As of mid-quarter, the project was on track and in high gear. The jurors were extremely favorable but felt the barn and the roofs needed refinement. Also, they encouraged development of the outdoor spaces to improve the interior to exterior connection.

So for the rest of the quarter, time was spent on those areas as well as the interior spaces.

Mechanical systems were also started during this period. The major accomplishment was a passive ventilation system.
CLEANING THE ROOF LINES
AND BARN ORGANIZATION.
RESOLVING THE ORGAN

WERE TO BE REFINED

THE ROOFS

ONE MORE TIME.
NEW SITE PLAN WITH LARGER OUTDOOR SPACES, THE WATER TOWER AND A NEW GREENHOUSE LOCATION. ALSO THIS HAS THE NEW BARN PLAN AND GREATER DEVELOPMENT OF THE ROOF PLANES.
The major studies in this quarter were: constructability, systems, the tower's roof lines. All were taken care of except mech. systems. It still was not resolved because of lack of information on methane digestors.
CONSTRUCTION NOTES

stone facing detail

Other notes shall remain from the records on this site and in the
application of excavation & plans.
TOWER DEVELOPMENT TRYING TO MODULATE THE VERTICALITY.
LAYING OUT, THE TOWER FOR WATER PRESSURE. THE HEIGHT IS A FUNCTION OF THE NEED
CLEANING ROOF LINES FOR RESULTS.
SEE MODEL PICTURES
MODEL
PICTURES
BUILDING TYPE STUDY
Self-sufficiency has been strived for and achieved by mankind throughout his history. It was best accomplished though at low points of civilization as a matter of necessity. Some of the most successful examples were further reinforced by autocracy or religion.

As man began to learn farming he was barely able to provide for himself. Whether it was the sheep and cattle he had just domesticated, the corn and wheat he grew, or the deer and squirrel he brought home from the days' hunt it was all he could do to feed his family, but he did it. This early example of self-sufficiency was brought on by severe necessity. Man had no other choice but death. Because of these limited options he became quite proficient at this the oldest profession, provider.

One of the best and most easily studied examples of this life style is the North American Plains Indian. Although he was constantly on the move (not quite to the agricultural stage) he was able to survive on what existed around him. He knew which plants were edible and which ones made him well. His tipi has been called one of the best portable shelters ever. It can withstand strong winds and rain and still remain comfortable whether it is 80° or -20°.

As man developed from this early life style he formed a city and discovered a thing called civilization. For a time his new city was self-sufficient. But then he discovered other cities and learned of new things that would make his life easier and provide more variety in his menu. Thus began trade, and civilization progressed.

As man began to depend on these new products he forgot his old ways and enjoyed a better standard of living. He even invented a hobby for his new found freetime, art.

The Greeks and Romans are best known from early civilization as they produced some of the longest standing buildings, all of which were developed as an art. They are also known for keeping good records.

But one day man found himself losing his grasp on civilization as invader followed by invader came to sack the civilized areas. Before he knew it, man had lost civilization and once again found out how to depend on himself and his region to supply his daily needs.
This time though man came up with two new systems, both of which benefitted the few at the expense of the majority. These new institutions were called the monastery and the fief. Both were centered around a large building (housing the few privileged) which offered protection to the subservient majority. The minority obtained self-sufficiency by forcing the peasantry to pay in exchange for the protection. This was usually done with food and services as money was scarce.
It should be noted though, that the monastic orders were originated as a place where the brothers (or sisters in the case of a convent) were to live in relative poverty, but as the Church gained power these goals became harder to maintain. Dissolutioned priests soon started forming new orders to maintain this poverty. One such group is the Cistercians, which have survived even until today. Another group the Benedictines are living and trying to maintain their self-sufficient at St. Monastery on the Ohio River.
As man started rejecting the feudal and monastic systems, he also started finding ways to ensure more leisure time and embarked on a new fad called the Renaissance. This was a great day for mankind as he rediscovered art and international trade and self-sufficiency. But no one missed it as they began consuming like never before. Increases in consumption brought increases in prices and man had to deal with inflation. Some men might have settled for high prices, but Christopher Columbus decided to fight inflation by finding a cheap method of transportation. He set out to look for a shorter route to the factory, like all men though he was not perfect and instead of finding a quicker way to India he started the Age of Discovery. This brought a new era of self-sufficiency as some men, becoming disillusioned with the Renaissance decided to set out for the new world. Many new settlements were founded, which out of necessity became self-sufficient. It took too long for regular shipments to arrive and there just was not enough ships or money to make the trip very often. Many of these colonies were based around religion or the charisma of a strong leader or like the Pilgrims and Miles Standish some had both. But once again technology increased and put an end to the need for self-sufficiency.

