City of El Segundo

Richmond Street
Lighting Considerations
El Segundo Blvd. to Holly Street
Lighting Enhancement Considerations

- Fixture Type and Corresponding Layout
- Cost Comparison
- Solar vs. Grid – pros and cons
- Light Rendering Index and Brightness
Lighting Options

1. Maintain existing marbelite fixtures – install 12
2. Solar pedestrian lighting – install 28
3. Install grid-based pedestrian lighting – install between 12 and 28
Lighting Options

Replace Existing Street Lighting (HSPV)

- Install 12 SCE standard marbelite poles
- They are consistent throughout downtown
- Minimal sidewalk and street lighting provided
- Requires support structure (conduit, cabinets, pull boxes, etc.)

<table>
<thead>
<tr>
<th>Count</th>
<th>Fixture Cost</th>
<th>Annual Electricity</th>
<th>Annual Maintenance</th>
<th>40 Year Cumulative</th>
<th>Per Fixture over 40 yrs</th>
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<tbody>
<tr>
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<td>$2,421</td>
<td>N/A</td>
<td>$146,037</td>
<td>$12,169</td>
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Lighting Options

Replace Existing Street Lighting (LED)

- Install 12 SCE standard marbelite poles with tear-drop lamps
- They are consistent throughout downtown
- Minimal lighting provided
- Requires support structure (conduit, cabinets, pull boxes, etc.)

<table>
<thead>
<tr>
<th>Count</th>
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Lighting Options

Replace Existing Street Lighting (HSPV)

- Install 12 SCE nostalgic poles with dual acorn heads
- They are consistent throughout downtown
- Minimal lighting provided
- Requires support structure (conduit, cabinets, pull boxes, etc.)

<table>
<thead>
<tr>
<th>Count</th>
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Lighting Options

Pedestrian Lighting (LED)

- Install 28 City-owned globe lights
- Unique to Richmond St.
- Good sidewalk light coverage
- Requires support structure (conduit, cabinets, pull boxes, etc.)

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<thead>
<tr>
<th>Count</th>
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## Lighting Options

### Pedestrian Lighting (LED)

- Install 28 City-owned dual headed pedestrian lights
- Unique to Richmond St.
- Good sidewalk light coverage
- Requires support structure (conduit, cabinets, pull boxes, etc.)

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Lighting Options

Pedestrian Lighting
(Solar)

- Install 28 City-owned triple-headed pedestrian lights
- Unique to Richmond St.
- Average sidewalk light coverage
- Completely off the grid

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<th>Fixture Cost</th>
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Approve a Lighting Option

- Replace existing marbelite poles; 8 or 12 fixtures
- Install pedestrian lighting (28) and (3) marbelite poles

- Solar
- Grid connected
Summary Thoughts

Solar is the cheapest short term and long term lighting option

Pro’s
- Easy to make field adjustments
- Individual components can be replaced
- Technology is evolving

Cons
- Product durability untested
- Light output is less than grid lights
- Charging time varies with season and weather
Summary Thoughts

- Grid Lights are an option, whether SCE or City Owned

- Pros
  - Cost difference is not significant between many grid options
  - Products are tested and reliable
  - Light output is not season or weather dependent
  - Larger variety of LED hues available

- Cons
  - Limited number of fixtures and overall light coverage
  - Field adjustments are difficult
Questions