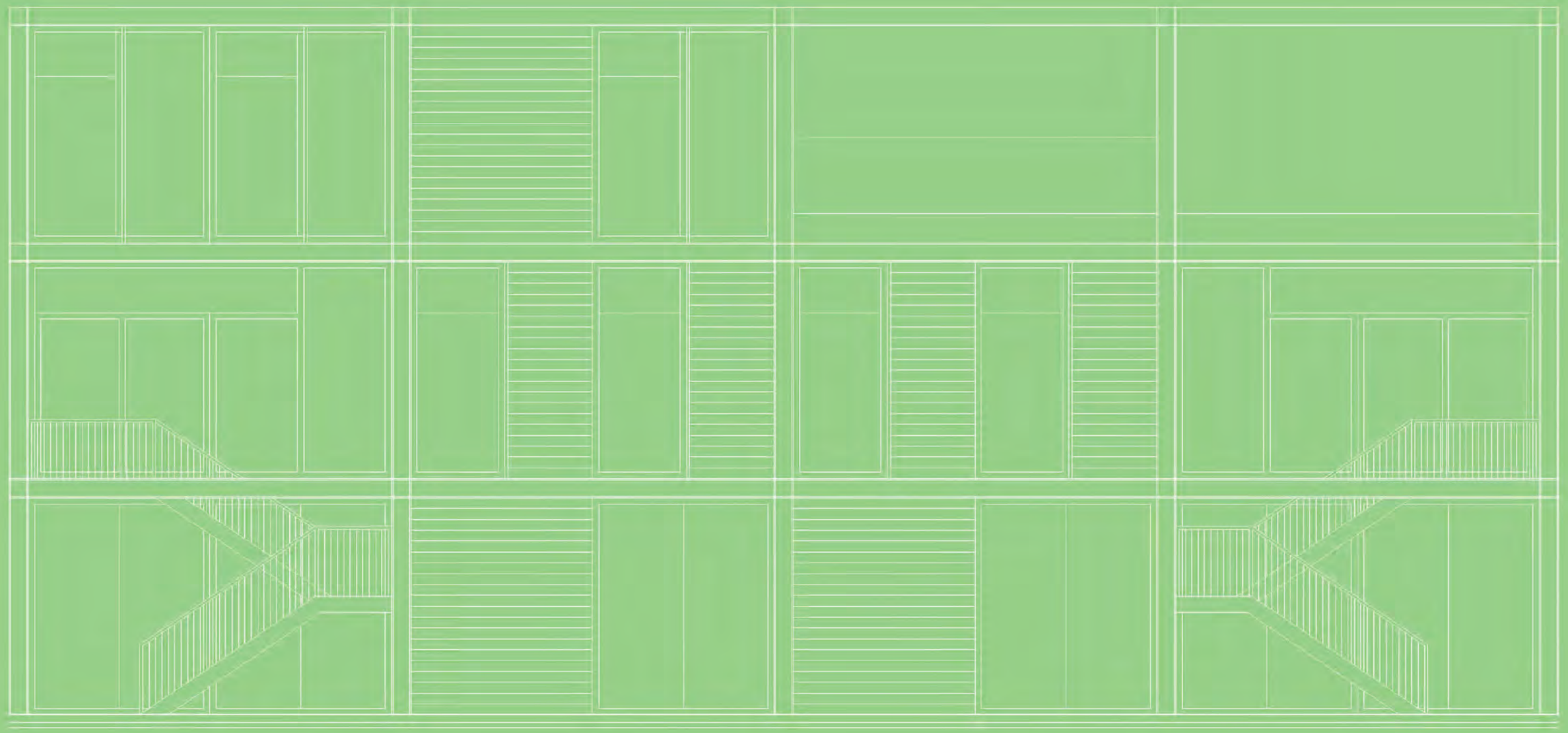


TRINITY HALL FARM, CAMBRIDGE

PRE APPLICATION DOCUMENT
SEPTEMBER 2019

CMP
Architects

CONTENT

TRINITY HALL FARM, CAMBRIDGE

1.0 SITE

1.0 THE SITE

1.1 INTRODUCTION TO SITE

The Trinity Hall Farm site sits north of Cambridge city centre on Milton Road. It currently occupies approximately 3.13 Acres and sits in a prominant location on Milton Road. The surrounding context is mixed with residential to the south, industrial to the east and commercial and research uses to the north.

The site is accessed via Nuffield Road to the south-east, with 157 car parking spaces allocated for private vehicles. The Milton Road frontage provides only pedestrian access from the west corner of the site and there is a PROW between this point and Nuffield Road.

The newly constructed guided busway sits directly adjacent to the site which has direct routes to the new Cambridge North Station and City Centre. Currently this boundary has only visual permeability to the busway, however the site levels suggest the opportunity for access permeability from the pedestrian/cycleway.

The site is currently occupied by various independent businesses set in six predominantly 1 to 2 storey high, poorly arranged industrial buildings (c. mid 20th century) ranging from 100m² - 750m².

The existing building are inadequate for the current market requirement, being both irregular in format and low in eaves height.

1.0 THE SITE

1.2 AERIAL VIEWS

The aerial views show the immediate context, character and scale to the Trinity Hall Farm Industrial Estate. The context is mixed with large office buildings situated in defined parks developing towards the Milton roundabout. The surrounding businesses range from commercial to research. Then residential properties sit south of the site nearing towards the city centre.

1 - View Looking North
2 - View Looking East
3 - View Looking South
4 - View Looking West

1.0 THE SITE

1.3 HISTORIC PLANS

These plans depict how the site and the surrounding context has developed over the last c.115 years.

1904

1927

1938-1952

1959-1960

1972-1974

1983-1992

1.0 THE SITE

1.4 CHARACTER APPRAISAL

Trinity Hall Industrial Estate is situated on the northern fringe of Cambridge, adjacent to the major business and science parks along Milton Road and just under a mile from J33 of the A14. Cambridge is situated approximately 60 miles north of London, 28 miles west of Bury St Edmunds 20 miles east of Huntingdon which has road links to the midlands and the north. The city has a population of circa 100,000 as per the 2011 census, but which grows to 125,000 when the vast student population is in term time. Cambridge is undergoing a period of rapid expansion, both in the city core and the fringes, with 3,000 new homes being constructed at North West Cambridge alone.

Trinity Hall has an excellent prominent location with good visibility along Milton Road and will benefit from the opening of the new railway station. The recently installed guided bus route will drop off adjacent to the property and pedestrian links around the site generally have been improved in preparation for the anticipated increased volume of pedestrian movements. Vehicular access to the site is from Nuffield Road. The proximity of reliable public transport links close by and the political pressure to reduce reliance on cars all help promote the long and medium term value of sustainable sites such as this one.

Situated at the junction of the science and business park uses to the north and the residential areas to the south, the site forms a key transition point between the larger scale, parkland style setting of the Cambridge Science Park and Cambridge Business Park and the finer urban grain of the mid 20th century suburban housing sprawl of Chesterton and King's Hedges. Punching through this Milton Road and its tree lined/landscaped avenue present a level of continuity between these distinct areas, with a further aspiration locally of enhancing it to improve useability for pedestrians and cyclists.

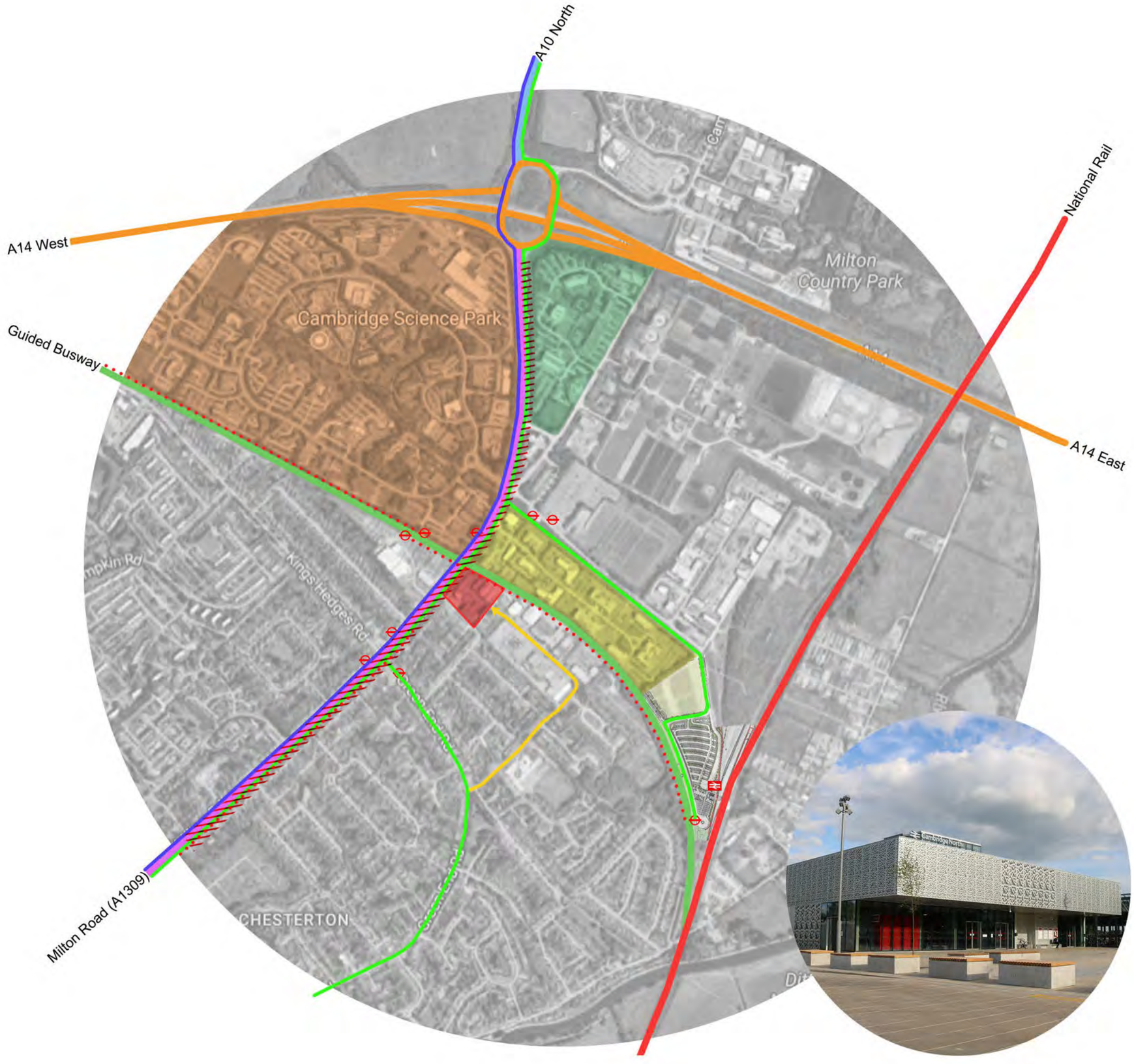
- The Site (Light Industrial)
- Cambridge Science Park
- St John's Innovation Park
- Cambridge Business Park
- Residential
- Anglia Water Sewage Treatment Plant
- Light Industrial/Trade
- Car Showroom

1.0 THE SITE

1.5 SITE ACCESS & CIRCULATION

There is an opportunity to take advantage of the excellent public transport network surrounding the site, including the cycle and pedestrian lane that leads up to the site from Cambridge North Station.

