



Project:

Kempsey Pump track
Cnr Leith & Sea Street
West Kempsey
NSW 2440

Client:

Kempsey Shire Council

Designers:

Brett Barnes
Georgia Barnes

Drawn:

Brett Barnes

Version:

Concept Design & Specifications
June 2020

Construction:

TBA

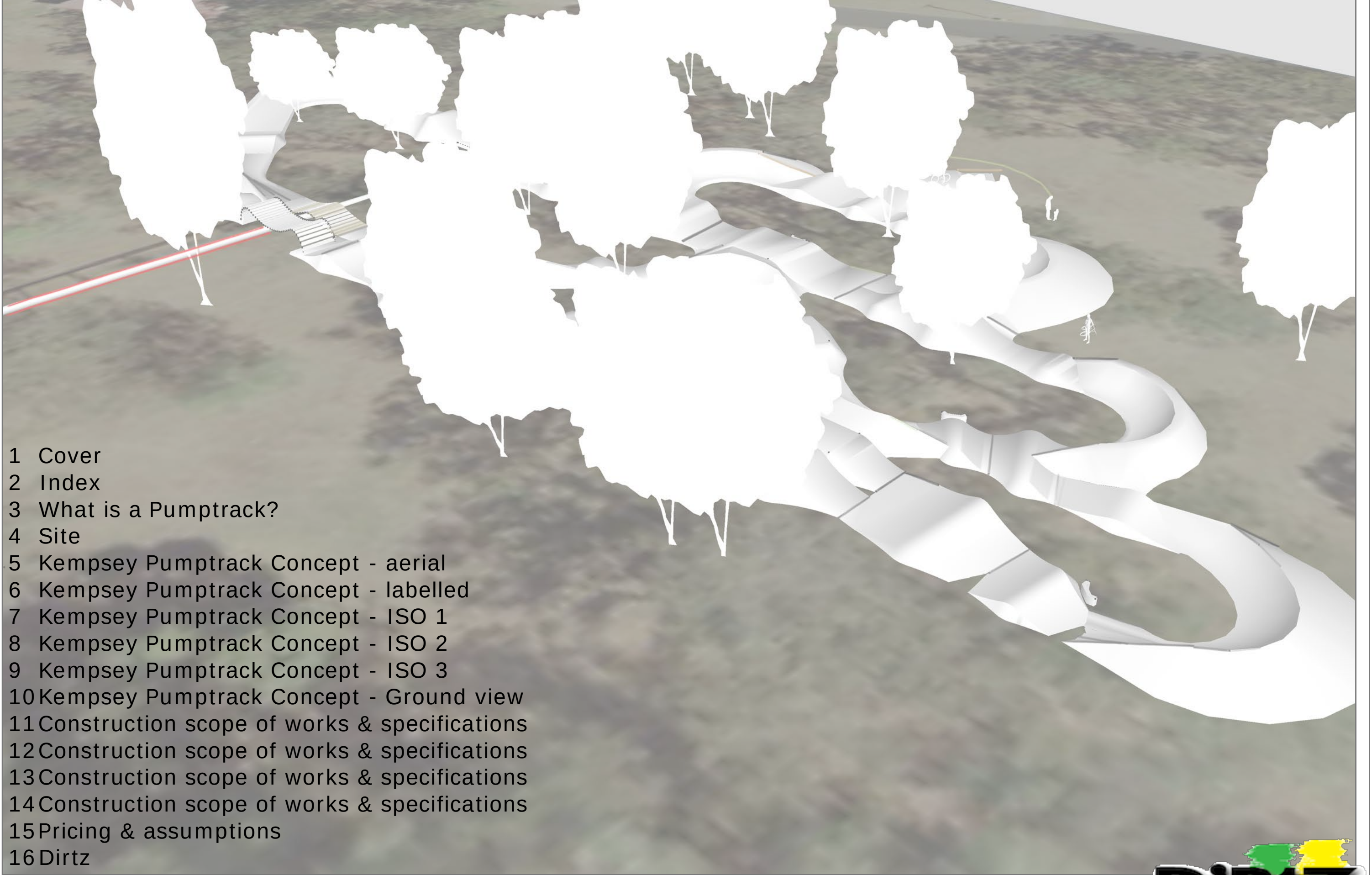


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Kempsey 2020
Pump track

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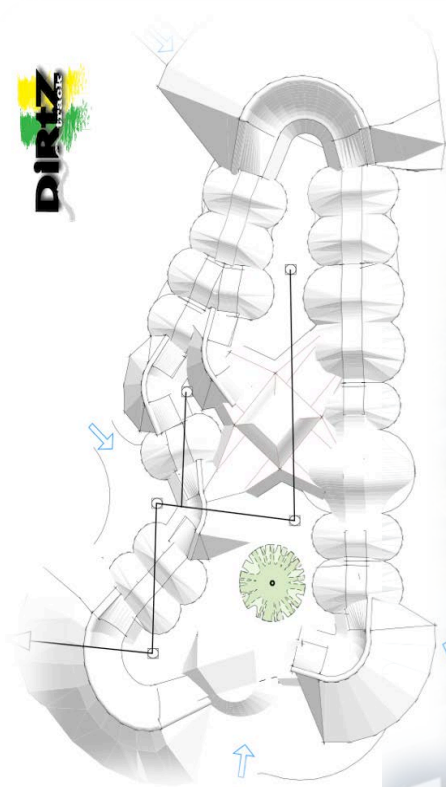
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A Pumptrack is essentially a rollercoaster path that, if designed properly, allows the rider or skater to complete the course essentially without any pedalling or drive.

