**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR SINGLE BRIDGE WITH FENDERS**

- Use RFL when Pier is at Channel Edge and see CFR, Title 33, part 118 for Mounting Height restrictions. Use RCL otherwise.
- **Mounted only on the Pier that defines CM, otherwise does not apply.**
- ***RFL to be located at mid length of straight portion of fender.***

**FOR DUAL BRIDGES WITH FENDERS**

**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR SINGLE BRIDGE WITHOUT FENDERS**

- RFL or RCL *

**FOR DUAL BRIDGES WITHOUT FENDERS**

**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR DUAL BRIDGES WITHOUT FENDERS**

**FOR SINGLE BRIDGE WITHOUT FENDERS**

**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR DUAL BRIDGES WITH FENDERS**

- RFL or RCL *

**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR DUAL BRIDGES WITH FENDERS**

**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR SINGLE BRIDGE WITH FENDERS**

**NAVIGATION LIGHT SYSTEM SCHEMATIC**

**FOR DUAL BRIDGES WITH FENDERS**

**NOTE:**

Size conduit and conductors per NEC requirements. Do not use conduit smaller than \( \Omega \) " Ø.

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**NAVIGATION LIGHT NOTES:**

1. Provide Navigation Light System in compliance with Specifications Section 510.

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**NAVIGATION LIGHT SYSTEM DETAILS (FIXED BRIDGES)**

**POWER CONDUCTORS**

<table>
<thead>
<tr>
<th>DISTANCE (feet)</th>
<th>VOLTS</th>
<th>CONDUCTOR</th>
<th>TRANSFORMER</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 75</td>
<td>120</td>
<td>#12 AWG</td>
<td>N/A</td>
</tr>
<tr>
<td>75 - 500</td>
<td>120 or 240</td>
<td>#10 AWG</td>
<td>N/A</td>
</tr>
<tr>
<td>500 - 1000</td>
<td>240</td>
<td>#10 AWG</td>
<td>#2 KVA</td>
</tr>
<tr>
<td>1000 - 2000</td>
<td>480</td>
<td>#8 AWG</td>
<td>2 KVA</td>
</tr>
<tr>
<td>2000 - 5000</td>
<td>480</td>
<td>#6 AWG</td>
<td>2 KVA</td>
</tr>
<tr>
<td>5000 - 10000</td>
<td>480</td>
<td>#4 AWG</td>
<td>2 KVA</td>
</tr>
<tr>
<td>Over 10000</td>
<td>480</td>
<td>#2 AWG</td>
<td>2 KVA</td>
</tr>
</tbody>
</table>

**LEGEND**

- **LC** Lighting Contactor
- **PC** Photocell Control
- **Xmer** Transformer (If Required)
- **RFL** Red Pier/Fender Light (180° visibility)
- **RCL** Red Channel Margin Light (180° visibility)
- **GCL** Green Center Channel Light (360° visibility)
- **CGL** Clearance Gauge Light
- **CM** Channel Margin or Pier inner surface whichever defines Channel Edge.

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**TYPICAL ELECTRICAL SCHEMATIC DIAGRAM**
CROSS REFERENCES:
1. For Navigation Light System notes and legend, see Sheet 1.
2. See Utility Conduit Detail sheets for Embedded Junction Box (EJB) dimensions & locations.

GCL OR RCL MOUNTING DETAILS (SCHEMATIC)
VIEW A-A
(Traffic Railing - 32" F Shape shown, other railings similar)

* Supplied by Light Fixture Manufacturer

GCL OR RCL MOUNTING DETAILS (SCHEMATIC)
ELEVATION VIEW
(Traffic Railing (32" F Shape) shown, other railings similar)

Install Light Fixture so as to ensure visibility from an approaching vessel.

SECTION B-B
TYPICAL POSITION OF RCL OR GCL RELATIVE TO SUPERSTRUCTURES