NEW JERSEY STATE TRANSPORTATION INNOVATION COUNCIL

COMMUNICATIONS PLAN

March 2021

NEW JERSEY STIC

State Transportation Innovation Councils

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New Jersey
State Transportation Innovation Council

Communications Plan

March 2021

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Submitted to:

NJDOT Bureau of Research

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Our thanks to the NJ STIC leadership team and all the stakeholders who participated in NJ STIC workshops, events, interviews, and surveys for providing valuable input and observations on local and national innovations that contributed to this effort.

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Introduction

The State Transportation Innovation Council (STIC) National Network was born out of Federal Highway Administration's (FHWA) Every Day Counts program. The program helps state DOTs identify and rapidly deploy proven, yet underutilized innovations to shorten project delivery, enhance safety, reduce congestion, and improve environmental sustainability. New Jersey's STIC, as with other STICs, is charged with establishing a process by which ideas, innovative techniques and processes can be evaluated and implemented quickly and proficiently.

In recent years, a growing toolbox of communications strategies has been used to increase awareness of the Every Day Counts Program and to support the NJ STIC in its mission to foster a culture favorable to exploring and advancing innovations in transportation.

The purpose of the NJ STIC Communications Plan is to improve the effectiveness of the NJ STIC through continuing communications and engagement with STIC stakeholders at the local, regional, and state levels, as well as external stakeholders like industry and academia. The NJ STIC Communications Plan describes communication tools, methods and strategies that will be used to document performance, capture and share information on innovative initiatives, and promote implementation of these initiatives throughout the State.

Mission

The NJ STIC Team Charter states the mission of the NJ STIC:

> *The mission of New Jersey's State Transportation Innovation Council (STIC) is to identify, evaluate, and rapidly deploy new technologies and process improvements that will accelerate project delivery and improve the safety and quality of transportation in New Jersey.*

STIC Organization Framework

The NJ STIC Team charter of December 2016 establishes the NJ STIC Organization Framework and outlines key roles and responsibilities for leading innovation deployment.

NJ STIC Executive Team

The NJ STIC Executive Team's mission is to administer the business of the NJ STIC. Among other activities, the NJ STIC Executive Team schedules STIC meetings, sets STIC meeting agendas, and coordinates with the Core Innovation Area (CIA) Teams for reporting activities and proposals to the STIC, as well as communicating with agency sponsors as required. The STIC Executive Team also coordinates with the Innovation Advisory Team. The STIC Executive Team includes the NJDOT Assistant Commissioner for Planning, Multimodal and Grant Administration as well as the FHWA Deputy Division Administrator and FHWA Innovation Coordinator.

Core Innovation Areas (CIA)

STIC members attend meetings to review innovations proposed by the CIAs as well as to suggest new ideas that the STIC may want to consider for investigation. STIC members ensure that they are coordinating with the partners and stakeholders that they represent. For example, the municipal representative should be coordinating with the other municipalities in New Jersey.

The NJ STIC considers CIA proposals and makes recommendations subject to approval of NJDOT and FHWA sponsor support. Innovations that can be implemented outside the purview of NJDOT, such as at the county and municipal level, should be shared with other local governments by their respective STIC members. The STIC utilizes the CIAs to generate, investigate, evaluate, develop and implement innovation proposals for the STIC to consider.

There are four CIAs:

- Infrastructure Preservation
- Safety
- Mobility and Operations
- Organizational Support and Improvement

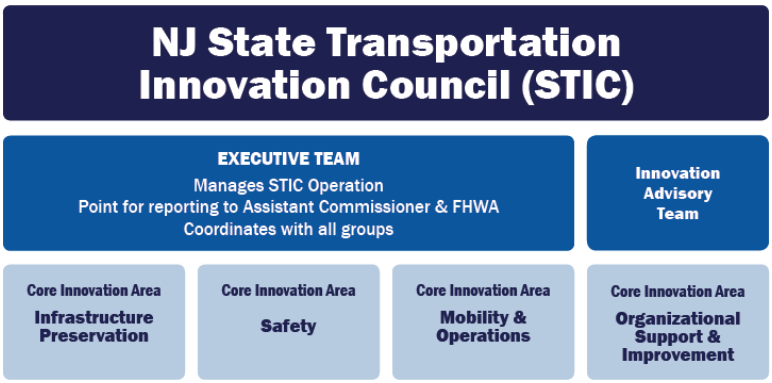


Figure 1. NJ State Transportation Innovation Council (STIC)

Each CIA has an FHWA and an NJDOT lead appointed by the STIC Executive Team. These leads report to the STIC at each STIC meeting or additionally as the CIA Team or STIC deems necessary. The CIA leads determine the members of their team, and are expected to ensure appropriate representation from federal, state, and local government, academia, and industry (see Figure 1).

Innovation Advisory Team (IAT)

The IAT is a group of NJDOT staff, FHWA staff and outside agency representatives, as deemed appropriate, whose role is to assist the Executive Team in reviewing innovation ideas collected through various avenues. Ideas are assessed and determined as worthy of further investigation by a CIA team or determined to be infeasible at the time. The IAT serves as a feedback body that provides ideas on how to improve the STIC process. The IAT includes CIA team liaisons as well as other involved FHWA and NJDOT staff.

In addition to the CIA Team liaisons, the IAT is comprised of representatives from:

- Transportation Operations and Systems Management (Transportation Mobility, Operations)
- Capital Program Management (Highway and Traffic Design, Capital Program Support, Project Management, Transportation Data and Safety, Bridge Engineering and Infrastructure Management, Construction and Materials)
- Planning, Multimodal and Grant Investment (Local Aid, Research, Environmental Resources, Statewide Planning, Multimodal Services)
- FHWA
- Others as deemed appropriate by NJDOT and FHWA

In any period, the CIAs may work on several innovation topics necessitating the delegation of responsibility to persons with specialized expertise or interest in advancing an innovation topic. The IAT includes this larger group of involved persons that are enlisted to support the CIA team liaisons.

The IAT may meet periodically to brief the Executive Team on progress toward implementation goals and milestones, to identify “ripe” topics and recruit speakers for upcoming STIC Quarterly Meetings, or to explore ways to enlist support of the working groups formed to advance implementation on various innovation topics.

Audience

STIC Members

NJ's STIC members are a cross-section of various stakeholders, state and federal agencies, local governments, academia and industry partners that work together to forge an environment of innovation, imagination, and ingenuity to pursue specific initiatives and their rapid implementation to deliver a modern and high-quality transportation system to the Garden State. Stakeholder representation includes the FHWA, NJDOT, Metropolitan Planning Organizations (MPOs), municipal and county governments, the Local Technical Assistance Program (LTAP), Universities, Consultants, and Industry (see Figure 2).

