

## How CFA Piling Works

A CFA pile, is formed by drilling into the ground with a hollow stemmed continuous flight auger to the required depth. No casing is required. A fluid concrete mix is then pumped down the stem of the auger. While the concrete is pumped, the auger is slowly withdrawn, conveying the soil upward along the flights. A shaft of fluid concrete is formed to ground level. Reinforcement can be installed.

Recent innovations in addition to stringent quality control allows reinforcing cages to be placed up to the full length of a pile when required. A typical reinforcing cage will be upto 8m in length. Where tension loads are present it is typical to see a single full length bar placed at the centre of each pile.

CFA piles cause minimal disturbance, and are often used for noise and environmentally sensitive sites.

### BEST PRACTICE GUIDELINES **CFA PILING**

<b>Training Required:</b>	All personnel trained to CSCS/CPCS level. Site Specific Induction.
<b>Equipment Required:</b>	CFA Rig Agitator Concrete Pump Safety Barriers PPE as per Method Statement Safety Signage Attendant Plant

Hazard	Controls
Spoil falling from Auger	Maintain exclusion zone Effective mechanical auger cleaner Protection of areas outside side
Hearing damage	Hearing protection to be worn
Work at height; Risk of falling	Use a MEWP Don't climb on plant Wear eye protection
Cement burns and dermatitis	Wear gloves Wash splashes off
Manual handling	Use mechanical assistance Avoid muscular strain
Hydrocarbon pollution	Fuel and oil containers capped and kept on bunds Prompt mopping and bagging of spillages Use drip trays/plant nappies
Rig instability	Working platform certificate in place Ramps to 1 in 10 or shallower Piling platform maintained
Reversing ready-mixed trucks	Banksman to be in attendance
Trips and slips	Keep piling platform in good condition Use of step to climb and dismount rig Keep working area around pump clean Do not track or drive over hoses
Concrete hose bursts	Use slings to transport, do not move with excavator bucket Agree and identify crossing points

