



Improving Transportation Through  
Innovative Engineering



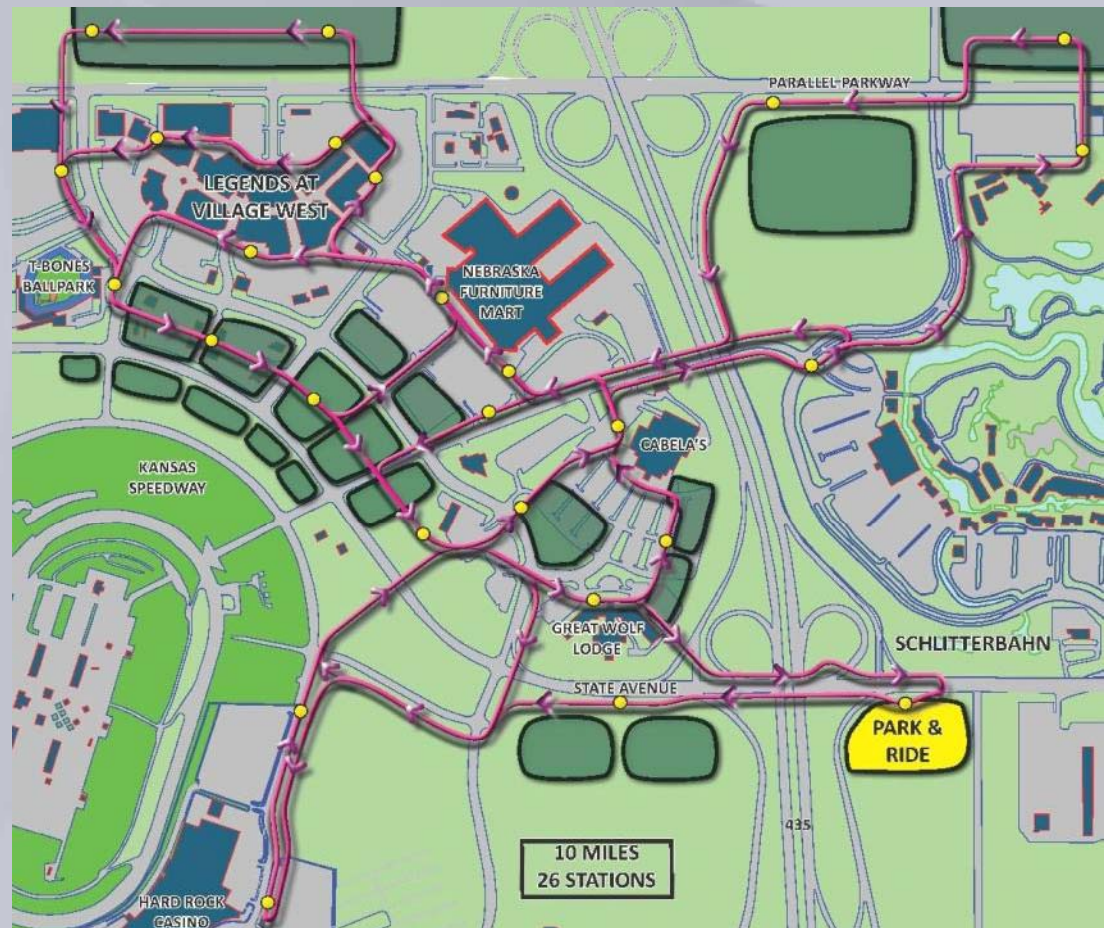
# PRT Consulting, Inc.

## Qualifications, Capabilities & Experience



# Outline

- Core values
- Key staff
- Capabilities
  - Services offered
- Experience
  - Key projects
- Why we are unique



A collage of four circular images: a bridge at sunset, two men in business suits talking, a train, and a yellow excavator at a construction site.

