Mt. Brighton Ski Resort
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Brighton, Michigan 48116

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FOREWORD

The sport of skiing is becoming more and more popular yearly. The yearly growth rate is expected to continue at 15%. With the increase of ski enthusiasts, the space for parking, lodging, and dining are also expanding. This means that throughout the country new facilities are opening, often without adequate planning. The location that I chose has a reasonably good slopes for being in the lower portion of Michigan. It is an excellent location for weekend skiers from several of Michigan's major cities. However, the present facilities are inadequate, therefore this thesis project will provide new facilities for Mount Brighton.
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Robert Fisher
Structural Expert
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Programming Consultant

Rod Underwood
Structural Expert
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William Guerstner
Ski Instructor
The Mount Brighton Ski Resort is located just outside of the city limits of Brighton Michigan. The multi-function facility is situated on an existing ski site. The building provides complete ski facilities, hotel facilities, convention and dining facilities. The present facilities have accommodated 5,000 skiers and the management foresees larger crowds in the future. The building if built should be a valuable asset to the total community.
INTRODUCTION

As previously mentioned skiing is becoming a very high finance business because of the increase of skiers yearly. Mount Brighton is one such facility. The ski resort at Brighton Michigan is excellently located. It is within easy travel distance from: Detroit, Ann Arbor, Flint, Lansing, Jackson, Toledo, and Windsor. It also has 19 slopes which are from beginning to advanced that are well maintained and of a good scale for the lower part of Michigan.

The present buildings are under-sized and poorly designed. The proposed building will be able to accommodate the larger number of skiers. The new building will have three dining spaces, and two bars. Other areas provided are: the pro-shop, the rental facilities, the observation space, the convention spaces, the recreation space(pool, sauna, and sport room), and a 72-room hotel.

The building itself separates parking from the ski facilities. This was done to cut down on thefts. Persons leaving other than through the building would be obvious to the ski patrol and could be stopped and questioned.

The facilities should be adequate so as to provide a year-round activities. The convention and hotel facilities would be particularly beneficial to the area year-round.

The following pages are step-by-step illustrations of my thesis year. After each is an evaluation by myself and by my jurors.
**PRO'S**
- SITE DESIGN CREATES THREE ZONES
- BUILDING SEPARATES ACTIVITIES
- NO ADDITIONAL TRANSPORT NEEDED
- BUILDING & ENTRANCE VISIBLE FROM ROAD

**CON'S**
- NORTH ROOMS HAVE NO EXTERIOR VIEW
- DESIGN REQUIRES EXCAVATION
- LAKES ARE NOT EXPLOITED
- DELIVERY TO CENTER
**PROS**
- Hotel has good views
- Hotel tied in with lake
- Building visible from road

**CONS**
- Site not divided into zones logically
- Transport from lodge to slopes required
- No happening at base of slopes
- Poor delivery vehicle access
Mt. Brighton, Michigan -- Dennis Miller

**Mt. Brighton Ski Resort**

**On Site**
- Hotel has excellent views
- Hotel parking is hidden visually
- Hotel site good for both winter & summer activities
- Human density on site decreased by two locations

**Two Facilities**
- Hotel near railroad noise
- Lodge not as protective of rental equipment
- Hotel not visible from road

**Diagrams**
- Shuttle from/from hotel
- Parking area
- Vehicular drop off
- Observation view of slopes
- Lodge
- Sequence: unloading, I.D., dressing, & skiing
- Skiers
- Ski lifts
- SLOPES

**Building Section**
- Building/lake creates a space
- View of lake
- Private balconies
- Private area
- View of vegetation
- Summer sun
- Parking
- Delivery vehicles
- Wooden area includes race & blocks view of vehicles
- Lake

**Wooded Area**
- Includes race & blocks view of vehicles
JURY COMMENTS AND PERSONAL REVIEW

Building need not be by secondary amenities

Relate building position to ski slopes

Building should not be primarily inward looking

Scale of total project does not warrant breaking building up into separate buildings

Perhaps can pick up site's forms for buildings shape

Need a strong overall concept

Need to decide upon the character that the building should present to the public
Good approach to let building grow out of slope

Single-loaded corridors allow all guest rooms to have their views toward slopes

Roof forms simplification of mountain forms

Lodge adjoined at the base to enclose the lake and for convenience of the skiers

General form beginning to work

Vertical circulation major difficulty because of the sloping site
Vertical circulation became the organizing factor and several problems were solved.

Roof became a more complex statement of the site angles and hence made building more intriguing.

Lodge at base appears tacked on and must have the joint resolved.

