

TRANSPORTER

NJDOT meets the challenge of Superstorm Sandy

Throughout the night of October 29, 2012 New Jersey residents bore witness to unprecedented storm conditions that ravaged the northeast, leaving dozens of communities virtually unrecognizable by morning. Superstorm Sandy unleashed hurricane-force wind gusts, dropped a foot or more of rain in areas and produced record storm surges along the coast. The surge near Sandy Hook topped previous records by more than 3 feet. Weather instruments recorded wind gusts of 88 miles per hour.

Sandy punished New Jersey's coastal regions as severely, or more severely, than any storm in the state's recorded history. You would have to look to

the nor'easter of 1962 and the hurricane of 1944 for

storms that delivered comparable damage to the coast. Not surprisingly for a storm of such breadth and power, damage was widespread and severe.

Trees were knocked down by the thousands, taking down electric power and other utility lines throughout the state, rendering hundreds of state roads impassable. Millions of New Jersey residents were without heat and power for days, or in many cases, more than a week. The downed trees and wires, along with localized flooding, sinkholes and washouts snarled traffic on roadways statewide.

Shore Damage

As the storm intensified through the night, the damage it inflicted on many Shore communities was unfathomable. The two hardest hit locations of New Jersey's state highway system were the devastated coastal areas along Route 35 from Point Pleasant Beach to Island

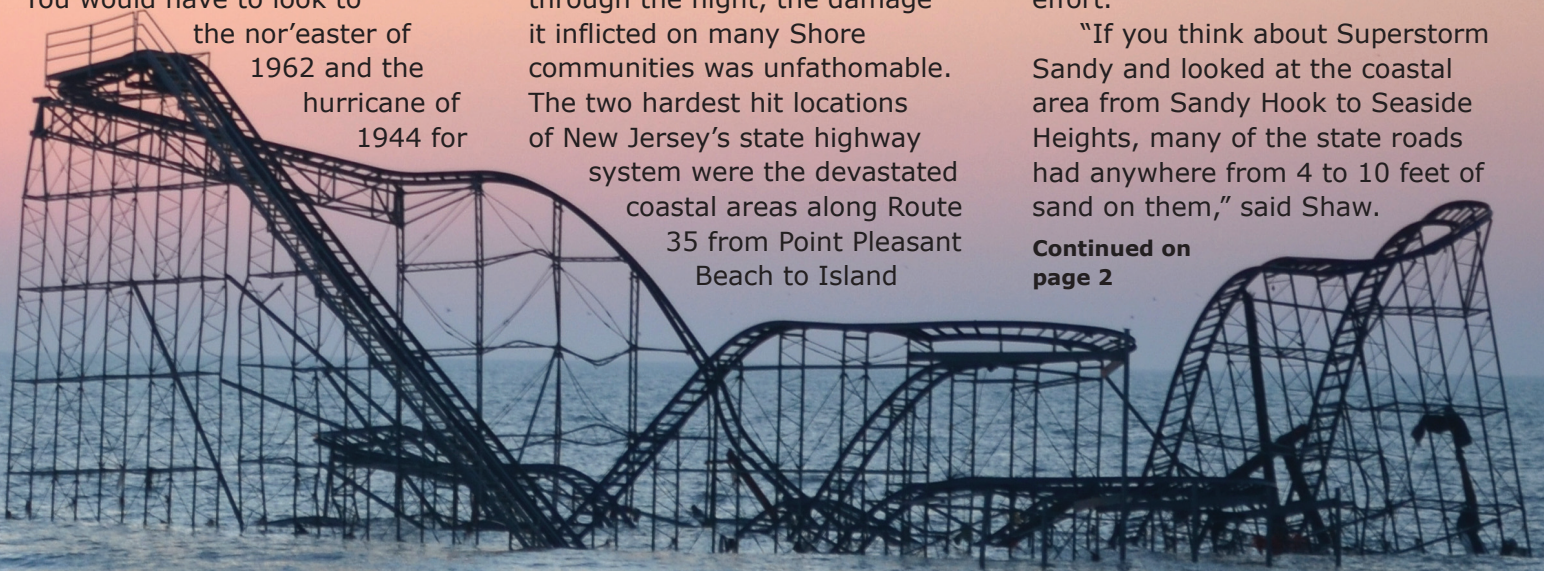
Beach State Park and along Route 36 from Sea Bright to Long Branch.

"NJDOT was fully mobilized with all hands on deck, including contractors, to handle the jobs of clearing trees and repairing traffic signals, as well as the monumental task of clearing, rebuilding and reopening these two highways," Commissioner **James Simpson** said.

Leadership happens at all levels, but it's most important at the front lines, because that's the only place to understand the magnitude of a problem. Assistant Commissioner of Operations **Rich Shaw** and Director of Operations Support **Andrew Tunnard** took control of the situation and brought a battle rhythm to our recovery effort.

