Does Your Roundabout Waltz?

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Garland, TX

Patrick McGrady
Rachel Price
Roundabout Strengths - Efficiency
Roundabout Strengths - Safety

Data courtesy of NCHRP 572 - Slide courtesy of ACHD

Much safer.

crashes

injury

Much safer.
Geometric Elements
For Practical Design

Roundabouts: An Informational Guide, FHWA
Blending Elements
For Fluid Design
THE DANCERS

PEDESTRIANS

AUTOS

BICYCLES

TRUCKS
You must model reality.
Two Left Feet: Pedestrian Complications
Two Left Feet: Pedestrian Complications
Ungraceful: Bike Ramp
Bike Ramps
(Ocean Shores, WA)
Vehicle Steps to Avoid: Angle Points
Vehicle Steps to Avoid: Tiny Arc Lengths
Steps to Avoid: Camelbacks
(Single Lane RB)
Steps to Avoid: Path Overlap
Steps to Avoid: Weaving in RB
Steps to Avoid: Roadway Surprises!

Zack Matley, W-Trans
Steps to Avoid: Unexpected Braking
Dance Rules:
Curbs Lead
Graceful: Entry Radius & Arc Length
Case Study #1 – “Brake” Dance
Case Study #1 – Waltz
Case Study #1 – Waltz
Case Study #2
Case Study #2 – “Brake” Dance
Case Study #2 – Waltz
Case Study #3
Case Study #3 – “Brake” Dance
Case Study #3 – “Brake” Dance
Case Study #3 – “Brake” Dance
Case Study #3 - Waltz
Benefits of the Waltz

• Good Speed Control
• Proper Deflection
• Fluid Drive Paths

Produces a safe and efficient roundabout for all users (vehicles, bicycles, pedestrians).
QUESTIONS?????