

BVP

general plan

 LAFAYETTE

CITY OF LAFAYETTE

California

GENERAL PLAN

Adopted by Planning Commission on September 27, 1973

Revised and adopted by the City Council on January 2, 1974

CITY COUNCIL

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James Davy
Donn Black
Robert Fisher
Ned Robinson

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Vice-Mayor
Councilman
Councilman
Councilman

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- 1/ Subsequently appointed to Lafayette Planning Commission.
- 2/ Subsequently elected to Lafayette City Council.
- 3/ Also served on the Central Area Committee.

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I. Introduction



CITY COUNCIL
Walter H. Costa, Mayor
James L. Davy, Vice Mayor
Donn L. Black
Robert M. Fisher
Ned Robinson

October 1, 1973

Mayor Walter Costa and
Members of the Lafayette City Council
975 Oakland Street
Lafayette, CA 94549

Gentlemen:

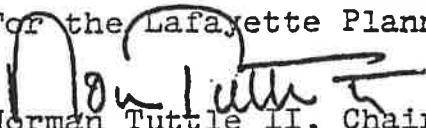
We are pleased to transmit and recommend for your adoption the enclosed General Plan for Lafayette.

It is hoped you will find the Plan responsive not only to Lafayette's residents, but to the City's role as part of the Bay region. In addition to retention of our semi-rural character, the Plan seeks to implement objectives stated in the Regional Plan 1970:1990 for the San Francisco Bay Region as adopted by the Association of Bay Area Governments, through (1) reinforcement rather than dilution of existing urban centers, (2) preservation of open space on a regionally significant scale, and (3) careful attention to environmental quality. The Plan we suggest also seeks to continue the Lafayette tradition of providing homes for an economic spectrum, through steps designed to restrain the current trend toward a single, affluent class living in our community.

The Plan includes a Central Area element which generally restates the text adopted by the City Council in 1971. We do, however, recommend some changes which the Commission felt should be brought to your attention. In addition to updating the narrative to reflect the existence of BART service, we added a suggestion that Mt. Diablo Boulevard include, where appropriate, scenic walkways and bicycle paths and a further suggestion that, in the interest of conservation of Lafayette's existing stock of moderate priced housing, not all small single-family residential lots should be designated for transition to apartment zoning.

We look forward to joining with the community in your public hearings on the Plan.

For the Lafayette Planning Commission


Norman Tuttle II, Chairman

cc Members of the Lafayette
Planning Commission

THE FUTURE OF LAFAYETTE

PRESERVE AND ENHANCE THE CHARACTER OF LAFAYETTE AS A LOW DENSITY, SEMI-RURAL RESIDENTIAL COMMUNITY.

--Lafayette Goals & Policies Committee

This principal goal describes Lafayette and expresses the community's desire about its future. The character of the City is a result of terrain--well-defined hills and valleys. The semi-rural, close-to-nature feeling can be retained if hilltops and other major natural features are preserved on a major scale. The General Plan portrays a city extending from park to park and laced with an inner pattern of open spaces.

The natural features of Lafayette, which give it so much of its charm and appeal, have resulted in relatively slow, high quality development. The wave of growth outward from the urbanized Bay Area which, for example, catapulted the City of Concord from one-third the size of Lafayette to a city of nearly a hundred thousand in a few short years, leapfrogged over Lafayette to the flat lands of Ygnacio Valley. The Bay Area Rapid Transit System is, however, a major impetus for growth. This development can be expected to bring new pressures of growth, largely comprising commuting executives from San Francisco. A significant proportion of this growth will likely be aimed at view sites at the tops of hills, in spite of the multitude of problems posed by their development. These hills, in their undeveloped state, lend much to the character and quality of Lafayette. The City already has several examples of ridgetop homes springing up just outside the city, seeking the commanding, panoramic views of the distant mountains and the developed valleys. If the City is to preserve its character as a semi-rural residential community, if it is to preserve the scenic quality of the surrounding hills, and if it is to avoid the hazards of landslides, earthquakes, fires, and steep and narrow roads, decisions will have to be made to take strong and possibly costly action. If not, the citizens of Lafayette who developed the fine statement of goals and policies for the city will face the frustration of watching the erosion of the opportunity portrayed in the General Plan as each new house makes its way to the top of the City's developing ridgelines.

On the other hand, once the open space features of the Plan are safely preserved, the City can proceed to develop a handsome community focusing on an historic village area, served by a modern transit system and an adequate system of automobile circulation.

Lafayette can become a semi-rural community set in the context of a magnificent open space environment. The concept of a city from park to park is bold and exciting, perhaps unique for a city of comparable size. Complementary to the park to park theme can be a system of open spaces linking various residential areas of the community to the parks while serving a multi-use function for recreation and preservation. The development of the central area to capture a specific shopping market, the development of a civic and cultural focus, and the balancing of associated downtown uses can fortify and sustain the sense of a "community", rather than just a place to live. To accomplish these ideals is the great challenge to the citizens of Lafayette. The City must face the challenge and formulate an active program in order to preserve and maintain the quality, character and identity of the community.

WHAT IS A GENERAL PLAN?

A general plan is an official public document adopted by a local government as a policy guide to decisions about the physical development of the community. It is not legislation.

Other documents used in local planning should not be confused with the general plan. These include the zoning ordinances, subdivision regulations, hillside ordinance, and other documents which are specific pieces of legislation intended to carry out the proposals of the plan.

The general plan is intended to be flexible in order to allow periodic revisions as community conditions change over the years. Adaptation of the plan to changing conditions and goals will be effected through annual review and updating. Once a general plan is adopted, California law requires that zoning must be made to conform to the plan, and stipulates that changes in the plan require official action taken after legal public hearing.

Since the general plan process recognizes and responds to community desires, the plan is, at any point in time, an expression of local goals as determined through the most recent analysis. It is guided by a Report of the Lafayette Goals and Policies Committee for the General Plan, adopted by the Lafayette City Council on November 24, 1970.

GOALS & POLICIES

PRINCIPAL GOAL:

*PRESERVE AND ENHANCE THE CHARACTER OF LAFAYETTE
AS A LOW DENSITY, SEMI-RURAL RESIDENTIAL COMMUNITY.*

COMMUNITY IDENTITY

Goals and Policies:

- 1. Create and maintain a strong "sense of community" in Lafayette.*
- 2. Retain a village character in Lafayette.*
- 3. Preserve the scenic quality of our surrounding hills, creek areas, trees and other rural growth.*
- 4. Develop attractive entranceways to Lafayette.*

LAND USE AND OPEN SPACE

Goals:

- 1. Protect the Lafayette viewscape by extending City boundaries to include natural ridge lines and to reach adjacent public open space.*
- 2. Adopt architectural controls to ensure attractive, well-planned improvements.*
- 3. Maintain large areas of undeveloped land in a natural state.*
- 4. Preserve existing ridges, creeks, and utility easements and encourage their development as greenbelts and greenways, where appropriate.*
- 5. Encourage large lots, or where appropriate, cluster developments to preserve the wooded or open character of residential areas.*

Policies:

- 1. The City either establish a special Open Space Commission to undertake, or delegate to the Planning Commission as a priority matter, the following:*

- a. Map Lafayette to determine location and ownership of existing open space;
 - b. Assemble an inventory of land presently protected from development by reason of public ownership or existing public or quasi-public easements, and determine its availability and suitability for public and recreational use;
 - c. Recommend suitable areas to be zoned for "cluster" or "planned unit" zoning so as to preserve or create open space; and
 - d. Designate, in order of priority, appropriate parcels for acquisition by the City (or by non-profit organizations) as funds may become available.
2. The City sponsor a public referendum to determine if the citizens would approve a limited property tax (for example, 25 or 50 cents per \$100 of assessed valuation for a limited period) for the acquisition of priority open space for public and recreational use.
 3. The City establish architectural review for the design of commercial, multiple residential, and tract housing (but not to review custom-built, single family housing).

CENTRAL AREA

Goals and Policies:

1. Create an attractive, high-quality commercial area as a complement to the surrounding residential community.
2. Make the Central Area economically as strong as possible, consistent with the environmental goals of the community.
3. Lafayette should seek to take advantage of the location of the BART station and the Freeway off-ramps, to maximize the integration of both transportation and development of a well-organized and well-designed Central Area nucleus.
4. The Central Area should be the prime area serving the shopping needs of Lafayette's residents.

5. Lafayette should strengthen the selective regional role of the Central Area by attracting appropriate shops, restaurants, offices, and similar businesses which serve local and nearby needs.
6. Upgrade the present image of the developed portions of Mt. Diablo Boulevard by careful attention to uses, development standards and aesthetic standards.

TRANSPORTATION

Goal:

To require the highest possible standards and approach to the solution of the transportation needs in the City of Lafayette.

Policies:

1. Through traffic should be diverted away from the "core area". The center-Lafayette freeway ramps should primarily serve the core area traffic needs. A circumventing road system should be used for direct access to outlying areas.
2. The City Council should appoint a permanent commission to establish need and priorities, as well as routes and other regulating means. New auto traffic patterns should not be created until thoroughly studied. Develop roads for people, rather than automobiles.
3. People will go where transportation is. Plan all facets of transportation to retain the rural atmosphere.
4. Actively study a local transportation system, either private, semi-private or public operated, considering the most up-to-date thinking now available.
5. Pursue the development of facilities for pedestrians and bicyclists to serve the residents of the area.
6. Encourage use of any transportation that reduces pollution.

COMMUNICATION

Goal:

Recognize effective communication as an essential function of representative city government.

Policies:

1. *Open and sustain effective two-way internal communications between the City and its residents and external communication on behalf of its residents.*
2. *Demonstrate that communication with the City regarding the needs of the residents can be effective.*
3. *Gain understanding and acceptance, through appropriate communication, of new programs and policies which have been adopted by the City Council.*
4. *Be receptive to imaginative and innovative programs and ideas in communication.*

POPULATION AND HOUSING

Goal:

Encourage the preservation, wherever possible, of existing single family residential areas, and accommodate a reasonable amount of diversity among citizens of Lafayette in terms of age, income, and cultural background.

Policies:

1. *In planning the ultimate population of Lafayette, vacant areas to be developed for single family dwellings shall be zoned to effect existing density and shall not exceed an average density of two families per acre.*
2. *That the cluster home concept be permitted under existing density requirements and encouraged when it will prevent unsightly cut and fill developments and leave more open space, and that the condominium type of ownership be permitted.*
3. *That in addition to areas presently zoned for multiple dwellings, multiples be permitted as a buffer between commercial, freeway, or public areas and single family zones. This should be accomplished in a well-planned manner to avoid an undesirable hodge-podge type of development.*
4. *That no mobile home zoning is permitted.*
5. *That residential development continue to preserve the natural setting of the City, and that preservation of natural ridge lines be considered in future plans.*

6. That non-residential structures in residential areas (schools, churches, firehouses, police stations, utility structures, etc.) be subject to review architecturally to assure conformity with existing residential character of the neighborhood.
7. That there be no residential or commercial highrise structures in Lafayette, high-rise being defined as buildings in excess of three stories, except in a few truly exceptional instances where higher structures or portions of main structures would be necessary for the economic development of the core area and where it would enhance the architectural beauty or setting of the building.
8. That a plan be developed to enable needy residents of Lafayette, such as senior citizens on diminishing fixed incomes, to remain in the community.

PARKS, RECREATION AND CULTURE

Goal 1:

Provide a system of community and neighborhood parks, including utilization of existing school properties, adjacent and other lands as they become available.

Policies:

1. The City Council should adopt a park and recreational element to the City General Plan, and also adopt a park dedication ordinance.
2. The City Council should adopt a parks and recreation ordinance which will provide for a Parks and Recreation Committee.
3. Adopt a joint-powers agreement between the City of Lafayette and the School District Governing Board to provide for the establishment of Park-School Complexes.

Goal 2:

Provide recreation facilities for various age groups of the type and quality not now enjoyed.

Policies:

1. *Negotiate with the East Bay Municipal Utility District and other public agencies for lease of reservoir property and for right-of-way properties or easements.*
2. *Cooperate with regional swim, tennis, and other recreational groups in developing a user supported swimming and tennis complex having an Olympic-sized (about 50 by 23 meters) pool along with four to six tennis courts with night lighting.*

Goal 3:

Provide educational and cultural programs and facilities to supplement those provided by the schools.

Policies:

1. *Instigate a joint-powers agreement between the City and local school districts to provide for educational and cultural programs not now enjoyed.*
2. *Construct a Community Center Building along the lines recommended in the Parks, Recreation, and Culture Report on a community center development dated April 27, 1970.*

Goal 4:

Consider measures as recommended by qualified ecological experts to preserve our environment.

Policy:

Secure the services of a recognized ecological expert to work in conjunction with regional experts in making specific environmental control recommendations for the City of Lafayette.

Goal 5:

Develop a system of city-wide hiking, bicycling, and equestrian trails.

Policies:

1. *Include proposed trail routes as a part of the City General Plan.*

2. *Seek support and help of community groups in developing and maintaining trails.*
3. *Work in conjunction with East Bay Regional Parks District in developing a hiking and equestrian trail between Briones and Las Trampas Regional Park.*
4. *Actively pursue the use of utility easement properties within the City.*

II. Principal Features of the Plan

THE GENERAL PLAN IN BRIEF

The General Plan for Lafayette is consistent with the Regional Plan adopted by the Association of Bay Area Governments. It portrays a rural residential community of 26,000 - 29,000 people nestled in tree-studded valleys and surrounded by open hills and ridges. Guided by the Regional Plan 1970 - 1990 for the San Francisco Bay Region adopted by the Association of Bay Area Governments, the General Plan for Lafayette seeks to support urban development around existing communities, foster extensive open space and conserved areas and focus attention on improved environmental quality.

Lafayette lies on the lower reaches of the Briones and Berkeley Hills. The Plan shows the city reaching Las Trampas Regional Park on the south and Briones Regional Park on the north. A system of open spaces, riding-hiking trails and paths links residential, commercial and recreational areas to the regional parks. Low density residential areas fill the valleys, with parks and open space connections to the larger open space and riding-hiking system. A greenbelt surrounds the city demarcating the boundary between Lafayette and its neighbors.

A network of major and secondary streets serves all areas of the city and connects to the freeway interchanges.

Landscaped entrance areas at both ends of Mt. Diablo Boulevard announce the arrival into the downtown area to shoppers, visitors and residents. The downtown contains the intensely developed BART Block, central retail shopping, an automobile area, special office-residential use areas and higher density residential areas, all astride the "Great Street", Mt. Diablo Boulevard.

PRINCIPAL FEATURES OF THE PLAN

A City from Park to Park

Lafayette is a city lying astride a beautiful band of foothills. A little beyond the City to the north is Briones Park. Likewise a little beyond the city limits to the south is Las Trampas Park. Both are major regional parks and a part of the East Bay Regional Park system. A grand concept of the Plan for Lafayette is for the City to extend northward and southward to both these parks, and, in conjunction with the open space around the Lafayette Reservoir, to develop a network of internal open space which would link these two regional parks through the fabric of the City creating a city from park to park.

Open Space Preservation

Lafayette's character as a semi-rural residential community is related intimately to the close sense of connection to natural open spaces which now penetrate to the heart of the City. Development of these open spaces poses a multiplicity of problems because of steep terrain, unstable soil, lack of available utilities, circulation problems, drainage problems, and other factors. The Plan proposes, in order to preserve and enhance the character of Lafayette, that the City undertake a major effort to preserve on a grand scale the important open spaces now penetrating the City, that these open spaces be identified and given a priority rating, and that the City undertake the strong, active measures necessary to preserve them. In addition to preserving the rural quality of Lafayette, these extensive open spaces will accomplish several other things for the City. They will contain a system of parks large and small; they will form the basis of an extensive riding and hiking trail system; they will form a basis for a natural division of the City into neighborhoods of comprehensible human scale.

Semi-Rural Residential Character

The Plan proposes that the semi-rural residential character of the City be maintained, not only through the preservation of the open spaces but through the creative use of the zoning densities and the confinement of commercial uses to a limited number of specified areas.

Central Lafayette

The Plan proposes that the village, the original historical point of beginning of Lafayette, remain the focus of the community and that commercial and non-residential non-park uses be confined to the central area focusing on Mt. Diablo Boulevard.

One of the major recommendations of the Central Area Plan is the recognition of both the focal and symbolic importance of Mt. Diablo Boulevard and the fine opportunity the City still has to create a truly great street through a combination of urban beautification and preservation measures.

Circulation

In keeping with the desire to maintain a rural residential community, the General Plan recommends a minimum of street improvements. Fortunately the City divides into a number of natural residential neighborhoods which can, for the most part, be served by existing streets.

