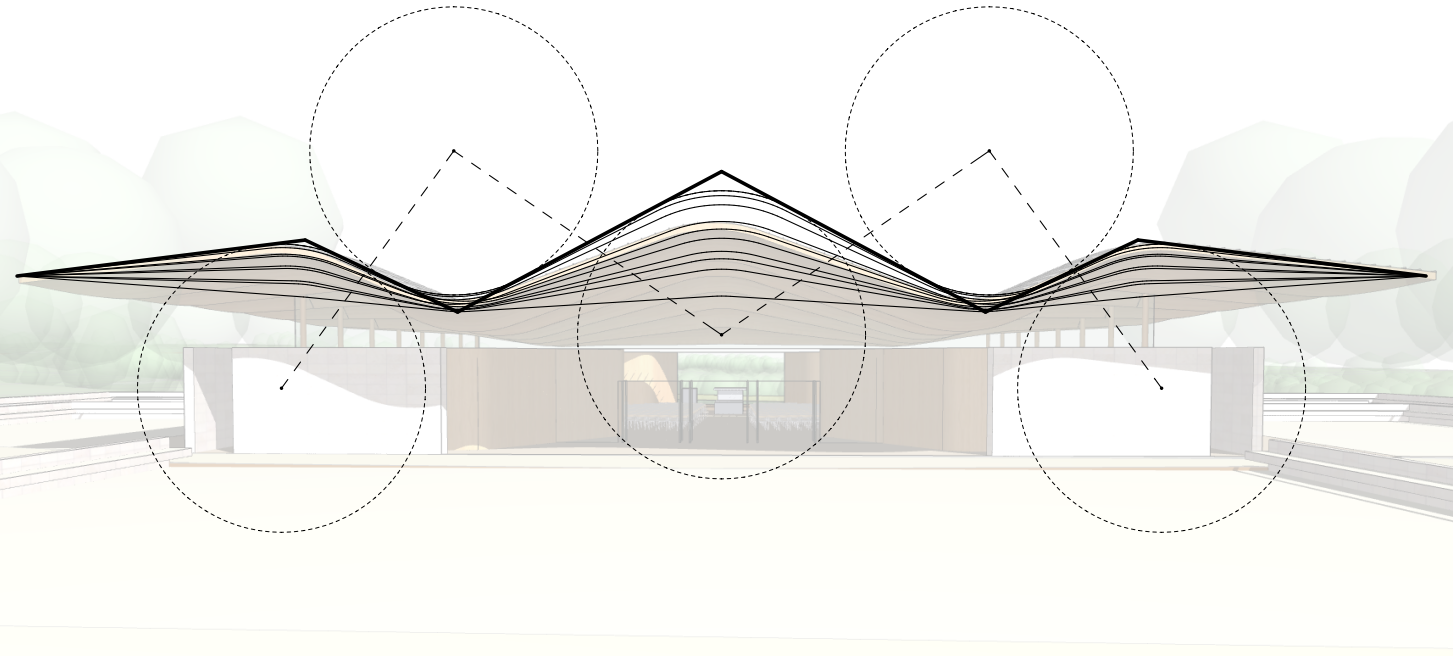
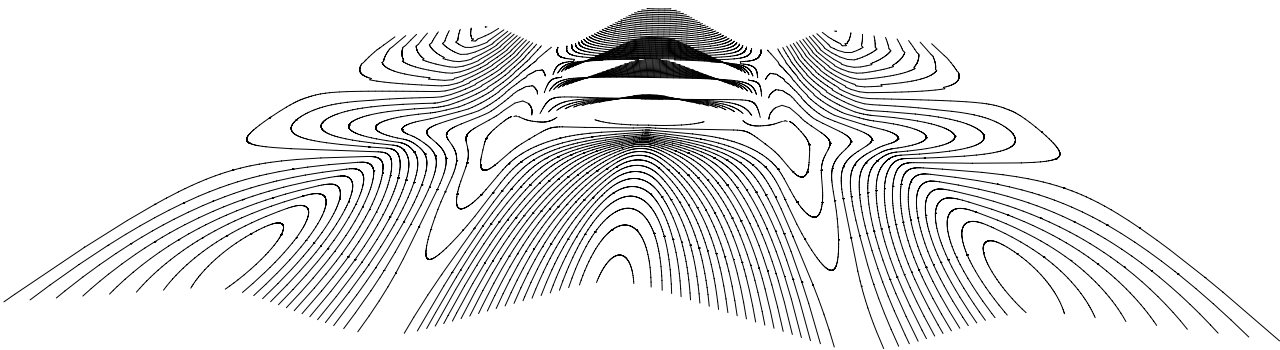
