

URBAN PLANNING & DESIGN COMMITTEE

AIA



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BUTTE—RUDAT

Regional/Urban Design Assistance Team

SUMMARY REPORT

on

BUTTE, MONTANA

Date of visit - June 10-13, 1972

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Sponsor - Butte-Silver Bow City-County Planning Board,

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FOREWORD

HISTORY OF RUDAT PROGRAM

An area of great interest to the American Institute of Architects and to architects throughout the world is that of helping to solve the problems, not only of our cities, but the problems of our total environment. An important committee at the national level of the AIA is the Urban Planning and Design Committee. The work of the committee is extremely broad, including that of formulating and proposing legislation at the national and state levels down to assisting in achieving the implementation of far reaching design solutions aimed at improving the environment.

The need was felt in many communities, especially by the architects and planners in these communities, that assistance in the form of outside expertise could help re-focus the eyes of the community on the problems that confronted them and perhaps help to develop some new thinking that would stimulate the imagination of the community and add impetus to their planning activities.

The idea of a visiting team of eager architects/planners to assist an ailing community, at the city's invitation, and through a quick two or three day reconnaissance to arrive at a series of recommendations to help stir public action, was born out of discussions in the Urban Design Committee in 1967. Teams vary in their make-up and numbers and in their qualifications or special expertise depending on the type of community or region to be examined.

Then called UDAT, the word regional having been added in 1971, the first team descended upon Rapid City, South Dakota in June of 1967.

The following additional cities and one county have been visited since that time :

Frankfort, Kentucky - November 1967
Flint, Michigan - October 1968
Bellefonte, Pennsylvania - October 1968
Mason, Michigan - April 1969
Redmond, Washington - October 1969
Lynn, Massachusetts - December 1969
Akron, Ohio - January 1970
Ely, Minnesota - July 1970
Davenport, Iowa - September 1970
Falls Church, Virginia - May 1971
Fairfax County, Virginia - Spring 1972
Clearwater, Florida - Spring 1972
Gainesville, Georgia - Spring 1972

The teams in the eleven visits prior to the Fairfax County visit consisted of from two to five persons. Twenty-two different architects participated, of which six were members of both AIA and AIP. One straight AIP planner participated at Flint, Michigan, while two traffic consultants participated at Flint and at Lynn, Massachusetts. At Falls Church an economist was included in the team. The Fairfax County visit in the Spring of 1972, the largest team to that date, consisted of 8 persons - 2 architect/urban designers, 2 architect/planners, 1 planner, 1 traffic consultant, 1 economist and 1 ecologist.

Teams are selected by the RUDAT Committee Chairman, at the present time, Architect Henry Steinhardt of Seattle. Because of Butte's particular problems, Mr. Steinhardt very wisely added a geologist and an ecologist to the team which was otherwise made up of five architects and architect planners.

OBJECTIVES AND LIMITATIONS

The objectives of the Assistance Team is that through new eyes, persons not familiar with the perhaps long-standing community problems, a fresh approach can be seen that will pick up the spirits of the community and give new enthusiasm to the professionals who have been grappling with the details. The reconnaissance study by the RUDAT team, in its very short visit, can only look at the broad picture. It cannot provide detailed analysis of problems nor detailed solutions. On the other hand, it is meant to be innovative and hopefully, come up with ideas and directions, keys for future in-depth studies, around which the community and the interested governmental agencies and officials can rally. The RUDAT team should provide a spark of excitement to the community and should create an enthusiasm in the citizenry, an urge for action. Recommendations from the team should be sweepingly bold to stir the community's imagination, yet practical enough to be readily understood and capable of accomplishment.

The limitations, of course, are that in the time of such a short visit, with only a summary briefing of the problems confronting the community, the team's suggestions can be only of the broad brush type, hopefully with strong design implications, ideas that can be refined into new city forms suited to the community to enhance its living environment. The discussions should help create a community planning and design conscience and awareness which can then lead to a definitive plan.

BUTTE RUDAT SCHEDULE

Friday, June 9th	Team arrives Welcomed by Sponsors Quick Bus Tour of Community.
Saturday, June 10th	Welcome by Mayor Briefing by Sponsors Bus-Plane Tours Interviews Elected Officials Major Community Employers Lunch-City-County Planning Board Interviews Community Department Officials Bankers & Financiers Merchants & Land Owners Unions & Contractors Historical & Local Interest Groups Working
Sunday, June 11th	Team on Own Bus & Plane Available Working Dinner - Hosted by Local Architects, Copper King Mansion
Monday, June 12th	Briefing Team & Sponsors Working Press Conference Preparation of Presentation Dinner Presentation

THE PROBLEMS AT BUTTE

Butte, Montana is a mining community situated in Silver Bow County just west of the main range of the Rocky Mountains known as the Continental Divide. The city itself has two geographical characteristics - the older section built on the side of a mountain and the newer developing area on the "flats" to the south.

Early growth was characterized by lack of city planning or development of the amenities for happy living. Because of extreme weather and working conditions the bulk of the population located around the many mine shafts dotting the hill. This condition has left the city with a collection of older, closely built homes constructed prior to 1929. Estimates indicate that approximately 65% of these homes are now substandard.

Butte is still a mining city and, unfortunately, its prosperity fluctuates with the industry. The other most powerful influence in this area is unionism - nearly fifty organized unions exist in Butte.

Probably the two greatest factors that will influence the future of Butte are the Berkeley Pit and the Interstate Highway. The Pit is a surface mining operation, the success of which will greatly affect this city. The position of Butte as the hub of the North-South-East-West Crossing of the Interstate system has given Butte the opportunity of developing new jobs and businesses, especially in the areas of services and recreation. Also located in this community is one of the nations finest technical colleges, the Montana College of Mineral Science and Technology.

Butte, the site of the "Richest Hill on Earth", has known great wealth, fantastic promise, some conflict, spasmodic growth, and intermittent decline and prosperity. In the beginning, the struggle to wrest the mineral riches from the soil so occupied and preoccupied the citizenry that growth was haphazard at best and little or no foresight was devoted to what the then prosperous community would look like a hundred years later.

From the day in 1864, when two prospectors from the famed gold camp at nearby Virginia City, Montana, found placer gold along the banks of Silver Bow Creek winding through the area, Butte has experienced many changes. As claim after mining claim opened up, and when shafts were being sunk all over the hill, it was only natural for miners to build their shacks, cabins and modest dwellings near the diggings where they worked. To this day, hundreds of old homes, still occupied, dot the hill and dip locations near the gallow frames of working mines.

Beneath the topsy turvey streets of Butte, mine shafts cross and crosscross one on top of another. If all mine shafts and tunnels were stretched into a single line, they would more than traverse the whole United States; more than 3,000 miles.

From July 1967 until March 1968 some 5,700 copper industry employees were idle in the Butte area. Silver Bow County and many parts of the State have periodically been hard hit by such strikes.

Butte's metropolitan area now has about 42,000 population, where a couple of generations ago it held 80,000 to 90,000. During the World War I period, there were 17,000 men working underground now, through automation and the introduction of mechanized open pit mining the underground force numbers about 1,500. Yet, there is no real feeling of despair. Rather, interest rides high for the future since there now is keen awareness of the need for community-wide cooperation in planning and action to develop the economy in modern form, in the needs for educational, health, public welfare, transportation, recreation, vocational education, better housing and improved city-county relations and programs in varied fields. One solid goal is the elimination of blight from many community areas.

Perhaps the greatest impact made by mining on the over-all life of the community came with the opening of the Berkeley Pit in 1955, an enormous, ever widening cavity. The east-west distance across the top of the pit is now more than a mile. The southwest-northwest distance is more than 4,000 feet. The depth, as seen from the observation platform, is now nearly 1,400 feet and eventually will reach 3,000 feet or more. All of this, a few blocks from the business district.

Mining continues to be the big industry in Butte. In 1966 the Anaconda Company handled 58.6 million tons of rock (165,000 tons a day) to produce 17.3 million tons of ore (48,000 tons a day) from which 240 million pounds of copper emerged. But, the city shares the company's concern about whether all this can continue at a profit. Preservation of jobs, business and pay-rolls, together with Butte's future well being, largely depends on it.

Butte people feel, however, that the future also depends on the proper development of the trade area. A firm plus, is the city's position as a hub on the interstate highway system, wherein it stands astride north-south and east-west intersections for the

transcontinental traffic.

Butte is the major city of Western Montana. It is the hub of mining, farming, livestock raising and timber area. It is the central economic center of several very large counties surrounding it. Butte provides modern well equipped and staffed hospitals and medical clinics; source of news and entertainment with its newspaper, radio and television stations; its many professional people provide legal, medical, dental, and educational services to far-flung thousands in the trade area, who live many miles away.

Again, mining isn't the only industry or business that keeps Butte on the move. The following is a list of the major employers and the number of people that they employ:

Victor Chemical Phosphate	302	Montana Power Company	360
Mountain States Tel. & Tel.	182	Safeway Stores	321
Burlington & Mil. R.R.	234	Finlen Hotel	40
Lee News (Mont. Std.)	120	St. James Comm. Hosp.	385
Silver Bow Gen. Hosp.	144	Four Local Banks	179
Montana Pole & Treatment	57	Rocky Mtn. Equipment	40
Butterys, Albertsons, Skagg	86	Newbro Drug Co.	30
Hennessy Company	110	Montana Hardware Co.	86
Burns Detective Agency	80	Eddy's Bakery	55
Montana Livestock Co.	84	Butte Water Co.	55
Penneys Store	39	Sears	40
K.B.O.W.	14		

In addition to its economic and industrial opportunities, Butte offers recreational opportunities which contribute to pleasant living. These include two golf courses, two ski areas, well developed; several service clubs, proximity to Yellowstone National Park on the south and Glacier National Park on the North. In the Pintler Wilderness area, 40 miles west, miles of fishing streams, lakes, and mountains attract the rugged sportsman.

Clustered around or bordering the City of Butte is one incorporated city, the City of Walkerville, and the following unincorporated communities of McQueen, East Butte, Dublin Gulch, Melrose, Divide, Rocker, Centerville, Nissler, Ramsay and the town of Silver Bow. These constitute the main centers of population in the County of Silver Bow.

Silver Bow County, unlike its expansive neighbors, is not large geographically, only 816 square miles, but in its limited space reposes the economic thrust of the entire trade area.

THE PROBLEMS OF THE CBD

City Government - The City finds the CBD property demanding more and more services but contributing less and less tax revenue. At an increasing rate the property is becoming tax delinquent. Commercial exodus from the CBD means loss to the City because relocation occurs outside.

Planning Board - Looking towards long range solutions for Butte's physical problems the Planning Board has officially stated (Land Use Plan - 1990) that the community should reserve land that is safe of mining activity for relocating the CBD. The Board believes the relocation will occur when businesses elect to move-profit motivated.

Land Owners - The CBD has an unusually high percent of absentee landlords. Generally this group wants to "milk" the property; also they do not invest towards long term investments.

Landowners who reside in Butte and conduct a business have not invested because the community's population has declined since 1920 and the property of absentee owners is plentiful and too cheap to compete with. This group is also fearful that the major magnets might move unexpectedly.

Merchants - The remaining merchants in Uptown Butte (CBD) are generally in the 50 to 70 year old bracket. The leaders of this group have expressed a "do nothing" attitude. "A couple more good years and I'll sell out", seems to be a common reply from CBD merchants.

Banks and Lending Institutions - Money lenders have been reluctant to back long-term investments in the CBD area. Generally speaking the only major long term investments in the CBD area within the past 10-15 years have been the building or remodeling of banks themselves.

Anaconda Company - Open pit mining operations are the threat to Butte's CBD. The company's land buying policy has been and seems to still be - buy land only as needed to meet the five year needs. The Company's offices are one of the major magnets of the existing CBD. Uncertainty of the Company's five year needs and when Anaconda's offices and others will move from the existing CBD is the fear of government officials, landowners and merchants.

RUDAT TEAM RECOMMENDATIONS

In the opening statement to those attending the RUDAT presentation, Chairman Meyer remarked, "A three day reconnaissance visit of this type can only skim the surface of some of the problems. In our sketches and schematics we will call to your attention some of the problems as we see them. We can, in this short time, only leave you with a series of question marks - answers to which will have to come from more intensive study and research which will have to be done by the Planning Board staff, their consultants, the Community Redevelopment Department, the Model Cities Agency and a myriad of other governmental, quasi-public and private businesses and corporations, the arriving at detailed planning projects and the implementation of them will only come about through the concerted effort of the total community at all levels.

"In order to arrive quickly to the alternatives and the suggested directions for growth we had to make a number of basic assumptions or pre-conditions, which we feel are essential to the successful pursuit of a plan. The committee consensus was as follows:

1. We believe that a very first step must be the consolidation of the present City-County governments into a new single unit of government that would have jurisdiction at least over the whole of the Metropolitan Area.
2. That there be created a new Quasi-Public Redevelopment Corporation to work cooperatively with private enterprise in achieving the physical aspects of the plan.
3. That the Anaconda Company will understand its position in the future of Butte and that its cooperation with the community in achieving its goals will be intensified, and vice versa, that the City will work with Anaconda to help it with its problems.
4. That each of the Labor Unions will understand better their position in the economy of Butte and that they too will work cooperatively in helping to steady the wavering economic picture.
5. That Butte will seek every means of outside assistance; State, Federal, Large Corporation, Foundations, Institution, etc., and become a virtual research laboratory or test case city for long range, innovative ideas for improving its environment, from new modes of transportation to new methods of handling water, sewerage and energy distribution, recycling, ect.. Many persons and large corporations are turning their efforts toward the solving of urban ills, Butte should take every

advantage of this fact and become as pioneering in this pursuit as were the miners of 1860's and 70's in their pursuit for copper.

6. That new industry be sought to achieve a balanced diversification. The proposed Transshipment Port and a concentration on Tourism is certainly a good start in this direction, and along with this could be the creation of a new 21st century identity for Butte.
7. And lastly, that a realistic attitude be assumed by the community in understanding the fact that most of the city is sitting directly on "The Richest Hill on Earth" and that one day, whether it be 2050 or 100 years hence, the entire hill will be mined and removed. This necessitates a plan for an intelligent phasing out of the existing development - not only the CBD, but residential and wholesale and commercial and industrial areas as well.

A very innovative long range plan can be the only answer."

