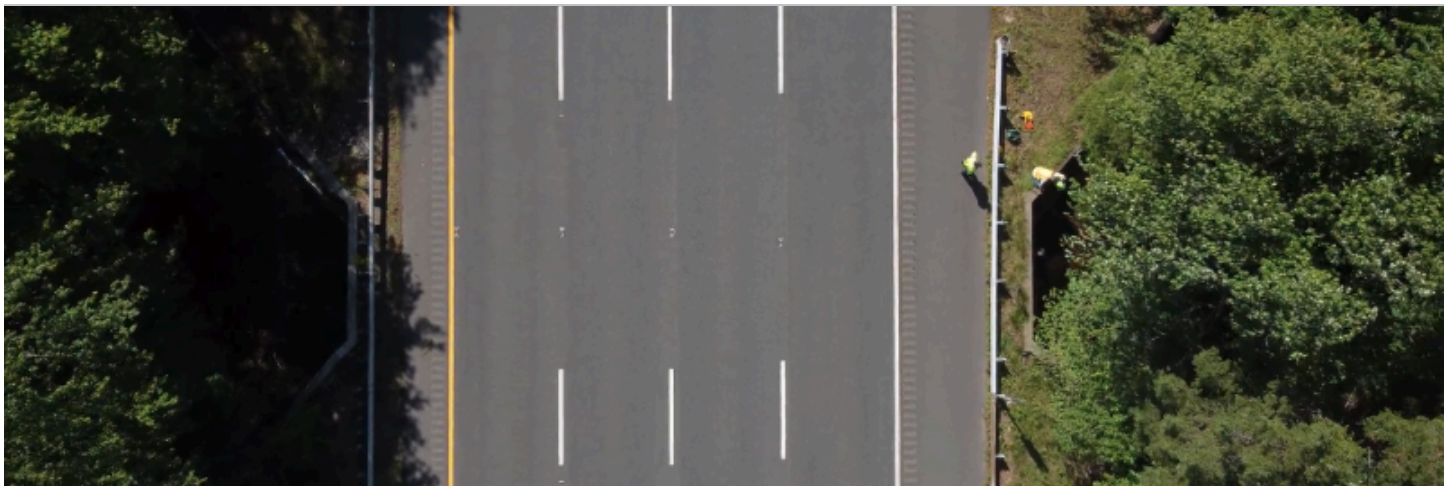
ArcGIS StoryMaps



Atlantic City Expressway

New Jersey

ARC Solutions
February 5, 2026

Road: Atlantic City Expressway

Structures: Three underpasses

Target Species: State-listed reptile and all local wildlife

In 2010, a ten-mile stretch of the Atlantic City Expressway was widened and three wildlife underpasses were built as part of the project. This busy six-lane highway connects Philadelphia and Atlantic City and is used by more than 44,000 cars per day. To accommodate drivers while also protecting a state-listed reptile and other local wildlife, three underpasses with dry passage benches were included in the widening project. The underpasses are located where the highway passes through both Pinelands National Reserve (the Pinelands), as well as Makepeace Wildlife Management Area, important habitat for many species of wildlife.

Data collected by state biologists showed that the Pinelands is home to a state-listed reptile and that this species, and other local wildlife, use waterways as natural movement corridors. This knowledge informed the location of the wildlife mitigation efforts: fencing and dry passageways under the highway. Each structure accommodates both a creek and wildlife benches on one or both sides of the waterway, for animals that prefer to keep their feet dry. In one of the underpasses, bags of concrete mix stacked along the structure walls form a wildlife bench. In the other two underpasses, gabion baskets (wire mesh baskets filled with medium sized rock) serve as dry passage shelves. The underpasses are concrete box culverts measuring 6–12 feet wide by 75 feet long extending under six lanes of highway divided by a median. The structures allow daylight in at the median—it is proven that a brighter passage passes more wildlife—and wildlife fencing stretches between and beyond the structures funneling wildlife to the underpasses both on the outside edge

of the highway and within the median, preventing them from entering the roadway. With a total of 10 miles of fencing, this is the most extensively fenced wildlife infrastructure project in New Jersey.

Various modifications and upgrades continue to be made to the structures based on information gathered through monitoring efforts—an effective example of employing adaptive management techniques in the face of new information. Monitoring biologists observed that wildlife were reluctant to traverse the rough, uneven substrate of the gabion baskets so boards were installed along the top of the baskets and topped with soil, branches and debris. Following this modification, there was a distinct uptick in structure usage. The original gabion baskets were constructed from galvanized steel, which has corroded over time due to exposure to the acidic creek water. To ensure the longevity of the dry passage shelf, the baskets are slated to be replaced with stainless steel. The entrances to the dry passage shelves

were also ramped and smoothed to improve accessibility for wildlife of all sizes. In addition, an opaque, solid fencing material with a lip at the top, sourced from Animex International, was installed near the structure entrances to close gaps where some animals were breaching the fencing. Over time, routine mowing, snow removal and vehicle collisions have degraded portions of the funnel fencing. In some places, replacement fencing was changed from a mesh to a solid material to improve long-term performance. Collectively, these upgrades improved structure usability for wildlife, improving project effectiveness.

A unique educational component of this project is the informational display in the nearby Frank Farley Service Plaza. As traveling patrons wait for their meals, they take in images of wildlife using the underpasses that circulate on a video monitor. This display is strategically placed and features engaging content, thereby successfully educating roadway users about the importance of this wildlife crossing project.

This project was funded through toll revenues collected along the Atlantic City Expressway. Project success can be attributed to strong relationships among project partners including: South Jersey Transportation Authority, NJDEP Fish and Wildlife Endangered and Nongame Species Program, Stockton and Montclair State Universities, Animex International and others.

LEARN MORE

Article: South Jersey Highlights: Environmental stewardship efforts along the Atlantic City Expressway

Article (paywall): Under the Atlantic City Expressway, Pine Barrens critters have their own roads

Acknowledgements

Thank you to Nick Marchese and Kailey Howard (South Jersey Transport Authority) and Gretchen Fowles (NJDEP Fish and Wildlife Endangered and Non-Game Species Program) for contributing content and technical review of project information.

Wonderful World of Wildlife Crossings

ARC is fiscally sponsored by Social & Environmental Entrepreneurs (SEE)

ARC Solutions

saveourplanet.org