ATLANTA BELTLINE SOUTHWEST CORRIDOR DESIGN

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Ryan Gravel, Perkins+Will
for Atlanta BeltLine Inc.
22 miles long (35 km)
2-4 miles from downtown (3-5 km)
45 neighborhoods
100,000 people within walking distance
4-6,000 acres for redevelopment (2k ha)
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
Invest Atlanta
Atlanta Public Schools

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
ABCD – Design Drivers

1. CHARACTER
2. MULTI-RE-USE
3. THRESHOLD
4. PERFORMANCE
5. PHASED BUILDOUT
ABCD – Design Framework

[Diagram showing various elements of a design framework, including percolation pavers, permeable pavement, structural articulation, and pedestrian pathways.]
ABCD – Preliminary Design
ABCD – Future Design Work
Atlanta BeltLine Corridor Design
Atlanta BeltLine Corridor Design

Analysis
Mapping
Field Work
Analysis
Context Conditions
Native Context
Railroad Context
Historical Context
Social Context
Political Context
Development Context
(Un)Natural Context
Ownership/Use Context
Physical Context
Railroad Conditions
Four Belt Lines + Four Connectors
Four Connectors
Typical Conditions
Track Position
Edges + Adjacencies
Street Connections
Natural Systems + Character
Alignment, Structures + Landform
Track Tectonics
Transit
Public Space
ANALYSIS

Conditions

Program

DESIGN

Design Drivers

Design Framework
Design Drivers

- Character
- Multi-Re-Use
- Threshold
- Performance
- Phased Buildout
Design Drivers

CHARACTER

- Interpret and evoke its origin as a series of railroad corridors;
- Cultivate its sense of adventure, discovery, and informality;
- Respect its unique landscape and historical features.
Design Drivers

MULTI-RE-USE

- Transform it for a new set of infrastructure and a signature public meeting ground;
- Promote both mobility and destination;
- Design for changing interpretation of spaces and elements over time.
Design Drivers

• Design a coherent public space, unchallenged by private adjacencies;
• Convert its back-door condition to be more fully accessible;
• Reconcile its goal of clarity with confusing adjacencies and existing conditions.
Design Drivers

• Support existing habitat and the generation of biodiversity;
• Optimize its performance through a sustainable approach to energy, water, light and materials;
• Where possible, contribute to broader sustainability goals and opportunities beyond its right-of-way.

PERFORMANCE
Design Drivers

• Design for incremental buildout of segments and features;
• Define ecologically strategic investments;
• Ensure that its amenities are equitably distributed and that it will meet future demands.

PHASED BUILDOUT
22 MILES OF VARIETY
22 MILES OF CONTINUITY
22 Miles of Variety
Variety – Existing
Variety – Existing

- **NATURAL SYSTEMS** - waterways, stormwater challenges, tree canopy, etc.
- **PHYSICAL FORMS** - bridges, embankments, other landforms
- **HISTORICAL + CULTURAL CONDITIONS** - artifacts, historic context
- **CITY FRAMEWORK** - skyline views, connecting streets, communities, parks, schools, etc.
Variety – Proposed
Variety – Character Rooms

The Narrows
Copenhill Sweep
Angier Overlook
North de Leon
Magnolia Straightaway
Kanuga Square
Variety – “BeltLine Spaces”
Variety - Landscape

CANOPY

FLOOR

LANDFORM
Canopy
Canopy - Features
Canopy – Reforestation Strategies

Quercus alba
white oak

Quercus coccinea
scarlet oak

Quercus velutina
black oak

Quercus stellata
post oak

Quercus prinus
chestnut oak

Carya alba
mockernut hickory

Carya glabra
pignut hickory

Carya ovalis
red hickory

Pinus echinata
shortleaf pine

Cornus florida
flowering dogwood

Ulmus alata
winged elm

Ilex opaca
american holly

Oxydendrum arboreum
sourwood

Cercis canadensis
redbud

Amelanchier arborea
downy serviceberry

Viburnum acerifolium
maple leaf viburnum

Hamamelis virginiana
witch-hazel

Viburnum rafinesquianum
downy arrowwood

Euonymus americanus
strawberry bush

Vaccinium stamineum
deerberry

Vaccinium palidum
lowbush blueberry
Canopy – Character Rooms

L.1
SPECIMENS + CLEARINGS

L.2
FOREST CLUMPS

L.3
ALLÉE

L.4
ORCHARDS + GROVES + BOSQUES

L.5
FLOWERING UNDERSTORY

L.6
THICKETS
Floor

L7
GREEN GUIDEWAY

Low-growing, low-input, low-maintenance and drought tolerant grasses are recommended: Bermuda grass, Buffalo grass (native), and Zoysia grass.