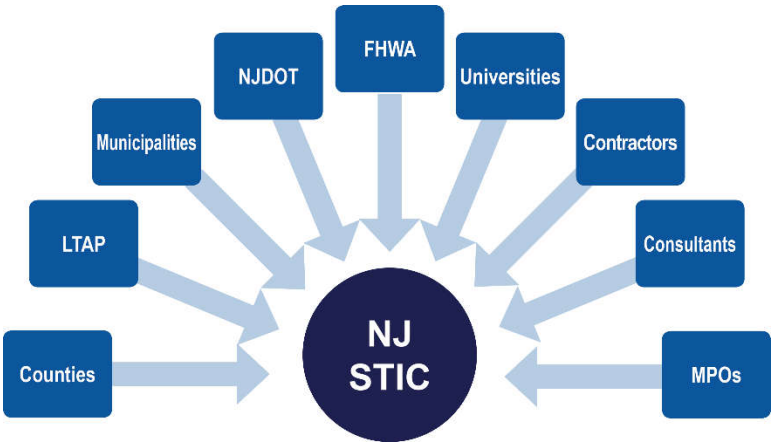


Figure 2. NJ STIC Membership

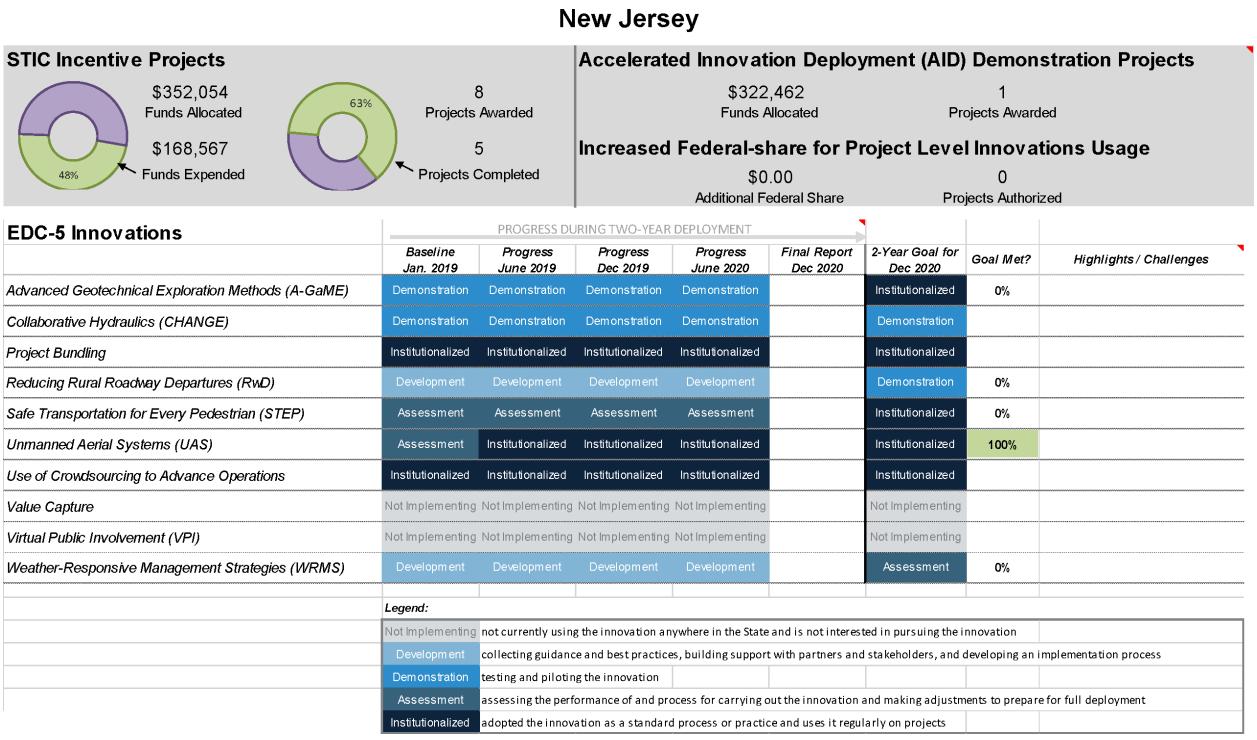
External Audience

The audience outside of the STIC includes employees within NJDOT and other government offices, other state Departments of Transportation, federal agencies, local agencies, project sponsors, elected officials, universities, industry associations, and other transportation community members, and the public.

Identifying Innovative Practices

STIC Meeting Presentations

The NJ STIC meets quarterly – in person at NJDOT Headquarters or virtually, as needed – to discuss innovation deployments, progress updates on innovative initiatives, and suggestions for additional initiatives moving forward. Meetings often begin with a brief update from the FHWA Innovation Coordinator on the implementation status of the EDC initiatives selected for advancement by the NJ STIC. In some cases, an innovation dashboard may be displayed, highlighting the current and planned stage of deployment over the 2-year cycle for each innovation initiative, and tracking projects and funding under the STIC Incentive Grants and the Accelerated Innovation Deployment Demonstration Grant programs (Figure 3).



New Jersey

STIC Incentive Projects

$352,054 Funds Allocated

$168,567 Funds Expended

48%

63%

8 Projects Awarded

5 Projects Completed

Accelerated Innovation Deployment (AID) Demonstration Projects

$322,462 Funds Allocated

1 Projects Awarded

Increased Federal-share for Project Level Innovations Usage

$0.00 Additional Federal Share

0 Projects Authorized

EDC-5 Innovations

PROGRESS DURING TWO-YEAR DEPLOYMENT

	Baseline Jan. 2019	Progress June 2019	Progress Dec 2019	Progress June 2020	Final Report Dec 2020	2-Year Goal for Dec 2020	Goal Met?	Highlights / Challenges
Advanced Geotechnical Exploration Methods (A-GaME)	Demonstration	Demonstration	Demonstration	Demonstration		Institutionalized	0%	
Collaborative Hydraulics (CHANGE)	Demonstration	Demonstration	Demonstration	Demonstration		Demonstration		
Project Bundling	Institutionalized	Institutionalized	Institutionalized	Institutionalized		Institutionalized		
Reducing Rural Roadway Departures (RwD)	Development	Development	Development	Development		Demonstration	0%	
Safe Transportation for Every Pedestrian (STEP)	Assessment	Assessment	Assessment	Assessment		Institutionalized	0%	
Unmanned Aerial Systems (UAS)	Assessment	Institutionalized	Institutionalized	Institutionalized		Institutionalized	100%	
Use of Crowdsourcing to Advance Operations	Institutionalized	Institutionalized	Institutionalized	Institutionalized		Institutionalized		
Value Capture	Not Implementing	Not Implementing	Not Implementing	Not Implementing		Not Implementing		
Virtual Public Involvement (VPI)	Not Implementing	Not Implementing	Not Implementing	Not Implementing		Not Implementing		
Weather-Responsive Management Strategies (WRMS)	Development	Development	Development	Development		Assessment	0%	