Building becomes part of the ski excitement by allowing skiers to ski beside and under the building.
Building became a more complex statement

Building became a single unit and finished enclosure of lake started by the slopes

Skiers can ski under both sides

Mostly worked with form, see about how the plans will work in such a form
JURY COMMENTS AND PERSONAL REVIEW

Lower portion looks like separate building stuck under other part

Cantilevered structure complicated for little reason

If building form picking-up mountain shape why are there conflicting cantilevers

Dome shape too trite

Enclosure of lake working

Form in the middle nice

Why does circulation (semi-circle) disappear at the lower level of the building

Resolve the emergency exits
Parking not broken up enough

Building plan and elevation forms work well with site forms, elevation: mountains & plan: finishes enclosure of the lake

Trees need moved back a little bit for snow drifting

Restaurant/bar at top of building looks good in elevation, but too massive in model form

Fenestration works well with form
CONCLUSION

The process that I went through seems to have been a good one. As I look back over the year, I can see where I had strengths and weaknesses. After my site analysis, I had a hard time forcing myself to explore other possible building locations upon the site. But for my three preliminary concepts I chose three different building locations each one was chosen for a lake or pond being nearby. However, when I presented these concepts, the response was negative as everyone preferred the building be back at the original site or on the mountain. So as my second quarter began, I had yet to find a site and a strong concept. I soon started working with the mountain for my site and too generate building form. This was unquestionably the first major decision which had a lasting significance upon the project. At this point, building models to go with revised plans aided me in design development. I continually added layers of criteria (structural grid, mechanical services, emergency exits, and etc.) at various intervals in my design process which meant a further refinement of the project as a whole. The refinement could undoubtedly have gone further in some areas, however, I am quite happy with my end project.
The whole year has been very valuable to me and has helped me to get a better grasp of my own design process. I am very happy to have been able to have a year long project as the conclusion to my schooling.
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Thesis Proposal

I have chosen as my thesis project a ski resort. I have chosen this project partially because of my love for skiing. I skied at Mt. Brighton last year and felt that the slopes were quite good for the lower part of Michigan. Brighton has an excellent location and attracts many college age people, children, and young married couples. These groups generally are weekend skiers, as longer vacationers travel to Europe, or the larger ski resorts. With the noteworthy slopes and the location working for the site, I felt it was a shame to have such a poor existing lodge and no space for skiers to stay overnight. Therefore, I decided to design these facilities. Another reason for choosing this project is that I prefer designing spaces that are for human habitation and leisure.

This program has been prepared for my architectural thesis under the supervision of R. Koester, and R. Fisher. Guest critics are R. Underwood and H. Eggink. Technical information was provided by William Guerstner, ski instructor, and the Mt. Brighton management.
Introduction

The sport of skiing is becoming big business. In 1974, when the Encyclopedia of Skiing was written, there were an estimated two million skiers. And the predicted increase was 15% a year. Parking and waiting lines are getting longer and longer. This is part of the problem with the present facilities at Mt. Brighton, in Brighton Michigan. The slopes provide good skiing for weekend skiers, but do not offer facilities for overnight lodging, nor for any activity but skiing.

Since skiing is becoming so popular, present facilities at Mt. Brighton are unable to accommodate the demand. Being in a prime location, Mt. Brighton serves several major cities: Detroit, Ann Arbor, Flint, Lansing, Jackson, Toledo, and Windsor. There are presently 19 ski runs at Mt. Brighton. Around 5,000 people have been on these slopes at one time, but management claims the slopes can handle up to 15,000. Therefore, there is a very real possibility for growth.

The slopes are well maintained, but the lodge is not nearly as fortunate. It is poorly designed and cramped. There are two entries to the lodge, but neither provides immediate accessibility to the rental area. The rental area is also confusing. After one receives equipment, he must go outside in order to come back inside to put the equipment on. The
cafeeteria is similarly inadequate. The lodge as a whole is
designed in a haphazard manner. Customers are unnecessarily
detained by confusion and inefficient lines. The present
lodge is not only poorly designed, but is too small and
does not offer facilities for year round use.

Consequently, this program proposes new facilities to be
located at the site of the existing building. The lodge
facility will house the rental and lift ticket areas, a
lounge, bar, snack food bar, restaurant, ski repair area,
and pro-shop. There will also be a hotel containing 75
guest rooms, two dining rooms, cocktail lounge, sauna,
pool and other recreational facilities.

The resort must function year round. During the warm
months, the lower portion of the slopes could possibly be
used for golf, and the slopes for toboggan runs. Areas
that might be provided for would be: Cross country skiing,
horseback riding, tennis, and jogging. The lodge would
serve as the center for all of these activities. The de-
sign of the facilities should provide security. There
should not need to be a lot of security guards to protect
rental ski equipment. Instead, the resort can act as a
deterrent to theft without conveying a prison-like atmosphere.

The parking lot, slopes and buildings should be well lighted
as skiing continues until 11 p.m. every night.