Each team member was asked to present his views of the city individually and to make recommendations as he saw them. Because of the unanimity of thinking and the agreement on the major keys for future development the reports tend to reiterate similar points, but because each of the team members relates his views in a slightly different manner, and his emphasis might be in a slightly different place, the reports are included in their entirety. Following are their reports:

Butte, Montana
Regional Urban Design Assistance Team

Report by Dr. Edward T. Ruppel, Geologist

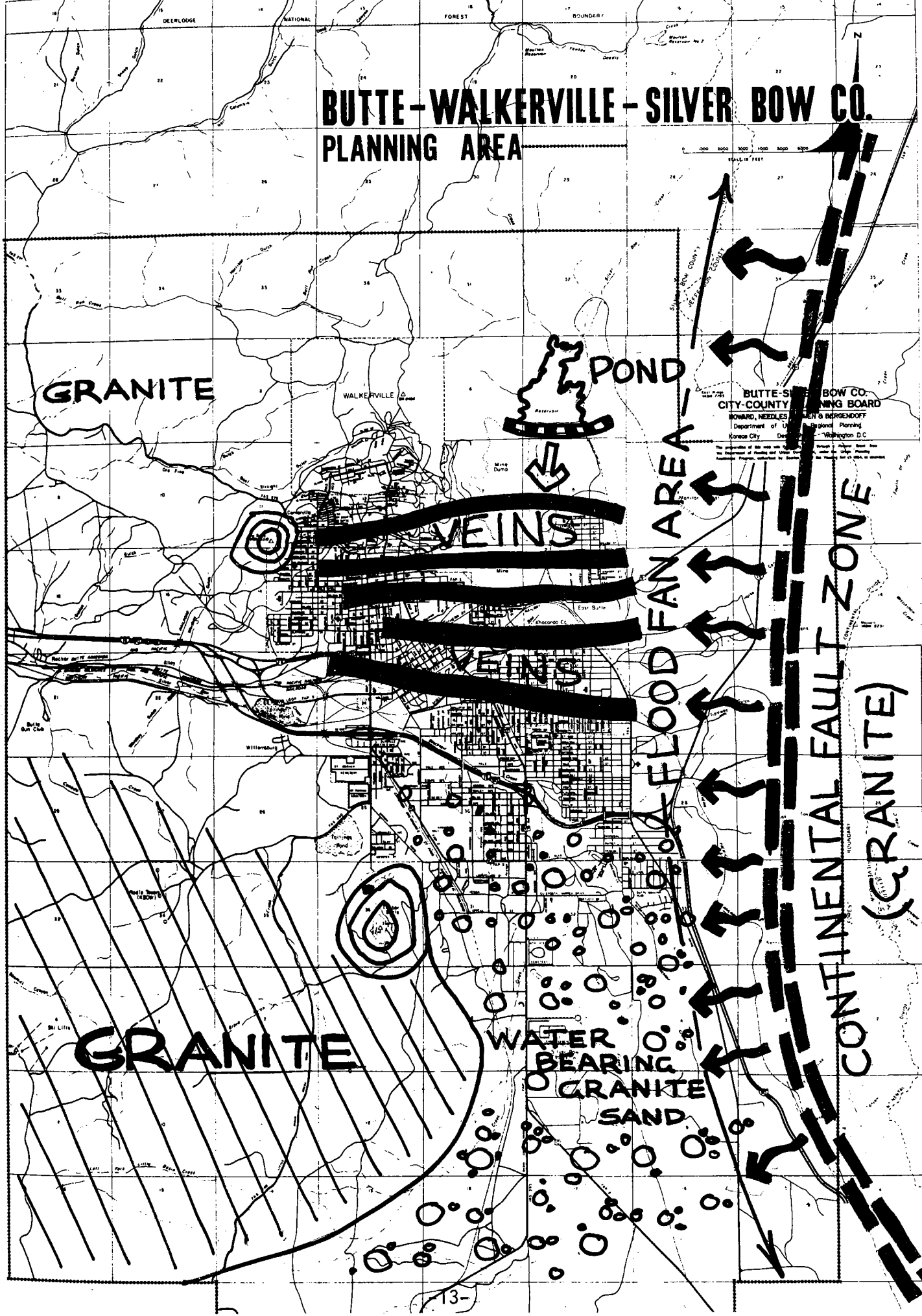
As the geologist member of the RUDAT Team for Butte, this report will outline Butte's geological setting and geologic constraints. Butte, the Butte area, is an exciting and interesting area for geologists and has been for many years. As a result, the geology of the Butte area is well known and there are many available detail geologic maps of the area. There is also a recent hydro-logic study by the Montana Bureau of Mines and Geology of the upper Silver Bow Creek area, and there is a recent study of the soils in the area by the Soil Conservation Service in cooperation with the City, but considerably more needs to be known on some environmental Geology aspects. The data needs to be made understandable for the non-geologist. The geological setting of the Butte area is comparatively simple in its broader aspects. The area is one of granitic rocks with lavas located some distance to the west of the City. The area of the "Flats", south of the present City of Butte, is a small enclosed basin formed by faulting on the east side of the basin along the Continental Fault system. The basin itself is filled with granitic sand washed in by streams. It is water bearing and hence a major resource. The Continental Fault system forms a steep slope on the mountain front on the east side of the basin. The geologic setting which determines the location of Butte in the first place also imposes some very clear restrictions on City Planning.

A few major problems are:

1. The Continental Fault system, which is a geologically young system with evidence of comparatively recent movement along the system to the north suggests the system could be the location for renewed movement in the future; and could be the center of a major earthquake, either here or nearby.
2. The steep slopes and sharp gulches of the mountain front to the east present the hazard of flash floods during cloud bursts, carrying great quantities of rock, mud, and other debris into the foot hills and onto the adjacent flats. Even when dry these steep slopes also present significant landslide and rock fall.

3. The "Flats" are a valuable source of underground water which is so far largely undeveloped; but also a resource which can easily be destroyed by poorly conceived utilization, by pollution, pollution that is, thru the injection of industrial waste, septic systems that are poorly designed or of which there are too many. The "Flats" too, present certain complications for some kinds of construction requiring careful engineering analysis of foundation conditions.
4. There is a constant problem of subsidence over mined-out areas. I would recommend that Planners and other Officials utilize the vast quantities of available geologic and hydrologic data as basic information absolutely essential in considering some of the problems facing Butte and Silver Bow County.
5. To assist in digesting this vast amount of information I suggest that they consider initiating an environmental geologic study, perhaps similar to that made along the Wasatch front in Utah, utilizing either consulting firms, the available scientists and engineering faculty in Montana educational institutions, and the Montana Bureau of Mines and Geology or Federal Agencies.

BUTTE-WALKERVILLE-SILVER BOW CO. PLANNING AREA



Report by Dr. Ralph L. Dix, Ecologist

As Professor of Plant Ecology at Colorado State University, my report will cover the ecological and environmental problems and considerations of Butte.

The geological constraints of the Butte valley have been outlined by Dr. Ruppel and to these I must add ecological and environmental constraints. Fortunately, my list may offer some hope of simplification to his picture since in most areas natural vegetation can serve, at least in a large part, as an integrator of various natural history characteristics. This, in the Butte valley, Lodge-Pole Pine communities, indicates where there are granite substrates. Sandy flats are occupied by grasslands, and stream basins support willow carr. These are obvious examples, but refined analysis of the vegetational complex of the valley will greatly assist in understanding of its natural history. Climatological, soil and vegetational inventories are crucial, I feel, to planning proper land use. To proceed with any land use decisions without such inventories of the natural landscape is certainly to proceed at one's own peril - in most cases financial peril.

Data presented to me suggests that climatological problems within the valley are not limiting factors. The wind seems sufficient to scour the valley and hold pollution at a minimum. However, a future increase in industrialization may cause the cold air drainage pocket at the bottom of the valley to form a pollution factor. However, this problem is not immediate. Present studies have seemed adequate.

A recent soil survey of the valley was completed in 1970, and this document should serve as an important base for any land management decisions made within the valley. I have prepared a suggested Land Use Map* from the soil survey maps provided in that document. In essence, my map is a simplification of the soil survey map. Slocum soils have been included as recommended green belt areas since they suggest drainage ways. Philipsburg, Basin Creek, Kenspur, and Lucky soils have been designated the most favorable sites for urban development. It is particularly true for light housing areas. Corbol and rock outcrop areas have been designated as low density residential and recreational areas. Corbol soils should serve primarily for low density housing or housing where covenants prescribe methods of controlling erosion and slump. Slopes over 9% should be given careful zoning. Wood rock and rock outcrop soils, as defined in soil survey, should be restricted as wild lands and totally undeveloped.

At present, no analysis of the vegetation of the valley has been made, and it is strongly recommended that such a program be undertaken. There

are adequate personnel in Montana to accomplish this purpose; and I might suggest Botanists at the University of Montana or Montana State University.

Mined areas and mined waste areas in Butte deserve special consideration. These areas are not hopeless and should receive proper attention, and the burden of such attention should fall on the Anaconda Copper Company. Anaconda Copper Company must be made to feel its responsibility in this area. Arguments to the effect that all reclamation practices are hopeless are unfounded. Proper research and the application of technology already in existence could do much to relieve the unsightly and dangerous accumulation of mine waste in Butte. Certainly, unless the Company takes up its responsibility and adequately finances both the personnel and research, and carries on the needed research and its application, the situation will soon become intolerable and dangers will increase.

By and large, mine waste materials can be revegetated by proper excavation, distribution, and fertilization. For example, slopes must be maintained at approximately 3-1 and plant species appropriate to the special conditions must be planted. Tailings piles present a particular problem in that they are usually acid and highly toxic to plants. It is usually most economical to cover them with several feet of organic material which has been appropriately tested for a reasonable acceptance of plant growth.

Above all else, those interested in the long term future of Butte must develop long range comprehensive plans which are compatible with the natural history of the Butte valley landscape. A failure to do so will lead only to failure and further frustration.

* On file at the Butte-Silver Bow City-County Planning Office.
(Not reproducible in black and white)

Report by Peter Batchelor, AIA, AIP

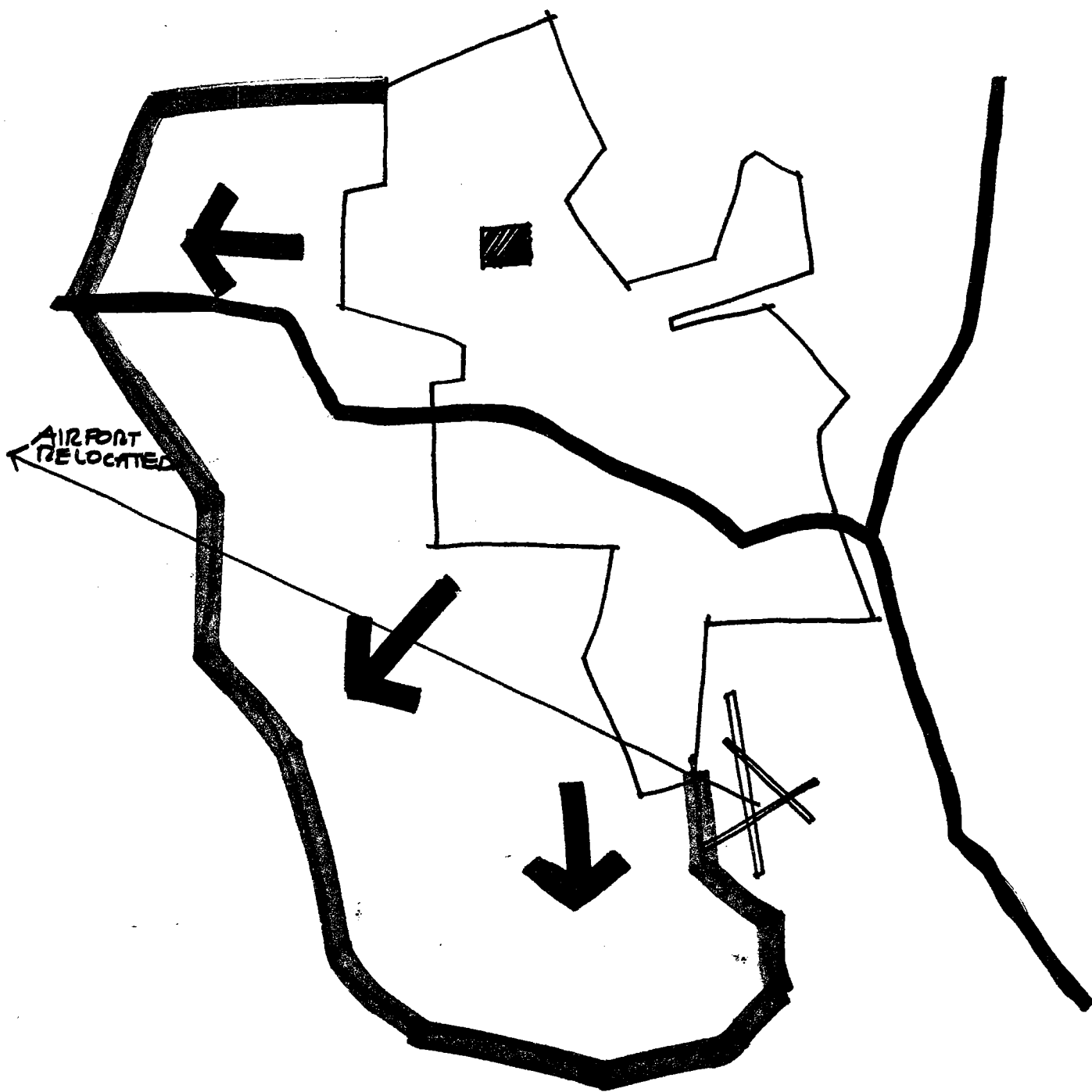
I guess the first thing that occurred to the whole team was that basically speaking, you can't single out any one thing in the City and say, that if resolved, it will solve the Planning problem of the City. It seemed like there was a complete inter-relationship between downtown business and the needs of housing in terms of deteriorating housing, dilapidated housing, the need for some sort of new form of economic vitality for the Community - Community facilities, for the expansion of the Anaconda Company and all of these things. It seemed as if the only legitimate or viable planning solution would be one which took into account all of the problems in the City and formulated the strategy of individualism.

Well, there are many solutions, there isn't just one. What we have done, we have examined the whole range of possibilities - starting with the immediate useful and practical and going to the long range type of solutions which could occur anywhere from 20 to 50 years from now. We began by postulating what these alternatives were and looking at the consequent development. What I am going to do is show you a few sketches I made which will show you what some of those developments are (see following pages). On the diagrams, a bold line indicates the Interstate system and a finer line indicates the edge of the organized area of the City, not the actual City boundary itself. And little black squares indicate the CBD so that all of these drawings have the same reference points on them.

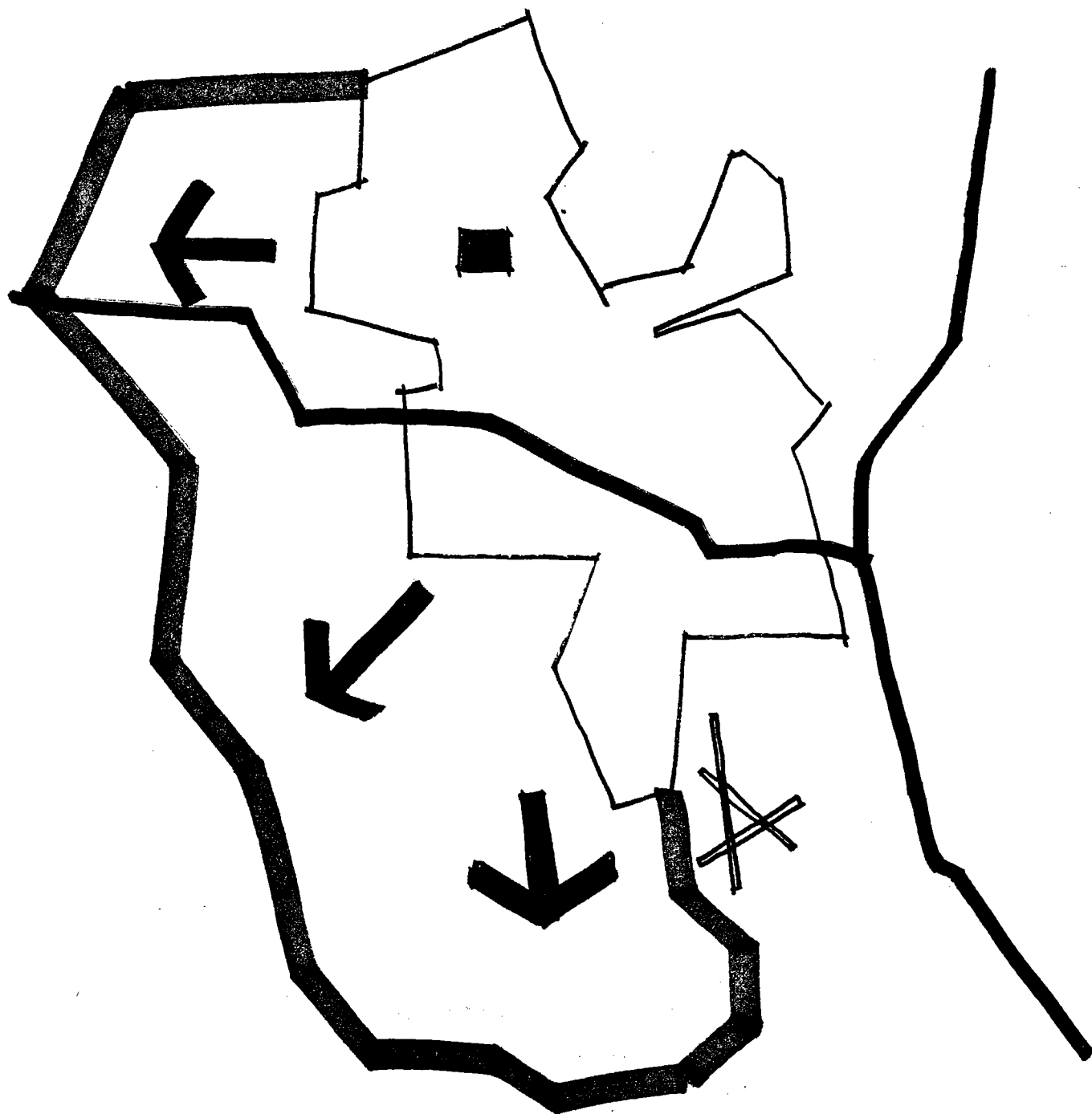
The first and most obvious thing is that growth will keep taking place the way it's going on now, which is basically to the South and the West, and that one legitimate strategy would be to simply make this a controlled growth, using a normal kind of land use control, such as zoning, sub-division regulations, planned unit development and so on. And, at the same time, part of this growth model would also be to redevelop the downtown area. Now this is a relatively standard solution, this is one where probably if you would hire many City Planners they would say you should do this anyway. Now, one of the first movements we thought of would contemplate a new Airport being developed on the Western edge of the City and the existing Airport being used for other purposes, privately, most likely. You could do all of the above and still not develop a new Airport - so this would constitute the second alternative.