The main rail way station is situated 1.5 miles to the south of the historic city core in an area now known locally as CB1. Rail services connect Cambridge with London Kings Cross (49 minutes) and Kings Lynn (30 minutes). The new station will connect CNFE with CB1 in a few minutes and as part of the Greater Cambridge City Deal there is a new station planned for the Bio-Medical campus in 2019, which would create a shuttle service between the parks on the north and south of the city.



- A14
- A10
- Milton Road
- National Rail
- Guided Busway - Routes A,C & N
- Citi 2 Bus Route - Linking Waterbeach, Cambridge North, City Center and Addenbrookes.
- Milton Park and Ride
- Existing Vehicular Access
- Cycle and Pedestrian Lane
- Bus Stop
- Cambridge North Station
- Soft Landscape Along Milton Road
- Cambridge Science Park
- St John's Innovation Park
- Cambridge Business Park

1.0 THE SITE

1.6 SCALE

The majority of the built form to the south west is two storeys in scale. To the north east and south east there is more of a combination of both two and three storeys. The adjacent site, across the Guided Busway is also three storeys.

2.0 THE VISION

2.0 THE VISION

2.1 VISION STATEMENT

The Cambridge technology market has evolved rapidly over the last 10 years. As electronic instruments become smaller, the demand for industrial production space in central locations has also fallen. Nowadays the tech market is looking for hybrid offices which serve as both a research facility and small scale production areas. Industrial units are being repurposed as offices with full height mezzanines and extensive glazing, partly due to spiralling office rents but also because they are flexible spaces. The Cambridge Science Park, St John's Innovation Park and Business Park are dominated by global brands, but the accommodation available is primarily office and laboratory space aimed at professional service firms, software companies and pharmaceutical research.

A gap in the market exists for occupiers wanting the campus environment of the Science Park but with flexible accommodation which is bespoke for modern technology businesses. Buildings which are designed with these occupiers in mind, rather than converted warehouses which are expensive to run and which will become obsolete once these occupiers grow and move on. Trinity Hall Industrial Estate has the advantage of a location within the northern fringe cluster, but with the ability to accommodate a range of occupiers who are related to, but not the same as, those on the established parks. The vision for the next phase of Trinity Hall Industrial Estate is exciting and modern. It will help foster a dynamic and flexible working environment for technological orientated companies. It will raise the bar for the redevelopment of CNFE and will provide a variety of space not currently available nearby.

3.0 NARRATIVE

3.0 NARRATIVE & IDENTITY

3.1 SPATIAL ARRANGEMENT & COURTYARD DESIGN

One analogy we can apply to this scheme moving forward is an architectural arrangment so synonamous with Cambridge - the courtyard.

The main element that is applicable to Trinity Hall Farm is how a courtyard type arrangement encourages a working community and the sharing/interchange of ideas - an intellectual or creative hub, often with a centrally planned landscaped area.

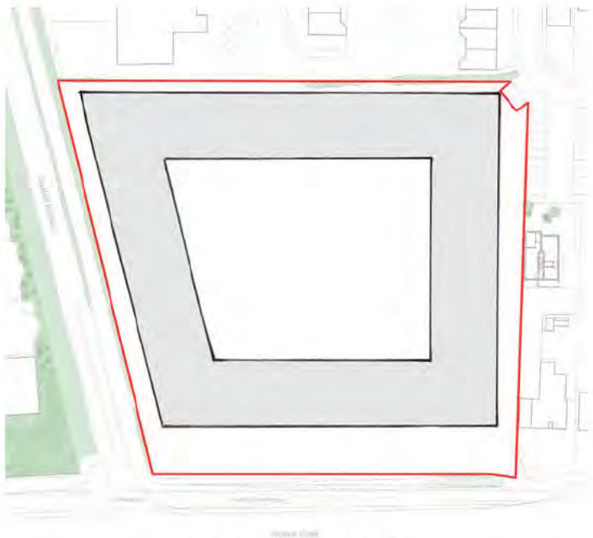
There is, however, an inherent issue with these collegiate courtyards - traditionally, the cambridge cloisters were built for privacy and to be solely inward facing, turning away from the surrounding context. At Trinity Hall Farm, the opposite needs to happen.

The design for Trinity Hall Farm needs to open up and form active frontages onto both Milton Road and the Guided Busway. This can be achieved by creating breaks in the built form at relevant junctures to create visual permeability through the site onto an internal landscaped area. Entrances, offices and vertical circulation can be orientated to create outward facing activity.

Clare College courtyard

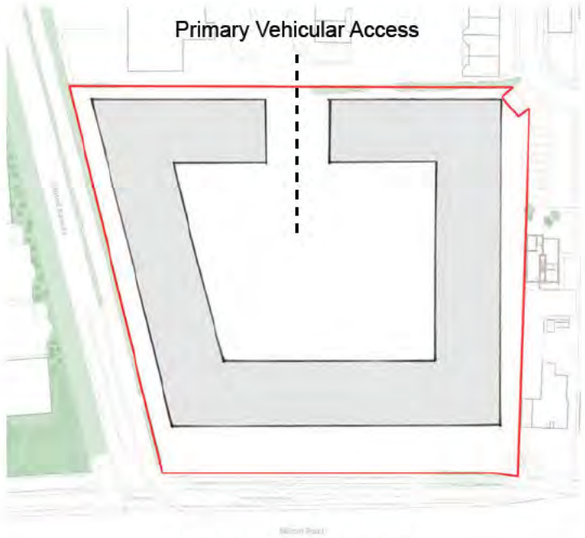
Kings College courtyard

Broers Building, Cambridge



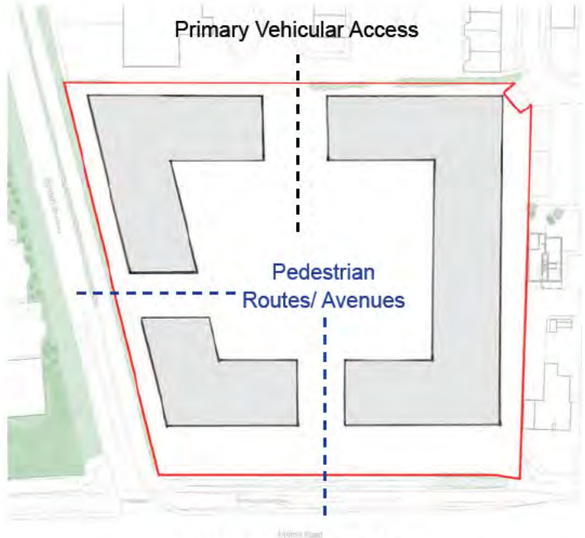
COURTYARD FORM

Simple courtyard from around the perimeter of the site as a starting point.



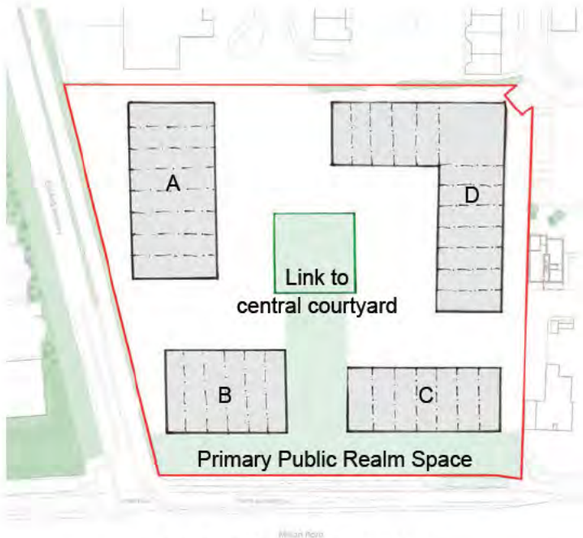
VEHICULAR ACCESS

Form a break in the plan for vehicular access to the site.



PEDESTRIAN ROUTE

Key pedestrian routes from both Milton Road and the Guided Busway create further breaks in the built footprint.



INTERNAL GREENING

Generous public realm space should be allowed for on both Milton Road and the Guided Busway frontages. Building ‘D’ needs further work and could be reconfigured.

3.0 NARRATIVE

3.2 PROJECT INFLUENCES

ARCHITECTURE FOR A WORKING COMMUNITY

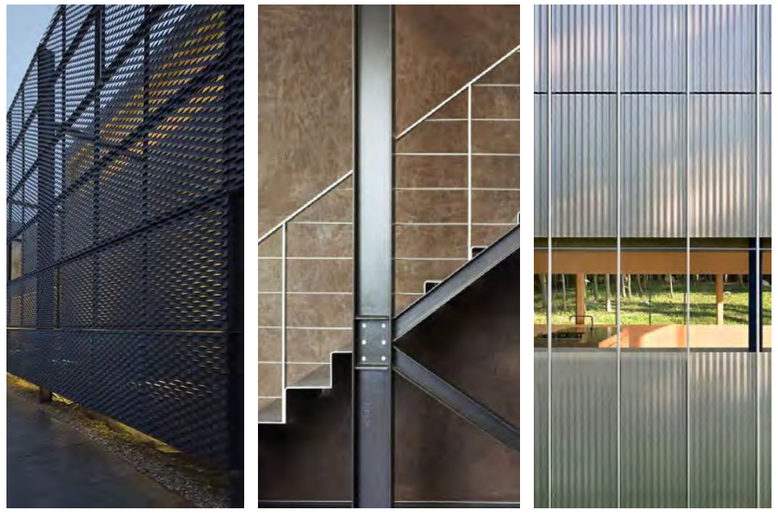
Here East, Thames Estuary, London

UCL's new 6,000 sqm technology and creative campus in East London is a place where architects, engineers, computer scientists, mathematicians, anthropologists and many others are working side-by-side, interacting with nearby entrepreneurs, performers and researchers. UCL at Here East is part of the wider Here East project, based near Stratford in the heart of East London.

Trinity Hall Farm should look to emulate this sense of a working community with shared amenity areas.

01

INDUSTRIAL AESTHETIC



Palette of metals: Perforated, Corrogated, Beams

Trinity Hall Farm should include an industrial palette of materials. Using a series of metal treatments will help to provide a finer urban grain to the design as well as allude to an industrial aesthetic. Metal beams and a modular grid can set out these more industrial forms, providing rhythm to each of the elevations.

02

CONTAINER ARCHITECTURE

Boxpark Shoreditch, London

Boxpark is a temporary shopping center located within the shoreditch district in london. Waugh thistleton architects designed a pop-up shopping area, constructed of shipping containers and positioned the structure within the former railway goodsyard.

Trinity Hall Farm could take inspiration from this, with a modular, non-hierarchical architecture that speaks to the sense of a working community that we are trying to create.

03

3.0 NARRATIVE

3.3 PRECEDENT IMAGES

Previously, the scheme had a design aesthetic more typical of a mid-tech industrial park. Through the use of architectural devices, combinations of materials and elevational rhythm the schemes cohesiveness should improve and a sense of place making stengthened.

The precedents on this page demonstrate an industrial material palette and architectural language we deem to be suitable for the Trinity Hall Farm site moving forward.

This type of aesthetic lends itself to a creative hub space and the potential for an exchange of ideas within a community. Using external elevated walkways and gantries may also help with this.

