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BOZEMAN

A MORTUARY

For

DAHL AND VIAL FUNERAL HOME

at

Bozeman, Montana

Part I

Undergraduate Thesis in Architectural Design

by

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Submitted to the School of Architecture as partial
fulfillment of the requirements for the degree
of Bachelor of Architecture

at

Montana State University

Bozeman, Montana

August, 1968

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INTRODUCTION AND PROPOSAL

INTRODUCTION

In fulfilling requirements for a Bachelor of Architecture Degree at Montana State University, I submit this thesis, which is a proposal for a mortuary for Bozeman, Montana.

The intent of this thesis is to cover all the preliminary research which any architect would undertake preceeding the design of any structure. Much more information will be needed before a final design solution can be accomplished. This information will come as a result of the design preliminary decided upon.

This thesis is separated into six major divisions which present research material necessary to form the basis for the design decisions I will make in formulating a solution, to the needs of Dahl and Vial.

PROPOSAL

I propose that the funeral home of Dahl and Vial of Bozeman, Montana build new facilities which will accomodate all the present needs of this firm.

These proposed facilities would be located on a new site and would in no way be related to the present building now occupied by Dahl and Vial.

CONDITIONS CREATING NEED

1.0 CONDITIONS CREATING A NEED

1.1 Introduction

Throughout recorded time men everywhere have sought by funeral ceremonies to honor their dead, and to aid the bereaved return to normal activity. The rites they have used to accomplish these ends were as various as the cultures and religious beliefs in which they found root. Today, funerals in the United States are implanted in a fairly stable culture, and manifest a rather uniform pattern. But, whatever their forms, funerals can never be casual matters. The solemnity of the fact of death itself militates against mere fashion and whim; and the desire to show reverence for the dead, and respect and sympathy for the living, arises out of the deepest needs and the highest motives of human nature.

A funeral is the only ceremony to which none is formally invited but all may come. When the remains are present and viewable, at least while in state, the reality and finality of death are confirmed for the survivors.

The period of the funeral provides a proper climate for the natural and therapeutic expression of grief by those who have suffered loss. The bereaved may lessen their sorrow by sharing it, and confirm the love and sympathy of friends and relatives at a time when no love is asked in return. In addition, when a religious service is held, the profound consolations of the supernatural are added to these

natural benefits.

The funeral, moreover, brings dignity to the departed. Whether their modest achievements have won limited fame and friends, or great deeds have merited wide renown, funerals enable the community to pay its proper respects.

The funeral home of Dahl and Vial is a business. In any business the owner must evaluate his ability to sell his products, his service, and realize a reasonable profit from both. Keeping an eye on the future needs can put a business ahead of its competition. I interviewed Mr. Emil Dahl, one of the principals of Dahl and Vial Funeral Home, and we agreed that his firm definitely should consider the possibility of constructing a new building in order for Dahl and Vial to become a more successful business. The basis for this consideration lies in three factors: (1) increasing population means an increase in mortality rate, (2) desired functions and services not presently available, and (3) undesirable characteristics of the present building.

1.2 Needs of Bozeman

"The needs of the community directly affect the planning of any building need. No gain has been made in supplying what is not needed or is not required. It must also be economically feasible to build such a structure." (4:58)

Bozeman at present has two funeral homes to service the population. One of these homes, Dokken and Nelson, was designed to be a funeral home while the other, Dahl and Vial, which was originally a

garage has been remodeled into a funeral home. At the present time Dahl and Vial has a volume of business averaging 85 funerals per year, 60 of which are adult funerals, as compared with the national average of 100 funerals per home per year, and about 85 adult funerals per year, and Dokken and Nelson's average of 125 per year. (21) The home is presently located at the corner of Wilson Avenue and Babcock Street in Bozeman. It has reached the point that the present structure is inadequate to serve the needs of the community. The present location is poor, considering the interruption of the traffic flow at the intersection of two major traffic arterials in downtown Bozeman due to funeral processions from the home to the cemetery. At present it is necessary to pass through a primary commercial district, and residential areas to get to either of the two cemeteries in the vicinity.

1.3 The Needs of Dahl and Vial

The present structure is obsolete and in need of the following repairs; spaces are inadequately ventilated, lighting is very poor, and all spaces except the chapel are too small. The garage is used as a catch-all storage area and vehicle storage area, which hinders in conducting a smooth flowing procession from the mortuary to the cemetery. The main office is also directly in the path of the bereaved in passing from the chapel to the family car in the garage. The family must pass through this room which causes problems in scheduling funeral arrangement appointments.

A parking area for the guests while attending the service is needed. At the present time there are only ten parking places available behind the building. The only other parking available is on-street parking and is usually unavailable because of the site's close location to the downtown business area and to the other funeral home only one-half block away.

A larger chapel with a deep altar is also needed, to create a more effective floral display, to include an organ, and to allow for more flexibility in conducting services.

These functions could be incorporated into the present building with major revisions. However, a new building, properly designed, would be a better investment.

1.4 Business Projections

Prospective funeral business can be calculated by the multiplication of Montana's mortality rate 8.8 by 1000. In other words for every 1000 population there will be 88 deaths. Gallatin County has a population of 26,095, which gives a projected annual death rate of 238 deaths. But by looking at Table I, we can see that this high a number of yearly deaths has never been reached, but it has been close.

There are two funeral homes in Gallatin County, and if each home received 50% of the cases, each home would have slightly more than the national average or 119 cases. It is for this reason that I base my argument for a new funeral home. The business is here, and a new home and the new public image that would come with it would further justify the new building.

DEATHS	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
4 and under	21	14	7	21	13	11	18	12	9	10	
5-9	3	2	2	0	2	2	1	1	1	2	
10-19	2	1	2	3	3	5	2	2	1	6	
20-29	4	5	8	4	4	10	7	9	6	3	
30-39	5	3	1	9	9	3	3	5	3	3	
40-49	6	22	11	20	13	10	9	12	8	10	
50-59	17	20	22	21	22	18	21	21	13	25	
60-69	47	41	26	36	18	35	48	34	33	34	
70-79	53	55	55	54	61	70	50	66	62	59	
80-89	32	43	41	54	51	40	29	51	49	53	
90 plus	6	18	10	8	6	13	8	19	13	9	
Total	205	235	188	234	208	218	201	231	203	219	102
Crude death rate			7.4	8.8	7.73	8.38					

Table I.

Deaths recorded in Gallatin County from 1958 to July 1, 1968.

	Births
1968	247 (to 7/1/1968)
1967	465
1966	466
1965	476
1964	565
1963	525
1962	610
1961	667
1960	630
1959	652
1958	623

Table II. Births recorded in Gallatin County
from 1958 to July 1, 1968.



Existing building, main entrance from across South Wilson and Babcock intersection.



View of side entrance to chapel.



Rear of existing building and its parking facilities.



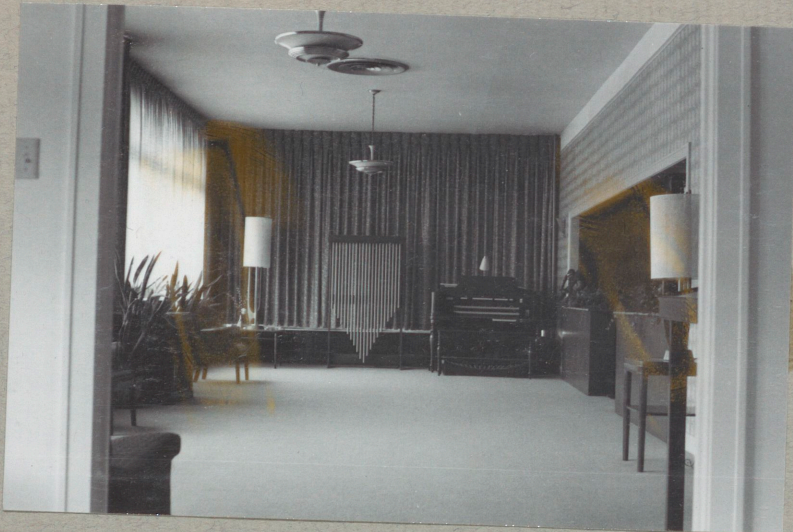
View looking north from the main entrance and shows the South Wilson and Babcock intersection.



View looking south from the main entrance.



Front of the Dokken-Nelson Funeral Home.



View from entry foyer looking towards the chapel.



Interior view of existing chapel. Chapel side entrance is door to left, family room is door to right.



View looking from chapel towards entry foyer and into arrangement room.



View of present garage showing storage problems and cramped space.

LOCAL PHYSICAL CONDITIONS

2.0 LOCAL CONDITIONS OF GALLATIN COUNTY

2.1 Geography

Gallatin County is located in southwest Montana, and has a total area of 2,540 square miles. The land covered by this country exceeds the areas of either Rhode Island (1,058 square miles), or Delaware (1,978 square miles). (26)

Bozeman, the only urban place in Gallatin County, is centrally located within the county at 45° 40' latitude north and 111° 03' west longitude. The area of the city is approximately 7.5 square miles. Its altitude is 4,795 feet above sea level. (26:2)

The southern most boundary of Gallatin County, is the Continental Divide. U.S. Route 191 crosses the Divide at Targhee Pass, (elevation 7,078 feet) and continues east into West Yellowstone. From West Yellowstone it heads north for 92 miles toward Bozeman, paralleling the Gallatin River on the western ridge of the Gallatin Canyon. (8:146)

U.S. 191 joins U.S. 10 at Bozeman. When interstate 90 is completed, it will be the primary east-west highway between Billings (190 miles east of Bozeman) and Butte (95 miles west of Bozeman). Interstate 90 now connects Bozeman with 3 communities northwest of it, Belgrade is 10 miles away, Manhattan is 20 and Three Forks is 34. North of Three Forks, the Gallatin joins the Madison and Jefferson Rivers to form the Missouri River. The Jefferson and Missouri Rivers are the northwest boundary of Gallatin County.

U.S. 10 to the east of Bozeman will be replaced by interstate

90 when that highway is completed in the mid 1970's. The freeway will connect Bozeman to Livingston via Bozeman Pass (elevation 6,002 feet), as U.S. 10 now does.

2.2 History

The Gallatin, Madison, and Missouri Rivers are located in what is now Gallatin County, and have had a profound influence on the history of this area. The great valleys formed by these rivers provided the Blackfoot, Crow, Bannack, Nez Perce, Flathead, and Snake Indians an easy access east to the hunting grounds of the Yellowstone, and what to the trapping grounds of the Snake River plains.

The fact that no tribe ever made the Gallatin Valley its permanent home can be attributed to the heavy migration of Indians through this area, and the deep winter snows. The Indians knew the valley as the "common hunting grounds," and called it "the Valley of Flowers."

In July, 1805, explorers Lewis and Clark arrived at the forks where the Gallatin, Madison, and Jefferson Rivers meet to form the Missouri. The explorers then rested their expedition at the forks, and named the rivers before departing to follow the Jefferson westward. The Jefferson River was named in honor of Thomas Jefferson, who was then President of the United States. The Madison was named for James Madison, then Secretary of State, and the Gallatin River was named for Albert Gallatin, who was Secretary of Treasury. The county name was later derived from the Gallatin River. (26:1)

The first settlements in Montana were the gold camps of Bannack,

Alder, and Last Chance Gulch. The settlement of the Gallatin was different from the others in that here the settlers brought their women with them, seeking homes and farms. John Bozeman led a wagon train over the Bozeman Pass and into the valley in 1864 where W. J. Beall and D. E. Rouse staked out the townsite for the city of Bozeman. Other settlers followed and with the threat of Indian troubles, Fort Ellis was established three miles east of Bozeman in 1867 and remained an active post until 1886. (26:1)

The mines provided markets for farm products, and Bozeman's settlers provided these farm products.

A cattle industry also began. A Bozeman pioneer, Nelson Story, brought the first trail herd from Texas to Montana in 1864. Four or five decades later Charles Anceney and Harry Childs built up Montana's largest single ranch, the famous Flying D, situated some 25 miles southwest of Bozeman. Today the valley is the most populous purebred cattle area in America. (10:1)

2.3 Population

Gallatin County Population: (U.S. Census)	Bozeman Population: (U.S. Census)
1940 - 18,269	1940 - 8,665
1950 - 21,902	1950 - 11,325
1960 - 26,045	1960 - 18,366

Current population projections for Bozeman, as determined by T.A.P. Inc. are 1970 - 22,000 and 1975 - 24,000. T.A.P. also projected the Gallatin County population to approximately 30,000 by 1972. (17)

2.4 Location of the People

Bozeman is located near the center of the county and the county population is also gathered in or near Bozeman. According to the U.S. census of 1960, more than half of the county population lived in Bozeman, i.e., was urban. There is such a concentration of people living in the Bozeman area, that 74.9% of the county population is within a 15 mile radius of the city. (4:7) When the radius is increased to 25 miles, 84.9% of the county residents are included. (4:7)

2.5 Economic

Since the homesteading of this valley in 1864, the economy of Gallatin County has been principally agricultural.