Now the second set of propositions concerns the relocation of business interests, away from the CBD, to outlying areas and to put a word on them, I call these things "Satelite Cores" - and these could be located either to the South of the City, as in diagram 2a,

I. CONTROLLED GROWTH / REDEVELOPED. CBD.

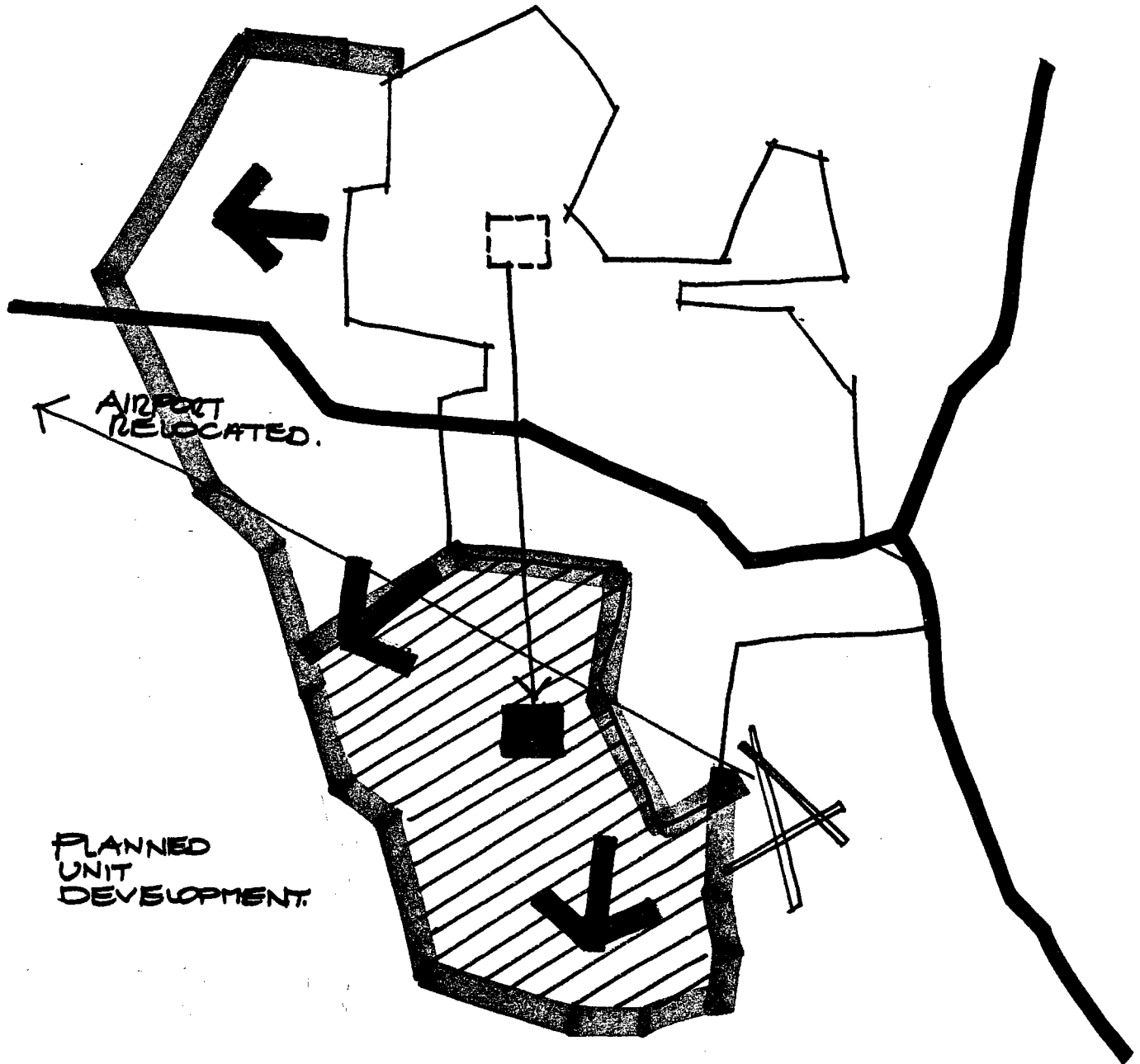


**Ib CONTROLLED GROWTH/
REDEVELOPED CBD
NO CHANGE FOR AIRPORT**



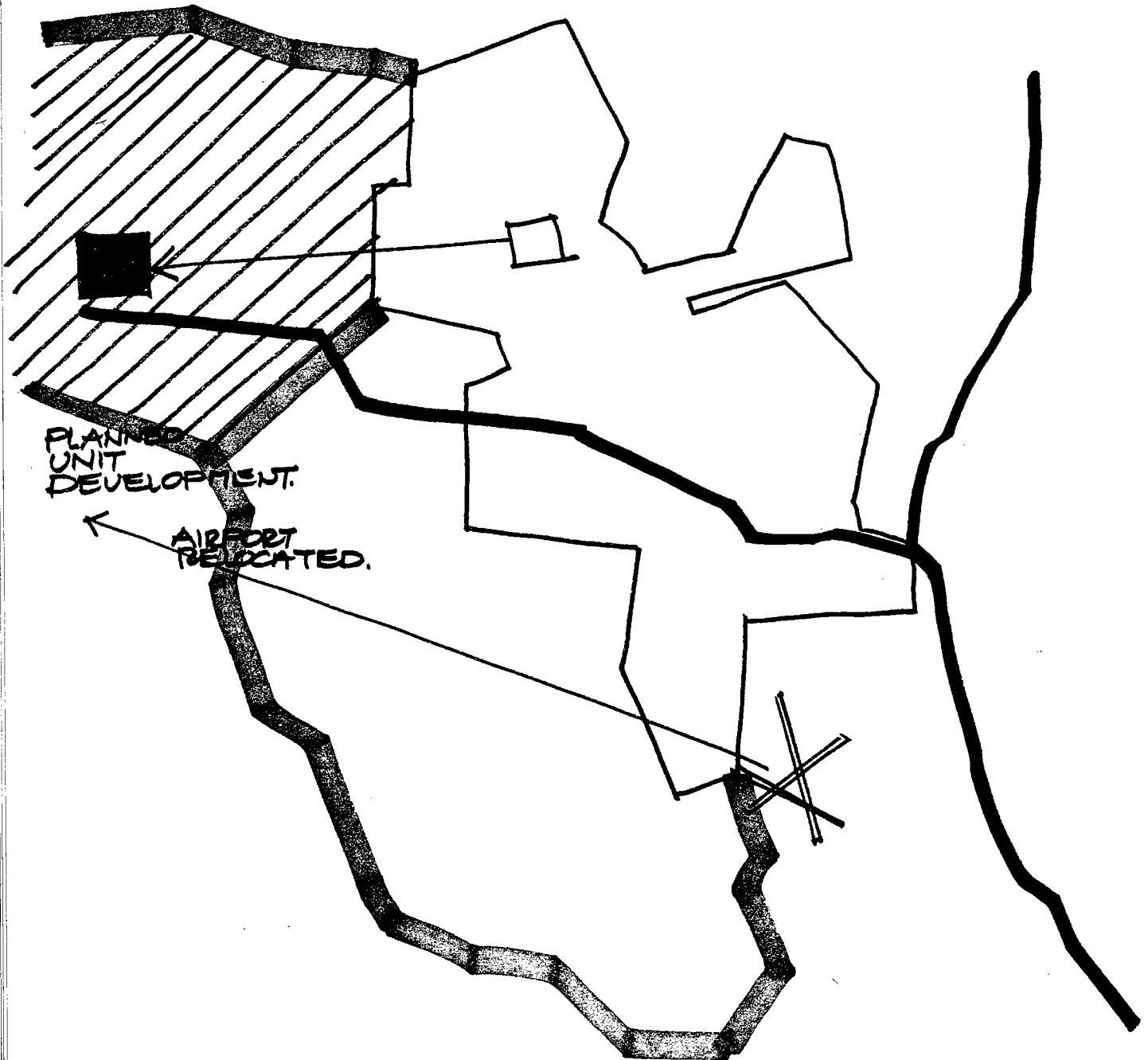
2a. SATELLITE CORE/ CONTROLLED GROWTH

CONTROLLED DECLINE : CSD



SOUTH

2b. SATELLITE CORE/ CONTROLLED GROWTH



WEST

and the Airport also relocated, or to the West of the City, diagram 2b, and about these "Satelite Cores", you can use forms of housing development. Basically, this is still a relatively conservative solution, the City could still expand as it is except that the expansion of commercial and business interests would now occur in the new "Satelite Core" of the downtown.

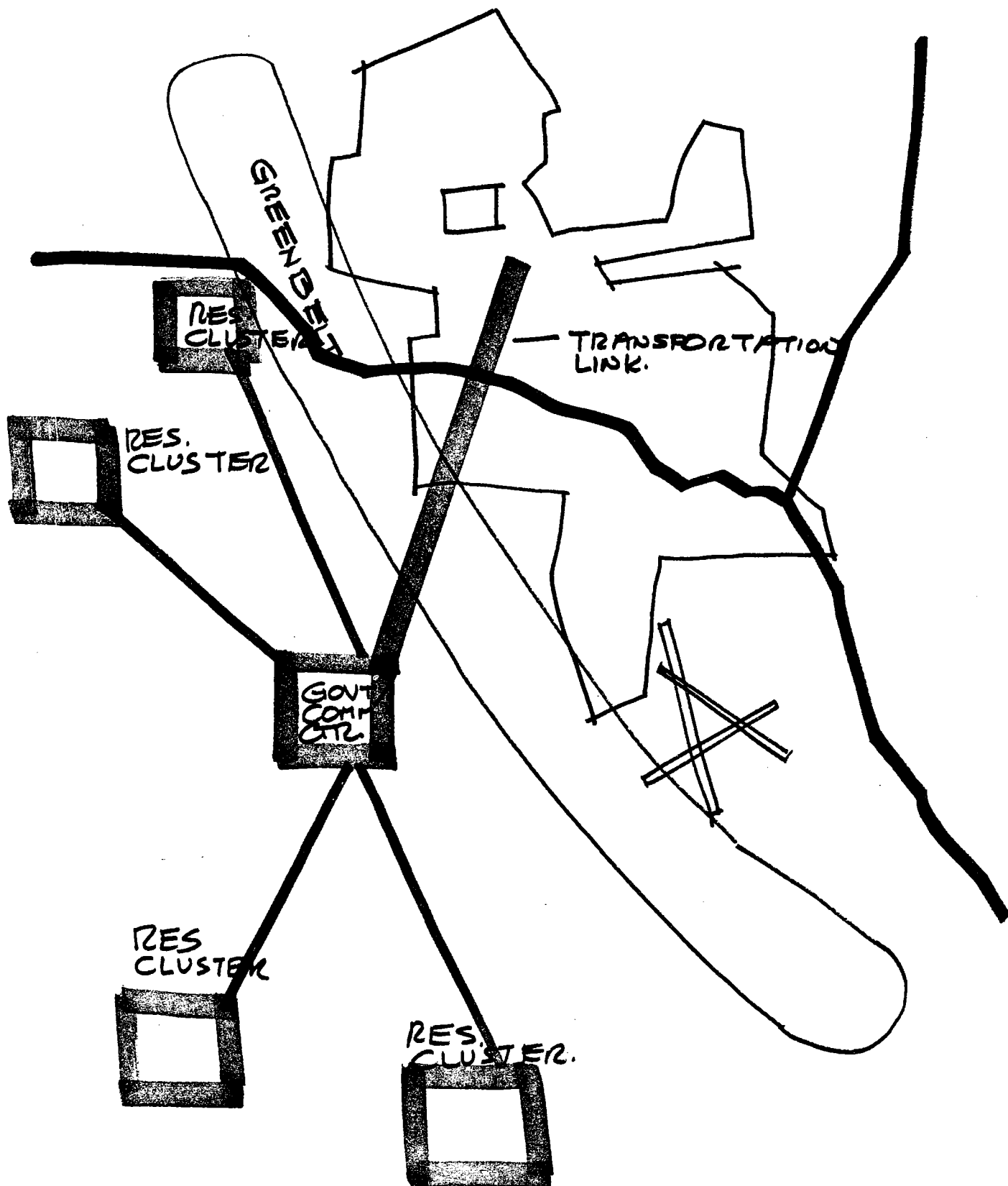
Then there is a whole 3rd set of possibilities and that is, you build a "New Town" altogether and the existing town of Butte would be utilized as long as the structures are capable of being utilized but the new demand for housing, services and facilities would occur elsewhere and we've generated a whole set of solutions. As a matter of fact, the team members have also expanded on the details of this idea. One solution is to clear a commercial and governmental center and have a series of clusters of residential developments around it linked by rapid transit of some kind and this particular solution also has said that perhaps the best thing to do would be to have a buffer strip of green area, a separating green belt, because the existing City would have use for it. See diagram 3a. Remember that this is a relatively long range solution, the existing City would still be utilized, the CBD would still be productive as a economic entity over the next 15 to 30 years; but as the demand for housing and services increased, it would build the new City, not the old City.

The second one contemplates a more standard type of New Town built out towards the West and away from the Flats and it would be called a "Cluster City", diagram 3b, and it has several models in the United States, such as Columbia and Reston in Virginia. Columbia would probably be a good example for this type of City.

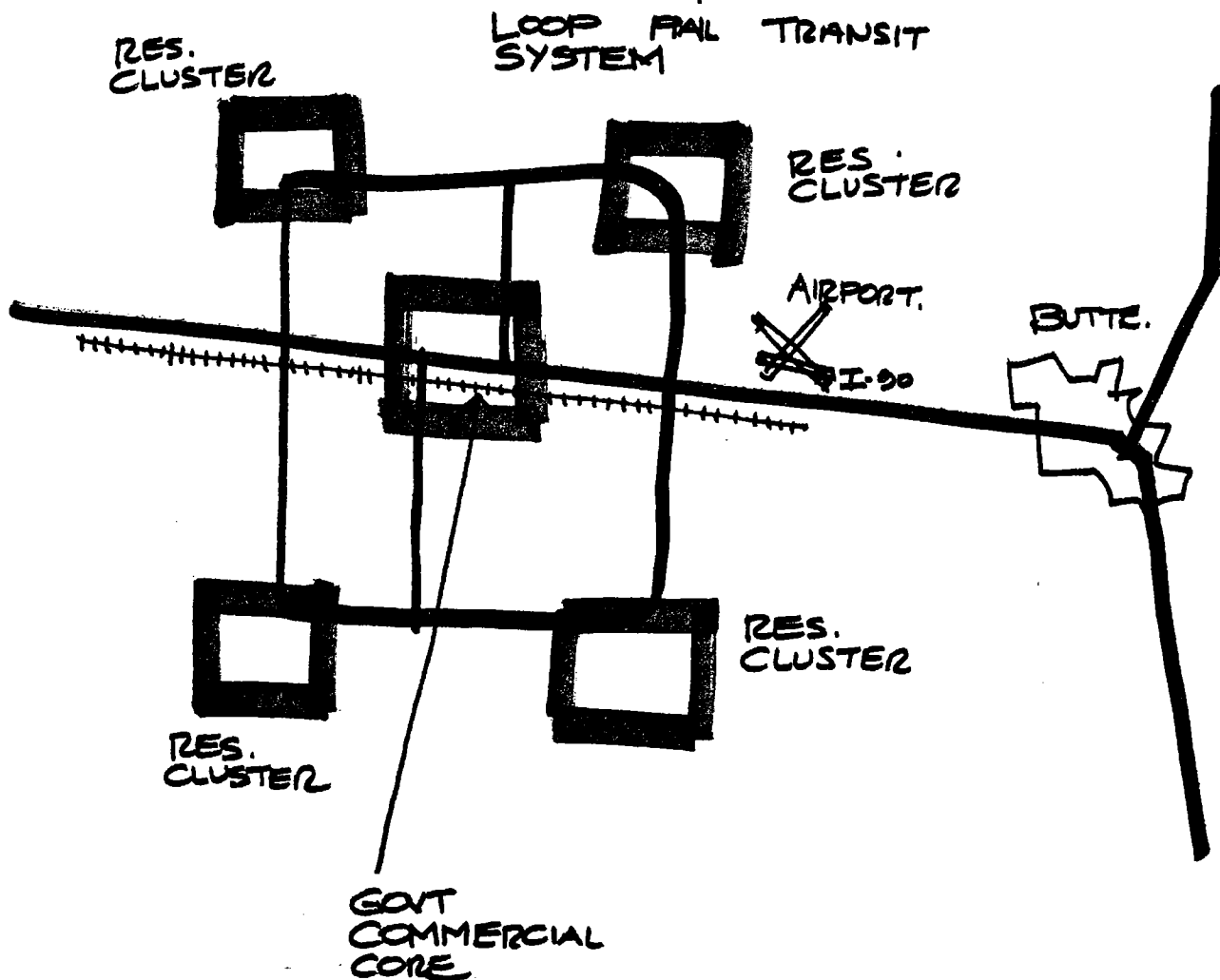
The third type of new element coming down from the Interstate highway linking up to the new location of the Airport, the Transport Center and a Governmental Center to the South is shown on diagram 3c. All these New Cities, incidentally, recognize the need to maintain a link with the Old City so the CBD is always well provided with transportation.

