# CIRCULATION

#### **DESIGN GOALS**

The two story corridor along the south wing of the Whalen Center serves two distinct functions. This transition space, during most hours, is simply an educational facility corridor. Ambient light levels of 10-15fc are required to safely usher students and faculty from adjacent hallways, classrooms, and rehearsal spaces. Direct glare should be minimized to prevent distraction while Also, good moving through the space. facial modeling is important for casual





conversations. While it is very important to satisfy the design requirements for the 'hallway' function of this space, the most critical use of the space is as a lobby before and during performances in either of the adjacent auditoriums. This two story corridor area is adjacent to two major approach routes for visitors to the Whalen Center. First, the west end of the 2<sup>nd</sup> floor corridor leads to an exterior vehicular drive where patrons can be dropped off. Also, people may park their cars in an elevated parking lot on the hill to the south of the Whalen Center and enter through a pedestrian bridge and elevator which leads to the west end of the 3<sup>rd</sup> floor corridor. Most visitors to the Whalen Center will be going to the Hockett Recital Hall, and visitors must be able to easily identify their goal over one hundred feet down the corridor. The lobby of a performing arts venue is not task oriented, and should feel dramatic and intimate. The mood of the space should be light enough, however, that the energy of the space is developed from the anticipation and appreciation of the performance taking place just a few feet away. The appearance of luminaires in lobbies is critical, and appropriate



Benjamin Hagan – Lighting/Electrical Architectural Engineering – Thesis 2004 luminaires must be considerate of the visual context of the space. The wood surfaced ticket booth, coat check, and information area should be delineated to attract visitors who may not know where they are going. The unique dual stairway and entresol with adjacent metal panel wall and blue clad elevator shaft are visually appealing, and should be brought to the attention of patrons. Ambient light levels in the space should be kept low so that important signage and architectural elements will stand out and fulfill their design purpose.

## **DESIGN SCHEMATIC**

The 2<sup>nd</sup> floor entrance from the drop off circle will have two continuous rows of a louvered recessed direct fluorescent luminaire (type FB) from Linear Lighting. (<u>www.linearltg.com</u>) The louvers of this luminaire have translucent acrylic tips which protrude slightly below the ceiling plane. This helps reduce the glare and the 'institutional' feeling of most recessed linear louvered luminaires. The high color rendering of the F28T5 and the direct distribution of this luminaire enhances facial detail and directs light efficiently to the floor. The archway connecting the entrance to the corridor will be marked on both sides by a 26" kiln formed glass sconce (type FD) from Translite Sonoma. (www.translitesonoma.com) The decorative texture and appropriate scale of this luminaire make a visual statement which is repeated further along the 2<sup>nd</sup> floor corridor. More FB luminaires are placed in the adjacent corridor to provide ambient light levels. Ceiling recessed wallwash luminaires (type FC) from Peerless (www.peerless-lighting.com) wash the south wall of the corridor, providing an open feel to and ambient light to the space. The ceiling in this part of the corridor is 12' AFF, but the entresol level surrounding the elevator shaft impedes the natural flow of the space. The ceiling drops to 7'6" AFF under the entresol, and virtually cuts off visual contact with the recital hall at the end of the corridor. To draw people under the entresol and through this area, low voltage halogen recessed floor luminaires (type IA) from ERCO (<u>www.erco.com</u>) will be placed in the floor along the south wall. This luminaire uses 20W MRC-11 lamps with 30° distribution, which will be aimed slightly towards the wall will make soft scoops of light on the wall and provide a soft warm glow on the low ceiling



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This effect will help reduce the 'cave' above. feeling caused by the drastic change in ceiling height by giving texture and detail to the wall and making the gypsum ceiling appear more open and In the center of the area below the spacious. entresol is the elevator shaft which is clad in a rich blue paneling. More FC luminaires will be placed around the elevator shaft to bring out the vibrant color of the paneling and to provide safe ambient light levels for walking in this area. In the area past the entresol the ceiling returns to 12' AFF and will have continuous rows of FB luminaires and the south wall is washed by FC luminaires. Wall protrusions that are meant to physically separate the "hallway" from the "lobby" will be detailed with FD sconces. The row of FB luminaires will



