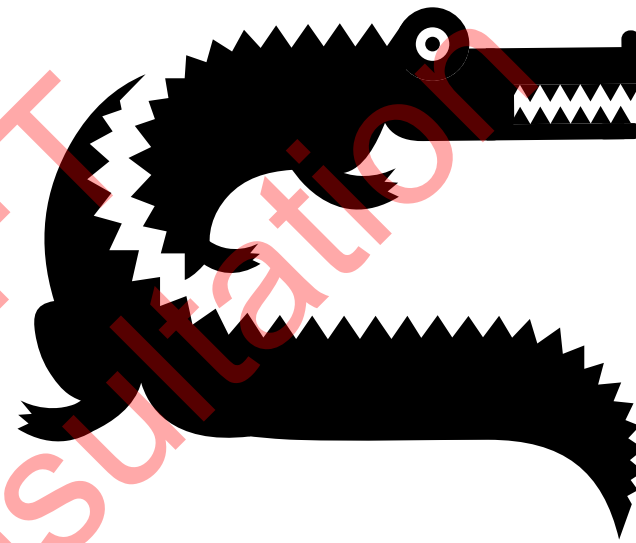


West Cambridge Community Group Meeting

21<sup>st</sup> March 2017



DRAFT  
for Consultation

**Cavendish III**

University of Cambridge











# West Cambridge Masterplan



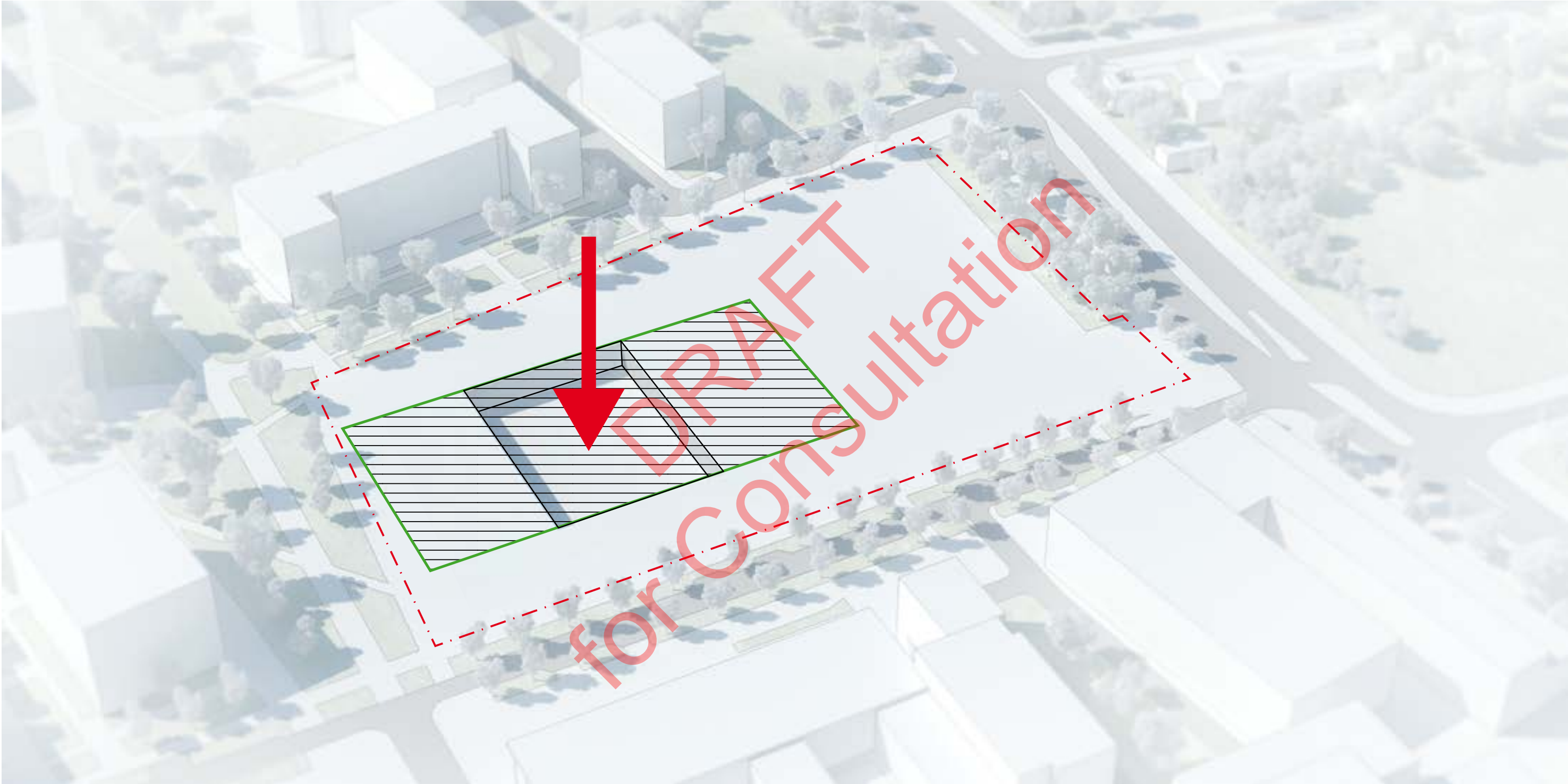


# Site Constraints and Opportunities



-  Source of noise and vibration
-  Pedestrian/cycle route
-  Service Route
-  Emergency/Maintenance (access to be confirmed)
-  Indicative Plot Boundary
-  Active Frontage
-  Primary Frontage
-  Secondary Frontage
- Root Protection area being discussed currently with AECOM and City Council

