



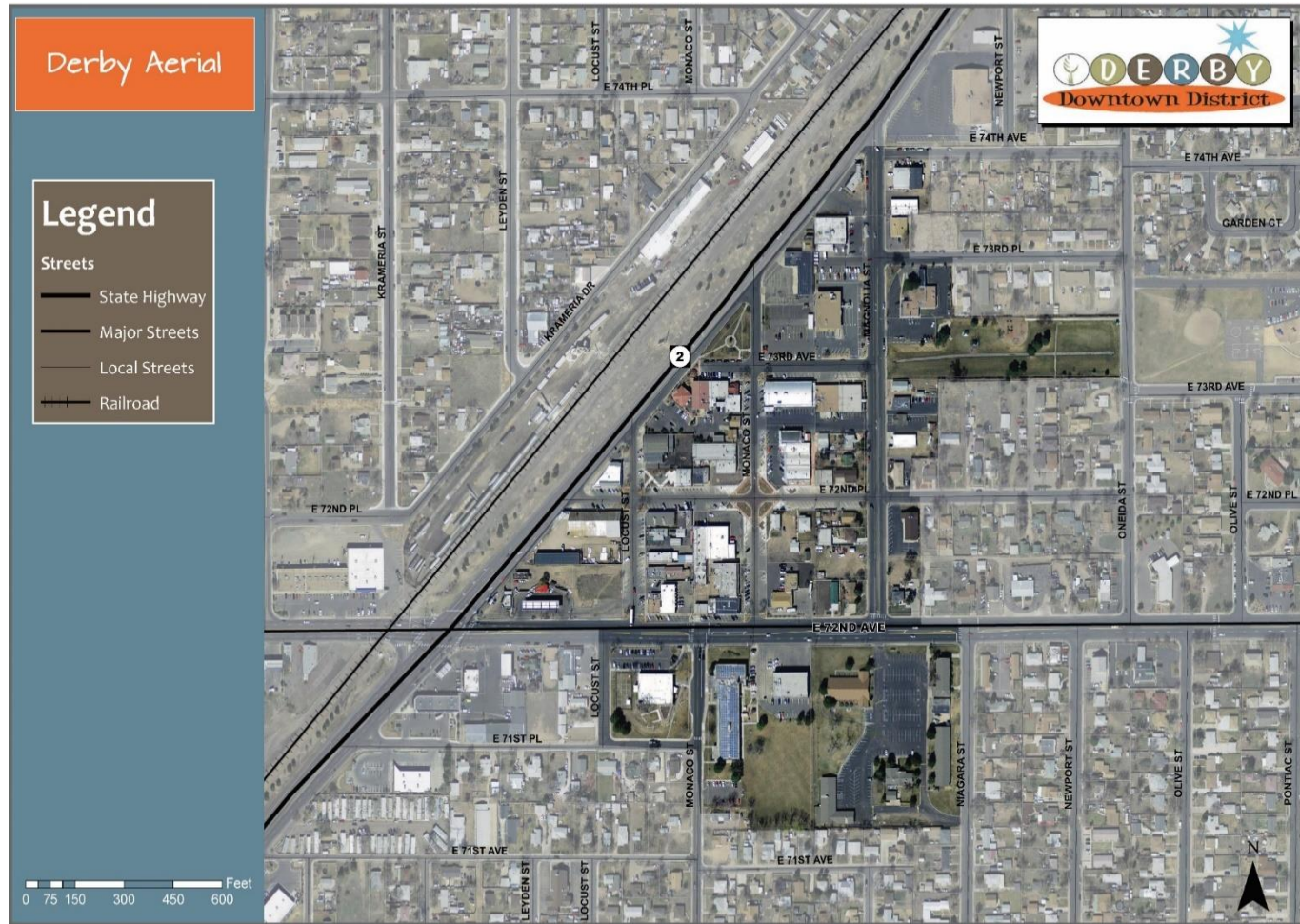
Derby Area Lighting Improvements

October 19, 2020

Purpose

- Provide an overview of Derby district's need for revitalization
- Summarize the Derby Area Lighting Plan approved by Council in 2018
- Request Council's direction on how to move forward

Derby District - Map



Derby District – Lighting Overview

- The current levels of illumination are inconsistent
 - Inconsistencies in placement, lamp type, bulb color, and installation date
 - Not conducive to feelings of safety and vibrancy
 - Causes patrons to wonder if businesses are open
- These inconsistencies also create maintenance challenges