The fourth one is an experimental linear type City which is open ended and could expand indefinitely over the Country side, diagram 3d. (I don't think anyone on the team pursued this prototype). And the fifth one, diagram 3e, is a linear City which utilizes the hillside slopes around the town for terraced housing. The strategy for this one is to build a Satelite Core first to provide for business interests and then

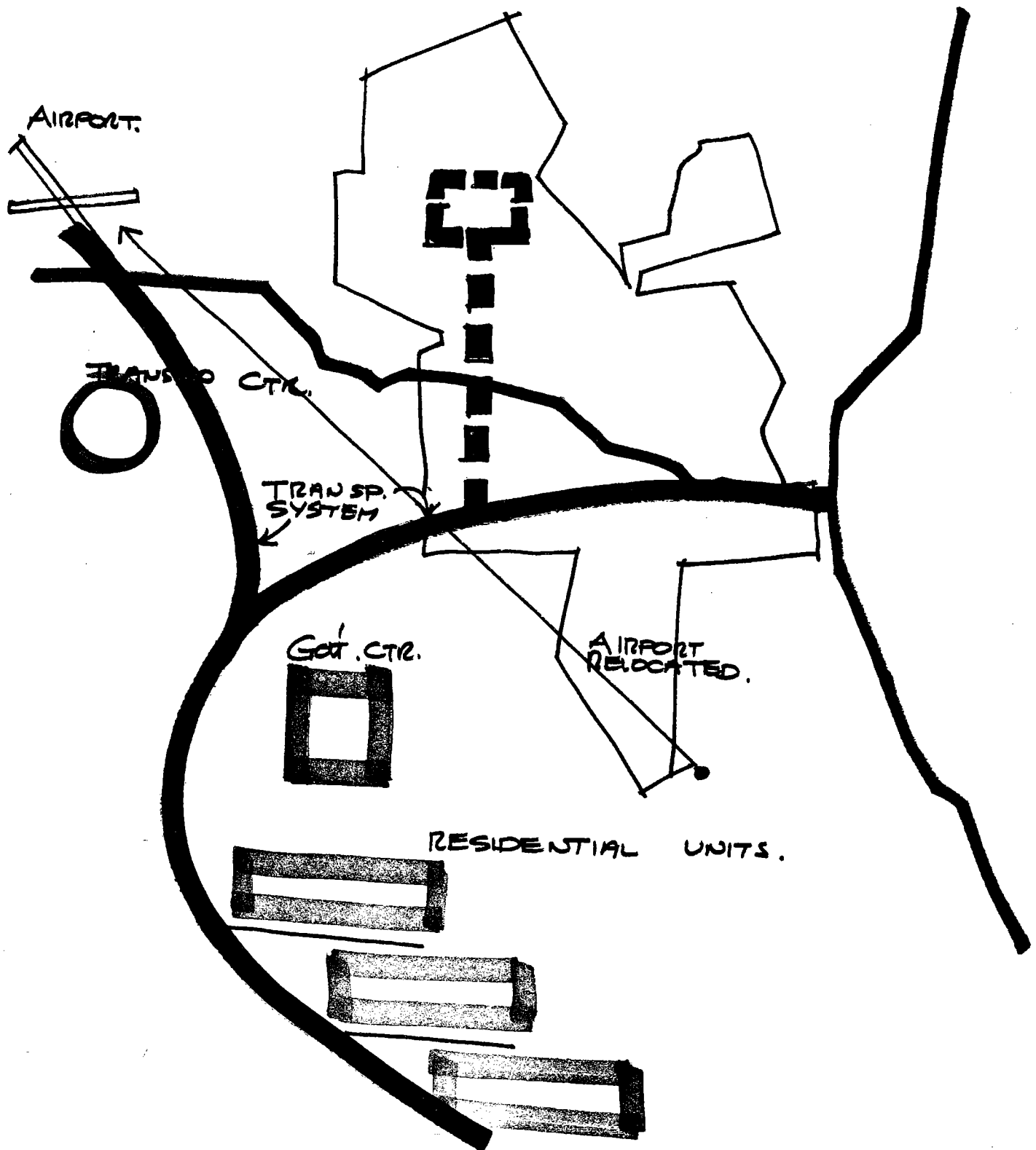
3^a NEW CITY: CLUSTER CONCEPT- DISTRIBUTED. SOUTH/WEST



36. NEW CITY CLUSTER CONCEPT / WEST

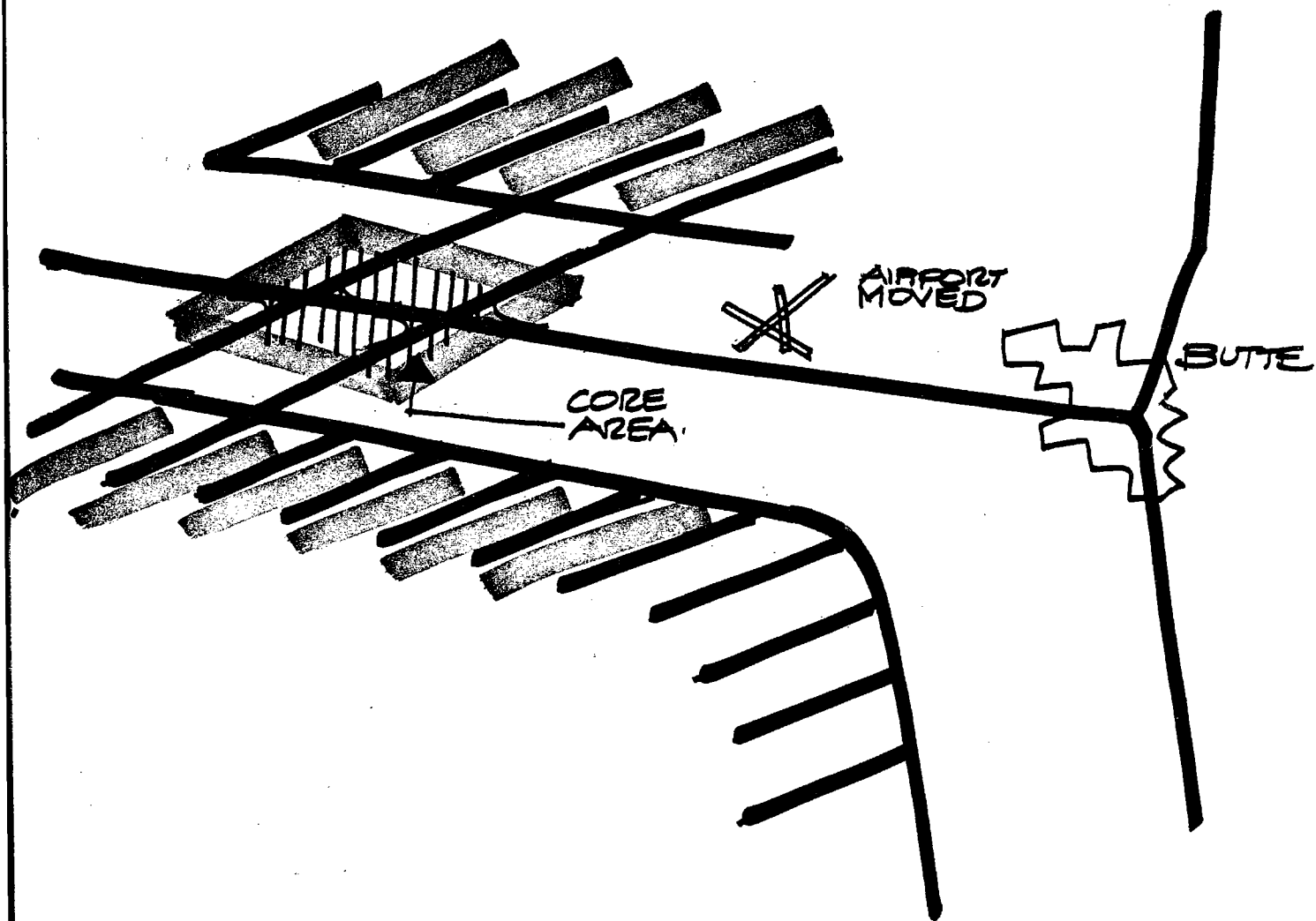


3c. NEW CITY LINEAR MODULE / SOUTH WEST



3d

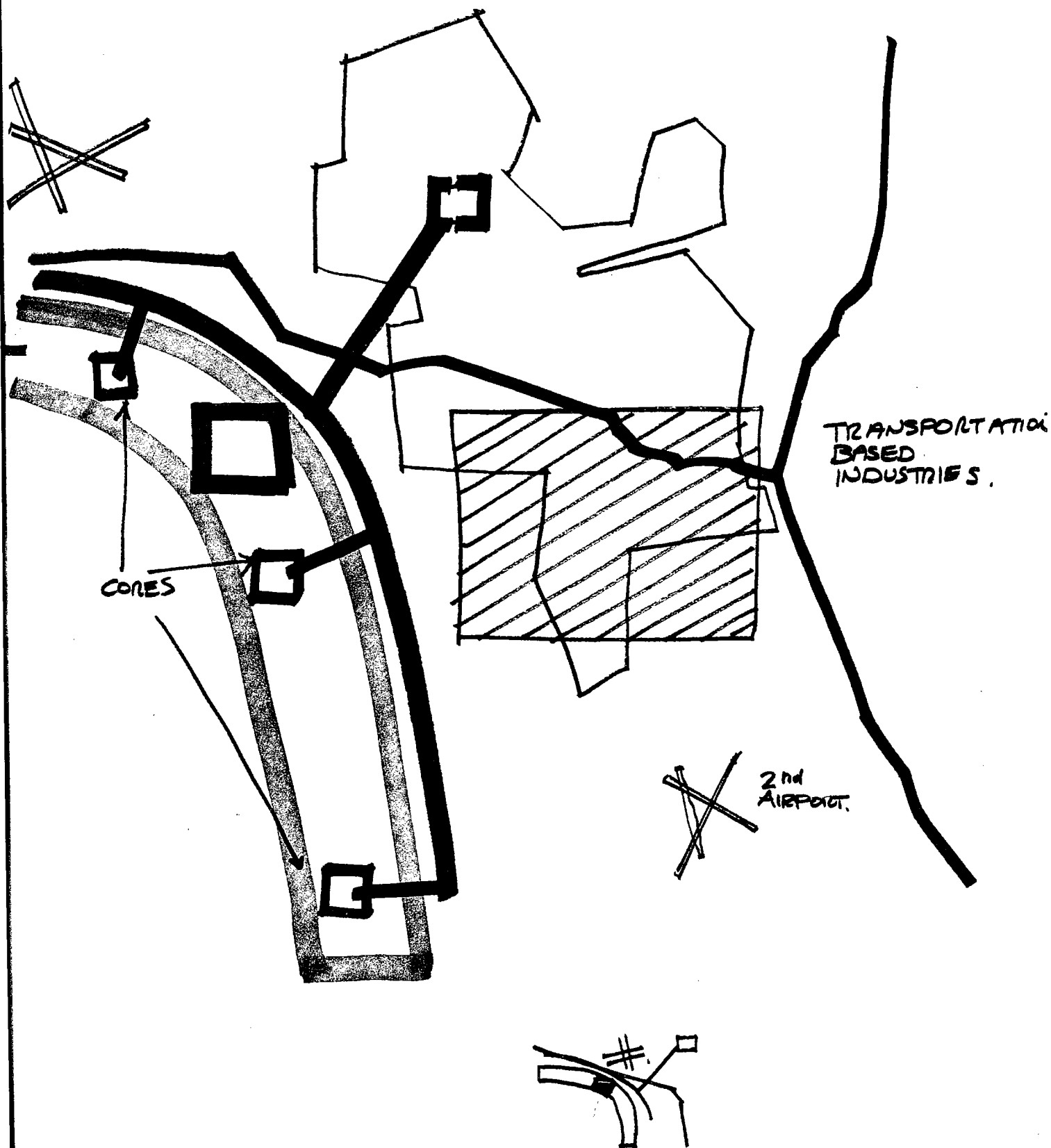
NEW CITY OPEN-ENDED, LINEAR (WEST)



should the Anaconda Copper Company's mine take over the existing CBD it would generate a new Central Business District. A more detailed plan sketch and the perspective sketch following give a vision of how this scheme could appear in the Butte Valley.

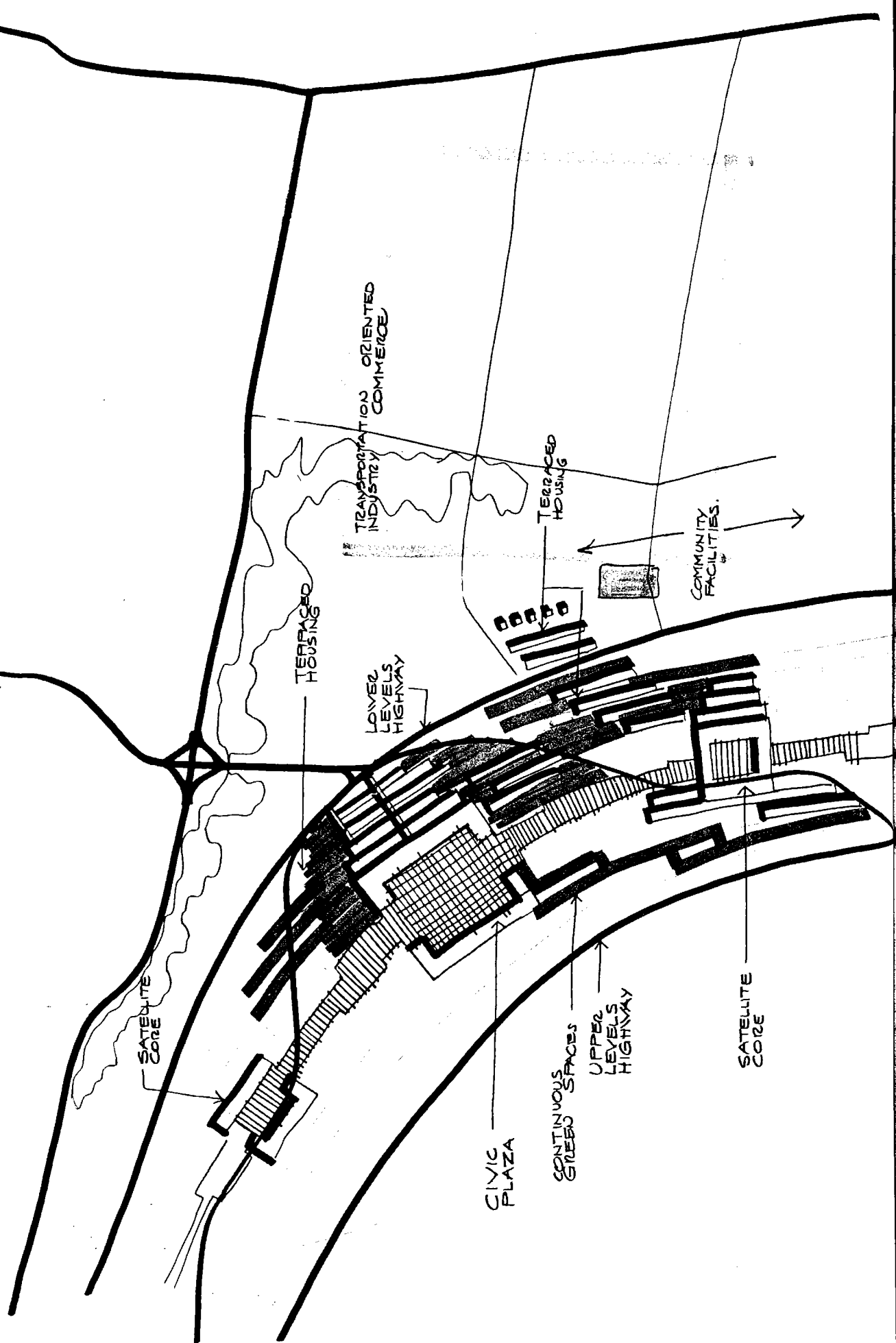
3e

LINEAR NEW CITY OPEN-ENDED.



