



## GRADES

- B-** AVIATION
- B** BRIDGES
- D-** COASTAL AREAS
- D** ENERGY
- D+** FLOOD CONTROL
- C** HIGHWAYS
- C** PORTS
- D+** SCHOOLS
- C** STORMWATER
- C** TRANSIT
- C** WATER AND SEWER

The Florida Section of ASCE released the original Report Card for Florida's Infrastructure in 2008. Regrettably most of the category grades have stayed the same or gotten worse since that time. More specifically the following grades got worse since the original release in 2008: Coastal Areas dropped from a C+ to a D-; Energy from a D+ to a D; Flood Control from a C to a D+; Stormwater from a C+ to a C; Transit from a C+ to a C and Water and Sewer from a B- to a C.

# 2012 REPORT CARD FOR FLORIDA'S INFRASTRUCTURE

## **B-** AVIATION

The overall airport system in the State is viewed as being in good condition, but funding needs to continue to be made available and increases must continue to be considered to keep pace with the requirements set forth by the federal agencies (security, air traffic control). The airlines are beginning to see a slow recovery with their enplaned passenger numbers. Forecasted capacity needs over the next 5 years (new runways, terminal and baggage system expansions) will require long term commitments from a healthy funding stream.

## **B** BRIDGES

The overall bridge assessment is considered good after review of the five fundamental components Condition, Capacity, Funding (Future Need), Replacement Costs and Operation and Maintenance. The Condition of the State's Bridges scored the lowest with the overall structural condition and remaining years (life span) being considered Average. The Capacity and Maximum Inspection Frequency (Operation and Maintenance) of the State Bridges every 4 years were considered above average and at an acceptable level.

## **D-** COASTAL AREAS

The Capacity and Operation and Maintenance components were considered poor or failing for our coastal areas. There is 8.6 miles of inlet beaches that are critically eroded and a significant amount of coastal erosion is directly attributable to the construction and maintenance of navigation inlets. There are 398 miles out of 825 miles of beach that are critically eroded. The poor inlet management practices in Florida and depleted sources of off shore sand sources limit the capacity of future beach renourishment projects. Efforts are on the way for regional level projects and innovative technology development.

## **D** ENERGY

The State of Florida's total energy consumption per capita is ranked 43rd amongst all States within the United States due to the relatively low energy use by the industrial sector combined with a large population. At the same time the large population is the reason for the transportation and residential sectors to lead the State in Energy demand. The State of Florida compared to States of similar Gross Domestic Product is lagging behind in

funding in all stages of clean technology products. The total production of carbon dioxide was given a failing grade as well as the price of natural gas and availability of renewable energy sources was considered poor.

## **D+** FLOOD CONTROL

Existing structures in the Flood Control Systems in the State are in acceptably fair condition and provide adequate flood protection. The structures include primary canals, rivers, levees, dikes, major pump stations and outfall control structures. Approximately \$750 million dollars are needed over the next 10 years for capital improvements and long term maintenance programs to support flood control. The Condition and Capacity components of our lakes and storage facilities were considered poor or failing. A levee and dike safety program is necessary to ensure that the appropriate periodic assessments and inspections are being completed.

## **C** HIGHWAYS

The Operation and Maintenance and Condition of the existing Highways received an above average grade. One main component that needs addressed for the O&M and the Pavement Condition to remain above average is the establishment of a stable long term transportation revenue source. The current revenue sources are not sufficient to fund long term transportation needs. Over the last four years, the revenues for the State's Transportation Trust Fund has decreased and there has been a need to divert these transportation revenue sources to non-transportation purposes which has resulted in a significant reduction to project commitments in the Work Program.

## **C** PORTS

Florida's share of National Cruise traffic has increased from 5 to 5.8 million embarkations per year. The State's top 3 Ports (Miami, Everglades, Canaveral) account for half of the nation's cruise traffic. Florida's water borne international trade increased from 50 to 69.7 billion annually. The State's Port infrastructure was graded in light of the anticipated expansion of the Panama Canal and the corresponding competition from other neighboring state priorities.

## **D+** SCHOOLS

Florida has passed three amendments to increase education spending in the past 15 years. One amendment was passed requiring the State to provide an adequate provision to provide for a uniform, efficient, safe and secure high quality system of free public schools. Another amendment required free high quality pre-kindergarten and mandating the reduction of class sizes. Estimating the costs to meet these requirements for educational adequacy has risen to 3 billion dollars per year to meet the full implementation of the class size reduction. The state budget appropriation of 650 million falls short of the necessary funding.

## **C** STORMWATER

More utilities are implementing stormwater utilities and assessing residents with stormwater rates. Total Maximum Daily Loads and Best Management Action Plans are being implemented in the State which will drive many water management districts towards water quality improvement strategies. Municipalities and water management districts in coastal areas need to make provisions for infrastructure improvements that deal with sea level rise

## **C** TRANSIT

Overall transit ridership has decreased since 2008. Availability has decreased slightly and funding has been reduced. Evidence suggests that service availability through capital improvements will increase once the economy improves and employment and tax revenues increase. Sun Rail was approved and is moving forward.

## **C** WATER AND SEWER

Florida's utilities provide a high level of service to the customers and are operating safe facilities. Asset Management is a significant concern because the lack of adequate renewal and replacement of the existing infrastructure will have a direct negative impact on the condition of the infrastructure and the future level of service. Many areas of the State are running low on fresh water supplies and the need for alternative water supply options is critical.

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## RAISE THE GRADES 5 KEY SOLUTIONS

**1** Transportation Investment strategies reformed to systematically identify investment needs across all modes, to pursue reliable revenue sources for maintaining and expanding the transportation system and to accomplish targeted investment priorities.

**2** Reinstate Coastal and Aquatic Managed Area funding in the State budget so that critical natural resources that support Florida's economy and environment are protected. Strategically targeted coastal land acquisition is one of the best ways to protect Florida's remaining undeveloped coastal areas.

**3** Enact a Federal Flood Control Trust Act in Florida to provide dedicated and reliable Federal assistance for rehabilitation of flood control infrastructure in Florida.

**4** Florida's share of maintaining and improving Florida's Spaceport is to provide the necessary support facilities such as investing in the improvement to Port Canaveral to meet the Spaceports specific and unique needs; upgrading roads and maintaining the natural environment around the Spaceport and focus on developing a research park. This will attract more funding and provide a backdrop for a more ambitious future space missions.

**5** Improve the Safety and Security of the State of Florida's educational facilities. Continue and Increase of federal grants for high poverty and high need school districts. Continue the local County sales tax increases to support the State of Florida's educational facilities.

## EXECUTIVE SUMMARY

The Florida Section of the American Society of Civil Engineers (ASCE) represents more than 11,000 civil engineering professionals who live and work in the State of Florida. We realize the importance of the State's infrastructure to the citizens and the State's sustainability.

The maintenance and the improvement of the State's infrastructure are vital to our economy, health and natural and human built environments. As a public service to the residents of this State, the Florida Section of ASCE assembled an Infrastructure Report Card Committee to review available public records and information in order to update the assessment of the condition of the critical components of the State's Infrastructure.

## MISSION

*To provide essential value to our members, their careers, our partners and the public by developing leadership, advancing technology, advocating life-long learning and promoting the profession.*

Founded in 1852, the American Society of Civil Engineers (ASCE) represents more than 140,000 members of the Civil Engineering profession worldwide and is America's oldest national engineering society.

