

Trails & Bike Parks

From Concept through Construction



Bike Park & Trail Planning, Design & Construction

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Agenda

About

What is a bike park, a flow trail, a pumptrack

Who do these facilities serve

What are the steps to getting them built

What do they cost to develop

How is risk and maintenance managed

About



Christian Birch

- Partner at Dirtsculpt Parks
- Founder & CEO of Map Decisions
- BS Landscape Architecture / MS Engineering

Dirtsculpt Parks, Bethlehem PA

- Bike Park & Trail Development
- Trail Inventory & Mapping
- Safety & Risk Management
- Member: Professional TrailBuilders Association



Our Customers



BIKE PARKS ELEMENTS / TRAILS

- **Pumptracks**
- **Dirt Jumps / Jumplines**
- **Flow Trail**
- Cyclocross
- Cross Country
- Downhill
- Slopestyle / Freeride
- Urban / Street / Trials

Due to time constraints

This presentation focuses on these type of Bike Park Features

WHAT ARE PUMPTRACKS



Pumptrack Velosolutions, Switzerland

<https://www.youtube.com/watch?v=i4w5R7Hgrjs>

BENEFITS OF BIKE PARKS

INCLUSIVE - All ages

PROGRESSIVE - All skill levels

ACTIVE - Full body workout

BUILDS - Strength & Confidence

SAFETY - Develops bike handling skills

DESTINATION – Brings people together

TYPES OF PUMPTRACKS

1. Modular – Wood or Fiberglass
2. Natural Surface
3. Asphalt Surface

TYPES OF PUMPTRACKS

Modular



TYPES OF PUMPTRACKS

Natural Surface



TYPES OF PUMPTRACKS

Ashalt / Concrete



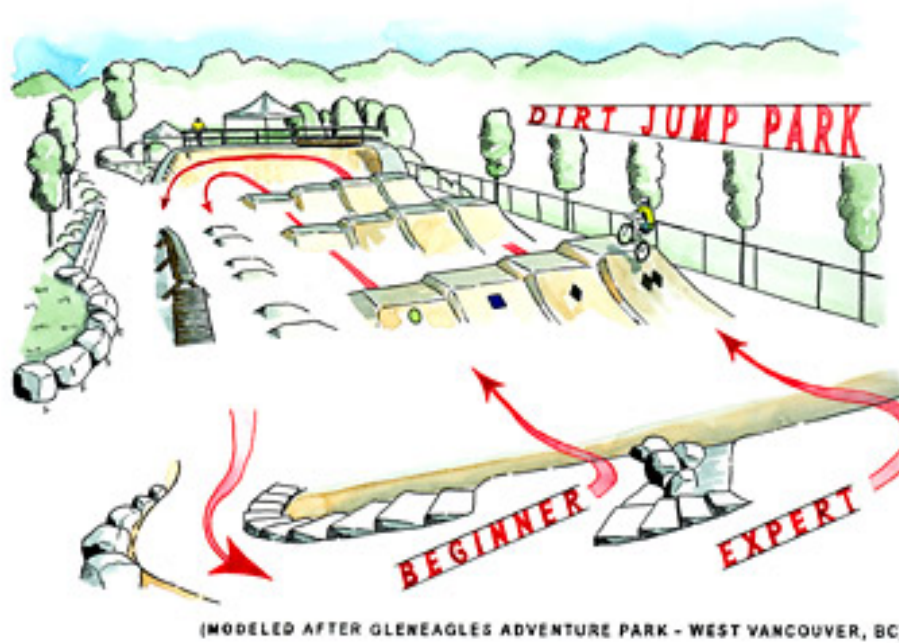
PUMPTRACK COSTS

Estimates per 1/4 Acre

	Estimated Cost	Note
PLANNING PHASE CONSULTATION	\$5,000	Includes Site Visit, Consultation, Development of Conceptual Layout and Feasibility Report
MODULAR	\$100,000	Cost Does Not Include Installation, Tax or Site Preparation
NATURAL SURFACE	\$40,000	Includes grass restoration, additional cost for landscaping
ASPHALT SURFACE	\$80,000	Includes grass restoration, additional cost for landscaping

Please Note: Project costs are highly variable, do not include permitting or permit structures. Those costs shown below are estimates for preliminary budgeting use only.

