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A CIVIC CENTER FOR LINCOLN, MONTANA

Part I

Undergraduate Thesis in Architectural Design

By

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A CIVIC CENTER
LINCOLN, MONTANA

Introduction

History of Lincoln

Lincoln was among the many communities to spring to life during the Montana Gold Rush of the 1860's. The original townsite was located four miles west and north of the present town. Gold was discovered in 1865 and in honor of the President at the time, was called "Lincoln Gulch."[1]

By the summer of 1866, news of the discovery had spread and the area soon filled with activity. Mining structures, tents, and log cabins were hastily erected. Prosperity was evident as the community grew. An excerpt from the May 4, 1867 edition of the Montana Post reads:

> "Our town situated on Numbers 4 and 5 claims comprises five log houses, three saloons, and bakery shops and one store. Saloons are running day and night. Our excellent expressman James H. Kennedy, has made regular trips through the long and severe winter and kept us posted with the outside world."[2]

By 1866 miners were still coming to the area. Lincoln Gulch remained less notorious than other mining towns such as Virginia

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[1]J.R.M. Culp, "From Incidents in the Life of His Father, David W. Culp As Told by Him and His Wife," Montana Historical Society, October 1964, p. 2.

[2]Montana Post, May 4, 1867, p. 3.

City, for reasonable law and order prevailed.[1]

By 1869 Lincoln Gulch contained 500 people. This was the peak of prosperity after which came a turning point. The year of 1870 brought declining operations followed by a decline in population. By 1873 only 60 people remained in Lincoln, and only battered cabins and mining pits remained at the turn of the century.

Over $7,000,000 in gold was estimated to have been mined in "Old Lincoln", mostly in the form of gold dust, for nuggets were rare in this area.[2]

After the turn of the century, the Lincoln community was modified from a mining community to a small hinterland recreation area for the more urban population of nearby Helena, Montana. The Lincoln of today is located some four miles east of "Old Lincoln". Lincoln rests in a forest of Montana's largest pines and in winter is buried under heavy snows. The stores and shops are in a clearing among the pines, with homes sparsely situated among the pines.

Present Civic Facilities

The mining potential of the Lincoln area has always been recognized. With large concentrations of ore, it is very economical

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[1]Clayborn J. Anders, "Lincoln Long Forgotten Gold Camp," Montana Historical Society, 1953, p. 5.

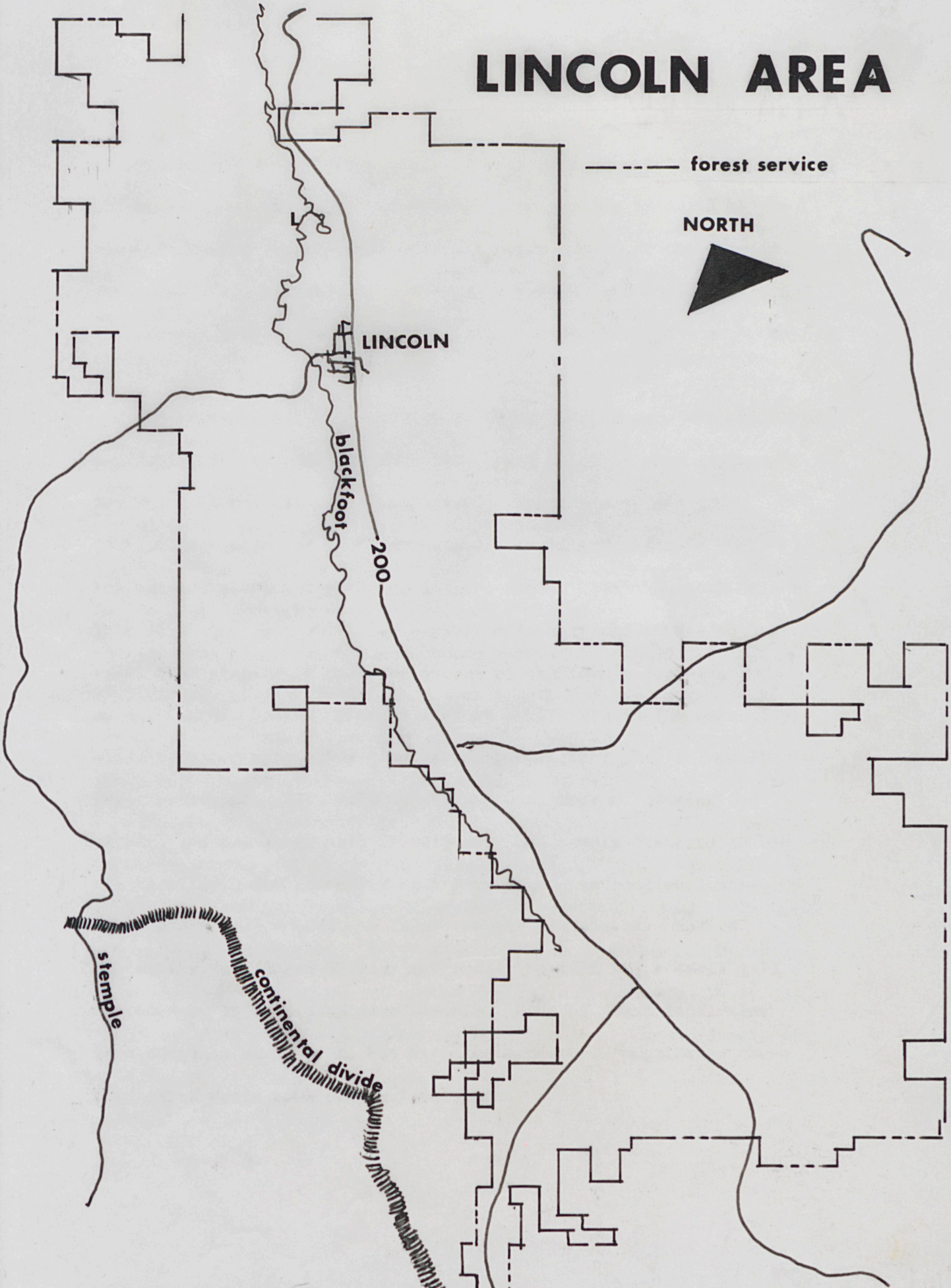
[2]J.T. Pardee and F.C. Schrader, Metalliferous Deposits of the Greater Helena Mining Region Montana, Bulletin 842, U.S. Government Printing Office, Washington, 1933, p. 115.



