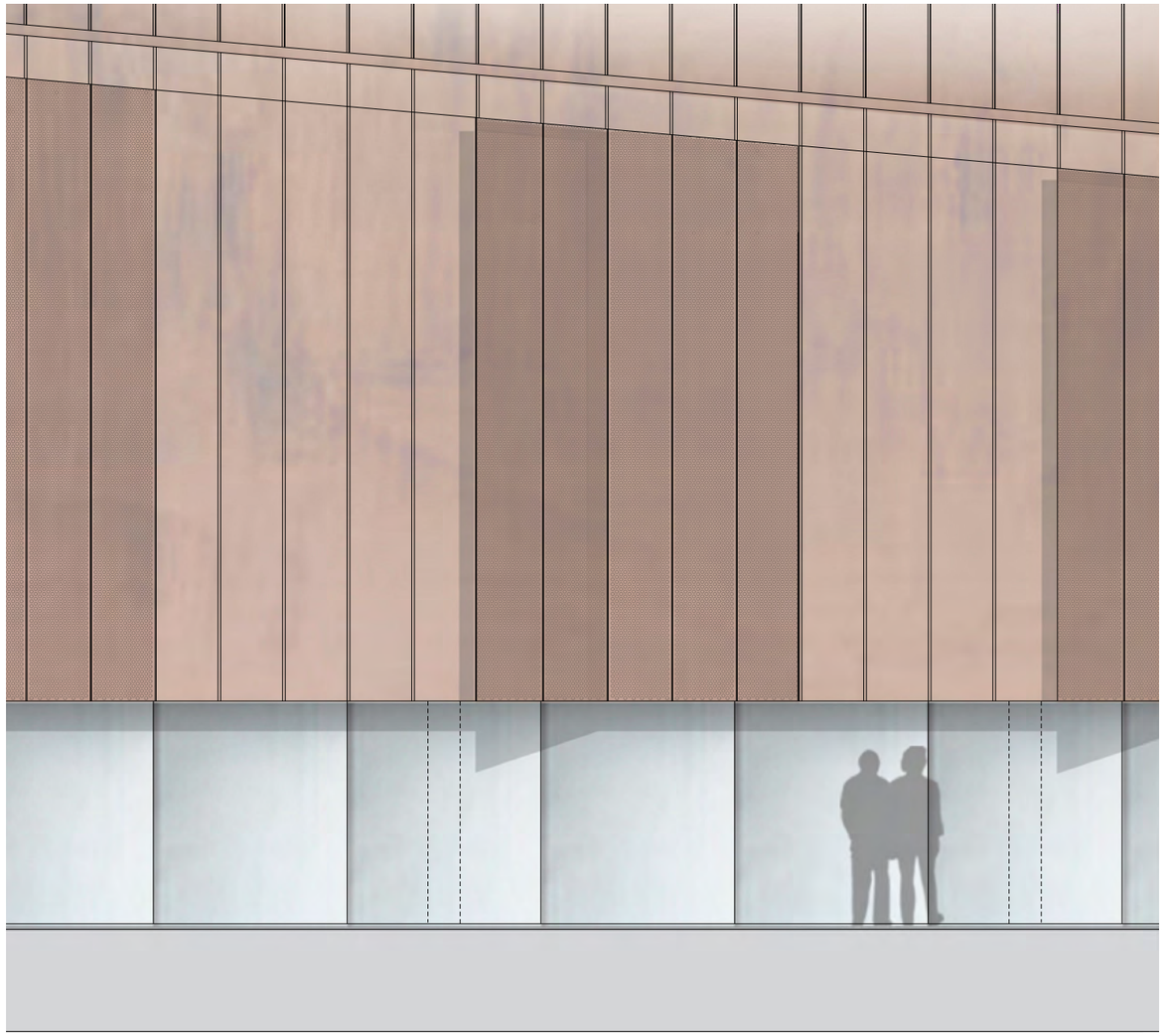
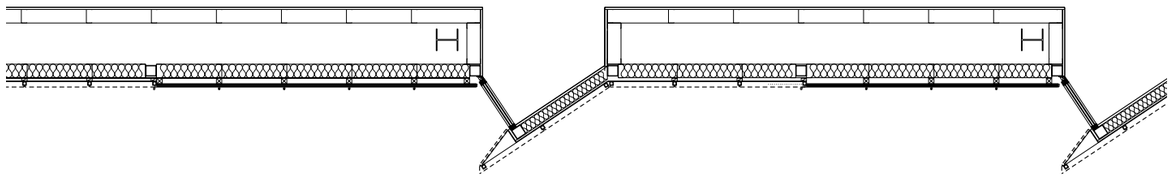
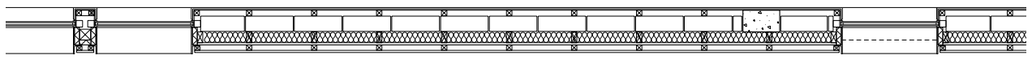


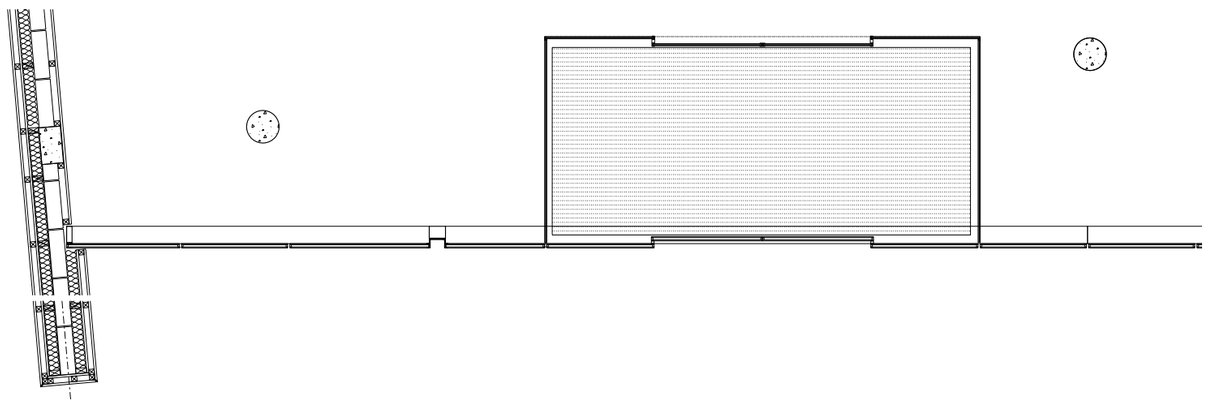


Detail Extract of the West Elevation

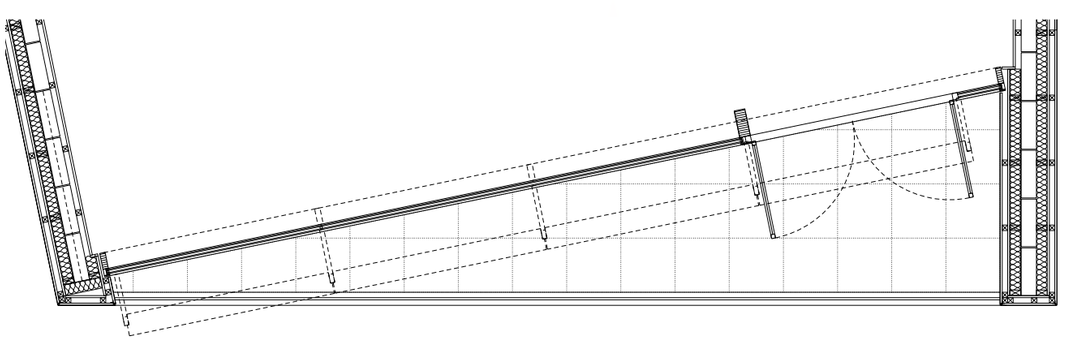


Detail Extract of the East Elevation

9.0 Materials and Construction



Detail Extract of the North Elevation & Plan at Entrance



Detail Extract of the South Elevation & Plan at Studio

Composition of the External Louvre

Interior View at Competition

9.2 Internal Materials Palette

The use of robust materials is proposed to the interior of the building: such as exposed concrete, painted plasterboard, timber and steel. The internal material palette needs to be hard wearing and aesthetically pleasing, to respond to the difficult environment, the frequency of use, frequency of deliveries, equipment movement and high humidity level in general.

The key structural element for the building is a long span (north-south), multi pitched curved and twisted roof. The roof spans over the pool area and receives intermediate support between the competition and leisure areas. The roof structure is comprised of bespoke fabricated steel plate box girders, derived from bridge technology, the profiles are shaped to reflect the roof geometry and to maximise the light coming through the clerestory glazing. They will be constructed off site, transported either by sea or land. Between the primary beams, a timber deck will be used to support the roof insulation and finishes and will form the exposed soffit to the main pool areas. The specification finish of the steel will be very important to ensure that the humid environment does not cause long term corrosion.

Timber is an ideal material to be used as soffit finishes for this difficult environment and the panels can be pre finished for minimal on site preparation.

10.0 Environmental Design & Sustainability

10.1 Building Systems

The sustainability and environmental performance of the building is very high on the agenda. The aspiration is to achieve BREEAM ‘Very Good’. With the help of AECOM, we have developed a series of systems aiming to reduce the carbon emissions of the building:

Firstly to ensure that the building form and materiality is appropriate to maximise the passive design opportunities with a view to designing out mechanical solutions where ever possible.

Secondly to ensure that the mechanical, electrical and water filtration systems installed are all state of the art, utilizing the best and the most efficient technologies available.

Thirdly to supplement the systems in place with the most appropriate green technologies that maximise energy generation on site.

By reducing the volume of building’s energy-in use an opportunity is created to generate the bulk of what is required by the on-site renewable application.

As a coastal, high thermal load based, multi function and variable frequency occupancy development that has a constant demand, Worthing Pools require a robust, reliable, maintainable and accessible system that is based on recyclable heat generated in main by a renewable source.

Having assessed the loads and carried out a feasibility study, we propose to supplement the Combined Heat and Power (CHP) generator with a reversible heat pumps coupled with a closed loop borehole field for all the heating and cooling requirements.

View from Brighton Road looking East

10.2 Energy Statement

The Worthing Aquarena development includes the provision of internal swimming pool facilities, and will therefore have a requirement for heating all year, in order to heat the pool water and maintain internal environmental conditions commensurate with such a facility. The extent of space heating required by the development will fluctuate throughout the year, depending on the external ambient temperature.

Although it is understood that there is no target for the reduction of CO2 emissions, or any requirement to provide renewable energy or low carbon technologies to satisfy planning requirements, in order to limit the CO2 emissions from the development, suitable technologies have been identified by AECOM, and will be employed within the building. Additionally, heat-recovery systems will be provided within the primary heating and mechanical ventilation plant wherever possible, to capture useful heat and limit the energy consumed.

The heating requirements of the building will generally be satisfied by gas-fired condensing boiler plant, however, it is intended that a Combined Heat & Power (CHP) will also be provided with sufficient capacity to offset the 'base' heating load of the building. The electricity generated by the CHP unit during the heat generation process will normally be consumed within the building.

The development does have a requirement for mechanical cooling, albeit not in the pool halls, and it is likely that these cooling requirements will be satisfied by employing a Ground Source Heat Pump (GSHP), comprising heat-exchangers accommodated within the structural foundations of the building. The GSHP will have the ability to provide cooling for use within the building when demands dictate, and useful heat for use within the building at all other times. In the event that site investigations reveal the ground conditions are not suitable for a GSHP, a high efficiency air-cooled chiller will be utilised to satisfy the cooling requirements of the building.

Where fans and pumps are provided for the purposes circulating air and heating / cooling water throughout the building, they will employ variable speed / inverter controlled motors, to further increase the energy efficiency of the engineering services systems.

10.3 BREEAM Statement

Worthing Pool is being assessed under the BREEAM Bespoke 2008 scheme. The client would like to target a "Very Good" rating.

The BREEAM assessment process is a two stage assessment. The interim certificate is awarded at the end of Stage E, prior to the start of construction. This is an assessment of the design intent. The final certificate is awarded once construction has been completed; this demonstrates that all the sustainability initiatives that were included in the design have been implemented in the completed building.

A review of the current design proposals was carried out on 22 February 2010 to establish which credits the design team should target to achieve "Very Good" rating and which additional credits would need to be targeted in order to achieve an "Excellent" rating.

This review has been carried out at Stage C and at this stage there are the following risks associated with targeting individual credits:

• For some credits there is insufficient information at Stage C to determine whether the credits can be achieved at design stage;

• For some credits they can be targeted by the design team, but it is up to the contractor to ensure that they are implemented successfully;

• Some credits require commitment from the client/end user in terms of ongoing maintenance;

• The BRE has not finalised the credits that will be included within the bespoke assessment, therefore they may include or exclude some of the credits that are shown at this stage.

