NAVIGATION LIGHT NOTES:

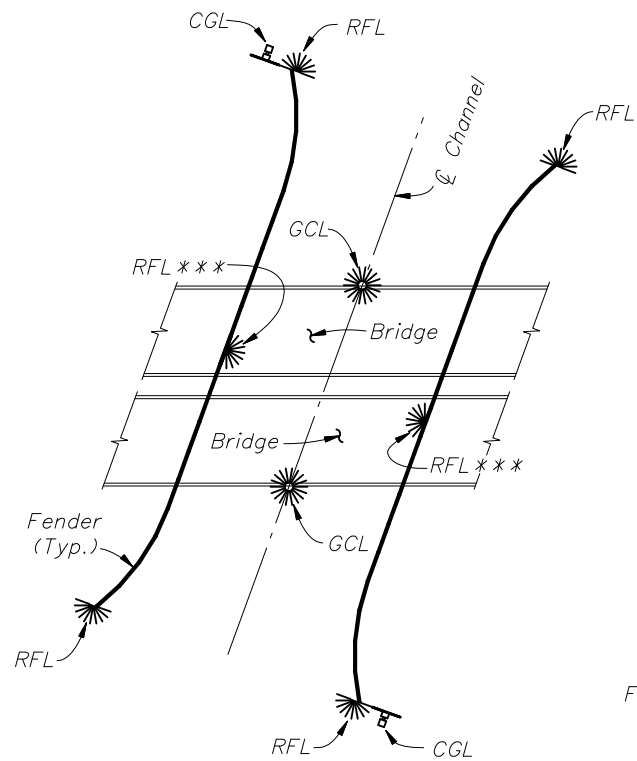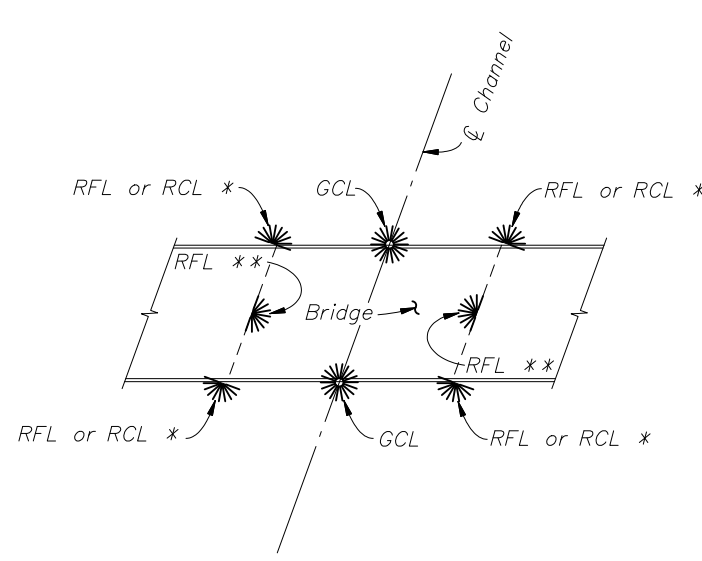1. Provide Navigation Light System in compliance with Specifications Section 510.

NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR SINGLE BRIDGE WITH FENDERS

NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR DUAL BRIDGES WITH FENDERS

FROM POWER SOURCE

NOTE:
Size conduit and conductors per NEC requirements.
Do not use conduit smaller than ¾" Ø.