This time technological improvements started a revolution. Products came pouring out at ever increasing rates. Man had finally made it. He was able to produce goods on a more massive scale than ever before. There were more jobs so everyone should have been able to prosper. But, as always there was another story to be told.

Once again, as in the Middle Ages, the masses were being subjugated. Factory conditions were miserable, children were forced to work to help pay the family bills, and people accepted poor housing to be close to work. These conditions prompted a new school of thought, Utopianism. These men believed that man should be able to co-exist with other men with everybody being equal and pulling their own load. Because each man was equal, he should also receive an equal share, according to his needs.

America, during the 1800's, was ripe for experimental settlements of this sort. Among the more famous were Oneida and New Harmony. Oneida was found-
ed by Humphrey Hays in 1840 and lasted for 33 years. It remains famous today for initiating group marriage to communes and Oneida Silver. It lasted for 30 years as a community but endured longer as a joint stock company.

New Harmony, founded by Robert Owen, was less successful and lasted only 2 years. But it was able to boast of a population of 1000 people in 1825, some 750 more than Oneida at its peak.

As always though man improved the conditions of the early 1800's and attempts at self-sufficiency dropped off. In fact man rushed through the next 100 years fighting wars, polluting the environment, and enjoying his life style before he felt the urge again. One man who realized the need to re-accept the idea of self-sufficiency was Frank Lloyd Wright. His Usonian House was designed with the environment and the idea of using the land as a food co-operative garden. But man was not ready for this idea yet, he went off to fight another war or two, first. Eventually though, during the Mid-Sixties when technology was rushing at its fastest man again started looking for a better way. This time it was called the Hippie Commune. Though most have failed, several remain. Twin Oaks in Virginia is one example that had lasted 10 years and seems to be on its way to 10 more. But it defies two definite success patterns, it is neither religious nor one led by a single leader. In fact they strongly oppose the idea that one person is any more important than the others.

Man, throughout history, has been forced to live self-sufficiently whether it was as a nomad, autopian, or a hippie. Each time he tried it a little differently and for different reasons. But never was he able to extend commmunal life past the grasp of improving technology.
Communes in the United States of America, although having their greatest growth periods in the 1840's and 1960's have a continuous history. Religious communes were the major type during the colonization through the 1840's. Political-economic communes started their rise about 1820 in answer to growing industrialism and the plight of the masses. This movement remained strong until about 1930. During the Depression no type seemed to have the lead. But after WWII a new type came to the head of the movement. This was the Physico-social movement which includes most of the communes today. According to Rosabeth Moss Kanter in her book Commitment and Community these are the three move movements all communes can be divided into.

The religious commune took as its model "The communism of the early christian church, with its emphasis on a communality of believers possessing all things in common." Furthermore, this movement felt that man had stained religious teachings complicating pure christian morality. They accepted that the immorality of society placed walls between man and God. And in some instances they even took biblical names such as Icar (1817-1898) the Haven from the Evils of Sodom, for their community title.

Under the title of religious communes there are several variations; denominational, church sponsored, and spiritual/mystical. To some degree all religious cooperatives could be called denominational as they practice a given set of beliefs. But a truly denominational settlement practices a strict doctrine and adheres to it completely. The Puritans of America's colonial period is one example.

The church sponsored commune is one where religion is practiced as the people that live there see fit. They are sponsored by a church but denominations are not pushed.

After group marriage communes the spiritual/mystical cooperative is the most colorful. Usually there is a strong leader and a group of followers practicing anything from white supremacy to Zen. One example is Holy City (1919-1958) which was led by William Riker. He
professed white supremacy and attracted followers with religious ploys among other things. Like most movements, with a strong leader this one ended shortly after the death of Riker.