10.4 Ventilation Statement

The new Aquarena facility comprises a ‘light’ commercial kitchen at ground floor level adjacent to Reception. The intention is that this facility will be used for ‘light’ cooking and food preparation only. Any cooking equipment will comprise electric heating only, i.e. – no gas will be utilised within the kitchen. The exact equipment details are to be confirmed at the next stage of design.

The kitchen area will be provided with mechanical supply and extract ventilation, capable of satisfying the minimum recommended ventilation rates, outlined within HVCA document DW 172 (2005). The intention is to satisfy the complete extract ventilation requirements of the kitchen by drawing stale air through a single ‘induction’ type cooking canopy, positioned over the cooking equipment. From this point, the extract air will be hard ducted to roof level, where it will discharge to atmosphere. Supply air, equating to 85% of the total extract volume, will be hard ducted to the kitchen and will be introduced into the space via the front fascia of the induction canopy. The remaining make-up air will be drawn from adjacent spaces.

10.5 Foul Sewerage Assessment

Drains and Sewers

Southern Water was contacted in order to ascertain the location of the foul and surface water drainage in relation to the development site.

There is currently one foul sewer, a 375mm vitrified clay pipe, and one surface water sewer, a 300mm vitrified clay pipe located within Brighton Road which would receive discharges from the development.

A network analysis of the existing local public sewerage networks will need to be undertaken by Southern Water. These will indicate if there is sufficient spare flow capacity within the surface water and foul water sewer to accommodate the following design flows from the proposed development:

Proposed Foul Water Discharge	8.47 litres per second.
Proposed Surface Water Discharge	130.9 litres per second.

Foul Drainage

The new development will require a new foul water drainage system discharging to the existing public foul sewer located within Brighton Road. The new foul water drainage system will be provided beneath the basement plantroom and ground floor slab to collect the waste discharge from the various soil stacks serving the development. A sewage pumping station comprising run and standby pumps will be provided to receive the discharge from the foul water drains and pump to high level within the basement plantroom where it will gravitate into the local authority sewer in Brighton Road. Detailed drainage design will be undertaken in consultation with Southern Water regarding invert levels, existing capacity of sewers and proposed additional flows.

The system will be ventilated to atmosphere through soil stacks provided as part of the above ground sanitation system. Where manholes are to be located within the building there covers are to be of the double seal type to prevent toxic gases from escaping into the building. Access to the system will be provided by the use of manholes at branch connections and changes in direction to allow the system to be properly maintained and for blockages to be removed.

Kitchen areas with appliances discharging grease contaminated waste water should be connected to a grease converter (grease trap) before discharging to drainage system.

Plantrooms containing water using equipment will have floor gullies located adjacent to the equipment for which they serve. Where possible these floor gullies will be connected by gravity to the general foul water system. Where the plantrooms are located in areas or levels prohibit the use of a gravity system then the discharge will be collected into sump chambers that will have run and standby pumps pumping the discharge from the chambers into the suspended system, gravitating to the local authority sewer in Brighton Road.

To compensate for the possible large amounts of water discharged during the back wash cycles of the pool filtration plant, a holding tank of sufficient volume (approx 40m3) is to be provided to allow the flow into the foul system to be regulated. This will avoid the need to oversize drains and the sewage pumping station to accommodate these large flows. Quantity and timing of discharge shall be agreed in advance with Southern Water.

The system shall be designed and installed in accordance with BS EN 12056 Parts 1-4 as a minimum.

Surface Water

The new development will require a new surface water drainage system discharging to the existing public surface water sewer located within Brighton Road. The new surface water drainage system will be provided beneath the basement plantroom and ground floor slab to collect the rainwater discharges from the various down pipes discharging surface water from the development. A pumping station comprising run and standby pumps will be provided to receive the discharges from the surface water drains and pump to high level within the basement plantroom where it will gravitate into the local authority sewer in Brighton Road. Detailed drainage design will be undertaken in consultation with Southern Water regarding invert levels, existing capacity of sewers and proposed additional flows.

The roof design including falls shall be designed by the Architect. Based on this design, a system of conventional rainwater gutters, outlets and down pipes shall be provided to drain all roof / plant areas.

All rainwater pipes shall be located in accessible positions for future maintenance should it be required. Rainwater gutters and roofs shall be provided with a provision for overflow to protect the building fabric should the design rainfall intensity be exceeded and to indicate blockage of roof outlets and gutters.

Overflows shall be located where they are easily seen. All roof areas shall be provided with at least two rainwater outlets. Rainwater pipes shall be generally located in riser ducts, plant rooms and kept to a minimum in ceiling voids. Access shall be provided at all changes of direction, on long vertical rainwater pipes access shall be provided at every other floor as a minimum. Rainwater pipe work within riser / ceiling voids / occupied areas shall be insulated.

The system shall be designed and installed in accordance with BS EN 12056 Part 3 as a minimum.

10.6 Air Quality Statement

The Aquarena site is located adjacent to Brighton Road, the A259, a Local Air Quality Management Area, (LAQMA). Due to the volume of traffic using the road it is anticipated that the additional number of parking spaces proposed will not decrease the air quality in this area.

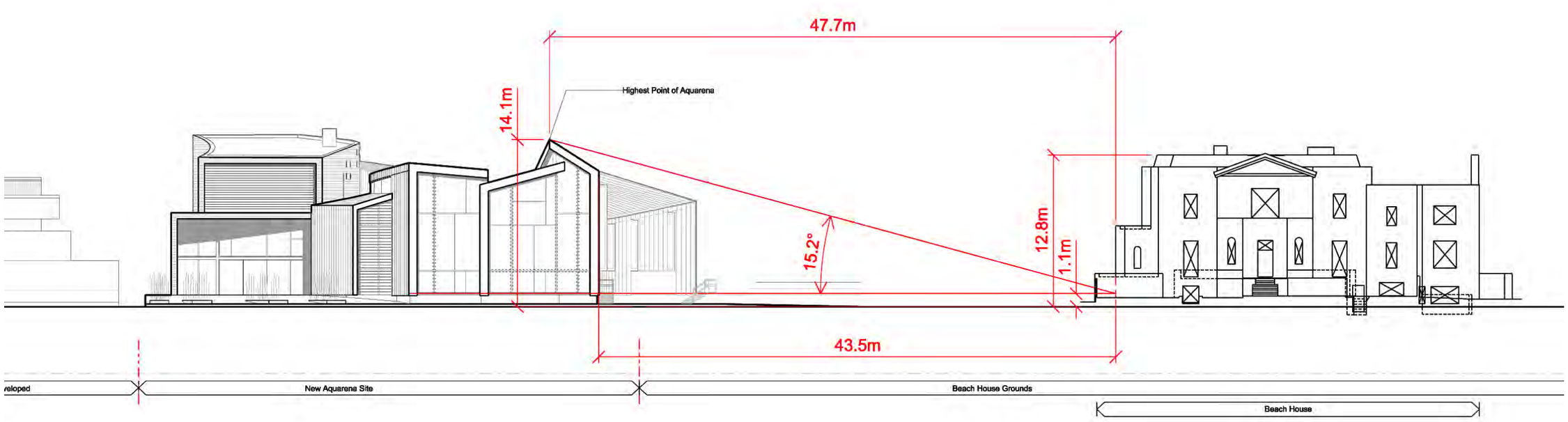
Due to the environmental demands on the internal spaces within the building especially the pool environments, it is not possible to propose a naturally ventilated building. It is therefore proposed to mechanically introduce treated air to all the spaces from the southern seaside elevation where pollution levels are lower and the air quality would be acceptable for this use. Extract air from within the building will be expelled along the eastern edge of the building at low level.

10.7 Daylighting/Sunlight Assessment

The BRE guidelines have a methodology for assessing daylighting and sunlight levels to neighbouring properties where the internal arrangements are not known.

The first test in the methodology is to strike a line at an angle of 25° from the centre of the lowest existing windows or 2m above ground floor level. If the profile of the proposed building subtends an angle greater than 25° then the second Vertical Sky Component test needs to be applied. If the proposed development is below the 25° angle then good daylight and sunlight levels should be obtained and no further assessments are required.

The section drawing shows that all the windows to Beach House residence pass the BRE guidelines 25° test, which shows that good levels of daylight and sunlight will be retained in the proposed condition.



11.0 External Works/Public Realm

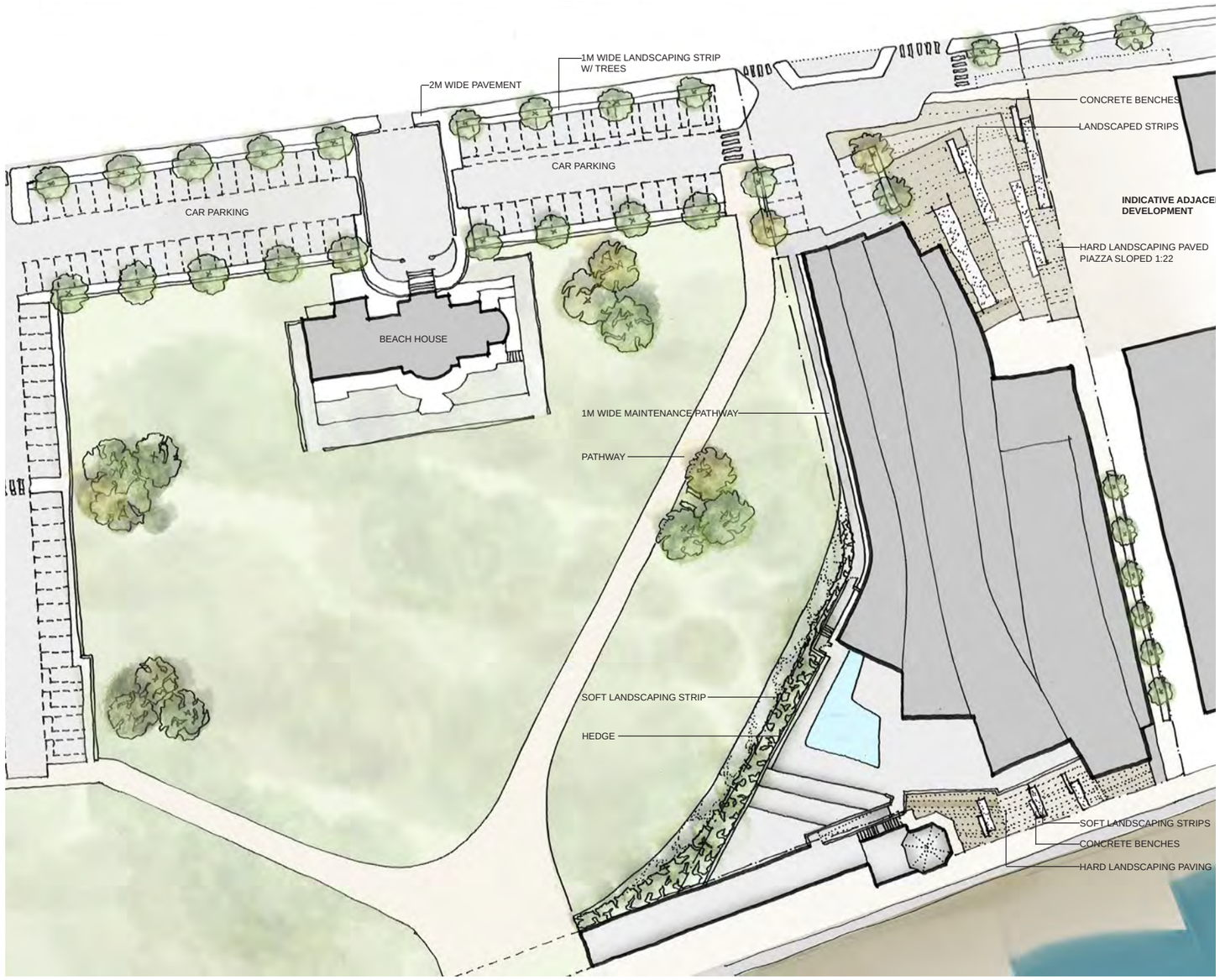
11.1 Design Summary

Wilkinson Eyre has been appointed to undertake hard landscaping design in conjunction with Worthing Borough Council Parks and Foreshore Manager for the soft landscaping aspect of the project.

We are mindful that this project is not a new initiative and that considerable work has been undertaken to set the framework for its development, particularly in the planning arena relating to policy. It is also clear that positive progress has already been made in identifying the existing Aquarena site as a key development anchor for Worthing.

