

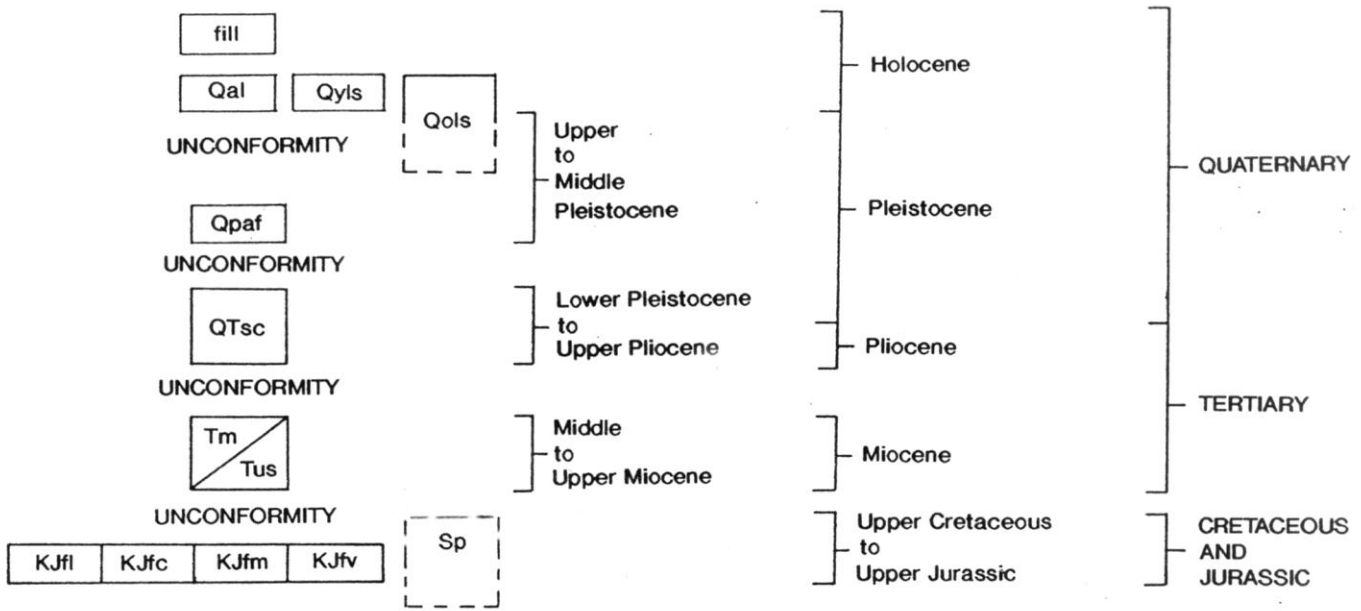
DESCRIPTION OF MAP UNITS

- Fill** FILL (Holocene) Man-made fill.
- Qal** ALLUVIUM (Holocene) Undifferentiated alluvial and colluvial deposits. Predominately unconsolidated, poorly sorted gravel, sand and silt that locally show crude stratification.
- Qyls** LANDSLIDE DEPOSITS (Holocene and upper Pleistocene) Unweathered
Qols to weathered rock debris and soil that have moved downslope by slumping, sliding and flowing. The three large landslides in the southern part of the study area may have formed during the late Pleistocene.
- Qpaf** ALLUVIAL FAN DEPOSITS (Pleistocene) Brownish-red, dense, gravelly and clayey sand or clayey gravel that fines upward to a sandy clay. This unit belongs to the Permanente Creek alluvial fan.
- QTsc** SANTA CLARA FORMATION (lower Pleistocene to upper Pliocene) Semiconsolidated, poorly to moderately lithified, pebble to boulder conglomerate, fine to coarse-grained poorly sorted sandstone, siltstone and clayey mudstone of fluvial and lacustrine origin.
- Tus** UNNAMED SANDSTONE (upper? to middle Miocene) Fine to medium-grained, well-sorted quartzose sandstone containing minor interbeds of thin-bedded semisiliceous shale and discontinuous, calcite-cemented shell fragment beds.
- Tm** MONTEREY FORMATION (middle Miocene) Thinly laminated, dense, brittle impure diatomaceous shale, porcelaneous shale, and calcareous mudstone and siltstone.
- Sp** SERPENTINITE (Tertiary and/or upper Cretaceous) Partially to completely serpentized peridotite that usually occurs as grayish-green, penetratively sheared lenticular bodies within shear zones and fault zones cutting Franciscan Complex rocks. The serpentinite has probably been tectonically mobilized several times since the late Cretaceous, thus obscuring the age relations of the original ultramafic parent rock.