PRESENT COMMUNITY HALL



PRESENT FIRE STATION


LINCOLN AREA
forest service
NORTH
LINCOLN
blackfoot
200
stemple
continental divide

to mine in the area. Large quantities of zinc, copper, and bismith can be found in the area. Much land in the valley is owned by the Anaconda Mining Company with plans to begin mining of this ore at any time. This situation could bring a sudden influx of people, and with normal growth, boost the population of the town to 5 or 6,000 by 1990.

The present civic facilities could not accommodate the projected population of Lincoln. At this time there exist no city offices, for the town has not yet incorporated. There are no medical facilities except for an inadequate office in a resident's home. Any extreme cases are taken to larger, nearby cities such as Helena. This is a very long drive for a patient in critical condition. A small fire station is operated by one of the town's organizations on a volunteer basis. A small library is located in the community hall, operated by another community organization; the library is very inadequate. Both volumes and use are limited. During the winter, the community hall is very cold and people hesitate to use the facility. The community hall serves as a recreational area where meetings are held and indoor sports are played. Police protection is offered through the county sheriff and a small jail has been built to accommodate Lincoln. Many of these facilities seem adequate at present, but with an increase in population these facilities would soon become inadequate.

Future Civic Facilities Needed with Growth

It is evident that the Lincoln area will someday need to expand its medical, fire, recreational and security facilities. With increasing population, other facilities will be needed to serve the community. With city incorporation in the near future, there will be a need for housing city offices.

Present recreational facilities in the area are so inadequate that a need for completely new facilities exists. Without a high school in the area, there are no recreational facilities provided in connection with the school. Perhaps when a high school is built, much of the recreation problem will be relieved.

As Lincoln grows, it will become more economically feasible to provide medical facilities for the population. At present, there are no facilities for emergency situations. A small clinic with emergency facilities should serve the city so as to avoid the long drive to Helena with patients.

Police and fire protection will become more efficient with growth of the city. Incorporation of the town will bring city-operated police and fire facilities. With incorporation, the city will no longer rely upon the county for law enforcement. These two functions will require facilities within the incorporated limits of Lincoln.

With a larger population, the city will see a library with full time operation supported by the city. The present, temporary situation could not continue.

Because of the present temporary quarters of the above mentioned functions, and the limited room for future expansion in all areas, it is evident that new facilities must be constructed at once to meet the demands of the city of Lincoln. With a future population of 6,000, the demands upon these temporary facilities will be tremendous.

Identification of Problem

Inadequate Facilities

As stated previously, the existing civic facilities of Lincoln are housed mostly in inadequate structures. With an increase in population, the use of the recreational facilities of Lincoln will become greater, requiring more recreational space. At present, the community hall provides an area for meetings, small theatrical performances and a non-regulation size basketball court. It must always be kept in mind that much natural recreation area is provided within the Lincoln area. Organized outdoor recreation is lacking, though, within the area.

The library, which functions two hours a week, is inadequate in both its operation and its building facility. Its present facility can be considered temporary. It is located in the back room of the

REVISED POPULATION PROJECTION FOR LINCOLN, MONTANA

1967 Estimated Population for Lincoln Area with Montana Power 6% Growth Factor	1967 Estimated Population for Lincoln Area with Montana Power 6% Growth Factor With Impact of Anaconda	ASSUMPTIONS ABOUT ANACONDA				
		Anaconda Employees Per 4 Persons/ Family	+	Service People Per 3.3 Persons/ Family		Total to be Added to City's Normal Growth
1969	916	916				
1970	971	971				
1971	1029	1029				
1972	1091	1029				
1973	1156	1156				
1974	1225	1225				
1975	1299	3489[1]	[1]300 x 4	+	300 x 3.3	= 2190
1976	1377	6487[2]	[2]700 x 4	+	700 x 3.3	= 5110
1977	1460	8760[3]	[3]1000 x 4	+	1000 x 3.3	= 7300
1978	1548	8848[4]	[4]1000 x 4	+	1000 x 3.3	= 7300
1979	1641	8141[5]	[5]800 x 4	+	1000 x 3.3	= 6500
1980	1739	7039[6]	[6]500 x 4	+	1000 x 3.3	= 5300
1981	1843	4493[7]	[7]250 x 4	+	500 x 3.3	= 2650
1982	1954	4604[8]	[8]250 x 4	+	500 x 3.3	= 2650
1983	2072	4722[9]	[9]250 x 4	+	500 x 3.3	= 2650
1984	2196	4846[10]	[10]250 x 4	+	500 x 3.3	= 2650
1985	2328	4978[11]	[11]250 x 4	+	500 x 3.3	= 2650
1986	2468	5118[12]	[12]250 x 4	+	500 x 3.3	= 2650
1987	2616	5266[13]	[13]250 x 4	+	500 x 3.3	= 2650
1988	2773	5423[14]	[14]250 x 4	+	500 x 3.3	= 2650
1989	2939	5589[15]	[15]250 x 4	+	500 x 3.3	= 2650
1990	3114	5764[16]	[16]250 x 4	+	500 x 3.3	= 2650

community hall, is poorly heated, and maintains an atmosphere unsuitable to that of a library.[1]

With any increase in population, Lincoln can begin to support its own medical facilities. With its present population, Lincoln should have some facilities for emergency situations. The present home office cannot accommodate emergency situations.

The present volunteer fire station could never accommodate a full time fire department. This function, should someday expand to a new facility operated by the newly incorporated city.