The economy of Bozeman is built primarily upon income from agricultural sources, together with Montana State University, which employs hundreds of people for the faculty and staff. MSU officials estimate the total contribution of the school to the Bozeman community to be \$30,000,000 annually. Agricultural operations are divided among small grains production, livestock (including numerous cattle breeders) and dairying. Although not an industrial center, the Bozeman area does include several small plants engaged in lumbering operations, cement manufacturing, food processing, grain milling, and several other small manufacturers. (10:4)

The granting of land to establish MAC (presently Montana State University) before the turn of the century changed the economy of

Bozeman. The annual payroll of the University plus the construction of university and other related buildings has added greatly to Bozeman's prosperity.

2.6 Agriculture

In Gallatin County there are 939,700 acres in farmland, of which 193,000 acres are harvested cropland, 335,000 acres are in pasture and 81,000 acres are irrigated. There are 858 farms and ranches, with an average acreage of 1,179. Top crops and yield (County Agent estimate): Wheat: 2,232,000 bushels, Barley: 1,343,000 bushels, Oats: 283,000 bushels, Hay 6 tons "tame" hay per acre, 2 tons "wild" hay per acre (cutting), Livestock Numbers: Cattle - 70,800; Sheep - 19,500; Hogs - 5,200; Poultry - 36,000; Dairy Cattle - 6,100. Potatoe growing yields 350 to 400 bushels per acre on approximately 1,000 acres of land. Cash receipts from marketing in 1964 were \$11,166,043. (26:4)

2.7 Financial Data

Bozeman is served by three banks with total assets of \$54,483,872.24 and total deposits of \$49,853,887.38. In addition a branch office of the Empire Savings and Loan Association, with assets of more than \$17 million, is located in Bozeman. Bank debits covering the period January through December, 1967, were up 6% over those during the comparable period in 1966.

The retail trade area covers 24,465 square miles, with a population

of more than 65,000. Bozeman is classified as one of the State's major retail centers. Retail sales in the county in 1963 totaled \$42.3 million. In 1966 there were 196 retail and service outlets in Bozeman. The 1963 U.S. Census Bureau report indicated an annual payroll of \$6.1 million for retail and service establishments in Gallatin County. Major retail outlets include 6 department stores, 2 variety stores, 7 drug stores and 6 supermarkets. (26:4)

Tourism is also an important source of revenue in the county. The wealth of fishing, hunting, and recreational facilities of Gallatin County allows Bozeman to enjoy its share of Montana's \$130 million dollar tourist industry.

2.8 Transportation

The transportation industry is expanding rapidly in the county, especially the airlines. The Northwest Orient Airlines have provided east-west services to Bozeman for several years. Just last fall Frontier added north-south service also which boosted passenger traffic considerably. The airlines estimate that 30,000 passengers will be served in 1972.

A bond issue was approved by voters in January, 1968 to lengthen the runways at Gallatin Field. This will enable commercial jet aircraft to land which should increase tourist trade and conventional traffic.

2.9 Climate

Bozeman experiences a climate associated with mountain valleys, warm days and cool nights during the summer, and some extremely cold days and nights during the winter. The temperature ranges from a high of 100°F in July to a low of -43°F in February. The average temperature is 42.8°F. Average rainfall is 17.65 inches. Mean snowfall is 72.7 inches. The growing season is approximately 100 days, May 30 to September 20. (26:5)

Prevailing winds blow from the west and northwest. Storm winds blow from the east and northeast. Wind velocity can attain a high of 35-45 m.p.h. during the year. (26:5)

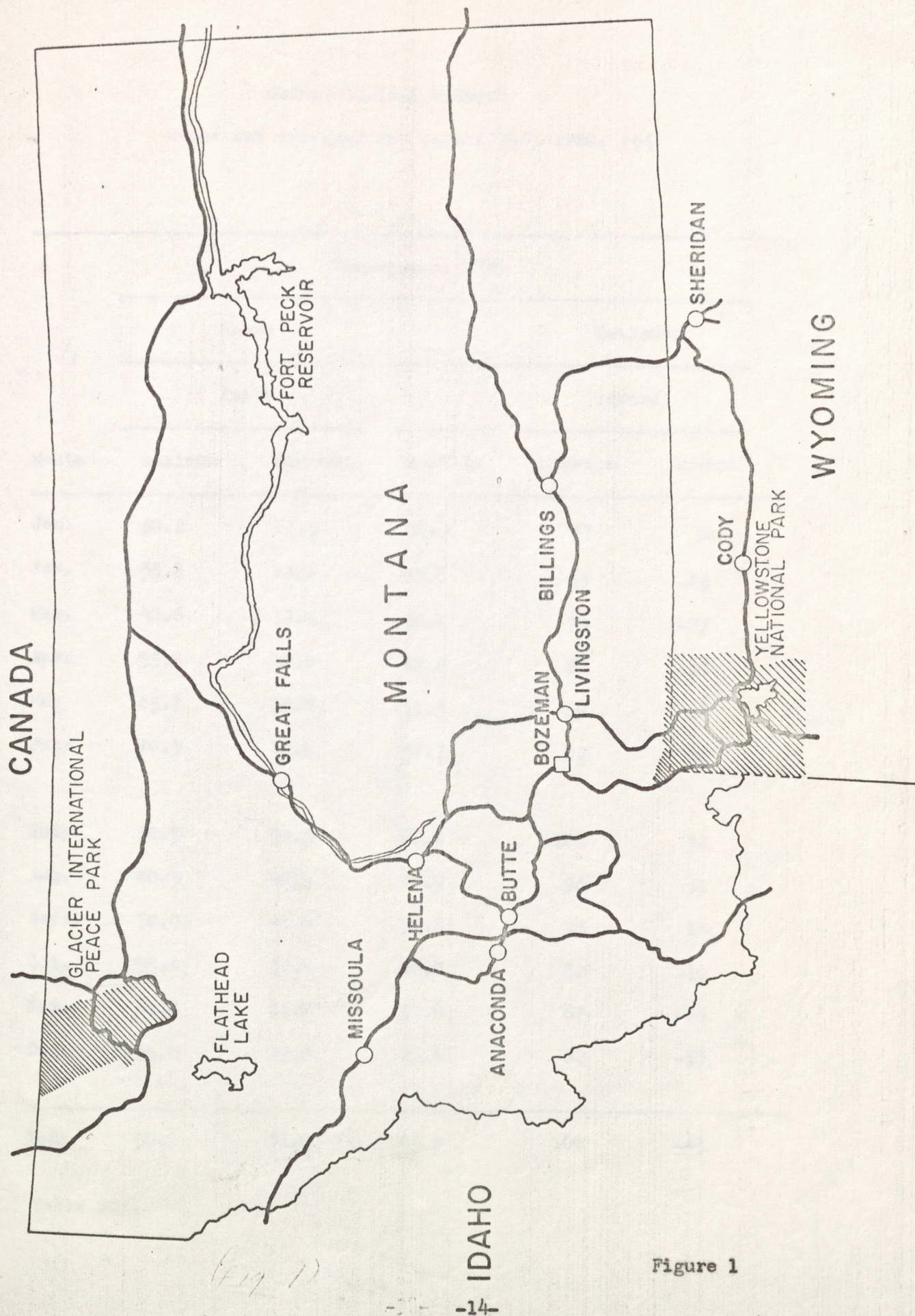


Figure 1

CLIMATOLOGICAL SUMMARY

Means and extremes for period 1931-1960. (9)

Month	Temperature (°F)				
	Means		Extremes		
	daily		record		
	maximum	minimum	monthly	highest	lowest
Jan.	30.2	10.3	20.3	57	-36
Feb.	33.8	13.8	23.8	63	-43
Mar.	40.6	19.6	30.1	70	-27
Apr.	53.8	30.6	42.2	80	-10
May	63.7	38.8	51.3	89	16
June	70.5	44.9	57.7	92	26
July	81.5	51.3	66.4	100	32
Aug.	80.3	49.5	64.9	96	31
Sept.	70.0	41.6	55.8	95	18
Oct.	58.4	33.6	46.0	82	-10
Nov.	41.8	21.9	31.9	67	-26
Dec.	35.0	15.8	25.4	62	-35
Year	55.0	31.0	43.0	100	-43

Table III.

SITE CONDITIONS

3.0 SITE CONDITIONS

The selection of a site for the location of a mortuary is a major portion of the design preliminary. This is so because a mortuary must be located in a quiet area of a town, yet close to a minor traffic arterial to allow for the funeral procession to move along smoothly; on site or near site parking must be developed; the view must be considered; a traffic pattern from the mortuary to the hospital, railway depot, old folks home and cemetery must be developed; and the architect must also consider the influence his building will have on the surrounding areas. Because of the above mentioned considerations I feel that a site cannot be picked just because it might be the most economical in purchase price. Therefore, I found it necessary to study Bozeman's street systems and the traffic use diagrams. (See figures 5-9)

3.1 The Location

There are many factors to consider when choosing the site for a mortuary. The home should not be located in a central business district because of the noise and confusion that would interfere with the operation of the mortuary. "It is also current trend to locate funeral homes on the main or secondary arterials of towns and cities, seemingly in the search of a more fitting and serene atmosphere," (4:197) and away from the central business districts. Great Falls has three such examples of this, W.H. George and Company, Chapel of Chimes, and O'Conner Funeral Home.

Distance from the central business district is no longer a problem for the funeral home operator to contend with because the modern funeral is no longer a public display of bereavement for the survivors so declared to all by a funeral train of pedestrain mourners. Today the majority of the mourners prefer to drive their own car to the funeral services and then to the cemetery. (4:78) This necessitates on site parking and a well planned traffic flow pattern.

In a conversation July 9, 1968 with Mr. Donald Barrick, City Engineer for Bozeman, we discussed the present growth and decay areas of Bozeman. One area which seemed to offer the best solution to the site location is that area on North 7th avenue adjacent to Birch Street. (See figure 11).

This area is zoned for commercial business, it meets with the stipulations set forth in the City Zoning Regulations for a "Motor Business Zone" which is the zone category a mortuary falls in. This area also has shown definite promise as a growth area with the addition of many new businesses in three years. These businesses are: (1) Texaco, Standard, Gulf service stations, (2) Topper Restaurant, (3) Holiday Inn Complex, presently under construction.

With the expansion of Bozeman along this route, which is the major arterial feeding traffic from Bozeman to the Western Interstate interchange and the use of the suggested traffic route in (Figure 3), this location would be ideal. The south and east sides of Bozeman have disadvantages in that some of the south is a decay area along Babcock, Mendenhall, Lamme and Olive streets. (1) The west side of Bozeman is at present the fastest commercial growth area in Bozeman but traffic

problems would be too interruptive to the traffic along Main Street.

Another factor to consider is the location of the cemeteries in Bozeman. The city cemetery is located in the east side of town and adjacent to Linley Park just off East Main Street. The other cemetery, Sunset Memorial Gardens is located about 4 miles west of Bozeman, and adjacent to U.S. Highway 10. A third cemetery which is not used much is located at the intersection of North 7th Avenue and Griffen Drive.

With the two major cemeteries being located on opposite sides of town, I decided that a site lying somewhere between the cemeteries might be the most practical solution. Because of these factors, the site I have chosen is located on North 7th. (See figure 1 and 2)

3.2 Topographical Features

The site is a fairly large one, three acres, and is designated by the County Clerk and Recorder as "a tract of land on the $SE\frac{1}{4}$ of $S\frac{1}{2}$ Sec. 31 T1S0, R6E. (See figure 2)

The area slopes slightly towards the south with Bridger Road being the northern boundary, of the site. At present the site is a large pasture with a winding stream running thru the southern portion of the site.

3.3 Zoning

At present, there are no covenant restrictions that have been placed on this land. In a recent conversation with Mr. George Looks

of Elliot Realty, he stated the land had been zoned as commercial. Mr. Barrick also stated that it could be a commercial zone, and that if it wasn't it could and probably would be rezoned as commercial.

Land values are reasonable in this area, about \$4800 for $1\frac{1}{2}$ acres of this site so approximately \$10,000 for three acres of land.

