

## Geoguide 7 – Guide to Soil Nail Design and Construction

### First Edition

#### AMENDMENT NO.: GG7/01/2023

### BACKGROUND

This amendment sheet revises the monitoring requirements for soil nails carrying sustained loads. The amendments are given below.

### AMENDMENTS

#### SECTION 5      DESIGN OF A SOIL-NAILED SYSTEM

(a) Section 5.12.2      **Replace paragraph 4 as follows:**

In general, monitoring of the deformation of soil-nailed system and the loads mobilised along representative soil nails should be carried out during construction in order to validate the design assumptions and to make design changes if necessary. In the event that soil nails are installed in unusual conditions (e.g. soft clayey soil of high plasticity) and the creep tests indicate susceptibility, the monitoring should be extended to one wet season after the installation. Monitoring of piezometric pressures should also be carried out to aid the interpretation of the deformation data. Where the soil nails are used in temporary works, deformation monitoring should be carried out until the service of soil nails is no longer required. Monitoring of the load in these soil nails is generally not warranted.

#### SECTION 7      MONITORING AND MAINTENANCE

(a) Section 7.2      **Replace paragraph 1 as follows:**

Monitoring is generally not required for a permanent slope or retaining wall reinforced by soil nails that carry transient loads. For soil nails that carry sustained loads, monitoring of the ground movement and loads mobilised along representative soil nails should be carried out during construction. In the event that soil nails are installed in unusual conditions (e.g. soft clayey soil of high plasticity) and the creep tests indicate susceptibility, the monitoring should be extended to one wet season after the installation. An inclinometer may be used to obtain the full vertical profile of the horizontal ground movement. Monitoring of piezometric pressures should also be carried out to aid the interpretation of deformation data. Where the soil nails carrying sustained loads are used in temporary structures, movement monitoring should be carried out until the service of the soil nails is no longer required. Monitoring of the load in these soil nails is generally not warranted.