Non-existent Facilities

When I speak of non-existent facilities, I am concerned with those functions which will come about with incorporation of the city. These functions include police protection and city offices. With future growth, the city will need facilities such as these.

Decentralization of Facilities

At present, all civic functions such as fire protection, meeting facilities, library and indoor recreation are scattered throughout the town because of the ease of obtaining donated space and improper planning.

Because of the common functions of many of these facilities, they must relate to each other. It is also more economical for

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[1]Dolven, Fred O.,"A Civic Center for Harlem, Montana," Montana State University, 1964, p. 1-10.

these facilities to be near each other. It must be determined, though, how each function relates to the other, for there are some functions that do require an area quite distant from the other functions. These considerations I will mention in the following section. Since the central problem is one of a civic center and suggests close proximity and relations of functions, I will decide in the following section also, whether or not to eliminate one or more of the major functions from the civic center complex.

Solutions to Problem

Centralize All Functions

As mentioned in the preceding paragraph, centralization of civic facilities is desirable for efficiency. The decision must be made as to which functions can exist in a civic center complex and at the same time not detract from each, functionally. My assumption is that police and fire facilities can exist together. From the standpoint of quietness, I will assume a library can exist with police and fire facilities. Along with police, fire, and library functions, the city offices not only can exist, but would complement the other functions. City recreational facilities such as a gymnasium or auditorium would not interfere with the above functions. All of these areas could share functions, especially parking, for the frequency and times of use are different for each of the functions. A central heating plant could be used and the efficiency of

communication would be improved in a complex of this sort.

The one fuction which I have not mentioned is the medical facility, for I feel this does not relate to the above functions. The nature of a medical facility is one of quiet and solitude and could not function well with the intense interaction of the police, fire, recreational, city offices and library facilities. The civic center should also be located near the commercial area. A medical facility could not function well within a business area. For these reasons, I have chosen to exclude a medical facility from the civic center complex. A city medical facility should be located in a quiet zone, perhaps bordered by residential. There is a possibility, though, that this medical facility could be incorporated into the city center site, but for reasons of allowing for future expansion of the complex I chose to eliminate the idea of a medical facility completely.

Provide for Future Expansion

One basic requirement in a problem of this type is room for future expansion. As the city of Lincoln grows in population, each individual facility will require expansion. To provide for this basic requirement, I have chosen a site large enough for future growth. Care must be taken during the design process to assure that each separate function can expand in its own way.

Economic Considerations

With Lincoln's limited tax base, even with incorporation, economic considerations become very important. The project will operate on a limited budget, forcing great consideration to be put upon material selection and use of space.

A number of federal programs are offered for community development of this sort. For instance, a federal assistance program for neighborhood facilities is offered through the federal government. This grant would cover two-thirds of the cost.[1] It would not be wise for me at this time to consider these factors as great economic influences upon the total building budget, for there are many times when the federal government will not allot funds for these programs. I will consider a limited budget for the complex and assume no federal assistance.

