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BOZEMAN

GALLATIN COUNTY FAIRGROUNDS REDEVELOPMENT

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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CONDITIONS CREATING A NEED

In years past, Bozeman has utilized its fairgrounds for many and varied things; for instance, at one time it was used for a landing strip for light airplanes and before that it was the site for one of the most popular rodeo stops on the Western circuit. Many ideas for the fairground have flourished for short periods but have died because of poor long range planning, war, and lack of community interest and involvement.

Traffic of autos and pedestrians coming to and within the grounds now is poor, and somewhat hazardous, the projected plan will develop the traffic flow to accommodate the crowds by linking the grounds to major arteries of the city street system and the new interstate highway.

The grounds and fair buildings are property of Gallatin Coun-

ty, and it is also financed and maintained by the County.

The present fairground, located on the northern edge of Bozeman, has been spared some of the ills of the past because of a few interested and active fair board members, such as Francis Niven, who has directed its development in the last few years; they have tried to maintain a year-round total community involvement. Mr. Homer Fisher is presently in charge of the fairground and lives on the site; he is responsible for much of the foreward thinking and action that has developed the grounds and buildings.

Though much has been accomplished toward a better fair and fairgrounds, there are also many things that must be done to maintain the growth that is necessary to keep community interest and involvement at an optimum level. It is this community interest that creates a need for renovation, new buildings, and a master plan.

The present buildings at the grounds are old, widely separated, do not function well in a total group, and for the most part, are unsanitary and hazardous because of the possibility of fire. The present facilities are also inadequate in size for the volume of people and livestock which are present at the peak load time of the fair. In the past, the facilities have been used primarily once a year for the fair and have not received full use the year around.

The new plan will develop buildings and grounds for better year-round use, that is the Winter Fair, 4-H summer shows and the like.

PROJECTION OF STRUCTURES TO BE BUILT

To date, almost all of the buildings on the fairground site are sheet metal which has been placed over old, wood frame structures, or they are metal quonset huts. The addition of sheet metal to the wood frame buildings has increased their life several years, depending on the individual unit. However, they are now inadequate either in size or quality which renders them almost useless as far as function is concerned.

I propose a program which will phase-out the existing buildings and replace them with a new pavilion, livestock buildings, and a commercial display area. In the same period of time a race track-grandstand complex will be constructed with space for a carnival and a midway site.

All of the buildings will be of a permanent, low maintenance expense type; whereas, the present buildings, which are now too small, were temporary and are difficult to maintain.

LOCAL CONDITIONS

In 1864, John Bozeman brought a wagon train from the East over the Bozeman Pass into the valley where his friends, W. J. Beall and D. E. Rouse had staked-out the townsite for the city of Bozeman. Nelson Story brought the first cattle herd from Texas; thus, began the cattle industry which has made the valley flourish. Agricultural crops were exported to the mining cities of Virginia City, Butte and Helena.[1]

The location of Bozeman is in the Gallatin Valley in the southwestern portion of Montana. The exact location being 45° 42' North Latitude and 111° 3' West Longitude at an elevation of 4,793 feet above sea level.[2] Bozeman proper is, for the most part, surrounded with mountains; to the east is the Bridger Range, to the

[1] Chamber of Commerce, p. 1.
[2] Ibid., p. 1.

south is the Gallatin Range, and to the southwest are the Spanish Peaks. From the city of Bozeman, the Gallatin Valley stretches to the west.

The Gallatin Valley was a lake bed during the latter part of the Tertiary period. Following the formation of the lake, an immense shower of fine volcanic ash (dust), probably wind-borne from the south, fell on this area and the lake surface. This loess deposition on the lake bottom, is primarily a fine-grained deposit and is the parent material for the greater portion of the valley's soil. Sometime since the lake was formed and the volcanic silt was laid-in, an outlet formed at the northwest corner and released a vast amount of water, creating much surface erosion and deep stream cutting.

Basically, the economy of Bozeman and the Gallatin Valley is supported by these three main activities: agriculture in the form of wheat and cattle, Montana State University, and tourism. Montana State University, founded in 1893 as a land-grant institution, is the largest single business in the area and contributes $22 million annually to the economy. This includes the spending of some 6,500 students and faculty.

The population of Bozeman proper, as presented by the U.S. Census Bureau:

YEAR	POPULATION
1940	8,665
1950	11,325
1960	13,336

If the population increase of 28.4% in the period between 1950-1959 continues at the projected level, the population will be:

1970	17,130
1980	21,980

The Gallatin County population as it has been published by the U.S. Census Bureau:

1940	18,269
1950	21,902
1960	26,045

With the population increase of 19% in the period between 1950-1959, the projected population densities will be:

1970	31,050
1980	37,850

Montana State University has also predicted, unofficially, an enrollment of 10,000 students by 1980.

The climate of Bozeman and the valley is generally that of a high north-western mountain valley in character and is quite similar to other intermountain valleys of the Northwest. Temperature ranges are highly variable and are subject to extreme daily and seasonal changes. Daily differences of 30° F. are not uncommon in the Winter and Spring.

Winds are variable in movement and direction; in the daytime, the prevailing winds are out of the West and Southwest, which at night often shift to the Southeast. Storm winds are generally out of the East while the warmer "chinook" winds are out of the Southwest.

The annual mean temperature recorded at Montana State University is 43° F. A February average minimum of 13.8° F. and average maximum of 33.8° F. create a mean temperature of 23.8° F. for the month. The July average minimum is 51.3° F. and the average maximum is 81.5° F. with the monthly mean of 66.4° F. Often there are extreme periods of hot and cold temperatures; the coldest ranging from -20° F. to -47° F. while the extreme hot days can range as high as 100° F.

The killing frosts may be expected, on an average, from September 12 through May 28. The average frost-free season extends over a period of 160 days in Bozeman.

The average annual precipitation for the city is 17.35 inches of moisture. Much of this moisture comes in the form of snow, the average snowfall being 73.1 inches per winter.

Other than the college, agriculture is the biggest business in the valley. It is for this reason that a great majority of the people of Gallatin County are interested in all the aspects of

agriculture, and this is the reason why the Gallatin County fair is agriculturally oriented. Livestock, poultry, grains, farm equipment and other handicrafts are the major entries in the fair.

