

# Lighting Proposal Memo



## Millennium Science Complex University Park, PA

## Summary

This proposal memo identifies the primary spaces that will be studied as part of Lighting Technical Report 1. The following spaces are subject to change based on BIM/IPD thesis group areas of study. The spaces to be study consist of a large work space, special purpose space, and an outdoor space.

## Spaces of Study

For the lighting portion of my senior thesis I am proposing to investigate three spaces. The spaces to be studied and redesigned are as follows:

- Large work space | Student N-324 to Student N-328
- Special purpose space | Café/Commons N-310
- Outdoor space | Under Cantilever Courtyard

For the large under cantilever courtyard space three different design concepts will be produced.

For the Café/Commons two different psychological impressions will be produced with lighting design. The two impressions will be public versus private. The private impression will be used under primary dining times, whereas the public will be applicable when being used a common study area.

## Student N-324 through N-328

The student area consists of cubicles provided for students to work on homework and study. The typical student area (see *Figure 2*) shows the use of computers in this space. Other visual tasks include reading and writing. This space is located on the building perimeter and daylighting considerations must also be investigated.

The overall dimensions of the student areas are approx. 55' x 14'-6", with 9' ceiling heights.

Material Finishes are as follows:

- Floor | V.C.T.
- Ceiling | 2'x4' ACT
- Walls | painted gypsum wall board, clear glazing, fritted glazing

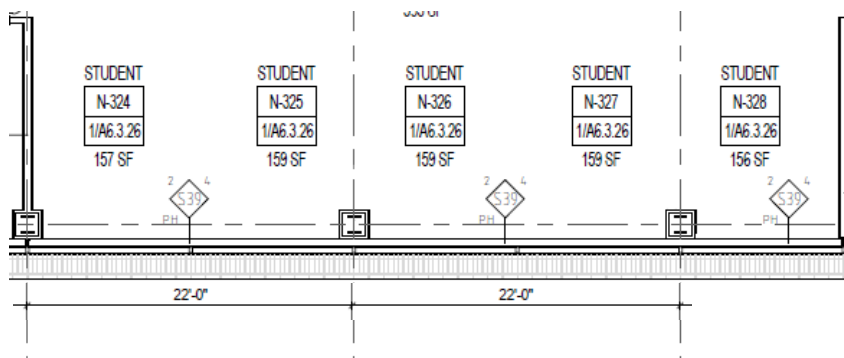


Figure 1: Student N-324 to N-328 Floor Plan

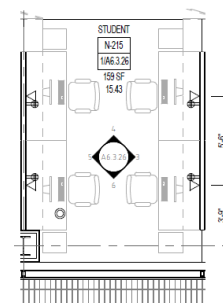


Figure 2: Typical Student Layout

### Café/Commons N-310

The Café/Commons is mixed use space that serves multiple functions. The space will be primarily used for dining and school work. The space is located on the connecting bridge and has a large window glass wall with a view of Mount Nittany. Located in the space are two visual walls, a lounge area, kitchen space, and drink coolers (see *Figure 3*). The main visual tasks performed in this space are eating, reading, writing, circulation, and viewing the video walls.



*Figure 3:* Preliminary Café/Commons Rendering

The overall dimensions of the space are approximately 60' x 44' with 11' ceiling height.

Material Finishes are as follows:

- Floor | Terrazzo
- Ceiling | 2' x 4' ACT
- Walls | painted gypsum wall board, clear glazing, fritted glazing

The Café/Commons space will be evaluated with respect to different psychological impressions. The two impressions that will be considered are public versus private. These two impressions can be changed depending on the time of day and intended use for the space. The public impression would be used at times when the primary function would be school work, or at busy dining times. The private impression could be utilized during late evening dining times to create a more intimate feeling.

