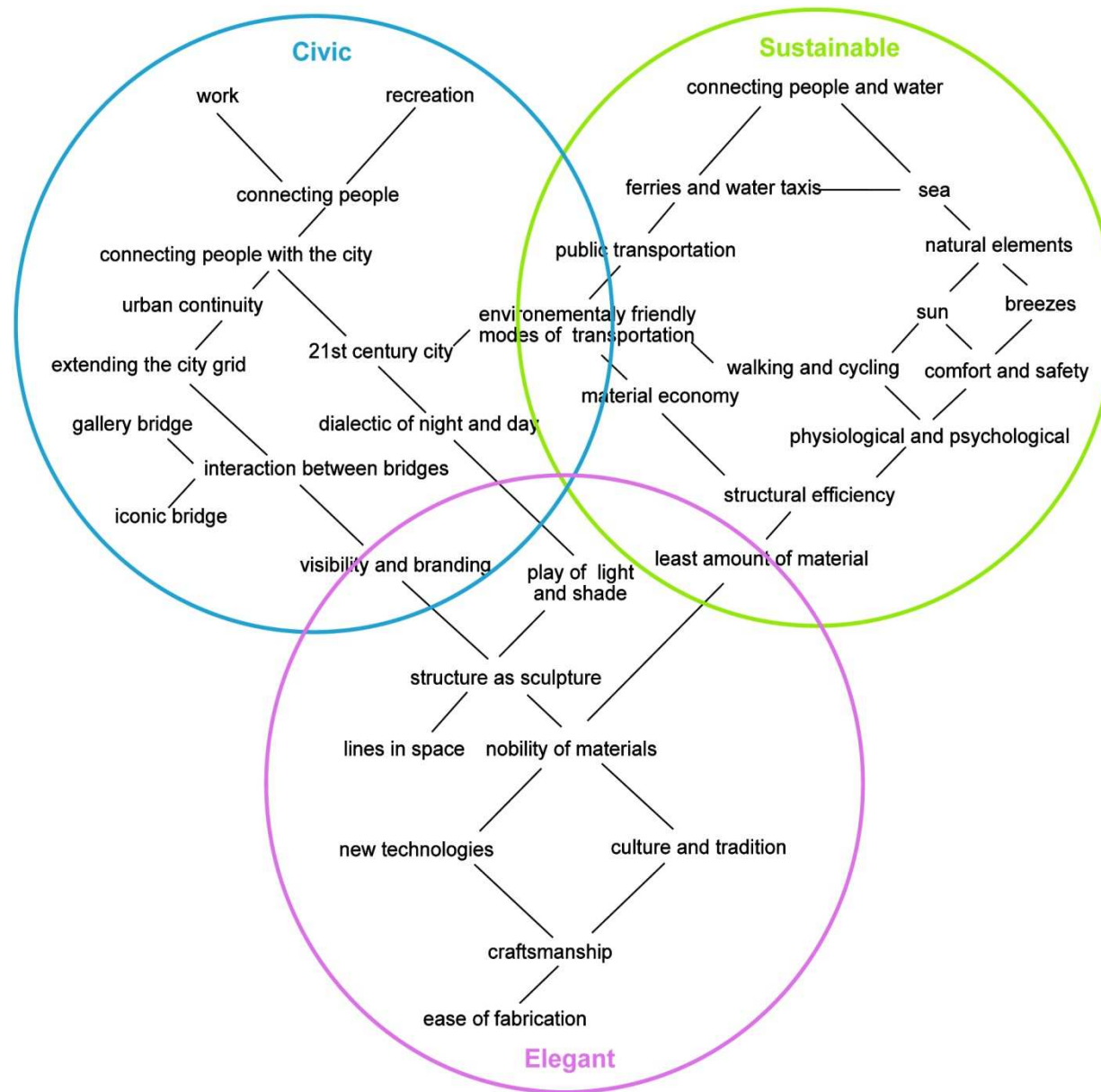


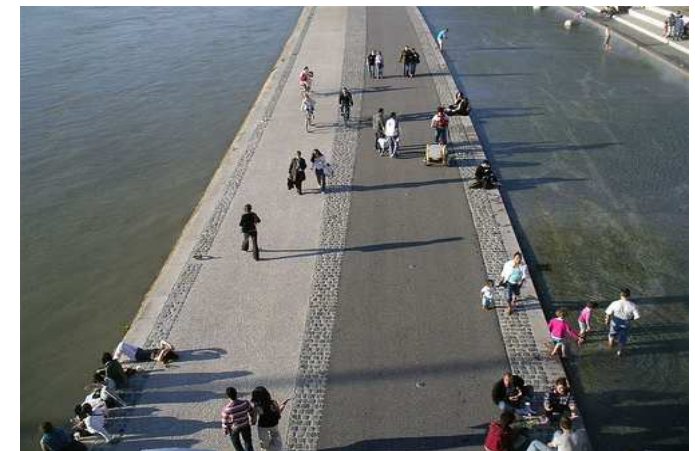
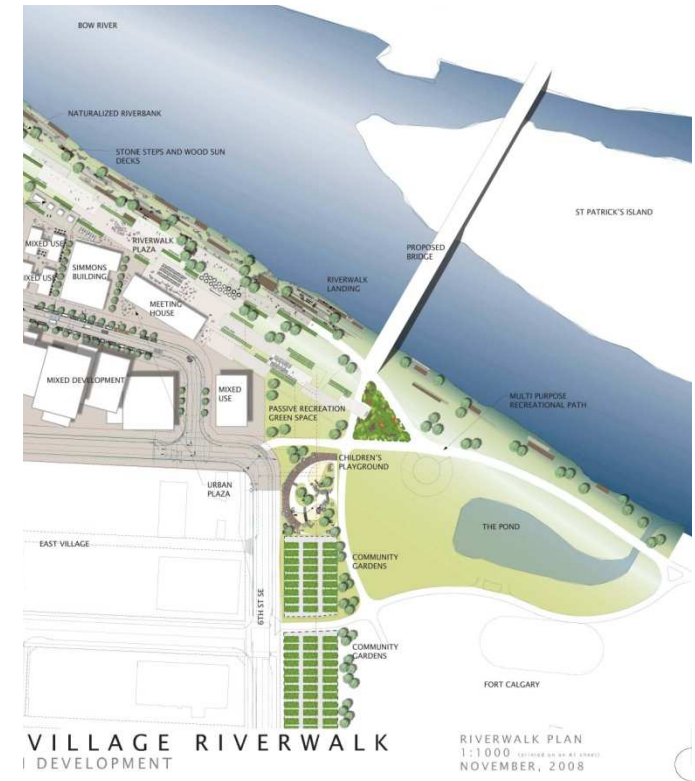
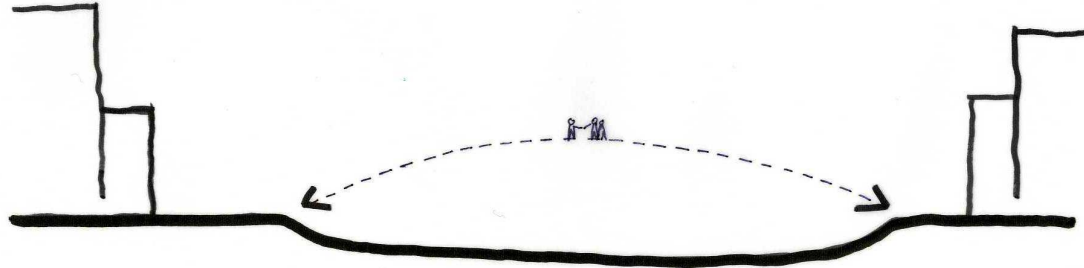