3e LINEAR NEW CITY

SUTHE CSD



LINEAR
NEW
CITY

BERKELEY
PIT

BUTTE
CAB

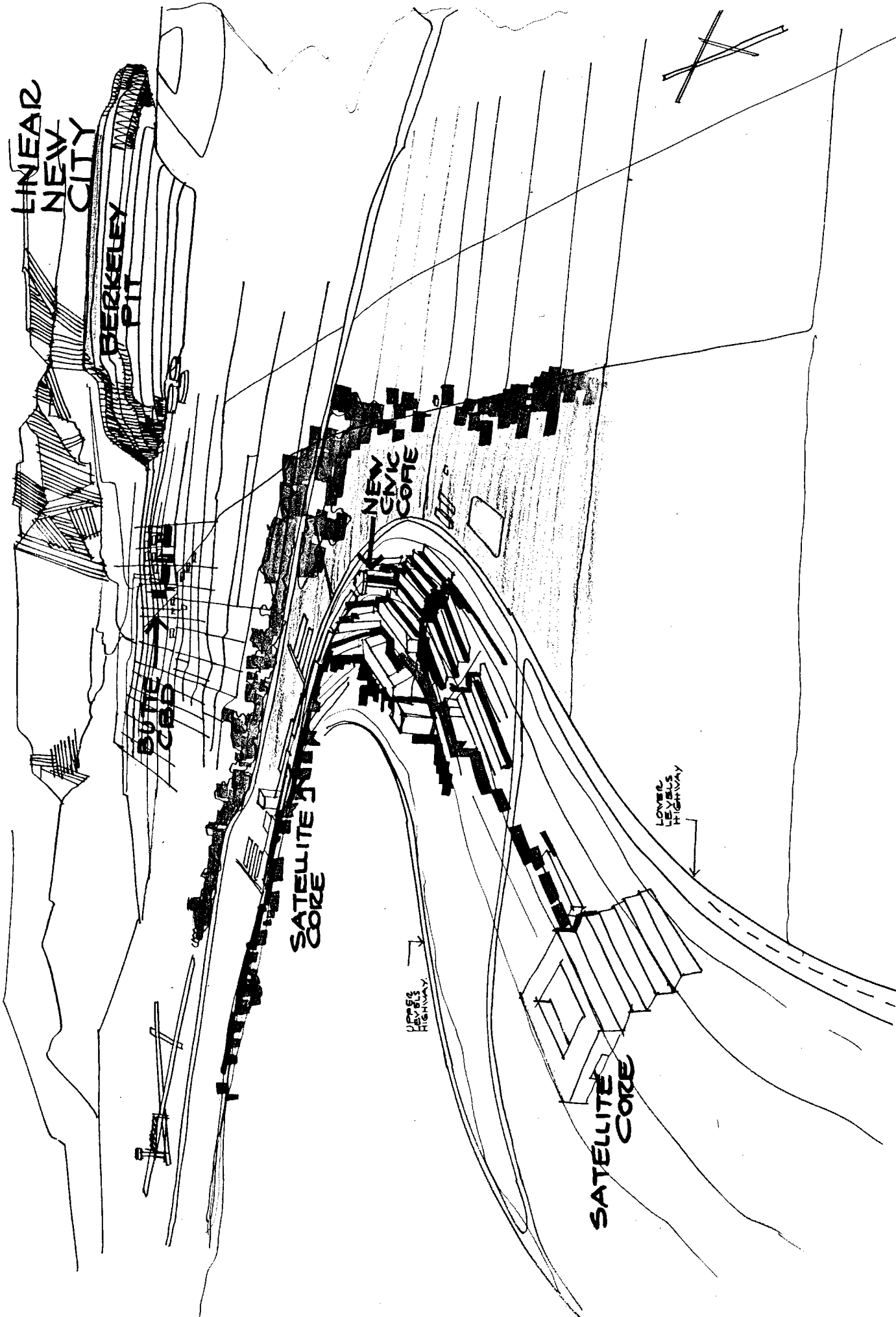
SATELLITE
CORE

NEW
CIVIC
CORE

UPPER
HIGHWAY

SATELLITE
CORE

LOWER
LEVELS
HIGHWAY



Report by Paul D. Spreiregen, AIA

I. PRE CONDITIONS

1. The City and the County must combine into one governmental form. The rivalries between the City and the County makes effective city development impossible.
2. Labor unions must find ways to remove the barriers to local investments which they have created. It hurts them and everyone else.
3. The Anaconda Company, with all the uncertainties they face, must find ways to inform the community of their mining decisions.
4. The Anaconda Company has to pay a fair contribution to the local community directly. Their "taxation" should not be based on annual dollar profits. Some better (and flexible) formula has to be found.
5. The public ought to have a public development authority to facilitate private development, public action, and private "withdrawal" movements from some areas.
6. The federal and state governments should declare Butte as an experimental community -- an environmental laboratory. Many new experiments should be tried -- i.e., public decision process, new methods of financing, waste treatment, land terracing and reclamation, minimal energy consumption in urban environments and buildings, ecological experiments, "people-movers", etc. Montana Tech could serve as the laboratory center.
7. A calculation should be made of the total revenues that could be available to the community in the next twenty years, to see what would be most economical--i.e., leave the town as is or to re-make it extensively. In other words, the town needs some imaginative studies to discern the real economics of status-quo versus innovation.

II. PERSONAL OBSERVATIONS

1. The people are very hospitable and kind. Cities are basically their people. However, there is a sadness and pessimism here.

2. The problems of this city are results of bad environmental decisions of the past. City development has ignored the beautiful natural site. Beautiful and commodious cities are largely results of appropriate responses to nature. Nature has been regarded as an obstacle instead of a guide.
3. The City once had a certain cohesion and compactness in its various component parts -- the miners' residential areas, for example. This compactness is seen in the Uptown or "CBD" (Central Business District). It is also seen, as remnants, in Walkerville. It is very well seen in the campus of Montana Tech and the parts of Westside nearby. The new development (the "flats", for example) are characterized by sprawl, lack of form, lack of cohesiveness, lack of a sense of place.
4. The gay colors of the old miners' houses is very poetic. One imagines the importance of these colors to a miner after a day underground, and in relation to the cold, long winter and the brilliant sunshine.
5. There is a severe lack of places for people to gather casually to socialize gracefully and informally. Such places are needed, and should be designed for the severe winter.
6. The climate and air is great.
7. The plans done for the City must be very imaginative and practical. An imaginative idea is the backbone of a good plan, more than precise statistics, surveys, or observed trends. Those can be misleading.
8. The problems of the community have been sources of divisiveness. The community needs great and exciting new goals around which it can unite. The community will either dwindle and languish or have a renaissance.
9. Future plans should have lots of options within a large design. Several "large designs" should be formulated. The "large designs" can be considered as "Scenarios" of the future. These "scenarios" should be related to the various possible actions of the Anaconda Company, and to the idea of a new transportation center.

10. The new plans should include many experimental components -- experiments in landscaping, management, financing, etc.
11. Do not over-rely on tourism as a new revenue source. This is a fantasy. If your city is a good city to live in, in itself, it will then be a good city to visit. But it will not be able to compete with either Aspen as a ski place or with Salt Lake City's huge pit.

III. DESIGN SUGGESTIONS

1. The criteria of the plan suggested are:
 - a) The pit is likely to displace the town sometime in the future. You must plan for this, as through a "graceful withdrawal" maneuver.
 - b) Orient new communities to the best exposure and view (the south and southwest).
 - c) Develop a new civic center at the center of the new growth area, as a gesture of commitment and forthright public action.
 - d) Build new communities compactly.
 - e) Ease the problems of winter transportation system by a good public transit system -- a monorail or people mover. This requires more compact communities.
 - f) The new plans must be exciting and compelling -- a great goal around which community interests can unite and coalesce.

2. Description of Design.

See the three drawings entitled:

- 1) Butte Montana - Tomorrow
- 2) Butte Montana - Phase I - Redevelopment
- 3) Butte Montana - Phase II, etc. - Redevelopment

PRIMEVAL

PROSPECTING

MINES

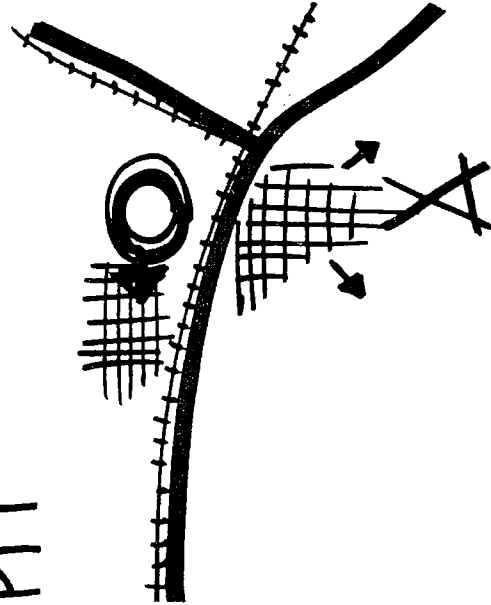
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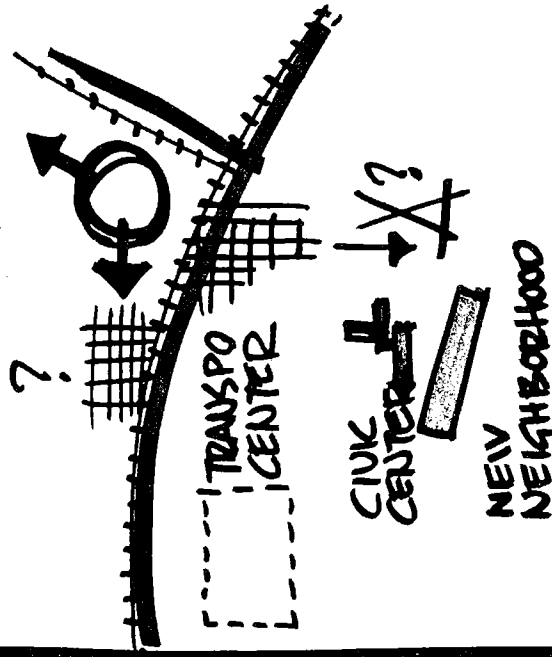
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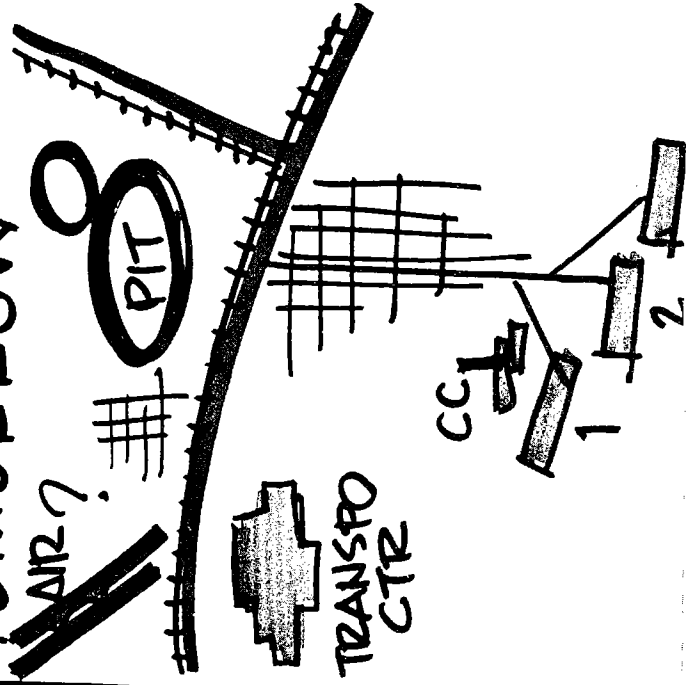
PIT



EXPERIMENT



TOMORROW



4. Butte Montana - Phase I - Redevelopment

This sketch shows the first major planning moves. The view is taken looking to the north, towards the pit and the "uptown" CBD.

Here you see the new civic center and the first of the three new residential towns. This is a test period -- one in which new methods of financing, technology, and public action are tested.

The idea is to establish the first major moves. The CBD is shown intact, well maintained and serviceable. It will remain in service as long as is possible, and if mining techniques permit, it will prevail permanently.

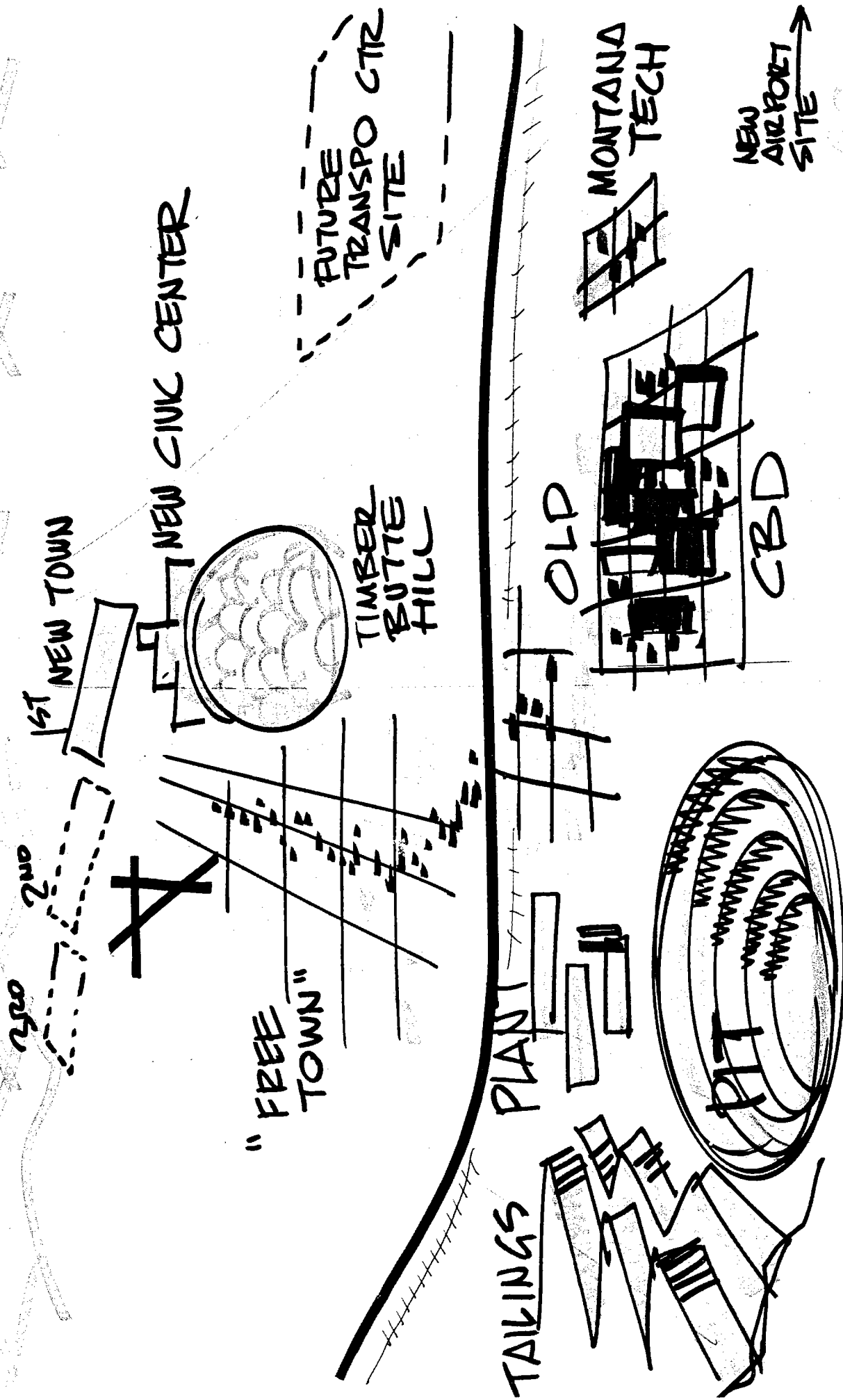
5. Butte Montana - Phase II, etc, - Redevelopment

This is the same concept as discussed above, but it is now fully developed. All three neighborhoods, the new transpo-center, and the new airport are all shown. The old CBD is also shown, with the hope that it can prevail. But no illusions are held for that. It seems that it will one day disappear. Should that happen, the businesses will relocate in relation to the new civic center and the businesses in the "flats" area.