The landscape strategy of Beach House Grounds, outside the designated site boundary, does not form part of this planning submission, the design illustrated is indicative of Worthing's aspiration for the adjacent park and will be developed further with the Worthing Borough Council Parks team. Landscaping in relation to the Beach House is intended to enhance the frontage of the listed building and is still under investigated.

The landscape proposals that 'knit' the new pool to the wider realm comprises of a hard, pedestrian entrance piazza to the north and a southern extension of the building functionality out towards the seafront. The landscape responds both to the building form, its materiality and functionality; and also the windswept coastal location with the natural environmental processes that occur along the shoreline.



Early Landscape Concept

Current Landscape Concept Showing New Planting Only

From the interior spaces, the pools extend outwards into the landscape in a seamless melding of internal and external environments. In response to the architecture, the landscape facets into niches where an outdoor leisure pool, poolside activities and splash play features are to be located. The activity areas are surrounded by a landform of seat walls – an allegorical 'back-dune' created from the risings of the site works that are reminiscent of the depositional processes occurring along the shoreline. The 'back-dune' will also provide shelter to the external activity zones from strong on-shore breezes, and a means of accessing an elevated seafront promenade atop the existing raised walkway which becomes secured to the Aquarena through the proposed removal of the central walkway.

The 'back-dune' will consist of simple "soft landscaped pockets" and elevated hard landscaping zones for family picnics and relaxation, with views both outwards to the sea and back towards the building and the surrounding historic landscapes. The eastern edges of the lawn area morphs into sinuous, wave like patterns of low growing native and ecological planting that help ground the landscape in its regional context and encourage local biodiversity.

It is envisaged that there will be hard and soft landscaping to the new piazza adjacent to the main entrance of the building; hard and soft landscape will be provided along the beach parade; a footpath within the Beach House Grounds will be incorporated and the raised terraces of the scheme will be predominantly hard landscaping.

The planting strategy for the site and the adjacent Beach House Grounds, outside of the site boundary, will be carefully selected to promote biodiversity. As part of the BREEAM assessment Worthing Borough Council have appointed a Phase One habitat survey to be conducted. Existing trees within the Beach House Grounds have been evaluated for their condition; the degree of retention and planting of new trees, which is intended to restore the original framed view of the Beach House are still under investigation.

11.0 External Works/Public Realm

Fargesia Nitida

Pseudosasa Japonica

11.2 Landscape Detail

The entrance piazza is designed as part of the welcoming entry sequence to the building: a mainly hard landscaped area with a few “soft landscaped pockets” which could be done with bamboo or similar type of plants. The geometry of this area reflects the tilted lines of the building. The paving with be specified as a combination of concrete pavers and natural stone paving sets, of different sizes to create a “random effect”. Horizontal contemporary benches will be added at the edges of these soft landscaped areas. The piazza will have a slope of no greater than 1:25 from the inlet road at +5.85m AOD to the ground floor level of +6.60m AOD. A zone for cycle parking is located between the pool hall and the inlet road; this exposed location will increase security by being overlooked and provide easy access from Brighton Road.

As discussed with Worthing Borough Council and West Sussex County Council, we are proposing to provide in the region of 139 car park spaces within the application site boundary. The majority will be provided between the park and Brighton Road. Accessible from the main road, the parking will be designed with a main access road parallel to Brighton Road with spaces on either side. To the north, we will retain a 2m wide pavement zone with a 1m wide planting zone which will act as a buffer zone and reduce the visual impact of the car part and Brighton Road. The edge to the south side will reduce the visual impact of the car park to the park.

To the north, we will retain a 2m wide pavement zone with a 1m wide planting zone which will act as a buffer zone and reduce the visual impact of the car part and Brighton Road.

To the north of the building along the inlet road 7 additional car park spaces will be provided, organized on defined angles to reflect the geometry of the angled walls of the building. In addition a delivery bay and a coach drop off area are provided directly adjacent to the main entrance.

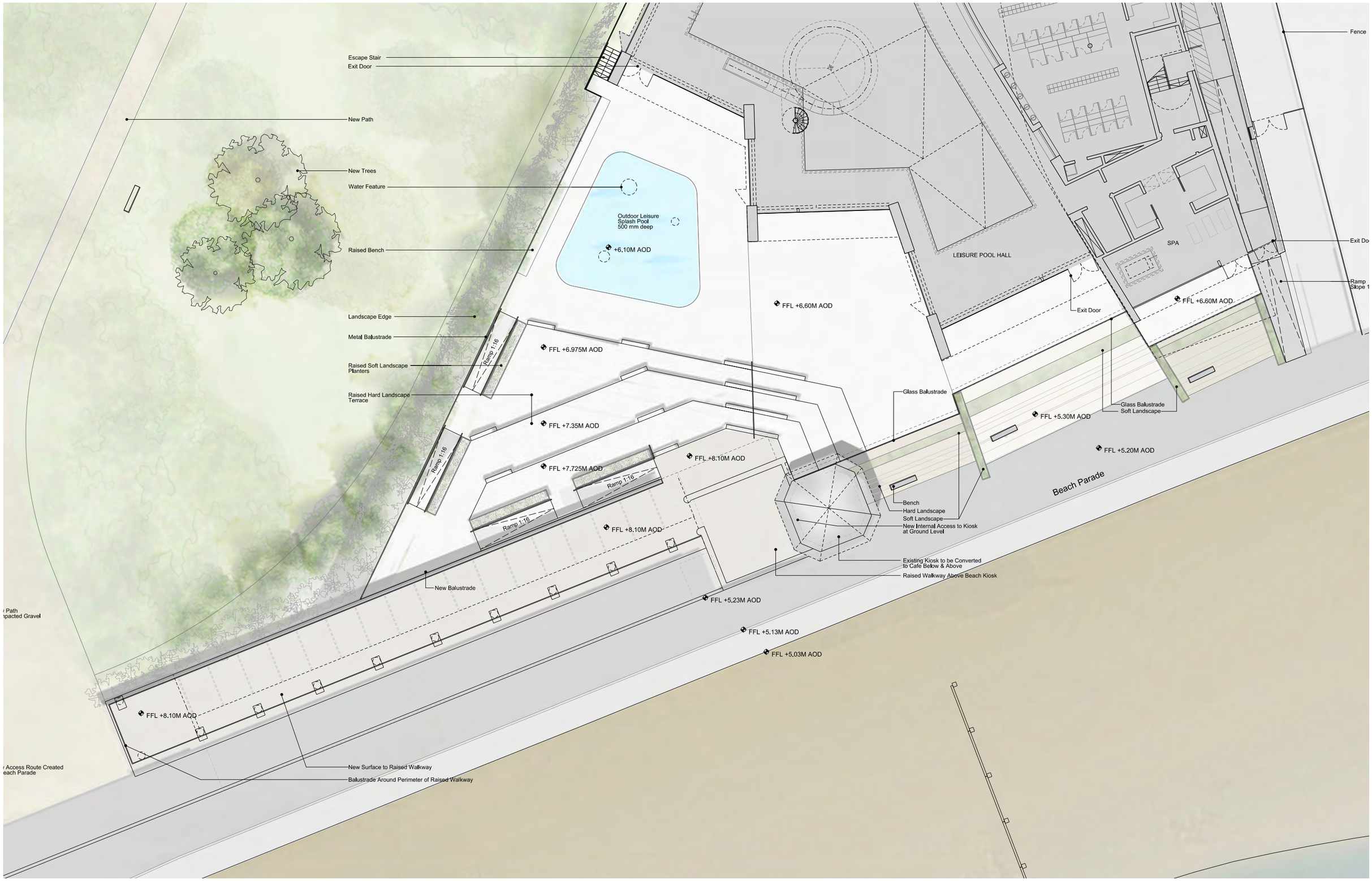
In addition to the car parking area at the north side of the park, we will have a continuous row of car parking spaces between Brighton Road and the Beach Parade, of a similar design. Its boundary to the west will be defined by the reuse of the existing wall at Denton Gardens and to the east defined by a new buffer zone created by a 1.2m high edge.

We would like to create a set of public paths, cutting through the park, discouraging people from walking along the building and creating natural routes from the car park to the beach promenade (accessible to the car park from the north east and south west corners). As proposed by Worthing Parks department, we propose creating clusters of “random trees” where benches might be installed; Pinus Nigra would be single-stemmed trees in groups of three, growing to form their natural shape in time, whilst the smaller trees to the north boundaries would be pruned/trimmed Quercus Ilex, retaining a more formal outline, and again with single stem. These would be under-planted with Euonymus, trimmed as a hedge to about 1.2 metres high.

The rather tired planting around Beach House is proposed to be replaced with a tidier scheme of a large Pittosporum hedge and lower growing Phormium edging, a more formal approach that still maintains the screening quality of the existing planting.

Along the western façade of the building we propose a maintenance walkway, a 1.2m wide path, likely to be compacted gravel strip, with a 0.5m “French drain” directly along the building made of cobbles. This path would be screened by a layer of soft landscaping; the intention is for planting in front of the windows to be kept low. The rear of the beds (Phormium ‘Cream Delight’) would be approximately 1 metre high whilst the Fargesia Nitida - ‘Fountain Bamboo’ to the south of the beds would grow to approximately 2 metres.

11.0 External Works/Public Realm



Pittosporum Tobira

Phormium - ‘Cream Delight’

Buxus Sempervirens

To respond to the design philosophy of creating a direct relationship between the inside of the building and the beach, we have extended the pool areas spaces to the outside, raised from the natural ground level by around 1.5m. The terraces to the south side will be made of hard landscaped paved surfaces. We propose a set of terraced areas, rising from +6.60m AOD high up to +8.10m AOD to make a direct connection with the existing raised walkway above the beach chalets. Stair and ramped access to this area is an integral part of the landscaping strategy.

It is proposed that the elevated walkway of the beach chalets will be split in two portions, with a cut in its middle creating a better relationship between the park and the beach front as well as allowing a segregation of the high level terrace from one side to the other. We propose the reuse of the upper level kiosk as a café to be managed by the Aquarena and used by the swimming pool visitors in summer months.

To make the transition between the external pool area and the park, we are proposing a set of soft landscaped layers to create a physical barrier, for control and security, mainly composed of soft landscaping and terracing. At low level we propose planting Pittosporum Tobira, a strong evergreen shrub that should cover most of the exposed north wall of the beach chalets. The bamboo would grow to about 2.5 metres and step down to the 1 metre high Phormium; the whole scheme creating a protective layered effect. At the raised terrace level a low level step, used as a seating area for the swimmers supports the balustrade. The line of this natural barrier follows the line of the new building. The combination of the raised terraces and a balustrade with low level landscaping will deter people from trying to gain access to the Aquarena from this area.

The aim is not to over-plant the area but to keep it in proportion to the building and the Grounds.

To the south along the Beach Parade, we propose a similar technique of raised terraces with a glass balustrade and at low level hard and soft landscaping edges to deter unwanted access. Benches will be provided that allow pedestrians along the beach zone to rest and overlook the sea. The low level area of the existing pavilion will be converted to café as an extension of the existing kiosk with the conversion of the walk through archways to glazed doors. Existing western access to the beach chalet will be maintained and new access from within the converted café will be created.

12.0 External Lighting Strategy

12.1 Concept Design

The night-time lighting approach for the building and landscape will look to underscore the architectural narrative. The aim is to retain the core architectural expression of folding, overlapping surfaces with light, avoiding any unnecessary lighting elements which would dissolve and distract the architectural language.

12.2 Lighting Assessment

Much as the external daylight conditions contribute to the building's interior during the day, we aim for the interior treatment to contribute significantly to the external appearance at night. With much of the key north and south elevations having glass construction, the experience of both the Brighton Road approach, and of the views from the beach, will constitute a lantern effect of depth, transparency, glowing interiors and sweeping architectural forms.

The controlled interior lighting will subtly bleed out onto the north entrance and the south terrace, and be supplemented with planting and landscape accents. The longer east and west elevations will exhibit less of the lantern effect and receive additional sympathetic lighting treatments to accentuate massing, façade structure and materials.