Pumptracks have gained increasing popularity throughout Europe because of their diverse appeal, safety and ability to hold attractively into almost any environment.

Whilst they can be constructed of sculptured dirt, the evolution of using asphalt surfaces has seen pumptracks develop as desirable low maintenance facilities that appeal to bike riders, scooter riders, skateboarders and rollerbladers.



What is a pumptrack?





The proposed site for the Kempsey Pumptrack is located on the corner of Leith Street and Sea Street, West Kempsey.

The area features fall from the north to the south of the site.

The site is aligned to the southern perimeter by a creek line and features a pipeline running through the site in a north south alignment.

To the south of the site on Sea street is a public High School although access and egress is expected to be from all directions.

Site





Concept aerial



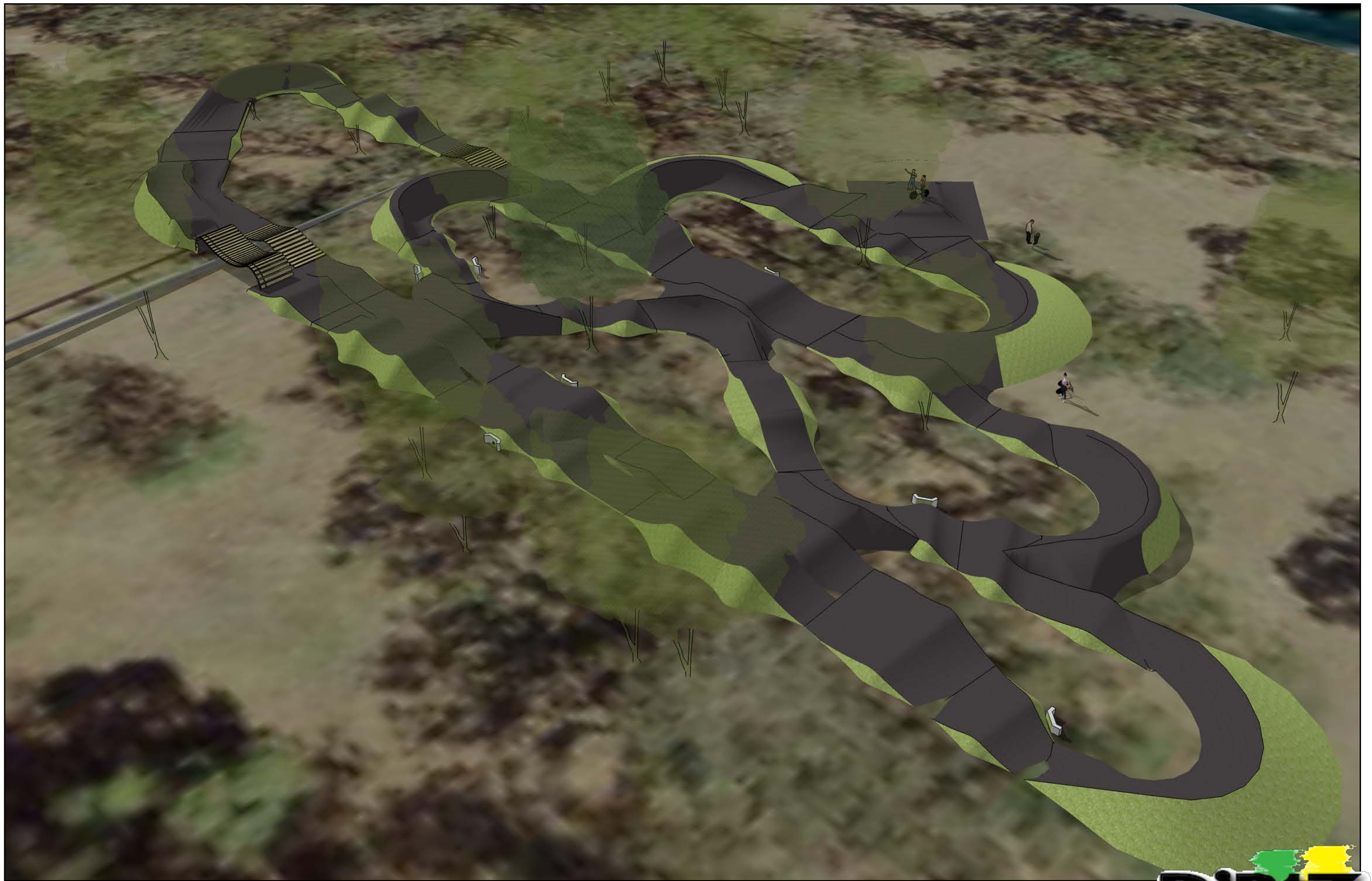


Features:

- Uni-directional
- Average single tread path width 2.25m
- Surface drainage into 100mm pipe
- Shaded viewing areas
- Final construction will align amongst on site trees

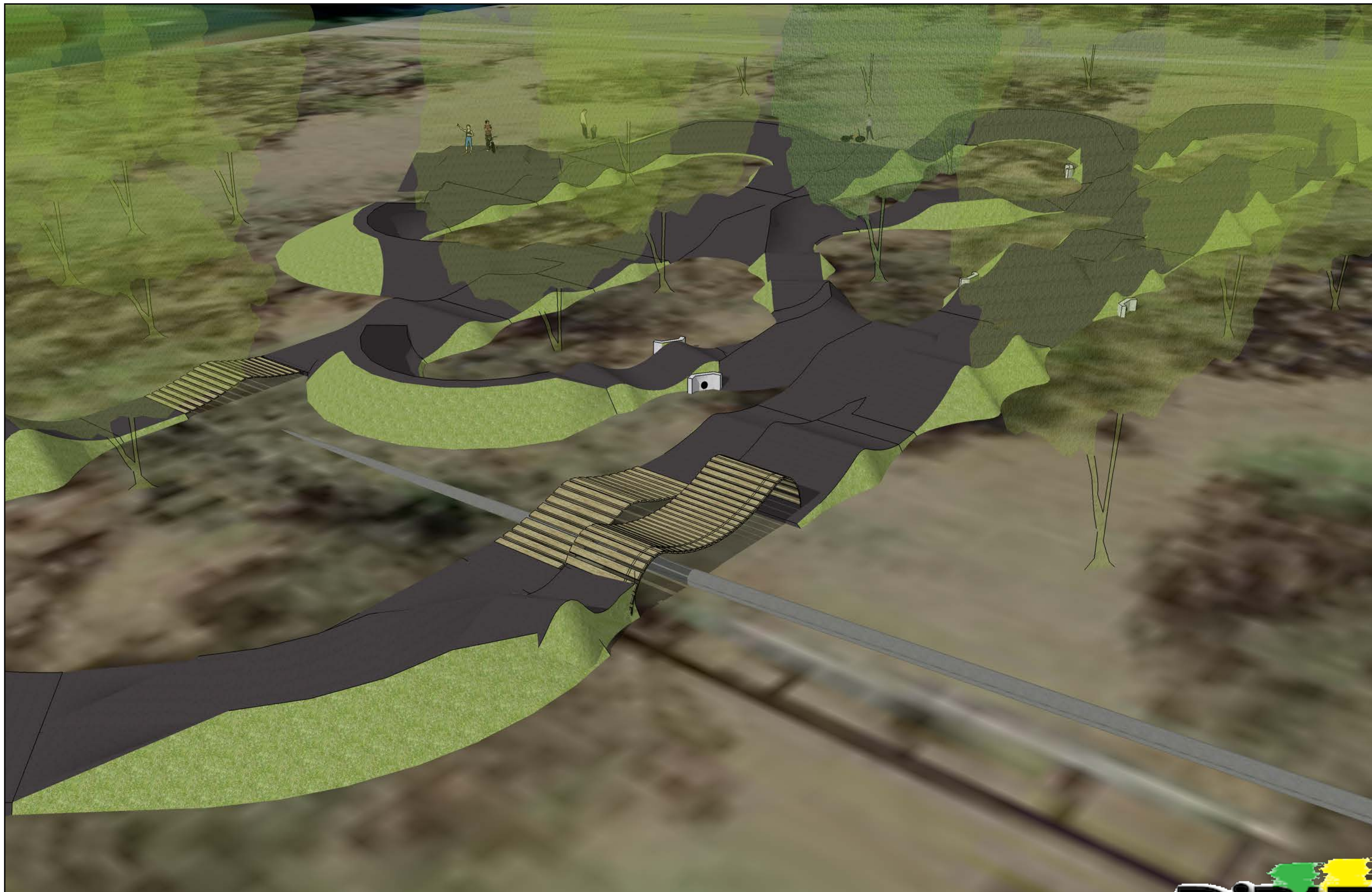
Concept labelled





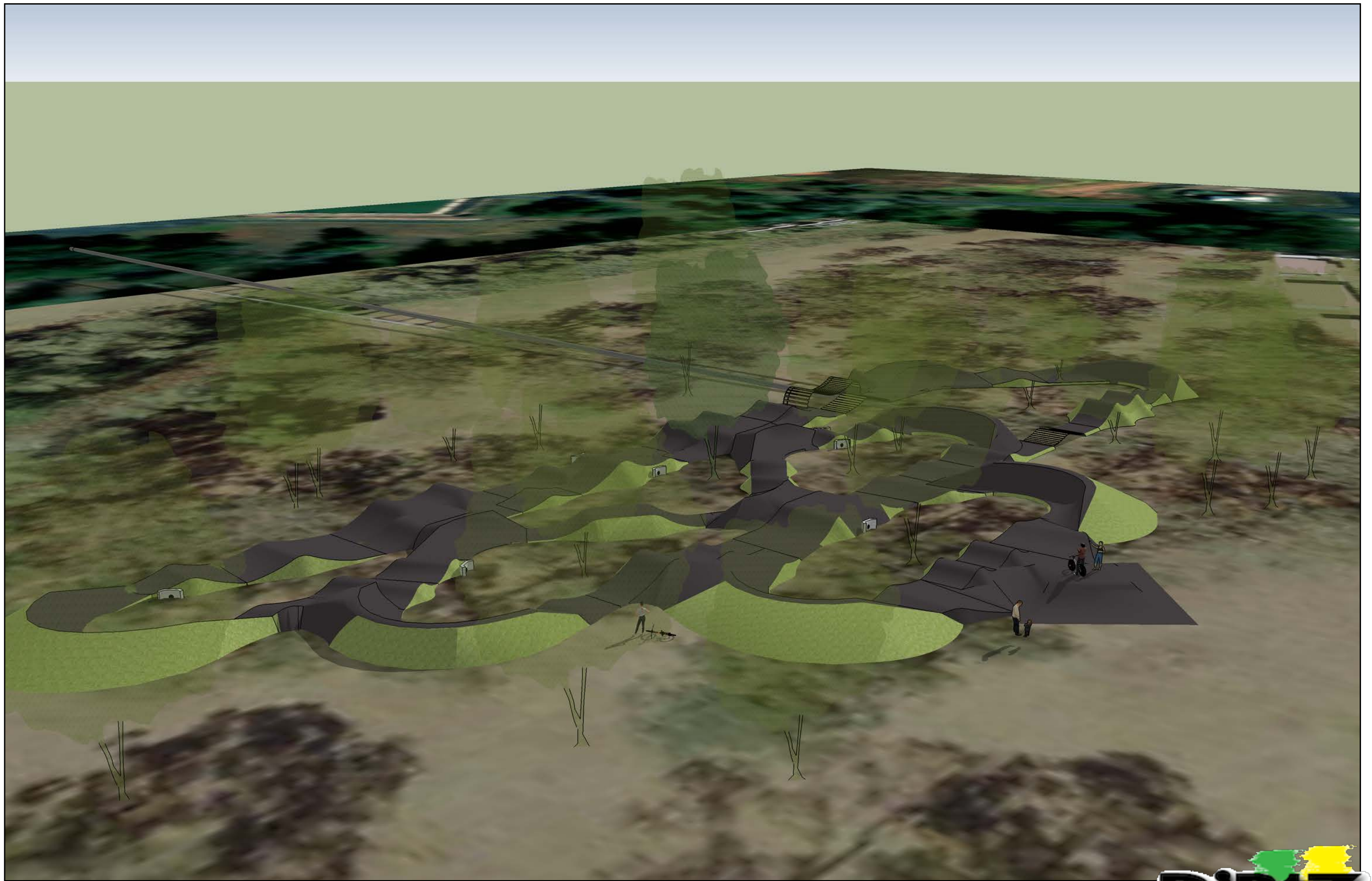
Concept ISO 1





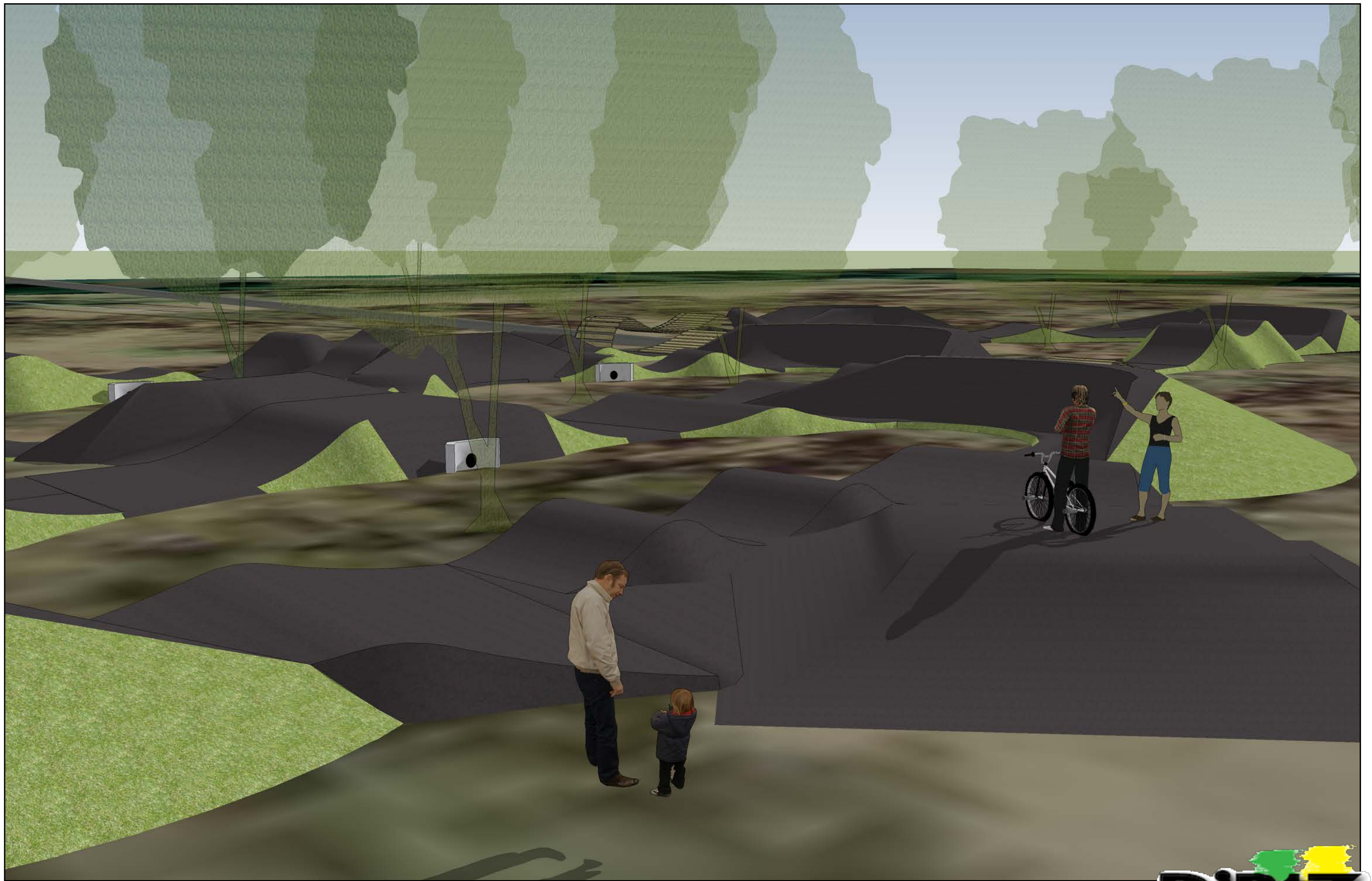