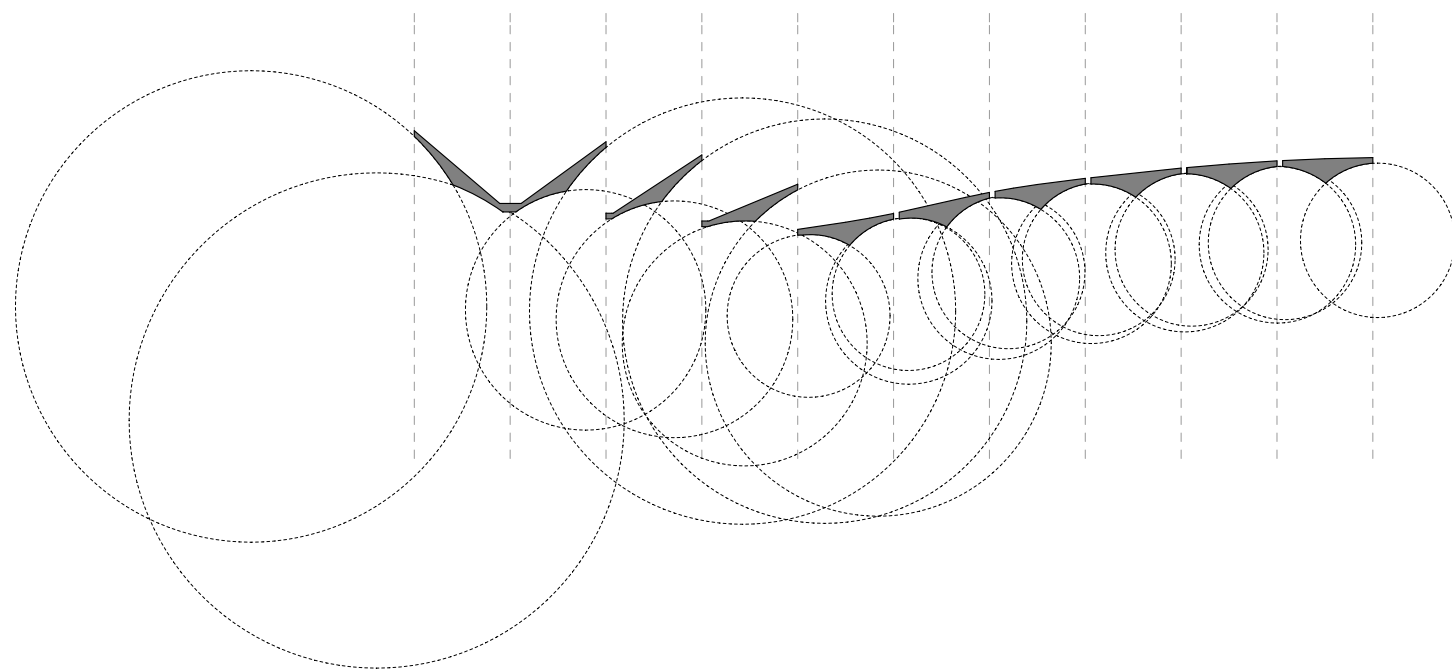