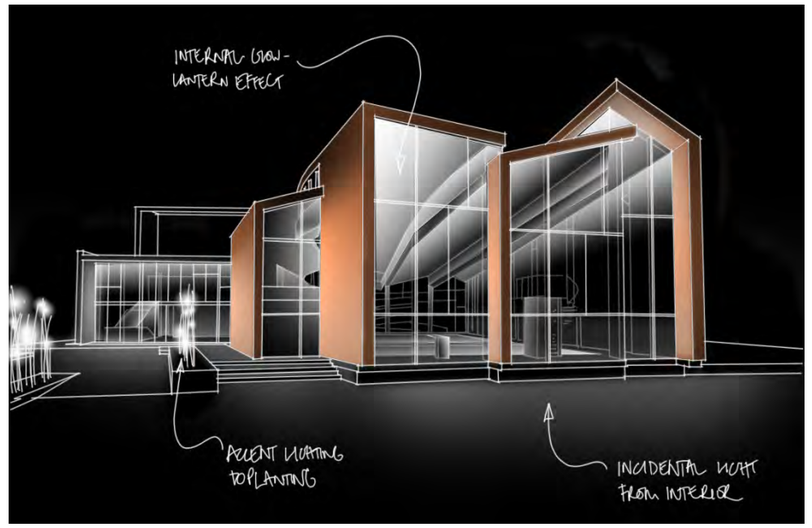
All areas will be lit to allow for a safe and easy access as recommended in the CIBSE, FINA, ASA, and Sport England guidelines.

The lighting installation will be designed in accordance with ILE guidance notes pertaining to the reduction of obtrusive light. The use of upward illumination will be limited, and light trespass and building luminance will be carefully considered within the context of the surroundings.

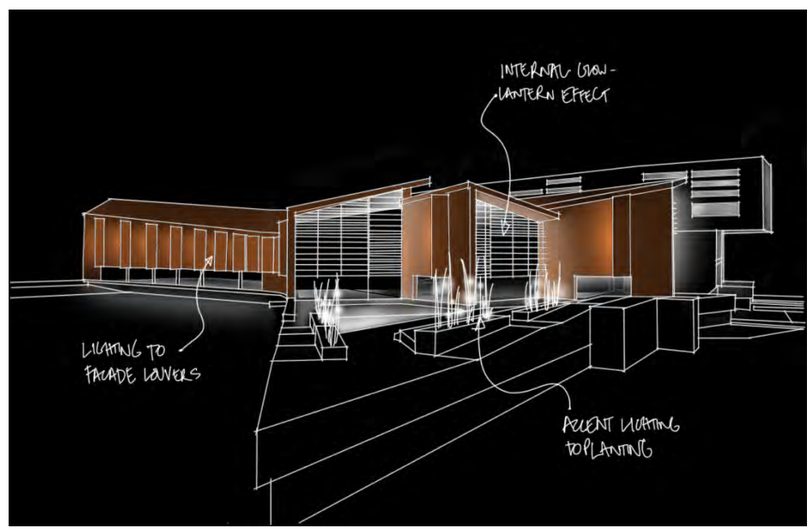
Efficiency and control will be factors at the heart of the lighting design. Light sources and luminaires are carefully considered with respect to light output ratios. High efficiency sources will be used wherever possible. The use of an astronomical time-clock and daylight linked architectural lighting control system will ensure operating hours are limited consistently in accordance with guidance notes. Products specified will be of the highest possible build quality to resist the coastal environment and increase longevity of the installation, with long term investment and value as factors of much importance.

The small car parking facility to the front of the development will be lit in accordance with CIBSE recommendations for private surface vehicle parks. The area will receive a small amount of incidental light from the building itself, and from local planting accents. Light sources will likely be located at low level, keeping focus on the architecture.

Proposed public parking in the grounds of the Grade II* listed Beach House will be lit in accordance with CIBSE recommendations for public surface vehicle parks. Luminaires with specific light distribution will light the surface, providing visual security, with minimum possible incidental spill light reaching the immediate grounds of the Beach House. Column heights will be scaled in accordance with the surroundings, and luminaire sources and colour temperatures will fall in accordance with any local lighting masterplan or guidelines.



Lighting Concept



Lighting Concept

View from Brighton Road

Access to the New Aquarena has been a key consideration from the outset of the project. The main users of the building will be from all age groups and disability levels and the safe and easy access of these people, as well as staff, to the building is paramount.

13.1 Inclusive Access Design

The building will be fully accessible to wheelchair users and comply with Building Regulation Part M and DDA requirements. The demand for inclusive design is growing significantly and is integral to the design strategy of the building. In support of this our design underlines the importance of good access throughout the building: circulation spaces are generous with a centrally located lift. Disabled toilet facilities are frequent and conveniently located on all floors and all spaces and disabled changing facilities are provided.

Contrasting material and colour finishes will be incorporated into the design to facilitate ease of access for the visually impaired. Induction loops will also be provided to the reception desk and primary teaching spaces for the benefit of hearing aid users.

The key challenge has been to successfully design for level access to the building entrances. As described in Section 11.0 - External Works/Public Realm of this report the ground floor of the building is raised approximately by 1m above the level of Brighton Road and approximately 1.5m above the general site level along Beach Parade due to the flood risk and increased views.

All users will enter the Aquarena from the entrance on the north side of the building. The external levels in this area are 0.75m lower than the ground floor so it is proposed to use a sloping entrance piazza at 1:25 to universal access. The accessible parking bays provided for use by the Aquarena are located to the west of the building adjacent to this entrance. The ramp will be fully Part M compliant with a single rise of 0.75m with gradients of 1:60 or less at the top and bottom of the main ramp.

Access from Beach Parade to the site is restricted to maintenance and escape made via ramp. The level change between the two is approx 1.4m. The ramp will be fully Part M compliant with a single rise of 0.75m with gradients of 1:60 or less at the top and bottom of the main ramp.

On the west side of the building there are two external escape stairs leading from the raised terrace level and the competition pool hall level to the Beach House Grounds. The external level in this area is approx 1.5m lower than the raised terraces and ground floor. Steps designed for the use of ambulant disabled will be provided on the east route.

The eastern edge of the building is for staff cycle store, bin store, and basement escape stair access.

Access from the external raised terraces to the raised walkway above the beach chalets is through steps and ramps. Four equal ramps at 1:16 gradients are proposed, 6m in length, with 2m minimum landings to give access for wheelchair users and others unable to use the stairs. The ramp will be fully Part M compliant with a single rise of 0.75m with gradients of 1:60 or less at the top and bottom of the main ramp.

Once within the building, as described in the building organisation and layout in Section 8.0 of this report, all areas are designed to be fully accessible and where necessary special areas have been designed into the building to meet the needs of disabled users.

Key design features of the building that promote an inclusive environment are:

All floors of the building will be level and each will be accessible the lift, being adjacent to the main circulation, reception area. Stairs to the first level are in a highly visible position.

All public fitness and swimming will be fully accessible.

Each toilet block will have a fully accessible unisex toilet included within it. Each floor has a toilet block adjacent to the main occupancy use.

A first aid room will be accommodated on the ground floor that will accommodate wheelchair users.

All stairs are designed to be used by ambulant disabled users.

Circulation corridors are wide, typically 1.9m wide.

13.2 Vehicular Access Design

The transport assessment and travel plan that accompanies this application describes in detail the strategy developed for vehicular access to the site, building servicing and the means of transport for the projected visitor numbers.

The north inlet road accessed from Brighton Road provides a zone for coach drop off, access to vehicular parking spaces, and access to the vehicular parking extension adjacent to the Beach House Grounds. Access to the western parking extension will be from Brighton road on the west side of the Beach House. Disabled parking spaces will be provided directly adjacent to the western edge of the building with paved access directly to the entrance and in the western extension closest to the beach zone.

The breakdown of the vehicle parking spaces is as follows:

7 at the Aquarena
28 at the eastern Car Park (incl. 8 disabled)
104 at the western Car Park (incl. 4 disabled)
Total withing Site Boundary: 139 spaces

The north inlet road accessed from Brighton Road provides a zone for service vehicles for deliveries and maintenance. Within the site an unloading area, bin store, general store and a chemical store for the building are provided, all in close proximity to the building entry.

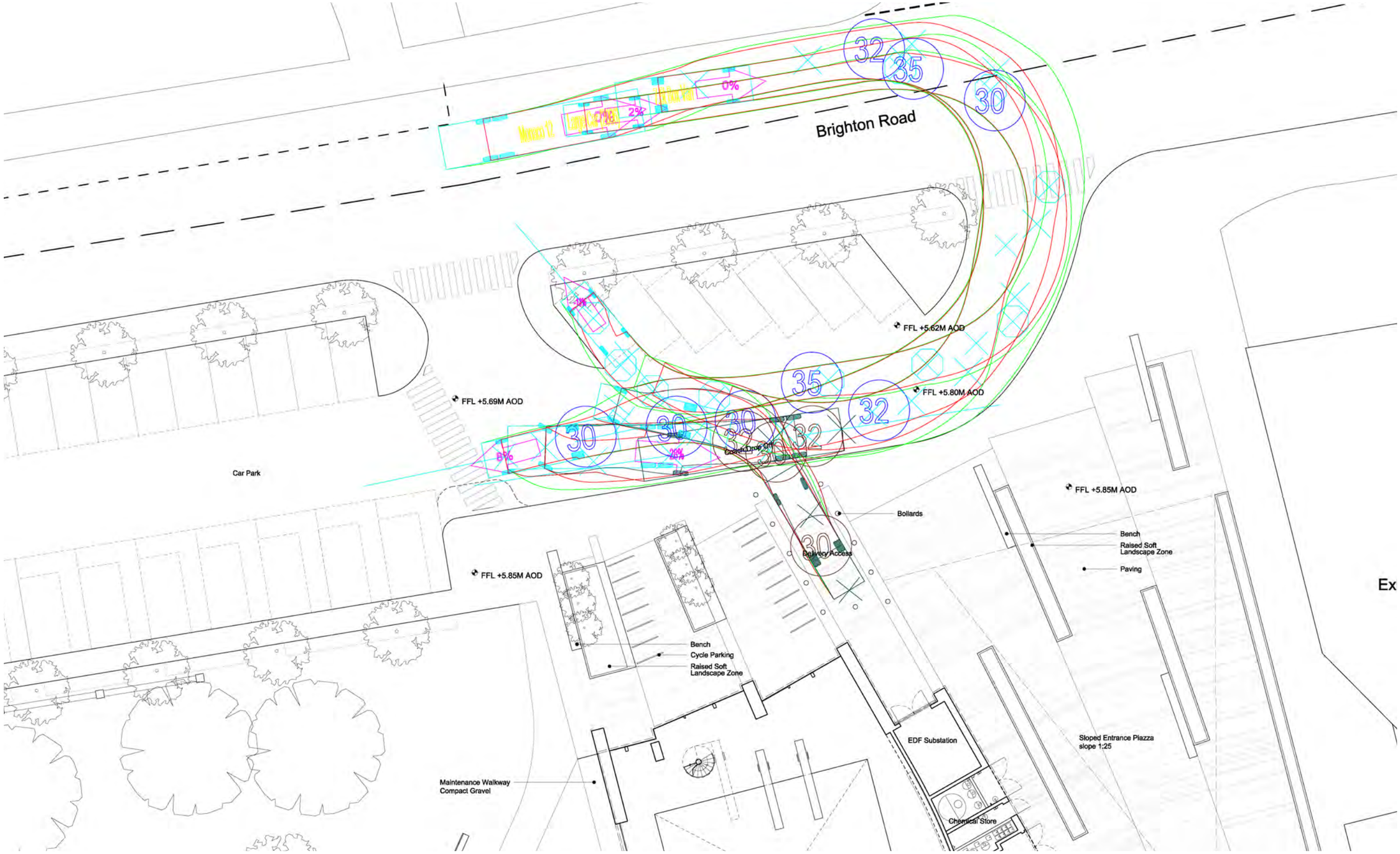
Service vehicle trips are expected to be infrequent and timed to take place out of the peak visitor periods. Delivery and access to the Chemical Store has been considered, an average one month delivery of chemicals is envisaged and the management of these deliveries will ensure compliance with all Health & Safety Policies. An access panel under the paving at the entrance will provide an access point for the replacement of plant equipment that cannot be accessed via the main elevator or access stair from basement. There is the provision for an EDF substation at the northern edge of the building that has direct access from the delivery area.

It is required to provide fire brigade access for a high reach appliance to 50% of the building façade. This requirement is fulfilled by the full access along the north Façade via the inlet road and the new ramped piazza, accessed from Brighton Road, south façade via Beach Parade and along the west façade via the Beach House Grounds.

