Georgia Department of Transportation

Statewide Mainline Weigh in-Motion

The Most Underappreciated, Innovative, High Benefit-Cost Ratio Project You Never Thought to Care About

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Topics

- WIM Background
- Why the Need?
- Project Evolution
- Results

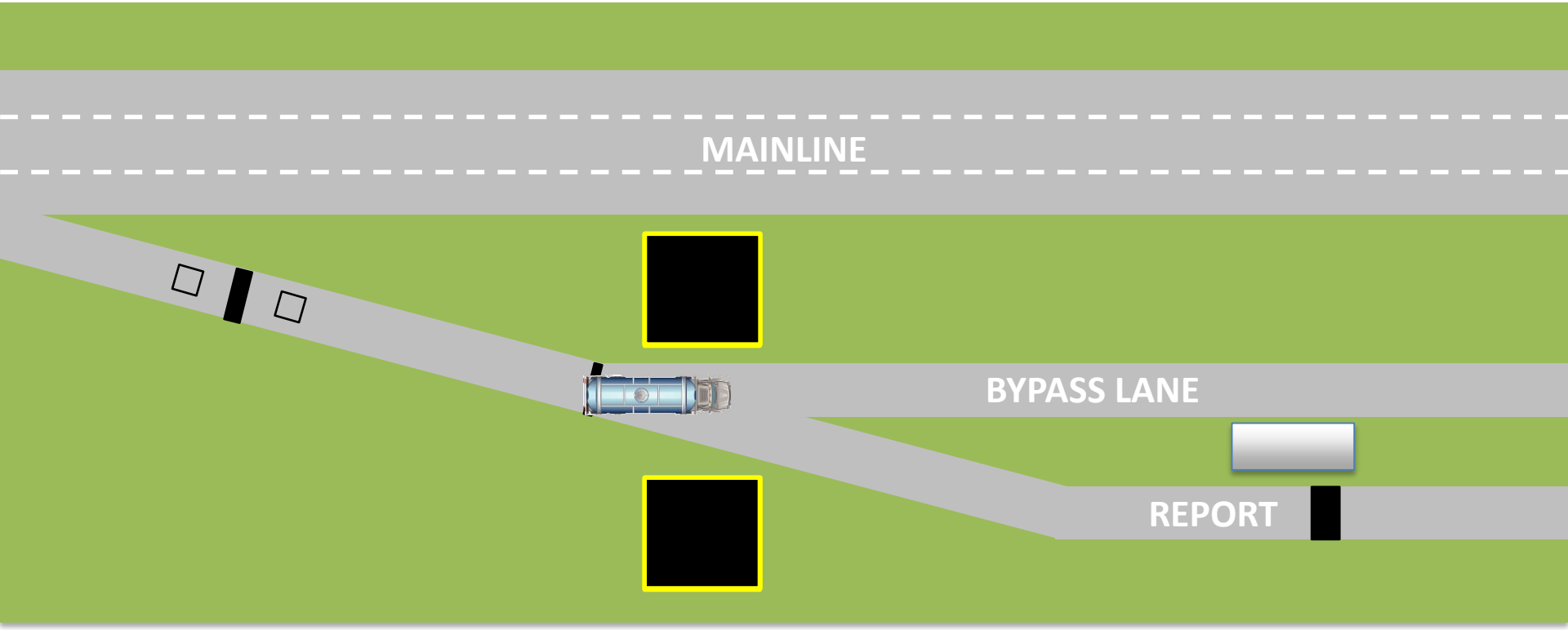
Background

- Semi-portable scales moved randomly throughout state - manned by civilian, GDOT staff
- Ramp WIM and Scales Houses began construction in late 1970s

Background

- 2007 – Preclearance systems introduced
- 2009 – Douglas Mainline WIM

How Does It Work?



