

Welcome



Introduction

The Royal Botanic Garden Edinburgh (RBGE) is bringing forward the Edinburgh Biomes project in order to protect its unique and globally important plant collection.

The project will address an urgent need to restore and replace RBGE's mission critical buildings to deliver world-leading facilities that will protect RBGE's work for the future, enabling Scotland to maintain its leading reputation in plant research and conservation.

We have now held two public consultation events where information was presented relative to the following:

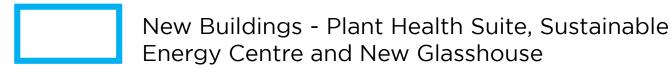
- Nursery Application (Submitted, Dec 2018)
- Gardens Major Application (Expected, Feb 2019)

This our final consultation event as part of the planning application process and provides further developed proposals whilst responding to issues previously raised.

There is ongoing consultation with City of Edinburgh Council, Historic Environment Scotland and other statutory consultees.

We welcome your feedback - please fill in one of the comment forms provided.





Refurbishment/alteration of Listed Glasshouses and Structures



Selected demolition works and construction of new research Glasshouses, Education and Support Facilities



Edinburgh Biomes - Vision



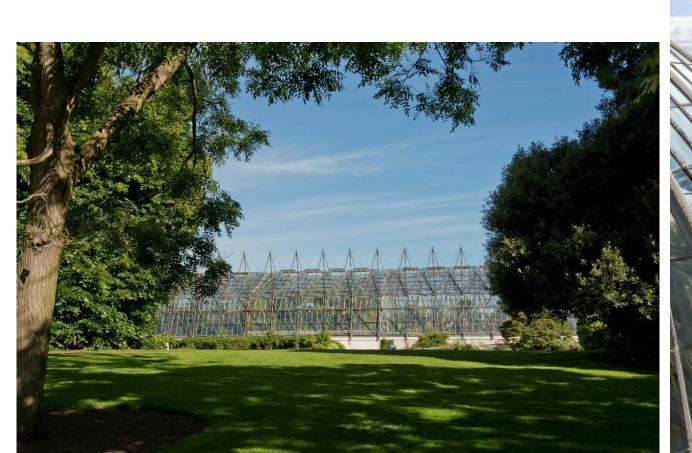
RBGE Mission

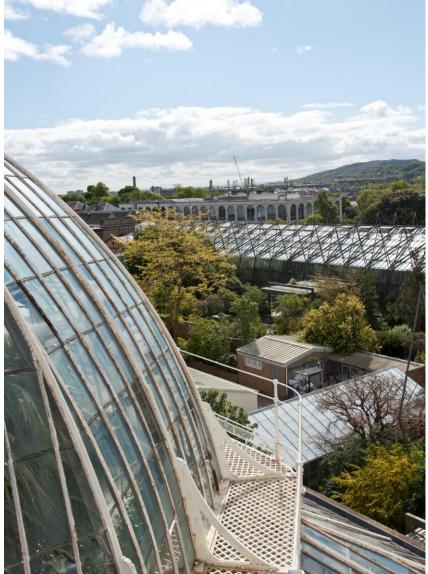
The mission of the Royal Botanic Garden Edinburgh (RBGE) is to 'Explore, Conserve and Explain the World of Plants for a Better Future'. The RBGE is in the vanguard of international botanic gardens thanks to the breadth and depth of its unique living and preserved collections, innovative research, extensive public engagement, and internationally acclaimed education programmes.

Vision

Edinburgh Biomes is the most visionary project the RBGE has undertaken since its relocation to Inverleith in 1820 and is critical to maintaining its world-leading reputation.

It is vital that redevelopment takes place to avert catastrophic failure of the infrastructure and consequential destruction of swathes of the irreplaceable national living collection. The project will also provide major opportunities to improve national and global capacity for plant health research and surveillance, biodiversity science, and conservation. It will create a purpose-built facility for developing skills and talent in the form of the new education building and will also promote tourism and opportunities for environmental education and public engagement. The complete renovation of the energy system will provide substantial gains in efficiency and reduction of carbon emissions.















Site History

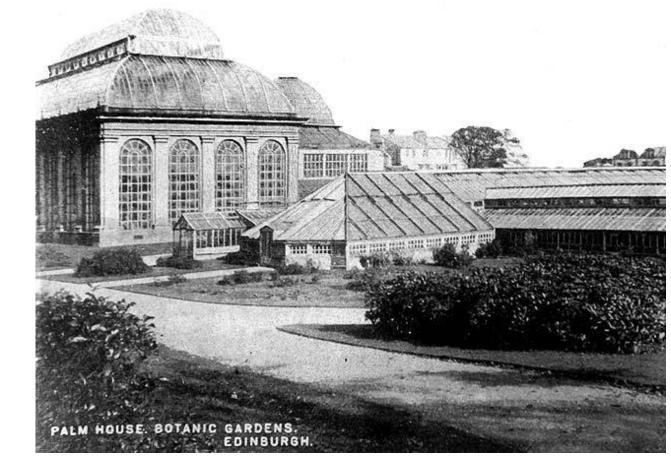


Site History

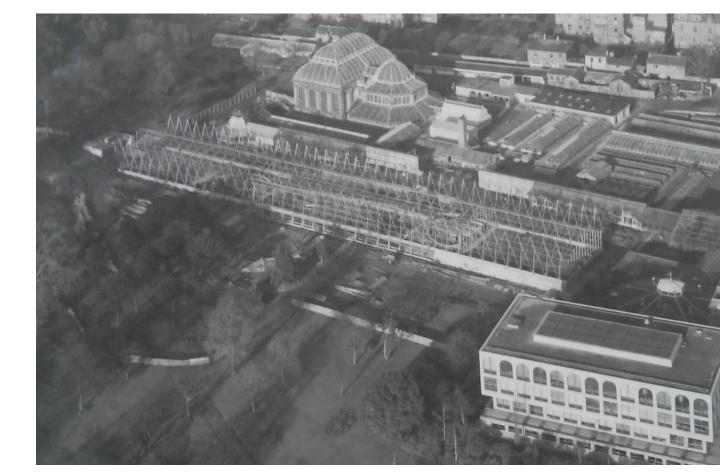
The history of the Royal Botanic Garden Edinburgh dates back to 1670 when it began as Scotland's first physic garden on a modest patch of ground at Holyrood Park. The collection of plants expanded with the British Empire and from a site at the head of the Nor' Loch, now the site of Waverley Station, the Garden relocated out of the city centre in 1763 to a 'green field' site on the ancient high road to Leith.

The final move to Inverleith in 1820 took three years and a lot of ingenuity to deliver the entire collection of plants and mature trees. As the Garden grew, gaining the grounds of Inverleith House and the former territory of the Caledonian Horticultural Society, so did the wealth of plants collected by Scottish plant hunters in the 19th and early 20th centuries.

The oldest Glasshouse, the Tropical Palm House, was built in 1834 and was the tallest in the UK until the Great Conservatory at Chatsworth was built in 1840. The Temperate Palm House followed in 1856. The radical design of the 1967 glasshouses was built with the supporting structure on the outside, so the internal area could be used to full effect. Finally, the two clear-span Glasshouses were built in 1978 along with most of the Research Glasshouses in the final phase of "modernising" after a period of neglect.

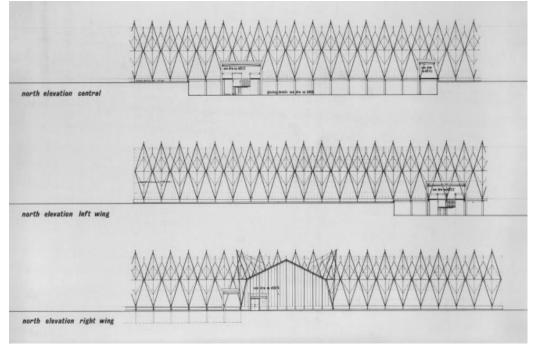














Local Context





Inverleith Place looking East



Inverleith Place Lane looking East



Inverleith Avenue South looking North



Arboretum Place looking South-East





Site Context



Appreciation of Context

Attracting 1 million+ visitors a year, the Royal Botanic Garden Edinburgh (RBGE) is a leading tourist destination, providing a high quality visitor experience whilst connecting people to nature and the sciences.

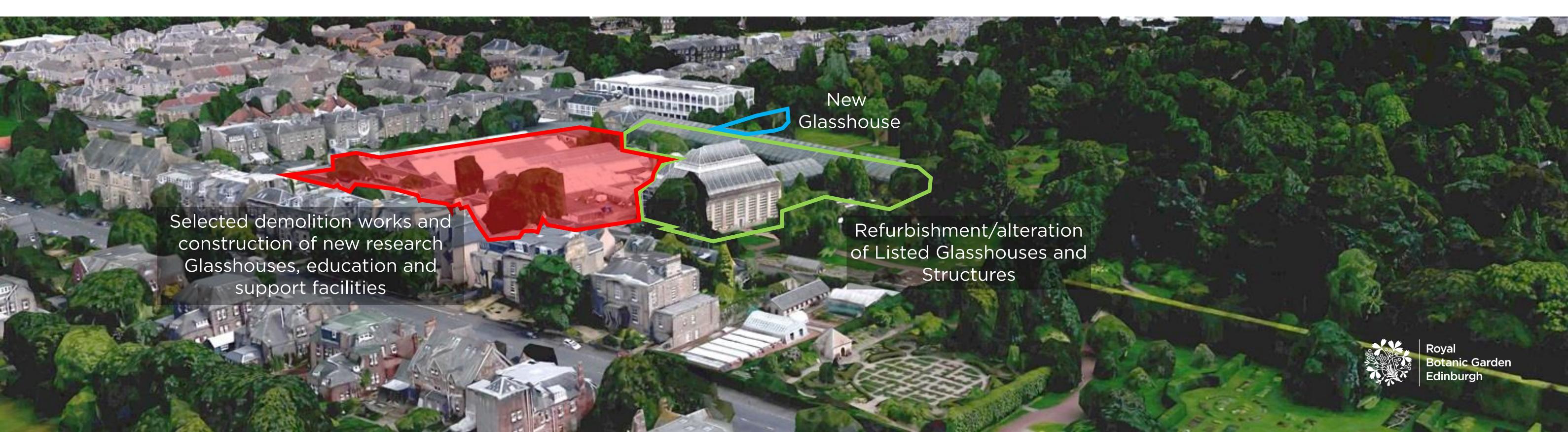
The RBGE is a highly sensitive site within the context of a highly sensitive built and natural environment:

 Category A, B and C Listed Buildings within and around the site;

- Designated as an Inventory Garden and Designed Landscape;
- Designated as a Local Nature Conservation Site;
- Falls within the Inverleith Special Landscape Area;
- Falls within the Inverleith Conservation Area;
- Sensitive neighbouring residential properties adjacent to the site boundary;
- Wide stakeholder interest.

