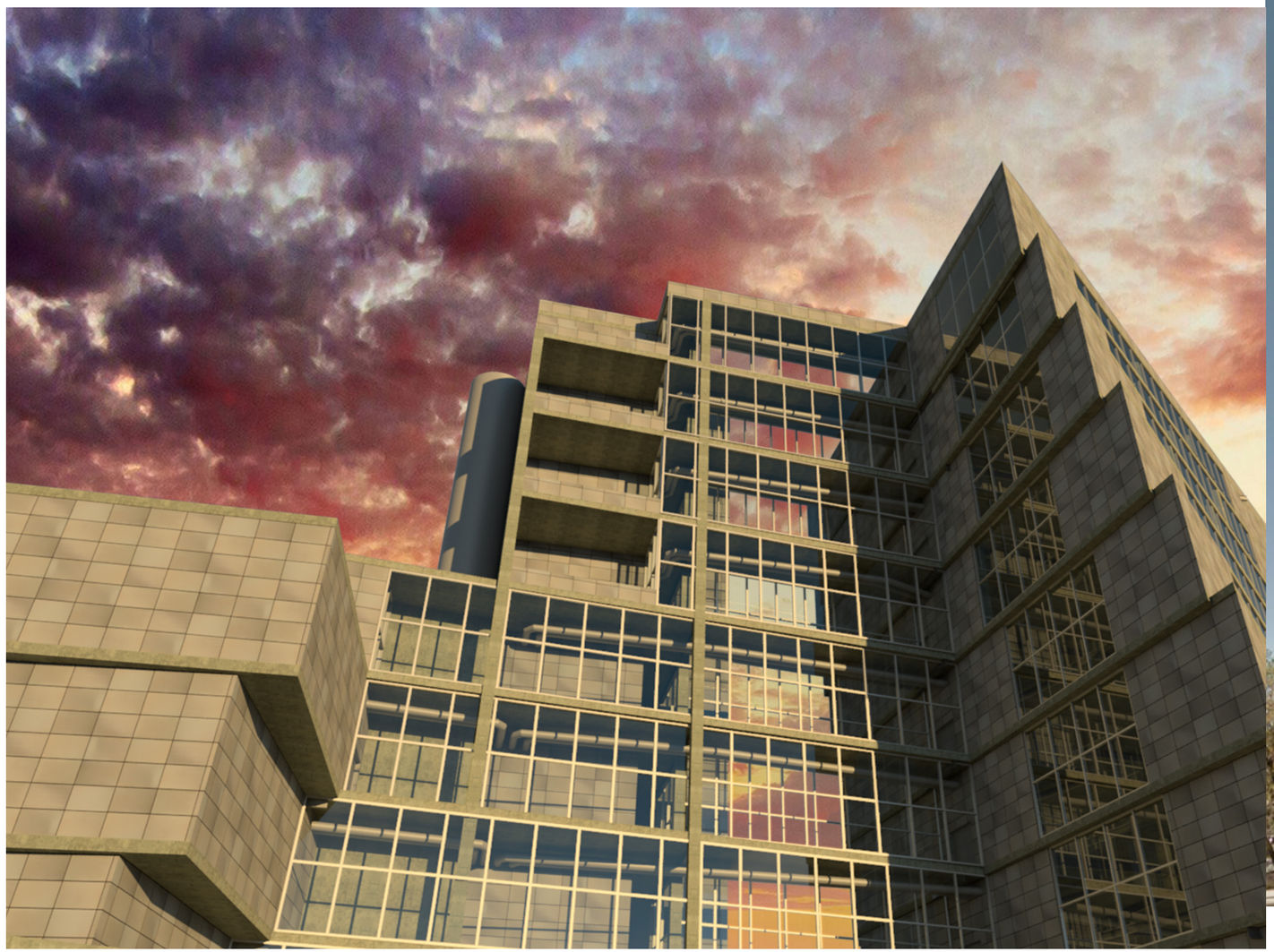
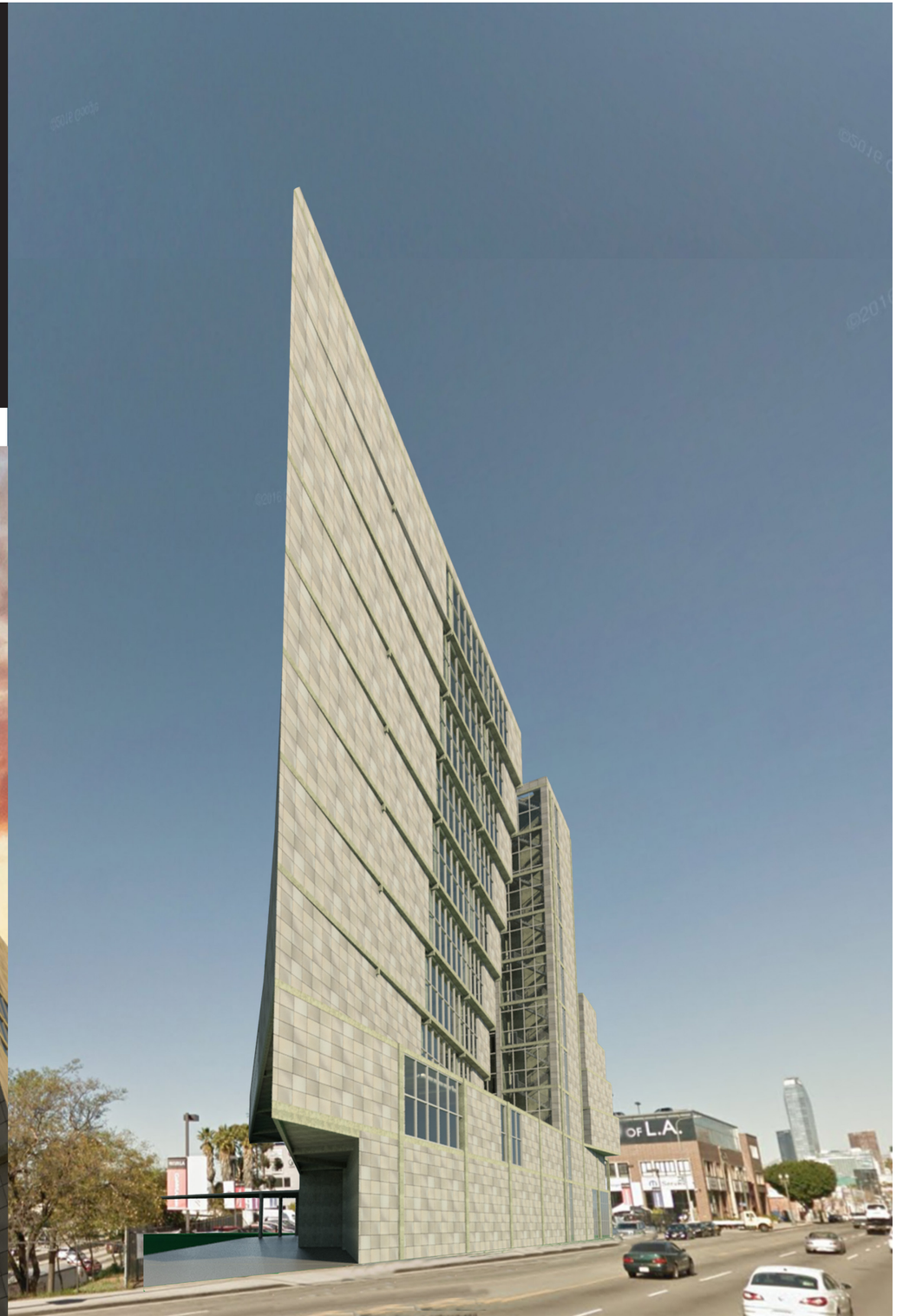
Ryan Skelly
ARCH 405aL | Fall 2016