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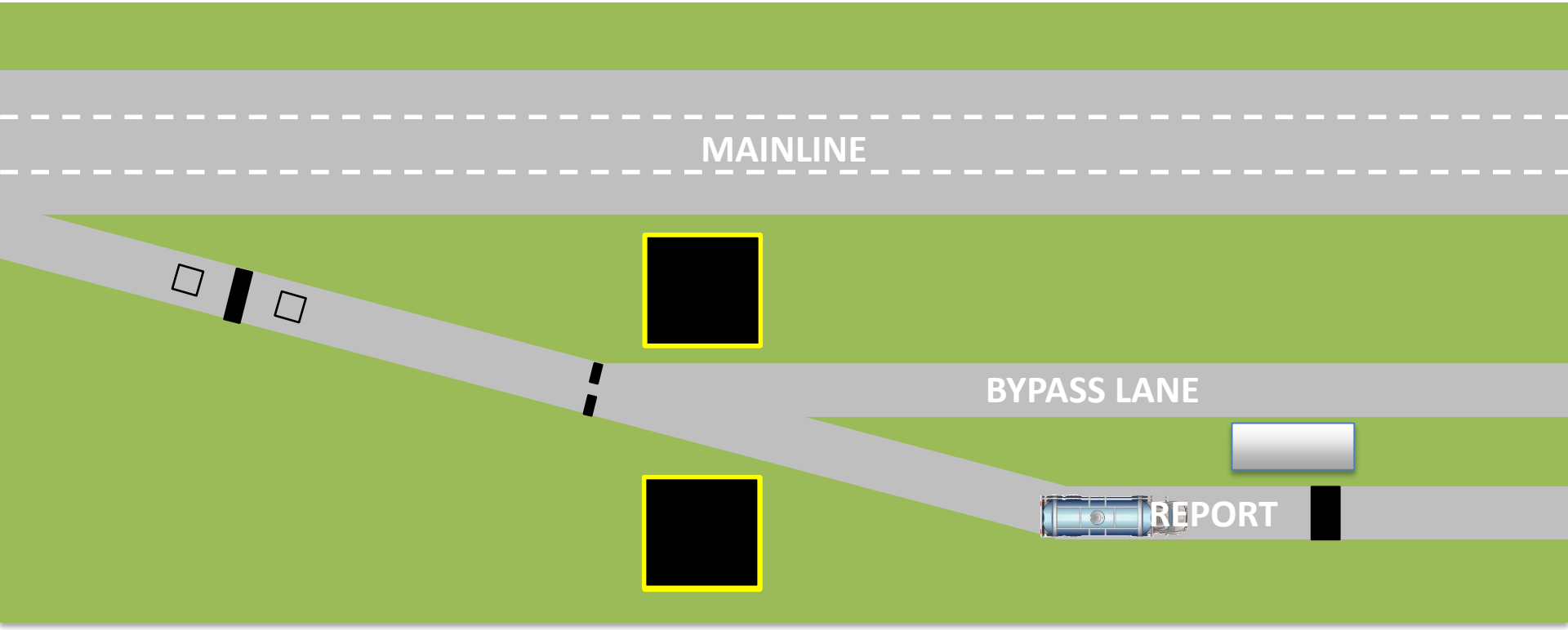

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Why the Need?

- Preclearance Problems
- Desire to regain CVISN compliance

Project Evolution

- Addressing Each Stakeholder's needs

Stakeholder	VWSS Needs
Traveling Public	Ensure a safer operating environment
Motor Carriers (Georgia Motor Trucking Association)	Notification, location data, citation data
GDOT Permits and Operations Division	Oversize/overweight permitting enforcement - screening decisions - screening algorithm - motor carrier safety records - performance/compliance history
Office of Traffic Operations	Integration and traffic monitoring traffic condition monitoring - volumes, speeds, weather etc.
GDOT Office of Transportation Data, Office of Materials, Office of Design, Office of Planning	Traffic data collection - volume, speeds, axle weight, classification
GDOT IT	Integration, data dictionary
Georgia Department of Public Safety (DPS) - Motor Carrier Compliance Division (MCCD)	Enforcement and communication with DPS: - real time screening decisions - real time vehicle and driver information - real time vehicle location data
Federal Motor Carrier Safety Administration (FMCSA)	Communication with FMCSA's SAFER program, CVISN compliance
FHWA	Bridge formula weights compliance - regular reporting (monthly)
Third Parties (PrePass, ProMiles, DriveWyze, etc.)	Notification, screening data, location data, citation data

Project Evolution

Stakeholder	Needs
Traveling Public	Safer operating environment
Georgia Motor Trucking Association	Notifications, location data, citation data
GDOT Permits and Operations Division	Oversize/overweight permitting enforcement, screening decisions, screening algorithms, motor carrier safety records and performance/compliance history
GDOT Office of Traffic Operations	Integration and traffic monitoring - volumes, speeds, weather etc.
GDOT Offices of Transportation Data, Materials, Design, and Planning	Traffic data collection - volume, speeds, axle weight, classification
GDOT/DPS IT	Overall system integration and appropriate bandwidth
Georgia Department of Public Safety (DPS) - Motor Carrier Compliance Division (MCCD)	Enforcement and communication with DPS - real time screening decisions, real time vehicle and driver information, real time vehicle location data
Federal Motor Carrier Safety Administration (FMCSA)	Communication with FMCSA's SAFER program, CVISN compliance
Federal Highway Administration (FHWA)	Bridge formula weights compliance – monthly reporting
Third Parties (PrePass, ProMiles, DriveWyze, etc.)	Notification, screening data, location data, citation data

