SEISMIC SAFETY ELEMENT

Adopted by the City Council
Resolution 51-75
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CONTENTS

INTRODUCTION SS-3
General Objectives SS-3
Legal Basis for the Seismic Safety Element SS-3
Summary of Findings SS-4
Major Recommendations SS-4

BACKGROUND SS-6
Area Covered SS-6
Factors Considered SS-6
Information Sources SS-6

SEISMIC HAZARDS SS-7
Active Faults SS-7
Ground Shaking SS-7
Landslides SS-7
Soil Stability SS-8
Inundation of Developed Areas SS-8

SEISMIC MAPS SS-9
Plate 1: Serra Fault SS-9
Plate 2: Historic Marshlands SS-10
Plate 3: Landslide Deposits SS-11
Plate 4: Local Geology SS-12
Plate 5: Potential Inundation by Tsunamis SS-13
Plate 6: Flood Prone Area SS-14

STRUCTURE AND UTILITY RISKS SS-15
Wood Frame Buildings SS-15
Masonry Buildings SS-15
Other Structures SS-15
Public Utilities SS-16

BALANCED RISK POLICY SS-17
Hazard vs. Risk SS-17
Voluntary vs. Involuntary Risks SS-17
Balanced Risk Policy SS-18

DISASTER PREPAREDNESS SS-21
City of Burlingame Emergency Operations Plan SS-21
Earthquake Response Planning SS-21
Public Awareness SS-23

IMPLEMENTATION SS-24
Research SS-24
Policies SS-24
Action SS-25

NEGATIVE DECLARATION SS-26

APPENDIX VOLUME, Appendix 7:
References AP-143

INTRODUCTION

GENERAL OBJECTIVES

Natural seismic hazards exist in Burlingame because of the City's proximity to two major active earthquake faults: the San Andreas Fault running north to south through the hills in the west; and the Hayward Fault, fifteen miles to the east. Earthquakes cause damage, but the risks of loss of life and property can be reduced with a willingness to require high standards of new construction and a careful review of older buildings, existing hazards and emergency action procedures.

The following are recommended objectives for the Seismic Safety Element:

1. Identification of those areas of the City where special seismic hazard potentials exist.

2. Identification of measures, in addition to those already in effect, that will reduce unavoidable risk, and thus future injuries and loss of lives.

3. Improved community capacity to respond promptly and effectively in the event of a major earthquake.

4. Increased public understanding of seismic safety so that unnecessary risk may be avoided (see also Safety Element[1]) .

LEGAL BASIS FOR THE SEISMIC SAFETY ELEMENT

1. State Planning Law

California Government Code Section 65302(f) requires: "A Seismic Safety Element consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to the effects of seismically induced waves such as tsunamis and seiches.

"The Seismic Safety Element shall also include an appraisal of mudslides, landslides, and slope stability as necessary geologic hazards that must be considered simultaneously with other hazards such as possible surface ruptures from faulting, ground shaking, ground failure and seismically induced waves."

[1]The Seismic Safety Element is closely related to the Safety Element. Both are concerned with the hazards of unstable geological conditions and their effects on personal injuries and property damage. The Safety Element, however, stresses the relationship of other natural hazards to public safety.

2. CIR Guidelines

The legislature in 1972 directed the Council on Intergovernmental Relations to draft advisory guidelines for General Plan Elements. The most pertinent excerpt from G. C. Section 3421.1 reads: "In connection with its responsibilities under Section 3421.1, the Council shall develop and adopt guidelines for the preparation and content of the mandatory elements required in city and county general plans by Article 5 (commencing with Section 65300) of Chapter 3 of Title 7."

SUMMARY OF SEISMIC SAFETY FINDINGS

1. Burlingame has no known major active faults within the city limits. The San Andreas Fault Zone, however, lies immediately west of the city.

2. The Serra Fault, a low potential active fault, bisects the western hills (see Plate 1).

3. The alluvial deposits overlaying bedrock, and particularly the baymuds under recent fill, intensify ground shaking in those areas due to the average earthquake.

4. Soil instability due to earthquake induced landsliding would probably be confined to limited areas of the western hills already known to be unstable (see Plate 3).

5. Hazard from loss of soil stability and subsidence due to liquefaction in the event of a large quake may be present in areas of alluvial deposits, but the degree of risk has not been established.

6. Inundation hazard of developed Baylands by tsunamis is limited to the immediate shoreline (see Plate 5).

7. The great majority of single family homes in Burlingame will not constitute a major risk to their residents in an earthquake.

8. Multi-storied, multi-family structures are likely to be considerably more vulnerable to damage under similar conditions in a major earthquake.

9. Many older commercial structures, especially those of masonry construction, may be hazardous in a moderate to severe earthquake.

10. City and County disaster planning at present does not make extensive provision for major earthquake disasters.

MAJOR RECOMMENDATIONS OF SEISMIC SAFETY

1. Consider developing a "balanced risk" policy that relates seismic hazards to acceptable risk by building type and intensity of use.

2. Require that new development incorporate seismic hazard mitigation measures to reduce risk to an acceptable level.

3. Establish procedures that could be used to reduce seismic risk in existing buildings.

4. Review and update the City's disaster preparedness plan.

5. Improve interjurisdictional cooperation and communication in regard to seismic safety.

6. Advocate seismic safety educational programs for schools and promote greater general public awareness of all types of geotechnical hazards.

7. Periodically update and refine this element to enable it to achieve its general objectives.

BACKGROUND

AREA COVERED

This seismic safety study is focused on the City of Burlingame, with recommendations directed to local responses. It is recognized, however, that the natural hazards leading to local seismic and geologic problems are shared with both the County and other areas of this State. The Countywide Seismic Safety-Safety Element describes these hazards and helps establish the context for the physical limits set in this report.

FACTORS CONSIDERED

This Seismic Safety Element will treat identified seismic hazards due to faults, ground shaking effects, ground failures, seiches and tsunamis, and mudslides that may occur as the result of seismic activity. To the limited extent that data is presently available, an analysis could be made of the existing older buildings in Burlingame to assess their susceptibility to damage. The risks inherent in other structures and potential disruption to the City's underground utilities will also be reviewed. The planned response to public safety and economic aspects are additional major factors to be considered in this element.

INFORMATION SOURCES

In addition to the County of San Mateo's review of regional seismic hazards, this element has drawn on a report prepared for Burlingame by Howard F. Donley & Associates on the Geologic Fault Hazard Zone in the Western Hills of the City. The report identified the location of the Serra Fault, a low potential active fault within the terms of the Alquist-Priolo Act, and suggested procedures that could be used to reduce risk of damage from future fault movements.