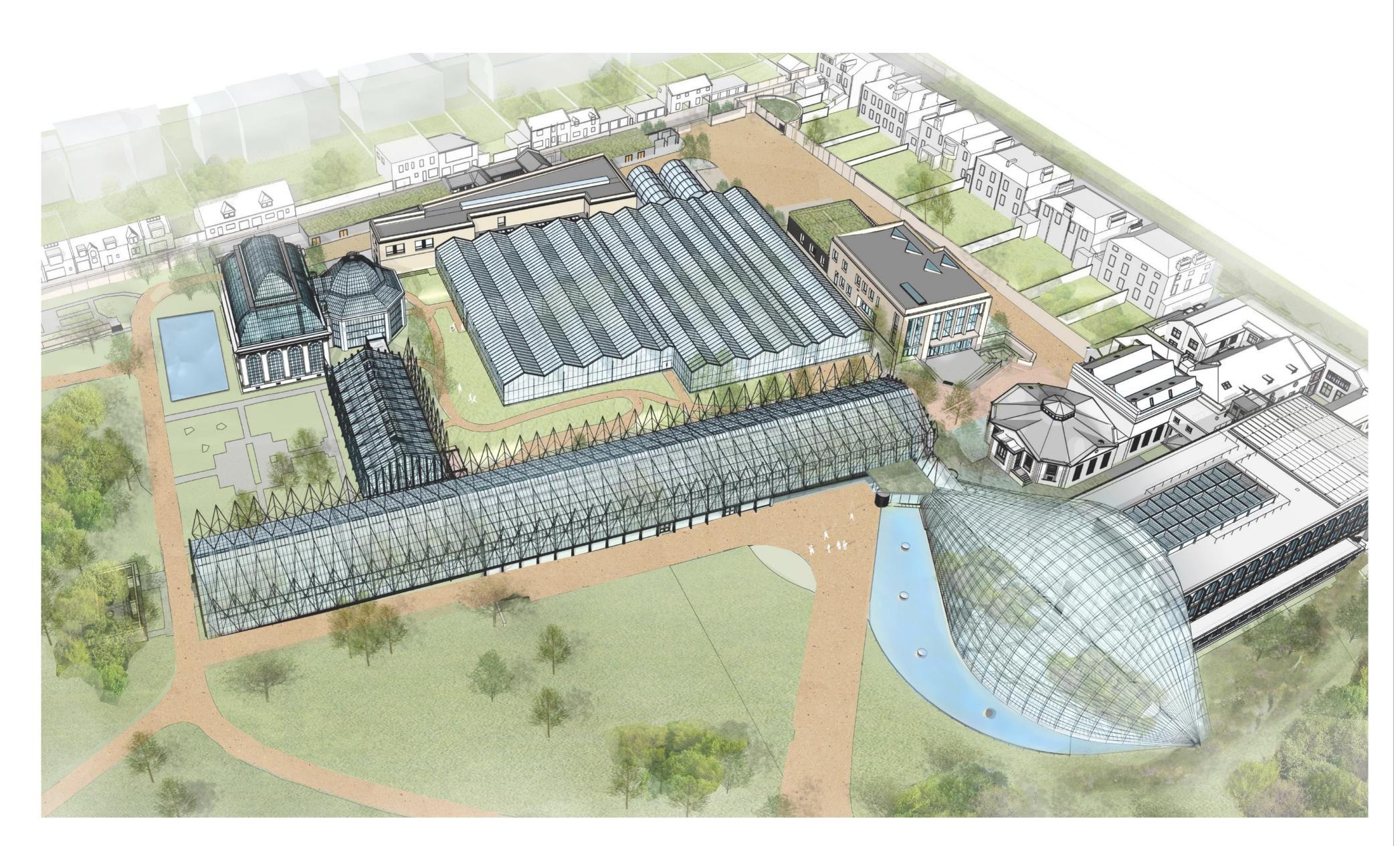
Development Considerations

- Busy and active residential area;
- Residential properties and garden space adjacent to site boundary;
- Listed Structures to site boundary;
- Trees protected by Conservation Area status/TPOs;
- Management of construction/operation to address sensitivities to activity, noise, light, dust;
- Management of continued access to the Garden during the construction process.

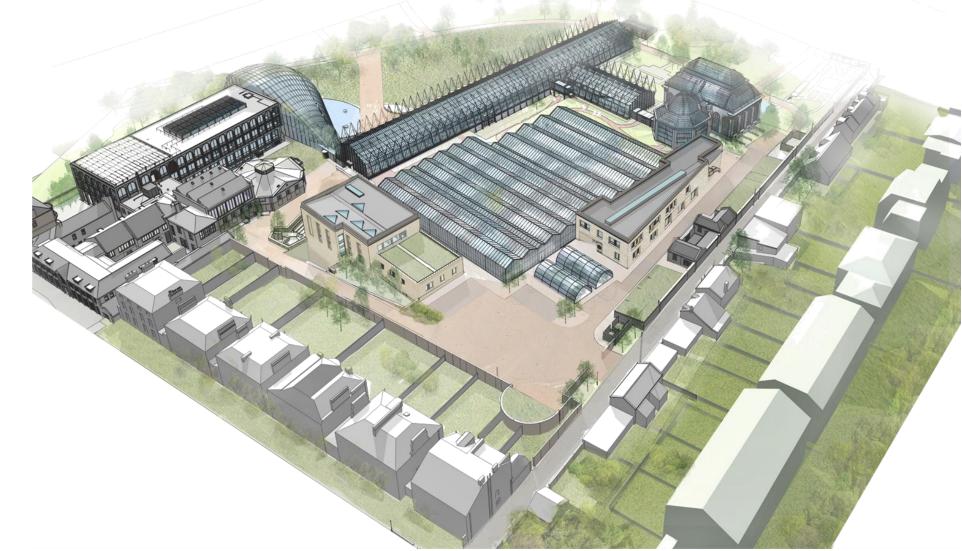


North East Corner





Aerial view from South-West (Proposed)



Aerial view from North-East (Proposed)

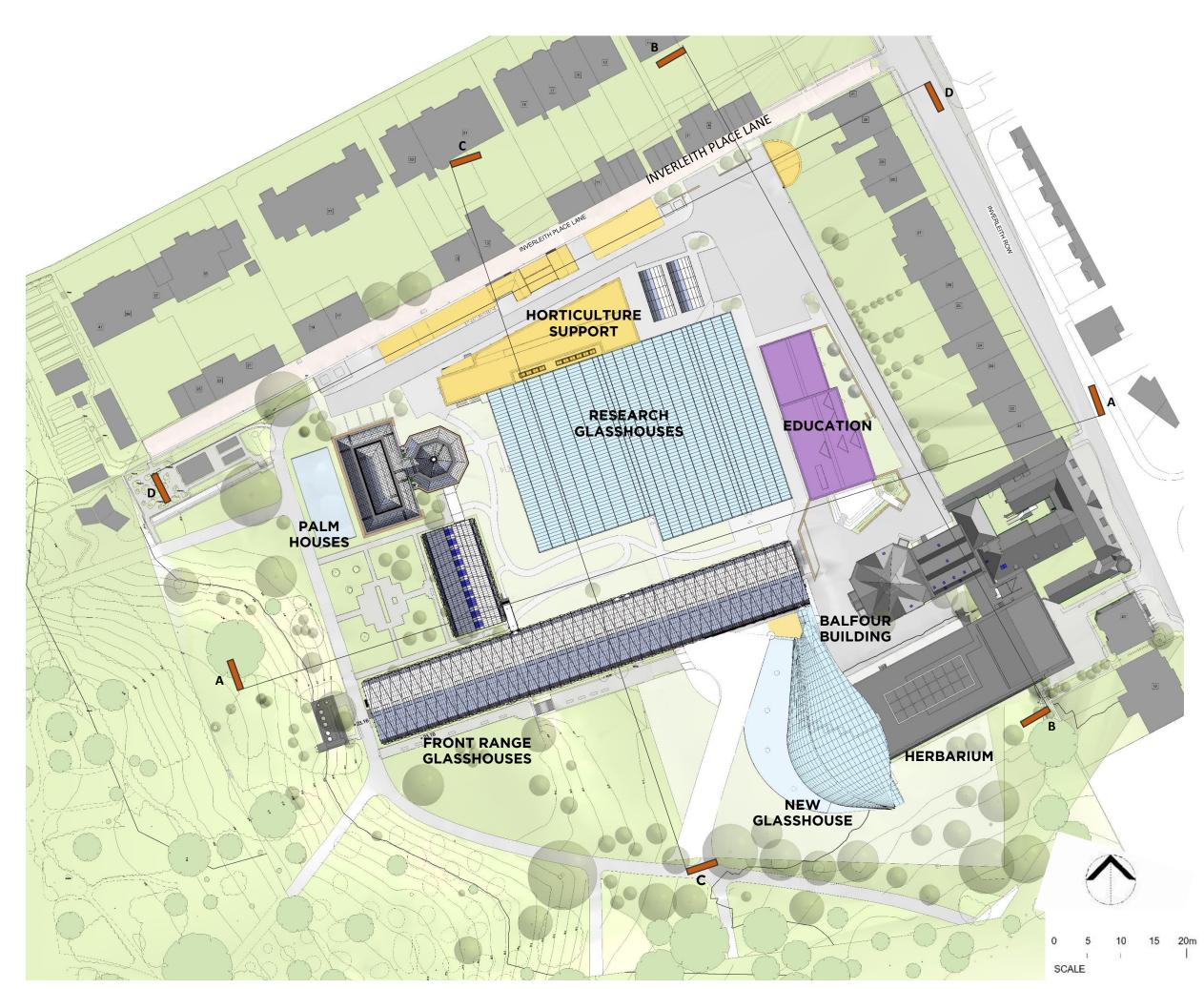


Aerial view from South-West (Existing)

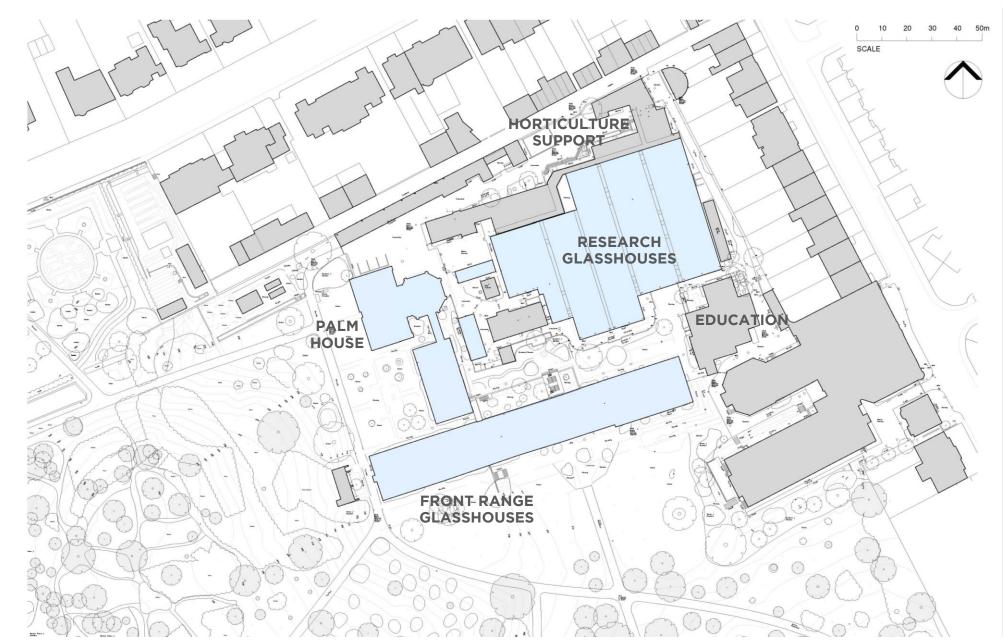


North East Corner





North East Corner Site Plan Proposed



Site Plan as Existing



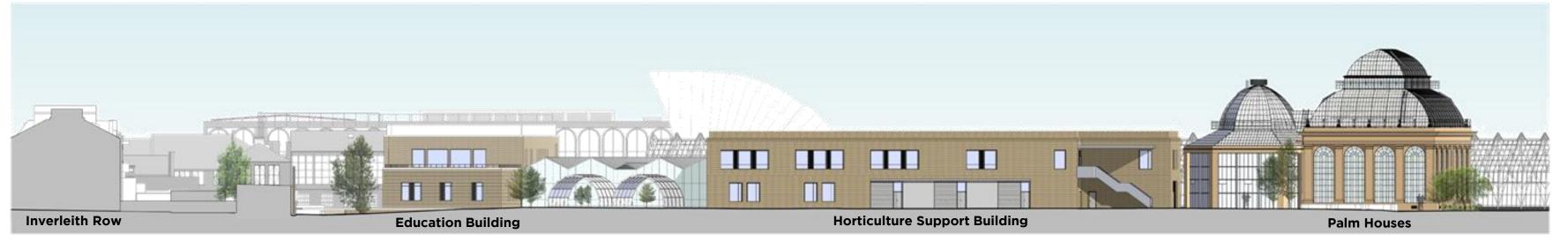
A-A West-East Site Section Elevation (Proposed)



B-B South-North Site Section Elevation (Proposed)



C-C North-South Site Section Elevation (Proposed)



D-D East-West Site Section Elevation (Proposed)



The New Glasshouse



Introduction

Conceived as an integral part of a large-scale project to redevelop the northeast corner of the Royal Botanic Gardens site in Edinburgh, The New Glasshouse is proposed to create a hub for various key aspects of the operation of the gardens.