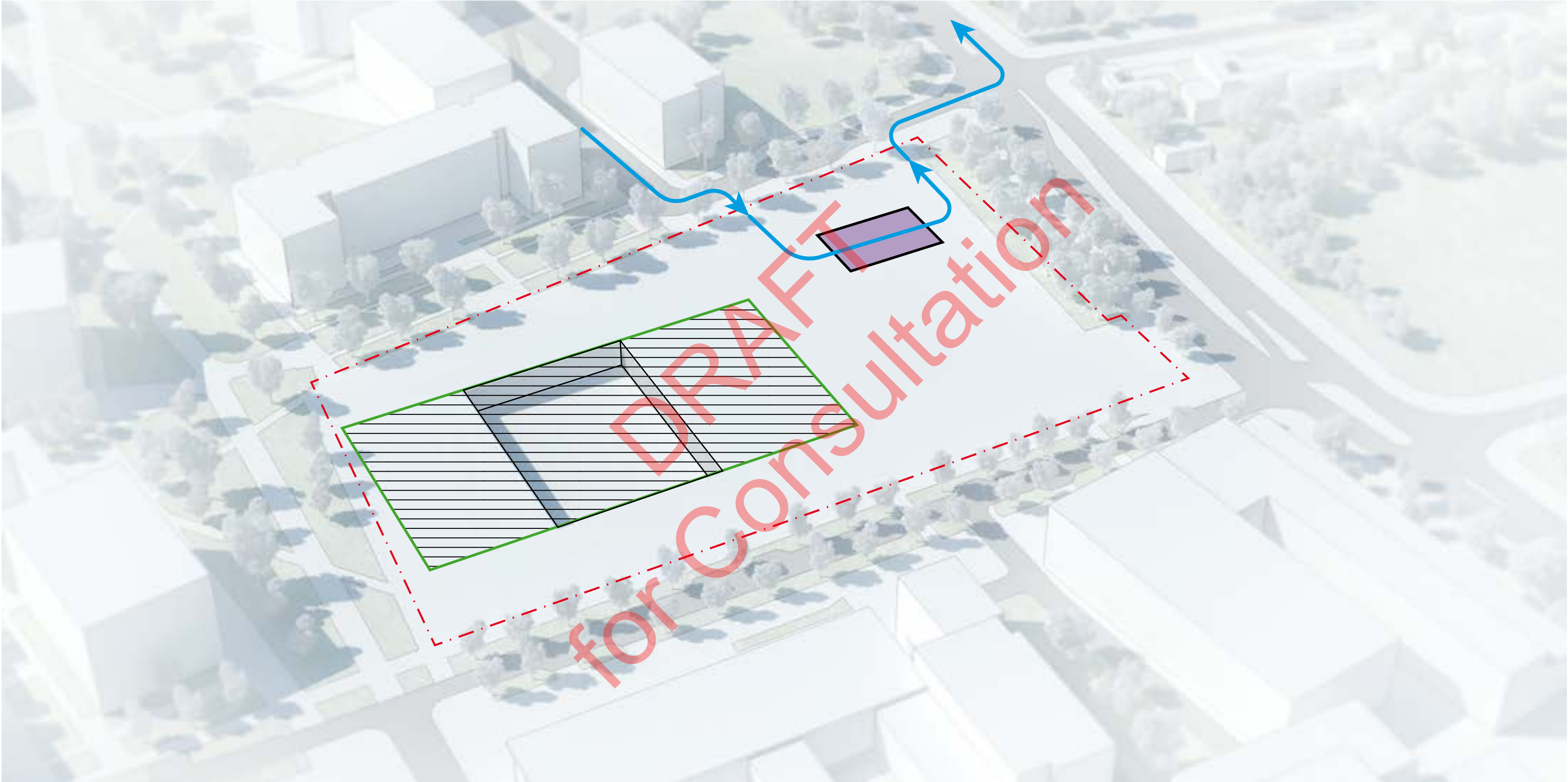
Low Vibration Basement





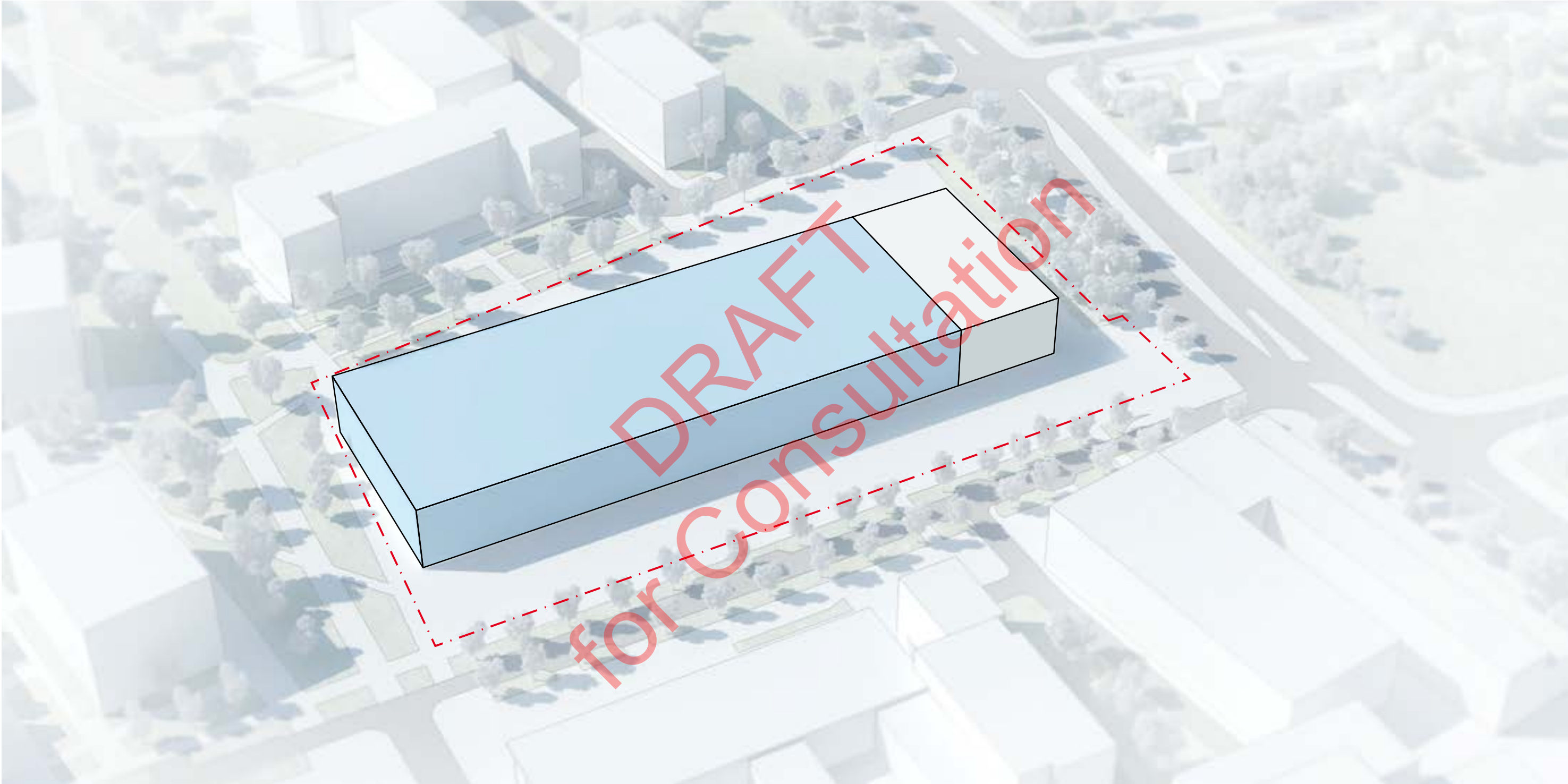
Design Approach

Delivery Zone



Design Approach

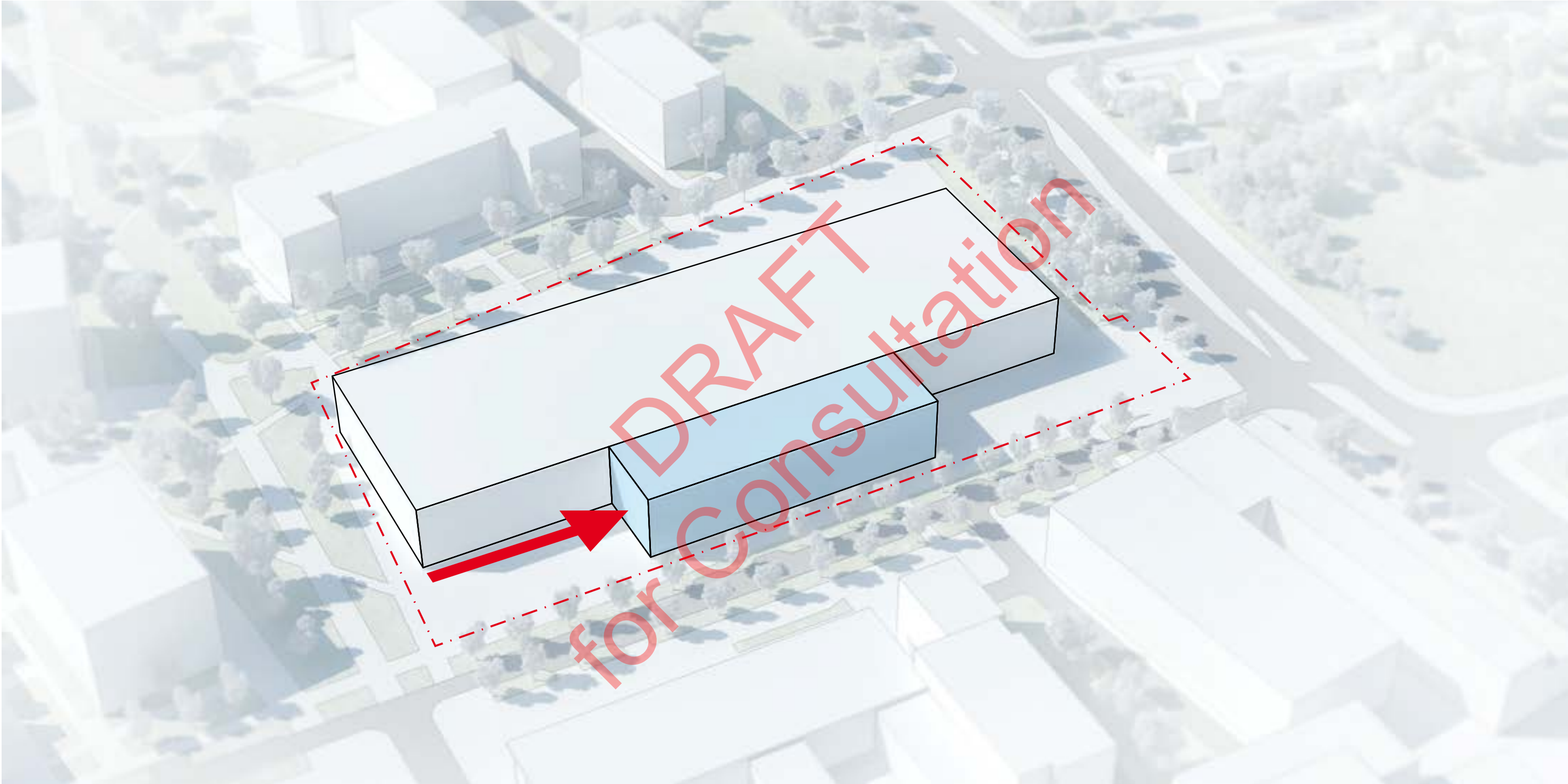
Research Zone





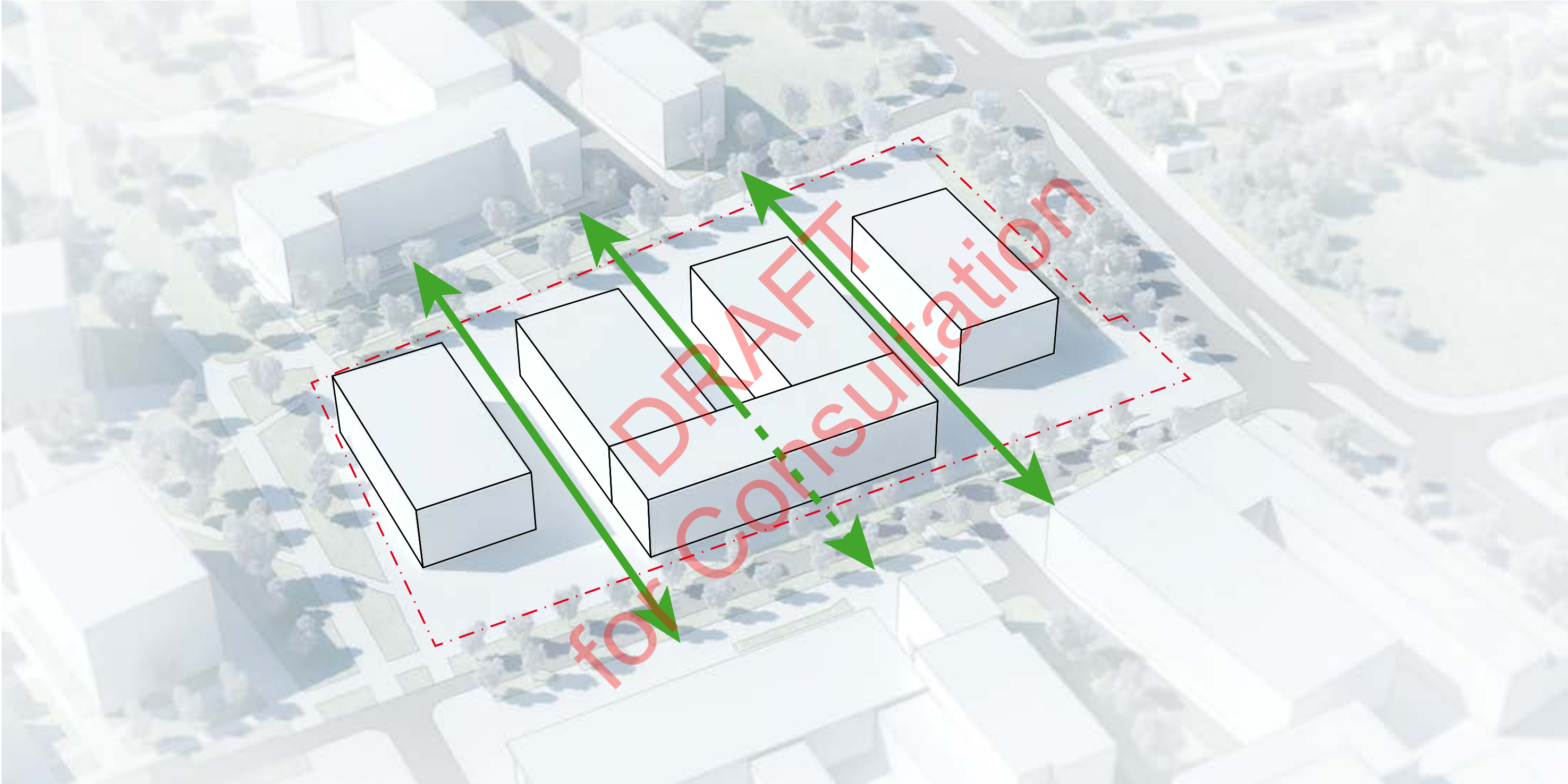
Design Approach

Public Zone

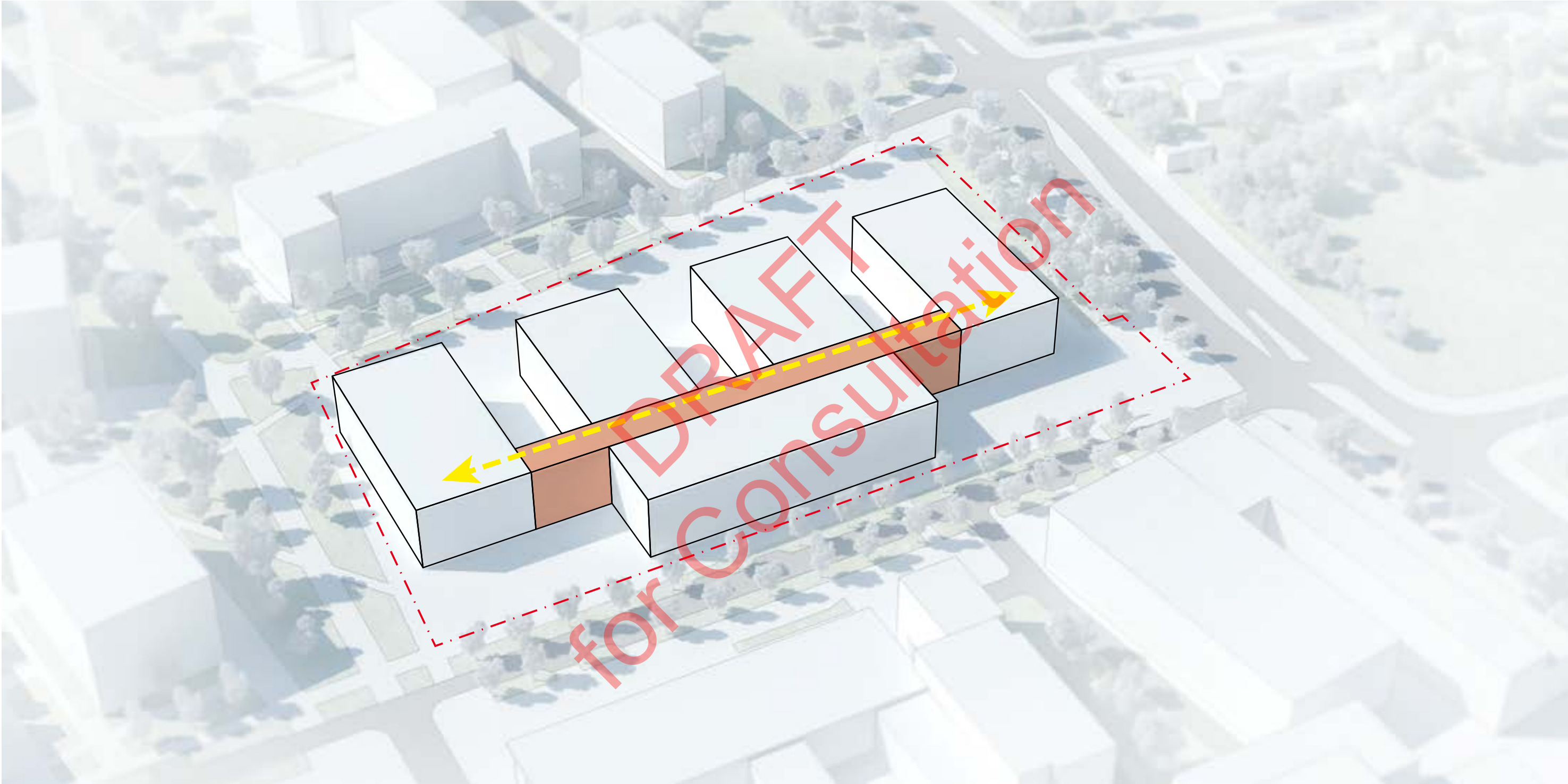




Primary Courtyards



Street

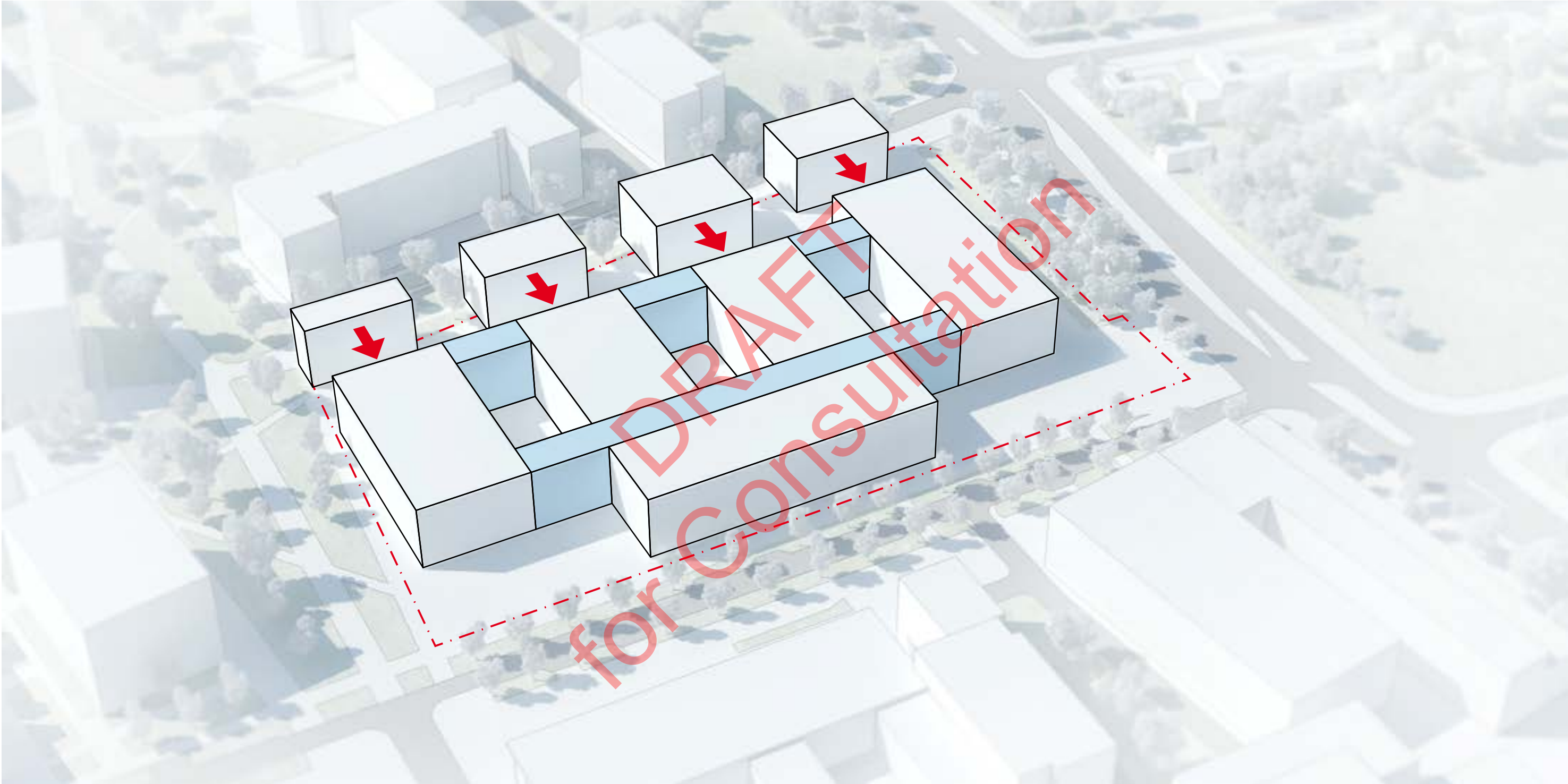




Secondary Link

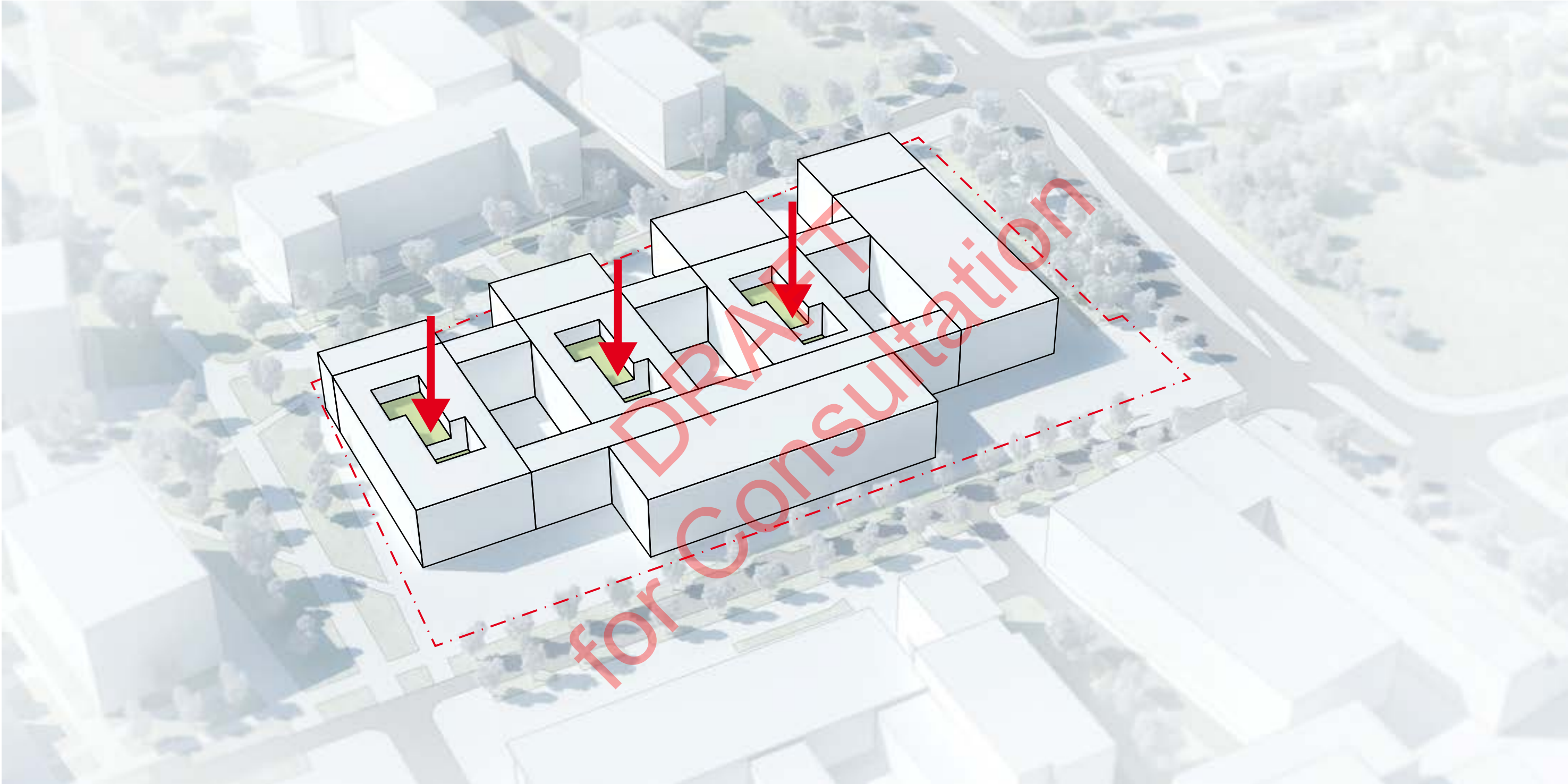


Service Wings

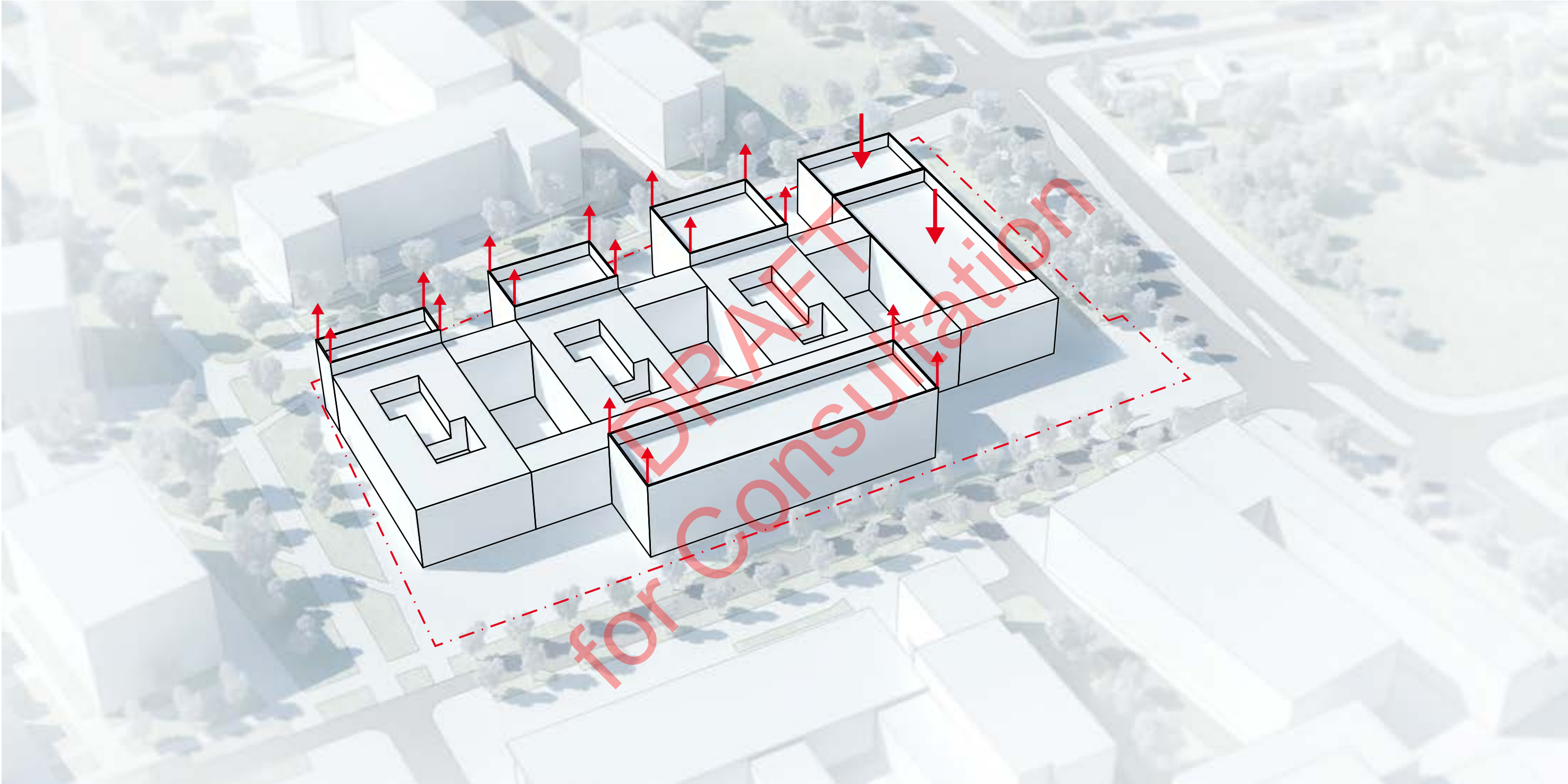




Secondary Courtyards

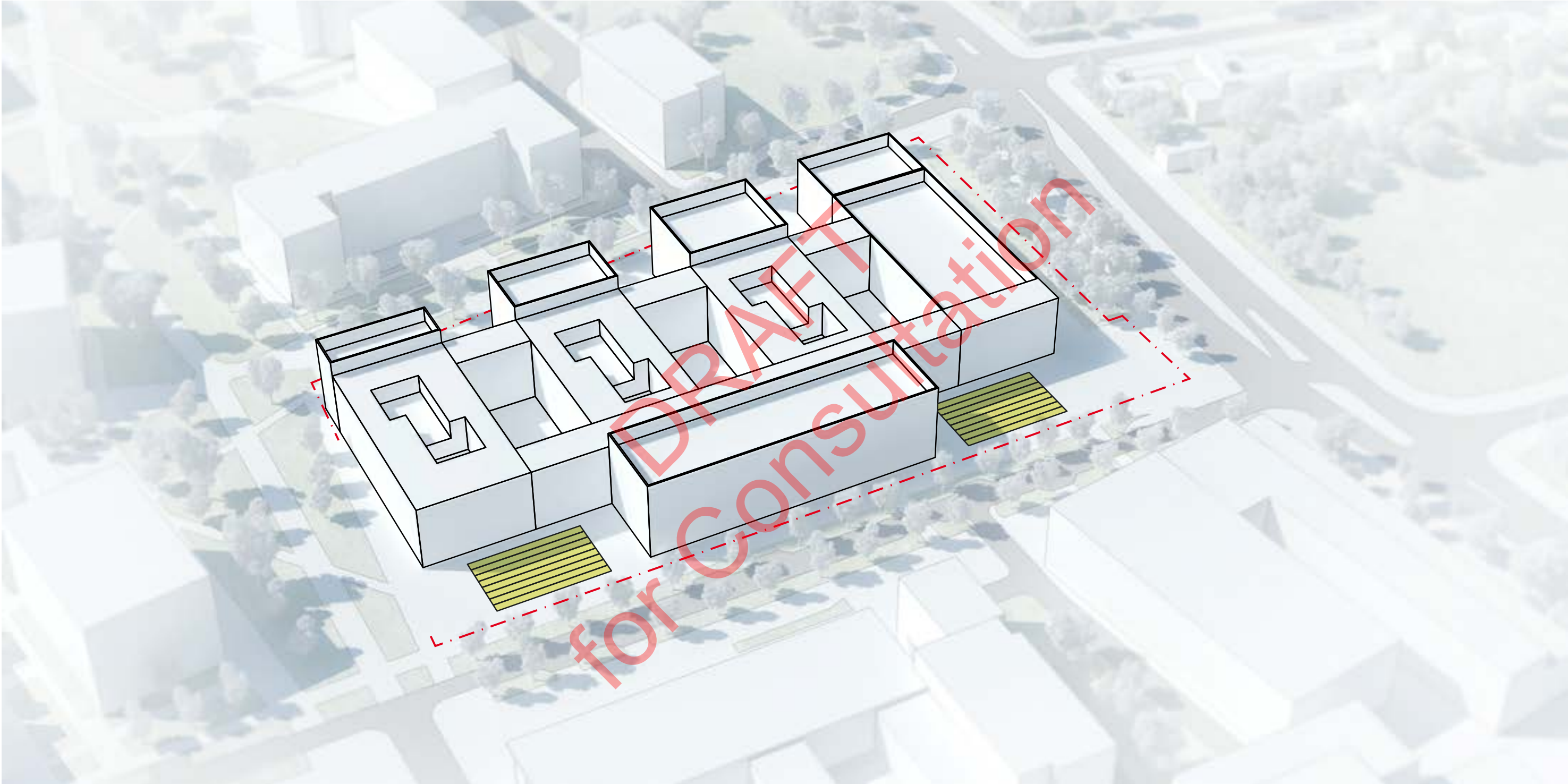


Screened Roof Plant



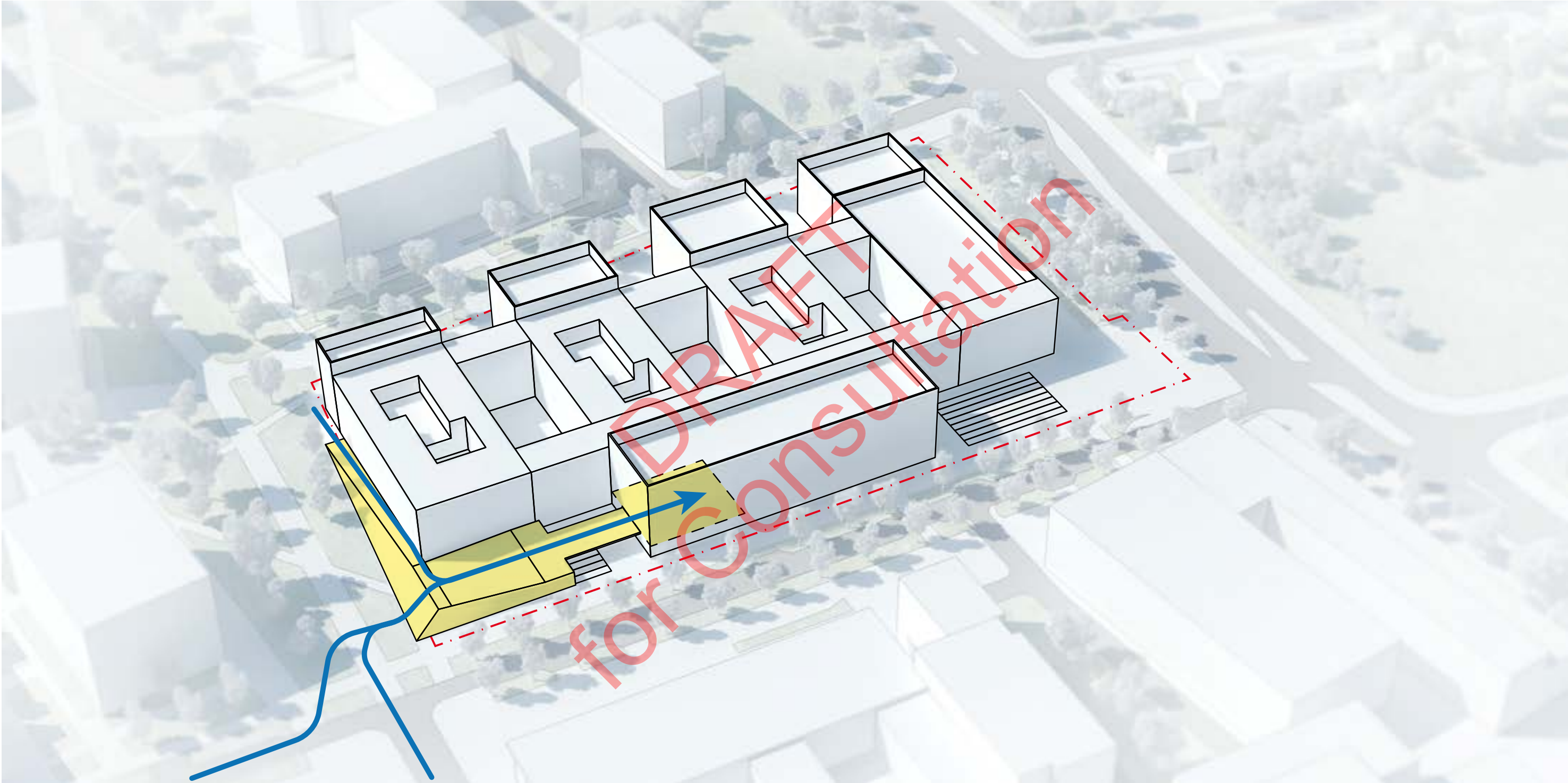


Cycle Parking



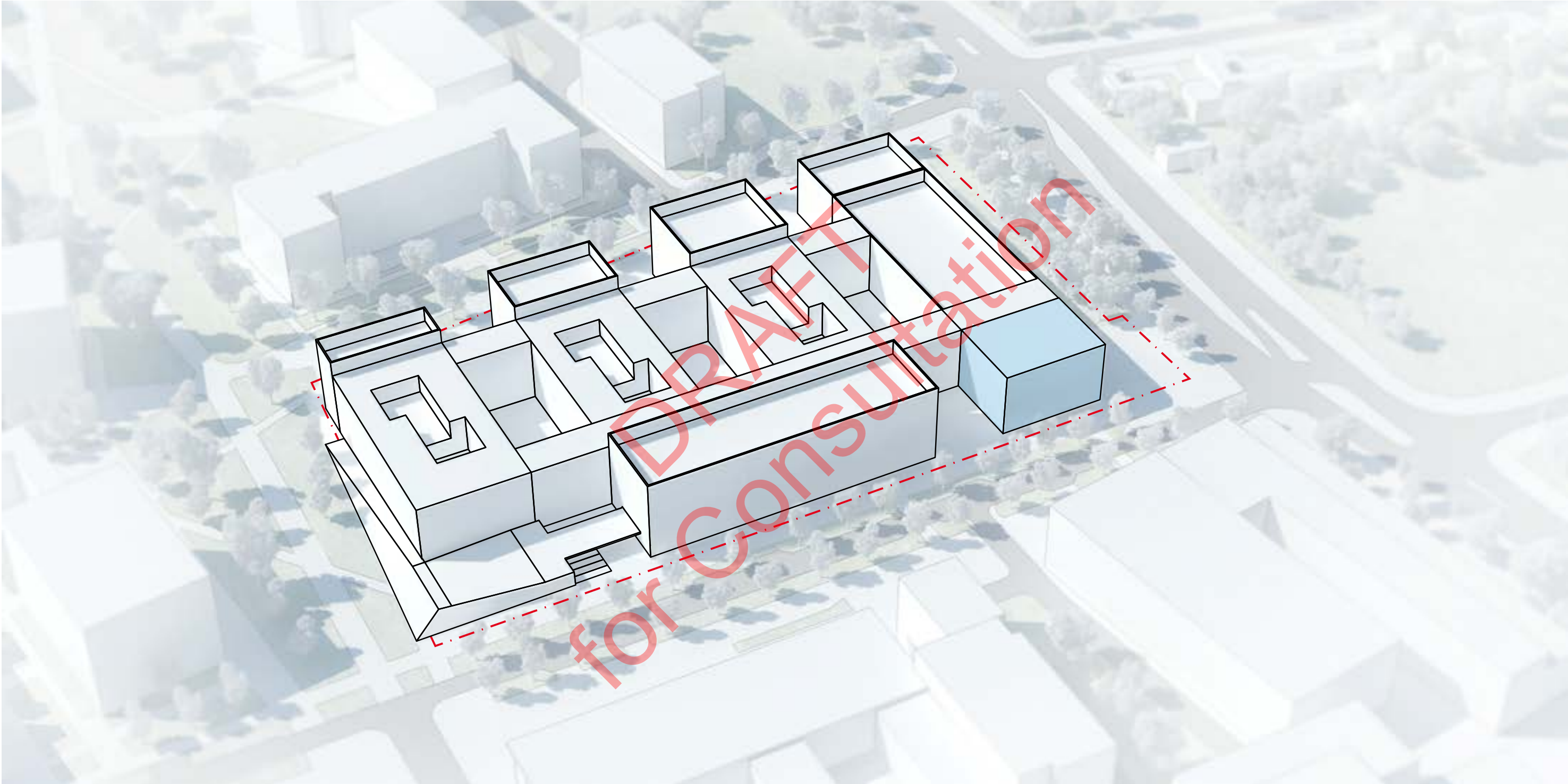
Design Approach

Public Square



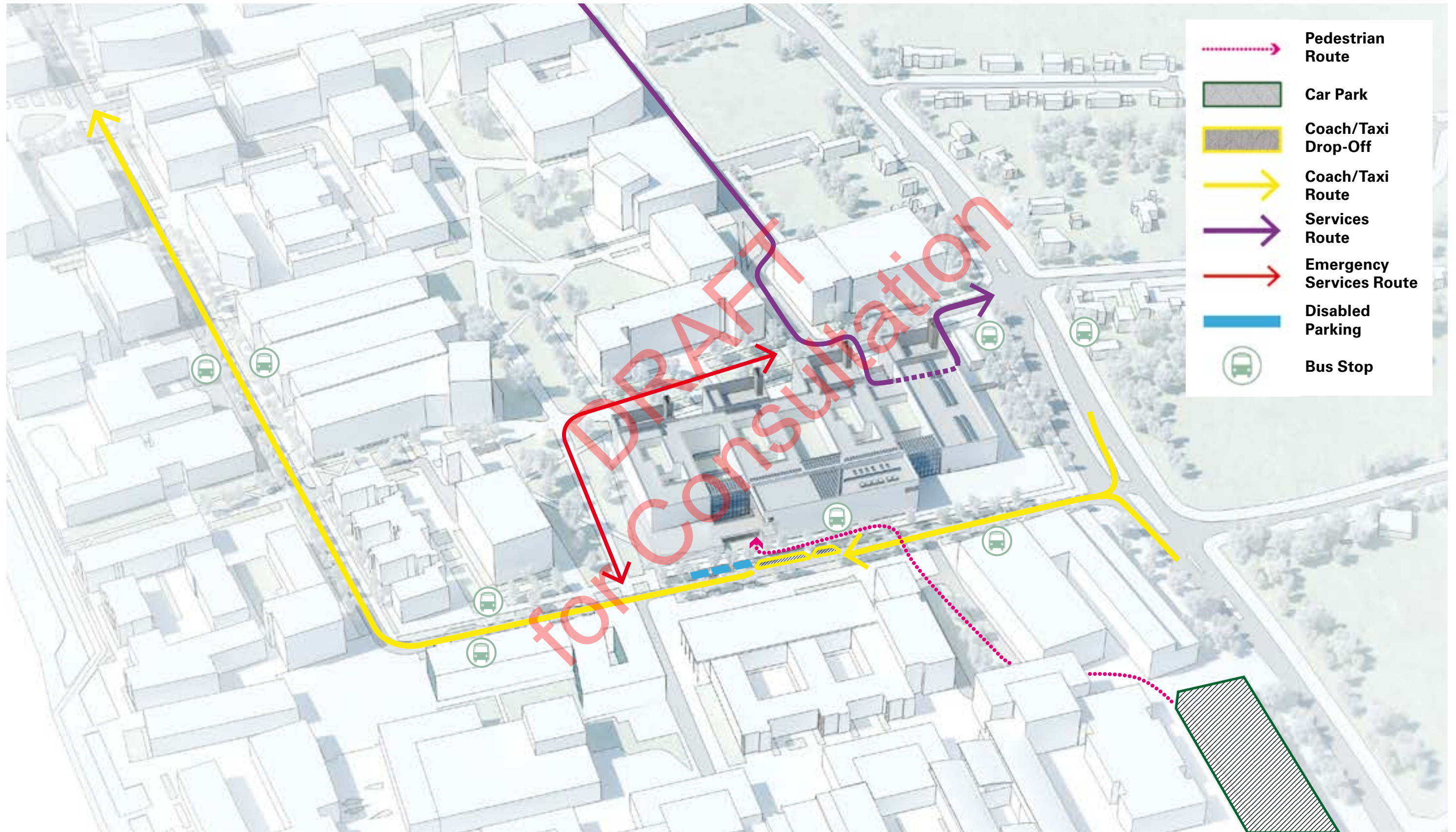


Phase 2



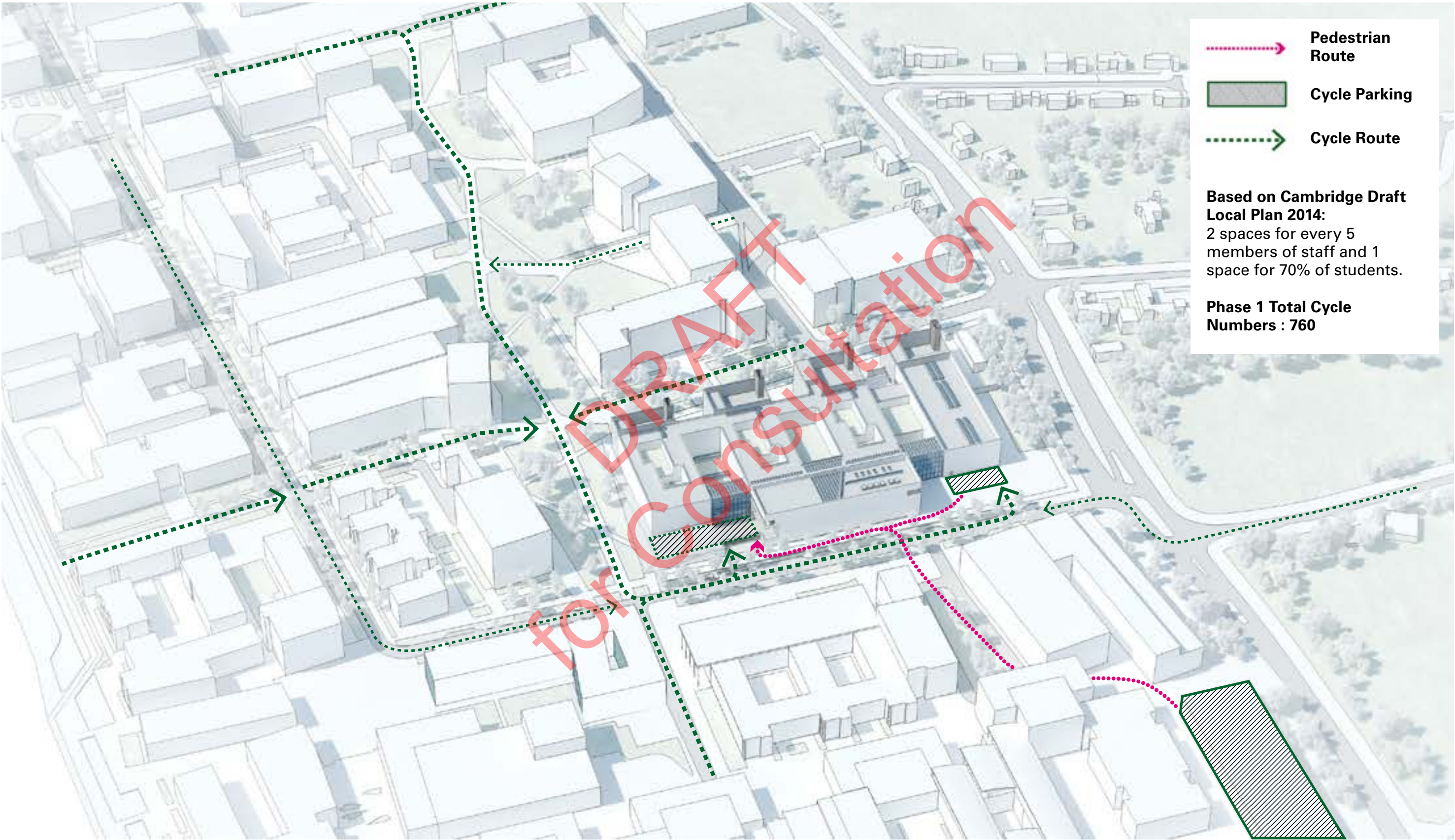


## Access : Vehicular



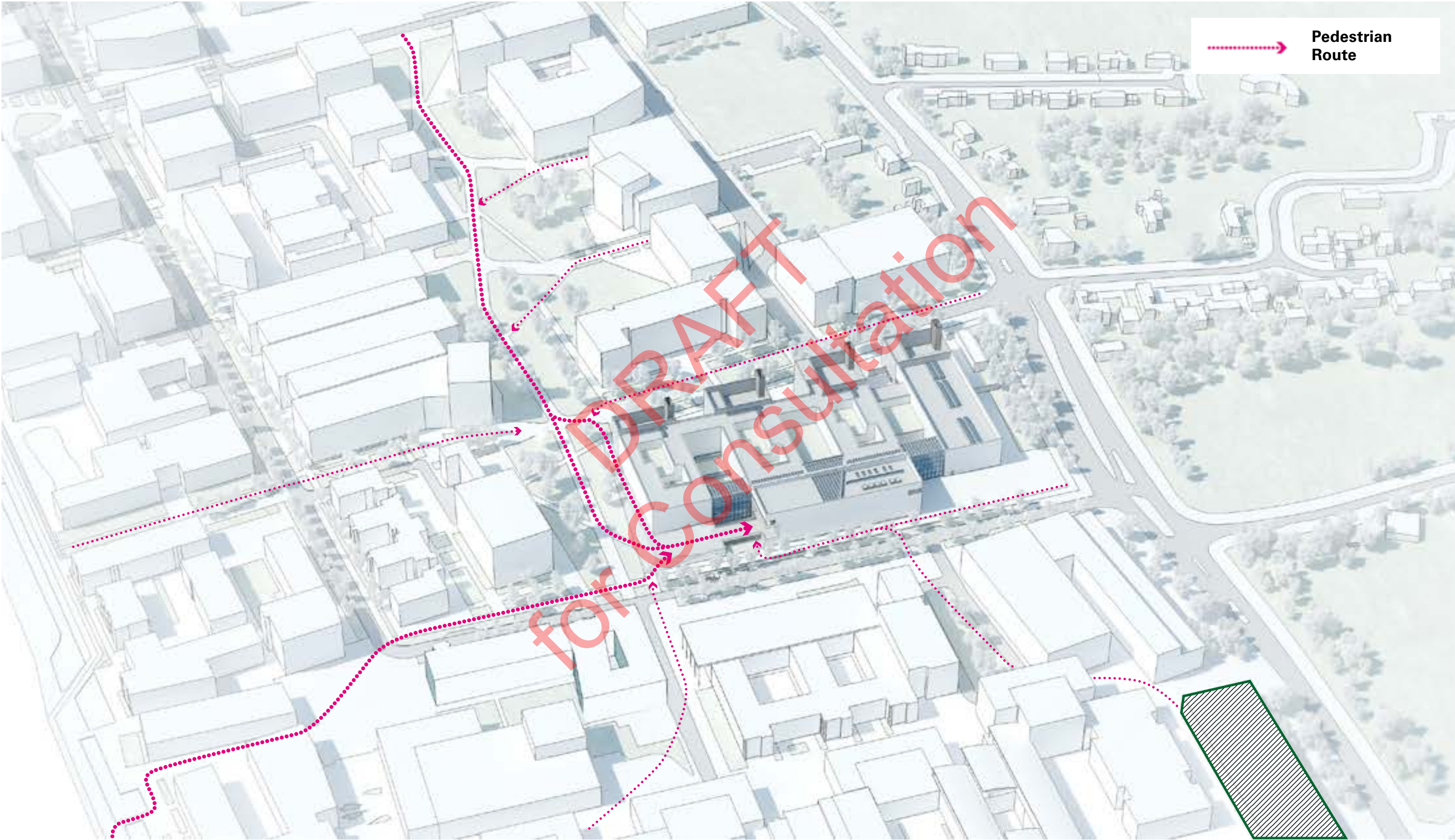


# Access : Cycles





Access : Pedestrians