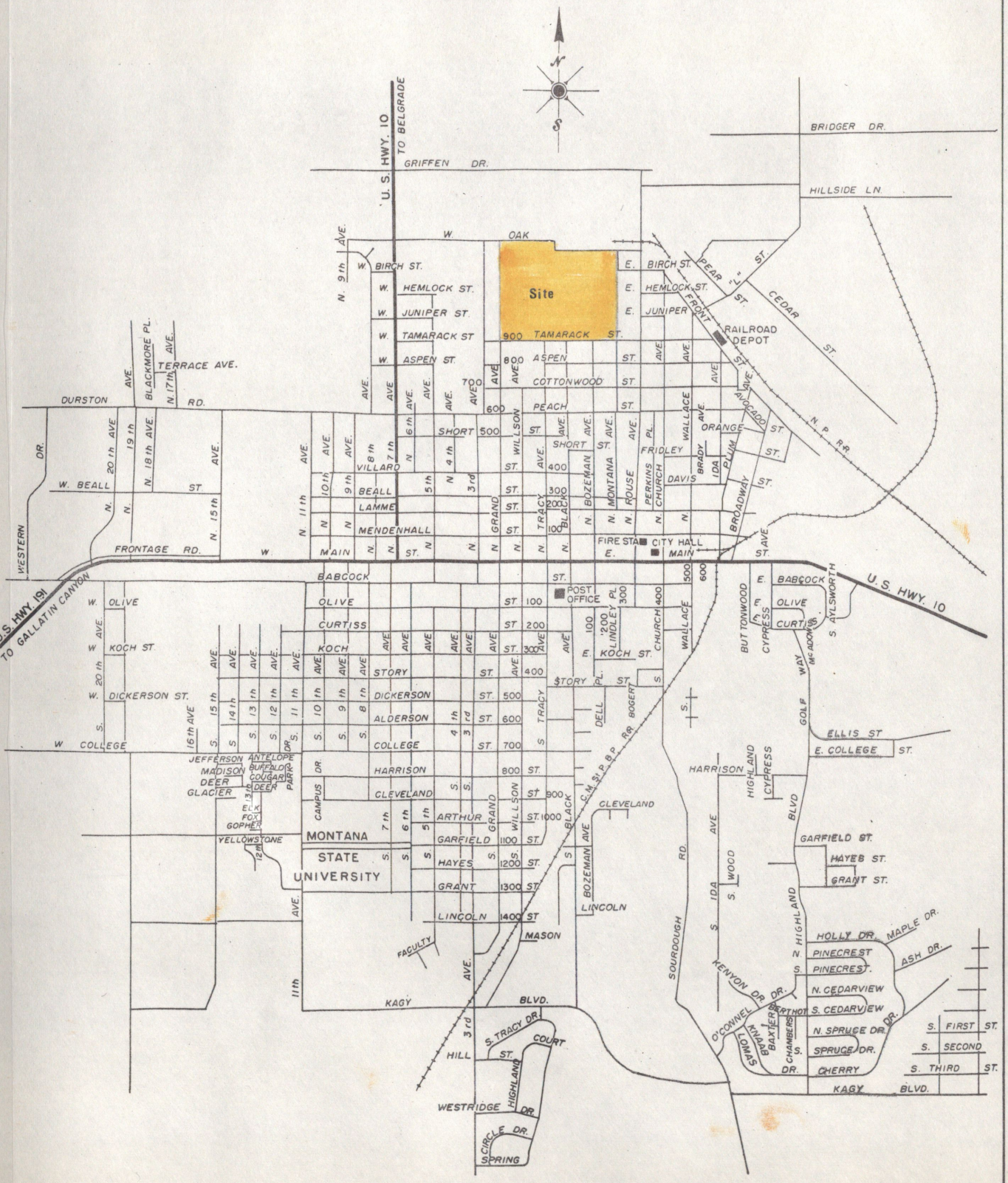
SITE CONDITIONS

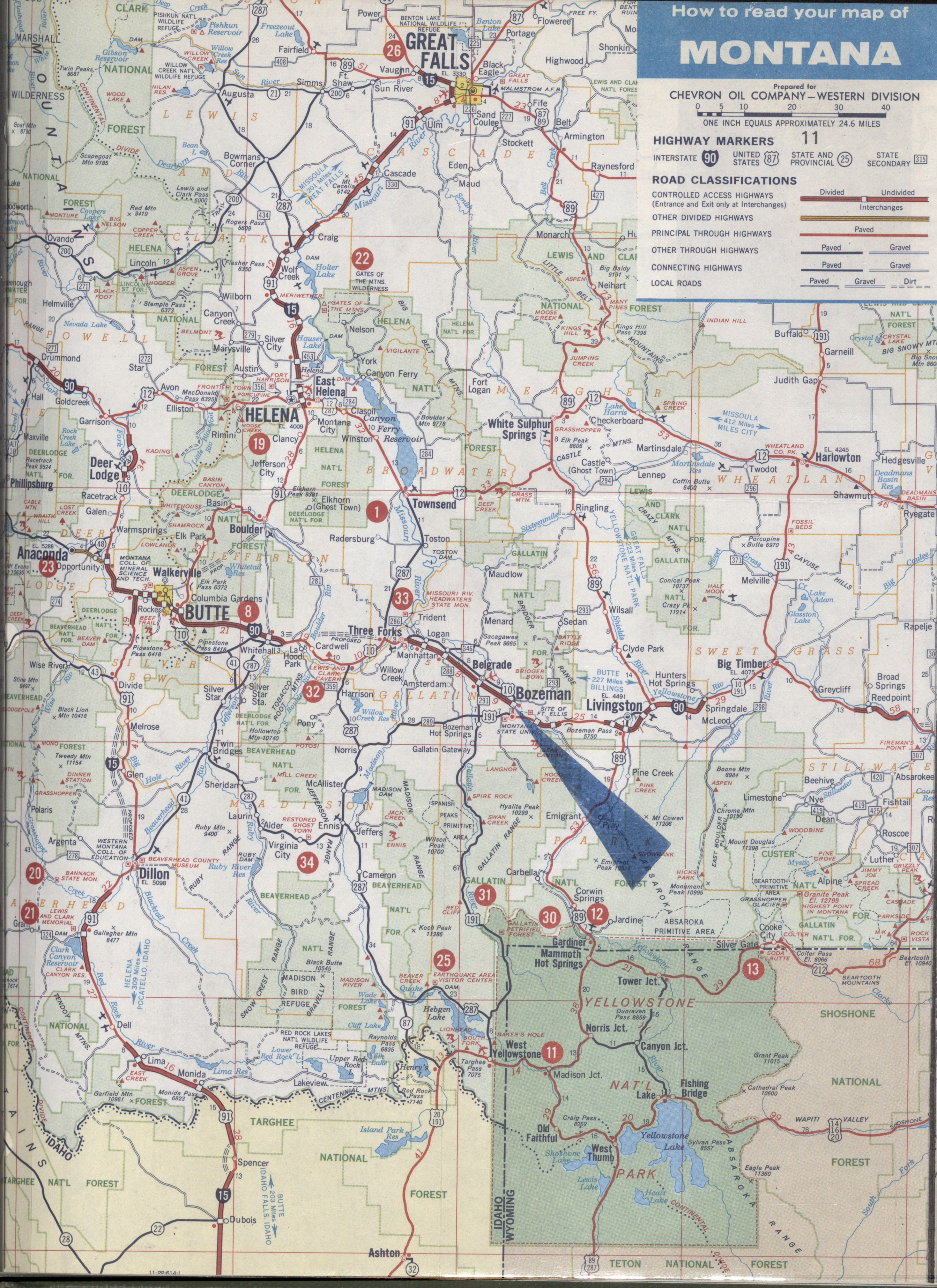
The present site of the Bozeman Fairgrounds, owned by Gallatin County, is on the northern edge of the city. This area will also be utilized for the proposed new fairground.