## architecture et franchissement : l'intersection des idées



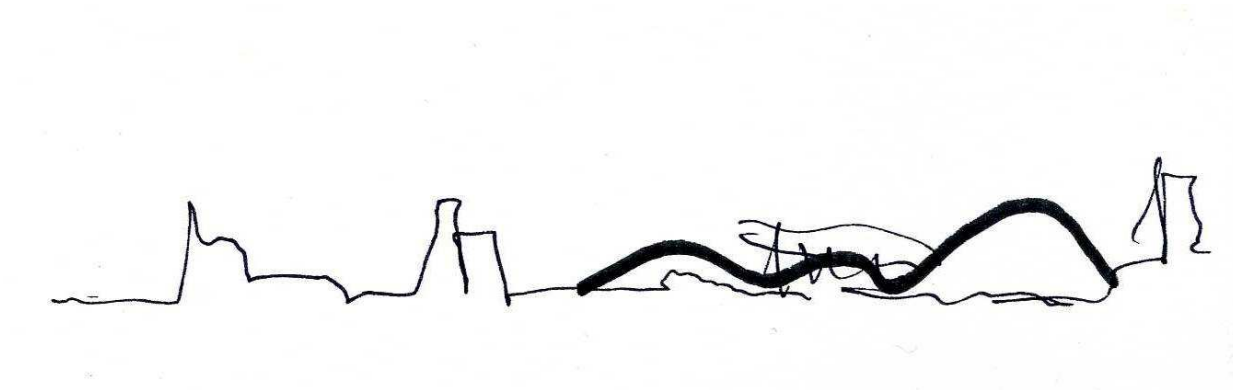
Architecture et franchissement : environnement et espace public