Concept ISO 2





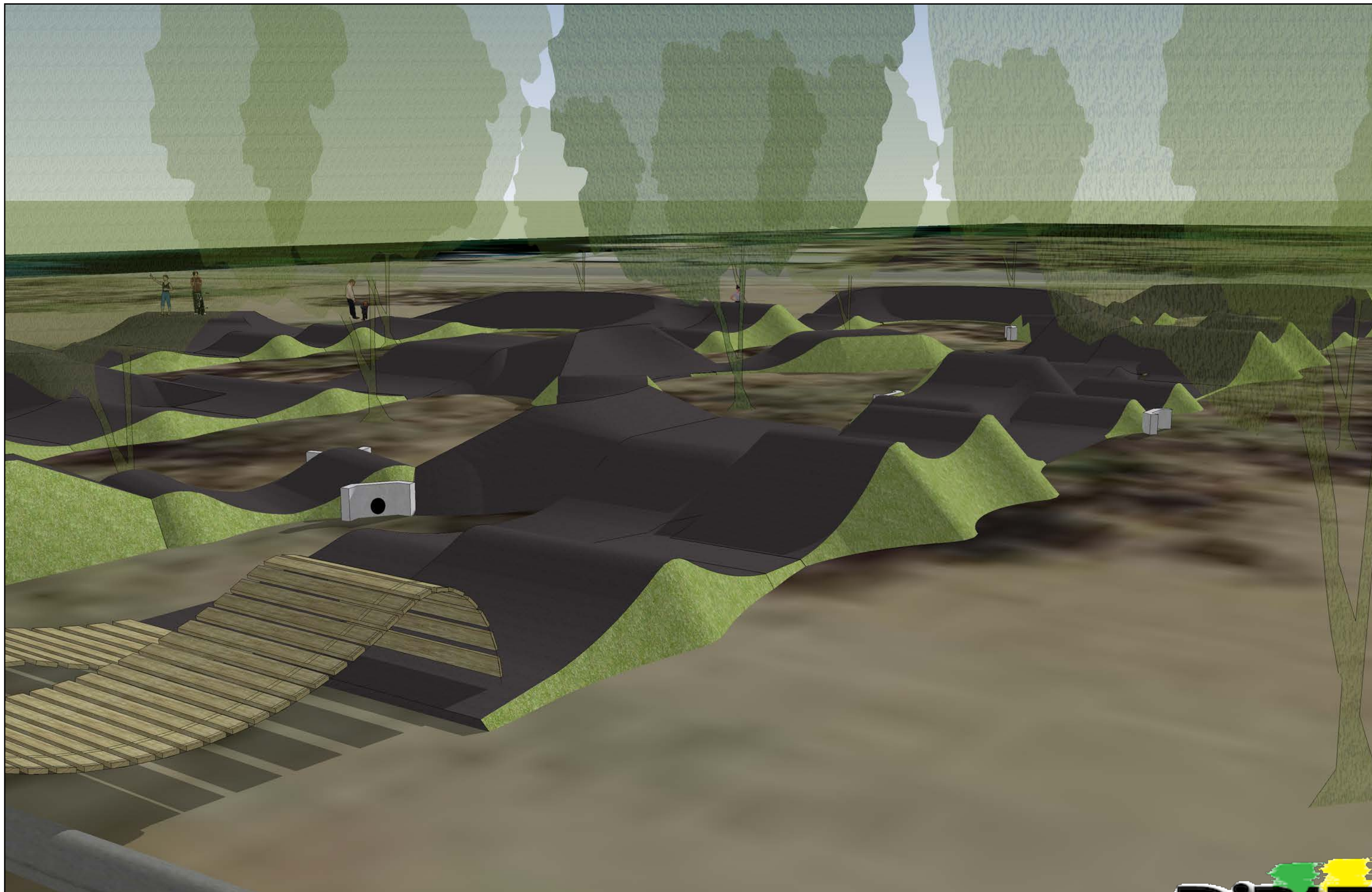
Concept ISO 3





Concept Ground view 1





Concept Ground view 2



Construction scope of works & specifications

1. Expected build time 3-4 weeks *

The proposed Kempsey Pumptrack can be built as a Stage 1 / Stage 2 project.

