



Figure 1: Site construction prior to concrete pour.



Figure 2: Scanning a Conquest™ grid on the site after the concrete pour.

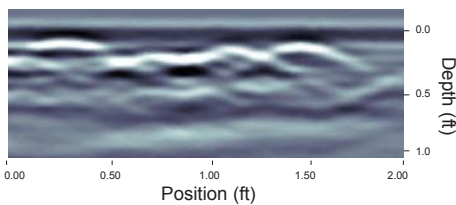


Figure 3: Vertical cross section data - line 'Eh'

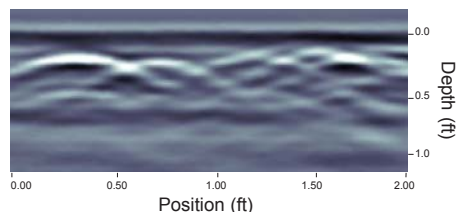


Figure 4: Vertical cross section data - line '2'

Conquest was developed to overcome the early limitations of GPR which restricted users to looking at raw data cross sections. Powerful and low cost computers and on-site processing enable a much more effective data presentation.

This case study illustrates how modern imaging GPR unscrambles a complex structure. The original construction is shown in Figure 1; the rebar, post tension cables and conduits represent a complex embedded structure.

Figure 2 shows Conquest scanning over the same location after completion of concrete pouring.

Figures 3 and 4 show classic GPR cross sections. While the embedded bars and cables are detected, the geometrical relationships are difficult to ascertain. Using the 3D volume of data, the cross sections can be augmented by slices through the concrete at selected depths. The depth slices yield plan maps which greatly clarify structural relationships (Figure 5).

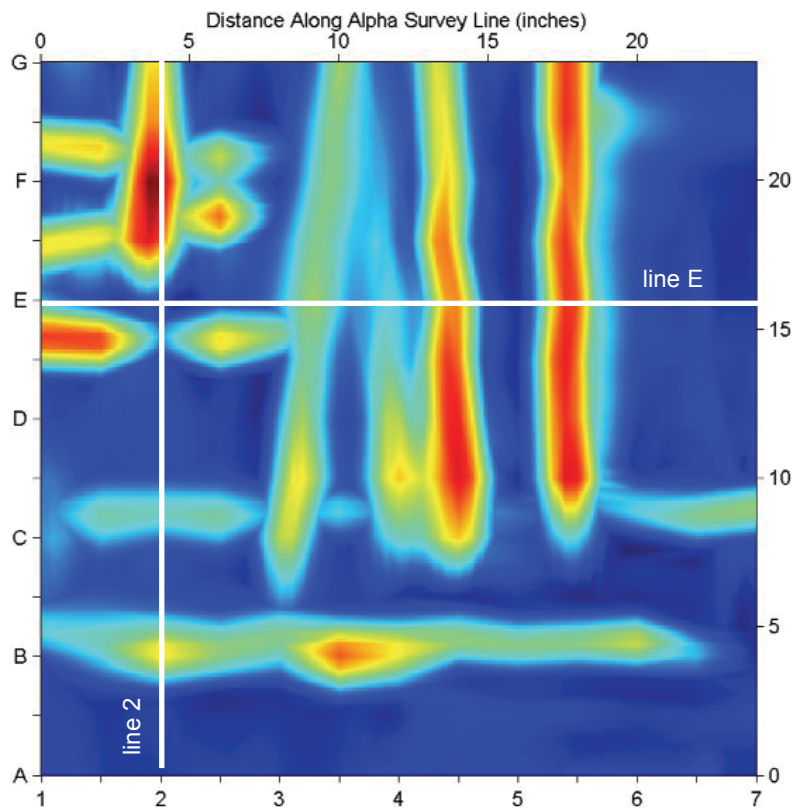


Figure 5: Plan map 2.4" - 3.6"