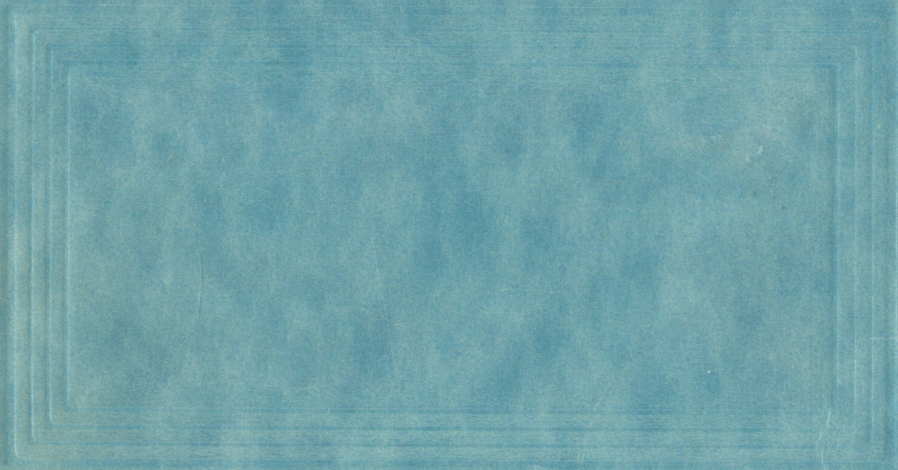




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JAMES O. CHRISTIANSEN

RESORT AREA FOR
POTOSI HOT SPRINGS

RESORT AREA FOR POTOSI HOT SPRINGS

Architectural Thesis Report
by
jim christiansen

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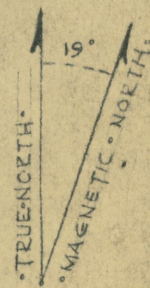
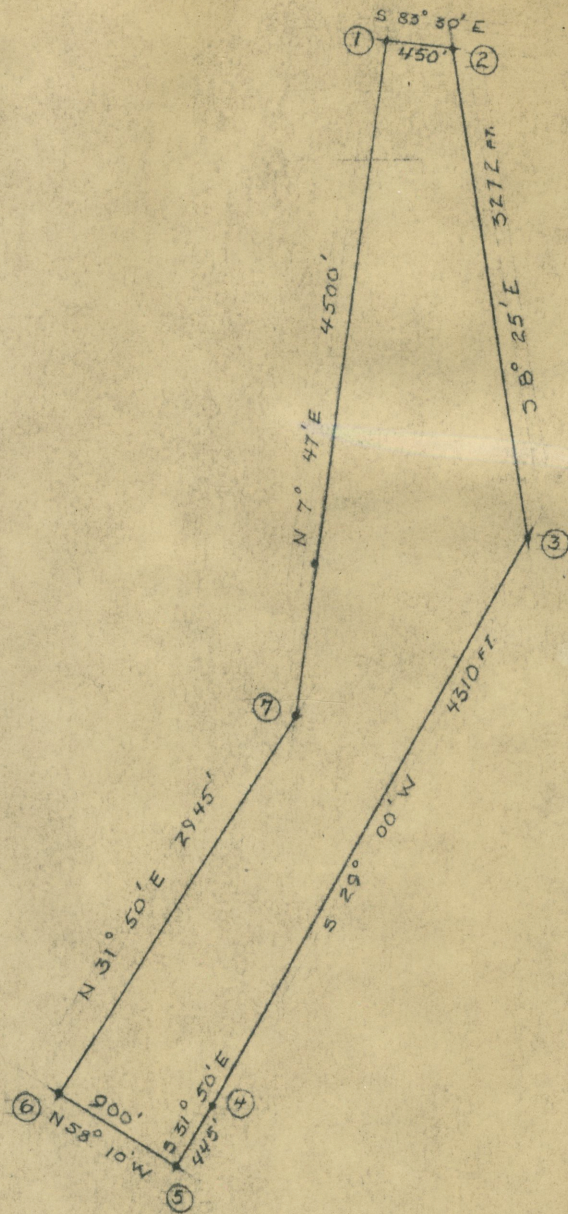
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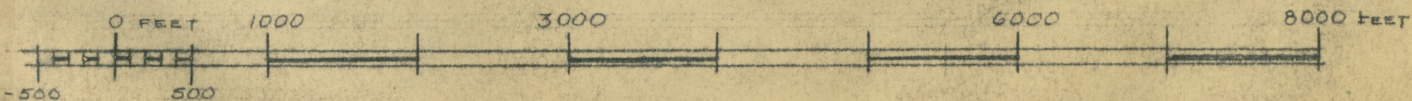
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PLAT OF CLARK PLACER
MINING CLAIM. LOT 3058
IN TOWNSHIP 5 SOUTH OF
RANGE 3 WEST.



SCALE :



DEPARTMENT OF CHEMISTRY
AND CHEMICAL ENGINEERING

Nov. 1, 1926
No. 3275

Mr. C. G. Clark
Butte Wholesale Grocery Co.,
Butte, Montana

Dear Sir:

I am enclosing herewith complete mineral analysis of water sample which you submitted to this office from Potosi Springs. The analytical data shows that the water is not highly mineralized. In order that you may have comparative figures I will state that the spring water contains about two and one half times as much mineral matter in solution as the Butte city water. The Butte city water carries mineral matter in solution which does not vary materially from the average mineral content of surface waters in Montana. You can readily see, therefore, that no great claims for therapeutic value can arise because of the mineral content of the water. It follows, therefore, that the water does not possess any unusual qualities from the medicinal or therapeutic standpoint. However, this analysis compares very favorably with many other hot spring waters around which profitable resorts have been built. For instance the Bozeman Hot Springs contains a trifle less than twice as much mineral matter as is found in Potosi Springs. The Medicine Springs of the Bitter Root Valley contains practically the same amount of mineral matter as is found in Potosi Springs. sulphide Aside from the fact that Hunters Hot Springs contains hydrogen gas in solution Potosi Hot Springs compares very closely with Hunters. In fact none of the hot springs of Montana contain large quantities of mineral matter as far as I have examined them with the possible exception of White Sulphur Springs. The latter springs contain between five and six times as much mineral matter as is found in Potosi Springs.

It follows, therefore, that your enterprize from the business standpoint should not be affected in the least by the fact that the spring water is not highly mineralized. A hot springs in a favorable scenic environment is a sufficient asset in itself without taking into account possible therapeutic value of the minerals in solution. It is well, however, to publish the mineral analysis in advertising your resort. Quite likely the form reported under hypothetical combinations is the more valuable one to use with the public.

I am

H. M. Lobban

MONTANA STATE COLLEGE
Department of Chemistry

Laboratory Report
Water Analysis

Lab. No. 1824

Date reported: Oct. 30, 1926

Sample submitted by: Mr. C. G. Clarke
Butte Wholesale Grocery Co.,
Butte, Montana

Description: Water sample from Potosi Hot Springs.

ANALYSIS

Parts per Million

Silica, SiO_2 -----	40.
{Iron oxide, Fe_2O_3 and	
Alumina, Al_2O_3 -----	Trace
Carbonates, CO_3 -----	6.4
Bicarbonates, HCO_3 -----	52.
Sulphate, SO_4 -----	143.
Chlorides, Cl -----	6.9
Calcium, Ca -----	14.
Magnesium, Mg -----	Trace
Sodium & Potassium, $\text{K} + \text{Na}$ -----	81.

The above radicals are probably combined as follows:

HYPOTHETICAL COMBINATIONS

	<u>Parts per Million</u>	<u>Grains per Gallon</u>
Sodium Chloride, NaCl -----	11.	.64
Sodium Sulphate, Na_2SO_4 -----	212.	12.37
Sodium Carbonate, Na_2CO_3 -----	11.	.64
Sodium Bicarbonate, NaHCO_3 -----	11.	.64
Magnesium Bicarbonate, $\text{MgH}_2(\text{CO}_3)_2$ ---	Trace	Trace
Calcium Bicarbonate, $\text{CaH}_2(\text{CO}_3)_2$ ---	57.	3.32
Iron oxide & Alumina, $\text{Fe}_2\text{O}_3 + \text{Al}_2\text{O}_3$ -----	Trace	Trace
Silica-----	40.	2.33

This water would be classed as a Thermo-sodic-sulphated-alkaline-saline-siliceous water.

W. H. K. Smith
Chemist

PROPOSED RESORT AREA FOR POTOSI HOT SPRINGS

by Jim Christiansen

The site is located in a scenic area approximately 6 miles from Pony, Montana, at the foot of the Tobacco Root Mountains. One of it's basic advantages is the close proximity to several Montana cities and tourist routes. It lies approximately 50 miles from Bozeman, 60 miles from Butte and West Yellowstone; 75 miles from Helena, and near direct routes from Yellowstone to Glacier National Park and East-West Route Highway 10. The site itself is an old placer mining claim laid out to include all hot springs and follow South Willow Creek. As may be seen on the enclosed site map, it's narrow width and great length creates a challenging design aspect.

The development of this complex is based entirely around man's relaxing and recreational use within a natural setting. It's function is to bring nature and man together as a therapy.

As stated in the enclosed water analysis, the hot spring claims no great theraputic value, but it is felt that the hot spring itself in such a scenic environment is sufficient asset and will be used for hot baths, swimming, and possibly heating.

The design concept of this complex will be to bring the architecture into a bold, but harmonious coexistence with nature. Building material indigenous to the site will be used to a practical extent.

The complex will be as self-sufficient as possible and will be designed for year-round operation as there are hopes of a winter sports area development.

PRELIMINARY PROGRAM

Acting Clients: Chandler C. Cohagen and possibly Walter Nye

A. Main Lodge Building shall include:

1. 20 private rooms (directly connected)
 - a. each shall contain toilet facilities
 - b. closet and storage facilities
 - c. possibly private sun decks
2. Dining facilities for 200.
3. Kitchen facilities.
4. Service facilities:
 - a. storage
 - (1) food
 - (2) bedding
 - (3) cleaning
 - b. mechanical area
 - c. servant quarters
5. Lodge Hall
 - a. dancing area
 - b. conversation area
 - c. refreshment bar
6. Lobby and Entrance Area
7. Managerial Office
8. Managerial Quarters
 - a. two bedroom apartment

B. 28 to 36 Small, Family Cabin Units.

1. one or two beds
2. storage and closet area
3. 1 bath or shower
4. private sundeck

C. Small Chapel

1. accomodate 20 - 40 people
2. to be used both from inside and outside

D. Recreational Facilities

1. Hiking on the numerous trails in this area.
2. Riding, pack trips and hunting trips.
3. Swimming pool (partially enclosed).
4. Small golf course.

LIBRARY RESEARCH

By jim christiansen

I. Facts Pertaining to Site Selection

A. Location of site

1. Consider average distance (200-400 miles) from other stops, tourist routes and national parks.
2. Relation to town or city -- availability of employees, fuel, water, electricity, gas, sewer, laundry, and service stations.

B. Driveways and Parking

1. Plan driveways

- a. Route first to officethen to parking related to rental units and finally to exit.
- b. Curved alignments, staggered setbacks, and angular placement of buildings help increase privacy and break up rigidity

2. Parking

- a. Make clear in some manner where guest is to park his car.
- b. Leave room for loading and unloading around car.
- c. Possibly under cover.

C. Access Road and Outlook

1. Desirable that guest may bring his car to the door of his unit and unload under cover.
2. Each unit shall have at least one window with a private outlook.

D. Rain and Snow Fall.

1. Rainfall--Driveway, parking and general site drainage is extremely important since guest enters rooms directly from outdoors and room maintenance work can be tripled by muddy shoes. Mud also gives bad psychological effect.
2. Snowfall--If the project is in a snow region, and is extensive, a Jeep with a 5 or 6 ft. wide snowplow attachment is essential.

E. Recreation and Entertainment

1. Playground equipment
2. Badminton
3. Tennis
4. Shuffle board
5. Golf (putting course)
6. Swimming pool
7. Skating
8. Lounge (fireplace, magazines, radio, television)
9. Dancing
10. Game room

II. Promotional Features

A. Services

1. Telephone or intercom with switchboard
2. Room radios or hi-fi system (coin-operated is resented by some guests)
3. Electric fans
4. Ironing boards
5. Razor outlet (essential)
6. Individual small refrigerators
7. Bottle opener
8. Shoe cleaner
9. Touring information
10. Gift shop
11. Auto service and filling station
12. Laundry service
13. Valet
14. Ice service
15. Free cool drink on arrival, free morning coffee

B. Guests' preferences

1. Location away from the traffic of the downtown.
2. Parking the car near.
3. Informal and economical.
4. Motels - newness.
5. Safety in case of fire.
6. Hospitality.
7. Privacy - own court or patio.

