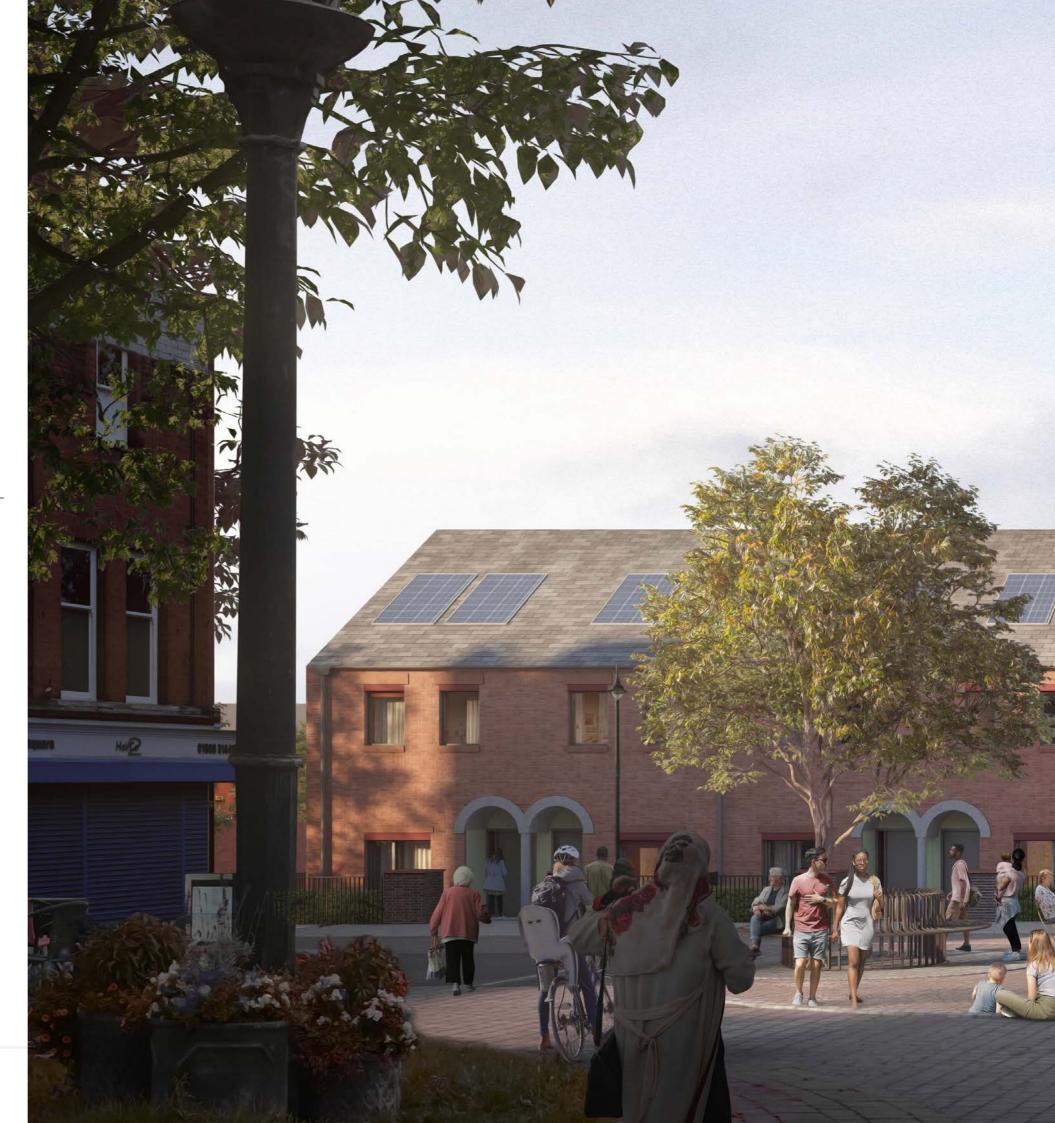
8.1 CONCLUSION

This Design and Access Statement has detailed the process by which comprehensive proposals for the regeneration of the Agora Centre and car park have been prepared, and described in detail the design of the scheme that has resulted. Technical supporting information is provided in a range of accompanying statements.

We believe the proposals offer a robust and sensitive response to the complex of challenges and opportunities presented by a difficult physical legacy, prominent town centre location, widespread connectivity choices, conservation-area context, detailed policy framework and, above all, the varied but always well-intended interests and views of local residents and organisations.

Above all, we believe the proposals not only balance but create positive synergy between the modern imperatives of sustainability, liveability and viability and the traditional and much-loved qualities of the Victorian Wolverton.

We look forward to seeing them built.











MIKHAIL RICHES

Mole