



To: Dr. Kevin Houser  
From: Chang Liu  
Subject: Lighting Proposal Memo  
Date: September 10, 2012

## 1 Overview

The following document is a proposal to indicate four spaces of study for the lighting portion of Senior Thesis. The spaces to be analyzed and redesigned are listed as follow:

- Exterior Façade | building facade
- Main Lobby | circulation space
- Theater | special purpose space
- Level 6 Gallery | large work space

Three schematic design concepts will be produced for theater. Lighting solution with psychological impressions will be produced for the main lobby.

## 2 Task Analysis

This section describes each proposed spaces and how they are used. Task analysis of the visual and no-visual activities is performed with drawings, space dimensions, materials, and activities and/or visual tasks. (Please note that no interior renderings and 3D models were provided at the time when this memo was written)

### 2.1 Exterior Façade

Exterior façade plays a prominent role in composing a building's identity. Conceived as a stimulating and immersive space to experience art, and a cultural anchor for its evolving neighborhood, the museum of study needs to make its presence in its busy downtown location. A detail study of the neighborhood and further investigation of the architecture will be conducted in order to develop a lighting solution that help to establish the building's own nighttime identity and at the same time echoes the neighborhood energy.

Dimension: North Roof Level 169'10", South Roof Level 153'-5".

Material: A total of 10 exterior wall types were used for the exterior façade, materials are mainly consist of concrete, stud wall with steel plate rain screen cladding system and glazing. Detailed wall types are listed as following:

Type 1 pre-cast concrete

Type 2 stud wall with steel plate rain screen cladding system wdw-1 punched windows in wall type 2

Type 3 auditorium glazing

Type 4 gallery storefront glazing system

Type 5 glazing at stair enclosure

Type 6 ground level cable wall glazing

Type 7 roof level monitors and clerestory glazing

Type 8 north elevation glazing (at area of future museum expansion) and east elevation vertical slot glazing