FRANCISCAN COMPLEX (upper Cretaceous to upper Jurassic) Includes the following rock units:


- KJfm** Metashale and metasandstone. Predominately pervasively sheared and dismembered metashale and metasandstone that forms a melange enclosing resistant masses of sheared and boudined metasandstone of highly variable size. Also encloses, less abundant, often unmappable tectonic blocks of greenstone, limestone, chert and rare high-grade, blueschist facies metamorphic rocks.
- KJfv** Metavolcanics, (greenstone) Highly altered, pervasively sheared extrusive and intrusive volcanic rocks of basaltic composition that include vesicular pillow flows, pillow and tuff breccias, and minor tuff.
- KJfl** Calera limestone member. Blue-gray, highly sheared, thin to massive-bedded limestone that typically contains thin interbeds of gray to black chert.
- KJfc** Chert. Hard, brittle, highly sheared and fractured red to greenish radiolarian chert that is rythmically interbedded with platy, maroon to gray. siliceous shale


CORRELATION OF MAP UNITS




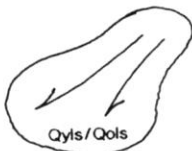
MAP SYMBOLS


 Contact, dashed where approximately located, dotted where concealed.


 Fault, showing direction of dip. Dashed where approximately located, dotted where concealed. Sawteeth indicate thrust fault with sawteeth on upper plate.

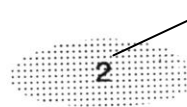

 Strike and dip of bedding.


 Strike and dip of foliation or tectonic fabric.









Landslide deposit. Arrows indicate direction of movement. Qyls indicates young landslide, Qols indicates old landslide.

Not shown. This graphic information lost. See text for descriptions.



Area of observed ground deformation.

SYMBOLS RELATED TO LOMA PRIETA EARTHQUAKE

-  severe structural damage
-  moderate structural damage
-  minor structural damage
-  buckled concrete
-  cracked asphalt -- simple extensional crack perpendicular to road
-  cracked asphalt -- complex

Notes

Geologic units and contacts. The distribution of geologic units and locations of contacts in the area occupied by residential development are from site-specific consultants' reports with local modifications by us (except for fill deposits, which were mapped by us). Distribution of geologic units and locations of contacts in the undeveloped parkland were compiled from Beaulieu (1970) and Rogers and Williams (1973), with local modifications by us.

Bedding attitudes. Bedding attitudes are from site-specific consultants' reports. One additional attitude was measured by us. In those instances where a consultant measured more attitudes on a particular property than our map scale would permit us to show, we selected representative attitudes for presentation on our map.

Faults. The eleven solid-lined segments of the Monta Vista and Berrocal faults on the maps represent positively located fault strands found by consultants through subsurface exploration. Other fault segments represent approximately located, uncertain, or concealed faults comprising our interpolations and extrapolations from consultants' positively located strands, strands mapped by William Cotton and Associates (1978), strands mapped by Sorg and McLaughlin (1975), one strand mapped by Rogers and Armstrong (1973), and our interpretations based on our work. Not shown are selected strands appearing on maps by the Santa Clara County Public Works Department (1978), most of which we believe are not present, as the original source of or evidence for these strands are unknown. Also not shown are faults mapped by Dibblee (1966) and Beaulieu (1970) and certain faults mapped by Rogers and Armstrong (1973); these three studies were very general, and better fault locations were obtained by compiling and interpreting more detailed information provided by consultants and others.

Structural damage. Locations of structural damage from the Loma Prieta earthquake of October 17, 1989, were mapped mostly from the list of reported damage provided by the Santa Clara County Planning and Development Department (1990); a few damage locations were added by us. Damage to houses and other structures has been divided into "minor," "moderate," and "severe" categories as set forth by the Santa Clara County Planning and Development Department (1990). Minor damage generally consists of cracked stucco, roof tiles, fireplaces, and chimneys, and other cosmetic damage. Moderate damage generally consists of heavily damaged fireplaces and chimneys, cracked foundations and walls, and other structural damage. Severe damage consists of heavily cracked foundations, torn walls, movement of the superstructure off its foundation, and other severe devastation. Selected damage locations consisting of those that might have been caused by ground failure of some type were field checked by us. Recent aerial photographs were examined to help ensure that damage symbols ("D" on the maps) pertaining to houses correspond to actual house locations rather than other arbitrary locations on the properties.

Ground deformation. Locations of cracked asphalt and buckled curbs are from Haugerud and Ellen (1990b).

Bases. The cadastral (property lines) and topographic bases for the geologic map could not be exactly registered. Therefore, all geologic and damage data in the part of the study area occupied by residential development was mapped relative to the cadastral base rather than the topographic base. Geologic data in the part of the study area occupied by undeveloped parkland was mapped relative to the topographic base.