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# **Rails-to-Trails Lighting Standard**

Community Redevelopment Agency  
July 20, 2009



# Rail-Trail Lighting Overview

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- Currently there is no lighting standard for the City's Rails-to-Trails system



*Waldo Rd R2T, 7/2009*



*Depot Ave R2T, 7/2009*

# Rail Trail Lighting Overview

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- Current Method of Rail Trail Lighting

## **GRU installs lights along Rail-Trail by request of City Commission/Public Works Department/other Agency**

- Each agency/department may request a different fixture
- If behind a meter, any fixture may be selected
- If not installed behind a meter, only fixtures on GRU's inventory may be selected
- Fixtures added to GRU inventory are by request of City Commission



# Rail-Trail Lighting Overview

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Rail Trail Lights are recommended to...

- Provide visibility along paths at intersections
- Provide visibility of path direction, surface conditions, and obstacles
- Increase safety where night usage is expected
  - Paths serving college students
  - Commuters
  - Highway intersections
  - Nighttime security

*References: IESNA, ASHTO, CPTED*



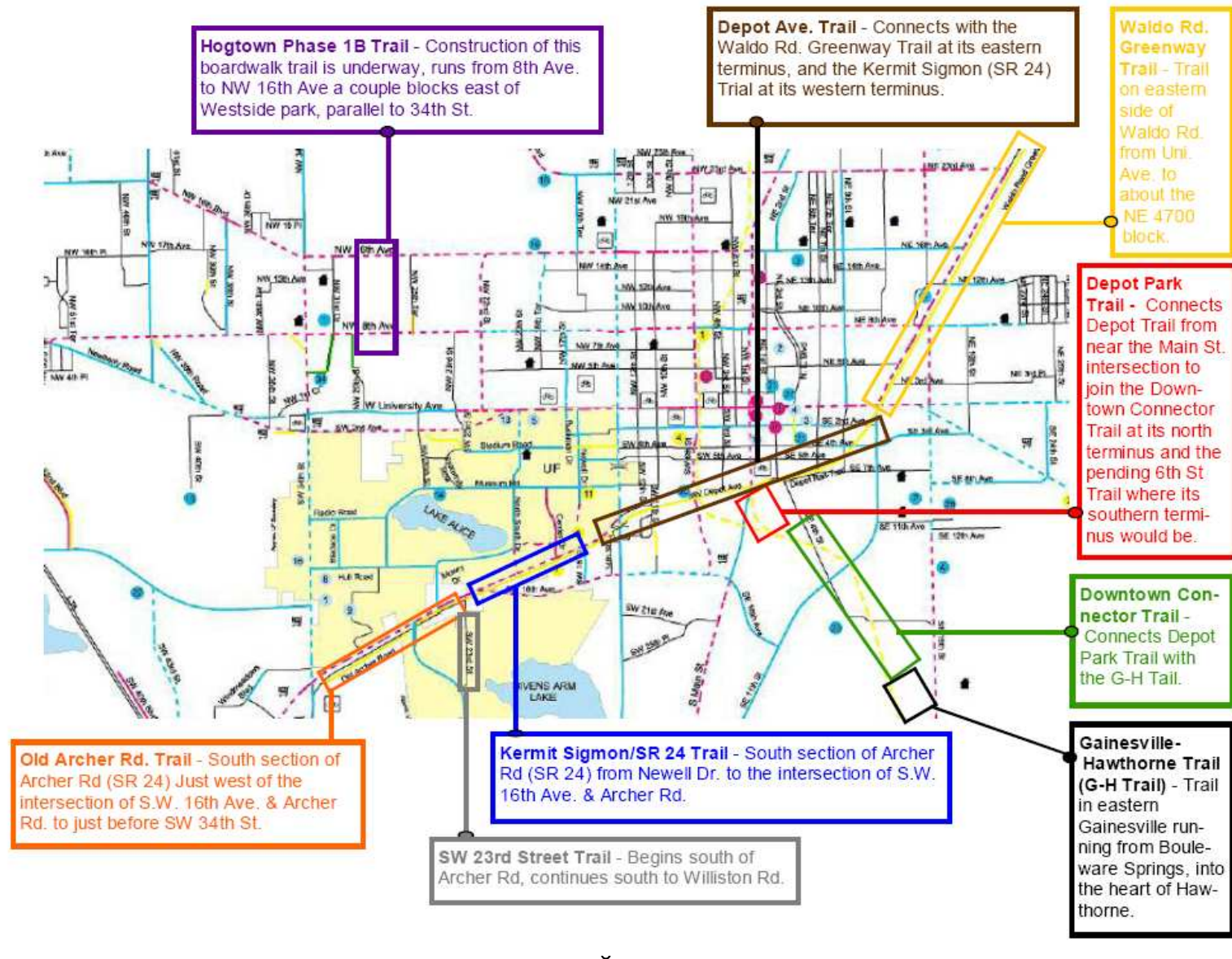
# Rail-Trail Lighting Overview

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- Developing a standard for Gainesville's Rails-to-Trails will...
  - Uniquely identify and brand the trail
  - Aid daytime and nighttime users with identification of the bike path
  - Allow for proper planning, design, and budgeting of R2T enhancement projects
  - Ensure a consistent quality of design across all CRA redevelopment areas and City-wide