3.4 Orientation

The building will not be dependent on special sun orientation hence no definite building orientation is necessary. The sun angles in Bozeman vary from 22° to 68° overhead at noon. The exact placement of the building must necessarily come later in the preliminary design studies but the orientation must be such that the funeral procession can easily approach Bridger Road and travel south without any unnecessary interruptions as they follow the route illustrated in (Figure 3).

3.5 Traffic Patterns

It is easy to see from (Figure 4) that smooth flowing funeral procession route can be followed and the least interruption of the city traffic flow can be accomplished by following the suggested routes. There will be however, problems arising here, one of which involves interstate 90.

In the near future Interstate 90 will be completed and Griffen Drive will be the major arterial for the north side of Bozeman to

gain access onto the interstate highway. "But it is possible that both Griffen Drive and Rouse will be widened to accommodate increased traffic loads after the interstate is completed." (19)

3.6 Adjacent Environment

Residential areas are located to the east of the site. These houses have been recently constructed, (all are less than 10 years old), and many more at the present time are under construction. A large 20-acre wheat field, and a single trailer house residence is located to the north. To the N.W. and across Bridger Road are the heavy equipment yards for Black-Line Asphalt. To the south lies another wheat field.

3.7 Immediate and Distant Flows

The very grand and rugged Bridger Range runs northward towards White Sulphur Springs. Wheat fields, pastureland, and random farm buildings also are included in the immediate view to the north and south. A large grove of trees about $\frac{1}{2}$ mile from the site interrupt the view towards the west. Towards the southwest horizon, lie the very rugged Gallatin National Forest and the elegant and snow covered Spanish Peak Range. The northern side of Bozeman was the immediate view, but the construction of Interstate 90 has interrupted this view.

3.8 Utilities

Gas, electricity, and water are available at the site. The nearest sewer is located about a $\frac{1}{2}$ mile towards the east. This probably will necessitate the use of septic tanks.

Note:

After the preliminary research on the site was completed and the thesis accepted by the University, it was learned that this site would not be a very good selection for the following reasons:

1. Excessive ground water creating a definite construction and structural hazard.
2. This area is very subject to spring flooding, having flooded three times during the past five years.
3. The added expense of building the site up would almost equal the expense of a better location along North 7th Avenue.

Therefore, I have chosen lots 1, 2 and 3 of the Westlake subdivisions along the eastern side of North 7th avenue. (See figure)

Because this information was received after the thesis had been accepted, Mr. Carver, my thesis advisor suggested that I change my site but that I leave in the original site selection and make a brief note about the site change. This note is my reply to his request.

MAP OF BOZEMAN MONTANA

LEGEND



Present Site



Proposed Site

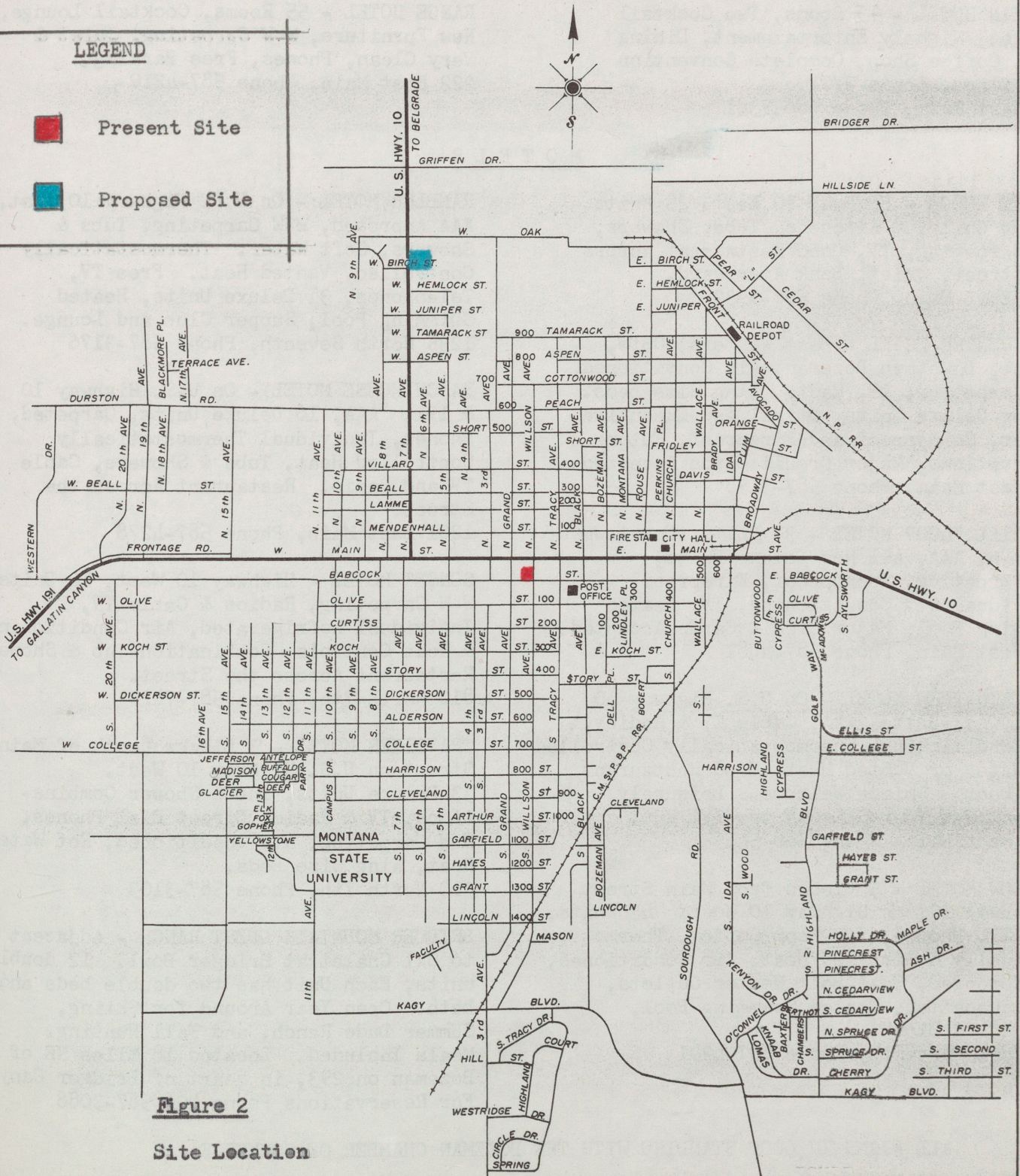
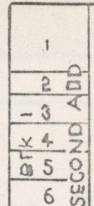
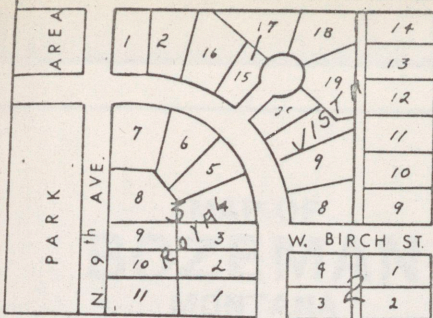


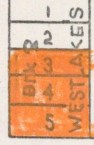
Figure 2

Site Location

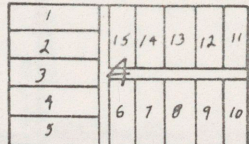


The new site. 

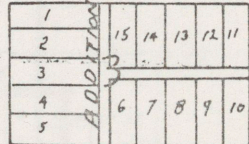
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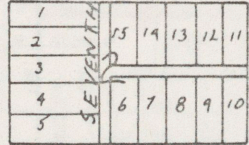
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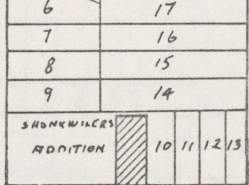
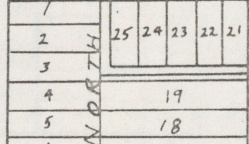
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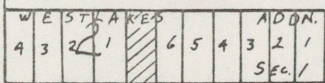
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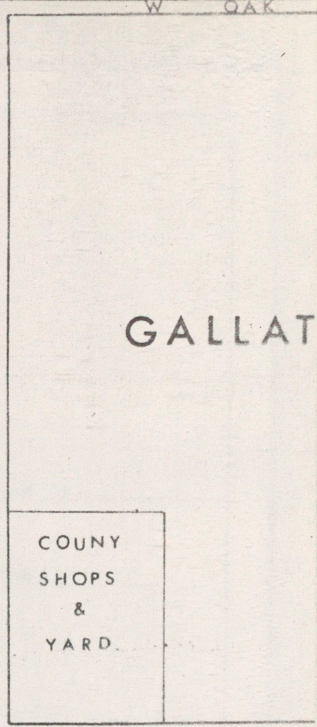
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SHAWNEE ADDITION

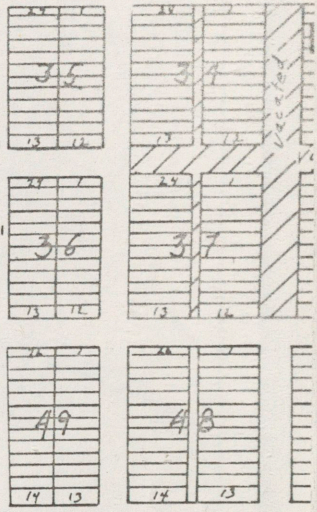


WEST LAKES ADDN. SEC. 1

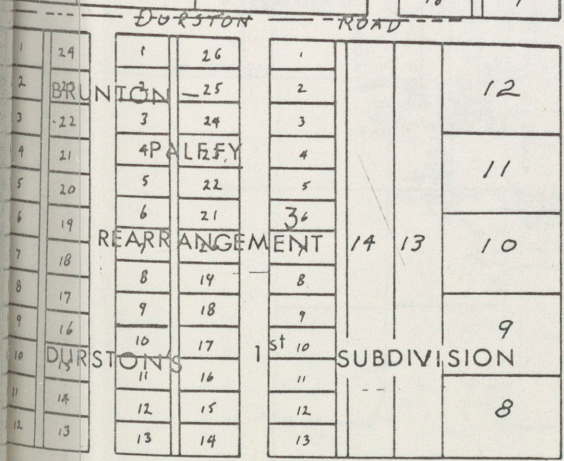


GALLAT

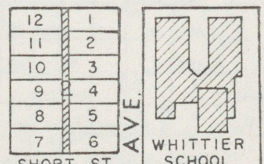
COUNTY SHOPS & YARD.



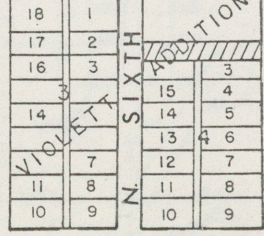
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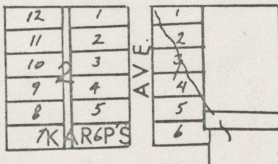
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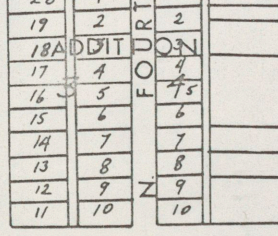
WHITTIER SCHOOL



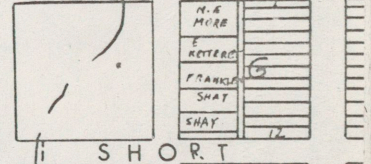
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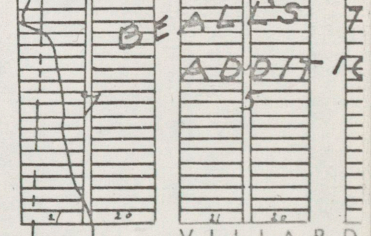
WHITTIER SCHOOL



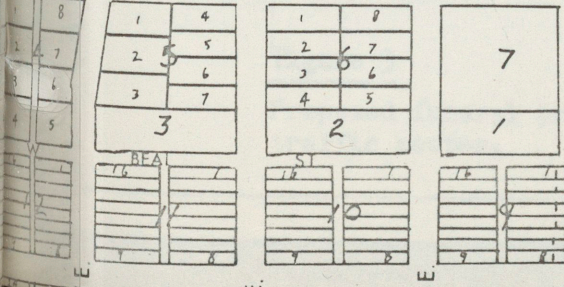
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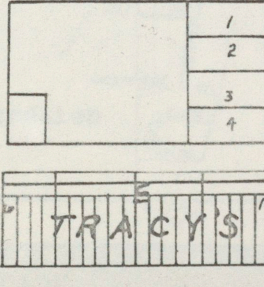
WHITTIER SCHOOL