Note the new monorail or "people mover" connecting all the new parts with the old -- the CBD and the Anaconda plant.

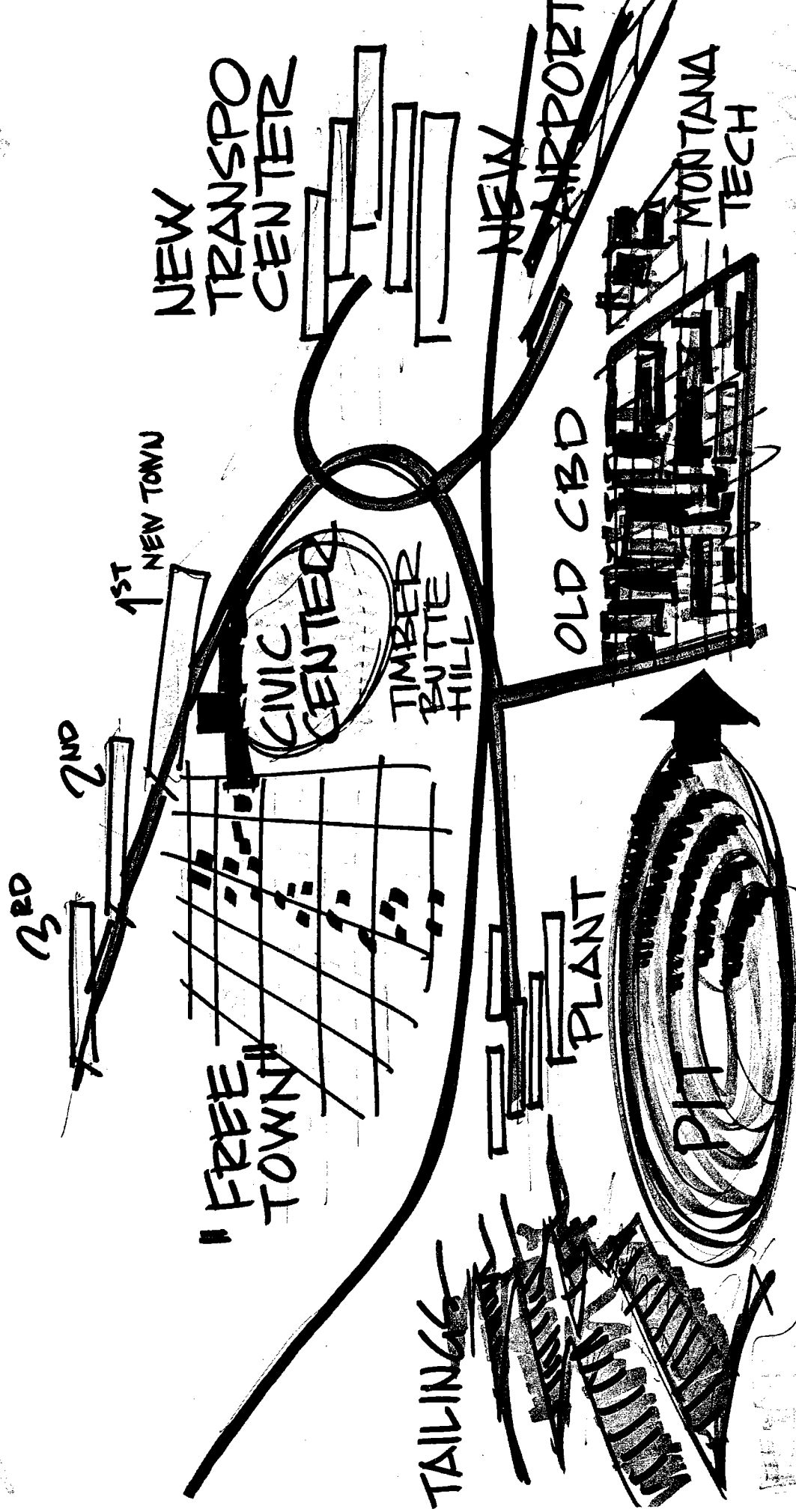
Not shown in the sketches, but implied, are a whole new attitude towards natural and indigenous landscape elements. Of course, all recommendations are based on the geology and climate of the site.

BUTTE, MONTANA - PHASE 1 REDEVELOPMENT



LEACHING

BUTTE, MONTANA - PHASE 2 (etc) REDEVELOPMENT



LEACHING

Report by Royce LaNier, AIA, AIP

UNIQUE ASPECTS OF THE AREA

Butte, Montana is more than a town, it is the urbanized area within a bowl shaped valley defined on the north by the Butte hill, site of UPTOWN Butte, by the towering precipice of the Continental Divide to the east and by a crescent of peaks to the south and west --- a single geographic entity with abundant natural assets and some severe physical constraints.

Some of these natural assets include:

1. Major ore deposits assuring long-term economic viability for the area;
2. Beautiful site for human occupation -- aesthetically pleasing views, particularly to the south and east;
3. Several hillsides with the most favorable (southeast) exposure which will provide suitable alternative building sites when the present Butte hill district is required to relocate due to the mining operations;
4. Substantial underground reservoir; an area of water-logged sand covering most of the valley floor, known as the flats;
5. Several beautifully wooded streams flowing through the valley providing a natural framework for an open space and recreational system;
6. A climate and terrain suitable for year round outdoor recreation with an obvious emphasis on winter sports;
7. An existing industrial base free of major air pollution processes combined with favorable climatic conditions (wind and elevation) to produce an exceptionally healthy environmental condition.

Major physical constraints include:

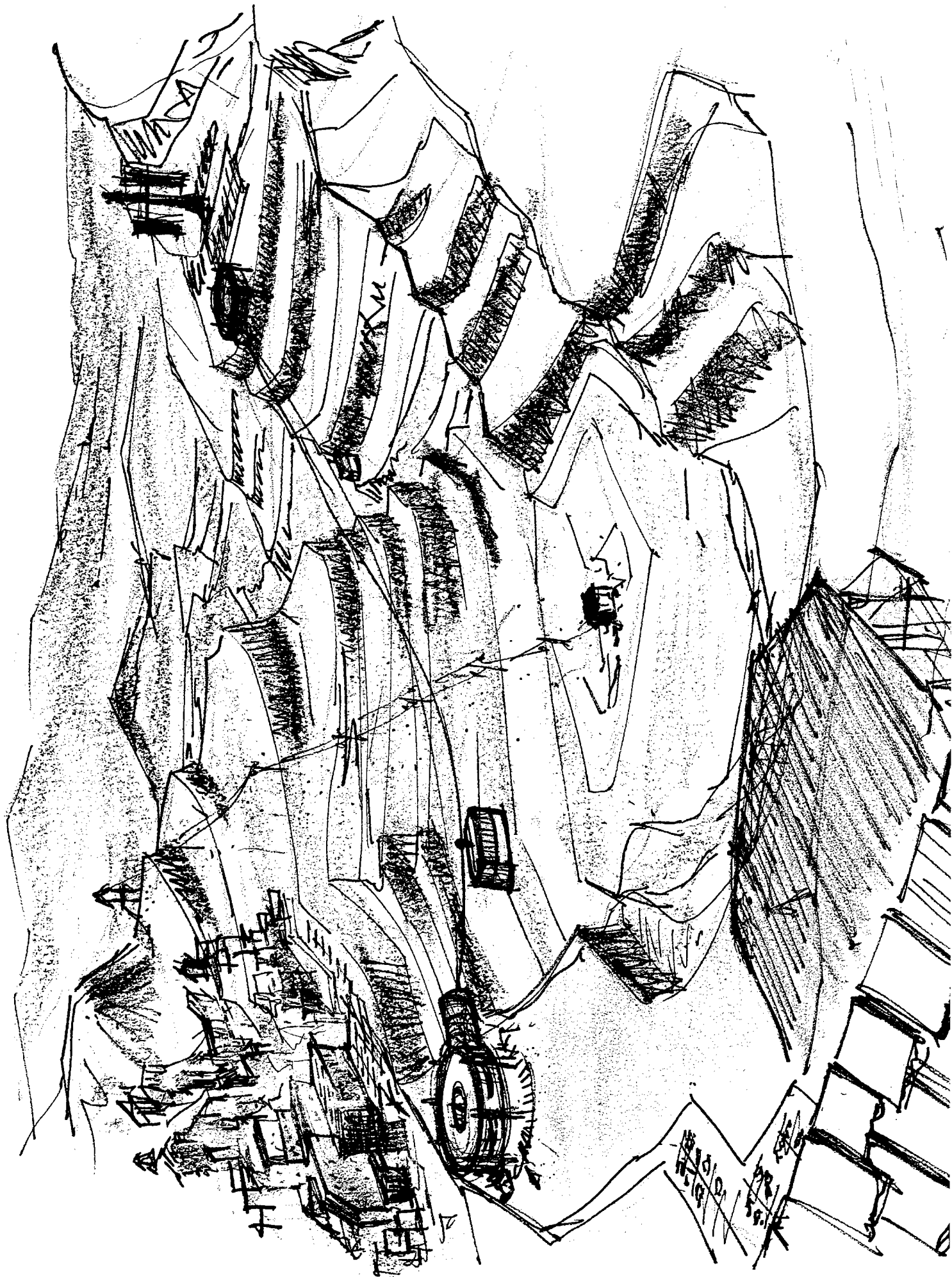
1. Geologic condition requiring careful selection of building sites, i.e., major fault zone and land slide area along the Eastern edge of the valley;

2. The potential of contaminating the underground water supply, as it is a closed basin;
3. Location of the ore deposits beneath present urban area --- requiring eventual relocation.

SPECIAL CHARACTERISTICS AND PROBLEMS OF THE TOWN

The urbanized area itself contains a great diversity of environmental conditions covering a broad range of living conditions and urban forms. There are some special districts with characteristics worthy of note and some which have particular problems requiring attention.

1. On the slopes of the Butte hill are several settlements clustered around the openings of abandoned underground mine shafts. Many of the houses are still occupied although most are threatened by expansion of the open pit mining operations. These communities, composed of closely built small wooden houses painted in brilliant colors, have a unique character which should be emulated or at least retained as long as possible and then relocated as an example of a previous era in Butte's history.
2. The area of the Berkeley pit and the Anaconda mining operations can be considered to be a distinctive district not unworthy of special attention both as an example of industrial architecture and a display of man-made forms which merits interest on a purely visual basis, although a general clean-up should be initiated and much of the clutter removed. The area also has considerable potential for development as a recreational center, should the company choose to develop "the spoils" into ski and snow mobile runs, install a cable car over the pit and plan for other facilities of interest to visitors.
3. The existing uptown area or Central Business District has considerable economic vitality despite a feeling of general uncertainty which has characterized the past few years since the expansion of open pit mining on the Butte hill. The fine late 19th and 20th Century buildings which predominate throughout the area give it a distinct character largely unspoiled by the type of pseudo-modernization of old structures which has blighted CBD's throughout most of the USA. With minimal capital expenditure, a plan could be developed for upgrading the existing area by providing off-street parking and pedestrian plazas between existing buildings and in a buffer zone which should be cleared and developed as a green open space area



between the CBD and the mining area. Undoubtedly, the CBD and the mining area. Undoubtedly, the CBD will someday have to be demolished, but for the next 15-20 years, it can admirably serve the community as the principal commercial area if some efforts are made to clearly define its limits and improve the general appearance and condition of the structures. Particular attention should be given to maintaining the character of the buildings and improving the appearance of the public areas, i.e., streets, walks, etc. The introduction of greenery and seating areas as well as off-street parking would be a considerable asset. The initial step would be to identify that area of the present CBD containing the finest architecture and the soundest structures. An area considerably smaller than the present one would be adequate for the present population of the area. By stages it may be necessary to further reduce the size of the commercial area in uptown Butte. This action should be coordinated with a simultaneous expansion of a new center. The old CBD at that time would begin to concentrate on specialized services and tourism. This seems to be a reasonable long-range plan with maximum short term benefits for individual owners and the community as a whole.

4. Another significant area with perhaps greater longevity due to its more westerly location is the residential area around the Montana School of Mines. The School itself seems to be outside of the mineralized zone and should therefore be considered as a permanent Butte landmark. Its commanding location on a partially man-made platform overlooking a densely settled hill-side residential area to the east provides a precedent worthy of repetition in other suitable locations within the valley. Expansion of the School into a major educational and research center related to mineral exploration, mining technology and land reclamation would be a reasonable objective for community efforts. The slopes west of the School are well suited for construction of new hotels and tourist facilities developed in conjunction with a program for recreational development of the pit area. The West Butte residential area itself requires little more distinctive area of the city and perhaps in the entire Northwestern United States. The urge to compare it with sections of San Francisco is unavoidable. Small houses with tiny gardens built closely together along steeply sloping among the small but well proportioned houses adds a special distinction to the area and gives it a truly unique character. Every effort should be made to refurbish the older residences and maintain the vitality of this area.
5. The temptation to compare West Butte with San Francisco is reinforced by the similarity which the post-war suburban non-neighborhood on the flats bear to the sprawl of Los Angeles.

Although this area can not be completely abandoned at present, this pattern of development should be replaced by a more human-oriented, community-focused pattern of residential development.

6. There are other areas of Butte which can and should be abandoned as soon as possible particularly those susceptible to subsidence from collapse of underground mine tunnels, and those closest to the waste piles from the pit.
7. The location of the Butte-Silver Bow airport and the Interstate highways are of special significance to future development. The area beneath the flight path of aircraft is never a desirable residential area and some thought must be given to the size and type of aircraft which should serve Butte in future needs. Service by the new wide-bodied aircraft would require a new airport location whereas the use of STOL (short take-off and landing) aircraft now in developmental stages might make updating of the present facility feasible.
8. Location of the present industrial park also has its limits in terms of future expansion and access but perhaps more crucial is the constraint by its location above the underground reservoir which precludes deep well waste disposal and requires careful and complete waste treatment in order to avoid contamination of this valuable water supply.

A PROCESS FOR DEVELOPING A NEW URBAN PATTERN

In order to stem the present pattern of urban deterioration in Butte and provide a framework for a newly emerging urban pattern, the following general steps are outlined to begin immediately and proceed with appropriate modifications in light of future developments. It is a suggested direction which should serve as a guide for future decisions and not a rigid plan -- the results of the process will be an urban fabric and providing opportunity for experimentation in the creation of livable urban communities. The accompanying diagram indicates a progressing from the present to some future time, perhaps in the early 21st Century. It should be noted however that even in the earliest stages, a clear pattern is established. Within the next 1 or 2 years, Butte will have the opportunity to clearly set a new pattern for future growth. In 5 or 10 years that pattern can be the dominant force in development of the valley. To achieve this, a plan and a vision are essential but only economic and political decisions can implement a plan. This will require community-wide cooperation and innovative governmental reorganization.

Initial Phase - identify core neighborhoods or districts within the existing urban area. Begin a program to refurbish and improve those which should be retained. Physical definition through the use of green belts and buffer zones can be a valuable way of assisting a district in developing its own identity and retaining its economic and aesthetic vitality.

The establishment of a site for the new city center is also an important early step in the process. It is suggested that the construction of a new civic center begin as soon as possible to house all governmental offices for the area, and eventually all related city and county service agencies. The southeast side of Timber Butte is proposed as the most desirable site for this new complex. Its commanding position in the valley is an obvious choice for a civic center and eventually for the new commercial and business center as well. Subsurface conditions appear favorable for construction of large buildings as compared with the flats, and the conscious act of moving beyond the flats will assure community commitment to a sound land use plan for the valley. It should be noted that Montana Avenue provides a direct link between the existing CBD and Timber Butte.