C. Guests' complaints

1. Noise tops the list.
2. Inefficient furnishings.
3. Inadequate hot water supply.
4. Poor lighting.

D. Boost Year-Round Occupancy

Attract and invite:

1. Conventions
2. Sales Meetings
3. High school and college trips and parties
4. Encourage regular guests

E. Off-season Trade

There is an increasing tendency to vacation in the winter season, and all resorts are attempting to build up trade in what they might have formerly have considered the off-season.

III. Employees and Maintenance

A. Employees

1. Man and wife team can handle about 12 units.
2. Usual allowance is one maid to 10 rooms.

B. Maintenance

1. Linen space required for: sheets, pillow cases, face towels, bath towels, bath mats, soap, tissue, matches,

writing materials, post cards, paper cups, sterilized glasses and pitchers.

2. Three sets of everything for each unit, changed daily.
3. Service closets for cleaning equipment, supplies, floor maintenance, slopsinks, and carts.
4. Maintenance shops for minor repairs - electricity, plumbing and heating, and painting and glazing.
5. Storage for recreation equipment.

C. Laundry

1. 20-minute cycle enough for most linens.
2. Bill over \$100 will install a laundry.
3. Installation \$2,000 and up.
4. One attendant should turn out 15-20 sheets(30#) per hour.
5. Typical small motel laundry has washer, extractor, dryer, ironer, and linen storage all within a space of 15' 6" x 12'.

IV. Administration Building

A. Main building

1. Covered drive at office for protection of guest.
2. Lobby - for guest registration, rent payment, information, waiting. Front desk may be a small writing surface.
3. Office for key rack, safety deposit box, bookkeeping, purchasing, and publicity. Keys are best locked in cabinettes.
4. Supervision - Careful planning can make managers location oversee many functions and save considerable time and effort in supervision.
5. Lounge - In bad weather, for social purposes, reading, conversation; have comfortable, desirable furnishings, good lighting, radio, T.V., bridge tables, desks, gift shop, and wall maps.
6. Public restrooms.
7. Telephone booths and intercom to rooms.

B. Important factors

B. Important factors

1. Front of fice is first impression and a lasting one.
2. The design is important.
3. Apartment of manager near office.
4. Shelter in front for arriving guest.
5. Small lounge (characteristic of the region in its decor.)
6. It is best to put the entrance on the driver's side of a one-way entrance.

V. Rental Units

A. Cost, Size, and Privacy

1. The capital cost of a rental unit is very small in proportion to the yearly operating expenses and rental income, therefore, it is seldom worth cutting size of a rental unit to the minimum at the expense of comfort and appearance.
2. The far most expensive area per sq.ft. is the bathroom.
3. Two units with the possibility of renting them together.
4. Acceptable double room sizes (14' x 14' to 16' x 18')
5. Identification of unit for late returning guest - easy to find their room or unit.
6. Closets or storage wall between rental units will not be satisfactory from the sound reduction standpoint.
7. Cross ventilation important.
8. Keep master keys to: manager, maintenance, maids and guest rooms.

B. Combination of Units

1. The combination of single rental units into larger blocks is mainly for economy -- in construction, in site use, in development, and in maintenance.
2. A key element in economical combination is the bathroom.
3. The cluster plan type plan, anywhere from 2 to 6 units in a building, can have outstanding advantages.
4. Combination will give more flexibility in size, in outlook, and in variety of room combinations and arrangements.

C. Entrance Lobby to Unit

1. This area should be used to screen the sleeping area from the entrance.
2. May be a defense against a waste of heat in the cold weather and may never be classified as a waste of space.

D. Privacy

1. Fast emerging as the most important quality desirable in a motel.
2. Entrance screened in some way desirable.

E. Ventilation

Planning for cross ventilation or "right angle ventilation" is usual in warmer climates and recognized in motor courts publicity as a selling point.

F. Furniture and Furnishings

1. Typical double room should provide:
 - a. 2 double beds (head boards well-designed)
 - b. 1 night table
 - c. 1 combination vanity-desk with mirror
 - d. 2 luggage racks (one can be used as a vanity bench)
 - e. 1 arm chair (2 better)
 - f. 1 straight chair
 - g. 2 lamps
 - h. 1 waste basket
 - i. 1 regional map on the wall
 - j. 1 small coffee-bed table is desirable
 - k. shelves or cupboards.
2. Beds
 - a. double beds used even if used only by one person or 2 twin beds.
 - b. set away from wall for bed making

- c. good reading light (switch near bed)
- d. night table - filled with radio, electric alarm clock, and telephone -- don't clutter the top.
- e. design for sitting on beds

G. ~~Sitting Area~~Area

- 1. Two easy chairs must be provided.
- 2. Night tables may double as coffee tables.
- 3. A simple square table away from the wall is sometimes useful.
- 4. A combination of desk and dressing table is not necessarily satisfactory. The dressing area should not have to overlap into the sitting area.

H. Dressing Area

- 1. Well lighted mirrors - one over wash basin and one full-length.
- 2. Sufficient light from all directions without excessive glare.
- 3. Light-colored counter!

I. Clothes Storage Area

- 1. Closet in double room - 5' of rod.
- 2. Shelf near basin for toilet kit.
- 3. Bureau drawers (built-in).
- 4. Good lighting.
- 5. Size:
 - a. 2'6" deep with door
 - 5' long
 - 6' high
 - extra bedding storage below or above
 - b. possibly shelves for hats and shoes.

J. Bathroom area

- 1. Design to be used by one or more persons at one time.
- 2. Shower is traditional but bath with shower appeals more.

3. Water closet in separate area desirable.
4. Bathroom, dressing and clothes storage merge into 1 area.
5. All tile bathrooms (about \$400 of tile-work) are required for top grading by the better associations because of superior maintenance.

VI. Kitchens

A. Receiving Area

1. The basic sequence of receiving to storage to pre-preparation to preparation to serving, and to consumption must be solved to eliminate back-tracking.
2. The receiving area should be located so that the food can be moved directly to the storage area. This area must be large to accomodate a platform scale, a counter or desk, and a platform truck to transport deliveries.

B. Storage Area

1. The most convenient and best location for storage is near the receiving area and adjacent to the pre-preparation area.
2. Central storage area should provide space for canned goods and stable groceries, linens, paper goods. (linens separated).
3. Adequate refrigeration is most important.
 - a. one walk-in box for meats
 - b. one walk-in box for fruits and vegetables
 - c. one walk-in box for dairy products
 - d. one walk-in box for frozen foods.

C. Pre-preparation area

1. The pre-preparation area for such foods as meats and vegetables should be located between the storage and soaking areas.
2. In small installations they will probably be located in the kitchen proper; in larger installations they may be planned as separate units.

D. Preparation Area

1. This area will provide space for cooking, baking, and and salad making--located between the pre-preparation and the serving areas. This area should be located centerally in relation to the other areas.
2. Locate cooking facilities near the center so it may easily be worked around without cross-traffic.
3. Cooking unit: space 3' to 3 $\frac{1}{2}$ ' for range - 48" for aisle, and 2 $\frac{1}{2}$ ' for table equipment.
 - a. range with oven space covered with hood.
 - b. work tables.
 - c. mincing machines.
 - d. deep fat fryers.
 - e. roasting ovens.
 - f. steak broiler.
 - g. refrigerator for daily supplies
4. Bake shop, minimum requirements: work table, bins for flour & sugar, shelves, sink, pan storage, refrigerator, mixer, baking ovens, and cooling racks.
5. Salad preparations - 2 compartment sink with drainboard, work table, and refrigerator near serving area to store salads.
6. Meat preparation, minimum requirements: sink and table. Others - meat block, meat grinder, slicer.
7. Vegetable preparation, required equipment: sinks, set in drainboards, potato peeler, waste disposal, work table, and vegetable chopper.
8. Food service is grouped into various classifications, such as: table or tray service, banquet service, cafeteria, and lunch room. For table or banquet assembly, the make-up area should be located at the end to the food production line, and as near to the cook's unit as possible; second near the dishwasher facilities for ease in transferring clean dishes to serving unit; and, third, if establishment is large enough, adjacent to the transportation facilities.

E. Dish Washing

1. This is the noisiest unit in the kitchen and should be closed off and located as far as possible from the dining area.
2. Equipment:
 - a. soiled dish table
 - b. cans for garbage collection or disposal unit
 - c. dish washer
 - d. clean dish table
 - e. additional equipment: glass washer, silver washer, soaking sinks and pre-rinse sink.
3. Pots and pans washing area should be near cooking and baking area.
4. Equipment: 3 compartment sink with 2 drain boards, and a scrap and drain box for floating of grease.

Bibliography

1. MOTELS
2. MOTELS, HOTELS, RESTRUANTS, AND BARS; an architectural record book,
published by F.W. Dodge Corporation, copyright 1953.
3. KITCHEN PLANNING by Arthur W. Dana.

MONTANA HOT SPRINGS SURVEY ANALYSIS

A. Analysis

B. Sample Copy

C. Montana Hot Springs Contacted:

1. Alhambra Uranium Mine Hot Springs
2. Barkell Hot Springs
3. Biltmore Mineral Hot Springs
4. Camas Hot Springs
5. Diamond Bar Inn
6. Diamond S Ranch Hotel Hot Springs
7. Elkhorn Hot Springs
8. Gregson Hot Springs
9. Pipestone Radium Hot Springs

A N A L Y S I S

A. <u>GENERAL INFORMATION</u>	<u>Average</u>	<u>Maximum</u>	<u>Minimum</u>
3. Approximate miles from a U.S. Highway	8	40	0
4. Road conditions in most cases were graveled or oiled.			
5. Parking facilities for (no. of cars)	30	50	15
6. Year-round facilities (in most cases - yes) No. of months open	11	12	4
7. Cater To: one night guests <u>5</u> weekly guests <u>8</u> monthly guests <u>6</u> no comment <u>1</u>			
8. European <u>4</u> American <u>4</u> no comment <u>4</u>			
B. <u>SLEEPING FACILITIES</u>			
1. Number of sleeping units 18 Those having: singles <u>3</u> doubles <u>7</u> none <u>2</u>	18	60	0
2. Directly connected to main 3. building only <u>1</u> separate units(only) <u>2</u> both <u>3</u> none <u>3</u>			
C. <u>DINING FACILITIES</u>			
1. Main dining hall <u>7</u> none <u>2</u> Facilities for serving people (no.) ---	23	102	16
2. Snack bar <u>6</u> none <u>3</u> Facilities for serving people (no.) --	28	1000	12

Average Maximum Minimum

F. RELIGIOUS FACILITIES

1.	Church	<u>1</u>
2.	none	<u>8</u>

G. RECUPERATIONAL FACILITIES

1.	Those with:	
	hot baths	<u>6</u>
	none	<u>3</u>

In most cases they offered
hot baths, and steam rooms.

Temperature operated at	117.7°	147°	98.2°
-------------------------	--------	------	-------

Employees required (in most cases)	1		
---------------------------------------	---	--	--

2. Basic hot springs tempera- ture	1147.1°	198°	114°
---------------------------------------	---------	------	------

3. Infirmary - none connected
with the hot springs resort
areas.

	<u>Average</u>	<u>Maximum</u>	<u>Minimum</u>
3. Kitchenettes in cabins			
Yes <u>4</u>			
No <u>5</u>			
Those that did have --	8	17	4

4. Refreshment bar	
Yes <u>5</u>	
No <u>4</u>	

D. SERVICE FACILITIES

1. Service from nearest town
(in most cases)

2. In most cases they have
their own laundry service

3. Number of employees 6 15 0*

* That is, other than the
couple that operate the
place, there are no
additional employees.

4. Those who have employees
quarters 5
none 4

5. Managerial quarters 6
no comment 3

6. Heating facilities in most - Heat with hot springs
cases by the hot water Yes 5
springs - with the aid of a No 4
booster, electricity, oil, gas,
and-or, wood.

E. RECREATIONAL FACILITIES

1. No. of resorts that offered:

swimming 9
fishing 6
golf 1 - planned
hiking 3

riding 4
pack trips 4
hunting 3
picnic area 5

2. Lodge hall 4
none 5

Dancing 5
none 4

Conversation 5
none 4

3. Children's recreation 4
none 5

1031 South 12th Street
Bozeman, Montana
October 14, 1959

To Whom It May Concern:

I have enclosed a copy of a letter of introduction from my instructor. I am an architectural thesis student here at Montana State College and as my thesis design project I have selected a hot springs resort area.

In order to get a clear picture of the operation and special functions of a resort such as this, I have written a questionnaire and visited several of these areas in Montana. I am sorry I was not able to visit your area. It would be very helpful to me and the thesis project if you could fill out the enclosed questionnaire and return it as soon as possible as I can not begin the design stages of the work until the survey is completed.