**III. Areas of
Planning Concern**

Lafayette postal zone

Martinez

Briones
Regional
Park

Pleasant
Hill

BROOKWOOD

RELIEF VALLEY

Walnut
Creek

LAFAYETTE RIDGE

SPRINGBROOK

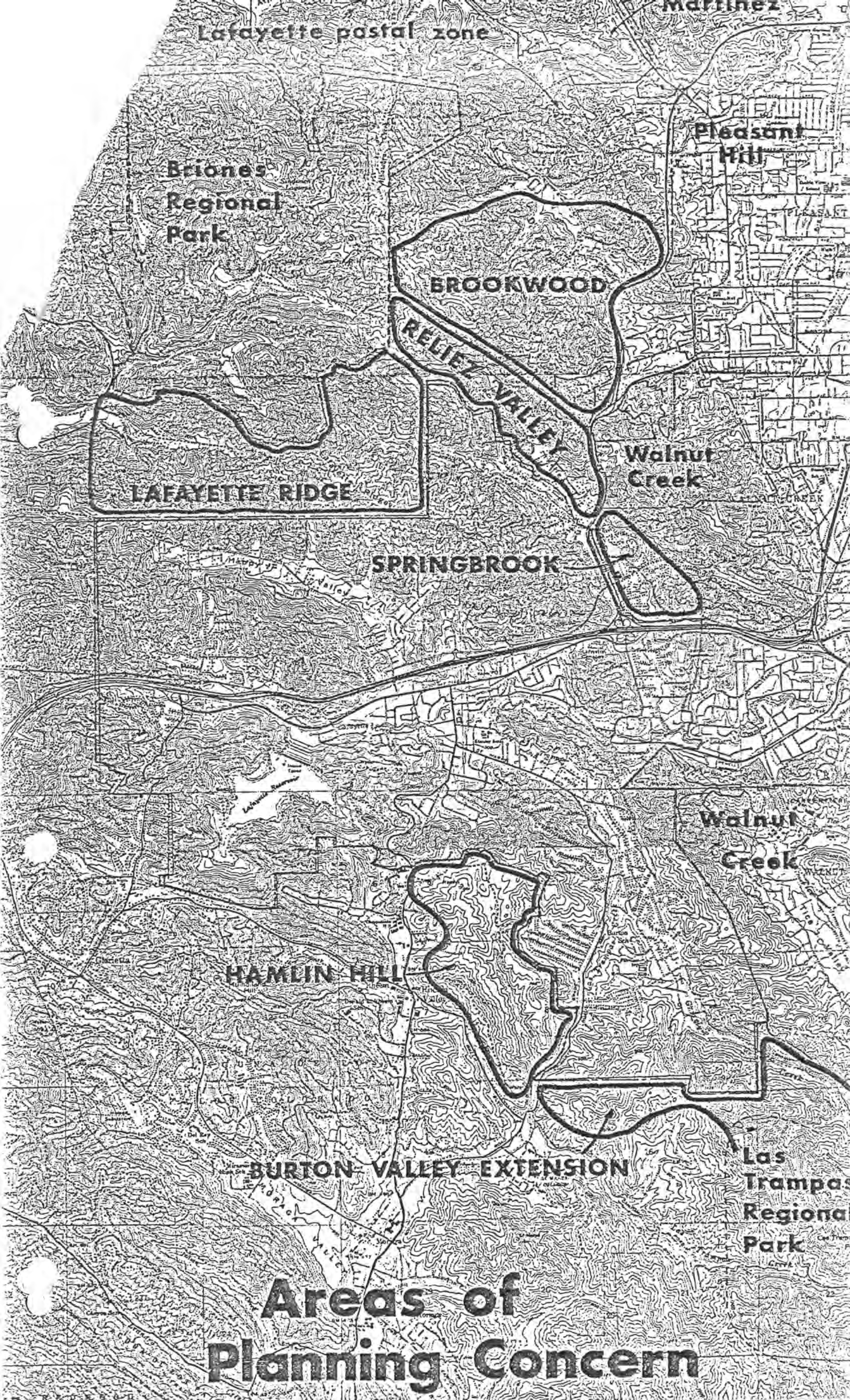
Walnut
Creek

HAMLIN HILL

BURTON VALLEY EXTENSION

Las
Trampas
Regional
Park

Areas of Planning Concern



AREAS OF PLANNING CONCERN

Consideration and evaluation of many factors, several of which are listed below, were necessary and appropriate not only at this general plan stage, but will also be necessary at the time of decision for or against a particular annexation. The following factors were used in the evaluations which led to the Areas of Planning Concern Map:

- *Logical areas for growth that contain topographic and natural features appropriate and related to Lafayette's physical character*
- *A "sense of community" in that an area is not isolated from the physical, social, political and economic purpose of the community*
- *An expression of feeling of affinity for Lafayette from people residing outside the present political boundaries of the City*
- *A City extending from regional park to regional park*
- *An evaluation of those areas which have a visual impact on the community*

All the areas shown on the accompanying map are included within the content and context of the general planning studies for the City. Including these areas in the planning process affords the City the opportunity to set forth appropriate policy regarding development and to pre-zone these areas, if desired, before annexation proceedings take place.

Although factors such as the street system, school district boundaries and community sentiment were important considerations, topography was the primary criterion in defining these Areas of Planning Concern.

Lafayette Ridge

The Lafayette Ridge is an area of severe terrain and large areas of semi-public ownership, and is one of the City's most prominent natural features. It runs into Briones Park, and consists of all of the area which now separates the City from the park.

The Local Agency Formation Commission (LAFCO) has determined that the area designated as Lafayette Ridge should not become a part of Lafayette or any other city, or of those special districts which provide urban services. The LAFCO decision indicates that the area will not be developed, but will remain in open space-agricultural usage. Such a use is consistent with and encouraged by this plan.

If the "no-development" policy is enforced by LAFCO, there is no need for this area to be annexed by the City. The area is included here, however, to indicate that the City has a vital interest in it and will monitor any proposals for development to assure their consistency with this plan and the current position of LAFCO. In the event the area is to be allowed to develop at any density, it should first be annexed to the City of Lafayette.

Reliez Valley

Reliez Valley is an area very similar in character to some of the other existing parts of the City, and is a logical extension of the City to the north. The line used to define the Reliez Valley planning area is generally the ridge line forming the wall of the valley along the northeast.

Brookwood

Reliez Valley Road extends over a saddle between Reliez Valley and the Brookwood area, and continues on through Brookwood. A large portion of this area is owned by the Catholic Church and may never be urbanized. However, the area does form a logical single entity extending from the park boundary to Taylor Boulevard and defined on the northeast by a prominent ridge line. All the presently populated parts of this area are within the Lafayette postal zone. The people living in the area generally feel oriented to Lafayette.

There are two small portions of the Lafayette postal zone which are outside the area defined as Brookwood on the map. One of these is part of the upper reaches of a valley, the lower part of which is already within the City of Martinez and seems, therefore, to be a logical part of the future growth of Martinez. The other is an area between the southern end of Taylor Boulevard and Pleasant Hill Road, which seems to be a logical area of ultimate growth of Pleasant Hill. In driving northward from the Pleasant Hill interchange, one moves over a prominent saddle near the southern end of Taylor Boulevard and gets a strong sense of transition from Lafayette into Diablo Valley. Likewise, one gets an equally strong sense of moving out of that Valley and into Lafayette. This summit, therefore, is a logical ultimate boundary between Lafayette and Pleasant Hill.

Sprindbrook

The area east of Pleasant Hill Road can be defined by a high ridge line separating it from Walnut Creek.

Burton Valley Extension

The area identified as "Burton Valley Extension" is also of planning concern to the City. The area includes the ridges which form the southern boundary of Burton Valley, plus the watershed of Grizzly Creek.

Hamlin Hill

Part of the ridgeline at the southern end of Central Lafayette is owned by the Moraga School District, and it is likely that the area south of Lafayette Heights and west of Burton Valley will be included as part of a development to Rheem Boulevard, and which will be more oriented to Moraga than to Lafayette.

Regardless of the public jurisdiction which eventually controls the area, Lafayette will take an interest in the development of the portions which visually form a part of the Lafayette environment. Cooperation with other governmental agencies and with neighborhood and area associations should be effective in accomplishing development acceptable both to Lafayette and to the Moraga community.

Other Areas

There are other areas outside the City where development may be of concern to the City because of impact on drainage, traffic, utilities, viewshed of the City, or because of other important impact. The City will review proposals for development in such areas and cooperate with developers, other agencies, and neighborhood associations in an effort to assure development consistent with Lafayette goals.

***IV. Open Space,
Conservation,
Parks, & Recreation***

OPEN SPACE, CONSERVATION, PARKS AND RECREATION

The various components of this chapter—open space, conservation, parks, and recreation—have been given separate consideration as elements of the General Plan. However, because they are so interrelated in terms of function, planning, and regulation, they have been combined herein to facilitate continuity.

The City and its residents have recognized the vital role environmental preservation will play in preserving the rural open character of Lafayette. The most significant feature of this General Plan is the preservation of open space on a permanent and grand scale. The General Plan provides for preservation, enhancement and development of open space, conservation, recreation and vistas, all welded together into a system of multi-use open spaces that define the urban areas and give order and continuity to the whole.

The General Plan has the following environmental preservation goals:

- *The protection of the Lafayette viewscape through designation of areas of planning concern and in some cases extension of City boundaries to include natural ridgelines and to reach adjacent public open space*
- *The maintenance of large areas of undeveloped land in a natural state*
- *The preservation of undeveloped key ridges, creeks, and utility easements, and their development as greenbelts and greenways, where appropriate*
- *The encouragement of large lots, or where appropriate, cluster developments to preserve the wooded or open character of residential areas.*

The Open Space, Conservation, Park and Recreation Element consists of a system of ridges, hills, valleys, trails, and other open space areas which link and interconnect residential, commercial and recreational development. These areas give meaningful form and context to the whole planning area while providing for a riding-hiking system, in addition to preserving Lafayette's prime resource, open space. Conservation of plant life, wild-life, scenic areas, creeks and water resources is a natural result of open space preservation.

Development in Lafayette to date has primarily occurred in the valley areas. However, this resource is rapidly disappearing as exemplified in recent developments that reach higher and higher up the slopes. Several examples exist on either side of Lafayette Ridge while more examples exist outside the City limits. These areas illustrate the severe grading and padding techniques utilized to prepare steep land for development. It

must be noted here that to allow developments similar to those described above to occur on the ridges and hills proposed for open space and conservation would virtually destroy the character of Lafayette.

The balance, then, between development and non-development—with provision of appropriate open space is the primary concern of this element. Open space and conservation are considered and are being treated in the same context since the same areas proposed for open space are the areas that should be considered for preservation of vegetation, wildlife, soils, and watercourses.

Open Space Criteria

Several elements make up and characterize open space and are discussed here to relate the approach and process utilized in proposing the open space—conservation program. These are topography, visual impact, potential linkages and vacant land status.

Topography

The Areas of Planning Concern are primarily based on topographic considerations reflecting a continuity with relation to the land. Residential neighborhoods are spatially defined and separated by topographic features and provide a strong rationale for the ultimate growth of the City. Topography also reflects geology and soils which have a critical bearing on stability of slopes, foundation characteristics and general safety implications for building requirements. Further details and discussion of geology, soils and general safety can be found in the section on Safety, and in the Appendix.

Visual Impact

Visual features are those aspects of topography one perceives, on one hand, as area or space-defining characteristics while looking out and up; and, on the other hand, vast vistas or over-views while looking out and down. Perceptions of these space-defining and overlook features vary depending upon the degree or speed of movement and the method of movement, such as walking, riding or flying.

Potential Linkages

Open space must be developed on an areawide system basis, and linkages and continuity are vital aspects of an open space system. Just as circulation routes are vehicular links within a neighborhood, community, city and region,

open space should create visual and pedestrian links to provide association, continuity, and delineation among neighborhoods, shopping areas, public spaces and recreational areas.

Vacant Land Status

Vacant land, or undeveloped land, is normally considered the prime resource for growth and development in a general plan process. In Lafayette's case, vacant land is the same resource that provides the visual character, sense of openness, and rural quality that are so appealing.

OPEN SPACE

The open space areas designated by the Plan contain the space-defining and characteristic physical features that represent Lafayette. The areas reach down from ridges to a point where development below can occur without disruption or scarring of the land. The main characteristic of the open area is steep slopes; generally 35 per cent or more, yet these areas contain varying degrees of gentle land and wider ridge tops. These areas would serve the dual purpose of preserving open space and providing for a system of riding-hiking trails interlaced throughout the entire community, linking Briones and Las Trampas Regional Parks, plus the Lafayette Reservoir and watershed areas.

Conservation of open spaces is essential to provide visual and functional protection of natural features. Problems arising from development in designated open space areas include:

VISUAL

- *Extensive lot grading*
- *Cuts and fills for roads*
- *Tree and ground cover removal*
- *Erosion*
- *Conspicuous colors and structures*

FUNCTIONAL

- *Difficulty and additional public expense of providing services and maintenance of facilities under difficult terrain and access conditions*
- *Increased danger to property and lives resulting from natural disasters such as fires, earthquakes, and landslides.*

Nearly encircling the City is a proposed, almost continuous greenbelt, providing a buffer between Lafayette and its neighboring communities. This greenbelt both visually defines Lafayette and helps maintain its sense of a distinct rural community.

TYPES OF OPEN SPACE

There are three basic types of open spaces existing or proposed in the General Plan: Utility Open Space, Corridor Open Space, and Visual Open Space.

Utility Open Space

Utility open spaces are areas where the natural site and/or safety condition lends itself most appropriately to use for parks and recreation areas of scenic value, and other public or semi-public uses. These open spaces include protected areas such as the ridges and hills, natural park areas such as Briones and Las Trampas Regional Parks, urban park and recreation areas such as Lafayette Reservoir, and urban development open spaces such as provided for by planned unit development or parkland dedication.

Utility open spaces also include resource lands such as the University of California Field Station and other agricultural areas, flood control and drainage areas such as the Lafayette Reservoir and water filtration plant. Most of these open spaces serve a multi-function purpose such as the Lafayette Reservoir; i.e., as a dam and water storage facility, a watershed area and as a community-wide recreational facility for boating, riding and hiking.

Corridor Open Space

Corridor open space includes open space assigned to the paths and areas of movement or passage and includes highways, streets and drives, rivers or creeks, rapid transit lines, and utility easements such as the EBMUD pipe line easement that parallels State Route 24, the abandoned Sacramento Northern Railroad right-of-way, and the P. G. & E. power line easement that traverses the southern planning area. Appropriate care should be given to treatment of the "edge" of an easement with relation to adjacent development.

Visual Open Space

Visual open spaces are critical to the open rural character of Lafayette but which may remain in private ownership with private uses compatible with the open space objectives. This category includes very low density areas of development which, visually, are essentially undeveloped.

PROGRAM OF ACTION AND IMPLEMENTATION

Present undeveloped land in the planning area represents either areas to be preserved for permanent open space and recreation purposes, or areas to be developed for future residential and community purposes.

The open space program involves the establishment of a variety of provisions for its implementation. The following methods should be used in a coordinated way to achieve a total open space program.

Hillside and Ridgeline Preservation

A hillside and ridgeline development policy is the basic method of protecting the terrain and surrounding natural and man-made environment of areas zoned for development. A hillside density formula reduces the density on steep land. Experience indicates that development of steep areas poses special problems which may best be solved by increased lot size. At a hillside slope of 35 percent, lot sizes of 3 to 5 acres should be required. At 40 percent, lot sizes of 7 to 10 acres should be required. Development on ridgelines also poses difficult geologic problems, and results in deterioration of the aesthetic qualities of the environment.

Parkland Dedication

The City's parkland dedication ordinance requires either dedication of parkland in the subdivision process or an in-lieu payment which will be used to acquire some of the designated open spaces.

Low Density Zoning

Lafayette is a low density community. At a certain level of density, residential development becomes consistent with the City's open space goals. Very low density zoning (several acres per homesite) accomplishes two purposes in Lafayette: safe and rational development of extremely steep hillsides; and preservation of visual open space in those areas which are of greatest concern to the community.

Planned Unit Development

Planned unit development provides for the preservation of visual and functional open space in conjunction with overall site development. Clustering of buildings on a site allows development to occur on the most buildable portions of lots; grading for building sites and roads is minimized, and density remains the same as could be feasibly developed under the zoning restrictions which apply to the property at the time the application is made.

(The question of the types of housing to be allowed in PUD's is considered in the Housing Element.)

Excess Rights-of-Way

All excess rights-of-way from City, State or other public agencies will be reviewed to evaluate their possible contribution to the open space character of the City. These remnant parcels, often of little cash value in money returned to the public, can contribute to a greater sense of generous landscaping. The same parcels, if disposed of, often result in unattractive or overcrowded development with detrimental impact on public views. Examples include parcels adjacent to Freeway 24 and the right-of-way for State Route 77 through Burton Valley.

Taxation

The City will cooperate with property owners to accomplish the appropriate reduction in taxes on property which has been committed to permanent open space.

Donations

The City should vigorously pursue a policy of promotion of private donations of land, whether by gift, deed, easement or other devices which are short of public acquisition.

Public Acquisition

An important part of the open space effort of the City will have to be public acquisition through a combination of parkland dedication funds, annual general fund expenditures, and possibly a major bond program. Such public expenditures should be considered as an investment since they will be reflected in improved values of other lands throughout the City.

Architectural and Site Plan Review

In its exercise of architectural and site plan review the City should give special consideration to the impact of development on the open and semi-rural character of the single-family residential areas of Lafayette. The areas of the City from which proposed developments can be seen should be carefully evaluated and efforts made to avoid pre-empting or blocking important views and view corridors.

Open Space Zoning

Zoning regulations, including adoption of one or more open space zones, may be effective in accomplishing the following desired goals of Lafayette:

- Preservation of natural resources (such as wildlife, plant life and air quality); grazing and agricultural lands; and outstanding scenic vistas
- Establishment of a sense of identity and a definition of "community" through preservation of a greenbelt around the City
- Protection of future residents from problems created by unstable soils, erosion, siltation, and dangers of fire
- Provision of adequate lands for public and private recreational uses
- Prevention of inefficient urbanization
- Protection and enhancement of the overall environmental quality of Lafayette.

The open space zoning districts would allow such uses as crop and tree farming, vineyards, grazing, public and private parks and other recreational facilities (for such purposes as camping, hiking, horseback riding, etc.), and botanical and ecological study areas.

In addition, very low density residential development may be allowed in some open space zoning districts. Every such residential development shall be subject to some form of municipal control, ranging from site plan and building elevations approval in the lower densities to land use permits and full development plans in the higher densities. In such districts the density shall range from three acres to twenty acres or more per dwelling unit, depending upon the degree to which the following criteria are fulfilled by the particular application:

- *The dwelling units must be substantially concealed from important vantage points on public streets.*
- *The development must provide some community benefit, such as an important link in the trails system, or land for public use which was previously not available to the public.*
- *The development must not require substantial new above-ground utility installations, unless they are concealed from important vantage points on public streets.*
- *The development must not involve the required widening or improvement of any existing public street; and the anticipated traffic from the development must not create unreasonable additional burdens on existing streets, and must not result in peak hour traffic which will add measurably to any existing traffic delays.*
- *The development must decrease the danger of fire damage in the neighborhood and must improve some aspect of the drainage situation in the watershed; the roads must comply with generally recognized seismic safety requirements; and the soils must have sufficient stability to support the proposed development without extraordinary protective improvements.*
- *There must be no substantial man-made cuts or embankments resulting from the development which are visible from important vantage points accessible to the general public by motor vehicle.*

CONSERVATION

The goals of conservation are synonymous with the goals of open space, because open space goals include the retention of open areas around planned developments, hillsides and drainage basins; most wildlife species tend to inhabit the very types of areas the General Plan seeks to preserve as open space. These are also areas of hydrologic and geologic significance which require preservation and maintenance of the natural landscape for the health, safety and welfare of the community.

Indigenous to the Lafayette area is a variety of deer, racoon, fox, skunk and other wildlife species which are an important part of the natural environment and which should be preserved in order to enhance the semi-rural character of the City. Conservation of wildlife habitats implies preservation of the streams, hills, valleys, trees, and other significant floral and geologic components, which in the aggregate, comprise the wild-life environment of the area. Human habitation precludes the maintenance of a pristine environment, but careful planning can result in the development of a compatible relationship between human habitations, wildlife habitats, and natural features of the earth.

This plan also provides for the conservation of two other natural resources, air and water. Preservation of the quality of air is directly related to the preservation of open space and the floral environment. Watershed and water storage facilities of the Lafayette Reservoir not only contribute to the conservation of water quality, but serve a multi-purpose function in providing recreation, open space and wildlife habitat.

HISTORIC RESOURCES

Cooperation with the Historical Society and development of municipal programs will be oriented to the preservation and enhancement of areas and buildings which have historic or cultural significance.

PARKS AND RECREATION

The Park and Recreation Element includes a system of existing and proposed open spaces, trails, school facilities, and parks, strategically located and linked to provide ready access.