# City of Gainesville Rails-to-Trails System





# City of Gainesville Rails-to-Trails System

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- Rails To Trails Currently in System
  - Depot Ave Trail
  - Waldo Rd Greenway
  - Depot Park Trail
  - Downtown Connector Trail
  - Gainesville-Hawthorne Trail
  - Kermit Sigmon/SR 24 Trail
  - SW 23<sup>rd</sup> Street Trail
  - Old Archer Rd. Trail
  - Hogtown Phase 1B Trail
- Upcoming R2T Projects
  - PWD: 6<sup>th</sup> Street Rail Trail Phase I
  - PWD: 6<sup>th</sup> Street Rail Trail Phase II
  - CRA: Depot Ave Rail Trail Enhancements
  - CRA: 6<sup>th</sup> Street Rail Trail Enhancements
  - CRA: Depot Park Trail
  - Shands: Depot Ave Rail Trail Enhancements



# Guidelines and Standards for Rail Trails

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- Guidelines and Standards Referenced
  - CPTED: Crime Prevention Through Environmental Design Guidebook, 2003
  - AASHTO: American Association of State Highway and Transportation Officials, Guide for the Development of Bicycle Facilities, 1999
  - IESNA: Illuminating Engineering Society of North America, Recommended Lighting for Walkways and Class 1 Bikeways





# Guidelines and Standards for Rail Trails

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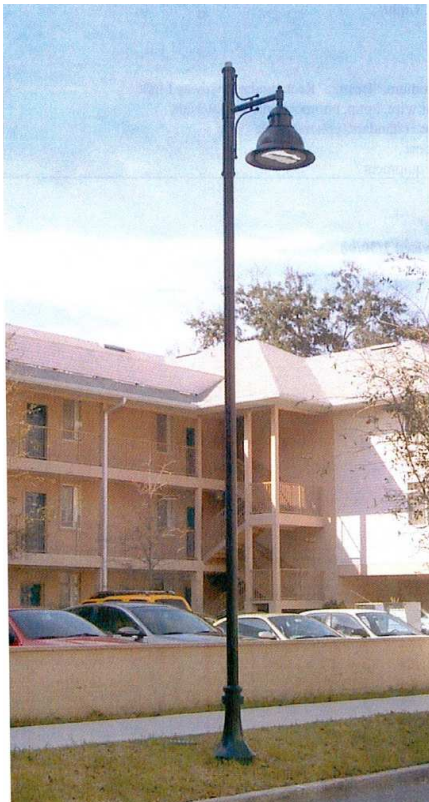
- **Safety**
  - Lighting Quality
    - Illumination, uniformity
    - Glare
    - Color rendition
  - Mounting Height
    - Set backs and clearances
    - Foliage interference
- **Cost**
  - Energy consumption
  - Material costs
  - Pole spacing
  - Maintenance/lifetime
- **Sustainability**
  - Effects of light trespass, astronomical light pollution, spill light
  - LED Convertibility
  - Vandalism and maintenance
- **Aesthetics**
  - Versatility for different context applications
- **GRU Inventory**



