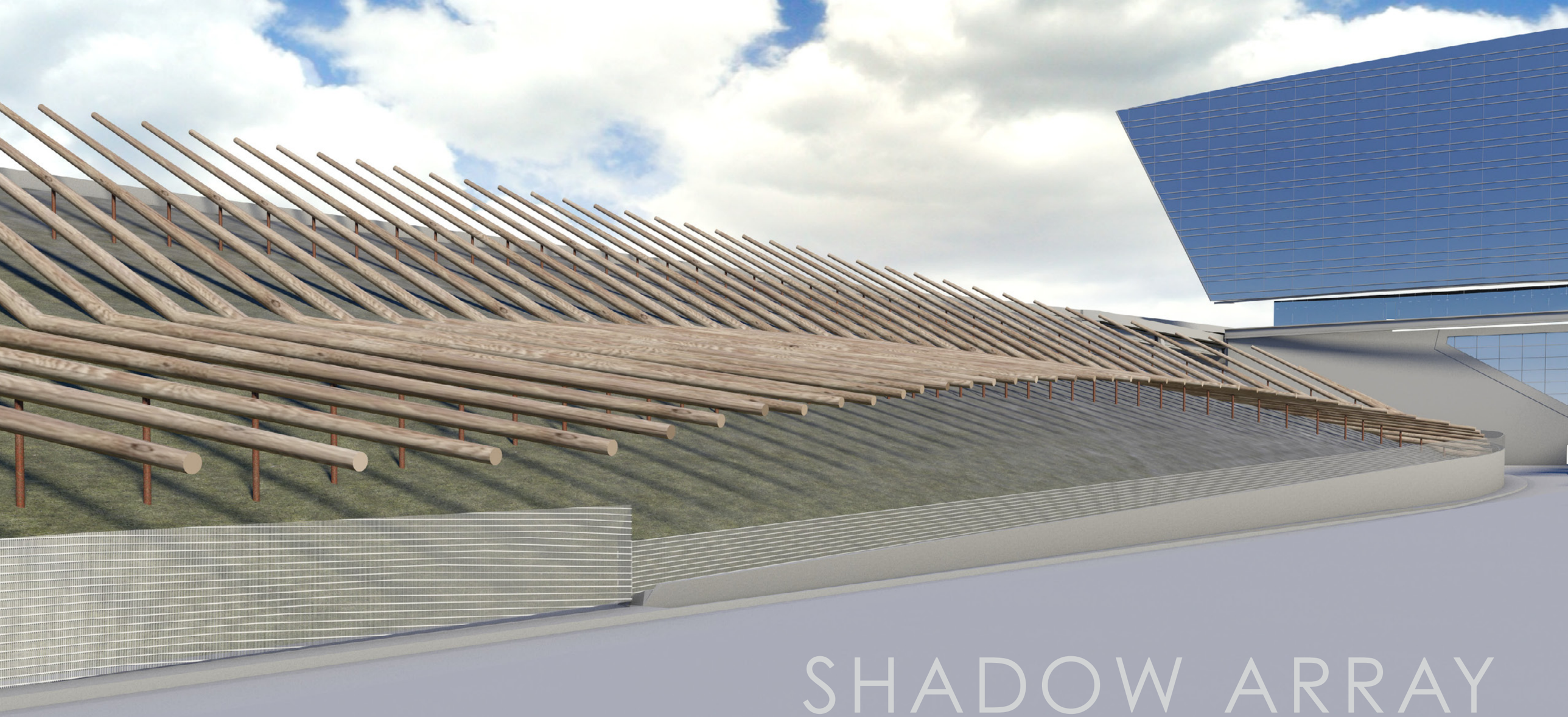


SHADOW ARRAY

SOUTH TERMINAL REDEVELOPMENT PROJECT. DIA.