Thank you very much for your cooperation.

Sincerely yours,

James O. Christiansen
Student of Architecture

Enc. 3: copy of letter
questionnaire
return envelope

S A M P L E C O P Y

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: _____°
2. Location: _____°
_____°
3. Approximately _____ miles from Highway _____°
4. Road condition: _____°
_____°
5. Parking facilities: No. of cars _____°
Remarks _____°
6. Year-round facilities _____. No. of months open _____°
7. Cater to: one night guests _____. Weekly guests _____°
Monthly guests _____°
8. European _____. American _____°
9. Remarks: _____°

_____°

B. Sleeping Facilities

1. Number of sleeping units: _____ total.
_____ singles.
_____ doubles.

2. Directly connected to main building _____.
3. Separate units _____.
4. Approximate number filled/night: Summer _____. Winter _____.
5. Remarks: _____

_____.

C. Dining Facilities

1. Main dining hall _____. Maximum facilities for _____ people.

Number served: _____ breakfast

_____ lunch

_____ dinner

2. Snack bar _____. Maximum facilities for _____ people.

Number served: _____ breakfast

_____ lunch

_____ dinner

3. Kitchenettes in cabins _____. No. _____.

4. Refreshment bar _____.

5. Remarks: _____

_____.

D. Service Facilities

1. Service from _____. Day _____ Week _____ Month _____.

2. Laundry service: _____.

3. Number of employees _____.

Type: Maids _____ Waiter _____

Cooks _____

4. Employees quarters: _____
_____°
5. Managerial quarters: _____
_____°
6. Heating facilities: _____°
Main building _____°
Separate units _____°
7. Remarks: _____

_____°

E. Recreational Facilities

1. Types of recreation offered:

Swimming _____°	Hiking _____°
Fishing _____°	Riding _____°
Golf _____°	Pack trips _____°
Skiing _____°	Hunting _____°
_____°	_____°
_____°	_____°

2. Lodge hall _____°. Dancing _____°. Conversational area _____°.

3. Children's recreation: _____°

4. Remarks: _____

_____°

F. Religious Facilities

1. Church _____°. Maximum seating _____°. Denomination _____°.
2. Chapel _____°. Maximum seating _____°. Denomination _____°.

G. Recuperational Facilities

1. Hot baths _____ . Amount _____ .
Type _____ .
Operation _____ .

Temperature operated at _____ .
Employees required _____ .
2. Basic hot springs temperature _____ .
3. Infirmary (first aid): _____ .
4. Remarks: _____

_____ .

H. Comments

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: ALHAMBRA Uranium mine hot springs °
2. Location: 12 miles south of Helena
_____ °
3. Aproximately 1/4 miles from Highway 91 °
4. Road condition: Good
_____ °
5. Parking facilities: No. of cars 30 °
Remarks Unpaved °
6. Year-round facilities yes. No. of months open 12 °
7. Cater to: one night guests yes. Weekly guests yes °
Monthly guests _____ °
8. European _____. American yes °
9. Remarks: Just under construction - facilities only partially complete

_____ °

B. Sleeping Facilities

1. Number of sleeping units: 13 total.
_____ singles.
yes doubles.

2. Directly connected to main building No .
3. Separate units 13 .
4. Approximate number filled/night: Summer ____ . Winter ____ .
5. Remarks: _____

_____.

C. Dining Facilities

1. Main dining hall yes . Maximum facilities for 40 people.

Number served: ____ breakfast

____ lunch

____ dinner

2. Snack bar yes . Maximum facilities for 6 people.

Number served: ____ breakfast

____ lunch

____ dinner

3. Kitchenettes in cabins yes . No. 4 .

4. Refreshment bar yes .

5. Remarks: _____

_____.

D. Service Facilities

1. Service from Helena . Day ____ ^{When needed.} Week ____ Month ____ .

2. Laundry service: _____.

3. Number of employees ____.

Type: Maids ____ . Waiter ____ . _____.

Cooks ____ . _____ . _____.

4. Employees quarters: yes
5. Managerial quarters: yes
6. Heating facilities: Hot springs 147° - 160° 1/4 mile to
Main building yes springs.
Separate units oil - gas - hot water
7. Remarks:

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> <u>83°</u>	Hiking <u> </u>
Fishing <u>yes</u>	Riding <u> </u>
Golf <u> </u>	Pack trips <u> </u>
Skiing <u> </u>	Hunting <u>yes</u>
<u> </u>	<u>Picnic area</u>
<u> </u>	<u> </u>

2. Lodge hall no. Dancing yes. Conversational area yes.

3. Children's recreation: Ball park

4. Remarks:

F. Religious Facilities

1. Church no. Maximum seating . Denomination

2. Chapel no. Maximum seating . Denomination

1

- 1

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: BARKELL HOT SPRINGS °
2. Location: 1/4 mile south of Silver Star °
_____ °
3. Aproximately 0 miles from Highway 41 °
4. Road condition: paved °
_____ °
5. Parking facilities: No. of cars 30 °
Remarks parking lot unpaved °
6. Year-round facilities yes °. No. of months open 12 °
7. Cater to: one night guests _____. Weekly guests yes °.
Monthly guests yes °
8. European _____. American _____.
9. Remarks: _____ °
_____ °
_____ °

B. Sleeping Facilities

1. Number of sleeping units: 4 total.
_____ singles.
4 doubles.

- 2
2. Directly connected to main building ____.
 3. Separate units yes 4.
 4. Approximate number filled/night: Summer ____ Winter ____.
 5. Remarks: Each unit: kitchen, living room, bath, bedroom

_____.

C. Dining Facilities

1. Main dining hall yes. Maximum facilities for 16-30 people.

Number served: none breakfast

_____ lunch

_____ dinner

2. Snack bar yes. Maximum facilities for 100 people.

Number served: none breakfast

_____ lunch

_____ dinner

3. Kitchenettes in cabins yes. No. 4.

4. Refreshment bar yes.

5. Remarks: _____

_____.

D. Service Facilities

1. Service from Butte & Whitehall Day 3 Week yes Month ____.

2. Laundry service: own _____.

3. Number of employees 2.

Type: Maids ____ Waiter 1 _____.

Cooks 1 _____.

- 2
4. Employees quarters: _____
_____°
5. Managerial quarters: _____
_____°
6. Heating facilities: Hot Springs _____°
Main building yes _____°
Separate units electricity _____°
7. Remarks: _____

_____°

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> indoor.	Hiking _____°
Fishing <u>yes</u> .	Riding <u>yes</u> .
Golf _____°	Pack trips <u>yes</u> .
Skiing _____°	Hunting _____°
_____°	Picnic area _____°
_____°	_____°

2. Lodge hall _____° Dancing _____° Conversational area _____°

3. Children's recreation: yes _____°

4. Remarks: _____

_____°

F. Religious Facilities

1. Church _____° Maximum seating _____° Denomination _____°

2. Chapel _____° Maximum seating _____° Denomination _____°

4

- ## H. Comments

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: BILTMORE MINERAL HOT SPRINGS °
2. Location: 20 miles north of Dillon °
_____ °
3. Aproximately 4½ miles from Highway 41 °
4. Road condition: New grading, dirt road °
_____ °
5. Parking facilities: No. of cars 15 °
Remarks _____ °
6. Year-round facilities yes °. No. of months open _____ °
7. Cater to: one night guests yes °. Weekly guests yes °.
Monthly guests yes °
8. European _____. American _____ °
9. Remarks: _____ °
_____ °
_____ °

B. Sleeping Facilities

1. Number of sleeping units: 6 total.
_____ singles.
yes doubles.

2. Directly connected to main building ____.
3. Separate units ____.
4. Approximate number filled/night: Summer ____ Winter ____.
5. Remarks: _____

_____.

C. Dining Facilities

1. Main dining hall yes. Maximum facilities for 25 people.
Number served: ____ breakfast
____ lunch
____ dinner
2. Snack bar yes. Maximum facilities for 10 people.
Number served: ____ breakfast
____ lunch
____ dinner
3. Kitchenettes in cabins no. No. ____.
4. Refreshment bar yes.
5. Remarks: _____

_____.

D. Service Facilities

1. Service from _____. Day _____ Week _____ Month _____.
 2. Laundry service: _____.
 3. Number of employees ____.
- | | | | | |
|-------------|--------|--------|--------|--------|
| Type: Maids | _____. | Waiter | _____. | _____. |
| Cooks | _____. | _____. | _____. | _____. |

4. Employees quarters: _____
 _____°
5. Managerial quarters: home _____
 _____°
6. Heating facilities: _____°
 Main building _____°
 Separate units _____°
7. Remarks: _____

 _____°

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> °	Hiking _____°
Fishing <u>yes</u> °	Riding _____°
Golf _____°	Pack trips _____°
Skiing _____°	Hunting _____°
_____°	Picnic area _____°
_____°	Barbecue _____°

2. Lodge hall _____° Dancing _____° Conversational area _____°

3. Children's recreation: _____°

4. Remarks: _____

 _____°

F. Religious Facilities

1. Church no° Maximum seating _____° Denomination _____°

2. Chapel no° Maximum seating _____° Denomination _____°

G. Recuperational Facilities

1. Hot baths 2 steam rooms. Amount _____
Type _____
Operation _____

Temperature operated at 136°.
Employees required 1.
2. Basic hot springs temperature 136°.
3. Infirmary (first aid): _____
4. Remarks: _____

H. Comments

4

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: CAMAS HOT SPRINGS °
2. Location: Hot Springs, Montana
_____ °
3. Aproximately 2 miles from Highway 28 °
4. Road condition: oiled
_____ °
5. Parking facilities: No. of cars 30 °
Remarks _____ °
6. Year-round facilities yes °. No. of months open 12 °
7. Cater to: one night guests yes °. Weekly guests yes °.
Monthly guests yes °
8. European yes °. American yes °
9. Remarks: _____

_____ °

B. Sleeping Facilities

1. Number of sleeping units: _____ total.
_____ singles.
_____ doubles.

- 41
2. Directly connected to main building _____.
 3. Separate units _____.
 4. Approximate number filled/night: Summer _____. Winter _____.
 5. Remarks: None in connection with bathhouse. Many units in town
of Hot Springs.
_____.

C. Dining Facilities

1. Main dining hall _____. Maximum facilities for _____ people.
Number served: _____ breakfast
 _____ lunch
 _____ dinner
2. Snack bar _____. Maximum facilities for _____ people.
Number served: _____ breakfast
 _____ lunch
 _____ dinner
3. Kitchenettes in cabins _____. No. _____.
4. Refreshment bar _____.
5. Remarks: None in connection with bathhouse

_____.

D. Service Facilities

1. Service from 8:00 to 5:00 . Day 7 Week yes Month yes .
2. Laundry service: _____.
3. Number of employees varies from 7 to 15.
Type: Maids _____ Waiter _____
 Cooks _____

2 women attendants in ladies bath wing
2 men " " " "
1 laundress
1 engineer

1 janitor
1 manager
1 masseuse
1 masseur
2 chiropractors

- 4
4. Employees quarters: yes
5. Managerial quarters: yes
6. Heating facilities: _____
- Main building _____
- Separate units _____
7. Remarks: _____

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u>	Hiking _____
Fishing _____	Riding _____
Golf _____	Pack trips _____
Skiing _____	Hunting _____
_____	_____
_____	_____

2. Lodge hall _____. Dancing _____. Conversational area _____.

3. Children's recreation: _____

4. Remarks: _____

F. Religious Facilities

1. Church _____. Maximum seating _____. Denomination _____.

2. Chapel _____. Maximum seating _____. Denomination _____.

G. Recuperational Facilities

1. Hot baths mud or water baths; steams; . Amount \$1.50 .
Type and sweat rooms .
Operation _____

Temperature operated at 120° .
Employees required listed on previous page
2. Basic hot springs temperature 120° .
3. Infirmary (first aid): yes in the town of Hot Springs .
4. Remarks: Folder on the Camas Hot Springs

H. Comments

5

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: DIAMOND BAR INN°
2. Location: Jackson, Montana
_____°
3. Aproximately 18 miles from Highway 43°
 14 91
4. Road condition: graveled
_____°
5. Parking facilities: No. of cars _____.
Remarks _____°
6. Year-round facilities yes. No. of months open 12.
7. Cater to: one night guests yes. Weekly guests yes.
Monthly guests yes.
8. European _____. American _____.
9. Remarks: _____

_____°

B. Sleeping Facilities

1. Number of sleeping units: 34 total.
_____ singles.
yes doubles.

- 5
2. Directly connected to main building 10.
 3. Separate units 12.
 4. Approximate number filled/night: Summer ____ Winter ____.
 5. Remarks: 5 housekeeping 7 sleeping

_____.

C. Dining Facilities

1. Main dining hall yes. Maximum facilities for ____ people.
Number served: ____ breakfast
____ lunch
____ dinner
2. Snack bar yes. Maximum facilities for ____ people.
Number served: ____ breakfast
____ lunch
____ dinner
3. Kitchenettes in cabins yes. No. 5.
4. Refreshment bar yes.
5. Remarks: _____

_____.

D. Service Facilities

1. Service from Dillon. Day ____ Week ____ Month ____.
2. Laundry service: own.
3. Number of employees 12.
Type: Maids 2. Waiter 2-3. bar tender 1.
Cooks 2. laundry 1. manager 1.
life guard 1.
maintenance 1.

