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Developing Cost-Effective Track Surfaces

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RACE TRACK INDUSTRY PROGRAM

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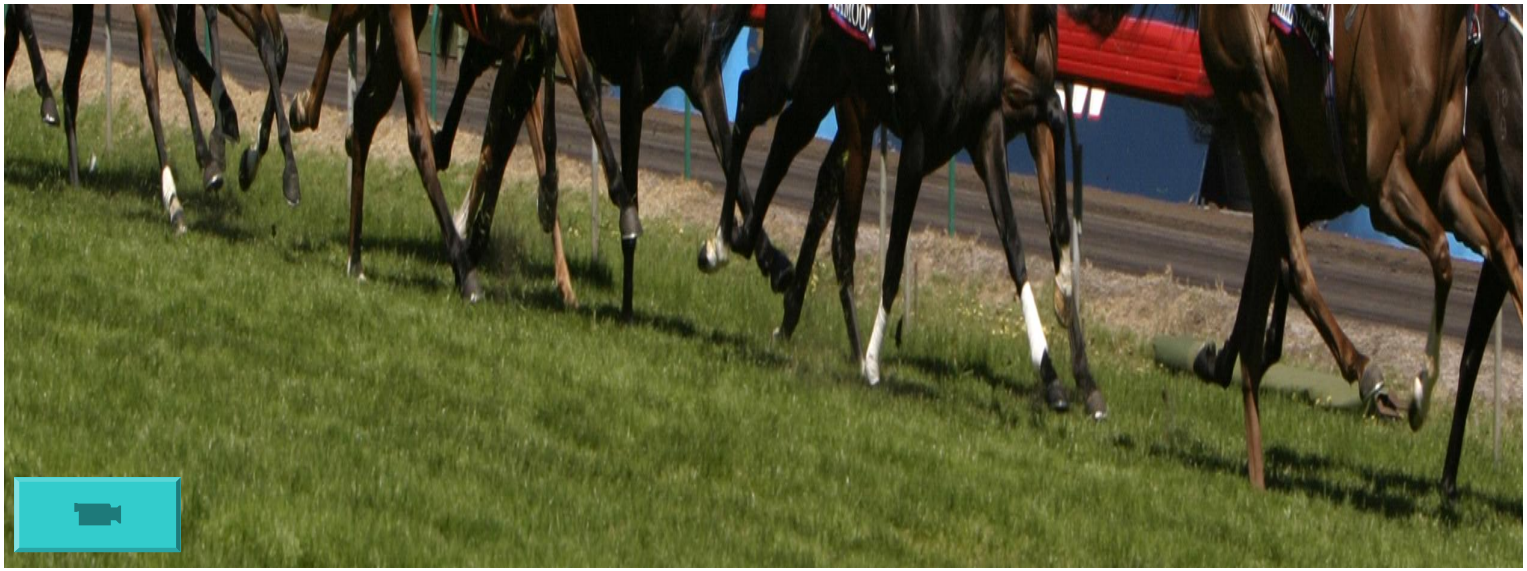

Laying the ThoroughTrack™ Surface

ThoroughTrack™ ready to ride

Up close to ThoroughTrack™

RVL have developed their own AWT ThoroughTrack™ due to…

- High cost of commercially available tracks.
- Lack of a transparently competitive marketplace meant limited choice of suppliers.
- Lack of performance guarantees / warranties.
- Variable performance / track record and longevity of suppliers.
- Once installed, locked in to ongoing maintenance costs for the life of the track .
- Ability to tailor track mix to meet specific geographic conditions.

Each Jurisdiction has its own story….

Various commercial pressures influence the evolution of track surfaces….