The existing components of the system are Briones and Las Trampas Regional Parks, Lafayette Reservoir, school recreation facilities, commercial recreation facilities, and private recreation clubs. Proposed facilities are intended to enhance the existing framework and provide a scale of recreation that is easily accessible and functional at the neighborhood level. These facilities include a system of equestrian, bicycle, and riding trails, and neighborhood parks. Small parks are especially desirable in and around the Central Area where residential population density and school-age population are high.

The Trails Plan of the City of Lafayette is a vital component of the open space system. It is intended to stand on its own as a system of movement for hikers, horseback riders, and cyclists; it is also intended to be an important part of the overall open space, park and recreation system.

The Trails Plan designates routes which link Briones and Las Trampas Regional Parks and the Lafayette Reservoir through a system of roadside and ridgeline trails, and the abandoned Sacramento Northern R. R. right-of-way.

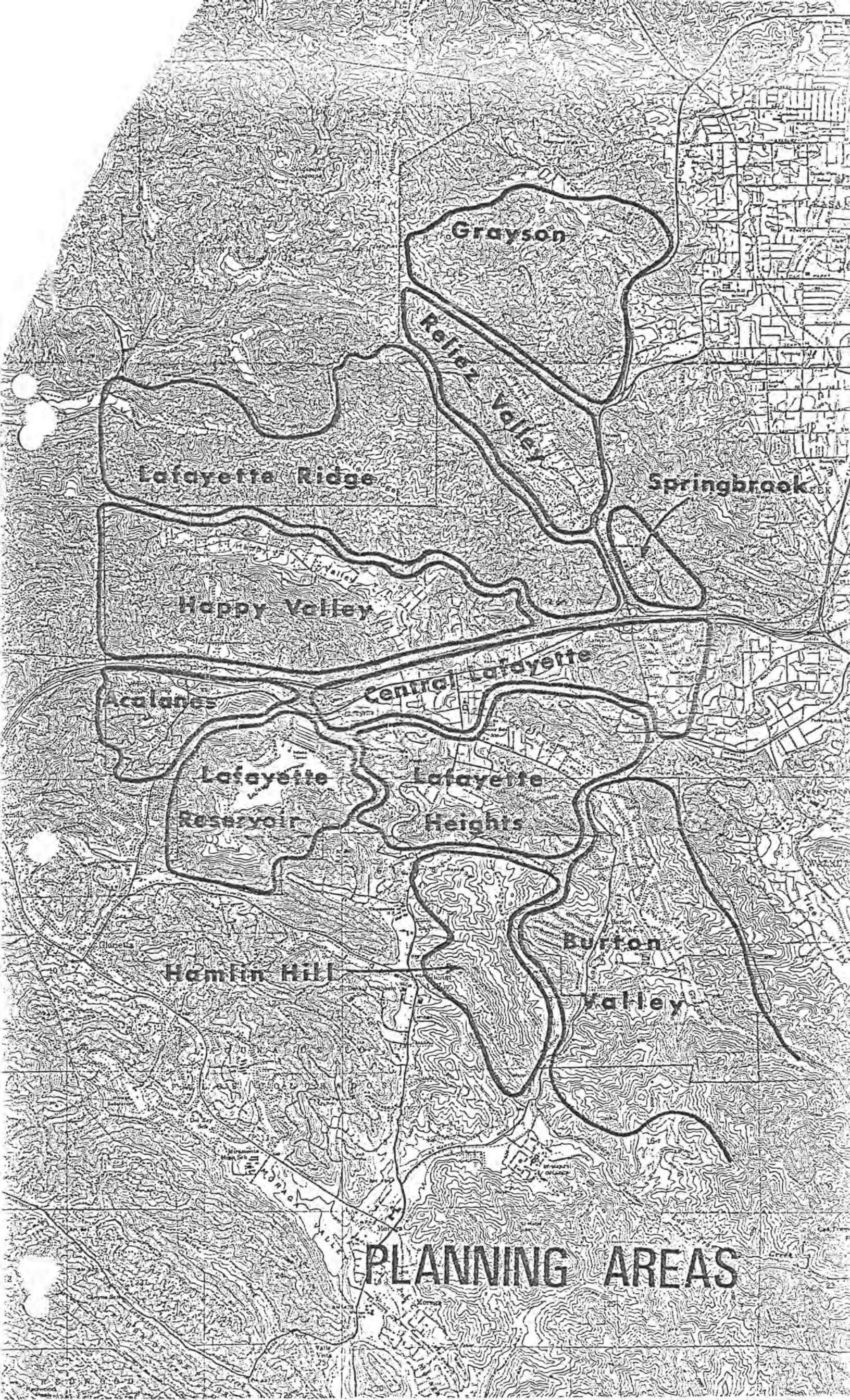
The route linking Las Trampas and Briones Parks, along the abandoned railroad right-of-way and Lafayette Ridge is the same as the route proposed by the East Bay Regional Parks District Master Plan. (Implementation aspects of the Trails Plan are included in the Appendix).

Another important level of recreation can be provided by a community center, which is intended to contain major recreation facilities such as a community swimming pool, tennis courts, and meeting or gathering hall. Such a facility should contain all or most of the above-mentioned activities, and be easily accessible to all members of the community.

The system of parks, trails, recreation facilities, open space, and resultant conservation effects will guarantee the preservation and enhancement of Lafayette as a low density, semi-rural residential community.

V. Housing

PLANNING AREAS



PLANNING AREAS

INTRODUCTION

The Housing Element manifests the principal goal of Lafayette—preservation and enhancement of the character of the City as a low-density, semi-rural residential community. Concurrently, the plan expresses the additional desires of the community to provide adequate housing for the elderly, young families, and those financially unable to acquire residence in the low-density, high cost, single-family areas of the City.

The former and latter concepts are not in conflict. The existing nature of circulation, drainage, terrain, and utilities-availability tends to preclude high-density development outside the Central Area; citizen desires for neighborhood protection and preservation of open space reinforce the low-density residential development. Terrain, drainage, and circulation are relatively non-restrictive factors. Also, those income groups requiring multi-family and smaller lot single-family units tend to be those needing greater access to transportation, shopping, and other facilities concentrated in the central area. Central area land costs also demand a significant level of development density.

The plan provides for the enhancement of the overall residential environment through the dual Central Area/outer area concept, with emphasis on coordinated development to allow these two entities to exist as one functional residential community expressing the goals and desires of a cross-section of the population.

HOLDING CAPACITY

The Plan for Lafayette shows the Planning Area growing from its present 23,500 to approximately 28,000 to 33,000 persons.

The Plan has been developed on the basis of an ultimate holding capacity reflected in terms of dwelling units rather than population. The holding capacity of the city was developed by conducting an analysis of all undeveloped and underdeveloped (currently developed but with the possibility of future additional development) property in the City, and applying the development standards of the open space, conservation, parks and recreation element (3-5 acre lot size at 35 percent slope, 7-10 acre lot size for 40% slope, 3-20 acre lot size for open space areas). In the central area an analysis was conducted of the number of existing units, and a projection was made of the possible number of future units, based on existing lot sizes and general plan densities.

The analysis resulted in a net increase of 1,815 to 3,250 dwelling units, for a total of 9,386 to 10,821 dwelling units. Based on the 1970 census figures, indicating an average family size of 3.1 persons, the holding capacity results in an ultimate population of 29,096 to 33,545.

The trend to small families would indicate a lower figure of 28,000 to 33,000.

The wide range given as an estimate is a result of the many variables involved in developing property in Lafayette, including specific topographic and geologic features, existing irregular parcel sizes and shapes, access problems, availability of public utilities, and the ranges in density which are proposed in the implementation section of this element.

Additional adjustment of these figures should be undertaken following studies which would indicate the potential for accommodation of future growth by the various utilities, the road network, and drainage systems. The holding capacity arrived at for this plan assumes the adequacy of these systems, whereas a thorough analysis may indicate that the planning areas are not capable of absorbing increases in population ranging as high as 40 percent. Public acquisition of open space properties would also reduce the holding capacity.

The majority of existing development to date has taken place in the valleys. Residential areas are primarily established, road patterns set, and land proposed for inclusion in the open space-conservation program earmarked for low density development. The remaining areas that lie between existing development and the open space areas constitute the future residential development potential and, while not substantial areas in the sense of "large scale" development, are nonetheless areas of prime concern to the City. Use of the planned unit development approach on large lots will allow for the clustering of units, and preservation of the sites' natural features.

Development is taking place today in some of the unincorporated territory within Lafayette's Areas of Planning Concern. In order for Lafayette to obtain some measure of control in these areas now, the City will request the County to adopt the City's General Plan recommendations for these areas. The City may then prezone the areas in accordance with the General Plan. This procedure will inform developers of the City's intent and set the requirements for development.

PLANNING AREAS

The element of this Plan dealing with Areas of Planning Concern accepts certain outlying territory as logical growth areas for Lafayette. The basic criterion for establishing these areas was topography. Location and relation to physical features played the predominant role. This outside territory was considered along with the land inside the City in developing "Planning Areas". The same criteria were used to delineate these sections of Lafayette's total territory of concern, as were used to define the areas which are outside the City. Thus some of the residential planning areas contain land partly inside and partly outside the City, but the land within each area has a certain common physical character. The accompanying map delineates these areas and the Table reflects ultimate holding capacity expressed in terms of dwelling units. A name has been given to each area for identification and locational purposes, and the areas are generally described as follows:

Brookwood

This area is formed by the eastern boundary of Briones Regional Park, a ridge line on the north extending eastward to Taylor Boulevard, and the ridge line that separates the Brookwood area from Reliez Valley. Approximately half the area is owned by the Catholic Church. Their valley is under agricultural production. The Plan proposes preservation of the hill and continued agricultural use of the valleys.

The remaining half of this planning area consists of two smaller valleys separated by a lone hill designated as "Hump". Existing residential development, predominantly at one acre per dwelling unit, totaled 348 dwelling units in 1970 and the projected holding capacity totals 388 - 408 dwelling units. The Plan designates the "Hump" hill area and the north ridge line as open space.

Reliez Valley

The Planning area lies between Brookwood and the lower reaches of Lafayette Ridge and extends from the regional park to Pleasant Hill Road. The valley is characterized by one-half to one acre parcels with larger holdings utilized for agricultural purposes such as orchards. In 1970 this area contained 367 dwelling units with an ultimate dwelling unit total projected at 442 - 482 units.

Lafayette Ridge

This area contains the City's most prominent natural feature -- the ridge that extends from Pleasant Hill Road to Briones Regional Park. The hill mass contains severe terrain characteristics that would cause irreparable landscape scars if development were to occur on the slopes. The Plan proposes that the entire hill and ridge area, including the University of California Experimental Agricultural Station, remain open space.

No dwelling units exist in the defined area. This area will become the backbone of the open space and conservation program. It is expected that this planning area will eventually contain 30 to 40 units.

Happy Valley

The area is defined by State Route 24, the western City limits and the Lafayette Ridge area described above. Two valleys, namely Upper Happy Valley and Happy Valley, are separated for the most part by an oval-shaped land mass that reaches the freeway. This hill area forms the predominant natural feature of the area and the Plan proposes retention of the undeveloped open area on the slopes. The predominant zoning density varies from one unit per acre to one unit per half acre. Existing dwelling units total, as of 1970, 1,140 units with a projected holding capacity of 1,490 - 1,590 dwelling units.

Springbrook

This area is characterized by a prominent ridge line that runs from Pleasant Hill Road southeast to State Route 24. The Acalanes High School, the W. B. Ellis Elementary School, and the ERMUD water line easement constitute a large portion of the area. The predominant zoning density in the area is 4 dwelling units per acre. Existing development as of 1970 totalled 200 units, and the Plan projects a total holding capacity of 260 - 280 units.

Central Lafayette

The Central Area Element deals with this area in detail. Existing dwellings in the Central Area in 1970 totalled 2,920 units. The projected holding capacity for the area totals 3,150 - 3,700 units. The Central Area contains, and will contain, the majority of the multi-family dwelling units projected for Lafayette and environs. Densities vary from 4 units per acre to approximately 35 units per acre. Close proximity to shopping and business areas plus the rapid transit station location are prime factors that relate to the higher density within the downtown.

Acalanes

The area is bounded by State Route 24, the western City Limit line and the northward-facing down slope of the Lafayette Reservoir. The area is primarily developed with the exception of the section near Paulson Road. The Central Area Element recommends a planned unit development approach to planning of the Paulson Road section in order to preserve and enhance the natural physical features of the tree-studded hill and to keep open certain land that provides the first vistas of downtown Lafayette. The predominant existing density in Acalanes is 4 units per acre with existing dwellings in 1970, totalling 352 units. The projected holding capacity totals 392 - 417 units.

Lafayette Reservoir

The area is a self-contained bowl forming the reservoir watershed of approximately 950 acres. The facility provides regional community recreation and is part of the overall open space system for the whole planning area. No dwelling units are projected for this area.

Lafayette Heights

The area is bounded by the Central area on the north, the Lafayette Reservoir to the west, Hamlin Hill and Burton Valley to the south and east. Several finger hill formations characterize the area. They are the lower slopes below and to the north of Hamlin Hill, an extension of the eastward-reaching ridge that forms part of the Lafayette Reservoir bowl, and a long finger-hill projecting from the eastern hill area to the southern edge of the Central Area. Approximately one-half of the area is developed, and the remainder is characterized by steeper slopes. Much of this remaining area is proposed for inclusion in the open space-conservation system. The predominant existing density is 4 units per acre and existing dwelling units in 1970 totalled 834. Projected holding capacity totals 894 - 924 units.

Burton Valley

The area is physically defined primarily as a bowl limited by the hills to the east that separate Tice Valley from Burton Valley, the lower reaches of the Las Trampas Hills to the south and the ridge to the west. The density is 4 units per acre. The 1970 dwelling units totalled 1,410, while the plan projects a holding capacity of 1,560 - 1,680 units. Several of the hill areas are proposed to become part of the open space-conservation system, including the lower reaches of the Las Trampas Hills at the southern City limits, the hills that separate Tice Valley from Burton Valley, and several promontory slope areas that protrude into the valley from the west.

Harlin Hill

This area includes large land holdings of Boise Cascade Company as well as several other large parcels. In many ways this territory is oriented to Moraga, but its terrain is visually important to Lafayette. It is bounded on the north by Lafayette Heights, on the east by Burton Valley, on the west by existing development and on the south by Rheem Boulevard. The higher elevations are designated as open space. There are no dwelling units in the area, but the ultimate development suggests a holding capacity of 780 to 1,300 units.

GROWTH RATE

The holding capacity of 9,386 to 10,821 dwelling units involves a modest increase in the number of apartments from the current 1,470 to between 1,720 and 2,285, representing a possible change from the current 19% to somewhere between 16% and 24%. Public purchase of open space properties would increase the percentage of apartments by reducing the number of single-family residences.

Single family residential areas of the City are currently developing at the rate of 40 to 60 units per year, about a one percent per year increase in single family residences. At such a rate, the single family residential areas of the City will be completely developed within 12 to 20 years.

Development of the Central Area has been, and is expected to continue to be more sporadic than development of the single family residential areas of the City. Development of the Central Area will be increasingly difficult, because almost all vacant parcels have been developed and future development will involve the demolition of older single-family houses and the consolidation of small parcels.

Under land use policies of this plan, the impact of BART on residential development is expected to be only moderate.

Under existing density policies and given the high per unit cost of land and the increasing costs of new construction, most new residential units are expected to be in the very expensive category for single-family development and in the upper rental categories for multi-family units.

HOLDING CAPACITY

Planning Area	1970			Future Development	Holding Capacity
	Dwelling Unit Count				
	Present City Limits	Possible Annexation	Total		
Brookwood	-	348	348	40-60	388-408
Reliez Valley	173	194	367	75-115	442-482
Lafayette Ridge	-	-	-	30-40	30-40
Happy Valley	1140	-	1140	350-450	1490-1590
Springbrook	-	200	200	60-80	260-280
Central Lafayette	2920	-	2920	230-780	3150-3700
Acalanes	352	-	352	40-65	392-417
Lafayette Reservoir	-	-	-	-	-
Lafayette Heights	834	-	834	60-90	894-924
Burton Valley	1410	-	1410	150-270	1560-1680
Hamlin Hill	-	-	-	780-1300	780-1300
Total	6829	742	7571	1815-3250	9386-10821

HOUSING MARKET

A recently prepared report entitled "Housing Market Analysis"* analyzes population and housing characteristics and future growth potential for the City and surrounding areas. The report's summary and conclusions, described below, point to the problems and obstacles the City will have to cope with in order to arrive at an appropriate housing program to satisfy the expected needs of the low income and retired or elderly segments of the community. The generalized summary statements are:

Population and Housing Characteristics

Areas surrounding Lafayette have grown and will continue to grow at a more rapid pace than Lafayette itself, primarily due to the supply of developable land.

There is a relatively low proportion of elderly persons, minorities and families with young children, probably due to the general house value and rent structure in Lafayette.

* Prepared for Hall and Goodhue by Larry Smith and Co.

Because of the predominantly high cost of single-family homes in Lafayette, virtually the only housing opportunities available to families or persons earning less than \$10,000 per year are in the form of rental units.

Future Growth Potential

While central and eastern Contra Costa County is expected to grow at an accelerating rate, the Lafayette area, due to decreasing land availability, will probably continue to grow moderately, resulting in a declining share of the larger area growth.

RESIDENTIAL UNIT TYPES - DWELLING UNITS

At the present time Lafayette has mostly single-family detached residential homes on individual lots ranging in size from a few as small as 5000 square feet to well over an acre. Only in the Central Area are there any multi-family units, basically apartment buildings.

As the City faces both the increasing demand for other types of housing and the need to find means to preserve open space within the City, it will be well to consider a broader range of housing types. The following describes the most likely types that may be proposed.

Single-family detached houses are typically for one family only on a separate, individually owned lot. In a planned residential neighborhood with common open space areas and common maintenance, the individual lot may not be present.

Single-family houses can also be *attached*, still maintaining separate ownership and even some individually owned and maintained garden areas. Usually these are part of some kind of common or condominium type of land ownership for open spaces. They can be grouped in twos, threes, fours or any number. When attached in larger numbers they are often referred to as *town houses*. The term *town houses* does not refer to the kind of ownership or whether the units are rented or not. It does not refer to the density of the units. Some town house groupings have as much as an acre of ground per unit, resulting in large amounts of common open space. *Single-family houses* and *town houses* are on separate plots of ground, that is, they are never placed one above another.

The term *multi-family units* usually refers to what is ordinarily thought of as apartments. They are often smaller in size and at higher densities than single-family attached or detached units. The distinguishing feature of an apartment is common entranceways and they are often one above another.

Ownership versus rental is a separate and independent question from that of the housing types. All types of units from single-family detached to multi-story apartments can be either owned separately or rented.

HOUSING PROGRAM

The housing program is geared to the dual Central Area/outer area concept—enhancement of both entities as a functional, unified residential environment. For practical analytical purposes, the two following categories of program emphasis are recognized:

I. *Larger Lot, lower density single-family residential (outer area)*

The character and desirability of most of Lafayette as a residential environment is based on the following factors:

- *Low density*
- *Single-family dwelling units*
- *Semi-rural character*

Maintenance and enhancement of this environment will be implemented through the following methods:

Hillside development limitation

Hillside regulations will maintain open area and low density development by assuring that increasing steepness of residential lot slopes requires proportionately larger lots.