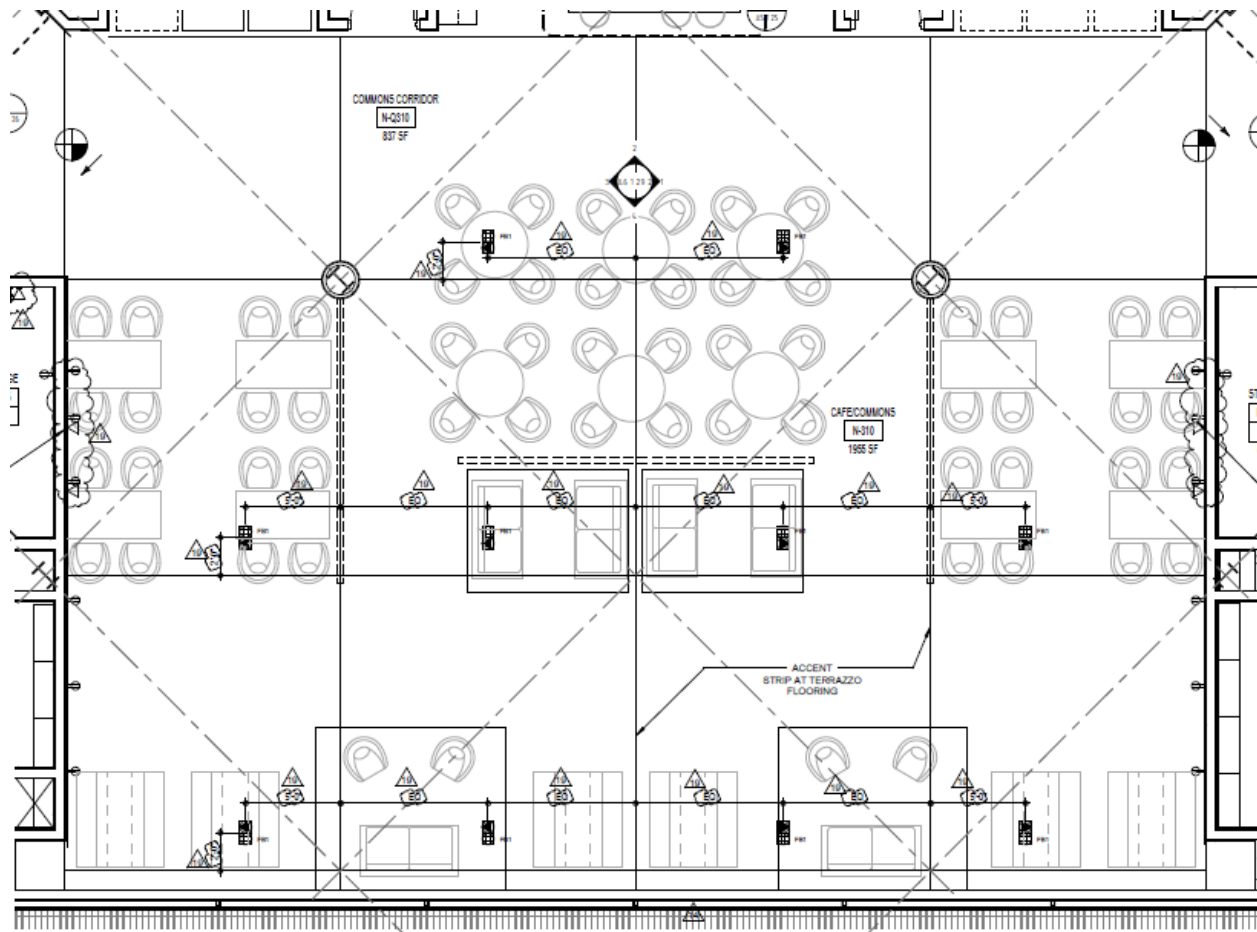


Figure 4: Café/Commons Floor plan

### Under Cantilever Courtyard

The courtyard located underneath the cantilever helps make up the main entrance to the building. This space also serves as a connection between the Life Science and Material Science wings of the building. The courtyard utilizes green space with integrated pathways. The courtyard and cantilever are the main focal points of the Millennium Science Complex.



Figure 5: Courtyard

The overall dimensions of the space are approximately 180' x 180' with an open skylight above.

Material Finishes are as follows:

- Ground | fine and coarse gravel, mulch beds, concrete walk ways
- Cantilever | dark orange painted metal panels.



Three different lighting solutions will be considered for this space. These solutions and the information regarding them will be provided in Technical report 1.

