WATER RESOURCE EXPERIMENT STATION / matthew colianni

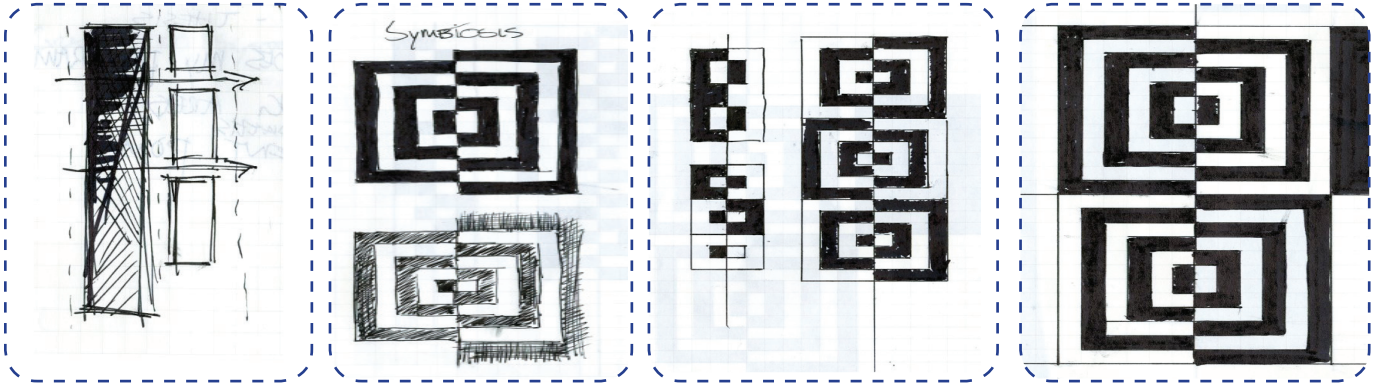
August 26, 2011 / Site Visit

August

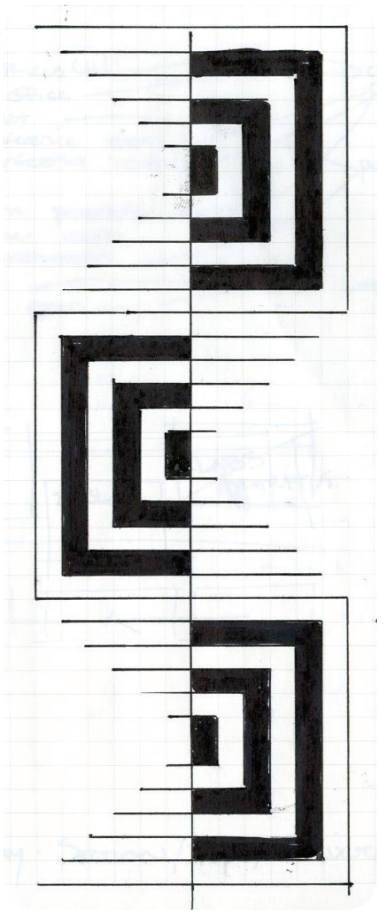
September

October

Mid-Term Review



Parti Development



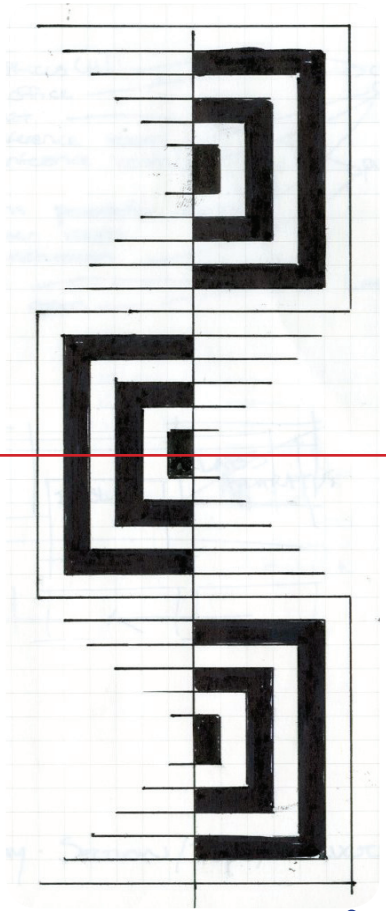
September 20 / Parti

SYMBIOSIS

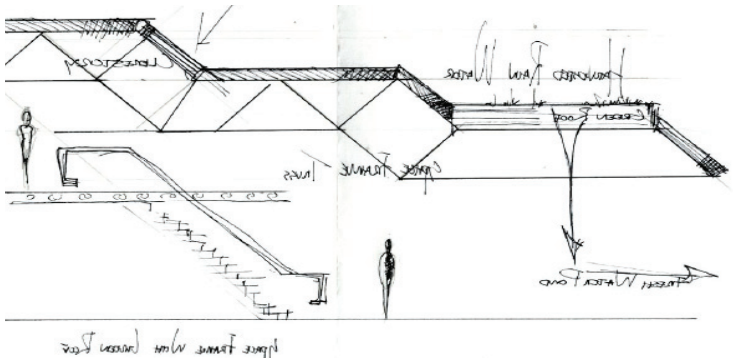
"A constructed wetland functions as a symbiotic relationship formed between strategic human planning and natural systems"

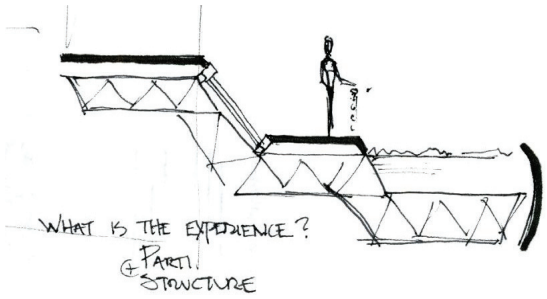
August 26 / Constructed Wetlands Presentation

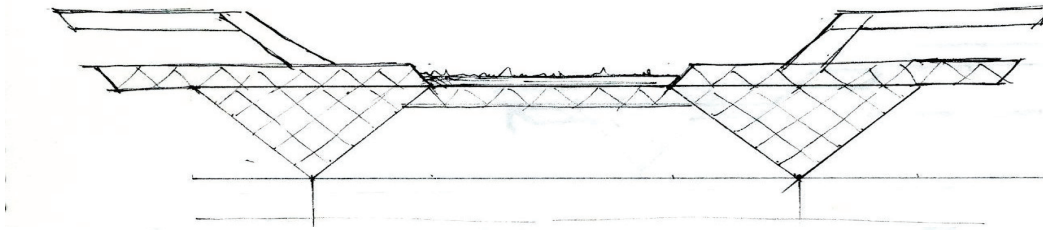
August | September | October | Mid-Term Review