# Architecture et franchissement : environnement et espace public

A structure for Calgary: A critical link between communities

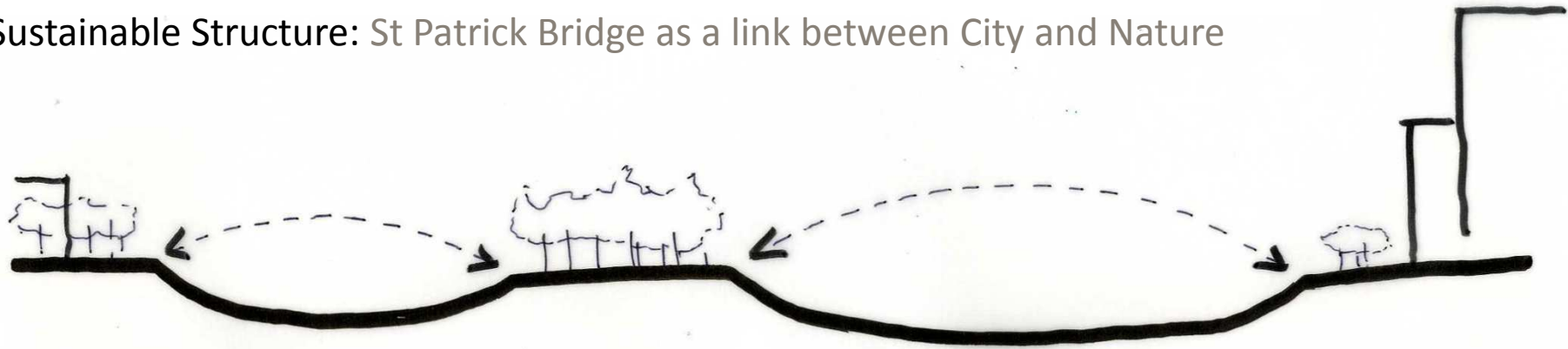


## Architecture et franchissement : environnement et espace public



## Architecture et franchissement : environnement et espace public

### Sustainable Structure: St Patrick Bridge as a link between City and Nature



## architecture et franchissement : Oloron Sainte Marie



## architecture et franchissement : Oloron Sainte Marie



## architecture et franchissement : Oloron Sainte Marie



Options Gave d'Aspe



Options Gave d'Ossau

## architecture et franchissement : Oloron Sainte Marie



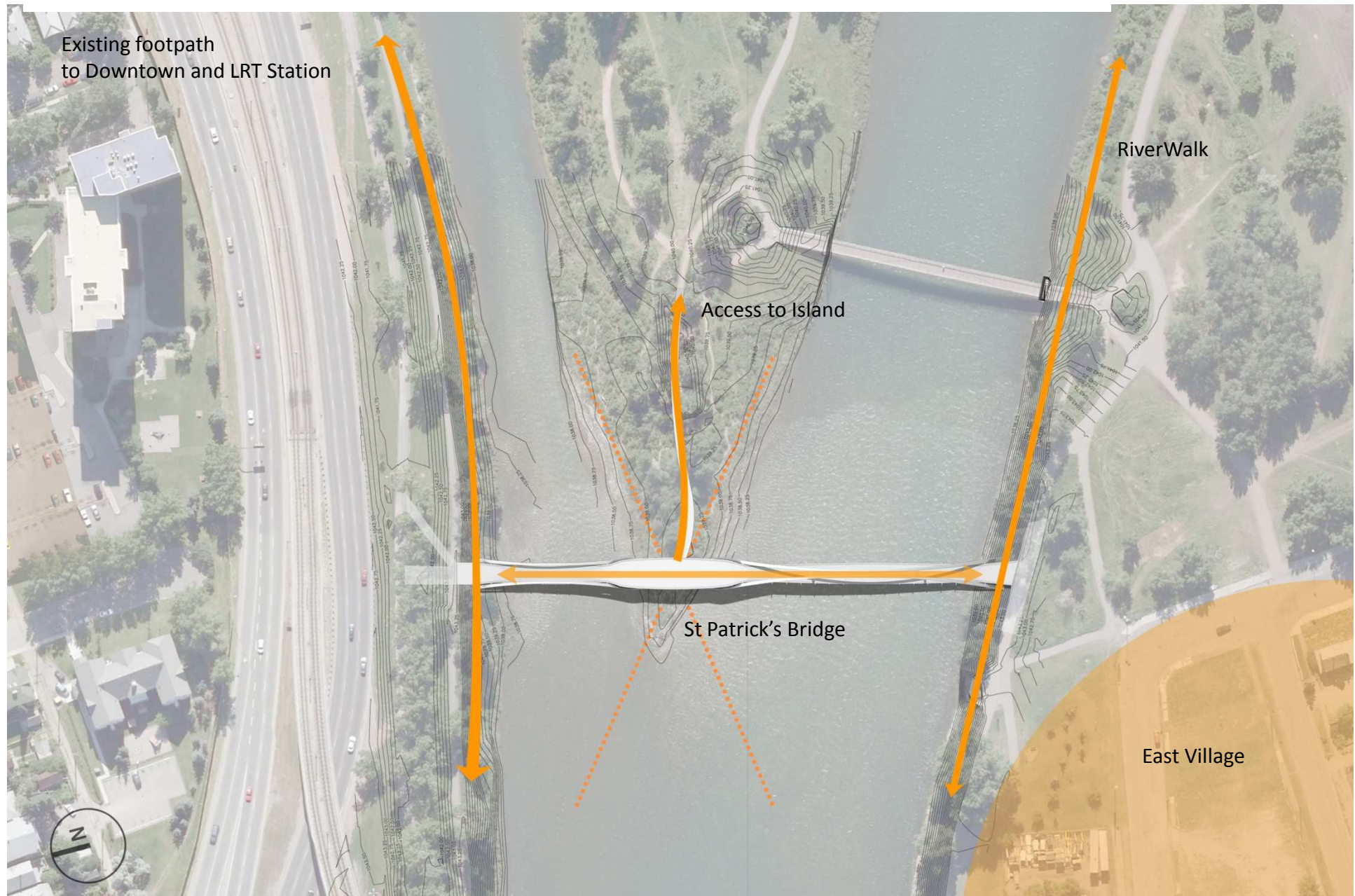
## architecture et franchissement : Oloron Sainte Marie