- 5
4. Employees quarters: cabins
5. Managerial quarters: apartment
6. Heating facilities: hot springs and boosting
- Main building yes
- Separate units cottages hot water - cabins electricity.
7. Remarks:

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u>	Hiking <u>yes</u>
Fishing <u>yes</u>	Riding <u>yes</u>
Golf	Pack trips <u>yes</u>
Skiing <u>yes</u>	Hunting <u>yes</u>

2. Lodge hall yes. Dancing yes. Conversational area yes.

3. Children's recreation:

4. Remarks:

F. Religious Facilities

1. Church yes. Maximum seating. Denomination
2. Chapel. Maximum seating. Denomination

5

- ## H. Comments

6

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: DIAMOND S RANCH HOTEL HOT SPRINGS °
2. Location: 3 miles from Boulder
3 1/4 miles from paved road °
3. Aproximately 3 miles from Highway 91 °
4. Road condition: excellent
°
5. Parking facilities: No. of cars 25 °
Remarks unpaved parking °
6. Year-round facilities yes °. No. of months open 12 °.
7. Cater to: one night guests yes °. Weekly guests yes °.
Monthly guests yes °.
8. European yes °. American yes °.
9. Remarks: ranch operated
°
°
°

B. Sleeping Facilities

1. Number of sleeping units: 60 total.

<u>23</u> singles.	15 delux
	11 with bath
<u>37</u> doubles.	12 with private toilet
	22 plain

2. Directly connected to main building 60.
3. Separate units none.
4. Approximate number filled/night: Summer _____. Winter _____.
5. Remarks: _____
- _____
- _____

C. Dining Facilities

1. Main dining hall yes. Maximum facilities for 102 people.

Number served: _____ breakfast

_____ lunch

_____ dinner

2. Snack bar none. Maximum facilities for _____ people.

Number served: _____ breakfast

_____ lunch

_____ dinner

3. Kitchenettes in cabins no. No. _____.

4. Refreshment bar yes.

5. Remarks: _____
- _____
- _____

D. Service Facilities

1. Service from Butte & Helena. Day _____ Week once Month _____.

2. Laundry service: sent to Butte.

3. Number of employees 14.

Type: Maids 2.

Waiter 3-7.

Ranchman 1.

Cooks 2.

Desk clerks 2.

Maintenance 1.

Kitchen help 2
(extra on week-ends)

Bartender 1
Organist 1

- 6
4. Employees quarters: rooms in hotel
5. Managerial quarters: apartment
6. Heating facilities: hot springs
- Main building yes
- Separate units
7. Remarks:

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> . outdoor & indoor	Hiking <u>yes</u> .
Fishing <u>yes</u> .	Riding <u>yes</u> .
Golf <u>planned</u>	Pack trips <u>yes</u> .
Skiing	Hunting
	Picnic Area

2. Lodge hall yes . Dancing yes . Conversational area yes .

3. Children's recreation:

4. Remarks:

F. Religious Facilities

1. Church . Maximum seating . Denomination .

2. Chapel . Maximum seating . Denomination .

6

G. Recuperational Facilities

1. Hot baths ^{1 bath 1 steam for women}
2 " 1 " for men . Amount _____°
- Type public _____°
- Operation _____°
- _____°
- Temperature operated at 98.2° . for swimming, naturally cooled by
cooling tanks
- Employees required 1 masseur .
2. Basic hot springs temperature 187° .
3. Infirmary (first aid): none _____°
4. Remarks: _____°
- _____°
- _____°

H. Comments

7

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: ELKHORN HOT SPRINGS °
2. Location: Beaverhead National Forest 40 miles NW of Dillon
Polaris, Montana °
3. Aproximately 40 miles from Highway 91 °
4. Road condition: good non-surfaced road
°
5. Parking facilities: No. of cars 50 °
Remarks _____ °
6. Year-round facilities No °. No. of months open 4 °.
7. Cater to: one night guests _____. Weekly guests yes °.
Monthly guests _____ °
8. European yes °. American yes °.
9. Remarks: Either plan is available, most people prefer
the European Plan.
°

B. Sleeping Facilities

1. Number of sleeping units: 19 total.
12 singles.
42 doubles.

2. Directly connected to main building 4.
3. Separate units 15.
4. Approximate number filled/night: Summer 14. Winter ____.
5. Remarks: _____
- _____
- _____

C. Dining Facilities

1. Main dining hall yes. Maximum facilities for 14 people.
- Number served: _____ breakfast
_____ lunch
_____ dinner
- Being on European Plan most of time, meals vary drastically.
2. Snack bar yes. Maximum facilities for 12 people.
- Number served: _____ breakfast
_____ lunch
_____ dinner
3. Kitchenettes in cabins yes. No. ____.
4. Refreshment bar no.
5. Remarks: Being a family resort a bar would cause too much trouble
and bring in a different element of people.
- _____

D. Service Facilities

1. Service from _____. Day _____ Week _____ Month _____.
2. Laundry service: Automatic washer for our guests.
3. Number of employees 7.
- Type: Maids _____ Waiter 2 Pool attendant 1
- Cooks 1 Wrangler 1 _____

4. Employees quarters: Separate cabin for waitresses and pool attendant,
Wrangler and cook in the lodge °
5. Managerial quarters: In lodge
°
6. Heating facilities: Wood, oil and gas °
Main building wood, oil and gas °
Separate units wood and gas °
7. Remarks: _____

_____ °

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> °	Hiking <u>yes</u> °
Fishing <u>yes</u> °	Riding <u>yes</u> °
Golf _____ °	Pack trips <u>yes</u> °
Skiing _____ °	Hunting <u>yes</u> °
<u>Variety of games</u> _____ °	_____ _____ °

2. Lodge hall _____. Dancing yes °. Conversational area yes °.

3. Children's recreation: playground °

4. Remarks: Had a counselor for three years but parents were not
interested so dropped the project.
_____ °

F. Religious Facilities

1. Church no °. Maximum seating _____. Denomination _____ °.
2. Chapel _____. Maximum seating _____. Denomination _____ °.

7

G. Recuperational Facilities

1. Hot baths men and women's private baths. Amount \$.50.
Type non-mineral hot springs.
Operation have two baths and two swimming pools.
.
Temperature operated at 110°.
Employees required 1.
2. Basic hot springs temperature 114°.
3. Infirmary (first aid): none.
4. Remarks: Very soft water, odorless and tasteless
large swimming pool 60' X 40' at 80 degrees
small swimming pool 20' X 40' at 95 degrees.

H. Comments

Elkhorn is a family resort at 7500 feet elevation in a canyon of the Pioneer Range. All buildings are of log construction. The bathhouse is two years old, the resort was begun in 1908.

8

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: GREGSON HOT SPRINGS °
2. Location: 2 miles from Walkerville - 16 miles west of Butte
_____ °
3. Approximately 2 miles from Highway 10s °
4. Road condition: paved
_____ °
5. Parking facilities: No. of cars 40 °
Remarks _____ °
6. Year-round facilities _____. No. of months open ____.
7. Cater to: one night guests _____. Weekly guests _____.
Monthly guests _____.
8. European _____. American _____.
9. Remarks: _____

_____ °

B. Sleeping Facilities

1. Number of sleeping units: ^{none} _____ total.
_____ singles.
_____ doubles.

- 8
2. Directly connected to main building _____.
 3. Separate units _____.
 4. Approximate number filled/night: Summer _____. Winter _____.
 5. Remarks: _____

_____.

C. Dining Facilities

1. Main dining hall _____. Maximum facilities for _____ people.

Number served: _____ breakfast

_____ lunch

_____ dinner

2. Snack bar yes. Maximum facilities for 10 people.

Number served: _____ breakfast

_____ lunch

_____ dinner

3. Kitchenettes in cabins _____. No. _____.

4. Refreshment bar no.

5. Remarks: _____

_____.

D. Service Facilities

1. Service from _____. Day _____ Week _____ Month _____.

2. Laundry service: _____.

3. Number of employees _____.

Type: Maids _____ Waiter _____

Cooks _____ _____

- 8
4. Employees quarters: _____
_____°
5. Managerial quarters: _____
_____°
6. Heating facilities: _____°
Main building _____°
Separate units _____°
7. Remarks: _____

_____°

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> °	Hiking _____°
Fishing _____°	Riding _____°
Golf _____°	Pack trips _____°
Skiing _____°	Hunting _____°
_____°	Picnic Area _____°
_____°	_____°

2. Lodge hall yes°. Dancing yes°. Conversational area _____°.

3. Children's recreation: swings, slide°

4. Remarks: Large picnic area.

_____°

F. Religious Facilities

1. Church _____°. Maximum seating _____°. Denomination _____°.
2. Chapel _____°. Maximum seating _____°. Denomination _____°.

8

G. Recuperational Facilities

1. Hot baths _____ . Amount _____ .
Type _____ .
Operation _____ .

Temperature operated at _____ .
Employees required _____ .
2. Basic hot springs temperature 198° .
3. Infirmary (first aid): _____ .
4. Remarks: _____

_____ .

H. Comments

9

MONTANA STATE COLLEGE
Department of Architecture
Architecture 445
Thesis Student: jim christiansen

MONTANA HOT SPRINGS SURVEY

A. General Information

1. Name of Hot Springs: PIPESTONE RADIUM HOT SPRINGS °
2. Location: Near Pipestone, Montana 31 miles east of Butte °
_____ °
3. Aproximately 2.5 miles from Highway 10s °
4. Road condition: gravel - fair condition °
_____ °
5. Parking facilities: No. of cars 20 °
Remarks one parking lot °
6. Year-round facilities yes °. No. of months open 12 °
7. Cater to: one night guests ____ °. Weekly guests yes °
Monthly guests yes °
8. European yes °. American ____ °
9. Remarks: Only therapy services open °

_____ °

B. Sleeping Facilities

1. Number of sleeping units: 27 total.
9 singles.
17 doubles.

- 9
2. Directly connected to main building 9.
 3. Separate units 17.
 4. Approximate number filled/night: Summer _____. Winter _____.
 5. Remarks: All 17 separate cabins closed

_____.

C. Dining Facilities

1. Main dining hall yes. Maximum facilities for 16 people.
Number served: _____ breakfast
 _____ lunch
 _____ dinner
2. Snack bar none. Maximum facilities for _____ people.
Number served: _____ breakfast
 _____ lunch
 _____ dinner
3. Kitchenettes in cabins yes. No. 17.
4. Refreshment bar no.
5. Remarks: home style service

_____.

D. Service Facilities

1. Service from Pipestone. Day _____ Week yes Month _____.
2. Laundry service: own.
3. Number of employees 0.
Type: Maids _____ Waiter _____
Cooks _____

- 9
4. Employees quarters: _____
_____°
5. Managerial quarters: _____
_____°
6. Heating facilities: with hot springs (booster in winter) _____°
Main building same _____°
Separate units _____°
7. Remarks: hot water pumped from well _____

_____°

E. Recreational Facilities

1. Types of recreation offered:

Swimming <u>yes</u> (closed)	Hiking _____°
Fishing _____°	Riding _____°
Golf _____°	Pack trips _____°
Skiing _____°	Hunting _____°
_____°	_____°
_____°	_____°

2. Lodge hall yes. Dancing _____. Conversational area yes°.

3. Children's recreation: none _____°

4. Remarks: _____

_____°

F. Religious Facilities

1. Church no. Maximum seating _____. Denomination _____°

2. Chapel _____. Maximum seating _____. Denomination _____°

9

- ## H. Comments

H. Comments

School of Architecture
Montana State College
Bozeman, Montana

TO: Verne Dusenberry, Associate Professor of English
Montana State College
Bozeman, Montana

FROM: J. O. Christiansen

DATE: October 13, 1959

SUBJECT: Resort Area for Potosi Hot Springs--Progress report to
date and general distribution of remaining work.

General

The development of this complex is based entirely around man's relaxational and recreational use within a natural setting. Its functions shall be to bring nature and man together as a therapy. Therefore, the design concept of this complex will be to bring the architecture into a bold, but harmonious coexistence with nature. Building materials indigenous to the site will be used to a practical extent.

