Development and Implementation of a Decision Support Tool for the Atlanta BeltLine

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International Urban Planning and Environment Association

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To examine the design and implementation of the Atlanta BeltLine decision support tool as a tool for enhancing collaborative planning, deliberative assessment, and accountability in complex redevelopment projects.

**Organization of Presentation**

- What is the BeltLine?
- Legal and institutional foundation for Decision Support Tool (DST)
- Strategic choices in the construction of the DST
- Structure of DST
- Application to case
- Assessment criteria and presentation
- Concluding observations
Atlanta
What is the Atlanta BeltLine?

(viewed from the northeast)
Atlanta Beltline corridor (red) + obsolete industrial and commercial properties (yellow) (Perkins+Will, 2009)
The transit and trail (Perkins+Will, 2009)
New parks on city-owned land and greenways along other rail corridors (Perkins+Will, 2009)
Infill development on vacant lots (Perkins+Will, 2009)
Extension of streets to access the corridor and to create walkable urban blocks (Perkins+Will, 2009)
New public spaces as a part of that new configuration (Perkins+Will, 2009)
Redevelopment to support transit ridership, land values, and existing communities (Perkins+Will, 2009)
It takes a Partnership

ATLANTA BELTLINE PARTNERSHIP

ATLANTA BELTLINE, INC.

TAD Advisory Committee
Affordable Housing Advisory Board

PRIVATE SECTOR

Business Community
Developers
Philanthropies

PUBLIC SECTOR

Federal (FTA, EPA, UDDOT, etc.)
Georgia (GDOT, GRTA, etc.)
Regional (MARTA, ARC, etc.)
Fulton County
Mayor’s office
City Council
Watershed Management
Planning and Community Development
Public Works
Parks, Recreation and Cultural Affairs
Public Works

NONPROFITS

Trust for Public Land
PATH Foundation
Atlanta Land Trust Collaborative
Atlanta Bicycle Coalition
PEDS
Park Pride
Trees Atlanta
BeltLine Network
other partners
faith groups
citizen engagement
Invest Atlanta
Atlanta Public Schools

CQGRD
Atlanta Beltline (collage, Perkins + Will, 2009)
Ambitious Goals

- **Parks:**
  - 700 acres improvements
  - 1,300 acres new greenspace and parks

- **Trails:**
  - 33 miles new trails

- **Transit:**
  - 22 mile transit service

- **Redevelopment:**
  - TAD = 6,500 acres (8% of Atlanta)
  - 10 redevelopment nodes
  - 29,000 housing units (5,600 affordable)
  - 5.3 million ft² office
  - 1.3 million ft² retail
  - 5.2 million ft² industrial
  - 407,000 ft² institutional
  - 30,000 new jobs

**Tax Allocation District:** $1.7 billion
**Total Project Costs:** $2.8 billion
Role of DST in Collaborative Planning

ABI

TADAC

Community

Atlanta Beltline

DST
Atlanta Ordinance 05-O-1733
Creating the Beltline Tax Allocation District

“The (TAD) Advisory Committee shall be responsible for developing and implementing a “decision making support tool” designed to measure the impact… and ensure accountability for effective and equitable implementation of the project.”

“By way of description only, DST should address

- balanced development,
- poverty reduction,
- income,
- educational achievement,
- land use,
- historic preservation,
- density,
- growth,
- park usage,
- trail usage,
- water quality,
- traffic,
- sewer capacity,
- community involvement/civic engagement,
- retail growth,
- health measures,
- cultural considerations, and
- environmental impacts.”
TADAC is to make recommendations on:

- Allocation and distribution of the tax allocation bond proceeds
- Implementation of the Beltline Redevelopment Plan that is
  - effective
  - equitable

The Decision Support Tool is designed to:

- Measure the impact of the BeltLine project
- Ensure accountability for implementation that is
  - effective
  - equitable

**Implications:**
DST to support decisions relative to expenditures and plan implementation with focus on impact, effectiveness and equity
Strategic Choices in the Construction of the DST

- Project Characteristics
- Community Characteristics
- Desired Impacts
- Beltline Goals
- Community Needs
- Geographic Equity
- Vulnerable Population Equity
- Community Characteristics
Decision Process

- Scale of decisions to be supported
  - Strategic
  - Comparative projects
  - Isolated projects
  - Opportunistic investments

- Ease of use
  - Lay person
  - Technically supported

- Outputs
  - Metrics
  - Indices
  - Flags (highlight opportunities and problems)