SHAWNEE ADDITION



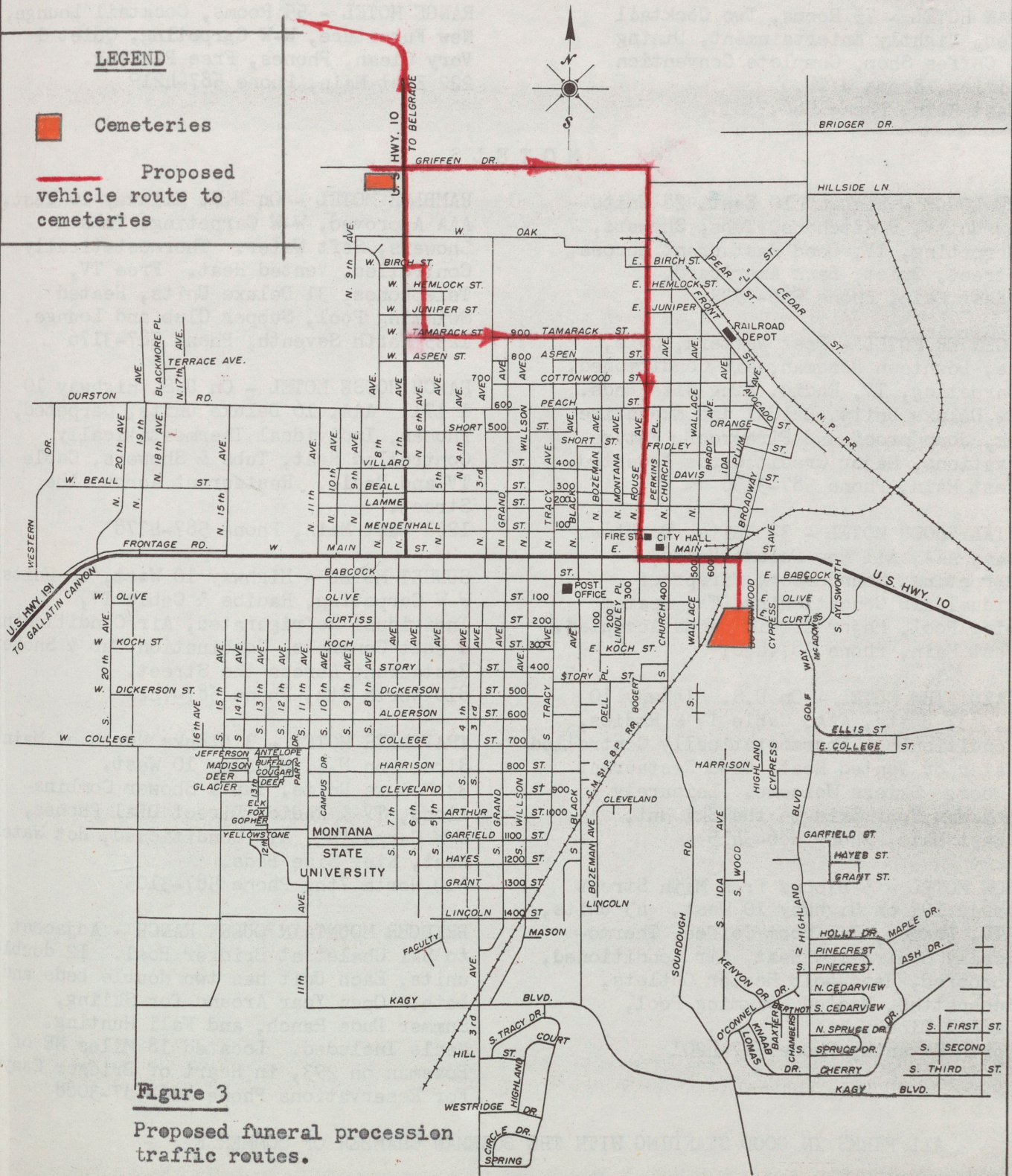
SHAWNEE ADDITION



MAP OF BOZEMAN MONTANA

LEGEND

- Cemeteries
- Proposed vehicle route to cemeteries



LEGEND

- railroad depot
- hospital
- cemetery
- old folks home
- traffic route

CITY OF BOZEMAN MONTANA.

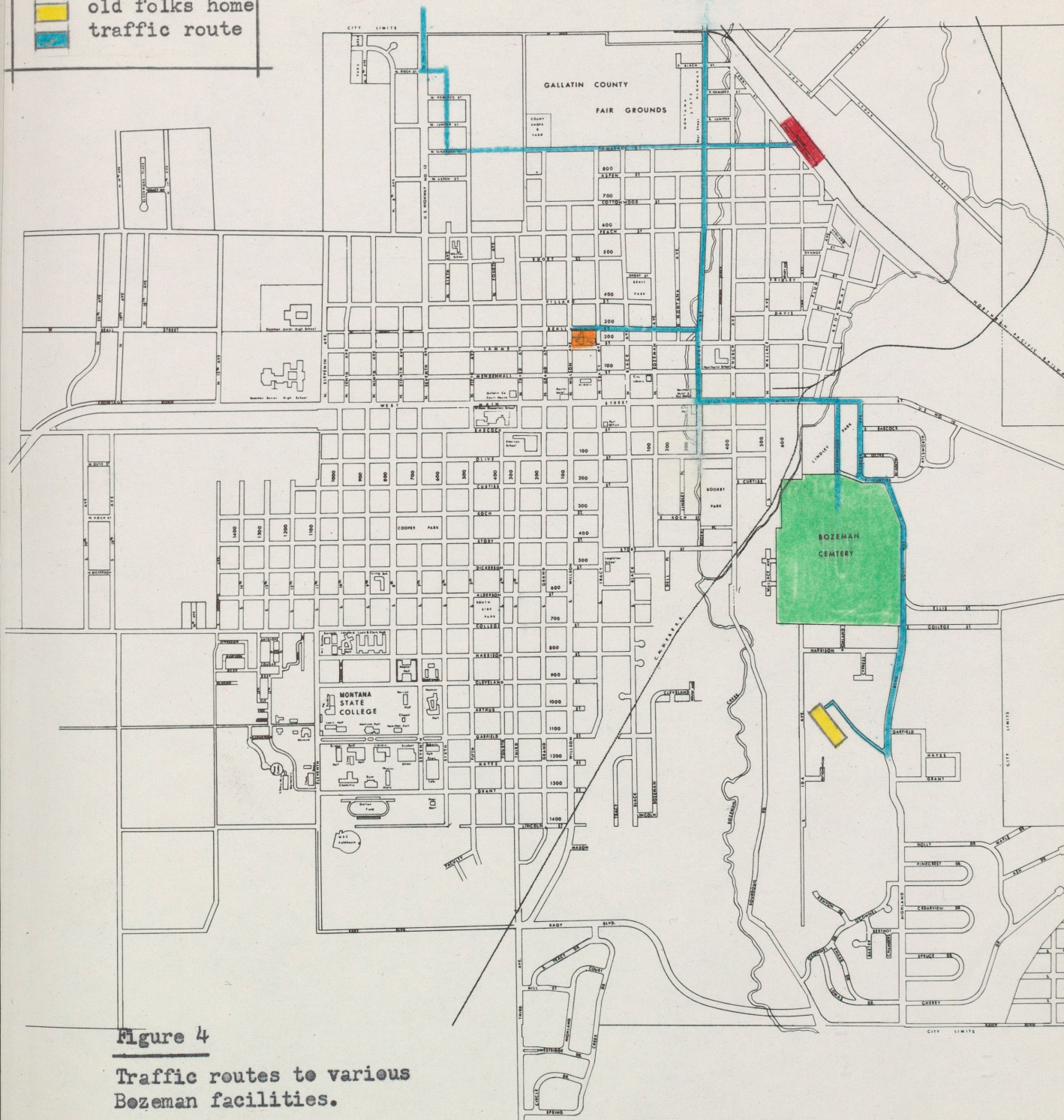


Figure 4

Traffic routes to various
Bozeman facilities.

ESTIMATED 1935 AVERAGE DAILY TRAFFIC
AND WEST INTERCHANGES AT MAINTENANCE

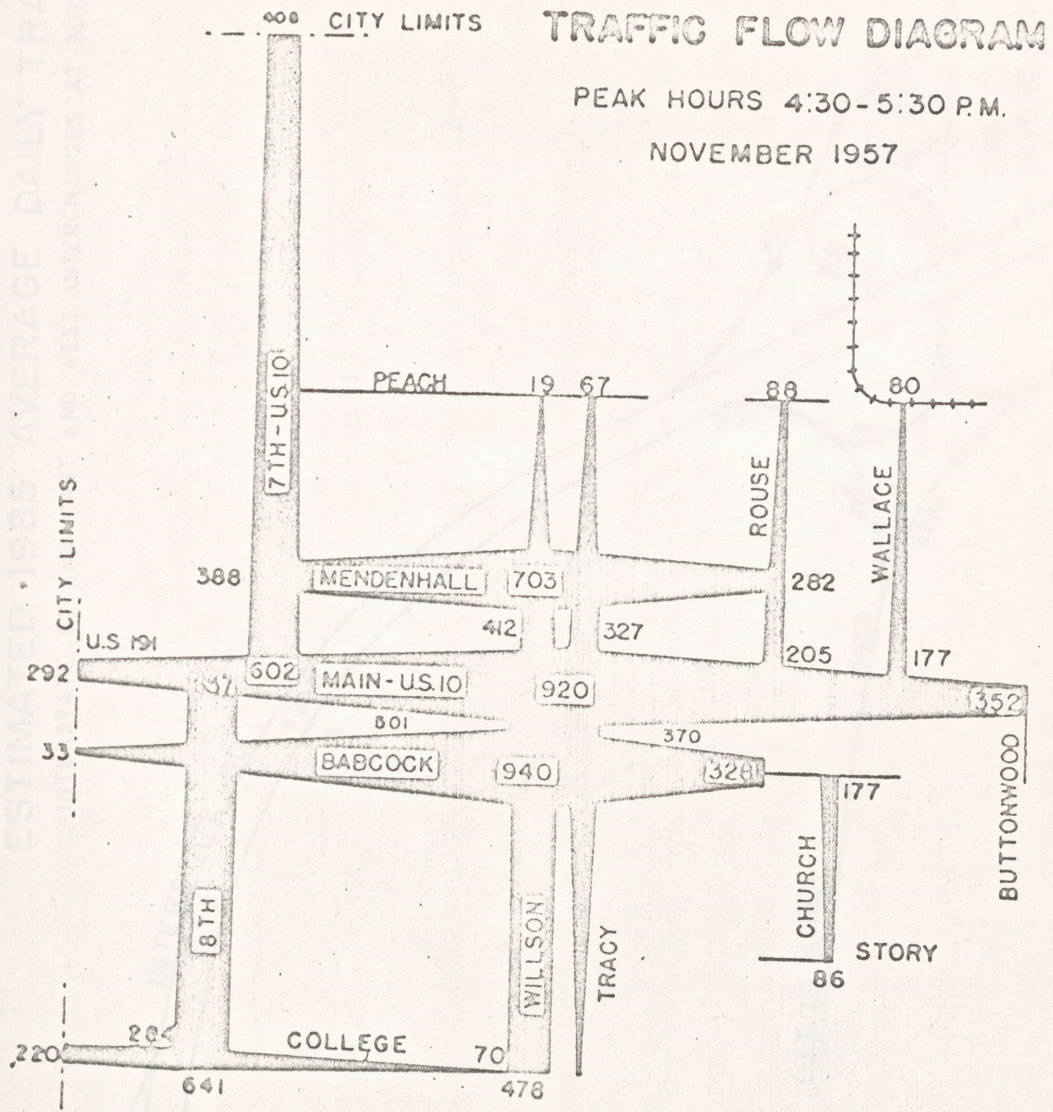


Figure 5. (18:82)