Overview Continued

- Potential lighting update benefits for the District:
 - The District could be made more walkable
 - The district could be more safe and appealing
 - Could deter camping
 - The District could seem more desirable, and may foster future development

LED Fast Facts – Current Trend

- At least 221 cities worldwide are switching their street lighting to LEDs, including a full 30% of outdoor lights in the United States
- Cities are implementing public lighting programs for two main reasons – economic growth and community safety

LED Fast Facts – Energy Savings

- LED bulbs are up to 50% more energy efficient than traditional sodium bulbs and last 15 to 20 years
- LED street lighting is one of the most visible energy efficiency projects a city can undertake that benefits the entire community

Upfront Cost

- The City would need to negotiate with Xcel Energy to enable us to buy ownership of their street lighting assets, enabling the LED conversion
- Purchasing LED bulbs is expensive
 - The energy and cost savings potential of LED public lighting outweigh the initial investment and physical retrofitting, but the capital costs are higher.
 - Unsubsidized LED luminaires can cost two to four times more than high pressure sodium bulbs

Later Cost - Maintenance

- On average, one high pressure sodium bulb has two rounds of outlays for replacement before one LED bulb would need the same
- We would need to create a maintenance plan for the new light fixtures that will be City-owned
 - Facilities does not have the staff capacity to create a maintenance plan
 - Maintenance is usually contracted out to WL