13.3 Building Waste Management

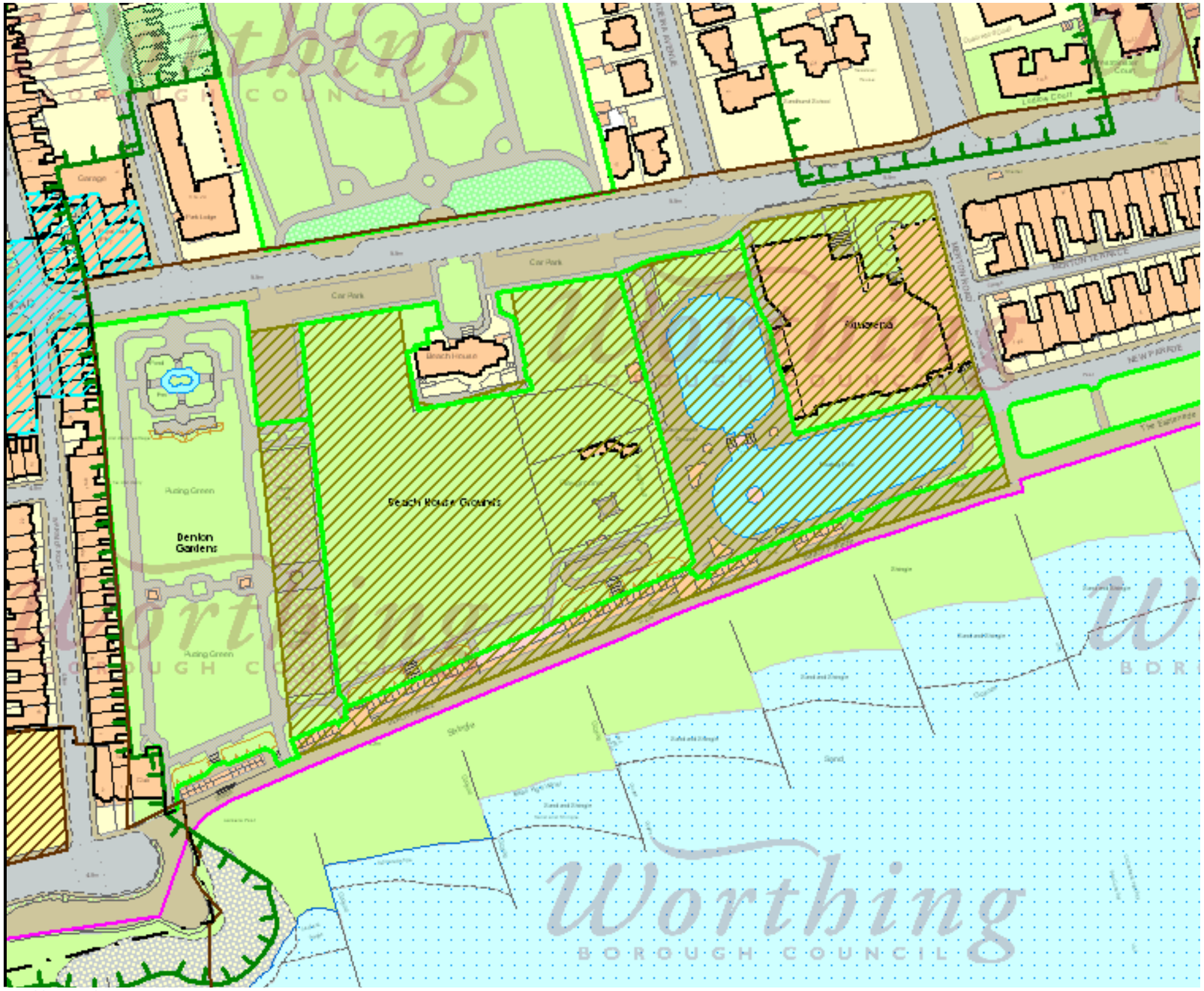
Waste management is a key consideration for the design of any building. In the case of the new Aquarena civic importance of the building means the main objective should be to reduce the amount of waste generated by the facilities and recycle when appropriate. The building waste management strategy is to provide an external bin store along the east side of the building adjacent to the entry. Refuse will be collected by Adur & Worthing Council Services at least on a weekly basis. Refuse vehicle access is from the inlet road along Brighton Road where bins will be taken to the vehicle from the bin store area. There is provision for two large wheeled bins in the secure bin store.

A site waste management plan for construction will be provided by the Main Contractor at the time of appointment.



Vehicle Swept Paths at the Aquarena Inlet Road

14.0 Area Schedule/Land Use and Amount



Worthing Land Use Map

Area Schedule / Land Use and Amount

The Worthing New Pool planning application boundary takes in two site boundaries; the Parking Extension West with an area of 0.2558 Hectares and the New Aquarena Site and Parking Extension East with an area of 0.7142 Hectare, for a total of 0.97 Hectare.

The site is designated for Leisure and Recreation use.

The Land uses within the proposed development include:

A Class D2 assembly and leisure space with a gross floorspace of 2893.9 sq m.

A Class A3 cafe with a sales floorspace of 17.9 sq m and a gross floorspace of 201.1 sq m

The key building areas are:

Total Building Areas:	**sq m**	**sq ft**
Total Gross External Floor Area (GEA)	4,891 sq m	52,648 sq ft
Total Gross Internal Floor Area (GIA)	4,607 sq m	49,589 sq ft

Floor by Floor Areas:	**sq m**	**sq ft**
Basement Floor Area GIA	802 sq m	8,633 sq ft
Ground Floor Area GIA	2,515 sq m	27,071 sq ft
First Floor Area GIA	914 sq m	9,838 sq ft
Second Floor GIA	544 sq m	5,850 sq ft

15.0 Masterplanning the Existing Aquarena Site

15.0 Masterplanning the Existing Aquarena Site

Worthing Aquarena

Masterplanning of the Old Aquarena Site:

Wilkinson Eyre Architects, beyond the design solution proposed for the site of the new swimming pool for Worthing, has been commissioned to develop a masterplanning strategy for the surrounding sites.

It has been the aim of the project to create a coherent development strategy between the new swimming pool development and the redevelopment of the site of the existing Aquarena.

Wilkinson Eyre Architects have been working in association with Worthing Borough Council and the South East Design Review Panel to agree the principle of a basic development brief for the existing Aquarena site, which will become vacant when the new pool is occupied.

The new Aquarena site is part of Worthing's masterplan strategy as a 'book end'/'leisure opportunity site to the active beach zone. Thus any development on the existing site must fit into the wider context, take the design of the new Aquarena into consideration and should not dominate the views along the beach from the east or west.

The design of the new Aquarena has set precedence for the development opportunities of the existing Aquarena site, in height, orientation, and a common public realm/vehicular access strategy. The site is likely to be reserved for residential property, leisure facilities or hotel.

The key issues to consider relate to:

- The massing of the new development
- The various access (car, pedestrian, and deliveries)
- The building alignments
- The height of the various adjacent buildings
- The public realm / external works strategy
- The wider context of the Beach House Grounds and Grade II* Listed Beach House.
- Set back restrictions and scale along Beach Parade

The following options take these issues into account investigating the potential of hotel, leisure use, or residential use.

These indicative proposals are very diagrammatic at this stage and will be developed further in discussion with Worthing Council in and outline alternative approaches:

15.0 Masterplanning the Existing Aquarena Site

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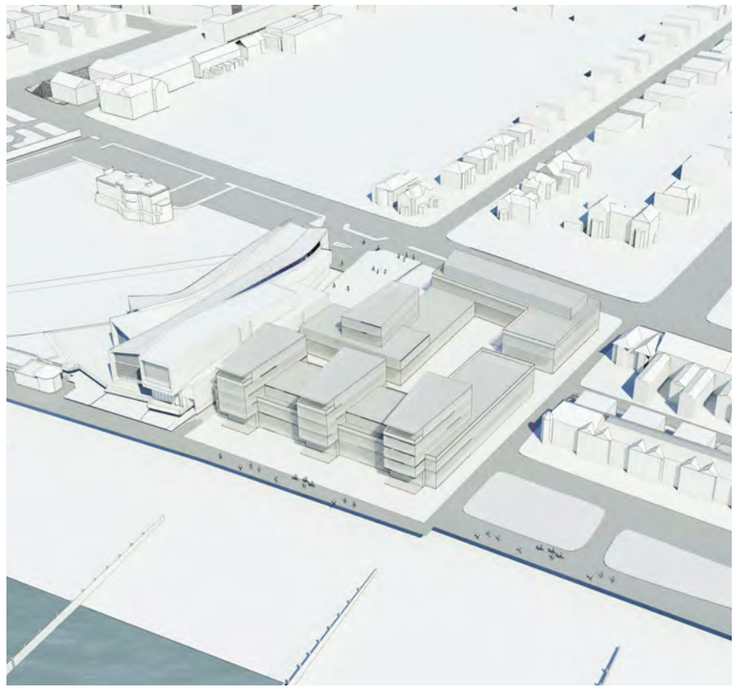


Aerial view from the south

Worthing Aquarena

Masterplanning Option 1:

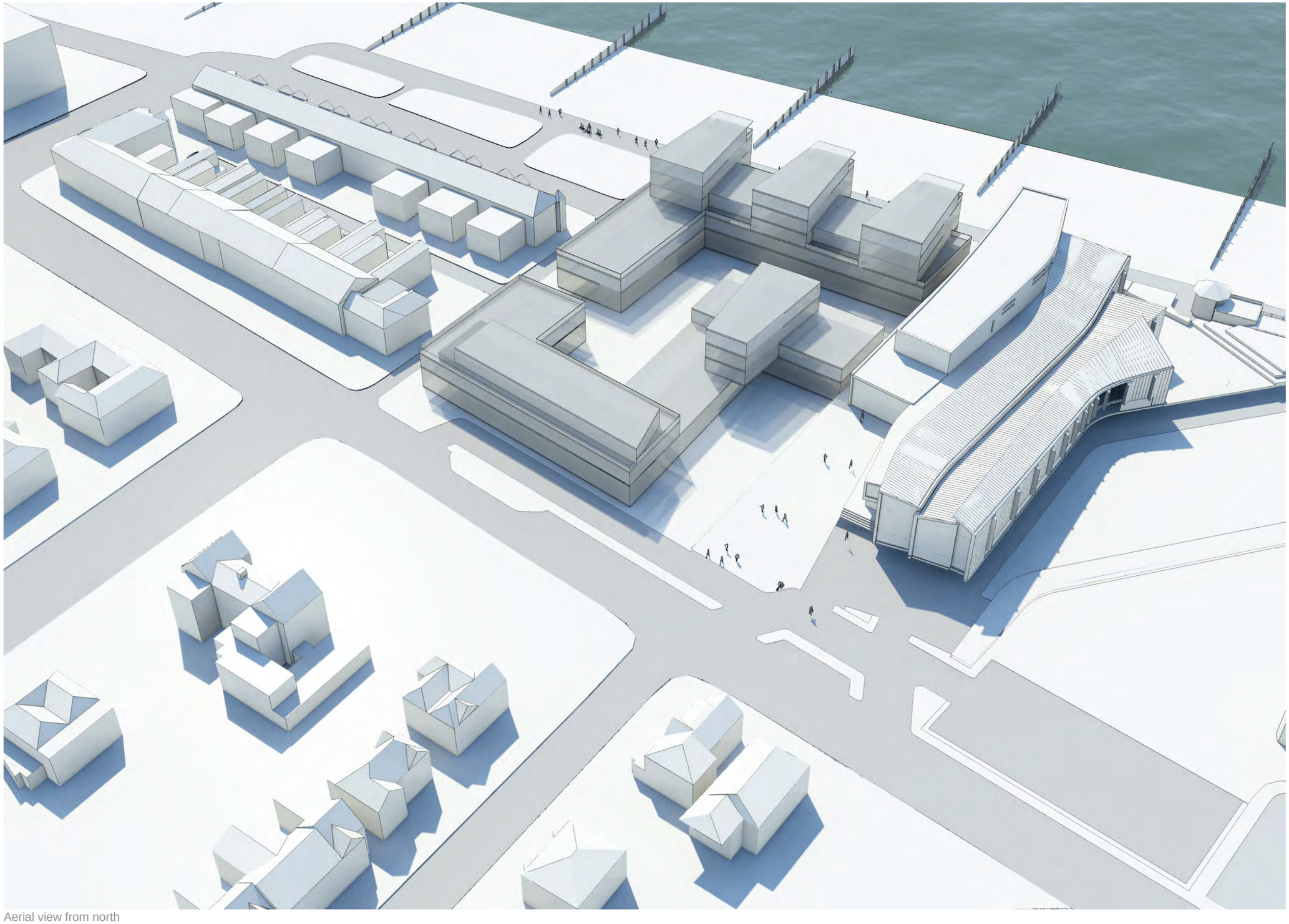
Option one reinforces the concept that the new Aquarena site is the ‘book end’ to Worthing’s masterplan active beach zone, paying respect to the surrounding scale of the buildings and taking a secondary role to the new Aquarena when viewed from along Beach Parade.