# Core Values

- Dedicated to improving transportation through innovative engineering
- Committed to providing personalized, responsive service resulting in smoothly executed projects
- Focused on consulting services for personal rapid transit (PRT)
- History of finding solutions to problems thought intractable by others

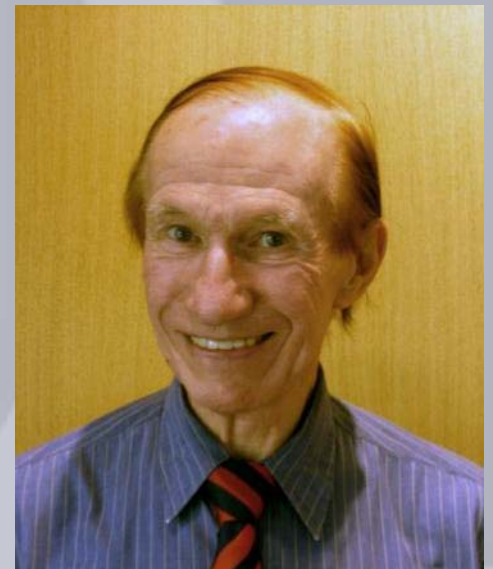
# Key Staff

- Peter Muller, P.E., President
- Bachelor's (summe cum laude) and master's degrees in civil and environmental engineering
- Over 30 years of civil engineering and planning experience in transportation including roads, freeways, airports, railroads
- Ten years PRT experience



## Key Staff (2)

- Raymond MacDonald, P.E.,  
Consultant
- Worked for two different PRT  
vendors
- Responsible for all aspects of PRT  
design and planning
- 500-page book, titled “21<sup>st</sup>  
Century PRT”



## Key Staff (3)

- Prof. Ingmar Andréasson, PhD, Consultant
- 20 years of experience in PRT systems design, control and modeling
- Developed PRT modeling suite which has been applied in over 30 locations in Europe and the Middle East



## Key Staff (4)

- Nick Ford, Consultant
- 40 years experience in product development and business strategy
- 5 years PRT experience



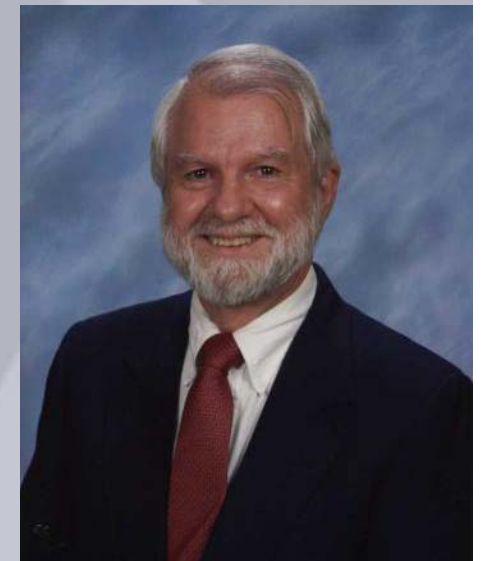
## Key Staff (5)

- Marek Kubesa, Senior Project Manager
- Bachelor's degree in civil engineering
- More than ten years experience in land development and airports
- Five years PRT experience



## Key Staff (6)

- William A. Wilde, P.E.,  
Consultant
- Well versed in traffic engineering for bus and light rail transit surface operations in congested urban areas, pedestrian facility design, and in regional transportation planning
- PRT experience in Seattle and Chicago



## Key Staff (7)

- William Smith, Consultant
- More than 15 years experience in simulation, modeling and controls with specialties in automotive powertrain system design and modeling
- 2 years PRT experience



# Capabilities

- PRT consulting assists owners deal with issues such as:
  1. Public concerns/participation
  2. Costs vs. benefits
  3. Capacity
  4. Weather impacts
  5. Scalability
  6. Funding/financing
  7. Vendor capabilities



