Your Best Choice for Safe Routes To School Design Assistance

STV has served public and private sector transportation, infrastructure, building, and facility needs with distinction for more than 100 years. Through perseverance and strategic alliances, STV has grown from a one-person shop in 1912 to a firm of more than 40 offices throughout North America. While we are large enough to offer a full range of engineering, architectural, planning, environmental and construction management services, we deliver personal attention with tailored solutions for each project designed by our large, talented pool of technical and support resources. We have built a national reputation for successful delivery of transportation/infrastructure services including roadway, bridge/structure, water resource systems design, traffic and ITS solutions, municipal engineering, planning, and associated environmental and public outreach support.

With offices in Lawrenceville, Newark, Philadelphia, and New York City, STV has the necessary depth of specialized personnel and resources to serve local public agencies throughout New Jersey who have been granted Federal Aid Highway Program Funds through NJDOT's Safe Routes to School (SRTS) Program.

STV's transportation planning and engineering experience encompasses all facets and modes of transportation. We have a tremendous understanding of the planning, engineering, and design of both urban and rural transportation and infrastructure, as well as multimodal transportation. We have extensive experience addressing and mitigating corridor management issues including pedestrians, bicyclists, transit, and motorized vehicle traffic concerns, and we evaluate all modes of transportation when assessing improvements.

SERVICES WE OFFER:

STREETSCAPE DESIGN

- Decorative pavers
- › Aesthetic treatments
- Gateway development
- Decorative lighting
- Street features (trash receptacles, benches, street trees)
- Culturally sensitive materials and historic districts

ADA FACILITY

- › ADA-compliant curb ramps
- Pedestrian overpass ramp systems
- > Wide sidewalks
- > Transit accommodations
- > Building entrance ramps

BICYCLE/ PEDESTRIAN SAFETY & ACCOMMODATIONS

- > Sidewalks
- › Multi-use paths
- › Curb extensions
- > Pedestrian bridges
- › Lighting
- > Traffic calming
- > Crosswalks
- › Lead and all-pedestrian signal phases
- › Complete Streets design
- › Rectangular rapid flashing beacon crosswalks
- › LED signage
- › Bike lanes and sharrows

TRAFFIC ENGINEERING AND ROADWAY/ INTERSECTION **UPGRADES**

- Roadway widening
- Roundabouts
- Pavement restoration/ reconstruction
- > Signing, striping, and pavement markings
- > Traffic signal design
- > Drainage and stormwater management
- › Green infrastructure design
- > Utility relocations

PLANNING &

- > Presentations
- › Graphics preparation
- Public information centers
- Consensus building
- Charettes
- Steering committees
- Social media tools
- > GIS mapping

ENVIRONMENTAL

- > NEPA documentation
- > NJDEP stormwater management rules
- > Cultural resources
- > Hazardous materials
- > Environmental Justice
- > Permitting



Value Added

- ✓ Full-service A/E firm incorporated in 1912
- Extensive experience with design and management of projects for public agencies
- ✓ Strong local presence and portfolio
- Knowledge of NJDOT standards and processes and federal aid laws and regulations
- ✓ Established relationships with local public agencies (LPAs) and stakeholders

STV has a history of providing unique and innovative multimodal solutions. We are well-versed in mobilizing multidisciplinary teams to design small- and large-scale transportation infrastructure projects. Our engineers, planners, and environmental specialists have extensive experience in identifying and designing creative solutions for projects in constrained environments.

Our portfolio includes everything from bicycle/pedestrian improvement projects and safe routes to school projects to revitalization and safety improvement projects that support Vision Zero goals. Our notable assignments have included developing complex traffic models for innovative and alternative intersections, corridor revitalization including road diets to include all modes of transportation, evaluating transportation operations for retrofitting transit services along challenging corridors with heavy traffic volumes, and solving capacity issues for mixed-use development projects.