The necessity to relocate a substantial number of families in the next few years due to expansion of mining operation on the Butte hill and to subsidence above former underground mining areas will provide a ready market for a new residential community which could be built either as a part of plans for developing Timber Butte or on one of the several smaller hills which rise out of the valley floor, thus providing the favorable southeasterly exposure. This new "hill town" community, if built on the knoll which lies to the northwest of Timber Butte, could be easily connected with the existing Interstate highway.

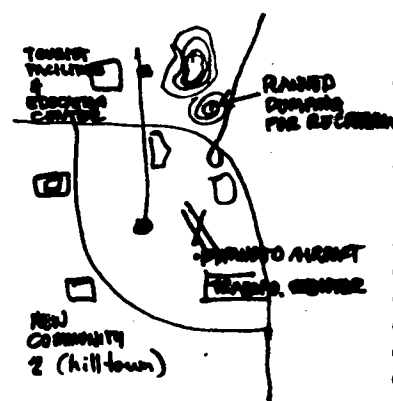
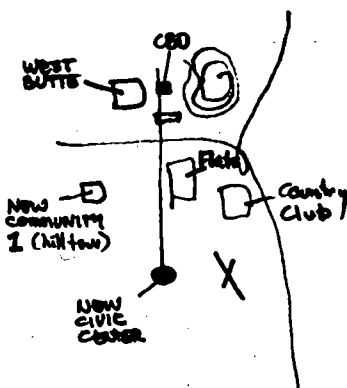
Following the above pattern, several "hill town" communities could be developed as the demand for housing increases. Three specific sites are suggested which offer the best orientation and are easily linked by a single loop road which could also connect with developments on Timber Butte.

Expansion or relocation of the airport and development of a new transport center are also important steps in development of a stable economic base for the region. Careful consideration should be given to the location in order to assure highway access and a flight path for aircraft relatively clear of residential areas.

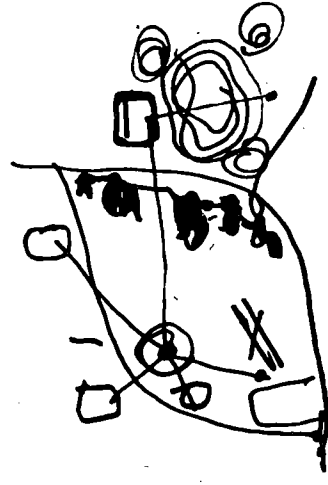
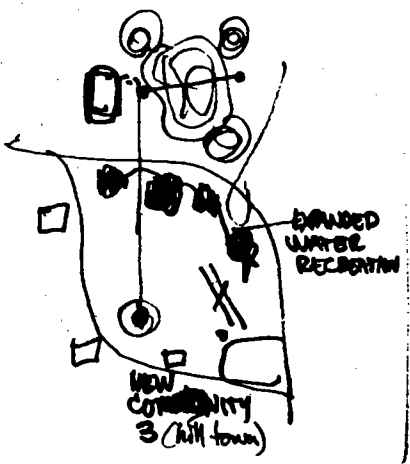
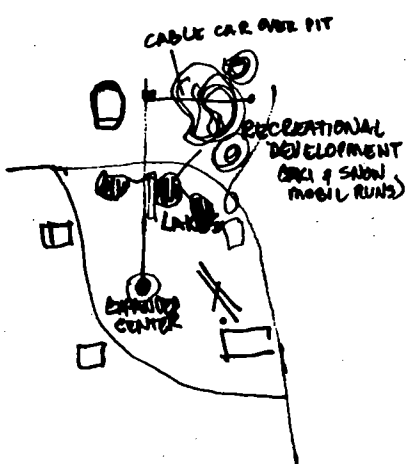
Recreational facilities should be developed in conjunction with the mining of the Butte hill at the earliest possible time. This may be

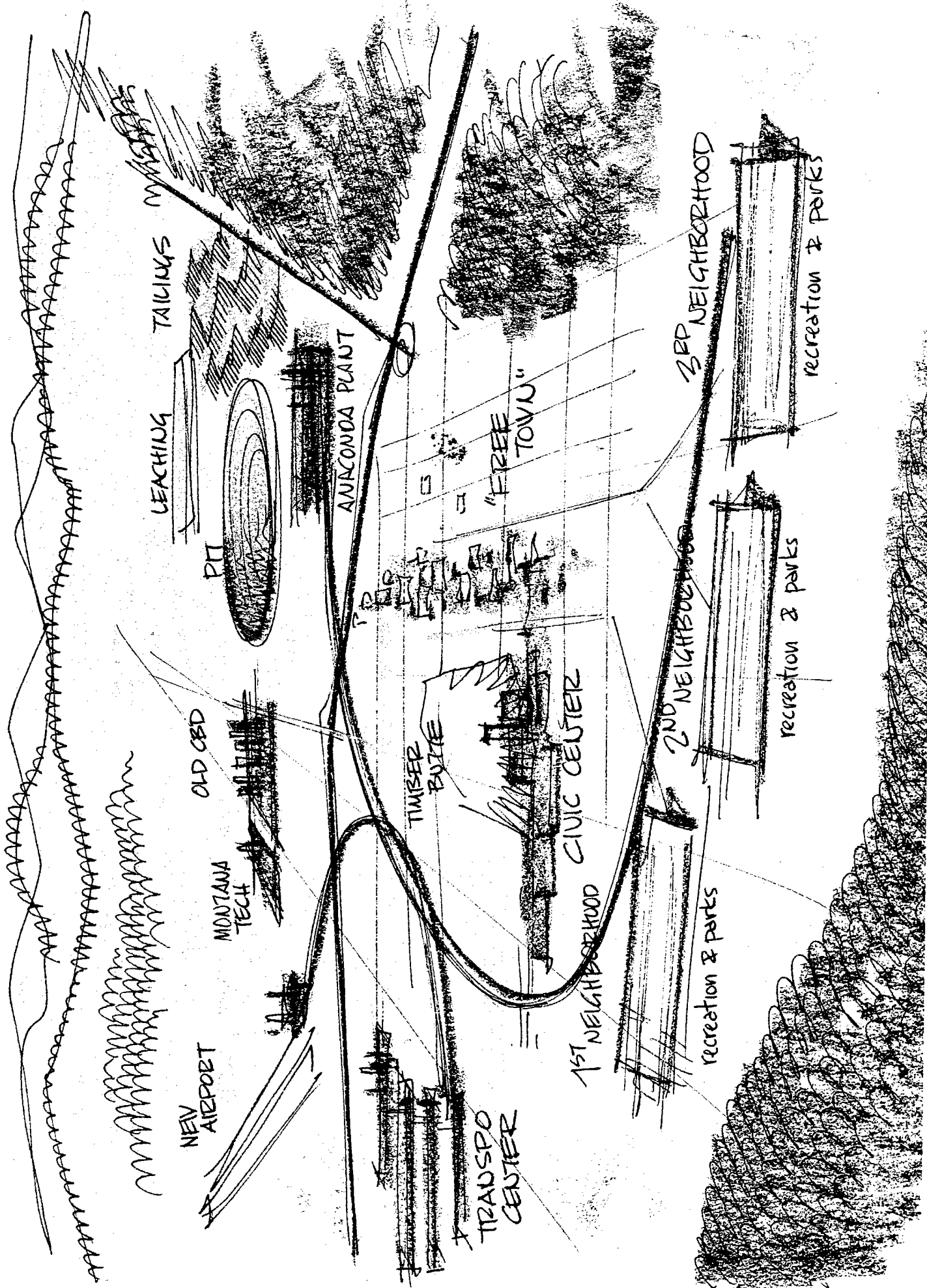


PRESENT



BUTTE 2000 AD.





NEW
AIRPORT

MONTANA
TECH

OLD CED

LEACHING

PT

ANACONDA PLANT

TIMBER
BUZE

1ST NEIGHBORHOOD

CIVIC CENTER

2ND NEIGHBORHOOD

3RD NEIGHBORHOOD

recreation & parks

recreation & parks

recreation & parks

"FREE
TOWN"

TRANSPRO
CENTER

M&M

PIT
+
SLOPES
(RECREATION)

NEW TOWN
1

CIVIC & COMM
CENTER

NEW TOWN
2

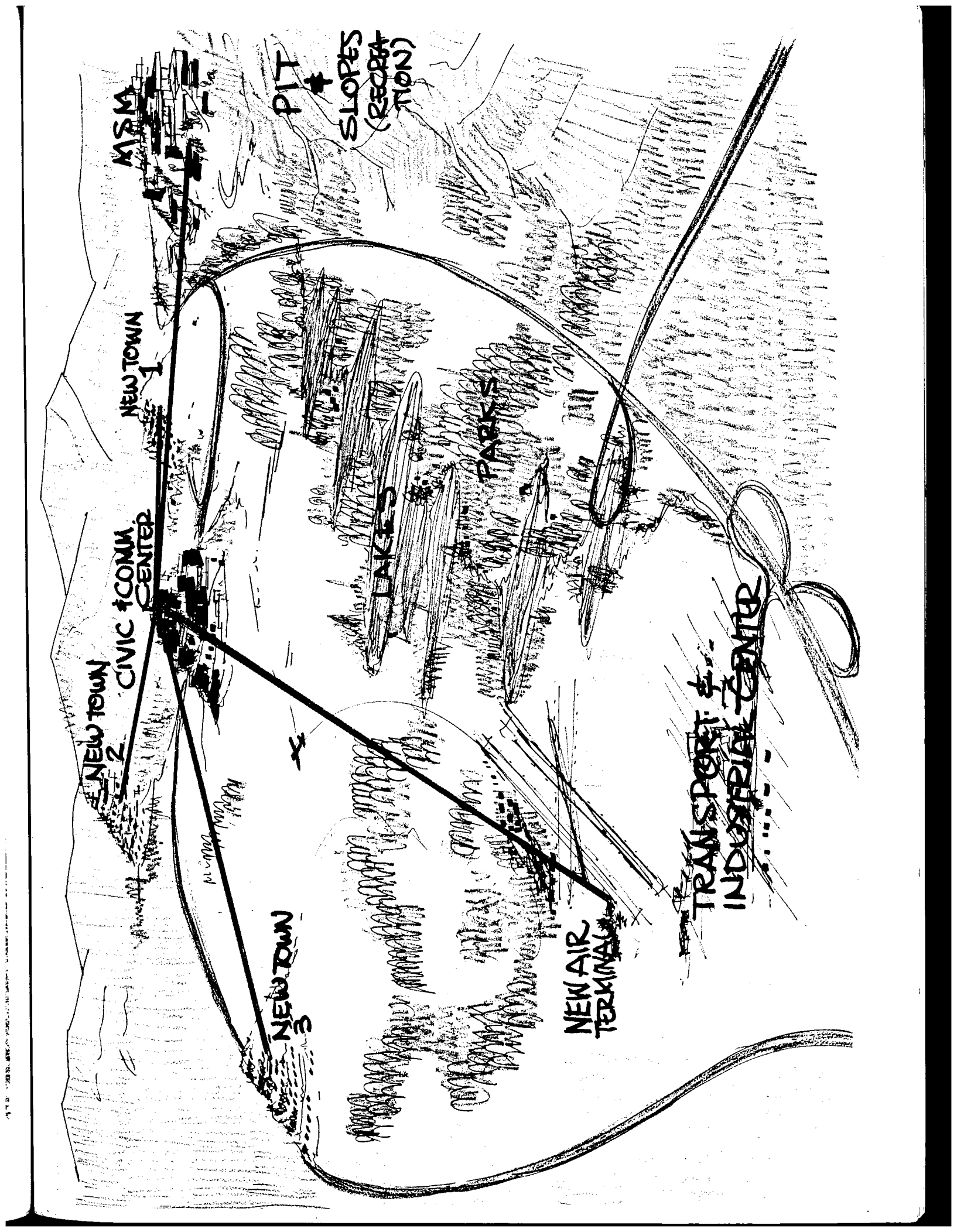
NEW TOWN
3

LAKES

PARKS

NEW AIR
TERMINAL

TRANSPORT &
INDUSTRIAL CENTER
.....



best accomplished as a subsidiary operation of Anaconda as control of the pit and the deposition of wastes for the principal purpose of extracting minerals will undoubtedly remain the paramount consideration for a number of years. Yet the potential income from recreational development is not slight especially since the most logical areas for developing supportive hotels and other tourist facilities is also on land owned by the mining company to the west of Montana School of Mines.

As tourism develops, the existing CBD should logically enter into a period of transition from the principal commercial area for the region to a specialized area focused on tourism and on the era of the old Butte. At this time the size of the uptown area can be substantially reduced to allow for mining expansion and the new city center on Timber Butte can expand into a commercial and office center as well as a governmental and residential community.

The recreational potential of the flats and particularly of the underground water resources should, at some time, be exploited. This could take the form of a series of artificial lakes which could initially be developed in the open areas and eventually replace deteriorating residential areas now covering the wetlands south of the interstate highway. These lakes should of course be tied with a linear parkway along Silver Bow Creek and the other streams which cross the valley floor.

All of the above steps allow a logical progress from the present condition. The most abstract proposal in this scheme is the eventual connection of all the "hill town" communities, the tourist center, the airport, the industrial or transpo-center and the new city center by some form of new transit system ---- for the present no adequate alternative exists to the private automobile for a dispersed community of 40-50,000 people; but within the next 20 years a great deal can and undoubtedly will happen to improve individual mobility and convenience. The development pattern established which concentrates development on high points of the valley already suggests an overhead monorail or suspended cable car system for moving people, but the plan is laid out in such a way as to function well with existing street and highway systems until such time as practical alternatives exist.

In summary, this may appear to be an ambitious plan but little of value is achieved without effort. No part of this proposal is unattainable and each step is a reasonable step well within the capacities of conditions which can be anticipated of the Butte community.

Report by Maynard W. Meyer, FAIA, AIP

1. Views of the Community

a.) Never having been in Butte before, nor any other part of Montana, I was extremely impressed on arrival by air that the flat valley, the uplands, and the encircling ring of mountains made a magnificent site for an almost unique human settlement.

b.) The topographic and geologic foundations of the site offer a myriad of design and developmental opportunities, almost unmatched anywhere else. First observation reactions were that they were not being taken advantage of in an intelligent and imaginative way.

c.) The trip from the airport to the Central Business District (our hotel) revealed that the newest development and the pattern of growth from the CBD outward, southward to the airport, was a sprawl of mixed land useage, scattered development, incompatible and disorganized, lacking in good urban structure and like too many other undisciplined, naive American cities. No good character, only ugly, mid 20th century Americana commercialism at its rampant worst.

d.) Upon arrival at the beginning of the rise from the "flats" toward the "Uptown" area, the working area of the City was evident in its compactness of railroad activity, wholesale houses, warehousing and service establishments, all intermixed with older, now decaying residential quarters. The age of this area revealed itself as late 19th century and early 20th century development. This was the breadbasket of the community and not beyond re-establishment, so long as the mines do not need it.

e.) Upon arriving uphill, to Uptown, which in most every other city in the world is "downtown", one was impressed with the strong historic flavor of late Victorian American character in its buildings, the feeling of a great heritage - past, and the need for a new spirit equal to the past - as in the 1860's and 70's when this blood and guts town was established.

f.) The people we met were friendly, hospitable, gracious and eager to find some magic key that would suddenly re-unite a divisive community and suddenly create a "peace on earth" in Butte.

g.) In the several bus trips around town the visual impact of the "Richest Hill on Earth" with its now idle mine head equipment looming into the skyline and conversely, the gnawing at the sides of the "richest hole on earth" gave one the feeling of the community's power and vitality, and it created in one a feeling of excitement, especially if one knew the history behind it.

h.) From the human side of the picture, the small, but gay, miners' homes snuggled close to the mine shafts, now deteriorating and being demolished slowly, made one realize that the former cohesiveness of the ethnic groups, the neighborliness of the common striving for livelihood, was now being lost - and to the detriment of the City.

i.) One waited to see the wide open saloons, the places of gambling and the "cribs", two and three decked high, but all of this has disappeared, and with it, it seems, has gone the frontier vitality. No longer is there the bustling activity of 800 whores in one block!

j.) The quality of life in the old "West Side" neighborhood is still very apparent, though age and a certain lack of maintenance has taken its toll. The unique structures, the steepness of topography, the beautiful mixture of old mansions intermixed with modest sized and even very tiny homes is evidence of a sociological phenomenon that today is highly valued and sought after as the ideal neighborhood structure. In comparison with the "flats", this is the far "richer" fabric for human habitation. One realizes at the moment that this district must be rehabilitated and preserved and that it can again become the prime residential district - until such time as it is over-run by the mining, but today it is further-est from the pit - which should give it many years.

k.) We next climbed the citadel to view Montana Tech and to view the City from Montana Tech's point of vantage. Whether deliberate and intentional or not, the similarity to the mining operation forms creates an unforgettable "acropolis" like situation. To the planner's mind this is an important "node" that may bear repeating, not per se, but in a new 21st century manner.

l.) On looking down from the citadel of Montana Tech one sees the parallelism of the new interstate system, the railroads and the meandering of Silver Bow Creek. One realizes there has been no foresight in trying to live with nature. There really seems to be no parks at all. Surely life cannot be that barren in Butte?