# Services Offered

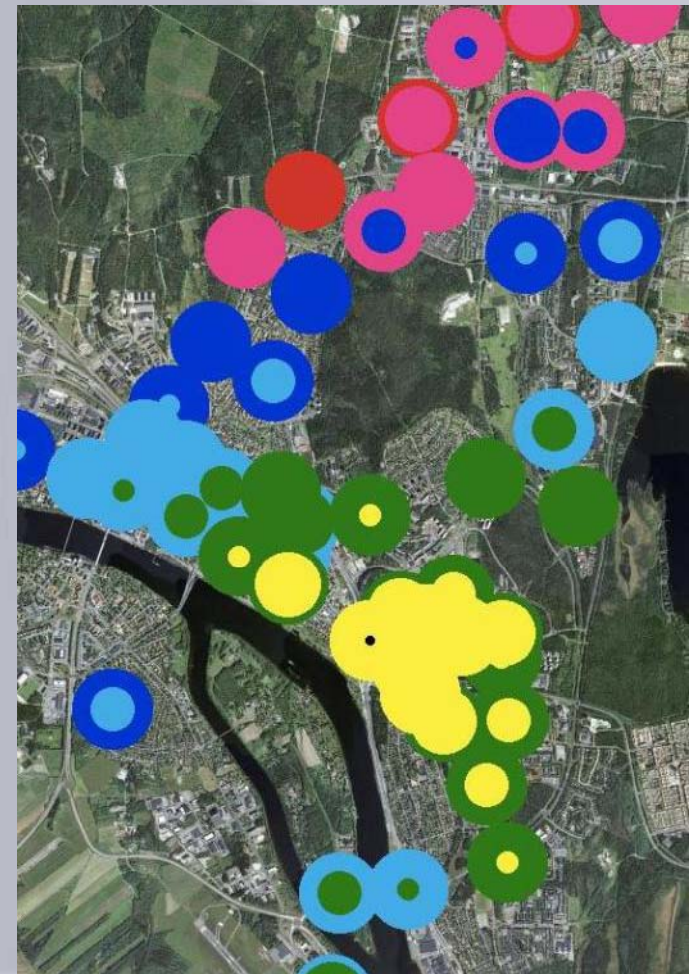
- Planning
- Public participation
- Simulation/verification
- Engineering
- Facilities design
- Contract management
- System implementation
- Program management



*Related to PRT*

# Planning

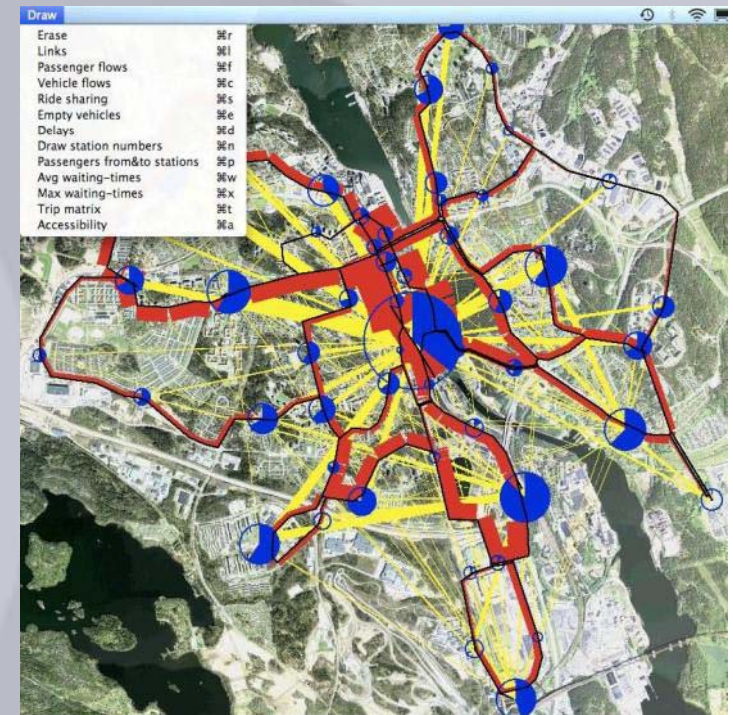
- Community participation
- Feasibility studies
- Environmental assessment
- Alternatives analysis
- Benefit/cost analysis
- Technology assessments
- Ridership demand
- Operations analysis