Roof Geometries

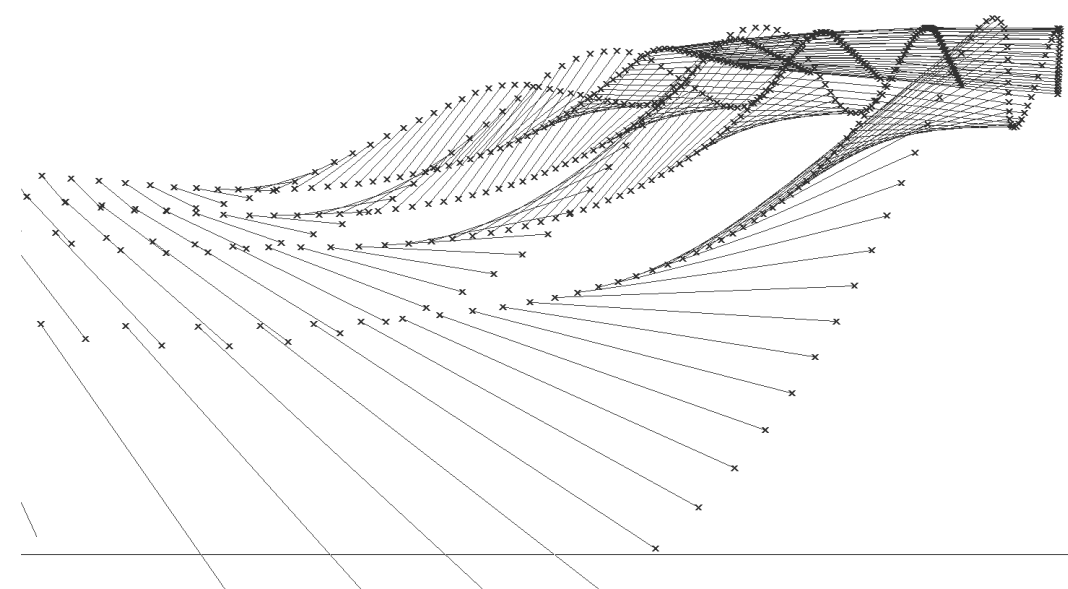
The roof to the Chapel has been developed as a series of geometrical progressions and transformations based on varied radii to generate an undulating form that is an expression of the topography of the site. This form has been manipulated and adjusted in response to its orientation to allow a series of progressive openings in the roof that face north and allow light to penetrate into the space at the location of the catafalque and alter. This space above the catafalque and alter is also the highest section of the roof and volume within the chapel.



Chapel roof elevation radial setout geometry



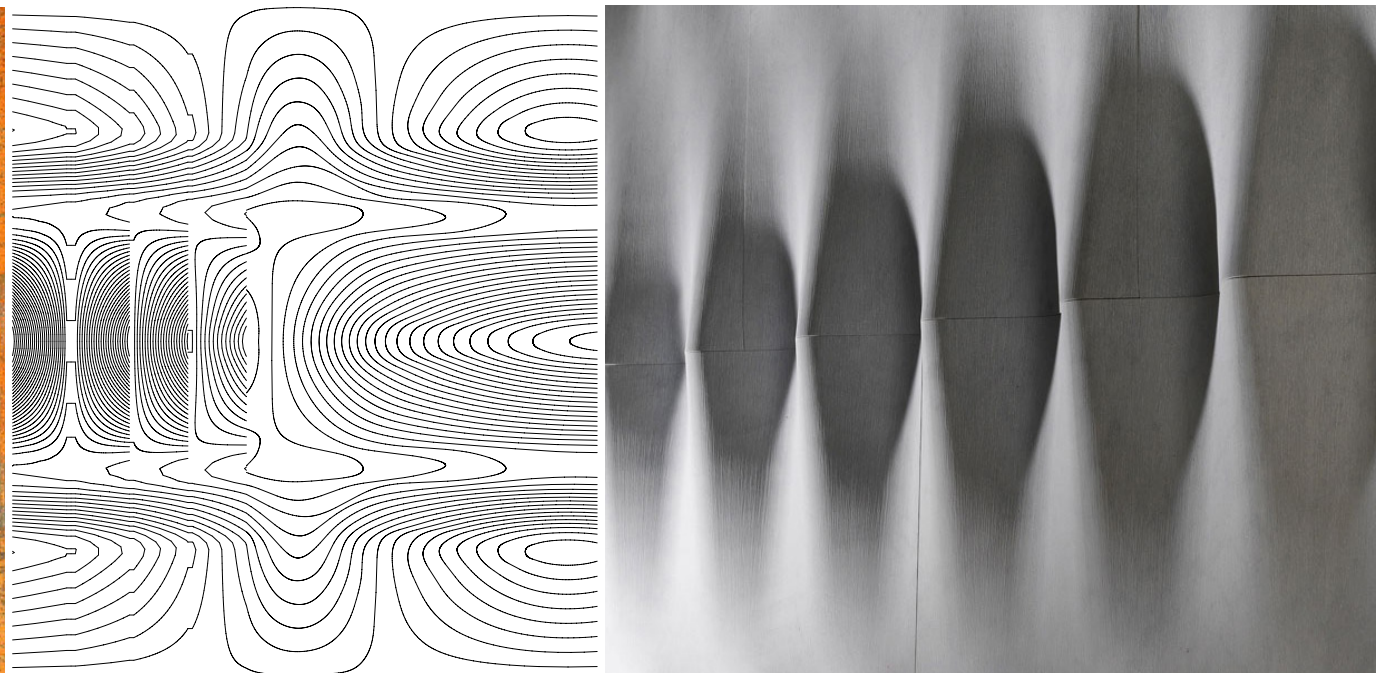
Chapel roof section radial setout geometry



