Roundabouts
The Responsible Solution

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Geography of Reasoning
Purpose

- Policy Guidance
- Less Technical
- Critical Conclusions
- Reality Check
Target Audience

• Canada & US
• All levels of government
• Development industry
• Insurance industry
• General public
Refined Idea

- Extensive History
- Abandoned for Signals
- Significant Research
- New Pioneers
“Modern” Roundabout - Latest Refinements
Responsible Evaluation

- Safety of All Modes and Users
- Legal
- Environmental (Air and Noise)
- Aesthetic
- Life Cycle Costs
- Planning Context
Safety - Vehicle

- Statistically Proven
- North America
  - Not That Special
  - US Studies
- Fully Supported By Technical Bodies
- Insurance Industry
Insurance Industry Support

- Insurance Institute of Highway Safety
- State Farm Insurance
- Insurance Corporation of British Columbia
Provincial/State Medical Costs

- Fewer accidents
- Lower severity
- Lower costs

- Up front costs promote Health Care rather than Sick Care
Legal

- Informed Decision
- Professional Responsibility
- Social Responsibility
Environmental

- Kyoto Protocol
- Clean Air Act
- San Joaquin Valley

A roundabout with 25,000 daily entering vehicles can reduce the annual fuel consumption by 227,000 litres compared to a signalised intersection.
Planning Context

- Commuter Route
- Bus Route
- Truck Route
- Bike Route
- Schools
- Multi-family Residential
- Commercial
- Large Grocery Store
- Sports Field Complex
- Nearby Government Complex
Economic:
- Initial Cost Varies
- Longer Replacement Life
- Low Maintenance Cost
- Self Regulating During Fluctuations
- Superior Life Cycle Costs
- Intangibles
### Economic

#### Figure 4: Cost Estimates for Single Lane Roundabouts and Signals at Howard Intersections

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Costs for Roundabouts</th>
<th>Costs for Signals</th>
<th>Savings with Roundabouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardinal/Glendale</td>
<td>$115,000</td>
<td>$250,000</td>
<td>$135,000</td>
</tr>
<tr>
<td>Cardinal/Woodale</td>
<td>$179,300</td>
<td>$313,000</td>
<td>$133,700</td>
</tr>
<tr>
<td>Woodale/Velp</td>
<td>$190,700</td>
<td>$445,000</td>
<td>$254,300</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$485,000</strong></td>
<td><strong>$1,008,000</strong></td>
<td><strong>$523,000</strong></td>
</tr>
</tbody>
</table>

Source: Brown County Highway Department
May 22-25, 2005 Roundabouts - Linear Thinking

Responsible Conclusion

- Philosophy Must Include:
  - Superior Safety Elements
  - Sustainable Design
  - Economic Sustainability
  - Environmental Conscience
  - Flexible Planning Tool

E - MC^3

CIRCULAR MOTION = LINEAR THINKING

National Roundabout Conference 2005 DRAFT
Next Step for You?

• Get the **Facts. Know the Facts.**
• Commit to a Positive Philosophy
• Implement Philosophy Not Design
• Dispense Knowledge
• Take It To The Streets
• Enjoy a More Sustainable Environment
Questions????

Where can I.....?

You’re full of…!!!

Huh?

Did you say....?

What about.....?