"If you think about Superstorm Sandy and looked at the coastal area from Sandy Hook to Seaside Heights, many of the state roads had anywhere from 4 to 10 feet of sand on them," said Shaw.

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Jet Star roller coaster at Casino Pier, Seaside Heights
Photo by Paul Craddock

Superstorm Sandy

Continued from front page

"So before police, fire and other emergency services could access an impacted area, we needed to clear the roads first," added Tunnard.

Houses were torn apart as if a bomb exploded inside them. Others lifted off their foundations and washed into neighboring homes or onto roadways.

State highways and local streets were buried under sand dunes as high as 10 feet. Hundreds of sinkholes formed where roadways, sidewalks and storm drain inlets collapsed.

In Mantoloking, the storm surge washed entirely across the Barnegat Peninsula, from the ocean to the bay at three locations.

Recovery Operations

According to Shaw and Tunnard, NJDOT's first job was to

clear mountains of sand and debris from our highways to create access for utility companies and other recovery workers. State and contractor crews started by clearing Route 35 southbound and converted it to a two-way road. This step created a north-south route along the entire peninsula by Saturday, November 3, including across the Mantoloking breaches, providing crucial access for all who would follow in the days and weeks ahead.

Crews were deployed strategically to attack the sand and debris. Three days after the storm, NJDOT had a four-pronged attack under way. We had crews on Route 36 in Sea Bright working their way to the south led by **Anthony Ennas**, Engineer Transportation;

another crew deployed at Point Pleasant on Route 35 working its way south under the guidance of **Mukesh S. Shah**, Project Engineer Maintenance; **Ken Lane**, Engineering Technician 1, directed a third crew working its way north on Route 35 from Seaside Heights; and a fourth crew worked on Route 72 to clear the road and bridges for re-entry to Long Beach Island, led by **Nick Angelico**, Construction and Maintenance

Technician 2. **Ahmad Ghorbani**, Manager 1 Construction and Maintenance Engineering, was instrumental in coordinating all of these efforts into one cohesive operation.

Once we cleared the highways, we cleared the side streets and started the process to screen debris from the sand so that towns can reuse it for their dune and beach replenishment projects. We screened 4,330 dump truck loads of sand and removed 4,425 dump

GOVERNOR CHRISTIE STATE OF THE STATE ADDRESS

January 8, 2013

"While there are dozens of other examples of the never quit attitude of this Administration and our citizens, there is none better than the miracle of Route 35 in Mantoloking. At the Mantoloking Bridge, Route 35 had been completely washed away by Sandy—I stood at the spot where the Atlantic Ocean flowed into the bay where Route 35 once carried thousands of cars a day to vacations down the shore.

Within days, Commissioner Jim Simpson, the Department of Transportation and our private sector partners had a temporary road built to allow emergency vehicles onto the island. Now, merely 10 weeks after our state's worst storm, you see a permanent Route 35 already being rebuilt. That's what an effective government can do. That's what a determined people can do. That is how and where we will lead New Jersey in the months and years ahead."



Governor Chris Christie (left) and Commissioner James S. Simpson survey Superstorm Sandy damage.

truck loads of debris from state and local roadways, including 27 houses. A total of 114 cars and watercraft were removed from roadways and stored for owners to claim.

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Sand in the street on Route 36, Sea Bright



Route 35, Mantoloking



Route 35 Bridge, Mantoloking

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"It should be noted that NJDOT personnel and contractor personnel went about clearing the roads with heavy hearts. On one hand they knew they had a job to do and they did it - on the other, many of them struggled emotionally with this task," Tunnard said.

We also received assistance from sailors attached to US Navy Mobile Construction Battalions. More than one who had been deployed to the Katrina recovery

said we accomplished more in one week than folks in the Gulf did in five months.

By Saturday, November 3, the US Army Corps of Engineers had made sufficient progress on filling the Mantoloking breach at CR 528 that we could get heavy equipment across it. Based on the magnitude of the main breach, the decision was made to turn daily control over the repair effort there to Capital Program Management.

Assistant Commissioner **Rick Hammer** tasked Project Manager **Pankesh Patel** – highly experienced in major shore-area projects – to see it through to completion.

The efforts of NJDOT employees have been recognized by the Ocean County Freeholders and local elected officials and police departments in numerous towns including Sea Bright, Mantoloking and Toms River.

Route 45 Complete Streets makeover takes shape in Woodbury

Concerned about overwhelming congestion and the safety of pedestrians along Route 45 in their downtown area, Woodbury City officials approached NJDOT for a solution.