ESTIMATED 1985 AVERAGE DAILY TRAFFIC

INTERSTATE 90 AND EAST AND WEST INTERCHANGES AT BOZEMAN

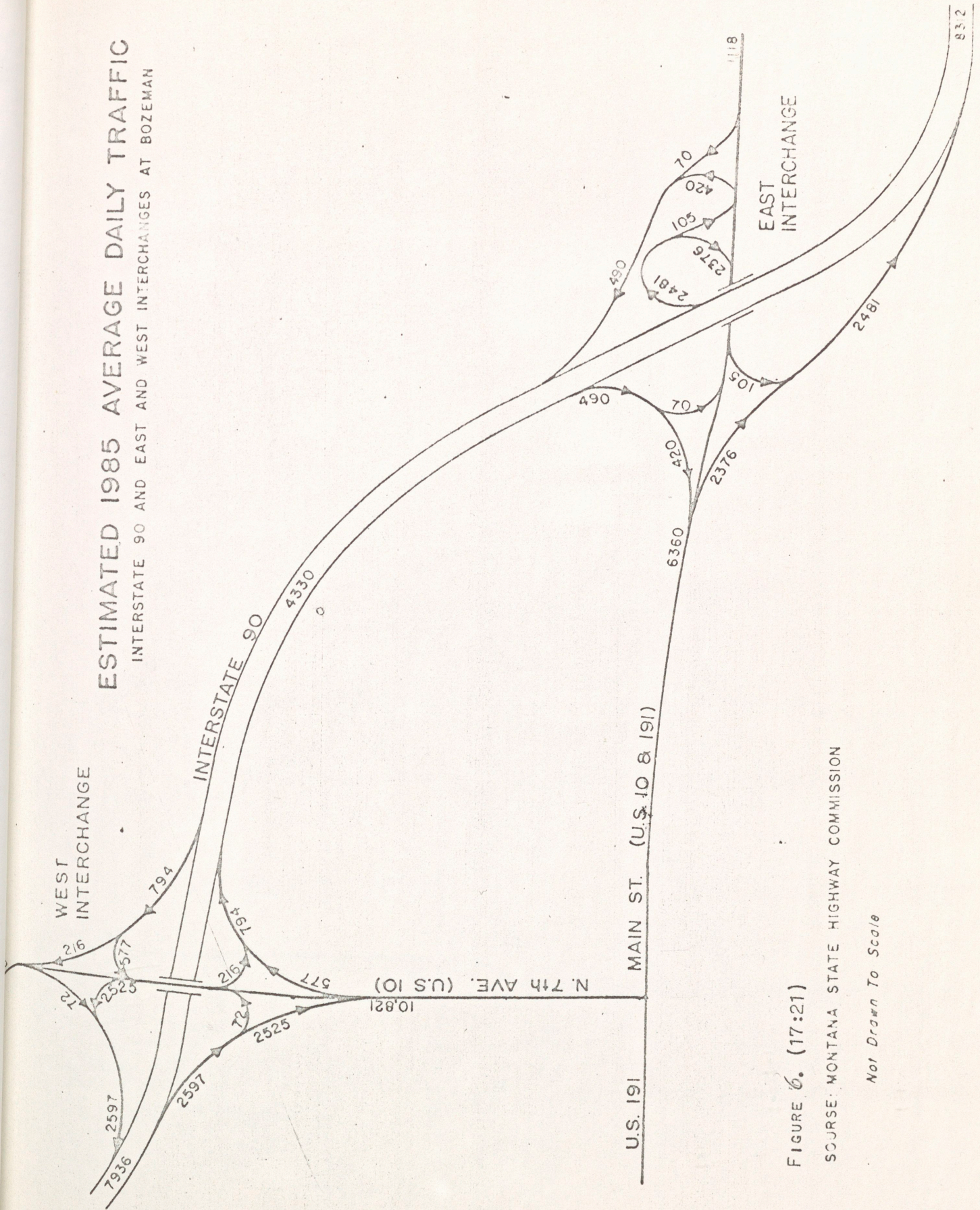


FIGURE 6. (17:21)

SOURCE: MONTANA STATE HIGHWAY COMMISSION

Not Drawn To Scale

ARTERIAL STREETS PLAN BOZEMAN PLANNING AREA

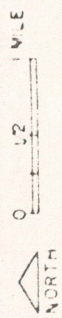
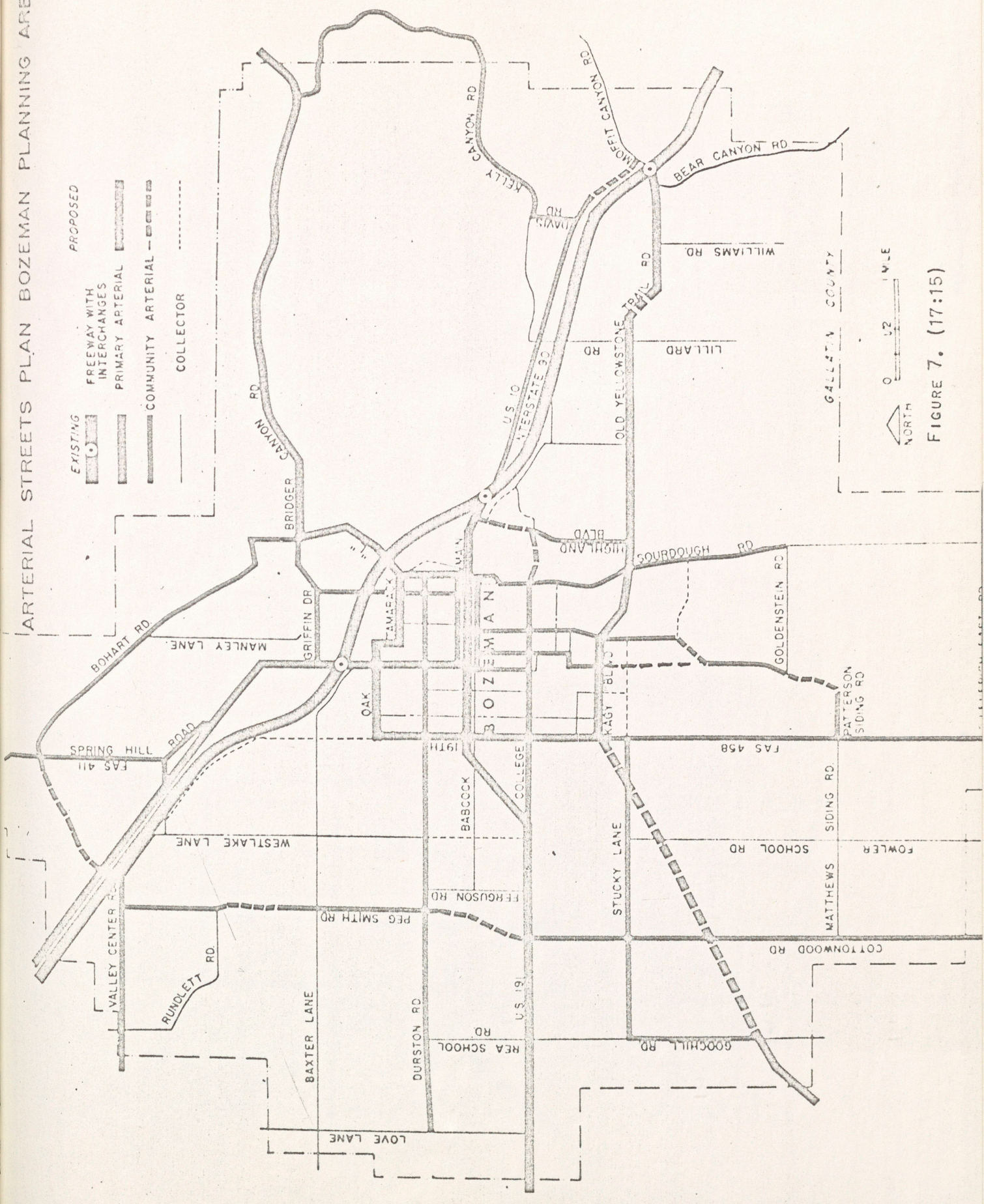


FIGURE 7. (17:15)

ARTERIAL STREETS PLAN

- EXISTING**
- FREWAY
 - PRIMARY ARTERIAL
 - COMMUNITY ARTERIAL
 - COLLECTOR STREET
- PROPOSED**
- PRIMARY ARTERIAL
 - COMMUNITY ARTERIAL
 - COLLECTOR STREET
 - PEDESTRIAN OVERPASS

FIGURE 8. (17:17)