The City's Building Department contributed a number of soils reports on bayland properties that have been recently filled. Other data was drawn from the Basic Data Contribution series published jointly by the U. S. Department of the Interior Geological Survey and by the U. S. Department of Housing and Urban Development as a part of their San Francisco Bay Region Environment and Resources Planning Study Project. These documents and others are listed in the bibliography at the end of this element.

SEISMIC HAZARDS

ACTIVE FAULTS

San Andreas Fault is one of the more active in California and stretches for 650 miles north-to-south. It was responsible for the San Francisco 1906 earthquake, and the less severe 1957 quake that damaged Daly City. It may mark the boundary between the Pacific and North American plates of the earth's crust. Its position just west of Burlingame avoids the hazard of surface rupture within the city, but threatens major ground shaking and ground failure in future.

Hayward Fault lies about fifteen miles to the east of Burlingame at the base of the East Bay hills. Historically, this fault has produced the most moderate-sized earthquakes in the Bay Area and future ones could be sharply felt here.

Serra Fault is a minor thrust fault that runs from Millbrae through Burlingame, passing under the western end of Mariposa Drive and moving south via Mills Creek to Kenmar Way and into the town of Hillsborough. Consider to have common roots with the San Andreas Fault, it is assumed to be potentially active and poses future problems of surface rupture and damage to any structure built over its path. Little risk to life is anticipated.

GROUND SHAKING

The major cause of damage during an earthquake is ground shaking, with frequency and amplitude of motion dependent on local geologic conditions. Sites on bedrock tend to have sharp, high frequency jolts with little amplitude, while sites on deep alluvium receive lower frequency shocks but suffer movement with high amplitude.

Recent regional studies have suggested that the response of certain soils such as "baymuds" to earthquakes will also vary according to the depth of soil and the magnitude of the quake. Thus, ground accelerations of smaller quakes are magnified as much as three times over the acceleration bedrock, whereas ground accelerations of a large quake (7.5 or more on the Richter scale) would be reduced to a value below that of the underlying bedrock.[2]

Burlingame's industrial area and waterfront commercial district are on fill over "baymud" and may be subject to both unequal settlement and increased accelerations from most local earthquakes. The additional potential for damage from liquefaction and sliding is also present for those buildings with inadequate foundations.

LANDSLIDES

Many of the natural factors that promote landsliding, such as steep slopes, poorly consolidated bedrock, and occasional heavy rainfall, are present in Burlingame's western hills.

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[2] Redwood City, General Plan: Seismic Safety Element, pg. 8.

Some recent land developments may have increased the natural hazards; adding structures and fill to marginally stable slopes, removing natural vegetation, improperly handling rainwater runoff or simply watering lawns on unstable slopes will increase the danger of a landslide. In general, where slopes are steepened or their moisture content increased, a higher landslide potential is created.

An area with a history of landsliding should be of special concern, as most landslide activity seems to recur within or adjacent to such areas.

SOIL STABILITY

Four broad groups of soils exist in Burlingame:

1. Baylands: extensive fill over the "baymud" of the historic marshlands.

2. Alluvium Plains: gravel, sand, silt and clay deposits under the Town of Burlingame, Corbitt Tract, Burlingame Park and the lower portions of the Easton Addition.

3. Foothill Band: "Merced Formation" sandstone, siltstone and claystone, with some slope wash and ravine fill of gravel, silt and clay.

4. Western Hills: primarily sheared Franciscan rocks of a variety of types, including graywacke-sandstone, chert, greenstone, serpentine and blueschist, often held in a softer matrix of clay materials.

Under seismic conditions most Burlingame soils are reasonably stable. Exceptions include the Baylands and the limited areas of the hills where unstable slopes and possible surface rupture from the Serra Fault make local hazardous conditions. Incomplete information makes it difficult to establish the extent of the possible hazard on the alluvium plains and baylands from liquefaction, where a loss of strength suddenly occurs because of excess pore pressure under seismic shock conditions: this hazard is limited to alluvial soils underlain by lenses of water-bearing sands and gravels.

INUNDATION OF DEVELOPED AREAS

"Tsunamis" are seismic sea waves, often called tidal waves. Burlingame's position on the southwest shore of San Francisco Bay effectively shields the city from these major ocean waves. However, secondary waves would cause limited inundation of the lower baylands.

"Seiches" are earthquake induced waves in lakes and reservoirs. There may be a limited hazard from such waves in the "inner lagoon" between Bayshore Freeway and Anza Pacific Corporation property. Extensive other areas of the city are subject to a 100 year flood. Damage from such storms is likely to exceed inundations of seismic origin, and affect structures and utilities throughout the industrial district, Burlingame Grove, Villa Park and parts of the original Burlingame Land Company subdivision.