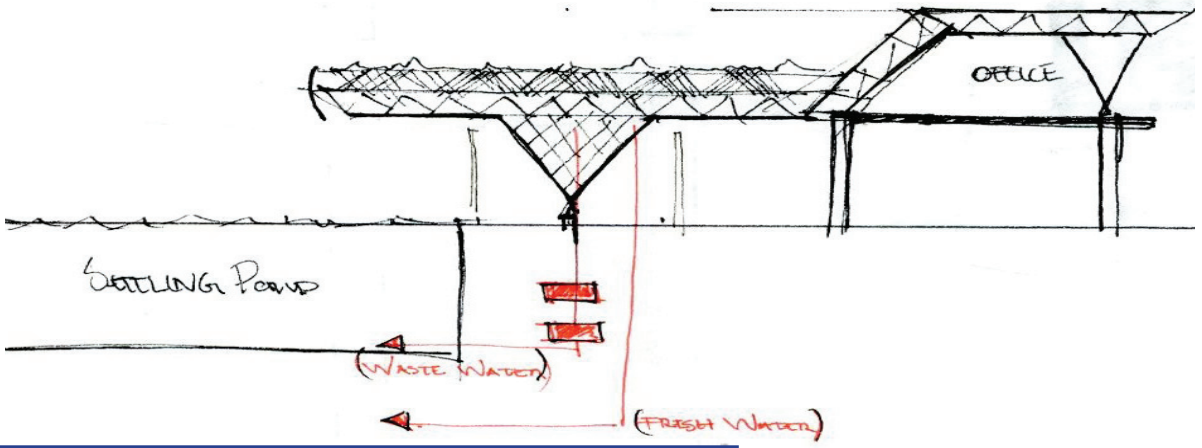


Parti Analysis / Elements









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