

Optimizing an Adaptive System Performance to Improve Travel Time using ATSPM Module

STIC Incentive Update: 1



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NEW JERSEY DEPARTMENT OF TRANSPORTATION

Presentation Outline

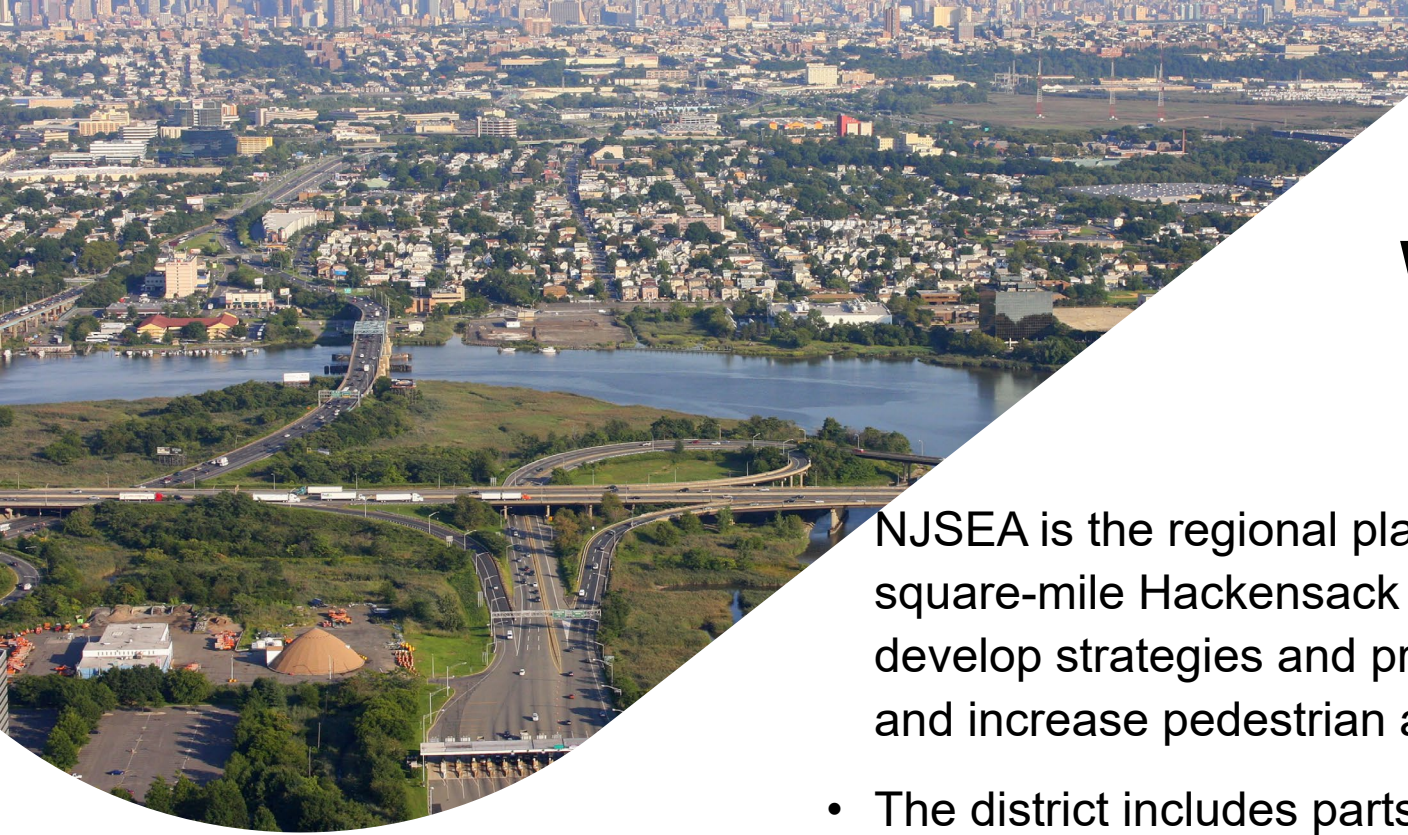
Background Review

Project Objective

Key Milestones

Tasks Completed or Underway

Next Steps



Background – Who we are

NJSEA is the regional planning and zoning agency for the 30.3-square-mile Hackensack Meadowlands and responsible to develop strategies and projects to improve multimodal mobility and increase pedestrian and bicyclist safety

- The district includes parts of 14 towns in Bergen and Hudson Counties
- In 2010, NJSEA was awarded \$10M Tiger II grant from USDOT with \$2.5M matching fund to install 123 traffic signals intersections into Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR) network
- The network was built in five phases with the last phase completed in 2017