Variations from the second theme of politico-economic communes include political, political action, teaching, serving, and agricultural subsistence. Political action and political, although sounding very much alike are in fact different at a very basic level. The former as its name implies, stresses involvement with everyday life in trying to achieve its goals. The latter on the other hand is more concerned with personal growth through discussions on political issues, The Llano Del Rio Settlement (1914-1938)
Application for Membership in the Llano Del Rio Co-operative Colony

Only industrious men and women of high ideals and constructive ideas with reputations for good citizenship are desirable members of the LLANO DEL RIO CO-OPERATIVE COLONY. If you are willing to put your whole ability and spirit into this enterprise, to work in harmony with your fellow co-operators, and to abide by the rules adopted, you will be cordially welcomed as part of this noble enterprise.

☐ Do you believe in the profit system?
☐ What should be done with an article that evidently was lost by someone?
☐ Will solving the economic problem ultimately lead to solving the social problem?
☐ Is happiness a state of mind or dependent upon affluent material conditions?
☐ Do you believe in a peaceful settlement of all misunderstandings?

was concerned with personal growth and fell apart partly because of too much discussion.

Teaching communes are concerned with instructing people to live and teach according to a certain method. Montessori schools tend to fall in this category. Colleges and universities are also in the fringes of this group.

The service commune was developed as an active way to help other people rather than
realizing personal growth by small group relations. These people would rather go out into blighted urban areas or backward rural areas and help other people improve their daily lives.

Agricultural subsistence is mostly concerned with the economic aspects of life. Their main efforts are aimed at self-sufficiency. They grow their own food and market the surplus to help pay bills. Generally their is not enough surplus to pay all the bills and other enterprises are usually started. Although not of recent times the Oneida community (1848-1881) and its silver were successful examples of a second industry.

The agricultural subsistence communities are closely related to the next category, the pshyc-social movement. Its variations include nature, personal growth, craft, art, group marriage, homosexual and Gypsy communes.

Although most communes attempt their life style in a natural setting in order to get away from society the nature commune has as its main goal getting back to nature. They do this to become reaquainted with the earth and the environment in order to achieve some natural balance between themselves and the ecology of an area. This is the stereotype hippie commune of the 1960's.

The personal growth commune, like the nature commune, takes a single aspect of communal life and concentrates on it. Members here attempt to actualize their potential as individuals. Sometimes professionals are asked to assist in developing programs and introducing members to methods for achieving their goals. Twin Oaks in Virginia can be categorized with this group although they have given up some of the more severe methods of criticism used at Oneida as too harsh.

Craft and art communes are very similar in concept. Both give the artist a chance to practice his skills. The main difference is that when a craftsman sells his wares the proceeds are given to the commune. But the painter or sculptor usually only donates enough to pay for his room and board.

The most talked and joked about commune type is the group marriage. In recent times it seems to have become an excuse for orgies and has this reputation. But when it was practic-
ed by Humphrey Kyes and the Cheifa community in the mid-1900's, it was a much different story. Sex was conducted in private, by couples only. It was up to the man to prevent pregnancies through self-discipline. When a couple wanted to have a child they had to go before a review board and prove their superiority as a specimen of the human race. If the council decided they were genetically superior approval was given. In this manner only high quality babies were produced. It also caused some men to have as many as seven fetuses "baking" at any one time.

Another type of self-growth cooperative is the homo sexual commune. Its main purpose is to assist the gay person in accepting his lifestyle by living with his peers.

One final version is the gypsy commune. It is usually associated with concerts, light shows, or other youth oriented gatherings. They finance their journey's form fees received from performing these happenings.
agreements, losing to their inhabitants from celibacy and old age.

Varied as they may try to sound, communes throughout history have really had much in common. Their similarities existed both in reasons for forming and disbanding. At a very basic level communities were formed to escape accepted society citing it as unjust, sinful, or unhealthy. Generally, they returned to nature where they could rediscover lost uritis between man and God, man and man, or man and himself. Furthermore, they desired to achieve perfection through the restructuring of their society. This sometimes included attempts at genetic perfection through selective breeding. Obviously they were not afraid to experiment and usually attempted to use the most sophisticated technology available to decrease the time span of reaching their goals. In fact, they were usually in a hurry to reach their Utopia.