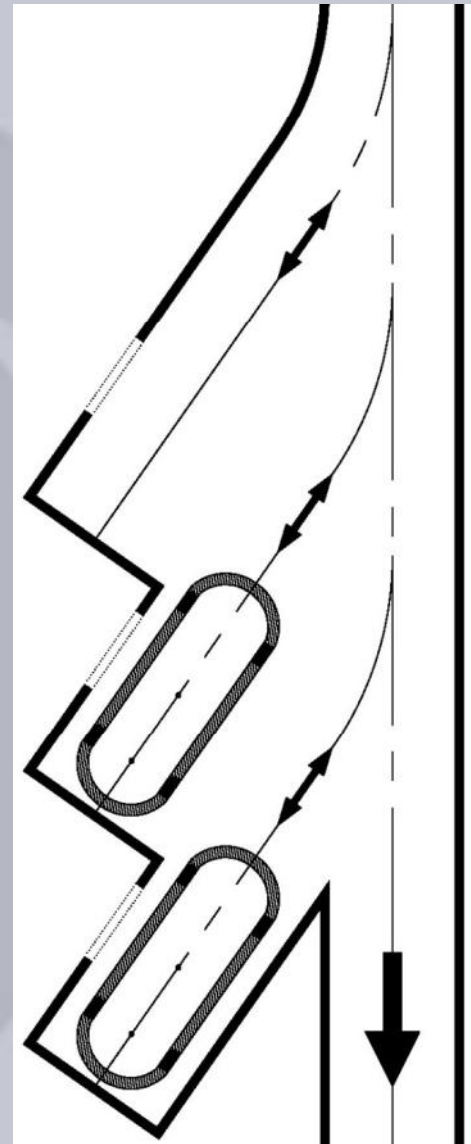
# Simulation/Verification

- PRT station simulation
- PRT systems simulation
- Scalability verification
- PRT comparison analysis
- Operational characteristic development
- Trip demand matrix analysis
- Verification reporting



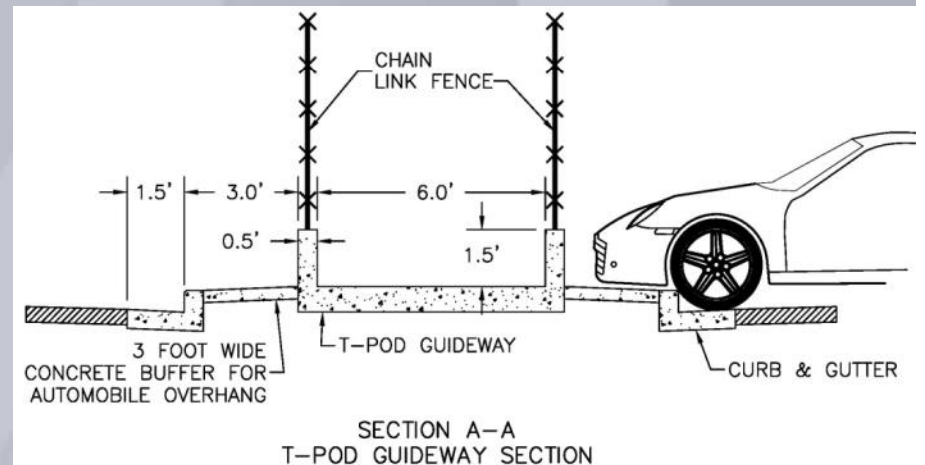
# Engineering

- Preliminary design
- Constructability reviews
- Vehicle design
- Control/communications systems
- Safety analysis and certification
- Value engineering
- Incident investigation
- Reliability, availability & maintainability analysis
- System integration



# Facilities Design

- Conceptual design
- Preliminary engineering
- Final design
- Facilities design criteria
- Guideway alignment and alternatives analysis
- Station layout



# Facilities Design (Continued)

- Architectural design
- Graphics and signage design
- Operational simulations
- Interfaces with other facilities/systems
- Fleet, capacity and services analysis
- Facility requirements, locations and concepts



# Contract Management

- Procurement strategies
- Proposal solicitation
- Tender solicitation documents
- Results-based technical specifications
- Contract documents
- Supplier proposal evaluation and selection recommendation



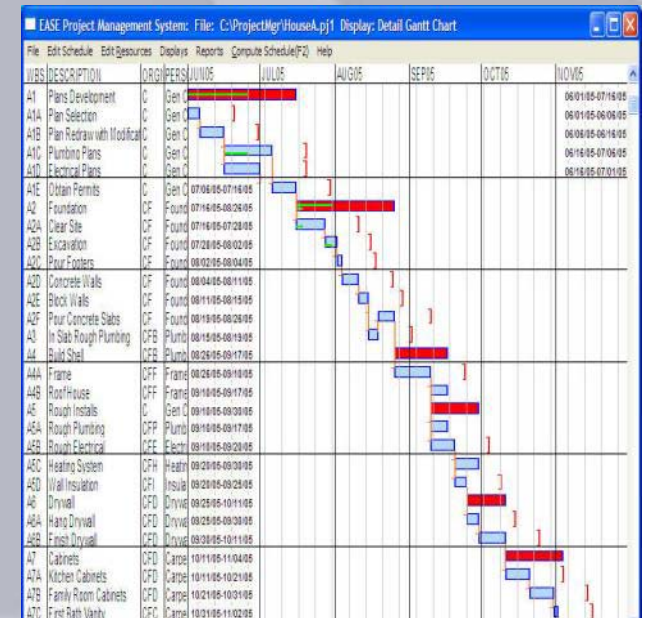
# System Implementation

- Design review
- Manufacturing inspection
- Construction inspection
- Quality testing
- Installation oversight
- Test plans, procedures and witnessing
- Operations and maintenance oversight
- Performance compliance & improvement



# Program Management

- Strategic planning
- Financial management
- Scheduling
- Budgeting
- Team member management
- Conflict resolution



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# Experience

- In addition to PRT
  - runways, taxiways, terminals, aircraft parking aprons, roads, freeways, parking lots and railroads.
- Client list includes airports, universities, counties, state departments of transportation, consultants, developers and PRT vendors.