WHAT ARE JUMPLINES



Rockburn Skills Park

<https://www.youtube.com/watch?v=jRn37flpxY>

WHAT ARE JUMPLINES



WHAT ARE JUMPLINES



WHAT ARE FLOW TRAILS



<https://www.youtube.com/watch?v=0zLuqKNKOqs>

WHAT ARE FLOW TRAILS



WHAT ARE FLOW TRAILS



Big Marsh Bike Park – Chicago

- Chicago's 1st Eco-Recreation Park
- 276 Acre Former Industrial Site
- Combines Recreation & Environmental Remediation
- Provides features for all riding styles, ages, and abilities
- Phase 1 Construction Completion September 2016 by Dirtsculpt Parks



**Click the Video
Link to Learn More**

<https://www.youtube.com/watch?v=ngGeBBfKFCU>

Project Phases

- 1) **PLANNING PHASE**
- 2) **PERMITTING PHASE**
- 3) **DESIGN & CONSTRUCTION PHASE**
- 4) **OPERATIONS & MANAGEMENT PHASE**

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Planning Phase

1) PLANNING PHASE

Seek stakeholder input early and often This is **critical for generating a sense of stakeholder ownership** and responsibility which are **vital to the long term success of the project.**

Site selection is important Topography / Soils / Site Access / Utilities/

Does it tie into other regional trail / parks / Do you have access to water / bathrooms? Are just a few of the things consider

Perform

Stakeholder Meetings

Site Feasibility Study

Conceptual Layout

Estimate of Probable Costs

Permitting Phase

2) PERMITTING PHASE

Obtain Necessary Permits.

Erosion & Sedimentation Permit

NPDES & Storm Water Permit

Building Permits

Design & Construction Phase

3) DESIGN & CONSTRUCTION PHASE

- Trails and Bike Park Design & Construction are NOT like your traditional construction project!
- The Professional TrailBuilders Association (PTBA)
www.trailbuilders.org
- PTBA Website has a ton of resources & a list of qualified professional trail and bike park builders.



Operations & Management Phase

Longest and **Most Important Phase of Project**

Develop Risk Management Plan

Develop Effective Signage System

Develop Inspection & Maintenance Program

Operations & Maintenance shouldn't be an after-thought

Day to Day Maintenance – Who's Doing It – Do they have the

Know How / Tools / Material / Commitment?

Annual / Semi-Annual Maintenance – At least once a year

you should have a professional builder inspect / repair

Risk & Liabilities

What about Risks & Liabilities?

Risk & Liabilities

All sports come with risks!

Baseball

A pitcher
throws a hard
ball at you as
fast as they
can



Risk & Liabilities

Cheerleading

**Please Catch
Me!**



Risk & Liabilities

Soccer

Ouch!



Risk & Liabilities

Bike Parks



Overview: From Concept to Construction

- Build a Partnership & Seek Input
- Select a Location
- Design should be Inclusive and Progressive
 - Consider Table-Tops or Gaps
 - Grade the Site for Drainage
- Develop a Construction Plan
 - Water Source
 - Shade
 - Get Good Dirt
 - Material / Tool Storage

Overview: From Concept to Construction

- Develop a Risk Management Plan
 - Effective Signage System
 - Routine Inspections
- Develop an Operations & Maintenance Plan
 - Encourage Stewardship
 - Define who is responsible
 - Routine / Day – to –Day Maintenance
 - Annual / Semi Annual Maintenance

For More Information Feel Free To Contact Me



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