

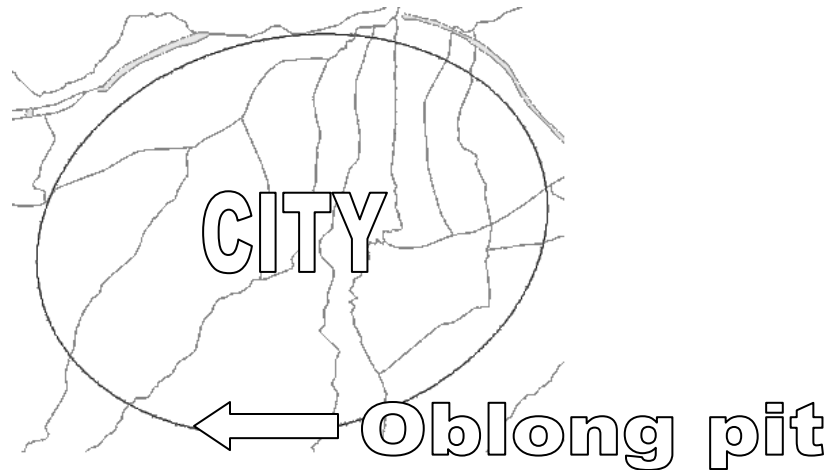
Efficient earthquake prevention

For dispersive transversal surface waves propagating from an epicenter area towards an urban area (assuming these two areas are not overlapping) we would propose a method that in some cases might be practicable in reducing the seismic displacement amplitudes.

For mechanical transversal waves, a propagation is only possible as long as the restoring elastic forces of the surface material are present. In a loosely connected medium like e.g. sand, it is natural for such waves to dissipate some of their energy.

Construction of deep round or oblong areas filled with grains and situated around the urban area may therefore help to prevent damage whenever the thickness of such protective areas are being designed to be larger than the typical wavelengths of such waves.

The depths of the oblong areas are limited by practical parameters like ground-water level or similar. For urban areas situated at sea shore, natural sand-areas prevent the propagation of transversal ground-waves.



Schematic drawing of oblong pit area filled with sand.