BOZEMAN
Gallatin County
MONTANA

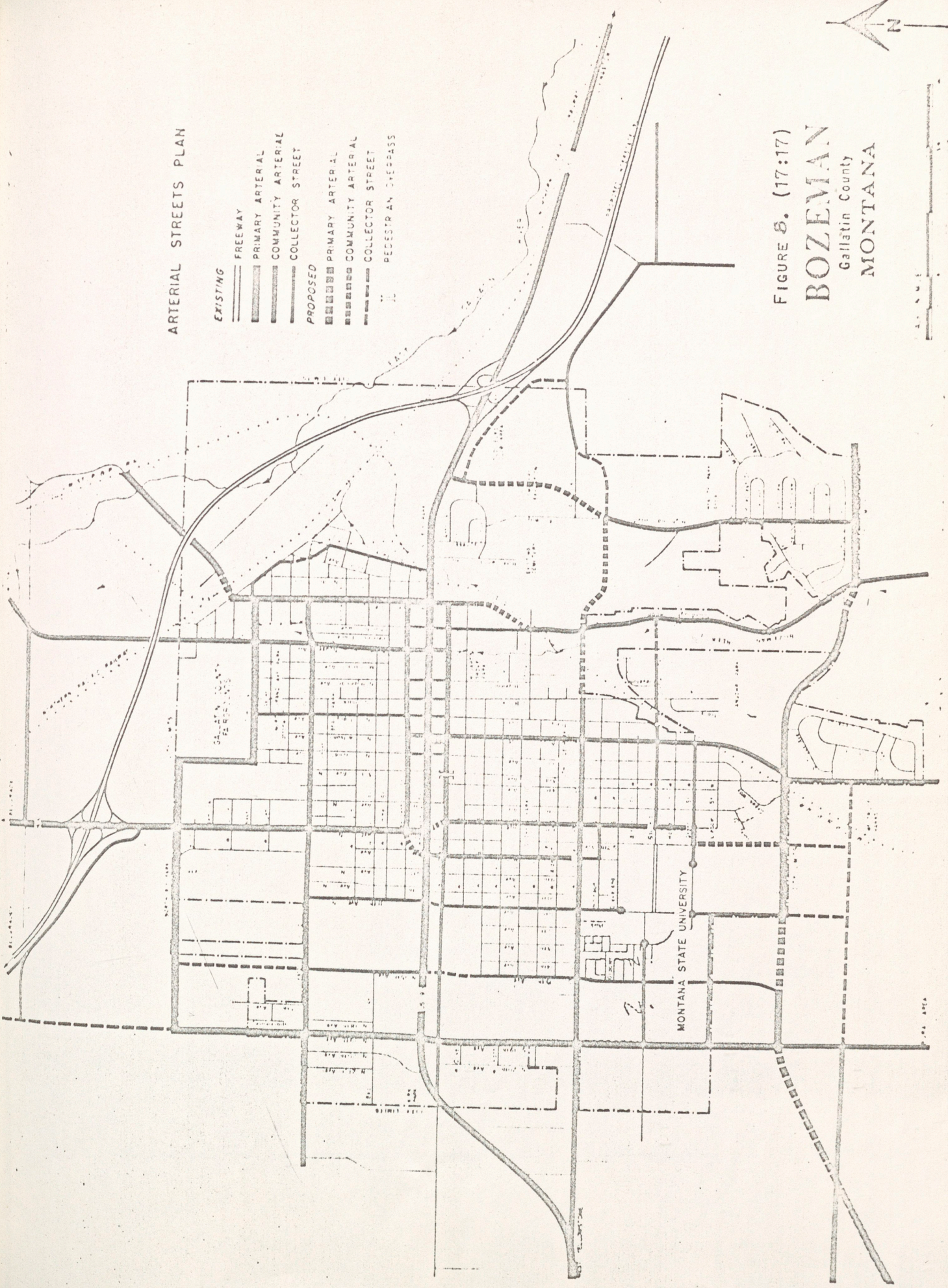
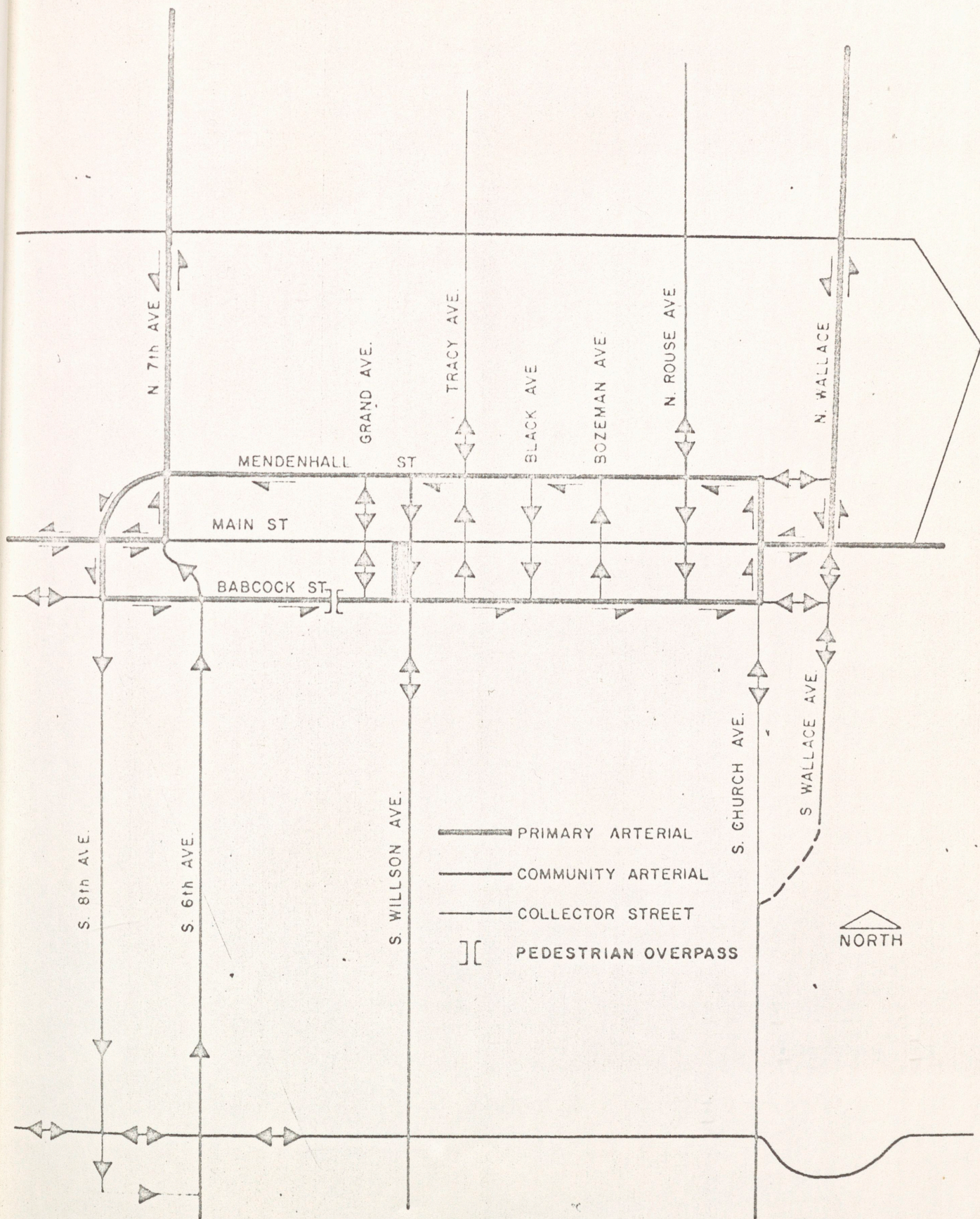
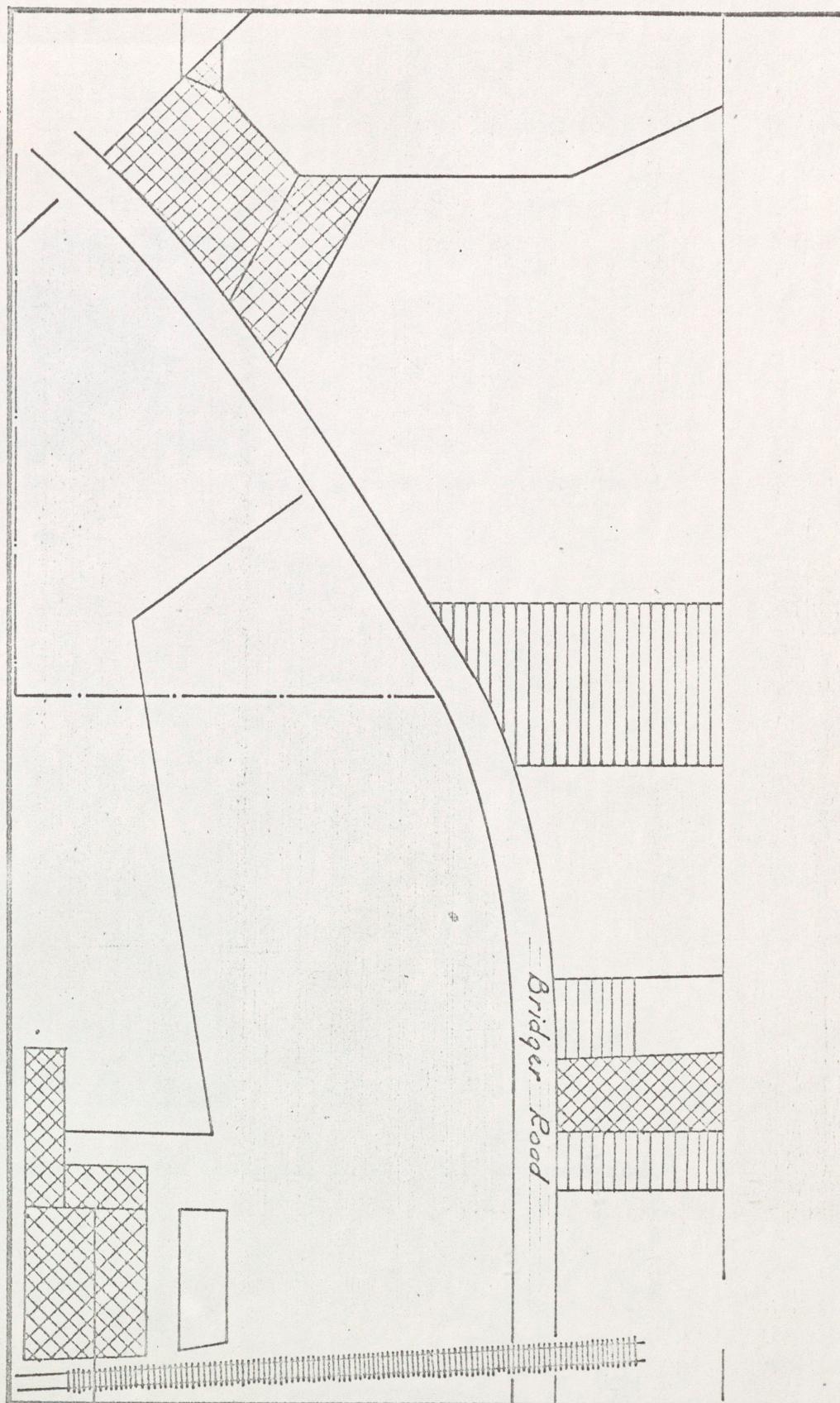


Figure 9. ONE WAY COUPLETS (17:26)





Land Use

Scale 1" = 100'



Agricultural



Commercial



Residential



1. View looking from Bridger Road east, across site towards the residential area.



2. View looking south, across the site, showing the environmental character.



3. The site looking east, and the East Gallatin River.



4. The Bridger Range from south boundary of site.





Panoramic view looking East, over the new site.



XView looking south over new site.



View looking north over new site.

BUILDING FUNCTION

4.00 FUNCTION OF THE BUILDING

The mortuary, has two primary functions, to provide a setting for the funeral, and to prepare the deceased for burial. This process is to receive the body, embalm, dress, and casket the body, provide a chapel for final services if needed, and to take care of the burial arrangements with the cemetery, all this to the satisfaction of the survivors.

A funeral home has a set pattern of operation, which is seldom deviated from. The standard pattern of operation is described above. Some of the deviations which a funeral home must make allowances for, are, shipping the deceased out of town for burial, using a church for the final services, and preparing the remains to be buried at sea, or to be scattered from the air.

The present staff of Dahl and Vial includes the three partners and a part-time secretary. The partners all are licensed morticians and they personally carry out all phases of their operation, which includes embalming, dressing, etc.

The greater part of a mortuary is private areas where the public will have no occasion to visit or see. There are only four major areas that the public will see (1) the chapel, (2) the entrance foyer area, (3) the arrangement room, and (4) the slumber rooms. These areas should have a warm pleasant atmosphere about them.

4.1 Entry Foyer

The main entrance or entry foyer is the first room inside the building which the public experiences when coming to pay their last

respects to the deceased or when making arrangements for a funeral. This area is a central collecting and distributing point of the public. This room assumes the role of a "silent public relations media" for the firm, and therefore should create a pleasant, warm atmosphere.

Because this room conveys the first impression to the public, the impression must be a good one. This impression should be one of quiet reverence, integrity and dignity.

Size: Will vary according to the final design, but should be approximately 500 square feet.

Equipment: Seating for six to eight people.

Adjacent Areas: Chapel, arrangement room, general office, and slumber rooms.

4.2 Private Entrance

This area is to be used by the family of the deceased when coming to the funeral home for the final services, and by the morticians when going about various daily chores. It should be visibly hidden from the main entrance to the mortuary and should function well with the family room, slumber rooms, main garage, and the main office.

Size: Wide doors and entrance to enhance the impression and atmosphere of dignity and reverence.

Equipment: None

Circulation: Wide corridor.

Adjacent areas: Family room, chapel, music room.

4.3 Chapel

The chapel is that area where the family as well as the public will pay their respects to the deceased. It is that area which above all others will witness most individuals experiencing the sadder expression of human emotions. For this reason it also must convey an atmosphere of human dignity, quiet repose, and the promise of more wonderful things to come for the deceased in accordance with the Christian religions. This area also should make a favorable and lasting impression on the public of the deceased. Ventilation and air conditioning must be air changes per hour and should be a separate unit by itself.

Size: Seating for 200 people

Floor area

Seating 1,600 to 2,000 square feet

Final resting area 800 to 1,000 square feet

Equipment: Tiers

Curtain for final privacy

Flower display area - (designed for flexibility)

Portable pulpit

Circulation

Wide aisles for casket moving

Adjacent Areas: Near slumber rooms

Entry Foyer

4.4 Chapel Storage and Reception Area

The chapel storage is an area located directly off the main chapel pulpit area for storage of such items as flower stands, pulpits, biers, etc.

Size: Area 150 square feet

Equipment: None

Circulation: Four-foot door opening

Adjacent Areas: Chapel

4.5 Arrangement Room

This room is a conference room for the family and the funeral director. It is here that final statistics, family wishes, and the deceased's wishes are discussed and the funeral arrangements are finalized. This area should convey a very pleasant atmosphere to the people participating in the arrangements for there is generally a very high state of emotion present at this time. This atmosphere might include gay colors, comfortable conference chairs, nice carpet, etc. The arrangement room should be private so that personal discussions may take place and be free from any outside interruptions.

Size: Area 200 to 300 square feet

Equipment: Conference table for eight

Seating for eight

Storage for acknowledgements cards

Adjacent Areas: Main offices

Entry foyer

4.6 General Office and Reception Area

The business operations of the funeral home are managed from this office. The managers of the home and the secretary use this area. This area should be accoustically treated to insure a relative sound-proofing so that business can be transacted during a funeral without interrupting the services or the transaction.

Size: Area 400 square feet

Equipment: Small safe

4.6 Family Room Six file cabinets

Two desks for manager

The Family One desk for secretary

be utilized for Seating for four

4.6 Adjacent Area: Arrangement room

ing the family and Entry foyer

services, should the Private entrance

4.7 Private Offices

The private offices are two small offices to be used by the two partners of the mortuary. One office will be located near the main entrance and will serve as part of the public relations of the home. This office will be available to the public to discuss their problems, and to receive the salesmen for the various industries who supply mortuaries. The other office will serve as a private office where the partners will conduct the confidential business carried

on by each mortuary. This room will have personal files of customers, business reports, etc.

Size: Area 200 square feet

Equipment: Desk, chairs, files

Circulation: Adjacent to private corridor

Adjacent Areas: Entrance foyer

General office

Arrangement room

4.8 Family Room

The family room is one area in a mortuary which may or may not be utilized during the final services for the deceased, depending on personal preferences of the family. This area is used for seating the family and close relations of the deceased during the final services, should the family wish to be visibly screened from the public. It should be secluded from the public in the main chapel but allow the family to see the casket and speaker. Some religions prefer the family to sit in the front rows of the chapel rather than being hidden from view of the public. Special acoustical wall and ceiling considerations are necessary for this area, due to the bereavement of the people using this room. This room must have access from the private entrance.

Size: Room for 40 people

Area 600 square feet

Equipment: Adequate for comfortable seating of 40 people

4.8 Circulation: Special private entrance

Adjacent Areas: Chapel

The main garage Entry Foyer is multi-purpose area. It is used to store the hearses while the family is at the funeral home after picking up or the, up at the hospital or family home. The garage is used to store the hearses while the family is at the funeral home after picking up or the, up at the hospital or family home. The garage is used to store the hearses while the family is at the funeral home after picking up or the, up at the hospital or family home.

