Preserving Alexandria Bridges

THE CONDITION AND FUNDING NEEDS OF ALEXANDRIA'S AGING BRIDGE SYSTEM

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Louisiana's bridges are a critical element of the state's transportation system, which supports commerce, economic vitality and personal mobility. The state's transportation system is literally the backbone of Louisiana's economy. Louisiana's transportation system enables the state's residents and visitors to travel to work and school, visit family and friends, and frequent tourist and recreation attractions, while providing its businesses with reliable access to customers, materials, suppliers and employees.

To retain businesses, accommodate population and economic growth, maintain economic competitiveness, and achieve further economic growth, Louisiana will need to maintain and modernize its bridges by repairing or replacing deficient bridges and providing needed maintenance on other bridges to ensure that they remain in good condition as long as possible. Making needed improvements to Louisiana's bridges will require increased and reliable funding from local, state and federal governments, which will also provide a significant boost to the state's economy by creating jobs in the short term and stimulating long term economic growth as a result of preserved and enhanced mobility and access.

ALEXANDRIA BRIDGE CONDITIONS

Ten percent of locally and state-maintained bridges in the Alexandria area (which includes Rapides Parish) are structurally deficient, meaning there is significant deterioration to the major components of the bridge.

- There are a total of 532 bridges in the Alexandria area that are 20 feet or longer. These bridges are maintained by local and state agencies.
- Ten percent (54 bridges) of state-and locally maintained bridges in the Alexandria area are structurally deficient.
- Bridges in the Alexandria area that are structurally deficient carry more than 49,000 vehicles each day.
- Bridges that are structurally deficient may be posted for lower weight limits or closed if their condition warrants such action. Deteriorated bridges can have a significant impact on daily life. Restrictions on vehicle weight may cause many vehicles – especially emergency vehicles, commercial trucks, school buses and farm equipment – to use alternate routes to avoid weight-restricted bridges. Redirected trips also lengthen travel time, waste fuel and reduce the efficiency of the local economy.

- The list below details the 20 most heavily traveled structurally deficient bridges in the Alexandria area.

Rank	Parish	Location	Facility Carried	Feature Intersected	Year Built	Average Daily Traffic	Open, Closed, Posted
1	Rapides	Pineville	US0165B	KCS RAILROAD	1918	8400	Posted
2	Rapides		US0071	MP R/R @ TIOGA	1931	6600	Posted
3	Rapides	Alexandria	LA1208-1	HORSESHOE CANAL	1975	5200	Posted
4	Rapides	Ball	LA1204	FLAGON BAYOU	1973	2900	Posted
5	Rapides		LA0121	CALCASIEU RIVER	1973	2700	Posted
6	Rapides		LA0121	CALCASIEU RIVER TRIB	1973	2700	Posted
7	Rapides		LA0121	CREEK	1973	2700	Posted
8	Rapides	Alexandria	LA1243	FLAT BAYOU	1980	2700	Open
9	Rapides	Alexandria	Bryn Mawr St	HYNSON BAYOU	1951	2200	Posted
10	Rapides	Ball	LA0623	FLAGON BAYOU	1962	1730	Posted
11	Rapides		LA1200	CREEK	1960	1340	Open
12	Rapides		LA1200	BAYOU COCODRIE	1960	1340	Open
13	Rapides		LA1200	BAYOU BERTRAND	1960	1340	Posted
14	Rapides		US0167	BAYOU BOEUF	1985	1030	Open
15	Rapides		LA1206	CREEK	1939	920	Open
16	Rapides		LA1206	CREEK	1975	920	Posted
17	Rapides		LA1199	CREEK	1965	590	Posted
18	Rapides		LA0456	BAYOU LAMOURIE	1950	560	Posted
19	Rapides	Alexandria	North 16th St	BAYOU RAPIDES	1978	500	Closed
20	Rapides	Alexandria	Applewhite St	CHATLINE LAKE CANAL	1983	400	Open

- The following 20 structurally deficient bridges in the Alexandria area have the lowest average rating for deck, substructure and superstructure (carrying a minimum of 250 vehicles per day). Each major component of a bridge is rated on a scale of zero to nine, with a score of four or below indicating poor condition. If a bridge receives a rating of four or below for its deck, substructure or superstructure, it is rated as structurally deficient.

