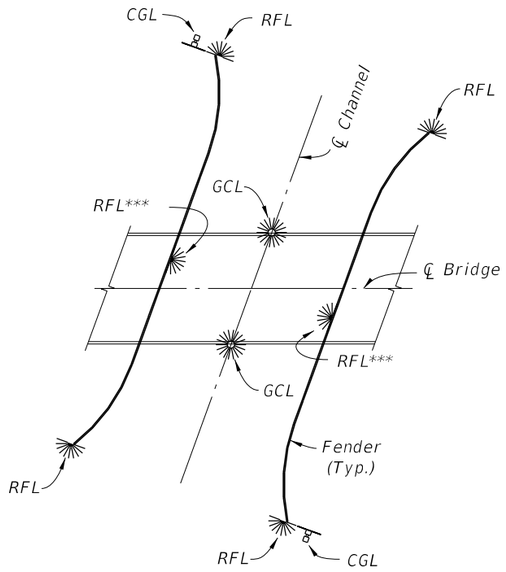
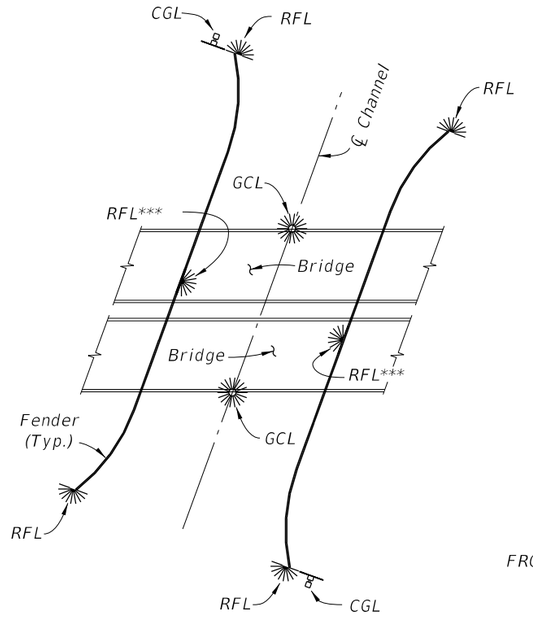


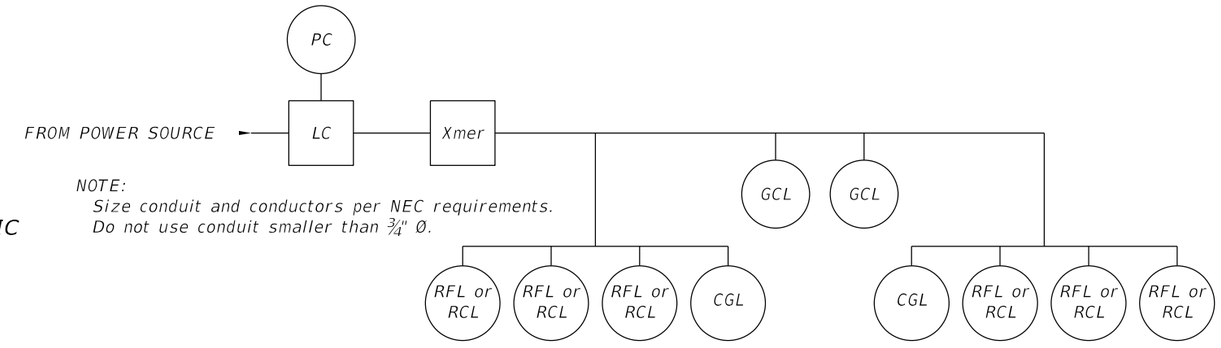
NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR SINGLE BRIDGE WITH FENDERS



NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR DUAL BRIDGES WITH FENDERS

NAVIGATION LIGHT NOTES:

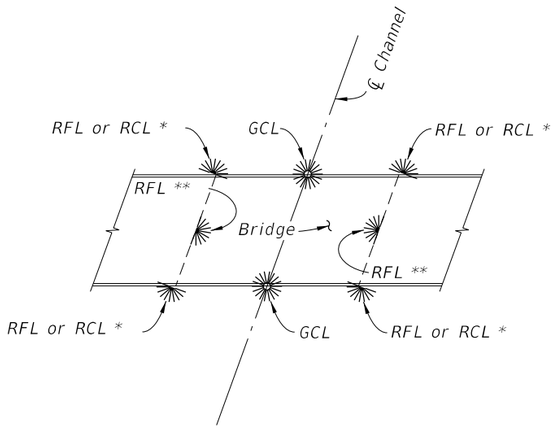
1. *Provide Navigation Light System in compliance with Specifications Section 510.*