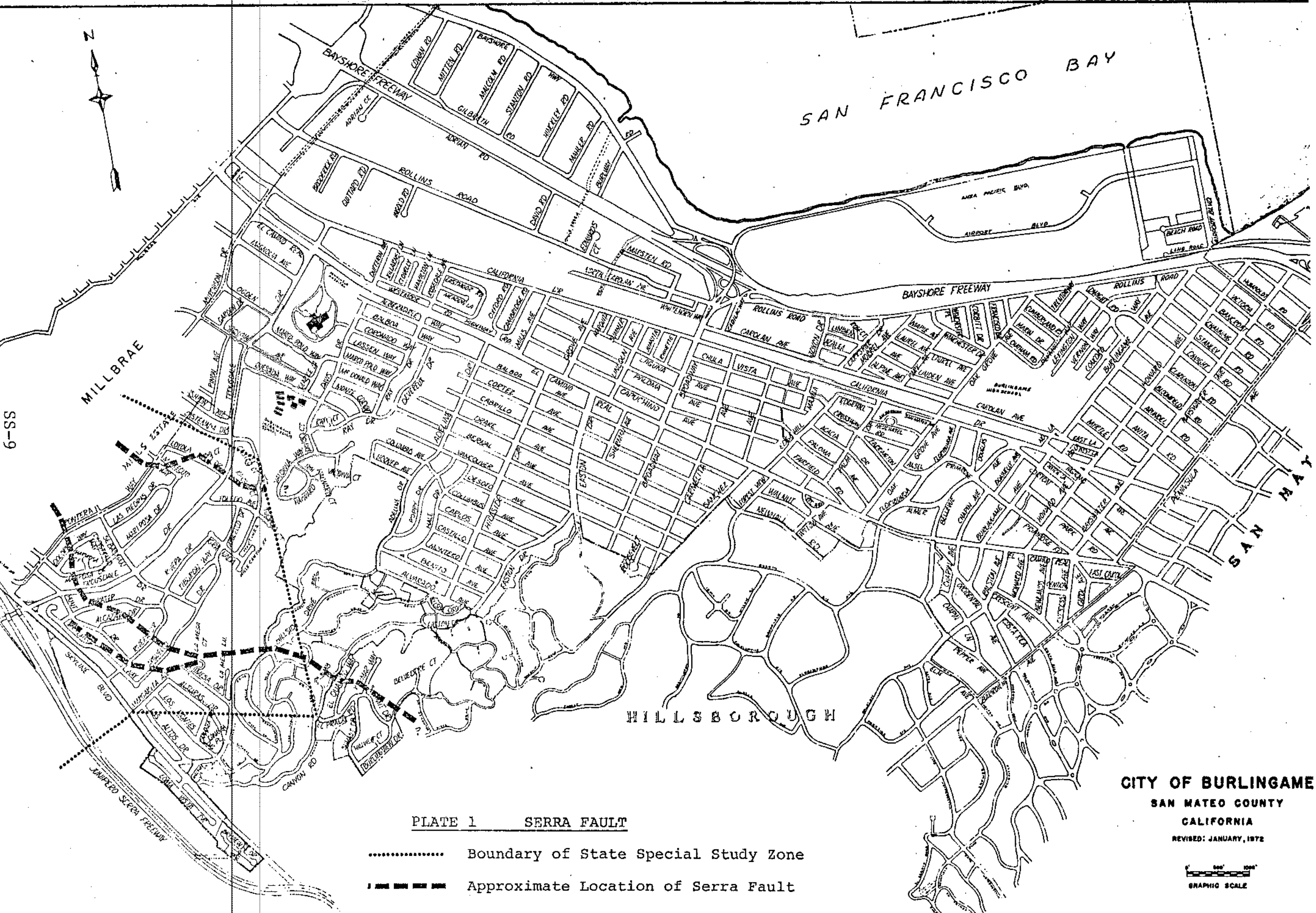


PLATE 1 SERRA FAULT

Boundary of State Special Study Zone