Rank	Parish	Location	Facility Carried	Feature Intersected	Year Built	Average Daily Traffic	Open, Closed, Posted
1	Rapides		Palmer Chapel Rd	WIGGINS BAYOU	1970	330	Open
2	Rapides		LA0121	CREEK	1973	2700	Posted
3	Rapides	Alexandria	North 16th St	BAYOU RAPIDES	1978	500	Closed
4	Rapides	Pineville	US0165B	KCS RAILROAD	1918	8400	Posted
5	Rapides		US0071	MP R/R @ TIOGA	1931	6600	Posted
6	Rapides		LA1199	CREEK	1965	590	Posted
7	Rapides	Ball	LA0623	FLAGON BAYOU	1962	1730	Posted
8	Rapides		LA0121	CALCASIEU RIVER TRIB	1973	2700	Posted
9	Rapides		LA1200	CREEK	1960	1340	Open
10	Rapides		LA1200	BAYOU COCODRIE	1960	1340	Open
11	Rapides		LA1200	BAYOU BERTRAND	1960	1340	Posted
12	Rapides	Woodworth	Caster Plunge Rd	LITTLE BAYOU CLEAR	1970	300	Posted
13	Rapides	Ball	LA1204	FLAGON BAYOU	1973	2900	Posted
14	Rapides		LA0121	CALCASIEU RIVER	1973	2700	Posted
15	Rapides	Alexandria	LA1243	FLAT BAYOU	1980	2700	Open
16	Rapides		LA0456	BAYOU LAMOURIE	1950	560	Posted
17	Rapides	Alexandria	Bryn Mawr St	HYNSON BAYOU	1951	2200	Posted
18	Rapides		LA1206	CREEK	1939	920	Open
19	Rapides		LA1206	CREEK	1975	920	Posted
20	Rapides	Alexandria	LA1208-1	HORSESHOE CANAL	1975	5200	Posted

TRANSPORTATION FUNDING AND PRESERVING LOUISIANA'S AGING BRIDGES

Maintaining aging bridges becomes more costly as they reach the limits of their design life, challenging state and local transportation agencies to take an asset management approach to bridge preservation that emphasizes enhanced maintenance techniques that keep infrastructure in good condition as long as possible, delaying the need for costly reconstruction or replacement.

- Repairing and replacing bridges in poor condition and preserving bridges in fair and good condition will require increased and reliable funding from local, state and federal governments.

- A recent survey of states by the U.S. General Accountability Office (GAO) found that more than half of states surveyed (14 out of 24) reported that inadequate funding was a challenge to their ability to maintain bridges in a state of good repair.

- Under pressure from fiscal constraints, aging bridges, and increased wear due to growing travel volume, particularly by large trucks, transportation agencies are adopting cost-effective strategies focused on keeping bridges in good condition as long as possible. While this strategy requires increased initial investment, it saves money over the long run by extending the lifespan of bridges.

- The GAO Report found that the increase in the number and size of bridges that are approaching the limits of their design life will likely place a greater demand on bridge owners in the near future, making it more difficult to mitigate issues in a cost-effective manner.

- A survey included in the GAO report found that more than half of states surveyed (13 out of 24) indicated that the advanced age of many bridges posed a challenge to their ability to maintain their bridges in a state of good repair.

- Bridge preservation may include washing, sealing deck joints, facilitating drainage, sealing concrete, painting steel, removing channel debris, and protecting against stream erosion.

- Rehabilitation involves major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects.

- Replacement projects include total replacements, superstructure replacements, and bridge widening.

- The need to repair or replace high priority bridges may create a funding cycle that makes it difficult to keep pace with the needed preservation activities.

TRANSPORTATION AND ECONOMIC GROWTH IN LOUISIANA

The efficiency of Louisiana's transportation system, particularly its roads, highways and bridges, is critical to the health of the state's economy. Businesses rely on an efficient and dependable transportation system to move products and services. A key component in business efficiency and success is the level and ease of access to customers, markets, materials and workers.

- Annually, $734 billion in goods are shipped to and from sites in Louisiana.

- Businesses have responded to improved communications and greater competition by moving from a push-style distribution system, which relies on low-cost movement of bulk commodities and large-scale warehousing, to a pull-style distribution system, which relies on smaller, more strategic and time-sensitive movement of goods.

- Increasingly, companies are looking at the quality of a region's transportation system when deciding where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses relocate to areas with a smoother, more efficient and more modern transportation system.

- Increasingly, companies are looking at the quality of a region's transportation system when deciding where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses relocate to areas with a smoother, more efficient and more modern transportation system. Highway accessibility was ranked the number one site selection factor in a 2017 survey of corporate executives by Area Development Magazine. Labor costs and the availability of skilled labor, which are both impacted by a site's level of accessibility, were rated second and third, respectively.

- The Federal Highway Administration estimates that each dollar spent on road, highway and bridge improvements results in an average benefit of $5.20 in the form of reduced vehicle maintenance costs, reduced delays, reduced fuel consumption, improved safety, reduced road and bridge maintenance costs and reduced emissions as a result of improved traffic flow.

Sources of information for this report include the Louisiana Department of Transportation and Development (LADOTD), the Federal Highway Administration (FHWA), the National Bridge Inventory (NBI), the Bureau of Transportation Statistics (BTS), and the U.S. Census Bureau.