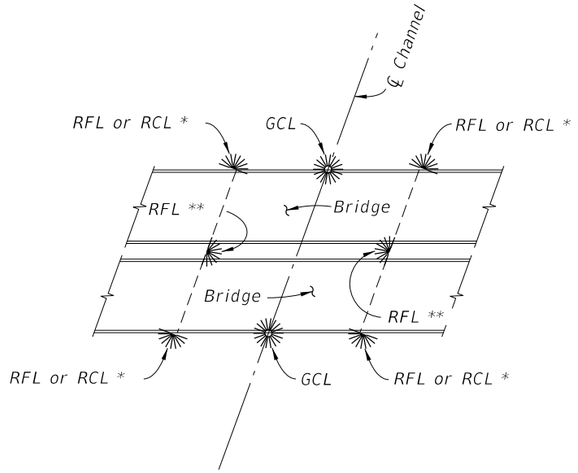
NOTE:
Size conduit and conductors per NEC requirements.
Do not use conduit smaller than ¾" Ø.

TYPICAL ELECTRICAL SCHEMATIC DIAGRAM

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



NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR SINGLE BRIDGE WITHOUT FENDERS



NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR DUAL BRIDGES WITHOUT FENDERS

LEGEND

SYMBOL		DESCRIPTION
	LC	Lighting Contactor
	PC	Photocell Control
	Xmer	Transformer (If Required)
	RFL or RCL	Red Pier/Fender Light (180° visibility) / 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.

* 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.

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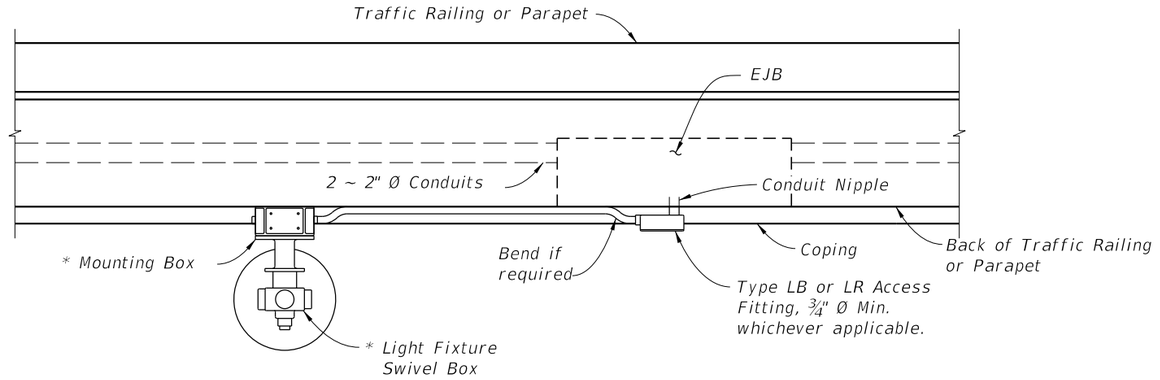
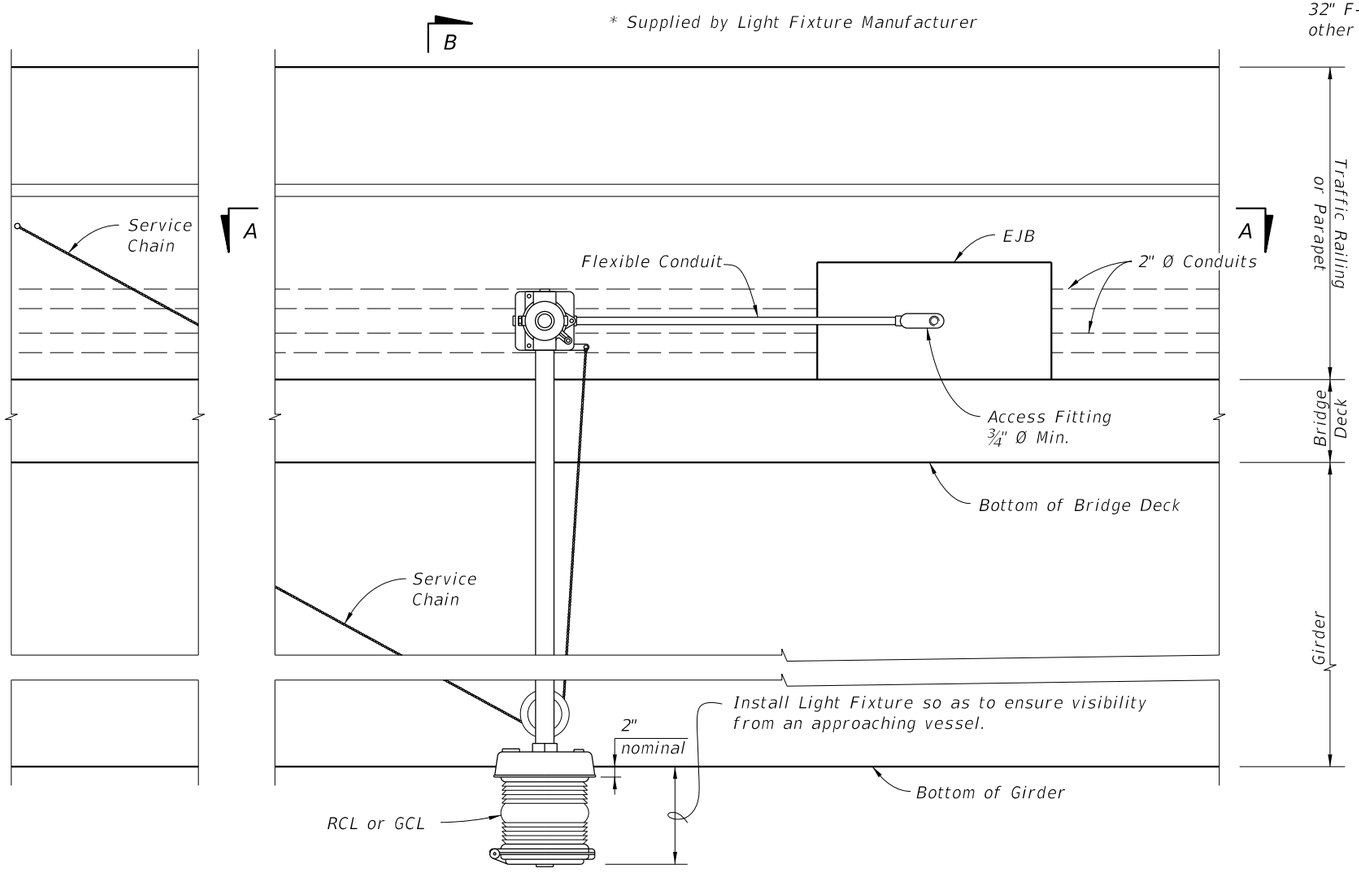
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
01/01/12			FDOT FY 2016-17 DESIGN STANDARDS	NAVIGATION LIGHT SYSTEM DETAILS (FIXED BRIDGES)	21220	1 of 2