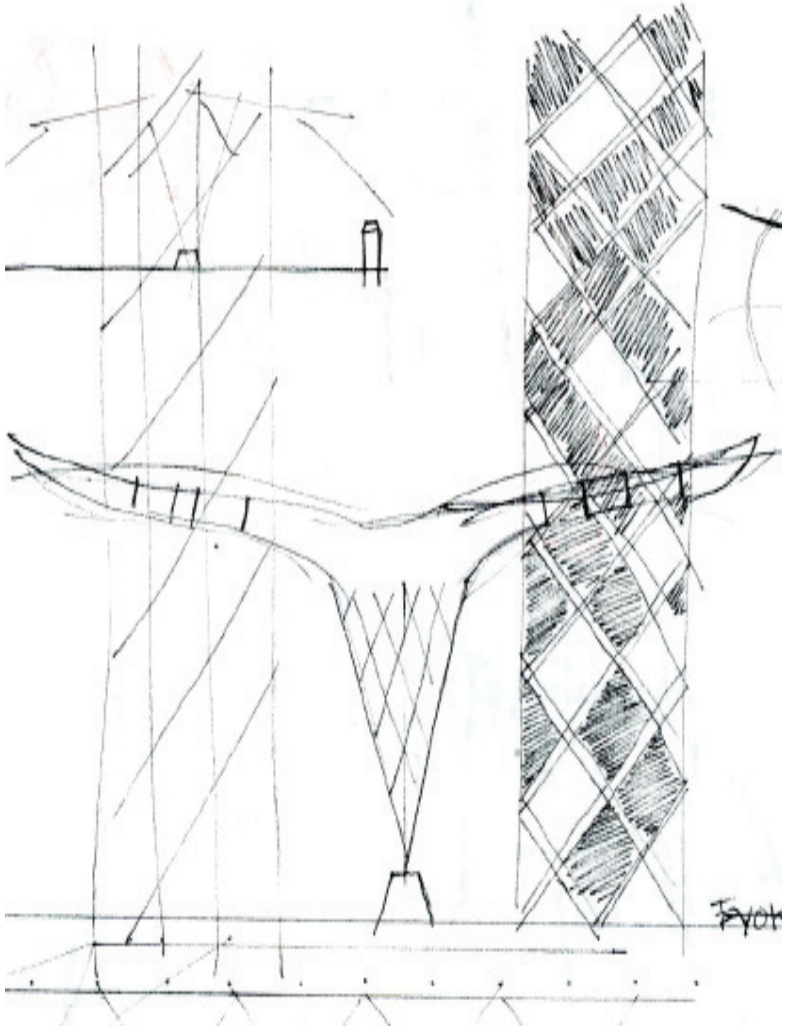
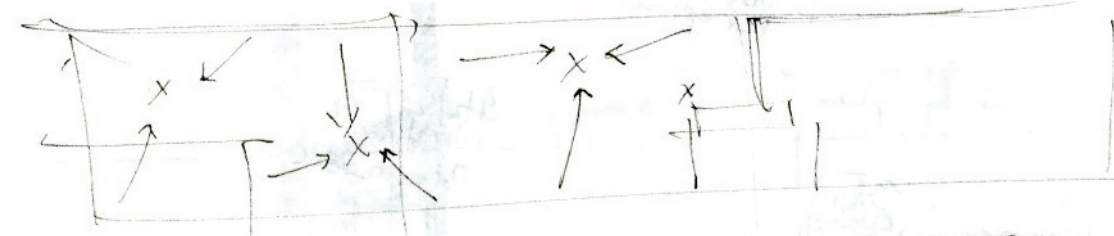
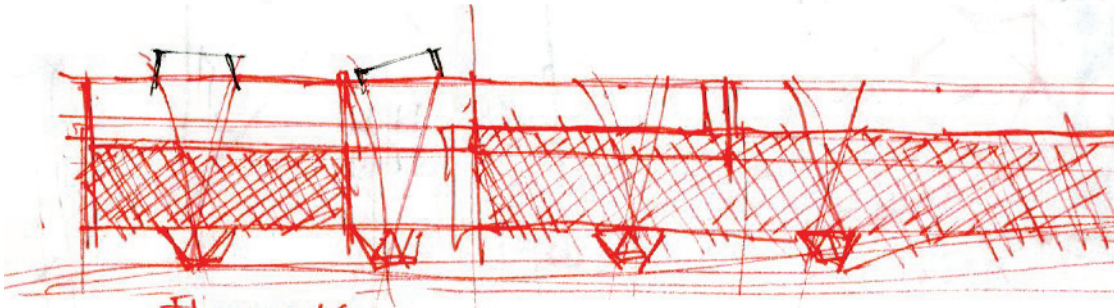
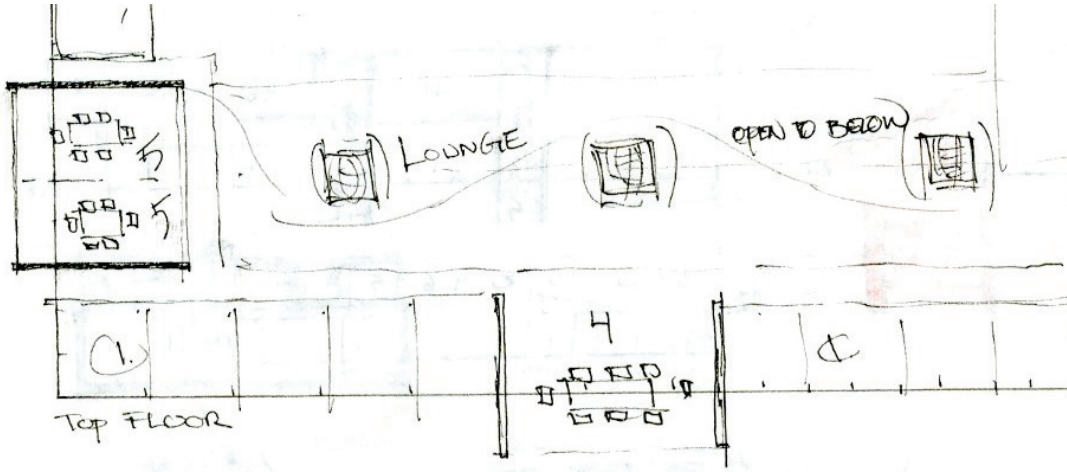




