

ARCHITECTURAL BREADTH

Architectural Breadth

An architectural breadth was chosen early in the thesis project due to the lack of information provided for tenant spaces throughout the building. Not wanting to invent lighting spaces for the Lighting Depth, it was decided to create the architectural spaces under the tutelage of an Architectural Professor – Scott Wing, AIA – for the architectural development of a single tenant area. From the development of the entire area of this space, a few areas of interest could be chosen to use in the Lighting Depth. In doing so, this also made available the types of areas of specific interest for this thesis.

Relationship with Thesis Project

This architectural breadth, as was previously mentioned, concerns three main spaces used in the Lighting Depth, and impacts the Structural Breadth as well. Developing the upper three floors of the building for interior design, impacts the following areas: existing skylights for the Reception area, a new skylight in the Reception and Conference Lobby areas; the structural impact of cutting a skylight into the floor slab of the elevator machine room; and the structural impact of cutting a stairwell hole into the 17th and 16th floor slabs.

Design Program

The design program was provided by Gensler Architects as a “wiped” version of the current tenant assumed to be Deloitte & Touche (or Deloitte, as a member of Deloitte Touche Tohmatsu). The program itself can be found with Appendix A .

From the program, three floors were developed and integrated with “architectural freedom” from which the existing systems, if necessary, would have to be amended. Since all of this took place in the fall semester, the resulting design of all the systems for this thesis resulted from this development.

For a better idea of the end result of the breadth, hand-drawn floor plans have been included in the same Appendix. A CD containing the Final Submittal has been included.

Chosen Spaces – Foci

Reception

The architecture of the Reception area was based on an obvious layout of space for the Penthouse (17th) floor. When occupying the most expensive spaces, especially those with roof/skylight access, the space should be immediately impressive as soon as one steps off the elevator. A desk modeled after the existing security desk in the lobby was used as the front desk, with an impressive display of the skylights and front desk drawing the visitor’s eye immediately.

The program for design called for a number of conference rooms for regular meetings with clients. Given that a client’s access is only by elevator to the 15th-17th floors, and that these clients need to be comfortable and impressed, the reception as a dedicated appealing space was

chosen. At the south end of the elevator lobby at the reception level is the translucent glass door for access by employees and for security purposes. This way, the reception area is “reserved” for the high-profile clients only.

Moving toward the idea that the clients need quick access to conference facilities, and the fact that those facilities would not fit on the 17th floor, an easier method would have to be developed to bring the clients to the meeting rooms without sending them “back where they came from” – the elevators. Also considering the considerable space needs for the directors and managers, access should be easy for them as well. The idea came together that the conference rooms would be located directly beneath the reception area and a stairwell would connect the two with as much immediate adjacency as possible. This stairwell could also not serve as the fire escape, since the high-profile impression would soon wear off in a concrete and CMU stairwell.

The choice was made to put the stairwell behind the elevator bank. While this seems a contradiction in transportation, given the fact that these stairs are only used by Deloitte & Touche, and more specifically for their clients, an air of exclusivity is given, impressing the client even more. In the case that the visitor was not a client, but visiting personnel on the 17th floor, the area immediately north of the stairwell was made into a sitting/waiting area. Likewise the area immediately east of the reception desk was given a few chairs for the same purpose.

Conference Lobby

Working with the stairwell idea and the “shortest travel path possible” mentality for impressing and providing comfort for clients, the Conference Lobby was naturally developed. Given a single main entry point, the entire space focuses (quite literally) at the base of the stairs. The curvature of the walls give a fuller, more volumetric look to the space and give the client equal options to travel to a given conference room. This option, while oftentimes not an “option” in the traditional sense, psychologically affects the individual who is traveling the shortest path possible – not adding to their comfort, but instead preventing their discomfort.

The stairwell as a main element of the space had to be developed in detail. Corresponding directly with an analogy made for the choice of wood paneling on the curved wall surface, the stairs were “floated” as best as structure would allow. The wood panel, as mentioned, was raised off of the floor and brought forward from the actual wall to give the impression that this massive volume was being floated. This is furthered by the transparent glass area at the top of the wall, where it appears as though the wall is supported only at its base. The transition spaces at the 45° angles from the base of the stairs to the “back conference rooms” were given a wood paneling on their initial 4’-6’ of wall space to further the notion of this massive wood volume.

The intermediate space between the actual Conference Lobby and the Entrance to the Open Offices was developed to seal the void between the three spaces and create better continuity. Following the architectural plans (altered in minor detail), this space was the reception area for the service elevator through which all deliveries would pass. This area was also the entrance to the sealed open office area (so as to separate the business from the everyday facilities activities and mail area).

