



**SHOREWOOD**  
STREETLIGHT REPLACEMENT  
PROGRAM



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2025 PHASE 1  
STREETLIGHT  
REPLACEMENT  
PROJECT

Shorewood Public Works  
February 27, 2025

# 2025 Streetlight Replacement Program

## Public Information Meeting

- Agenda
  - Introductions
  - Presentation
  - Question & Answer
  - Breakout session



# 2025 Streetlight Replacement Program

## Our Goals

- Tonight:
  - Enhance your understanding of the project
  - Be accessible to address your questions or concerns
- Throughout the project:
  - Manage disruption and inconvenience
  - Complete a quality project
  - Be accessible to address your concerns

## Our Team

- Village of Shorewood
  - Dan Heyen, DPW Superintendent
  - Leeann Butschlick, DPW Director
  - Miguel Villarreal, Fleet & Facilities Foreman
- KL Engineering
  - Jake Joyal, Project Manager
  - Chris Halverson, Electrical Engineer
  - Arman Khan, Construction Engineer



# 2025 Streetlight Replacement Program

- Shorewood's street lighting system is comprised of a mix of 120/240V and 480V lighting circuits with control cabinets that are wired to a mix of direct burial concrete light poles and metal light poles mounted to concrete bases using a combination of wire in conduit and direct bury wire.
- Village has a network of 35-40 lighting circuits supporting approximately 1,200 streetlights that are powered by 9 control cabinets.



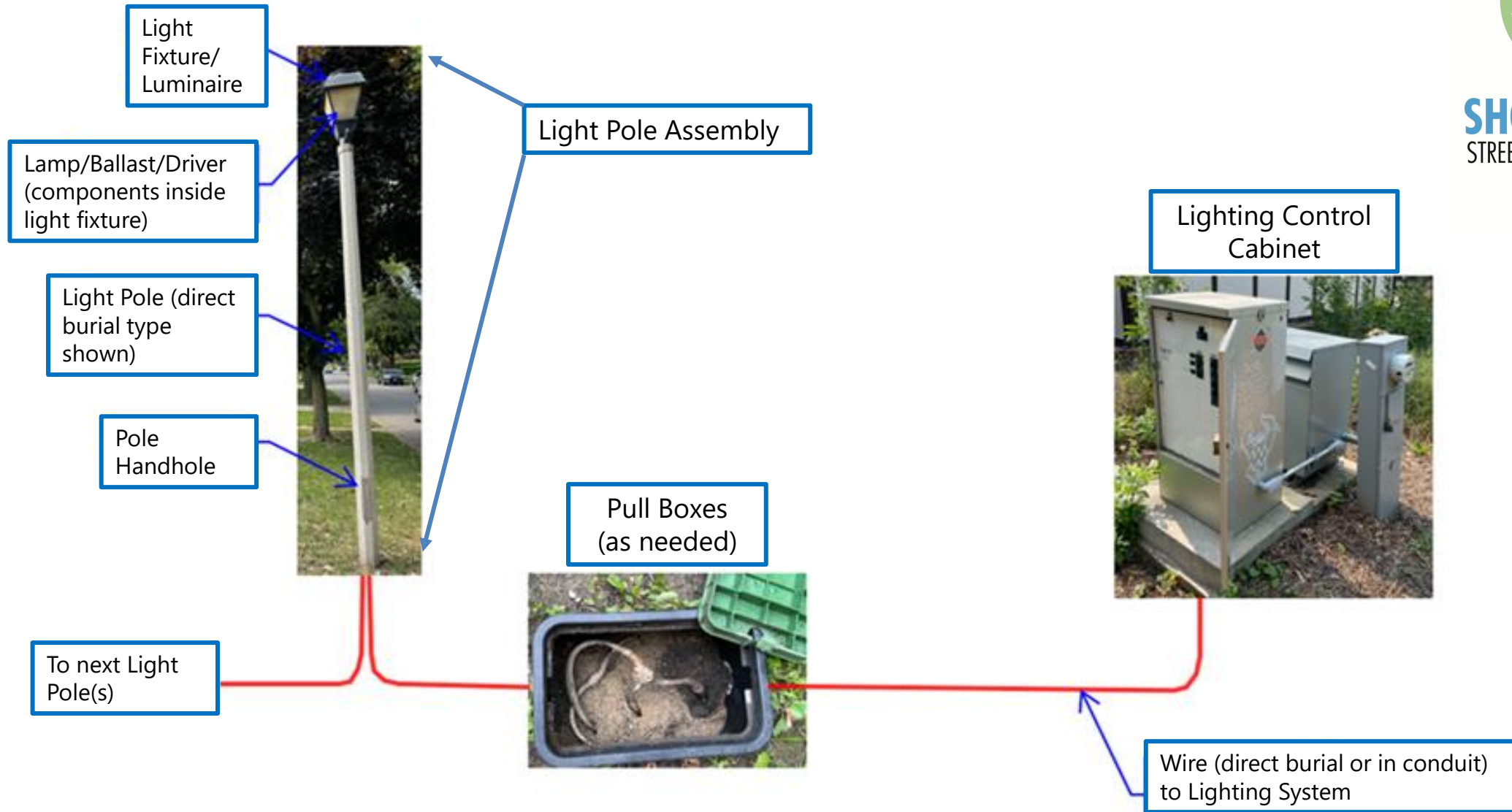
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# 2025 Streetlight Replacement Program