Incorporated Data

- Extensiveness of database
  - GIS scale & detail
  - Periodicity of data
    - Need for updating

- Data Type
  - Qualitative
  - Quantitative

- Flexibility
  - Standard metrics (baseline data)
  - Project specific data

- Data Source
  - Publicly available
  - Perceptual and local knowledge
<table>
<thead>
<tr>
<th>ABI Goals (2005 Plan and Annual Reports)</th>
<th>Reorganized</th>
<th>Variables (Factors)</th>
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<tbody>
<tr>
<td><strong>Create connected system of Greenspace</strong></td>
<td>Healthy, active living through new parks, trails, and streetscapes.</td>
<td>Health Population Walkability/bike-ability indices</td>
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<td>• 1,300+ acres of new or expanded parks</td>
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<td>• Improve 700+ acres of existing parks</td>
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<td><strong>Access into/within redevelopment area</strong></td>
<td>Access into and within the redevelopment area</td>
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<td>• 33 miles of trails connecting 40 parks</td>
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<td>• New/renovated streets &amp; intersections</td>
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<td>• 31 miles of new streetscape</td>
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<td><strong>Connect activity centers &amp; neighborhoods</strong></td>
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<td>• 22-mile pedestrian-friendly transit</td>
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<td><strong>Promote a more economically vibrant city</strong></td>
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<td>• 30k permanent, 48k year-long jobs</td>
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<td>• Preserve viable light industry</td>
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<td>• 5,600 workforce housing units</td>
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<td><strong>Create sustainable neighborhoods</strong></td>
<td>Community well-being</td>
<td>Land use Population Historic Pres.</td>
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<td>• Environmental remediation</td>
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<td>Environmental sustainability of neighborhood/city</td>
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<td>• Preservation of single-family neighborhoods &amp; historic bldgs.</td>
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<td>• Appropriate transitions to higher-density uses</td>
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<td><strong>Promote tax base</strong></td>
<td>Financial health of project and city</td>
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<td>• $20 billion increase over 25 years</td>
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BeltLine TAD and Master Plan Sub-Areas
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**Structure**

- Raw data stored in Access databases
- Data analyzed in GIS
- Resulting variables exported to Access database
- Final indicators calculated in Excel spreadsheet

**Base Data**

- Matches subarea district boundaries
- All types of data must be converted to subarea-wide variables
Data Types

- Census Block Group & ACS Data
- Parks
- Land use
- Impervious surface
- Flooding risk
- Pollution hot spots

Polygon Data

Point & Small Area Data

- Claritas Business Data
- Parcel Level Assessment Data
- Crime Data

Line Data

- Sidewalks
- Traffic congestion
- Census
- American Community Survey
Metrics Built from Several Variables

Median Household Income

% below poverty level
Continuous Data -- Sampling Points

- Metric reach
- Travel time to Five Points using MARTA
- Walkability
- Distance from major park or trail
- Supermarket distance
Walkability Score

- Distance to
  - Grocery store
  - Restaurants
  - Coffee Shops
  - Retail
  - Etc.

- Number of instances
Metric Reach

- Network buffer
- All streets within ½ mile travel distance
½ mile buffer around each project
FAR = 0.31
### Visual Output of Analysis

#### Accessibility
- **1-Subarea Background**
  - Street connectivity: 33
  - Prevalence of sidewalks: 96
  - Uncongested roads (LOS = C or better): 56
  - Travel speed via transit: 54
  - Walkability: 63
  - Physical activity: 74
  - Safety from crimes: 80
  - Proximity to healthy food: 70
  - Income: 91
  - Employment: 38
  - Retail & industrial activities: 42
  - Educational achievement: 96
  - Access to greenspace & trails: 89
  - % canopy cover: 75
  - Environmental sustainable design: 60

- **2-Project Area Background**
  - Street connectivity: 28
  - Prevalence of sidewalks: 92
  - Uncongested roads (LOS = C or better): 40
  - Travel speed via transit: 56
  - Walkability: 70
  - Physical activity: 79
  - Safety from crimes: 86
  - Proximity to healthy food: 70
  - Income: 95
  - Employment: 147
  - Retail & industrial activities: 28
  - Educational achievement: 94
  - Access to greenspace & trails: 79
  - % canopy cover: 6
  - Environmental sustainable design: 50

