

# CHAPTER FOURTEEN: TIMPIE VALLEY INDUSTRIAL PLAN



## COMMERCIAL AND INDUSTRIAL DEVELOPMENT

Ever diminishing parcels of land for industrial development along the Wasatch Front have made an occasional demand for suitable sites for development in peripheral areas. Development of the Timpie Valley shown in Maps A and B as an industrial area is consistent with this and other emerging patterns of economic location in Northern Utah. The location and physical characteristics of Timpie Valley render the site attractive to development for a wide range of industrial and commercial uses that will stimulate and promote job creation, expand the local tax base and foster growth and diversification of the local economy. There are many diverse categories of industry for which the site is ideal because of its proximity to a diversified regional work force in excess of 900,000 people and to major interstate and state highways, rail corridors, and an international airport.

Comprising over 4,000 acres of developable land, Timpie Valley offers companies seeking expansion of their operations an increasingly rare siting option in Northern Utah, that is contiguous acreage of 25 acres or larger. The site is the logical choice for companies with expansion or relocation plans necessitating the location, construction and operation of large physical plants. With many acres of flat or slightly sloped land and utility infrastructure on-site or proximate, Timpie Valley can be developed for commercial and industrial uses in phases with a modicum of site preparation. Such development will clearly allow Tooele County to compete more effectively with other counties for new jobs and private investment.

## MASTER PLANNED INDUSTRIAL SITES

Timpie Valley is located in the northwest side of Tooele Valley. Located in an area that has historically had industrial uses, the site provides:

- an interchange to I-80, the major east-west



corridor through the United States;

- three phase, 47,000 volt electrical power with two substations in the area;
- fiber optic phone line with broadband capability for T-1 line connections;
- 25-minute access to the Salt Lake International Airport, and the Erda Airport;
- security from encroachment;
- 59 square miles of industrial zoning;
- large areas of flat or slightly sloped development areas;
- high visibility from Interstate 80;
- rail access;
- high pressure natural gas service;
- area to build large structures; and
- area for ancillary support businesses.

Timpie Valley offers over 4,000 acres of land that is developable. The site is zoned for manufacturing, distribution and industrial uses. Ancillary uses which do not fit into the uses for manufacturing, distribution and industrial should be considered and be located at points in the development where they can support those uses located in the area. Rezoning to accommodate those commercial uses should be done where a master development plan is presented.

Development of the site must serve the specific needs



of the applicant and may vary from that of one acre to 80 acres or more. It is preferable that such development be made on a case-by-case basis and not limit the size of the parcels by creating pre-designed lot sizes throughout. This will allow many industrial activities to have a design that is particularly efficient for their needs. Residential uses should be prohibited to protect the magnitude of industrial uses and the impacts they present.

Such design will appear to be haphazard, but it will insure that the various industrial uses can locate and expand their operations. Connections to transportation systems must be taken throughout the development so parcels or potential development of land behind another is not landlocked or deprived of access to transportation routes or utilities. Plans on the west side of SR138 should expand the utilization of rail access to those industries that are dependent on sidings for their transportation needs.

To meet the demands of industrial traffic, collector roads throughout the area should be 80-foot wide rights-of-way with a pavement width of 48 feet. Local access roads need to be designed to a 66-foot wide right-of-way, with 36 feet of pavement width.

## GEOLOGIC CONSIDERATIONS

Potential liquefaction.

Liquefaction is a process in which, during ground shaking, some sandy, water-saturated soils behave like liquids rather than solids. Areas of potential liquefaction



have been identified by the Utah Geological Survey. Those areas will require liquefaction be explored site specifically and the findings be accounted for in building design. No tall, slender building should be approved in that area because in an earthquake, the stories of a building shift.

Two conditions must exist for liquefaction to occur: (1) the soil must be susceptible to liquefaction (loose, water-saturated, sandy soil, typically between zero and 30 feet below the ground surface) and (2) ground shaking must be strong enough to cause susceptible soils to liquefy.

To determine the liquefaction potential and likelihood of property damage at a site, a site-specific geotechnical investigation by a qualified professional is needed. If a hazard exists, various hazard-reduction techniques are available, such as soil improvement or special foundation design. The cost of site investigations and/or mitigation measures should be balanced with an acceptable risk.

Map C shows areas of potential liquefaction. The liquefaction potential categories shown on this map depend on the probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction in those zones. High liquefaction potential means that there is a 50% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction. Moderate



means that the probability is between 10% and 50%, low between 5 and 10%, and very low less than 5%.

#### Potential seasonal water inundation.

Timpie Valley sits on the southwestern edge of the Great Salt Lake. Land to the north is subject to seasonal water inundation. Most of the land to the north is not developable, which protects the industrial area from intrusion by any other land use. Map D shows in the shaded areas, where inundation is probable.

#### Potential rockfall hazard.

Rockfalls are a natural process of cliff and hillside erosion. They consist of large rock fragments from a cliff, or boulders from a slope that bounce, roll, and slide down a hillside and come to rest in a “runout” zone at or near its base. Map E shows areas subject to potential rock fall hazards.