The location of the site is in the area between Oak and Tamarack Streets on the north and south respectively. The western side is bounded by the Gallatin County Service Shop and the eastern side is bounded by the Bozeman Division of the Montana State Highway Commission. (See map 1, page 10.)

The overall dimensions of the site are 1777.9 feet on the south side, and 1493.3 feet on the west side. The other two sides have slight irregularities giving a total of 57.7 acres to the site. Elevation of the area taken at the center of 4760 feet above sea level.

MAP OF BOZEMAN MONTANA

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MONTANA
Prepared for
CHEVRON OIL COMPANY—WESTERN DIVISION
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ONE INCH EQUALS APPROXIMATELY 24.6 MILES
HIGHWAY MARKERS
11
INTERSTATE 90
UNITED STATES 87
STATE AND PROVINCIAL 25
STATE SECONDARY 315
ROAD CLASSIFICATIONS
CONTROLLED ACCESS HIGHWAYS (Entrance and Exit only at Interchanges)
Divided
Undivided
Interchanges
OTHER DIVIDED HIGHWAYS
PRINCIPAL THROUGH HIGHWAYS
Paved
OTHER THROUGH HIGHWAYS
Paved
Gravel
CONNECTING HIGHWAYS
Paved
Gravel
LOCAL ROADS
Paved
Gravel
Dirt
GREAT FALLS
HELENA
BUTTE
Anaconda
Bozeman
Livingston
Big Timber
Harlowton
White Sulphur Springs
Townsend
Three Forks
Deer Lodge
Dillon
Virginia City
Ennis
West Yellowstone
Gardiner
Mammoth Hot Springs
YELLOWSTONE
NAT'L
PARK
Yellowstone Lake
SHOSHONE
NATIONAL
FOREST
TARGHEE
NATIONAL
FOREST
IDAHO
WYOMING
Ashton
Dubois
Spencer
Monida
Lima
11-PP-614-1

Vegetation on the site is sparse, only small amounts of grass and weeds exist, except for a few acres of alfalfa on the northeast side. There are no outstanding features on the grounds, it is flat and barren except for the fair buildings on the southwest side.

Soil conditions: the top soil on the fairgrounds site has been, for the most part, removed and replaced with twelve to eighteen inches of pit-run gravel with an inch of finer gravel as a topping. This has been done to prevent mud puddling and facilitate surface drainage.

The water table is not particularly high in the area as can be seen in the excavated pit on the north edge of the grounds. The highest visible water mark is approximately six feet below grade and its depth is relatively constant across the total site, according to Mr. Fisher, the secretary-manager of the fair board.

The site slopes from south to north at an almost even rate of 42 inches every 300 feet which assures good drainage. Soil core borings were taken by the state in this area, they are illustrated on page 13.

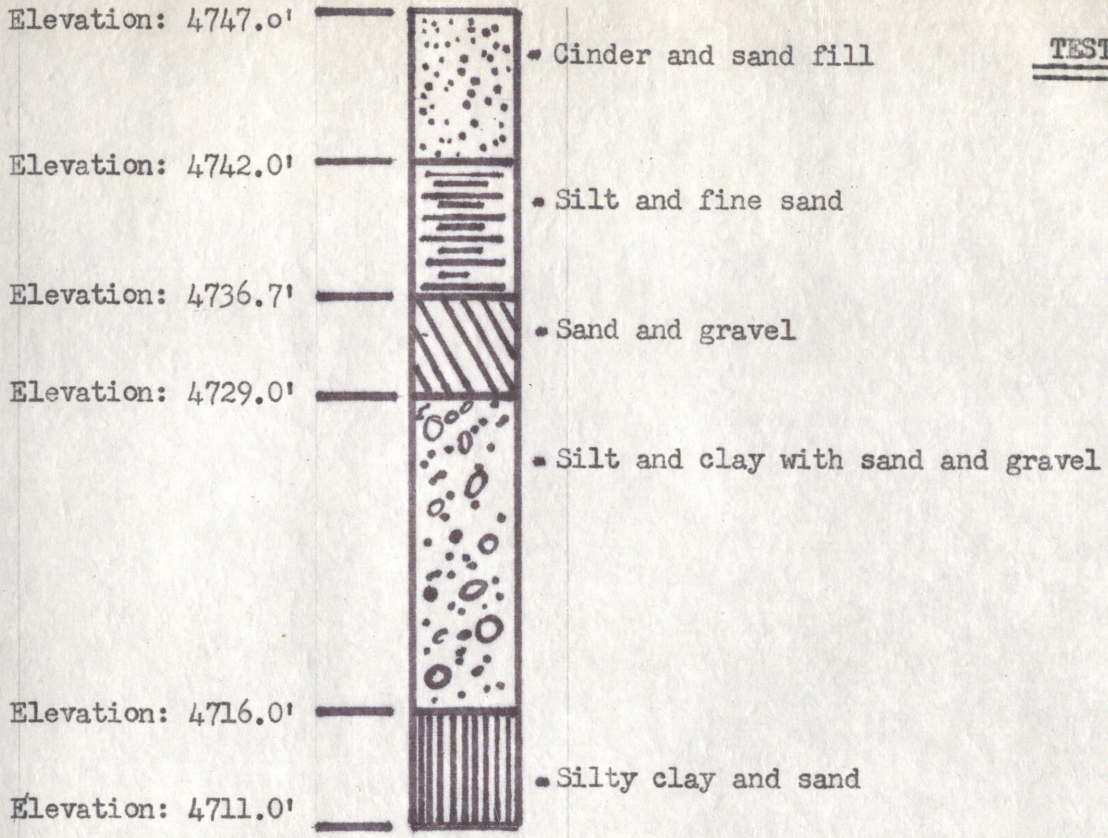
Located far from any stream or river which might overflow, the fairground is safe from run-off created by heavy rains.