Legend:

Not Implementing	not currently using the innovation anywhere in the State and is not interested in pursuing the innovation
Development	collecting guidance and best practices, building support with partners and stakeholders, and developing an implementation process
Demonstration	testing and piloting the innovation
Assessment	assessing the performance of and process for carrying out the innovation and making adjustments to prepare for full deployment
Institutionalized	adopted the innovation as a standard process or practice and uses it regularly on projects

Figure 3. STIC Innovation Dashboard has been shared with NJ STIC members to monitor progress toward reaching implementation goals

Presentations by CIA leads and other designated parties report on research and field implementation activities. Significant progress and milestone accomplishments will be developed into articles, Tech Talk! events, and videos that highlight innovative initiatives in use at the agency (see Figure 4).

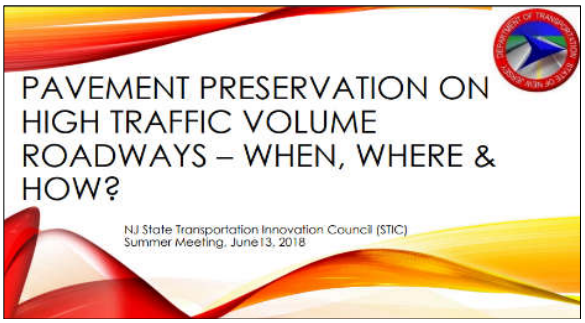


Figure 4. A Pavement Preservation presentation given at a NJ STIC Meeting became basis for a subsequent video.

LPA Presentations

At quarterly STIC meetings, representatives of Local Public Agencies (LPAs) give presentations related to innovative initiatives in various stages of implementation. Promotion of these initiatives will continue through documentation on the NJ STIC website, and through articles, Tech Talks!, and other media to share innovation in the State. The presentations have been a good way of disseminating information on model practices and lessons learned. Sharing and gathering information from LPAs can also include attendance at meetings of organizations such as the NJ Association of County Engineers, NJ Society of Municipal Engineers, League of Municipalities, among others to understand what innovations are being pursued at the local level (see Figure 5).

Figure 5. LPA representatives provided updates on EDC innovations at the 2019 Summer STIC meeting.

Examples of initiatives undertaken by New Jersey's Metropolitan Planning Organizations – the North Jersey Transportation Planning Authority (NJTPA), the Delaware Valley Regional Planning Commission (DVRPC), and the South Jersey Transportation Planning Organization (SJTPO) will be featured in articles, Tech Talks!, videos, and other media (see Figure 6).

STIC Virtual Meetings

In response to the COVID-19 pandemic, STIC meetings have been held online via various platforms. Support of this format will continue as needed (see Figure 7).

STIC-related Workshops

Workshops held as part of quarterly STIC meetings provide meeting attendees an opportunity to exchange ideas in smaller groups. This strategy is effective for gathering information from a greater number of stakeholder participants than would be possible within the typical plenary meeting structure. For example, trade and industry organizations have a vested interest in innovative initiatives that will affect the way they do business. They may seek to adopt new technologies or understand research. Industry is often essential to

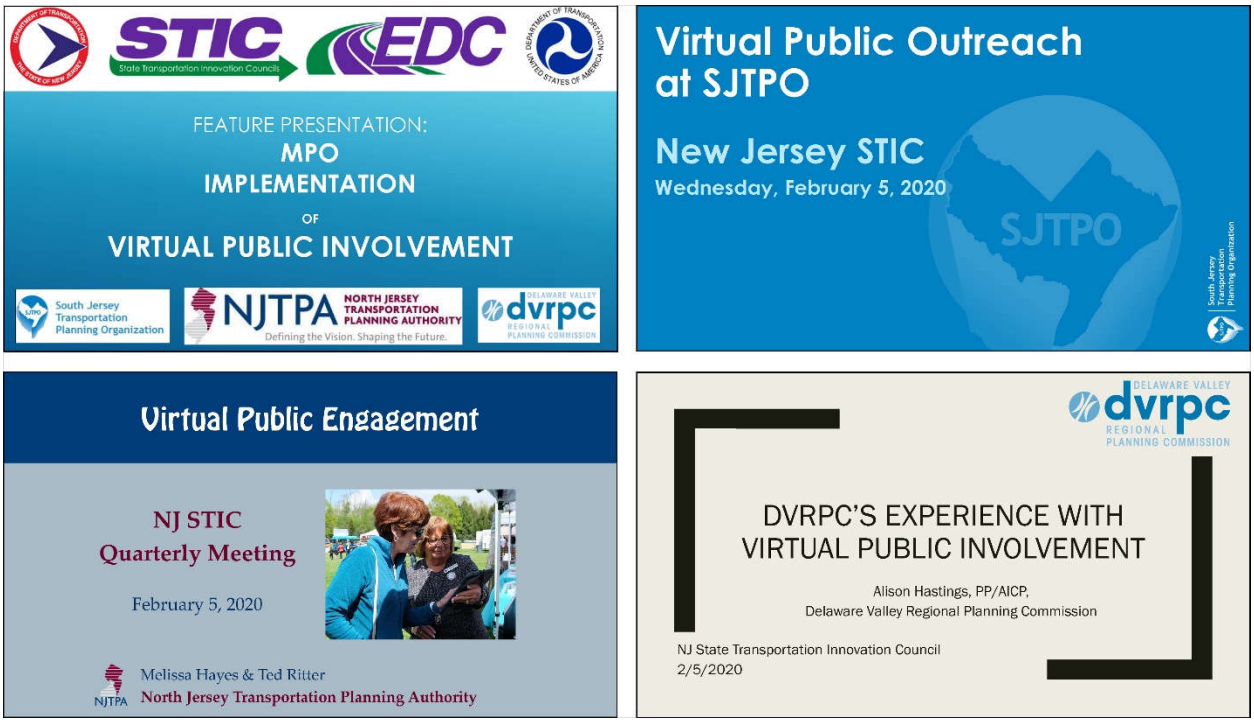


Figure 6. Each of New Jersey's MPOs presented on their virtual public involvement efforts at the Winter STIC meeting.

successful implementation of innovation. They may be aware of innovation in other parts of the country, or propose topics that would help them be more efficient. Some of these observations may be shared through small-group discussion whether in-person or online via breakout rooms.

