46th Street Pilot Lighting Project

Hennepin County & City of Minneapolis

Minnehaha-Hiawatha
Community Works Project

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Partners

- Hennepin County Community Works
- City of Minneapolis
- Longfellow Community Council
- Standish Ericsson Neighborhood Association

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Purpose

- Improve pedestrian and roadway street lighting on 46th Street
- Monitor street light performance from a safety point of view
- Analyze lighting products by:
  - Energy usage
  - Illumination levels (Compared to City Standards)
  - On-going operations and maintenance costs
  - Capital costs
  - Public and Jurisdictional acceptance

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Project Location

- Pedestrian Area – Hiawatha Avenue to 46th Avenue
- Residential Area – 34th Avenue to Hiawatha Avenue
- Additional Engineering Analysis – 36th Avenue from 46th Street to Minnehaha Creek

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Project Status

- The project has been funded and approved by Hennepin County and the City of Minneapolis

- Today's presentation is an update on resident feedback and project scope.

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Benefits

- Improves:
  - Neighborhood street and sidewalk lighting
  - Walkability
  - Security lighting
  - Maintenance performance
  - Aesthetics
  - Energy efficiency and sustainable design
- Potential for overall cost savings

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Project Specifics

- No adjacent properties are to be directly assessed
- Acorn and Modified Shoebox Fixtures have been selected for the project based on the following:
  - Availability of light options
  - Uniformity with similar light styles in area
- Similar street(s) with City standard lighting to be identified for comparison
- Project limits are to be broken up into block by block segments per each qualified vendor/distributor
- If project lights do not perform up to quality standards, they will be replaced with City standard fixtures

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Lighting Types

- City Standard
  - High Pressure Sodium (HPS)
- Pilot Project Lighting Options
  - Light Emitting Diode (LED) – East of Hiawatha
  - Induction – West of Hiawatha

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Low Level Light Fixtures - Acorn

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High Level Light Fixtures – Modified Shoebox

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Lighting Comparisons

HPS (BEFORE)

LED (AFTER)

HPS VS. INDUCTION

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Are LED Lights Really That Good?

- Better efficacy – Less power needed to achieve HPS light levels
- LED compensation – When one LED burns out, remaining LED's compensate for loss
- LED light can be focused by arranging light modules
- LED lights have low to non-existent heat outputs
- LED lights are designed to last up to four times the lifespan of HPS
- Typical 5-Year Warranty
- Dark sky compliant
- Proven use in traffic signal lights
- Minimal light loss over time

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Are Induction Lights Really That Good?

- Better efficacy – Less lumens/watt needed to achieve HPS light levels
- Electrodeless Bulb – Only small mercury tip is environmentally harmful
- Induction lights have low to non-existent heat outputs
- Induction lights are designed to last up to three times the lifespan of HPS
- 10-Year Warranty
- Dark sky compliant
- Minimal light loss over time

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Initial Lighting Comparison

Light Type	High Pressure Sodium (HPS)	Induction	Light Emitting Diode (LED)
Initial Cost	$	$$	$$$
Maintenance Needs			
Energy Used			
Light Color	Yellow	White	White
Lamp Life			
Light Delivery (getting light where you want it)			

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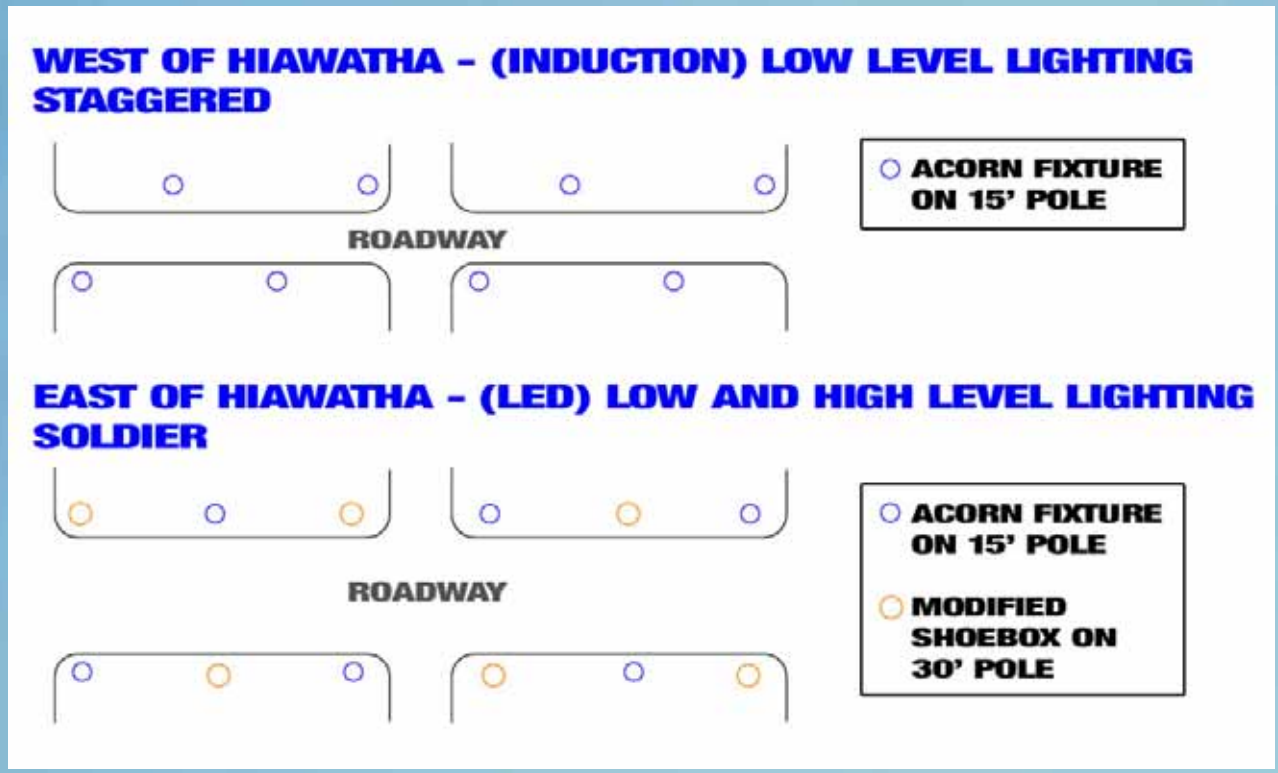
City of Minneapolis Standard Light Spacing



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City of Minneapolis Standard Light Spacing

Soldier Spacing Example – Lowry Avenue (North Minneapolis)

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Construction Schedule

- Light base and conduit installation – Oct. 2009
  - Minor property disruption expected
  - Possible sidewalk replacement may be needed
- Light Fixture Installation – Fall/Winter 2009
- Street light location
  - Approximate locations detailed on layout map
  - Final locations to be determined in field per engineering direction
- For construction complaints/concerns please contact the City of Minneapolis 311 Hotline

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Public Communication

- Individual contact/comment signs will be placed on each study street light
- A City and County website and will be set-up detailing project specifics

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Question and Answer

- Layout maps and aerial photos are provided at the tables
- Please use post it notes to offer comments and stickers to express opinions
- Please fill out comment form
- Staff are here to answer questions

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