The NJDOT project team - including Project Managers **Ed Scott** and **Andrew Maevsky**, Program Manager **Thomas Saylor**, Assistant PM's **Evans Marcellus**, **Melvin Hebert** and **Vandna Patel**, and Planners **Leroy Gould** and **Debbie Kingsland** - worked with designer Dewberry to produce a 'Complete Streets' inspired retrofit design to change the entire complexion of the highway over an 0.8 mile stretch in the heart of the city. Special attention was paid to ensure ADA-compliance throughout the project limit.

Prior to construction, Route 45 had carried two travel lanes in each direction through downtown Woodbury without dedicated left-turn lanes which caused considerable backups, straining the patience of drivers. The \$1.4 million project has permanently reconfigured the highway to safely accommodate all users of the road, reducing the capacity down to one travel lane in each direction with a dual-use center left-turn lane and a new multi-use bike lane.



Route 45, Woodbury

"Addition by subtraction was the idea here," Maevsky stated. "While we took Route 45 down from four lanes to three, the presence of the dedicated turn lane actually frees up traffic to operate much more efficiently."

The Department opened the new-look highway in late-October and Resident Engineer **Girish C. Patel** reports that the public - both motorists and pedestrians - have adapted well to the new design. Woodbury City officials have also registered their satisfaction with the result, noted Field Manager **Vince Baglivo**.

"Features that complete a street help promote vibrant, healthy communities where

walking, jogging and bicycling are safely woven into the fabric of daily life," added DOT Bicycle and Pedestrian Coordinator **Sheree Davis**. "This Route 45 retrofit is one of our early success stories in advancing Complete Streets throughout the state."

NJDOT adopted its Complete Streets policy in December 2009 and in August 2012 it was ranked strongest statewide policy in the nation by the National Complete Streets Coalition. New Jersey's Complete Streets policy requires all major NJDOT roadway projects in the future to include accommodations for pedestrians, bicyclists, transit users and the mobility impaired.

Trophy Case

Rick Hammer, Assistant Commissioner of Capital Program Management, was awarded the "Service to the People" award from the Central Jersey Branch of the NJ section of the American Society of Civil Engineers in April.

Project Manager **Pankesh Patel** and the Route 36 Highlands Bridge project team were honored with two awards - National Recognition and NJ Honor Award - from the American Council of Engineering Companies in February. ACEC also recognized Project Manager **Shan Sundaram**



and the Route 46 Main Street improvements (in Lodi Borough) project team.

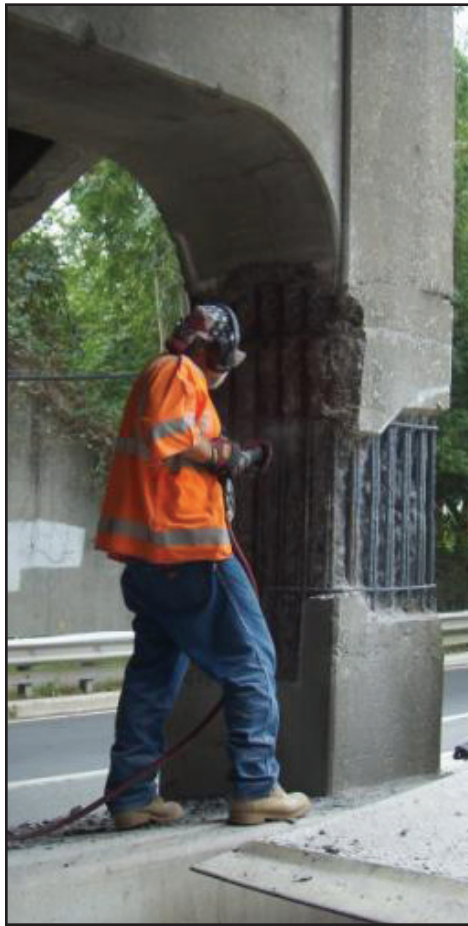
In September the Route 36 Highlands Bridge project was again honored, this time as Bike/Ped Coordinator **Sheree Davis'** submission for the project's bicycle and pedestrian enhancements was selected as a 2012 Exemplary Human Environment Initiative by FHWA. The EHEI recognize outstanding examples of transportation projects that either create or improve conditions for human activities while protecting the natural environment.

An ounce of prevention - bridge maintenance work in central Jersey

The Bridge Engineering and Operations unit has been paying extra attention to the state bridges of Monmouth County recently, with three maintenance projects focused on proactive, preventive repairs coming through in the last two years.

Senior Engineer **Gerald Oliveto** has helped each of the contracts, which combined are addressing 108 individual bridge structures along sections of five important state highways - Routes 18, 33, 35, 71 and Interstate 195 - in the county, as well as a few Route 18 bridges in Middlesex County. The contracts are administered by the Bureau of Bridge Maintenance Engineering and overseen by Manager **Ahmad Ghorbani** and Project Engineer **Mahmoud Saleh**.

