Rockfall Protection

CHENANI NASHRI TUNNEL PORTAL (2016), IN
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#### Rockfall Protection

<table>
<thead>
<tr>
<th>Project</th>
<th>Chenani Nashri Tunnel Portal (2016)</th>
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<tr>
<td>Place</td>
<td>Jammu &amp; Kashmir</td>
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<tr>
<td>Country/Region</td>
<td>India</td>
</tr>
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<td>Year of installation</td>
<td>2016</td>
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<tr>
<td>Customer</td>
<td>N.H.A.I. (National Highways Authority of India)</td>
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<tr>
<td>Engineering</td>
<td>GeoData Consultants for Leighton Welspun Contractors Pvt. Ltd.</td>
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<td>Contractor</td>
<td>Leighton Welspun Contractors Pvt. Ltd.</td>
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**Initial situation**
The site was initially proposed to be treated with shotcrete but persistent seepage of water which caused slope failures and cracks on the portals led the concessionaire to go for an alternate solution which does not only stabilize the slopes but also offers a green solution and allows the hydrostatic pressure to disperse. National Highways Authority of India decided to actively stabilize the tunnel portals. A protective measure had to be selected to stabilize the exposed cutting against superficial instabilities, tilting as well as sliding of individual blocks and rockfalls.

As an extra safety measure, 500 kJ barrier line was introduced and placed on one of the berms to provide extra safety besides portal stabilization. Rockfall barriers protect against rockfalls from above stabilized area.

**Description**
The GBE-500A rockfall barrier system protects the entry and exit levels of the Chenani Nashri Tunnel from all sorts of major and minor rockfalls or any falling object which could in anyway harm the tunnel portals and traffic. Thus it helps reducing the risks involved as well as the complete protection from rockfall based calamity.

See also our slope project [Chenani Nashri Tunnel Portal (1)](#)

**Protected object**
Road, Infrastructure

**Systems**
GBE-500A

**Other installed applications**
Slope Protection

**Corrosion protection**
Galvanized, GEOBRUGG SUPERCOATING®

**Energy absorption capacity**
500 kJ

**System height**
4.0 m

**System length**
80 m - 91 m
Finished line of GBE-500A rockfall barrier above the Chenani Nashri Tunnel

Overview of the tunnel portal construction site - GBE-500A rockfall barrier line visible on the top

GBE-500A after installation, slopes below are being cut
GBE-500A after installation, slopes below are being cut

For questions please contact our Geobrugg specialist at your side

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