PATRICK MAROLD STUDIOS INC 2013

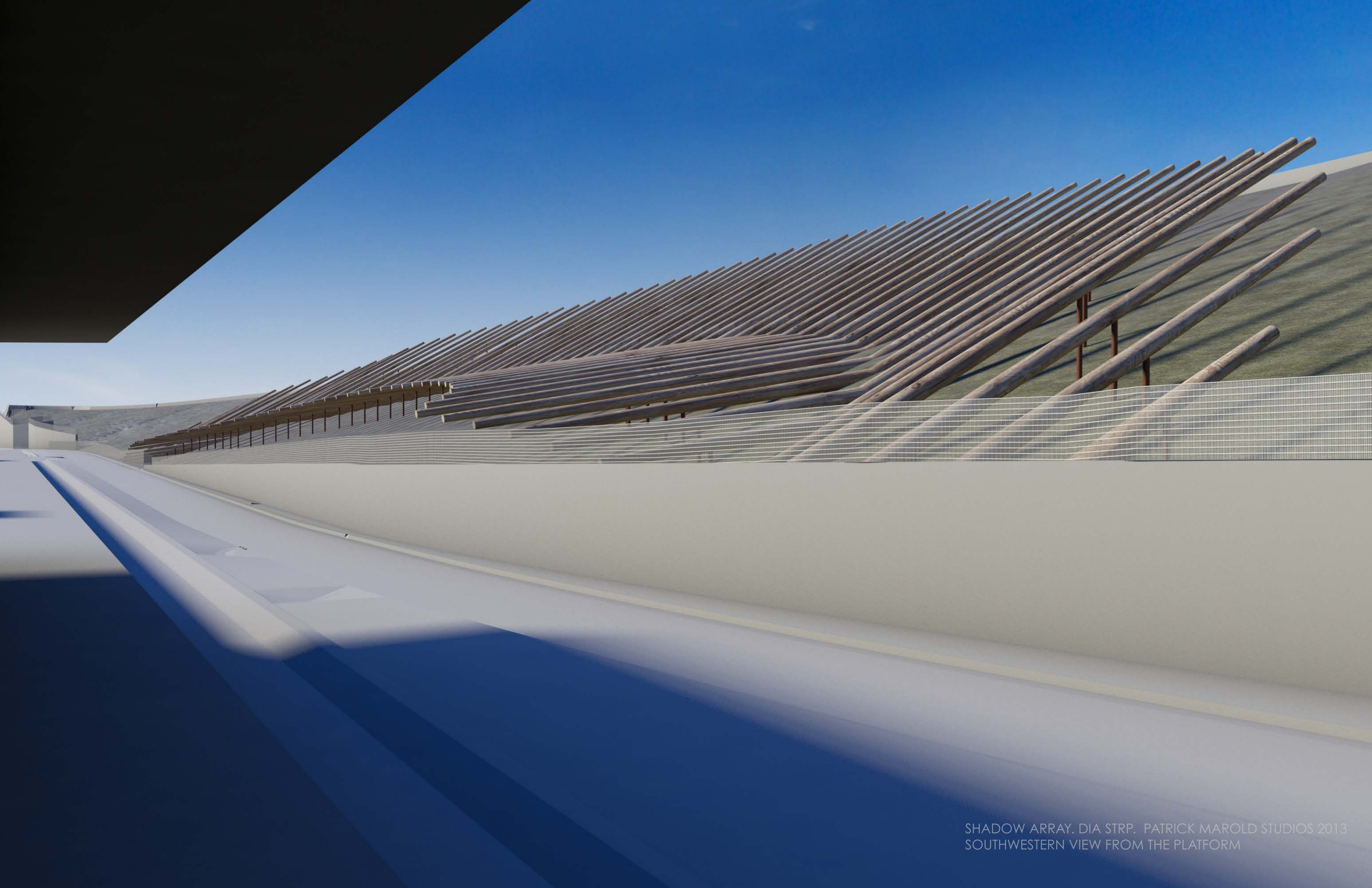
The Shadow Array is a sculptural installation that will enhance and activate the valley of the South Terminal Redevelopment Project at DIA. The log elements will introduce an environment that utilizes the solar exposure of this space and its grand scale to visually engage the viewer with the land and sky, enveloping them as they enter the valley on the arriving train or as they leave the terminal and walk onto the platform. From the public plaza and the hotel, the shadow and patterns will become distinctly apparent, as will the entire panoramic composition of the work. Seasonal transitions and the daily passage of the sun will produce multiple characteristics, and the evening lighting will be calibrated to fully reveal the array, balancing the light with the surrounding environment and cyclical variations.

The concept presents a linear composition aligned to project a shadow array onto the valley's ground plane, inverting the role of the physical elements to become the negative space, while the shadows become strokes projected on the slopes of the valley. Each individual element is calibrated and treated independently to align a collective body that acts as one form on this scale, blending characteristics of land and sky. Superposed patterns between the logs and their shadows will change and respond to the viewers' changing perspectives, as well as the sun's position in the sky. This concept utilizes the collective appearance of the log and shadow array with the geometry and proportions of the valley to enrich our awareness and experience of the South Terminal Valley.

SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
NORTHERN VIEW FROM BRIDGE

SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
VIEW FROM AIR

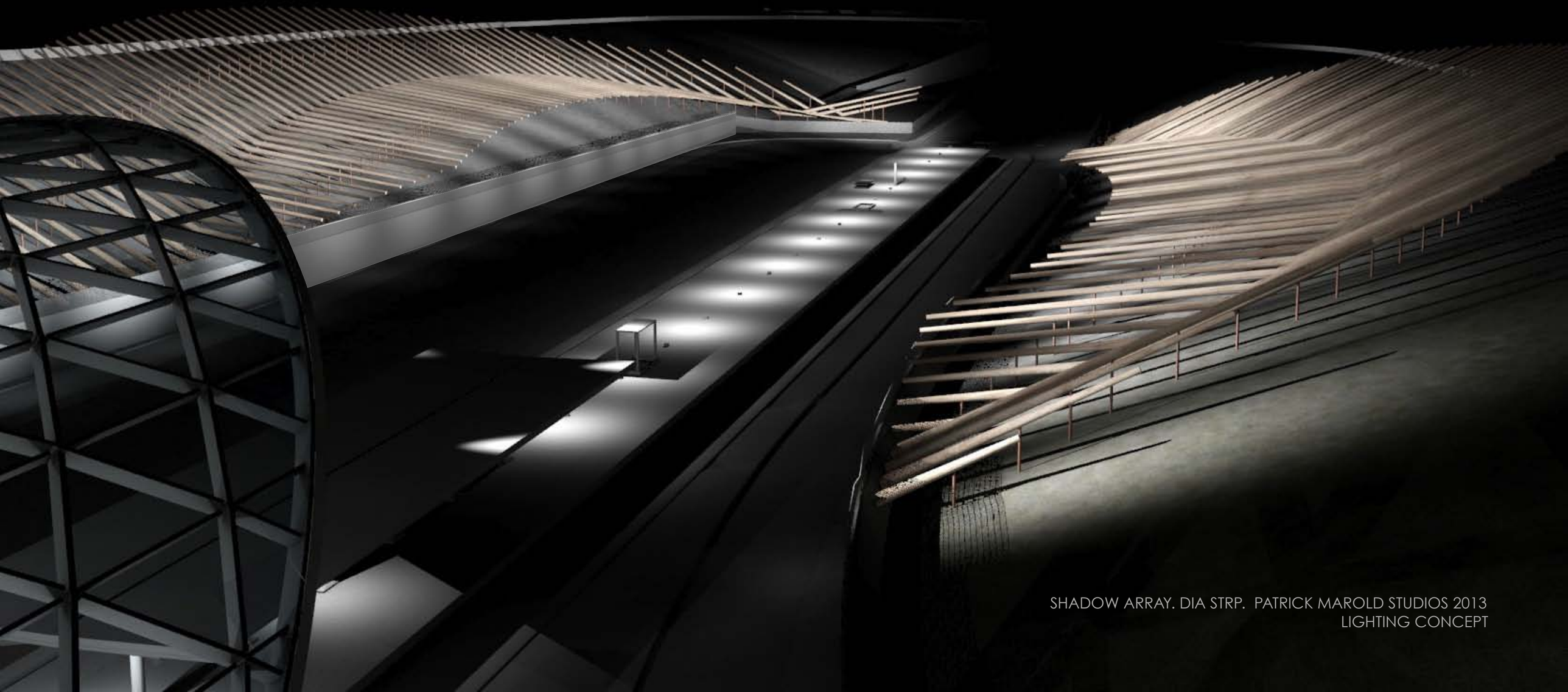
SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
SOUTHERN VIEW FROM PLAZA DECK



SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
SOUTHWESTERN VIEW FROM THE PLATFORM

SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
VIEW FROM ROADWAY

The final lighting design for the Shadow Array is still under development. The favorable approach is to flood each array with a series of white LED lamps. These lamps will be mounted on the opposite side of the valley, casting an evenly dispersed body of light, that is controlled and limited to the opposing valley slopes. The lighting values and hues, all in the range of white, will transition throughout the night from dusk to dawn to further activate the sculpture and engage the characteristics of the surrounding evening environment. Installation of the lighting system will be coordinated with the STRP site schedule.



SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
LIGHTING CONCEPT

SHADOW ARRAY. DIA STRP. PATRICK MAROLD STUDIOS 2013
PLAN VIEW AND LAYOUT

The Shadow Array consists of approximately 245 unique log elements, mounted on the East and West slope of the South Terminal Redevelopment Valley at DIA. Each log is paired with another, joined at the wide ends to create an obtuse angle that is elevated above the sloping grade. There is an array of approximately 65 of these angled components on each side of the valley, placed and calibrated to cast shadows onto the ground plane. Each component corresponds with the neighboring components to complete an elliptical composition that measures approximately 700 feet from the North to the South, and from valley edge to edge.