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# 2025 Streetlight Replacement Program

In June 2022, Village Board approved use of ARPA funds to complete a Streetlight System Replacement Plan.

- Replace Aging Infrastructure
  - Existing System Approximately 50-years Old in Most Areas
  - More Recent Installations on Capital, Oakland, and Wilson Drive; Lake Drive 2025.
  - Typical Life Expectancy: 30-40 years
- Correct Existing Infrastructure Code-Related Issues
  - System is ungrounded with outdated voltage configuration
    - Can lead to undetected cable faults.
  - Insufficient working space around fire station lighting controllers
  - Existing pull boxes in some areas can be opened without tools
  - Many light poles not 22 feet minimum required for existing voltage
- Convert to LED for Energy Savings



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Fire Station Lighting Controller



Existing Pull Box

# 2025 Streetlight Replacement Program

- KL Engineering was selected to design a new system.
- Implementation Plan includes five phases constructed over five years (2025-2029) at a projected total construction cost of nearly \$15M.

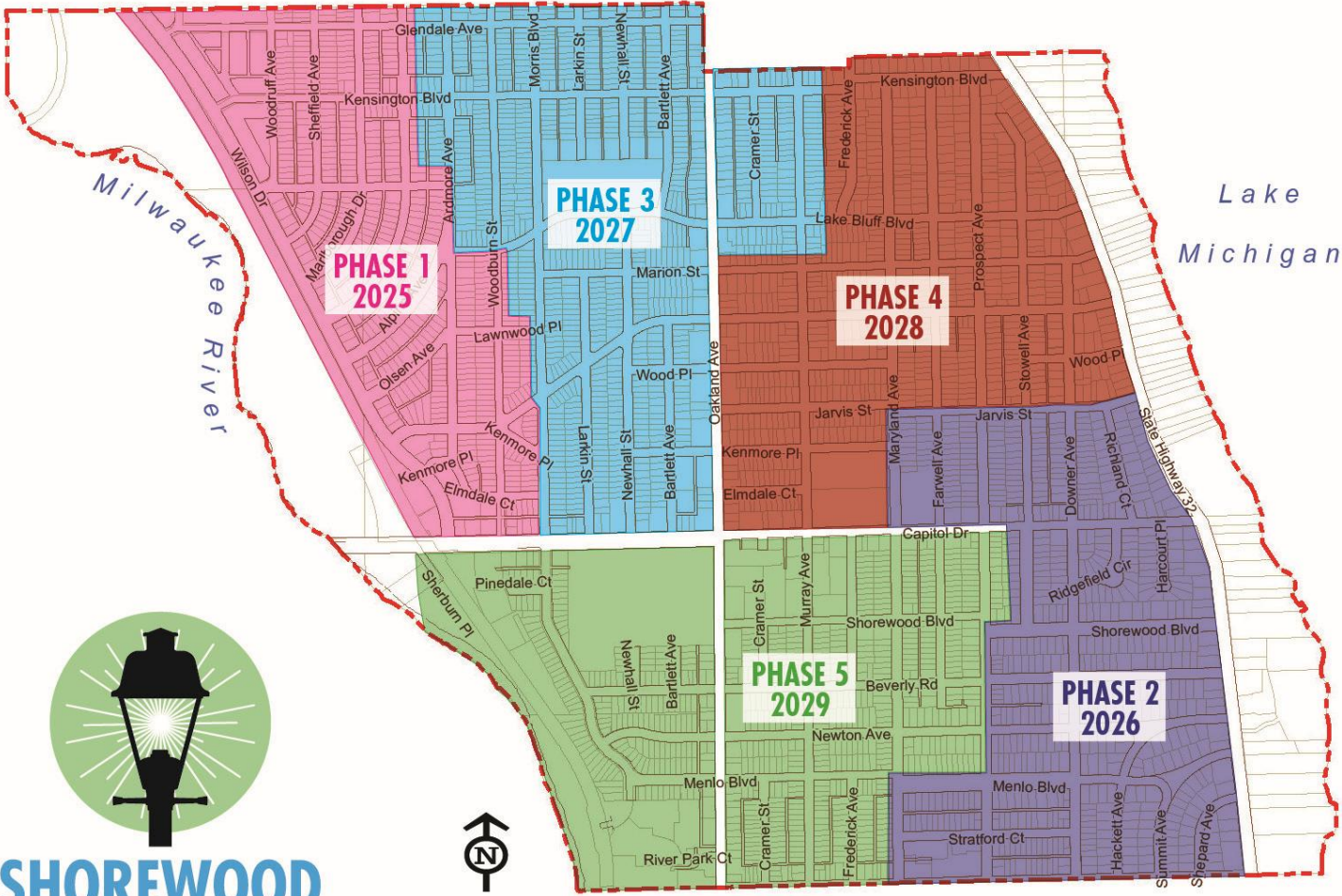


480V System Cost Per Phase			
Phase	Lighting Units	Lighting Unit Cost	Cost Per Phase
1	216	\$ 13,373.00	\$ 2,888,568.00
2	202	\$ 13,019.98	\$ 2,630,035.96
3	224	\$ 12,712.10	\$ 2,847,510.40
4	213	\$ 14,613.04	\$ 3,112,577.52
5	214	\$ 15,051.43	\$ 3,221,006.02
<b>Total</b>	1069		\$ 14,699,697.90