Ridgeline development limitation

Hillside regulations will also assure protection of the ridgelines of the major Lafayette ridges by precluding development thereon, thus preserving views and vistas and preventing geologic and hydrologic problems.

Subdivision regulation

The subdivision review process will ensure suitable site planning of new developments, considering density, aesthetics, and overall impact.

Environmental impact reporting

The environmental impact report process will provide a significant measure of assistance in maintaining residential quality by yielding objective, factual data on proposed residential projects for consideration by decision making bodies.

Planned unit development

The planned unit development process will allow for preservation and maintenance of on-site open space, and control of density and development aesthetics of residential projects.

Very-low density residential development

This category of development provides for a density of one dwelling unit per 3 to 20 acres in "open space" areas where geologic, hydrologic, and access problems preclude greater density. Such density has obvious advantageous implications with regard to drainage, circulation, density, and aesthetics.

Architectural and Site Plan Review

In its exercise of architectural and site plan review the City should give special consideration to the impact of development on the open and semi-rural character of Lafayette. The areas of the City from which proposed developments can be seen should be carefully evaluated and efforts made to avoid preempting or blocking important views and view corridors. Landscaping and building design should assist in the creation of a place of beauty in the neighborhood and within each project.

II. Multiple and smaller lot, single-family residential (Central Area)

The character and desirability of the Central Area as a residential environment is based on the following factors:

- A desirable, functional mix of rental ranges and unit sizes in multi-family developments
- Maintenance and redevelopment of moderate-priced, smaller-lot single family units

The above factors are those that must be considered to realize the goal of providing adequate housing for the elderly and other low-to-moderate-income groups. Development and maintenance of a desirable Central Area residential environment will be implemented through the following methods:

Mixture of types and rental ranges in multi-family units

Existing developments in Lafayette prove that a mixture of housing types and rental ranges can work. The City's housing program should provide a greater incentive for such development.

In the multiple-residential areas (11 to 17 dwelling units per acre and 15 to 35 dwelling units per acre) zoning regulations should provide for a wide range of housing types by the variety of building sites which are available. Higher density on larger lots is a means of encouraging consolidation of small lots into larger parcels, thereby offering a greater opportunity for design. An ordinance with variable densities could also give a more realistic indication of the types of development which are reasonable on the smaller lots. The result could be an attractive mixture of single family houses, duplexes, medium and high density apartments, with an accompanying range of rental rates.

Development standards should provide for generous landscaping requirements in exchange for higher densities. Architectural control can assist in assuring a high quality of design. Parking should be screened where possible.

Mixed Uses

Another arrangement which exists in a few buildings in the Central Area, and which should be encouraged in appropriate locations in the business district, is the provision of dwelling units in multi-story buildings above the stores and other commercial enterprises which occupy the ground floor.

Increased single-family unit density

The Central Residential area zoning regulations should also encourage ownership units based on the same development standards as are made available to multiple family residences. Condominium apartment houses can provide such ownership. In addition, duplexes, townhouses, tightly clustered housing, and other housing types would fill an additional housing need. Following additional study it may prove desirable to designate certain portions of the Central Residential area for high density single-family residential only, with multiple-family residential prohibited.

Conservation of existing units

Some parts of Central Lafayette consist of small lots, often containing small, relatively moderately-priced housing. The City will not succumb to the approach taken by many cities of waiting until the homes become old and poorly maintained, then rezoning them for apartments. Such an approach encourages decay and poor maintenance by those anticipating future "higher" land uses. The City takes a firm position that it wishes to retain a supply of smaller homes, and will indicate to owners of property in certain such areas that they may depend on the City to maintain zoning policies and programs supportive of that end.

Provision of low-rent multi-family units for the elderly

- Cooperation with the County Housing Authority will provide, through the HUD Section 23 program, scattered, low-rent units for the elderly. This lease - rental arrangement can utilize existing units and new units as they become available.
- Encouragement of and cooperation with developers will provide a program of development of multi-family units especially for the elderly utilizing the various HUD programs of financing.

In certain sections, Central Area multi-family development will include programs to allow density bonuses for developments that result in the consolidation of lots, and parking space bonuses for developments designed for and limited to occupancy by the elderly.

Central Area residential development will be closely coordinated with the development of trails, walkways, and neighborhood mini-parks to assure the provision of a complete residential system of housing, pedestrian circulation, and neighborhood-level recreation.

The latter facilities will combine to make available to Lafayette the residential environment needed to assure the desirable heterogeneity of family incomes and age groups that give a city variety and character.

VI. *Circulation*

Lafayette postal zone

Martinez

Briones
Regional
Park

Pleasant
Hill

GRAYSON

REDFIELD VALLEY

Walnut
Creek

LAFAYETTE RIDGE

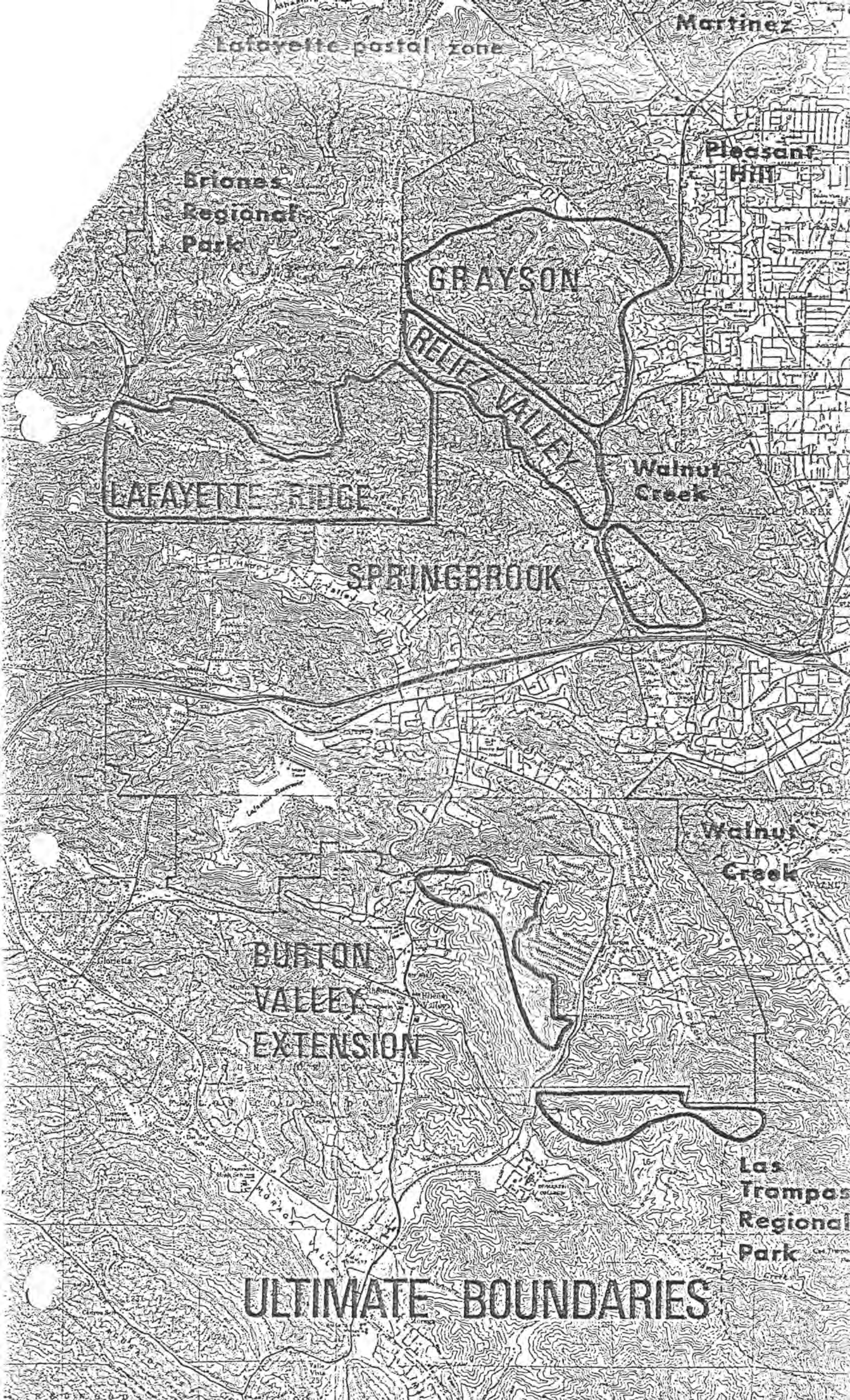
SPRINGBROOK

Walnut
Creek

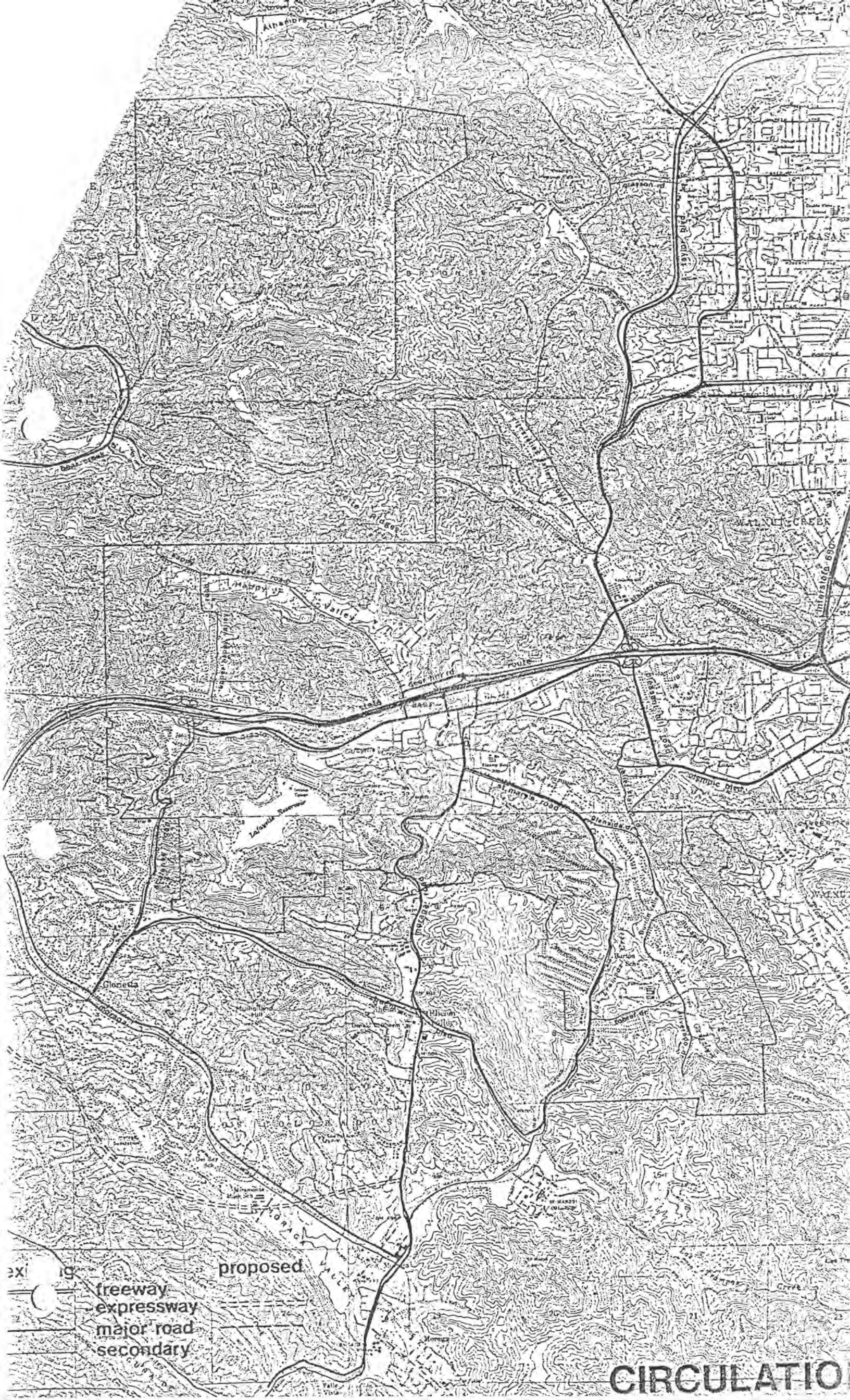
BURTON
VALLEY
EXTENSION

Las
Trompas
Regional
Park

ULTIMATE BOUNDARIES



(This page is not used)



proposed
freeway
expressway
major road
secondary

CIRCULATION

CIRCULATION

Lafayette has expressed a strong desire to go slowly in making the City accommodate the automobile, hoping instead to maintain the semi-rural atmosphere and village scale. The community has elected to accept a little less convenience and some longer periods of congestion in order to minimize new streets and street widenings. Stimulated by the advent of BART, viable alternatives to the private automobile may be developed which will relieve traffic congestion.

A circulation system is one of the major aspects of a General Plan, providing for the movement of people and goods, and is intimately related to the use of the land. The Central Area Study notes that Lafayette has had to cope with regional traffic since local streets are used to transfer regional traffic to outlying communities through the City's shopping and residential areas. Traffic volumes on State Route 24 central interchange and associated streets will reach saturation within several years. The construction of Route 93 from Moraga to Route 24 at the Gateway Boulevard interchange will serve the city by redirecting some of the Moraga traffic which now uses Lafayette roads as access to Route 24.

The major circulation problems existing in Lafayette today originate from and are associated with the Burton Valley, Moraga-Rheem Valleys and the Central Area around the central interchange on State Route 24. Existing circulation directs work traffic and shopping traffic from Burton Valley and Moraga-Rheem Valleys via St. Mary's Road and Moraga Road to the downtown and the central interchange. The section of Moraga Road from St. Mary's Road to Mt. Diablo Boulevard, and that portion of Mt. Diablo Boulevard itself necessary to reach the BART station and interchange ramps, are inadequate to handle existing and future traffic.

The construction of three major circulation facilities would substantially alleviate and correct traffic congestion and problems existing today. These facilities are: 1) Pleasant Hill Road - Burton Valley; 2) improvement of the north-south connections from State Route 24 to Moraga and St. Mary's Roads; 3) Gateway Boulevard.

Other than the improvements described above, the City should plan to live with the existing streets and not embark on construction programs such as the Moraga Road straightening, Olympic Boulevard extension, or St. Mary's Road widening.

PLEASANT HILL ROAD - BURTON VALLEY

The State Highway Department has responded to regional traffic considerations by proposing construction of a freeway south from the Pleasant Hill interchange, along Pleasant Hill Road and south of Olympic Boulevard along an existing right-of-way through Burton Valley. This route is intended to operate in conjunction with the proposed Route 93 to facilitate regional vehicle movement.

Though the proposed Burton Valley Freeway would serve as a ready access to Route 24, it would also encourage substantial regional traffic movement through the City, would result in the disruption of Lafayette homes, and would have a considerable, detrimental effect on the environment in terms of aesthetics, ecology and pollution.

In addition, deletion by the State of the Shepherd Canyon Freeway route from Oakland to Contra Costa County substantially eliminates the effectiveness of a freeway through Burton Valley as a regional traffic relief valve.

An improvement is needed, however, in the access between Burton Valley and Route 24. In December of 1972 the City requested the State to prepare a preliminary design for a two-lane, heavily landscaped, low-speed parkway connecting Route 24 to Moraga through Burton Valley. As soon as this design plan is received the City will determine whether the project is acceptable as a solution to the problem.

Another possible solution is the improvement of the local street system to increase capacity and improve safety. Whatever is done, the improved access should not increase the noise level in Burton Valley, should not create a major disturbance to the natural terrain, and should not encourage additional regional traffic which would otherwise avoid Lafayette.

The plan designates Pleasant Hill Road north of the freeway as a major road. Because of the high traffic usage of the street, access to Pleasant Hill Road by new development is to be restricted to those properties which cannot obtain any other reasonable access. Pleasant Hill Road should not be widened to provide additional travel lanes, but improvements must be made to accommodate turning movements, pedestrians and bicyclists.

NORTH-SOUTH IMPROVEMENTS IN THE CENTRAL AREA

Oak Hill Road, First Street and Moraga Road have reached near saturation today and future estimated traffic destined for the downtown and rapid transit station will have to be adequately handled on these roads from Moraga-Rheem Valleys and from Burton Valley.

Notwithstanding this recognized problem, this Plan proposes no changes in the street system in the Central Area.

The City is currently studying various short-term and long term solutions and expects to come to appropriate conclusions, resulting in an amendment to this plan during 1974, setting forth a general program of action to alleviate the situation.

Before major expenditures of public funds are made to improve circulation in the Central Area, alternate public transportation systems will be investigated to determine whether such systems are feasible.

GATEWAY BOULEVARD

The single most important long term improvement that would have a tremendous effect on Lafayette will be the construction of a highway from Moraga to Route 24 in Orinda, known as Gateway Boulevard. Traffic from Moraga to Route 24 through Lafayette has been increasing as a result of continual growth in that community without adequate circulation provisions being made. The communities of Lafayette, Moraga and Orinda are agreed that the new road should be constructed at "parkway", rather than expressway or freeway, standards. The parkway concept envisions a relatively low-speed, limited access, heavily landscaped highway, possibly with a prohibition against truck traffic, the construction of which requires minimal disturbance of the terrain.

OTHER STREET IMPROVEMENTS

The construction of improvements in the Central Area, improvement of access to Burton Valley and construction of Gateway Boulevard, should be sufficient to alleviate problems of area-wide circulation. No additional circulation improvements are being considered or proposed for freeways, expressways or major roads. This, however, should not preclude certain improvements which may prove necessary for safety rather than traffic requirements. One such important project is the southerly extension of Glorietta Boulevard up the hill to a connection with Acalanes Road. This project will enable motorists to avoid the tortuous, steep section of Acalanes Road south of Hidden Valley Road.

SCENIC HIGHWAYS

The State of California has an established Scenic Highway System that encompasses many routes and highways throughout the State. The establishment of this system recognizes the State's responsibility for protection and enhancement of California's natural scenic beauty by identifying those portions of the State Highway system which, together with the adjacent scenic corridors, require special scenic conservation treatment. The Cities of Lafayette and Walnut Creek and Contra Costa County have requested that Route 24 be designated a scenic highway.

The State has established criteria for applying standards and undertaking development of official scenic highways, and these are:

- *Consideration of a complete highway in the sense that the facility incorporates not only safety, utility and economy, but also beauty.*
- *Consideration of the impact of the highway on the landscape and the facility's visual appearance.*
- *Requirement that local governments take whatever action is necessary to protect the appearance of the scenic corridor, -- the band of land generally adjacent to the right-of-way; including, but not limited to:*

- Regulation of land use and intensity of development;
- Detailed land and site planning;
- Control of outdoor advertising;
- Careful attention to and control of earth moving and landscaping;
- The design of structures and equipment.