Project Evolution

System Requirements:

1. Mainline WIM System
2. AVI System Interface
3. Mainline Lane Control System (LCS)
4. Imaging System
5. Station Computer System
6. Data Collection System

Project Evolution

Current Screening and Sorting:

1. Weight
2. Dimensions (height and length)
3. Imbalanced loads
4. Axel spacing

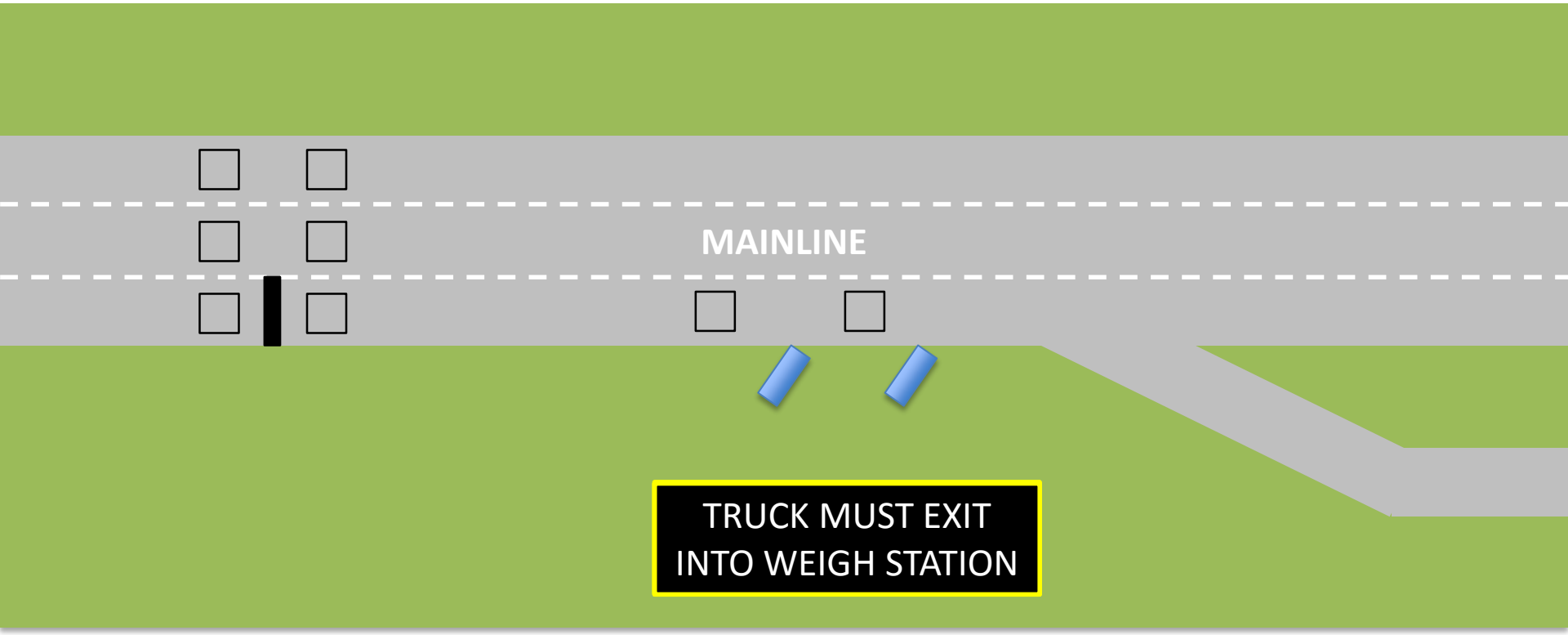
Future Screening and Sorting:

1. **Exceeding speed limit**
2. **Specialized vehicle classifications**
3. **Driver Credentials**
4. **Driver Safety Records**
5. **Specific License Plates**
6. **Random Selection**