NODES SERVE AS DRAINAGE POINTS



FLOATING FOOTINGS



Further Analysis / Nodes

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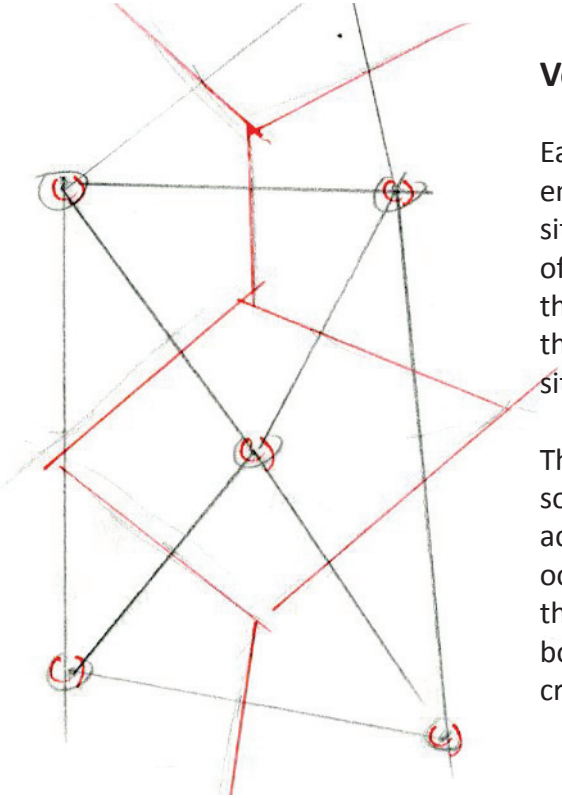
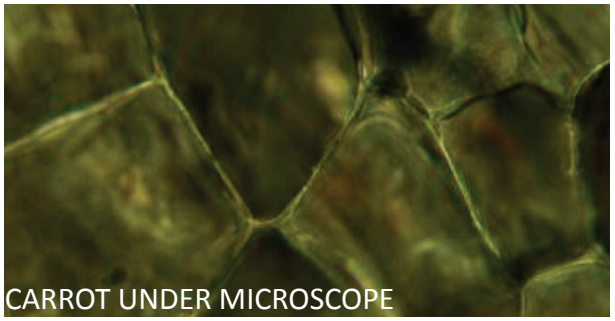
Mid-Term Review