The workshop format can contribute to STIC meeting participant affiliation with various prioritized innovation topics over time. This affiliation may help to foster relationships and working groups that can convene periodically to advance the innovation toward the innovation goal.

STIC Innovative Initiatives: LPA Surveys

The New Jersey STIC Innovative Initiatives Survey, conducted in Spring, 2019, will be administered every two years. The survey will target representatives of the NJ STIC and LPAs including members of Industry and Trade Associations, MPOs, and other county and municipal stakeholders. Consulting professionals who work with LPAs and who might be aware of local innovative initiatives in transportation may also be targeted. The survey will explore participant insights

Figure 7. In response to the COVID-19 pandemic, the Spring 2020 meeting was the first STIC meeting held virtually.

and experience related to the need for innovation, examples of implementation from EDC-6 and prior rounds of EDC initiatives and other innovative practices in New Jersey, and the challenges of implementing innovative practices.

The survey helps to identify practices that deserve recognition and whose lessons learned should be shared to encourage greater deployment, and to identify topics that should receive greater priority for future rounds of STIC funding, research, technical assistance, and training.

Innovative Initiative Priority Topics: Key Informant Interviews

Interviews with CIA leads and their supporting teams will be used to gather information on the status of innovative initiatives, challenges and lessons learned. The NJDOT Bureau of Research is charged with administering the NJ STIC technology transfer activities which includes capturing and sharing relevant information (e.g., awards of grant funding, research results, accomplishments, presentations, workshop trainings, events, articles, videos, etc.) to advance implementation of innovations. The interviews will be used to prioritize a list of hot topics and define the media through which to deliver the information. This interview approach is a promising means for establishing ongoing two-way communications between the CIA leads and NJDOT Bureau of Research.

Semi-Annual Progress Reports to FHWA for Every Day Counts

Every Day Counts progress reports, completed by the Core Innovation Area (CIA) leads and their designated representative twice a year, provide information on innovations, the current stage of deployment (from Development to Demonstration, Assessment, and Institutionalized), and work accomplished. Progress on grant awards – for example, STIC Incentive Funding and Accelerated Innovation Deployment Grants – are also provided. The progress reports offer insight on projects that may be ready for sharing within the STIC and with external audiences. The progress reports are submitted by the designated lead participants to the FHWA NJ Division Office's Innovation Coordinator and subsequently entered into FHWA's SharePoint platform. New Jersey's progress toward implementation is rolled up into a national report released every six months.

NJDOT Innovative Ideas Database

In support of the NJ STIC mission, NJDOT advertises that the public is invited to submit innovative ideas via a link provided on the NJDOT Technology Transfer website (see Figure 8). Ideas should be well-researched, new technologies or processes that have been proven and are rapidly deployable and/or market-ready. Ideas submitted to the database will be reviewed by NJDOT Bureau of Research staff for relevance to the mission of the NJ STIC and will be routed to appropriate CIA team members, or to other NJDOT

Figure 8. NJDOT's Innovative Ideas website solicits ideas from the public for consideration.

divisions, bureaus, units or non-NJDOT organizations, as appropriate. The link to the submission portal is: https://www.njdottechtransfer.net/innovative-ideas/

NJDOT Technology Transfer Quarterly Meetings

Quarterly meetings with NJDOT's Bureau of Research often provide the research team currently supporting communications concerning NJ STIC with insight into research, training or activities related to innovative initiatives being conducted or sponsored by the agency.

Hot Topic List

The Hot Topic List will continue to be maintained by the NJDOT Technology Transfer Program as a repository of topics for possible future knowledge sharing through Tech Talks!, articles, videos, workshops, peer exchanges, or other events and activities. The list includes topics, gathered from all the sources listed above, and includes research category, title or theme, person associated with the innovation, (such as an SME or other expert, or a potential speaker), and the type of event or method of presentation. Among other considerations, the hot topic list tracks projects with STIC-related themes.

STIC Meetings

The NJ STIC meets quarterly to advance the identification, evaluation, and rapid deployment of new technologies and process improvements to accelerate project delivery and improve the safety and quality of transportation in New Jersey (See Figure 9). The agenda, presentations from STIC meetings and documentation from break-out group discussions will continue to be made available on the NJ STIC webpage on the NJDOT Technology Transfer website. For meetings by webinar, a recording of the meeting is also available. Notification of upcoming meetings are drafted by the NJDOT Bureau of Research and distributed via one or more NJ STIC mailing lists.

Figure 9. The NJ STIC meets quarterly. Most recently the meetings have been held virtually.

STIC Webpage

The STIC webpage on the NJDOT Technology Transfer website provides an overview of the STIC's mission and purpose, organizational framework and stakeholders. The STIC webpage provides a good orientation for new members.

STIC Webpage – Innovative Initiatives

An important feature of the STIC webpage is a section devoted to innovative initiatives. The section highlights technologies and practices that merit widespread deployment in accordance with the Every Day Counts (EDC) program. These innovative initiatives are displayed to permit sorting by Core Innovation Area (CIA). NJ STIC's CIA teams evaluate and advance innovative ideas, techniques and processes (see Figure 10). With EDC-6, the Organizational Support and Improvement CIA was formed for two initiatives: Strategic Workforce Development and Virtual Public Involvement. New and noteworthy posts, innovation interviews, research spotlight

Figure 10. Each Innovative Initiatives webpage describes the nature of innovation, documents the stage of innovation achieved, and showcases recent work that advances the development and/or adoption of the innovation in the state.

articles, innovation spotlight articles, and progress reports will provide details on the state of innovation deployment within NJDOT.

STIC Fact Sheets and Infographics

Fact sheets and infographics provide an overview of the STIC innovative initiatives. The two-sided fact sheets define the innovative initiative, and describe the benefits, what NJ has done with the innovation, anticipated next steps, and a list of resources on the topic. Fact sheets on the STIC program, on innovative initiatives, and NJ STIC Incentive Funding Grants will be developed and distributed at select events and made available on the NJDOT Technology Transfer website (see Figure 11).

When the research supports, and the research findings can be communicated well, an infographic will be created (see Figure 12). Infographics utilize visual representations to communicate content (in this case research findings) with the purpose of transferring knowledge to the end user. They frequently incorporate icons and simplified statistics.