## architecture et franchissement : Oloron Sainte Marie

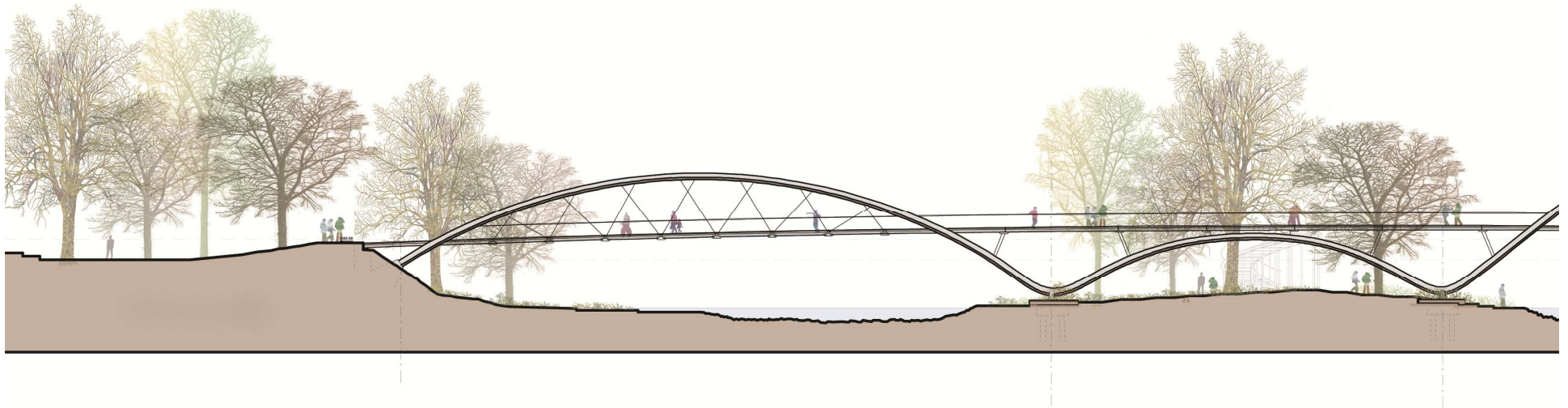


## architecture et franchissement : Calgary



architecture et franchissement : Calgary

The Natural Bridge: Skipping across the Bow river



## architecture et franchissement : Calgary



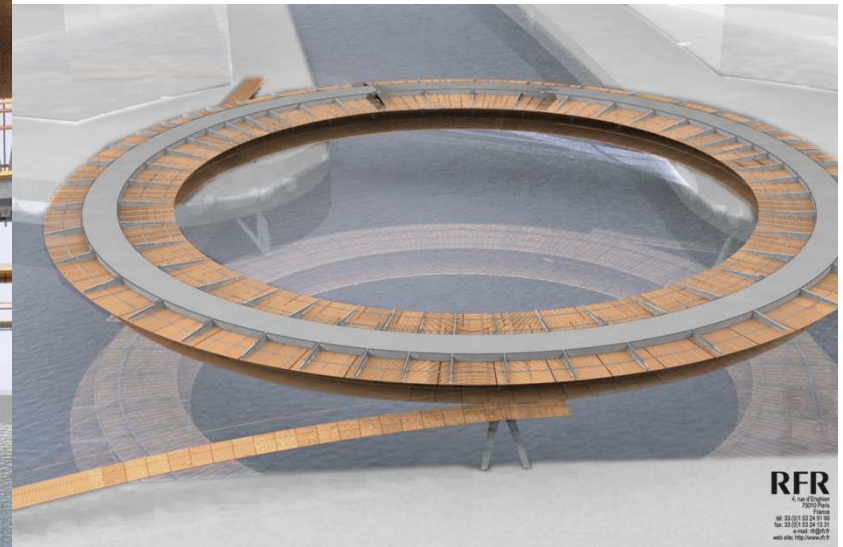
## architecture et franchissement : Calgary

Access to St. Patrick's Island: A walk through the Tree Canopies

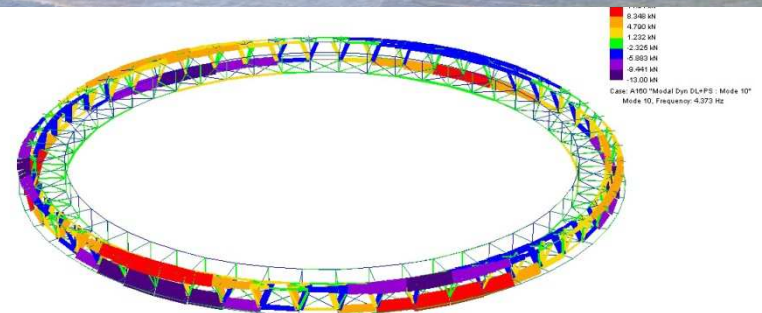
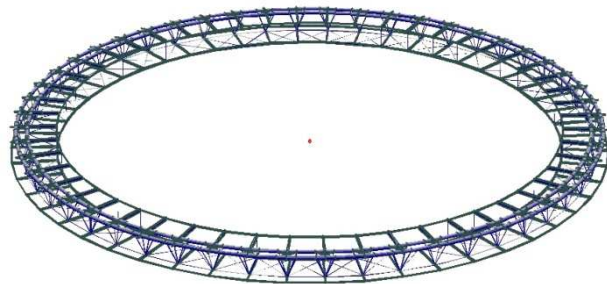
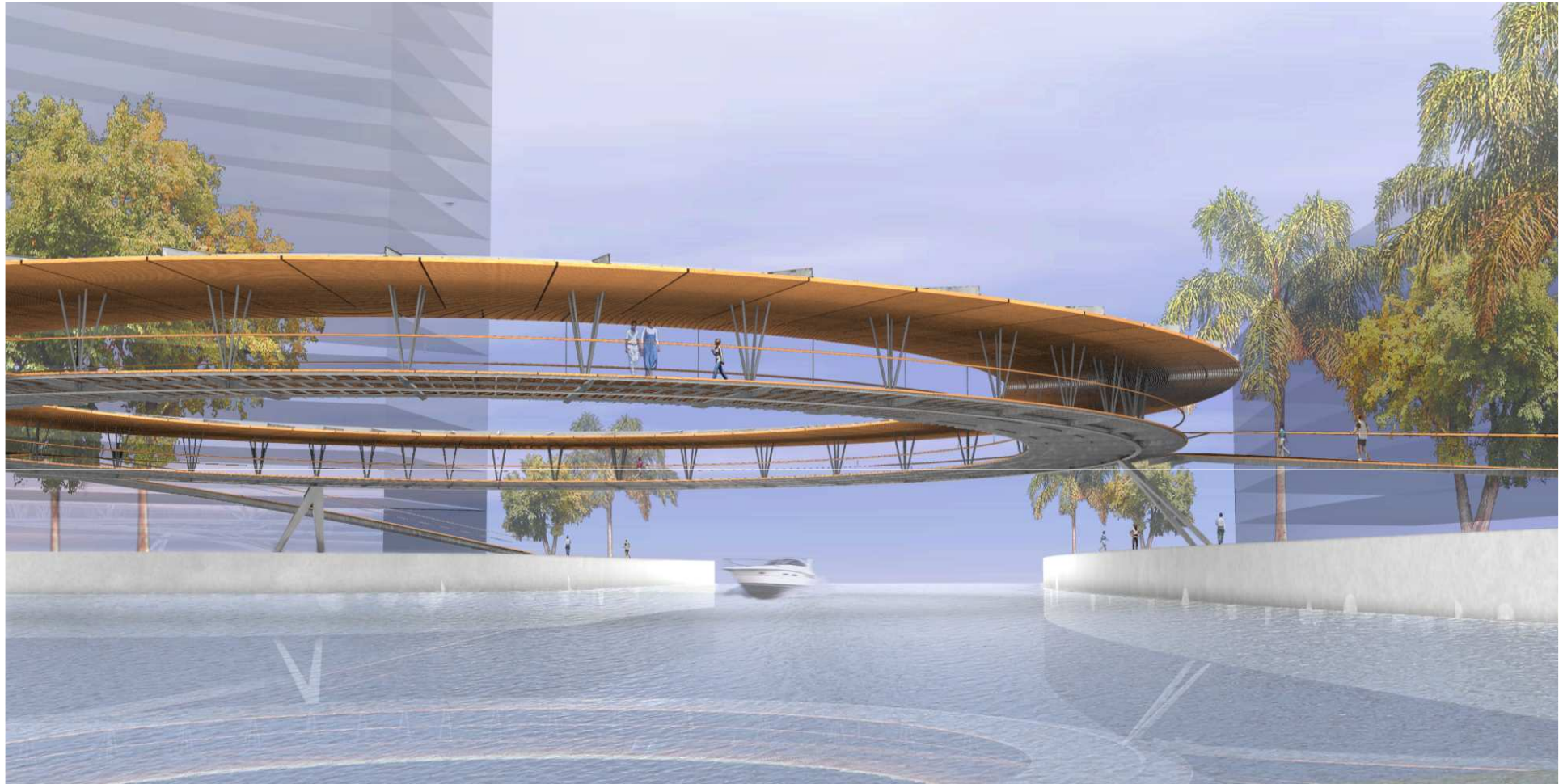