Excavation for a road cut or building may weaken bedrock support. Rock falls are commonly triggered by earthquake ground shaking, rapid snowmelt, wide diurnal temperature changes, and intense storms.

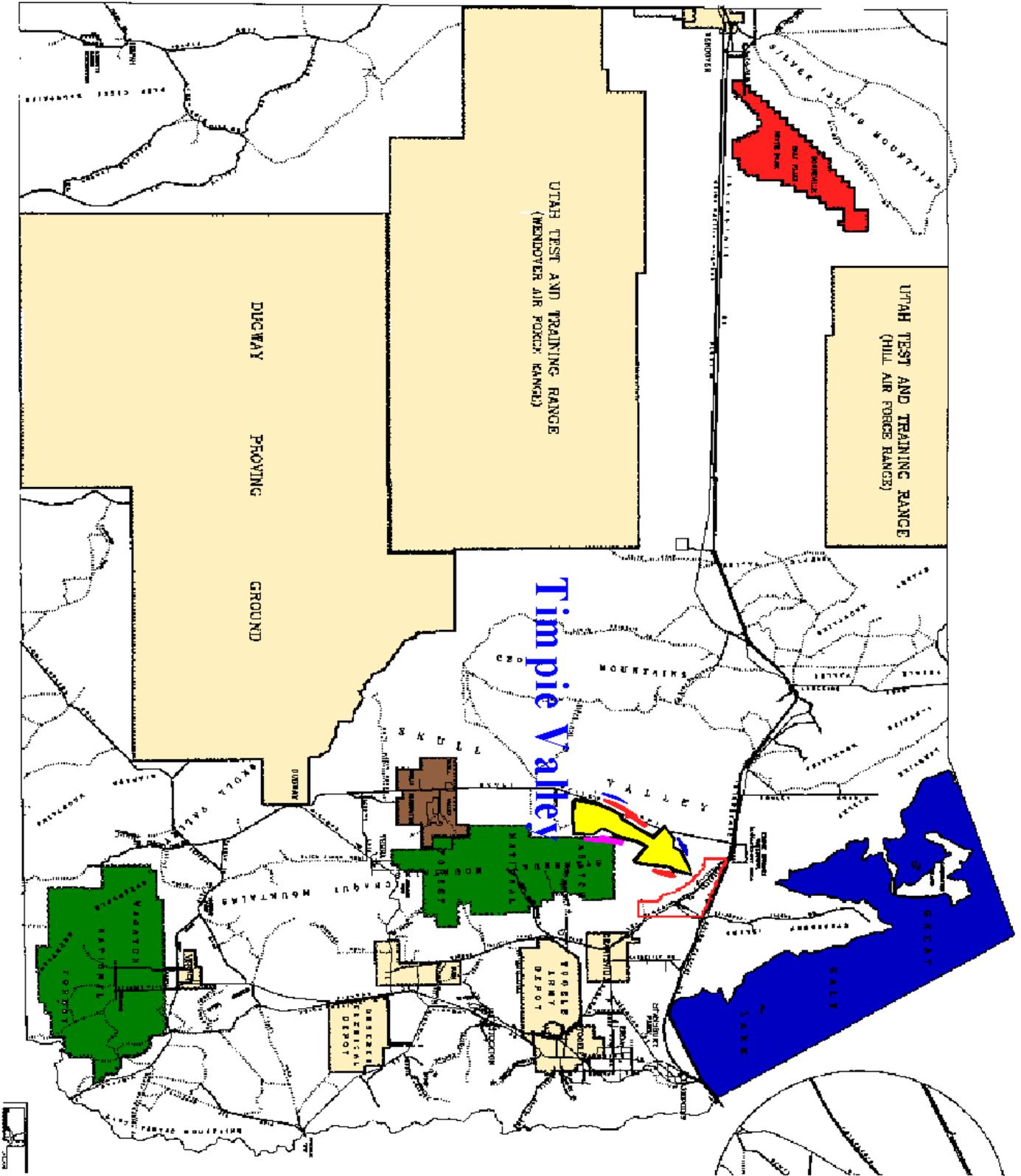
Rockfalls and slides are a threat to property and life within the runout zone. The runout zone extends from the slope below the source downward to at least the maximum distance from the cliff that rocks have fallen and rolled. Utility and transportation corridors such as power lines, pipelines, tracks, and highways are damaged by rockfalls more often than buildings because they commonly extend along the base of slopes.