Generated 3d splines of chapel



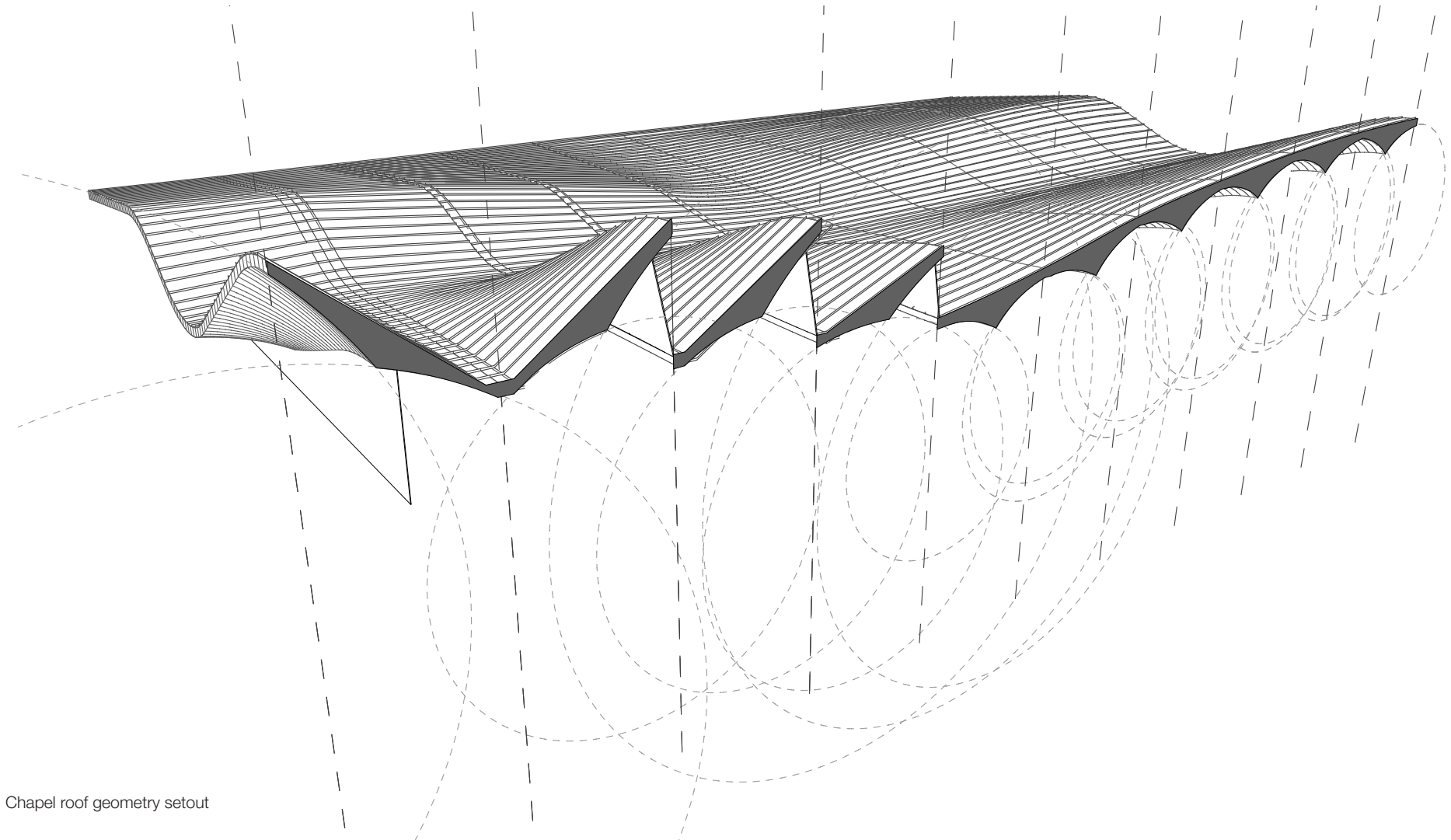
Contours of the underside of the chapel roof