architecture et franchissement : espace public et lieu de vie

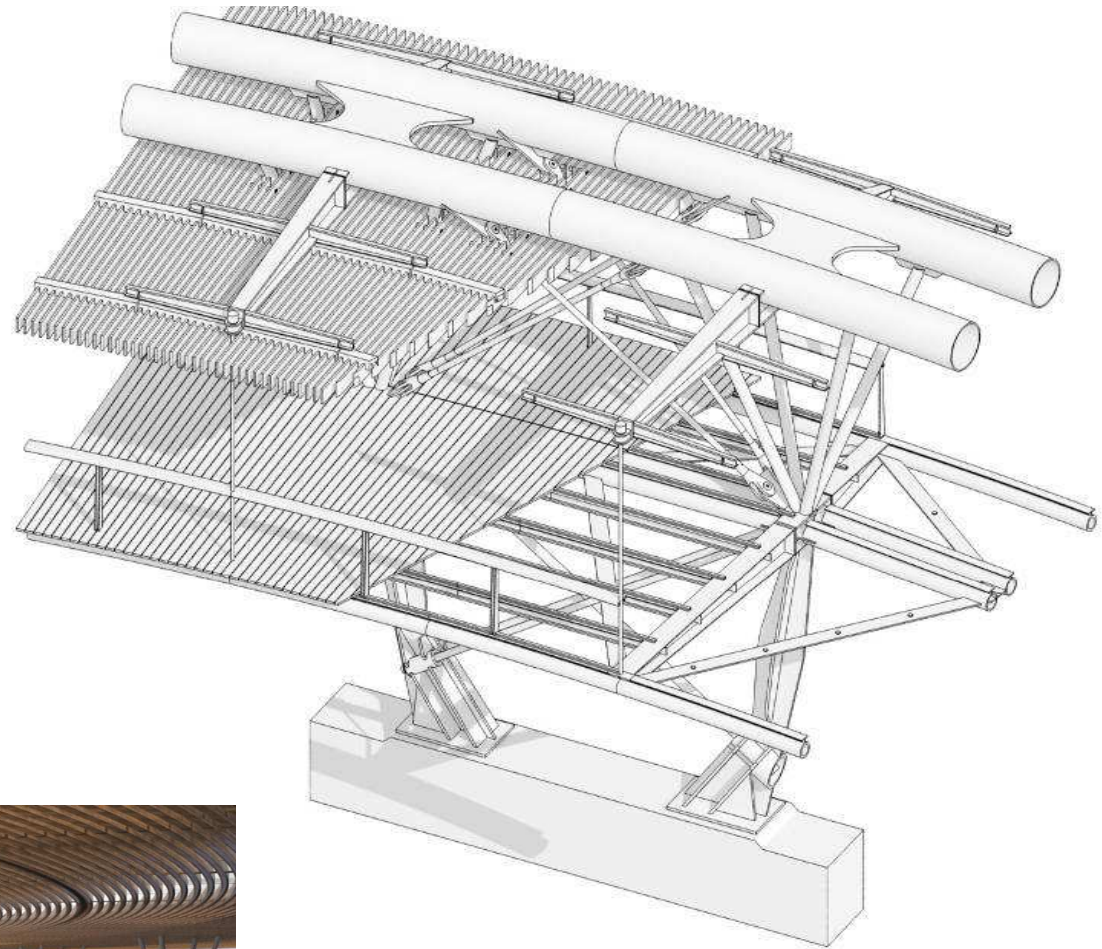
## architecture et franchissement : espace public et lieu de vie