Approximate Location of Serra Fault

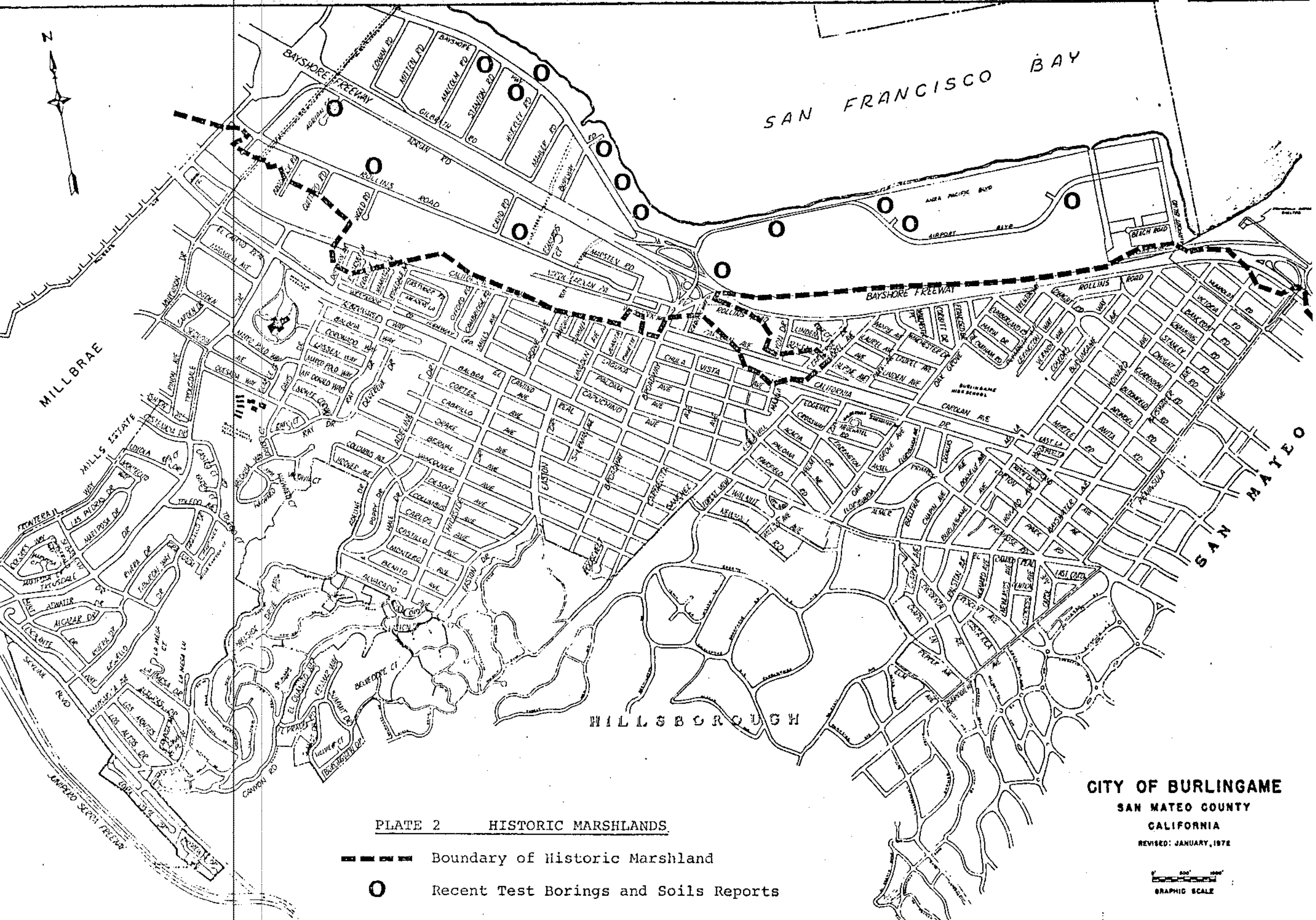
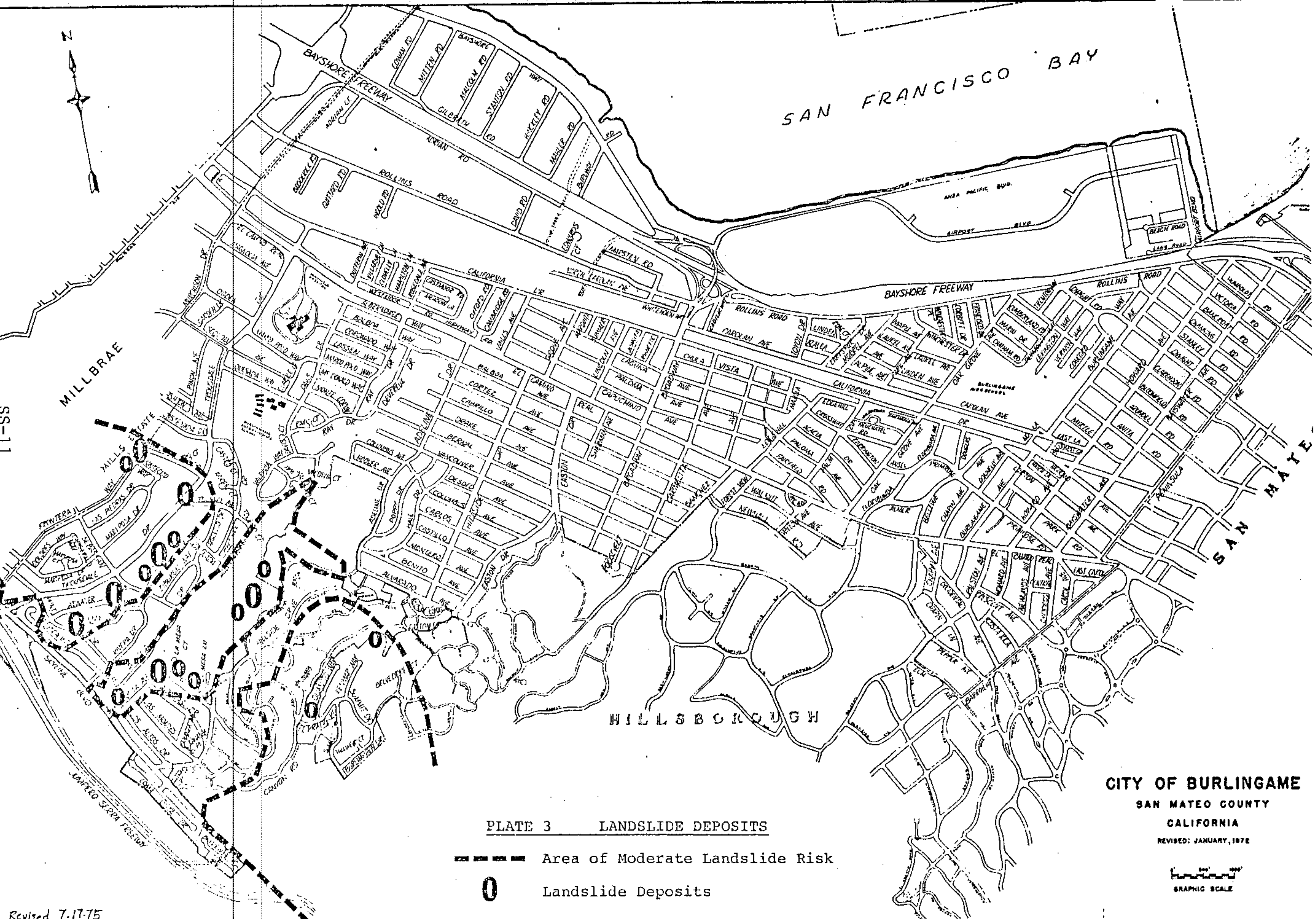