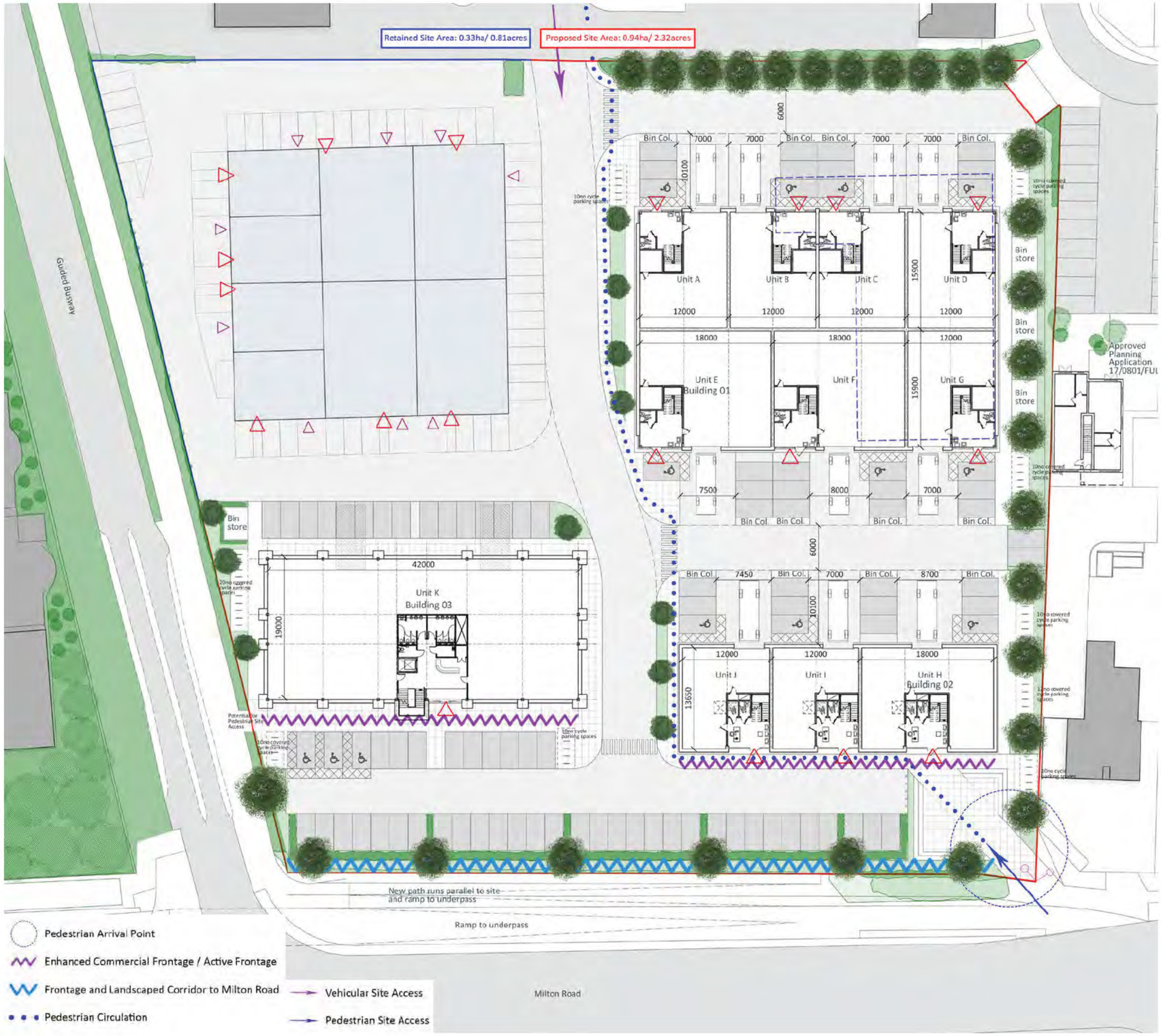
4.0 PREVIOUS SCHEME

4.0 PREVIOUS SCHEME

4.1 FEEDBACK SUMMARY

The concerns raised at the pre-application meeting were as follows:

1. The proposed scheme has a lack of identity or site narrative.
2. There is a lack of active frontage onto both Milton Road and the Guided Busway and is dominated by parking.
3. The amount of landscape and public realm space should be increased.
4. There needs to be more visual permeability within/ through the scheme.
5. Attention needs to be paid to pedestrian circulation routes throughout the site.
6. The architectural language needs to be considered.



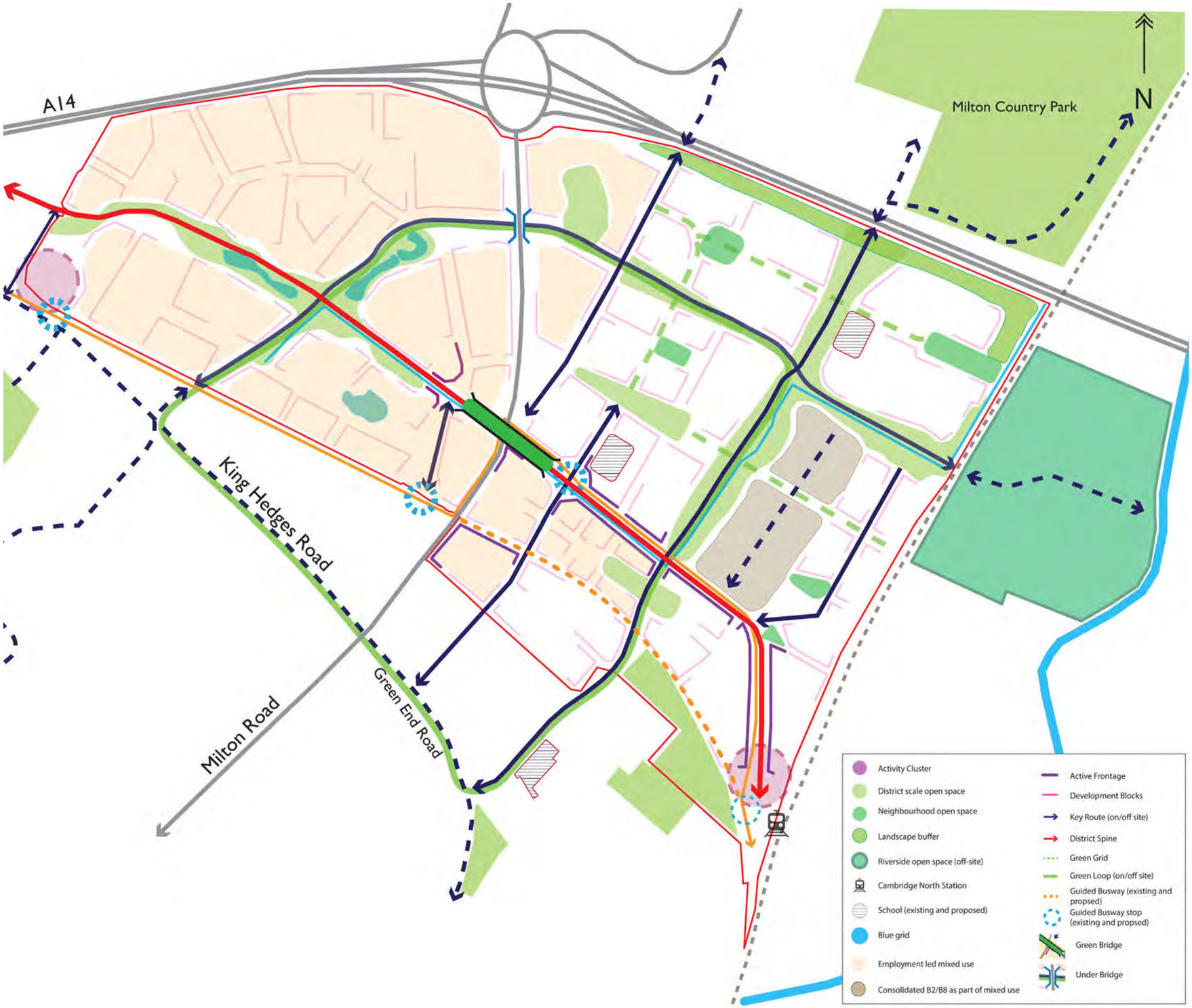
5.0 SPATIAL FRAMEWORK

5.0 SPATIAL FRAMEWORK

5.1 SPATIAL FRAMEWORK & LOCAL AREA ACTION PLAN

The revised scheme considers the new area action plan and has responded to the workshop process and feedback.

The spatial framework set out here, highlights two key points relevant to the Trinity Hall Farm site. The first is the need for an active frontage onto both Milton Road and the Guided Busway. The second is the proposed future development for a key route to the south of the site. The guidance provided also identifies the site for employment lead development. These issues are addressed in the design moving forward.



6.0 DESIGN RESPONSE

6.0 DESIGN RESPONSE

6.1 DESIGN RESPONSE DIAGRAM

1. Active frontages onto both Milton Road and the Guided Busway are crucial.
2. Landscaped Areas.
3. Centrally located landscaped courtyard.
4. Tree avenues lead users through the site.
5. Public realm space for additional landscaping, urban street furniture and cycle parking.
6. Key pedestrian route from the Guided Busway.
7. Dense tree line to site edges to form landscape buffer.
8. Areas for yard space and car parking.

LANDSCAPE:

The diagram depicts areas on the site that should be given over to landscaped areas and external amenity. Significant zones to the Milton Road and Guided Busway boundaries should include an element of greening and hard standing for pedestrians to circulate, meet and relax. Landscaped screens to the other boundaries should be more dense and serve as buffer zones to the adjacent developments. A centrally planned, landscaped courtyard allows for a more private space for the site users to meet and relax. This provides a positive outlook for the inward facing units around the site.

VISUAL PERMEABILITY:

The diagram demonstrates the primary areas of permeability through the site and between the built form. Landscaped areas and tree lined avenues should straddle the main routes into the site. A centrally planned area of landscape forms a focal point for these routes.