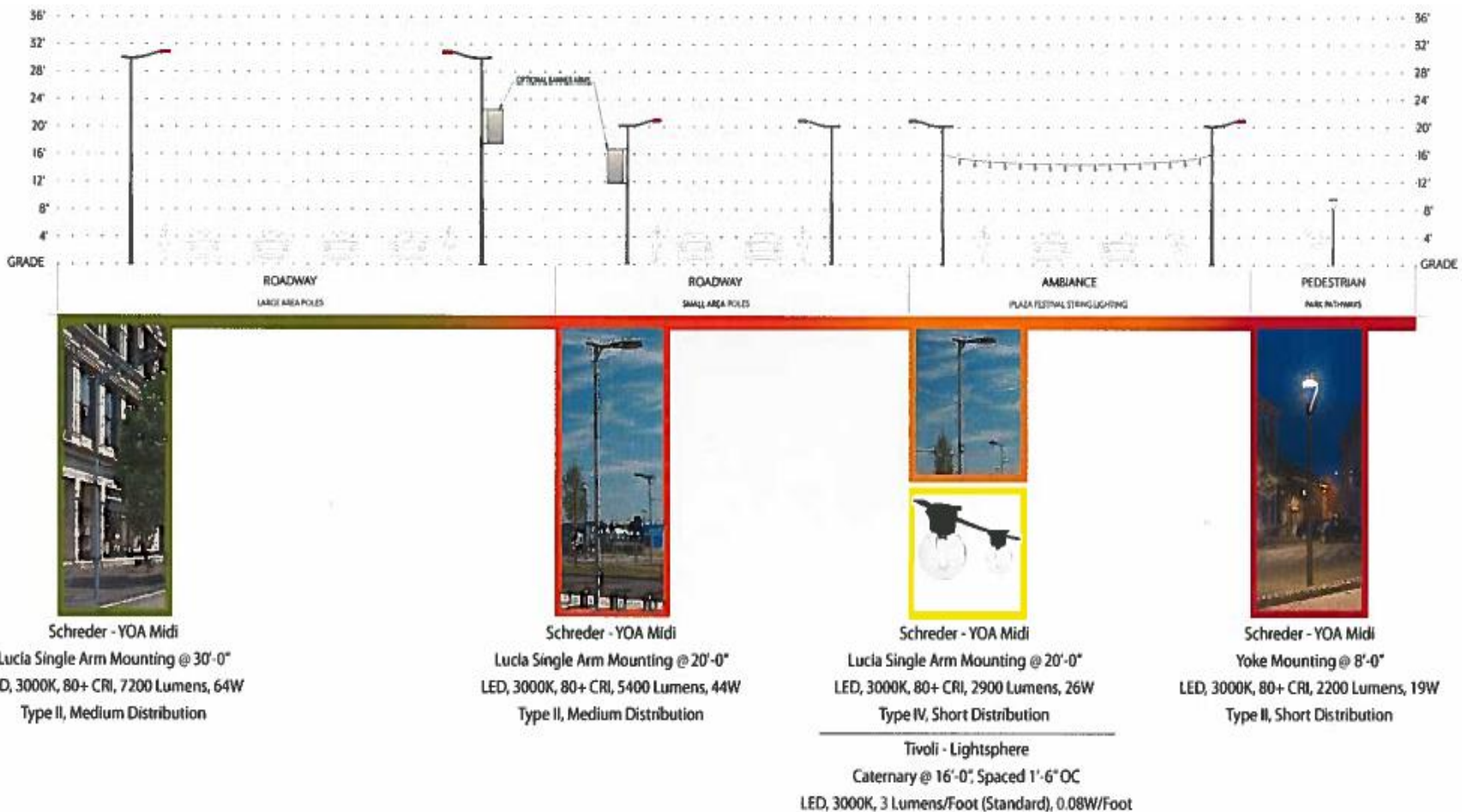
Areas of Concern

- **Small area poles** function as street light and **pedestrian poles**
- **Large area poles** cover a broader area and are a lower priority since they only benefit drivers
- **Festoon lighting** is not necessary to meet lighting standards



Proposed Fixtures

- The fixtures were selected during a process to plan for lighting and signage that would form a cohesive visual identity
- The poles feature a custom red paint that will match the entryway sign



Cost Estimates

- Blue font indicates priority

	Price Per Unit	Estimated Quantity	Total Estimated Cost
Large Area Pole	\$3,100	40	\$124,000
Small Area Pole 1	\$2,100	70	\$147,000
Small Area Pole 2	\$2,050	8	\$16,400
Pedestrian Pole	\$1,550	26	\$40,300
Custom Paint for Poles	\$1,000	Price per order	\$1,000
Banner Arm	\$90	50	\$4,500
Festoon Lighting	\$10 per foot	460 feet	\$4,600
Driver for Festoon	\$245	6	\$1,470
Decorative Poles	\$712	4	\$2,848
Control Package (standalone photocells) OR	\$75	144	\$10,800
Control Package (wireless smart system with monitoring capabilities and option to control future signage)	\$245	144	\$35,280

- Priority costs with the more expensive control package totals \$198,680

Barriers to Installation

- Water and sewer lines need to be re-done to meet service needs of future development
 - At the time the Derby Lighting and Signage Plan was made, we did not know about the water and sewer issues
- Need to underground utilities before new light fixtures are installed, otherwise we will have to rip up new fixtures when we underground
 - Streets throughout Derby are narrow and there is a lot of overhead, so undergrounding will be costly

Barriers Continued

- The necessary work to replace water mains, sewers, and the necessary electrical poles could coincide with existing projects. The capacity would be based on SACWSD
 - Derby Area **is** identified for work in 2021 in their five year plan
- Public Works is approximately two-three years away from being “caught up” on existing projects
 - Switching over an area’s streetlight system to LED is a high volume project
 - But, PW **can** re-arrange priorities if the project is flagged as priority by CMO



Reuse Plan

- Orange circles indicate where electrical poles and power lines could be reused



Available Funds

- **Derby Catalyst:** \$613K has been transferred to the URA and is eligible for use on the Derby projects
- **Undergrounding:** Funds may be available to help underground utilities
 - 88th, Rosemary, and CO/72nd are eligible
- **CDBG:** Residential sections are eligible
 - Mixed-use areas may also be eligible, if area is included in the five year plan
- **Federal:** Could use new grants person to help find a grant

2021 Requested CIP Projects

- **Derby Improvements** – Repair pavers at Monaco Street and 72nd Place
 - Proposed \$300K funded by the highway user tax
- **Derby Area Lighting** – Improve lighting to make the area safer and more welcoming
 - Proposed \$200K funded by the transportation tax
- **Core City Infrastructure**– Address pavement, sidewalk, and drainage issues
 - Not proposed to receive funding in 2021

Next Decisions

Decision 1 – Ownership

- Purchase from Xcel
- Do nothing with Derby's lighting

Decision 2 – Infrastructure

- Work with SACWSD to update infrastructure during 2021
- Install lighting without updating infrastructure

Decision 3 – Maintenance Plan Creation

- Contract out
- Reprioritize Facilities' workload

Decision 4 – Light Installation

- Install all priority lighting - \$198,690
- Install priority lighting only where current electrical poles are usable – Approximately \$39,900
- Install all lighting in the Downtown Lighting Plan - \$377,398

*Prices include the “smart” control package, and **do not** include costs for water infrastructure updates, electrical pole installation, power updates, cost of labor, or markups





Discussion