Traffic flow: for some years, the major direction of Bozeman's urban growth has been toward the south. Very little growth, other

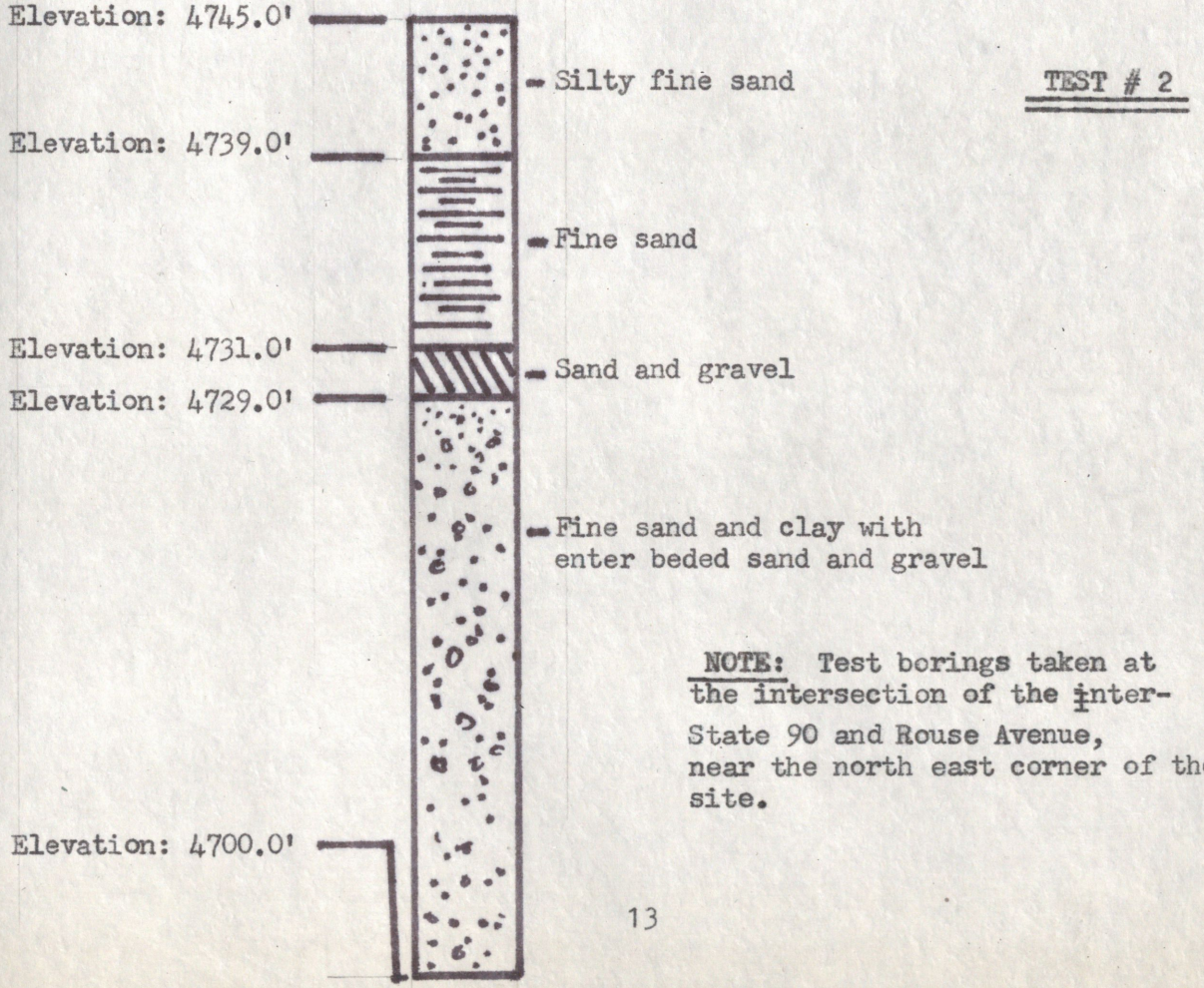
SOIL BORING TESTS

By the Montana State Highway Department.

SOIL BEARING CAPACITY:
2.9 Tons/sq. ft.



TEST BORING # 2



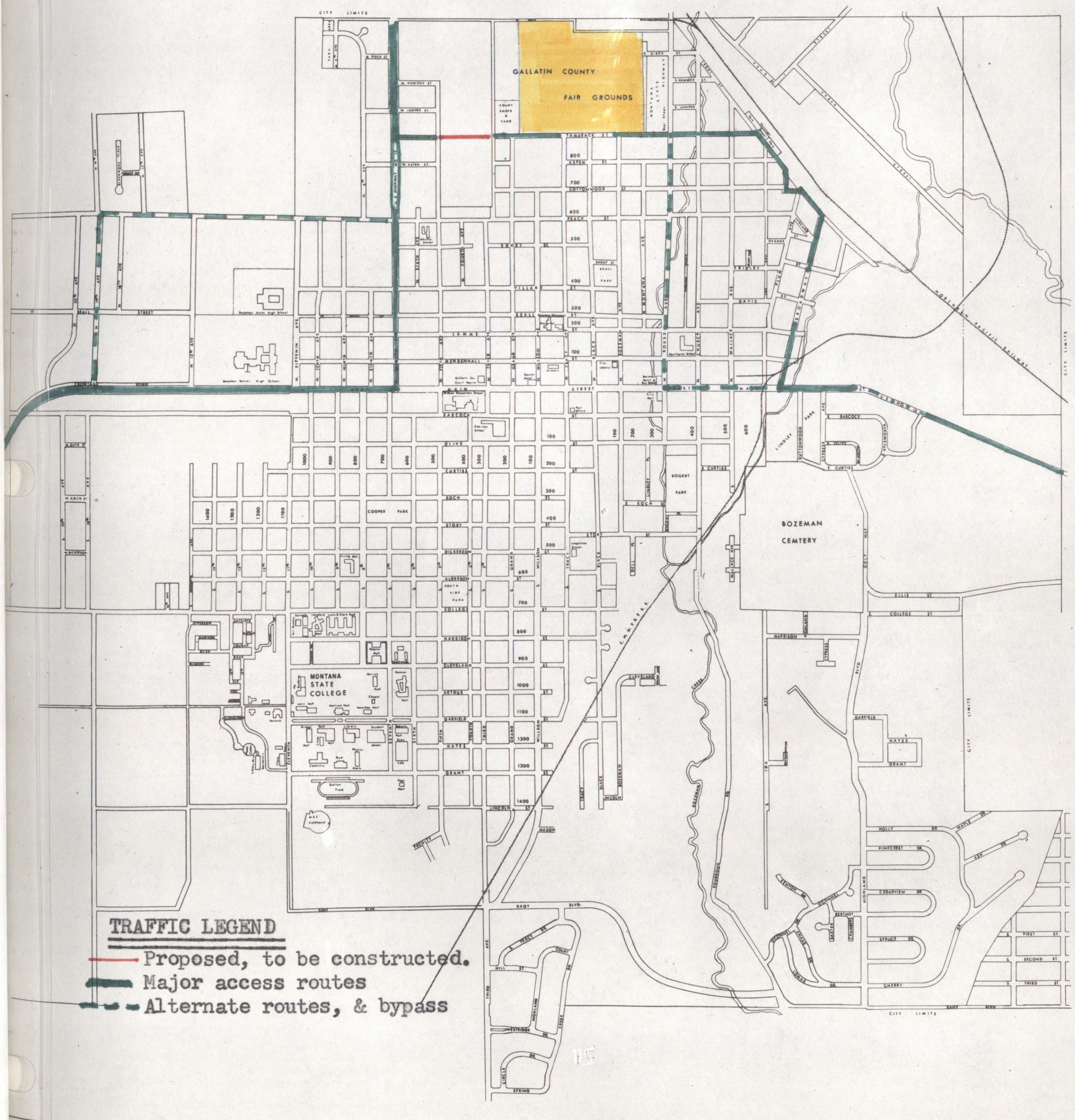
NOTE: Test borings taken at the intersection of the inter-State 90 and Rouse Avenue, near the north east corner of the site.

than commercial, has developed around the fairground leaving it on the "edge" of town and to some degree isolated from most of the city's residential area. There is an older residential area to the south of the site but it poses little problem to major traffic arteries. (See map 3, page 15.)

