RESORT

BANDAR BARU

INDONESIA
BANDAR BARU RESORT

thesis by:
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ball state university
indiana, u.s.a.
- PROGRAM
- BLDG. TYPE STUDY
- SITE ANALYSIS
- SCHEMATIC
- DESIGN DEVELOPMENT
PROGRAM

1.0 INTRODUCTION
   1.1 BACKGROUND
   1.2 SCOPE OF PROGRAM
   1.3 APPROACH

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7.0 GENERAL ENVIRONMENTAL CRITERIA

8.0 SPACE SUMMARY

9.0 ESTIMATED COST
The site for my thesis is located in the mountain region of North Sumatra Island. Sumatra is one of the major islands of Indonesia.

1.1 The 120-acre land is 30° above the equator and it is 1900 feet (660 m) above sea level. This land was a dairy farm at one time, therefore it has been cleared for the most part. A land use study and a hotel resort were proposed. The scope of this program will be to determine the site for the hotel and the facilities programming of the hotel.

The site is 40 km from Medan (population: 1,500,000), the government and cultural center of North Sumatra Province. It formed a ledge between the low land area (Medan) and the mountains region, with an excellent view to the mountains & the valley.

1.2 This program will focus on the resort hotel, facilities that will support the hotel and the essential activities in order for this resort to function properly.
The approach of this project will be to study the micro environment and its characteristic, synthesizes and the pursue with the micro environmental programming.

Goals:
- To propose a badly needed good resort hotel for the upper middle class of Medan population and foreign tourists.
- To introduce a new kind of resort hotel.
- To develop the area into a small scale country club type of development.

Priorities will be given to the design of the hotel: guest rooms, shops, restaurant, swimming pool and playground as well as approach and parking.

Users will be the upper 10% of the population and foreign tourists. They are heads of the government, businessmen and professionals. Usually it consists of a family with 2 to 4 children. The duration of the stay in general is 4 to 6 days during vacation time. Since that it is only 1 hour drive from Medan, great influx is expected on weekends.

Activities of the users can be divided into active and passive. For younger age group, swimming & play are their choice. For the older people, relaxation atmosphere, the view and their appetite are the major concern.
KETERANGAN TANDA² PADA PETA INDONESIA

Djika tidak diterangkan pada peta tanda² itu berarti: Djumlah penduduk di-tempat² dengan tanda:
### Land Use Metric

<table>
<thead>
<tr>
<th></th>
<th>Flat</th>
<th>Slope</th>
<th>Rolling</th>
<th>High</th>
<th>Low</th>
<th>Wooded</th>
<th>Sparingly Clear</th>
<th>View</th>
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<tbody>
<tr>
<td><strong>Bungalow I</strong></td>
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* ![Icon] highly desirable
bandar baru resort

MASTER PLAN
GENERAL SPACE REQUIREMENT

GUEST ROOMS:
- View is an important factor
- An outdoor covered patio for private activities
- Inter-connected rooms & spare beds due to the size of normal family
- Private bathroom & toilet
- Sound isolation
- 400 sq.ft/UNIT

Beds

Arm Chair

Night Table

High Chest
SPECIAL SPACE REQUIREMENT

HOSPITALITY
SERVE BOTH HOTEL GUESTS & ONE-DAY VISITORS
EASY ACCESS/STRATEGIC LOCATION, IT WANTS TO BE CLOSE TO THE MAJOR ACTIVITIES FOR SALES DRIFT
CLOSE TO THE PARKING & SERVICE RAMP ACCESS YIELD IS NOT IMPORTANT

BOOKSTORE & DRUG STORE
- TO CATER EVERYDAY NEED OF THE PEOPLE WHO STAY IN THE RESORT
- BOOK SHELVES & PHARMACY COUNTER
- ± 900 SQ.FT. TOTAL

SOUVENIR SHOP
- WILL DELIVER THE CRAFT MADE BY THE NATIVES OF THE AREA
- IT WANTS TO BE A FLEXIBLE SHOP, MIGHT BE DIVIDED INTO KIOSKS
- GLASS COUNTERS
- NEAR THE ENTRANCE
- ± 1,000 SQ.FT.
FRUIT STALL
- The area is well known for its produce (fruits & vegetables)
- Important consideration is ventilation, clean-up & storage.
- ± 1,000 sqft.
- Access to service area.