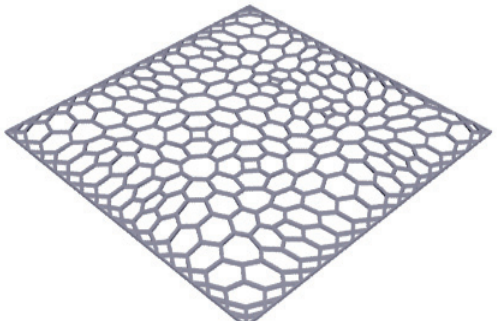
Voronoi Tesselation

Each cell in the diagram encloses a particular site, and the surface of the cell contains all the points on the plane that are closer to that site than to any other.

The math describes a sort of optimal path across a plane; They also occur in odd places, like the spots on a giraffe's body, a turtle's shell, cracked mud, etc...



CARROT UNDER MICROSCOPE



Structure Analysis / Voronoi Diagram

SYMBIOSIS

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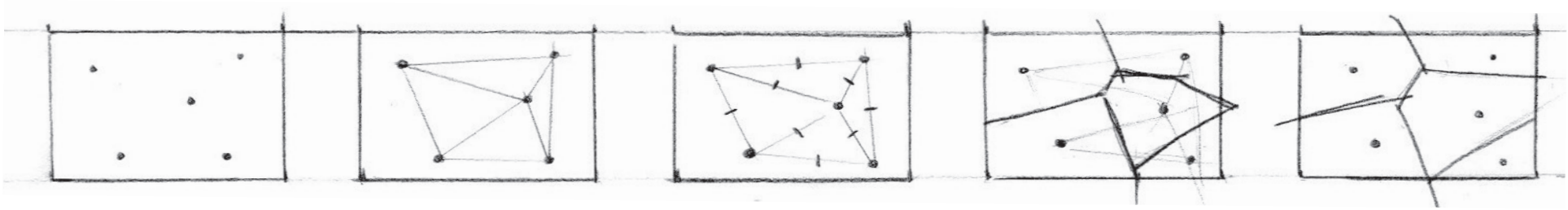