4.9 Music Room This area should be located off the pulpit area and should be designed to be visible or screened from public viewing. The area should contain an organ, preferably an electronic model.

Size: Room for organ and singer
Floor area 100 square feet

Equipment: Electronic organ

Equipment: Seating for organist

Equipment: Seating for singer or singers

Adjacent Areas: Chapel

Private entrance

Adjacent Areas: Chapel

Private entrance

Adjacent Areas: Service garage

4.10 Pall Bearers Room

The pall bearers room will be used as a lounge area for the minister before the service, and a lounge area for the pall bearers during the service.

Size: Area 250 square feet

Equipment: Sofa, oversized chairs, coffee table

Adjacent Areas: Chapel, Rest rooms, Entrance foyer, and main garage

4.11 Main Garage

The main garage functions as a multi-purpose area. It is used to store the hearse which delivers the deceased to the funeral room after picking he or she, up at the hospital or family home. The garage therefore must function well with the preparation room. During a funeral it is the receiving area for the deceased and the family in preparation for the funeral procession. It should have sufficient area to park a funeral coach, three family limousines and approximately five private automobiles. Its other function is that of a storage and cleaning area for the "moving stock" when not in use. During this time, washing, cleaning the interiors, and waxing of the vehicles take place.

Size: Area 2,500 to 3,000 square feet

Equipment: Washing sumps and hoses

Circulation: Garage doors at opposite ends of the garage

Ventilation fans for adequate venting of exhaust fumes

Adjacent Area: Service garage

Preparation room

Near office area

4.12 Private Garage

The private garage is the multi-purpose area of a mortuary. It is here where the cars will be maintained, washed with a car washer similar to the pressure washer used in some service stations, waxed,

vacuumed, etc. This area is also the "first call" receiving area for the body when it first comes to the mortuary. An overhead hoist will be provided for the heavy body caskets used when shipping a body to another home.

This area also serves as an access area to the casket storage area and working area.

4.13 Garage Storage

This area is used to store casket carts, stretchers, landscaping, and lawn maintenance tools and vehicles.

Size: Area 150 square feet

Equipment: Small storage cabinet for washing and polishing supplies

Small work bench for minor building and ground maintenance

Adjacent Areas: Private garage

4.14 Preparation Room

The preparation room and the dressing rooms are the work area of a mortuary, hence these two rooms plus the casket storage room should be very large and easy to perform the necessary spatial tasks.

The preparation is the first stop for the deceased after being brought to the funeral home. It is this room where the deceased will be embalmed, surgery will be performed if necessary to reconstruct the human figure, and plastic re-forming techniques will be performed.

This room also might be used to perform autopsies.

Size: Room for two operating tables

Area 300 square feet

Equipment: Two sinks

Circulation: Two operating tables

Maximum cabinet and counter area

Adjacent Area: Aspirator drains

Circulation: Adequate room to move deceased around

Adjacent Area: Dressing room

4.17 Private garage

4.15 Preparation Room and Dressing Room Storage

This room is used for the storage of embalming supplies, clothing, cosmetics, etc.

Size: Area 40 square feet

Equipment: Maximum shelving

Circulation: None

Adjacent Area: Preparation room and Dressing Room

4.16 Dressing Room

This room is used for the final "make-up" of the deceased. The make-up includes such things as clothing, hairdressing, make-up and casketing of the deceased. There should be sufficient area in this room for two corpses to be dressed at once.

Size: Room for two dressing operators to work at same time.

Equipment: Two washbowls

Storage for make-up, hairdressing equipment, etc.

Area: 250 square feet

Circulation: Wide doors with sufficient area inside room to
move caskets in and out.

Adjacent Area: Preparation room

Dressing room storage

4.17 Slumber Rooms

Slumber rooms are special rooms which are temporary waiting areas for the deceased until the final services. It is here that final viewing of the deceased occurs before the final services. The deceased can be viewed here for approximately two days before the final services, Families, friends and individuals can gather here to meditate in quiet, restful surroundings, Mr. Dahl recommends that three of these rooms would be sufficient for a mortuary operation such as his, the largest of these rooms would be used as a viewing room also.

Size: Area 750 square feet

Casket stand

Flower stands

Visitor register

Circulation: Large doors for easy entry and exit of casket

Adjacent Area: Chapel

Entry Foyer

4.18 Casket Display

The casket display room and its successful operation plus the personal integrity and services of the owner is the main source of revenue for the funeral home operation. It is in this room where the casket and selections for a burial vault are made. Many articles are published each year in the monthly publications of the mortuary business, concerning casket display rooms. There are, of course, varied opinions of how to properly display the caskets and how to aid persons in the proper selection of that casket which best suits their needs. But all seem to agree on one point. The bigger the casket display room, the better. The proper display room size for maximum financial return, must be large enough to allow for maximum flexibility in casket display. An area of 50 square feet of display space for each unit is needed to display each casket advantageously. (4:274) The operator should have on display 20 to 25 caskets. (4:275)

Size: Room to display 25 caskets

Area 1250 square feet

Equipment: Casket moving equipment

Circulation: Room to move caskets from storage to display and from display to dressing

Adjacent Area: Dressing room

Casket storage room

Near slumber room

4.19 Casket Storage

This area is used for receiving caskets, inspecting for freight damage and storing all caskets which are not to be displayed immediately.

Size: Unpacking and inspection areas

Storage room for 25 adult caskets, 8 childrens caskets,

Area 800 square feet

Equipment: Work bench for opening and inspecting casket shipments

Three-tiered wall racks to store caskets on

Circulation: Wide aisles to move caskets around

Wide doors to move caskets in and out

Adjacent Area: Service drive

Casket display

4.20 Rest Rooms

The rest rooms will be located in two areas. One in the area adjacent to the preparation room and employees lounge, to be used by the employees only. The other is a single rest room to be used by the family from the family room only. Near this toilet should be public restrooms located near the entrance foyer.

Mens: Two lavatories

Two urinals

Two water closets

Women: Two lavatories

Two water closets

Powder room and lounge

4.21 Employees Room

This room will be used by the employees for relaxation when not needed for work. It can also be used as a waiting room for the ministers, organists, singer, etc. before the funeral service. This area generally includes a small printing press and a copy machine and small bench for sorting.

Size: Area 200 square feet

Equipment: Seating for six people

Small storage cabinets and shelving

Coffee urn

Small sink

Television set

Adjacent Areas: Near chapel

Near rear of home

4.22 Mechanical Room and Work Area

This area is the general work area for minor building maintenance, working on personal hobbies during slack hours, etc. It is also to be used for storage of a large lawn mower - snow plow machine for grounds maintenance.

Housed in this area also will be the mechanical and air-conditioning equipment for this portion of the building.

Two separate mechanical areas will be used, this one, and a smaller one located nearer the chapel, and servicing heat and air-

conditioning for the chapel and family room only.

The heat control for the building will be accomplished by using three separate thermostats, (1) for the chapel, (2) offices, and (3) preparation room and associated areas.

Size: Air conditioning equipment

Heating facilities

Utility meters

Sewage pump

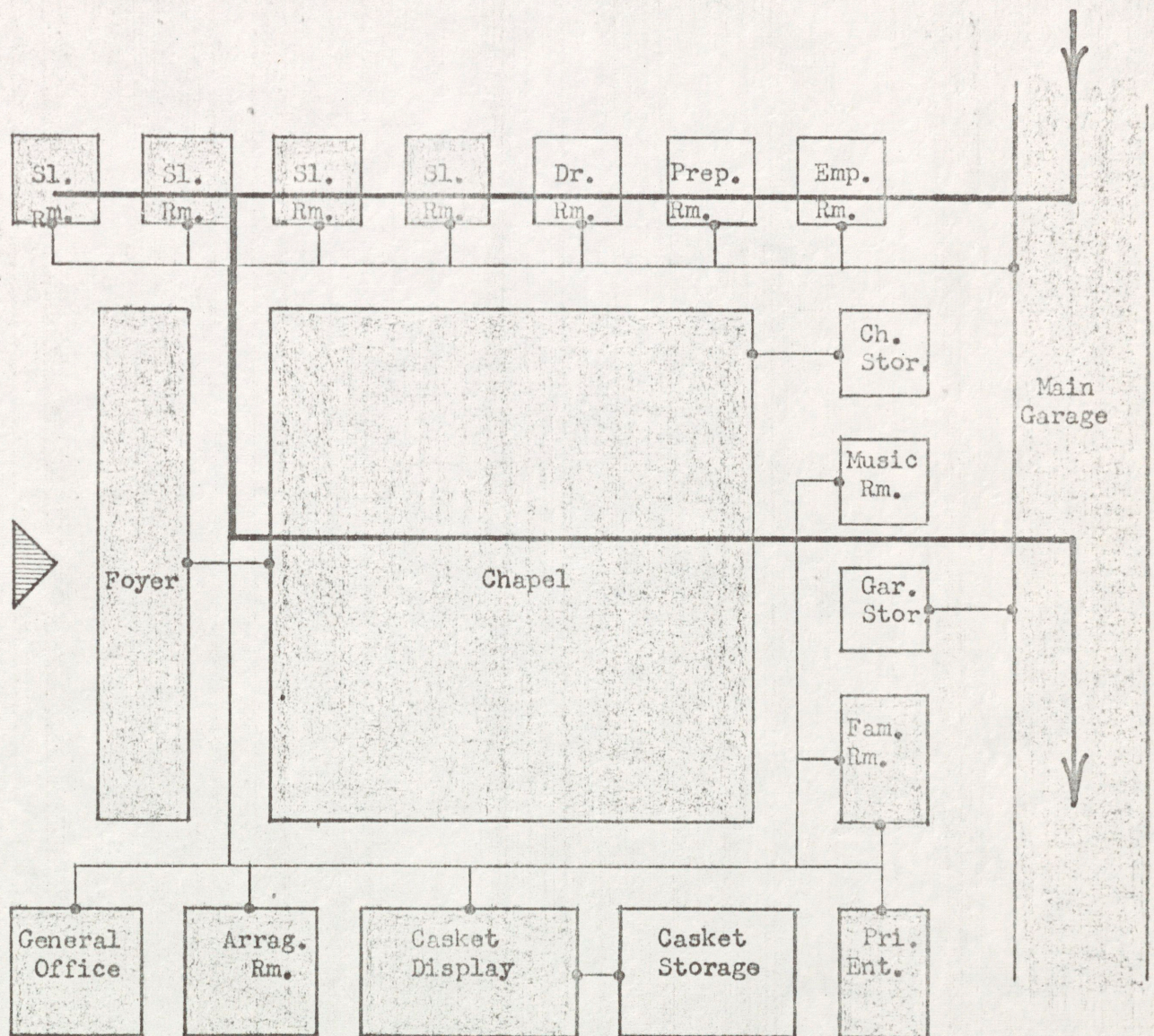
Adjacent Area: Private entrance

Accessible to main section of the home

4.23 Parking

The parking area for a funeral home is a very important consideration in the preliminary building functions. The parking lot must have easy access from the main highway, it must be designed with adequate individual car room so as not to make parking difficult for the average individuals, and it must function well with the funeral procession. Special landscape and design considerations therefore must be given to the entrance and the exit.

The parking lot must also relate well to the main garage for maximum effectiveness. The lighting in the parking lot will be used mostly by the people who want to pay their respects to the deceased while they are awaiting the final services. According to "Successful Funeral Service Management", 90% of all the people coming to "view" the remains visit during the evening or early night hours.



Flow Diagram - Mortuary



Public Areas

Route of the deceased

AESTHETICS

5.0 CHARACTER OF THE BUILDING

Aesthetics of any building should be an expression of its nature.² The aesthetics of this building cannot be resolved until the nature of a mortuary is determined. A mortuary is a building which prepares a human body for final services and final resting either by burial or by cremation. As a building in which the final services will be conducted the building must evoke a feeling of dignity, integrity, and final repose.

In addition to the character of the building considerations, the designer must also visualize his project as part of a total environment, for not only will the environment influence the mortuary, but the mortuary will also influence the environment.

The mortuary deals with people who are very serious in their intent to "do their best by the deceased, loved one." Therefore, the buildings character must reflect this same promise to the public, a promise of solemn seriousness.

The shapes or the forms of the physical facility the designer creates, how he admits natural light, the color and texture of the material he builds with, are also important considerations.