L2.2
TRANSIT + "DRY" FLOOR

With the introduction of transit, low-growing, sun tolerant grass species will replace the taller growing, warm season grasses within the guideway.

L2.4
TRANSIT + "MOIST" FLOOR

With the introduction of transit, low-growing, shade tolerant grass species will replace the taller grasses and wetland emergents.
Due to the Atlanta BeltLine’s history as a rail corridor—much of the existing cross-section conditions are relatively flat, having been engineered to support the 1 - 2% track grades. To upgrade these sections to support the new rail and transit guideway, the strategic and efficient design of swales and drainage features will be necessary to effectively manage stormwater.
L5.2 Embankments

In portions of the corridor that have steep grades or side slopes, extensive grading will be necessary to assemble the transit guideway and trail surfaces. Stormwater collection will be essential on both the up-slope and down-slope sides of the guideway and trail. The resulting earthwork should be efficient but graceful and provide a smooth experience for users entering, leaving or traveling the Atlanta BeltLine.
Landform

Sunken Corridors

For portions of the corridor in which the future guideway will be recessed below adjacent street level, the new topography should strategically drain the trails and guideway while supporting moist floor species in large bioswale conditions or “wet-woods”. Placement of the trail should maximize potential for an experience of an ‘interior’ landscape, a place removed from the City.
Green Embankments / Soft Walls L5.5

Where space and width permits, the engineered side slopes, or embankments should be green: utilizing material technologies that support steep slopes and vegetation, thereby creating a soft quality to the engineered form.

For slopes ranging from 1.5:1 to 2.5:1, geo-fiber soils and porous, geo-web materials shall be used in place of masonry retaining features - and shall be designed with suitable ground covers, grasses and shrub species that are consistent with the adjacent floor palette.
Landform

landscape
design

LANDFORMS & STORMWATER CAPACITY

L5.6 Vegetated Swales
Priority is maintaining flow and improving water quality. Runoff from trail may be conveyed/infiltrated in adjacent filter strips or swales. Swales or rocky conveyances will lead to a down-gradient discharge point. To the extent possible, planting should be texturally consistent with adjacent floor and used as a buffer to control runoff and increase infiltration.
Variety – Lighting
Variety – Public Art
Variety – Character Rooms
Variety – Character Rooms
Variety – Character Rooms
22 Miles of Continuity

Design Framework
Continuity – Existing
Continuity – Proposed
Hardscape
Bridges
Walls
Transit Stations

Central Platform

TS 3: Access Modules
TS 4: Shelter Components
TS 5: Planting Components
TS 1: Construction Modules
TS 2: Crossing Modules

Side Platform

TS 3: Access Modules
TS 4: Shelter Components
TS 5: Planting Components
TS 1: Construction Modules
TS 2: Crossing Modules
Transit Stations

Concept Studies
Signage + Wayfinding

Directional

Informational

Identification

Regulatory
Signage + Wayfinding
Signage + Wayfinding

Irwin Street
Martin Luther King Jr.
National Historic Site

North Avenue
North Porch
Angier Balcony
Development Interface

Development Intensity
Development Interface

- **Setback + Separation**
  - D12.2: No setback, wide separation
  - Property Line
  - Existent Development
  - Atlanta Beltline Right-of-Way
  - Multi-use Trail
  - < 20' Existing Setback

Setback + Separation
Development Interface

Topographic Adaptations
Streetscapes

Above-Grade Crossings

- Porous Pavement
- Detectable Warning at Street Crossing
- Concrete Ramp to Raised Crossing
- Raised Crossing
- BeltLine Street Lighting Fixture
- Street Pavement
- Structure Articulation
- Connecting Pathway to BeltLine Trail
- BeltLine Bollards
- BeltLine Signage

Above-Grade Crossings
Streetscapes

Below-Grade Crossings
Design Framework
Preliminary Design
Preliminary Design
Construction Documents
Eastside Trail
Thanks!

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