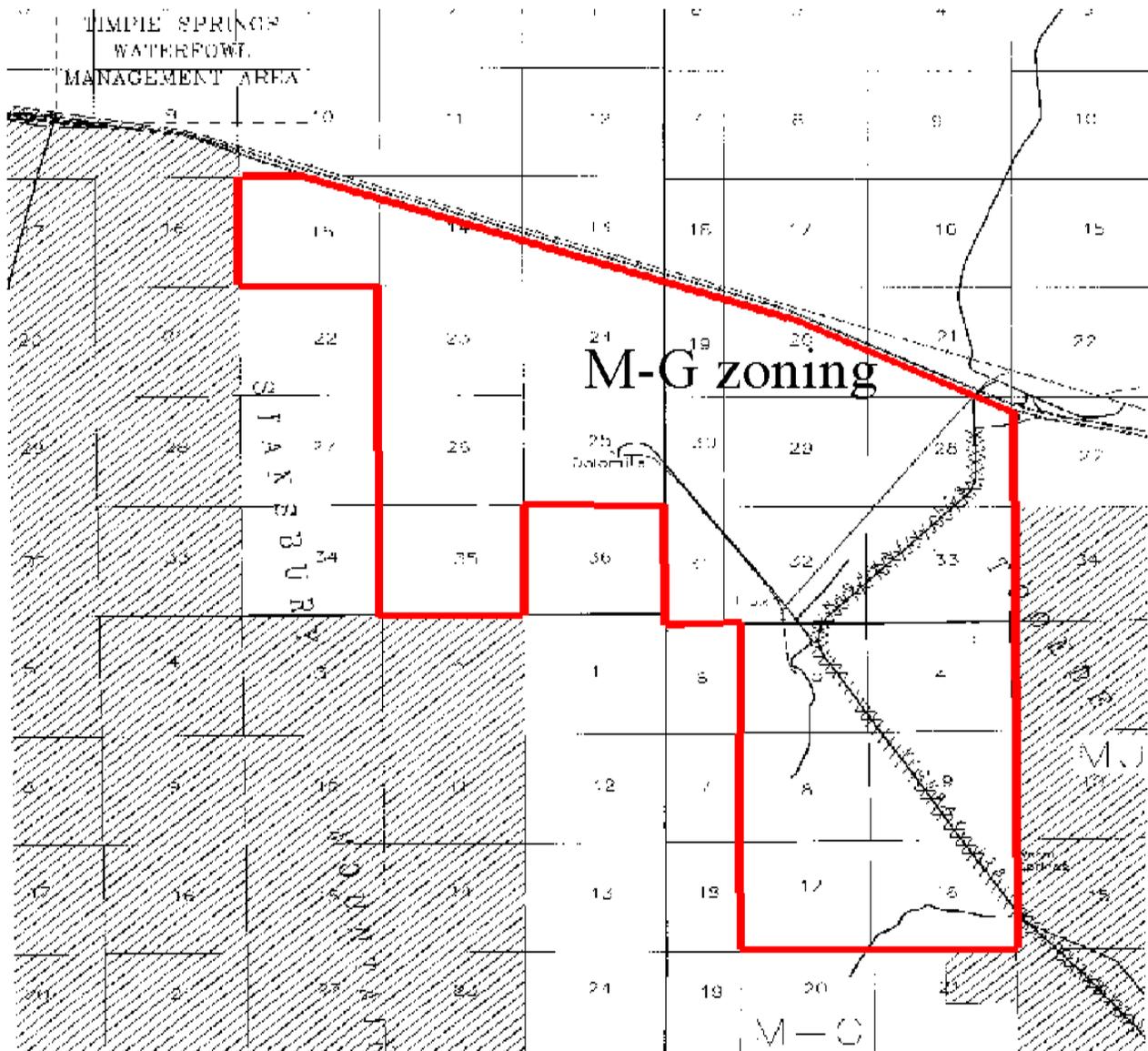
In addition to avoiding the runout zone, rockfall risk is reduced by (1) preventing rocks from falling, (2) removing them, or (3) providing protection when they fall. Rock bolts, buttresses, wire mesh, or shotcrete (concrete sprayed on a road cut) will help prevent rocks

from falling. Good drainage will relieve pressure on rocks perched on a slope and reduce weathering and erosion. Chain-link fences offer protection from local, small rocks. Gabions or Jersey barriers also provide protection from rolling rocks. Rolling boulders can be trapped in a ditch with a berm to prevent them from bouncing out. Railroad tracks can be monitored for landslides, including rockfall damage with wire sensors that sound an alarm when they are hit. Pipelines are often buried for protection from falling rock. Roofs over highways and railroad tracks shield them from falling rock.

Those areas identified on Map E as A have the potential for ground water at less than ten feet. Area B may have the potential of ground water at a depth of ten to 30 feet deep; area C 30 to 50 feet deep and area D at a depth of greater than 50 feet.