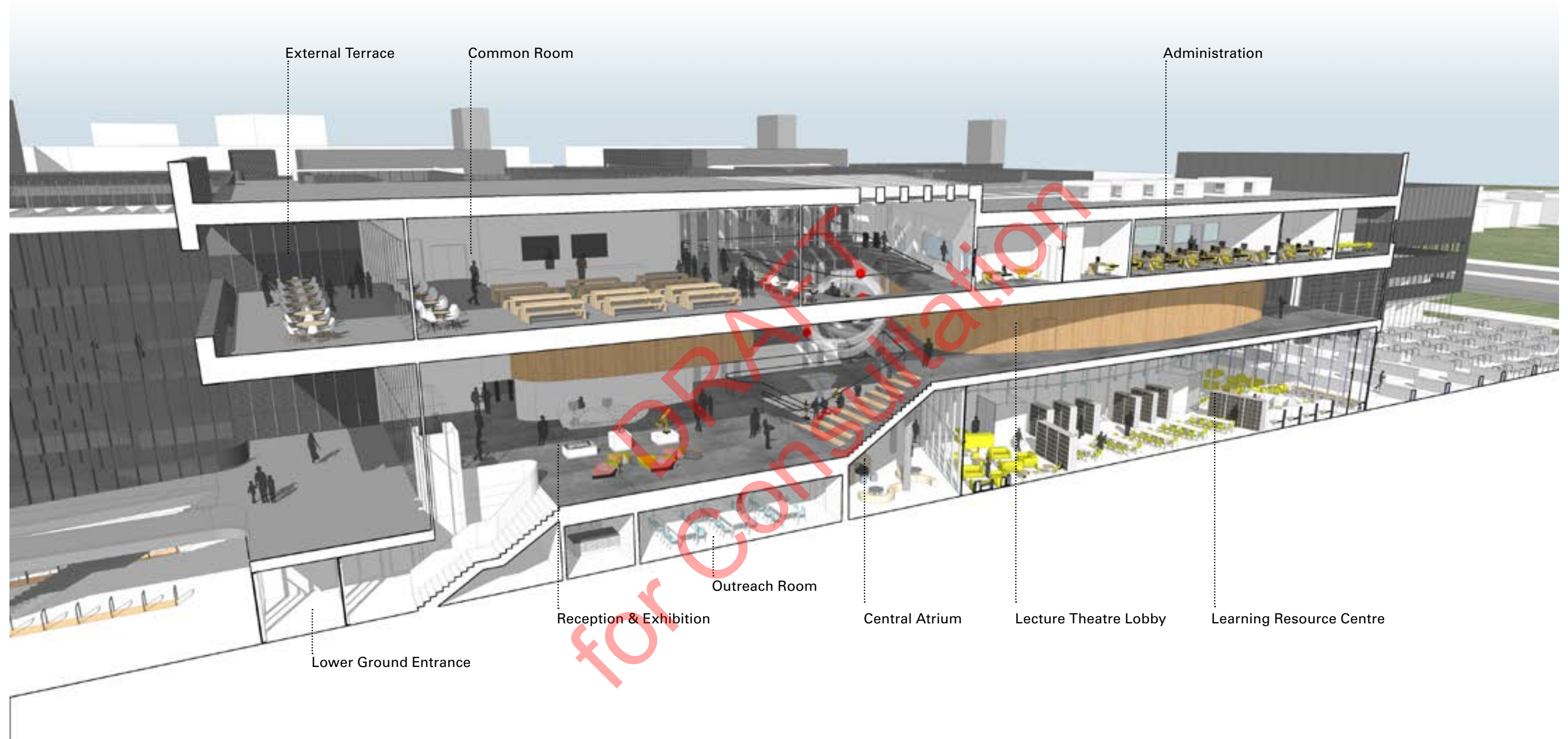


Aerial view from south-east





## North-south sectional perspective through public wing





# Landscape Masterplan



## Key to Landscape Masterplan

- 01 Hard standing to plant entrance with reinforced grass area to end of CUBs
- 02 Landscape planting zone to merge with Green spine route
- 03 Main service area, passes under building to north
- 04 Central Plant Wing
- 05 Entry point to service zone
- 06 Exit point from service zone
- 07 Enhanced woodland edge (bio-diversity)
- 08 Retention depression to grass area (surface water run-off)
- 09 Cycle parking to area for future Phase 2
- 10 North east Garden
- 11 Existing retained trees & grass verge to Avenue
- 12 Drop-off for taxis
- 13 Accessible parking bays
- 14 Eastern entrance forecourt & cycle parking entrance
- 15 Entrance plaza deck
- 16 South east Garden
- 17 entrance steps
- 18 Step-free access gradient
- 19 South Green spine Landscape
- 20 West Green-Link foot and cycle route