desired effect under entresol

continue into the lobby area and the remaining ambient light will come from the FD sconces located around the space. On the 3rd floor, visitors exiting the elevator will are greeted with a picture of James Whalen and information on his contributions to Ithaca College. This memorabilia wall will be illuminated with recessed FC luminaires. Directly to the right of this wall is the main corridor. Angled rows of FB luminaires will be placed in the 10'0" AFF gypsum ceiling and will grab visitors attention and draw them into the space. The south wall will be washed with FC luminaires, adding to the apparent volume of the space. Halfway along the south wall of the corridor is the protruding wood surfaced ticket booth, coat check, and information area. This area will continue to be washed from the ceiling by FC luminaires. The actual booths where patrons will interact with school personnel will be highlighted with in floor IA luminaires. The warm color of the halogen sources and the soft scoops of light will help accent these specific points of interest. To the north of the ticket area is the entresol and the upper portion of the elevator shaft. The large metal panel wall at the north of the entresol will be washed from above with FC luminaires. The stairways will be lit from the ceiling above with



square apertured, glass lensed 70W MH downlights (type HA) from Kurt Versen. (www.kurtversen.com) The high CRI T6 lamps combined with the soft but direct distribution of the luminaire will provide high levels of crisp light for safe travel on the adjacent stairways. A square apertured, glass lensed 70W MH wallwahser (type HB) from Kurt Versen will be placed on the east and west side of the elevator shaft, helping to bring out the rich color of the elevator shaft and add ambient light to the entresol stairways. The area beyond the entresol should be considered a lobby space. In the area, FB luminaires will be arranged in the gypsum ceiling to gently direct patrons towards the entrance to the recital hall. The double doors leading to the recital hall will be framed with the same FD sconce used in the 2<sup>nd</sup> floor corridor.

## LIGHTING ANALYSIS

The careful application of suitable luminaires is essential for a corridor space to work. The blend of standard hallway lighting and dramatic lobby lighting satisfies the dual nature of this space. Highlighting unique architectural elements gives texture and detail to the space while reflected light contributes to ambient light levels. Recessed luminaires keep the focus on the architecture and the visual goals of the space. The life of the MRC-11 lamps is guite short, but the luminaires are very accessible and will be easily maintained. The square HID luminaires are 14'6" above the entresol floor and will be difficult to maintain, but the long life of the metal halide lamps will reduce the need for maintenance of these fixtures, and a group re-lamping scheme can be adopted to further ease the burden. The recessed linear louvered and wallwash fixtures make up the bulk of the lighting in this space. Both fixtures can easily be maintained from a ladder and both use the same T5 lamp, which avoids confusion during re-lamping. The decorative wall sconce has a two lamp design so if one lamp fails, the appearance of the sconce will change slightly, but the appearance of the overall design will not suffer drastically. The comprehensive design is both moody and functional. Students and faculty can safely and efficiently travel through this space during the day, and visitors will be greeted with a dynamic and goal oriented design that will gently guide them to their goal.



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## LIGHTING ANALYSIS

### Average Floor Illuminance (fc)

corridor areas	21
lobby areas	16
under entresol	9
above entresol	18

#### ASHRAE/IESNA 90.1-1999 Compliance

University Corridor (9.3.1.2)			
Performing Arts Center Lobby (9.3.1.2)			
Corridor Area	4030	sf	
Lobby Area	2885	sf	
Corridor Allowed Density	0.7	W/sf	
Lobby Allowed Density	1.2	W/sf	
Total Allowed Wattage	6283	W	
Luminaire FB	65	ea	
FB Input Watts	33	W	
Luminaire FC	45	ea	
FC Input Watts	33	W	
Luminaire FD	11	ea	
FD Input Watts	34	W	
Luminaire IA	11	ea	
IA Input Watts	20	W	
Luminaire HA	4	ea	
HA Input Watts	94	W	
Luminaire HB	2	ea	
HB Input Watts	88	W	
Total Wattage	4776	W	
Total Density	0.69	W/sf	
% Difference	23.99	% Below 90.1	



# LIGHTING PLAN - 2ND FLOOR



# LIGHTING PLAN - 3RD FLOOR

