526 LOWCOUNTRY CORRIDOR
NEWSLETTER

526 LOWCOUNTRY CORRIDOR

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EAST OUT OF THE DARKNESS

AN ELECTRICAL SURVEY ON THE DON HOLT

The 526 Lowcountry Corridor: EAST project team is working to develop a master electrical lighting plan for the Interstate 526 Don Holt Bridge between U.S. Highway 52 and Clements Ferry Road. The primary focus of the plan is to restore power to the bridge between Rivers Avenue and Virginia Avenue, a span that has been unlit for more than two years.

To start, the project team used drones to gather aerial footage of the bridge's electrical and communication systems, which run underneath and alongside the structure and include measurement tools for fog, traffic, bridge clearance and more.

After shooting the drone footage, secondary inspections were conducted to assess the condition of the bridge's power panels, messaging boards, fog system and lighted roadway signs. Nightly lane closures were implemented to ensure safety for both the public and project team.

The inspections yielded a temporary solution to return power to this section of the bridge and bring lights and lighted signs back online in the near future.

The Don Holt Bridge has many communications systems:

- **ITS Fog Alert System**
- **Variable Message Signs**
- **Traffic Camera System**
- **RACON Radar Marine Navigation System**
- **NOAA Air Gap Bridge Clearance Measurement System**

DID YOU KNOW?

The original electrical and communications systems for the Don Holt Bridge were installed in the early 1990s.

Nighttime inspections were conducted on the Don Holt Bridge's existing electrical systems.

EAST TRAFFIC ANALYSIS

The 526 Lowcountry Corridor: EAST project team's traffic engineers have been hard at work. Traffic engineers are transportation engineers who study traffic patterns. They study roads and highways, as well as the habits of drivers and motorists who use them.

For the EAST project, traffic engineers first created a data collection report that quantified:

- Existing traffic volumes
- Crash history
- Peak hours of traffic
- Historical growth of traffic
- Location of the truck climbing lanes
- Location of bridge structures
- Shoulder widths
- Percent of trucks using the roadway
- Speeds
- Milepost locations and distances between interchanges
- Origin-Destination information of traffic

Using the Travel Demand Model, and the existing data, they were able to determine what traffic would be like in 2050 – both the overall daily traffic and peak hour (rush hour) traffic.

The project team also conducted a "capacity" analysis and "level of service" analysis for the EAST project area for 2017 and 2050, if no road improvements were made. This was done for I-526 itself, as well as the interchanges.

This up-front traffic analysis will provide baseline data to determine what proposed improvements are needed and keep cars flowing efficiently and safely.

ANALYSIS GLOSSARY

Capacity: How much traffic can the roads handle?
Level of Service: How much congestion can we tolerate?

BRIDGE SURVEY: *A STUDY OF CURRENT CONDITIONS*

Bridges make up about 60% of the 526 Lowcountry Corridor: EAST project. Because of that the EAST project team's structural engineers have been reviewing the bridges throughout the project area.

What are they looking for?

- Structural condition; what shape is the bridge in?
- Geometry; the shape, layout, and size.
- Overall suitability for use in the future EAST project.

This evaluation will outline potential design challenges to be addressed in future projects as well as assist in developing the approximate costs associated with the potential widening, reconfiguration or replacement of bridges, as needed, to accommodate traffic and safety needs. This critical information will be used in the overall decision-making process for the EAST project.

The project team did a walkthrough investigation of the typical sections of bridges.

NATURAL AND CULTURAL RESOURCES SURVEYS NOW UNDERWAY

EAST

Assessment of baseline environmental conditions for the 526 Lowcountry Corridor: EAST project are well underway. In order to collect baseline data for the upcoming environmental document, field surveys are required. Analysis for both natural and cultural resources are currently in progress.

NATURAL RESOURCES

For natural resources, the team has begun to conduct a "wetland delineation", which simply means defining the boundaries of wetlands, streams, and critical areas. This is done by determining the predominance of wetland vegetation, hydric (wetland) soils, and signs of hydrology (water). The delineation includes a flagged line in the field with an accompanying map detailing what is and what isn't wetland.

Thus far, the EAST project team has delineated all wetland, stream, and critical-area features from the U.S. Highway 17 interchange in Mount Pleasant to the Wando River. Field work was delayed during September because of Hurricane Florence but resumed in October. The team will now begin surveying the Daniel Island area.

CULTURAL RESOURCES

Cultural resource surveys include both archaeological and architectural surveys. Our team of historians and archaeologists conducted surveys within the project study area to identify resources potentially eligible for the National Register of Historic of Places (NHRP).

Long Point Schoolhouse

The James B. Edwards Bridge

For the architectural survey, historic sites were identified within the project area that were fifty years old or older. An architectural historian visited previously recorded above-ground historical sites and identified several new above-ground sites. One site, the Long Point Schoolhouse located in the Snowden community, was identified in the project area and was recommended for NHRP eligibility. The school opened in 1904 and served the Snowden Community until 1953. Currently, the African American Settlement Communities Historic Commission is raising funds to relocate and restore the structure at the Snowden Community Center.

The archaeological team surveyed the project study area for archaeological sites. Field data is currently being evaluated and documented to establish resources that have the potential to be impacted by the project.

WEST PROJECT UPDATE

The 526 Lowcountry Corridor: WEST project team continues to refine alternative improvement plans for one of the region's most important traffic arteries. The project's WEST segment extends along Interstate 526 from Paul Cantrell Boulevard and Glenn McConnell Boulevard to U.S. Highway. 52/Rivers Avenue.

The team has analyzed existing and projected travel demands to help develop solutions for reducing congestion and improving traffic flow on I-526. This work includes improvement concepts for widening I-526, along with a number of options for improvements to the Interstate 26 and I-526 interchange, some of the most needed highway improvements in the Charleston region.

The WEST team is now refining initial concepts with an eye towards:

- Minimizing the impacts to the natural environment and adjacent neighborhoods/businesses.
- Ensuring future designs efficiently accommodate stormwater in the area.
- Minimizing the need to relocate water, sewer, gas, telephone, cable and other utilities adjacent to I-526.

The WEST project team is also working closely with the EAST project team to ensure a seamless project for the full length of 526 Lowcountry Corridor. This work will provide a crucial piece of mobility infrastructure as the Charleston region continues to grow.

CONTACT INFORMATION

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