The complex will be as self-sufficient as possible and will be designed for year-round operation as there are hopes of a winter sports development in this area.

Hot Springs

In one area of the site numerous hot springs appear on the ground surface at a maximum surface temperature of 127 F. As stated in the enclosed water analysis, the hot spring claims no great therapeutic value, but it is felt that the hot spring itself in such a scenic environment is sufficient asset. The hot springs will be used for swimming, hot baths, and possibly heating.

Location

The site is located in a scenic area approximately 6 miles from Pony, Montana at the foot of the Tobacco Root Mountains. The site itself is an old placer mining claim laid out to include all hot springs and follow South Willow Creek. As may be seen on the enclosed site map, its elongated shape creates a challenging design aspect. One of the basic advantages is its close proximity to several Montana cities and tourist routes. It lies approximately 50 miles from Bozeman, 60 miles from Butte and West Yellowstone, 40 miles from Virginia City, 75 miles from Helena, near direct routes from Yellowstone to Glacier National Park and East-West Route Highway 10.

Preliminary Program

A. Main Lodge Building

1. Lobby and entrance area
2. Managerial office
3. Lodge hall
 - a) conversational area
 - b) dancing area
 - c) refreshment bar
4. Dining facilities for 200
5. Kitchen facilities
6. Twenty private rooms - directly connected
 - a) each shall contain toilet facilities
 - b) closet and storage facilities
 - c) private sun decks
7. Managerial quarters
8. Service facilities
 - a) storage
 - (1) food
 - (2) bedding
 - (3) cleaning
 - b) laundering area
 - c) mechanical area
 - d) employee's quarters
9. Hot baths

B. Separate Cabin Units - 28 to 36

1. one or two beds
2. storage and closet facilities
3. toilet facilities
4. private sun decks

C. Small Chapel

1. accomodate 20 to 40 people
2. to be used both from inside and outside

D. Recreational Facilities

1. Swimming pool (partially enclosed)
2. Small golf course
3. Fishing and hunting
4. Hiking on the numerous trails in this area
5. Riding and pack trips

Work accomplished to date

Two trips have been made to the site for the purpose of locating property boundaries and determing hot spring temperatures and approximate flow.

A topographic map has been acquired, the site located on it and enlarged.

A Preliminary program has been written and the initial research started.

The enclosed questionnaire was written to determine the operation and requirement of such a resort and a 700 mile trip throughout the state was made for the purpose of completing this questionnaire.

Work planned for next 2-week period

Questionnaires will be mailed to the Hot Springs areas which were not contacted on the trip. Before their return all other research will be completed. Upon the return of the final questionnaire, studies of all research will be made and the program completed. Basic site planning will then begin. Another trip to the site is planned if the weather permits to acquire photographs for presentation purposes.

General distribution of remaining work

During this quarter, autumn 1959, the preliminary design will be completed and presented to the architectural staff and the client. Their criticisms will be studied and all changes made. The final design will then be completed and again presented to the staff and client at the close of this quarter.

Next quarter, winter 1960, one of the smaller units of the complex will be selected, such as the small chapel or one of the separate units, and a complete set of working drawings made of it.

James O. Christiansen
School of Architecture

Enc. 3: Water analysis
Site plan
Questionnaire

C.C. Mr. Chandler C. Cohagen, client
Mr. Hugo Eck, critic

School of Architecture
Montana State College
Bozeman, Montana

TO: Verne Dusenberry, Associate Professor of English
Montana State College
Bozeman, Montana

FROM: J. O. Christiansen

DATE: October 27, 1959

SUBJECT: Resort Area for Potosi Hot Springs--Progress report to
date and distribution of work for next two-week period.

Resumé of problem

The site is located approximately 6 miles from Pony, Montana, at the foot of the Tobacco Root Mountains. It lies in a very scenic, mountainous setting, and at one point, a series of hot water springs appear and will be used for hot baths, swimming, heating, and landscaping. This resort will be a self-sufficient area created to house man, his recreation, and his relaxation. It will contain hotel-motel type facilities along with many recreational and relaxational areas.

Work accomplished from October 13, 1959 to date

Copies of the Hot Springs Survey questionnaire along with two enclosed letters, one a letter of introduction from Mr. Hugo Eck and the other letter of explanation from myself, were mailed to the following Montana hot springs areas: Elkhorn Hot Springs, Polaris, Montana; Medicine Hot Springs, Sula, Montana; Lola Hot Springs, Lolo, Montana; Government Bath House, Hot Springs, Montana; and Hunters' Hot Springs, Springdale, Montana. To date none of these questionnaires have been returned. Therefore delaying the completion and inclusion of research data on existing hot springs areas. With the return of the remaining questionnaires, approximately of the Montana hot springs areas will have been contacted.

All library research has been completed and is in the rough note stage. Approximately fifty, 5 in. by 8 in. cards have been filled with information concerning management and requirements of such a resort. Several of the topics studied were the rental units--their function, the dining area, and the kitchen areas. All service areas have been studied such as the laundry requirements, storage, access for service, and maintenance equipment.

The site plan and topography has been enlarged from a scale of $3/4" = 1000' 0"$ to $1" = 200' 0"$ in order to facilitate the start of the site planning. The building placement and orientation is being studied along with the location of existing foliage and trees. In considering the building arrangements it was decided that, in order to preserve as much of the existing landscape as possible, it would be necessary to obtain aerial photographs of the site. The Soil Conservation, A.S.C., and Forest Service offices here in Bozeman

contacted, and the Forest Service Supervisor's office at Dillon was recommended as the location of such photographs. This office has been contacted, and the aerial photographs taken of the site in 1950 should arrive this week.

It was also noted in the preliminary site planning that the beaver dams existing on the site require definite consideration and very possibly removal. Beaver dams in many instances can be very beautiful and desirable, but again in some cases they can be just as undesirable. In this case, after walking around and through the area where these dams are located, I feel this area might be removed or better-yet replaced with a small, but beautiful man-made pond which would enhance the site considerably, could be stocked with fish, and possibly be used for ice skating in the winter. The land in this area is marshy and almost a complete undergrowth of willows, reeds, and weeds which is far from beautiful and almost useless even for fishing. More study will be given to this situation.

Work planned for next two-week period

All the research information will be compiled upon the completion of the Hot Springs Survey and enclosed in the progress report. At this point the desirable program should be apparent and the basic area requirements will be set.

When the aerial photographs of the site arrive they will be copied by photography and used to determine the location of existing trees and foliage. The site planning will then be studied more closely.

Basic plan and perspective sketches of all buildings will be made in order to crystallize some of the design thoughts and characteristics, and to help bring all the buildings into unity and a harmonious co-existence with nature.

James O. Christiansen
School of Architecture

Enc. 2: letters

C.C. Mr. Chandler C. Cohagen, client
Mr. Hugo Eck, critic

School of Architecture
Montana State College
Bozeman, Montana

TO: Verne Dusenberry, Associate Professor of English
Montana State College
Bozeman, Montana

FROM: J. O. Christiansen

DATE: November 10, 1959

SUBJECT: Resort Area for Potosi Hot Springs--Progress report
to date and distribution of work for next two-week period.

Résumé of problem

The resort area, which will be designed around a series of hot springs, will be located approximately six miles from Pony, Montana. It will be a self-sufficient area and will contain hotel-motel type facilities along with many recreational and relaxational facilities.

Work accomplished from October 27, 1959 to date.

Two of the Hot Springs Survey questionnaires have so far been returned, one from Elkhorn Hot Springs and the other from Camas Hot Springs. These two returns bring the total to 10 out of 13 resorts which were contacted. I feel this is approximately all that will be returned, therefore this information will now be compiled and used in writing the final program.

The aerial photograph was received, but the scale was so small that it was hardly of use. With the aid of a magnifying glass the wooded areas were roughly calculated and the photograph was returned.

The site planning is near completion, and I feel that if possible the use of a small man-made lake in the beaver dam, swamp area would be very desirable. The main lodge building will be located near the point where the hot springs appear. The separate cabin units will follow along the creek and the edge of the lake opposite of the main lodge. The chapel will be located at one of the hot springs in a secluded area and very much open to nature.

The stables and pastures will be located on the south end of the site in full view of the main lodge. The recreation areas will lie between the lodge and the cabins and flow toward the north end of the site, also, in view of the main lodge.

Preliminary floor plans and perspective studies have been made of the main lodge and separate cabin units. The main lodge building will be terraced down the slope which contains the hot springs. At the uppermost point will lie the sleeping units which will step

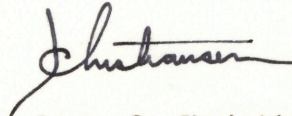
down the slope in rows to gain privacy and a full view of the entire valley. They will be connected to the public portion of the building by an enclosed bridge which will double as an entry carport. The public, management portion of the lodge will lie at the lower end of the slope and will contain the lobby, office apartment for manager, swimming pool, dining area, kitchen, and service areas.

The separate cabin units will be grouped into three cabins per building and will contain a central utility core, private entrances, and sundecks.

The character of the resort is becoming apparent. The requirements of a harmonious co-existence with nature, a view and privacy for each guest, and a protection from heavy snow falls have been determined and will be at the completion of the design completely satisfied.

Work planned for next two-week period

The work for the next two-weeks will be devoted completely to the design of the main lodge, the three-cabin unit, and the completion of the site plan.



James O. Christiansen
School of Architecture

C.C. Mr. Chandler C. Cohagen, client
Mr. Hugo Eck, critic

School of Architecture
Montana State College
Bozeman, Montana

TO: Verne Dusenberry, Associate Professor of English
Montana State College
Bozeman, Montana

FROM: J. O. Christiansen

DATE: November 24, 1959

SUBJECT: Resort Area for Potosi Hot Springs-- Progress report
to date and distribution of work for next two-week period,

Résumé of problem

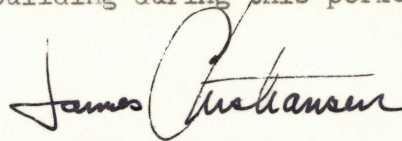
A recreation-resort area is to be developed around a series of hot water springs which lie at the foot of the Tobacco Root Mountains near Pony, Montana.

Work accomplished from November 10, 1959, to date.

The design work during the last two weeks was centered around the main lodge building and the three-cabin unit. The design of the main lodge building is nearly completed. Detailed studies were made of all the functions within the buildings, and I am presently constructing a structural model of a portion of the lodge building.

Work planned for the next two-week period

All structural and design studies will be completed, and the presentation of the final drawings and models will begin. I plan to complete a model of the lodge building during this period.



James O. Christiansen
School of Architecture

C.C. Mr. Chandler C. Cohagen, client
Mr. Hugo Eck, critic

School of Architecture
Montana State College
Bozeman, Montana

TO: Verne Dusenberry, Associate Professor of English
Montana State College
Bozeman, Montana

FROM: J. O. Christiansen

DATE: December 14, 1959

SUBJECT: Resort Area for Potosi Hot Springs--Summary of quarter's
work and forecast to winter quarter.

Resume of problem

The site is located in a scenic area approximately 6 miles from Pony, Montana at the foot of the Tobacco Root Mountains. One of its basic advantages is the close proximity to several Montana cities and tourist routes. It lies approximately 50 miles from Bozeman, 60 miles from Butte and West Yellowstone, 75 miles from Helena, and near direct routes from Yellowstone to Glacier National Park and East-West Route Highway 10. The site itself is an old placer mining claim layed out to include all hot springs and follow South Willow Creek.

The development of this complex is based entirely around man's relaxational and recreational use within a natural setting. Its function is to bring nature and man together in conjunction with the hot springs as a therapy. The design concept of this complex will be to bring the architecture into a bold, but harmonious coexistence with nature. Building material indigenous to the site will be used to a practical extent.

Work accomplished during fall quarter 1959 to date

At the beginning of the quarter research was conducted on the hot springs resort areas in Montana. A survey questionnaire was designed and I personally visited, photographed, and studied six of these resort areas. Questionnaires were mailed to five other resort areas not reached on my trip and three of these were returned complete with additional comments. At the completion of the survey an analysis of the questionnaire revealed many of the needs, the functions, and the problems of such a resort.

Next the library research began and the following areas were studied: the maintenance, management, personnel, access and site planning, the office, the main lodge, the kitchen, and the rental units. I compiled ten pages of such library notes and along with the analysis of the survey wrote the final program.

I then started the site planning with the fact in mind to integrate the building as closely as possible to the site while still retaining the magnificent surroundings. With the site plan completed, I began the design of the main lodge and the cabin units attempting to utilize the site as much as possible and create a character that would unite with the natural mountainous surroundings. The main lodge was located near the point where the hot springs emerge and is terraced down the fairly steep slope, curved so as to encompass as many of the different views as possible giving each of the lodge units privacy and their own views. The public portion of the lodge, which includes the office, lobby, lounge, pool, dining room and kitchen, is joined to the sleeping units by a raised bridge which also creates a covered carport for arriving and departing guests. This separation was made to lower the noise, and increase the privacy of the sleeping units. A steep peaked roof was selected to create, by the shape of the interior spaces, an atmosphere of the mountains and on the exterior to emphasize the trees and mountains.