- 21 Northern woodland & highway entry point
- 22 JJ Thompson Avenue
- 23 Additional cycle parking entrance
- 24 Additional cycle parking entrance

---

## Noise Impact







---

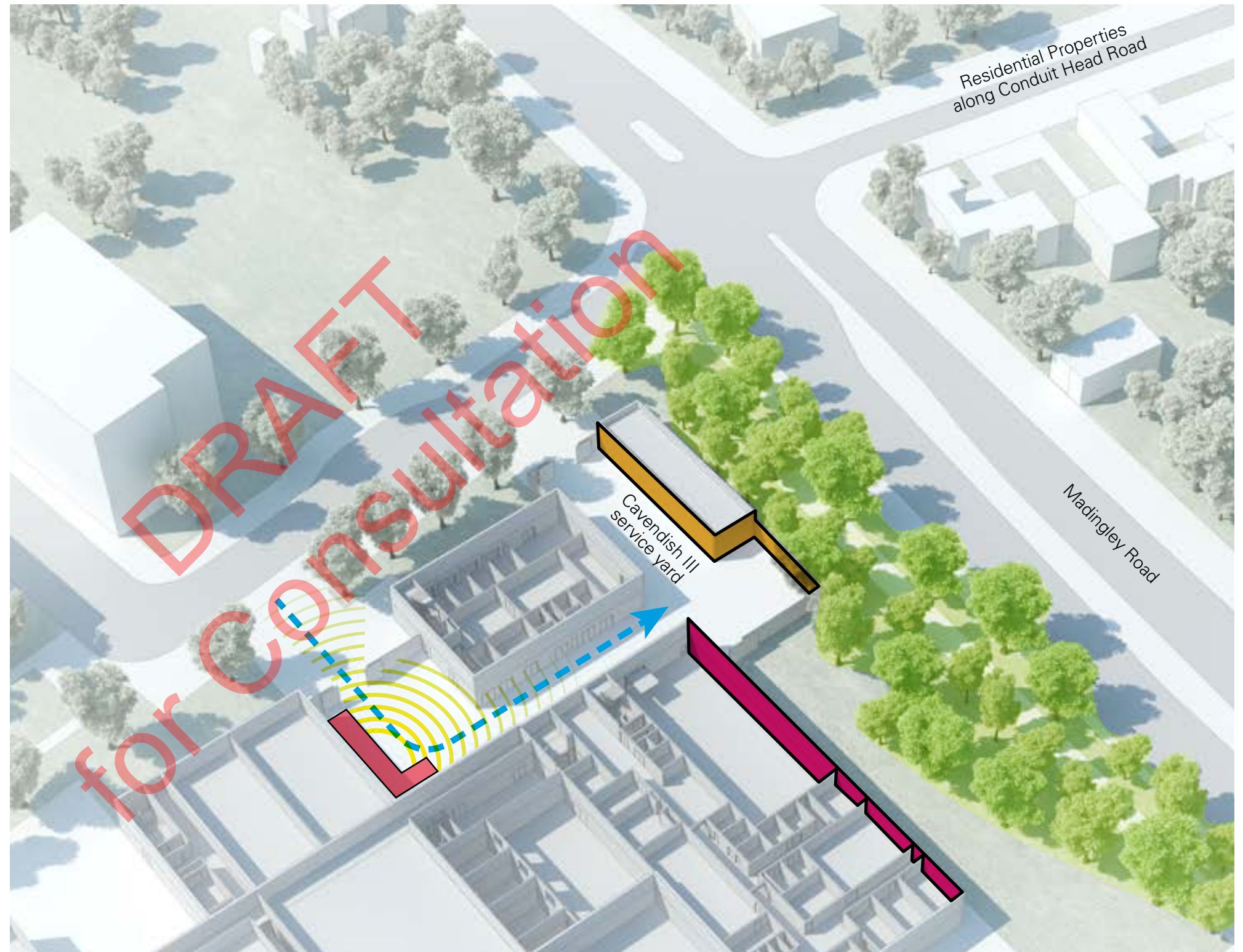
### Noise break out from new operational plant to the environment:

- The existing tree belt will be retained. A landscape visual impact assessment is being carried out to look at any visual impact from Madingley Road and other sensitive receptors.
- Assess operational noise against measured background levels using the methodology set out in the British Standards 4142:2014
- Subject to confirmation with Cambridge City Council, we will work to the criteria within the standard that states: *“Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact.”*
- The building envelope will be designed to provide attenuation from noise within workshops and specialist labs.
- Plant attenuation, screening or enclosures will be sourced to meet the requirements of any planning conditions.