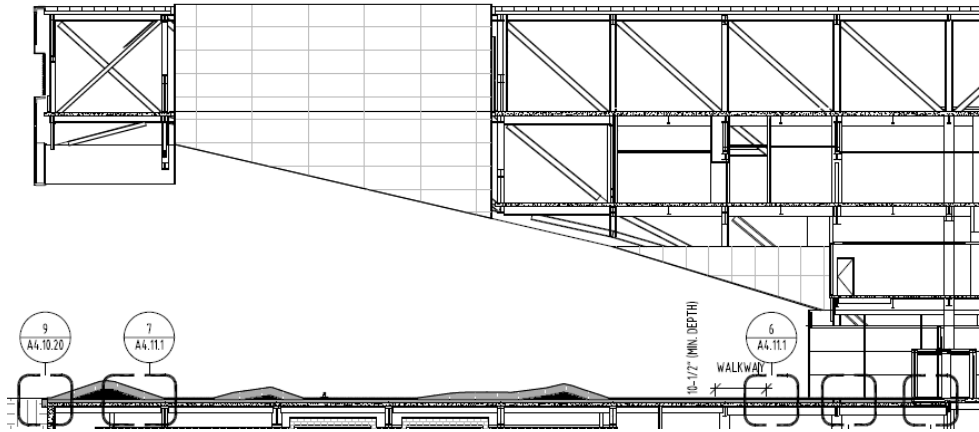


Figure 6: Courtyard Section

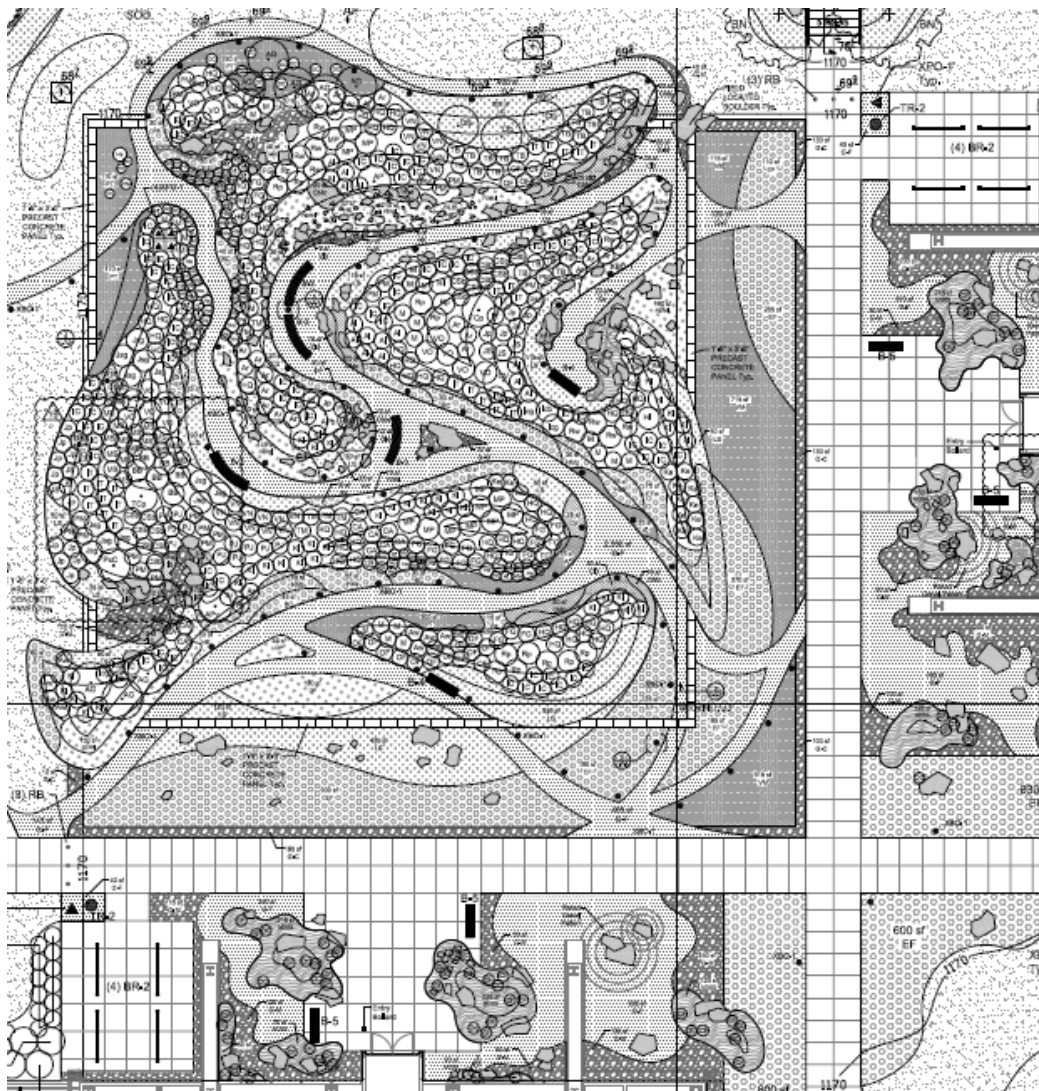


Figure 7: Courtyard Landscaping Plan