



Recreational trail development,
PLANNING AND DELIVERY

Dafydd Davis

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Trail Planning and Design

What's it all about?

- Improving access to the countryside
- Improving quality of life
- Creating assets for communities
- Creating tourism products
- Creating opportunities for active recreation

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Trail Planning and Design

What can go wrong?

- Trails can become a liability
- Maintenance can become a problem
- Management can be an issue
- User conflict

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Trail Planning and Design

Key Principles

- Who is the trail for
- How will they use it
- Who will look after it
- Trail should be an asset for ever

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DESIGNING PLANNING AND BUILDING TRAILS



TRAILS SHOULD

- Meet needs/expectations of intended market
- Meet needs/expectations of landowners/managers and stakeholders
- Create an asset not a liability
- Address key issues



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DESIGNING PLANNING AND BUILDING TRAILS

KEY ISSUES

- Liability
- Sustainability
- Maintenance and management

All can be addressed through effective design, consultation and construction

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DESIGNING, PLANNING AND BUILDING TRAILS

FRAMES OF REFERENCE



- Objectives
- Market
- Product
- Status
- Delivery
- Management
- Budget

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DESIGNING PLANNING AND BUILDING TRAILS



- Two tier process
- Macro design
- Micro design

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DESIGNING, PLANNING AND BUILDING TRAILS

MACRO DESIGN



- Site selection
- Identify constraints
- Positive control points
- Identify opportunities
- Negative control points
- Corridor evaluation
- Outline costs

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NEGATIVE CONTROL POINTS

- Constraints
- Existing or potential conflict



CONSTRAINTS

- Archaeology
- Scheduled species or habitats
- Land use
- Conservation
- Visual impact

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POSITIVE CONTROL POINTS

- Favourable ground conditions
- Views
- Key feature e.g. rock ledges, interesting topography
- Anything that might enhance the quality of the trail product



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MICRO DESIGN



- Working within agreed corridor
- Working within constraints
- Working to specifications

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BUILDING TRAILS

types of trail



contour trails



fall line trails

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BUILDING TRAILS



Full bench cut

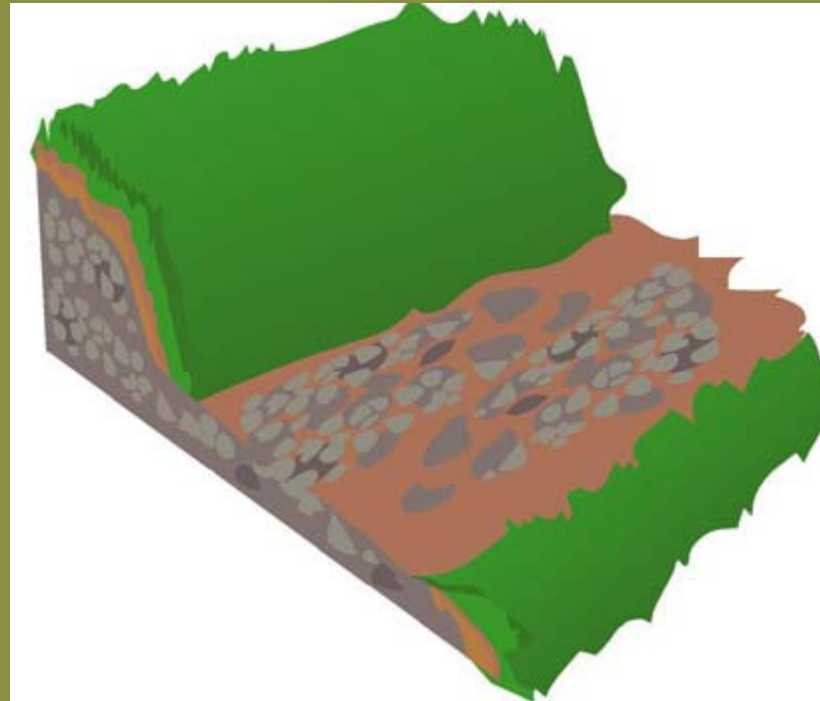
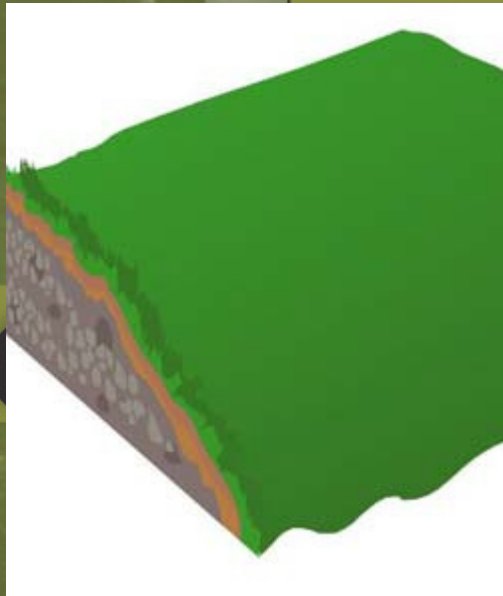
- Remove duff layer
- Expose underlying mineral soils
- Clear spoil away from down side
- 3 - 5% out-slope on trail tread
- Blend in back-slope