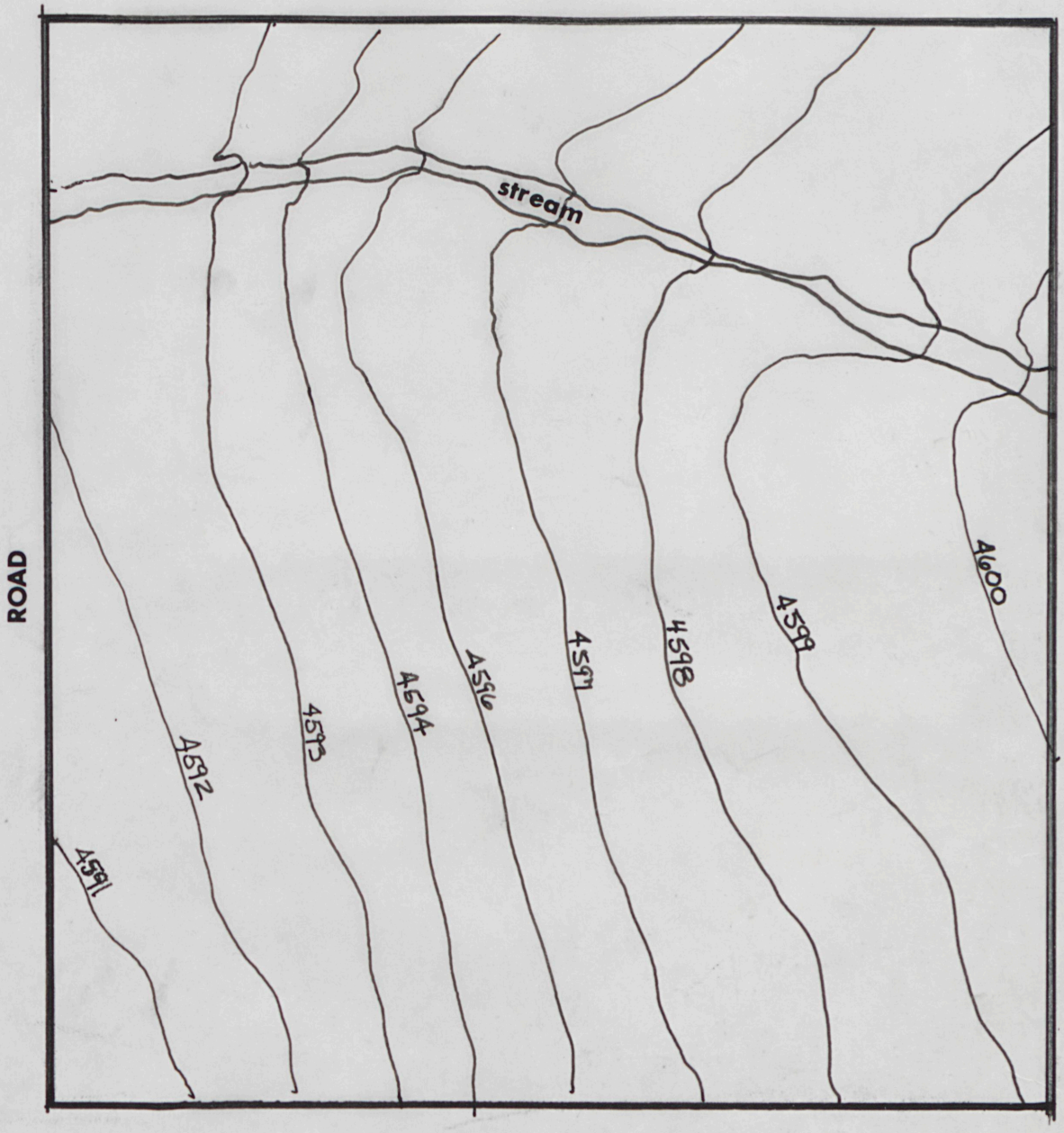
Site Considerations

Site Location

A civic center generates much activity, a type of activity which belongs near a high activity area such as a commercial area. The civic center could not exist within a residential area for the activity types would conflict. According to the above criteria, I have chosen a site located adjacent to the future commercial area. This site has easy access to main arterials and is large enough to support all major functions discussed, including parking facilities. The area is situated with a buffer zone bordered by commercial, school and residential area.

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[1]Office of Economic Opportunity, Catalog of Federal Assistance Programs, June 1, 1967, p. 412.



SITE CONTOUR MAP

SCALE: 1'' = 150'

NORTH



THE PROPOSED SITE



Characteristics of Site

The site consists of 4 acres of wooded land located north of Highway 200. A 950 ft. frontage is provided. Within the heavily forested land are small areas of lightly forested land which suggest clearing for building construction. The site is bordered on the north by a small stream, and on the south by a resident's home.

The forested terrain is quite level, except for very minor down sloping toward the stream to the north and toward the road to the west.

Climatic Conditions

Temperature:

Temperature Data
(Average Monthly Temperatures)

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
17	22.8	27	38.8	48	54.4	61	59.9	51.5	41.2	28.4	22.4

Annual Temperature 39.9

Rainfall Data:

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1.79	1.54	1.40	1.24	2.18	2.72	1.28	1.24	.89	1.18	1.99	1.94

Annual 19.39

Snowfall Data:

The "Snowfall" column indicates the amount of snow which fell during the month.

The "Max Depth" column indicates the amount of snow on the ground at the end of the month indicated.

J	F	M	A	M	J	J	A	S	O	N	D	J	
---	35	5	4	0	1	0	0	T	0	---	2.2	---	Max D.
53.4	10.1	3.9	---	.7	1	0	0	.4	T	---	---	53.4	S.F.

Date of Last Killing Frost -- May 30th

Date of First Killing Frost -- September 10th

Average Maximum Frost Depth -- 50"

Wind:

Lincoln has a prevailing west wind, but local mountain conditions must be taken into consideration. The "Chinook" is quite common in this area along with nightly temperature inversions.

Site Restrictions

Since the site is in a very undeveloped area, there are few restrictions. I have limited restrictions to the stream, the tree cover, and the proximity of the resident's home. Construction must remain some distance from the bordering stream for annual flooding does occur. Because of the large amount of Ponderosa Pine in the Lincoln area, the town is considered unique. Care must be taken to preserve this natural tree cover on the site. Careful, selective cutting must be used in order to maintain the natural wooded

atmosphere. Care must also be taken with the resident's house bordering on the south. With the dense tree cover, privacy will easily be given to the resident, but consideration must be given so as not to infringe upon the rights of the dwelling owner.

Building Requirements

The section on Building Requirements is in five parts. The First Section, Basic Building Activities, concerns itself first with the activities of the basic functions such as police, fire and library and then with the smaller functions within these basic functions. The Second and Third Sections are concerned with the relationship of spaces within the total complex. In the last two Sections are discussed aesthetic considerations and building expansion.

Basic Building Functions

The basic building activities are divided into five functions:

1. Administrative
2. Law Enforcement
3. Fire Protection
4. Recreational
5. Library

Each of the above listed functions will be discussed as to the

following considerations:

1. Tasks
2. Occupants
3. Environmental Controls
4. Equipment
5. Character of Spaces (When Applicable)

Relationship of Functions into Spaces

To avoid repetition, the following general notes should be considered for all areas except when indicated.

General Notes Pertaining to Environmental Controls:

1. Acoustics -- Optimum Reverberation Time; .5 seconds at 512 cycles[1]
2. Illumination -- Minimum Footcandles; 100 Footcandles[2]
3. Environmental Control -- Winter; 74°F., 30% Relative Humidity
   Summer; 76°F., 50% Relative Humidity[3]

Administrative: Within this area, are the functions of city administration. The city demands adequate space to meet its needs in years to come, but the initial design will accommodate a city

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[1]General Electric, General Lighting Design TP101, June 1966 p. 6.

[2]Vern Knudsen, Acoustical Designing in Arch., 1950.

[3]Owens, Corning, "The Economics of Sensible Heat Control," 1963, p. 3.

of 4-6,000 people. Below are listed the administrative offices for a city of this size.[1]

Mayor

City Clerk

City Treasurer

Maintenance and Recreation

(Mayors Area)

Mayor's Office

TASKS: Full Management of City Government--ultimate responsibility of all city departments.

OCCUPANTS: 1 Mayor

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Desk, Chair, 4 Lounge Chairs

CHARACTER OF SPACE: Leadership, Efficiency and Ability of Being Private

Secretarial Assistant

TASKS: Control over waiting area. Secretarial service to Mayor.

OCCUPANTS: 1 Secretary (Part-Time)

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

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[1]Cook, Bud, Postmaster (Personal Interview), Lincoln, Montana October 13, 1969.

EQUIPMENT: Desk, Chair, Files

CHARACTER OF SPACES: Semi-Private

Conference Room

TASKS: Place where Mayor can meet with all Department Heads.