# 2025 Streetlight Replacement Program

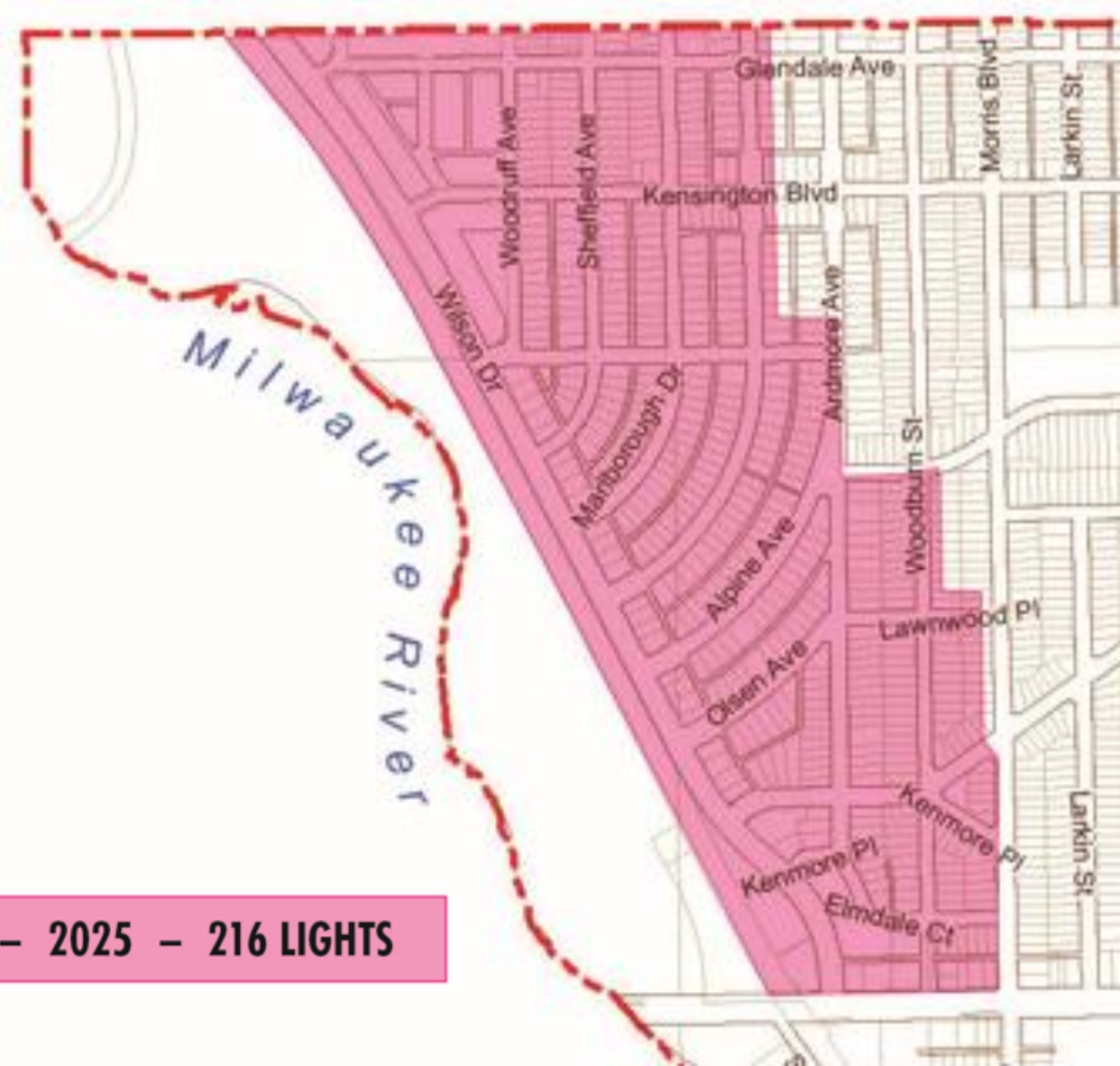


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- PHASE 1**  
2025
- PHASE 2**  
2026
- PHASE 3**  
2027
- PHASE 4**  
2028
- PHASE 5**  
2029

# 2025 Streetlight Replacement Program



**PHASE 1 – 2025 – 216 LIGHTS**



# 2025 Streetlight Replacement Program

## What to Expect – Work Schedule

- Control Cabinet/Electrical Service Installation (Marlborough Dr & Wilson Dr)
  - End of March
- Underground Infrastructure Installation (Conduit & Pull Boxes)
  - April - July
- Above-ground Infrastructure Installation (Lighting Units)
  - July – October
- Substantial Completion
  - October 3, 2025
- Final Completion
  - October 31, 2025