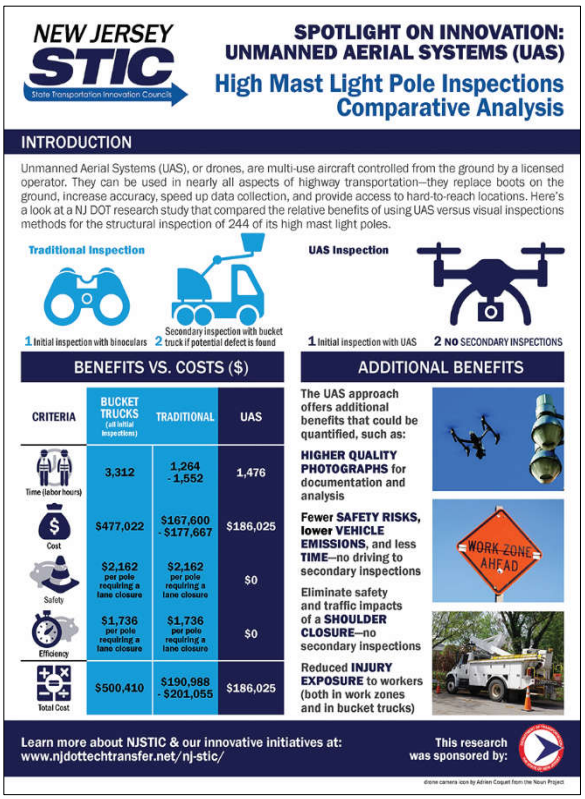


Figure 11. Fact Sheets on EDC's Innovative Initiatives were distributed at the 2019 NJDOT Research Showcase and to partner stakeholders. Figure 12. Infographics use images, statistics, and text to communicate research findings in a parsimonious way.

Tech Talk! Series

Lunchtime & Other Tech Talks! are presentations that highlight current and best practices, give attention to new and emerging issues in transportation, and explore the findings and implications of recent transportation research. Subject matter experts provide information and answer questions. Participants can suggest "hot topics" for future presentations through an end of session survey. The Tech Talk! Series will frequently feature STIC-related themes exploring key features, model practices and resources (see Figure 13). Event summaries and slides will continue to be posted on the Technology Transfer website.

Figure 13. This Lunchtime Tech Talk! on EDC-5 CHANGE held in August 2019 featured an FHWA subject matter expert.

Webinars

Webinars present information or instruction on a particular topic over the internet and are an opportunity to reach a larger audience, for example, staff at MPOs and local governments. Individuals participate at the time of the webinar, or can access the webinar following the session through a web link as a video or audio presentation with slides (see Figure 14). The Technology Transfer program will continue to provide webinars as needed during the COVID-19 time. Summaries of webinars, presentation slides and recordings will be posted on the Technology Transfer website.

Figure 14. Lunchtime Tech Talks! present information or instruction to NJDOT personnel and to members to the transportation community. Use of online webinars increased with the advent of COVID-19 and the prevalence of remote working.

Workshops

Half- or full-day workshops offer an opportunity for in-depth discussion of specific STIC innovative initiatives. Representatives of local and regional agencies can meet with NJDOT and FHWA staff to share examples of best practice and the benefits and challenges of innovation implementation.

Peer Exchanges

Peer Exchanges create an opportunity for peers, experts, and others involved in a particular topic to exchange ideas and best practices on that topic to benefit research, development, and technology transfer programs. Peer exchanges on Every Day Count innovative initiatives will be offered as a collaboration between NJDOT and FHWA (see Figure 15).

Figure 15. FHWA and NJDOT have held three Local Safety Peer Exchanges with representatives of LPAs.

Videos and Video Library

Videos have proven to be an effective way to inform the public about innovative initiatives in use in New Jersey and/or at NJDOT (e.g., videos on the UAS Drone Program and on Pavement Preservation treatments) (see Figure 16). Videos will be developed to document NJDOT's adoption of these EDC initiatives and highlight their benefits to transportation agencies and practitioners.

Figure 16. STIC-related subjects such as Unmanned Aerial Systems (UAS), Pavement Preservation Treatments, and Pedestrian Safety Countermeasures have been featured in recent videos.

Social Media: Facebook, Twitter, LinkedIn, YouTube

To broaden the audience for information related to NJ's adoption of STIC initiatives and other innovations, the NJDOT Technology Transfer program will use various social media outlets such as a Facebook Twitter, and LinkedIn and will be creating material on an ongoing basis for posting to these outlets. The NJDOT Office of Communications maintains several social media platforms and STIC-related communications are shared with this office for wider dissemination. Videos will be posted to the NJDOT Technology Transfer YouTube channel (see Figure 17). Recordings of STIC-related virtual meetings and Tech Talk! webinars will continue to be posted. These and other videos can be accessed at: https://www.njdottechtransfer.net/videos

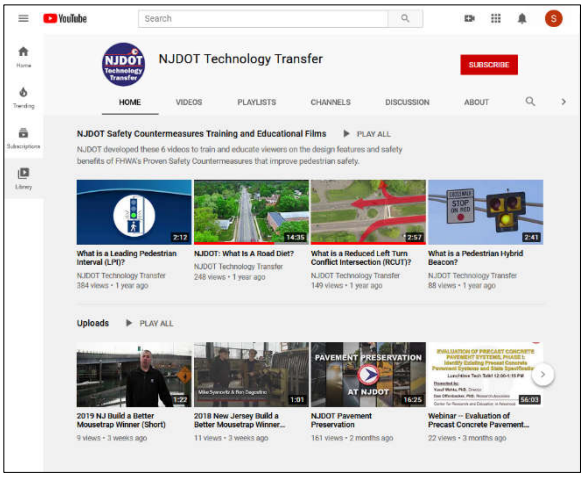


Figure 17. Social media serves an important role in disseminating information about newly completed research, events, and other activities. Videos are used to advance information that can benefit from visual communication modes.

STIC E-Mail Distribution List

Attendees at NJ STIC meetings are added to a STIC e-mail distribution list that includes a broader set of stakeholders who receive STIC-related e-mail news blasts on articles, upcoming and recently held STIC-related Tech Talk! events and training calendar notices. This list will be maintained and announcements distributed via Mailchimp, an integrated marketing platform.

STIC E-Mail News Blasts

These short email blasts comprise select news items and other notifications that will be sent on a monthly basis, or as news items arise. The email news blasts keep STIC members, and representatives of local and regional agencies, apprised of the latest news and guidance from FHWA, information on NJ STIC and NJDOT's progress on innovative initiatives, as well as upcoming meetings, trainings and webinars. The news blasts will be distributed to organizations and individuals on the STIC email list. STIC-related news items will be drafted in final format and distributed following authorization of the NJDOT Bureau of Research via Mailchimp.

