

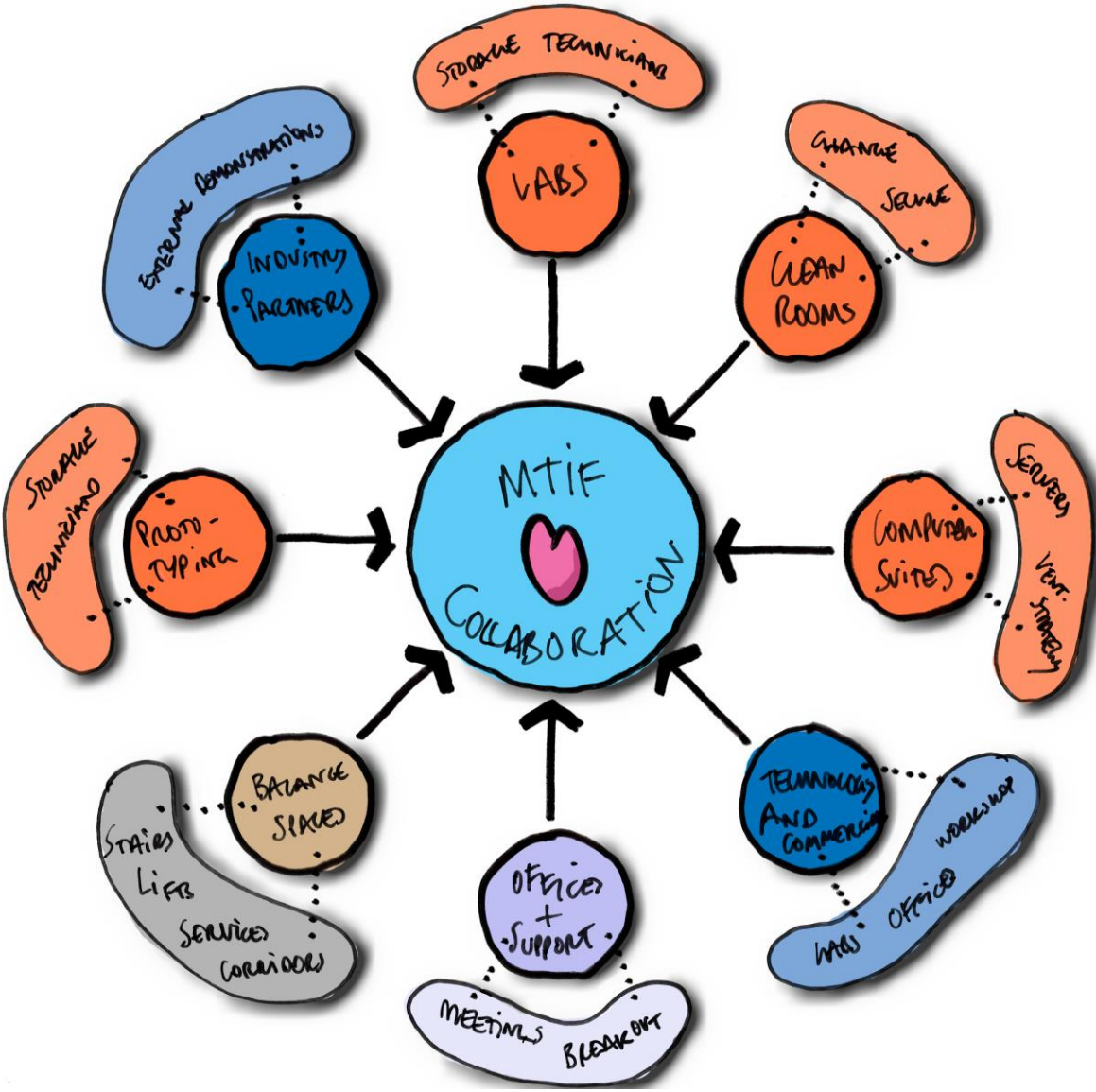
Preliminary Brief

Key Drivers

The University team has clearly already given considerable thought into the functional requirements and outline brief for the new facility, identifying a blend of specialist laboratory facilities with the office and meeting facilities required to support commercial businesses and entrepreneurs. However, experience suggests that innovation often comes from chance interaction and sharing of ideas across different disciplines. Therefore the development of the brief for the new facility should be driven by a number of key factors:

- **Collaboration & Community** – It is essential that the new building supports the culture and ethos of collaboration between all users; developing a ‘community of ideas’. At the heart of the facility therefore should be shared spaces for collaboration; from a conversation over a coffee to a formal meeting. The design should encourage users to pass through these spaces as they move between workshops, laboratories and offices, creating an environment that fosters interaction and the cross fertilisation of ideas
- **Transparency & Showcasing** – The new facility should celebrate the work occurring within it. This means providing visual links through the building, offering visitors and users views of the activities and creating a dynamic and vibrant environment. However, this will need to be balanced with careful consideration of security to ensure that the commercial sensitivity of some areas of research is adequately protected
- **Professional** – Attracting industry partners. This requires a strong image and brand identity for the new facility, as well as access to a wide range of welcoming but professional environments such as reception, meeting and presentation suites for potential investors, partners or clients
- **Flexibility** – It is vital that the facilities should be flexible enough to adapt to the changing needs of the businesses as they evolve and grow. This not only means creating a variety of spaces to suit differing types and scales of enterprise, but also ensuring that the building fabric and services can be easily adapted over time to meet the changing needs of the users
- **Whole Campus Approach** – The work already completed by the University demonstrates the importance of adopting a ‘Whole Campus Approach’, carefully considering how the new and retained buildings and landscaping can be integrated to enhance the users’ experience. It will be vital that the new build maximises the site opportunities and integrates with the existing buildings through imaginative use of the external spaces. These spaces must not only respond to practical issues such as access and servicing, but also create attractive and welcoming spaces for social and informal working and learning

- **Site Capacity and Growth** – The proposed site is a key location within the Campus; creating a gateway into the heart of the campus. However the site is constrained by the surrounded existing buildings, limiting potential for future expansion of the development should demands grow. In refining the brief and design for the new building, it will therefore be important to consider if maximum value is being made of this prominent site and the potential opportunities or implications of any future expansion.



Concept relationship diagram

Outline Client Brief

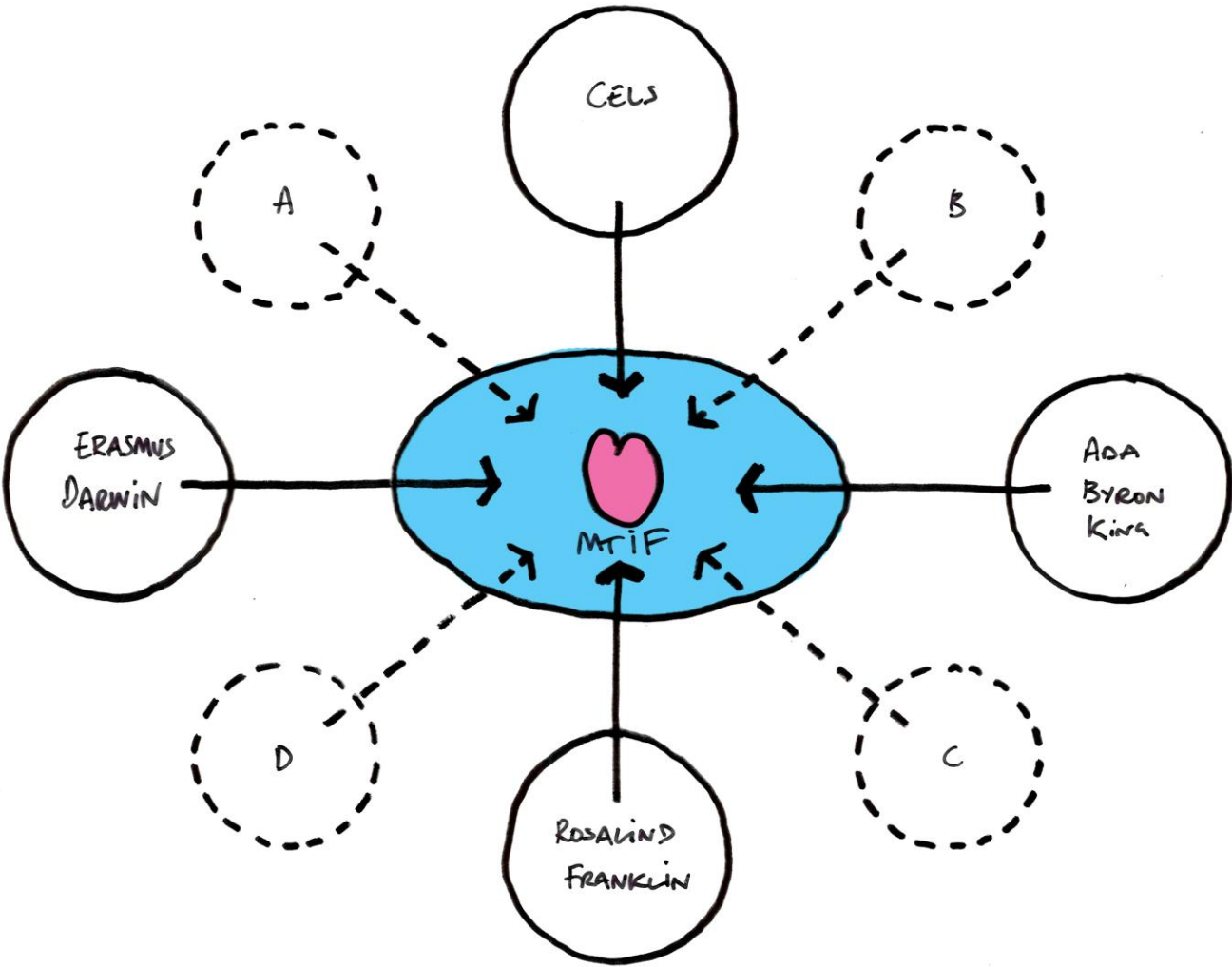
An outline brief has already been developed by the University’s Team, clearly setting out the broad scale and range of specialist laboratory and workshop space required as well as the anticipated provision for office, meeting and support areas. This includes:

- **Workshops and Laboratories** – a requirement for a range of specialist workshops and laboratories for developing and testing concepts each of around 200-250m². Preliminary discussions suggest these are predominately for smaller scale activities requiring simple single storey environments with relatively standard servicing requirements
- **Clean Room** – Provision of at least one highly serviced clean room environment (class 100/ISO 5) for materials deposition and device fabrication. It is understood that this will need to be located directly above a plant room
- **High Performance Computer Suites** – including CAD, modelling and virtual simulation
- **Technology and Commercialisation Suite** – providing a range of facilities for engaging with and supporting industry partner s and clients. This includes office, workshop and laboratory space as well as hot-desking/drop in areas
- **Offices and Support space** – including workspace for academic and research staff and PHD students, as well as meeting rooms and reception.

Considerable further work will inevitably be required with representatives from across the University and industry partners to test and refine the detailed requirements. Nevertheless this brief has been used as the starting point for the development of the design feasibility studies included in this report.

However, on reviewing the emerging brief a number of potential queries and opportunities were identified that may require further exploration through the next stages of the briefing and design process:

- **Collaboration Space** – The existing brief focuses on the specialist laboratory spaces and formal office environments. However, as discussed earlier, experience suggests that the spaces between these formal areas can be vital in fostering the ethos of collaboration and discussion. As part of the study, preliminary consideration has therefore been given to the implications on the required floor area and project cost of adding in additional allowance for the provision of open plan shared working and collaboration space
- **Industry & Employer Hub** – The new centre offers the opportunity to act as a hub for engagement with employers and industry partners. This might include for example include a flexible space that can be used for a wide variety of activities; meetings, exhibition or drop in workspace
- **Ideas and prototyping** – Enhancing the ideas already within the brief to develop an ‘ideas space’, combining meeting and presentation space with access to areas for rapid prototyping etc.
- **Balance Space** – The quantity of space required for circulation, plant rooms, risers lifts etc. will be dependant on the final design and technical servicing requirements. However experience of similar facilities suggests that for a multi-storey building of this type, even the most efficient require around 25% of the Gross internal Area for this balance space. As such, all options considered in this study have increased the balance allowance from the nominal 20% included in the original brief as received.



