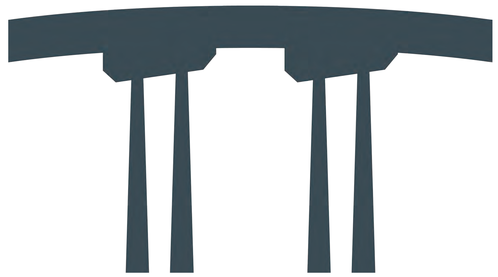
FLORIDA AVENUE PROJECT

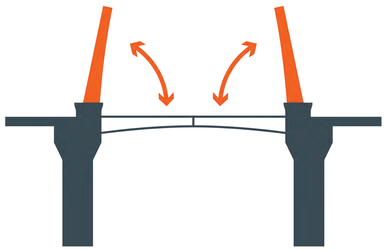
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Inner Harbor Navigation Canal Bridge Alternative Matrix



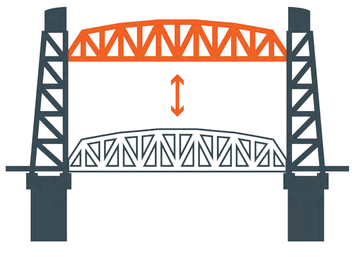
FIXED BRIDGE

A Fixed Bridge is a stationary bridge. The height of a fixed bridge is determined based on past and prospective marine traffic. The cost of a fixed bridge depends on the bridge height and the distance the bridge spans across the waterway.



DOUBLE-LEAF BASCULE BRIDGE

A bascule bridge rotates in a vertical plane (up and down) around a horizontal axis, much like a seesaw. When the double-leaf bascule bridge opens, the two spans rotate away from each other and provide an unlimited vertical clearance for marine traffic passing through the channel.



VERTICAL LIFT BRIDGE

A verticle-lift bridge is a type of movable bridge in which the span rises vertically while remaining parrallel with the deck.

	Fixed Bridge	MOVABLE BRIDGE ALTERNATIVES	
		Double-leaf Bascule Bridge	Vertical Lift Bridge
Marine Vertical Clearance - Up	Limited	Unlimited	Limited
Marine Vertical Clearance - Down		Clearance varies across channel depending on haunch of girders or truss.	Uniform vertical clearance across channel
Vehicular Vertical Clearance	Unlimited	Unlimited	Limited
Bridge Type	Steel Girder	Steel Girder or Steel Deck Truss	Steel Deck Grider or Steel Through Truss
Counter Weight Location	N/A	Below roadway (Not visible)	Above roadway (Visible)
Opening / Closing Duration	N/A	2 minutes	2 minutes to 2.5 minutes
Cost - Initial	Least costly if reduced marine clearance is provided. Cost could be similar to movable if larger marine clearance is needed.	More costly than fixed bridge for reduced marine clearance	More costly than fixed bridge for reduced marine clearance
Cost - Long Term	Low	Medium	Medium
Maintenance	Low	Medium	Medium
Constructability	Less difficult	Greater difficulty than fixed span	Greater difficulty than fixed span
Reliability	High	Medium	Medium
Vessel Protection	If piers are in the waterway, protection cells required both sides both piers.	Piers designed for vessel impact. No protection cells required.	Piers designed for vessel impact. No protection cells required.
Visual Appearance / Aesthetics	Large spans high in the air may not be as attractive as a structure type that is low and not seen on the skyline.	Main piers can be shaped to make attractive, but they will be large.	Superstructure and lifting towers may not be as attractive as a double leaf bascule bridge. Tall towers visible from considerable distance.
Approach Grades	The approach grades to the fixed span can be steep depending on the vertical clearance provided for marine vessels.	The approach grades to the movable span will not be as steep as the fixed span.	The approach grades to the movable span will not be as steep as the fixed span.

PRELIMINARY SUBJECT TO CHANGE