Type 9 operable glazed wall at film/video gallery

Type 10 north elevation glazing (at large opening) and at fifth floor

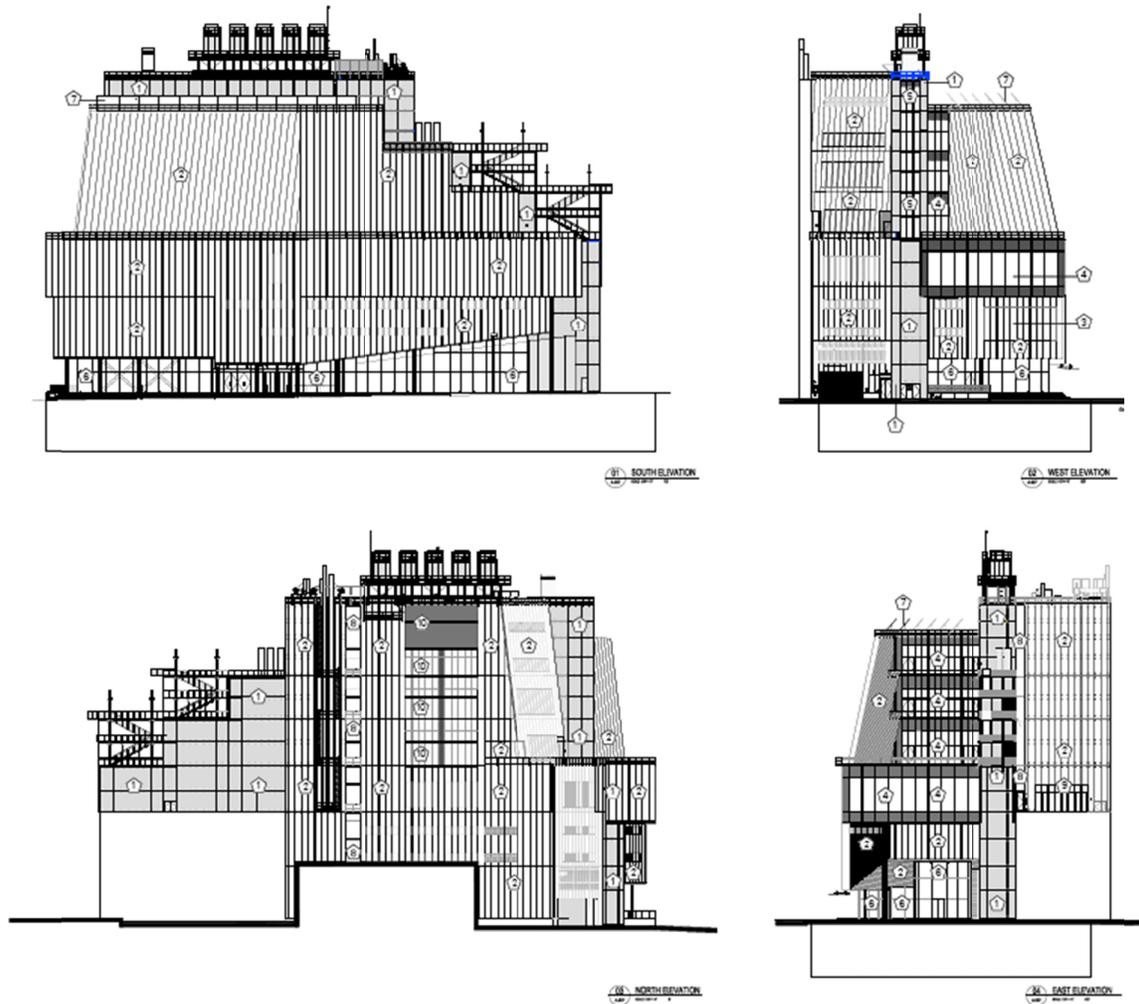


Figure 1 Building Elevation

## 2.2 Main Lobby

Main lobby is the public's primary physical and visual access to the museum. Sculptures and outdoor installations will be exhibited to counterplay architect's vision through a continual play of interior and exterior exhibition spaces. Flexible lighting solution that can adapt to the various uses of the lobby space is crucial. A public psychological impression is desired to embrace the energy of the neighborhood.

Dimension: L148', W52'(widest), H14'

Material: concrete topping with 3CM thermal stone finish floor, precast concrete wall panels, and acoustic plaster ceiling

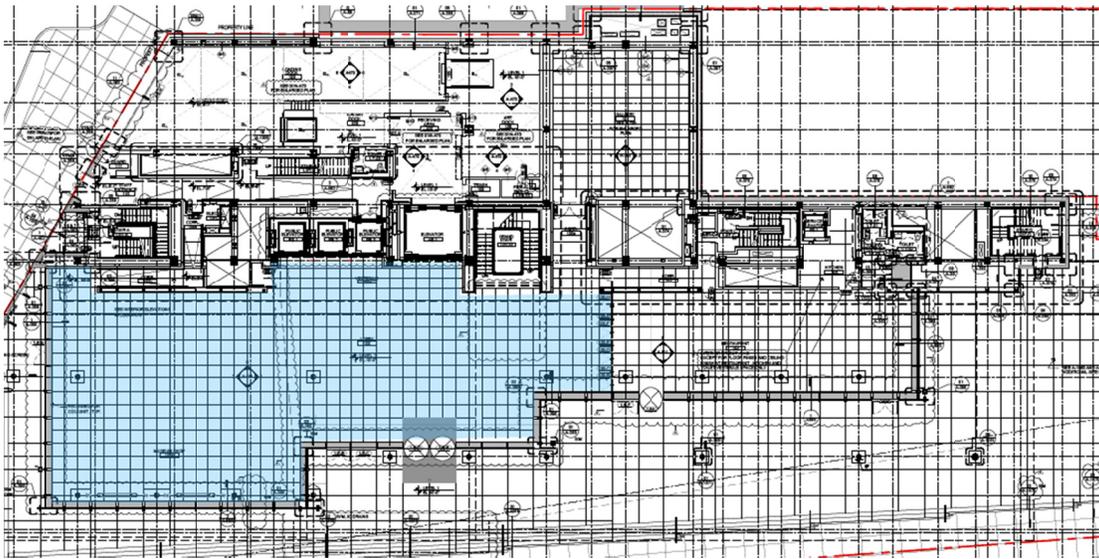


Figure 2 | Level 1 plan w. main lobby shaded

## 2.3 Theater

The theater, located on the third floor, houses 170 seats. The space allows for multiple configurations and uses, including performance, film and installation. The focus will be on the house lighting. Three schematic design concepts will be developed to fulfill different applications of the theater.