# Selected Projects

- PRT Safety & Security Research
  - Kansas Department of Transportation
  - Safety & security research of an automated small vehicle transportation system on a university campus
  - Evaluation of threats & vulnerabilities as well as means of mitigation

Finding: PRT is about 100 times safer than conventional modes

## Selected Projects (2)

- Conceptual PRT Feasibility Analysis
  - Large US Airport (confidential)
  - Feasibility of a PRT system linking 2 long-term parking lots to terminal
  - Preliminary guideway routing & station locations
  - Capital & operating cost comparisons



## Selected Projects (3)

- Adverse Weather Testing
  - PRT Vendor (confidential)
  - Full-scale testing on elevated and at-grade track
  - Natural & manufactured precipitation
  - Determination of dynamic friction
  - Evaluation of mitigating measures



# Selected Projects (4)

- PRT Vendor Comparison Study
  - Confidential client
  - Analysis of business and technical capabilities of 4 PRT vendors

Vectus



Taxi 2000



2getthere

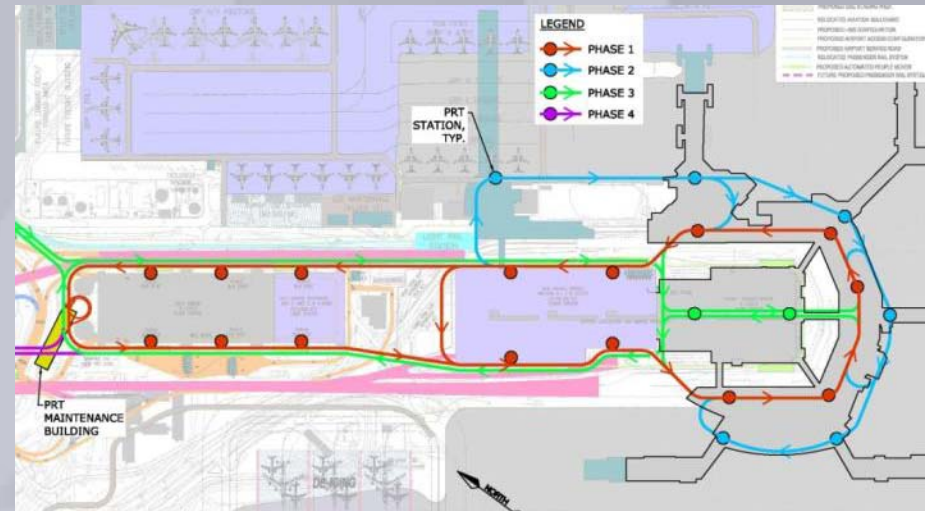


ULTra



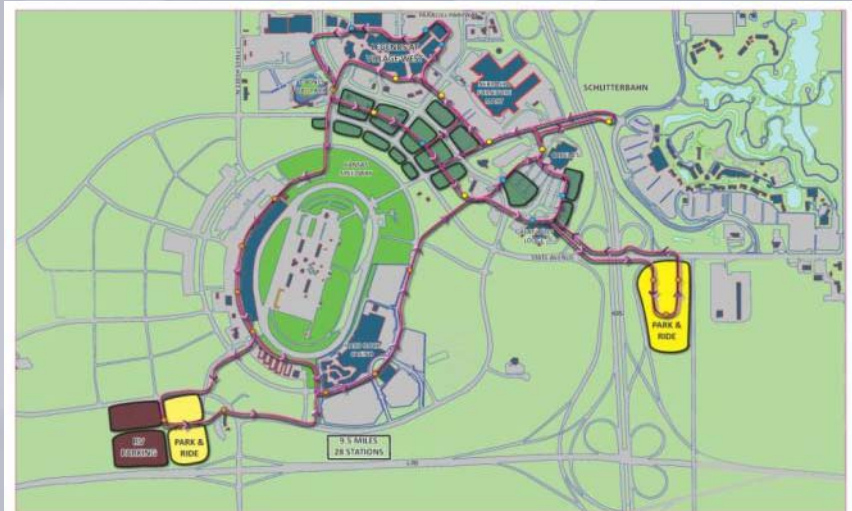
# Selected Projects (5)