- Mitigation of noise from delivery vehicles, gas storage and service yard will be provided as required.



## Noise Impact

-  Delivery drop off occurs under the building
-  Bulk gas store
-  Bulk gas store located such that the building shields it to the north
-  Garage located as acoustic barrier to service yard
-  Acoustic treatment of envelopes as required to provide acoustic attenuation from workshops
-  Existing tree buffer is protected and maintained



---

## Air Quality

---

Objectives of the Project are to minimise the potential for air quality issues arising from the proposed building. At this initial design stage this is being addressed by:

### Heating Plant & Flues:

- Ground Source Heat Pump solution meets the majority of the yearly heating demand
- Smaller back-up gas fired low Nox boilers will only be used intermittently
- Combined Heat & Power not currently proposed (can be viewed as a source of potential pollution)

### Ventilation Exhaust

- Located above roof level to prevent stale exhaust air being blown towards the windows of residential neighbours
- High velocity extract stacks located above the roof line to disperse any potential pollutants

An Air Quality Assessment will be carried out at the next design stage







**Shared Facilities Hub**

University of Cambridge

DRAFT  
for Consultation

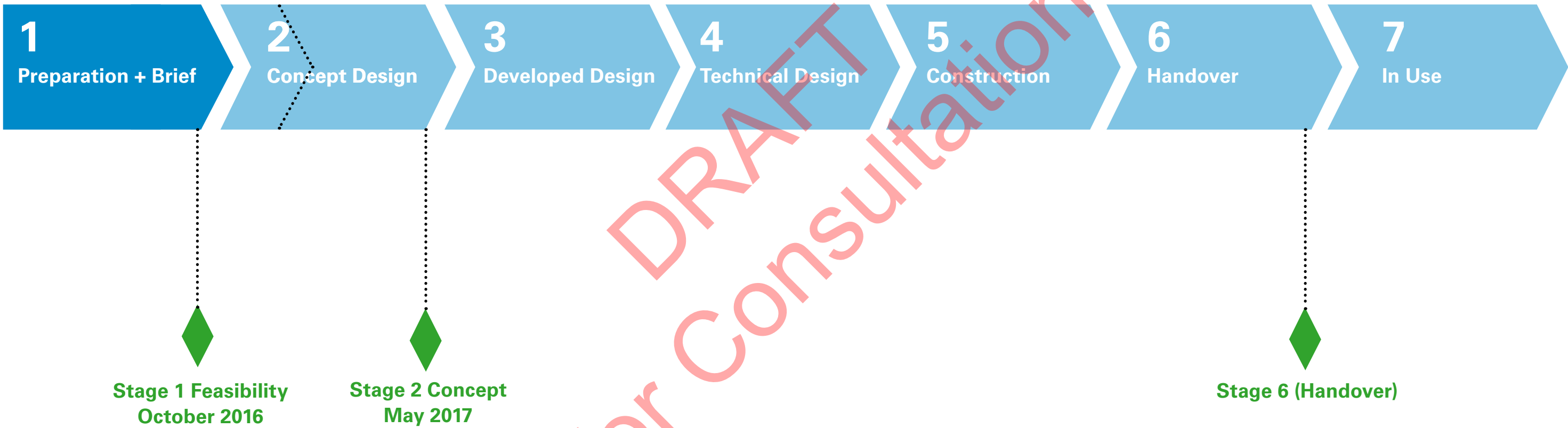


# Site and Location



KEY  
■ NEW DEVELOPMENT  
□ EXISTING BUILDINGS

RIBA Plan of Work





## University of Cambridge Amenities Strategy

***“The University proposes a new model for the delivery of amenities, whereby these are not provided solely internally within each academic department or commercial occupier, but wherever possible are delivered as a shared resource which can be used by all site users, including residents, as well as the general public including site neighbours.”***

Extract from West Cambridge Outline Planning Application  
(Amenities Delivery Strategy)