Stage 1; would see introduction of compactable VENM or ENM and subsequent shaping and finishing of the facility with this material.

A further layer of decomposed granite could subsequently be introduced over this base course to achieve a smoother more hard wearing finish.

Stage 2: Given sufficient funding a further layer of DGB would be introduced and compacted over the pumptrack facility, followed by emulsion layer and 30-40mm AC. This would provide a final wear course that required minimal longterm maintenance.

2. Labour / Personnel

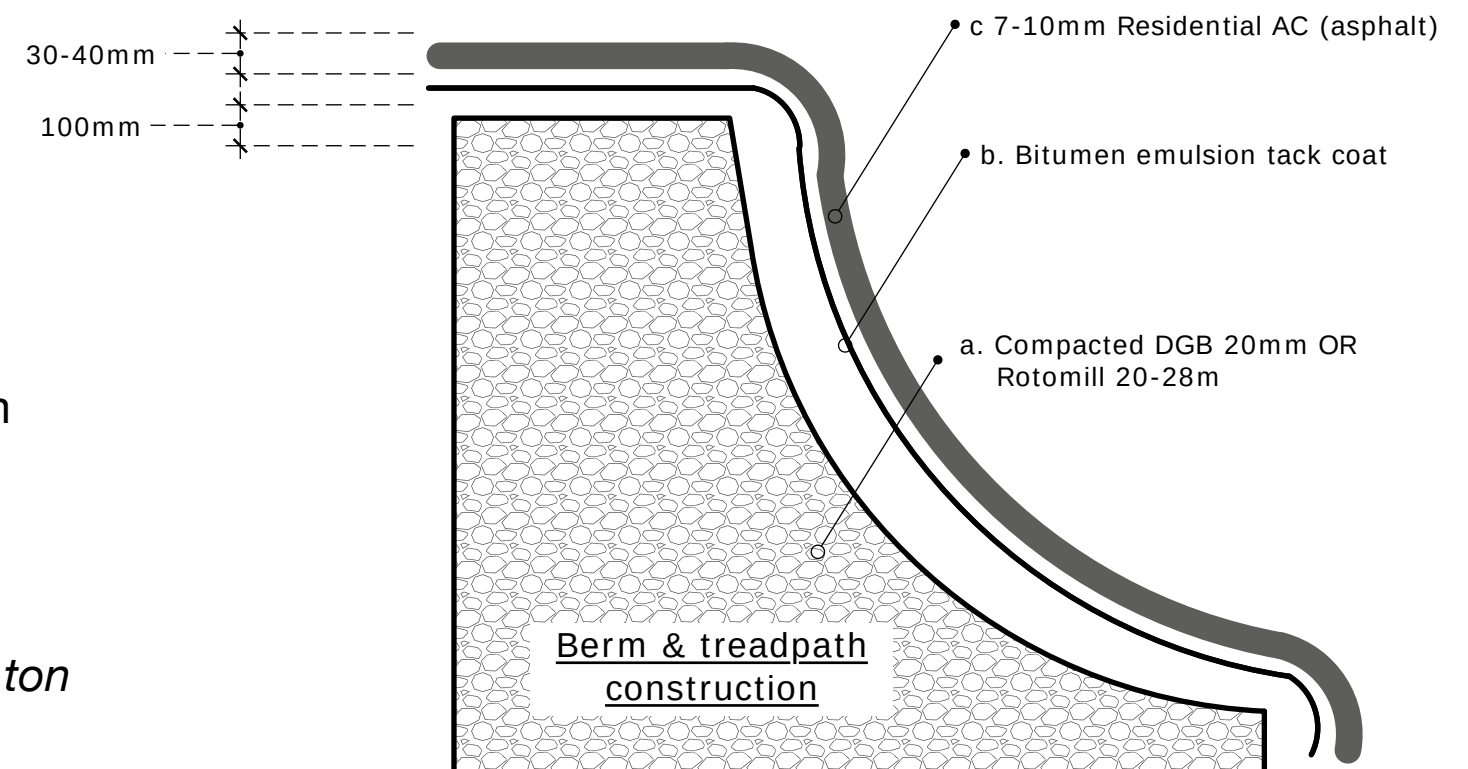
- ◆ Initial construction & shaping 21 x days
2 x Machine Operators
2 x labourers
- ◆ Asphaltting x 3 days **