- **Weather**
- **Maintenance costs**
- **Horse welfare concerns**
- **Program flexibility**
- **Improving turnover and returns**

Or, some combination of the above

World wide use of non-turf tracks

- **In UK and East Coast USA consistent year round racing on turf is not achievable.**
- **Most ARF countries do have favourable weather conditions for Turf Racing but still race on synthetic surfaces.**
- **The driver for AWT racing in Asia particularly Australia is economic but also horse welfare benefits and water shortages.**

Non-turf racing commenced in the UK in 1989

- **Lingfield commenced in 1989 and successfully replaced Equitrack with Polytrack in 2001.**
- **Wolverhampton installed Fibersand in 1993 and in 2004 replaced it with Polytrack.**
- **Southwell Fibersand installed 1989 refurbished in 2004.**
- **Four more venues are planning to install AWTs for Racing in 2006.**

AWT Racing in the UK

- Gaining broad acceptance
- Growing popularity with jockeys and trainers.
- AWT Racing now represents 25% of flat fixtures (204 out of 804).
- Average field sizes on the AWT's has continually improved:

1995	1996	1997	1998	1999	2000	2001	2002	2003
9.85	9.87	9.65	9.88	10.26	10.57	11.42	11.69	11.52

In France and Europe

- Deauville commenced racing in 2003 on Viscoride.
- Pau and Cagnes-Sur-Mer use fibersand.
- European All-Weather Championship
  - Cagnes-sur-Mer (France)
  - Neuss (Germany)
  - Lingfield Park (UK) and
  - Jagersro (Sweden)

In USA

- Turfway Park the first track in USA to commence racing on a synthetic track.
- Follows the successful trial by Keeneland of a 1000m Polytrack for training.
- Influence of the weather has been negated during training in winter months.
- Fixture cancellations expected to reduce.
- Stakeholder feedback to date extremely positive.

In Asia

- The ThoroughTrack in Canberra the first synthetic track in Australia to be raced on
- In Australia most AWT's (ThoroughTrack and Viscoride) have been used for training only
- Singapore fibersand & turf racing
- Hong Kong turf & dirt racing
- Macau sand & turf racing
- Japan dirt & turf racing
- Korea sand/dirt racing

Surface cost comparison – 10 Years

Track	Install m^{2*}	Maint. m^2 pa	Refurb. m^2	Refurb. Freq.	Cost of Asset
Grass	$60	$4	Included in maintenance		$100
Sand	$2	$3	Included in maintenance		$32
Woodchip	$4	$6	$4	3 years	$77
USA Dirt	$50	$7	$2	1 year	$140
Viscoride	$64	$2	$3	1 year	$114
ThoroughTrack	$44	$2	$3	3 years	$74

*** Excludes the cost of base works, irrigation and construction**

AWT measurement techniques

- **Hardness – measured in Gravities**
- **Sheer Strength – measured in kg-f**
- **Moisture – volumetric percentage**
- **Temperature**
- **Mode – most common measure recorded**
- **LSD – least significant difference**
- **Cu – Coefficient of Variation**

Results

- **Hardness**
  - **Grass & ThoroughTrack** — **60-90 gravities**
  - **Sand** — **110-150 gravities**
- **Sheer**
  - **Grass** — **45-55 kg-f**
  - **ThoroughTrack** — **15-25 kg-f**
  - **Sand** — **0-10 kg-f**
- **Coefficient of Variation**
  - **Grass** — **85-90%**
  - **ThoroughTrack** — **80-90%**
  - **Sand** — **60-75%**

Key issues for the US market

- **Understand how AWTs are used in other parts of the world and their limitations**
- **Critically review track utilisation levels – very different in US to elsewhere**
- **Be conservative about asset life and refurbishment frequencies**
- **Just replacing dirt with synthetic may prove to be too simplistic**

The Future Landscape

- **The product will quickly become demystified**
- **Market will rapidly mature as product knowledge and experience increases**
- **At the same time brand values and margins will diminish**
- **Trend will be away from proprietary products and into custom design services**
- **The real power in the future will lie with those who have design and performance measurement methodologies and can deliver it!**