All traffic coming from the north will exit off U.S. highway 10, the old highway to Belgrade, or the Interstate 90, on to North Seventh Avenue and from there to East Tamarack Street, which will soon be a through street to the fairground. Traffic from the east will be routed off U.S. Highway 10 to Broadway, to Front Street, to East Tamarack and the fairgrounds. All traffic from the south and west will come in on U.S. Highway 191 to North Seventh, to East Tamarack and hence to the fairgrounds. These traffic patterns will eliminate the difficulties of people passing through the main business district and many of the residential areas. (See map 3, page 15, for the proposed routes.)

At present there are no city building codes which could be imposed on this particular site as it is owned by the county and the county places no restrictions by code on its own land. However, the city engineer has requested adherence to the Uniform Building Code. The site is within the city limits and is presently connected to all of the public utilities such as water, sewer, gas,

CITY OF
BOZEMAN
MONTANA.



telephone, and electricity. The fairground is also protected by the city police and fire department.

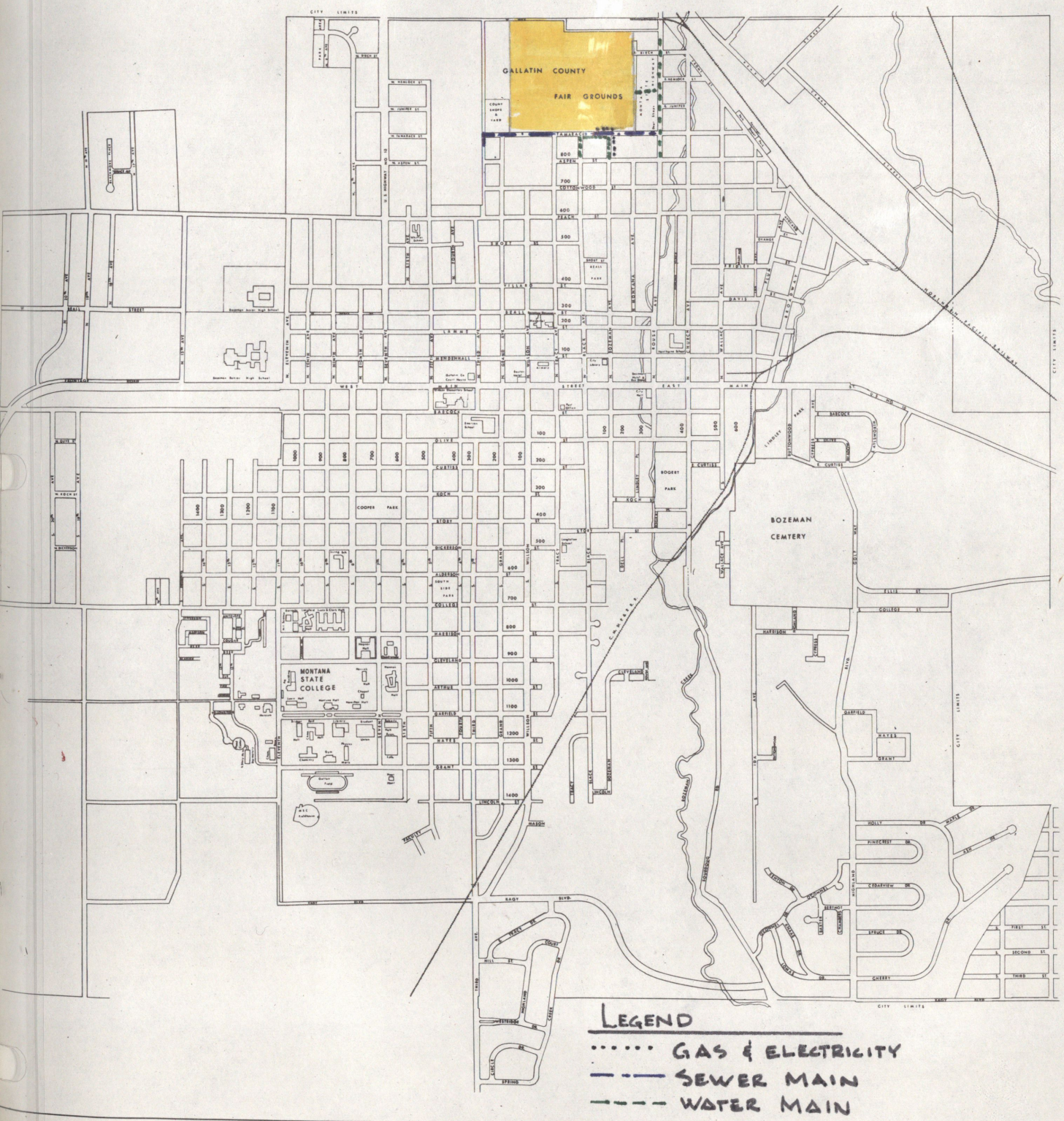
The fairground is zoned according to city regulations and is therefore within its legal limits of use.

