



# **EAST SLOPES AND CARRIAGEWAYS**

Value: £730,000 Duration: 52 weeks

Completion: September 2019 Contract: NEC 3 Option C









The works involved repairs to roads and slopes following Storm Desmond in 2015. Works were undertaken on 6no separate sites from Patterdale near Ullswater to Warcop, off the A66, in the far east of the county

#### **SCOPE OF WORK**

Thomas Armstrong had to develop some initial designs that were put together by CCC, to full design and build status.

The two main packages were the stabilisation of a slope at Grisedale Lane near Patterdale using rock armour to prevent future erosion by the river and secure the integrity of the road above.

In the same area, at Hartsop, we undertook concrete underpinning to a stone wall within a river that had been undermined and washed out during the flooding, to prevent future wall and road collapse.

Other works included road and drainage improvement works at Mungrisedale, Warcop and Bampton to Burnbanks.

The reprofiling of a riverbank at Warcop that had collapsed, including the installation of rock rolls and willow planting to stabilise the new slope.







## **KEY RISKS / CHALLENGES**

- Four of the schemes were undertaken within river areas consequently works had to be undertaken within the EA's tight 'in-river' window of mid-July to the end of September
- Ensuring that traffic flow for tourists was not adversely affected on the narrow road at Hartsop
- Grisedale site was on a site that was heavily used by school parties on residential breaks. Careful
  consideration had to be given to ensuring the safety of these children who are not generally aware
  of the dangers of construction sites. It was also very close to a popular caravan site which relied
  heavily on repeat business, so disruption had to be kept to a minimum
- Installation of a temporary access route through a heavily wooded area and full restoration at completion at Grisedale Lane

#### **LESSONS IMPLEMENTED**

Thomas Armstrong (Construction) Ltd had to take over responsibility for negotiations with landowners to obtain agreements to access their land to ensure that works could be undertaken within the tight timescales.

#### **COLLABORATION AND VALUE ADDED**

- Communication on a daily basis with site users to inform them on upcoming works, vehicle movements etc
- Noise from our works was reduced by lining dumpers, transporting rock materials, with sound deadening quilts

### **SUCCESSFUL OUTCOMES**

- Minimal disruption to site users, traffic and local residents & business's
- Minimal disruption to local traffic flow