BARBER, BEAUTICIAN & BOUTIQUE
- This will be a small outfit
- ± 600 sqft.

CHECK IN & LOBBY
- Point of Orientation
- Check in counter, mail, key deposit, bell boy
- Switchboard
- Lobby for people to wait for their transportation, check in, check out or baggage
- ± 400 sqft.
OFFICE

- Manager Office
- Waiting Room
- Receptionist/Secretary
- Staff
- Filing
- Storage for Supplies
- Easy access to check in counter
- Small conference rm.
- Total 400 sq.ft.

LARGE CONFERENCE

- Multi purpose for conference, party, charity, disco, banquet, movie etc.
- Divider for smaller areas
- Chairs & table storage
- Projection booth & movie screen (10 people capacity)
- Shades on window
- Total 1250 sq.ft.
**STATION 1-A - 42 SQ. FT.**
1-B - 54 SQ. FT.
RESTAURANT

- Should take advantage of the view
- Somewhat formal type of arrangement
- Perhaps an outdoor deck
- Restrooms
- Cashier & Hostess
- Waiting area
- Private & public seating arrangement
- Approximately 90 seats
- Total 1000 sq.ft.
24 Hours Coffee Shop

- Has to be located near the entrance
- Has to provide counter sitting arrangement, sitting for two and family type
- Casual atmosphere
- Need a cashier, a hostess (certain time only)
  Bakery counter
- View to the outside
- Kitchen
- Rest rooms
- Traffic flow of waitresses and people need to be observed
- Approx. to seats
- Total 750 sq. ft.
LIMITS OF PUBLIC AISLE

WALL OR OTHER FIXED OBSTRUCTION

all dimensions in feet and inches

<table>
<thead>
<tr>
<th>Service or pub. circl'n</th>
<th>Abs. Min.</th>
<th>Des. Min.</th>
<th>Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 to 3.6</td>
<td>2.6 to 4.6</td>
<td>3.0 to 5.0</td>
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<td>3.0 to 3.6</td>
<td>3.6 to 4.0</td>
<td>3.9 to 4.0</td>
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<tr>
<td>3.6</td>
<td>3.0 to 4.0</td>
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</tr>
<tr>
<td>1.8 to 2.0</td>
<td>2.0 to 2.3</td>
<td>2.4 to 2.6</td>
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</table>

2 Table and white units.

<table>
<thead>
<tr>
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<th>Abs. Min.</th>
<th>Des. Min.</th>
<th>Comfortable</th>
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<tbody>
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<td>2.6 to 4.6</td>
<td>3.0 to 5.0</td>
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<td>4.0 to 5.0</td>
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<td>5.0 to 5.6</td>
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<th>Comfortable</th>
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<td>2.0 to 2.6</td>
<td>2.0 to 2.6</td>
<td>2.0 to 3.0</td>
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<td>2.5</td>
<td>1.0</td>
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<tr>
<th>C Between units</th>
<th>Abs. Min.</th>
<th>Des. Min.</th>
<th>Comfortable</th>
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<tbody>
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<td>0 to 1.0</td>
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<td>1.0</td>
<td>1.0</td>
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<td>1.0</td>
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<tr>
<td>1.5</td>
<td></td>
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<th>Length</th>
<th>Abs. Min.</th>
<th>Des. Min.</th>
<th>Comfortable</th>
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<td>3.6</td>
<td>3.0</td>
<td>3.0</td>
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<tr>
<td>3.10 to 4.0</td>
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<td>3.10</td>
<td>3.10</td>
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<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
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<tr>
<th>Width</th>
<th>Abs. Min.</th>
<th>Des. Min.</th>
<th>Comfortable</th>
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</thead>
<tbody>
<tr>
<td>1.8 to 2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
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<tr>
<td>2.0 to 2.3</td>
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<tr>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
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</tbody>
</table>

*For seating units for more than 4 persons, round tables are usually recommended; diameter depending on perimeter necessary to seat required number.