I designed the cabin units in clusters of three units to a building for the functional and economical advantages of a central core. Each unit has its own approach, entrance, and view. The three-cabin clusters were designed to be adjusted to any slope of the ground and were located in a curving line that follows the stream and the borders of the lake. Here again I used the steep, peaked roof to unite the cabins to the main lodge and its surroundings.

The presentation of the project is now in progress and will be completed this Friday at 1 pm. Three models were constructed; one of the entire main lodge and sleeping units; and one including two of the three-plex cabin units. Drawings will include the site plan, the main lodge plans, and the three-plex unit plan. These will be mounted on masonite boards. I am now compiling all the research information, pictures, and studies which will be presented at this time also.

Forecast for Winter Quarter, 1960

A complete set of working drawings will be done of the three-plex cabin unit during winter quarter, 1960.



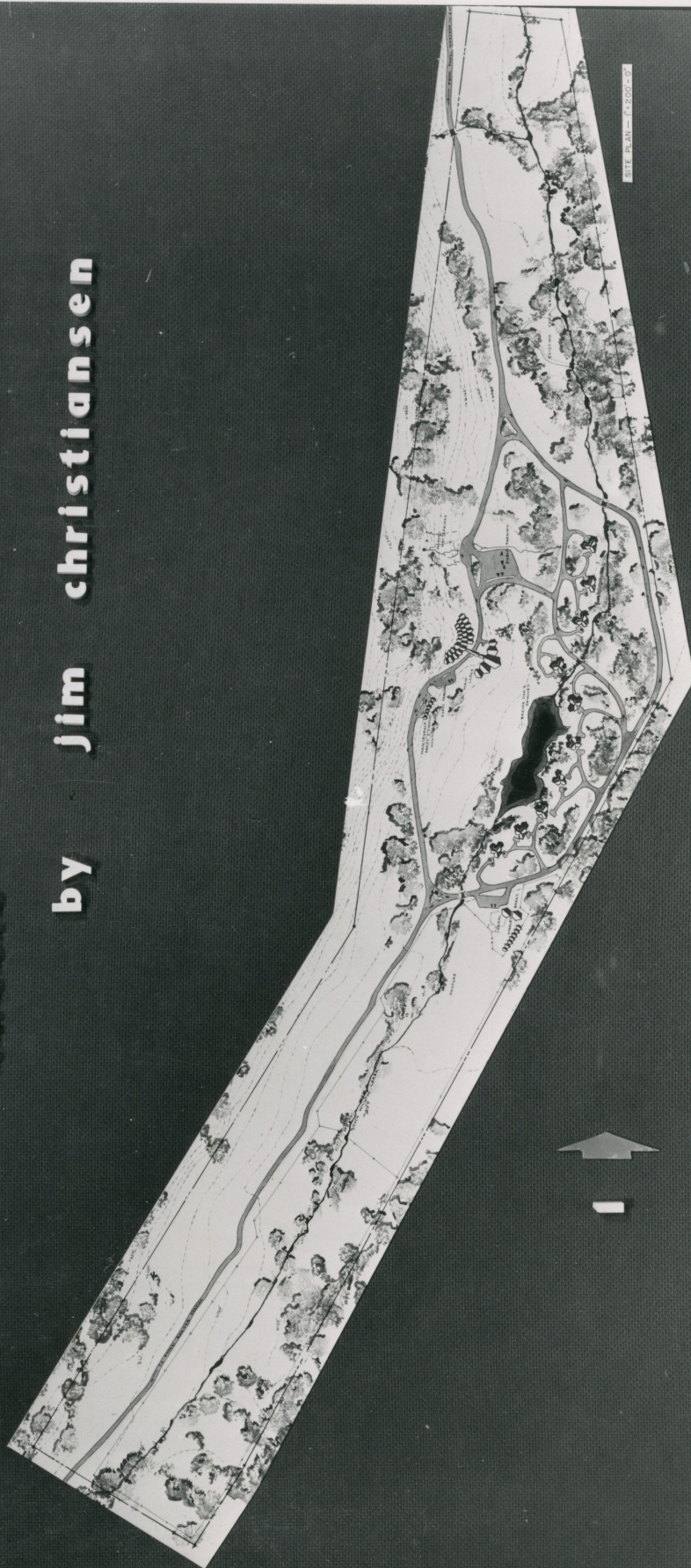
James O. Christiansen
School of Architecture