Open Office

The Open Office area came as a development of the need for general purpose office space. An idea for a thesis project early on came to fruition in this space (as can be seen in the Lighting Depth). The idea was to create a truly open space without any ceiling mounted fixtures and to maximize the daylight penetration of the curtainwall to the west (or east/south as the open office has been implemented on the East and South faces as well).

The space was intended to delineate areas as hierarchy within the business. The open office was utilized by the general employees in a row-and-column fashion, while the individual or paired open office desks were given to the administrative assistants. The open cubicles were intended as a pointer toward the management and clustered to better provide for interaction among the managers as necessary. The full-height translucent glass offices were to increase the hierarchical awareness considerably as they maintained relative privacy as they saw fit. These directors (highest in the program's food chain) were given windows as much as possible, were given doors for importance and confidentiality, and were located generally near the administrative assistants and managers and away from the general employees and facilities operations. They were also located as near the "inter-office" conference rooms as well.

The use of the translucent glass for daylight penetration was to attempt to provide an area source lighting that would not hinder work through any glare elements. The translucent glass at the top 2.5' of the offices also allowed as much light to pass through as possible and reflect off of the ceiling for better daylight illumination.

Additional Architectural Adjustments

Lobby Façade Canopy

A major concern of the owner's was the daylight penetration into the ground-floor main lobby. The specular finish of the floor gave rise to a very glary condition. As developed in the Lighting Depth, an additional canopy extending from the existing canopies (such that it maintains the form and characteristic of the original canopy) was placed at the same height and "revolved" around the elliptical façade to maintain the shape and contour of the main façade.

As was mentioned in the Existing Conditions, the elliptical cylinder would no longer extend from street level to roof-line. Upon consideration of the impact this new canopy would have on the building, it was observed that on all street-accessible façades canopies, of varying height, existed on 75% of their total length. Therefore, this canopy was deemed to not as much impose upon the tubular nature of the ellipse, but provide a base, or low "skirt" for the entire building – an idea developed considerably in the Lighting Depth proposal for the faced lighting.

The main difference with the new canopy design in relation to the current canopies over the two entrances is the use of tension cables to resist deflection at the end and support stability (see Structural Breadth for details). These cables, while different from the immediately adjacent canopies, mimic exactly the remaining canopies used on the eastern and southern facades. In addition to this, the cables themselves would

Skylight stair-Well

First and foremost, function of the stairwell had to be possible. After analysis of the structural system of the upper floors was completed, (and luckily the easier-to-work-with steel frame) it was determined that the new skylight stair-well would cut into the elevator machine room at the roof level. The elevator machine room is a closed space, with a lot of unused floor area. When compared to the location of the elevator motors and fire control equipment, it was found that more than sufficient space was available to “open” the roof and erect two additional, non-load-bearing walls into the elevator machine room. This opened the skylight to the sky without taking away from the architectural form of the building as seen from anywhere except above it (a very unlikely circumstance in Milwaukee).

The skylight stair-well had to be architecturally pleasing as well as functional. For this reason, and through a bit of luck, the 17th story grid was offset slightly inside the wall limits. This allowed the 17th floor to have a small “plant balcony” at the first horizontal surface inside the skylight.

As was mentioned in the Reception description, an attempt to make the stairs “float” was furthered by the use of transparent glass walls and railings preventing people from falling into the stairwell’s “hole”. This would indeed be a problem, as the column of space allocated for the stairwell was greater than the designed area of the stairwell. This open space would allow better daylight penetration to fall into the Conference Lobby and into the 15th floor as well.

The last remaining architectural characteristic of the stairs was the choice in material. Given the stairwell was to act as a stairwell and lightpipe (although rather “inefficient” as a lightpipe), and it was to maintain a certain comfort and high-profile with those who frequented it most, white and grey marble was chosen as its tiling material. Because of the abusive weight of an entire stairwell of marble (not to mention the cost), the stairs were, as stated, simply tiled. Matching the white plaster walls of the stairwell, ascent and descent of these stairs was likened to “walking on clouds”.

Conclusions

The architecture of the space spanned an entire semester. It was well thought out and conferred upon with a professor of architecture – one who teaches courses on interior materials and is familiar with interior layouts and rationale. The program was the exact program provided to Gensler Architects by Deloitte & Touche, so the architecture is a very feasible design solution that, under proper direction and with greater experience could have seen its way into design development for the actual space.

The better part of the breadth was the development of spaces and the simultaneous brainstorming of ideas to be used within the Lighting Depth for, what was then, the following semester. While all of the space was laid out in plan, only a limited amount of it was brought into 3 dimensions and even less was utilized in photorealistic rendering. While other architectural elements such as the canopy will have a more significant impact on the look of the building, the breadth study provided a very accurate representation of how a tenant fit-out can be designed, and the effects architectural changes can have on the designed structural, electrical and mechanical systems of the building.