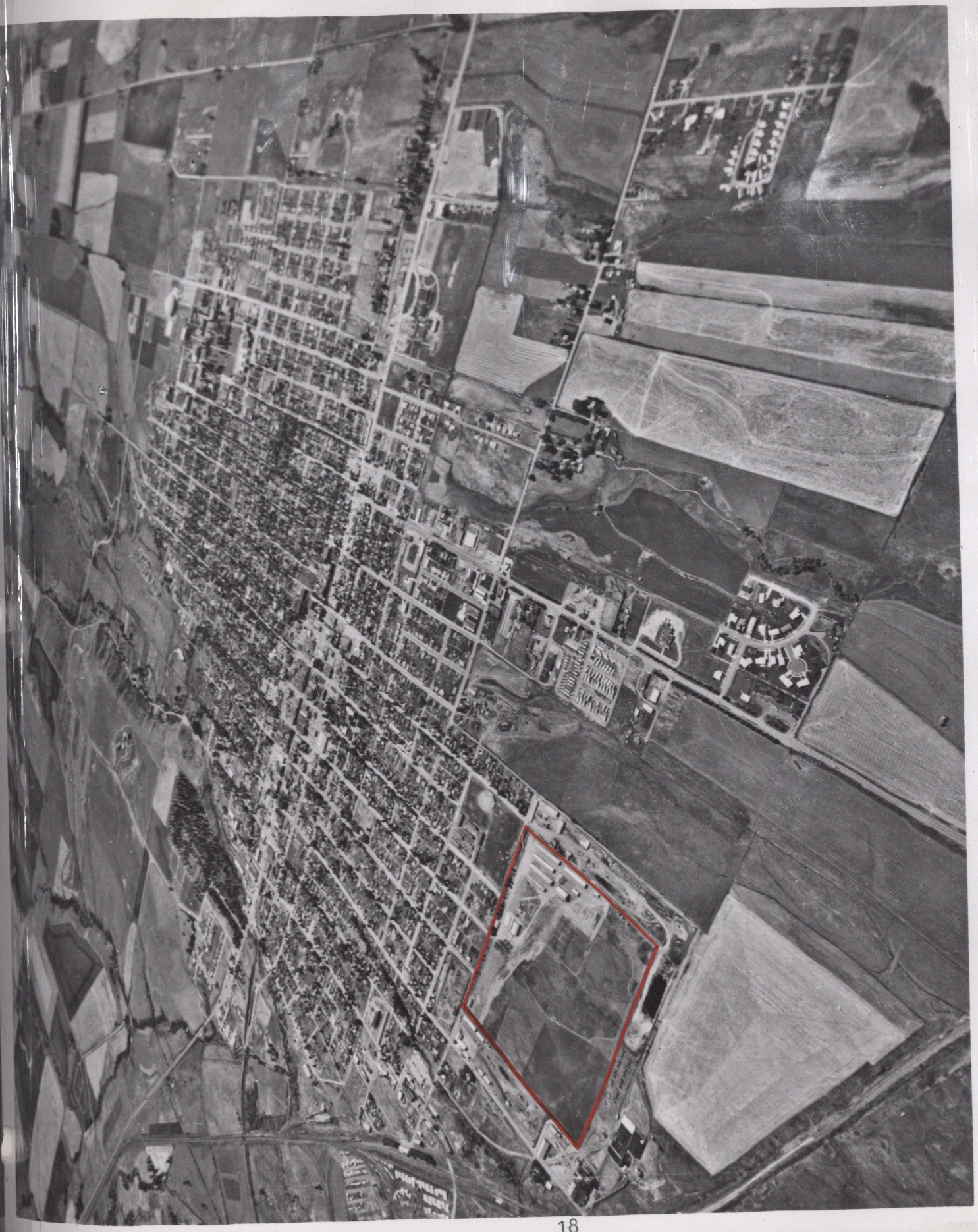
Land use within the fairground is exclusively for fair activities. Seventeen buildings are on the grounds -- they consist of livestock barns, show pavilions, and a residence. There is also a small open-air arena that is used for rodeo events.

Parking for fair activities will, for the most part, be contained on the site but any overflow can be absorbed by utilizing on-street parking in the areas of North Grand, North Tracy, North Black, North Bozeman and East Tamarack Streets.

Information concerning sun angles, traffic flow, and Bozeman area maps are on following pages.

CITY OF BOZEMAN MONTANA.

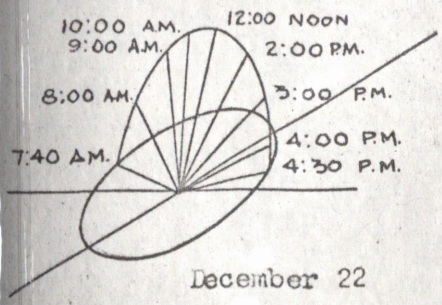




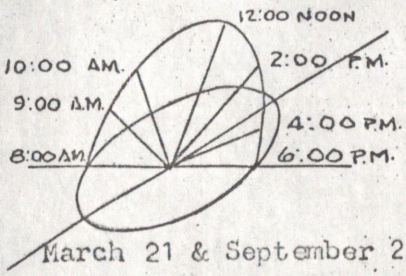
Department

SUN ALTITUDES AND AZIMUTHS

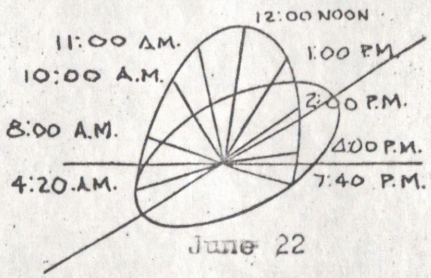
Bozeman, Montana has a latitude of 45° 36' north and a longitude of 111° 5' west, the following are altitudes and azimuths of the sun for Bozeman as part of the design criteria.



December 22



March 21 & September 23



June 22

December 22

	TIME	AZ.	ALT.
AM	7:40	124°-30'	0°-0'
	8:00	127°-30'	2°-30'
	9:00	139°-0'	10°-00'
	10:00	151°-30'	16°-00'
PM	NOON	180°-00'	21°-30'
	2:00	208°-30'	16°-00'
	3:00	221°-00'	10°-00'
	4:00	230°-30'	2°-30'
	4:20	235°-30'	0°-00'

March 21 & September 23

	TIME	AZ.	ALT.
AM	6:00	90°-00'	0°-00'
	8:00	112°-00'	20°-30'
	10:00	141°-00'	38°-00'
PM	NOON	180°-00'	45°-00'
	2:00	219°-00'	38°-00'
	4:00	252°-00'	20°-30'
	6:00	270°-00'	0°-00'

June 22

	TIME	AZ.	ALT.
AM	4:20	55°-30'	0°-00'
	8:00	93°-30'	37°-30'
	10:00	121°-30'	57°-30'
	11:00	145°-30'	65°-30'
PM	NOON	180°-00'	68°-30'
	1:00	214°-30'	65°-30'
	2:00	238°-30'	57°-30'
	4:00	266°-30'	37°-30'
	7:40	304°-30'	0°-00'

View across the Fairground toward the northeast, with livestock barns in the foreground.

View to the southeast of rodeo arena and livestock barns.

View of the Bridger Mountains from the center of the site.

View toward the southwest from the top of the water tower.

Panorama of fairgrounds from western boundary to the northern boundary.

Residence and office

Men's and women's restrooms.

Exhibition Building at the right.

Sale Pavilion and one livestock barn

East enterance to the grounds.

FUNCTION

The success of the Bozeman City Fairground has been greatly aided by its ability to remain flexible over the years and it is my opinion that it must remain this way to continue its growth. "A master plan, to be truly successful, must be flexible; it must be continually reevaluated in light of events and trends of the future which were not ascertainable at the time the plan was formulated."[3]

The function of the master plan is to set guide posts for future development of the fairground facilities and the site in general. This master plan of the grounds will separate the site into four distinct areas: the display pavilion, the livestock area, the race track with grandstand, and the parking area.