Project Evolution

Informing Drivers

- Double DMS
- In-cab transponders using:
  - PrePass
  - Drivewyze



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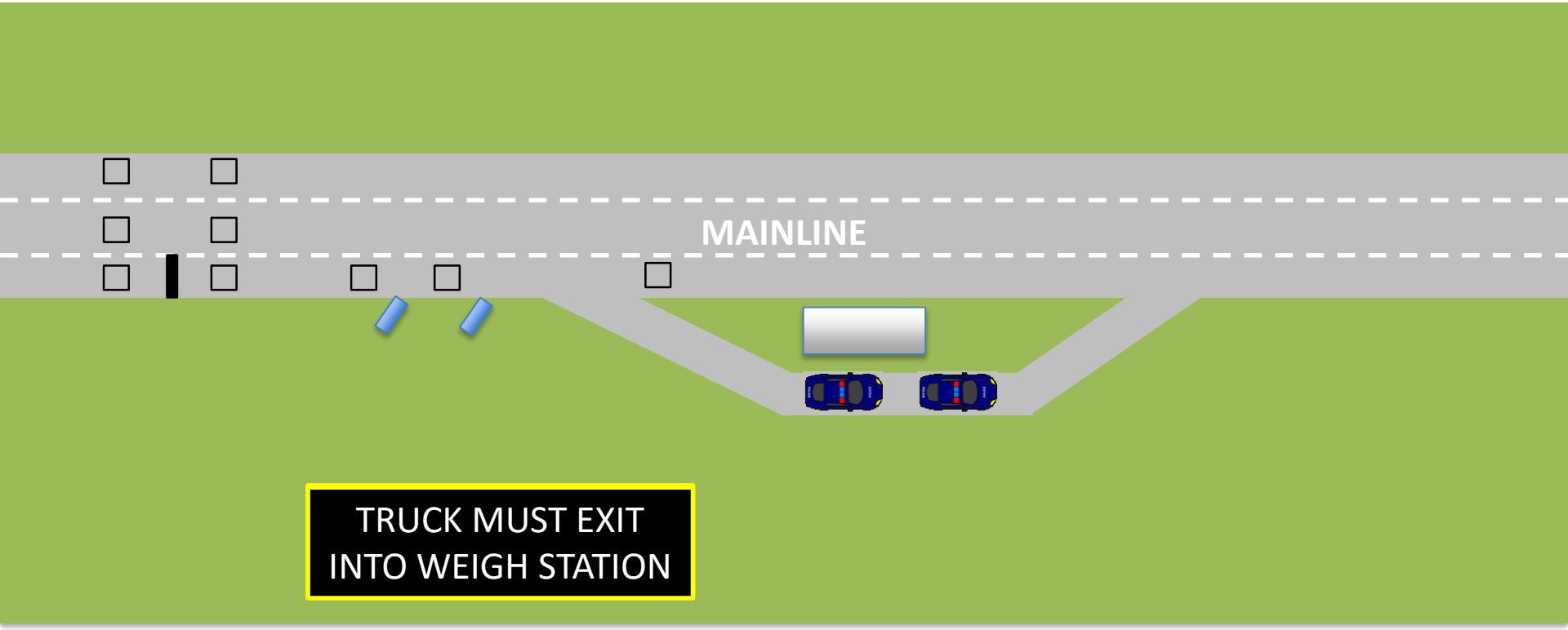

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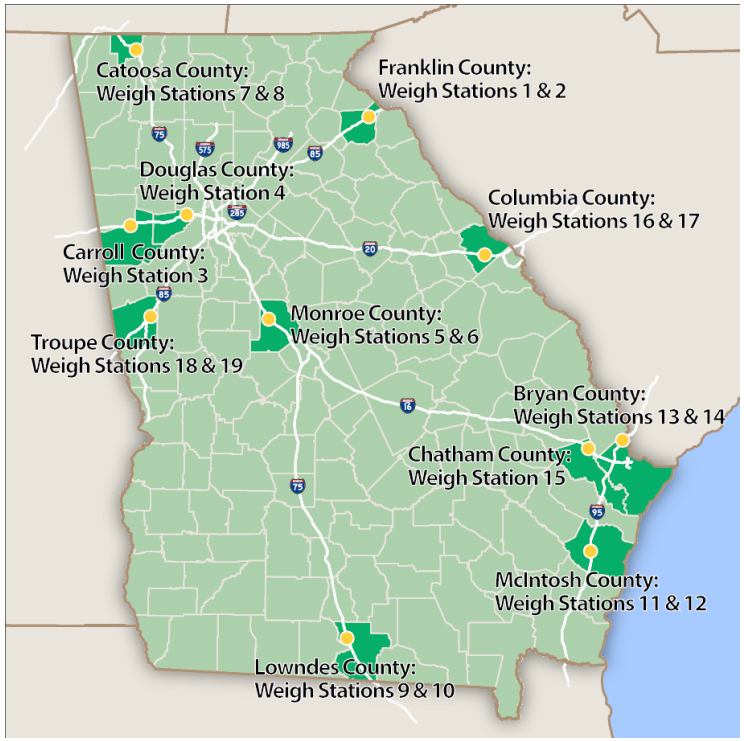
Results