Early relationship bubble diagram

4.1 Site Analysis

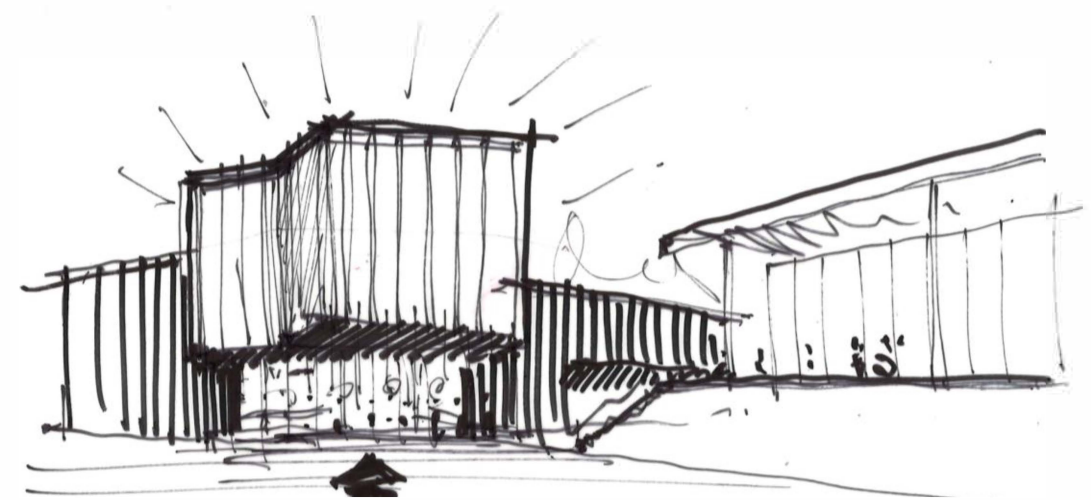
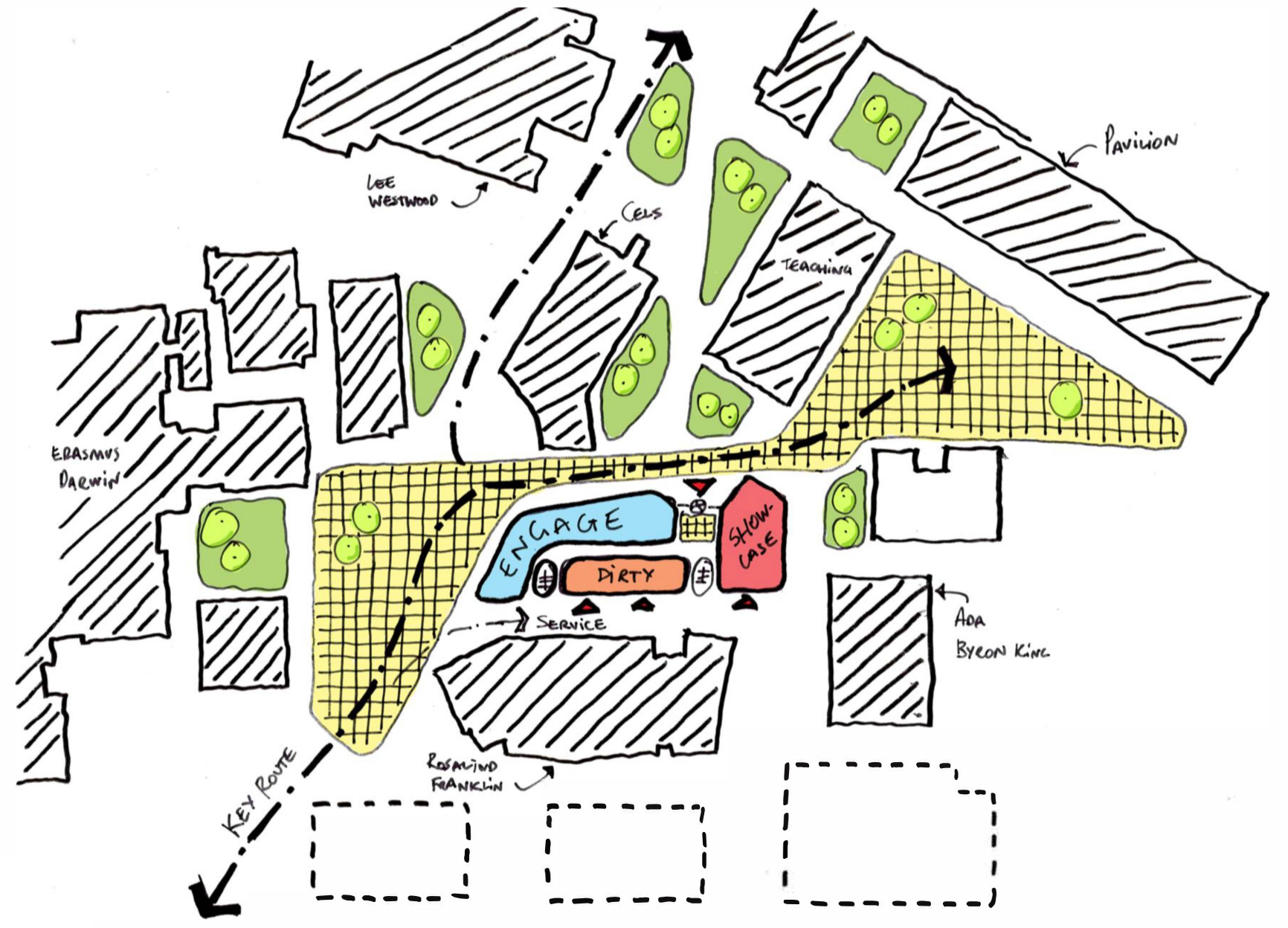
