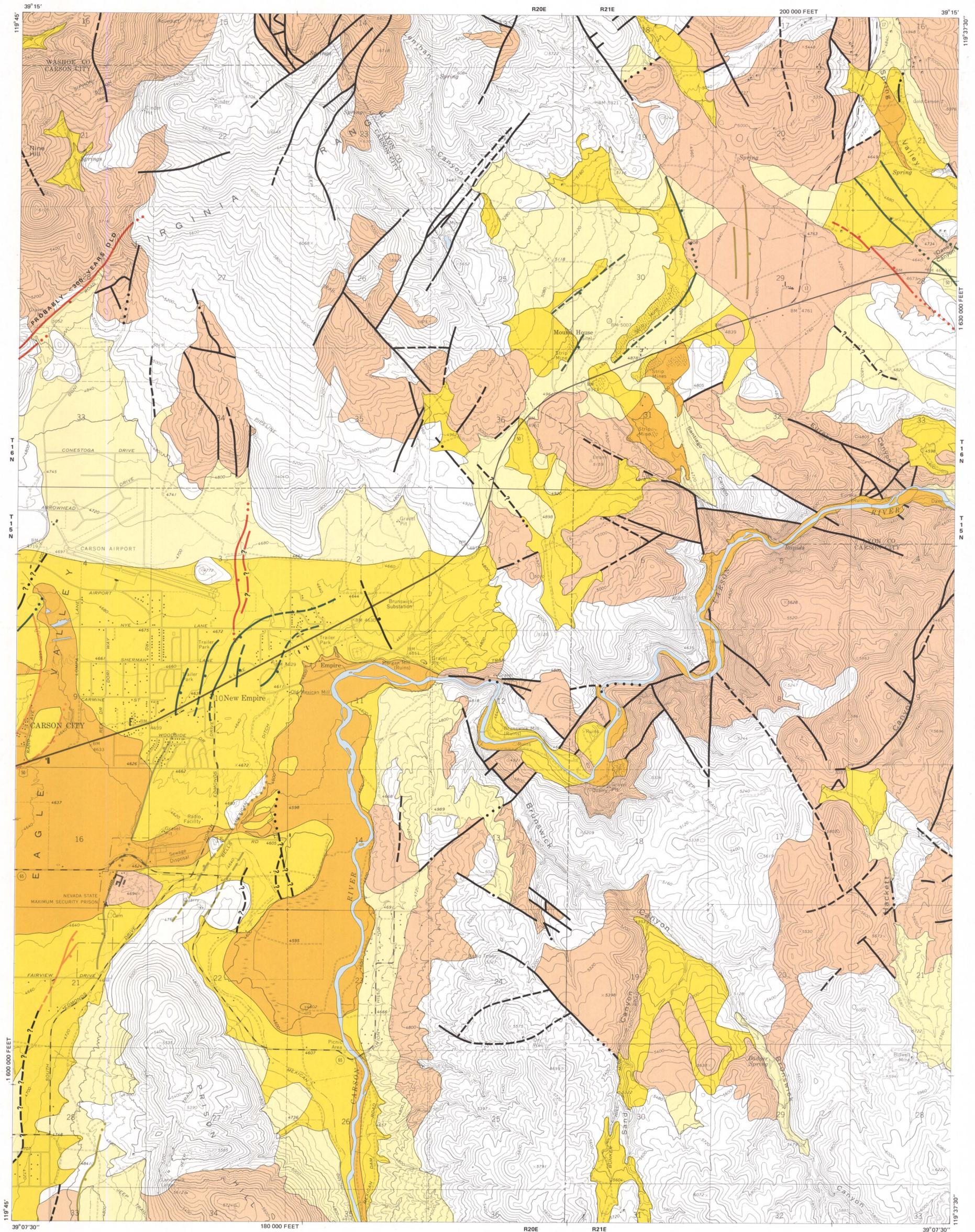


NEW EMPIRE QUAD

EARTHQUAKE HAZARDS



POTENTIAL FOR GROUND SHAKING DURING EARTHQUAKES

- INCREASING INTENSITY OF SHAKING AND POTENTIAL HAZARD  
Possibly about 3 units Mercalli intensity scale difference from I to IV
- I Greatest severity of shaking. Depth to ground water less than 3 meters (10 ft). Unconsolidated deposits with low rigidity. Possible severe liquefaction locally.
  - II Moderate severity of shaking. Includes units from I above where depth to ground water is greater than 3 meters (10 ft), also includes unconsolidated deposits, with moderate rigidity where depth to ground water is less than 10 meters (33 ft).
  - III Moderate severity of shaking. Includes unconsolidated deposits with moderate rigidity where depth to ground water is greater than 10 meters (33 ft).
  - IV Least severity of shaking. Underlain by bedrock.

V Variable severity of shaking. Includes older fan deposits, alluvial deposits of Spring Valley, granodiorite, which ranges in degree and depth of weathering, and Tertiary ash-flow tuffs, which exhibit various degrees of alteration, welding and fracture spacing.

POTENTIAL FOR SURFACE RUPTURE  
Age of youngest fault displacement

- INCREASING POTENTIAL HAZARD
- Holocene (<12,000 years); locally less than a few hundred years.
  - Late Pleistocene (approximately 12,000 to 35,000 years).
  - Mid- to late Pleistocene (approximately 35,000 to 100,000 years).
  - Early to mid-Pleistocene (approximately 100,000 years-1.8 m.y.).
  - Indeterminate; predominantly bedrock faults with last probable movement of pre-Pleistocene age.
  - Questionable fault.
  - Fault. Dotted where concealed; dashed where approximately located. Ball on downthrown side.

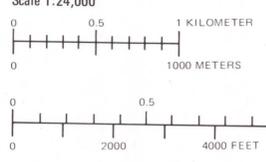
John W. Bell and Dennis T. Trexler, 1979

Depth to ground water based on preliminary general hydrologic map, New Empire quadrangle (T. Katzer, written commun., 1979).

Geology from Binger (1977) Geologic map, New Empire quadrangle, Nevada Bureau of Mines and Geology Map 59.

Research for this map supported in part by U. S. Geological Survey Earthquake Hazards Reduction Grant No. 14-08-0001-G-494.

Scale 1:24,000



CONTOUR INTERVAL 40 FEET  
DOTTED LINES ARE 20-FOOT CONTOURS  
DATUM IS MEAN SEA LEVEL

Topographic base from U. S. Geological Survey New Empire 7 1/2' quadrangle, 1968  
Cartography by Susan L. Nichols

NEVADA BUREAU OF MINES AND GEOLOGY  
UNIVERSITY OF NEVADA  
RENO, NEVADA 89557  
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The hazards shown on this map are based upon current data available. Shaking characteristics are inferred from interpretations of geologic, seismic velocity, soils engineering, and ground-water information. Surface rupture potentials are inferred from generalized geologic and soils (weathering profile) information.

These data are intended to be used only as a generalized guide and will be subject to change as more data become available.

Assessment of seismic hazard potential for individual sites must be based upon detailed engineering and seismic studies; such assessments should not be inferred from this map.