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Building new trails

type of trail: full bench cut



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Building new trails



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Raised camber construction

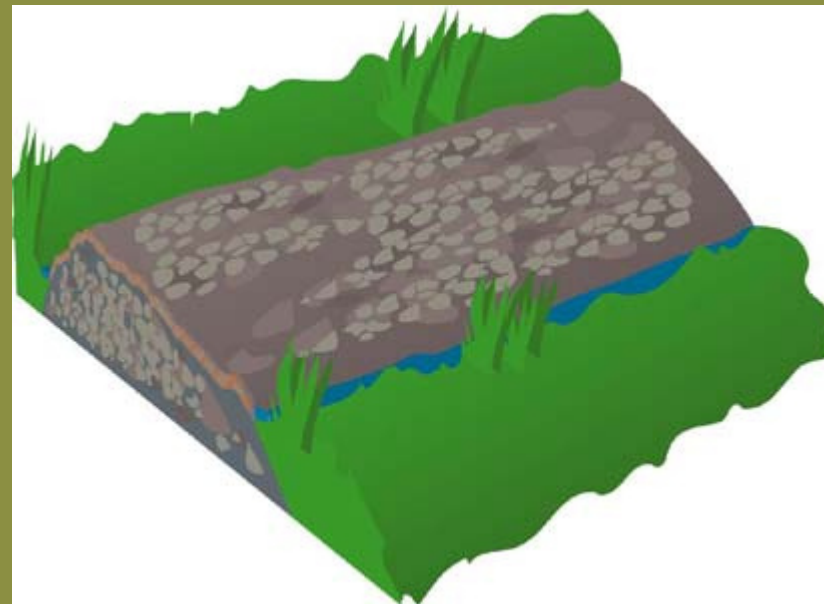
- Base layer, compacted stone
- Top dressing, crushed fines
- Compacted with raised crown
- Used on slopes of 7% or less
- Ensures adequate drainage



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Building new trails

type of trail: raised camber construction



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Building new trails

“North Shore” timber construction

- Used in sensitive areas
- Can be removed and re-installed easily
- Relatively high maintenance
- Low impact



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Building new trails

Stone pitching

- Very robust
- Can create distinctive trail features
- Expensive



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The planning process

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- Consultation essential
- Detailed planning process
- Spend more time planning than building
- Get everyone to buy in
- Make sure everyone understands both the process and the product

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The Planning Process

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- Site selection and assessment
- Consultation
- Concept plan development
- Consultation
- Prescriptive plan development
- Consultation

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SITE SELECTION AND ASSESSMENT

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- Criteria for selection and assessment
- Frame of reference help set criteria
- Established in consultation with partners



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CONCEPT PLAN DEVELOPMENT

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- Can only follow site selection and assessment
- Frame of reference
- Identifies trailheads
- Identifies potential corridors
- Assesses corridors
- Detailed consultation document
- Can be chopped and changed (up to a point)
- Consultation

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PRESCRIPTIVE PLANS

- Can only follow approval of concept plans and corridors
- Provide prescriptive plans for each component of construction
- Prescribes working methods
- Enables more accurate costing
- Gives a framework for tendering
- Provides one final tier of consultation
- Control and monitoring measures



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CONSTRUCTION

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- Prescriptive plans
- Methods appropriate to each site
- Allow for constraints
- Clerk of Works to monitor standards/specs

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TRAIL MANAGEMENT

- Trails should be designed with “passive” management in mind
- Effective planning and consultation during development essential
- Stringent design and construction specifications
- Combined will significantly reduce management input



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TRAIL MAINTENANCE

- Inspection and maintenance essential in reducing liability
- Consistent standard must be maintained
- Minimal maintenance essential
- High maintenance trails are a liability
- Stringent design and construction specifications essential



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SUMMARY

- Trail development can bring huge benefits
- An understanding of the market and its needs is essential
- Look at the big picture
- Think long term
- Think about creating an asset and not a liability
- Consultation, consultation, consultation
- Planning, planning, planning
- Design and build only to the highest standards and specifications