# Map C

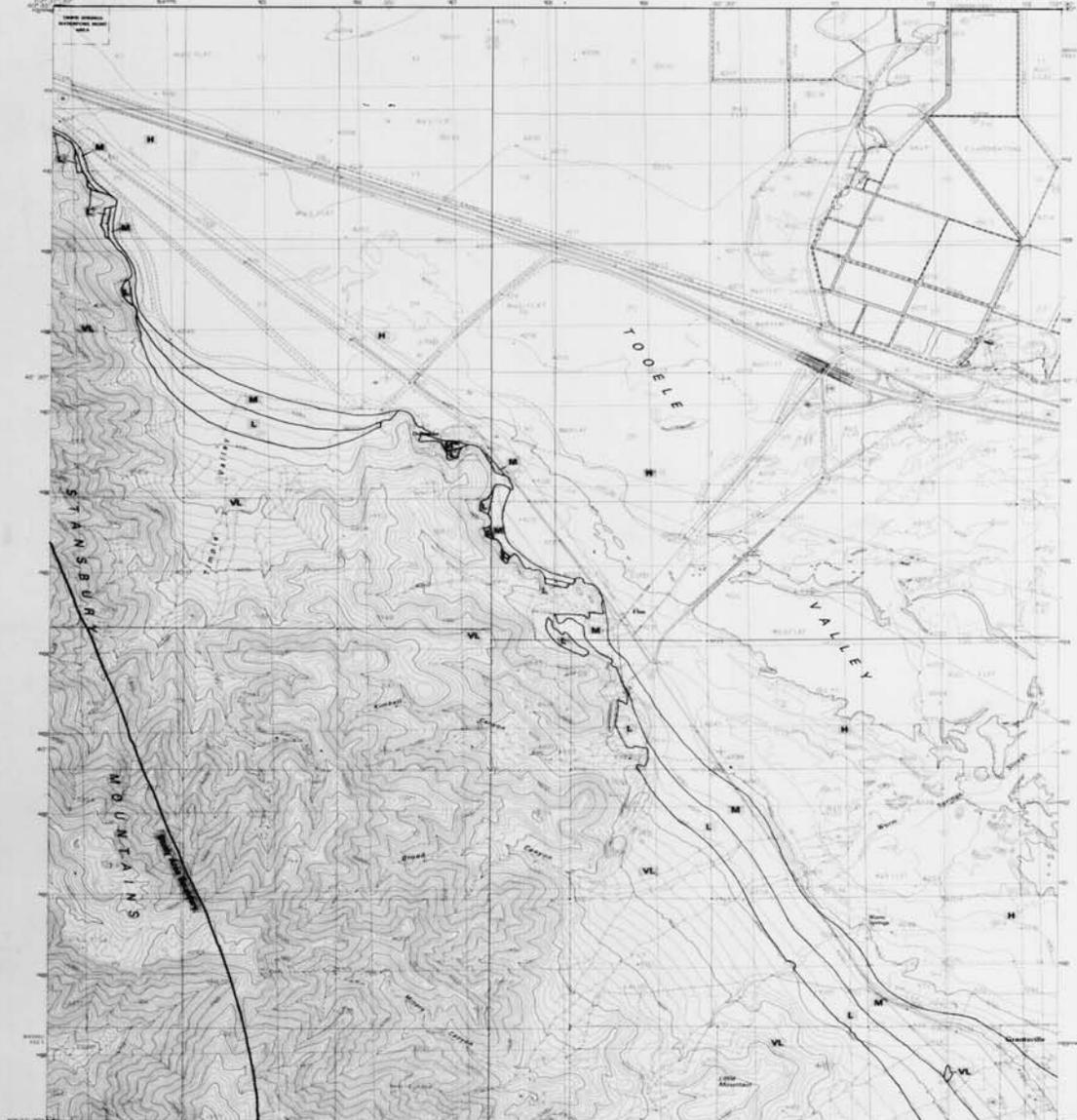
## Liquefaction susceptibility, Flux quadrangle, Tooele County, Utah.

COMPILED BY BILL D. BLACK  
DRAFTED BY NOAH P. SKYDER  
Utah Geological Survey  
Open-File Report 318 PLATE 2B  
1995

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

STATE OF UTAH  
UTAH GEOLOGICAL AND MINERAL SURVEY

FLUX QUADRANGLE  
UTAH-TOOELE CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)



PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY  
CONFORMS TO THE FEDERAL INFORMATION SECURITY ACT  
AND THE NATIONAL ARCHIVES RECORDS ADMINISTRATION  
POLICY. THIS MAP IS A PROVISIONAL MAP AND SHOULD NOT  
BE USED FOR LEGAL OR TITLE PURPOSES. THE UNITED STATES  
GEOLOGICAL SURVEY ASSUMES NO LIABILITY FOR DAMAGE TO  
PROPERTY OR PERSONS ARISING FROM THE USE OF THIS MAP.  
THE UNITED STATES GEOLOGICAL SURVEY IS NOT RESPONSIBLE  
FOR ANY ERRORS OR OMISSIONS THAT MAY APPEAR IN THIS  
MAP. THE UNITED STATES GEOLOGICAL SURVEY IS NOT  
RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY  
APPEAR IN THIS MAP. THE UNITED STATES GEOLOGICAL  
SURVEY IS NOT RESPONSIBLE FOR ANY ERRORS OR  
OMISSIONS THAT MAY APPEAR IN THIS MAP.