## architecture et franchissement : espace public et lieu de vie



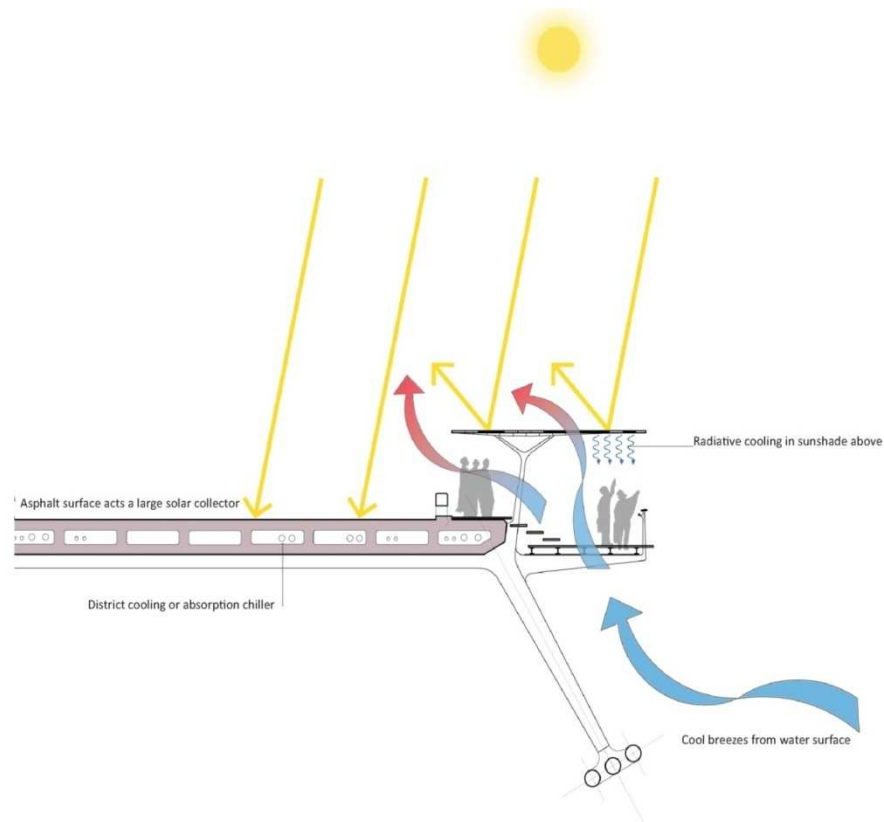
## architecture et franchissement : espace public et lieu de vie



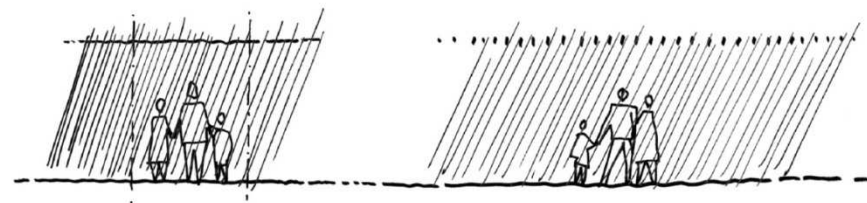
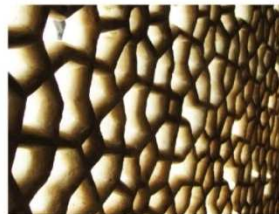
## architecture et franchissement : espace public et lieu de vie



## architecture et franchissement : espace public et lieu de vie

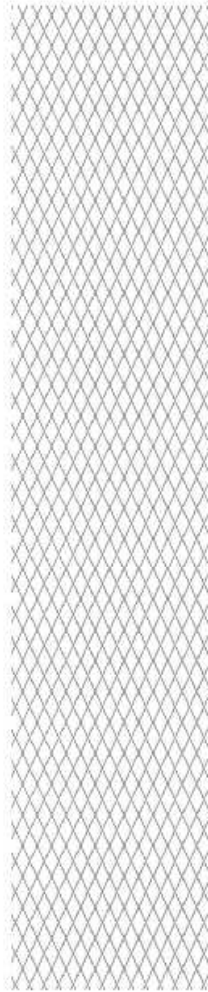


Pedestrians connections at the end of the bridges linked directly to planned pedestrian accesses.

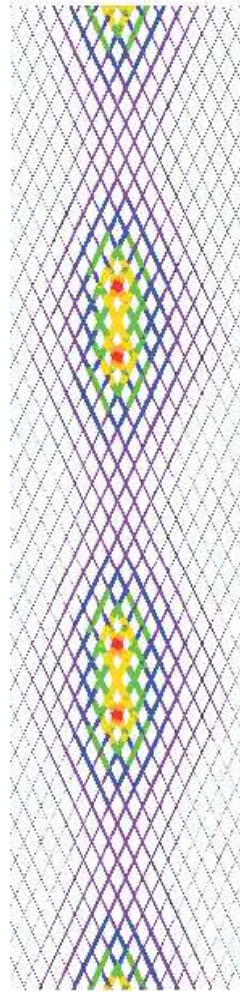


# architecture et franchissement : espace public et lieu de vie

ACULAR DESIGN - AL SOWWAH ISLAND  
 MATERIALS TREATED WITH NOBILITY **RFR**



**GEOMETRY**  
 Adapted to solar shading.



**STRUCTURE**  
 Color gradient indicates depth and thickness of Ductal grid members.



**EQUIPMENT**

- Photovoltaic pan
- Vacuum solar collector
- Radiative cooling panel
- Sound devices
- Lighting devices



**ROOF**  
 The final design is a result of all the environmental and structural constraints as well as added equipment for enhancing the pedestrian experience.