# Lighting Fixtures Reviewed

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- Several lighting fixtures were narrowed down for an in-depth review
- Lighting fixtures on GRU's current inventory were also reviewed



# Lighting Fixture Review

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Fixture Name: Domus Series

Manufacturer: Lumec

GRU's Inventory?: Yes

Scale: Roadway

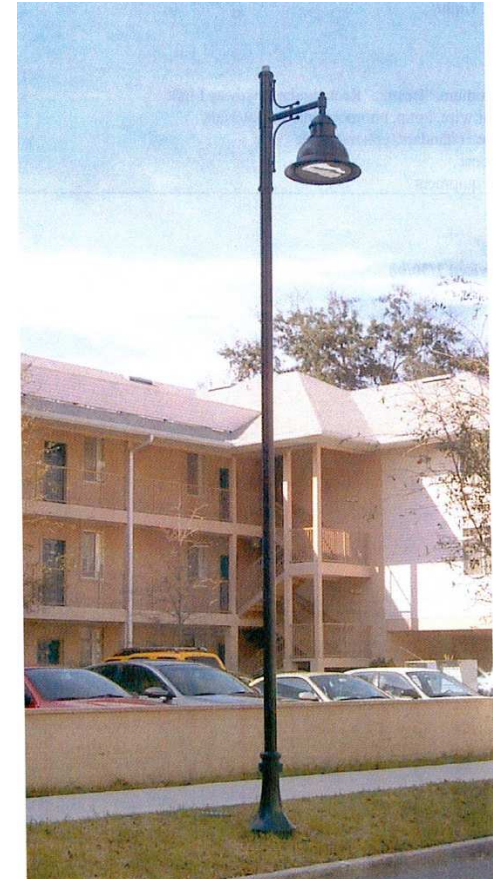
Mounting Height: 16-ft

Safety: Good uniformity at 100-ft spacing

Lamp: 100 W High Pressure Sodium (orange light)

Sustainability: Full-cut off (Dark Sky); Steel pole; LED convertible; flush luminaires and high mounting height discourages vandalism; easy maintenance access

Cost: \$2,350 per fixture



# Lighting Fixture Review

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Fixture Name: Domus Small Series

Manufacturer: Lumec

GRU's Inventory?: No

Scale: Pedestrian

Mounting Height: 12-ft

Safety: Good uniformity at 75-ft spacing

Lamp: 100 W Metal Halide (white light)

Sustainability: Full-cut off (Dark Sky);  
Aluminum pole; LED convertible; flush  
luminaries discourages vandalism; easy  
maintenance access

Cost: \$1,600 per fixture



# Lighting Fixture Review

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Fixture Name: Traditional

Manufacturer: Lumec (discontinued product)

GRU's Inventory?: Yes

Scale: Pedestrian

Mounting Height: 10-ft

Safety: Good uniformity at 100-ft spacing

Lamp: 100 W Metal Halide (white light)

Sustainability: Semi-cut off (not Dark Sky compliant); astronomical light pollution; light trespass; spill light; concrete pole; not LED convertible; pole top mounting susceptible to vandalism; easy access for maintenance

Cost: \$1,685 per fixture



# Recommendation: Lumec Domus Small Series

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- *Versatility*
  - Classic and contemporary compliments current R2T sign
  - Can be used in conjunction with Domus Roadway lights
  - LED convertibility with a year



## Recommendation

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- Hear Presentation
- Approve Lumec Domus Small Series as the lighting standard for implementation of the City's Rail-Trail system
- Recommend that the City Commission adopt the Lumec Domus Small Series for inclusion on GRU's inventory of approved lighting fixtures