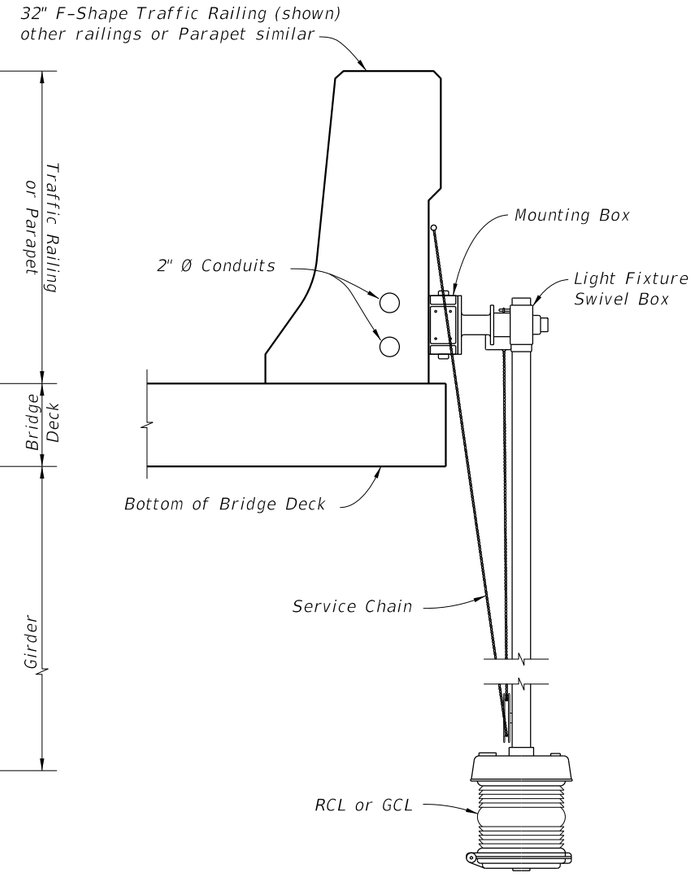
CROSS REFERENCES:
1. For Navigation Light System notes and legend, see Sheet 1.
2. See Utility Conduit Detail sheets for Embedded Junction Box (EJB) dimensions & locations.

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)



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

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LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/13			FDOT FY 2016-17 DESIGN STANDARDS	NAVIGATION LIGHT SYSTEM DETAILS (FIXED BRIDGES)	21220	2 of 2