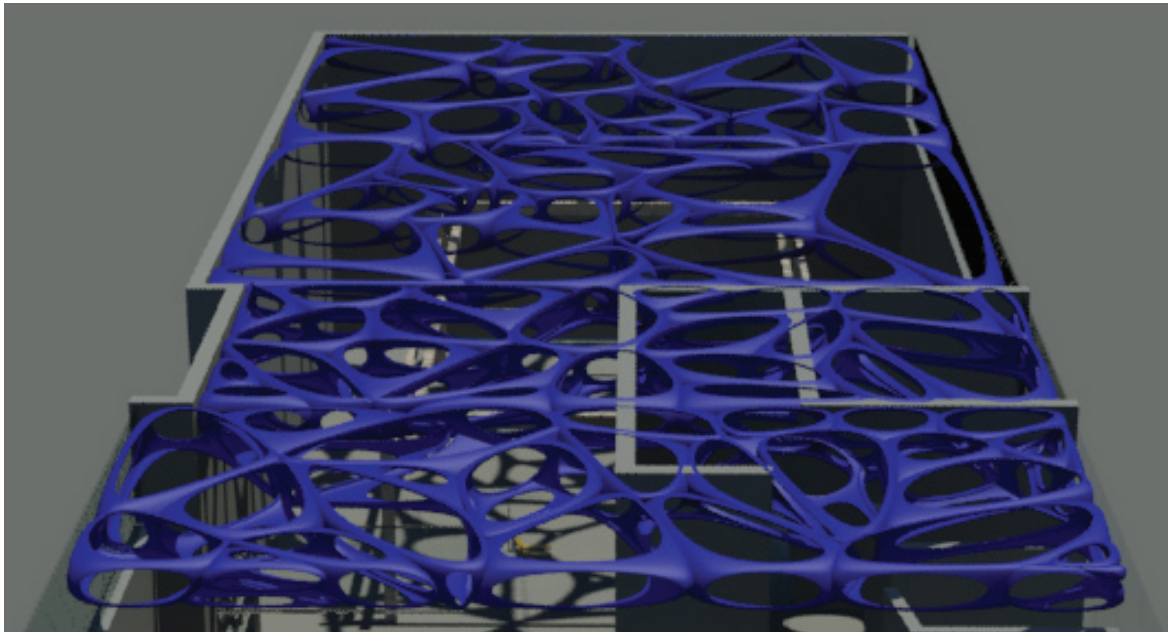

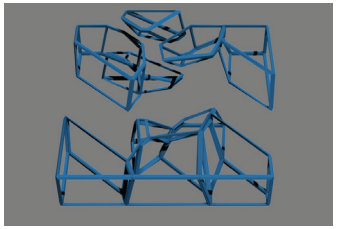

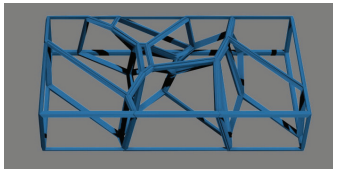

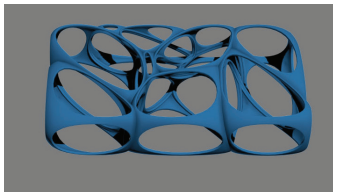

Rather than a conventional space truss which distributes load across regular geometry, voronoi soace truss would distrubute load using voronoi tesselation pattern. Loads are calculated as point generation and carried accross a path accoridng to the voronoi tessleation in three dimensions creating a cellular space frame truss.

Further Analysis / Application

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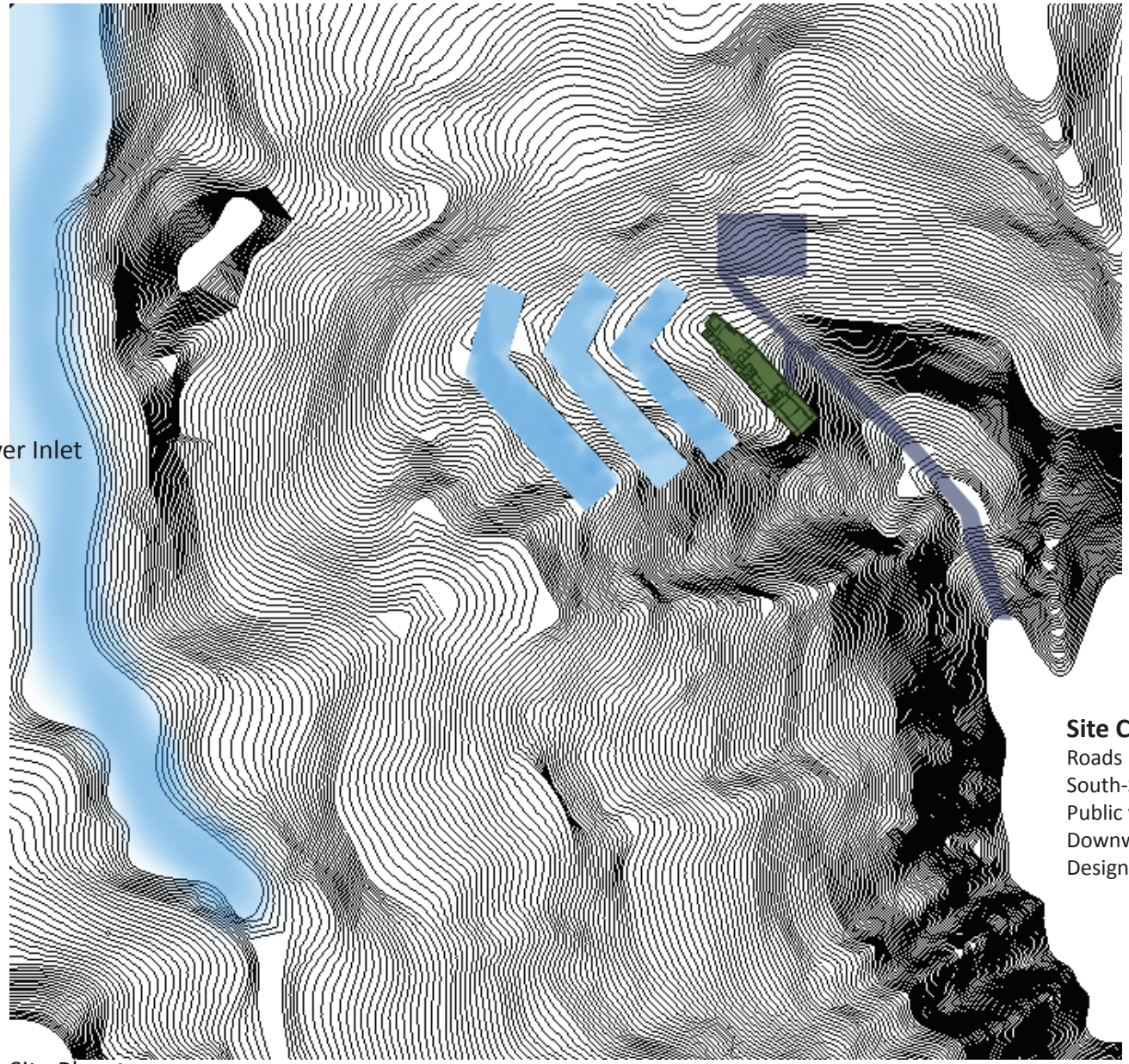