**PROVISIONAL MAP**  
Produced from original  
manuscript drawings. Infor-  
mation shown as of date of  
field check.

SCALE 1:24,000  
CONTOUR INTERVAL 1 AND 40 FEET

- EXPLANATION**
- H\*** High possible susceptible soil conditions and depth to ground water less than 10 feet (3 m).
  - M\*** Moderate possible susceptible soil conditions and depth to ground water from 10 to 30 feet (3-9 m).
  - L** Low possible susceptible soil conditions and depth to ground water from 30 to 50 feet (9-15 m).
  - VL** Very low rock, unsaturated soil conditions, or depth to ground water greater than 50 feet (15 m).

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

**ROAD LEGEND**

- Impervious Road
- Unimproved Road
- Road
- Interstate Road
- U.S. Route
- State Route

FLUX, UTAH  
PROVISIONAL EDITION 1995  
M012-75-17-004



\* Special studies are recommended for certain land uses in areas of high and moderate liquefaction susceptibility (see table 1).  
Note: This map is not a liquefaction potential map, because it does not consider the probability of earthquake ground shaking needed to cause liquefaction in areas of susceptible conditions.



# Map D

Landslide, lake-flooding, and ponding and sheet-flooding hazards, Flux quadrangle, Tooele County, Utah.

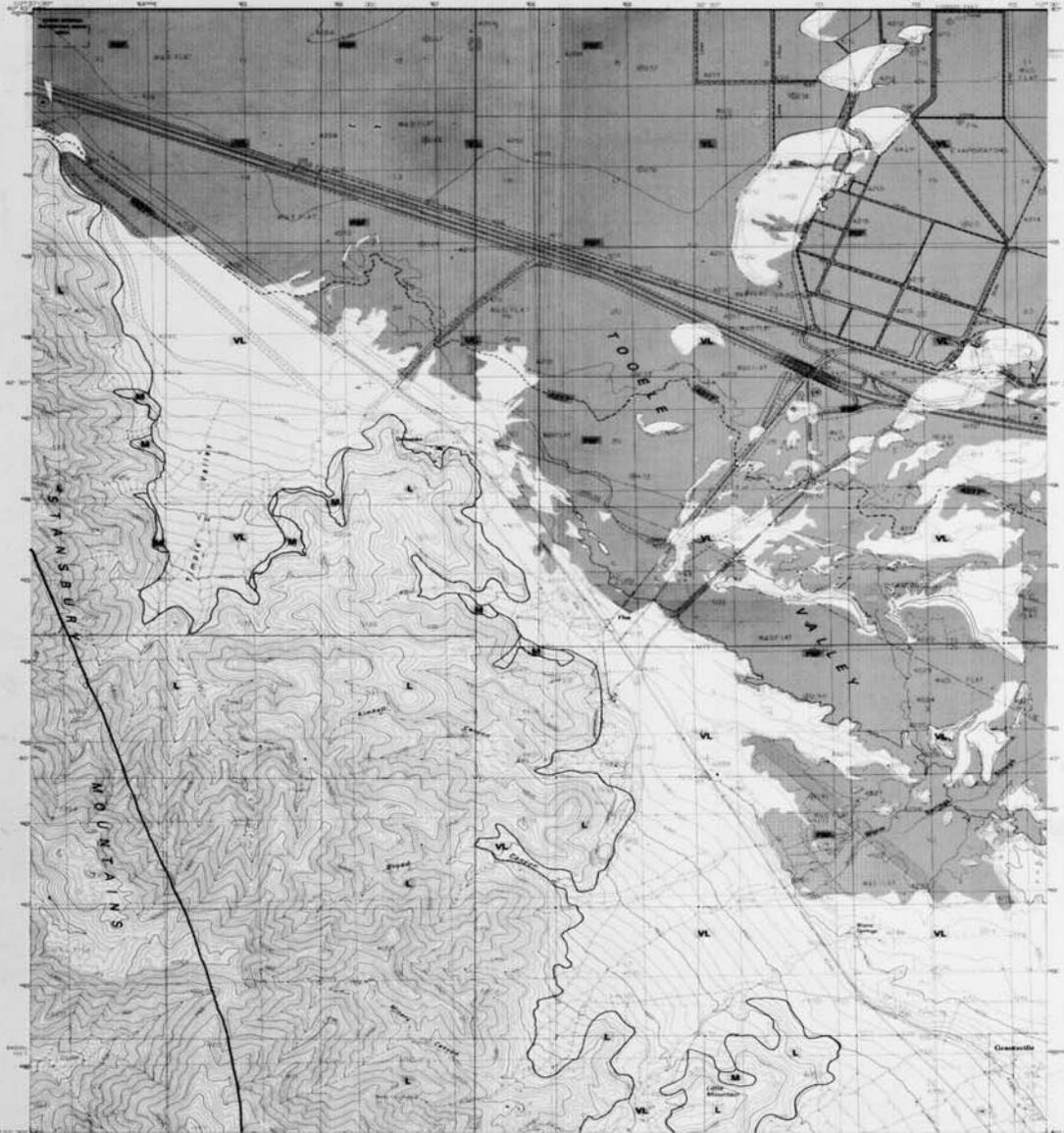
MAPPED AND COMPILED BY KIMM M. HARTY AND BILL D. SLACE  
DRAFTED BY NOAH P. SNEYDER

