

Drawing Services – 08D - Surveying Underground Service Locations for the Serviced Land Availability Plan (SLAP)

Corporate Work Instruction

Hazards	Personal Protective Equipment	Tools & Equipment
N/A	N/A	N/A
	This work instruction describes how underground services can be located within 1.0 metre of their ground position for updating SLAP map service locations. It is based on the chain surveying method.	
	<p>Chain Surveying - Chain surveying is regarded as the simplest and oldest form of land surveying and is still used extensively today. It is based on the fact that if a triangle is set out upon the ground and the length of the sides are measured, it may later be plotted in the drawing office at any desired scale.</p> <p>Method One:</p>	



Danger



Caution



Tag



Environmental

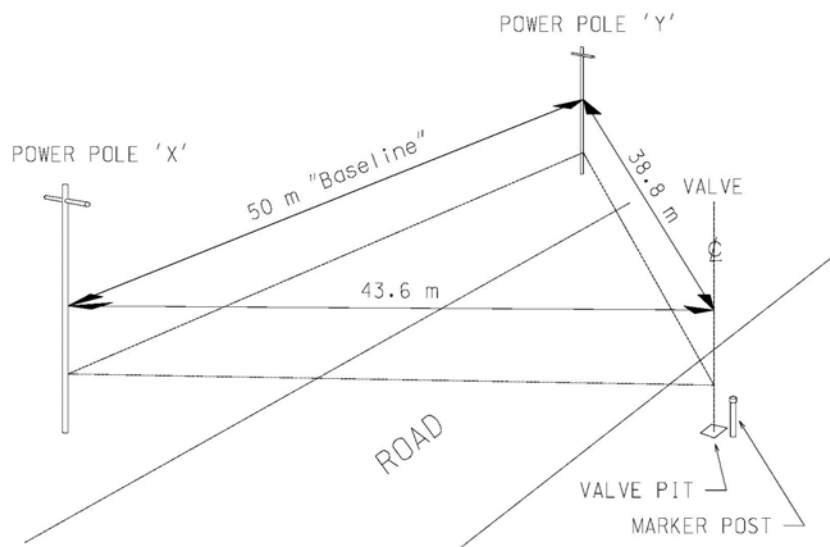


Permit



Document

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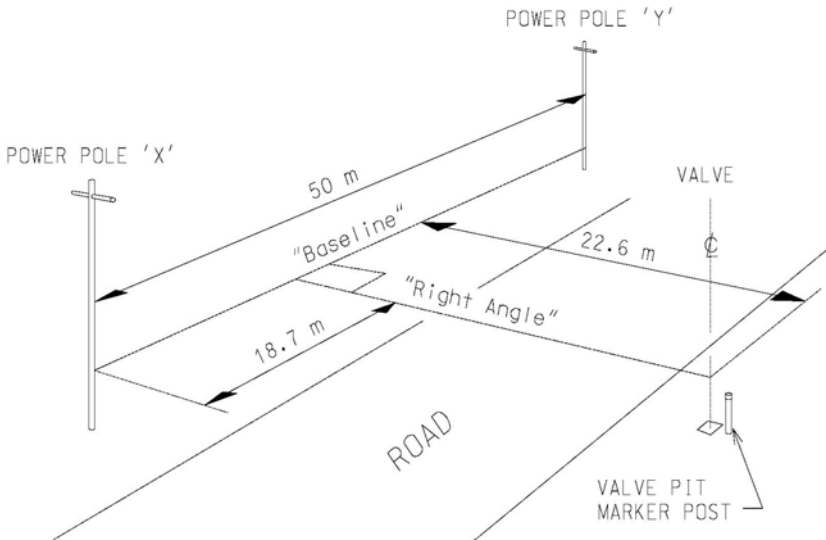


The triangle on the ground can be accurately transferred to a map providing any two points of the triangle have already been accurately located on the map.

To survey a service (eg a valve) on a piece of land (see figures below), first set out a triangle in the field with the base of the triangle on a line running between two accurately mapped objects (normally power poles). This is called the **base line**.

Measure the sides of the triangle noting power pole numbers and other features. Triangles containing angles less than 30 degrees should be avoided where possible.

Method Two:

		
	<p>Where services are close to the base line, measure the distance (chainage) along the baseline and the distance at right angles away from the baseline, called the offset.</p> <p>An easy way to get a reasonable right angle off a baseline is to stand on the baseline, point each arm along the baseline, and bring them together in front of you.</p> <p>Your arms should then be pointing at right angles to the base line.</p>	
	<p>For more information on accurately mapped objects for survey work, refer to the "Underground Services Location" statement on any SLAP map. Houses and roads are not accurately mapped objects and should not be used in survey work to confirm underground service locations.</p>	

	<p>Accuracy of Survey - The accuracy of a chain survey depends very much on the operator. However, as a general guide to achieving the required 1.0 metre tolerance or better from an accurately mapped object,</p> <ul style="list-style-type: none"> • Pacing should not be used to measure distances over 25 metres • Wheel should not be used to measure distances over 100 metres • Chaining with a plastic tape should not be used over 200 metres. 	
	<p>SLAP Map Survey form for confirming service locations</p> <ul style="list-style-type: none"> • Community Name - • Date of survey – • Method of survey (ie. tape, wheel, pacing, compass) - • Remarks – • Name of Person – • Telephone contact - 	
	<p><u>Sketch</u> – refer to “Underground Services Location” statement on the SLAP map.</p> <p>Sketch is to show accurately mapped features (ie. power poles and power pole numbers) and measurements to the nearest 0.5 metre.</p>	
	<ul style="list-style-type: none"> • Pacing should not be used to measure distances over 25 metres • Compass surveys* should be limited to objects within 50 metres. • Wheel should not be used to measure distances over 100 metres • Chaining with a plastic tape should not be used over 200 metres. <p>*Magnetic compasses should not be positioned next to power poles (or other iron objects)</p>	
	<p>House and road locations have not been recorded accurately on the SLAP maps and should not be used for survey control points.</p> <p>Features less than 5 years old may not have been mapped as yet.</p>	
	<p>Field Notes appropriate for the data management recording should be taken as explanatory supporting information.</p>	