OCCUPANTS: Maximum of 15 persons

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Conference Table, 15 Chairs

CHARACTER OF SPACE: Intimate area for discussion; comfortable

(City Clerk)

City Clerk's Office

TASKS: City Clerk has custody of all city records, documents, ordinances, resolutions and orders of the city; also, the clerk issues city licenses and warrants, maintains financial records and issues public information.

OCCUPANTS: One City Clerk

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Desk, Chair, Files, Shelves

CHARACTER OF SPACE: Semi-private with ability to supervise work in general office area.

General Office Area

TASKS: The majority of the city clerk's work will be conducted in this area. This area must have a counter separating it from public area.

OCCUPANTS: One part-time assistant

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Desk, Chair, Files, Work Counter

CHARACTER OF SPACE: Character of General Office Area

Record Storage

TASKS: Vault to protect records and documents

OCCUPANTS: Room for one person

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Files

CHARACTER OF SPACE: Space must be organized and well lighted as it will be small.

(City Treasurer)

City Treasurer's Office

TASKS: City Treasurer has custody of all city funds. The office is visited frequently by the public for payment of fees.

OCCUPANTS: One City Clerk

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Desk, 2 Chairs, File and Shelves

CHARACTER OF SPACE: Semi-private with ability to supervise work in general office.

General Office

TASKS: Public transactions handled over counter and book work done at desks.

OCCUPANTS: One City Treasurer and a part-time assistant.

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Files, counter to divide public area, 2 desks, area for records kept outside vault during the day.

CHARACTER OF SPACE: Open space with easy access to public.

Vault

TASKS: Storage of maximum security documents and currency.

OCCUPANTS: City Treasurer

ENVIRONMENTAL CONTROLS: (See General Notes p. 14)

EQUIPMENT: Moveable files which can be moved from vault during day.

(Maintenance and Recreation)

Maintenance Superintendent's Office

TASKS: Maintenance Superintendent is in charge of all engineering work for the city. He is also in charge of maintenance and improvement of sewer, water, streets and recreation facilities.

OCCUPANTS: One Maintenance Superintendent

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Desk, Three Chairs, Files, Drafting Table, Shelves

CHARACTER OF SPACE: Semi-private, where superintendent can supervise the work in other offices and entertain visitors.

Secretary

TASKS: The Secretary will control traffic into the Maintenance Superintendents office and other related spaces.

OCCUPANTS: One Secretary

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Files, Desk, Chair

CHARACTER OF SPACE: Semi-private area conducive to work.

Assistant's Offices

TASKS: Several Assistants will be under the Maintenance Superintendent, each in charge of certain areas such as sewer, streets, etc.

OCCUPANTS: Three Assistants

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 3 Desks, 3 Chairs, Files, Drafting Table and Stool.

CHARACTER OF SPACE: Organized work area.

Storage Space

TASKS: To store all maps, documents and papers.

OCCUPANTS: Room for two individuals

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Moveable Files, Shelves, Storage for Rolled Prints

Vault

TASKS: Storage of maximum security documents and currency.

OCCUPANTS: One Person

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Moveable Files

CHARACTER OF SPACE: Small, well lit area, must be very efficient.

General Areas

Council Chamber + Court Room

TASKS: Area for Council and Committee meetings. Space must accommodate both participants and spectators. This area could also be used as a court room.

OCCUPANTS: 20 participants and provisions for minimum of 200 spectators.

ENVIRONMENTAL CONTROLS: Illumination; 50 footcandles

Acoustics; .5 seconds reverberation. 25-30 decibel rating soundproof.

EQUIPMENT: Large Table and 18 chairs -- 200 permanent seats for participants.

CHARACTER OF SPACE: Intimate with control over spectators.

Lounge Area

TASKS: Area for employees to gather for coffee or snack.

OCCUPANTS: Maximum of 15 persons

ENVIRONMENTAL CONTROLS: Illumination; minimum of 50 footcandles.

Acoustics; .5 second reverberation. 25-30 decibel rating.

EQUIPMENT: 2 Tables, 8 Chairs, Comfortable Seating for Employees, Small Kitchen Area for Coffee, Vending Machines.

CHARACTER OF SPACE: Homelike atmosphere, conducive to conversation and relaxation.

Restrooms

There should be adequate restroom facilities for city officials, employees and the public.

Janitor's Closets

Janitor's closets should be located throughout the building so as not to create excessive movement of equipment.

Law Enforcement: Since the police force does not actively serve the public, but protects the public, care must be taken to make the police department function well within the civic center. It is recommended that an excessively large force be separated from the city hall.[1] For a city of 6,000, the basic functions are

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[1]Joshua H. Vogel, Police Stations--Planning & Specifications, University of Wash. Seattle Bureau of Governmental Research & Services, University of Washington Press., August 1954.

listed below:

Offices and Court Room

Jail Area

Locker Rooms and Lounge

(Offices and Court Rooms)

Court Room

TASKS: All cases under the jurisdiction of the police judge will be tried in the police court room.

OCCUPANTS: Judge, Clerk of Court, Jury, Prosecution, Defense, Witness and Spectators

ENVIRONMENTAL CONTROLS: Illumination; 50 footcandles
Acoustics; .5 second reverberation, 25-30 decibel rating.

EQUIPMENT: Judges Bench, Desk and Chair for Clerk, 14 Seats for Jury, 2 Tables and 2 Chairs for Prosecution and Defense and Witness Stand. Seating for 100 spectators.

CHARACTER OF SPACE: Intimate with control over Spectators

Jury Room

TASKS: A small space for Jurors to discuss trials.

OCCUPANTS: Maximum of 12 Occupants

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Large Table and 12 Chairs

CHARACTER OF SPACE: Intimate

Judge's Chamber

TASKS: Office for Judge (Part-time)

OCCUPANTS: Judge

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Desk, Chair, 3 Visitors Chairs, Files, Shelves

CHARACTER OF SPACE: Intimate Office Space

Clerk of Court's Office

TASKS: Clerk keeps records and collects fines and serves as Judges secretary.