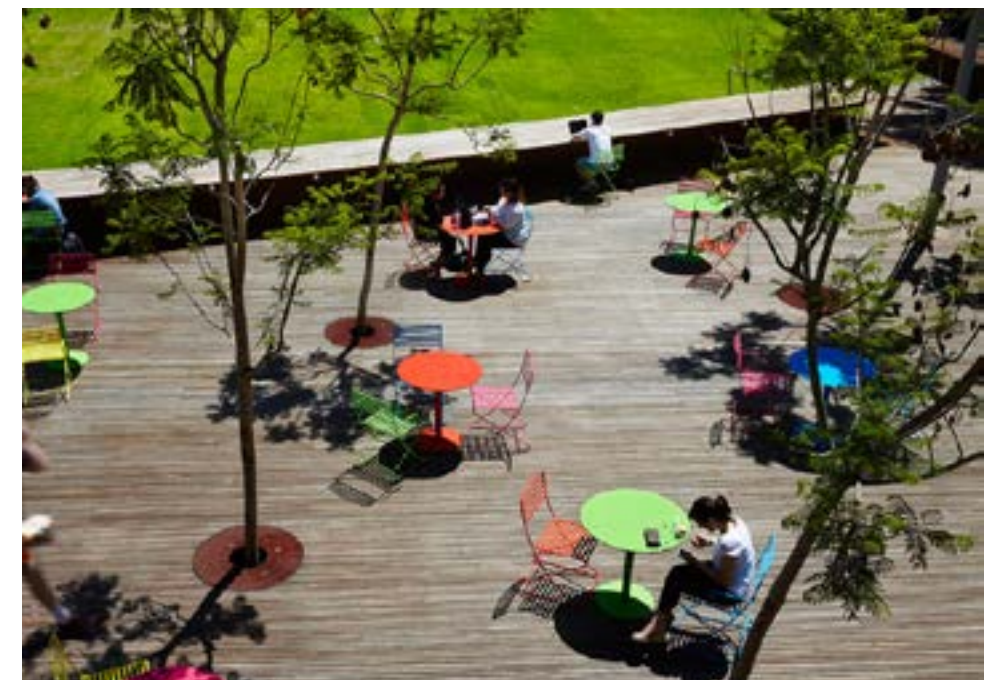
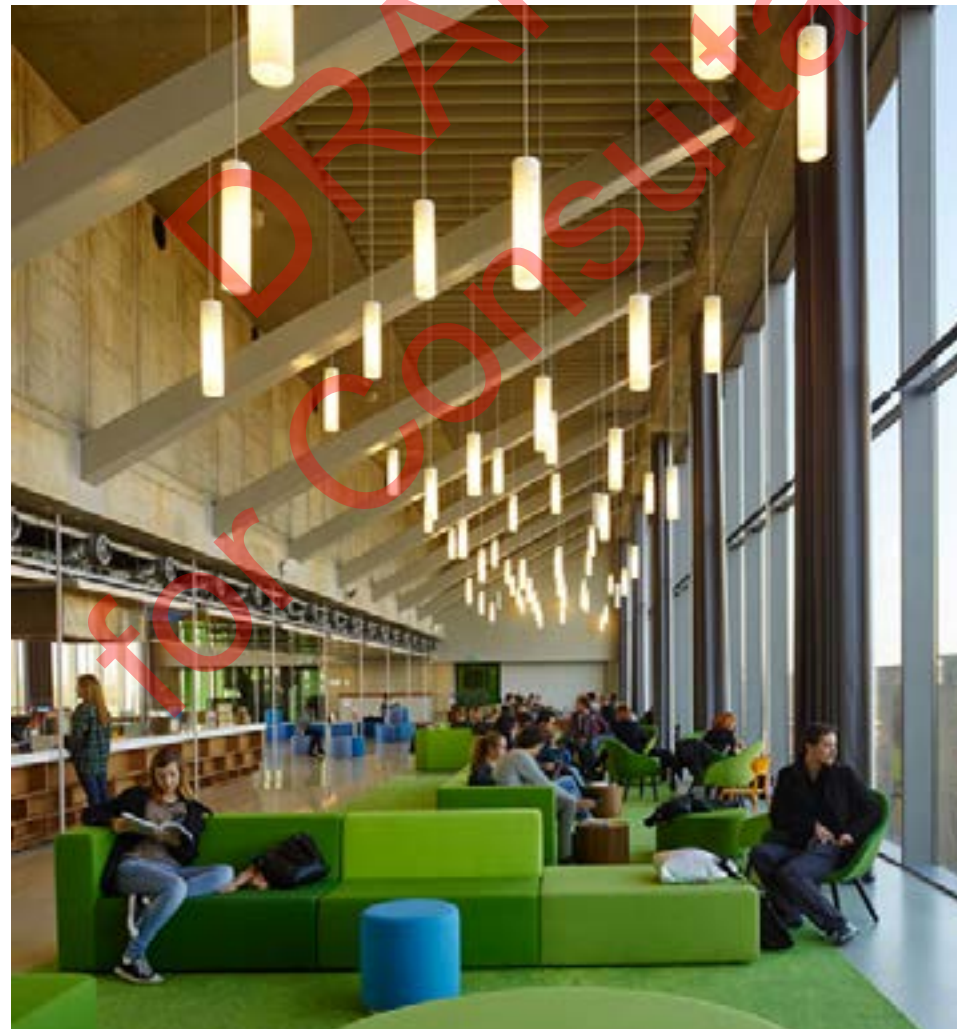




## University of Cambridge Amenities Strategy

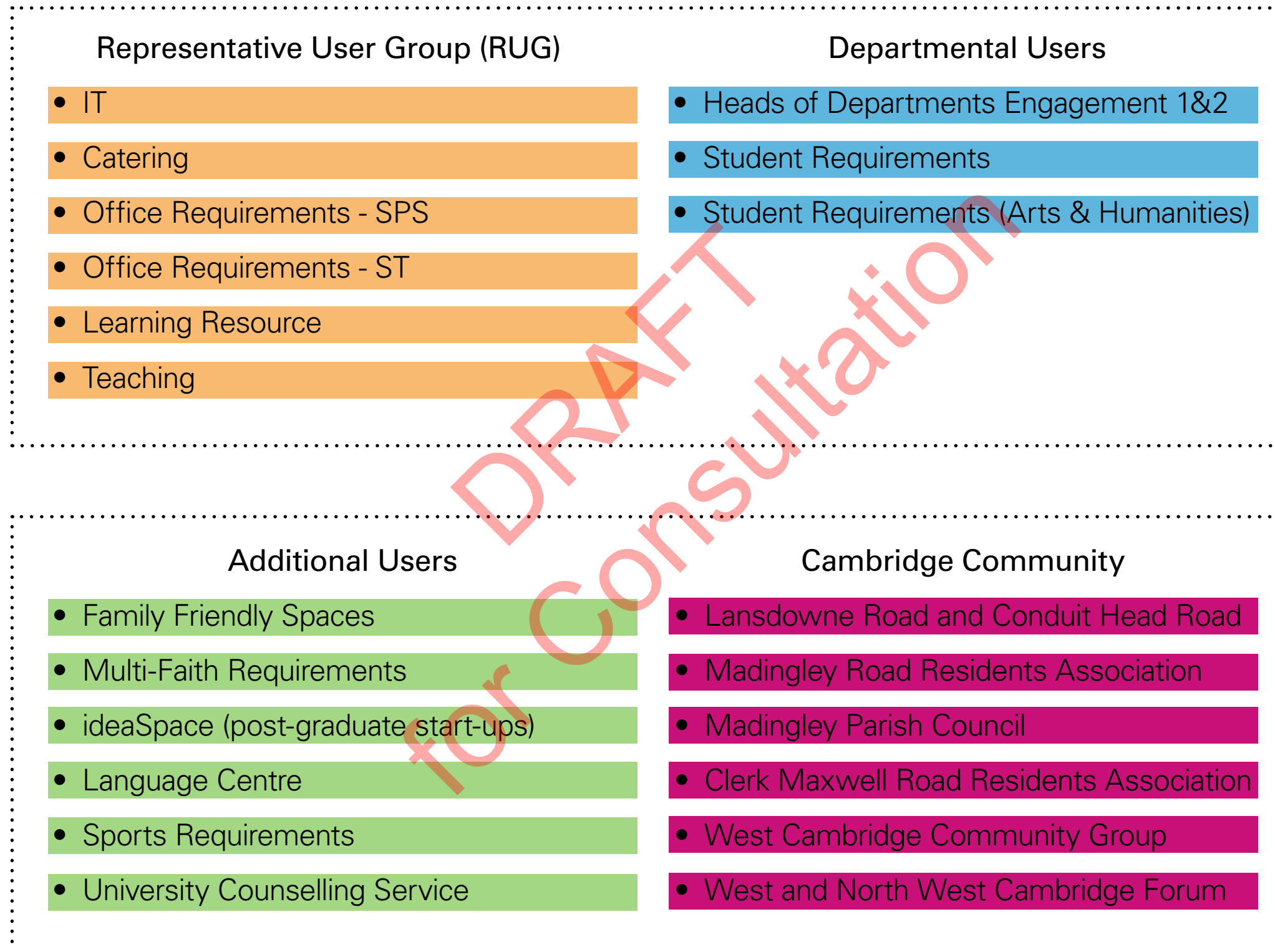
***“The intention is to create a landmark ‘hub’ building offering a variety of attractive, flexible, quality spaces for meeting, socialising, teaching and studying to complement facilities embedded within departments and provide a significant multi-use, shared-use facility as a focal point for West Cambridge”***

Extract from West Cambridge Outline Planning Application  
(Amenities Delivery Strategy)

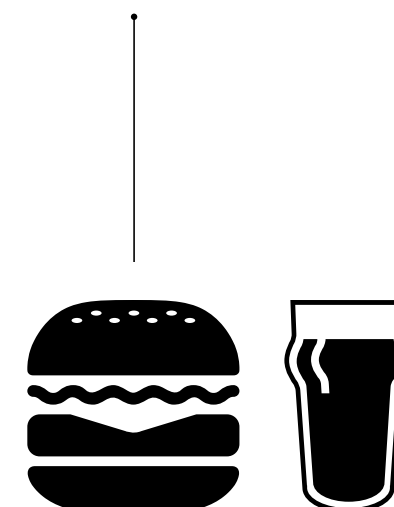
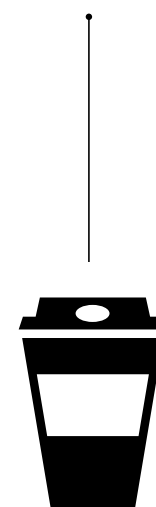
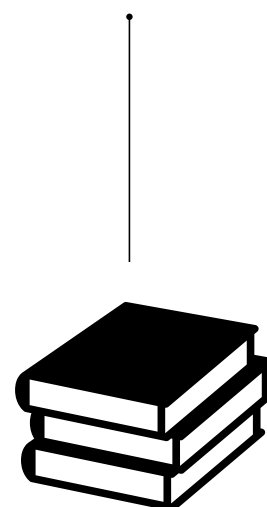
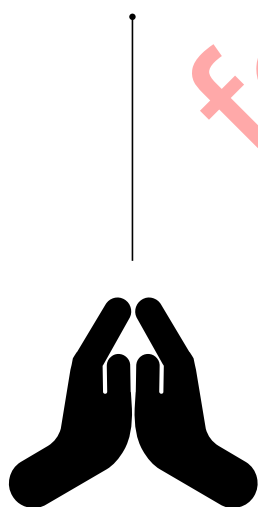
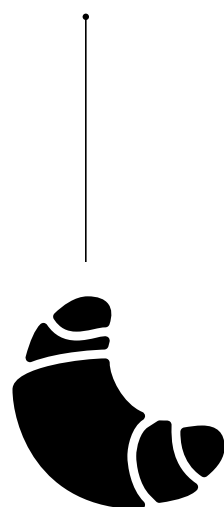
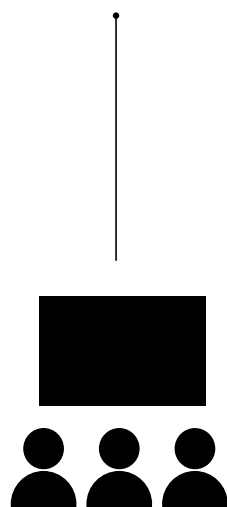
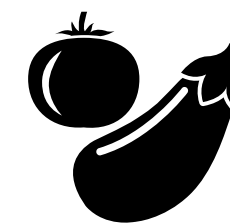
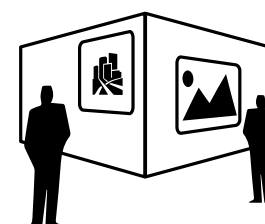
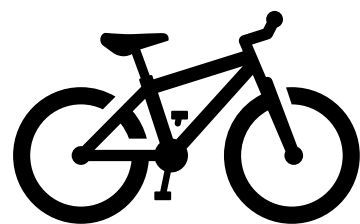
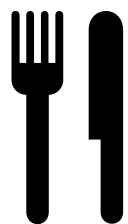




## Stakeholders



# The Heart of the Community





**Vision (so far.....)**



DRAFT  
for Consultation

***"to feel at home"***



**Vision (so far.....)**



***"informal work and meeting spaces"***



## Vision (so far.....)



*"good places to eat, open all day"*



## Vision (so far.....)



"

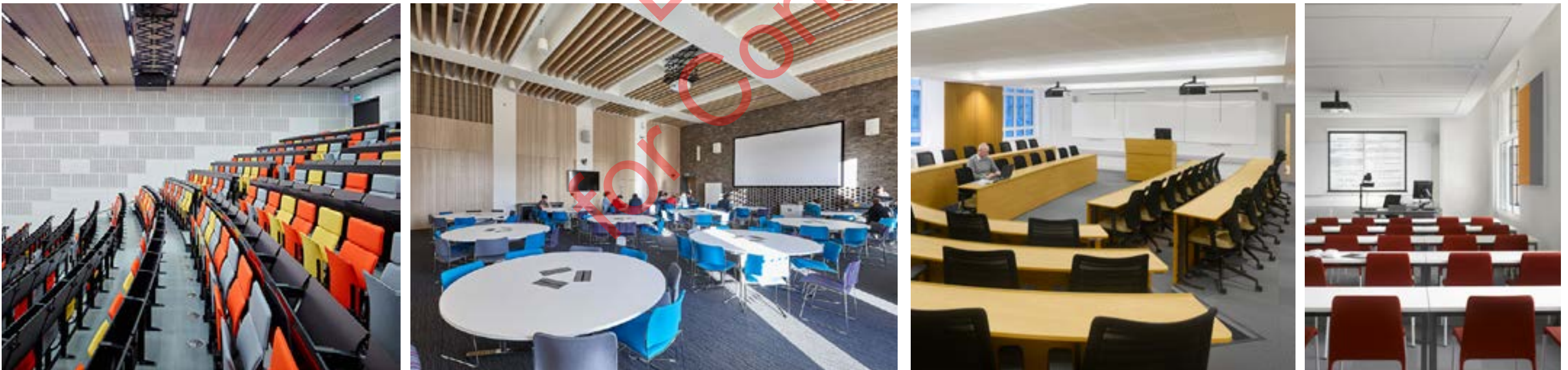
***"to make a day out at West Cambridge"***