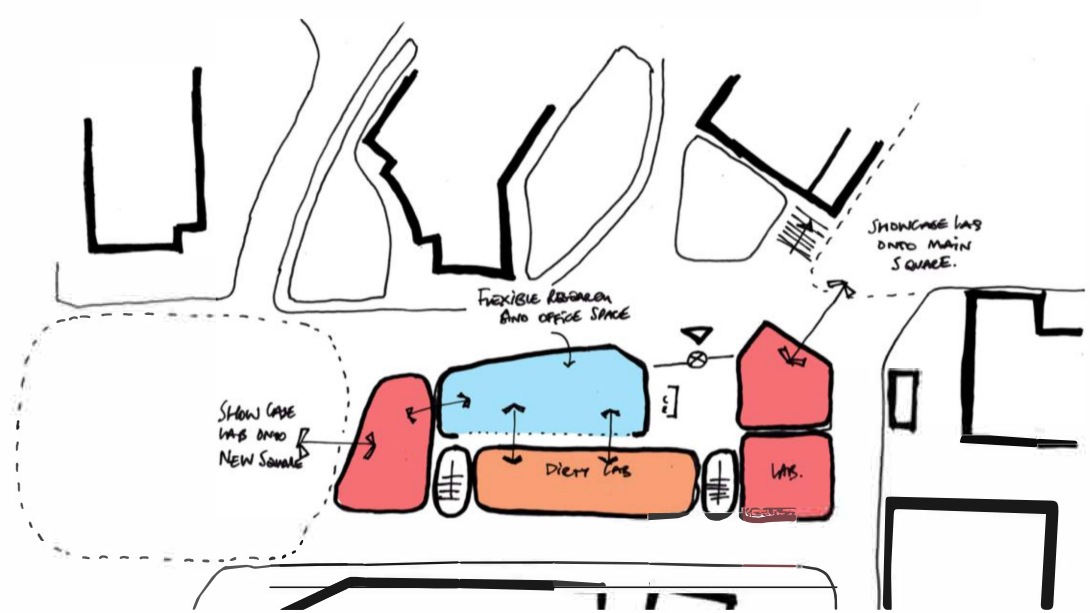
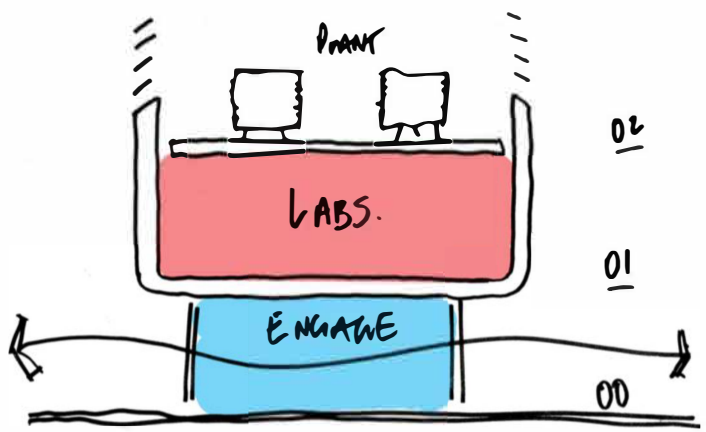
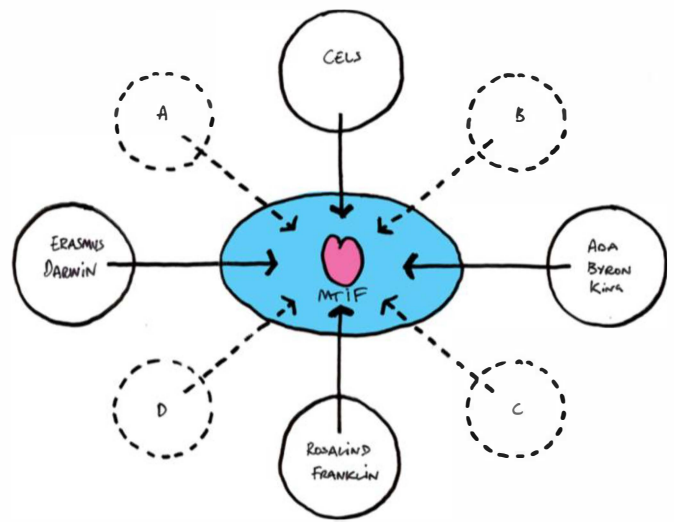
Existing site photographs