Many communities fell apart within a few years after they started. The reasons for failure were typical for many attempts. They ranged from being under financed, to having disillusioned and hungry inhabitants, from negative external community pressure to internal schisms from ideological dis-
Communal buildings can be arranged in two basic ways depending on the desires and needs of the community. First, if the settlement maintains the family units of people who join, then there is a group of public spaces with a series of private sleeping spaces, one for each family. These can be in the same building or in any number of separate structures.

Secondly, if the cooperative is unisexual, composed of all single people, or is a group marriage type the inhabitants may choose to use a campus plan. This would include dormitories for men, women, and sometimes one for children. The dorms could be in the same structure as the public spaces or in separate buildings.

These two basic ideas of rooms for couples and dormitories can be combined in any number of ways depending on the make up of the community. For instance rooms could be provided for married people with dorms for the single members and children. Another possibility is a dorm with bedroom suites for families and large barracks type rooms for single folks. This is generally more complex than present communes. Some present communes have separate "family" units that use the first building type but they are apart from the public spaces and scattered over the site.

Public space generally includes kitchen facilities, dining/meeting room, bathrooms, storage spaces, mechanical spaces, shop spaces when applicable, religious spaces if needed, and living room/lounge areas.
PROGRAMING
PROJECT: MUD CREEK COMMUNE
LOCATION: 56a North Central
Boone County
CLIENT: Six Families Interested in Self-Sufficient Lifestyles

PERSONAL GOALS:

1. To become more deeply involved with building details as a design element.

2. To look at all phases of land use as part of an entire system—that is everything either produces, stores, or uses energy. Therefore, a continuous cycle must be possible.

3. To develop a building system that can be built by the clients as their needs change.

PHYSICAL CONTEXT:
The site is located in North Central Boone County on the Clinton County Line. It is bordered by gently sloping farm lands. Mud creek flows through from the southern edge to the northwest corner. The creek has sculpted the lands bordering it and left them as a series of low bluffs 10'-20' high. Most of the area between and including the bluffs is thickly wooded.

SOCIAL
The neighborhood is made up of conservative farm families. Although suspicious of strangers, they are extremely friendly to their neighbors and could be counted on to help with many problems that might arise.

ECONOMIC
The farms surrounding the site are all family owned and operated. Since much of the goods produced on the site are used there, there would be little economic competition. The forest products that would eventually be produced also have little competition in the area.

BUDGET
To build this project all at once would cost approximately:

- $556,000 for land
- $50,000 for used farm machinery
- $90,000 for initial feed & live stock
- $300,000 for housing, food, storage, and machine storage

or

$996,000

$1,000,000
To avoid this high cost the budget for the buildings must remain as low as possible.

CLIENT GOALS

1. To obtain a self-sufficient lifestyle.

2. With a low technological dependence while maintaining a high standard of living. (The client would drop his standard of living to become self-sufficient).

3. To develop a workable social and political system. (The buildings must encourage communal living).

CLIENT

Six families—four persons each—they desire to maintain their individual family structure while developing an extended family. Top population is not to exceed 30 people.

SPATIAL NEEDS

This can be broken down into three areas: farming, energizing, and humanizing.

FARMING

After reviewing the needs for the family and their livestock the land use can be broken down to a list of recommendations.

It should be restated that these are merely recommendations and not absolutes. Following this plan the community could begin to realize their desire for autonomy within 5–10 years. Significant hardwood production from existing forest areas would not occur for 10 to 20 additional years though.

ENERGIZING

Keeping with the self-sufficiency of the project energy autonomy will also be sought. The pattern for the energy system is displayed in the systems flow chart. The major energy inputs are: sun, wind, water, plants and animals. The chart shows how these relate to human needs and how these parts are related. One system that has been left out, is passive energy, but it will also be incorporated. The sizes of all systems will be developed in association with the site selected.

HUMANIZING

This section covers the human living areas and food storage spaces.

The housing needs for the family can be simplified to six residential spaces and a group of public spaces.
PUBLIC SPACES

-Kitchen-
The people in the community will prepare all meals here. They will also prepare all foods for storage here, such as canning, drying, salting, pickling, or smoking.

-Food Storage-
This should be a cool dry space: with shelves for canned goods; bins for potatoes and onions etc.; hooks for dried and smoked items. Also space must be provided for salted foods.

