Skippers

Broken at the Elbow
Introduction

- History
- Common problems
- Examples of works
- Devils Elbow Drop Out
• North of Queenstown, turn off half way up Coronet Peak Road

• 16KM Long

• Google says 44 minutes from Queenstown
Background

Gold discovered in 1862

Named after “Skipper” Malcom Duncan

Once home to over 1000 people
The need for a road

Built to meet demand of gold mining

Built in four stages from 1883 to 1890

Provided “safer” access to Charles Town and Skipper Point
Historical and Cultural Significance

- Historical significance for 19th century
- Early tourist destination - 116 years
- Rich cultural heritage – key to growth of the area
Physical Significance

Outstanding archaeological, technological and aesthetic significance

Natural & man made features

Road considered a remarkable structural feat

Skippers bridge is NZ highest suspension bridge at 91m
Building the Road to Skippers

Stage 1: Arthurs Point to Skippers Saddle. (£1923)

Stage 2: Skippers Saddle to Deep Creek

Stage 3: Deep Creek to Maori Point. (£1660)

Stage 4: Maori Point to Fishers £1749
Stage 2: Skippers Saddle to Deep Creek

‘Zig-zag’ hardest section

Pinches Bluff claimed several lives

Cost £3,800 & £3700
Skippers Bridge

Cost: £3244
Features of Skippers

Notable Features
• Skippers Suspension Bridge
• Bells Bridge (Long Gully)
• Deep Creek Bridge
• Various tors (rock outcrops) and bluffs
• Castle Rock
• Pinchers Bluff road formation
• Stone revetting (various)
• Stone walls (various)
• Devils elbow
• Pipeline bridge
• Blue Slip
Historic Places Trust recognition

Registration Type
Historic Place Category 1

"Outstanding example of a nineteenth century road which shows tremendous technical accomplishment in its construction in the spectacular and forbidding Skippers Canyon"
Todays use
One of the worlds most dangerous Roads
Maintaining Skippers

- Slips
- Drop outs
- Continually blocking culverts and water tables.
- Scour problems
- Maintenance grading...
- Bridge Maintenance
- Unsealed Metalling
- Snow clearing!
- Slips
“A good example of what can and should be done to goldfields historic roads.”

Dr Matthew Schmidt, Regional Archaeologist
Otago/Southland, NZ Historic Places Trust
Repairing the Broken Elbow

- Drop out on 12\textsuperscript{th} September 2012
- 90% of the road lost (passable by foot)
- Immediate site visit called to investigate
What Happened?

Video and classic kiwi commentary courtesy of Skippers resident
Media Release

The Southland Times

Slip closes Skippers road for month

BLAKE GARDNER

Last updated 25.06.14/09/2012

Access to Access to

SLIPPERS CANYON JET

FLYING VISIT: The air space above Skippers Canyon was busier than usual as Skippers Canyon Jet and Queenstown Jetting customers were ferried into the canyon by helicopter after a slip closed the road.

The historic Skippers road will be closed for at least a month after a huge slip wiped out a five-metre section overnight.
Temporary Access

- Initial Estimate was 4 weeks to get the road open
- Pressure from local residents and tourist operators
- Second site visit – decided that a temporary access was achievable

Kiwi discovery; 'Adin May'; 'Black Sheep Touring'; 'Grant Hensman'; 'Guided Walks NZ'; 'Highland Resorts Ltd'; 'Hill View Park'; 'Holmes Bros'; 'Independent Mountain Guides'; 'Jane Scheib'; 'Mountainland Rovers'; 'Nomads'; 'Nuggetburn Ltd'; 'NZ Adventures.co.nz'; 'Off Road Holdings'; 'Outback New Zealand'; 'Queenstown Bungy Ltd'; 'Queenstown heritage'; 'Queenstown Heritage Tours'; 'Richard Struthers'; 'Shotover 4WD Club'; 'Skippers Canyon Adventures'; 'Southern Alpine Safaris'; 'Southisland Discovery'; 'Vertigo'
Temporary Access Achieved

• Four wheel drive vehicles only

• Suitably experienced drivers only

• Good conditions. In wet conditions the road may become too slippery.

• Only when physical works ceased.

• May be times when the stability of material above makes it too risky to use the route.

Agreed Opening Times
• 9:00am for 20 minutes
• 2:30pm for 20 minutes
• 4:45pm for 15 minutes
Fault Line....

Evidence of Fault line
Consent Requirements

• Sought by MWH
• **Lakes Environmental** - “The effects on the landscape are described as significant at a local level are significant and unavoidable while noting that the benches provide a good opportunity for re-vegetation to occur which will reduce their starkness over time”
• **ORC** - Concerns about deposition of rock onto the riverbed and river and consequent release of sediment into the river. Construction methodology is required to provide for long term stability of the road recognising that spillage of rock material into the river is unavoidable due to the nature of the site and will be on going until such time as the slip stabilises.”

Other Considerations
• HTP input and concerns
• QLDC harbor master in relation to water activities in the Shotover river
Final Design on Paper

Designs supplied by “Chinn CAD”
Physical Works

Timeframe dependent on rock “type” found

All excavation works undertaken with 20TN Excavator

Experienced and very skilled operator trusted with alignment (i.e. no survey)
Scale of Work
Finished Product – a new ‘significant’ feature
Visual Impact?
The End Result

- Total length of job including metalling approximately 5 weeks.
- Opened in time for labour weekend as requested by QLDC and affected parties
- On Budget – Estimate $150k including consents, design and construction
- Received positive feedback from residents, tourist operators and the client
What's at the end?

Historic Skippers Point School