For clarity:

- **Ap Public circl'n**: Minimum 3.0 to 3.6, desirable 3.6 to 4.6, comfortable 3.6 to 4.6.
- **As Service only**: Minimum 2.0, desirable 2.6, comfortable 3.0.
- **B To wall**: Minimum 6.0 to 10.0, desirable 10.0 to 1.0, comfortable 1.0 to 1.3.
- **C Between units**: Minimum 1.5, desirable 1.10, comfortable 2.0.
- **Perimeter per seat**: Minimum 1.10, desirable 2.0, comfortable 2.2.
- Service Dock
- Employee Entrance, Lockers, Lounge, Restrooms
- Storage Area
- Office for Dietician
- Waiting Place
- Dish Washing Areas, China Storage
- Food Storage (Refrigerators)
- Food Prep. (Cutting Table, Sink)
- Cook Area
- Food Counter for Pick Up by the Waitress
- Drinks Counter
- Garbage
- Total 2,000 sq.ft.
INDOOR GAME ROOM
- CARDS TABLES (15)
- TABLE TENNIS (2)
- POOL TABLE (1)
- CHECK COUNTER
- STORAGE
- RESTROOMS
- TOTAL 1200 SQ FT.

OUTDOOR RECREATION
- PLAYGROUND FOR THE VERY YOUNG & TEENS
- PASSIVE AREAS FOR ADULTS
- INDOOR GAME ROOM
- SWIMMING POOLS

SWIMMING POOL
- THE NEED OF SEPARATION BETWEEN THE VERY YOUNG, TEENS & ADULTS SWIMMING POOLS
- CABANAS & CHECK COUNTER
- CAFÉ & DRINKS COUNTER
- SLIDES & OPEN SPACES
- SUPERVISION & INTERACTION OF PEOPLE
- A MAJOR ACTIVITY AREA

GROUND
- SWINGS (9)
- SLIDES (2)
- SEESAW (6)
- CLIMBING APPARATUS
GENERAL ENVIRONMENTAL CRITERIA

Since that the site is 1900 ft. (600m) above sea level the temp remains on the cool side.

Average day temp 70°F - 80°F
Average night temp 50°F - 60°F

Constant breeze from the coastal to the mountains, as the warm air rises, occurs during the day.

It rains 200 days in a year, usually in the afternoon, however they do not last long.

Insects could be a problem at night. Screen mesh is necessary.

Soil is very porous & rich (volcanic soil), therefore it is ideal for landscaping.

Mechanical AC/Heater is not necessary.
Limited amount of ventilation is desire.
<table>
<thead>
<tr>
<th>Space Summary</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guest Rooms (100)</td>
<td>40,000</td>
</tr>
<tr>
<td>Bookstore &amp; Drug Store</td>
<td>900</td>
</tr>
<tr>
<td>Souvenir Shop</td>
<td>1,000</td>
</tr>
<tr>
<td>Fruit Stall</td>
<td>1,000</td>
</tr>
<tr>
<td>Barber &amp; Beatacian</td>
<td>600</td>
</tr>
<tr>
<td>Check-in Lobby</td>
<td>400</td>
</tr>
<tr>
<td>Office</td>
<td>400</td>
</tr>
<tr>
<td>Conf. RM/Multi Purpose</td>
<td>1250</td>
</tr>
<tr>
<td>Restaurant</td>
<td>1000</td>
</tr>
<tr>
<td>Coffee Shop</td>
<td>750</td>
</tr>
<tr>
<td>Kitchen</td>
<td>2000</td>
</tr>
<tr>
<td>Indoor Game Room</td>
<td>1200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52,500</strong></td>
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</table>
9.0 **Estimated Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>(A) Building Cost $2,500 # at $18.-</td>
<td>$945,000</td>
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<tr>
<td>(B) Fixed Equipment</td>
<td>$945,000</td>
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<tr>
<td>(C) Site Development</td>
<td>$72,500</td>
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<tr>
<td><strong>Total Construction Cost</strong></td>
<td><strong>$1,086,750</strong></td>
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<tr>
<td>(F) Movable Equip</td>
<td>$47,250</td>
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<tr>
<td>(G) Professional Fee</td>
<td>$108,675</td>
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<tr>
<td>(H) Safety Factor</td>
<td>$108,675</td>
</tr>
<tr>
<td><strong>Total Budget</strong></td>
<td><strong>$1,331,350</strong></td>
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</tbody>
</table>
ABSTRACT CONCEPT OF
KAH-NEE-TA RESORT
WARM SPRING, OREGON
Circulation
1. Lower Floor
2. Pool Level
3. First Level
4. Second Level

- Circulation
- Private Zone
- Public Spaces
- Service
THE SITE REGION

SOIL: Podzol, Oxisol, Ferralsol, Midden Texture, Rolling Hill

1. Type: Lava Sediment, Porous Top Soil

2. Characteristics: Damp, lot of precipitation

ENVIRONMENT

1. Physical: The whole site is forming a ledge at 1600 M elevation above sea level. It is the
   intermediate between the mountain range & the
   coastal area.