City and County governmental agencies and other groups may request the State to consider an existing State Highway route to be designated and included in the State System. If the State determines that the criteria and a corridor protection program are being implemented by local agencies and a plan and program have been developed by the State to bring the facility up to Scenic Highway standards, the State may then designate the highway as an official State Scenic Highway and shall designate the route on the scenic highways map or any other maps issued by the department.

MASS TRANSIT ROUTES

The Bay Area Rapid Transit line is open. The Central Area element deals with the opportunities and constraints of the system and particularly with the location of a transit station within the Central Area. If there is any reason for problems arising from the use of the facility, it is the limited size of the parking area adjacent to the station. Limited parking will cause users to avail themselves of the "kiss-ride" process of arriving and departing from the station which will add traffic volume to the already over-taxed morning and evening peak hour traffic within the Central Area. This condition aggravates the need for some street improvements in downtown Lafayette. The area east of the BART parking area should be retained for future expansion of parking. The area should be zoned for public or quasi-public uses.

FEEDER BUS ROUTES

One bus system operates in Lafayette today -- the Greyhound Bus Company. A station on Mt. Diablo Boulevard is located in the Central Area and there are various pick-up points along the boulevard. Greyhound will discontinue its commuter busses when BART commences trans-bay operations. A local transit system may not be economically viable at this time; however, as the Central Area develops, a minibus system should be considered for operation within the Central Area with eventual connections to other points where a city or region-wide bus system would provide area-wide transit facilities. The circulation system with existing and proposed improvements will be capable of accommodating a local transit system when required or developed.

The Bikeways system shown on the General Plan map will provide an additional method of transportation to and from the BART Station.

PARKING

A shortage of well-located parking spaces in downtown Lafayette has existed for years but until recently no corrective action has been taken. The economic impact of the parking problem upon the City, the business community and the residents is becoming so great that Lafayette has reached the point where it probably cannot afford the luxury of further inaction.

The Off-Street Parking Study Commission report suggests that the parking solution is two-fold. To prevent the problem from getting worse, new buildings must be required to provide adequate parking at the time of construction. To correct the existing problem, additional spaces must be installed in a number of specified areas that suffer from a lack of parking.

The implementation of this solution will require such a large amount of work and money that it may go beyond the capabilities of either the City or the business community. However, a cooperative effort by both groups has achieved the necessary result in many California cities and should be successful in Lafayette. The primary tool will be the assessment district whereby a portion of the necessary funds are collected from the landowners whose properties would be benefited by the proposed parking facilities. Interesting questions concerning economics, aesthetics, density, traffic, parking meters and the nature of downtown area will have to be answered as a part of the parking solution.

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VII. Central Area

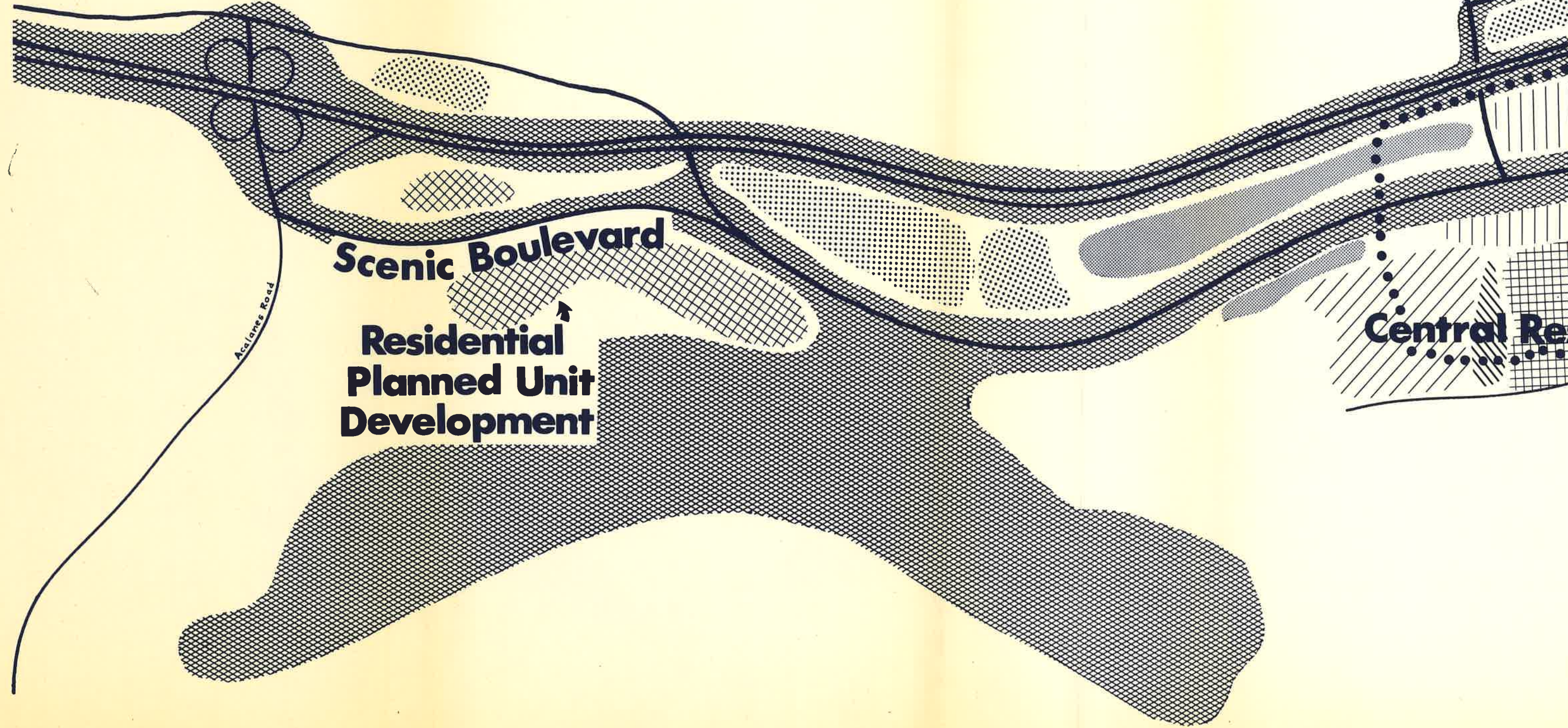
Happy Valley Road

Acclane Road

Scenic Boulevard

**Residential
Planned Unit
Development**

Central Re



Residential Planned Unit Development

RAPID TRANSIT ENTRY

FREEWAY ENTRY

FREEWAY ENTRY



2-4 UNITS PER ACRE

Retail

Core

Central Residential Area

Happy Valley Road

Pleasant Hill Road

Meraga Road

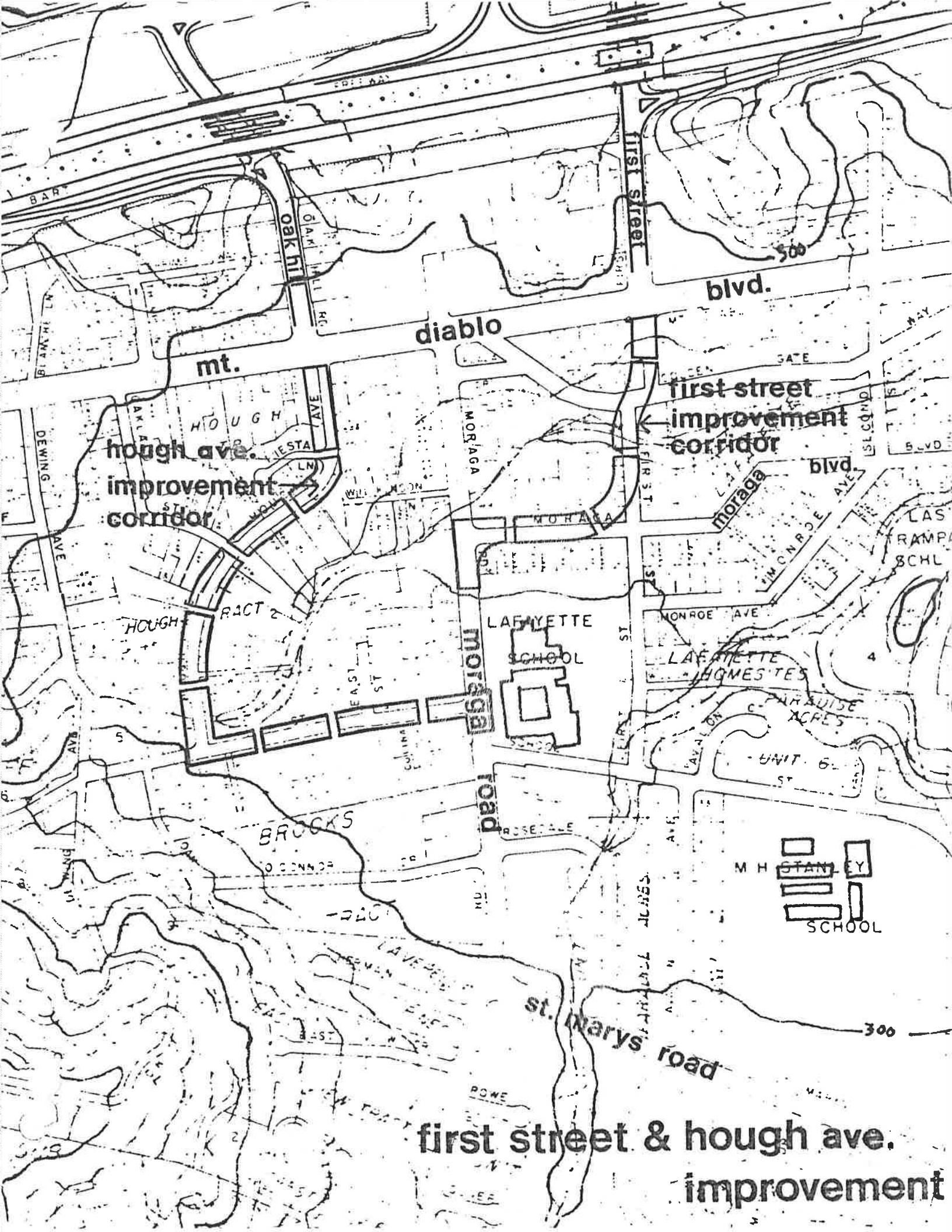
St. Mary's Road

NOTE: THIS MAP HAS NO SCALE

CENTRAL AREA PLAN

SYMBOL LIST	
	OPEN SPACE OR LANDSCAPED ROADWAY
	CENTRAL RESIDENTIAL AREA (I)
	CENTRAL RESIDENTIAL AREA (II)
	PLANNED UNIT DEVELOPMENT (2-4 UNITS/ACRE)
	RETAIL AREA
	SINGLE FAMILY RESIDENTIAL
	SPECIAL USES
	PUBLICLY OWNED AREAS
	PUBLIC WALKWAYS
	PROFESSIONAL + ADMIN. OFFICE

North



hough ave.
improvement
corridor

first street
improvement
corridor

first street & hough ave.
improvement

OPPORTUNITIES FOR LAFAYETTE

The City of Lafayette has many opportunities in its central area. Most of the opportunities flow from the nearly ideal location of the BART station and from the new central freeway off-ramps. The Lafayette business area historically developed as a long, strip commercial development without any one area having created a clear dominance. The City now has the opportunity to create in the BART Block a new civic and business focus. It has the opportunity to continue the process of restructuring and upgrading Mt. Diablo Blvd. It has the opportunity to bring the pedestrian to the Central Area and to provide for his needs. Lafayette has the opportunity to capture and harness the economic impact of BART to rebuild the Central Area.

Lafayette will have to move quickly if it is to capture the advantages portrayed by the plan. Opportunity will slip away as costs rise and as unplanned development takes place in response to BART's economic impact.

One of the greatest of Lafayette's opportunities is the block bounded by the Freeway, Mt. Diablo Blvd., Oak Hill Road and Happy Valley Road. The development concept for this block envisions its becoming the focal point for the business community. It calls for a distinguished area of quality shops and offices built around an aesthetically pleasing plaza scaled to Lafayette's intimate character. This plaza, as a new pedestrian gateway to the City, set above the automobile traffic on the street and looking out to the encircling hills, is seen as a vital, engaging space, a natural focal point and center for the business community.

Cities are seldom given the opportunities Lafayette now has. Often public improvements act to remove rather than foster opportunity. In the case of Lafayette, it has been given a BART stop at the core of its downtown, unlike most of the other cities along the BART line. This represents a stroke of good planning and a skillful solution to the difficult transportation problems posed in choosing the location for the BART station.

The plan portrays an upgraded Central Area and contains proposals for accomplishing this objective. The plan portrays a Central Area which would complement the City's magnificent setting and the high quality of the surrounding residential area.

THE CENTRAL AREA PLAN

In essence, the plan for the Central Area of Lafayette is to concentrate the commercial activity of the City in a single compact area at the middle and to find alternate, substitute uses for the presently commercially zoned areas of Mt. Diablo Blvd. outside the new Retail Core. Supplementing this, the plan proposes a major reconstruction and beautification of Mt. Diablo Blvd., fulfilling its potential as a Great Street.

Being a General Plan, this Plan does not provide precise or complete lists of uses for the Central Area. Its map shows approximate, not precise, boundaries for the various zoning districts. It includes no Circulation Plan and the streets shown on the map are for general identification purposes only.

PLAN ELEMENTS

The Central Area Plan has four major elements:

The Central Commercial Area

The Retail Core
The BART Block
Special Use Area

Mt. Diablo Boulevard

Central Residential Areas

Peripheral Areas

CENTRAL COMMERCIAL AREA

The Retail Core

The Retail Core should become that area where pedestrian-oriented retail uses are encouraged. The plan identifies the Retail Core as that area on both sides of Mt. Diablo Boulevard running generally from Happy Valley Road to First Street. What is needed is to help concentrate retail uses in this area and to limit the indiscriminate and scattered extension of retail uses elsewhere. The image of the area will change. The entire Retail Core will be thought of as "downtown". Shoppers will perceive with greater clarity the articulation of retail and non-retail areas. Competition will heighten, resulting in better shopping.

It is possible to indicate in general the kind of improvements which should take place. Each section of retail shops could develop its own distinct image, adding color and vitality to the Retail Core. For instance, south of Plaza Park, there is an opportunity for an "Old Town"; for the creation of an area with a theme based on the past.

An increased number of parking spaces will be required. Larger, better sited buildings should be encouraged. More attention should be given to the pedestrian. Better auto access is needed.

In keeping with the intent of emphasizing the orientation of the Retail Core to the pedestrian, automobile service stations should eventually be eliminated from the Retail Core Area, except in those cases where they are developed in connection with a large parking

lot, a parking garage, or an integrated shopping center where the service station is so located as to be used primarily by pedestrian shoppers.

Office uses in the Retail Core should be limited to those types of offices which are pedestrian oriented and compatible with retail stores.

These are some of the considerations which should be included in all future development of the Retail Core. This is the area in which the positive effect of BART and Freeway will be felt.

The BART Block

Lafayette has received a double impact from the BART Station and the Central Freeway Interchange. Motorists moving to and from the BART parking lot north of the Freeway, and to the Kiss-Ride facility on the south, are bringing heavier traffic into the Downtown Area. The Freeway off-ramps are also bringing more motorists to the City's midpoint.

The place most affected by this impact is the block bounded by Mt. Diablo Boulevard, Happy Valley Road, the Freeway and Oak Hill Road. This is the BART Block, with an entrance to the Rapid Transit Station at its west end and a Freeway off-ramp at its east end. The plan proposes to take advantage of these two major transportation facilities to create the principal focal point of the Central Area.

It is proposed that people leaving the BART Station on the south will enter directly onto a pedestrian plaza which will denote a strong sense of arrival in Lafayette. The plaza, surrounded by specialty shops, cafes and offices, will lead to Mt. Diablo Boulevard where in turn it will be picked up on the other side of the boulevard by a smaller related plaza. Mt. Diablo Boulevard should be treated so as to appear to be passing through the plaza. The plaza will mark a major event for those who travel along Mt. Diablo Boulevard. It will mark the center of Lafayette.

People arriving at the BART Block directly from the freeway off-ramp would flow into parking areas under the pedestrian plaza. This combination of access by BART and the Freeway make this site almost unique on the entire BART system. Ultimately, the entire BART Block should be thought of as a concentrated area including offices, specialty retail facilities and parking.

Specialty retail facilities should be integrated with the existing retail establishments. There is a need to add considerable parking.

The development of the BART Block should be echoed on the south side of Mt. Diablo Boulevard by the rest of the plaza. The south plaza will be the starting place for a pedestrian walkway which will wind its way through the block bounded by Dewing Avenue, Brook Street, Hough Avenue and Mt. Diablo Boulevard.

Not only will this pedestrian spine open up the block to office and multi-family residential uses, but it will extend the feeling of the plaza and the BART Block out into the community. Other pedestrian paths should be related to this one.

With careful urban design the intensity of development in the BART Block need not become overpowering to those who wish to continue the image of Lafayette as that of a small-scale community. A city of about 20,000 with the prospect of limited future growth should be straightforward in seeking a central area core consistent with its numbers.

Special Use Area

The proposal to define a pedestrian oriented Retail Core for comparative retail shopping takes advantage of the experience found by major shopping center development which indicates that shoppers have maximum acceptable walking distances. The choice of which area of Lafayette to designate as the Retail Core was based on the location of the BART station and the major public investments which have been made in the recent freeway reconstruction between First Street and Happy Valley Road.

For the outer areas of Mt. Diablo Boulevard beyond the pedestrian-oriented center of the city, new uses should be sought. These need not be dependent on highway traffic, but are still suitable for arrival by automobile. Generally in this situation each use is independent of its neighbors. The uses which should be encouraged should also help create the kind of attractive, new image desired by Lafayette. They should be uses which will benefit by the handsome new street proposed for Mt. Diablo Boulevard. The list of permitted uses should be carefully developed. Principally these uses should be offices, multi-family residences, motels and a limited number of appropriate supporting commercial uses such as restaurants. Unsightly areas within this "special use area" should be located so as not to detract from the sense of the Grand Boulevard.

Within this general concept of special uses, the plan proposes the designation of one specific area as an auto park. An auto park is an area designated for auto sales and services. This area should be heavily landscaped and made attractive on a coordinated basis, and signs must be under strict control. The appropriate place for this in Lafayette is the area just east of First Street where Lafayette's present auto sales uses are concentrated. A buffer should be provided between the auto park and adjoining residential land on the south side of the creek by carefully controlling the types of uses permitted between Golden Gate Way and the creek. The intent of the auto park is to concentrate auto sales and service facilities to the maximum feasible extent, but additional auto sales and service locations will be allowed, if needed, in other suitable parts of the Special Use Area.

Because of the small size and odd shapes of the parcels of land in the auto park area, and because of the difficult terrain and unstable soil in parts of the area, strong, aggressive municipal action will be required fully to implement the auto park concept. Probably the powers available to cities under the Community Redevelopment Law will be needed to assemble land and make it available to auto sales and service enterprises.