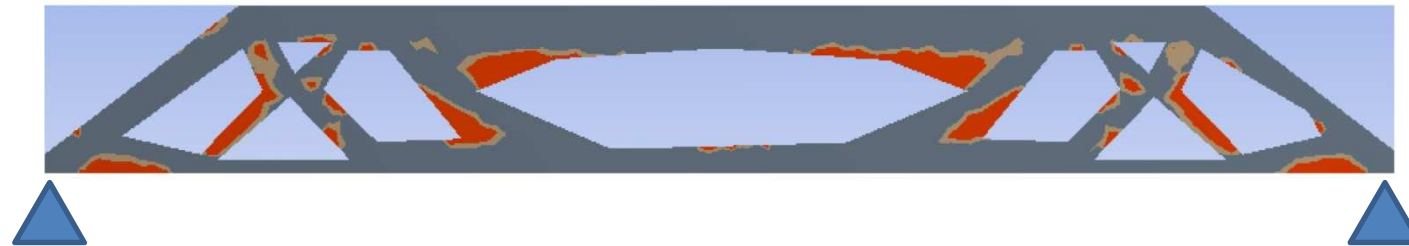
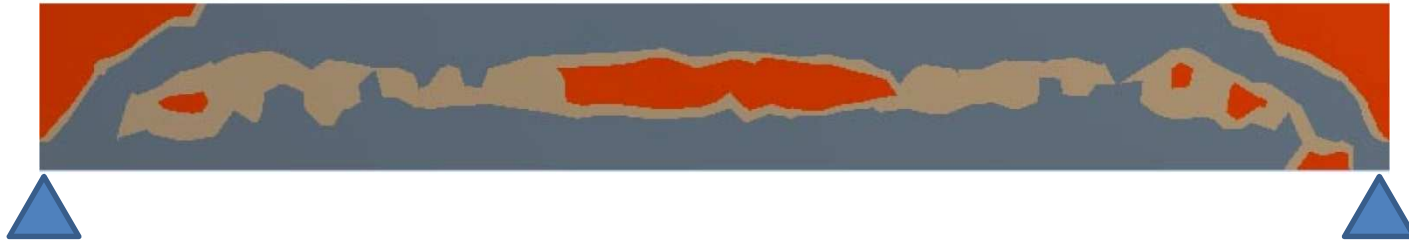
architecture et franchissement : structure et sculpture

architecture et franchissement : structure et sculpture



## architecture et franchissement : structure et sculpture

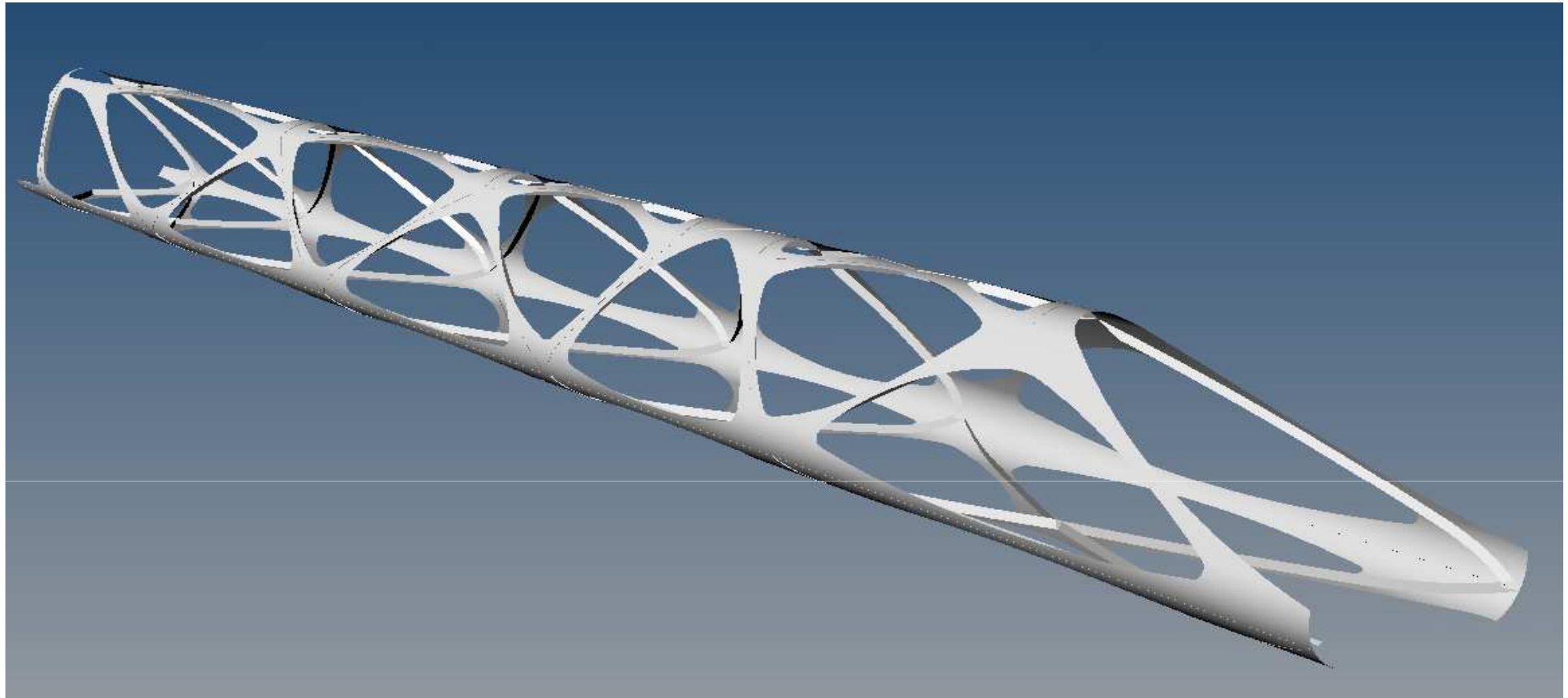
Simply supported beam, 2D plates, centred uniform loading