# 2025 Streetlight Replacement Program

## What to expect – Work Progress



- Work will span entire blocks.
- All work will be performed in the parkway (between the sidewalk and curb) or within the Village right-of-way:
  - The majority of the disruption will be excavation in grassy area.
  - Driveway approaches may be impacted on rare occasion; residents will receive direct notification in these instances.

# 2025 Streetlight Replacement Program

## What to expect – Outages

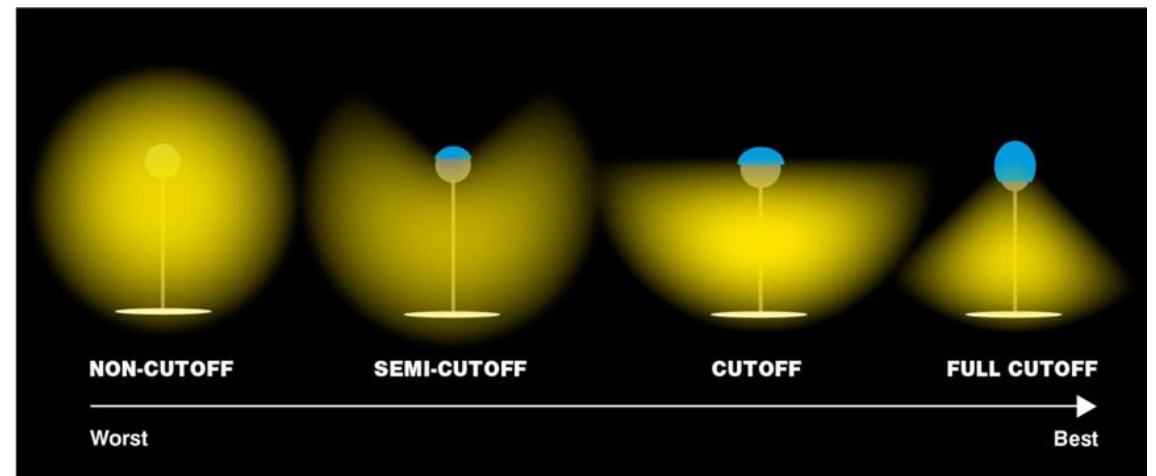


- New infrastructure will be installed with minimal disruption to existing street lighting.
- When necessary, streetlight outages are restricted by contract as follows:
  - 2 adjacent blocks at a time.
  - 3 consecutive nights.