MT. DIABLO BOULEVARD: A GREAT STREET

Along with the recommended concentration of commercial development in the Retail Core, the second major proposal of the plan is to develop Mt. Diablo as a grand boulevard; a truly Great Street. It is clearly the most important street in town. It has many distinctive features on which to build. It has variety and richness. It has a right-of-way of grand scale, and it goes through the very heart of the City. Along the way it focuses on many features of the City and surrounding area, including Mt. Diablo itself.

The function of Mt. Diablo Boulevard will change as traffic patterns change. As a result, an opportunity is provided to change the very nature of this important street. To make it a "great street" we have to think of it as a place. We have to think of it as something special, as a street that does more than carry routine traffic. The street should be thought of as a major event in Lafayette, something which people would identify as being peculiar to and associated with Lafayette. It should be an event-filled street which adds to the distinction of the City.

One of the interesting aspects of Mt. Diablo Boulevard is the amount of street space which it contains. By this we refer both to its right-of-way and to the various easements adjacent to this right-of-way. On the west the wide street right-of-way which includes the creek near Sunset Village, plus the adjoining EBMUD Lafayette Aqueduct on the north side of the street, provide an improvable section nearly four times as wide as the typical 100 foot right-of-way. To the east the right-of-way also widens significantly. The street space should become an important consideration when detailed improvement

plans are made for Mt. Diablo Boulevard. Provision should be made for safe and scenic walkways and bicycle paths where appropriate. Part of the richness of Mt. Diablo Boulevard is to be found in the changing width of its street space.

There are four principal divisions of Mt. Diablo Boulevard. On the west starting at the Acalanes Interchange is a long rural section passing through a presently undeveloped area and open EBMUD lands. Next comes a developed section generally of office uses and indicated as "Special Uses" on the plan. At Happy Valley Road, Mt. Diablo Boulevard meets the Retail Core which extends to First Street. From First Street to the Pleasant Hill Interchange is another area designated for "Special Uses".

The plan proposes that the western section of Mt. Diablo Boulevard be treated as a scenic boulevard retaining much of its rural character where it passes public lands, and maintaining its sense of openness through the means of a broad setback in those areas where private development will take place.

Development should be concentrated in the vicinity of Paulson Road to allow the remainder of the property to remain as permanent, natural open space. Development should give the appearance of substantial setbacks and separation between the motorist and the development. A natural park-like setting at this location is critical to the maintenance of an appropriate and attractive entrance to the City. The area should be developed in residential uses. Other uses, not including retail commercial, may be considered between Mt. Diablo Boulevard and the freeway.

At one point near the eastern end of this undeveloped section a creek runs alongside Mt. Diablo Boulevard. The plan proposes that the creek be recaptured as a landscape feature of the street. On the north side of the boulevard is a wide EBMUD easement which should likewise be landscaped as a part of the street. The street could then have the character of a drive through a 400 foot wide park. Perhaps this park treatment could be set off by some feature such as a masonry wall which could be identified as a portal to the developed area beyond.

In contrast to the open, rural nature of the presently undeveloped section, the rest of the street should be urban in nature with intensive landscaping and a high level of maintenance. The landscaping should emphasize the continuity of the street and express its unusually broad dimension. Nothing would do more to make Lafayette a unique city, a city of the type Lafayette aspires to be, than to eliminate the two rows of parking which line every other American business street. On-street parking should be supplanted with trees and grass in the peripheral areas, and with people-spaces (benches, plantings and fountains) in the Retail Core. Street parking is insufficient

in several ways. It requires a large amount of space per car and it impedes the use of the street for its traffic function. It is especially unsightly and ragged where vehicles are parked on the shoulders at random. The plan proposes to substitute off-street parking financed by a series of special improvement districts. Off-street parking should be screened with low planting so as to make the lots attractive and yet allow the parking to be visible.

In the Retail Core the landscaping should be the most urban and highly cultivated in character. Here the pedestrian should be permitted to dominate. People themselves are one of the main attractions of a shopping area. Street furniture should be located along Mt. Diablo Boulevard and designed and located in such a way as to encourage people to linger at the center of town. Even when not in actual use the presence of a bench is symbolic of friendliness and relaxation and suggests a city oriented to people instead of to cars. Whereas a street in the peripheral areas is viewed from a moving automobile, at the Retail Core it is seen from a series of fixed points of view of the pedestrian moving slowly. The landscaping, therefore, should be of a more intimate scale.

An effort should be made to coordinate the street lighting of the entire boulevard in a manner which reinforces the theme of the Central Area Plan. The type of lighting that is used can help indicate an area intended for pedestrians or an area intended primarily for automobiles. New types of lighting have been developed which are soft and inviting. In all future work in the Central Area it will be desirable to put all utilities underground.

Mt. Diablo Boulevard should, at the same time, be given a sense of continuity and diversity reflecting the various aspects of the different parts of the street. It should be an eventful street with a collection of special features along the way which are integrated into the street itself, like the "Old Town Plaza". The plan proposes a series of special features such as the plaza in and south of the BART Block.

CENTRAL RESIDENTIAL AREAS

Lafayette has a substantial area near the center of the City which has been zoned for many years for multi-family residential development. Although the community has generally indicated a desire not to extend multi-family development to other parts of the City, such development in the central area is appropriate and can play an important part in the development of the community. The central residential area is ideally located to provide an important supporting market for the central commercial area. The area is well located in relation to BART so that people can walk or bicycle to the BART station without the use of an automobile and its attendant parking and traffic complications.

The situation in the central area of Lafayette is very favorable to the development of high quality, multi-family residential buildings. The question for the City becomes one of how best to insure good development. The plan has two principal proposals. One is the development of a network of pedestrian spines. These run from the BART station through the new plaza, out into the residential area, on the one hand; and from the residential areas to the commercial areas, on the other. In order to make walking appealing and to make these pedestrian routes attractive features of Lafayette, all residential development should be designed to relate to these pedestrian routes, much as in the past they have related to the streets. The City should require appropriately scaled new "front yard" setbacks from these pedestrian spines.

The objectives for multi-family areas in or close to the central area should be as follows:

- *Appropriate recognition of the close relationship to the BART station should be a consideration, particularly for pedestrian accessibility.*
- *Apartment development should be encouraged to consolidate on larger parcels.*
- *The type of residential development which will create the greatest amount of open space should be encouraged. In this regard parking should be encouraged under buildings, in contrast to open ground coverage. Ground parking is not open space.*
- *The overall quality of development should be the major concern.*
- *Open space should be treated as a continuous link between the various apartment developments.*

Although there is a strong market for large apartments which command very high rental prices, the limited available land which is designated for high density, residential use must not be pre-empted with luxury accommodations. On the contrary the city will encourage by all reasonable means the construction of multi-family dwelling units which can be occupied by the elderly, by young couples, and by other persons of modest means.

Some neighborhoods within the Central Area contain small homes on small lots. It is appropriate that these areas be retained for owner-occupied single-family homes or duplexes. The plan provides for a continuation of these uses. The City will take appropriate steps to encourage a high level of maintenance, in order to lessen the temptation and desire to change the land use in these close-in locations.

OFFICE USES

The land use map shows a few sections of the Central Area (i.e., along portions of Moraga Road and of Dewing Avenue) for administrative and professional office use. It is intended that multi-family residential structures, and combined office-residential structures, also be permitted in these sections.

PERIPHERAL AREAS

The Deer Hill Road area north of the freeway was included in this element of the Plan in order to emphasize its relationship to the Central Area. The freeway is a logical dividing line between the Central Area and the residential areas to the north. Its integrity as a divider should be protected. The very problems of sprawl and lack of centralization which are being solved by the Central Area Plan will re-occur to the north if commercial uses are allowed to develop north of the freeway. It is therefore recommended that commercial uses not be allowed in the Deer Hill Road area.

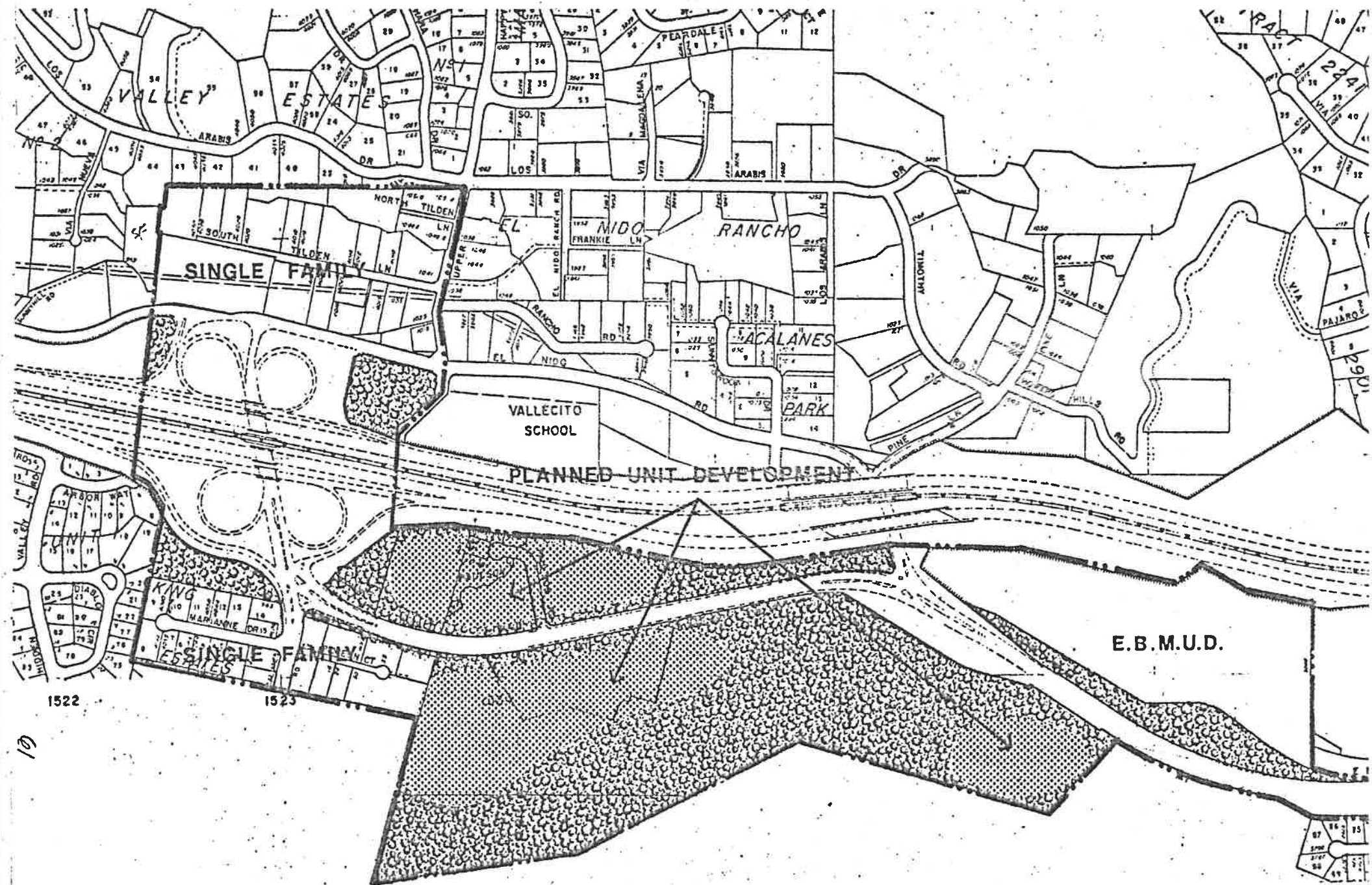
The goal for Deer Hill Road should be to keep the influence of the freeway and BART from spreading into residential areas. Most of the land between the freeway right-of-way and the right-of-way of Deer Hill Road is developed as, or reserved for, the BART Station parking lot. The other parcels between these rights-of-way should be open space. This open space will help provide a partial boulevard treatment for Deer Hill Road in keeping with the residential area to the north which it serves. When constructed, Deer Hill Road opened up a residential area to certain public uses brought in by BART. Simply because a required public works project such as BART is built does not mean that the resulting frontage road should be exploited. The few undeveloped parcels south of Deer Hill Road should be zoned as open space, since commercial development should not be permitted, and they are not suitable for residential use.

The area on the north side of Deer Hill Road is a problem area. The Plan recommends that where access is not required on Deer Hill Road such property remain single-family residential. The other properties on the north side of Deer Hill Road should be considered for some form of residential planned unit development with a density of two to four units per acre. Here the answer is to be found by a study on a property to property basis with varied solutions needed to solve the particular problems of each property.

It is important that Deer Hill Road be thought of as a boulevard providing a buffer between the freeway and the residential areas to the north. Therefore, substantial setbacks should be required to keep the residential development back from Deer Hill Road, and to provide a suitable area for landscaping. This northern setback complements the open character proposed on the south side of Deer Hill Road.

The recommendation that properties with their only access from Deer Hill Road be considered for planned unit development should not be interpreted as the first step of further intensification of land use. The intent is to keep the freeway influence from spreading into the residential areas, while recognizing the influence of both BART and the freeway. This has to be the basic goal.

VIII. Interchange Areas



1522

1523

10

acalanes interchange

INTERCHANGE AREAS

Lafayette aspires to remain an attractive residential community, semi-rural in character. The image of a community in the eyes of the general public is based to a large extent on what is seen from the road as people pass through the city. This should be coupled with consideration of what the general impression of freeway interchanges is in most communities. Because of their exposure to high volumes of traffic, and because of convenience of access the areas around most interchanges are usually exploited for commercial purposes. Lafayette desires to avoid that norm. There are three interchanges in Lafayette; one in the central area serves the City's main business district. The other two interchanges are presently undeveloped and add an important element to the image of Lafayette. The recommendations for the Acalanes and Pleasant Hill interchanges are based upon the conception for Lafayette of one major interchange in the middle of town, commercial in nature, with the other two interchanges reflecting the residential quality of the community and providing attractive visual gateways.

ACALANES ROAD INTERCHANGE

The Acalanes interchange is an attractive entranceway to the City. It lies at the middle of a residential valley surrounded by hills forming an encircling bowl. This is an attractive aspect of the City which should be preserved and enlarged upon.

The southeast section of this interchange is covered in the Central Area element.

The plan calls for a carefully designed open space and set-back pattern for the development along Mt. Diablo Boulevard expanding into a city-landscaped area along the creek in the vicinity of the reservoir.

At the southwest quadrant of the interchange there is a small piece of undeveloped property just south of the freeway off-ramp. This property has difficult access and is bounded on the south by a developed single-family residential area.

The City will investigate acquiring this, and other strategically-located parcels, for the purpose of providing more generous landscaping along the important entranceways. The present landscaping at the south side of the off-ramp, as pleasant as it is, lines the very edge of the roadway in typical freeway fashion. If this parcel were preserved as open space, and the vertical screen moved to its southern edge instead of being a typical freeway off-ramp the entrance road would have the quality of a road traversing a park.

On the north side of the freeway, within the rather arbitrary boundaries of this interchange area, all of the land between the freeway and El Nido Ranch Road is vacant. El Nido Ranch Road relates back to Mt. Diablo Boulevard and the park proposed along the creek. This plan provides that, as a part of the landscape entrance aspect of this interchange, the property between the freeway and El Nido Ranch Road be designated open space, or devoted to public or semi-public uses. The remnant parcels owned by the State should be purchased for open space. North of El Nido Ranch Road the development can appropriately continue in single-family residential use.

As a part of the City-wide open space studies, certain other key parcels in the vicinity of the interchange but outside the immediate study area will be identified for their important visual significance.

There are no circulation recommendations for the area since existing circulation is adequate for present and future use.

PLEASANT HILL ROAD INTERCHANGE

The Pleasant Hill interchange area is a more difficult question because of prior zoning patterns. It is also a more important and more vulnerable interchange because of the greater traffic volume.

The northeast quadrant of the interchange, which is presently outside the City limits, is developed with single-family uses and several institutional sites. Few parcels remain vacant. It is recommended that this area be reserved entirely for single-family residential and institutional uses, except for a parcel already zoned multi-family. The possible vulnerable sites are the few vacant properties. These should be maintained as residential. For this projected use, the existing circulation pattern will be adequate.

In the southeast quadrant, there are miscellaneous office-type uses along the north side of Old Tunnel Road (the main entrance to the neighborhood). Otherwise, the uses are entirely single-family residential in nature. This non-residential area should be zoned for professional and administrative uses. Retail Commercial uses should be kept from intruding into the neighborhood. There is also a vacant parcel north of the Leland Reservoir which contains severe topographic conditions that virtually preclude other than open space or residential uses. This site should either be acquired or rezoned for single-family or duplex residential use.

The southwest quadrant has several problem areas. It is a prominent part of the eastern approach to the City and it has an existing high-density residential zoning which has largely been committed. This area will be permitted to develop in its present multi-family zoning. The single-family zoning of the area just south of the off-ramp and just west of Pleasant Hill Road will be maintained. There is an area just south of Mt. Diablo Blvd. which, unfortunately, retains some remnant commercial zoning

on parcels which effectively are in the middle of what should have been the interchange area. Development of this property should be as a single parcel, with a single well-designed structure which will be the least demanding of public attention by way of signs and character of building. Office use, a restaurant or another high-quality, non-obtrusive special business use would be acceptable.

The northwest section of the interchange contains the single most important and critical parcel in terms of impact, visual character, and image for the City. It is the large property lying between Deer Hill Road and State Route 24. The land has remained vacant a long time due primarily to topographic conditions and the cost of development. With the advent of the rapid transit line in the median strip of Route 24, Deer Hill Road has been constructed from Happy Valley Road to Pleasant Hill Road. Through this interchange the road lies in a deep cut. The land on the north side of the street should be designated for open space and residential uses. A small triangle currently zoned for administrative offices should be designated as open space with consideration being given to it in evaluating the density of development on the south side of Deer Hill Road. Recently this south side property has been extensively graded to create a more buildable site.

The significance to the City of this particular site is that it forms the terminus of Lafayette Ridge, the City's most prominent ridge line extending back to Briones Park. This should be considered in conjunction with the fact that, when approaching the City from the east, traffic on the freeway is pointed directly toward this prominence giving people their first impression of Lafayette from the east. Administrative offices would be the use which would most likely permit low profile, highly landscaped development and which would be the most visually acceptable from the freeway. Careful site planning with substantial landscaping and height control will be important in the City review. This use would also be able to capitalize on the recognizable dramatic views from the property looking eastward to Mt. Diablo. The Plan provides, therefore, that the present zoning of this property be maintained; that is, administrative office uses with careful site planning review. The portion of this parcel at the corner of Pleasant Hill Road and Deer Hill Road should be changed from neighborhood business to administrative office so that the entire property will be devoted to the same use.

There are no modifications to the circulation facilities needed in this quadrant.