Continuous beam, 2D plates, uniform loading only at middle spans



## architecture et franchissement : structure et sculpture



| Coordinate (common UCS) |                                 |
|-------------------------|---------------------------------|
| Abutment                | A0 (256383.84;2705690.36;3.04)  |
| Intermediate Support    | S1 (256414.43;2705690.10;5.50)  |
| Intermediate Support    | S2 (256455.81;2705684.75;5.50)  |
| Abutment                | A3 (256485.463;2705677.23;3.04) |

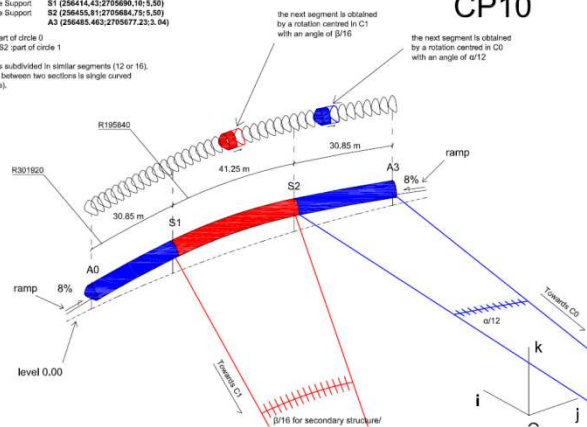
S2 to A3 : part of circle 0  
Span S1 to S2 :part of circle 1

Each span is subdivided in similar segments (12 or 16). The surface between two sections is single curved (developable).

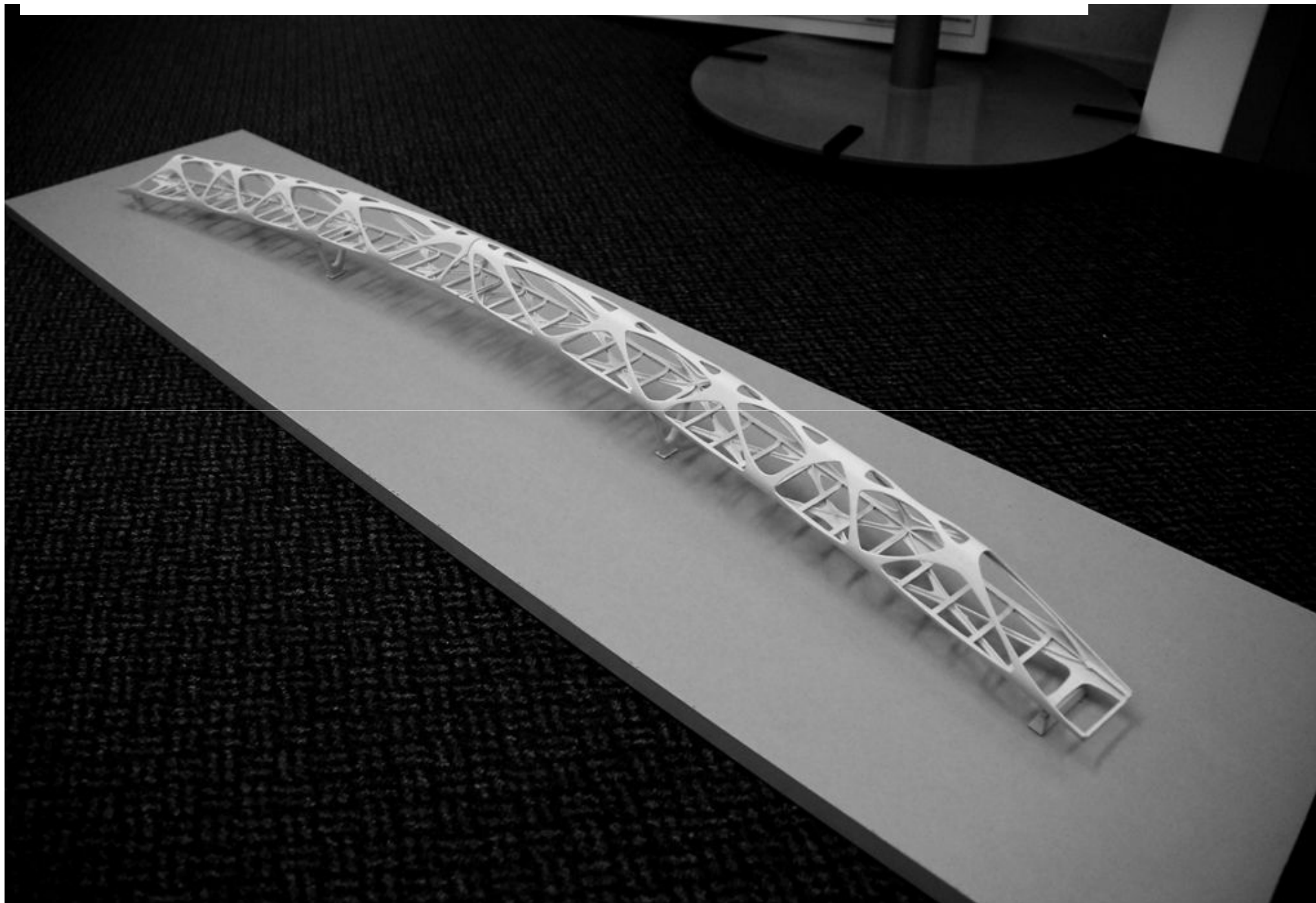
CP10

the next segment is obtained by a rotation, centred in  $C_1$ .

the next segment is obtained by a rotation centred in C0 with an angle of  $\alpha/12$



architecture et franchissement : structure et sculpture



architecture et franchissement : matériaux traités noblement

## architecture et franchissement : structure et sculpture



## architecture et franchissement : matériaux traités noblement