[3] Gerckins, Lauerence C., Lewis and Clark County Fairgrounds, General Plan, March 1960.

This master plan will develop the existing buildings and the new structures and the flow between them on the site.

DISPLAY PAVILION

The display pavilion will function as an area to house commercial displays, school and special group display, agricultural display, livestock judging (arena), food sales and dispensing, public lavatories, administrative offices, and a first aid room. This building can be used throughout the year not only for the Winter Fair, but for groups such as the 4-H, Future Farmers of America, Western Plywood Association, local business groups, and church organizations. (These other groups will reduce the expense of having the building being vacant between winter fairs.)

COMMERCIAL DISPLAY

This area will function as sales and display space for commercial exhibitors. A large area will be provided for this display as each year the number of applicants for space in the fair far exceeds the available present space.

The area for display must be extremely flexible in order to accommodate the changing yearly exhibits of businesses. The space to be provided will lend itself to easy partitioning and the floors will be of materials for the use of heavy loads. All of the finish materials should be of sufficient durability to withstand

rough usage over a long period of time.

This area will be used to display light agricultural equipment, dairy equipment, light trucks and autos, and in general business displays.

SCHOOL AND SPECIAL GROUP DISPLAY AREA

This area should function as a display area for Bozeman and any outlying groups for the display of handicrafts, i.e., Boy and Girl Scouts, 4-H groups, church groups, and civic groups. This would primarily be set aside for nonprofit organizations.

AGRICULTURAL DISPLAY

An agricultural center for this area, Bozeman is in a good location for farm display. Home making skills as well as crop exhibitions are very popular in this area; they are really of prime importance.

LIVESTOCK JUDGING ARENA

The arena will serve as an area for the judging, viewing and selling of cattle, pigs, sheep, and horses. The seating of this area should be at least, for several hundred people. Also needed are a judging platform, and weight scales, and station must be provided.

FOOD SERVICE

Presently, food service facilities are practically non-existent.

This structure should be as far away from livestock and contaminated areas as possible, yet it must still be in the mainstream path of the people. Both counter and sit-down spaces must be provided.

ADMINISTRATIVE OFFICES

The purpose of the office is to provide space for the fair manager. The manager must have a one central place for his materials and meetings. Thus allowing for a more efficiently organized fair. Not only is efficiency the key word here but also expense. The necessity to travel back and forth when there is no central office, is expensive and time consuming. This office might be used for fair ground meetings and other committee meetings and also other community projects requiring space for several hundred people. This office will house the communications system which will connect with the following facilities: the grounds, the livestock barns, sales arena, race track, public address box, first aid rooms and the caretaker's house. There must be at least one outside entrance and exit for this office.

FIRST AID ROOM

The first aid room would be used for emergency use only. It must be easily accessible from all parts of the fair grounds and from inside the main structures. An exterior door sufficient to allow an emergency exit for an ambulance is a necessity. This room

should be equipped with a minimum of two cots, a lavatory, first aid supplies, and a large storage area.

DRESSING ROOMS

Contestants for rodeos and races will need an area for preparation and cleaning up before and after shows. The dressing room must therefore have showers, toilets, and locker space. This room will also act as an emergency room for the race track area.

CONCESSION STANDS

The function of this area is for the preparation and sale of food. It will be minimal as the larger food area will be within the pavilion.

LIVESTOCK BARNS

The existing barns will remain; they will serve as display areas for cattle, sheep, hogs, and horses. The area will be phased out for future replacement with new and better barns.

AESTHETICS

The present fairgrounds was never really designed for beauty, only function. The buildings are old and have been painted, stuccoed, or metal clad since their construction, which has resulted in a conglomeration of rather homely buildings that can only serve in relative degrees of efficiency.

It would be expected that any structure designed to display and attract fair-goers should be attractive in itself; and furthermore, if the adage is correct "Beauty begets beauty" which hopefully, by environmental contact, would beget bigger and better fairs through its beauty. This beauty or aesthetics can be created by developing the existing Bozeman Fairground land into a well planned and organized unit including the structures as an integral part. The surrounding beauty of the mountains and hills also affords added beauty and

should be considered through the design stages.

The livelihood of the fair, stems mainly from the commercial and non-commercial exhibitors which are both agriculturally oriented in the Bozeman area. There should be a link between the aesthetics and agriculture as it is the major function of the fairgrounds; however, the general character of the total fairground will strive toward a festive and gay nature that is typical of this type of activity. The festive atmosphere can be achieved through the use of dynamic shapes, vibrant color, and exciting spacial relationships.

Fairs have always depended on stimulants to increase activity, sales volume, and general interest. The stimulants have been such things as rock and roll bands, bright lights at night, and the festive colors that are associated with the fair type activity. One of the stimulants that has taken a step forward in recent years has been in architectural expression which has become the highlight of recent fairs such as Seattle's Fair and Canada's Expo. The Bozeman fair buildings need a great deal more of this stimulant; I plan on adding enough flair to initiate the interest that the winter fair and other activities deserve. An innovative structure may or may not create a nostalgia for the past but it usually invokes feelings of vigor, excitement, and agressiveness which are all desirable in a competitive fair atmosphere.

The character of the site should also affect the emotions of the people wandering on it; and the image of the fair activity should be reflected and organized by the flow patterns created. On approaching the grounds, an observer should be aware of the entrance and of course, that he is approaching a fairground. Graphic design will aid greatly in aiding the newcomer by using color codes and pictograms. Also, the space relationships within the site will almost automatically denote special relationships found at a fairground, large open spaces, the relationship and sizes of buildings and landscape.

The landscaping will help eliminate the pandemonium and confusion created by the present lack of any guidance or order on the site, and since the site is used a great deal in the winter, evergreen trees, which are native to this area, could be used for year-round foliage. For the summer and fall, shade trees would be advantegeous to keep the grounds cool, while adding a park-like atmosphere.

Once a person enters the site from the street or parking lot, he must meet his expectations of a fair atmosphere. The first thing he will see or will catch his eye is the buildings in the area, it is therefore necessary to have an aesthetically pleasing structure. The character again should be expressive of the western agricultural

fair, but should be as progressive as the out-going rancher.

The buildings, especially the pavilion, should try to capture the spirit and pride of the "Big Sky Country" which is in essence the spirit of the westerner in Montana.

Materials used for the construction of the pavilion and other buildings should be as durable as possible as the requirements of the space will demand flexibility and change which is hard on finish materials. Also, the use of materials of the local and characteristic of the rugged area that Bozeman is located should be used to give an air of familiarity to it which would be accepted by the people of this part of the country.

ECONOMICS

To maintain and sustain the fairgrounds, the administration, or fair board, must prepare an annual budget in advance of the yearly appropriations and it is submitted to the county for prescribed limits set by the county appropriations.