-Living Area-
This space is for informal community gathering and should be a highly desirable place to be. Therefore, it should have comfortable furniture, absorb excess noise and have smaller spaces that are separate, while still a part of the whole space. It has to accommodate a range of activities from children playing to people reading to people watching television.

-Dining/Meeting-
This space is the major space. It must accommodate 30 people for eating, meetings, and homework. It will also act as the business office and should include record storage space.

PRIVATE SPACES

These are the living areas for each family. They should have maximum separation acoustically to provide private but physical separation is not necessary.

-Bedrooms-
Each family should have two bedrooms, one for the parents, one for the kids. The children's room should be expandable in case someone cheats and has triplets. These rooms should be minimal in size to minimize cost and to encourage people to use community spaces.

-Private Study-
This should be a small space in each family area with room for four people at the most. Its purpose is to provide a place where a person can sit in privacy to think, or just to be alone. The maximum for occupancy is given in case an entire family needs to be alone.
SITE ANALYSIS
PRESENT LAND USE

- KEY WOODS
- ROW CROPS
- MEADOWS
- PASTURE
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**Mean Annual Number of Days Above 90°F:**
- 30

**Mean Annual # of Days Min Temp Below 32°F:**
- 120

**Last Spring Freeze After April 30:**

**First Autumn Freeze Oct 20:**

**Days Between:**
- 173

**Heating Degree Days Monthly/Annually:**

**Total:** 5477
At this time the property is owned by 8 different families. It is therefore it would have to be purchased from eight groups of families.

4. site

The area is divided into 4 land use patterns 1. 2. 3. 4.

1 is 2. is 
3. is 4. is 

5. The on site circulation is divided between man animals. The human trails are generally for automobiles as they are for fields or tractors to get to fields and they occur where they are needed over the most direct route.

Animal trails are generally along "edges" between forests and fields or along the creek.

There are roads on all borders to the site except for the blacktop road to the south they are all gravel. With no exceptions, they are all lightly traveled.
MCC is located in Boone County, Indiana. Centrally located, the commune is within a few hours drive of any place in the state, and only 1/2 hour from Indianapolis, the state capital.

The map is centered in the north central part of Boone County. MCC can be easily reached from either SR 39 or US 421. Also it is less than 10 miles from the county seat, Lebanon.

In terms of water transportation, the commune is only less than a mile from the junction with Mud Creek and Sugar Creek, a major drainage system which is frequently used by canoes for recreation.

Looking something like the state of Kansas, MCC is crossed by Mud Creek; entering from the bottom of the page it flows northward but leaves the site at the northwest corner. Creek is gravel bottom and consists of a series of pools behind natural gravel dams and has...
<table>
<thead>
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<th>Texture</th>
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<th>Drainage</th>
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<td>Slow</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>1st Crosby-Miami</td>
<td>Silt Loam</td>
<td>2-6%</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Slow</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>1st Genesee</td>
<td>Silt Loam</td>
<td>0%</td>
<td>Good</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>1st Malasville</td>
<td>Silt Loam</td>
<td>0%</td>
<td>Slow</td>
<td>Moderate</td>
<td>Slow</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>1st Miami</td>
<td>Silt Loam</td>
<td>2-6%</td>
<td>Good</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>2nd Miami</td>
<td>Silt Loam</td>
<td>6-12%</td>
<td>Good</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>3rd Miami</td>
<td>Clay Loam</td>
<td>12-18%</td>
<td>Good</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>2nd Oakley</td>
<td>Silt Loam</td>
<td>0-2%</td>
<td>Good</td>
<td>Rapid s.</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>2nd Shoals</td>
<td>Silt Loam</td>
<td>0%</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
<tr>
<td>2nd Sloan</td>
<td>Silt Loam</td>
<td>0%</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
<td>FAIR TO POOR</td>
<td>FAIR TO POOR</td>
</tr>
</tbody>
</table>

Generally, these soils are formed from glacial deposits and their natural vegetation is hardwood trees. They are full of nutrients and quite fertile for growing row crops. Compared to the rest of Boone County, these soil types have consistently yielded the highest yields.