Following an initial enabling and decanting period, the primary function of the building will be to provide an inspiring new entrance point to the Glasshouse Experience and will also act as means of connecting to and showcasing other functions within RBGE including the Herbarium, Lecture theatre and other Educational facilities. The aspiration is that the new building will be dramatic and exciting, with the presence to become an iconic symbol associated with the Botanic Gardens. The aim is to create an environment and form that is tailored to suit select plant species and incorporating a visitor experience that is entertaining and educational, and which attracts both local visitors as well as those from further afield.



Concept 1 - Form Shaped by the Sun

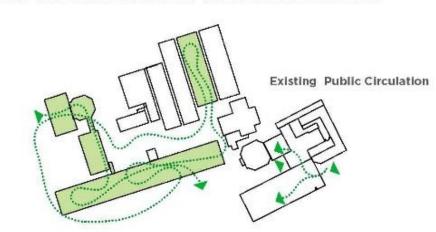
The starting point was to visit the proposed site for The New Glasshouse and to employ sun-path analysis to sculpt an optimal form, balancing the need for volume in the new building with sunlight penetration to both the new and existing Glasshouses. The study diagrams illustrate how this process led to the development of the conceptual shape which tapers down from its highest point to where it engages with the existing front range glass-house, thus minimising overshadowing.

Concept 2 - Site Context - Response to Existing Buildings

To the north and east of the site are buildings which support the operation of the Botanic Gardens. The nearest to the site is the Herbarium, which is home to a world-renowned collection of plant samples and also houses the RBGE Library. Rather than spacing The New Glasshouse off the Herbarium, which would create an awkward relationship between them, the proposal is to engage the two buildings together. A new structure extends the Herbarium into The New Glasshouse and is conceived as a contemporary 'hanging-garden', a living green-wall which creates a dynamic, green centrepiece to The New Glasshouse. This feature will also provide an exhibition space showcasing the Herbarium and other facets of RBGE. It will allow visitors to view the plants within the space from different levels and to explore the canopy of even the tallest species.

Concept 3 - Circulation - Problems and Proposals

The current access point and route through the Glasshouses is convoluted and counterintuitive. The main entrance point is unclear and there are several locked doors that require unattractive signage which creates a poor first impression. Historically, a more permeable arrangement existed with informal access provided at various points for visitors but the change to a paid access into the Glasshouses has exacerbated the issue.



Housing the entrance point to the Glasshouse experience within a striking new landmark structure offers the opportunity to clearly indicate its importance. The building's scale, which allows it to house tall plants and trees, will also give it visual prominence to visitors approaching from across the gardens.

The majority of people arrive at the existing Glasshouses from the South and West, where the structures are seen across the open lawn space which allows sunlight to permeate into them. This area provides an ideal location to site the new building and gives an opportunity to create an iconic new form that clearly announces the entrance point to the Glasshouse Experience.

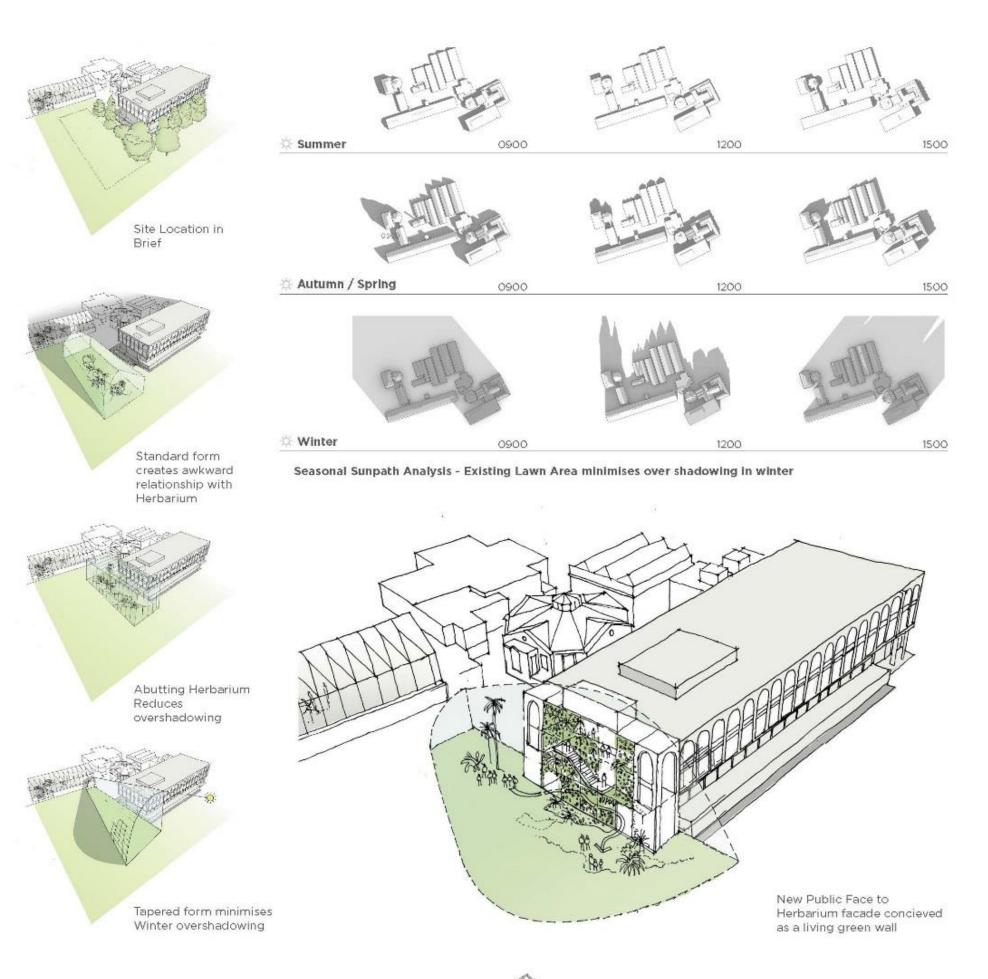
The transparancy of the of the building will attract visitors and will offer them tantalising glimpses of the world within it.

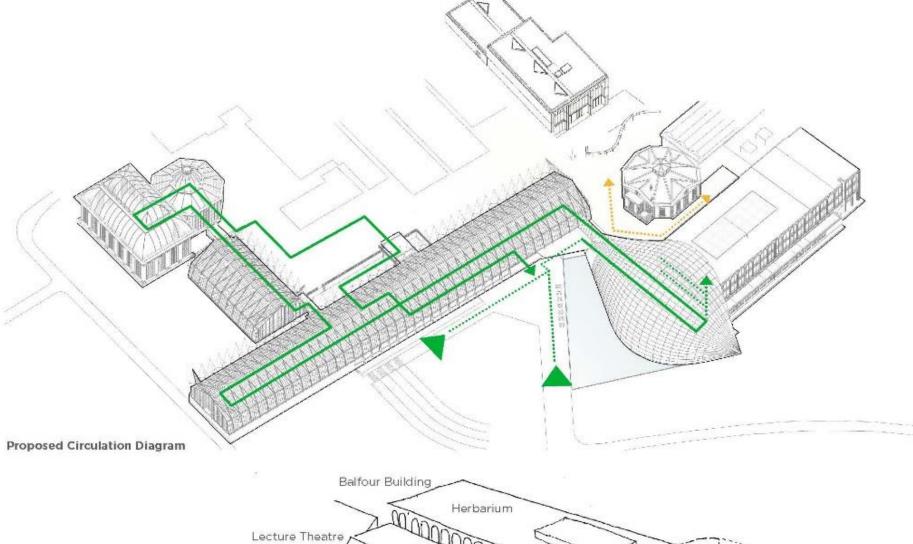
Herbarium Engagement and New Courtyard

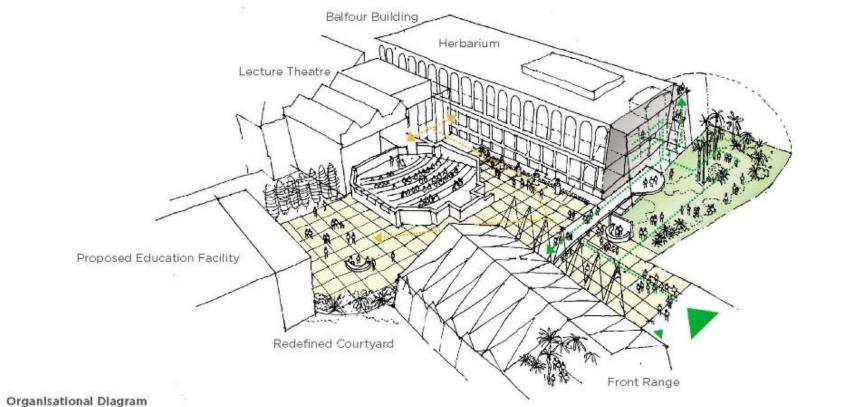
Although technically possible, creating direct links into the Herbarium and Library in its current form would be challenging as the building is oriented towards the existing main entrance from Inverleith Row at its eastern end. If the layout or functions within the Herbarium were to change in future, The New Glasshouse design provides an opportunity to forge more direct links between the new and existing buildings.

The proposal is to use the entrance foyer of The New Glasshouse, as a control point for connectivity into the external space between the Herbarium, Lecture Theatre and Education buildings which lie to the East. This move could establish a new courtyard which would provide access into the various buildings. The courtyard could provide a light and vibrant space, filled with activity, plants and forming a hub for social aspects of the RBGE's operation.