Narrative

Throughout the semester in Building Science III, I made various contributions to lead toward the final product of the semester, Kakade Towers. My primary responsibilites throughout the semester were structural design of beams, columns, and floors, but perhaps my most important contribution to the overall aesthetic of our project was the final renderings. Although structural design was interesting, especially for such a challenging building form, in the context of this semester's work it was not the main goal of the semester. Rather, in the case of Building Science III, it seemed as if architectural form and site context considerations were far more important to the goal of the project at hand. In the inital phases of design, I noticed the separation of residential and commercial spaces, which informed our design as the pedestrian bridge located on the west side of our site was deemed as a necessary element to incorporate into our architecture. From there, I, along with a couple of fellow group members, invisioned the rotational towers that characterize our project as not only an interesting architectural element, but also as a way to make the pedestrian bridge serve as a main access point to our building, connecting the residential areas to the community center. Throughout the semester, I made various contributions in terms of analyzing the program to figure out the best allocation of spaces, designing a grid system for our structure, and handling most structural calculations. I also had my hand in the duct design for the building, however one of my group members made drastic improvements in terms of correctness and efficentcy, which informed our architecture and made for a final ducting design. In the final stages of the semester, I found myself in charge of all renders, except for the interior view of the auditorium.

Kaskade Towers: Design Influence

LOT 26 DEVELOPMENT: KASKADE TOWERS

Kaskade Towers is a proposal for a ten-story mixed-use development located at 2105 S. Figueroa Street. Found where the north end of South Central meets Downtown Los Angeles, Kaskade Towers aims to bridge the gap between the communities it intends to serve. The unique set of program elements includes a furniture store, cafe, bank, community center, research and design suites, multimedia studios and a facility caretaker residence, including outdoor recreation spaces and underground parking. With residential neighborhoods on the west side and commercial buildings on the east, the program elements provide locals with a space to congregate and collaborate while also offering commercial developers the opportunity to grow in a bustling inner-city environment.

The Towers are designed as a single building with two continuous lower levels that serve as a base for the three towers that sprout above. Each tower is unique. The south tower is triangular in plan and houses one R&D suite on each of its eight floors. The lowest level is rotated eight degrees west about the south tip of the triangle. Each subsequent floor is then rotated 1 degree back east, towards the center of the complex. As a result, the levels of the tower create a fluid, cascading effect that opposes the otherwise sharp, rigid form of the structure.

Similarly, the three rectangular levels of the north tower--which house the multimedia studios--create a fan with the lowest level being rotated west 9 degrees, and each subsequent level rotated back east 3 degrees. The footprints of the two towers--one triangular and one rectangular--were derived from the shape of the site itself. The idea behind these forms was to embrace the shape of the site, maximize the space available, and frame the views to the west, north (including the DTLA skyline) and east by using the edges of the modified triangular prism as datums.

Aside from the juxtaposed rotations, the key factor in linking the north and south towers is the smaller central tower. The central tower is a service core, consisting of restrooms, mechanical shafts, electrical rooms, an elevator and one of the main staircases. The core is connected to the other towers and the other towers to each other through a series of pedestrian bridges, again fostering a sense of community and collaboration. Since the core does not rotate, it also serves as an architectural anchor, stabilizing the rotation of the two towers. This is further illustrated by the choice of exterior finishes. While all modern and suitable for an industrial environment, the reflective aluminum cladding of the north and south towers opposes the opaque concrete of the core, once more emphasizing the dynamic nature of the building.

Assignment 2:
Site Analysis

Assignment 1: Materials of Construction Research Paper - Wood