ACTIVE FRONTAGE:

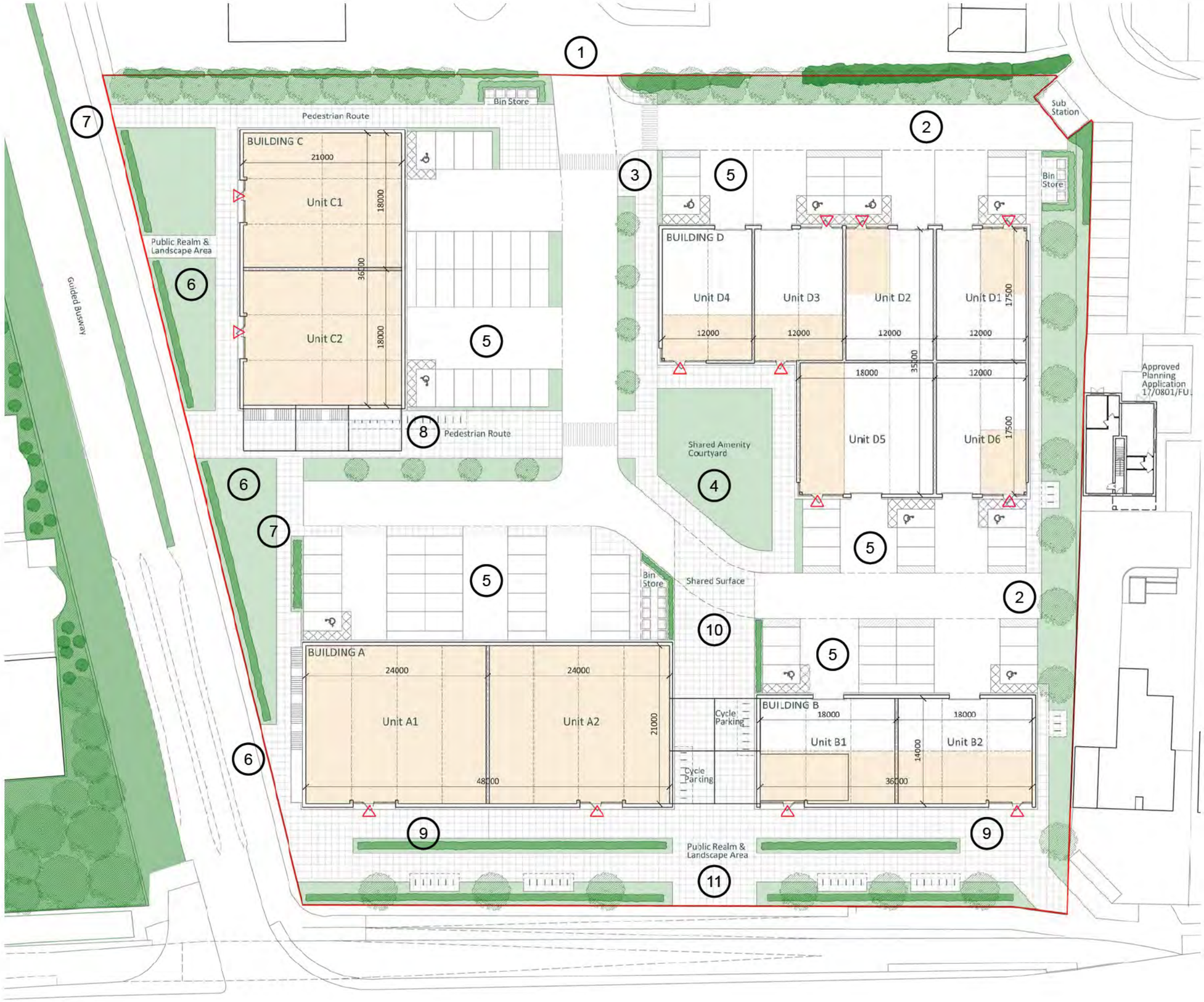
The diagram places the built area onto Milton Road and the Guided Busway with enough area infront for pedestrian activity only. Office entrances can be placed along this boundary to ensure activity. This arrangement also demonstates how the idea of exchanging ideas can be achieved with inward looking units behind. A layout like this would then begin to deal with the the wider masterplan intent to the south, with future units facing onto a new key route to further connect the site.

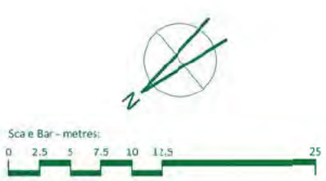
7.0 PROPOSED SCHEME

7.0 PROPOSED SCHEME

7.1 SITE MASTERPLAN

1. Vehicular entrance to site from Nuffield Road.
2. Dense landscaping located to the south east and south west boundaries to provide a landscape buffer to adjacent properties.
3. Pedestrian route from Nuffield Road into site.
4. Centrally located landscaped amenity space.
5. Car parking and yards to the rear of the units with greening to soften these areas.
6. Landscaped areas and a public realm space onto the Guided Busway. There are unit entrances and external circulation located along here to enliven the street scene and encourage active frontages.
7. Additional pedestrian routes through the site from the Guided Busway.
8. Primary pedestrian route through to the centrally located landscaped amenity.
9. Primary entrances to units located on this facade to create active frontages onto Milton Road. There are also external stairs located on this facade to further enliven this elevation.
10. Generous public realm space splits the Milton Road building and creates an important axis through to the landscaped courtyard.
11. Landscaped public realm space onto Milton Road for urban street furniture and cycle parking.





7.0 PROPOSED SCHEME

7.2 SCHEDULE OF AREAS

Phase 1 - Building A		
Unit A1 - Office GIA (85% Net to Gross)	m^2	ft^2
Ground Floor	540	5,812
1st Floor	540	5,812
Second Floor	260	2,800
Total	**1,340**	**10,764**

Unit A2 - Office GIA (85% Net to Gross)	m^2	ft^2
Ground Floor	540	5,812
1st Floor	460	4,952
Total	**1,000**	**10,764**

Phase 1 - Building B		
Unit B1 - Office GIA (85% Net to Gross)	m^2	ft^2
Ground Floor	248	2,680
1st Floor (50%)	125	1,345
Second Floor	70	753
Total	**443**	**4,769**

Unit B2 - Office GIA (85% Net to Gross)	m^2	ft^2
Ground Floor	248	2,680
1st Floor (50%)	125	1,335
Total	**373**	**4,015**

Phase 1 - Building D		
Unit D1 GIA	m^2	ft^2
Ground Floor	204	2,196
1st Floor Offices	50	538
Total	**254**	**2,734**

Unit D2 GIA	m^2	ft^2
Ground Floor	200	2,152
1st Floor Offices	50	538
Total	**250**	**2,691**

Unit D3 GIA	m^2	ft^2
Ground Floor	200	2,152
1st Floor Offices	70	752
Total	**270**	**2,906**

Unit D4 GIA	m^2	ft^2
Ground Floor	204	2,196
1st Floor Offices	70	753
Total	**274**	**2,949**

Unit D5 GIA	m^2	ft^2
Ground Floor	304	3,272
1st Floor Offices	100	1,076
Total	**404**	**4,349**

Unit D6 GIA	m^2	ft^2
Ground Floor	204	2,196
1st Floor Offices	50	538
Total	**254**	**2,734**

Phase 1 Site Total	m^2	ft^2
Ground Floor	2,854	30,720
1st Floor	1,384	14,898
Second Floor	410	4,413
Total	**4,808**	**51,754**

Phase 1 Car Parking		
Unit	No.	Ratio
Site Total	53	1:91

Phase 1 Cycle Parking		
Unit	No.	Ratio
Site Total	90	1:54

Phase 2 - Building C		
Unit C1 - Office GIA (85% Net to Gross)	m^2	ft^2
Ground Floor	373	4,015
1st Floor	373	4,015
Total	**746**	**8,030**

Unit C2 - Office GIA (85% Net to Gross)	m^2	ft^2
Ground Floor	373	4,015
1st Floor	373	4,015
Second Floor	220	2,380
Total	**966**	**8,030**

Phase 2 Site Total	m^2	ft^2
Ground Floor	746	8,030
1st Floor	746	8,030
Second Floor	220	2,368
Total	**1,712**	**18,428**

Phase 2 Car Parking		
Unit	No.	Ratio
Site Total	25	1:69

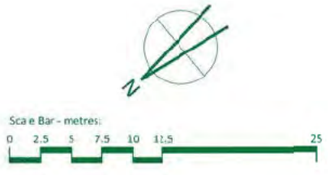
Phase 2 Cycle Parking		
Unit	No.	Ratio
Site Total	30	1:57

Areas subject to detailed design

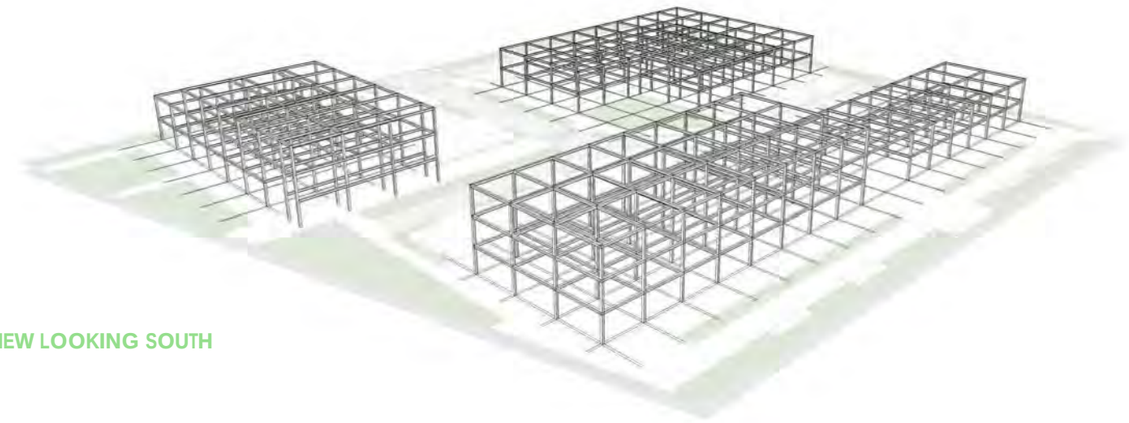
7.0 PROPOSED SCHEME

7.3 PHASE 1 SITE PLAN

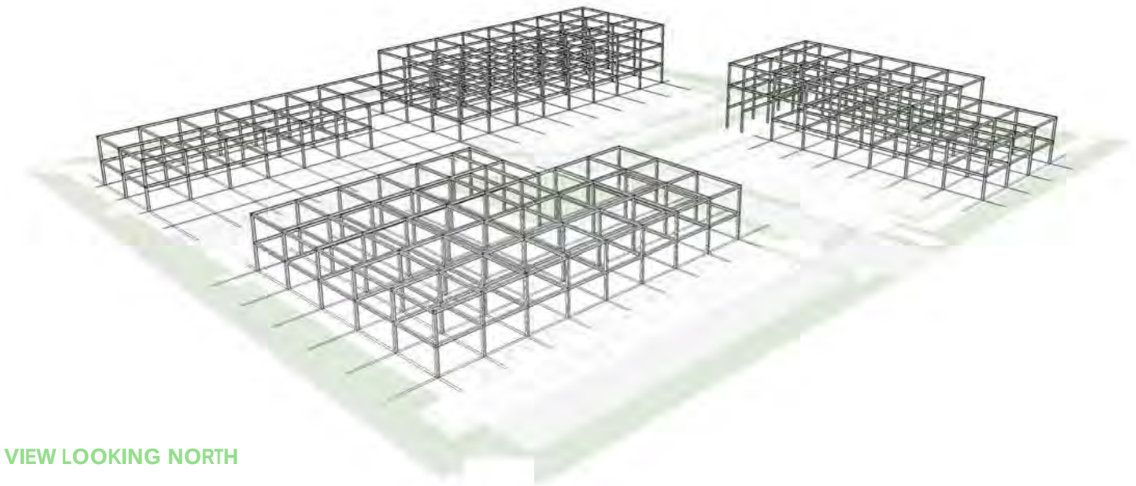
This plan demonstrates the first phase of the proposed scheme due to existing tennants on site.