At this writing it is impossible to say precisely how the character of the building and its objectives will be achieved. It is likely however, that the most important tools for the character of the building exterior will be shape or form in conjunction with color and texture of the materials used. Within the confines of the building or buildings, should I decide to separate functions into separate

buildings, the media of expression will probably be manipulated to achieve the desired atmosphere.

5.1 The Mortuary as Part of the Environment

To neglect the surrounding environment is an easy way out for an architect. This often results in conflicting elements within the environment. The successful designer must recognize his building as an integral part of a total environment, and design it as such.

A particular problem of the proposed site is that it is presently on the outer limits of a secondary business district and in the middle of a small wheat and pasture area. Also, to the east lies a slowly expanding residential area.

An easy way out for an architect would be to design this structure to make a very bold statement and neglect the environments on both sides of the site. But in doing this he is also not considering the fact that, with time, these two environments are going to join together creating a very dominant element in a business district or a residential area.

So, perhaps the building should make a quiet, dignified statement and include an intent to be somewhat transitional in character. By doing this the structure will fit into the environment much easier, and later blend into these environments when they do meet.

5.2 Conclusion

The materials, the forms, and the colors of the mortuary should be indigenous with those in the natural environment. But harmony may also be concluded from variety and if a total departure from the shapes and colors suggested from the landscape is made, this might also be a valid solution. By this, I mean rectangular or circular slopes, a total disregard for colors of the landscape by using blacks, whites, and one color, structural steel instead of wood. This also is a valid solution.

5.3 Illumination Considerations

Skillfully incorporated lighting can make funeral services more meaningful and help to enhance the architectural design of the space. Properly designed lighting can give depth, can subdue or accentuate and perhaps change the accent of materials. In this problem I hope to skillfully use such lighting as I have designed for the various functional spaces in the mortuary. Accents will be achieved by the use of dimmer switches within the chapel and foyer area, and by the use of tinted light sources. An example of this tinted light is the very light pink bulb currently recommended by morticians in the casket room, slumber room and focused on the deceased during the funeral service. The pink enhances and accents the casket colors, and at the same time gives the exposed portions of the deceased a more "natural appearance."

The illumination in a mortuary must be an aesthetic consideration as well as just utilitarian lighting. It is used to create a mood or atmosphere for the people attending the funeral, paying respects to the deceased before the service, or while making the arrangements for a funeral.

The exterior lighting should be less of an utilitarian lighting and more of an aesthetic design. This will help to give the building more of a special building atmosphere rather than a dimly lit, sombre appearance.

The interior illumination will closely follow the recommended levels of illumination as stated in IES Lighting Handbook.

Levels of Illumination - (Interior)

1. Chapel
 - a. altar - 100 fc.
 - b. worship - 15 fc.
2. Garages
 - a. entrance - 50 fc.
 - b. storage - 10 fc.
3. Preparation room - 100 fc. - 1000 fc.
4. Entrance foyer - 30 - 50 fc.
 - a. lobby - 50 fc.
5. Offices - 100 fc.
6. Corridors - 20 fc.
7. Parking area - 15 fc.

5.4 Acoustical Considerations

The acoustical considerations will become more apparent during the actual design of the mortuary, and will be accomplished mostly by the selection of materials to reinforce or absorb sound. The juxtaposition of these materials also will enhance the acoustical qualities of the rooms.

Those areas where special acoustical considerations must be made are the family room, the arrangement room, the slumber rooms and the employees lounge. These are the only areas where noises can originate which will cause discomfort to the public.

The exact treatment will be part of the final design and will be directly influenced by the placement of each room in relation with the others.

ECONOMICS

6.0 ECONOMIC CONSIDERATIONS

The financing of a new home for Dahl and Vial could be accomplished by one of four different ways.

1. Dahl and Vial could incorporate themselves for the purpose of raising capital to build the new home. After getting the states approval, they could sell stocks to investors. This stock would be redeemable for the face value plus interest after so many years, and only to Mr. Dahl.

2. They could offer for sale to the public a certificate of \$1000, which could be redeemed in so many years for the face value plus interest, or they could keep the certificate and receive a \$1000 funeral.

3. Dahl and Vial could apply for a Small Business loan, thru the Small Business Administration, but this group would have the power to impose certain restrictions, such as site selection, building size, materials used, etc. which, frankly Mr. Dahl is not interested in.

4. It is also possible to get some bank to set up a bonding program. The bank would then sell these bonds to investors who would be interested in this type of a business venture.

Dahl and Vual would purchase the plot of land on North 7th. This would be possible, according to Mr. Dahl, with the aid of one of the above mentioned financing methods, and further aided when Mr. Vernon Vial joins another firm in Billings. The business relationship between Vial and Dahl is about to dissolve because the principals

agree there is just not enough business to support three incomes.

The current plans of the Dahls are to buy out Mr. Vial's interest in the firm. The monetary percentage of the business which previously went to Mr. Vial is tentatively planned to be set aside in a building fund, which will create another source of money to draw from should they decide to construct a new building.

Because a mortuary is not listed in Marshall-Stevens, I have placed the building in the category nearest its function, that being a "public building". I have also not given the building an exact classification such as Class "A", Class "B", etc., because this will be "pre-conceiving" a design concept which I wish to avoid in the written portion of my thesis. But, in the final design, the building will be placed in one of the following categories:

1. Class "A" - fireproofed structural steel frame
with reinforced concrete or masonry floors
and roofs
2. Class "B" - reinforced concrete frames and concrete or masonry floors and roofs
3. Class "C" - masonry or reinforced concrete exterior walls and wood or steel roof and floor structures or slab on ground
4. Class "D" - wood or steel frame and roof structures (13.9)

The cost of the different "classes" of building will vary according to the type of construction used. The type is determined by the construction, being excellent, good, average, low cost, etc.

Other factors involved in the cost evaluation are exterior wall construction, interior finish, lighting, plumbing and mechanical, and heat.

A class "A" building will vary in cost per square foot between \$33.51 to \$15.01, class "B" varies from \$31.20 to \$14.20 per square foot, class "C" varies from \$24.21 to \$8.92 per square foot, and a class "D" varies from \$19.33 to \$7.68 per square foot. (6:12)

6.1 Construction Costs

Because this mortuary is to be located in an urban area, the various construction materials such as concrete, steel, wood, brick, etc., are readily available. This product availability should provide a competitively priced product of good quality.

Labor, skilled in all trades are available in Bozeman, and specialized craftsmen can be easily brought in from Helena, Butte, or Billings.

6.2 Site and Site Improvement Costs

The site is cleared to bare earth, has gas, electricity and sewers. Landscaping, driveway and parking lot paving and illumination will be required. Some sidewalks will also be needed.

6.3 Operation and Maintenance Costs

The operation of the building costs will have to be reasonable

enough so that the owner can keep overhead costs down and maintain his prices on a competitive level with Dokken and Nelson Funeral Home. The materials and equipment used in the building should be durable so that a minimum of maintenance is needed to keep the home attractive and clean.

6.4 Building Cost Estimate

The cost of improving the site includes such items as excavation, fill, paving, and landscaping. Since these are design elements, they have not yet been established. Therefore, it is impossible to accurately determine the cost of the site work.

The shape, materials, colors, are also design elements and since they have not yet been established, I have added 50% to the present area of Dahl and Vial and used this figure of 7,500 square feet plus the figures and multipliers suggested by the Marshall Valuation Service Handbook to estimate the cost of the mortuary.

I chose a class "D" classification, because it includes indegious materials such as wood, stone, etc., the other classes do not. It also allows me a choice of wood or steel as a structural system.

The cost per square foot of class "D" varies from \$19.33 to \$7.67. I chose the figure \$15.50 from the chart on "Class D" construction on page 35, of Marshall Valuation Handbook, which is designated as "good construction" to calculate the building cost.

Because this is a rough estimate, I chose \$30,000 for the site work which should be generous enough to cover all site improvement

costs. All other figures were taken from Marshall Valuation Handbook.

Site Cost	\$ 30,000.00
Site Improvement Cost	10,000.00
Class "D" Construction Cost per sq. ft.	15.50
Current Cost Multiplier	0.99
Local Multiplier	1.04
Floor Area Perimeter Multiplier	.897

Site Cost	30,000.00
Site Improvement Cost	10,000.00
Building Cost	<u>107,250.00</u>
TOTAL COST	\$147,250.00

6.5 A Crematorium

In my original proposal I stated that I would like to include a crematorium if it was economically feasible. After various conversations with many funeral directors residing in Montana, I have come to the conclusion that it definitely is not economically feasible and that there will not be a need for another one in Montana for many years to come. I base my conclusion on the following information.

Montana has a very low death rate 8.5 when compared to a national death rate of 10.1 per thousand. This means that for every 1000 people in Montana only 85 deaths will be recorded for that year, versus 101 deaths nationally.

Montana has a current population of about 660,000 people, or an estimated 5,600 deaths per year.

"Cremations in the last fifty years have shown a slow growth. At the turn of the century less than one per cent of the nations dead were cremated. By 1950 the figure had risen to about 3.8 per cent. (28:21) Since then, although the number of cremations has increased, the proportion of cremations to the number of deaths has declined. (28:22)

The cost of an actual cremation ranges from \$35 to \$100. Calculating the per cent of cremations times our 5,600 annual deaths the estimated number of cremations would be only 168. This times the median figure per cremation of about \$65.00, brings an estimated \$10,920, per year.

Presently Great Falls has the crematorium which the Gallatin County morticians send the remains to be cremated.

If Bozeman were to build a crematorium, and it received 50 per cent of the states business, the projected yearly income would only be about \$5,400. Adding the cost of someone to operate and maintain this crematorium and the building's operating expenses, it would be economically and unsound to build a crematorium. Therefore I conclude a crematorium is economically not feasible for Bozeman in the near future.

A MORTUARY

ARCH. 490

THESIS SUMMARY

Ron Patterson

My final solution was based on many personal experiences in visiting several mortuaries throughout Montana. Death seems to have become surrounded with an awesome, somber, almost macabre atmosphere. In my thesis I propose several variations from current practice which I believe will make death much easier to cope with and possibly to understand.

One of my proposals is to cut down the time expended in the personal services of the morticians. This is achieved first of all by causing the route of the deceased to not double back upon itself. Also the functional arrangement of the mortuary was designed in such a manner, that the rooms occur where they are functionally needed and not just where they might work. Another proposal is to have all of the car maintenance done in the private garage. This garage would include an automatic car spray, vacuum, etc., for the cleaning and care of the vehicles. This leaves the main garage to function as a vehicular display room instead of a second garage. All garage doors incorporate a specially designed door which will slide horizontally to open and remove from sight the usual drab appearing garage doors.

The plan also incorporates a viewing room which is located directly at the entrance to the chapel. The deceased will be viewed prior to the services, then the casket is sealed for the final services, and carried to the altar. This will allow the minister to arrive a few minutes before the services and then not have his time wasted while everyone files by to "view the deceased." The ministers I spoke to were very enthusiastic about this proposal.

After the services, the family often needs some place to go to make a few personal arrangements with other family members while waiting for the

casket and flowers to be placed in their respective cars. I have therefore, provided a special family lounge, located between the family room and the vehicular display area. This area also has private toilet facilities.

To remove the mortuary services from the usual rectangular, very poorly lit space, I have caused as much natural light as possible to enter into the chapel area. The side windows would be a bronze or warm amber color, and the area behind the altar would be a clear cathedral glass, which will play up the underside of the decking and hopefully give the entire chapel a natural lighting.

The traffic patterns to the mortuary are separated into two patterns. Upon "first call", the mortician will take his family car to the home of the deceased, there he will bring them to the home via North 7th Avenue and the curved drive to the 7th Avenue entrance. He will park under a canopy extending from the entrance out and over the drive. The family also will be picked up an hour before the final services and have the option to be left off at the main entrance or in the vehicular display room.

The family and friends will have the option to park in a pre-arranged processional parking area or to park alongside the street and avenue. The parking arrangement on-site is designed to help cut down the time wasted in developing the funeral procession.

The lobby is broken up into two entrances and a seating area. The area was designed intentionally large to effect a gathering area for friends before and after the services. Most of the morticians I spoke to felt that the lobby should be one of the largest spaces in the mortuary.

The coffin display room has a small lounge just as the family enters the room. This casual lounge would help to reduce the uneasy feeling, and also afford a place for older or over-wrought persons to relax while they are selecting a casket.

The viewing room was designed also as an overflow area for unusually large crowds. After the deceased has been taken to the altar, temporary seating would be placed inside this room, the draperies would be pulled and the people within this room would be able to watch the services through the screen which makes up the north wall of the viewing room.

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REFERENCES

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