## Proposed Uses



Study



Teach



## Proposed Uses







Nourish

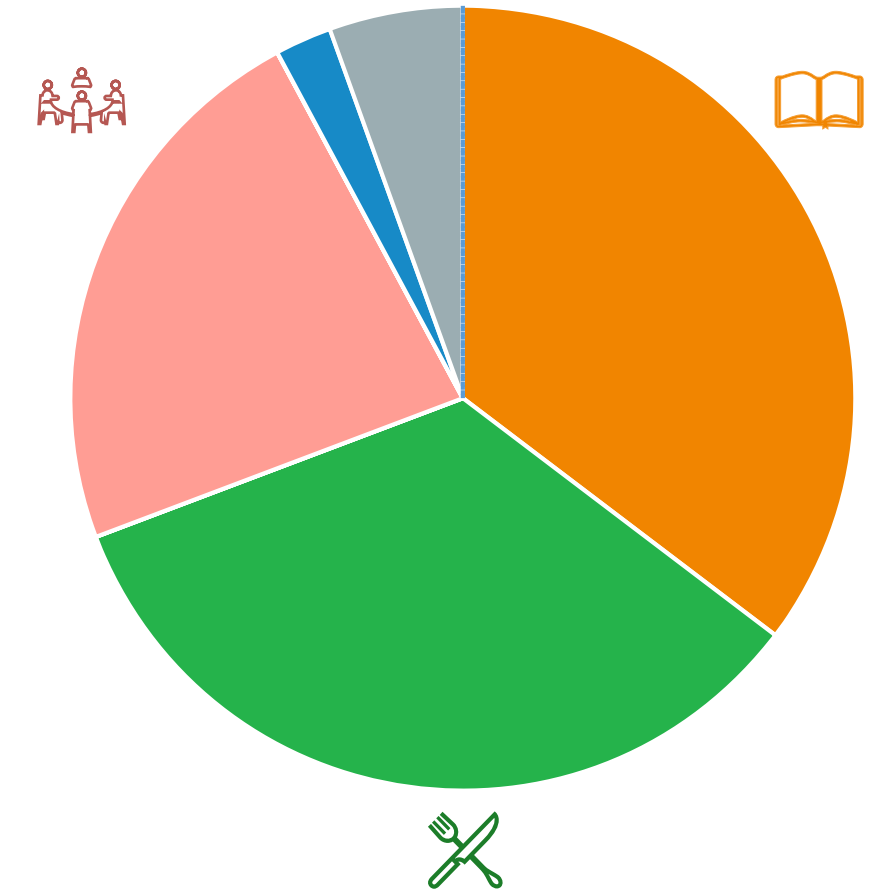


Play

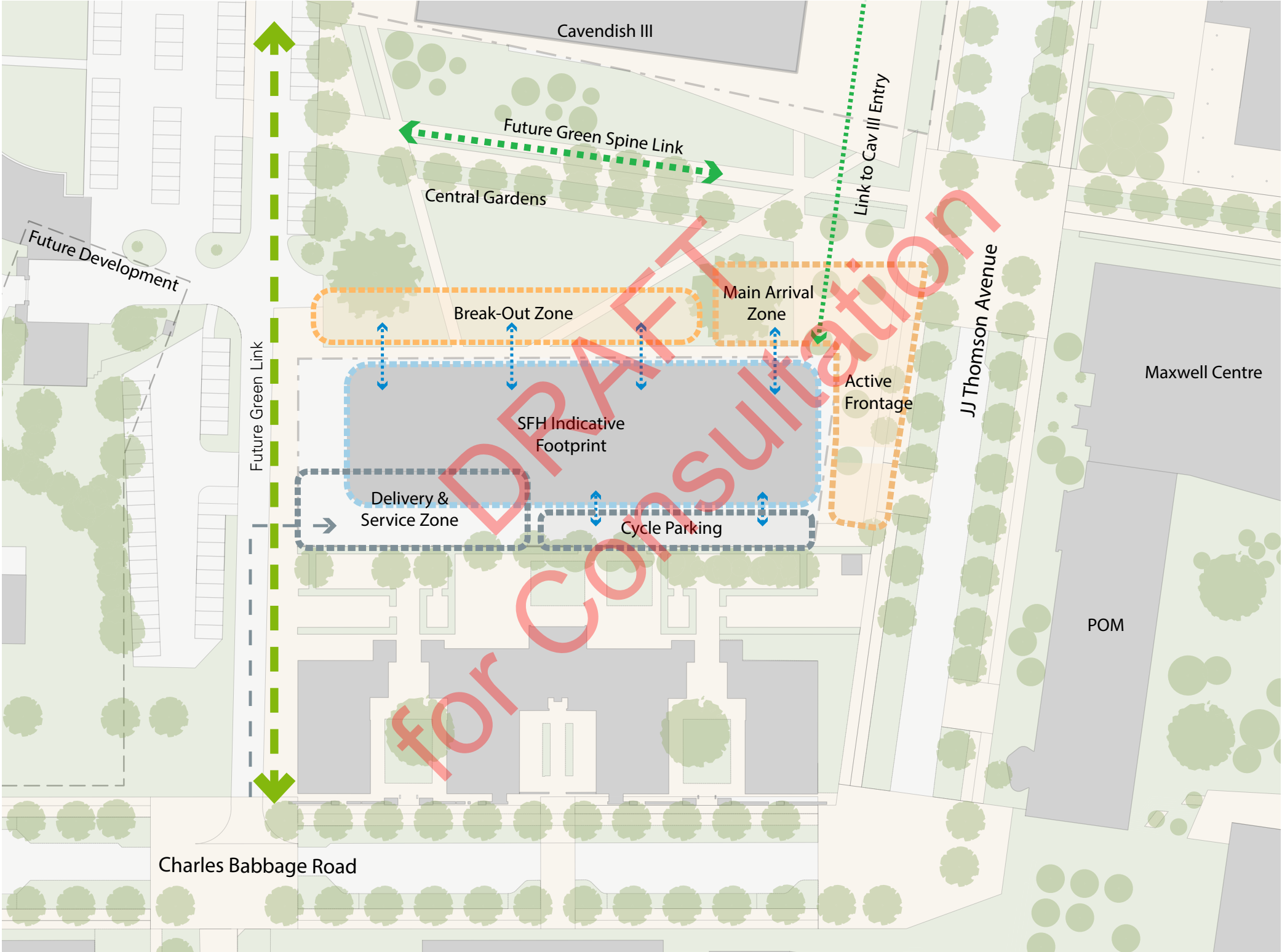


# Accommodation

		Activities		
	<b>Nourish</b>	Cafeteria, Café/Bar, Central Production Kitchen	<b>1135m<sup>2</sup></b>	
	<b>Study</b>	Library - Silent, Quiet, Social Study Bookable meeting spaces, Lib Offices	<b>1090m<sup>2</sup></b>	
	<b>Collaborate</b>	Teaching, Seminar, Meeting Rooms (including CUED provision) 150m <sup>2</sup> , 90m <sup>2</sup> , 60m <sup>2</sup> , 25m <sup>2</sup> , & 12m <sup>2</sup>	<b>736m<sup>2</sup></b>	
	<b>Shop</b>	Convenience Store, Bookstore,	<b>75m<sup>2</sup></b>	
	<b>Spiritual</b>	Pastoral Office, Contemplation Room	<b>24m<sup>2</sup></b>	
	<b>Arrival</b>	Bicycle parking, Taxi drop-off, Servicing, Deliveries, Entrance, Reception	% of NIA	
		<b>Total NIA</b>	<b>3,237m<sup>2</sup></b>	
		<b>Total GIA</b>	<b>5,041m<sup>2</sup></b>	

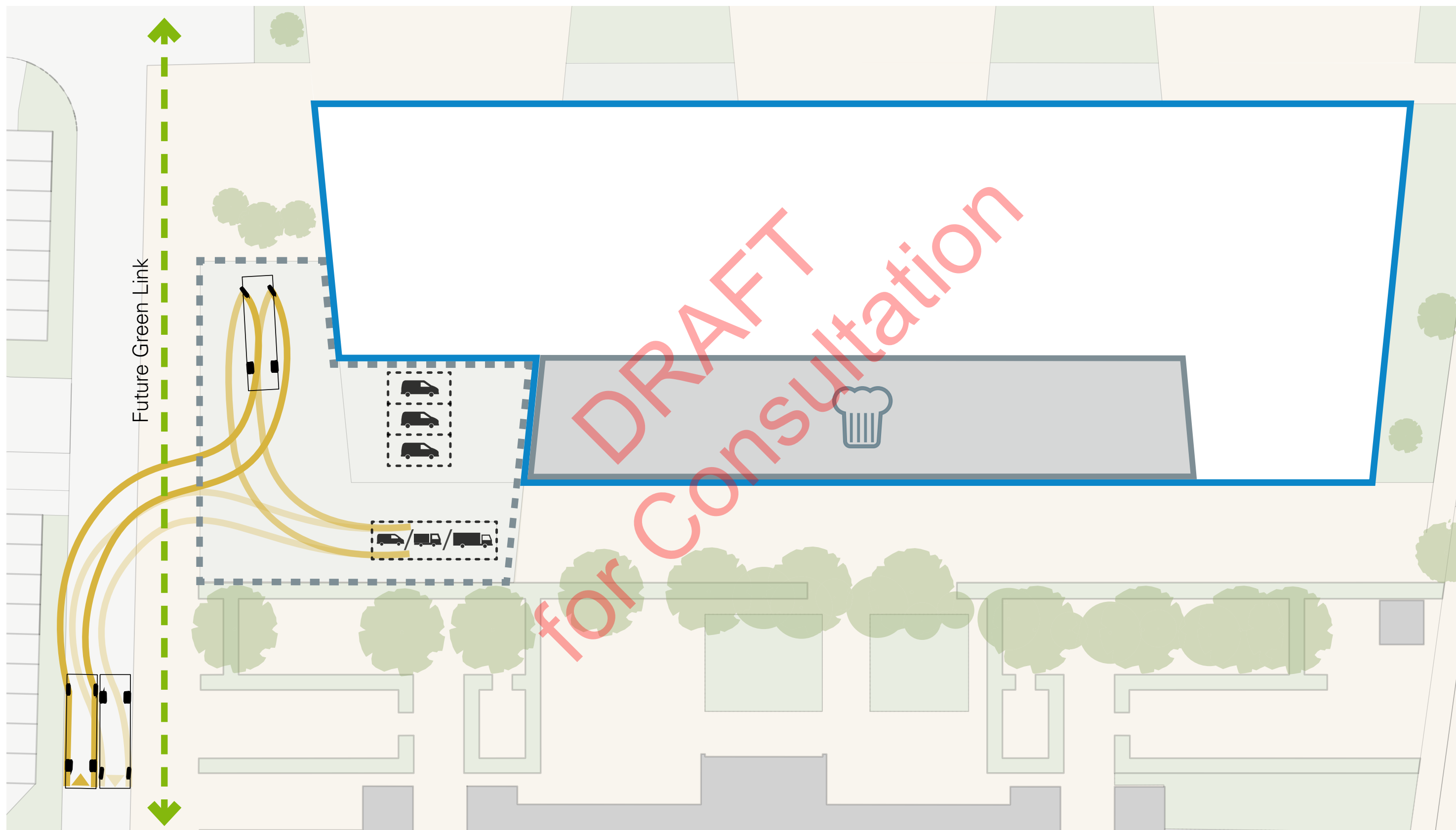


# Landscape Strategy





## Vehicular and Deliveries Access







Questions



## Vehicular & Deliveries Access



Vehicle Description	UK Max Weight (tonne)	Delivery Quantity with CPK	Delivery Quantity without CPK	Time of Day (Monday to Friday times)
<b>Electric Vans</b>	< 3.5	5-6 deliveries per hour		All day Few on Saturdays None on Sundays
<b>Light Goods Vehicle 2 Axle</b>	3.5	29 weekly	23 weekly	Morning pre-9.30am 3 deliveries on Sat None on Sundays
<b>Small Lorry 2 Axle</b>	3.5 to 7.5	8 weekly	6 weekly	Late morning (11am) None on Saturdays None on Sundays
<b>Large Lorry 2 Axle</b>	7.5 to 18	6 weekly	4 weekly	12pm-2pm None on Saturdays None on Sundays