8.1 EXTERNAL FRAMES / GRID



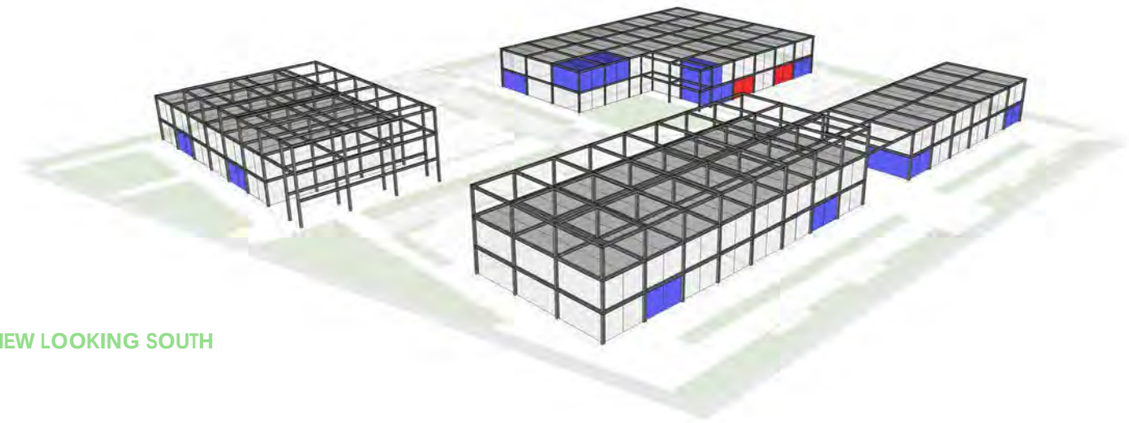
VIEW LOOKING SOUTH



VIEW LOOKING NORTH

The diagrams above shows the modular architecture appraoch. The first stage was to set out a grid and external framing which provides parameters in which to work.

8.2 ENTRANCES



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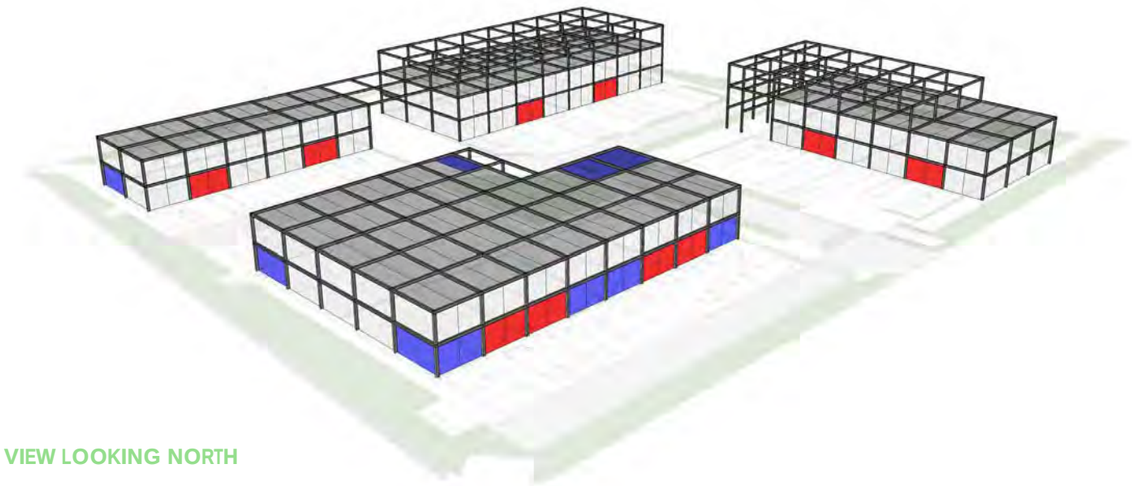


VIEW LOOKING NORTH

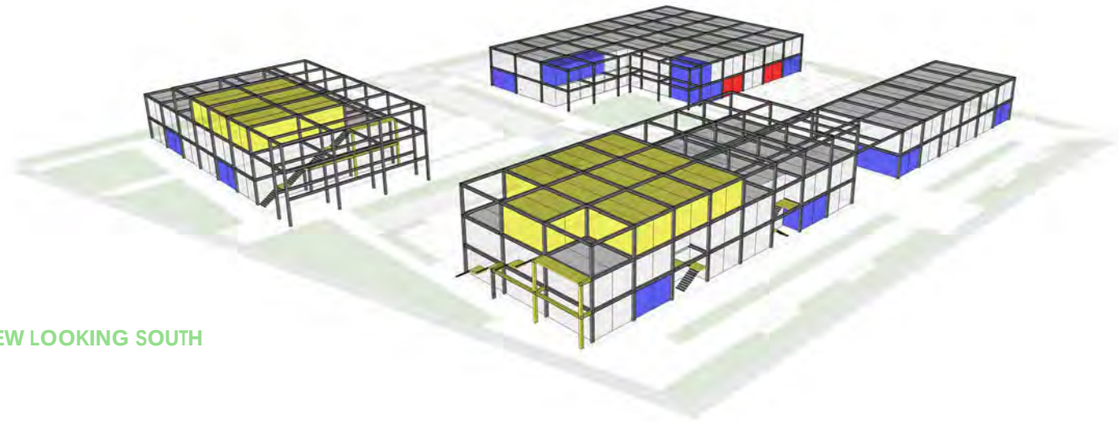
The next diagram demonstrates the massing within the external frame. In relation to scale most of the development will be 2 storeys in height however there may be localised areas where an additional storey is acceptable. The site sits between the suburban, two storeys scale and the larger scale of the science and business park. The blue modules indicate where primary entrances will be located. The red modules indicate where vehicular loading doors will need to be located.

Primary Entrances

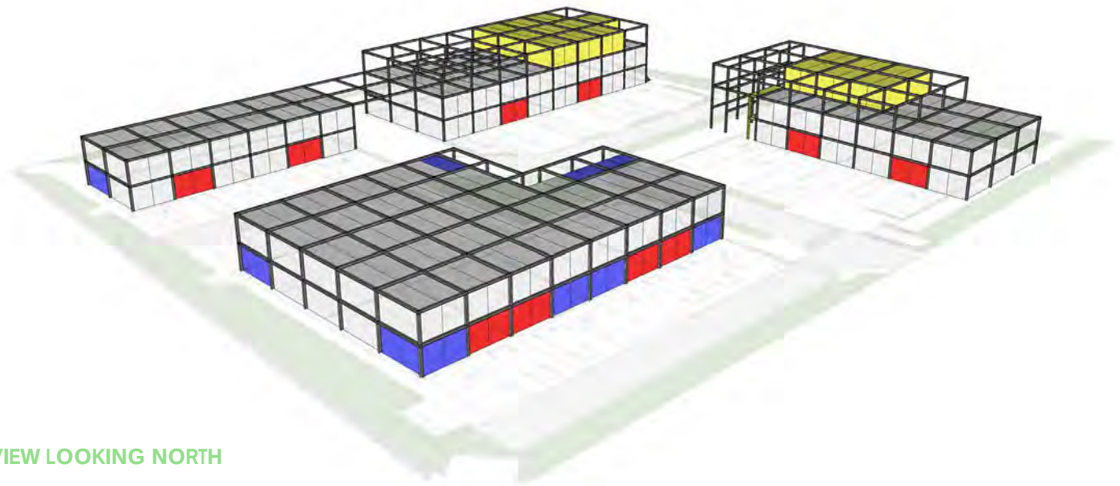
Vehicular Loading Doors

8.0 DESIGN DIAGRAMS

8.3 ADDITIONAL ACCOMMODATION



VIEW LOOKING SOUTH



VIEW LOOKING NORTH

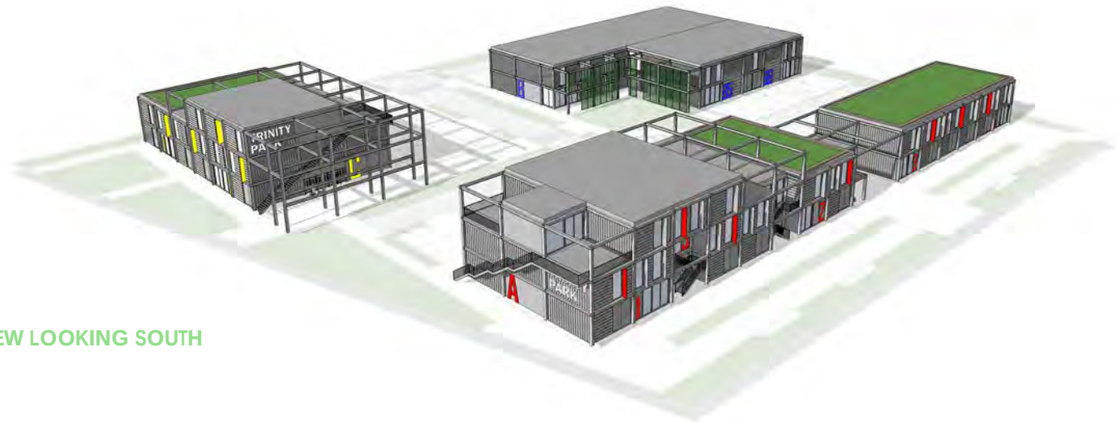
The next diagram indicates where there is potential for external stairs and additional floor area. The inset stair cases on the Milton Road and Guided Busway elevations can be used to enliven the facades and create another access to the first floor office accommodation. The longer run external stairs are located on the gables ends and allow access onto a second floor which has potential to be standalone office units. Ultimately this approach allows for the flexibility of spaces.

Primary Entrances

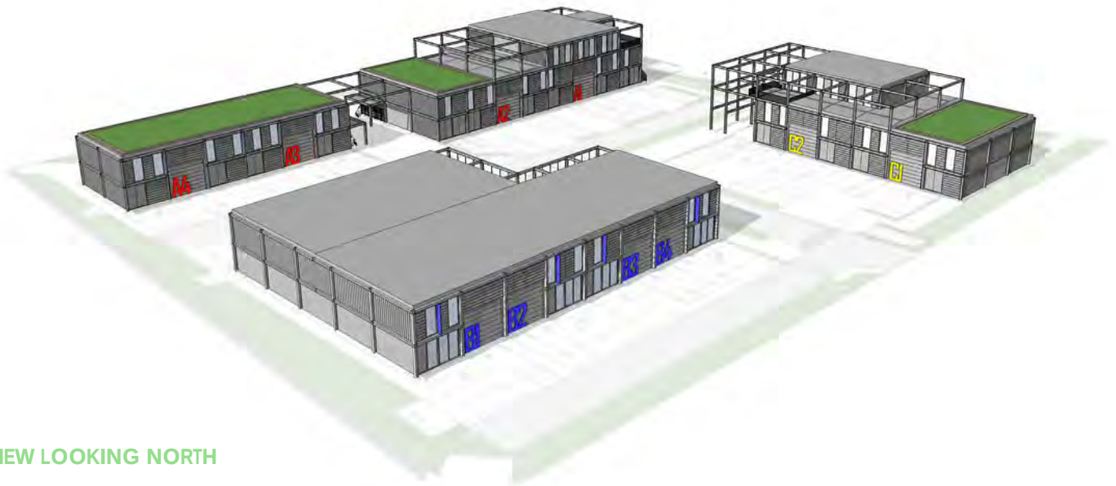
Vehicular Loading Doors

External stairs to above accommodation

8.4 MATERIALITY



VIEW LOOKING SOUTH



VIEW LOOKING NORTH

The above diagram demonstrates a more worked up scheme. This includes adding a metal material finish with flush panels, corrogated panels and glazing. Additional external framing has been retained to emphasise the modular design aesthetic. Areas of colour can be added in the form of signage zones and graphics to add variety to the facades. Areas for terraces and plant can also be located on the roof as well as opportunities for greening.