- $30 million dedicated over 6 years
  - Potential for different vendors – not like other ITS devices, WIM is very much proprietary technology
- Single Procurement:
  - Saves money (estimated at $3,000,000)
  - Eliminates need to work with potentially 6 different technologies
  - Project to be complete by 2016 (4 years early)
  - GA's 1st Best Value, Design-Build-Maintain contract



Results

- Increased driver safety
- Decrease in overweight vehicles
- Expected to save trucking industry over $150,000,000/year
  - B/C ≈ 40:1

Questions?

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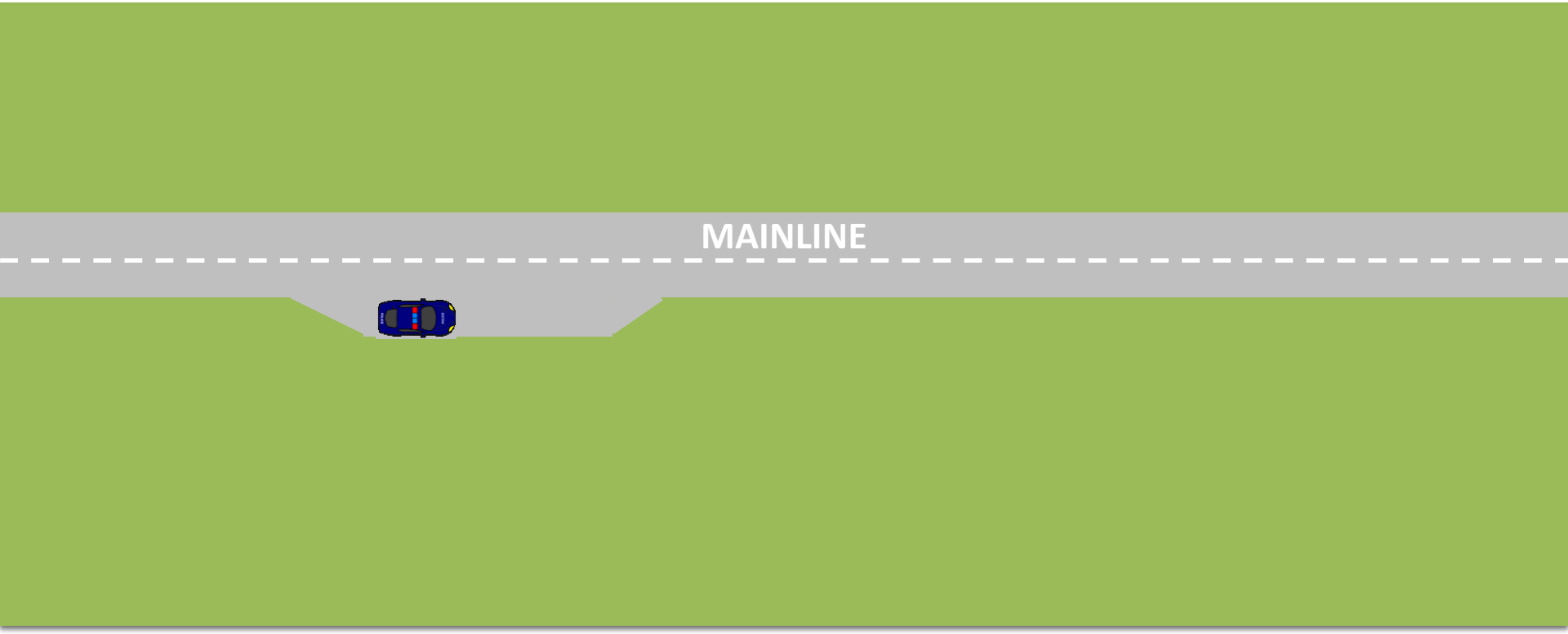
Virtual WIM



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