PLATE 2 HISTORIC MARSHLANDS

Boundary of Historic Marshland

O Recent Test Borings and Soils Reports



CITY OF BURLINGAME
SAN MATEO COUNTY
CALIFORNIA
REVISED: JANUARY, 1972
GRAPHIC SCALE
PLATE 3 LANDSLIDE DEPOSITS
Area of Moderate Landslide Risk
0 Landslide Deposits
SAN FRANCISCO BAY
SAN MATEO
MILLBRAE
HILLSBOROUGH
BAYSHORE FREEWAY
N
Revised 7-17-75

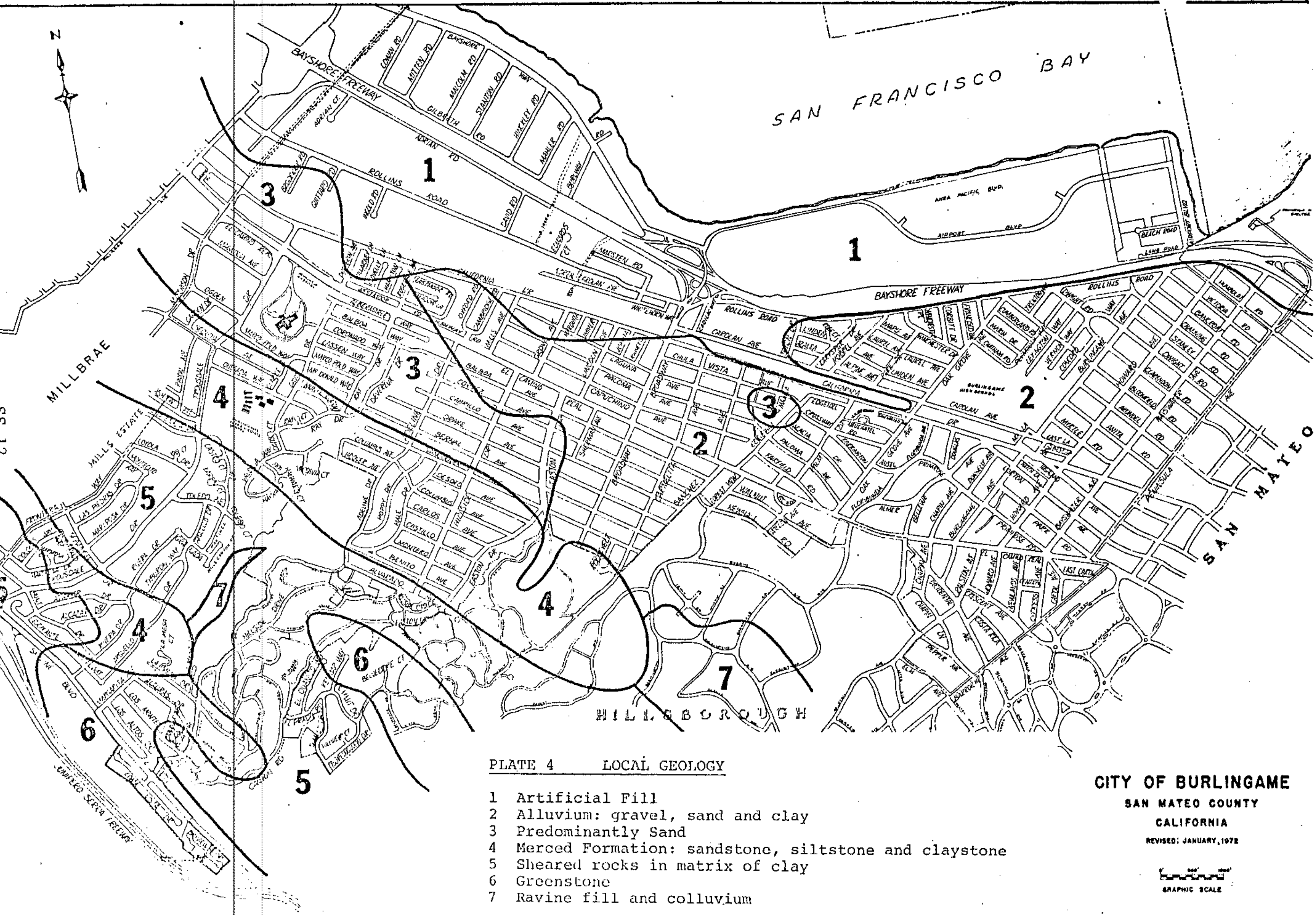


PLATE 4 LOCAL GEOLOGY

1 Artificial Fill
2 Alluvium: gravel, sand and clay
3 Predominantly Sand
4 Merced Formation: sandstone, siltstone and claystone
5 Sheared rocks in matrix of clay
6 Greenstone
7 Ravine fill and colluvium

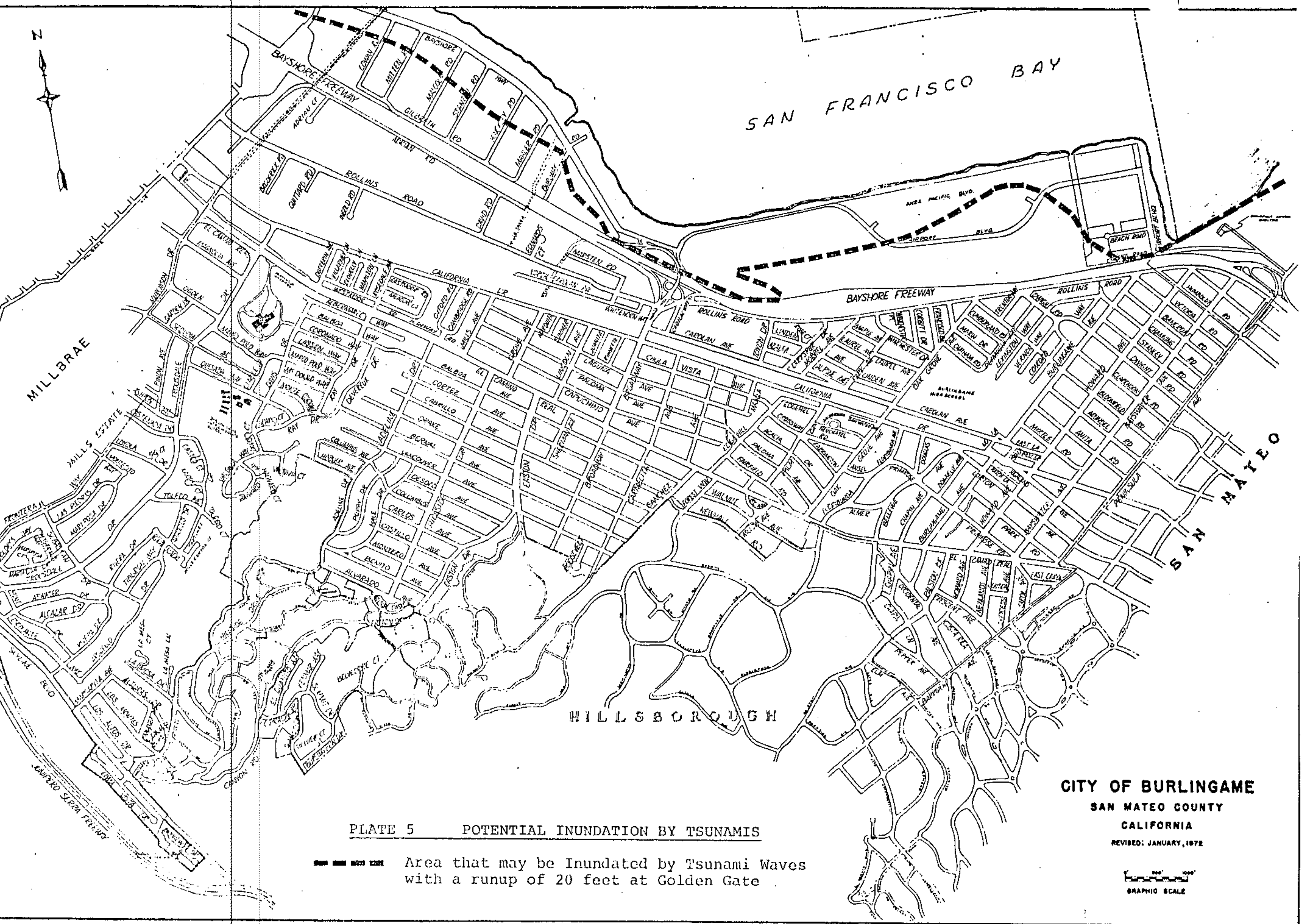


PLATE 5 POTENTIAL INUNDATION BY TSUNAMIS

Area that may be Inundated by Tsunami Waves with a runup of 20 feet at Golden Gate