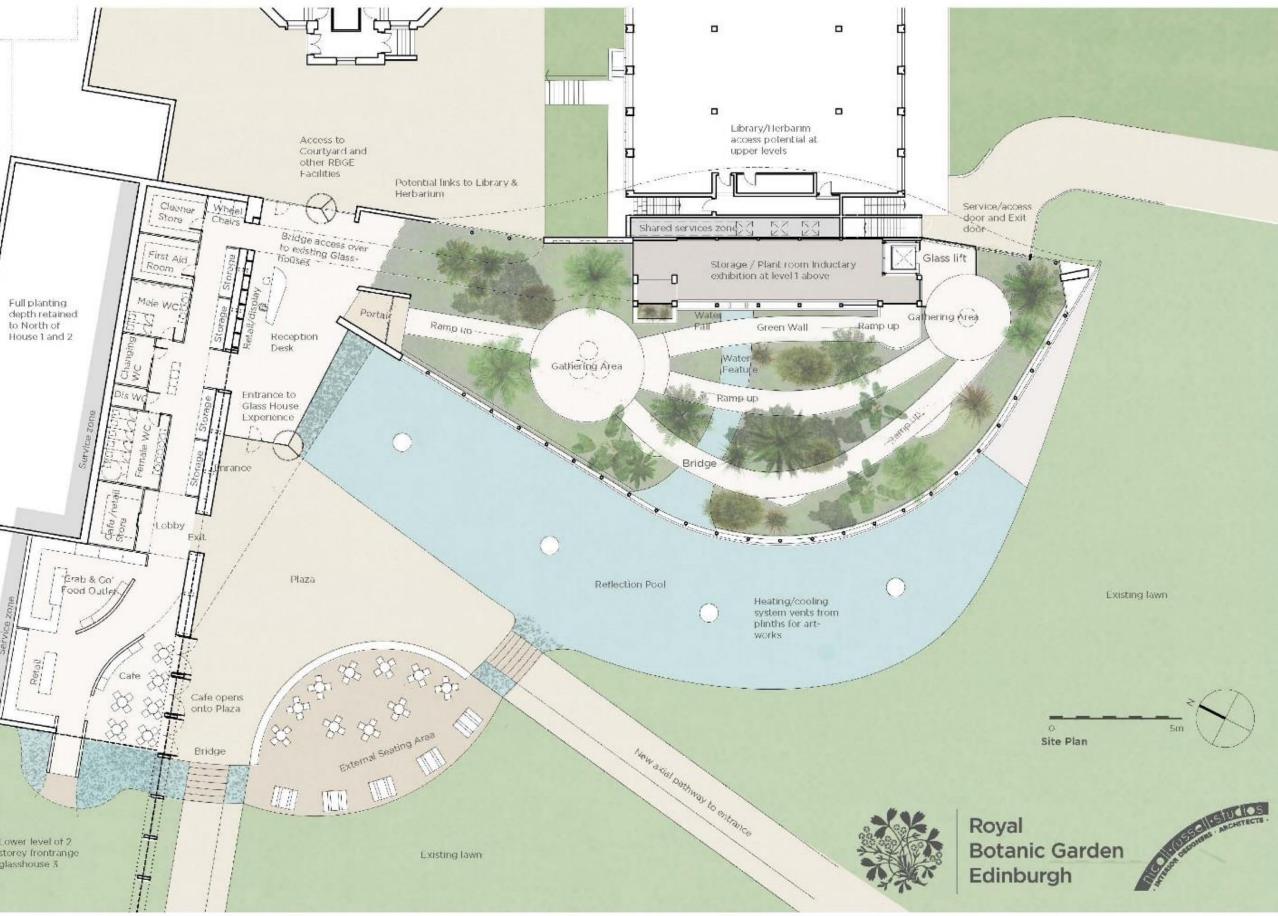
The New Glasshouse foyer will allow the openness between the public gardens and more private spaces to be moderated and will provide visitors the connection and glimpses into the more private world of the Gardens for RBGE.





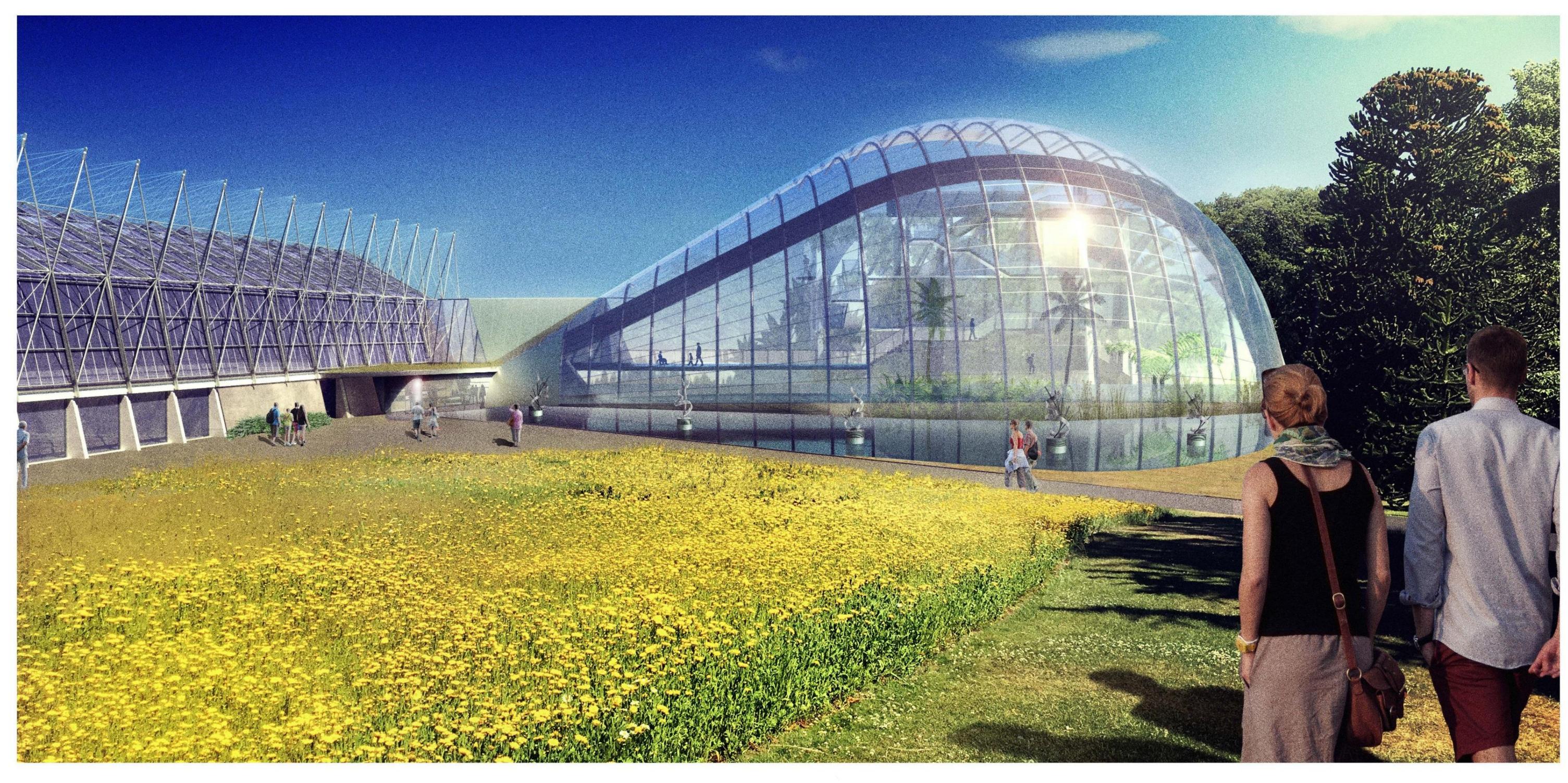






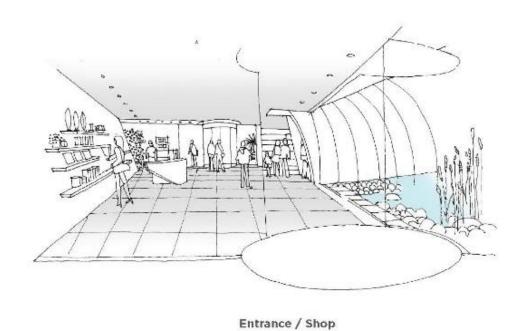
The New Glasshouse



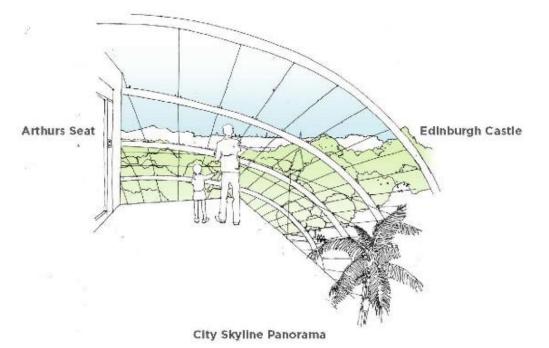


Concept 4 - The Visitor Experience - A Journey

The new building will provide an exciting start and finish point to a journey through the Glasshouse Experience. The vision is that visitors will follow a given route, or take part in guided tours of The Glasshouses. The Focus building will provide an introduction at the start of the journey, where visitors would be drawn through the building and rise upwards to a viewing deck at the top level, with stunning views across the treetops and garden to the City skyline beyond, juxtaposing man's creation with nature and highlighting the need to nurture a symbiotic relationship between both. The route then leads back down through the canopy of palms and 'hanging-gardens', passing behind a water feature which provides a kinetic element, energising and humidifying the space, to a bridge which connects to the 1967 Front Range glasshouse. The route follows a logical path through the upper ground level of the existing Glasshouses culminating in arrival at the original palm houses. The journey then continues externally droppings into the Chilean Terrace and into the lower level of the Front Range Glasshouse and its undercrofts and exiting at a point adjacent to the entrance to the new Glasshouse building.







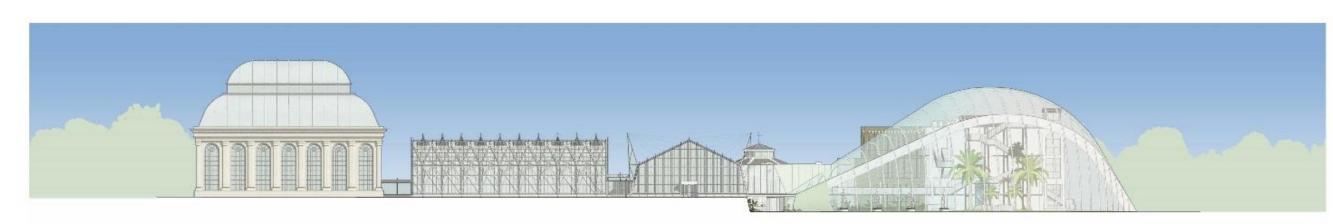


The New Glasshouse









Temporary Decant Specimen Storage Plan Arrangement Temporary Division of Glasshouse into variable Temperate/ Developed Structural Solution - North South Axis of Beam Reduces Overshadowing Leaf Structure Inspiration Conceptual Sketch of Roof Form Proposed Consolidated Services Plant relocated to roof level Existing Herbarium Services Location Surlight Provides Natural Warmth and Light for Top of Space by Convection Convection Where I is Fither Redirculated ar Exhausted via Heat



Vertical Dotted Line Denotes.-

Zones in Decart Phase

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Cooled Air In Stimmer

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Contextual Elevation - Looking North

Short Section - East to West - Services Diagram

Temporary Arrangement - Decant Space

For the first part of its life, the building will be used as a decant space as part of a broader range of works to refurbish and reconfigure the existing Glasshouses, education and research spaces to the northeast corner of the RBGE site.