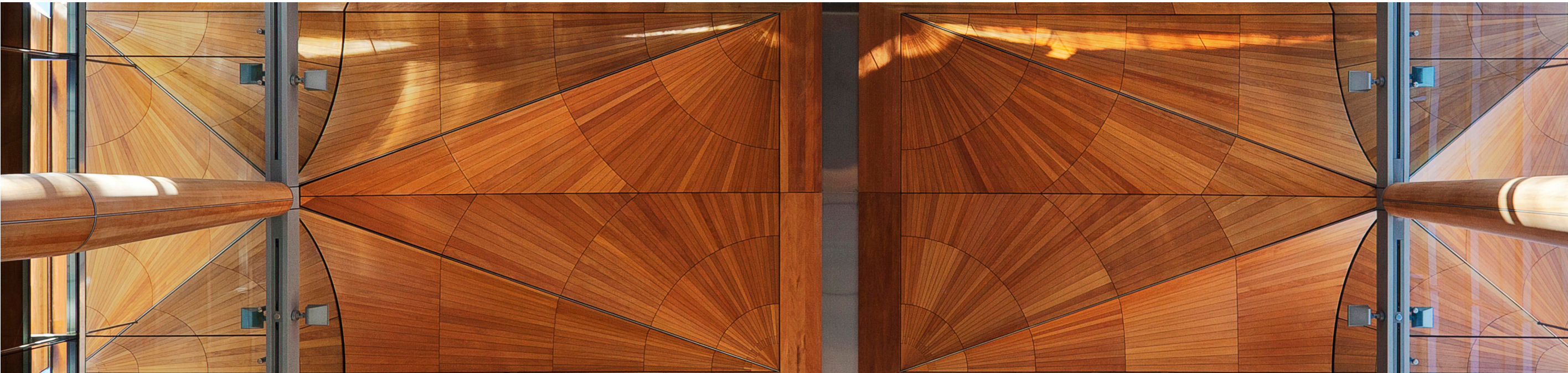
Contours of the top surface of the chapel roof

The detailed resolution of these roof profiles have been defined as a series of repeating geometries that enable repetition and therefore an efficiency in the fabrication process. There is an opportunity to develop this system further to generate a prefabricated system that could easily be fabricated off-site and delivered to site with only assembly and minor required. This would provide significant benefits for quality and cost control.

The roof profiles generated for the buildings that form part of the recreational landscape are of equal quality and attention to detail and geometric study but are resolved to more closely suit the character, scale and locality of these buildings as compared to the chapel. A similar process has been used to generate the repetition of curvilinear geometry for these roofs to create an efficient structure that is equally dramatic and complimentary to the topography and adjacent water bodies.



Chapel roof geometry setout



Auckland Art Gallery timber roof construction and geometry of fabrication (FJMT)



Chapel north - south section



Prefabrication and on-site assembly of timber roof structure



Fabrication and repetition



Fabrication and assembly



Curvilinear timber form study

Principle 6: Building Typologies

The approach for designing each of these buildings has been to understand the relationship they have to their immediate topography within the site. It is the intent to maintain low lying buildings that are single storey to minimise the visual impact they would otherwise have on the site.

A key design element to all the buildings are the light and organic curvilinear roof forms that purposefully draw inspiration from the surrounding topography and help to intentionally soften the forms against the landscape. In particular the chapel roof has been developed and represented as a series of contoured surfaces reminiscent of the undulating ground surface.