CC: Chandler C. Cohagen, client
Hugo Eck, critic

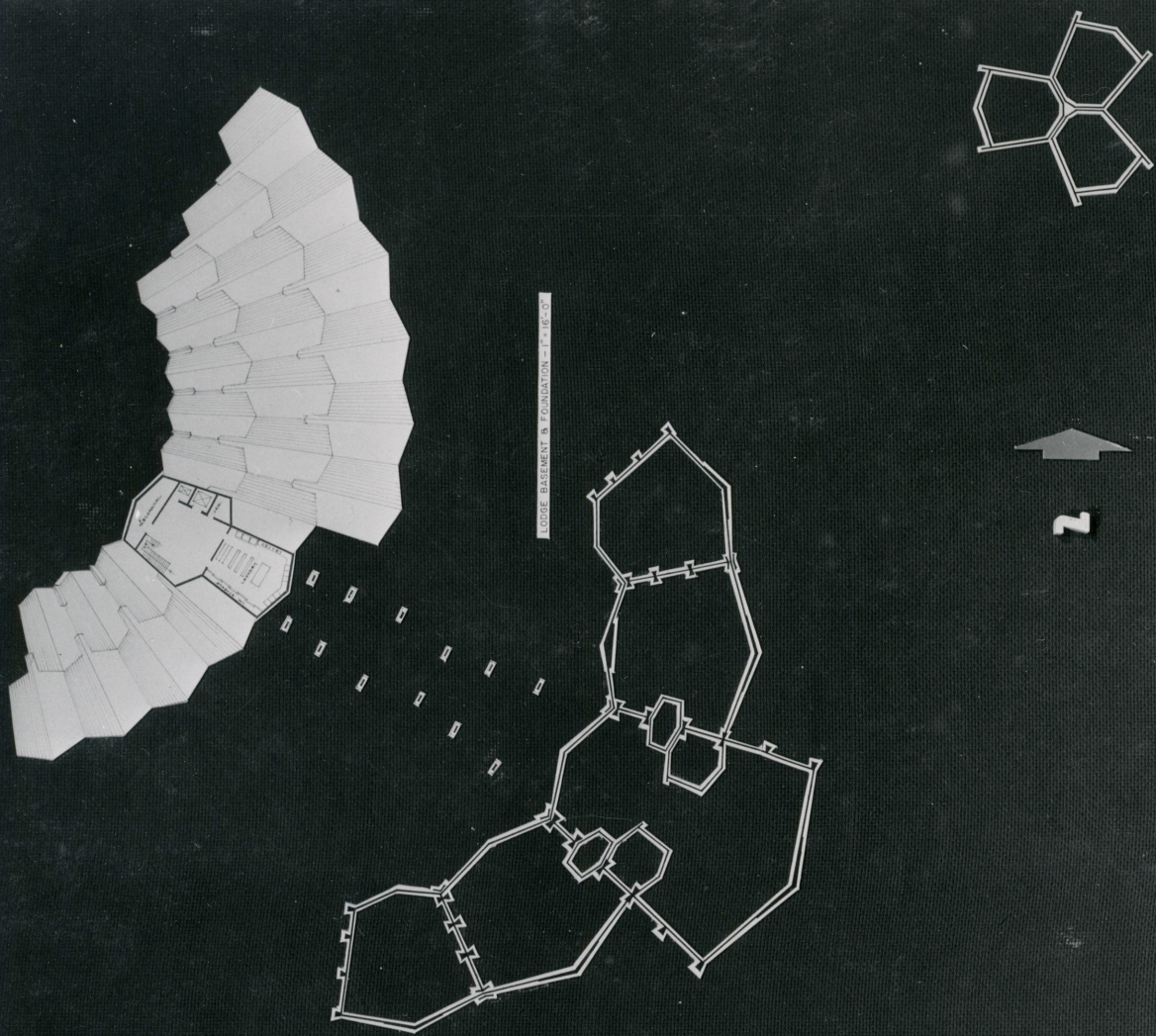
A HOT SPRINGS RESORT

thesis

by jim christiansen



Prepared for



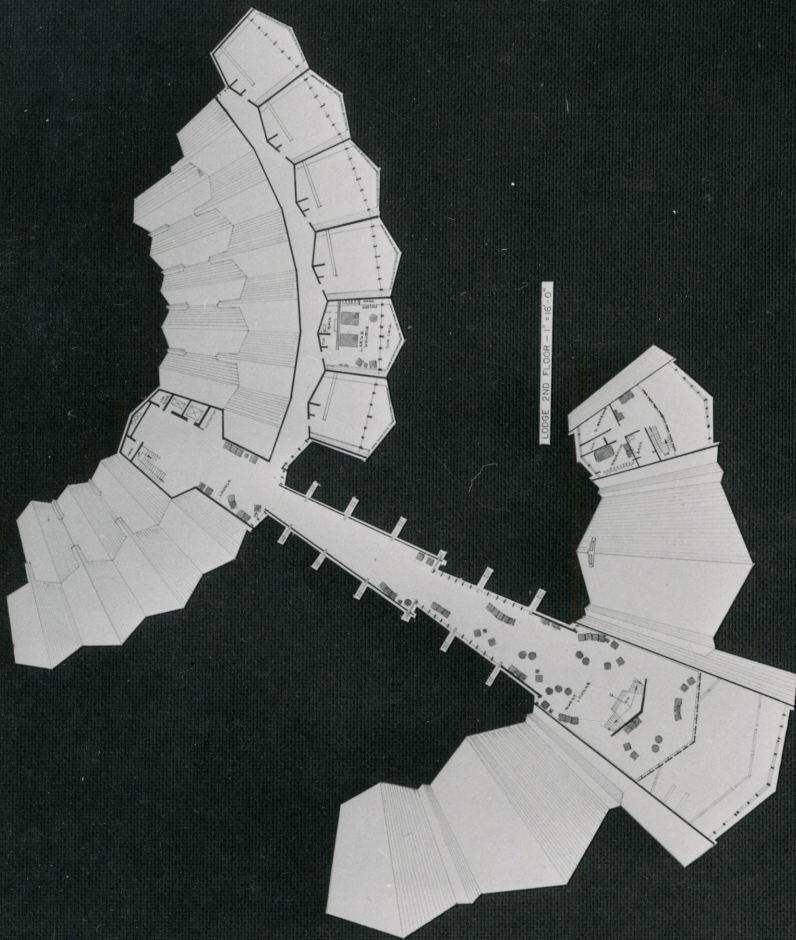
LOBBY BASEMENT & FOUNDATION

UNIT FOUNDATION

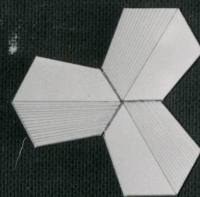


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Belvedere 1501 Resort



LOBBY AND FLOOR PLANS

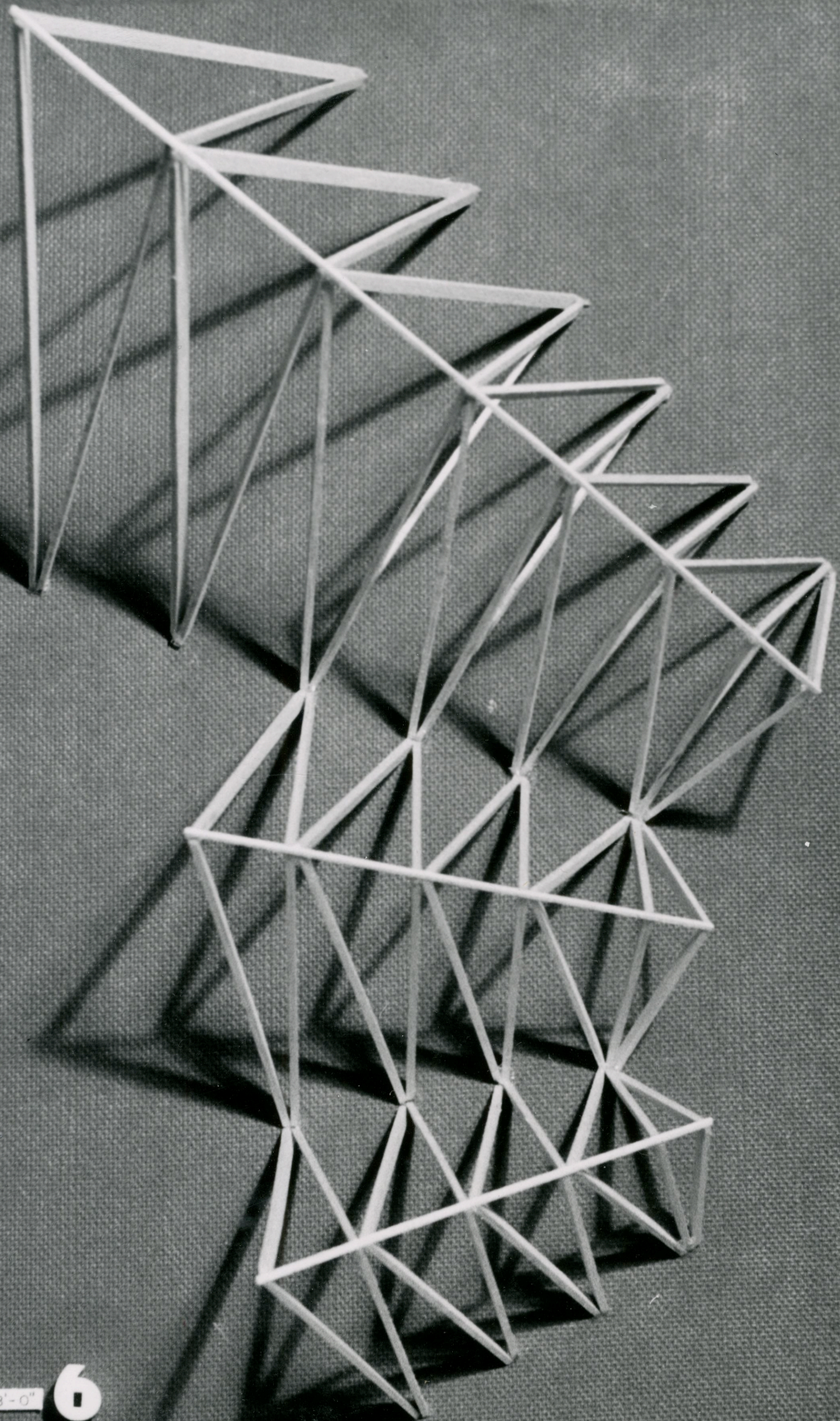


NOTE: THIS PLAN IS A RE-ORIENTATION

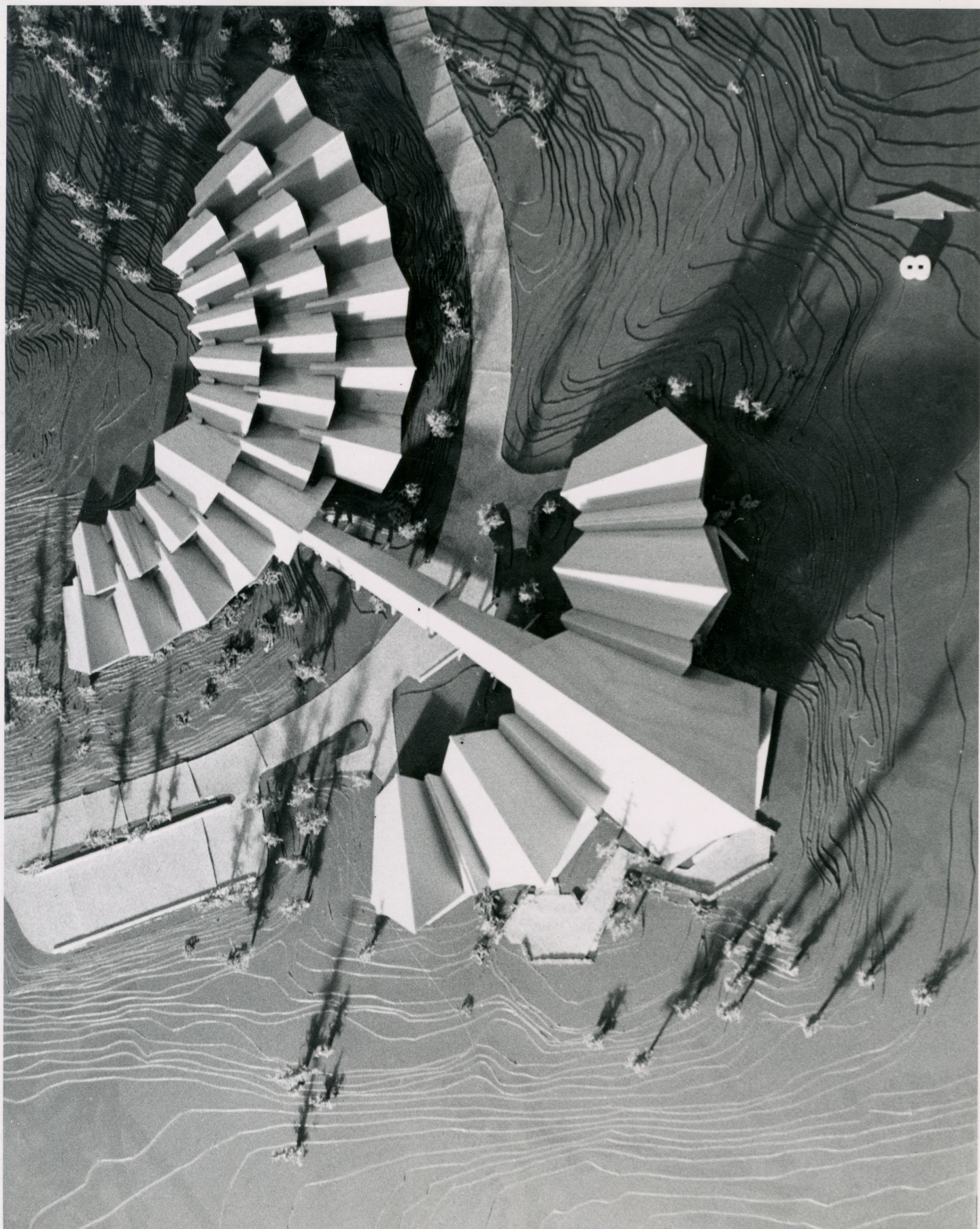


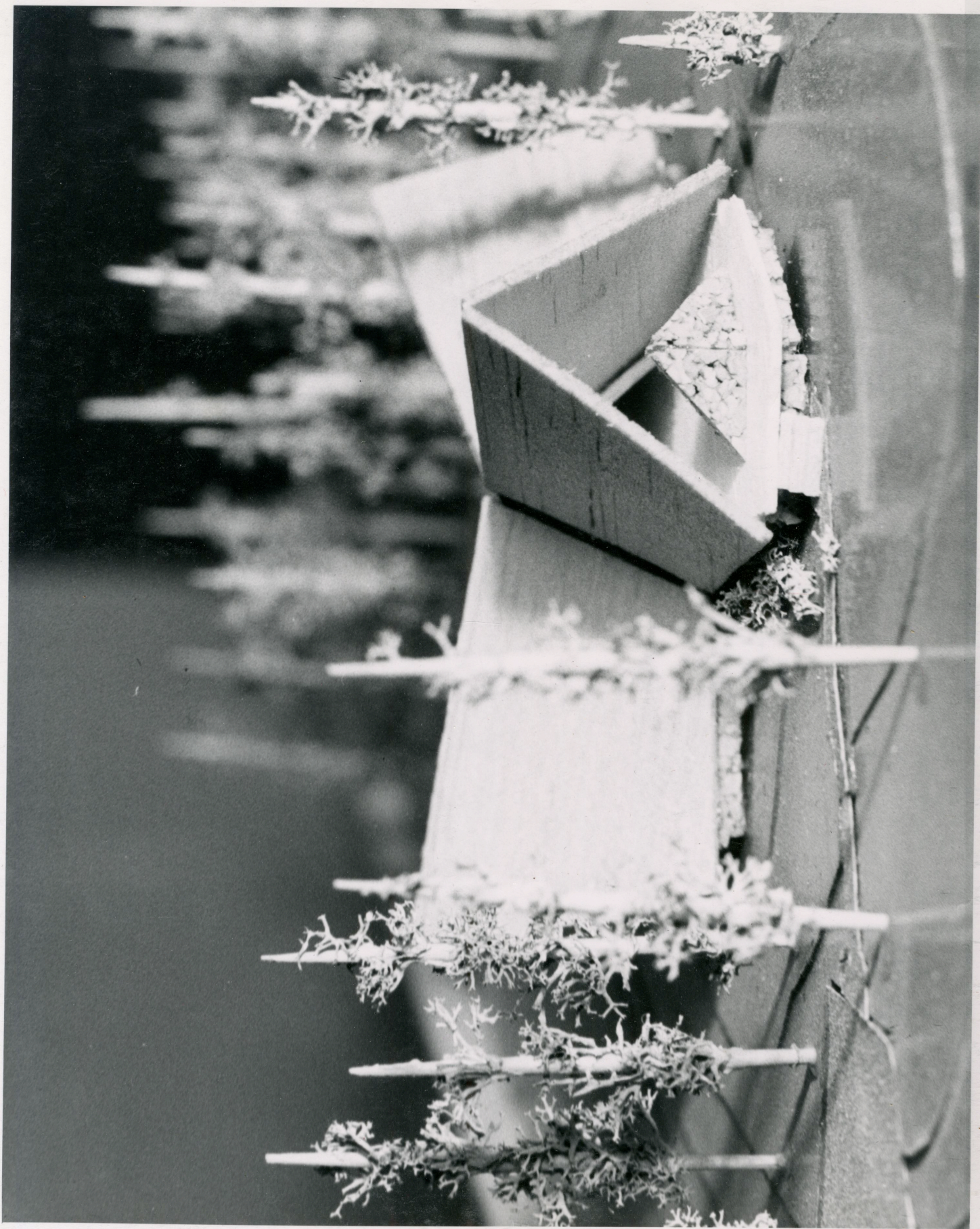
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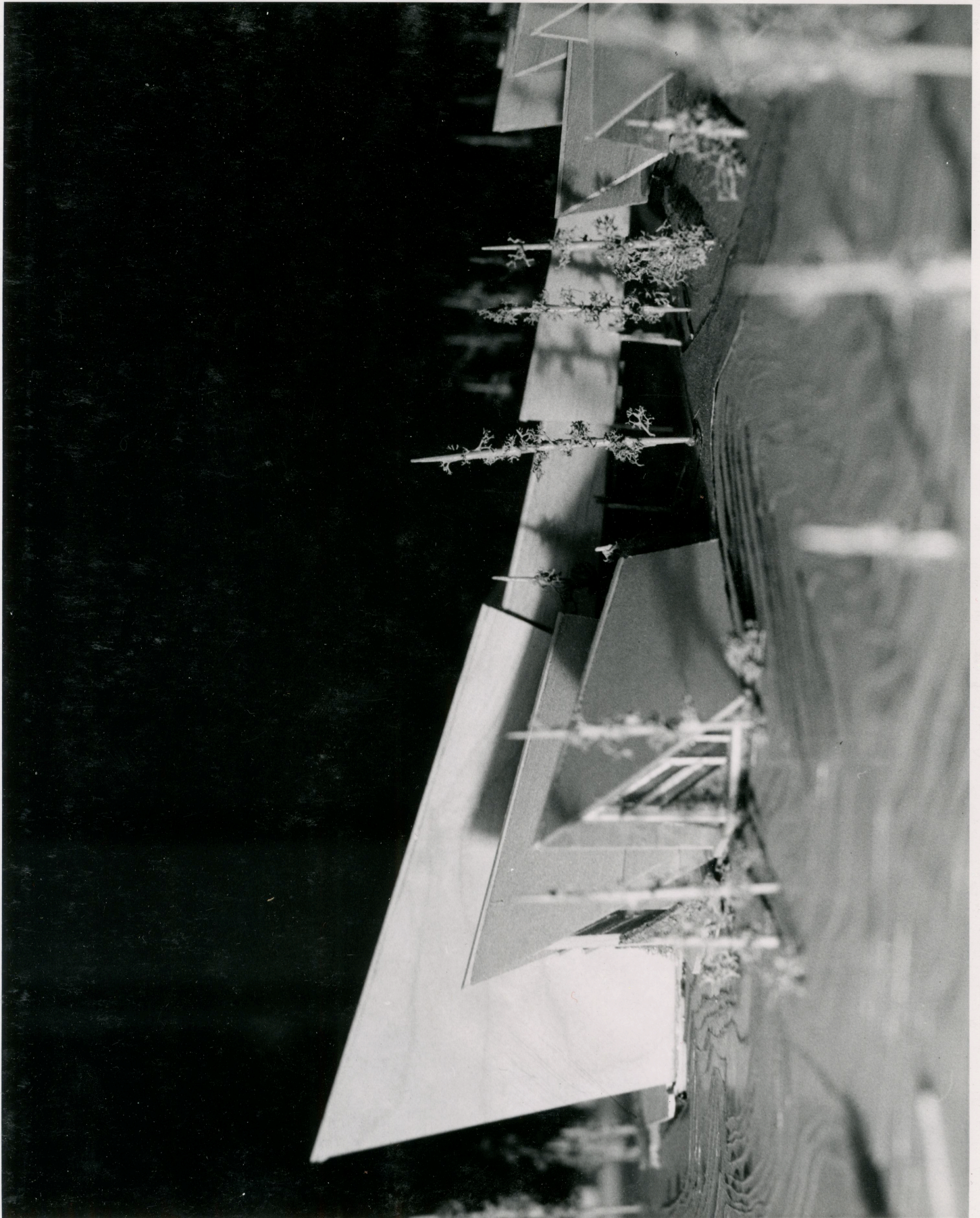
Research Paper