- Airport Master Plan PRT Analysis
  - Maryland Aviation Administration
  - Overview of leading PRT systems
  - Four-phased PRT system
  - 3.6 miles of dual-lane guideway, 7.7 miles of single-lane guideway, 37 stations, 60,000 daily passengers



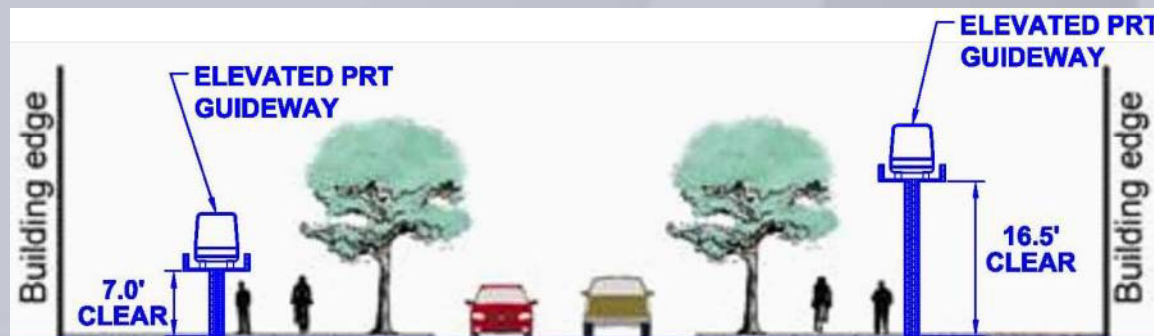
# Selected Projects (6)

- Automated Small Vehicle Transport Study
  - Kansas Department of Transportation
  - PRT linking retail businesses, speedway, ballpark, casino, water park and transit
  - 5M annual passengers,  
10 miles of guideway,  
26 stations



# Selected Projects (7)

- Army Post PRT Feasibility Study
  - Stakeholder & public participation
  - Alternatives analysis, trip demand matrices, simulations, benefit/cost analyses, financial modeling
  - 19.5M annual passengers, 23 miles of guideway, 35 stations, 800 T-Pods



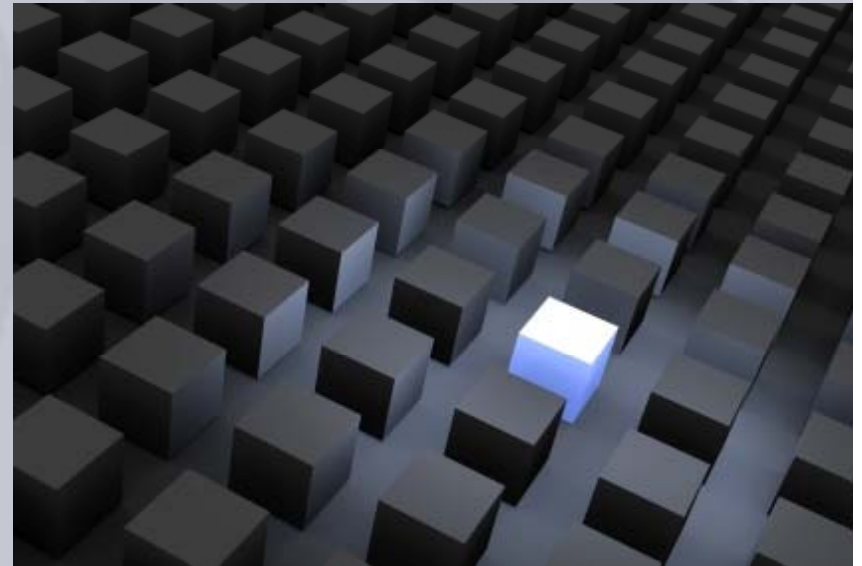
# Selected Projects (8)

- Army Post PRT Feasibility Study Ph. II
  - Expansion into surrounding cities
  - 115 miles of guideway, 227 stations



# Why We Are Unique

- The only consultancy of professional engineers & planners specializing in PRT
- Independent of all PRT vendors
- Our own simulators provide vendor-neutral results





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# Contact Information

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