

Avian Observatory

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Perched alongside a constructed wetland, this observatory designed for the Audubon Society marks an important location for wildlife preservation while keeping inquisitive humans from disrupting a sensitive ecosystem. The project's scope includes a 265sqft observatory upon 240 tons of fill. The structure is connected to a relocated parking area by an ADA accessible pathway within 30,000sqft of carefully reconsidered landscape topography and vegetation. Together, the site and observatory allow visitors to come in close proximity to the 300 migratory avian species that stopover or make the site home. Completed just nine months after design began, the project is the culmination of work by graduate architecture students investigating aesthetic identity, constructed ecologies, and material techniques for digital fabrication. Students designed, tested, fabricated and installed the observatory while coordinating site grading and concrete work provided by Army Corps contractors.

Students began by reimagining the surrounding landscape, trail networks, vehicular access and vegetation to minimize the disturbance to sensitive species. The accessible path includes an angular concrete walkway which rises to the top of a constructed mound within the visual shadow of the observatory. The approach also carefully choreographs a sequence of views to the observatory and surrounding landmarks keyed to informational graphics that help to educate visitors while crafting a memorable experience.

On the exterior, students studied ideas of camouflage. But, the intent is not to blend in, just the opposite. Birds aren't bothered by the building, just the activity and presence of people. So the structure stands out from the context to attract visitors, but hides the people within through shaded apertures that blend into the exterior patterning. Phenolic resin and paper composite sheets constructed of alternating light and dark laminations revealed by CNC etching sheath the exterior of 23 demountable aluminum frames to create a shingled, faceted surface. Rugged and intricately patterned, the skin of the building simultaneously evokes both wildlife and military equipment. This tempered visual presence reveals bright, secondary red and teal highlights on the approach side of the observatory, incorporating the signature colors of the host institutions while avoiding logos.

Inside, the deep aluminum frames provide diagonal openings for viewers of all heights and small embedded shelves for binoculars. Extending from a larger gathering space where Audubon and Corps staff can talk with school groups, an 11ft cantilevered extension rises an additional 18in to provide a more prominent outlook. The interior is surfaced with black perforated aluminum, which helps to muffle sound and keep the space dim while obscuring visitors from view.

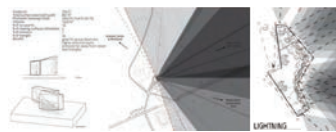
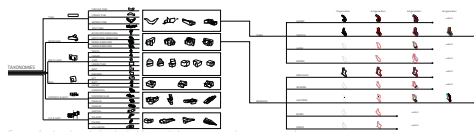
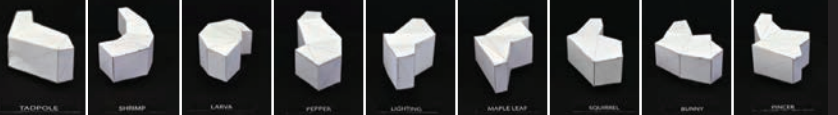
Contending with seasonal flooding, the site design and prefabricated elements were coordinated with the Army Corps's contingency procedures. A system of integrated gutters and downspouts inconspicuously siphon water from the UV resistant, polycarbonate roof through the panels to the exterior. Durable materials and lifting the ground just above flood stage help mitigate modest floods while improving visual access to the pond. But in a major flood, where floating debris is a concern, the 23 exterior panels can be quickly removed and taken to higher ground.

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Perched alongside a constructed wetland, this observatory designed for the Audubon Society marks an important location for wildlife preservation while keeping inquisitive humans from disrupting a sensitive ecosystem. The project's scope includes a 265sqft observatory upon 243 tons of fill. The structure is connected to a relocated parking area by an ADA accessible pathway within 30'00"height of carefully reconstructed landscape topography and vegetation. Together, the site and observatory allow visitors to come in close proximity to the 300 migratory avian species that stopover at Lake the site home. Completed just nine months after design began, the project is the culmination of work by graduate architecture students investigating aesthetic identity, constructed ecologies, and material techniques for digital fabrication. Students designed, tested, fabricated and installed the observatory while coordinating site grading and concrete work provided by Army Corps contractors.



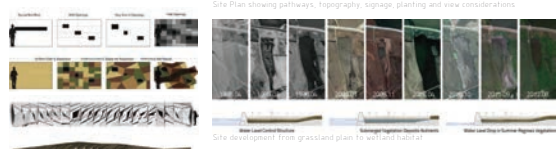
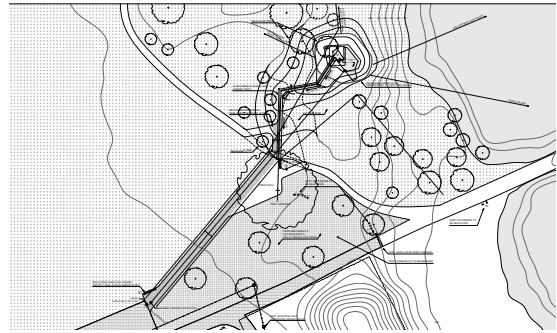
Students began by remapping the surrounding landscape, trail networks, vehicular access and vegetation to minimize the disturbance to sensitive species. The accessible path includes an angular concrete walkway which rises to the top of a reconstructed mound within the overall planing of the observatory. The approach also carefully choreographs a sequence of views to the observatory and surrounding landscape key to informational graphics that help to educate visitors while crafting a memorable experience.



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Interior view towards entry



Site developed from grassland plan to wetland habitat



1/2 and 1/4 scale panel details

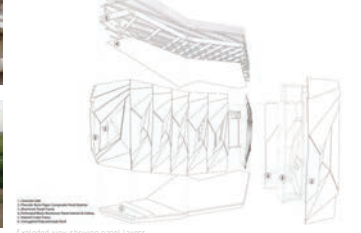


Flood-side view prior to final interior fabrication



Aluminum panels waiting transport to site

Panel and installation



Exploded view showing panel layers