2. Social: Medan, the biggest city in Sumatera Island
   is the urban, political & Gov. Center for the whole
   region. 40% of the 750,000 population of Medan
   can be considered middle & upper middle class
   income families. These are the potential users of
   the resort.

3. Emotional: It is an ideal location for resort.
   The view is fantastic, temperature does not exceed
   80°F/26°C and it is only 40 miles/60 km from
   Medan.

ACCESSIBILITY

A major 2-lane hi-way stretch north-south,
connecting Medan & Brastagi (a farm-produce
center) 100 km. The site is just off the
hi-way. 60 km from Medan.

MAJOR REGIONAL ACTIVITIES

Every morning, fresh farm produce will be
transported from Brastagi to several markets
in Medan. On weekends people from Medan
will drive up to the mountains (Brastagi) to
get some cool air, buy some fruits & vegetables,
horse riding etc. The site will be the midpoint
between these activities.
MACRO CLIMATE

1. The site is 3° above the equator, so it is very tropic. On the low land and coastal area it is hot and humid with average temp. 85°F year round. In the month of Nov. through Jun. Moist air will be moving from Asia to continent of Australia, this is the rain fall season. From July to October a dry wind will be moving up from southeasterly direction, from Australia to Asia.

2. Day time temp. in the coastal area is 85°F - 90°F with humidity of 60% or above. Night time temp. is 70°F. In the mountainous area (above 2,000ft elevation), average day time temp. is 70°F - 75°F and at night is 55°F - 60°F. There are more precipitation & cloud on the mountains, especially in the afternoon. Sunny most of the time except during the monsoon (rainy) season, which usually rains for a few days continuously. Average rainfall is 120 inches a year. Sun rises at 6 a.m. & sets at 6 p.m. all year long.

Wind Direction

<table>
<thead>
<tr>
<th>Oct/Nov to Mar/Apr</th>
<th>May/Jun to Sep/Oct</th>
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<tbody>
<tr>
<td>NE</td>
<td>SW</td>
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</table>

EQUATOR

|    |    | ROLDRUMS
|----|----|-----
|    |    | SE  |
THE ONLY ACCESS TO THE SITE IS FROM 2 LANES MEDAN-BRASAGI HI-WAY WHICH RUNS SOUTH-WEST - NORTHEAST ON THE SITE.
AREA ALONG THE EXISTING ROADS ARE IN GENERAL FLAT AND HAS BEEN CLEARED.
AREA ALONG THE PATANI RIVER ARE HEAVILY KLOODED AND HAVE A VERY STEEP DROP.
IT IS USUALLY CLOUDY IN THE AFTERNOON. THE SITE FORM A LEDGE MID POINT BETWEEN THE MOUNTAINS AND THE COASTAL AREA.
RAINS ABOUT 200 DAYS OF THE YEAR. CONSTANT (5-15 MPH) BREEZE. HURRICANE TYPE WIND ONLY OCCUR ONCE OR TWICE A YEAR IN THE MONTH OF JULY WITHOUT RAIN.
SOIL VERY POROUS, NO CLAY WHATSOEVER, TOP SOIL ONLY 1/2 TO 1/2 METER, BEFORE REACHING SAND, GRAVEL, ROCK IN THE BOTTOM.
PH 5.2 TO 5.3
ELEVATION OF THE SITE ± 650 M (± 2000 FT) ABOVE SEA LEVEL.
<table>
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</tbody>
</table>

* ☐ highly desirable
100 rm. Hotel
Lobby + Reception
Rest rooms
5 shops (4)
Restaurant (200)

28,000
800
800
120,000
16,000
2,400

Skimmng pool
Picnic + playground
Parking 120 cars

Functional diagram

Future
Park
Comm.
Reg.
Retail
Lobby
Multi
Office
Rest.
View
Service
Bldg.
Pool
Guests