OCCUPANTS: Clerk (Part-time)

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Desk, Chair, 2 Visitors Chairs, Files

CHARACTER OF SPACE: Office Area

Chief's Office

TASKS: Head of Department

OCCUPANTS: Police Chief

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Desk, Chair, Files, 2 Visitor Chairs

CHARACTER OF SPACE: Private Office Space

Chief's Secretary Office

TASKS: To assist Chief and control waiting area.

OCCUPANTS: 1 Secretary (Part-time)

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Desk, Chair, Files

CHARACTER OF SPACE: Semi-private office with control over waiting area.

Communications Room

TASKS: Dispatch and Reception

OCCUPANTS: Communications Operator

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Communications Board; Chair, Desk, Files

CHARACTER OF SPACE: Relate to Public

I.D. and Finger Printing Room

TASKS: Booking of Prisoners

OCCUPANTS: Maximum of 3 persons

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Dark Room, Desk, Chair, Counter Area

CHARACTER OF SPACE: General Office Space

Laboratory

TASKS: Analyzation

OCCUPANTS: Maximum of Two

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Counter Space, Desk, Chair

CHARACTER OF SPACE: Laboratory Environment

Training Room - Library

TASKS: Small Instruction Area Incorporated with Library

OCCUPANTS: Maximum of 20 Persons

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 20 Desks, Chairs, Shelves, Blackboard and Tackboard Space

CHARACTER OF SPACE: Classroom Atmosphere

(Jail Area)

Women's Jail

TASKS: To House Female Prisoners

OCCUPANTS: 4 inmates

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 4 Beds (2 Cells)

CHARACTER OF SPACE: Simple, uncluttered. No contact with other areas.

Men's Jail

TASKS: To House Male Inmates

OCCUPANTS: Maximum of 18 men

ENVIRONMENTAL CONTROL: (See General Notes, p. 14)

EQUIPMENT: 2 Isolation Cells - One padded Cell

4 Bed Cells

CHARACTER OF SPACE: Simple, Uncluttered, no contact with other areas.

Pantry

TASKS: Area for Preparation of Meals for Inmates

OCCUPANTS: One person

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Light Cooking Facilities

CHARACTER OF SPACE: Small but efficient area.

(Locker Rooms and Lounges)

Men's Locker Rooms and Women Locker Room Incorporated with Toilet Rooms

TASKS: Area for Employees to Dress into Uniform

OCCUPANTS: Maximum of 10 each.

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 10 Lockers, Benches, Mirrors in each Individual Area.

CHARACTER OF SPACE: Efficient Use of Space Although Pleasant

Lounge Area

TASKS: Employees Lounge

OCCUPANTS: 15 Persons

ENVIRONMENTAL CONTROLS: Table, Chairs, Lounge Chairs, Sofa, Vending Machines

CHARACTER OF SPACE: Homelike Atmosphere

(General)

Waiting Area

TASKS: Waiting Area for Public

OCCUPANTS: 7 Persons

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Table, Chairs, Sofa

CHARACTER OF SPACE: Provide for consuming time, pleasant.

Rest Rooms

There should be adequate restroom facilities for City Officials, Employees and the Public.

Janitor's Closets

Janitor's closets should be located throughout the building so as not to create excessive movement of equipment.

Fire Protection: The fire facilities may be divided into 4 separate areas:

Engine House

Administration

Dormitory Accommodations

Staff Facilities

(Engine House)

Engine House

TASKS: Accommodate Equipment and Wash Equipment

OCCUPANTS: Equipment Operators

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 1 Ladder Truck, 1 Pumper Truck
1 Chief's Car and Ambulance

CHARACTER OF SPACE: Storage Area for Firefighting Clothing and Related Equipment. Clean, Efficient Area used for Washing and Cleaning Equipment

(Administration)

Fire Chief's Office

TASKS: Total Control of Fire Protection

OCCUPANTS: Fire Chief and Fire Inspector
(Fire Assistant)

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 2 Desks, 2 Chairs, Filing Cabinets, Shelves, 2 Lounge Chairs

CHARACTER OF SPACE: Semi-private Office Area

Reception Area--Waiting Room

TASKS: Control of Visitors to Administration Office

OCCUPANTS: Chief's Receptionist-Secretary (Part-time)

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Desk, Chair, Files, Counter Area.

CHARACTER OF SPACE: Semi-private area with control of waiting area from reception area.

(Dormitory Accommodations)

Sleeping Quarters

TASKS: Sleeping Area for On-Duty Firemen

OCCUPANTS: Seven Men

ENVIRONMENTAL CONTROLS: Illumination; Range of 0-50 Footcandles.
Acoustics; .5 seconds reverberation time.
Fresh air inlet.

EQUIPMENT: Seven Beds, and Seven Lockers

CHARACTER OF SPACE: Quiet, Private Area

Bathroom and Shower Area

A Bathroom and Shower area should be provided for live-in employees.

(Staff Facilities)

Education and Training Facilities

TASKS: To Educate and Train new personnel and to introduce new ideas to personnel.

OCCUPANTS: 14 Individuals

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 1 Desk, 1 Chair, Desks and Chairs for 14 Individuals, Blackboards and Tackboards.

Recreational Facilities

TASKS: Area for On-Duty Fireman to Engage in Hobbies or Recreation.

OCCUPANTS: Room for 10 People

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Much Storage Space and Counter Space, Pool Table, Etc.

Lounge Area

TASKS: Area for Employees to gather for coffee or snack.

OCCUPANTS: Maximum of 15 Persons

ENVIRONMENTAL CONTROLS: Illumination; Min. of 50 Footcandles

Acoustics; .5 sec. reverberation

25-30 decibel rating.

(General)

Restrooms

There should be adequate restroom facilities for City Officials, Employees and the Public.

Janitor's Closets

Janitor's closets should be located throughout the building so as not to create excessive movement of equipment.