# 2025 Streetlight Replacement Program

## What to Expect – Aesthetics

- The Village Board directed the use of DarkSky-compliant fixtures in the replacement program.
  - Fixtures do not have lenses; light is directed downward.

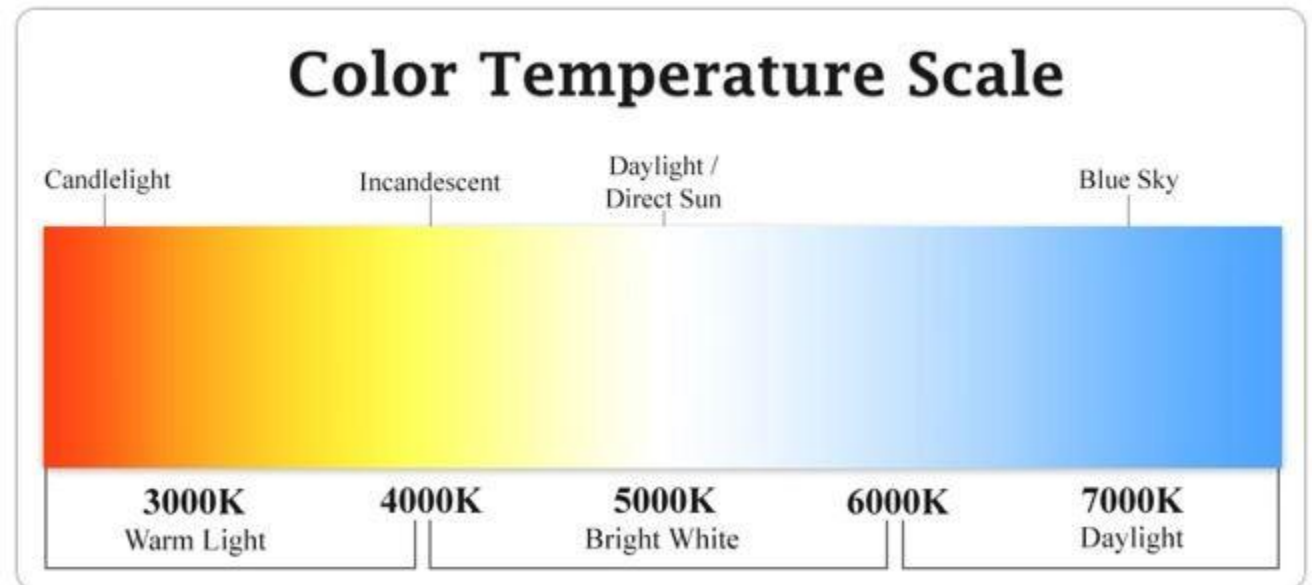


# 2025 Streetlight Replacement Program

## What to Expect – Aesthetics

- DarkSky-compliant fixtures must be 3,000K or less.

The new lights will be LED. The color temperature of the new fixture will be 2700K; the existing fixtures are approximately 2200K.



# 2025 Streetlight Replacement Program

## What to expect – Restoration



- Excavated or disturbed areas will be covered and made safe until restoration.
- Parkway turf restoration:
  - Large areas are to be restored with sod.
  - Small areas are to be seeded and mulched.
- Sidewalk & driveway approaches:
  - Cores will be temporarily plugged.
  - Restoration will include replacement of entire panel.

# 2025 Streetlight Replacement Program

## What to Expect – Streetlight Fee

- As a part of 2025 budget process, the Village Board approved a streetlight charge for replacement of outdated poles and fixtures, electric charges and operational expenses.
- Each property will be charged an amount based upon the lineal foot length of their primary frontage (address side for corner lots).
- The billing formula, method and timing are being finalized.



# 2025 Streetlight Replacement Program

## Project Communication

- Sign up for weekly email updates  
[www.villageofshorewood.org/notifyme](http://www.villageofshorewood.org/notifyme)
- Project web page  
[www.villageofshorewood.org/streetlights](http://www.villageofshorewood.org/streetlights)