This option aligns with the building lines along Brighton Road to the east and takes advantage of a multiple building form, a taller element along the north relate to the adjacent taller buildings in this part of Worthing and taller elements along the south takes advantage of sea views. The shared public piazza entry is taken advantage of with additional frontage for retail or restaurant use and provides access deep into the site. Vehicular drop off is envisaged to take place along an inlet at Brighton road and deliveries and potential on site parking would be accessed along Merton Road.

Assuming residential use, this option looks to maximize the development opportunity of the site in by using the whole site footprint, without set back restrictions. The overall building form is broken into two interlocking volumes, providing the opportunity for different uses (or type of residential development, maybe a social toward Brighton Road and private towards the sea, both with a shared internal landscaped space. This internal landscaped zone allows light and air to penetrate into the middle of the site.

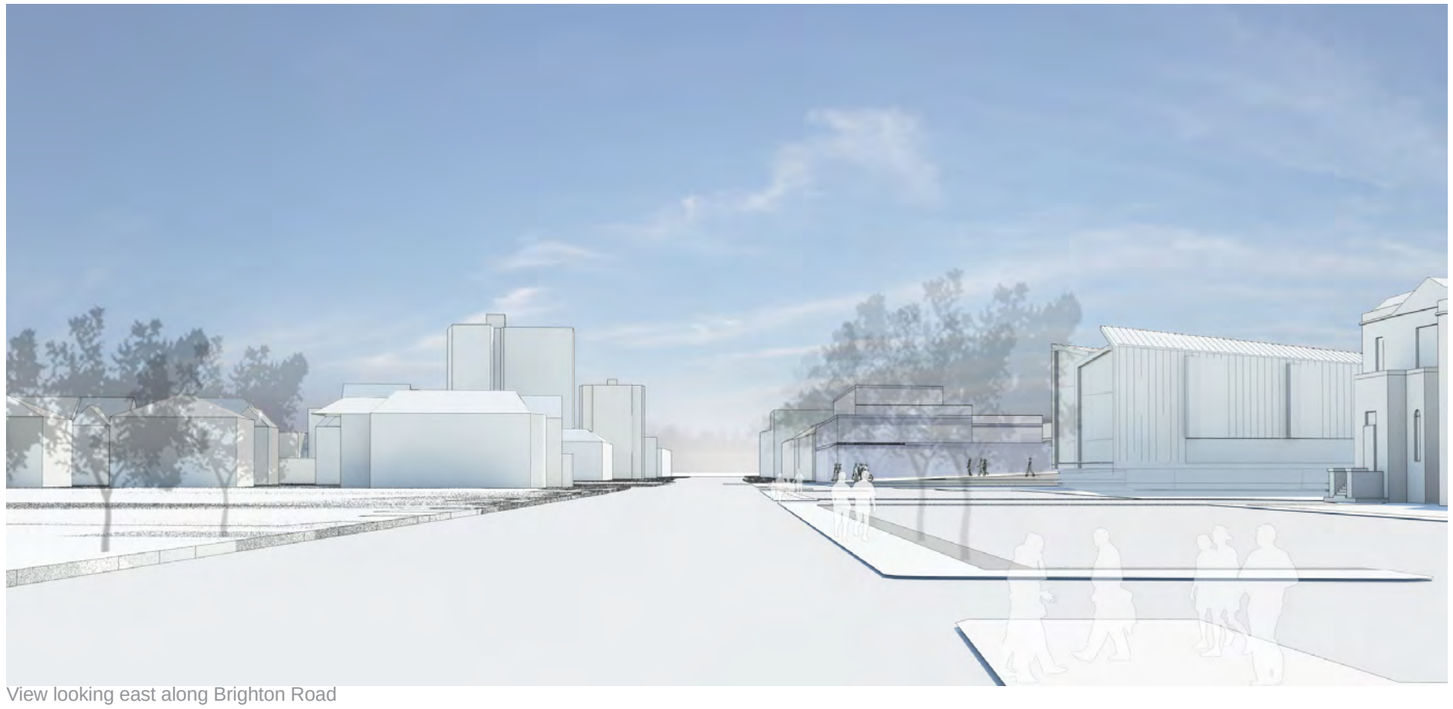
The main advantage of this option is its alignment along Beach Parade, which takes advantage of the sea views with more articulated volumes, ideal for residential use and which break down the scale of the building. The massing is similar in height and proportion to the health and fitness wing of the new pool facilities to reinforce the importance of the new Aquarena.

15.0 Masterplanning the Existing Aquarena Site



Aerial view from north

View looking west along Beach Parade



View looking east along Brighton Road

15.0 Masterplanning the Existing Aquarena Site

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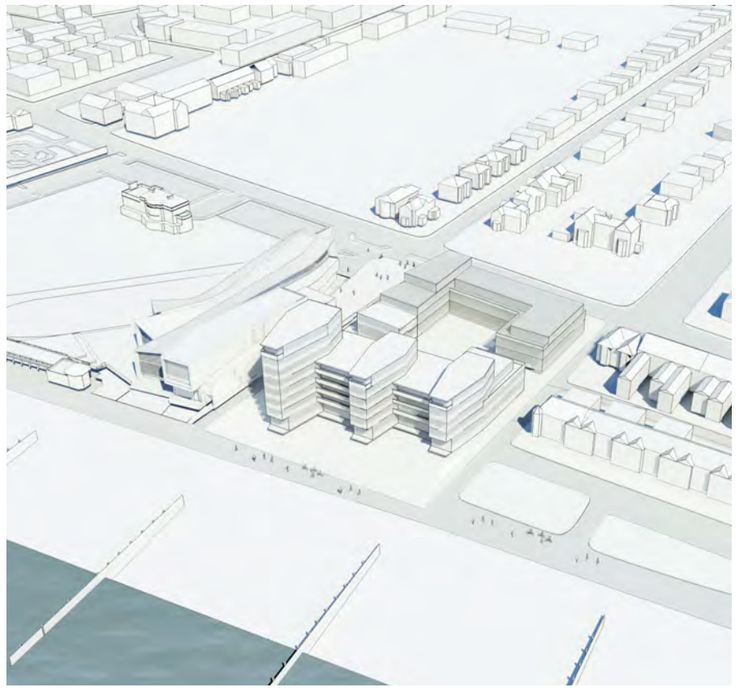


Aerial view from the south

Masterplanning Option 2:

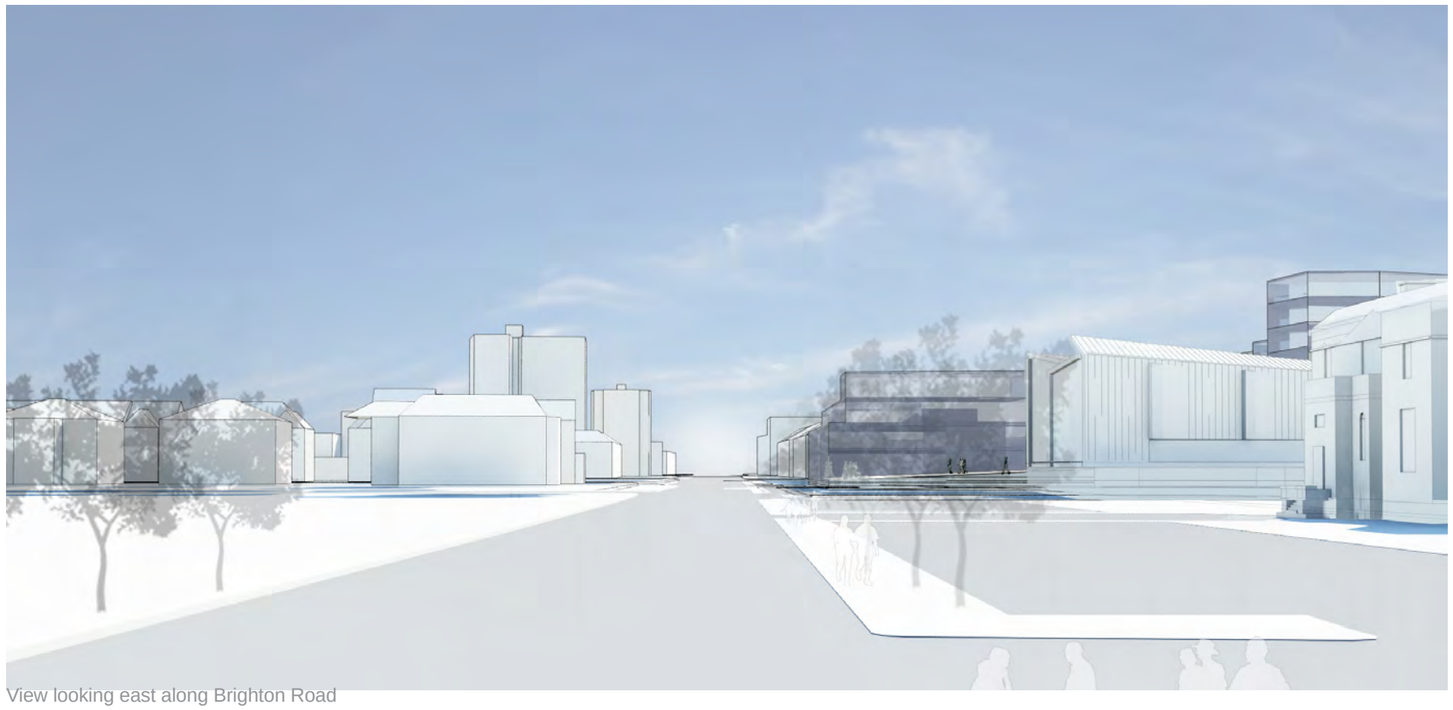
This option is similar to option 1 with a slightly smaller footprint and additional height along the seafront to further maximize the accommodation potential. These stepped forms would be prominent forms seen along the beach and stepped down to lessen the impact. The massing pays respect to the importance of the Victorian Houses and the local context by locating the tallest form closest to the new Aquarena site and stepping back from Beach.

The proposal would be that by reducing the footprint of these buildings and therefore the shadowing impact, the development will offer the opportunity to have slightly taller buildings facing the sea front, maximizing the development potential and the sea front views for every proposed residential property.

15.0 Masterplanning the Existing Aquarena Site

Aerial view from north

View looking west along Beach Parade



View looking east along Brighton Road

15.0 Masterplanning the Existing Aquarena Site

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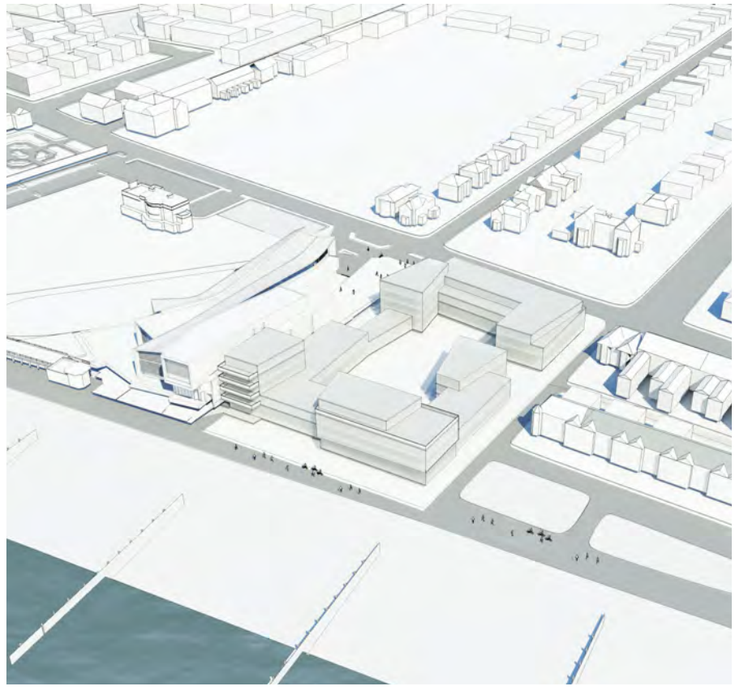