Maps are provided showing the areas of soil type, texture, slope, and drainage. Since the properties for rows and foundations are similar for all soil groups, it is not necessary to show them graphically.
TEXTURE REFERS TO
IMPORTANT FOR IMPROVING
THE SMALLEST SIZE OF PARTICLES FOUND IN A SAMPLE OF GOILY. THE THREE KINDS OF TEXTURE ARE SOIL FOUND HERE ARE SILT, CLAY, & LOAM. SILT HAS THE FINEST PARTICLES OF LOAM THE BIGGEST. THE IMPORTANCE OF THIS INFORMATION IS NEEDED IF SOIL IS USED AS A BUILDING MATERIAL OR MIXED IF THE SETTLEMENT DECIDES TO MAKE CLAY POTS.

DRAINAGE & INFORMATION IS NEEDED SO THAT NOTHING WILL INTERFERE WITH THE NATURAL PATTERNS. AS MIGHT BE EXPECTED, EVERYTHING DRAINS TOWARDS THE CREEK. IN GENERAL THE CLOSER TO MUD CREEK A PIECE OF GROUND IS THE BETTER IT DRAINS. THERE ARE SOME DRAINAGE POORLY DRAINED AREAS ALONG THE CREEK BUT THAT IS MORE BECAUSE THEY ARE THE WATER TABLE IS JUST BELOW THEIR SURFACES THAN ANYTHING ELSE.

Pond Location Study

The best site for a pond should be near the water table (vertically) and close to the house. It should be protected from cold winds and hot summer suns to help the fish survive and produce high yields. It should have a large enough drainage area to keep it full, but be protected from flooding that goes downstream. Finally the soil should have the retention capability. Looking at the map there seems to be at least three choices. The first is the lowest spot on the site, but it has not enough drainage and is protected from hot sun by trees. Site one is more protected from the wind because of its lower site. The problem with this location are: can it is susceptible to flooding and it is pretty far from the house. Site two

Site 2 was chosen because there used to be a pond there. But it is also more susceptible to flooding. Also, since the trees around it have been removed and it is exposed exposed to the weather.
Site Three has the best location for wind protection as its northwest side is protected by a low hill. It is open to the south to assist gain winter heat and is surrounded by trees to protect the fish from excessive sunlight in the summer. It is low near the water table and close to the house. It also has the best location of the three as it also has its own small valley for drainage. The requirements to keep a pond of 3 acres full is 3/4 acres, the valley has 3-4 times that much guaranteeing a full pond even in dry times. Also being adjacent to the housing site makes this a good location.

All totaled three is the best area and I see the one I will recommend to the members.

Slope analysis is needed to help determine favorable areas for sun exposure and wind protection. It can also be used to locate erosion and mud slide prone problem areas. Also it is needed to help locate the best field areas for agriculture.

Climate information is needed to help determine the fun of the building and the materials that can be used. This is your worst but also it is not the least site to build an exposed pine sided house in a rainforest. The vapor will not the wood in a few years. This idea can be extended to water and snow. The influence of sun and wind on a building also. Snow load is another necessary factor to be dealt with.
- 6s  Dade-Canaveral silt loam
- 6t  Sheds silt loam
- 6m  Miamii
- 6s  Brookston silt clay loam
- 6tA  Crosby Miamii 2-6% slopes eroded
- 6tA  Teipsley silt loam 0-3% slopes
- 6tA  Oakley silt loam 0-2%
- 6x  Sloan silt loam

- 6am  Miami i silt loam
  B2  2-6% eroded
  C2  6-12% eroded
  D2  12-18% eroded

- 65  Na hahoville silt loam
  6555  Miami clay loam 6-12% slope
SEASONAL HIGH WINDS FROM NORTH

ANOTHER BAND OF FOREST RUNS E TO W LESS THAN 1/2 MILE NORTH OF HERE

HIGH WINDS YEAR ROUND

NO OBSTRUCTIONS IN THIS DIRECTION FOR MILES AT LEAST 1 MILE IN ALL DIRECTIONS.

SUN POWER IS AVAILABLE OVER THE ENTIRE SITE RESTRICTED ONLY BY DECIDUOUS TREES & LESS FAVORABLE SLOPES & ORIENTATIONS

WATER POWER POSSIBILITIES ARE RESTRICTED TO PERIODS AFTER RAINS. MECHANICAL ENERGY IS MORE FEASIBLE THAN ELECTRICAL ENERGY PROD