Recreation: The City of Lincoln requires an area for large meetings and admission paid events. Many of these are school activities. Since the recreational functions of this City are not extremely complex, I have decided that an auditorium-gymnasium complex will serve all recreational purposes.

(Auditorium-Gymnasium Area)

Auditorium-Gymnasium

TASKS: To accommodate various large city meetings and paid activities.

OCCUPANTS: The area should accommodate up to 1500 persons. Future expansion is very important here.

ENVIRONMENTAL CONTROLS: Lighting; adjustable from 0-100 footcandles

Acoustics; reverberation time 1.2 seconds at 512 cycles.

EQUIPMENT: Bleachers for 1500 people, Portable Chairs, Storage Area for Tables and Chairs.

Dressing Rooms - Shower

TASKS: Dressing area for performances or games.

OCCUPANTS: A complete team of 12 members.

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Shower Facilities, Toilets, Urinals, Lockers, Benches.

Ticket Booth

TASKS: To Sell Tickets

OCCUPANTS: 2 Sellers

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Change Drawer Counters and Ticket Holders

Stage Area

TASKS: Area Used for Performances

OCCUPANTS: Complete Cast for a Performance

ENVIRONMENTAL CONTROLS: Special stage lighting required here to be written into specifications.

EQUIPMENT: Lighting Equipment, Lighting Control Area, Backdrops, Storage for Props.

Kitchen

TASKS: Area for Concessions or Preparation of Large Meals.

OCCUPANTS: Maximum of 9 Persons

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Food Preparation Equipment, Dishwashing Equipment

(General)

Restrooms

There should be adequate restroom facilities for City Officials, Employees and the Public

Janitor's Closets

Janitor's closets should be located throughout the building so as not to create excessive movement of equipment.

Library:[1] The Library will operate on a very small scale as it is only a city library. The Library will perhaps operate on a loan basis until the city can afford to purchase volumes.

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[1]Keyes D. Metcalf, Planning Academic and Research Library Buildings, McGraw-Hill Book Co., New York, N.Y., 1965.

Main Reading Room[1]

TASKS: Area where all visitors will sit to read material.

OCCUPANTS: Accommodations for 100 persons. (Chairs & Tables) Individual study desks.

ENVIRONMENTAL CONTROLS: Illumination; 70 footcandles .5 reverberation time.

EQUIPMENT: Chairs and Tables for 100 persons. Card Files, Circulation Desk, Main Stacks

Children's Area[2]

TASKS: Area for Children's Books

OCCUPANTS: 20 Children

ENVIRONMENTAL CONTROLS: Illumination; 70 footcandles Acoustics; .5 reverberation time.

EQUIPMENT: Chairs & Tables for 20 Children, Card Files, Book Stacks for Children's Volumes

CHARACTER OF SPACE: Small, Intimate, Conducive to to study for children.

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[1]Baily V. Russel, Guidelines for Library Planners, American Library Association, 1960.

[2]Kenneth D. Gorder, "Bozeman Public Library", Montana State College, Library, March, 1964.

Librarian's Office

TASKS: Control of all Library functions.

OCCUPANTS: 1 Librarian and one Assistant

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: 2 Desks, Counter Area, 2 Chairs, Files

Librarian's Workroom

TASKS: Binding -- Cataloquing

OCCUPANTS: 3 Maximum

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Sink Counter, Chairs, Work Table, Storage

CHARACTER OF SPACE: Semi-private with access to circulation desk.

Toilet Rooms

Toilet Rooms should be provided for giving easy access to persons using the Library facilities.

Two Group Study Rooms

TASKS: Provide place for noisy group study.

OCCUPANTS: 6 Each

ENVIRONMENTAL CONTROLS: (See General Notes, p. 14)

EQUIPMENT: Large Table, 6 Chairs

The Interrelationship of Spaces

In a complex of this sort, the interrelationship of spaces

becomes very important. The chart on the next page clearly shows the interrelationship of basic and the relationship of spaces within the basic spaces.

Aesthetics of Building

A city center belongs not only to the people of the city, but also to the land that surrounds it. A city center is an expression of the functions of a city and the character and hopes of the people within the city. The city center will become a focal point for the city.