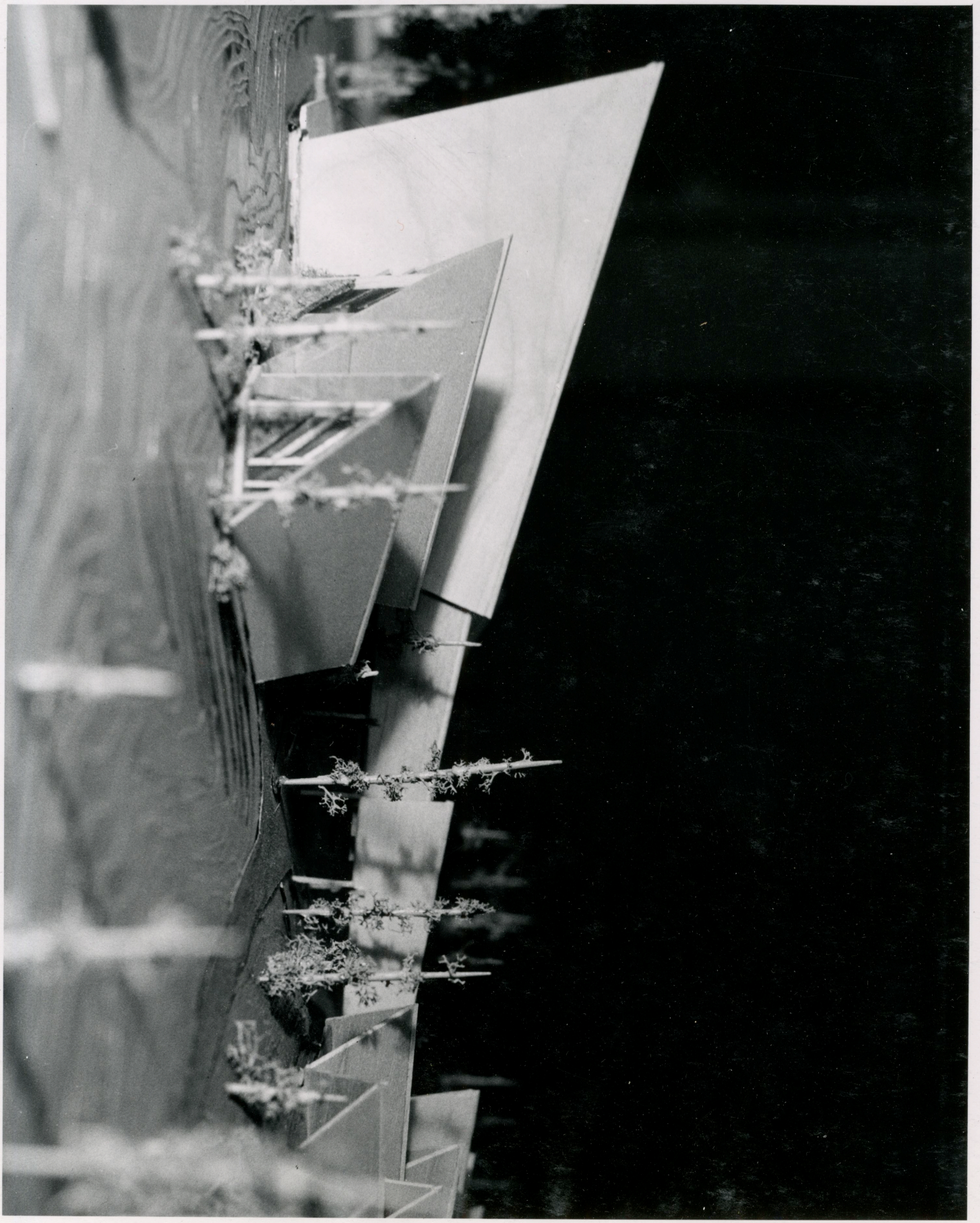


STRUCTURAL STUDY - 1" = 8'-0"

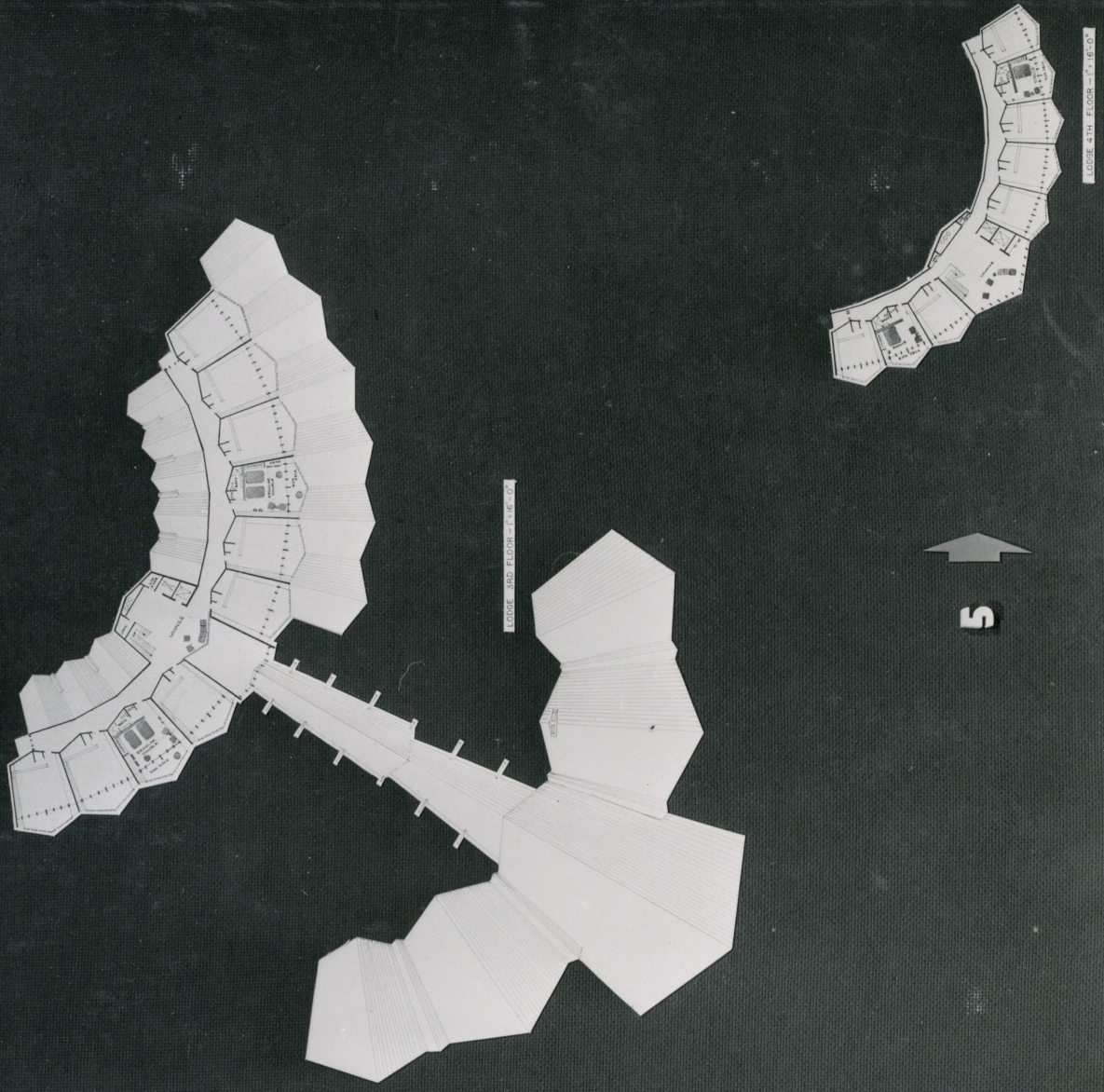








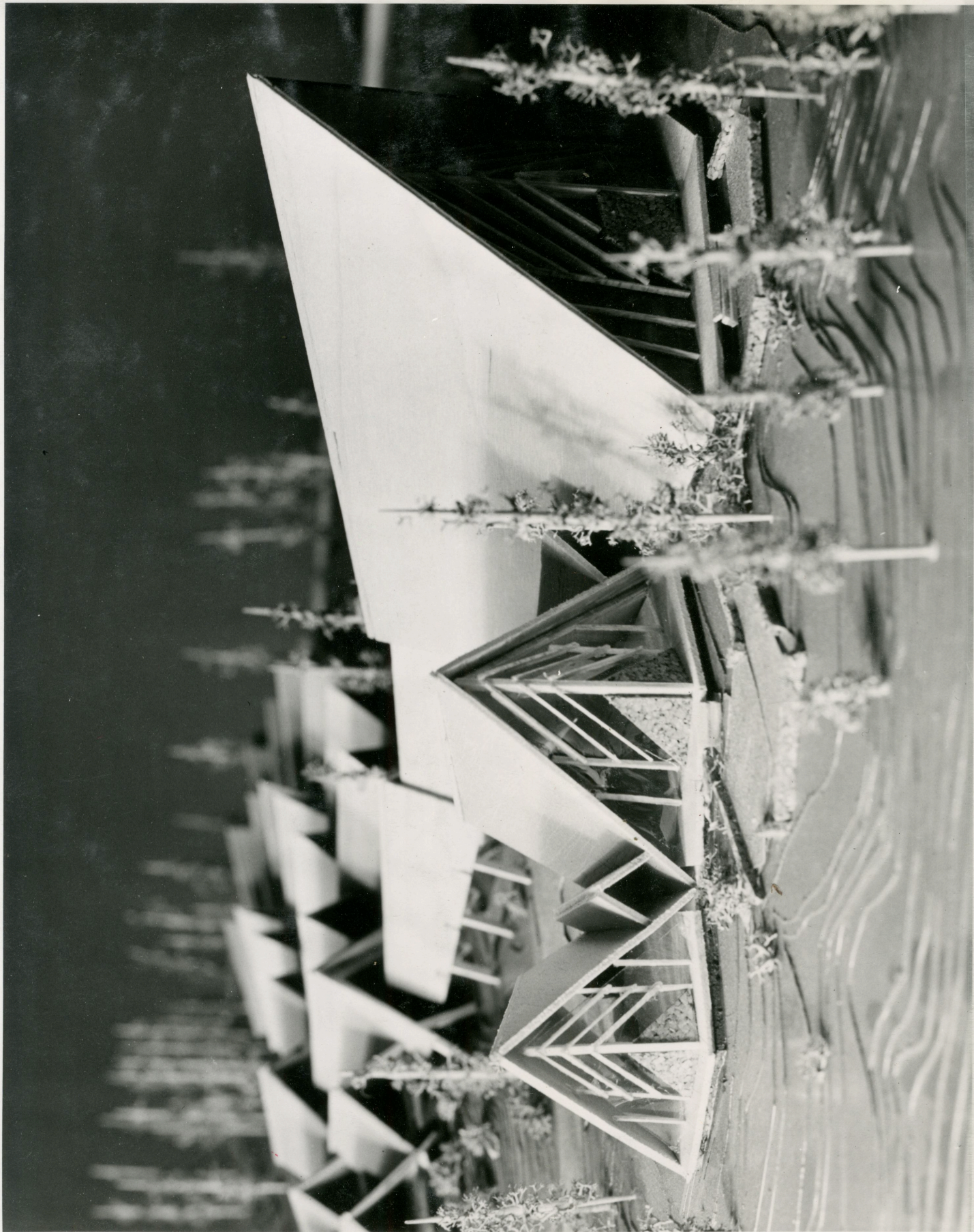
Delaware resort



LOOSE 3RD FLOOR - 116'-0"

LOOSE 4TH FLOOR - 116'-0"





NOV 26 1968

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JAN 26 1968

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