Aerial view of proposed site showing existing trees to be removed.

Key frontage of the new build onto the Plaza space.

The Pavilion building – proposal needs to address the Pavilion building massing / pedestrian routes / tone and materiality.





Preliminary Options – Design Studies

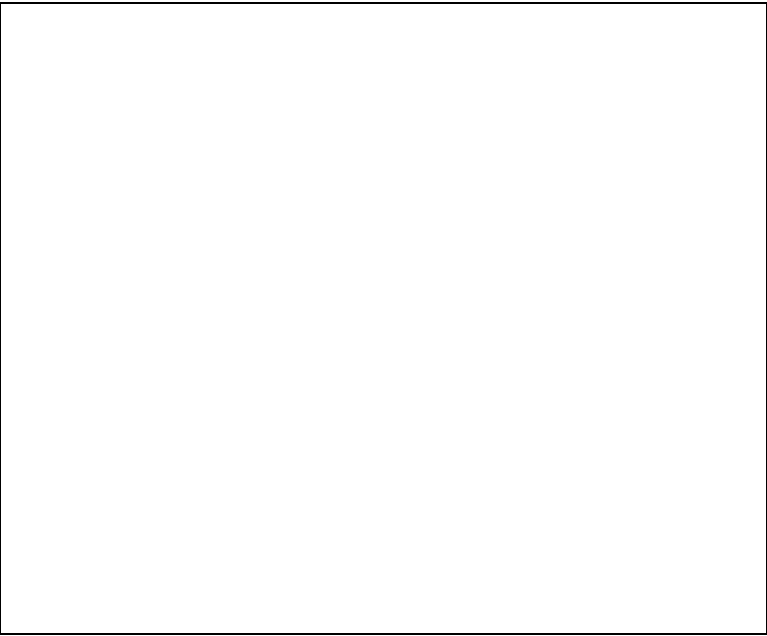
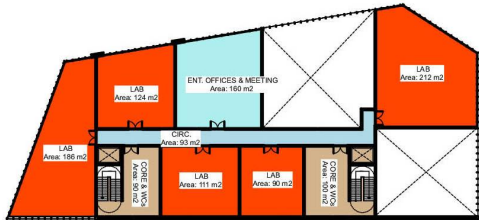
Preliminary design studies have been prepared. These are not intended as full design solutions, but rather are high level concepts to assist the University in exploring the relative merit of the alternative approaches and select its preferred development strategy

OPTION 01 - GIFA: c.2,640m²



00 - GROUND FLOOR

- KEY
- Labs
 - Technology & Commercialisation Facilities
 - Entrance, Office's & Meeting
 - Collaboration
 - Circulation
 - Core & WC's
 - Plant



Development B FIT OUT - Concept

Focus primarily on the provision of simple, efficient workspace, with the role of collaboration and employer engagement . The outline brief calls for a series of laboratories of c 70m² as well as a large 350m² workshop and provision of supporting office accommodation.

A preliminary high level concept sketch has therefore been prepared to test the viability of accommodating the university’s outline brief and to assist in informing the benchmarking cost exercise. This exercise has highlighted a number of points worthy of note;

- To minimise the impact on the listed building and take advantage of the existing rooflights, rooms sizes may need to be slightly modified to suite the existing structural bays. However, the preliminary sketches suggest that the existing 11m wide bays are well suited to creation of well-proportioned laboratory spaces of c 70m²
- The deep-plan nature of the proposed space will inevitably mean that some spaces will have limited access to natural light or views out
- As such consideration might be given to increasing the allowance for internal glazing to allow views through the spaces
- Further investigation is required with regard the existing building layout and constraints including any existing plant rooms and the fire strategy.