TYPICAL ELECTRICAL SCHEMATIC DIAGRAM

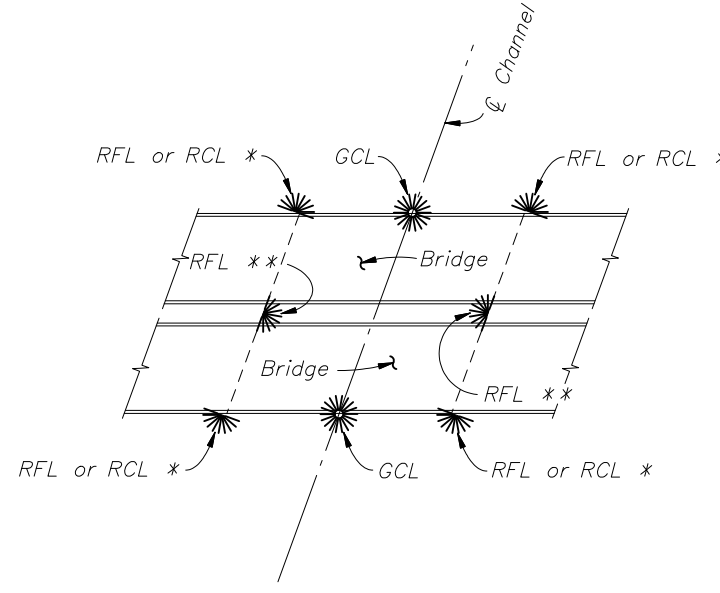NAVIGATION LIGHT SYSTEM SCHEMATIC
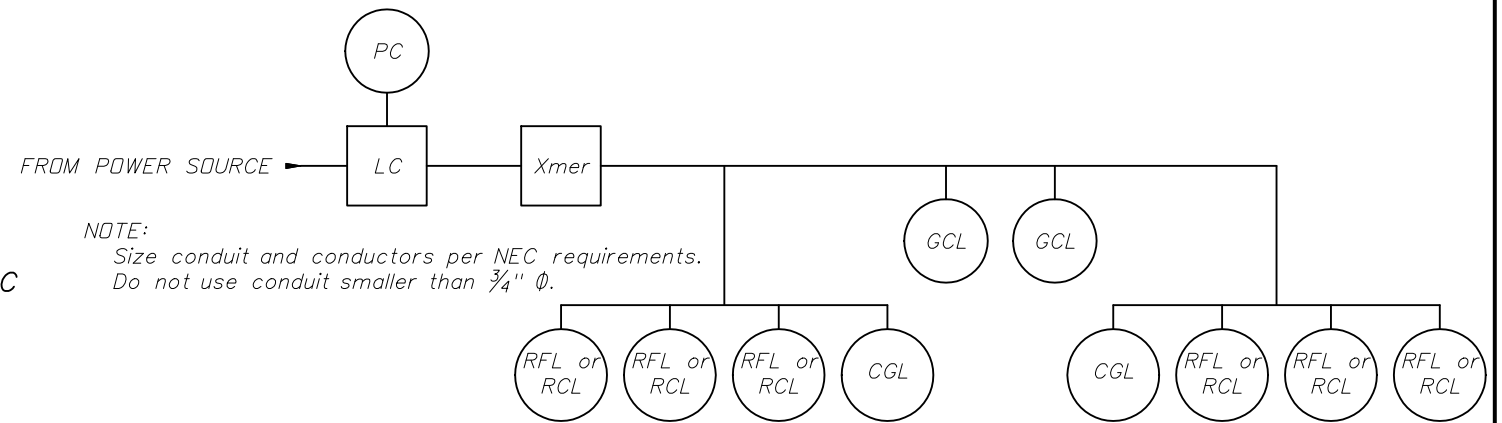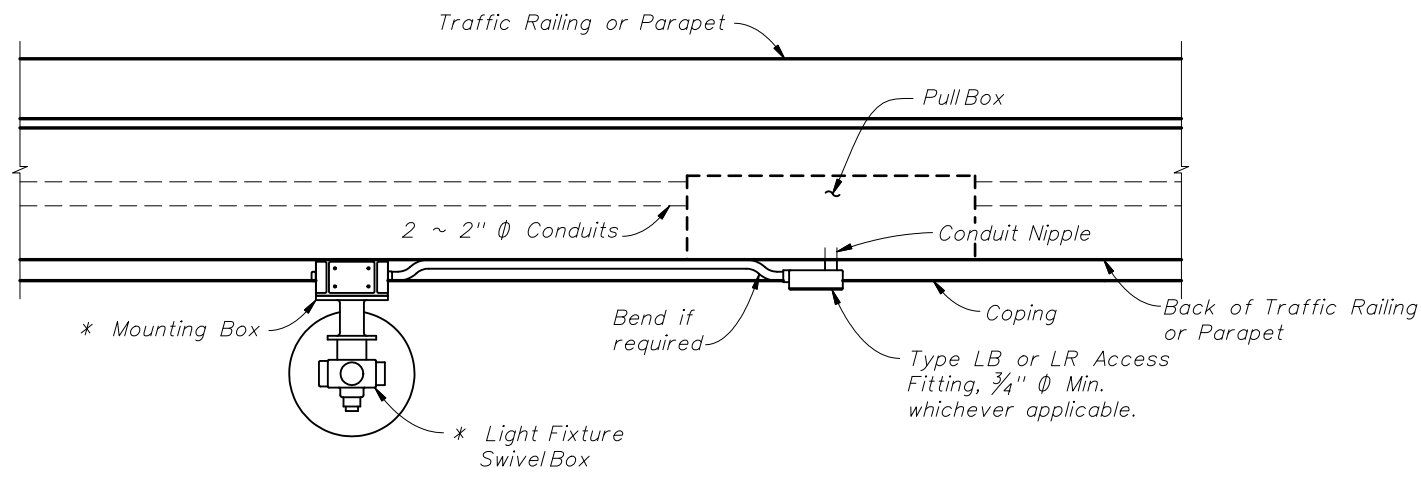FOR SINGLE BRIDGE WITHOUT FENDERS

NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR DUAL BRIDGES WITHOUT 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.

