

Surveying a Site on an EMI Trip

For surveying on EMI projects, it helps to think in terms of preparing a **map** of the project site, versus a full-scale topographic survey. When preparing for the trip, see if there is any satellite imagery that covers your site. Also, find out what units should be used. It's much harder to convert an English drawing to metric than it is to survey in metric from the beginning. When selecting equipment to bring, realize typical equipment insurance does not cover survey equipment damaged in other countries. The use of a simple hand level, a compass, and tape can yield practical results.

Permanent boundary stones, monuments, or reference points may not exist, so we must rely on the ministry to provide the location of the boundary, whether through a formal deed, a drawing, or just a verbal explanation (EMI does not get involved in conflict resolution or property rights). Base elevations may be taken from a GPS reading or simply assumed. Master planning is the foundation of most EMI projects.

To meet this need, it is important to capture the features of a larger site in this general order:

1. the property line and shape of the site (this can be done quickly using a handheld GPS, and if done in a relatively short time, the results can be reasonably accurate);
2. existing structures;
3. topography of the most likely area for the first phase of construction;
4. significant features like roads, water features, large trees, and tree lines;
5. topography and details of the rest of the site.

Remember that this trip may be our only opportunity to collect information about the site, so we need to capture as much as we can in the time we have available. It is more important to capture the entire site in less detail than exact detail of only a small portion. Time should be reserved every evening to plot the day's data collection in preparation of the final map. Contours will need to be made for the master plan. A photo or video survey can really come in handy after the trip, too.

Consider also performing a minimal survey on any adjacent property the ministry intends to acquire in the future.