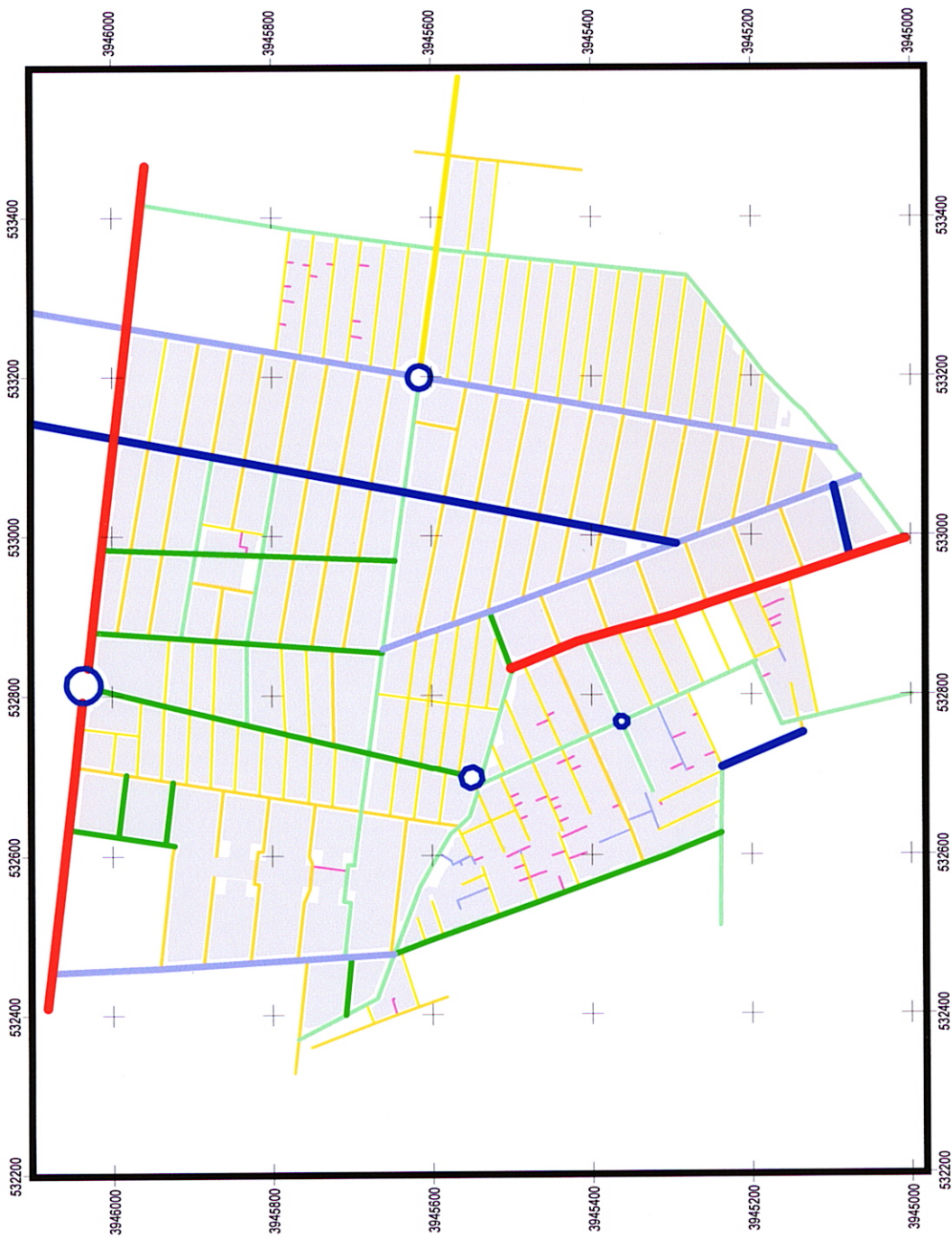


(8) Road Network

The existing road network in the PSA is shown in Figure 6.1.6. The area has neither an expressway nor an equivalent, large-scale, urban arterial road. Large flyovers and embankments have not been constructed. The street network in the PSA is mainly composed of collector roads and residential service streets. There are narrow roads of less than 6-meter width, which pose a problem in case of a disaster. These roads would not be useful for rescue operations or as evacuation routes during a seismic disaster because they could be obstructed by collapsed buildings, fences, and parked cars. It is, therefore, necessary to confirm and draw up possible routes to evacuation sites and to keep the community informed of this matter as one of the disaster mitigation measures. The checking and selection of evacuation routes should be coordinated with neighbouring districts.

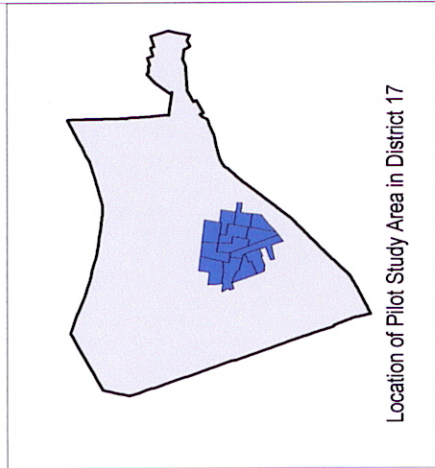
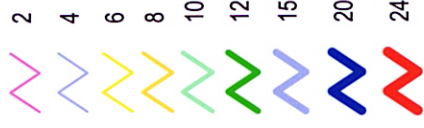
Figure 6.1.6

Road Network Map



Legend

Road Network (Width in Meter)



Location of Pilot Study Area in District 17

THE STUDY ON SEISMIC MICROZONING OF THE GREATER TEHRAN AREA
IN THE ISLAMIC REPUBLIC OF IRAN

Centre for Earthquake and Environmental Studies of Tehran (CEST)
Japan International Cooperation Agency (JICA)

(9) Water Supply and Fire Hydrants

Due to increasing urbanisation, a network of water pipelines has replaced the traditional system of water supply (called "qanat") in the area. Fire hydrants for emergency use are now found along the side of main roads, but their number seems limited. Since a key concern is the water supply during a seismic disaster, the emergency water supply system, i.e., water for fire fighting and drinking, should be discussed, and necessary measures should be prepared as soon as possible. Water quality of shallow wells and qanats is such that the water is not good enough to drink. Deep wells for emergency use should extend more than 50 meters below the surface in this area.

(10) Radio Communication System

In order to correctly collect and disseminate data on a seismic disaster occurrence it is necessary to have an effective communication system at each district office that can ensure communication with rescue operation headquarters, hospitals, police stations and related organisations. A secondary radio communication system within a district is also necessary to collect and disseminate information to the community. An emergency radio communication system, which is independent from an ordinary telecommunication system, is also required.

(11) Potential Hazards

There are business and service facilities in the PSA that are potential hazards in case of an earthquake. According to the information given by the fire fighting office in the city of Tehran, there are two kerosene distributors and a paint shop located in the PSA. However, based on the detailed site survey by the Study Team, one of the kerosene stores has moved to a different location (Figure 6.1.7). Another hazard is the gas pipeline network in the area. It is necessary to estimate damage to gas pipelines at certain places; gas leakage can result in secondary disasters such as explosions and fires. The gas company should conduct a detailed study on the security of the gas pipelines and the emergency management of the gas supply system. Locations of electricity transformers are shown in Figure 6.1.8. Attention should be paid to the management of these facilities in the occurrence of a seismic disaster.

Figure 6.1.7

Hazardous Stocks Location