LEGEND

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

POWER CONDUCTORS

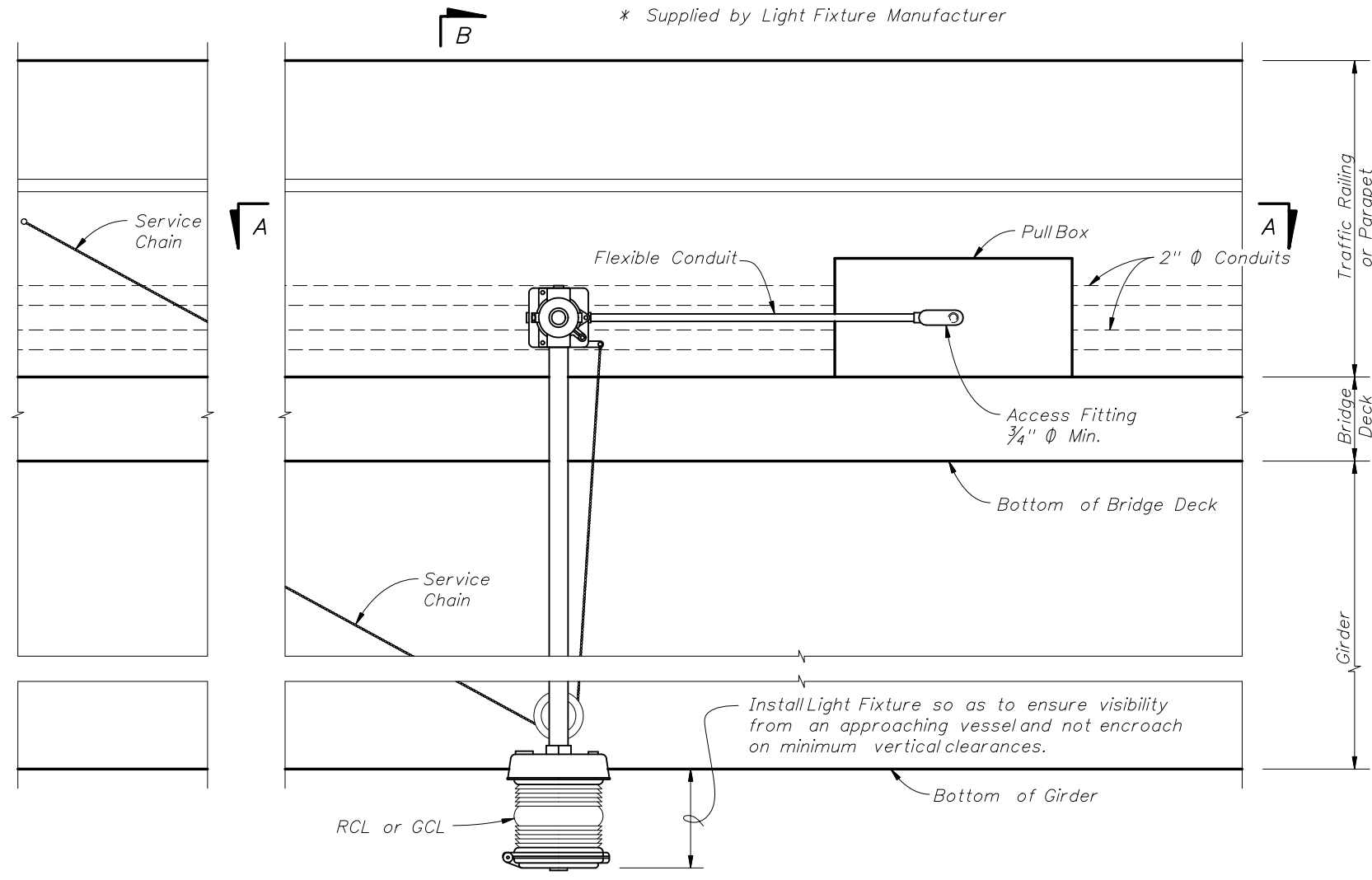| DISTANCE (feet)	VOLTS	CONDUCTOR	TRANSFORMER
0 – 75	120	#12 AWG	N/A
75 – 500	120 or 240	#10 AWG	N/A
500–1000	240	#10 AWG	N/A
1000–2000	480	#10 AWG	2 KVA
2000–5000	480	#8 AWG	2 KVA
5000–10000	480	#6 AWG	2 KVA
over 10000	480	#4 AWG	2 KVA