Site Considerations

Roads Feasibility Study
South-SouthWest Office Orientation
Public view to River
Downward Slope for Drainage Ponds
Design-Site Integration (Parti)

North

Site Plan

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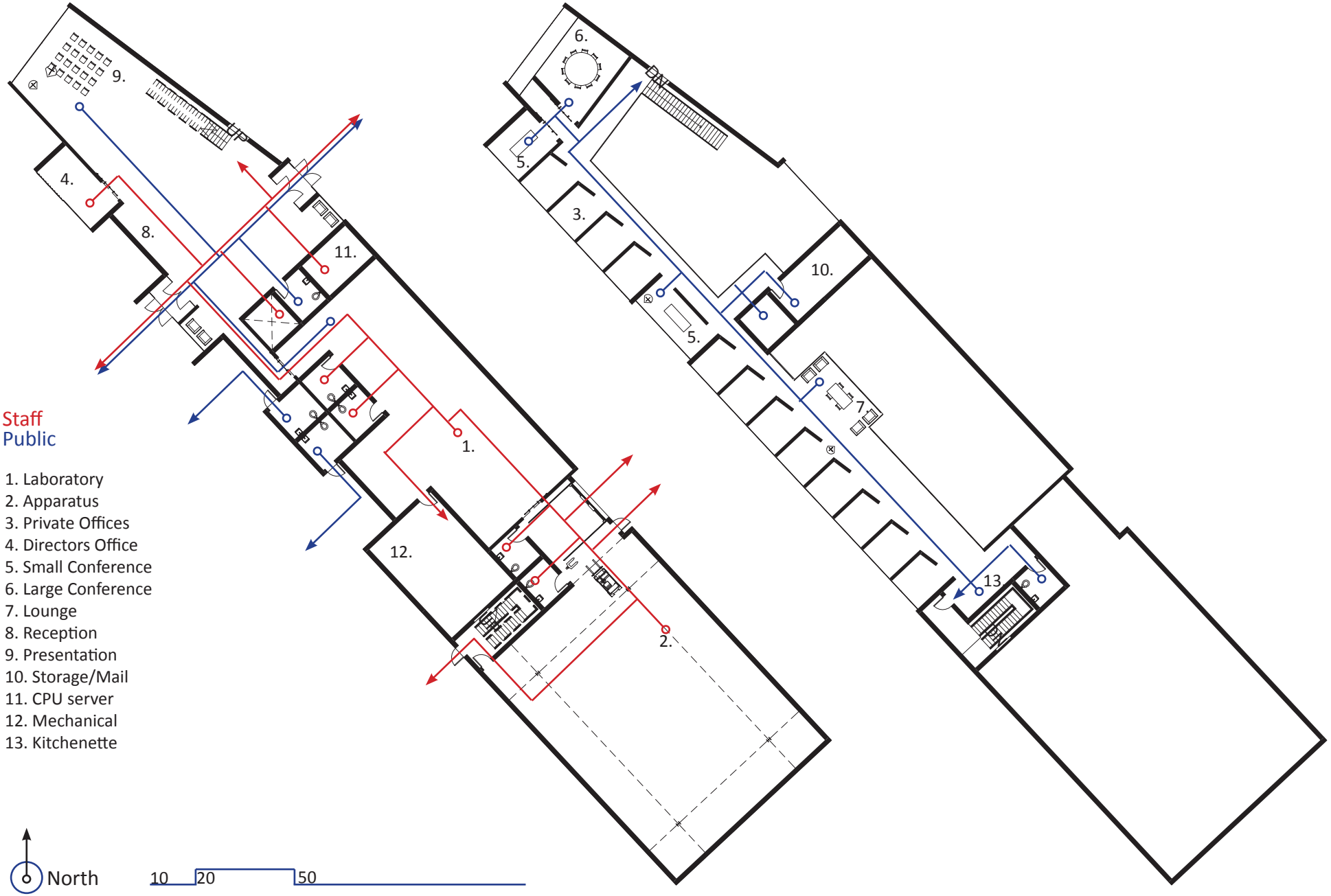
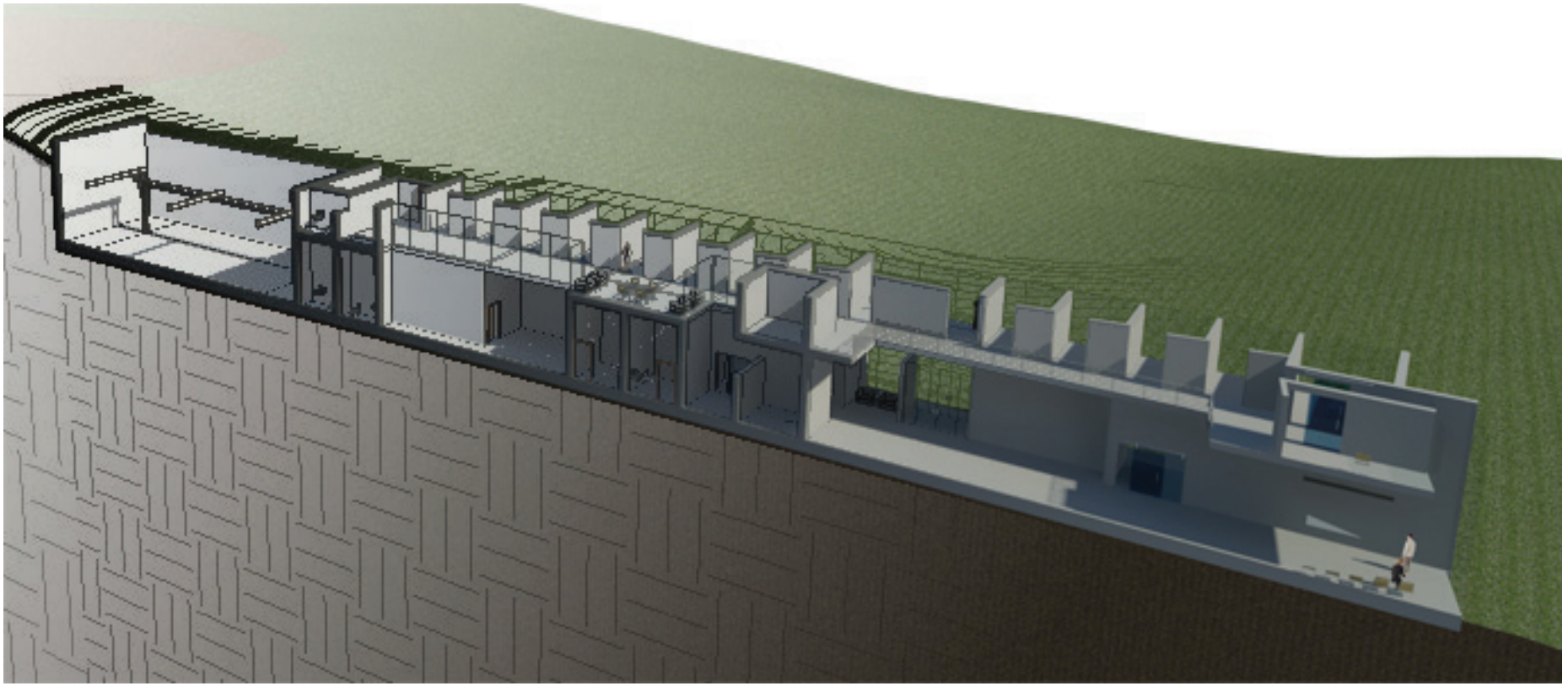
Mid-Term Review



Floor Plans / Private & Public

August — September — October — Mid-Term Review



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