For this stage, The New Glasshouse is to be sub-divided into two sections of approximately 450m2 each, comprising separate Temperate and Tropical Spaces. For this phase The New Glasshouse floor will be set lower down than the adjoining lawn space with a large access door at the southeast end where the existing contours would permit level access for vehicles such as forklift trucks to bring plants in and out.

A temporary 'bubble-wrap' style insulating curtain would be draped between the Tropical and Temperate spaces following the line of the central curved spine beam and it is conceived that the Tropical space would be an inner zone, so that its higher temperature would permeate into the Temperate section effectively creating a thermal buffer to the inner Tropical space.

Form, Structure and Materials - The Palm Leaf

The structural form is inspired by nature and takes the shape of a stylised leaf. The primary central spine would comprise a curved beam running north to south with this orientation chosen to minimise shading. This spine would be suspended from and anchored back to the new structure fronting the Herbarium and would have restraining buttress piers supporting it at each end.



The secondary structure is conceived as being reminiscent of palm fronds. These would take the shape curved steel tubes emanating from the main beam and supporting the curved glass roof. This clear span arrangement will provide a large open volume, promote daylighting and minimise the extent of foundations.

The new steel structure will be over-clad externally with glazing to allow a high percentage of UV light transmission.

The intention is to strike a balance such that during wintertime the low angle sun achieves maximum penetration into the space, whilst during the Summer months the structure would provide an element of shading to the space. This may be augmented with internal blinds.

Proposed Services Strategy

The services concept is informed by the plan to create a new sustainable Energy Centre at the nearby Nursery site. The essence of the services strategy for The New Glasshouse is to employ simple, ecologically sound technologies, which have a proven-track record and which are easy to operate. Passive systems are to be employed where practicable and a fabric-first approach adopted. An example of this approach is the intention to avoid mechanical cooling and employ a passive labyrinth system.

The basis of the heating and ventilation proposal is to draw fresh air in at low-level which will be tempered by the thermal labyrinth which can be used to cool the space in the summer months and provide heating in the winter. This would be supplemented by low-level fin coil heaters activated when required. The heated air will naturally rise to the top of the volume where, during warmer months, it will be vented to the outside via intelligent louvres linked to the building management system (BMS).

During cooler periods, destratification fans at high level will be used to push warmer air back down into the space thus creating an artificial 'wind' which is conducive to a healthy environment for plants. At these times it is proposed to use heat recovery systems where warm air is being exhausted. This air movement will also help to prevent condensation. Space monitoring and the control of temperature, humidity and CO2 levels is essential and a Horticultural Control System is proposed to assist with this. This form of BMS will interface with and control openings.

A pool is proposed bounding the edge of the new building, creating a tranquil oasis with reflections giving the appearance that the curved form emerges from the water. The pool will also reflect light into the Glasshouse and create dappled sunlight effects. This pool will be used to cool and humidify incoming air during the Summer months.

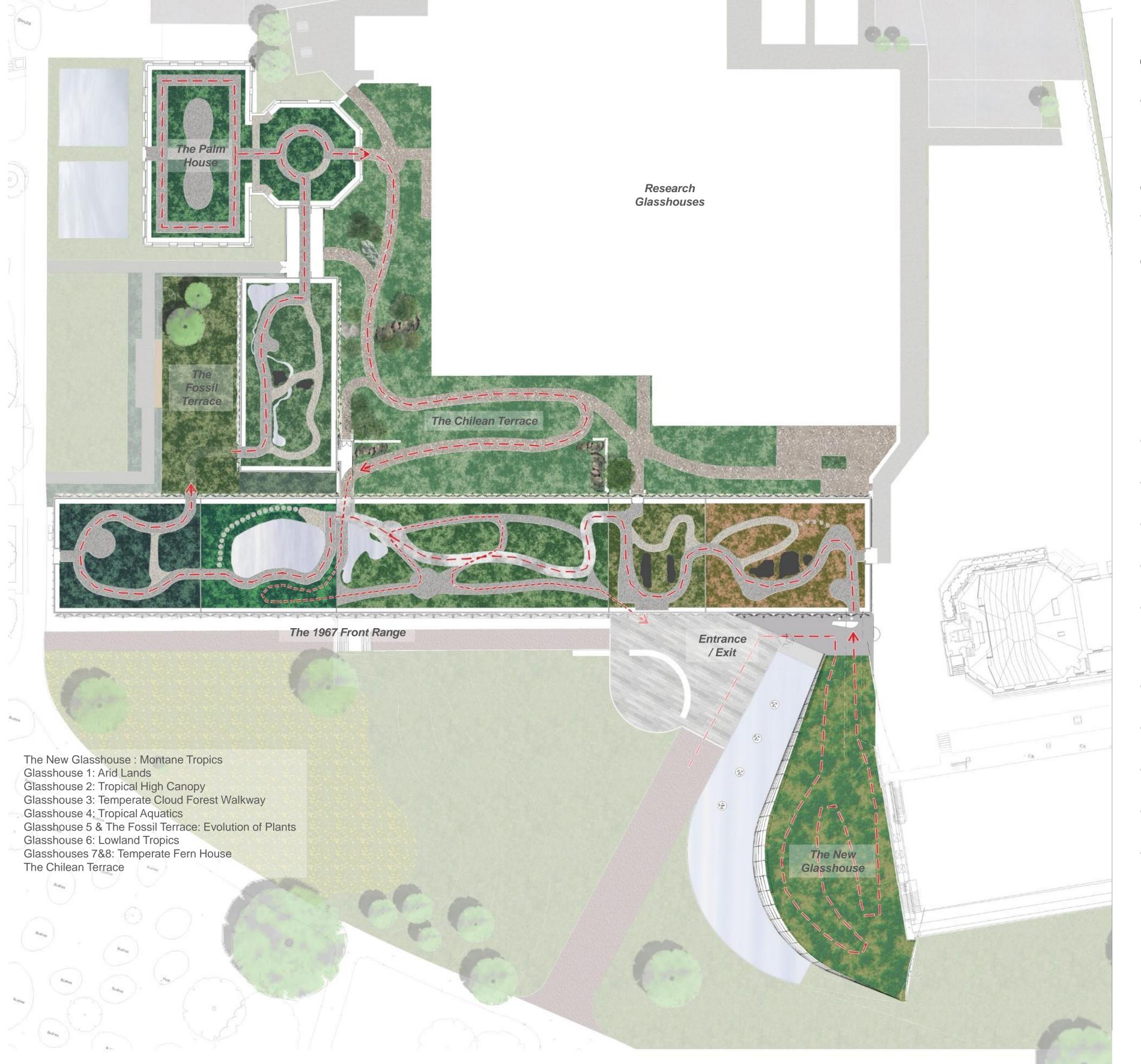
It is proposed to neatly integrate services for the Herbarium. The RBGE have defined core temperature ranges which the building and sevices will be designed to provide measures are to be incorporated to control and manage the environment and most importantly to guard against the spread of disease in plants.



Long Section

Visitor Experience





The Visitor Journey

The revitalisation will allow a reimagining of the Glasshouse visitor experience. The Biomes concept allows the visitor to explore and better understand the world of plants and the importance of the conservation and research work undertaken at The Royal Botanic Garden Edinburgh.

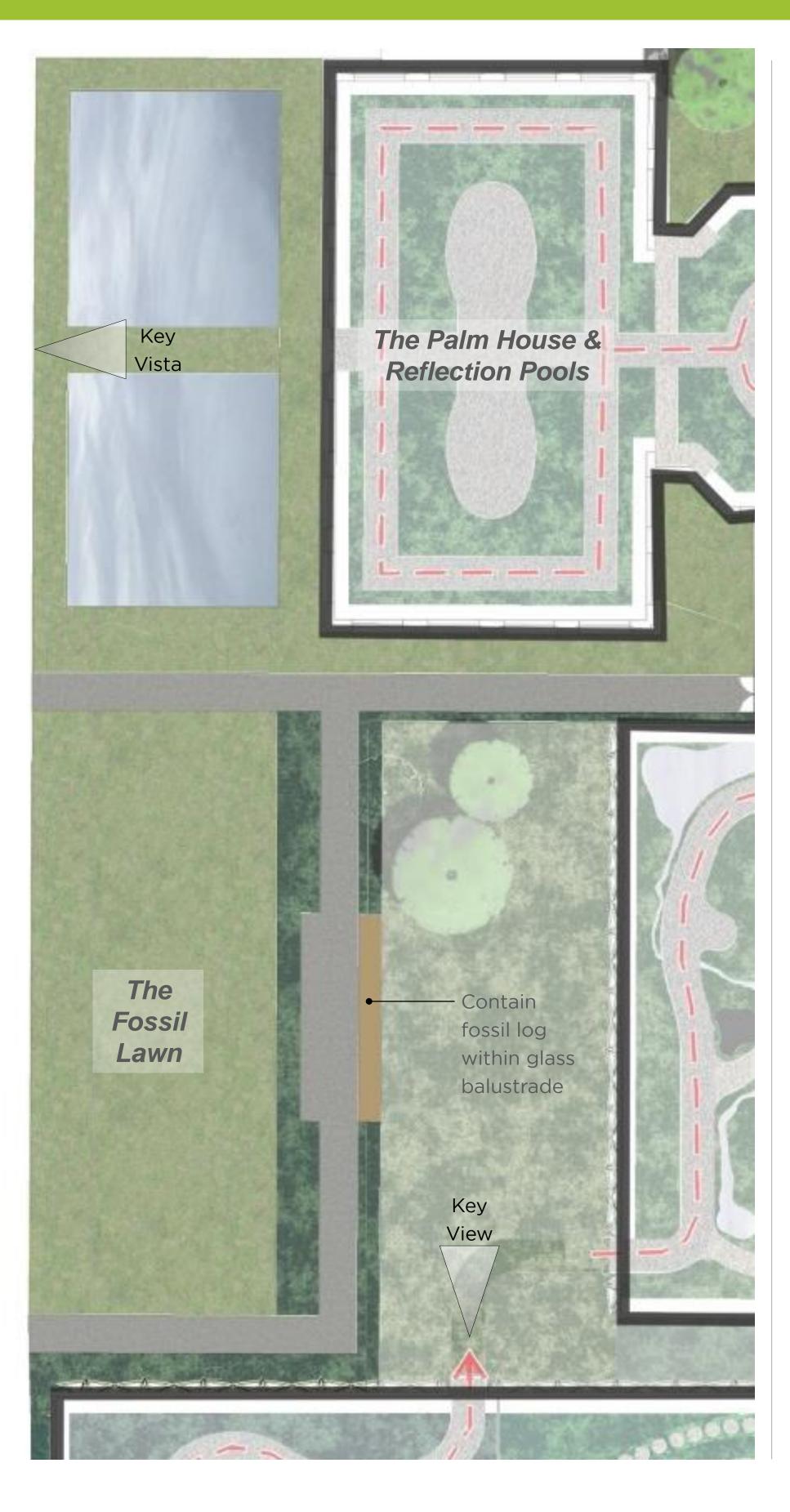
Proposals will:

- Communicate the RBGE Mission & purpose
- Create an immersive visitor experience
- Establish a clear and accessible route
- Demonstrate different Biome Living Landscapes
- Improve understanding of the importance of biodiversity
- Convey key visitor messages
- Develop & enhance the educational resource
- Punctuate the route with key highlights
- Create a new canopy walkway
- Establish a connection to the Fossil Lawn