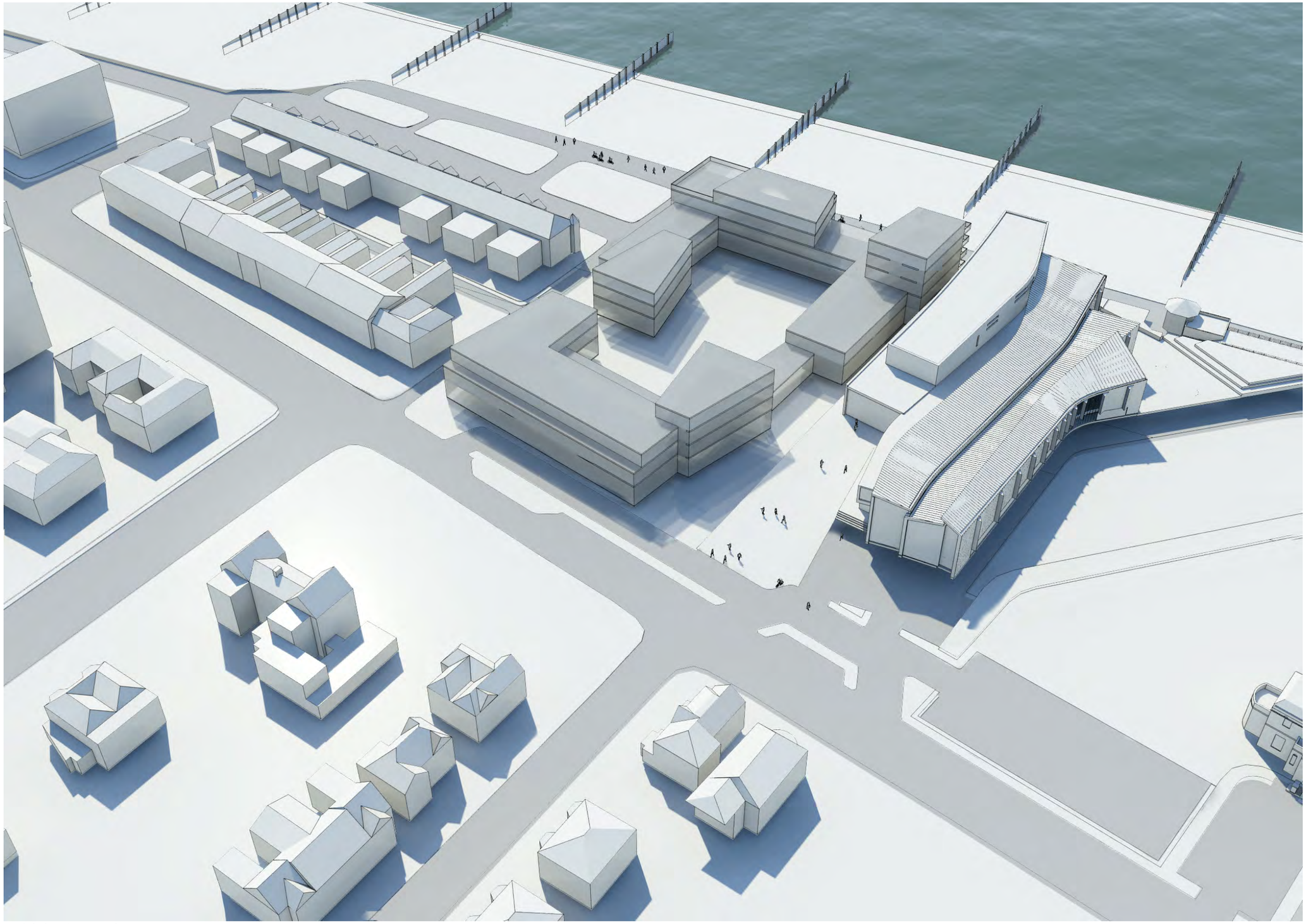
Aerial view from the south

Masterplanning Option 3:

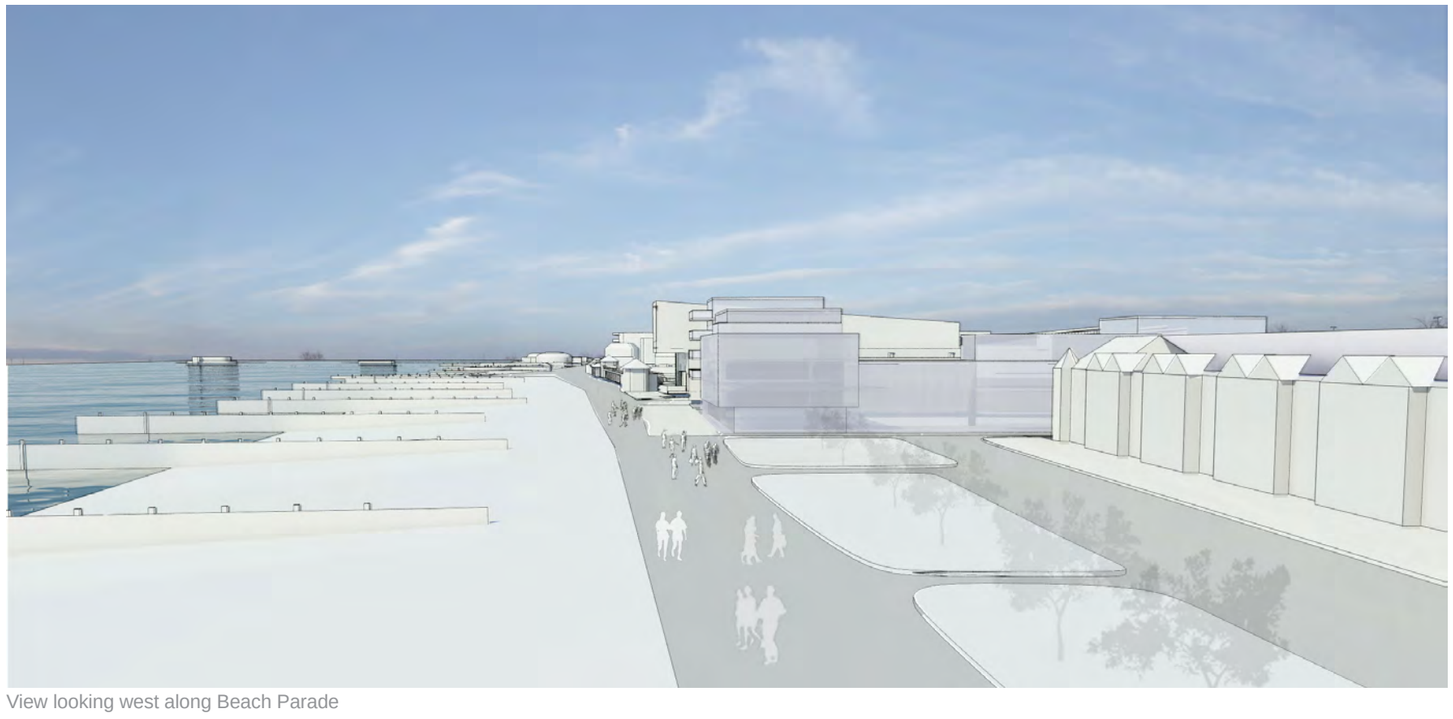
This option investigates a single building form organized around a large central courtyard. There are several tall elements placed such that views are maximized and overshadowing is reduced. The proposal aims to keep the overall building heights low while providing sufficient accommodation.

Each articulated form relates to the context differently; the tall element closest to the new Aquarena reflects the scale and height of the health and fitness club, high level set backs on the north respect the urban grain along Brighton Road, and the height steps down at the south east corner to respect the Victorian houses on New Parade.

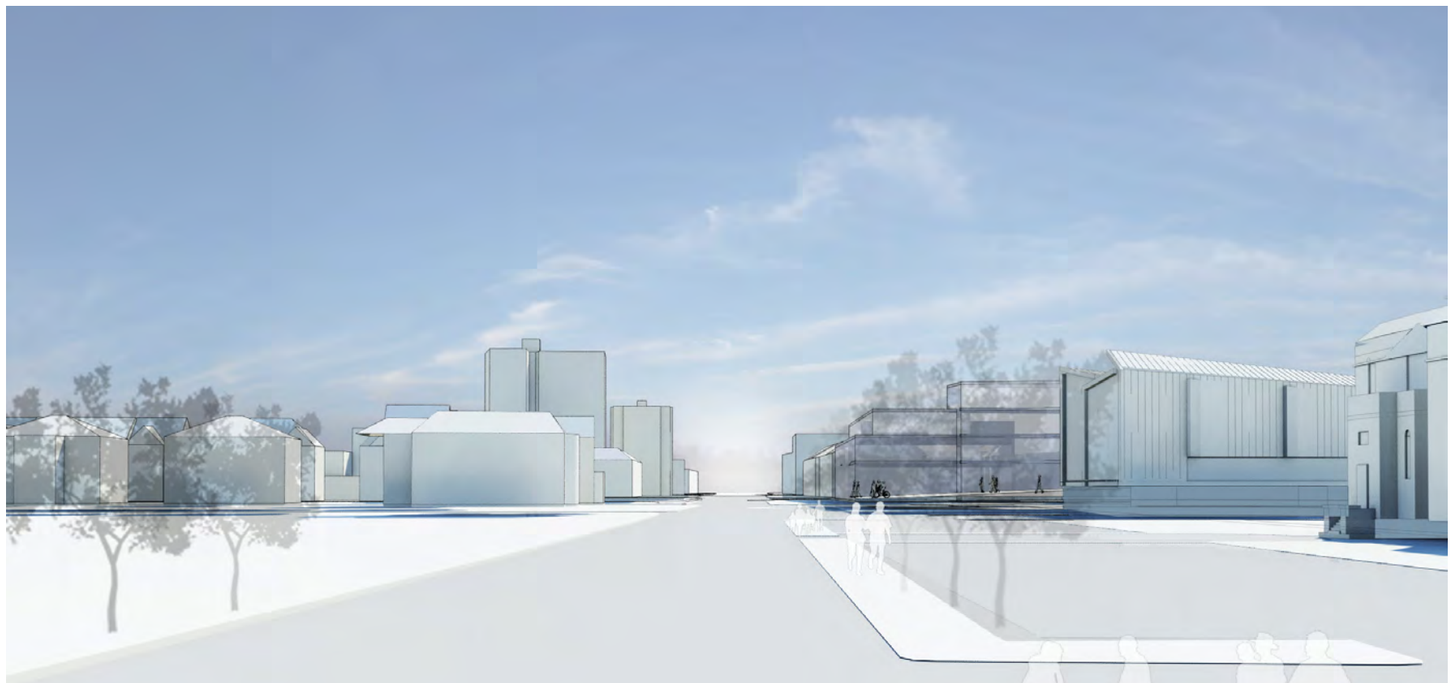
15.0 Masterplanning the Existing Aquarena Site



Aerial view from north



View looking west along Beach Parade



View looking east along Brighton Road

16.0 Conclusion

Early Rendering from the Sea Front showing the building articulations and the use of diverse materials

16.0 Conclusion

In developing the designs for the Worthing New Aquarena the design team has responded to the ambitions and the vision the client, Worthing Borough Council. The new proposal seeks to create a building that contributes to the regeneration of Worthing's seafront and a unique building that will inspire its users.

The proposals include a broad range of improvements to the site and significant enhancements to the public realm, bringing life to the seafront once more. The building proposal has been modelled so as to reinforce the urban grain of the area and respect the prevailing built form of Brighton Road. Active frontages and uses have been proposed for the ground floor so as to animate access along Brighton Road, the Beach House Grounds and Beach Parade.

The benefits brought by the new Aquarena will reinvigorate the local area and have the potential to instigate the further redevelopment that is needed in this part of Worthing. The opportunities offered by the building will be fully inclusive offering easy access to all.

The elevations and the proposed palette of materials are contemporary though subtle and seek to reflect the building's function and ambition. It is also sympathetic to the adjacent listed building, the wider context of Worthing and the immediate environs of the site and its prominent position on the seafront.