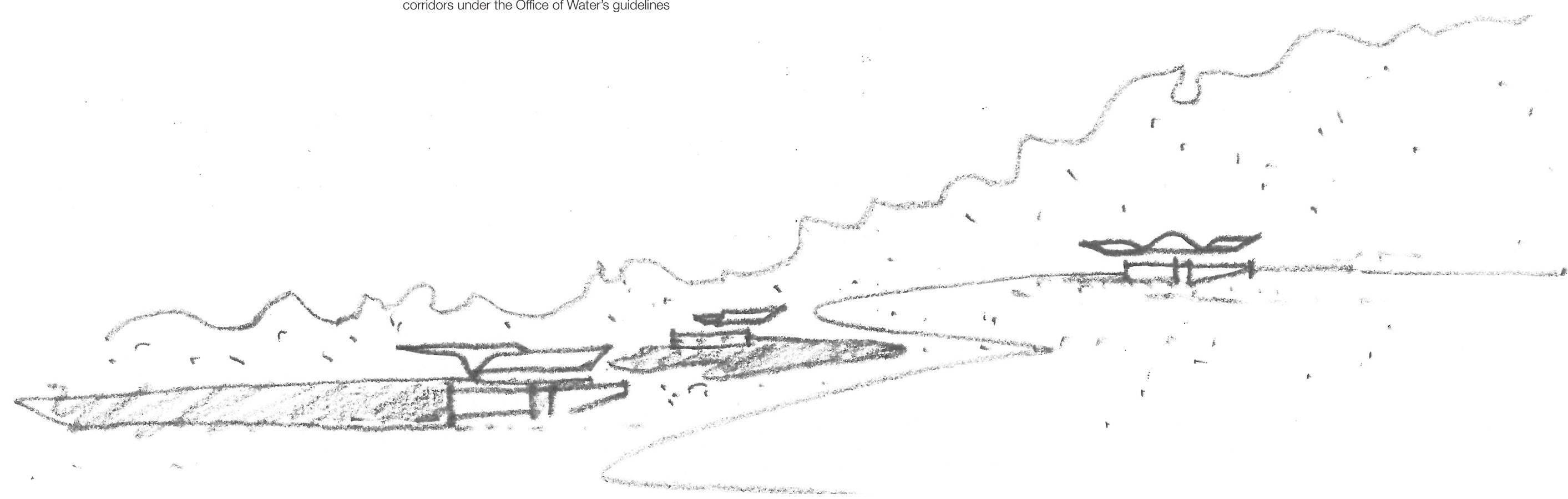
The buildings have been positioned sufficiently apart from each other and spread across the site to reinforce their individual settings within the landscape and to further minimise their perceived impact on the site as seen from short and long range views of the site.

Areas of the site that have been identified as sensitive to long and close range views have been maintained free of any proposed buildings. Where buildings have been located on the site, additional tree planting and woodland is proposed to help further integrate the buildings in the landscape.

The location of the cafe and function buildings have minor encroachments into perimeter of designated riparian zones of the adjacent waterways. Under the Office of Water guidelines for Controlled Activities in Riparian Corridors this is an acceptable encroachment provided an offset is made. As part of the recreation landscape the intent as described is to provide an opportunity for the public to experience this natural creek setting and therefore provide the required offset.

The design concept includes opportunities to rehabilitate the riparian zones of existing dams and watercourse 3 & 5 and recreate pockets of Cumberland Plain Woodland and swamp schlerophyll forest in low lying areas, combined with walkways and raised boardwalks (where required over low lying / floodplain areas). These uses are acceptable for riparian corridors under the Office of Water's guidelines

This area will be the subject of a future Vegetation Management Plan. Progressive revegetation of other degraded riparian zones is also proposed. The area of proposed riparian zone in the concept design is in excess of vegetated riparian buffer as identified by the Travers Report.



Masterplan

The placement of each building and the immediate related landscape elements has significant regard to the Landscape Master plan and respects the design principles and the project vision which informed the initial building placement and circulation networks.

A response to topography and landscape are enhanced by the creation of new vistas and relationships between each site. The buildings sit lightly within the landscape and engage carefully with the lakes and dams reinforcing the ecology of the site.

The unique qualities of the site, are understood, maintained and enhanced with the proposed design which draws from and develops the master plan base.



Masterplan