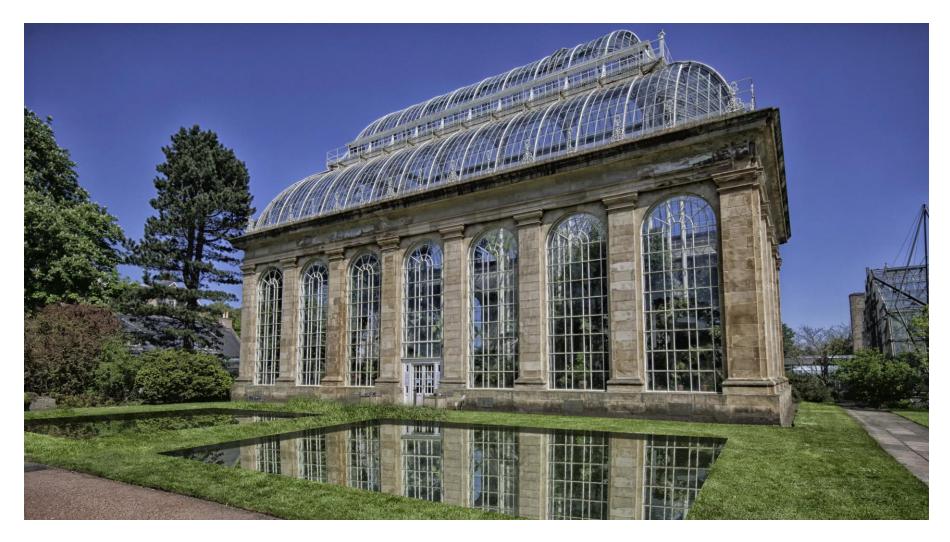
Landscape Proposals





Palm House & Fossil Lawn externals

- Establish reflection pools to celebrate the architecture of the Palm House.
- Reflect historic vista with symmetrical pools.
- Establish external space focused on fossil log as part of the visitor journey.
- Provide key view to Palm House



Front Range Lawn

- Lead visitors to the new Edinburgh Biomes Glasshouse experience entrance and exit point.
- Retain existing Listed 1967 Front Range steps.
- Create spill out from café space.
- Reprofile landform to enhance visitor arrival.
- Introduce larger area of wildflower meadow.
- Retain mature specimen trees.



Construction Phasing



The construction works at the Nursery and North East Corner will be phased and are currently envisaged to take approximately seven years. This period involves the sensitive management of demolition, construction and decanting of the RBGE's significant plant collection. The programme is outline at this stage and still being developed. During construction, RBGE and/or the appointed Contractor can keep the local community up to date on progress and any envisaged programme changes.



PHASE 1 (SEPTEMBER 2020 - SEPTEMBER 2021)

- CONSTRUCTION OF PLANT HEALTH SUITE (NURSERY SITE)
- CONSTRUCTION OF ENERGY CENTRE (NURSERY SITE)
- HAUL ROAD (DELIVERED IN TWO STAGES)
- TEMPORARY DECANT FACILITY AND CONTRACTORS COMPOUND

PHASE 2A (MARCH 2021 - JULY 2022)

- CONSTRUCTION OF NEW GLASSHOUSE FOR TEMPORARY PLANT DECANT
- DEMOLITION OF NORTH WALL BUILDINGS, HORTICULTURAL FACILITY AND FIRST PHASE OF RESEARCH GLASSHOUSES
- REFURBISHMENT OF ESTATES HERITAGE BUILDING
- CONSTRUCTION OF HORTICULTURAL SHEDS

PHASE 2B (OCTOBER 2021 - OCTOBER 2022)

- DEMOLISH BOILER ROOM AND QUARANTINE BUILDINGS
- CONSTRUCTION OF NEW NORTH BLOCK
- CONSTRUCTION OF FIRST SECTION OF RESEARCH GLASSHOUSES

PHASE 2C (DECEMBER 2022 - SEPTEMBER 2024)

REFURBISHMENT OF EXISTING PALM HOUSES FOLLOWING DECANT OF PLANTS
 TO NEW RESEARCH GLASSHOUSES AND NEW GLASSHOUSE

PHASE 3 (DECEMBER 2022 - NOVEMBER 2023)

- DEMOLITION OF SECOND PHASE OF RESEARCH GLASSHOUSES
- CONSTRUCTION OF SECOND SECTION OF RESEARCH GLASSHOUSES

PHASE 4 (JANUARY 2023 - MARCH 2027)

• REFURBISHMENT OF 1967 FRONT RANGE (INCLUDING LINK TO NEW GLASSHOUSE) FOLLOWING DECANT TO NEW RESEARCH GLASSHOUSES AND NEW GLASSHOUSE

PHASE 5 (JANUARY 2025 - MARCH 2027)

- DEMOLITION OF LAST REMAINING RESEARCH GLASSHOUSES AND FLETCHER BUILDING
- CONSTRUCTION OF EDUCATION BUILDING
- NEW GLASSHOUSE FIT OUT



Environment



Biodiversity

Daytime and nocturnal bat surveys were undertaken in August/ September and further survey work is proposed in peak bat season (May–June 2019). As roosting bats are suspected on site an SNH licence will be sought prior to any building demolition/ tree felling. A mitigation strategy will ensure bats are not harmed during works and that roosting opportunities remain. Additional ecological studies are being progressed to assess the presence of protected species or habitats within and adjacent to the site.

Tree Protection and Retention

A Tree Survey has been undertaken by the RBGE to establish the extent and condition of tree cover within and immediately adjacent to the site. A Tree Protection Plan will outline the Construction Exclusion Zones required to ensure successful retention of trees. Appropriate consent will be sought from the Council prior to any works to trees or tree felling.

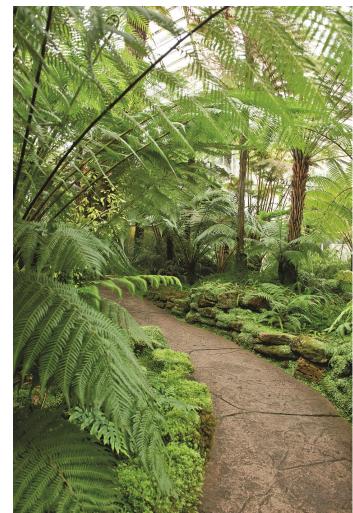
Landscape and Visual Impact

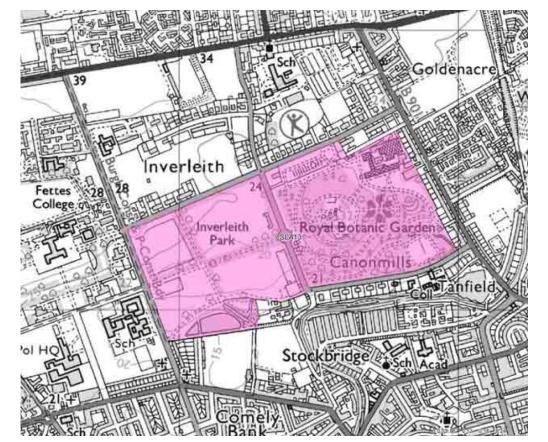
The site lies within the Inverleith Special Landscape Area. Given the high sensitivity of the immediate and wider surroundings of the RBGE, the magnitude and nature of the likely significant effects will be an important consideration. A Landscape and Visual Impact Assessment will be undertaken and submitted as part of the detailed application.











Inverleith Special Landscape Area (SLA13)



Design Team Response to Key Comments Made at Consultation Event no. 1



The first Consultation Event was held on 22nd of November 2018. It was advertised in the Edinburgh Evening News and posters were put up in the local area. 1000 leaflets were distributed locally and the event was advertised on the RBGE website and through social media channels.

Those who attended, contributed to the development of ideas; highlighted areas of concern and challenges; and expressed local needs and preferences. A summary of issues raised along with the design response is tabulated below.

Residential Amenity		
Concern about the Education Building overlooking gardens on Inverleith Row	Due to site levels, the Education Buildings will be two storeys above the highest existing surrounding ground level. The windows of the Education Building will be a minimum of 12m from the boundary wall and a minimum of 32m from the rear windows of the closest properties on Inverleith Row - meeting CEC policy/guidance requirements.	
Interrupted views of the Palm House from houses on Inverleith Row	The Education Building scale and location have been selected to balance current and future RBGE operational demands with CEC policy/guidance on residential amenity, sunlight/daylight and protection of the Conservation Area. Interruption of views will be kept to a minimum whilst ensuring an appropriate balance is met.	
Green Roofs on the buildings to the north wall would be welcomed.	The use of green roofs is being explored however experience elsewhere within the RBGE estate suggests green roofs can involve a significant ongoing maintenance cost which would not benefit RBGE operations going forward.	
Unsociable Operating Hours	Operating hours of the enhanced facility are yet to be determined.	

Construction Management

Residents by the North Gate concerned about blocked driveways, damaged pavements, double parking, portacabins and loss of parking spaces.

North gate vehicle access should be reconsidered as it would be problematic for neighbours and the proposed formal cycle path.

Arboretum Place suggested as an alternative construction access.

If the North Gate were to be used it should be manned at all times to control traffic and pedestrians.

Information required on the management of proposed roadworks on Inverleith Place and concern regarding general disruption caused by construction.

A contractor's compound will be identified within the site to allow for construction vehicle parking and storage. Some parking will also take place within pay and display parking bays on the public road.

Arboretum Place was considered for construction vehicle access however it has been discounted given the greater disruption it would cause to public access within the Garden.

Access/egress through the North Gate will be controlled during the construction process to ensure pedestrian/cyclist safety.

Mitigation of construction phase impacts on existing residential amenity will be addressed through a Construction Environmental Management Plan (CEMP) and Construction Traffic Management Plan (CTMP), the scope of which will be agreed with CEC Environmental Health Team. The documents will largely relate to issues of noise, dust and traffic management.

The following boards have been prepared to provide some further detail in response to specific areas of concern raised at the first event:

- Residential Amenity
- Key Views from Neighbouring Properties
- Construction Management



Design Team Response to Key Comments Made at Consultation Event no. 2



The second Consultation Event was held on the 10th of January 2019. It was advertised in the Edinburgh Evening News and posters were put up in the local area. 1000 leaflets were distributed locally and the event was advertised on the RBGE website and through social media channels.

Those who attended, contributed to the development of ideas; highlighted areas of concern and challenges; and expressed local needs and preferences. A summary of issues raised along with the design response is tabulated below.

Event Advertisement

Comments received regarding the lack of awareness and response from the general public/local residents. Suggested that leafleting is undertaken well in advance of residents. Posters were also put up in Jan 31st and possible press release in The Scotsman and Edinburgh Evening News.

1000 leaflets were distributed locally on the 21st of January to ensure sufficient prior notice was served to local local shops and cafes etc advertising the third event.

Views from residential properties

Residents from Inverleith Place and Inverleith Row were concerned about the introduction of new buildings/modern architecture and how this would impact the view from the rear of their properties into the RBGE - specifically towards existing Heritage Glasshouses.

A series of visualisations have been set out within this third consultation event to provide an indication of expected views from a number of residential properties.

Tree Felling

Tree felling noted as a sensitive issue in Edinburgh. A plan for the removal/ replacement of trees removed required.

A detailed Tree Survey has been completed to establish a baseline and understand the quality, quantity and value of trees within the site. A Tree Protection and Removal Plan will be submitted as part of the application in conjunction with the Landscape Strategy for the site.