MASSTR Intersections



MASSTR Signalized Intersections

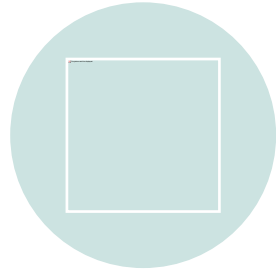
Funding Source

- NJSEA or Others Funding
- FHWA and NJSEA Funding
- Under Construction

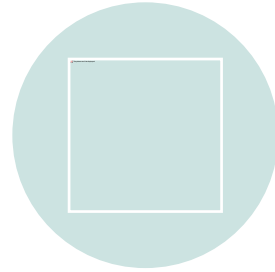
Background Review: Needs and Gaps



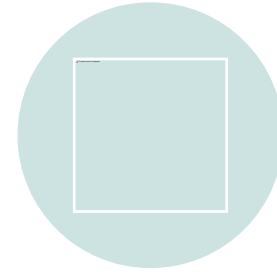
MASSTR –ADAPTIVE TRAFFIC
CONTROL SIGNAL (ATCS)
SYSTEM /SCATS NEEDS
FINETUNING TO OPTIMIZE
PARAMETERS



COMMUNITY AND
STAKEHOLDER COMPLAINTS
REGARDING TRAFFIC SIGNAL
OPERATION



RESOURCE SHORTAGE TO
ASSESS, ANALYZE, AND
ADJUST VARIABLES
PROACTIVELY

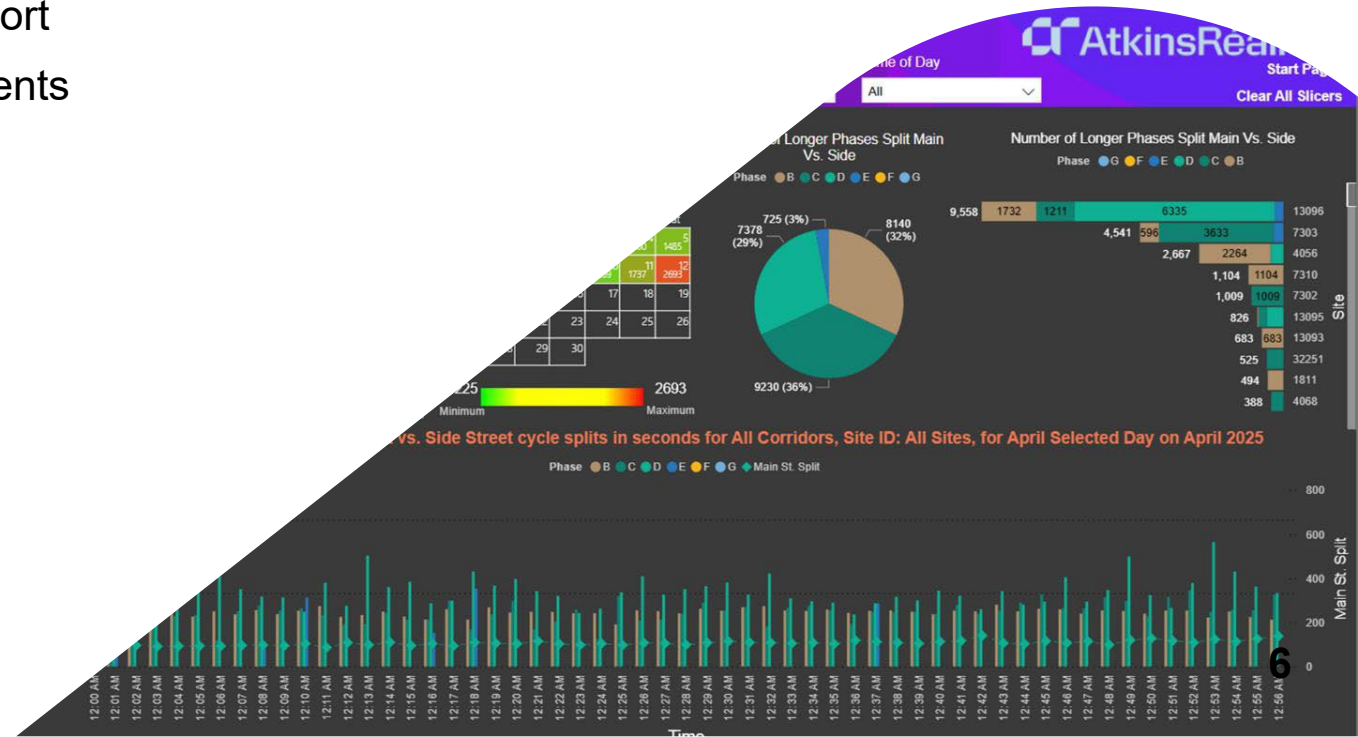


MORE EXPECTATIONS FROM
PUBLIC AND PRIVATE
STAKEHOLDERS

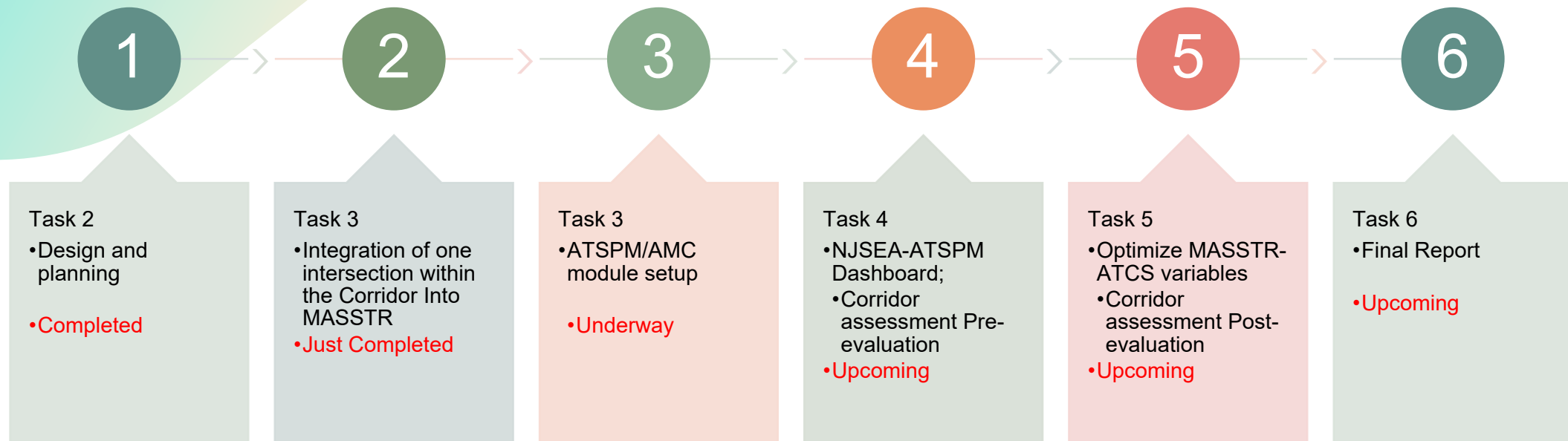
