ViewPoints :: Profile in Transportation

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www.roosdesign-consulting.com

GIS Consulting
New Media

Transportation Planning Solutions

(847) 635-4752

Public Transit Case Study

System accessibility to the disabled population as defined in the Americans with Disabilities Act.

Transportation Services

Moving people with transit, one of the most critical elements in maintaining the U.S. economy, falls on the shoulders of Transit Authorities, Metropolitan Planning Organizations, Departments of Transportation and Private Providers of transit services.

The use of Geospatial Technologies are allowing these organizations to plan and provide services more fairly, managing fleets of vehicles more efficiently, and helping meeting the ever increasing responsibility of balancing transit supply with urban transit demand.

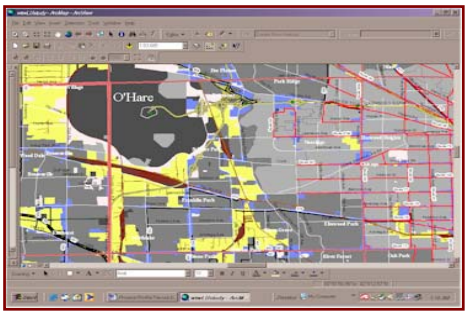
Information Management Need

GIS in Urban Mass Transit help solve very complex policy issues as they relate to the fair and equitable delivery of service as defined in Title VI of the Civil Rights Act of 1964; system accessibility to the disabled population as defined in the Americans with Disabilities Act (ADA), and its applicability to matching workers with the right job opportunity as defined in the Welfare-to-Work arena.

With a service area of over 3,500 square miles, the management of this program was extremely challenging. GIS evolved into a mature Decision Support System (DSS), which allowed the transit authority to meet ADA requirements and budget because of efficient contract management, operations and planning through the DSS.

Integrated Solutions for the Business of Transportation

Operations Analysis: Fixed-Route Bus Planning: What are transit serviceable densities?



Operations Research

Transit Serviceable Densities

When is new service justified?

Restructuring Transit Services

Paratransit Service Planning: How large of a service area should we cover?

Defining Service Areas

Service Area Planning

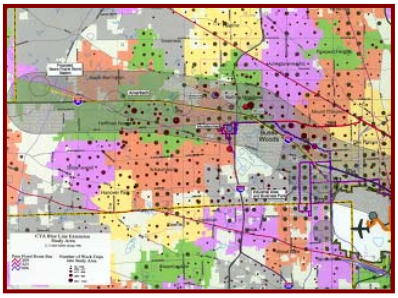
Rail Transit Planning: How will a new station impact the existing parking situation?

Rail Station Relocation Study

Operations Analysis: Are existing bus routes recovering enough of their cost?

Ridership Trend Analysis

Defining Trip Types: Which market segment is this route in?



Policy Analysis: Is transit service being distributed fairly?

Evaluating transit service quality and quantity (Title VI: 1963 Civil Rights Act):

Americans with Disabilities Act: Is transit service handicap accessible?

Welfare-to-Work Analysis: Is the bus going to the right place?

Legislative mapping: What transit facilities are in my district?

Market Analysis: Are public and private initiatives working?

Defining New Transit Markets/Services: Subscription bus or Vanpool?

Transit Demand Forecasting: Are these compatible technologies?

Integrating GIS with Transit Modeling Tools

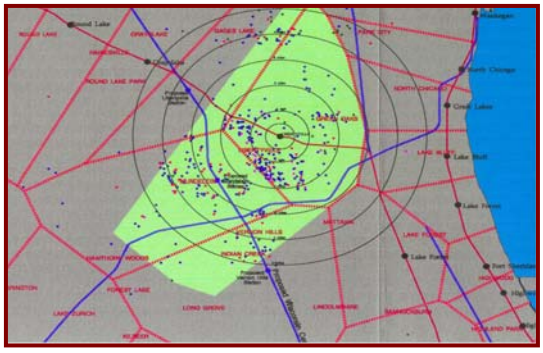
Integration Issues

Census 2000: Journey-to-Work Data

Smart Bus Technology (Data collection on wheels): Did this bus go to school?

Automatic Passenger Counters-spatial and temporal analysis

Signal-Preemption Systems



Fleet Management: is a 20% savings realistic?

3-D GIS, GPS Signal Analysis for Urban Transit Applications

Automatic Vehicle Location

Real-Time Transit Information