***IX. Public Buildings
& Facilities***

PUBLIC BUILDINGS AND FACILITIES

City Facilities

Historically, in the cities of Europe, the town hall was given the city's most prominent location on the main town square, and the city's business area grew up around it. Today, new town developments in Europe and in this country place great emphasis on civic functions as the focus of the total community. Many cities have torn the heart out of their central areas by removing the civic center to outlying less expensive and readily available land, and have lost the focus of the city's most important gathering place.

As a symbol of local government, the City's headquarters should, unless there are very persuasive reasons to select another location, be developed within the downtown in close association with the specialty shopping, retail and special use areas. The City facilities should be developed as an integral element working with and contributing most to the town center concept, combining commercial, cultural, residential and civic functions.

Key components of such a center would be the City Council chambers, administrative offices and Post Office. Area requirements will vary according to the character of development and the range of services provided, such as administrative offices, meeting rooms, social services, police facilities, post office, and library.

Fire Facilities

Lafayette is served by the Consolidated Fire District, with headquarters located in Pleasant Hill, on Geary Boulevard. In Lafayette, there are fire stations on Mt. Diablo Boulevard, St. Mary's Road and Los Arabis Drive. These stations are adequate to handle existing and proposed growth.

Post Office

The existing Post Office in Lafayette serves the entire present city in addition to the areas of Reliez Valley and Brookwood. However, this facility is to be moved. The public functions of the Postal Service should be retained in a central location while the service aspects of the Post Office could be located elsewhere. If a main postal distribution center is not constructed in the Central Area of the City, at least a sub-station with parcel post service should be placed therein. The sub-station should have adequate facilities for handling the postal needs of local publishing firms.

Other Facilities

Lafayette is served by the East Bay Municipal Utility District, providing water; the Central Sanitary District, providing waste water disposal; and private enterprise, providing refuse disposal. Their facilities are expected to adequately serve the area.

Schools

Schools, outside of circulation rights-of-way, are the principal essential public facilities in the community and constitute a significant demand for land. School locations are closely related to residential development; and within the present Lafayette Elementary School District there are seven elementary schools.

Census information, school district attendance figures and building permit records indicate that the school population is declining due to decreasing family size. The school population has declined from 4,700 in 1968 to 3,700 in 1973. Most new construction either will be in the hillside areas which are expensive to develop, or will consist of apartments in the central area. In either case, family size will be small.

It is expected that family size will continue to decline for the next few years, stabilize, and perhaps increase slightly. This, coupled with the anticipated smaller family size for future development, would indicate an ultimate school population of 4,300 to 4,760.

The existing school facilities are adequate to serve such a population. Additionally, the locations and sizes of the existing facilities appear to be adequate to accommodate the relatively minor shifts in school population which are anticipated.

The City and the school district should continue to monitor school enrollment on a yearly basis in a continuing evaluation of the adequacy of existing facilities.

XL Safety

GENERAL SAFETY

The General Plan states where residential development should occur and where open space and conservation areas should be located. Development will continue up the lower reaches of the foothills to an elevation where preservation of the upper reaches of the hills and ridges takes place. Safety, in terms of fire protection and slope stability, should be of primary concern to the City in reviewing and approving development of the slopes.

Several primary elements should be included in an appropriate fire protection and slope stability plan for Lafayette and environs:

Topography

The slopes have been studied for stability and steepness. A major provision of this plan is that development in the steep hillside areas be restricted to a reasonable density. The City will adopt grading requirements to control the extent and quantity of earth moving in new development.

Traffic Flow

The major circulation system of Lafayette and environs is considered adequate for fire control access and public evacuation.

As new residential development occurs on the lower reaches of the hills, the City will require adequate local circulation and access within each development. Several examples would be: the requirement of two ingress-egress routes, where appropriate; the use of cul-de-sacs of a specified, maximum length; a minimum centerline radius of curvature of 50 feet; street grades of no more than 18 percent; and flammable vegetation clearance on both sides of roadways where necessary. These recommendations should be tempered by consideration for Lafayette's objective of retaining its rural character.

Traffic Safety

The City has, as a policy objective, the de-emphasis of the automobile. This policy does not mean a lessening of traffic safety or the maintenance of hazardous conditions. The narrow and curving roads which are characteristic of the most attractive parts of Lafayette are not hazardous in themselves in that traffic and traffic speeds generally adapt to them. Locations of high accident incidence should be analyzed and indicated improvements made, but a proliferation of stop signs, flashing signals, channelizations, etc., should be avoided in order to preserve the semi-rural character of the City.

Water Facilities

Water is the most important single factor in fighting structural fires and is vital for suppressing watershed or general brush fires. The size, type and location of fire hydrants should meet the requirements of the local fire authority. Water storage and distribution systems should be able to support the required or estimated maximum daily flow for regular uses in addition to a capacity to support a fire flow for a minimum duration of two hours. Separately developed private water systems should not be approved.

Clearance Between Structures, Brush & Vegetation Growth

Areas that consist of, or are adjacent to, forests, brush or grass covered land, land covered with flammable material, or hilly terrain, should be required to conform to the State Forest and Fire Law Clearance Requirements, Public Resources Code, Section 4291. The code is not recited here; however, it should become part of the subdivision ordinance.

Fire Breaks

The plan has proposed a system of riding-hiking trails in conjunction with the Open Space-Conservation, Parks and Recreation element. These trails, together with existing fire breaks, will provide appropriate separations between various uses, structures and vegetation.

SEISMIC SAFETY

Reference here is made to the Appendices containing the detailed preliminary investigations and conclusions from the U. S. Geological Service and the California Division of Mines and Geology. The U.S.G.S. and Division of Mines has compiled preliminary reports on the geology and geologic engineering aspects of the Bay Area, and those preliminary findings applicable to the Lafayette area are included in the Appendix. The Soils Survey of Contra Costa County was published by the U. S. Department of Agriculture, Bureau of Chemistry and Soils.

Appendix A

TRAILS PLAN IMPLEMENTATION

Funding:

The source of monies for establishing and maintaining a trails system might be any one or more of the following:

User Taxes.

Bicycle, equestrian and hiker registration or licensing may be possible but is not recommended. The fees collected would not likely be significant; administration and enforcement would be difficult; administrative costs would be high relative to fees collected; and an equitable fee system based on usage would be difficult to develop.

Donations from Individuals and Groups

These would include service and fraternal organizations, Scouts, hiking and conservation groups, horseman associations, parent-teacher associations, and groups such as the Lafayette Design Project and Lafayette Improvement Association. Donations could be in the form of cash, labor or materials. Several such groups have already indicated support. Even a minimum fund raising program should be able to raise several thousand dollars from these sources.

Federal Grants

Two federal programs presently exist which provide for matching funds for a trails system such as the one herein suggested for Lafayette.

One is administered by the Interior Department's Bureau of Outdoor Recreation acting through the California Department of Parks and Recreation. This program was authorized by the Land and Water Conservation Fund Act of 1965 (Public Law 88-578) and provides for reimbursement to the States and their political subdivisions of up to 50% of the costs of planning, acquisition and development of outdoor recreation areas and facilities. Lafayette is an eligible jurisdiction and could apply for such funds.

The other program is the Open Space Land Program administered by the U. S. Dept. of Housing and Urban Development. Section 702 of Title VII of the Housing Act of 1961 provides for matching grants to local public bodies for up to 50% of the cost of acquiring and developing land in urban areas for permanent open space use. Leases and easements can be included as cost items.

Executive Order 11237, issued on July 27, 1965, sets forth Federal policies and requirements for coordination of these two programs. Criteria and application procedures for funding requests are in the City Manager's office.

Other similar funds may become available in the future. For example, a California State Assembly committee (Natural Resources and Conservation) in 1971 approved a bill which would make 0.5% of the state highway fund available for bicycle paths in areas where they would relieve congestion.

City Funds

Federal matching funds require, at a minimum, equal funding by the political sub-division(s) seeking such funds. The City Council could choose to utilize funds presently available to Lafayette (subventions resulting from incorporation) or call for a special tax election specifically for this purpose.

East Bay Regional Park District

It is reasonable to assume that inasmuch as a major portion of the recommended trails system represents a regional link, EBRPD might be expected to contribute both funds (including maintenance) and expertise to a significant extent. Such participation would, in addition, enhance the likelihood of obtaining matching funds. The extent of EBRPD participation would be a matter of negotiation between that district and the City.

East Bay Municipal Utility District

That portion of the recommended trails system on EBMUD Lafayette Reservoir property could presumably be included without cost to the City.

SUGGESTED STANDARDS FOR BIKING TRAILS

- One way trails should be a minimum of six feet in width and two-way trails should be 12 to 15 feet in width.
- Striping on regular roadways and streets will be the easiest, least expensive method of establishing trails at present. No parking should be allowed on these trails.
- Any major changes on the streets where trails are recommended should include consideration of a biking trail separated from auto traffic by shrubbery.

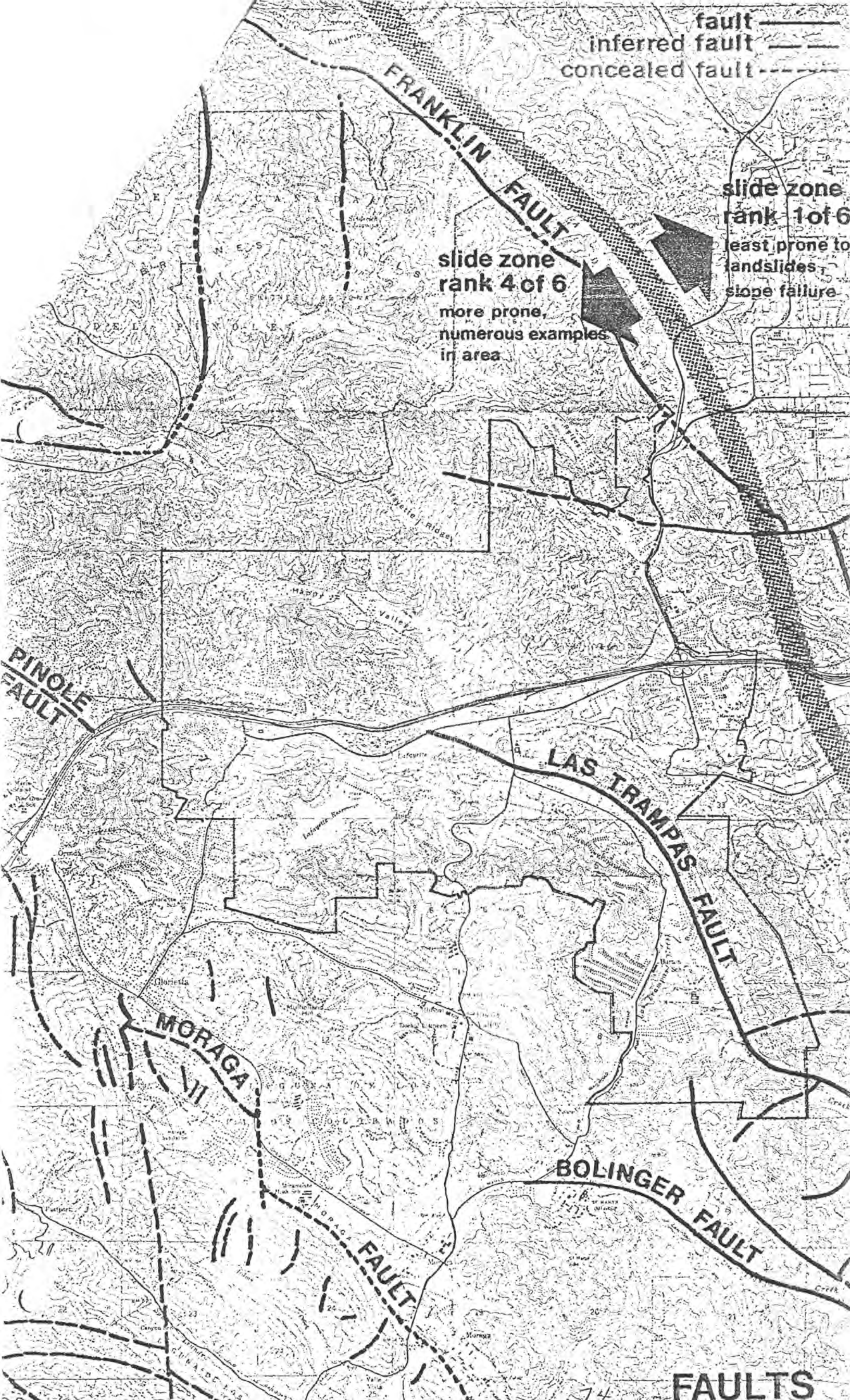
- All biking trails should be marked with a bike stencil.
- Bike routes and crossings should be marked with the nationally approved signs.
- A brochure containing safety rules and regulations should be issued. A map indicating bike trails and points of interest should be included.

Appendix B

fault ———
inferred fault - - -
concealed fault - - -

slide zone
rank 1 of 6
least prone to
landslides,
slope failure

slide zone
rank 4 of 6
more prone,
numerous examples
in area



PINOLE
FAULT

FRANKLIN
FAULT

LAS TRAMPAS
FAULT

MORAGA
FAULT

BOLINGER
FAULT

74 FAULTS



GEOLOGIC FORMATIONS

Lafayette and Environs Geologic Setting

The San Francisco Bay area is crossed by an active, north-northwest-trending fault system comprising, from west to east, the zones of the San Andreas, Hayward and Calaveras (Franklin) faults. Lafayette and environs lie on the east edge of the Berkeley Hills. These hills comprise a belt of faulted anticlinal and synclinal folds with a structural grain that roughly parallels the trace of the Hayward and Calaveras faults which bound them on the west and east respectively.

The Lafayette Area lies adjacent to and west of the trace of the Calaveras (Franklin) fault. Folds and faults in the area appear to reflect adjustment to strain resulting from differential, right-lateral movement between the large block underlying the Berkeley Hills west of the Calaveras (Franklin) fault zone and a block, including the Mount Diablo region, east of the Calaveras (Franklin) fault zone.

The rocks in the area range in age from Upper Cretaceous to Quaternary. Marine and transitional marine-nonmarine sedimentary rocks are the dominant types. The latter group of strata are Mio-Pliocene in age and include minor properties of volcanic rocks. The strata exposed in the area are not homogeneous, they comprise interlayered units which range from firm, ridge-forming sandstone to claystone barely stronger than the soil that forms upon it. Slope stability reflects these diverse geologic factors.

Faults

At Walnut Creek the northwest-trending Calaveras (Franklin) fault is the most prominent structural feature and the most likely site of both seismic and non-seismic earth movements. Another major fault, the Las Trampas fault, parallels the Calaveras (Franklin) fault, and lies about two miles west of it.

The Calaveras fault is a plane of separation and right-lateral movement between the Mount Diablo region and the Berkeley Hills. Much of the true nature of the Calaveras fault is obscured by alluvium, streets and buildings; but it is evident that it is a complex zone of many faults. The existence of the fault trace beneath the alluvium is supported by topographic features on the northeast flank of the hill northwest of Pleasant Hill School. The alignment of ridges, truncated spurs, valleys, swells, ravines and landslides

appear to extend the trace northwest into the Briones Valley quadrangle. The fault is considered to be active, but no earthquake or shearing has produced any surface rupture recent enough to be preserved in the Walnut Creek area.

The Las Trampas fault lies about two miles west of and generally parallel to the Calaveras fault and the plane of the fault is essentially vertical. Borings and excavations in the area appear to reveal a right lateral movement caused by a local rebound of stressed fault zone material although it may be caused by creep movement on the fault itself. No surface evidence of such movement has been observed, but it is significant that the Las Trampas fault is under stress.

Landslides

Slopes now widely landslided have had a long history of such movement, and remnants of very ancient slides should be anticipated in the area. Most explored landslides in the Lafayette area are of the type called "Slump type" slope failures. A slump is the downward slipping of a mass of rock or unconsolidated material of any size, moving as a unit or as several subsidiary units, usually with backward rotation on a more or less horizontal axis parallel to the cliff or slope from which it descends. Slumps may involve either or both soil and bedrock.

Earthflows are characterized by the triggering capacity of water which adds weight and reduces the cohesiveness of clay-rich materials; a role which it plays in most slope failures. Earthflows are very fluid masses of soil and rock debris which commonly develop from slumps, either soil slumps or deeper slumps, the toe masses of which have become highly disordered and intermixed with soil. Being more fluid than slumps, earthflows more quickly lose their identifying features. They occur most commonly on the same geologic units as those which yield the greatest number of slumps, but can develop in any elevated soil mass subject to soaking.

Slope wash is composed of angular fragments of the more resistant bedrock units mixed with various amounts of soil through a range that includes many deposits comprised wholly of soil and organic debris. This material lies on slopes, the floors of ravines, and in some areas it chokes narrow valleys. The up-hill limit of slope wash is generally where it attains a thickness of three feet; the lower contact where slope wash appears to merge with a wedge out

over older, soil-covered terrace surfaces. Slope wash tends to pond in side-slope basins formed by lateral widening of stream courses along less resistant rock units. The toes of slides are sites of abundant slope wash accumulation. Ravine cut in soft rocks are apt to be choked with slope wash and slump debris. Such concentrations sometimes develop physical characteristics similar to glaciers.

During wet weather slope wash is unstable and plastic. Its rate of movement ranges from extremely slow creep to the rapid flow of slumps and mudflows. This is the unit most commonly altered by human modifications of the land and is the quickest to respond to changes.

Slope wash derived from sandy rocks tends to be better drained, becomes less plastic when wet and supports heavier vegetation. The converse is true of slope wash on more clay-rich subjacent rock.

In level areas, one of the most troublesome stability problems is expansive soil. Strongly expansive soil loses volume when it dries; this is manifest in deep cracks which form during the dry season and a corresponding expansion when wet. Such soils commonly are called adobe. The development of any soil-covered area should be preceded by soil tests unless these deposits are to be removed.

Quaternary alluvium is found only at a few sites in the area where rapid transport or deposition of sediments is current. Most of the major drainage channels are floored by alluvium composed of clay, salt, sand and gravel and these deposits are not extensive enough to offer exploitable volumes of sand and gravel. Present (1966) county flood control plans and measures probably will lead to the ultimate concealment of most major natural channels.

Slope Stability

Some geologically recent event has caused the stream channels of the area to become deeply entrenched to their uppermost reaches and their banks are steep and undercut. Bedrock slopes, formerly buttressed by stream deposits, slope wash accumulation, and landslide debris are losing that support as the banks cut back through these deposits to the base of the slopes. The concentration of landslides in weak rocks and near faults is evident along the active stream channels.

The Clerbo Sandstone and Briones Formation are natural water reservoirs in the trough of the Rodeo fold and on the flanks of the Pinole fold. These structures are breached by faults, erosion, and the works of man and locally ground-water escapes through springs and seeps which create slope stability problems.