Objective

To optimize and finetune the MASSTR- ATCS Subsystem parameters utilizing the Arterial Management Center platform developed by AtkinsRéalis for NJDOT

- Two corridors
 - A corridor within a proximity of Teterboro airport
 - An Adaptive-TSP corridor utilized in large events

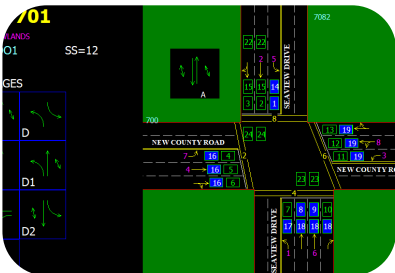


Project Key Milestones

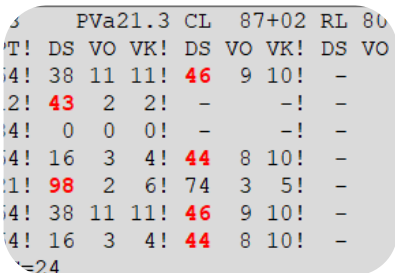




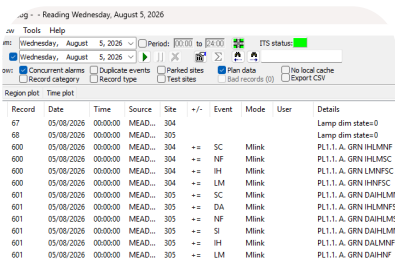
Next Steps



System access and Connectivity



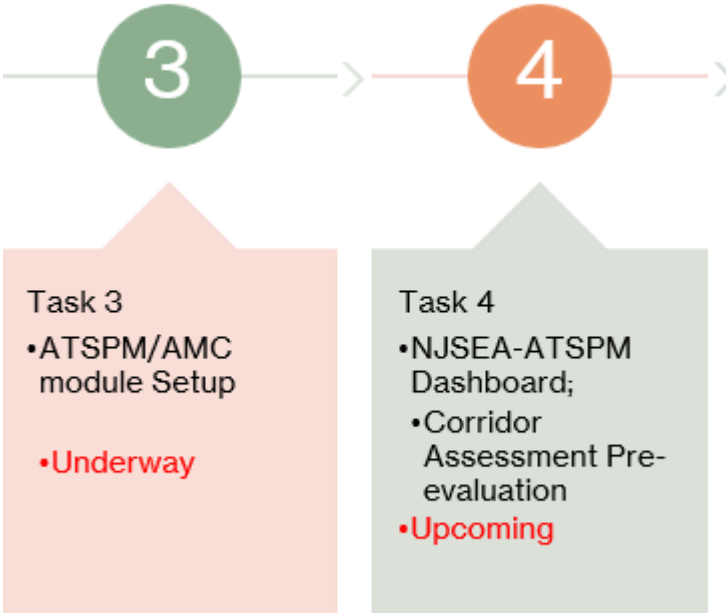
Traffic and performance data



Events, logs, and history



Asset, GIS, and network reference





Questions

Contact us: nmoini@njsea.com