Utah Geological Survey  
Open-File Report 318 PLATE 1B  
1985

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

STATE OF UTAH  
UTAH GEOLOGICAL AND MINERAL SURVEY

FLUX QUADRANGLE  
UTAH-TOOLE CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)



PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY  
FROM ORIGINAL TOPOGRAPHIC MAPS AND PHOTOGRAPHS  
AND OTHER AVAILABLE DATA. THIS MAP IS A REPRODUCTION  
OF THE ORIGINAL MAP AND IS NOT A REPRODUCTION OF  
THE ORIGINAL MAP. THE ORIGINAL MAP IS THE PROPERTY  
OF THE UNITED STATES GEOLOGICAL SURVEY AND IS  
NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM  
OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING  
PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION  
STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION  
IN WRITING FROM THE UNITED STATES GEOLOGICAL SURVEY.  
To place in the unadorned Utah American Domes of 1985, some  
of the data shown on this map may be different from the  
data shown on the 1985 map. These data are shown on the  
1985 map and are not shown on this map.

**PROVISIONAL MAP**  
Produced from original  
topographic drawings. Information  
shown on this map is of date of  
field check.

THIS MAP COMPILED WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, SPARKS, COLORADO 80909  
ON MEXICO, VIRGINIA 1986

CENTIMETER DIVISION: 1 AND 40 FEET

**EXPLANATION**

- |  |  |
|--|--|
| <b>Landslide susceptibility</b>                        | <b>Lake flooding, and ponding and sheet flooding</b>   |
| H* High; includes existing landslides (cross-hatched). | --- 4217 --- Boundary of the "Beneficial Development Area" (4217-foot (1286-m) contour). Areas below this elevation are subject to lake flooding and land use must be compatible with potential flood hazards. |
| M* Moderate.   | 4218 Subject to ponding and sheet flooding.  |
| L Low.   |  |
| VL Very low.   |  |

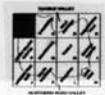
\* Special studies are recommended for certain land uses in areas of high and moderate landslide susceptibility, and in areas subject to ponding and sheet flooding (see table T).

**ROAD LEGEND**

	Improved Road
	Unimproved Road
	Trail

International Route U.S. Route State Route

FLUX, UTAH  
PROVISIONAL EDITION 1985  
8011575-10-008



# Map E

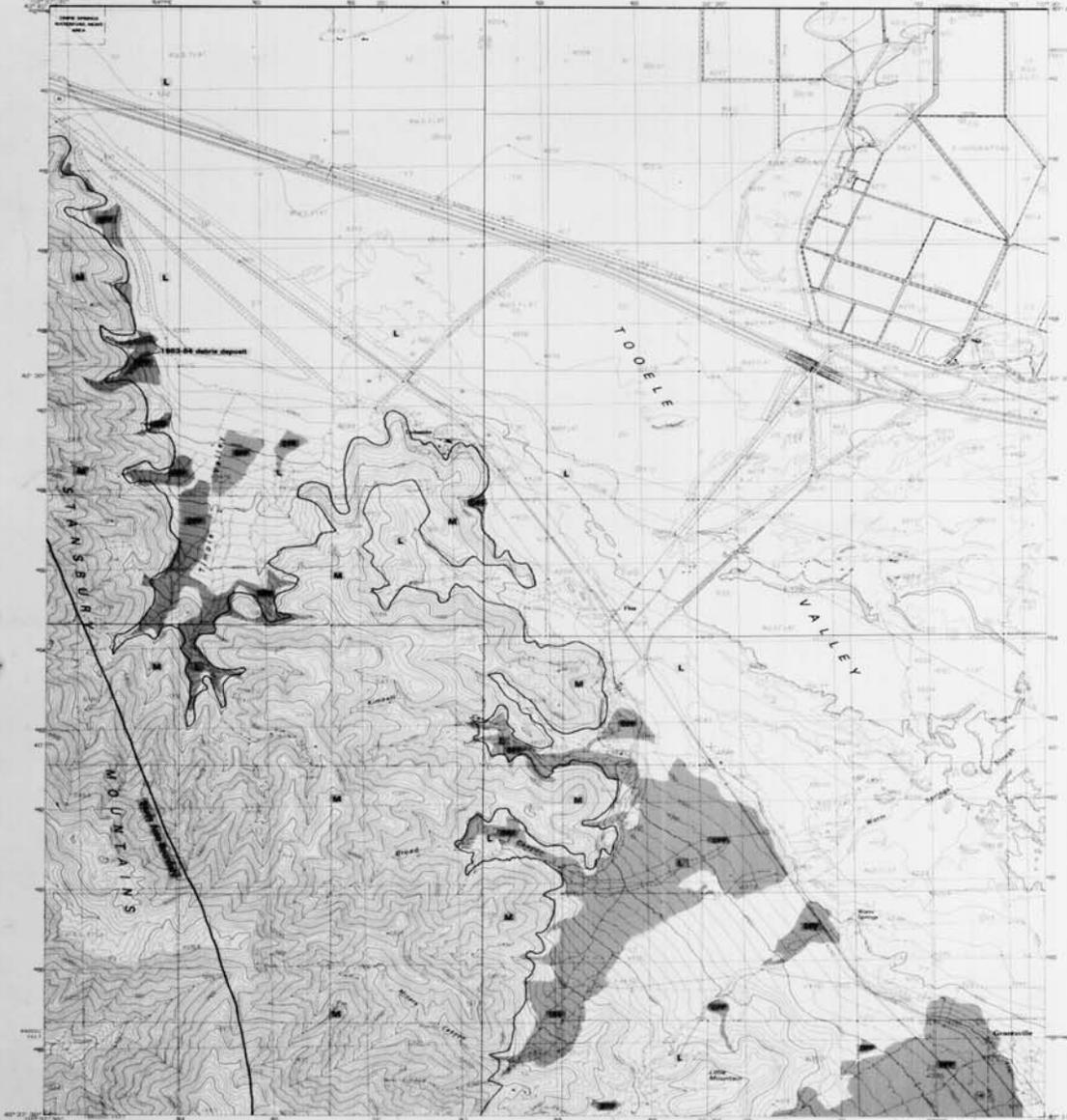
Debris-slide, debris-flow, debris-flood, and stream-flood hazards, Flux  
 quadrangle, Tooele County, Utah.