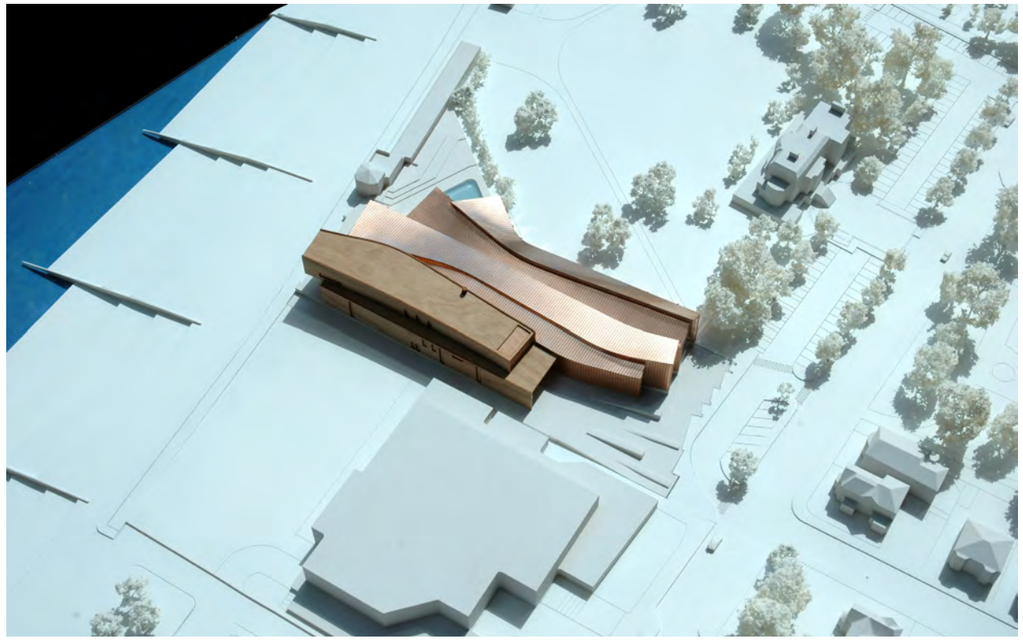
Worthing Aquarena

The design is intended to give the building appropriate stature, as befits its location and civic importance, however, the site strategy, massing, articulation and materials proposed are intended to establish a relationship with the neighbouring buildings and the wider town such that the proposal is not at odds with its physical environment.

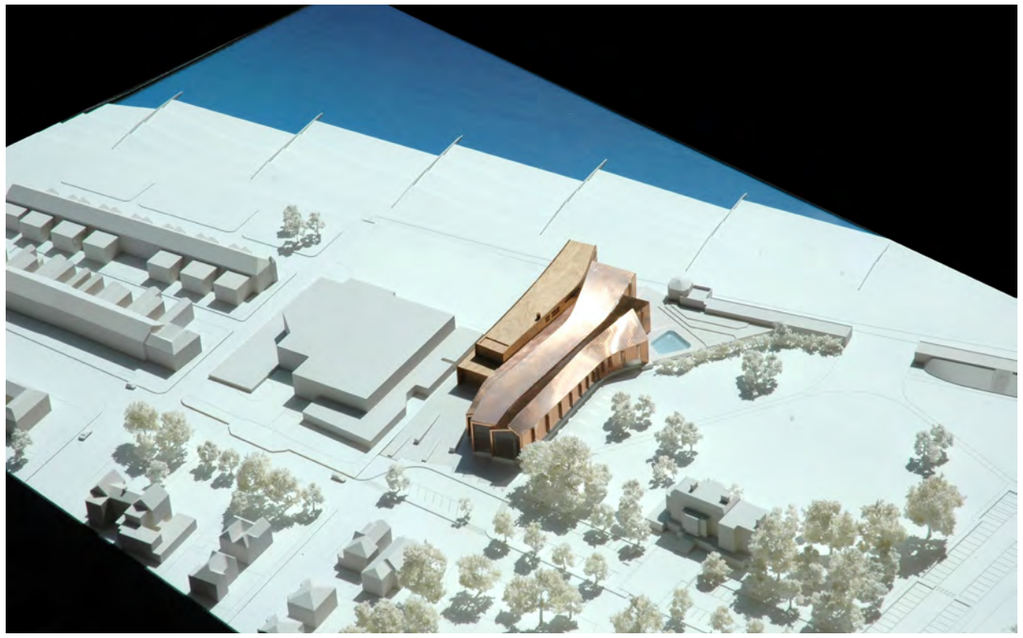
The environmental strategy for the building should establish it as an exemplar scheme taking advantage of renewable energy sources and utilising low energy and passive environmental systems seeking to minimise energy consumption. The proposed development is designed to be sustainable offering many positive benefits to the local area from an environmental, economic and social perspective.

The proposals for the Worthing New Aquarena are of a very high quality and the development will offer significant benefits to the town of Worthing and the wider area. The building has the potential to be regarded as an exemplar scheme in many aspects of its design and will be a positive addition to the built heritage of Worthing.

Planning Model showing Existing Aquarena

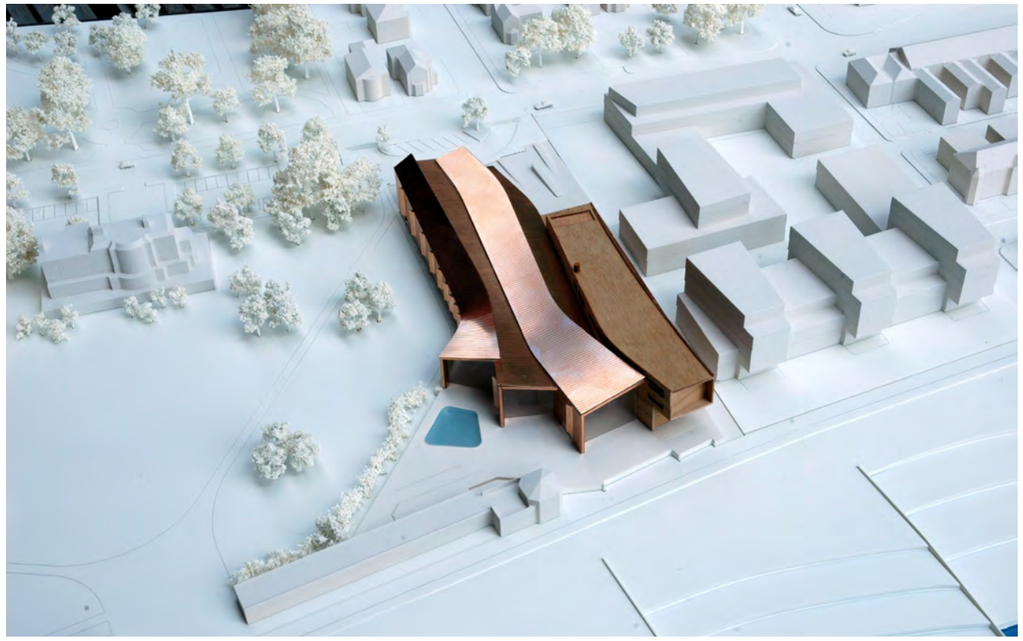


Planning Model showing Existing Aquarena



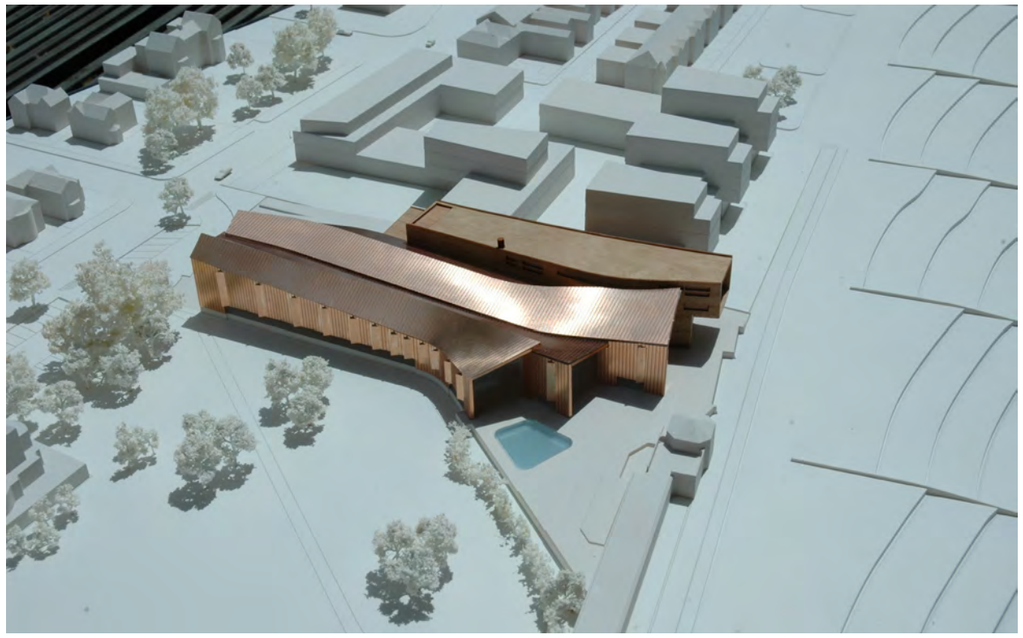
Planning Model showing Existing Aquarena

Planning Model showing Existing Aquarena

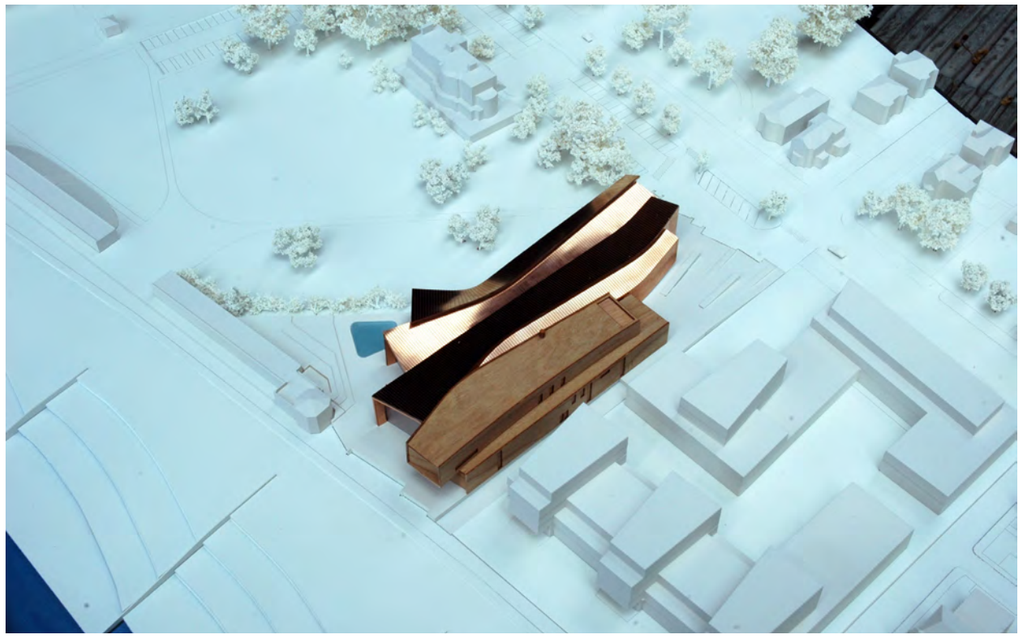


Planning Model showing Masterplan Option One

Planning Model showing Masterplan Option One



Planning Model showing Masterplan Option One



Planning Model showing Masterplan Option One

17.0 Drawings

Drawing Register

Dwg No.	Scale @A1	Title
0000 - Existing Plans		
0511-P-0000	1:1250	Location Plan - Site Boundary
0511-P-0001	1:500	Existing Site Plan
0511-P-0002	1:250	Existing Contextual Elevations North & South
0511-P-0003	1:250	Existing Contextual Elevations East & West
0511-P-0004	1:500	Demolition Plan
0511-P-0005	1:250	Demolition Contextual Elevations North & South
0511-P-0006	1:250	Demolition Contextual Elevations East & West
1000 - General Arrangement Plans		
0511-P-0010	1:500	Proposed Site Plan
0511-P-1000	1:125	Basement Plan
0511-P-1001	1:125	Ground Floor Plan
0511-P-1002	1:125	First Floor Plan
0511-P-1003	1:125	Second Floor Plan
0511-P-1004	1:125	Roof Plan
2000 - External Elevations		
0511-P-2000	1:250	Proposed Contextual Elevations North & South
0511-P-2001	1:250	Proposed Contextual Elevations East & West
0511-P-2002	1:125	Proposed North & South Elevations
0511-P-2003	1:125	Proposed East & West Elevations
3000 - Building Sections		
0511-P-3000	1:100	Building Sections: AA & BB
0511-P-3001	1:125	Building Sections: CC & DD
4000 - Façade details		
0511-P-4001	1:25	Façade Detail - West @ Pool Hall
0511-P-4002	1:25	Façade Detail - North @ Pool Hall
0511-P-4003	1:25	Façade Detail - North @ Lobby
0511-P-4004	1:25	Façade Detail - South @ Pool Hall
0511-P-4005	1:25	Façade Detail - South @ Health & Fitness
0511-P-4006	1:25	Façade Detail - East @ Health & Fitness
6000 - Landscape Details		
0511-P-6000	1:125	Entry / Car Park Plan
0511-P-6010	1:125	South Terrace Plan
0511-P-6011	1:50	South Terrace Section

Masterplan Study Information Only

0010 - Masterplan Site Plans		
0511-W-0011	1:500	Site Plan Masterplan Option 1
0511-W-0012	1:500	Site Plan Masterplan Option 2
0511-W-0013	1:500	Site Plan Masterplan Option 3