Runoff is controlled to some extent to rock type. Sandy rocks, such as the Clerbo Sandstone and parts of the Briones Formation and the loamy soils which form them, tend to absorb water and inhibit runoff. In contrast clay-rich rocks and the heavy soils which form upon them contribute to high runoff. These effects are both augmented and moderated by the inter-related factors of vegetation and exposure. Slopes underlain by fine grained sedimentary rocks rich in clay are generally grassy. Where the Rodeo Shale is exposed on the flanks of the Pinole fold west of Las Trampas fault, south-facing slopes on the north flank are grass covered and the upper less stable part of the shale is landslid. On the corresponding north-facing slope of the south flank of the fold the porcelaneous part of the Rodeo Shale is covered by scrub oak, bay, buckeye, and poison oak thicket and the upper part by interspersed grass and oaks.

On the Orinda Formation, in the southwest quarter of the area, cover on north-facing slopes ranges from heavily wooded to interspersed oaks and grass. Slopes with other exposures are predominantly grass covered. Here again the less wooded and grassy slopes are the least stable. It is possible that some ancient slides are masked by vegetation and that the distribution of grass and trees might not always have been the same. Areas of grass used for grazing are less stable than adjacent, natural slopes.

Vegetative cover is not a controlling factor in deep, bedrock slope failures; but weathered rock and soil are more stable if they are host to a well-developed root mass.

Geologic Formations in the Lafayette Area

Solid underlines indicate conditions that may be critical to planning, design and construction of engineering works.

This data was obtained from the "Preliminary Geologic Map and Engineering Geologic Information, Oakland and Vicinity, California", by Dorothy Radbruch and J. E. Case, 1967.

Qac - ALLUVIUM AND COLLUVIUM

General Description

Composition varies from place to place. In small, swift-flowing streams, recent alluvium largely sand, pebbles, and boulders; alluvium in flat valleys and colluvium on hillsides generally finer material, usually dark in color. Alluvium and colluvium underlain by rocks of Contra Costa Group and/or Moraga Formation commonly contain much swelling clay. Colluvium as much as 60 feet in thickness on west side of Moraga Valley; alluvium a few inches to more than 75 feet in thickness.

Topographic Formation

Recent alluvium fills stream valleys and forms flat valley bottoms; alluvium fills and obscures many old hillside ravines too small or indistinct to show; colluvium mantles sides of hills.

Weathering and Soil Development

Thickness of soil varies from a few inches to several feet. In flat valleys soil as much as 3 feet in thickness has developed on alluvium. In places soil clayey, shrinks and swells.

Workability

Can be moved with hand tools. Where material is clayey, may be very heavy and sticky when wet, sticking to tools and miring heavy equipment.

Slope Stability and Foundation Conditions

Depends on composition. Alluvium and colluvium derived from rocks of Contra Costa Group and/or Moraga Formation generally contain expansive clay. May cause heaving and cracking of structures in flat areas; susceptible to sliding on hillsides. Alluvium in old ravines may slide.

Remarks

None

Tcc - CONTRA COSTA GROUP, UNDIFFERENTIATED (INCLUDES PINOLE, TUFF, Tcp)

General Description

Conglomerate, sandstone, and siltstone, with minor amounts of limestone and tuff; interbedded and lenticular. Greenish-gray, reddish-brown. Contains unnamed rocks younger than formation of the Contra Costa Group (Blad Peak, Siesta, Moraga, and Orinda) which are recognized west of Moraga fault. Includes Pinole Tuff, Tcp. Rocks poorly consolidated, contain montmorillonite clay. Fractured, cut by faults; prominent and widespread jointing; joint surfaces iron-stained. Beds range from less than 1 inch to 80 feet thick. Maximum thickness of unit unknown.

Topographic Form

Underlines rolling to moderately steep-sided hills and intervening northwest-trending valleys.

Weathering and Soil Development

Weathering irregular, from a few inches to several feet. Weathered rock soft, clayey. Soil lacking or as much as 10 feet thick in ravines; generally clayey.

Workability

Can be moved with power equipment.

Slope Stability and Foundation Conditions

Slope stability poor. Abundant slides in both soil and rock, on natural and cut slopes. Slides abundant on north-facing slopes; slides in rock may move on joint surfaces. Expansion of clayey soil derived from this unit may cause heaving of structures.

Remarks

Properly compacted material from formation suitable for artificial fill. Earthquakes may trigger soil slips and landslides in this unit, particularly if rocks and soil are saturated. Abundant landslides may increase cost of development.

Tsp - SAN PABLO FORMATION

General Description

Sandstone, medium-grained, slightly clayey, with shell bands in places; few lime-cemented resistant layers 1 foot or less in thickness. Minor pebble conglomerate, locally fossiliferous. Some layers of clay shale, with jarosite coatings on joint surfaces. Fresh rock olive-gray, weathered rock dark yellowish orange. Beds from a few inches to tens of feet in thickness. Joints less than one inch to several feet apart. Maximum thickness unknown. Rests uncomformably on the Briones Sandstone.

Topographic Form

Moderately steep, rounded hills and ridges.

Weathering and Soil Development

Rock weathered, soft, iron-stained along joints to depths of 20 feet or more. Soil generally sparse sandy loam, less than 1 foot thick; may be 6 feet or more in thickness in ravines.

Workability

Can be moved with power equipment.

Slope Stability and Foundation Conditions

Stands in 1:1 cuts with only minor sloughing; Foundation conditions good.

Remarks

None

Tb - BRIONES SANDSTONE (INCLUDES HERCULES SHALE,
MEMBER OF LAWSON, Th1)

General Description

Sandstone, slightly clayey, fine-grained, some sandy silty claystone. Light yellowish-gray when fresh; weathers dark yellowish-orange. Joints a few inches to less than an inch apart; breaks into small pieces along joints. Lower part of formation generally massive, contains more claystone. Upper and lower parts not separated on map. Hercules shale member (Th1) predominantly siliceous. Thickness approximately 1,300 feet. Conformably overlies and grades into the Rodeo Shale.

Topographic Form

Generally forms ridges and rolling hills with steep-sided ravines. Ridge slopes commonly steep, 25 to 30 degrees.

Weathering and Soil Development

Weathered rock soft to moderately hard; intensely weathered to 20 feet, iron-stained to depths of at least 75 feet maximum depth observed. Soil generally sparse.

Workability

Can be moved with power tools; clayey sandstone and claystone may be sticky when wet.

Slope Stability and Foundation Conditions

Minor erosion and gullyng in soft weathered sandstone in cuts; soil and weathered rock slides observed in places in upper part of formation on natural slopes as low as 20 degrees. Foundation conditions good to fair.

Remarks

None

Tr - RODEO SHALE

General Description

Clay shale, siliceous shale, siltstone, some firm clayey sandstone. Much massive, bedding irregular, obscure in most places. Olive-black where fresh; weathers pale yellowish brown to grayish-orange. Intensely jointed; joints less than an inch to 1 foot apart. Fissile. Contains gypsum and/or jarosite in some places. Maximum thickness about 700 feet. Contact with the Hambre Sandstone is conformable and commonly gradational.

Topographic Form

Steep-sided hills; slopes of 30 degrees or more common.

Weathering and Soil Development

Weathered, iron-stained along joints to depths of 60 feet or more. Soil sparse, dusty yellowish brown, generally less than one foot thick. Bare slopes common.

Workability

Can be moved with power tools.

Slope Stability and Foundation Conditions

Stands well in most places in cuts of 1:1. Some slides and slumping in clayey parts of units and overlying soil when wet. Foundation conditions good to fair.

Remarks

None

Th - HAMBRE SANDSTONE

General Description

Sandstone, very fine-grained, clayey, soft, pebbly in places, with minor amounts of clayey siltstone. Some firm sandstone beds 2-10 feet thick. Light olive-gray; grayish-orange when weathered. Numerous closely spaced joints, commonly 1 to 3 inches apart. Generally very friable, sticky when wet. Weathers spheriodically between joints into small, rounded fragments. Estimated maximum thickness 3,000 feet. Conformably overlies Tice Shale.

Topographic Form

Steep sided hills, slopes of 30 degrees. Some more resistant beds form knobs, ridges, spurs.

Weathering and Soil Development

Weathered, soft, to depths of 25 to 35 feet. Soil sparse on resistant sandstone; otherwise 2-5 feet thick, more in ravines. Soil brownish-black, clayey, shrinks and swells.

Workability

Most can be moved easily with power tools; some resistant beds may require blasting.

Slope Stability and Foundation Conditions

In places both soils and rock slides form on natural slopes as low as 25 degrees. Stands in some artificial cuts of 1-1/4 to 1, many show some slumping and much washing and gulying. Sandy mud accumulates at base of cuts. Foundation conditions good to poor.

Tm - MORAGA FORMATION

General Description

Basalt and andesite flows, dark-gray; locally amygdaloidal. Interbedded clastic rocks, includes conglomerate, sandstone,

siltstone, agglomerate, tuff, mixtures of volcanic and nonvolcanic debris; minor limestone and lignite. Layers a few inches to 200 feet thick. Yellowish-gray rhyolite tuff within clastic sequence forms marker bed near middle of formation. Poorly sorted volcanic debris on hill south of Moraga substation may be volcanic mudflow. Entire formation sheared and fractured. Maximum estimated thickness approximately 1300 feet. Conformably overlies and probably interfingers with Orinda Formation.

Topographic Form

Form prominent steep-sided ridges. Slopes generally more than 30 degrees.

Weathering and Soil Development

Tops of individual flows oxidized red; soil sparse, where developed is generally clayey. Colluvium may be as much as 60 feet thick.

Workability

Clastic rocks or intensely fractured volcanic rocks can be moved with power equipment; basalt and andesite generally require blasting.

Slope Stability and Foundation Conditions

Basalt and andesite generally stable, and foundation conditions good. Many small slides form in clastic rocks, and in places very large slides have moved on clayey clastic units or formed in overlying clayey colluvium.

Remarks

Crushed volcanic rock from the Moraga Formation is a major source of fill and base rock in this area; some large firm blocks of un-weathered volcanic rock also used as riprap. Slopes so steep that development may be difficult.

Ts - SIESTA FORMATION

General Description

Claystone, silty, and sandstone, very fine to medium grained; greenish-gray to pale-brown. Claystone generally massive, may be very finely laminated. Minor pebbly conglomerate, cherty limestone, impure tuff, and basalt. Cut by faults. Beds 1 inch to 12 feet thick; most 1-5 feet thick. Maximum thickness unknown. Conformably overlies the Moraga Formation.

Topographic Form

Flat or gently rolling topography of bottom and sides of Siesta Valley.

Weathering and Soil Development

Weathering irregular, depth varies from a few inches to as much as 15 feet. Weathered rocks soft, structureless, clayey. Soil lacking or as much as 3 feet thick, more in ravines.

Workability

Can be moved with hand tools or power equipment.

Slope Stability and Foundation Conditions

Many slides form on both natural and cut slopes in this unit, although some highway cuts appear to be stable at 1:1 slopes. Foundation conditions fair to poor. Expansion clayey soil may cause damage to structures.

Remarks

Part of floor of Siesta Valley north of Highway 24 consists of old slide material of the Siesta Formation.

Tor - ORINDA FORMATION

General Description

Conglomerate, sandstone, siltstone, and claystone; contains swelling clay. Bluish-gray, greenish-gray and grayish-red. Beds 1 inch to 100 feet thick. Sheared and fractured, numerous joints. Beds lenticular. Contains minor diabase dikes. Maximum estimated thickness approximately 2,300 feet. In the Berkeley Hills overlies the Claremont Shale with apparent erosional and possible slight angular unconformity.

Topographic Form

Generally forms valleys, but harder rocks of formation in places form steep ridges.

Weathering and Soil Development

Depth of weathering irregular; varies from 3 to 20 feet; weathered rock soft, clayey. Soil sparse; may be lacking or as much as 3 feet thick, more in hillside ravines.

Workability

Can generally be moved with power equipment, but some dense, hard sandstone or conglomerate lenses may require blasting.

Slope Stability and Foundation Conditions

Slope stability poor; many slides in both rock and soil on both natural and cut slopes. Soil slides on natural slopes of 25 degrees and steeper; some cuts appear stable at 1:1. Swelling of expansive clay in rock and overlying soil could cause damage to structures.

Remarks

Sandstone or conglomerate beds that require blasting for removal may disintegrate in cuts after exposure to air. May squeeze in tunnels.

Tmz - MARTINEZ FORMATION

General Description

Sandstone and siltstone. Sandstone medium-grained; much heavily glauconite, greenish-yellow or moderate olive-brown. Some siltstone siliceous, some clayey; light olive gray or yellowish-gray when fresh, weathers grayish-orange to pale red. Many fracture surfaces in siltstone coated with grayish-yellow jarosite. Beds 18 inches to 30 feet thick; some siltstone massive. Numerous joints, less than an inch to 3 feet apart. Thickness unknown; believed to be conformable with underlying cretaceous rocks.

Topographic Form

Forms moderately steep rounded hills and ridges; slopes generally 15 to 30 degrees.

Weathering and Soil Development

Weathered to depths of 50 feet. Weathers spheroidically in many places. Weathered siltstone soft, sandstone soft to firm. Soil generally thin, rocky, except in ravines.

Workability

May be moved with power equipment.

Slope Stability and Foundation Conditions

Stands in 1:1 cuts except where sheared; some slumping and falling of rocks from face of steeper cuts. Foundation conditions good to fair.

Remarks

None

Ku - UPPER CRETACEOUS FORMATIONS, UNDIFFERENTIATED

General Description

Sandstone, fine to coarse grained, and shale. Light-gray to medium when fresh, weathers yellowish-brown or grayish-orange. Some massive sandstone beds, but predominately alternating beds of sandstone and shale; without any visible distinguishing characteristics of other cretaceous units. Sheared, fractured, and contorted. May include any of the Upper Cretaceous units and possibly unrecognized Eocene rocks. Fossils rare. Thickness and stratigraphic relations unknown.

Topographic Form

Forms rolling hills, moderately steep-sided ridges and canyons.

Weathering and Soil Development

Depth of weathering may be 60 feet or more; some weathered rock firm; most soft, crumbly. Soil and colluvium may be as much as 25 feet thick in ravines.

Workability

May be moved with power equipment.

Slope Stability and Foundation Conditions

Slope stability and foundation conditions good to poor. In places stands in 1:1 cuts, but subject to both minor sloughing and major sliding. Two of largest slides in Berkeley Hills - Broadway Terrace and Drury Road slides. Involve rocks of this unit.

Remarks

May squeeze in tunnels where sheared.

Appendix C

TABLE OF SOIL TYPES

Soils have been rated on a present basis by evaluating such soil characteristics as depth, texture, chemical reaction, and density of the surface soil and subsoil, alkali content, drainage condition and slope. Most favorable or ideal soil condition for plant growth are related 100%. Based solely on soil characteristics.

Yl	Yolo Loam, 100%
Zl	Zamora Loam, 90%
Dl	Danville Clay Loam, 85%
Du	Dublin Adobe Clay Loam, 85%
Cr	Clear Lake Clay Loam, 85%
Sc	Salinas Clay Loam, 81%
Da	Dublin Adobe Clay, 63%
Bo	Botella Clay, 60%
Cy	Clear Lake Adobe Clay, 56%
Lc	Los Osos Clay Loam, 55%
Al	Altamont Clay Loam, 55%
Ol	Olcott Loam, 54%
Mg	Montezuma Adobe Clay, 49%
Dc	Diablo Adobe Clay-Shallow Phase, 46%
La	Los Osos Adobe Clay-Shallow Phase, 46%
Tl	Tierra Loam, 38%
Ca	Cayucos Adobe Clay, 38%
Hu	Hugo Clay Loam, 36%
Cl	Cayucos Loam, 35%
Hc	Hugo Clay-Lower Phase, 34%
Aa	Arnold Sandy Loam, 33%
Ay	Antone Clay Loam, 21%
DC	Diablo Adobe Clay-Upper Phase, 18%
HC	Hugo Clay-Steep Phase, 15%
LA	Los Osos Adobe Clay-Steep Phase, 14%
Rb	Rough Broken Land, 7%
Rs	Rough Stony Land, 5%

Data From: Soils Map-Contra Costa Co., Calif.
U.S. Dept. of Agriculture Bureau of
Chemistry and Soils.



SOILS

SOILS

In the valleys the individual bodies of soil are small, and because of differences in drainage, local climate conditions and parent materials, numerous series and types of soils are intermingled.

In the hilly parts of the county the different parent rocks have given rise to a number of different soils developed in place; the soils occur as more or less continuous bands broken by steep non-agricultural areas and drainageways.

Where the rainfall is relatively heavy (as it is in the western part of the county) and the winds sweeping inland from the ocean and bays are cool and moist, the soils are leached of lime and are comparatively dark colored because of an accumulation of organic matter - the youthful hill soils in the western part of the county retain lime in the subsoil and are dark gray or black - the valley soils in the western part of the county are dark colored and leached of lime; the soils in the western part are leached of salts and in part are wooded with oaks. Ferns, trees, and brush grow thickly in the more shaded canyons.

Soils of the Hilly and Mountainous Areas

The soils of the hilly and mountainous areas comprise the Arnold soils, which have predominantly gray or grayish-brown surface soils; The Hugo soils, which are dull brown; the Altamont and Los Osos soils, which are brown or dull dark brown; and the Diablo and Cayucos soils, which are black. All these soils are developed from the underlying weathered rock and are comparatively shallow. These soils are used for pasture and for the production of grain and hay. The larger areas are steep, and the soils are shallow. They are utilized for grazing in connection with dairy farms and livestock ranches. Wheat and barley, much of which is cut green and cured for hay, are grown extensively on the smoother and more gentle slopes.

Soils of the Valley and Coastal-Plain Areas

The older soils are developed mainly on the more elevated alluvial fan slopes and streams and coastal-plain terraces. They represent conditions in profile development identified with compacted and heavy textured subsoils and horizons of accumulated lime and colloidal materials and the development of a certain structure which

generally are indicative of moderately mature or mature stages in soil development. The mature or markedly developed soils have heavy textured, tough subsoils which are less permeable to deep-rooted crops than the younger soils of the valleys and coastal-plain areas. Within the group of older soils are the Zamora, Tierra, Olcott, Antone, and Montezuma series, which differ widely in color, thickness of surface soil, microrelief, moisture-holding capacity, response to cultural treatment, productivity, and utilization.

Younger Soils

The younger soils occupy the stream flood plains, lower recently built stream terraces, and lower slopes of the alluvial fans and valley plains in which the parent soil materials have given rise to soils, in which the soil profile is undeveloped and is dominated by layers of parent materials or geological stratifications of alluvial materials. The less recent materials have given rise to soils in which an incipient or youthful profile development is expressed. The soils of the subgroup are dominated by permeable subsoils and substrata. Drainage is not so well developed as in the older soils of the valleys and coastal-plain areas. Low lying areas are subject to overflow at times, and some of the soils have water tables and accumulated saline salts. Members of this group are the Yolo, Salinas clay loam, Botella Clay, Danville clay loam, Dublin adobe clay, Dublin adobe clay loam, Clear Lake adobe clay, Clear Lake clay loam, rough broken land, and rough stony land series.