MAPPED AND COMPILED BY KRISTIN M. HARTY  
 DRAFTED BY NOAH P. SNYDER  
 Utah Geological Survey  
 Open-File Report 318 PLATE 3B  
 1995

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 GEOLOGICAL SURVEY

STATE OF UTAH  
 UTAH GEOLOGICAL AND MINERAL SURVEY

FLUX QUADRANGLE  
 UTAH-TOOELE CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)



PRODUCTION BY THE UNITED STATES GEOLOGICAL SURVEY  
 CONTAINS AN ORIGINAL MANUSCRIPT DRAWING OF THE HAZARD ZONES  
 AND SOURCE AREAS. THIS DRAWING IS THE PROPERTY OF THE U.S. GEOLOGICAL SURVEY  
 AND IS LOANED TO YOU FOR YOUR INFORMATION. IT IS NOT TO BE REPRODUCED OR  
 COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE U.S. GEOLOGICAL SURVEY.  
 THE U.S. GEOLOGICAL SURVEY IS NOT RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR  
 PROPERTY THAT MAY OCCUR AS A RESULT OF THE USE OF THIS MAP.  
 By plan on the published North American Datum of 1983, some  
 the projection lines do change by double corner ticks  
 of 10 centimeters and  
 These may be printed elsewhere within the boundaries of any  
 Federal and State Reservations shown on this map.

**PROVISIONAL MAP**  
 Produced from original  
 manuscript drawings. Indica-  
 tions shown as of date of  
 field check.

SCALE 1:24,000  
 CONTOUR INTERVAL 5 AND 40 FEET

**ROAD LEGEND**  
 National Road  
 Interstate Road  
 U.S. Route  
 State Route

**EXPLANATION**  
 Source-area susceptibility  
 M\* High; includes slopes that failed during the 1983-84 wet years.  
 M+ Moderate.  
 L Low.

**Debris deposition and Road hazard**  
 DFF Possible sediment deposition and flooding from debris flows, debris  
 floods, and stream floods; includes 1983-84 debris deposits  
 (cross-hatched).

\* Special studies are recommended in areas of high and moderate source area  
 susceptibility, and in areas of possible sediment deposition and flooding (see  
 table 1).