- **3-Built Project**
  - Street connectivity: 36
  - Prevalence of sidewalks: 106
  - Uncongested roads (LOS = C or better): 39
  - Travel speed via transit: 56
  - Walkability: 75
  - Physical activity: 88
  - Safety from crimes: 86
  - Proximity to healthy food: 77
  - Income: 97
  - Employment: 446
  - Retail & industrial activities: 173
  - Educational achievement: 94
  - Access to greenspace & trails: 91
  - % canopy cover: 70
  - Environmental sustainable design: 90

- **4-Difference from Subarea Background**
  - Street connectivity: -3.4
  - Prevalence of sidewalks: -3.6
  - Uncongested roads (LOS = C or better): -17.1
  - Travel speed via transit: 1.7
  - Walkability: 11.8
  - Physical activity: 14.3
  - Safety from crimes: 6.1
  - Proximity to healthy food: 16.6
  - Income: 61
  - Employment: 488.2
  - Retail & industrial activities: 180.6
  - Educational achievement: -2.4
  - Access to greenspace & trails: 22.2
  - % canopy cover: -4.6
  - Environmental sustainable design: 90.0

- **5-Change from Project Area Background**
  - Street connectivity: 8.0
  - Prevalence of sidewalks: 7.7
  - Uncongested roads (LOS = C or better): -1.3
  - Travel speed via transit: 0.0
  - Walkability: 5.2
  - Physical activity: 9.7
  - Safety from crimes: 0.0
  - Proximity to healthy food: 7.4
  - Income: 2.1
  - Employment: 299.7
  - Retail & industrial activities: 145.3
  - Educational achievement: 0.0
  - Access to greenspace & trails: 11.4
  - % canopy cover: 54.0
  - Environmental sustainable design: 40.0

#### Housing & Community Design
- **1-Subarea Background**
  - Housing choice: 93
  - Health of housing market: 92
  - Affordability: 82
  - Density: 67
  - Tax base: 90
  - Art & historic preservation: 59
  - Land use mix (entropy scores): 17
  - Compatibility with subarea plans: 53

- **2-Project Area Background**
  - Housing choice: 93
  - Health of housing market: 82
  - Affordability: 52
  - Density: 69
  - Tax base: 58
  - Art & historic preservation: 50
  - Land use mix (entropy scores): 17
  - Compatibility with subarea plans: 40

- **3-Built Project**
  - Housing choice: 94
  - Health of housing market: 97
  - Affordability: 81
  - Density: 392
  - Tax base: 241
  - Art & historic preservation: 58
  - Land use mix (entropy scores): 100
  - Compatibility with subarea plans: 17

- **4-Difference from Subarea Background**
  - Housing choice: 0.6
  - Health of housing market: 4.9
  - Affordability: -0.4
  - Density: 384.9
  - Tax base: 161.6
  - Art & historic preservation: 50.0
  - Land use mix (entropy scores): -1.0

- **5-Change from Project Area Background**
  - Housing choice: 93.8
  - Health of housing market: 3.3
  - Affordability: -0.9
  - Density: 310.1
  - Tax base: 172.5
  - Art & historic preservation: 0.0
  - Land use mix (entropy scores): 50.0

#### Built Environment & Tax Base
- **1-Subarea Background**
  - Minority & special needs populations: 17
  - Historic expenditures by ABI: 53
  - Environmental quality: 40.0

- **2-Project Area Background**
  - Minority & special needs populations: 17
  - Historic expenditures by ABI: 40
  - Environmental quality: 50

- **3-Built Project**
  - Minority & special needs populations: 17
  - Historic expenditures by ABI: 44
  - Environmental quality: 90

- **4-Difference from Subarea Background**
  - Minority & special needs populations: 17
  - Historic expenditures by ABI: 0.4

- **5-Change from Project Area Background**
  - Minority & special needs populations: 0.4
  - Historic expenditures by ABI: 3.9
  - Environmental quality: 40.0

#### Social & Environmental Equity
- **1-Subarea Background**
  - Civic engagement: 53

- **2-Project Area Background**
  - Civic engagement: 50

- **3-Built Project**
  - Civic engagement: 90

- **4-Difference from Subarea Background**
  - Civic engagement: -9.2

- **5-Change from Project Area Background**
  - Civic engagement: 40.0
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1-Subarea Background
2-Project Area Background
3-Built Project
4-Difference from Subarea Background
5-Change from Project Area Background
Impact on Environmental Quality

- Water
- Toxics
- Air
- Greenspace
- Environmental Justice

Alternative 1

Alternative 2
Thank you.

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