9.0 DESIGN PRINCIPLES

9.0 DESIGN PRINCIPLES

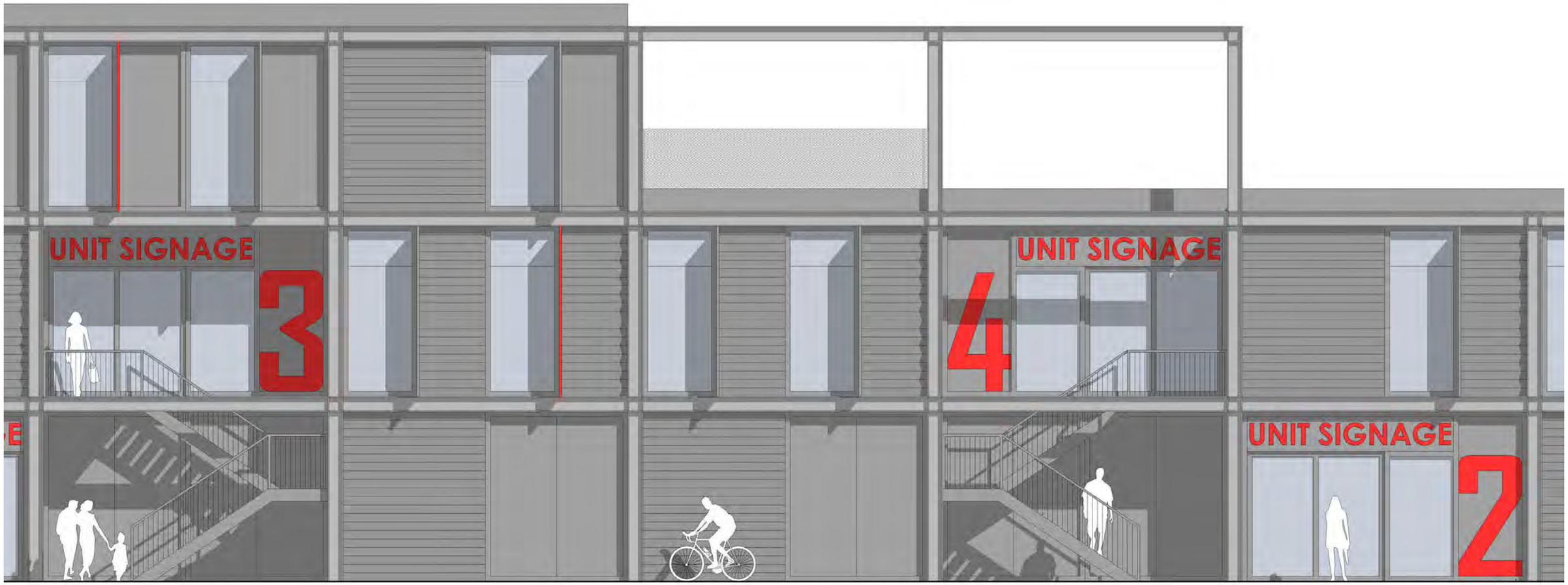
9.1 DESIGN PRNCIPLES DRAWING

The architecture for Trinity Hall Farm is based on a modular design with an expressed external frame. The grid is conistsent and measures 6 metres wide on each of the facades. Within this, the cladding and fenestration subdivide into either 1.5 metre or 3 metre dimensions.

The appearance is guided by a contemporary industrial aesthetic and born out of the examples shown. The principles of this modular design, grid and aesthetic are consitent through the scheme to create a stronger sense of identity and coherence.

In relaion to cladding, there are three main modular types. The first is a profiled metal (trapezoidal cladding or similar). This is orientated in both vertical and horizontal orientation throughout the scheme. The second facade treatment is a flush, fixed metal panel. These provide opportunities to add graphics and signage for particular units where necessary. The third treatment is a full height glazing panel. The design allows for further flexibilty by allowing extra glazing to be slotted in where necessary (modular/adaptable approach).

Signage and vertical solar shading fins add another level of detail and finer urban grain. These are designed to add further visual interest when viewed close up, but are subtle enough to not dominate the elevation when viewed from a distance. Colour is an extention of this and serves to improve identity for each unit.



10.0 SITE SECTIONS

10.0 SITE SECTIONS

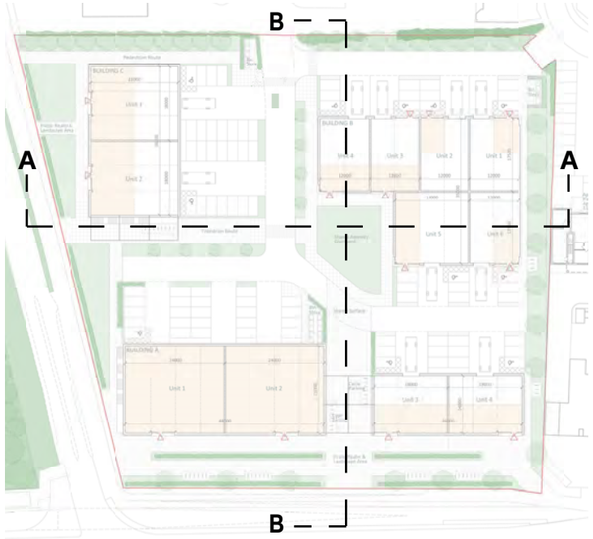
10.1 SITE SECTION DRAWINGS

The site sections below highlight the relative scale to the adjacent buildings.

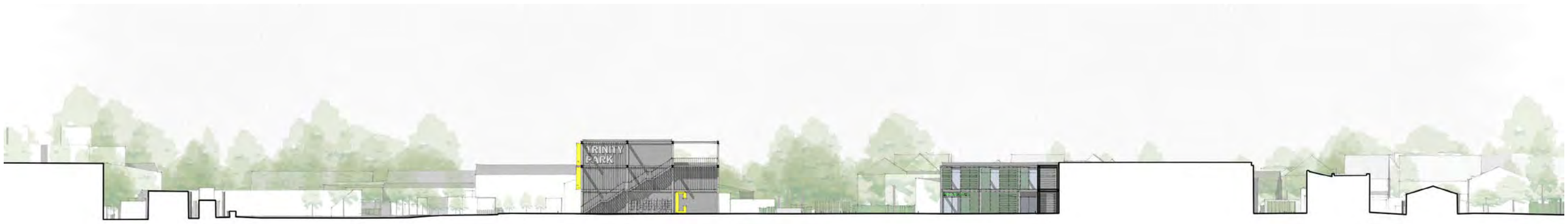
Section AA cuts through the pedestrian route from the Guided Busway and into the site, to the centrally located, landscaped amenity. As visible here, the central landscaped amenity could also include a vertical green wall to provide a focal point and positive outlook from all of the inward looking areas of the site.

Section BB cuts through the other significant pedestrian route and public realm space, from Milton Road, through the site to the centrally located, landscaped amenity.

The proposed scheme is primarily two storeys in scale (lower to the southern edge) but increases to three storeys locally where the Guided Busway meets Milton Road. It was felt that additional scale could be achieved here due to the relative height of the adjoining buildings. The external frame is continued in areas to not only emphasise the aesthetic, but also to provide potential for covered terrace and plant areas on the roof.



REFERENCE PLAN



SECTION AA

SECTION BB

11.0 VISUALISATIONS

11.0 VISUALISATIONS

11.1 AERIAL VIEW LOOKING SOUTH

NARRATIVE, IDENTITY & LANGUAGE

The proposed schemes layout is as such that it encourages an environment for a working community. Its loose courtyard masterplan allows for both inward and outward looking activity. There is a continuity of narrative through the architectural language of modular rhythm. The proposed scheme is split into four buildings and each could have its own colour as a means of wayfinding for visitors. All of which, sits behind a tree-lined avenue onto Milton Road to pick up on the characteristics of the wider context.

PUBLIC REALM

This scheme includes a generous amount of pedetrian only, public realm space. The main areas of which are located onto both Milton Road and the Guided Busway. There is further amenity located within the site in the form of a centrally planned, landscaped amentiy area. This area also has the potential to include climbers to extend the green space vertically. There is also potential for semi-private terraces at higher levels to extend the public realm.

ACTIVE FRONTAGES

The primary active frontages are located onto both Milton Road and the Guided Busway. Primary entrances are located here to increase the amount of activity. Vertical circulation in the form of external staircases are also used to increase footfall to these areas. Pedestrians and cyclists that visit the site will come from one of these directions (north east or north west) and so it is important to direct people along and through the site at these points (with areas for urban street furniture and cycle parking).

11.0 VISUALISATIONS

11.2 AERIAL VIEW LOOKING NORTH

PEDESTRIAN CIRCULATION & VISUAL PERMEABILITY

The two main pedestrian routes through the site from Milton Road and the Guided Busway draw people into the site as well as create visual permeability. These routes, as well as the vehicular entrance from Nuffield Road serve as key axes through the site. This means the scheme can be read when viewed in the wider context. These key axes provide framed views all the way through the site and towards the landscaped courtyard area.

LANDSCAPE

Generally, there is alot of green areas around the site. The primary public realm spaces to both Milton Road and the Guided Busway could include planting and grassed areas. Internally, planted tree avenues help to guide site users towards the centrally planned courtyard. Furthermore, substantial hedges are used to screen areas such as bin stores. Around the perimeter, particularly to the south west boundary, a dense treeline helps to act as a buffer zone to the adjacent properties.

11.0 VISUALISATIONS

11.3 MILTON ROAD ELEVATION

This view highlights the vertical rhythm achieved using the grid system and external frames. A combination of textures and cladding orientation add to the finer grain and visual interest whem viewed up close. Accent colours are also used in the vertical solar shading fins and signage zones to provide individual identity and further interest.

The architectural response is set behind the Milton Road treeline which further adds to the rhythm of the facades.

11.0 VISUALISATIONS

11.4 NORTH CORNER

This view highlights the vertical circulation expressed most notably, on the gable ends, to further enliven the street scene. These stairs also provide the potential to independantly access the upper floor levels. The longer run stairs also serve as a means of escape should the building be sub-let as single floors.

11.0 VISUALISATIONS

11.5 PUBLIC REALM ONTO MILTON ROAD

The pedestrian route that splits the Milton Road buildings defines a pedestrianised entrance into the site from this approach. It also provides public realm space for street furniture and cycle parking. This enhances the visual permeability and views through and into the site to the central courtyard.