Parking

Resident parking was noted as an issue, particularly during high visitor volume times. There was a concern that construction will aggravate this and a number of amendments to the parking restrictions on Inverleith Place were suggested for the duration of the construction:

- Provide more permit parking spaces, particularly on the North Side of Inverleith Pl between from 36 Inverleith Pl to the miniroundabout.
- Reduce the extent and maximum length of visitor parking on both sides from 9 hours to 4 hours.

It was suggested that car parking for workers should be in the Nursery car park area.

The limited number of parking spaces within the Nursery are used to satisfy staff parking requirements.

RBGE appreciate that parking around

Changing parking restrictions is outwith

raised with City of Edinburgh Council as

the control of RBGE and an issue to be

the facility can be an issue.

roads authority.

New Pools

Comment around the variety of plants and insects in and around the new pools. It was noted that the pools behind the John Hope Gateway appear sterile and this shouldn't be repeated. Perhaps organisations such as the British Dragonfly Society could be involved.

The pools beside the Palm House are reflecting pools and as such need to be of a simple form. The pool beside the new glasshouse is a functional requirement to allow for the cooling of the glasshouse building. The scope for additional biodiversity within these pools may therefore be limited.

If fencing is to be introduced around the pools for safety, it would be better to design it early rather than bolt on something out of keeping at the end of construction.

Noted, this will be considered at the detailed design stage.

Biosecurity

Vehicles moving to and from the construction site - mitigation required to reduce risk of bringing plant pathogens into the Garden.

Measures will be put in place at the site entrance to control the likelihood of spread of pests and diseases threatening the living collection and wider environment.



Design Team Response to Key Comments Made at Consultation Event no. 2



Construction Timescales

More definitive and measurable timescales were requested to reduce ambiguity and allow for efficient oversight. This should also apply to any formal project documentation such as the CEMP and the CTMP.

It was noted that it would be reassuring if residents were given a more specific timetable of works and the times during the year when there would be major activity through the North Gate.

Concern that the construction period will be longer than the five years that has been stated.

A detailed project plan was requested with information on:

- various project phases including when access to the North Gate will be required.
- The number of months per annum that access will be used for the North Gate.
- The maximum number of workers, including main contractors and subcontractors, who will be working on the project within the main RBGE site.
- The maximum size of lorry that will be using the North Gate.
- The maximum number of traffic movements in any one day.

Construction is currently envisaged to take up to seven years. The programme, which is outline at this stage and still being developed, is set out on one of the consultation boards.

During the construction phase, RBGE/Appointed Contractor can keep the local community up to date on progress and any envisaged programme changes.

This will be considered and be responded to when a contractor is • The proposed length of the project and the on board to deliver the Edinburgh Biomes Project.

Construction Access	
It was noted that the North Gate entrance should be manned at all times during the working day to direct traffic in and out of the site and to control pedestrians and cyclists (especially if the proposed cycle path on the south side of Inverleith Place is introduced). The impact of rush hour traffic on traffic movements into the North Gate entrance should be considered. Possible mitigation could involve a controlled access which would only allow access between 9.30am and 4pm on weekdays and after 9.30am on Saturday. Request that some smaller scale construction vehicles use the Inverleith Place Lane entrance to help reduce the amount of traffic entering the site at the North Gate. Request that there should be no parking of construction vehicles on Inverleith Place	
waiting to enter the site with or without	
engines running.	
Construction Management - Amenity	<u>T</u>
Concern raised with regards to likely construction hours noted (8am-6pm) with 6pm considered too late.	Construction hours will be agreed with City of Edinburgh Council Environmental Health and are expected to be in line with the Council's standardised approach to the control of noise issues and the protection of residential amenity.
Request that local residents are given a named contact to discuss any unforeseen	This can be provided at the construction stage.

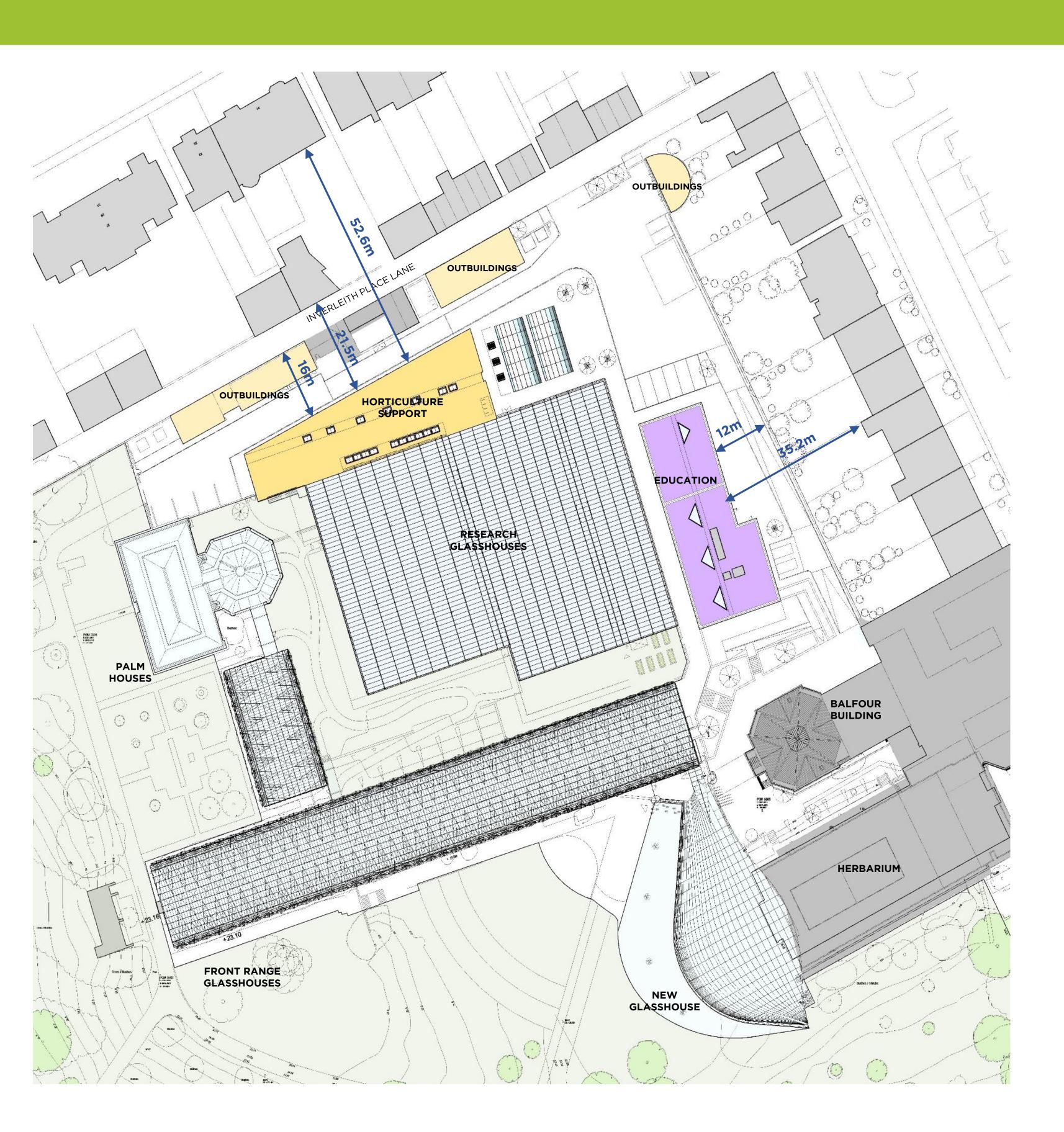
issues with, as they arise.



Residential Amenity Daylight, Sunlight, Privacy & Immediate Outlook



Botanic Garden



Edinburgh Design Guidance (October 2018) and Guidance for Householders (March 2018) seek to ensure that the amenity of neighbouring developments is not adversely affected and that future occupiers have reasonable levels of amenity in relation to: Daylight, Sunlight and privacy and immediate outlook.

Daylight and Sunlight to Existing Buildings

Daylight and sunlight analysis has been undertaken. Given the scale of the Education Building and Horticultural Support Building, their distance from the boundary wall/neighbouring garden ground and from existing buildings on Inverleith Row/Inverleith Place Lane, CEC sunlight and daylight requirements will be met.

Privacy

18m is the minimum recommended distance between windows, usually equally spread so that each property's windows are 9m from the common boundary.

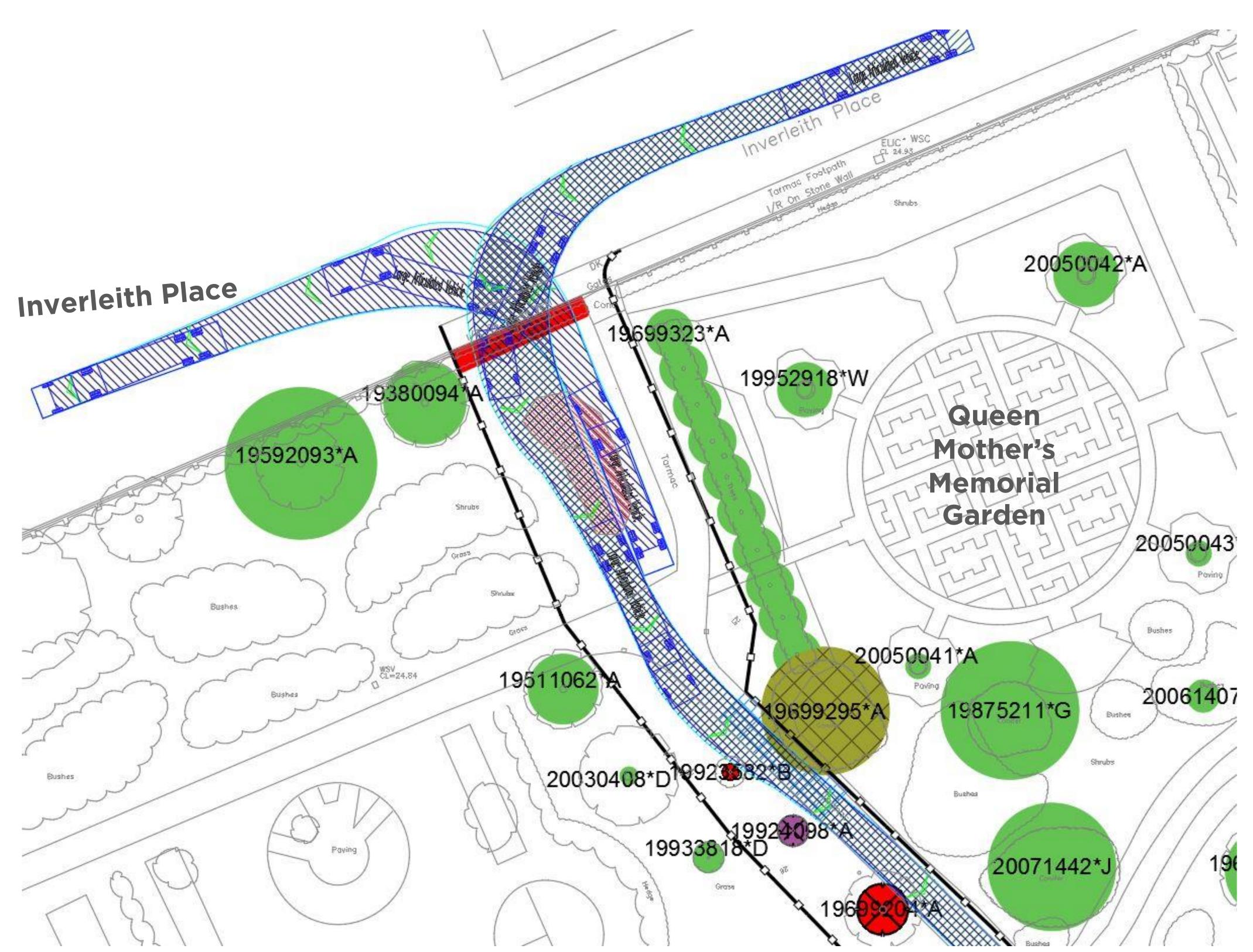
- The minimum distance between windows on the Education Building and the boundary wall of properties on Inverleith Row is approx. 12m and the minimum window to window distance is approx. 32m.
- The minimum window to window distance between the Horticultural Support Building and the properties on Inverleith Place Lane is approx. 21.5m.
- In addition to meeting the CEC distance requirements, the nature of the 2-3m stone built boundary walls will assist with the protection of amenity.