NJDOT Tech Transfer News - STIC Articles

The NJDOT Tech Transfer News will be distributed quarterly. Each Tech Transfer news issue will contain one or more STIC-themed and branded articles to raise awareness of the STIC and the initiatives being deployed to this broader audience of recipients who receive communications on research-related topics

NJDOT Tech Transfer Calendar

The NJDOT Tech Transfer Calendar will continue to be updated regularly with events pertinent to the NJ STIC community and others such as Tech Talks! webinars and events. Additionally, FHWA offers trainings to promote implementation of EDC innovative initiatives. These training events will be added to the calendar and can be accessed at: https://www.njdottechtransfer.net/event-calendar/

NJ LTAP Training Calendar

The NJ Local Technical Assistance Training Program (LTAP) provides training on topics to promote adoption at the local level. In select cases, LTAP will invite visiting FHWA subject matter experts resource professionals to provide more detailed trainings after they have delivered presentations at specific Tech Talk! events. NJ LTAP Training events can be accessed from the calendar section of the NJDOT Technology Transfer website.

FHWA and TRB Conferences and Events Calendars

This calendar provides a listing of conferences and events which may be of interest to other stakeholders and members of the NJ STIC community, for informational purposes only. Not all conferences and events listed are open for general admission, or sponsored by the USDOT. This calendar page can be accessed from the calendar section of the NJDOT Technology Transfer website.

Online Trainings

The FHWA and other entities have reposed self-paced online training courses and webinars on topics aligned with Every Day Counts. The courses and webinars share model practices and seek to empower transportation practitioners with the skills necessary to deploy innovation. Links to several relevant trainings on recent EDC topics – for example, Project Bundling, Geo-Synthetic Reinforced Soil – Integrated Bridge System (GRS-IBS), Safe Transportation for Every Pedestrian (STEP), Advanced Geotechnical Methods in Exploration (A-GaME) -- can be accessed at: https://www.njdottechtransfer.net/online-training-library/

NJ STIC Communication Tools

The effectiveness of the NJ STIC is advanced through consistent communications and engagement with STIC stakeholders on the local, regional, and state levels. STIC-related communications document the innovation-oriented work of the NJ STIC and its stakeholders, highlighting new innovative initiatives and inviting consideration of the barriers, lessons learned and benefits experienced in their deployment efforts.

The communications tools for continuing engagement include: development of innovation topics web pages (which provide descriptions of innovations, stage of implementation, and other pertinent information); reviews of progress reports (information from which seeds ideas for development via other communications tools such as topical articles, videos, and events); and frequent updates shared via NJ STIC-branded emails and social media.

The NJ STIC Communications Plan provides a general schedule for employment of various tools, many of which are to be used on a regular basis, while others are to be used as needed (see Table 1).

This NJ STIC Communications Plan guides the identification of appropriate technology transfer activities and the use of tools for engagement with stakeholders within New Jersey's transportation community. These efforts support the development of a culture of innovation among participating stakeholder organizations throughout the State. Table 2 below describes communication tools utilized through 2020, and proposed for future years as the NJ STIC transitions to the next round of Every Day Counts Innovation initiatives (i.e., EDC-6), and beyond. The matrix framework is to be periodically updated and flexible to the results of the feedback from engagement processes and should be able to accommodate emerging priorities during EDC-6 and subsequent EDC rounds.

During the Fall 2020 STIC meeting and subsequently, in the STIC Caucus meeting, participating stakeholders were asked in polling exercises and break-out sessions what kind of technical assistance would be most valuable to advance initiatives toward institutionalization. Feedback from these exercises is briefly summarized in the Appendix. This feedback informs the approaches taken to promote each innovative initiative and strategic direction and programming decisions made by the NJ STIC Executive Team.

Topics and strategies selected for communications dissemination are selected based on various needs identification processes and progress milestone accomplishments outlined above. NJ STIC members should be aware that these tools are available and opportunities to employ particular strategies to support an innovative initiative are determined in consultation with NJDOT Bureau of Research and FHWA.

Table 1. Communications Tools and Frequency

NJ STIC Communications Tool	Frequency
STIC Meetings	Quarterly
LPA Presentations at STIC Meetings	Quarterly
STIC Workshops at Quarterly Meetings	Annually
NJDOT Innovative Ideas Database	Quarterly update to database; Disseminate regularly
STIC Webpage	Ad-hoc
STIC Webpage - Innovative Initiatives	Every two years
Innovative Initiatives Updates: EDC Progress Reports	Semi-annually
Innovative Initiatives: LPA Surveys	Every two years
Innovative Initiative Priority Topics: Key Informant Interviews	Ongoing; 4-8 interviews per year
Innovative Initiatives – New and Noteworthy Posts	Quarterly
STIC Fact Sheets and Infographics	Ad-hoc
STIC Email News Blasts	Monthly or more often if needed
NJDOT Tech Transfer News – STIC Articles	Quarterly
Tech Talk! Series	Held 6 times annually; 2-3 events STIC focused
Webinars	Ad-hoc
Workshops	Ad-hoc
Peer Exchanges	Ad-hoc
Videos and Video Library	Ad-hoc
Social Media: Facebook, Twitter, LinkedIn, YouTube	Monthly or more often if needed
NJDOT Tech Transfer Calendar	Ongoing
NJ LTAP Training Calendar	Ongoing
FHWA and TRB Conferences and Events Calendars	Ongoing
Online Training Library	Ongoing

Table 2. Recent and Proposed Communications Strategies

Topic	Initiative	Status	Tools							Next Steps
			Article	Fact Sheet	Info-graphic	Tech Talk!	Peer Exchange	Video	STIC email	
INFRASTRUCTURE										
A-GaME Advanced Geotechnical Methods in Exploration	EDC-5	Demonstration (June 2020)	X						X	Send notice of online webinar availability
Collaborative Hydraulics (CHANGE)	EDC-4 EDC-5	Demonstration (June 2020)	X			X			X	Send notice of online training availability
E-Construction & Partnering	EDC-3 EDC-4	Demonstration (December 2018)	X			X	X			
e-Ticketing and Digital As-Builts	EDC-6	New								Create innovative initiative page. Track progress.
Geosynthetic Reinforced Soil-Integrated Bridge System (GRS-IBS)	EDC-1 EDC-3	Demonstration	X						X	Send notice of online training availability
High Friction Surface Treatments (HFST)	EDC-2	Institutionalized	X							
Locally Administered Federal Aid Projects	EDC-2	TBD	X					X		Conduct Priority Innovative Interview. Determine appropriateness for article or other tool, Develop Local Aid Design Assistance Video.
Pavement Preservation	EDC-4	Institutionalized	X					X	X	