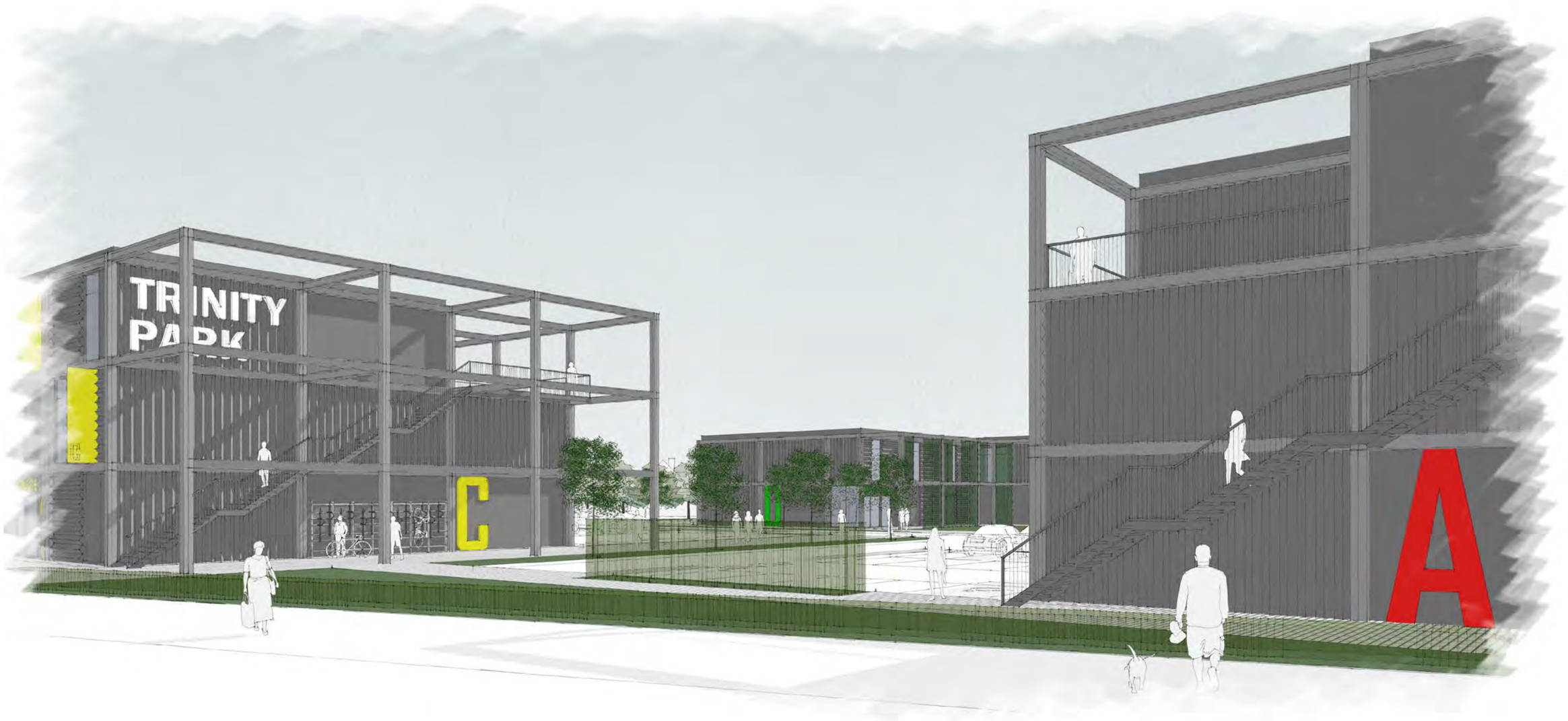
11.0 VISUALISATIONS

11.6 VIEW FROM THE GUIDED BUSWAY

The landscape zone that looks onto the Guided Busway enhances this edge condition and allows site users to congregate and circulate through.

Identity and signage are located at key points to help site users or visitors with wayfinding.

View from the Guided Busway looking north west



11.0 VISUALISATIONS

11.7 PEDESTRIAN ROUTE FROM THE GUIDED BUSWAY

The key axis from the Guided Busway, through to the landscaped amenity space is vital to bringing people into the site. This axis is framed by a continuation of the grid and frames used on the facades to form a entrance-way These elements could be also be screened or louvred to create a semi-internal/external space.

11.0 VISUALISATIONS

11.8 VEHICULAR ENTRY

The vehicular access for the site is located to the south. Upon entry, the service areas and parking spaces are evisent. The back to back units in the southern corner of the site are more modest and are kept to strictly two storeys in scale, with unit entrances and loading doors located next to each other. Again, a treeline avenue straddles the vehicular route to highlight another important axes into the site.

View from Nuffield Road

11.0 VISUALISATIONS

11.9 INTERNAL, SHARED AMENITY

The centrally planned, landscaped amenity could be screened with climbers to extend the axis of greening vertically. This would also provide positive views into the site.

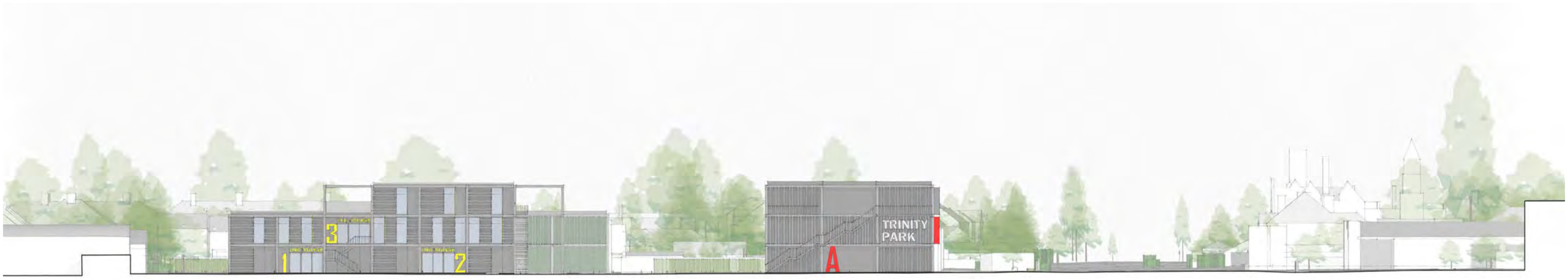
12.0 ELEVATIONS

12.0 ELEVATIONS

12.1 GUIDED BUSWAY ELEVATIONS

The Guided Busway elevation emphasises the module and grid concept. The gable ends of each of the two main buildings (onto both Milton Road and the Guided Busway) include stair cases to access upper floors with additional office accommodation (potentially self-contained) . The building that faces onto the Guided Busway also steps up towards the northern corner of the site with the grid extending out to form a pedestrian gateway. The primary pedestrian route and landscaped area directly off of the Guided Busway will be crucial for users of the site that are arriving from the station. Users can enter here and circulate through the site.

Plant located on the roof can be screened by a semi-transparent mesh material in order to add to the architectural aestethic and perception of stepping forms - ultimately complimenting the design.



12.0 ELEVATIONS

12.2 MILTON ROAD ELEVATIONS

The wider context elevation demonstrates the relationship between the proposal and the adjacent properties. The two storey volume steps up and away from the residential propoerties, towards the northern corner of the site, to reflect the increased scale of the development across the guided busway. This design is very much an architectural approach (rather than a contextual one) but this view demonstartes its suitability within the wider context.

The Milton Road elevation uses the modular grid and external frame to emphases the vertical rhythm of the facade. There is a public realm area and route into the centre of the site which splits the elevation into two halves/blocks. The frame continues over the public realm space to form a pedestrianised entrance. Unit entrances are located on this elevation for pedestrian access. The buildings then screen the vehicular access to the rear. All of this, is set behind a strong, treelined avenue and public realm space.

13.0 LANDSCAPE

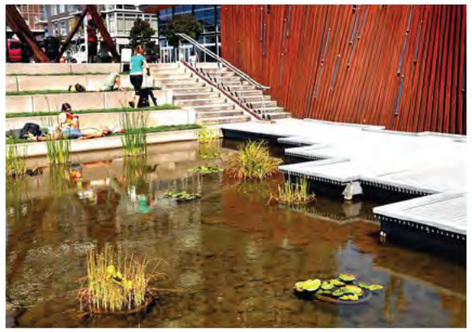
13.0 LANDSCAPE

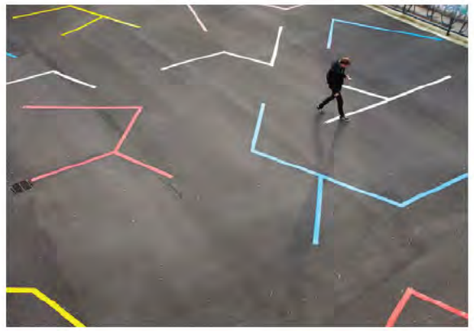
13.1 LANDSCAPE PLAN

Outlined here, is a high level diagram and precedent images to demonstrate the intent for landscaping around the site. There is a clear emphasis on generous public realm space with more formally spaced avenues along Milton Road, picking up on the rhythm of the wider context, seperating the frontages into 'front gardens' for each of the units here.

There are also break-out seating and grass areas around the site. The addition of sloped landscaping with water/ swales could possibly add another level of interest.

Further work will be done to refine the initial, high level thoughts on Landscape as part of any application moving forward.





14.0 HIGHWAYS

14.0 HIGHWAYS

14.1 TRANSPORT STRATEGY

The proposed development looks to provide four new buildings (in two phases) for uses ranging from mid-tech and light industry through to high-tech R&D and lab requirements, whilst maximising flexibility and adaptability.

The transport strategy frames our project within the context of the AAP. Car and cycle parking will be provided in accordance with Cambridge City Council's *Car and Cycle Parking Requirements* which is appended to the Cambridge Local Plan.

Walking & Cycling

Trinity Hall Farm Industrial Estate exhibits good accessibility by walking and cycling, assisted by footway / cycleway infrastructure. The shared footway / cycleway along the Cambridgeshire Guided Busway (CGB) also provides good pedestrian / cycle access to the surrounding area. The level of cycle parking will be monitored as part of the Travel Plan that will be required to accompany the planning application.

Public Transport

Trinity Hall Farm Industrial Estate is well served by existing bus services, being within 400m of stops on the A1309 Milton Road and the CBG network.Cambridge North Railway Station is located approximately 1km from Trinity Hall Farm Industrial Estate via the footway / cycleway on the southern side of the CGB which significantly enhances the public transport accessibility of the site.

Proposed Transport Strategy

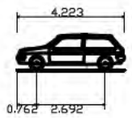
The transport strategy for the proposals will be to achieve a nil detriment impact on the local highway network. This will depend (to a large extent) on maintaining / reducing the current overall number of car parking spaces across the site, as car trip generation for employment uses is directly linked to car parking provisi n

Car Parking

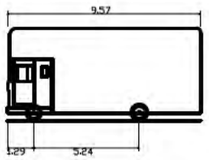
Trinity Hall Farm Industrial Estate is situated outside of the Controlled Parking Zone (CPZ), and as such, is only permitted to provide a maximum of one parking space per 40m2 Gross Floor Area (GFA). The current development proposals indicate that the site would provide a total of 78 car parking spaces (of which 11 would be allocated for disabled users) for a Gross Internal Area (GIA) of 6,520m2, equating to a ratio of 1:84. This also represents a reduction in parking of 79 spaces compared to the existing site layout.

*Please see appendix attached to the end of this document - Trinity Hall Farm Memo on Transport Strategy by WSP which outlines in more detail the transport strategy and provision for the scheme.

Tracking has been carried out for a variety of vehicles including cars, box vans, Pantechnicons and refuse vehicles. Some of these diagrams are set out here and demonstrate how the proposed layout allows for such vehicular circulation to work effectively.

