



Chatswood Northern Corridor Soil Nail Wall and Shotcrete **SLOPE STABILITY AND SHOTCRETE**

Sydney Metro is Australia's biggest public transport project and RIX Group has been a part in delivering new station boxes between Chatswood and Sydenham managed by Project manager Keshab SUBEDI. Transport NSW defines the project and the works were carried out for the joint Venture of John Holland CPB Ghella (JHCPBG). In this particular section permanent soil nails and shotcrete retaining wall was constructed to allow for 400m of track widening for tunnel portal next to live trains in Chatswood

The work includes:

- Erosion and sedimentation control;
- Preparation of batter slope (scaling removal of loose rock);
- Installation of rock fall mesh to prevent any debris and loose rock to fall off on live track
- Installation of permanent soil nails and application of structural shotcrete works, including drainage;
- Installation of 22 strands permanent anchors and
- Installation of galvanised double mesh with spider plates

The main challenges in the project:

- Tight space under the bridge, 22 strands 32m long anchors with height restriction, working next to live rail way corridor with tight working platform
- Latent ground condition, lot of testing of soil nails with R64 spec
- Only one way and tight access, every single delivery needed to be co-ordinated

CLIENT: JHCPBJH JV

LOCATION: Chatswood Northern Corridor

SCOPE: 1,500m² of wood float sponge shotcrete
1,500m² of SL81 double mesh with spider plates
10,000lm of soil nails;
1,500m² of rock fall mesh
8,000lm of Strip drains

VALUE: \$2.2 Million

COMPLETION: 2020

Keshab SUBEDI

- Works over a 15m high batter, works on EWP and rope access.
- Ensuring the quality control for a project with a large variety of stabilisation requirements;
- Working concurrently in various locations;
- Management several changes in the design and mitigating the financial risk to our client due to the design changes;
- Dust sensitive area as the residents in close proximity
- Working under highest safety requirements; i.e., crane, rope access, live trains, etc.

The structural shotcrete looks great and works were admired by the client.