The fair board has seldom requested more funds than have been made available to them. This is not typical of other county facilities which usually request more than the available funds. The financial limits imposed upon the county facilities, including the fair grounds, because of the limited capital available make progress difficult and frustrate any good building program.

The board can only hope that the design presented for the fairground expansion would be powerful enough, within the limits of financial feasibility, to make the public feel the gains were too

valuable to pass up. In addition to this, a well organized promotional program would aid in informing and convincing the residents of the county of the benefits of the future expansion.

The financing of any additions to the fairgrounds which would exceed the annual budget limit would require a considerable amount of political and economic dealings. Mr. Harold Fryslie, the Assistant City Manager of Bozeman, explained that there are at least four approaches to financing the future development of the grounds and construction of buildings. They are: 1. The Bond Issue. 2. The Revenue Bond. 3. City-County Bonding. 4. Contributions and Donations.

1. BOND ISSUE: A bond issue is a means of taxation, a property tax, which is voted upon by the residents of Gallatin County, it is also termed as a "General Obligation". That is, all taxpayers in the county would be assessed if the issue were passed at an election. This form of financing is strictly on a county basis and must be supported by a mill levy, and according to Mr. Homer Fisher, one mill has a revenue of $25,000 plus per year.

2. REVENUE BONDS: Revenue bonds, somewhat similar to the bond issue, are different in that revenue bonds are issued subsequent to the bond election. As the term "revenue bonds" implies, the moneys that are funded to the project would be repaid from the

rental use of those facilities, thus becoming a self-liquidating project, in whole or in part.

3. CITY-COUNTY BONDING: This type of fund raising is possible through city-county cooperation. The facilities to be built would be funded through taxation of the Gallatin County and the City of Bozeman, although it is not necessarily a 50-50 proposition. If the city would receive the greatest amount of benefits from the fairgrounds expansion, Bozeman would be expected to pay the greater share of the taxes. However, as the fairgrounds are used extensively by the residents of the whole county, it is most probable that a greater share of the funds would be levied on a county-wide basis.

4. CONTRIBUTIONS AND DONATIONS: The fairgrounds are used extensively by both large and small organizations having in some cases, large amounts of money that could be pursued as an additional income. The Cattlemen's Association, is a good case in point. There is also a possibility of private contributions by interested area residents.

To arrive at an accurate cost analysis for the fairground development would be difficult at best, and to project areas to arrive at a capital-outlay without a certain amount of preliminary design would be guessing. I feel that the best approach here is to arrive

at a cost per square foot for all building types and site development.

By using Marshall Valuation Service to arrive at construction costs, a square footage cost estimate can be arrived at; the "Calculator Method" of estimating will be used. Various building types have been typed by Marshall and unfortunately show pavilions are not included, but this can be rounded by using a similar type structure. So far, the pavilion I will use a good comparable commercial auto show room, class "C" Construction.

PAVILION: . . . . . $14.62/sq. ft.

Local multiplier ... 1.04 X $14.62 = ... $15.20/sq. ft.

Current cost multiplier ... 1.00 X $15.20 = . . $15.20/sq. ft.

Total square foot cost for show pavilion space . $15.20/sq. ft.

ARENA: Use class "C", good auditorium at

$455.00 per seat or the square foot cost

of . . . . . $24.59/sq. ft.

Local multiplier ... 1.04 X $24.59 = ... $25.57/sq. ft.

Current cost multiplier ... 1.00 X $25.57 = . . $25.57/sq. ft.

Total cost for the arena in pavilion . . . . . $25.57/sq. ft.

LIVESTOCK SHOW BARNS: Use livestock, farm

utility building as the comparison; good,

class "C" construction with plumbing . . . . $ 4.00/sq. ft.

Local multiplier ... 1.04 X $4.00 =. . . . . $ 4.16/sq. ft.

Current cost multiplier ... 1.00 X $4.16 = . . . $ 4.16/sq. ft.

Total square foot costs for the farm buildings . . $ 4.16/sq. ft.

Landscaping costs which are not included in the above costs will cost on the average of $ .20/sq. ft., also the fire sprinkler system was not included in the above costs and it will run at $ .53/sq. ft. on all buildings that quarter livestock.

Total costs can not be arrived at until preliminary design work is completed, then the tax bill could be assessed.

THESIS SUMMARY

A master plan for the Gallatin County Fairgrounds has evolved from my thesis research which stated a need for a flexible area capable of containing the existing livestock barns, a new display pavilion, a racetrack with grandstand, a midway area and a service area and parking areas. The second criteria for this master plan is to keep pedestrian circulation as simple and direct as possible. The third criteria is to maintain flexibility for expansion in the future. It is from these guides that my site plan has developed using the total site.

The design for the Display Pavilion has grown out of Gallatin County's need for a simple structure, adequate in size for displays, yet versatile enough for a multi-use building.

Prestressed-precast concrete forms the simple structural frame; post tensioned concrete purlins and roof deck slabs complete the roof and structural system. Insulation of the roof and acoustics problems are solved with the use of tectum as an interior finish. The exterior roof is covered with a butyl membrane.

The 50,000 square feet of display area contained in the pavilion is an increase of 90% over the three existing display buildings.

Because of the increasing demand for areas to race snow machines, horses, and cutters, a race track and grandstand have been added to the fairgrounds. The grandstand, positioned so as to have the sun at its back, overlooks the race track which parallels the natural contours of the land.

The midway-plaza area will serve several ends. First, it will serve as the focus of the pedestrian circulation and it will serve as the midway during the summer months. In the winter, it will serve as the outdoor display area for the winter fair, and is also the area in which the fair can expand.

A service area has been created on the site by centralizing the three shops on the present fair grounds and the apartment-office. They have then been moved to one location on the north edge of the site. From here, the caretaker can have ready access and control of them.

Parking, which to date has been "any way and any where," will now be condensed into two areas having a capacity for 900 vehicles.

INTERVIEWS

FISHER, HOMER - Secretary Manager of Gallatin County Fair Board
901 North Black Avenue

FRYSLIE, HAROLD A. - Assistant City Manager, City of Bozeman
206 South 8th Avenue

NIVEN, FRANCIS L. - Montana Winter Fair Past President
618 North 17th Avenue

FARGO, ROMAN C. - Bozeman City Engineer, Bozeman City Hall

SELECTED BIBLIOGRAPHY

City of Bozeman Chamber of Commerce. Basic Information for Bozeman, Montana, Gallatin County and Trade Area. Bozeman, Montana, 1968.

City of Bozeman, Engineering and Inspection Department. City Utilities Map. Bozeman, Montana, 1968.

Gerckins, Laurence C.. Lewis and Clark County Fairgrounds. Montana State College Fairground Project, Bozeman, Montana, 1960.

Marshall and Stevens. Marshall Valuation Service. Los Angeles: Marshall and Stevens Publications Company, 1968.

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