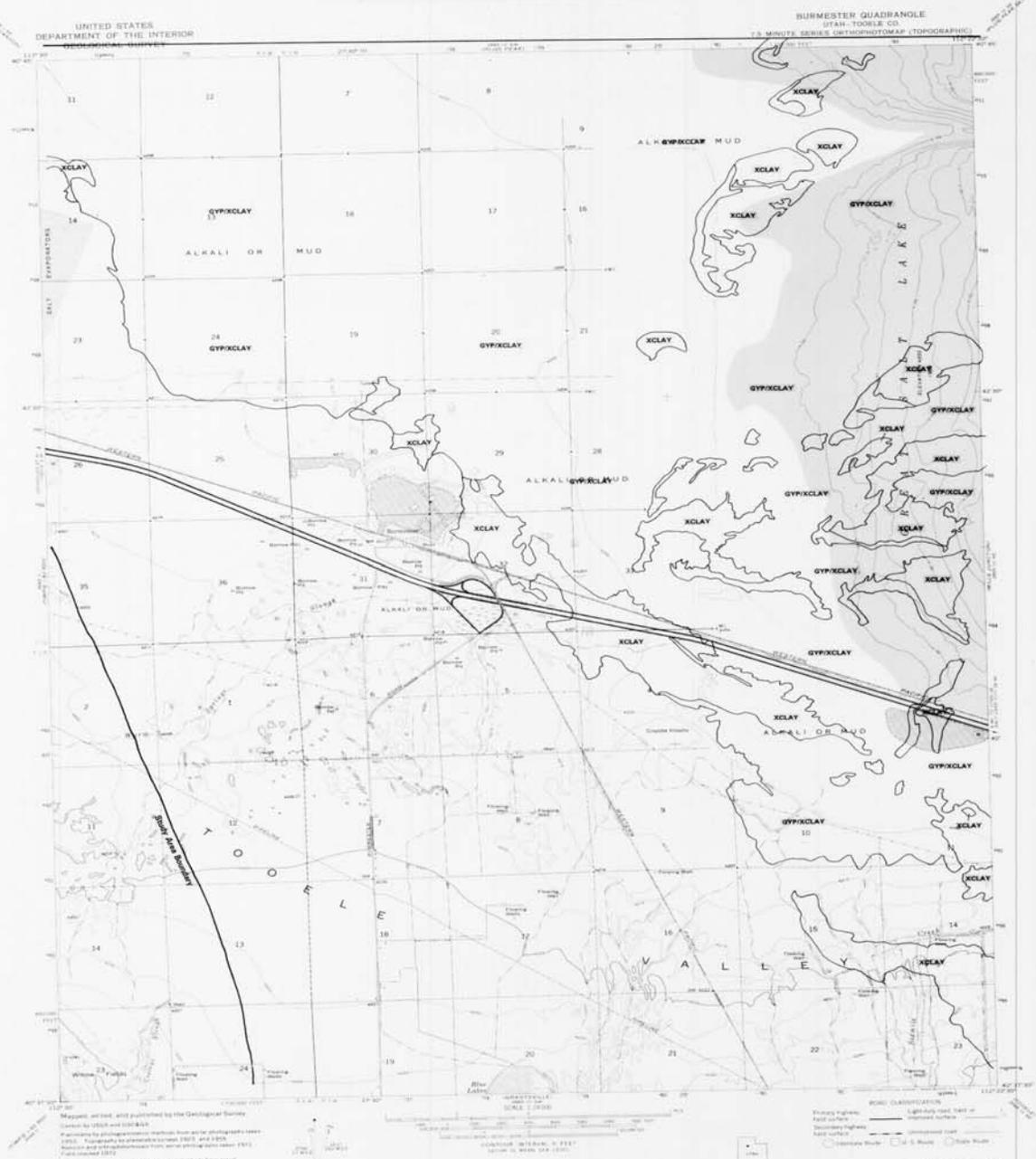
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

FLUX, UTAH  
 PROVISIONAL EDITION 1985  
 8511875-10-000



**Problem soils, Flux quadrangle, Tooele County, Utah.**

COMPILED BY BILL D. BLACK  
 DRAFTED BY NOLAN P. BRIDGER  
 Utah Geological Survey  
 Open-File Report 318 PLATE 5B  
 1995



Mappeo, edited, and published by the Geological Survey  
 under its 1955 and 1978 Act  
 It is published by photogrammetric methods from aerial photographs taken  
 in 1955. Topography for planimetric contour lines (10', 20', and 30')  
 is derived from the photogrammetric data and the contour lines (10',  
 20', and 30') are shown in black.  
 Contour lines are shown in black, and the contour interval is 10 feet.  
 The map is published by the Geological Survey, Utah, under its 1955 and 1978 Act.  
 The map is published by the Geological Survey, Utah, under its 1955 and 1978 Act.  
 The map is published by the Geological Survey, Utah, under its 1955 and 1978 Act.

THIS MAP IS AVAILABLE TO THE PUBLIC WITHOUT CHARGE.  
 FOR SALE BY U.S. GEOLOGICAL SURVEY, INDIANAPOLIS REGIONAL OFFICE, INDIANAPOLIS, INDIANA, U.S.A.  
 A FOLDER CONTAINING THIS MAP AND OTHERS IS AVAILABLE ON REQUEST.

**EXPLANATION**

- XCLAY Possible expansive soil.
- GYP Possible gypsiferous soil.
- GYPXCLAY Both possible gypsiferous and expansive soils.

Note: A standard soil investigation is recommended in all areas, including those where expansive and gypsiferous soils are not present (see table 1).

**ROAD CLASSIFICATION**  
 Primary highway  
 State highway  
 Secondary highway  
 Road under construction  
 Unimproved road  
 U.S. Route  
 State Route

**BURMESTER, UTAH**  
 1:25,000  
 1995