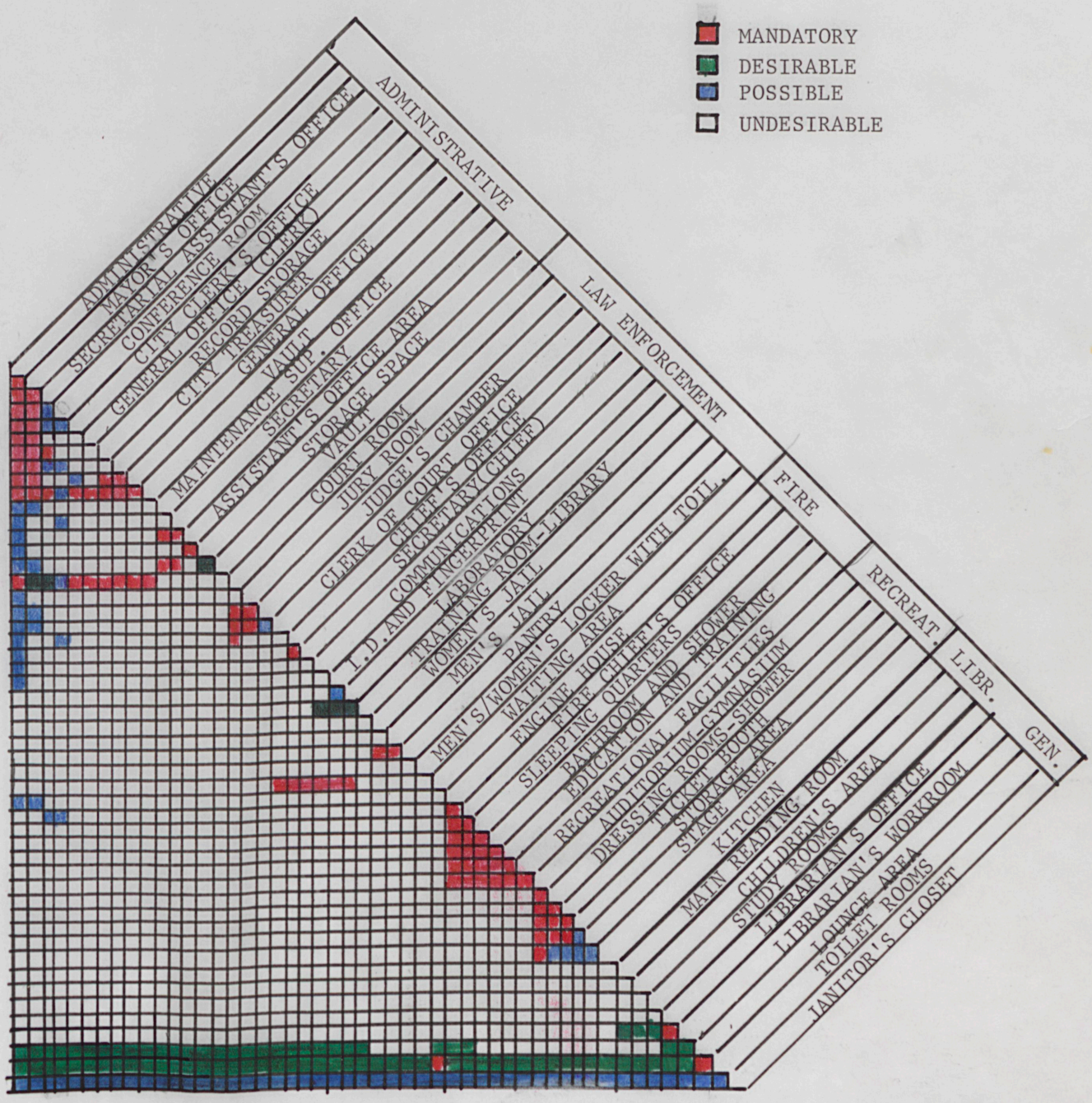
Strength, dignity and unity are governmental qualities which should be expressed in this building, and most important the building must be an expression of the functions within.

The people of Lincoln are an outdoors people and their city is situated among tall Ponderosa Pines. The center must become part of this natural setting as well as the surrounding mountains nearby. The city will grow and the population will consist of varied types of people. The center must reflect their lives also.

Building Expansion

With a growing city, building expansion becomes very important. This aspect can very well be a great influence upon many design decisions. Care will be taken in all areas to provide for optimum

INTERRELATIONSHIP OF SPACE



future expansion in order that all functions can remain within the civic center area. A large site has been chosen for reasons of expansion.

Reasonable amounts of space will be incorporated into the area to allow for expansion within the coming years, but continued growth of the city would require expansion of all facilities.

Summary

When formulating a design on paper from the written building program, I established for myself two basic objectives aside from the function of the building. 1) The building complex must become an integral part of the site in its relation to the wooded wilderness character of the city, and 2),the complex must become the hub of city activity, the town center for all recteational activities and the political meeting place for all citizens.

The Site

In working with the building site to establish my objectives, I gave much consideration to the existing conditions. The problem here is to create from what exists and not to form the site character by adding large amounts of material to the site.

The building site offers many restrictions because of being very heavily timbered. The site, located within a forest of ponderosa pines and aspens, can only accommodate a building structure with the removal of large numbers of trees. A delicate transition from building to forest is required here for a mere swath out of the forest would appear unnatural and would not lend itself to the building character.

The stream is not a major characteristic of the site only because of the heavy forest near its banks obstructing the view of the stream. Removal of trees in order that the stream would be visible is undesireable for conservation of such a forest is of importance to the residents of Lincoln.

The character of the building will harmonize with the site. Sloping roofssuggest upward movement dictated by the soaring pines. Wooden details and shingled roofs will harmonize with the natural color and texture of the forest.

Activity Center

Through adding as many city functions as possible to the complex, I was able to cteate a basis for the town center or meeting place. Through the combining of many functions, the center attracts

many more people, and by varying the type of functions the center attracts not only different types of people byt pwople of different ages.

Located in the center of the city, and adjacent to the main shopping district, the site with its park-like qualities will be a focal point of all pathways leading to the shopping area.

BIBLIOGRAPHY

Books

Culp, J. R. M., From Incidents in the Life of His Father, David W. Culp As Told By Him and His Wife, Montana Historical Society, October, 1964, p. 2.

Metcalf, Keyes D.,Planning Academic and Research Library Buildings, McGraw-Hill Book Co., New York, 1965.

Russel, Baily J.,Guidlines For Library Planners, American Library Association, 1960.

Vogel, Joshua H., Police Stations-Planning and Specifications, University of Washington, Seattle Bureau of Governmental Research and Services, University of Washington Press, August, 1954.

Periodicals

Anders, Clayborn J., "Lincoln, Long Forgotten Gold Camp," Montana Historical Society, October, 1964, p. 2.

De Chiara, Joseph,"Planning Design Criteria," New York, 1969.

Dolven, Fred O., "A civic Center for Harlem, Montana,"Montana State University, 1964, p.1-10.

Gorder, Kenneth D. "Bozeman Public Library." Montana State University, March, 1964.

Knudson,"Acoustical Designing in Architecture," Wily, 1967.

Office of Economic Opportunity, "Catalog of Federal Assistance Programs," June, 1967, p.412.

Owens Corning, " The Economics of Sensible Heat Control," 1963, p.3.

Paradee, J. T., "Metalliferous Deposits of the Greater Helena Mining Region," Montana, Bulletin 842, U. S. Government Printing Office, Washington, 1933, p. 115.

Interviews

Cook, Bud, Postmaster, October 14, 1969.

Cook, Ruth, October 14, 1969.

Smith, Jesse, Realtor, Lincoln, Montana, October 14, 1969.

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