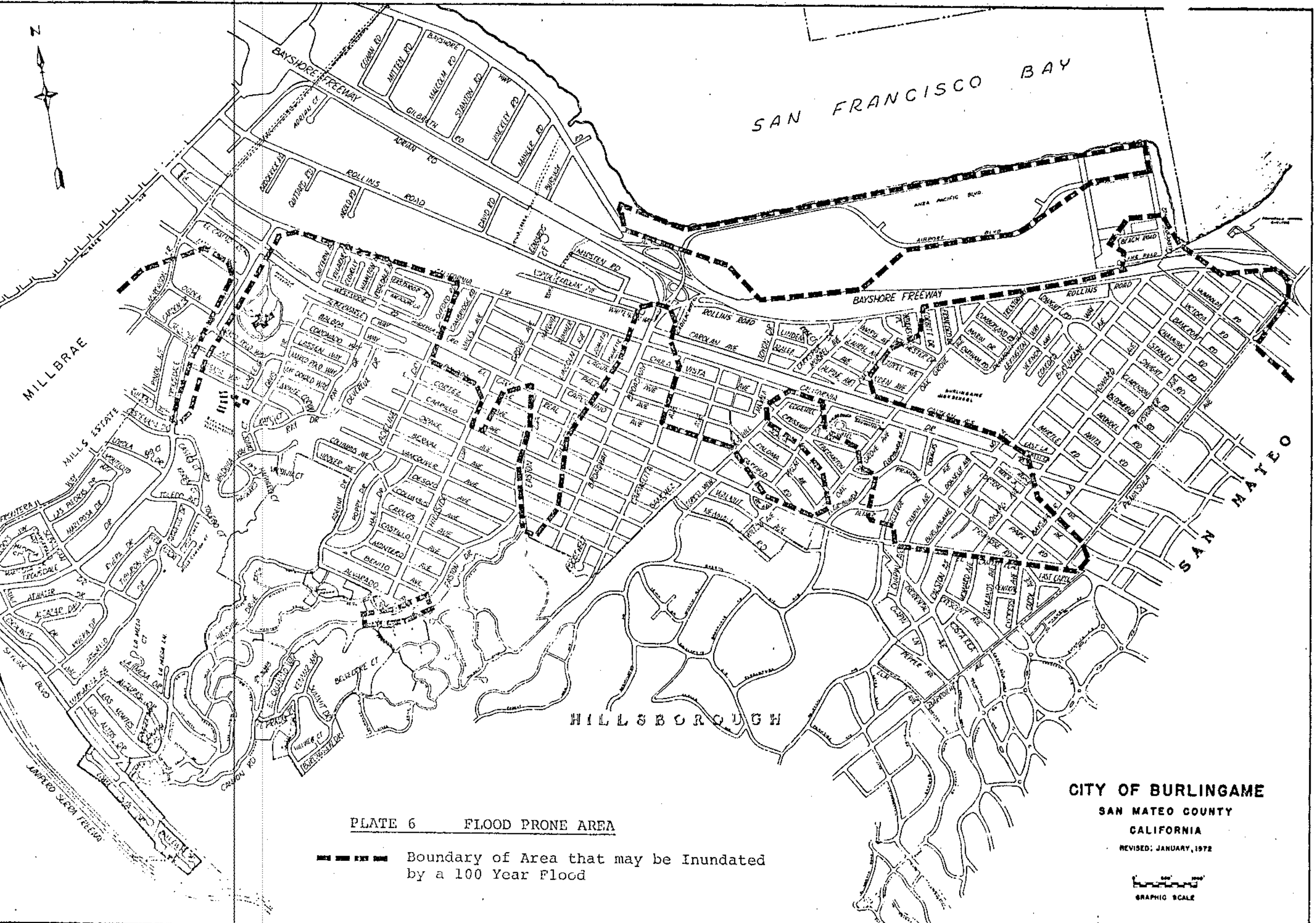


PLATE 6 FLOOD PRONE AREA

Boundary of Area that may be Inundated by a 100 Year Flood

STRUCTURE AND UTILITY RISKS

The State Joint Committee on Seismic Safety has observed that "the works of man loom as the principal cause of earthquake (risk)... and in a seismic region like California, every significant structure can be expected to undergo at least one major earthquake in its lifetime. Every structure should be made as secure against shaking or ground failure as is practical."

WOOD FRAME BUILDINGS

The majority of buildings in Burlingame are one- and two-story timber construction. Such buildings can be expected to perform fairly well during a moderate quake, and many would survive a large one. Those built to the requirements of the 1933 or later editions of the Uniform Building Code have a high resistance to seismic forces, and although they may be damaged in a severe earthquake, human casualties will likely be minimal.

There are two significant possible exceptions to the above:

1. Wood frame dwellings constructed, on steep hillsides where ground failure may cause such intense local stress on the foundation and structure that a general collapse occurs.

2. Wood frame apartments built above a one-story parking garage. The masonry walls of the garage are often a weak link, and subject to local failure.

MASONRY BUILDINGS

Masonry buildings in Burlingame are concentrated in the city's shopping areas and industrial district. Many of these buildings are new and strongly reinforced. However, many of the older structures would be badly damaged in a moderate quake, with older open-front commercial buildings receiving severe glass damage and some degree of roof failure. A severe quake could collapse unreinforced masonry walls (pre-1933 construction) and encourage major roof failure and consequent loss of life in these structures.

OTHER STRUCTURES

Hospitals, fire and police facilities are especially critical, with the requirement that they must survive a strong earthquake and continue to supply the emergency services that Burlingame would need immediately afterward. The Seismic Disaster Preparedness Section of this element reviews the role of earthquake response planning.

Public schools are another sensitive facility, and have been the focus of a recent State program to upgrade their safety. New schools, and those older schools reinforced to current code requirements, have had the best performance record of all major structures in recent California earthquakes. Private schools are not generally constructed to the same standards, and the potential for casualties is correspondingly larger.

Minor structures, such as swimming pools can create unnecessary risks if they are badly located and under designed. A pool in the hills which breaks and empties may cause a mudslide, with further damage if there is a house or utility lines in the path of the mud flow.

PUBLIC UTILITIES

Water: buried water pipes generally have a good record even in heavy quakes, providing no strong shear forces develop.

Electricity: a major quake could result in a 50% loss of service for 24 hours. PG&E is not responsible for emergency power supply.

Natural gas: most gas pipelines traverse bay mud areas, with the consequent risk that ground distortion during an earthquake could rupture a pipe and cause a partial pressure failure.

Sanitary and storm sewer systems: older sewerage systems, with rigid joints coupled with brittle piping, can expect major damage. A further problem is likely to exist where trunk sewers cross bay mud to disposal plants.