2 x Machine Operators, (Dirtz/BMX tracks Australia)
Minimum 7 x Labourers
(Labourers should also be able to operate twin drum roller, compactor plates under supervision of experienced BMX track builder)
- ◆ Landscaping x 3 days

1 x Machine Operator
Minimum 3 x Labourers

3. Materials (based upon Kempsey Pumptrack Concept, Dirtz, 2020©)

- a. Base course: 100mm Roadbase, DGB20 OR Rotomill 20-28mm
compacted to 98%MDD - 1000-1200 ton
- c. Bitumen emulsion tack coat - 2L/M.Square
- d. Wear course: 30-40mm Dense residential Grade AC7 - 90-100 ton



Construction scope of works & specifications

4. Construction :

- a. Clear site of all green matter and level site where pumptrack is to be located.
- b. Introduce Base course to site
- c. Shape and compact base course.

Compaction to 98% modified A.A.S.H.L. to a minimum depth of 100mm, using an approved rammer or roller.

- d. Install drainage
- e. Test shapes and flow. Complete final roll and seal
- f. Place a 2-5mm tack coat of bitumen emulsion evenly over a thoroughly swept and prepared base. The emulsion shall be to AS 1160 and designation AMS/170-60 with care taken to ensure no overspray on to edgings and surrounding finishes.
- g. Over a set tack coat layer install 30-40mm residential grade AC7mm layer. Aggregate to be up to 7mm crushed blue metal.
- h. Finishing: Where possible a light hand roller should first be used to achieve desired shape and finishing. Following a lead compactor plate is to be utilised to achieve finish.
- i. Reinstatement works shall include but not be limited to:
 - Cleaning off foreign matter such as oil, bitumen etc.
 - Replacement of elements where required.



Construction scope of works & specifications

5. Plant Equipment, fuel and tools **

- | | |
|--|----------------------------|
| • Excavator 5t w/tilt | 3-4 weeks |
| • Positrac Skid Loader | 2-3 weeks |
| • Twin smooth drum roller (1.5-2 ton) | 1 week |
| • Compacter plates x 2 | 2 weeks |
| • Assorted hands tools | entire construction period |
| • Access to Water, 40mm hoses & fittings | entire construction period |

Assumptions:

- Water access arranged by customer

* Build time subject to suitable weather, material supply, equipment supply, water supply

6. Landscaping

No Landscape plan has been proposed at this time.
A combination of organic mulch and native grasses such as *Lomandra longifolia* would be proposed on all batters and non riding areas.

7. Retaining of Berms.

Not required for Kempsey pumptrack site



Darra Pumptrack
Brisbane, QLD

Construction scope of works & specifications

6. Drainage

Drainage from the closed loops of the pumptrack will entail a combination of open pipe and surface drainage. The outfall drainage will be towards the south of the site, incorporating grass and stone to achieve sediment capture.

- **Connecting drainage**

100mm PVC pipe (1% gradient)