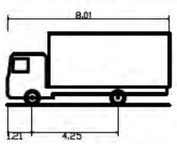


Car Tracking



DB32 Pantechnicon*

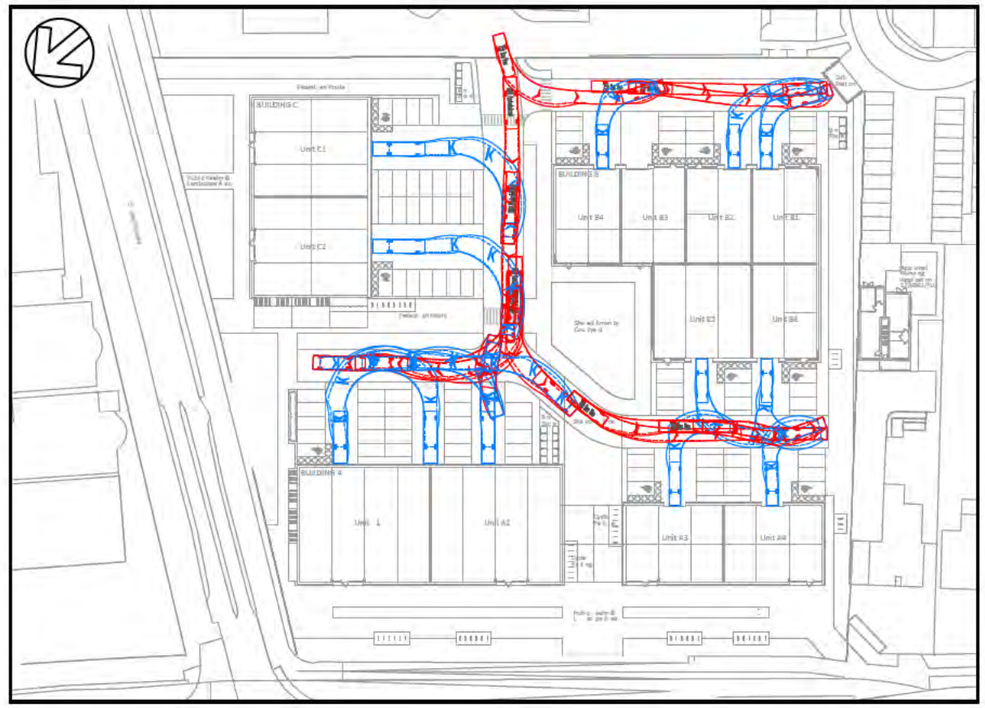
Overall Length	9.570m
Overall Width	2.520m
Overall Body Height	4.571m
Min Body Ground Clearance	0.383m
Max Track Width	2.300m
Lock to lock time	2.00s
Kerb to Kerb Turning Radius	10.450m



7.5t Box Van

Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Box Van / Pantechnicon Tracking



CMP Architects

MEMO

TO	Justin Bainton	**FROM**	Gavin Murray
DATE	**09 September 2019**	**CONFIDENTIALITY**	**Public**
SUBJECT	**Trinity Hall Farm Industrial Estate – Memo on Transport Strategy**		

Existing Non-Car Accessibility

Walking & Cycling

Trinity Hall Farm Industrial Estate exhibits good accessibility by walking and cycling, assisted by footway / cycleway infrastructure on both sides of the A1309 Milton Road and the National Cycle Network (NCN) Route 51 routing along the A1309 Milton Road site frontage (which also forms part of the Cambridge Cycle Network). The shared footway / cycleway along the Cambridgeshire Guided Busway (CGB) also provides good pedestrian / cycle access to the surrounding area. Much of Chesterton and Milton village are within a suitable walking distance (2km / 25-minute walk), and a large area of Cambridge and villages to the north – Milton, Histon, Impington, Fen Ditton, Cherry Hinton Waterbeach, Girton and Oakington – are within a reasonable cycling distance (8km, 25-minute cycle) of Trinity Hall Farm Industrial Estate.

Public Transport

Trinity Hall Farm Industrial Estate is well served by existing bus services, being within 400m of stops on the A1309 Milton Road (served by the X9 / 9, Citi 2 and Milton Park & Ride services) and the CBG network (served by Busway A and Busway D services). The four bus stops – two on the A1309 Milton Road and two on the CGB – are situated within a 5-minute walk (400m) from the centre of Trinity Hall Farm Industrial Estate, which is considered an acceptable distance to a bus stop, especially given the high-quality facilities and frequency of service provided by the CBG.

Cambridge North Railway Station is located approximately 1km from Trinity Hall Farm Industrial Estate via the footway / cycleway on the southern side of the CGB. Cambridge North Railway Station significantly enhances the public transport accessibility of the site, and whilst the travel distance may deter some from walking (14-minute walk), the station is within easy cycling distance (4-minute cycle) and provides 1,000 cycle parking spaces. Great Northern and Greater Anglia provide services calling at Cambridge North, and destinations served include: Cambridge, Ely, Royston, Audley End, Bishop's Stortford, King's Lynn, Norwich, London Kings Cross and London Liverpool Street.

Planned Transport Improvements

The Greater Cambridge Partnership (GCP) is the local delivery body for a City Deal with central government, bringing powers and investment, worth up to £1 billion over 15 years, to vital improvements in infrastructure. Table 1 outlines the planned transport improvements being promoted by the GCP for the area surrounding Trinity Hall Farm Industrial Estate.

Table 1: GCP planned transport improvements

Improvement	Description
Short-Term Delivery	
The Chisholm Trail	A new north-south cycle / pedestrian route between Cambridge Railway Station and Cambridge North Railway Station, including a new pedestrian and cycle bridge over the River Cam between Chesterton and Abbey and an underpass of the railway at Mill Road
Cross-City Cycling	Improved pedestrian and cycle links along Green End Road from the A1309 Milton Road towards the Green Dragon Bridge (amongst other schemes), to improve the safety and attractiveness of this route as a link to the Cambridge Northern Fringe East area. Works are currently underway on the Cross-City Cycling.
Greenways	Creating a walking and cycling network that connects local villages with the city by opening up existing routes and making non-car travel more attractive. A Greenway is planned between Waterbeach and Cambridge city centre via the Northern Fringe East area.
Medium-Term Delivery	
A1309 Milton Road Corridor	Proposed road layout changes to improve public transport, cycle and walking infrastructure on the A1309 Milton Road between its junction with the CGB and Mitcham's Corner, to make sustainable travel options more attractive than private car journeys.
Long-Term Delivery	
Ely to Cambridge Transport Study	Looking at transport capacity along the A10 corridor and how to address future travel demands generated in this part of Cambridgeshire. The Study notes that there will need to be far less reliance on travel by the private car and much greater emphasis on the use of non-car modes. The Study notes that further work is still required to investigate: ▪ Measures such as stringent parking constraint and a vehicular trip budget for development sites which will help to control the number of vehicular trips accessing the sites. Such vehicle trip budgets would be based on the number of trips already generated or permitted to be generated by sites identified for redevelopment; ▪ The operation of the A14 Milton Interchange to establish what additional highway capacity at the interchange could usefully be provided; ▪ A suitable and proportionate highway access strategy for the sites that reflects the needs of pedestrian, cyclists, and public transport users in addition to providing appropriate car access.

Trinity Hall Farm Industrial Estate has a very good level of existing non-car accessibility, including good pedestrian and cycle connectivity. There are planned transport improvements for this area, the focus of which is on promoting non-car modes of access.

Proposed Transport Strategy

The transport strategy for the proposals will be to achieve a nil detriment impact on the local highway network. This will depend (to a large extent) on maintaining / reducing the current overall number of car parking spaces across the site, as car trip generation for employment uses is directly linked to car parking provision.

By maintaining / reducing the car parking provision across Trinity Hall Farm Industrial Estate, the development's peak period vehicular trip generation would be expected to remain the same as that for the existing situation or decrease if a reduction in car parking provision is proposed. Any visitors intending to drive to Trinity Hall Farm Industrial Estate would be informed of the car parking arrangements accordingly and advised on alternative modes of travel to the site.

Proposed Development

The proposed development looks to provide four new buildings (in two phases) for uses ranging from mid-tech and light industry through to high-tech R&D and lab requirements, whilst maximising flexibility and adaptability.

Car and cycle parking for the Trinity Hall Farm Industrial Estate redevelopment will be provided in accordance with Cambridge City Council's *Car and Cycle Parking Requirements* which is appended to the *Cambridge Local Plan*, as outlined in Table 2.

Table 2: Cambridge City Council car and cycle parking standards

Car Parking		
Type of Development	**Inside Controlled Parking Zone**	**Outside Controlled Parking Zone**
Offices, general industry	1 space per 100m^2 Gross Floor Area plus disabled car parking provision	1 space per 40m^2 Gross Floor Area plus disabled car parking provision
Cycle Parking		
Offices	1 space for every 5 members of staff or 1 space per 30m^2 Gross Floor Area. Some visitor parking on merit	
General Industry	1 space for every 3 members of staff. Some visitor parking on merit.	

Trinity Hall Farm Industrial Estate is situated outside of the Controlled Parking Zone (CPZ), and as such, is only permitted to provide a maximum of one parking space per 40m^2 Gross Floor Area (GFA). The current development proposals indicate that the site would provide a total of 78 car parking spaces (of which 11 would be allocated for disabled users) for a Gross Internal Area (GIA) of 6,520m^2, equating to a ratio of 1:84. This also represents a reduction in parking of 79 spaces compared to the existing site layout.

Trinity Hall Farm Industrial Estate falls within the North East Cambridge Area Action Plan (AAP) study area, with the transport evidence base for the AAP area demonstrating that an over-provision of free parking exacerbates existing issues on the highway network, in terms of congestion and delay, and further disincentivises the use of public transport modes. In order to keep the level of delay on the A1309 Milton Road corridor at 2017 levels (taking into account committed or local plan developments, while permitting new development to come forward) Cambridgeshire County Council (CCC) has developed a "trip-budget" of 3,900 two-way vehicular trips in the AM Peak hour and 3,000 two-way vehicular trips in the evening peak hour for the AAP area as a whole. Exceeding this trip budget would not be acceptable to CCC and would stop further development in the AAP area. At this stage it has not been determined how the trip budget will be shared by the development parcels across the AAP area.

To align with the trip budget, the maximum number of car parking spaces for employees across the whole AAP area will need to be capped at 4,185 by 2031, as car trip generation for employment uses is directly linked to car parking provision. The parking ratio will be based on the maximum level of employment floorspace in the AAP area, and the range is currently estimated to be between 1:84 to 1:128. Subsequently, the car parking provision proposed for the Trinity Hall Farm Industrial Estate redevelopment follows the direction of travel for future development within the AAP area.

Mode Shift

The likely net increase in travel demand generated by the proposals will require a modal shift away from car driver trips. As a part of the current development proposal, new shared surface pedestrian routes will be created through the site linking the A1309 Milton Road with Nuffield Road, and permeability to the CBG shared footway / cycleway will be improved. This will enhance the non-car accessibility of the wider area.

The current development proposals indicate that the site would provide a total of 120 safe, secure and covered cycle parking spread across the site. This would provide sufficient cycle parking to meet the demands for cycle access to the site, incorporating a modal shift. Should monitoring show that demand exists for additional cycle spaces in the future, allocated space on site can be maximised to provide additional cycle parking facilities.

Given the existing and planned transport infrastructure and services in the vicinity of Trinity Hall Farm Industrial Estate, it is considered that the level of modal shift required is achievable.

Additional Measures

In addition to the car parking restraint, the transport strategy for the development may include the following measures, amongst others, to achieve a nil detriment vehicular traffic impact:

- ***A Travel Plan:*** providing information relating to how to access the site by non-car modes, including bus and train timetables and cycle route mapping;
- ***Travel Incentives:*** incentives may be offered to staff that travel by non-car modes, including: bus passes, provision of cycle maintenance and assistance buying new cycles, as well as promotion of electric bikes for less confident cyclists.

Gavin Murray
Associate Director