BALANCED RISK POLICY

The two central questions to any review of seismic hazards are: How much loss of life and property damage are we willing to risk in future tremors? What costs are we willing to bear to reduce these risks? The objective of this section of the Seismic Safety Element is to develop an approach to a policy that will answer these questions, and make clear the values of the City Council to the general community that may be expected to share these costs.

HAZARD VS. RISK

The terms "hazard" and "risk" are often used interchangeably. Yet each has a specific, separate meaning:

> **Seismic hazard** is defined as "expected occurrence of future adverse seismic event."
>
> **Seismic risk** is defined as "expected consequences of future seismic event."

Earthquakes do occur, and cannot be prevented. But the consequences of an earthquake-- loss of life, property damage, social and economic disruption-- can be made less severe. Earthquake hazards can be studied, while seismic risks can be reduced with better methods of construction and future patterns of land use.

Certain generalities can be noted:

1. Risk is a part of everyday life as all activities have some risk associated with them.

2. Minimizing risks often results in higher construction costs. A decision is needed on the balance between construction costs and risk levels acceptable to the community.

3. Some risks are taken unknowingly. The public should be aware of the seismic risks it takes in certain situations.

4. With existing structures, risks can be reduced by relocation, demolition, physical alteration or changing the use of these structures.

VOLUNTARY VS. INVOLUNTARY RISKS

Where people have little or no choice as to the structures they occupy, the seismic risk ought to be extremely low. Examples of such structures include schools, hospitals, libraries and other places of public assembly. In the case of private structures, the presumption is that somewhat higher risks are acceptable when these risks are knowingly taken.

BALANCED RISK POLICY

Safeguards from seismic risk are designed into most new construction through earthquake standards in the Uniform Building Code. Average earthquake forces are estimated, safety factors added, and design coefficients produced that are applied to new buildings. However, if a severe earthquake strikes closer than expected, the structure may fail despite the code and its standard factor of safety.

A recent code change adopted by the City of Long Beach adds a new criterion: what does the community judge to be a "tolerable death risk"? Presented with a risk range of one death per 100,000 people per year exposed, to one per 10,000,000, the City Council decided on a death risk of one death per million people per year exposed for all existing buildings. This recognizes that buildings intensively used, and likely to be in use for many years, should be stronger than other structures with modest occupant loads. For example, a hospital occupied by thousands of people twenty-four hours each day, to be used for 50 years, should have a higher earthquake resistance than a single-story warehouse occupied by a half-dozen people eight hours each day for 10 years. Using present codes, the risk of death per person exposed will be higher in the hospital than in the warehouse. The risks should be at least equal, and perhaps favor the hospital on the theme of voluntary/involuntary risk.

Four factors can be assembled into an earthquake risk policy:

1. Number of people using a given building per day.

2. Expected life of the building.

3. "Critical facility" judgment on building's importance to the community.

4. Evaluation of the seismic or geologic hazards in the environs of the proposed or existing building.

Implementation of the balanced risk policy would require:

1. Assign an "importance factor" to a building.

Average Daily Exposure (Persons)	Expected Building Life Span (Years)	Importance Factor
1000 and over	-	1
100-999	-	2
10-99	-	3
0-9	-	4

2. Map of city with iso-hazard lines.

1	Maximum seismic hazard
2	Moderate
3	Low
4	Minimum seismic hazard

3. Matrix comparing (1) with (2), and assigning "safe design standards".

Hazard Zone

Importance

Factor

4. Recommended safe design standards.

(A) Current building code must be met, as well as other State and local ordinances and regulations.

(B) All of the above, plus sufficient geologic, seismic, soil and structural engineering analysis to safely determine stability of the site relative to the occupancy and the intended use. Investigations beyond the confines of a given site may be required in order to obtain the necessary data.

(C) All of the above, plus one or more of the following if required by the building official: 1) Subsurface boring to determine liquefaction potential; 2) Foundation investigations to determine and estimate differential settlement potential; 3) Detailed fault and/or landslide analysis.

(D) All of the above, plus dynamic ground and structural response, and dynamic structural analysis of structures.

This approach to seismic and geologic hazards has the advantage of recognizing the use, location and expected life of a building, and could supplement present earthquake codes to maintain safety standards measured on a risk-exposure basis. It could be applied to both new and existing structures. Applied to older buildings, it would provide an objective basis for a renovation program by property owners, improving the more dangerous buildings first.

DISASTER PREPAREDNESS

The term "seismic disaster", as used in this element, means significant and widespread damage of buildings and infrastructure as the result of an earthquake. A "disaster" does not necessarily imply casualties but means that the effects of a seismic disturbance have seriously disrupted the normal life and economy of the city.

CITY OF BURLINGAME EMERGENCY OPERATIONS PLAN

The County of San Mateo and twenty of its cities comprise the San Mateo Operational Area Civil Defense and Disaster Organization. This organization works with State and Federal counterparts and is headquartered in Redwood City. Its operational plan outlines the roles of the County and the several cities in the event of a natural disaster, and is intended to provide coordination, leadership and area-wide communications.

The City of Burlingame has a complementary Emergency Operations Plan. Originally prepared as a civil defense handbook, concerned with enemy attack and nuclear fallout, the plan has recently been expanded to include "natural disasters" - windstorms, floods and fires - and in a minor way, seismic and geologic events. However, with recent advances in State and County knowledge of earthquake response planning, several of the fundamental concerns of Burlingame's Emergency Operations Plan should be amended and brought up to date. Task priorities during a seismic disaster should also be more clearly identified within the organizational responsibilities already specified in the Plan.

EARTHQUAKE RESPONSE PLANNING

The State Office of Emergency Services recommends that local earthquake emergency plans include provisions for:

1. An organization which:

    (a) Has assigned emergency functions to intrajurisdictional agencies to perform field operations;

    (b) Has personnel designated and trained to perform specific tasks both within the control center and the damaged area;

    (c) Controls and coordinates field operations from a predesignated, earthquake-resistant control center;

    (d) Has communications to all operating field forces and with higher and lower levels of government, to exchange operational information;

(e) Has a staff to prepare and disseminate essential public information; and

(f) Conducts exercises to perfect and test plans and procedures.

2. Pre-earthquake preparations which:

(a) Consider vulnerable structures in relationship to their effect on emergency operations;

(b) Have outlined areas subject to inundation due to the failure of dams, and developed plans and procedures for rapid notification and evacuation of people from such areas;

(c) Identify and inventory available essential resources;

(d) Establish procedures for obtaining mutual aid;

(e) Insure continuity of emergency communication systems, including augmentation of operating agency radio communications with Radio Amateur Communications Emergency Services or other organized volunteer emergency radio capability; and

(f) Insure continued operation or rapid restoration of essential public utilities.