To help extend the service life of these bridges, NJDOT contractors have been performing



different levels of bridge maintenance work at each location including deck patching, joint repairs, header reconstruction, crack repairs and the application of a corrosion inhibitor. Construction and Maintenance Technicians **Frank Free** and **Christian Morris** are on-site daily to ensure that the work performed conforms to NJDOT specifications.

Having committed \$8.7 million toward the continued safety and viability of the bridge infrastructure in central Jersey, the Department expects this work to pay dividends in the future. According to Oliveto "Performing these types of proactive, preventive repairs helps prolong the lifespan of these bridges and delays the need for more extensive and more expensive projects."

Work on the third and final contract is expected to wrap up next fall.

Multimodal Services implement SAGE

NJDOT's SAGE (System for Administering Grants Electronically) has been successfully implemented for all state grants managed by the Bureau of Multimodal Grants and Programs in the Division of Multimodal Services. SAGE provides a resource to Multimodal Services' Grant Managers that allows for the efficient management of publically funded grants to both private and public sector entities. Multimodal Services manages grants for capital improvements for Airports, Marinas, and Freight Railroads.

These efforts have involved extensive coordination with NJDOT Information Technology, the State's Consultant, Agate Technologies, the subject matter experts in Multimodal Services (Aeronautics, Maritime

Clare Mansfield, Administrative Analyst 2, Data Processing; **Gary Brennfleck**, Project Engineer, Construction; **Bhavin Kapadia**, Assistant Engineer, Transportation; **Taimur Shamali**, Civil Engineer Trainee;

Genevieve Boehm-Clifton, Project Manager Transportation Maritime and **Suzanne Rizzo**, Administrative

Assistant 1. The NJDOT SAGE Project Manager from the Division of Information Technology is **Joseph Cook**, Administrative Analyst 1, Data Processing.



Resources, and Multimodal Grants and Programs); as well as with the Division of Local Aid and Economic Development.

The Development Team from Multimodal Services includes

NJDOT crews team with Urban Youth Corps group to provide safer and more inviting gateways into Camden

Acting on the realization that a substantive and permanent change was needed at the gateway entrances into Camden City, NJDOT Maintenance and Operations crews stepped up 'Clean Up NJ' efforts to improve pedestrian and motorist safety along I-676 and Route 30 near the Ben Franklin Bridge, beginning late this summer.



Route 30, Camden

"The prevalence of overgrown trees and shrubs had made this area conducive to loitering, resulting in the heavy accumulation of litter in these locations," **George Caruso** Project Engineer – Landscape explained. "The vegetation had overgrown to the point that it had formed a canopy providing cover for trespassers and impeded safe pedestrian flow."

To provide increased public safety and to help beautify these gateways into the city, NJDOT crews 410, 413 and 455 led by Area Supervisor, Highway Maintenance **Don Bourne** engaged in vegetation control measures in late summer/early fall, removing trees, overgrown vegetation and non-functional

fencing on NJDOT right of way at five locations in the area. The crews ripped out a Norway Maple and other invasive tree and vegetation species and followed that by flattening and smoothing out the areas to provide 100% mowable surface areas. Additional rehabilitation and plantings have continued around the area into December.

"Our crews received a lot of positive feedback from pedestrians that walk by this area with their children or on their way to work which added to the sense of accomplishment in helping beautify these entranceways into Camden," added **Bill Kingsland**, Director of Operations Region South.

Not far from there a Camden-based non-profit organization participating in NJDOT's Urban Youth Corps summer jobs program, The Work Group, designed and carried out their own beautification project along Route 30 (Admiral Wilson Boulevard) at Baird Boulevard. Their efforts included cleaning and clearing a litter-strewn area along the heavily traveled Route 30 and building raised flower beds to create another attractive gateway to Camden. Urban Youth Corps grants funded stipends for young adults and supervisors and covered equipment and supply costs. "The young adults were provided an opportunity to be a part of improving their communities, received work readiness and vocational training and gained experience to put on their resumes as they seek jobs in the future," said **Melanie Armstrong**, Director of Civil Rights and Affirmative Action.

Further involving the community, NJDOT Landscaping personnel coordinated with a group at the Camden Aquarium Children's Garden to provide recycled wood chips from the trees being removed for use in their community vegetable and ornamental gardens.

NJDOT Golf Outing

The 13th annual NJDOT golf outing was held at Mountain View on September 7, 2012. Project Engineer **John Zim** and his volunteers did a great job putting the event together, which was sponsored by Credit Union of NJ, with net proceeds benefitting NJDOT activities.

Director of Capital Investment **Tom Wospil** (right) was the team captain for the winning foursome, who managed a low gross of 9 under par. Pictured (left to right) are the victorious Matt Immordino, former NJDOT'ers **Howard Immordino**, and **Ron Altobelli**.