2. Proposals

Following the briefings and interviews with persons of different walks of life it became evident that a number of governmental and organizational actions will have to be taken before solid development can become successful. Suggestions along these lines are covered elsewhere in the RUDAT Team Report. The proposals given herein will stress the physical aspects of the problem.

a.) The Central Business District should be clearly defined in area. The writer believes the limitations to be as follows:

On the east, Arizona Street

On the south, Park Street

On the west, Idaho Street

On the north, Quartz Street

This area of 18 blocks, 3 blocks wide in a north-south direction and 6 blocks long in an east-west direction, should be the area given over to complete rehabilitation. This area contains the most important and almost all of the significant historic structures, both of governmental, commercial, hotel, office, mercantile, fraternal and cultural nature. This area appears to be small enough to rehabilitate economically and still do a good thorough job and yet large enough to serve as a thriving CBD for the present approximate 40,000 population.

Poorly designed or "bad" buildings should be demolished, existing "good" buildings should be properly and expertly rehabilitated, some new buildings sympathetically designed to fit in with the old, and similar in scale, materials and character, though completely contemporary structures should be added where necessary to compliment existing building masses or fill unfortunate voids in massing - all to create a pleasing new concentrated business-cultural-recreational and new residential center. It is important to retain and create new apartment and townhouse type residences in the CBD to retain round-the-clock habitation and activity. There is utmost need for generous landscaping treatment in this center, small, "vest-pocket" parks must be created. Certain alleys can become wholly pedestrian walkways with grass, shrubs and trees along these routes, with benches and other amenities to make them "comfortable" places. Certain vacant areas should become landscaped parking lots (not parking structures). A mosaic of varying paving materials should strive to segregate various uses not only to the sight, but to the feel of the foot as well.

If it is possible to achieve interconnections between buildings, blocks of buildings and block to block under cover or even in interior space, a pleasantry in severe weather could be achieved that in itself could help re-vitalize the CBD.

The adjacent area outside the delimited CBD should be cleared of dilapidated structures and landscaped and maintained as open space for as long as possible - until Anaconda's Pit eats it up.

The present CBD's umbilical cord connecting with its offspring, "New Butte", is Montana Street. The magnificent view down Montana Street, with Timber Butte on axis in the distance, an Acropolis patiently waiting to be built upon, is a fantastic and unique opportunity, that somehow, perhaps unwittingly, has created the lead, the strongest ingredient for a brilliant design solution. This is the lifeline between the existing CBD and the new Acropolis center. Montana Street should be rehabilitated over its entire length to prevent devaluation of the historic center and more, to achieve a new and extremely higher valuation of this district until such time as the mining economy is forced to take it. Even in years to come, with solid cooperation between the Anaconda Company and the Butte community, the delimited CBD might be left, again as an acropolis standing proudly in the middle of the pit and connected by the broad causeway of Montana Street. The touristic interest of a solution of this type is very exciting to contemplate. By agreement of mining around, to the north and then to the west of the then small CBD, this historic monument could have a very long life, at least several more generations.

Transportation across the "causeway" (Montana Street) should be one of the new modes of moving masses of people which should connect directly with the new center, the airport, and to the hearts of new satellite settlements.

b.) The Wholesale, Service and Warehouse District is a fundamental function necessary in all communities, and as such, must be given immediate study as to its disposition. In Butte, this district lies to the south of the CBD, between it and the railroads. Interspersed among the essential services is a considerable amount of residential use. The two uses are not compatible together and there must be a weeding out of one or the other. A very first determination that has to be made is that of the extent of copper bearing ore to the south of the present mining operation. Does it extend

as far as the railroad tracks? Does it extend further south? This exact edge of the deposits must be established immediately in order to properly plan for a rehabilitation of these service facilities. The location for the service sector should remain as close as possible to its present location. This, of course, will be governed by the southernmost extent of the ore deposit. Preferably, it should remain north of the railroad tracks, but if it can't, then the next preferable location will be that directly adjacent to the Interstate.

c.) West Side. The interesting houses and steep topography of the west side residential area should be kept intact as long as possible. The area should be delimited just as suggested for the CBD. Small and large houses should be rehabilitated and where appropriate, such as where non-rehabilitateable houses are torn down, small parks, tot lots, etc. should be interspersed. Around the periphery, the land should be put back into its natural state as simple open land.

d.) As stated in a. above, a new town center should be established on the sloped foothill of Timber Butte at the opposite end of Montana Street from the present CBD. The new town center should be connected with one of the new types of mass transit systems, not only to the old CBD, but to other important points such as the airport, the Anaconda operation, the West Side residential area and Montana Tech, to the centers of the proposed new communities, and to the hoped for new Transportation Harbor.

e.) New Residential Communities. It is suggested that new residential communities be designed as compact units containing within the complex the necessary services and lower school facilities to care for the needs of the residents of each community. These communities should be free standing, with natural open space between each, only connected by a road and the mass transit system. These individual communities each might house approximately 3000-5000 persons. Their location should be established both to the south of the new town center, along the foothills extending southward from Timber Butte, and westward from the new center on the foothills paralleling the Interstate, the railroads and Silver Bow Creek westward. These would be virtually satellite residential nodes each connected to the transit system - really a nodular-linear development. In years to come, it is conceivable that these communities could extend all the way to Anaconda City connecting Butte and Anaconda with a mass transit system passing through each of the residential nodes.

f.) The Existing "Flats". This area of the community, both that within the present city limits and that under county jurisdiction is badly out of control. The scattered, random development of odd

mixed use is in need of an organizational framework around which continued development might take place. The present "Los Angeles" type development must not be allowed to continue. It would be a great misfortune to see this kind of ragged scattering fill the whole valley floor. It would absolutely ruin Butte, far more than the pit is doing. Planned Unit Developments, both commercial and residential types, and some mixed, but properly designed should be the means of continuing any growth in the "flats". Hopefully, positive action in beginning the first "new community" would forestall the random development now running rampant in the flats.

g.) Airport. If the airport has to move in order to accomodate the larger planes in safety, the present airport should be retained for private planes and company executive craft. The possible moving of the airport or not must be determined at once because of impact it has on community growth. If a new airport is created west of the city, near the junction of the two Interstates, an entirely different growth pattern will have to be designed in regard to location of industry, the transpo-harbor, warehousing and other commercial services. Remember, two key determinations must be made at once :

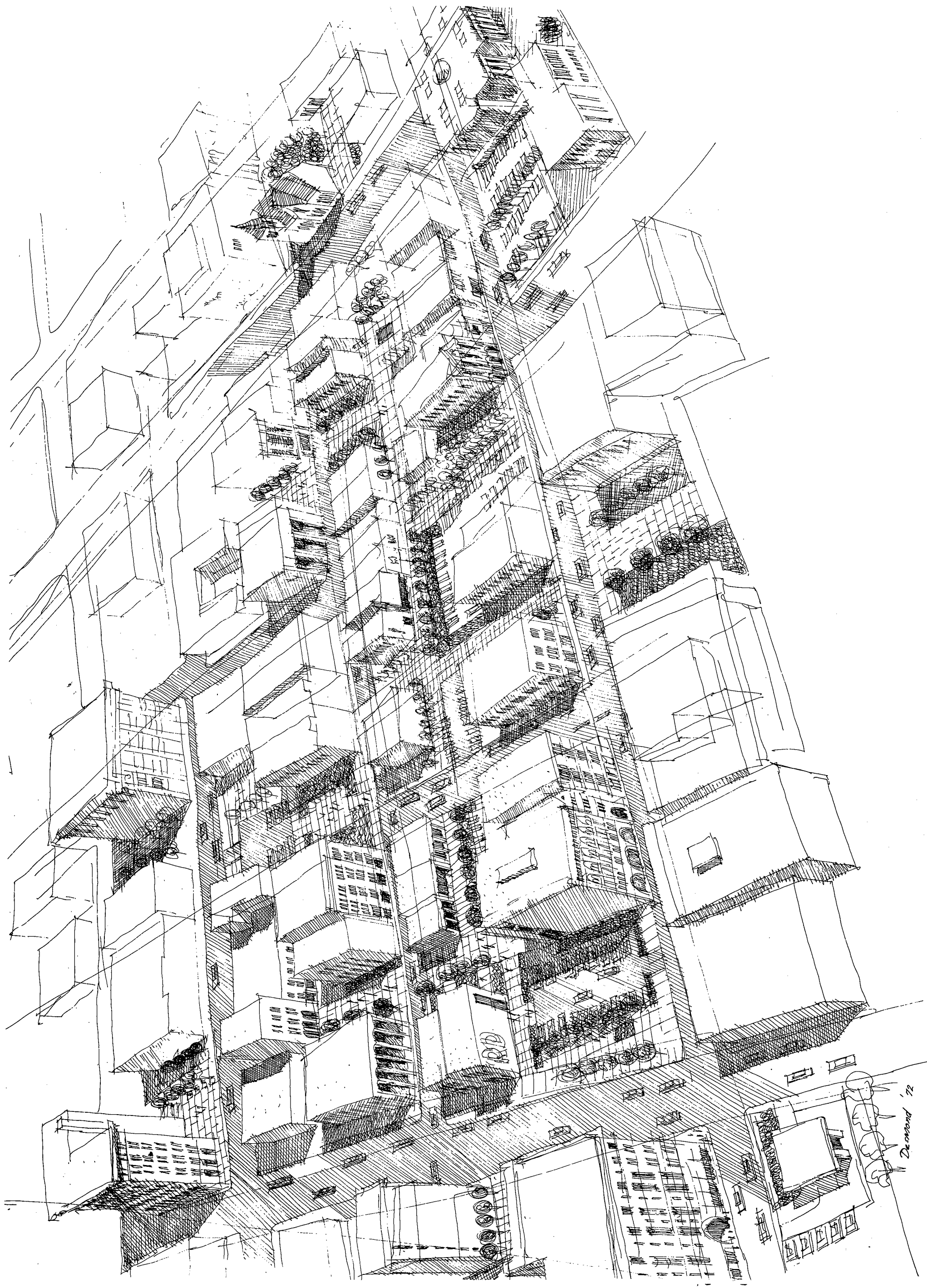
1. Pinpoint the southern edge of copper bearing ore - where is this line?
2. Find out, once and for all, whether the present airport can properly serve the city to the extent of present knowledge, or, if it cannot and a new site is needed, pin that site down immediately. Then go to work.

Report by John Desmond, FAIA

I find this to be a unique and lovely valley, dramatically climaxed by the "hill" and its mine workings.

The city, astride the hill with the Continental Divide as a backdrop, furnishes a very special urban quality which I have not experienced before -- the juxtaposition of urbanity and mountains. It is as Mr. Yoger pointed out, "an uptown town".

There are two major opportunities here for planning. One is to preserve and enhance this urbanity of the old town, especially the handsome, late 19th century buildings as long as they exist by caring for and landscaping the spaces between them. I have suggested by sketch a method of doing this. The second is to grasp the full implications of planning for the entire valley as a unified whole. To see the valley as a unit -- geologically, ecologically, politically and physically. To concentrate new planned units, housing, civic center, plazas, etc., to regain this sense of urbanity and order in such a way that the eventual result will not simply be the ongoing urban sprawl which fills the valley in twenty more years, but will optimize habitation and quality of daily life in this very beautiful setting.



Diamond '72

SUMMARY AND CONCLUSION

Undoubtedly, because of the very positive constraints placed upon the potential development of the Butte basin geologically and ecologically by the two team scientists, as well as the strong form of existing topographic features, the architects/planners very quickly arrived at unanimity in their thinking on the broad terms or basic concept, although in details their design solutions would undoubtedly vary if each were to carry forward his thinking.

The salient points to remember, are:

Geologic Constraints

The continental faults occurring at the very edge of the city running in a north-south direction eliminating any development in this direction.

The danger of flash flooding via the valleys and gulchs from the highlands to the east.

The dangers of rock slides and avalanches in this same vicinity.

The problems entailed with foundation stability and ground water in the alluvial plain (the flats) and the need to prevent contamination of the ground water, especially because it is a closed basin.

The copper bearing ore lies beneath the major portion of the built up City and the naked fact that, "it will be mined."

Ecologic Constraints

There is great need to respect the "surfaces", work with them don't fight them. Seek compatibility with nature.

There is need for green areas and areas of water. Protect Silver Bow and Blacktail Creeks from encroachment and pollution, allow the willow carrs to expand. Don't muck around in the swamp area, keep the naturalness where it is, but create a river parkway.

There is need for good reclamation in the workings of the mine. This can be done in a positive manner to create useable space again, including the growth of ground cover, plants and trees.

Understand the Trends

The source of greatest discomfort is the movement or constantly enlarging pit.

The most imminent problem is the movement of the pit toward the CBD.

The CBD is too loose a network, once serving 100,000, now too large to serve 40,000 appropriately. Reduction in area and concentration in use can again make the center viable.

The *raison d'etre* for the housing on the very top of the hill (Walkerville, etc.) is no longer valid. The miners no longer come out of the shafts nor do their houses have to be there, right at hand. Movement downhill and to new locations is imminent.

The airport and the Interstate highway system have created a new magnet which is drawing sprawl southward.

Directions for growth are limited to the flats (dangerous on the east side, good on the west side); along the foothills of Timber Butte and the mountains to the south; westward from Timber Butte south of Silver Bow Creek; rehabilitation of the old "West Side" neighborhood and development to the west on the north side of the creek, interstate and railroads to the west - at such time as Anaconda Company declares it has no interest in it as far as mining is concerned.

The relationship of Timber Butte to the existing CBD and its prominence in the basin cannot be overlooked as the most potential site for a new center.

The Alternatives

Continue the "laissez-faire" Pattern of present - movement primarily to the south into the flats - this is the No-Plan.

Plan for a new civic center and eventually a new CBD. The team strongly favors relationship with Timber Butte - all the way from the north side oriented with Montana Avenue around to the east and thence to the south facing the distant mountains to the south.

To this center, whichever location it would be, would connect via mass transit the living communities in satellite, linear or linear-nodule concept.

Walking away from the whole thing, allowing it to become another (largest ever) Ghost Town does not appear a realistic possibility, but it could happen if steps are not taken immediately to prepare the plan for "orderly withdrawal" from the present city site to the new planned communities.

Solutions and Actions

Achieve unified government for whole area.

Create quasi-public development corporation to redevelop city.

Philosophically, create new identity, then: reduce area, delimit and rehabilitate the existing CBD.

Establish the site for a new civic center and provide good connection to existing CBD.

Develop further the existing transportation system and prepare for wholly new modes of transportation between each of the important nodes of the city and the centers of new residential communities.

Prepare plan to phase in new communities and phase out the old.

Pin down location of airport - whether existing one stays or new location is sought.

After the airport location is pinned down, pin down location for new transpo-center.

Increase diversification of industry and further develop tourism and recreation centers.

FINIS

The Butte RUDAT team wishes to express its thanks to the entire community, and to all those who worked so very hard to make possible the team's visit. Each member of the team is very grateful to have been asked to participate and hopes that what has been done here will aid Butte in setting up its priorities for the achievement of the future environment of the Butte-Silver Bow Community.

Each member of the RUDAT team has been moved by the beauty of the Butte area. The valley floor ringed by the mountains on all sides provides a most unique setting for a beautiful human settlement. It is dramatic and it is exciting. It has great possibilities. The team hopes the total community will develop it with understanding, care and empathy.

The American Institute of Architects

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