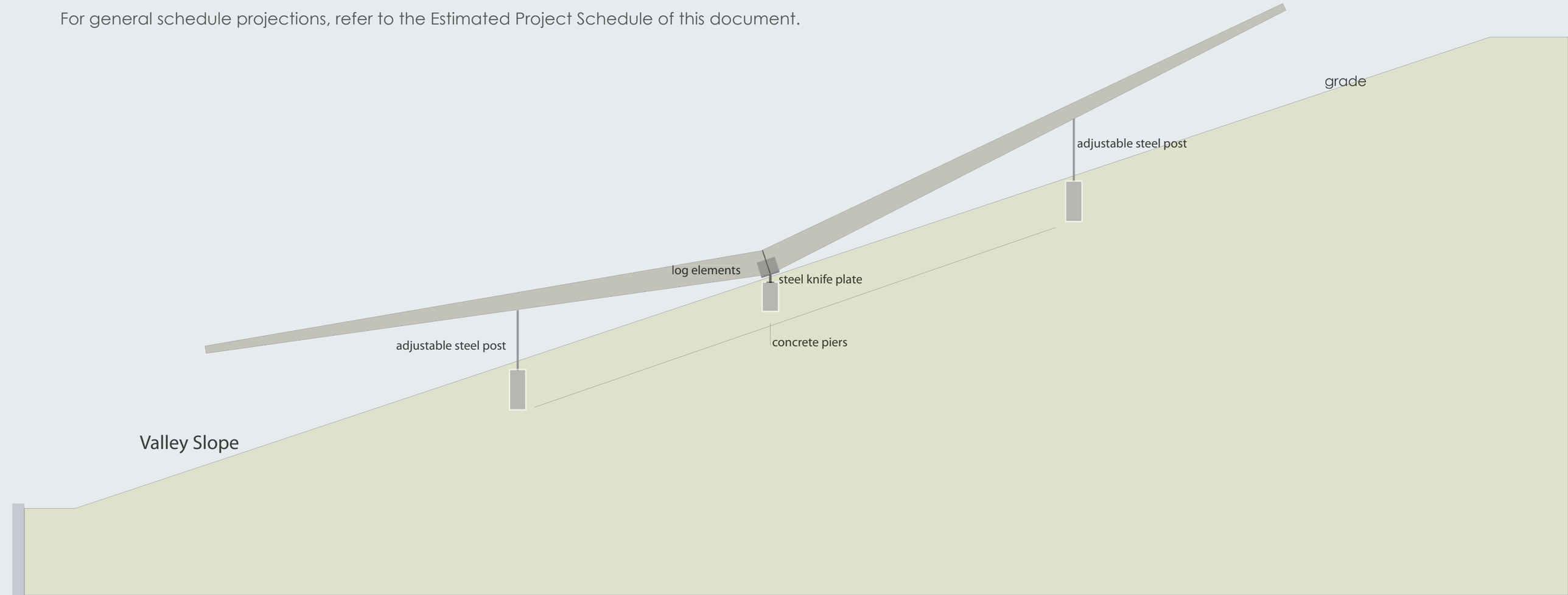
The log components are supported by structural steel posts and knife plates that are anchored by concrete foundation piers below grade. Each component is elevated 6" above grade at its lowest point and approximately 10' at the tips. The logs will range in size, and will typically average 22" in diameter at the butt end, and about 8-12" at the tip. The species of logs that will be used are Douglas Fir, Englemann Spruce and Lodgepole Pine. That majority of these will be trees salvaged from burn areas, beetle kill zones, or as part of a forest thinning program to improve the health of the Colorado Forests. The logs will be trimmed of all branches and peeled to remove all bark, and will retain the natural character and irregularity of the tree they once were.

Processing of the logs will be performed off site at a staging location near DIA. The entire installation will be staged and sequenced in preparation for installation.

Concrete piers will be drilled and poured on the valley slopes in order to support the structural steel elements that the logs will be placed on. Each component, or matched pair of logs, will have 3 piers supporting it. The engineering documents detail this construction.

Once the concrete foundations are in place with the steel supports, the final grade will be applied to the valley slopes by another contractor in coordination with Valerian Landscape Architecture and the STRP. At this point the logs will then be installed and fastened into position. It is expected that the logs will be craned into place, with a ground crew handling and securing each pair to the steel posts and knife plates.

For general schedule projections, refer to the Estimated Project Schedule of this document.



SHADOW ARRAY. DIA STRP ESTIMATED SCHEDULE