Topic	Initiative	Status	Tools							Next Steps
			Article	Fact Sheet	Info-graphic	Tech Talk!	Peer Exchange	Video	STIC email	
Project Bundling	EDC-5	Institutionalized							X	Conduct priority innovation interview. Determine appropriateness for article. Fall 2020 STIC meeting suggested need for article. Send notice of online training availability
Targeted Overlay Pavement Solutions (TOPS)	EDC-6	New								Create innovative initiative page. Track progress. Hold Tech Talk! on Pavement Resource Center.
UHPC for Bridge Preservation and Repair	EDC-6	New								Create innovative initiative page. Track progress. Conduct priority innovation interview. Determine appropriateness for article or other tool.
3D Reality Modeling	EDC-2 EDC-3	NA	X							
MOBILITY AND OPERATIONS										
Adaptive Signal Control Technology	EDC-1	Institutionalized	X			X				
Automated Traffic Signal Performance Measure (ATSPM)	EDC-4	Assessment (December 2018)	X							Hold Tech Talk! as additional phased research progresses.
Crowdsourcing for Advancing Operations	EDC-6	New								Create innovative initiative page. Track progress.
Crowdsourcing for Operations	EDC-5	Institutionalized (June 2020)	X	X		X		X	X	

Topic	Initiative	Status	Tools							Next Steps
			Article	Fact Sheet	Info-graphic	Tech Talk!	Peer Exchange	Video	STIC email	
Next-Generation TIM: Integrating Technology, Data, and Training	EDC-6	New								Create innovative initiative page. Track progress. Hold Tech Talk! on ITS Resource Center.
Unmanned Aerial Systems (UAS)	EDC-5	Institutionalized (June 2020)	X	X	X		X	X		Conduct priority innovation interview. Determine appropriateness for article, Tech Talk! or other tool
Using Data to Improve Traffic Incident Management	EDC-4	Demonstration (December 2018)	X							
Weather-Responsive Management Strategies	EDC-5	Development (June 2020)	X	X		X				Target articles and/or video highlighting Accelerated Innovation Deployment grant.
SAFETY										
Data-Driven Safety Analysis (DDSA)	EDC-3 EDC-4	Assessment (December 2018)	X				X			
Reducing Rural Roadway Departures	EDC-5	Development (June 2020)		X				X		Conduct priority innovation interview. Determine appropriateness for article or other tool.
Safe Transportation for Every Pedestrian (STEP)	EDC-4 EDC-5	Assessment (December 2020)	X					X	X	Conduct priority innovation interview. Determine appropriateness for article or other tool. Fall 2020 STIC meeting suggested need for article. Send notice of online training availability

Topic	Initiative	Status	Tools							Next Steps
			Article	Fact Sheet	Info-graphic	Tech Talk!	Peer Exchange	Video	STIC email	
ORGANIZATIONAL SUPPORT AND IMPROVEMENT										
Strategic Workforce Development	EDC-6	New								Create innovative initiative page. Track progress. Organize peer exchange or training. Hold interview with NJDOT HR and determine appropriateness of presentation on operations "hands-on" training model to LPAs.
Virtual Public Involvement (VPI)	EDC-6	New								Create innovative initiative page. Track progress. Invite LPAs to share model practices at future NJ STIC meeting or via Tech Talk! event

Appendices

Fall 2020 STIC Meetings: Preferred Forms of Technical Assistance by Initiative

EDC-6 Innovative Initiatives:

Innovation	Forms of Technical Assistance
Virtual Public Involvement (VPI)	Training, Peer Exchange, Facilitated Discussion
Crowdsourcing for Advancing Operations	Training, Technical Support, Examples Applications from Other States, Case Studies
Strategic Workforce Development	Training, Example Applications, Guidance Documents
E-Ticketing and Digital As-Builts	Training, Guidance Documents, Technical Support
Next-Generation TIM: Integrating Technology, Data, and Training	Training, Guidance Documents, Workshop, Technical Support, Peer Exchange, Webinar
Targeted Overlay Pavement Solutions (TOPS)	Guidance Documents, Technical Support, Case Studies, Training, Webinars, Workshops
Ultra High Performance Concrete (UHPC) for Bridge Preservation and Repair	Guidance Documents, Case Studies, Training, Peer Exchange

EDC-5 Innovative Initiatives:

Innovation	Forms of Technical Assistance
Advanced Geotechnical Exploration Methods	Training
Collaborative Hydraulics: Advancing to the Next Generation of Engineering (CHANGE)	Training, CHANGE
Project Bundling	Guidance Document
Crowdsourcing for Local Operations	Tech Talk
Reducing Rural Roadway Departures	Training, Local Peer Exchanges
Safe Transportation for Every Pedestrian (STEP)	Training and Local Peer Exchanges
Unmanned Aerial Systems (UAS)	Technical Assistance, Local Peer Exchanges, Tech Talk
Value Capture	Webinars
Virtual Public Involvement	Webinars, Case Studies, Demonstration Training
Weather Responsive	Webinars, Training, Data Exchange

NJ STIC Fact Sheet

NEW JERSEY STIC
State Transportation Innovation Councils

What is STIC?

State Transportation Innovation Council

The State Transportation Innovation Council (STIC) National Network was born out of Federal Highway Administration's (FHWA) Every Day Counts program. The program helps state DOTs identify and rapidly deploy proven, yet underutilized, innovations to shorten project delivery, enhance safety, reduce congestion, and improve environmental sustainability. Each state's STIC is charged with establishing a process in which ideas, innovative techniques and processes can be evaluated and implemented quickly and proficiently.

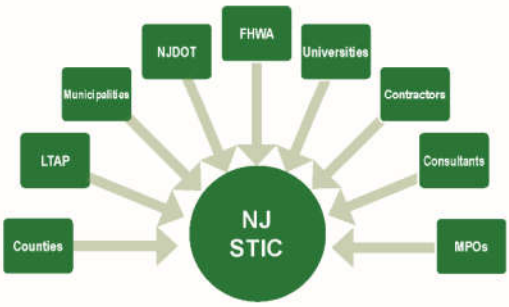
WHO ARE STIC MEMBERS?

NJ's STIC members are a cross-section of various stakeholders, state and federal agencies, local governments, academia and industry partners that work together to forge an environment of innovation, imagination and ingenuity to pursue specific initiatives and their rapid implementation to deliver a modern and high quality transportation system to the Garden State.