3. Post-earthquake operations which:

(a) Provide rapid surveillance and assessment of the damaged area;

(b) Search out and rescue people trapped in damaged structures of isolated danger areas;

(c) Conduct medical triage for the injured;

(d) Provide first aid in the damage area and transport injured to emergency medical facilities;

(e) Provide necessary fire prevention, firefighting and lifesaving services in devastated or threatened areas;

(f) Clear debris from transportation routes into and away from damaged areas;

(g) Evacuate or direct people from danger areas to locations providing relative safety, shelter, and sustenance;

(h) Provide traffic supervision and control along established evacuation routes, and security for evacuated areas;

(i) Care for displaced people;

(j) Remove, identify, and preserve dead for future disposal;

(k) Provide for reuniting families;

(1) Provide for informing victim's relatives outside of area;

(m) Relieve hardship and expedite rapid and orderly reconstruction and redevelopment;

(n) Prepare and disseminate essential public information through the news media;

(o) Prepare and maintain a log of operations; and

(p) Develop a procedure for cooperating with qualified earthquake investigators.

PUBLIC AWARENESS

Unlike many other natural disasters, an earthquake gives little or no warning before it strikes. It is important, therefore, that preparations be taken by the public before the event to reduce the risk, of damage and loss of life. Precautions include:

1. Potential earthquake risks in the home should be corrected.

2. Supplies of food and water, a flashlight, a first aid kit, and a battery-powered radio should be set aside for use in emergencies.

3. One or more members of the family should have a knowledge of first aid procedures because medical facilities nearly always are overloaded during an emergency or disaster, or may themselves be damaged beyond use.

4. All responsible family members should know how to turn off the electricity, water and gas.

Public awareness of seismic hazards and risks should be encouraged whenever possible. And with the recognition that some damage will occur, in spite of all precautions, the State's Joint Committee on Seismic Safety has recommended that all new borrowers who are purchasing residential structures should be required by lending institutions to have earthquake insurance, just as is now the case for fire insurance.

IMPLEMENTATION

Since Seismic Safety is a new element of the Burlingame General Plan, it should be looked upon as a first phase in a continuing process of research, refinement and implementation. The following actions are recommended to begin this process.

POLICIES

SS(A): Consider developing a "balanced risk" policy that relates seismic hazards to acceptable risk by building type and intensity of use.

SS(B): Require that new development incorporate seismic hazard mitigation measures to reduce risk to an acceptable level.

SS(C): Institute a continuing program of evaluating existing structures with a high risk rating, a high intensity occupancy and those critical facilities that must survive a severe earthquake.

SS(D): Encourage the reduction of risks associated with the more dangerous existing buildings through action programs, including renovation and occupancy reduction.

SS(E): Consider an ordinance requiring the preparation of internal emergency response plans for facilities housing dependent populations.

SS(F): Define a policy for properties over or immediately adjacent to the Serra Fault.

SS(G): Periodically update and refine this element to enable it to achieve its general objectives.

SS(H): Consider the establishment of a Seismic Safety Committee to assume responsibility for the implementation of this element.

SS(I): Consider selecting a qualified geotechnical firm to advise the city during the implementation period of the larger seismic safety projects.

SS(J): Consider establishing procedures to make available to the public all known, pertinent geotechnical data regarding their property, and other reports of a more general nature on city-wide seismic hazards.

ACTIONS:

SS(1): Implement agreed programs to improve or abate existing dangerous buildings.

SS(2): Survey major structures to determine the need for a parapet ordinance (applying to parapets, signs, marquees and general, ornamentation).

SS(3): Consider placing fault movement gauges along active fault traces to monitor activity.

SS(4): Review and update the City's disaster preparedness plan.

SS(5): Assess need for additional earthquake and flood insurance on City property and facilities.

SS(6): Improve interjurisdictional cooperation and communication in regard to seismic safety.

RESEARCH

1. Collect and analyze further information on:

   (a) Alluvium and baymud hazards.
   (b) Liquefaction hazard.
   (c) Landslide and mudslide hazards.
   (d) Hazards from tsunamis and seiches.

2. Refine the seismic-geologic hazards map of the city; develop iso-hazard lines.

3. Establish standards to reduce seismic risk in existing hazardous structures; review methods to incorporate seismic risk analysis into the existing hazardous structures; review methods to incorporate seismic risk analysis into the existing city structural inspection program.

4. Identify procedures to inspect and evaluate existing high risk structures.

5. Research potential break points in public utility systems, with attention to:

   (a) Major water storage tanks.
   (b) Principal water mains and fire flow capability in seismic disaster conditions.
   (c) Sewage mains crossing areas of baymud.
   (d) Sewage treatment plant.

NEGATIVE DECLARATION

In 1973 San Mateo County initiated coordinated planning studies with local cities for those State mandated General Plan elements that address technical problems of a regional nature. Seismic safety, air quality, noise, public safety and scenic highways were mentioned as possible topics for joint review.

A work program was drafted for a completion date of September 20, 1974, with costs and staff time budgeted on a shared basis. After further review a more limited objective was agreed: preparation of a countywide combined Seismic Safety-Safety Element. Individual cities would contribute on a per capita basis towards the costs of the technical input, and then would be free to add a supplement that would focus the broad report on local issues. In mid-1974 the County Board of Supervisors requested and received an extension of the completion date to September 20, 1975, from the Council on Intergovernmental Relations. With the completion of the County Planning Department's first draft of the general report, City staff began study of the local problems and special issues that a Burlingame Seismic Safety Element should assess. This report is the result of these efforts, and reviews seismic and geologic findings at a city scale. A number of new policies are recommended for adoption into the General Plan, and possible implementation steps are described that could reduce many of the earthquake associated risks that presently exist in Burlingame. The Countywide Seismic Safety-Safety Element should serve as a companion report to this local Seismic Safety Element, and be used as background for the technical terms and regional profiles necessary for an understanding of geologic and seismic safety issues.

The City of Burlingame does not have an adopted Seismic Safety Element of the General Plan. The adoption of this element will, of its self, have no environmental impact on the City or its surroundings. The existence of the Seismic Safety Element of the General Plan, as opposed to no such element, will provide guidelines for the enhancement of public safety, the reduction of risks to acceptable levels, the improvement of response capability in a major earthquake, and the upgrading of codes and regulations to protect lives and property throughout Burlingame.