INSTRUCTIONS TO DESIGNER:

1. Provide design of CGL locations, configurations and its supporting structures.
2. Provide design of RFL locations and configurations in Fender System drawings if applicable.
3. If actual conditions differ from the typical configurations shown on this sheet, design Navigation Light System to comply with Code of Federal Regulations Title 33, Chapter 1, Part 118.
4. Provide automatic lock positions for service and operating.
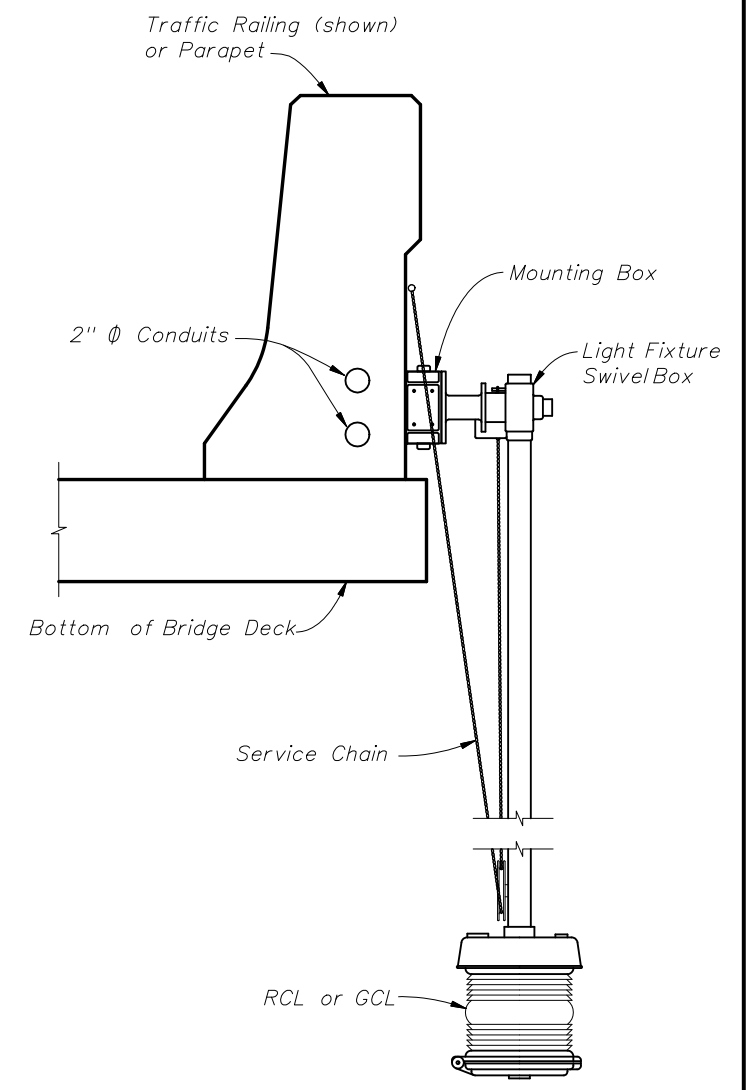5. Specify Service Chain mounting location.

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NAVIGATION LIGHT SYSTEM DETAILS
(FIXED BRIDGES)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

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Traffic Railing or Parapet

Pull Box

2 ~ 2" ⌀ Conduits

Conduit Nipple

* Mounting Box

Bend if required

Coping

Back of Traffic Railing or Parapet

Type LB or LR Access Fitting, ¾" ⌀ Min. whichever applicable.

* Light Fixture Swivel Box

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

B

* Supplied by Light Fixture Manufacturer

Service Chain

A

Flexible Conduit

Pull Box

2" ⌀ Conduits

A

Traffic Railing or Parapet

Traffic Railing (shown) or Parapet

Mounting Box

2" ⌀ Conduits

Light Fixture Swivel Box

Access Fitting ¾" ⌀ Min.

Bridge Deck

Bottom of Bridge Deck

Bottom of Bridge Deck

Service Chain

Service Chain

Girder

Install Light Fixture so as to ensure visibility from an approaching vessel and not encroach on minimum vertical clearances.

Bottom of Girder

RCL or GCL

RCL or GCL

B

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

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

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