Innovative ideas are solicited from members, other transportation professionals, as well as the general public. The ideas then go through the Innovative Advisory Team's (IAT) vetting process that involves screening, prioritizing, and making a final decision as to whether the idea will be assigned to one of the Core Innovation Areas (CIAs) for deployment: Infrastructure Preservation, Safety, or Mobility and Operations.

The NJ STIC meets quarterly at the NJDOT Headquarters to discuss innovation deployments, progress updates on innovative initiatives, and suggestions for additional initiatives moving forward. Information presented at NJ STIC meetings, including key accomplishments of the CIA Teams and stakeholder organizations can be found here:

WWW.NJDOTTECHTRANSFER.NET/ NJ-STIC-MEETINGS/



NJ STIC meetings provide a forum to exchange information on the deployment status of innovative initiatives, share lessons learned and highlight best practices. Photo credit NJDOT

On-Ramp to Innovation
every day counts

A State-based model that identifies and deploys proven, yet underutilized innovations — saving time, money and resources that can be used to deliver more projects.

- Shorten Project Delivery
- Enhance Roadway Safety
- Reduce Traffic Congestion
- Integrate Automation

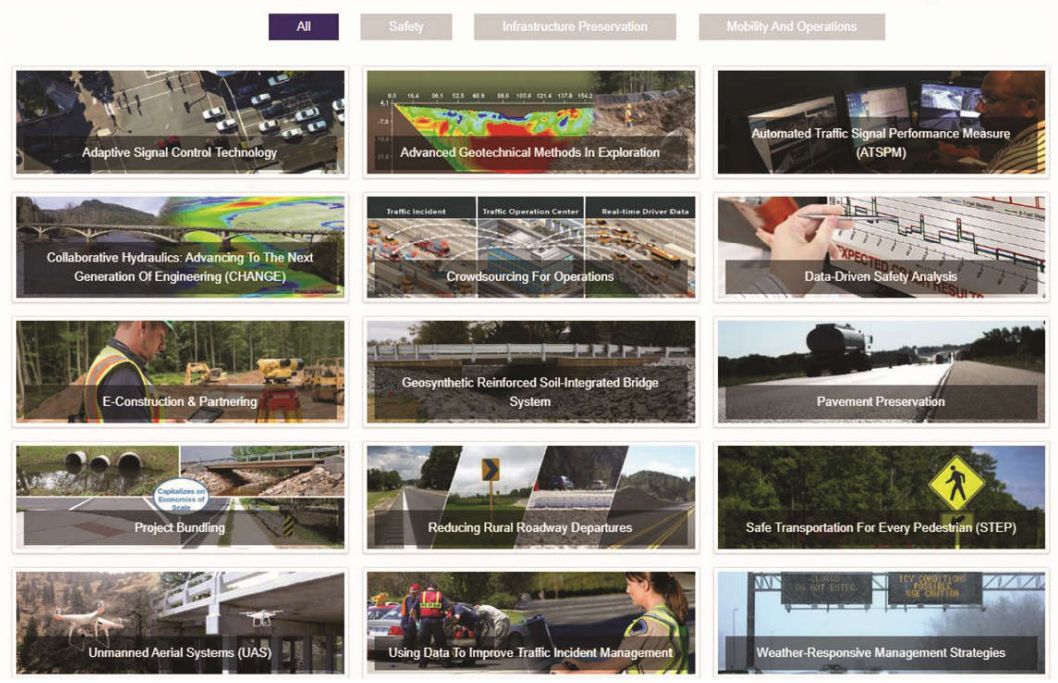
EVERY DAY COUNTS INNOVATIONS

Every two years, the FHWA works with State departments of transportation, local governments, tribes, private industry, and other stakeholders to identify a new set of innovative technologies and practices that merit widespread deployment through the Every Day Counts (EDC) program. Selected innovations share common goals: shortening project delivery, enhancing the safety and durability of roads and bridges, cutting traffic congestion, and improving environmental sustainability.

INNOVATIVE INITIATIVES

NJ's STIC has established three Core Innovation Area (CIA) teams—Safety, Mobility and Operations, and Infrastructure Preservation—for evaluating and advancing innovative ideas, techniques and processes. The efforts undertaken by the NJ STIC and the CIA teams to advance innovations and the status of deployment—from initial development through to full scale adoption and institutionalization—over the various rounds of Every Day Counts are highlighted on the NJ STIC portion of the NJDOT Technology Transfer site at:

WWW.NJDOTTECHTRANSFER.NET/INNOVATIVE-INITIATIVES/



STIC Infographic Sample

NEW JERSEY STIC
State Transportation Innovation Councils

SPOTLIGHT ON INNOVATION: UNMANNED AERIAL SYSTEMS (UAS)

High Mast Light Pole Inspections Comparative Analysis

INTRODUCTION

Unmanned Aerial Systems (UAS), or drones, are multi-use aircraft controlled from the ground by a licensed operator. They can be used in nearly all aspects of highway transportation—they replace boots on the ground, increase accuracy, speed up data collection, and provide access to hard-to-reach locations. Here's a look at a NJ DOT research study that compared the relative benefits of using UAS versus visual inspections methods for the structural inspection of 244 of its high mast light poles.

Traditional Inspection

1 Initial inspection with binoculars

2 Secondary inspection with bucket truck if potential defect is found

UAS Inspection

1 Initial inspection with UAS

2 NO SECONDARY INSPECTIONS

BENEFITS VS. COSTS ($)

CRITERIA	BUCKET TRUCKS (all initial inspections)	TRADITIONAL	UAS
Time (labor hours)	3,312	1,264 - 1,552	1,476
Cost	$477,022	$167,600 - $177,667	$186,025
Safety	$2,162 per pole requiring a lane closure	$2,162 per pole requiring a lane closure	$0
Efficiency	$1,736 per pole requiring a lane closure	$1,736 per pole requiring a lane closure	$0
Total Cost	$500,410	$190,988 - $201,055	$186,025

ADDITIONAL BENEFITS

The UAS approach offers additional benefits that could be quantified, such as:

HIGHER QUALITY PHOTOGRAPHS for documentation and analysis

Fewer **SAFETY RISKS**, lower **VEHICLE EMISSIONS**, and less **TIME**—no driving to secondary inspections

Eliminate safety and traffic impacts of a **SHOULDER CLOSURE**—no secondary inspections

Reduced **INJURY EXPOSURE** to workers (both in work zones and in bucket trucks)

Learn more about NJSTIC & our innovative initiatives at: www.njdottechtransfer.net/nj-stic/

This research was sponsored by:

drone camera icon by Adrien Coquet from the Noun Project