trench backfill fine gravel/scoria

Header walls to match 100mm PVC at sides of treadpath

- **Surface drainage**

Geotextile membrane @ 1.5m width

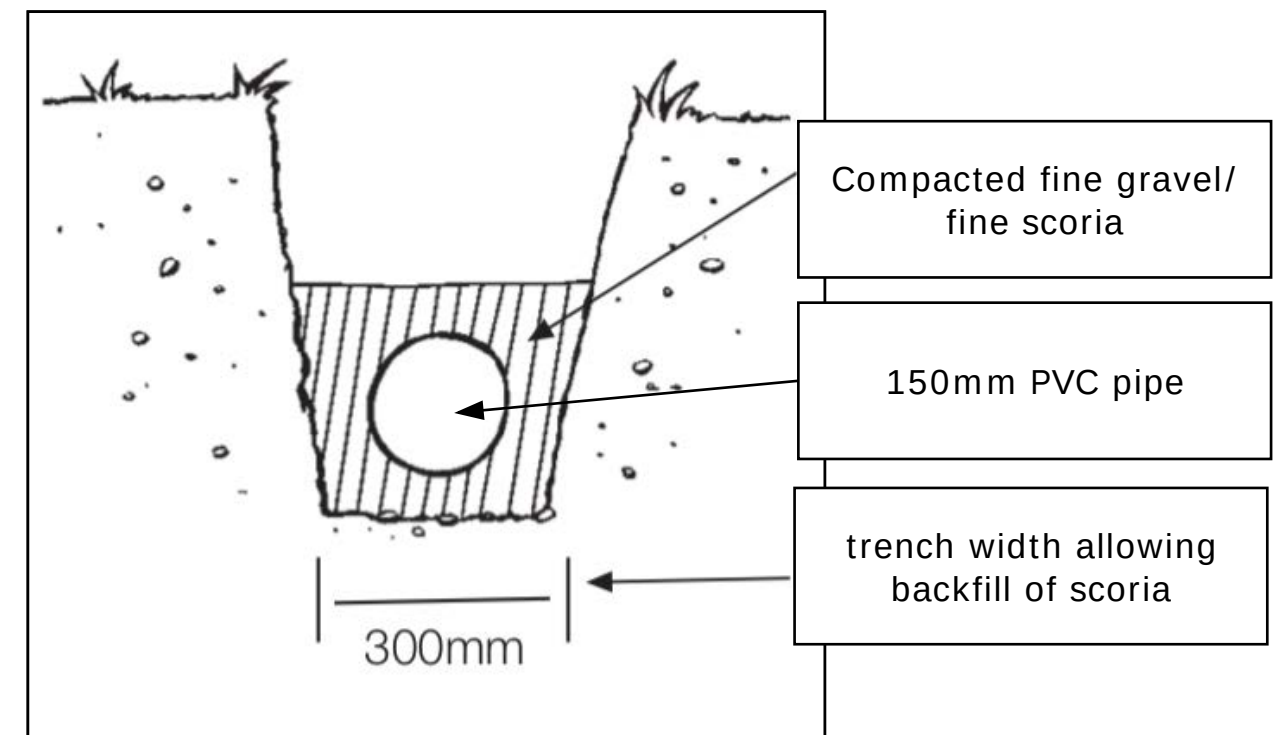
Where required:

Lucky stone (100-300mm) @ 2% gradient - *approx 5t*

- **Treadpath drainage**

singular tread paths will feature a 1% crown

joined tread paths will feature a 1% outslope

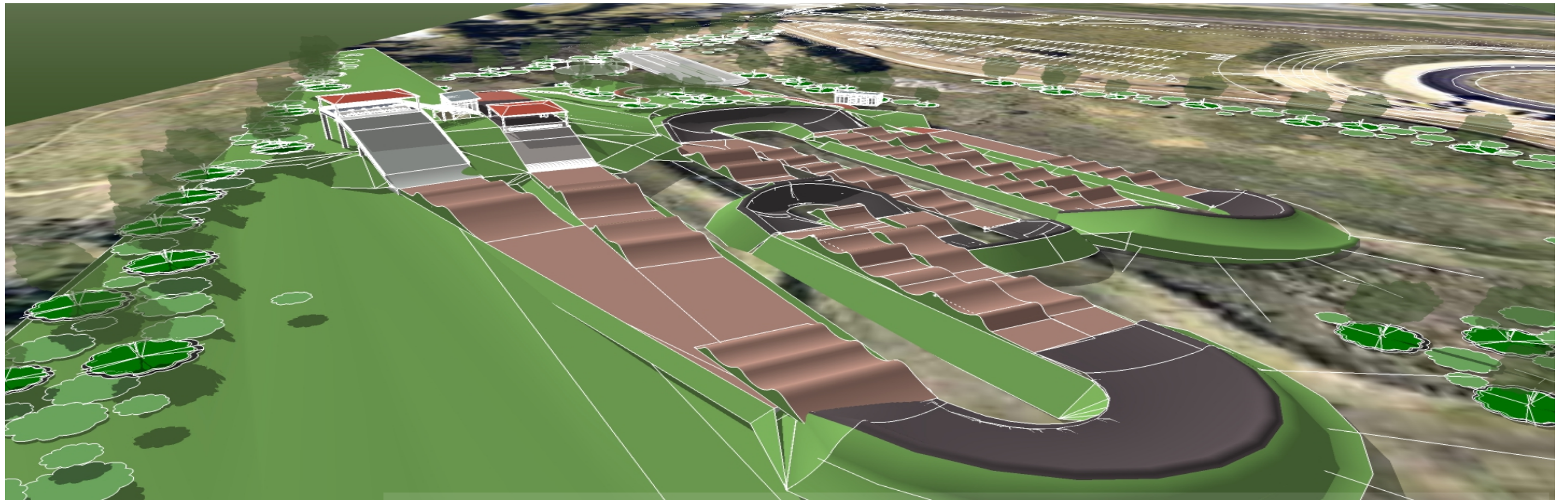


Darra Pumptrack
Brisbane, QLD
- Dirtz designed 2018



Land to be used for Bike track





Dirtz specialises in the design and construction of all off road cycling facilities.
...We do nothing else.



Draft Concept 1 - view 1 To date we have designed & built competitive and recreational mountain bike and BMX facilities all over Australia and Asia. Our advertising and self promotion is minimal as the good word of mouth from our many projects is more than sufficient to keep us busy. We believe this speaks volumes about what we do.