Dimension: L74'6", W41'2", H28'

Material: 4" yellow pine flooring, curved plywood wall panels with variable acoustic banners and reflective theatre ceiling assembly

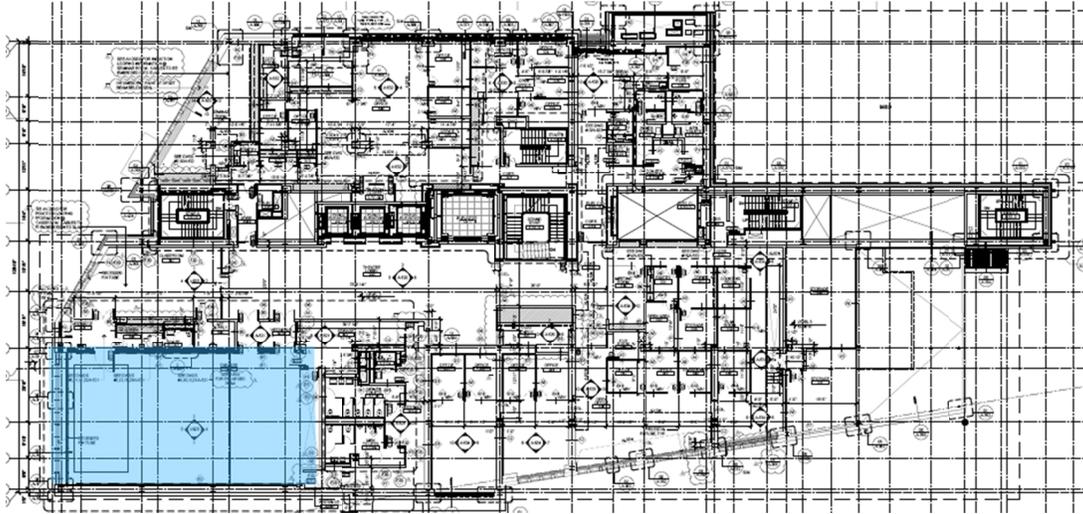


Figure 3 | Level 3 plan w. theater shaded

## 2.4 Level 6 Gallery

The Level 6 gallery space is the only indoor gallery that has daylight design potential. The space will generally be used to display parts of the permanent collection – typically a mixture of oil paintings and some sculpture with some works on paper. Task lighting will be provided for individual collection, while daylight will be aimed to be the solely provider of ambient illumination during the daytime. A thorough daylight study and analysis will be performed. The goal is to incorporate an appropriate amount of daylight for the gallery space. The space is aimed to fulfill the MAE breath.

Dimension: L233'2", W69', H17'6"

Material: 8" yellow pine flooring, painted gypsum wall board and suspended Decoustics or GFRG ceiling panel (TBD)

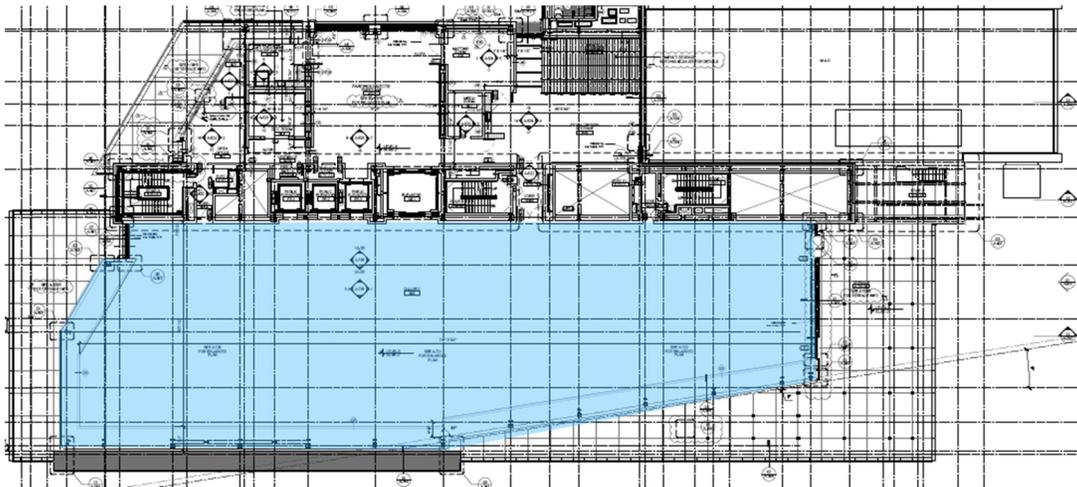


Figure 4 | Level 6 plan w. gallery shaded