Immediate Outlook

CEC Guidance for Householders states that although private views will not be protected, the foreground of what can be seen from within a building may be, meaning that new development that blocks the immediate outlook of a dwelling must be avoided. Particular care has been taken in the siting of the proposed buildings to ensure they are as far back from the boundary as possible to accord with CEC Guidance.

Construction Management - Access





A Traffic Management Plan will be prepared to include the following:

- a) Planning and managing both vehicles and pedestrian routes
- b) The elimination of reversing where possible
- c) Safe driving and working practices;
- d) Protection of the public
- e) Adequate vision and lines of sight
- f) The provision of signs and barriers
- g) Adequate parking and offloading/storage areas

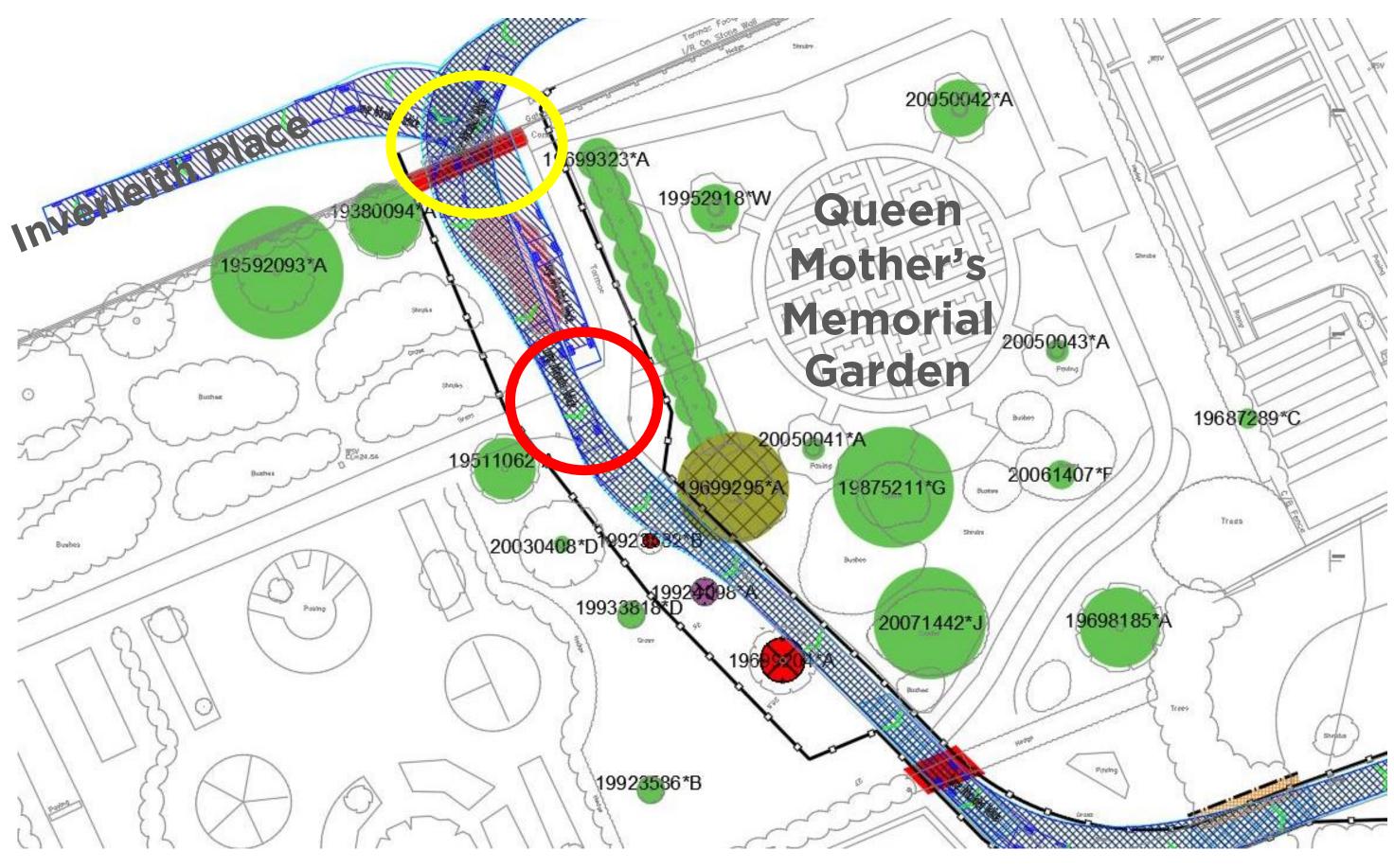
Construction access will be subject to further detailed design. The vehicle tracking presented assumes a large articulated vehicle accessing the site. Most construction vehicles will typically require lower levels of access and manoeuvrability.

Controlled access will also provide for vehicle waiting onsite so as not to interrupt traffic flows on Inverleith Place.



Construction Management - Access







- Controlled access
 point to support site
 security and
 pedestrian/cycle user
 safety.
- Temporary removal of listed fence and gates to be reinstated upon conclusion of works.
- Formation of turning radii suitable to meet HGV ingress/egress.



Managing Visitor Access to the Queen Mother's Memorial Garden during construction

 Access to memorial garden to be maintained when possible during the construction process.



Inverleith Place looking west

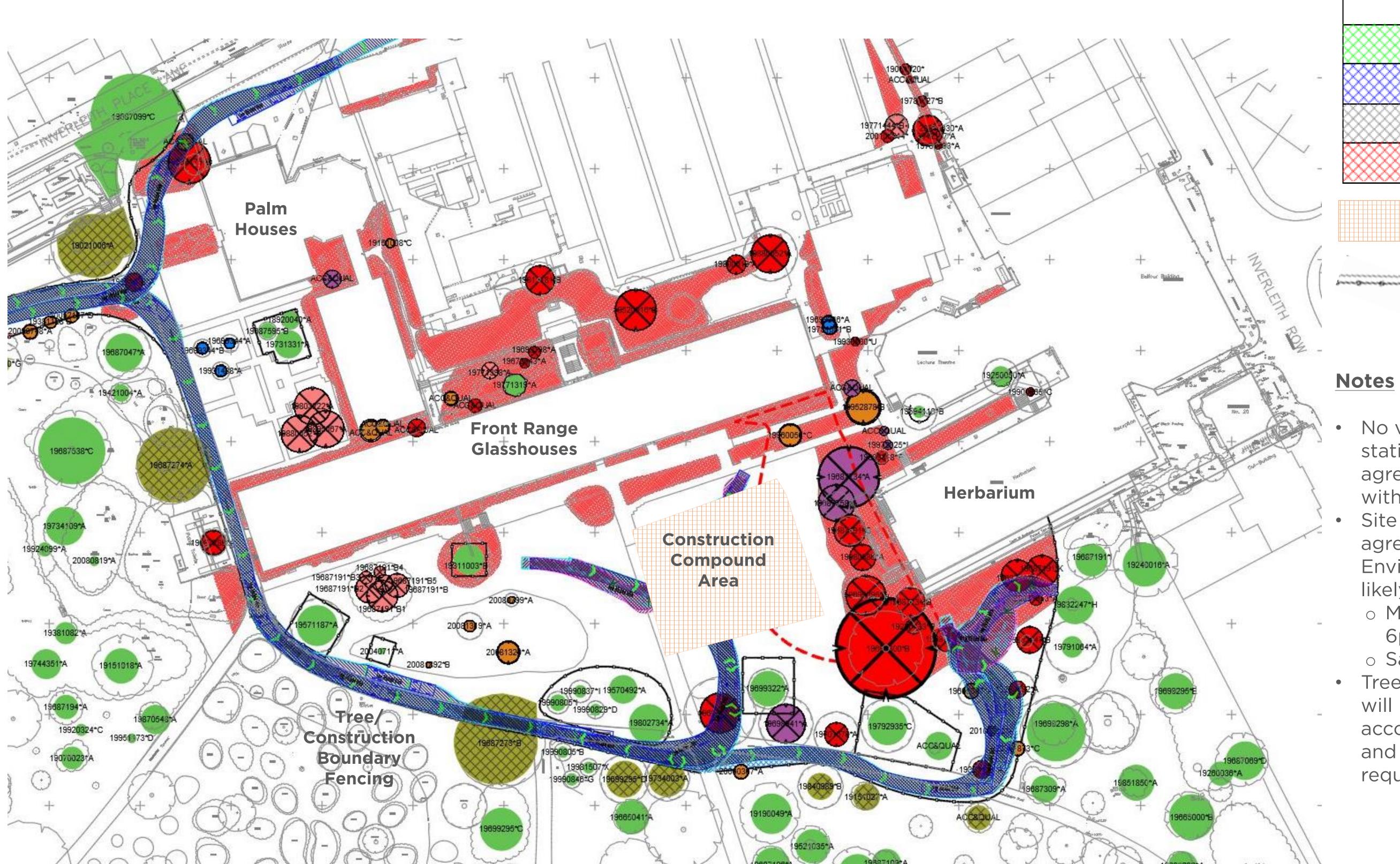


Inverleith Place looking east



Construction Management





Tree categories		
	Category A	
	Category B	
	Category C	
	Category U	

Construction Compound Boundary Fencing

> Tree/ Construction Boundary Fencing

- No vehicles or plant to be stationed outside of the agreed site boundary without contractor approval.
- Site working hours shall be agreed with CEC Environmental Health but likely to be:
 - Monday to Friday 8am -6pm
 - Saturdays 8am 1pm
- Tree protection and removal will be reviewed taking into account Tree Survey findings and construction requirements.



Next Steps



Thank you for taking part in today's consultation event.

If you have any questions, or wish to discuss any issues further, please ask a member of our team.

Next Steps

- The Design Team will consider all the comments received today and finalise proposals in light of these.
- If you need more time, please feel free to take a comment form away with you and return to us by Wednesday the 6th of February 2019 to the following address Edinburgh Biomes, c/o Albert Muckley, Ironside Farrar Ltd, 111 McDonald Road, Edinburgh, EH7 4NW or email your comments to albert.muckley@ironsidefarrar.com
- A detailed Major Development application for the proposed works at the Garden will be submitted by the end of February 2019.



Comments made at this consultation event are not official representations to City of Edinburgh Council (CEC) as planning authority but will be recorded in a report to the Council. Once the planning applications have been submitted there will be a further formal opportunity to comment to CEC's Planning Service.