Challenges and Opportunities

Parking/ Competing Curbside Demands

- > Traffic calming measures could replace on-street parking or freight delivery spaces, protecting pedestrians and bicycle users, which in turn create a modal shift away from single-occupancy car usage
- > On the other hand, retaining curbside parking/deliveries provides for community access
- > A balance needs to be achieved between competing curbside demands

Stakeholder Coordination

- > SRTS projects can increase the economic viability of a neighborhood by improving access for more transportation modes, but requires buy-in, participation, and understanding from all stakeholders to best fit the design to the neighborhood
- > Various public outreach strategies may be needed to create an effective engagement program, ranging from virtual, to digital, to standard face-to-face public meetings

Maintaining Traffic

- > Stakeholder concerns regarding traffic arise in "car-centric" neighborhoods because a SRTS project could change the landscape of a roadway, but benefits can include:
 - Increased transit reliability can decrease associated automobile use within mixed-use neighborhoods
 - Enhanced neighborhood pedestrian amenities may increase/attract foot-traffic and improve economic vitality

Implementing Protected Bike Lanes

- > Protected bike lanes provide the greatest opportunity to attract new riders and encourage mode shifts to biking; however, right-of-way width is often limited
- > Complete Streets alternatives can incorporate bike lane buffers into the design; bike lanes located between the sidewalk and a parking lane or adjacent to physical protection (i.e., planters) can enhance safety and serve as a traffic calming device



Key Projects



NYCSCA On-Call SEQRA Environmental Services | STV has been preparing environmental reviews for new school facilities, school renovations, and school expansions for the New York City School Construction Authority (NYCSCA) since 2004. For new school facilities involving students at the primary school level, a pedestrian safety assessment report is prepared which focuses on the safety and operations of pedestrian elements. Study streets are selected

based on the principal access routes to and from the school and those streets designated as NYCDOT Vision Zero Priority Corridors. The sidewalk, corner, and crosswalk conditions are reviewed along these routes to and from the school.

To determine the potential transportation-related impacts for each site, STV has prepared fully detailed studies to project existing and future traffic volumes in the

study area during the morning and afternoon peak hours; to evaluate parking, pedestrian, and transit impacts; and to identify needed safety improvements. For these analyses, the team has completed field drawings and observations, performed Highway Capacity Program HCS+ studies of critical intersections, and drafted traffic network diagrams with student and staff trip-generation rates.



Route 27 and Witherspoon Street Safety Improvement

STV identified key pedestrian safety issues, evaluated the intersection, and developed conceptual solutions with a pedestrian focus for this urban intersection adjacent to the Princeton University campus. Signal, intersection, and pedestrian safety issues were addressed.



Cooper's Poynt Waterfront Walk Extension Concept **Development Study** STV's concept development study involves the construction of a pedestrian/ bicyclist shared-use pathway and bridge connecting Cooper's Poynt Waterfront Park with the promenade that terminates on the south side of the Ben Franklin Bridge in Camden, NJ.



City of Seat Pleasant Enhanced Streetscape

STV worked with the Prince George's County Planning Department as part of the Planning Assistance to Municipalities and Communities (PAMC) program to develop design plans to enhance the streetscape and better accommodate pedestrians and bicyclists within the existing ROW along Martin Luther King Boulevard (MD 704) in the City of Seat Pleasant in Prince George's County.

STV prepared various alternatives for the enhanced streetscape for coordination and feedback from stakeholders and the community. Alternatives include the addition of a 10-footwide shared-use path with a 5-foot buffer on the north side of Martin Luther King Boulevard (MD 704) to accommodate the proposed extension of the WB&A trail to the Washington, D.C. line. The alternatives seek to minimize costs and impacts to existing infrastructure, ROW, and utilities, as well as provide adequate signing and marking to safely accommodate all modes of travel through the City.



Key Projects (continued)



SJTA Interchange 5 Pedestrian Bridge Feasibility Study | STV investigated the feasibility of repurposing and relocating the existing pedestrian bridge at the Pleasantville Toll Plaza for use as a new pedestrian crossing over the Atlantic City Expressway at Interchange 5. This would connect Pleasantville Middle School and Pleasantville High School to a nearby community one mile from the bridge's current location.



Route 28 (Main Street) Pedestrian Safety Improvements | This section of Somerville, NJ Borough's Main Street is a primary traffic corridor with heavy pedestrian use in this county seat. STV's conceptual plans include ADA-compliant curb ramps, push buttons, and pedestrian countdown heads; improved lighting; an upgraded traffic signal with a lead pedestrian interval, and a potential roundabout.



City of Alexandria, VA Pavement Marking Design and Traffic Engineering for Complete Streets | STV planned and designed signing and pavement marking, as well as civil components, to enhance existing pedestrian, bus, and bicycle facilities. The firm performed road diet traffic analysis to install bicycle lanes as part of Complete Streets design.



Quincy Street Reconstruction | STV redesigned this Boston, MA, roadway to revitalize the urban landscape and address traffic, pedestrian, and bicyclist safety issues. Following "Complete Street" guidelines, the design improves safety and flow, incorporating planting areas, smaller lane widths, new side street connections, and improved lighting

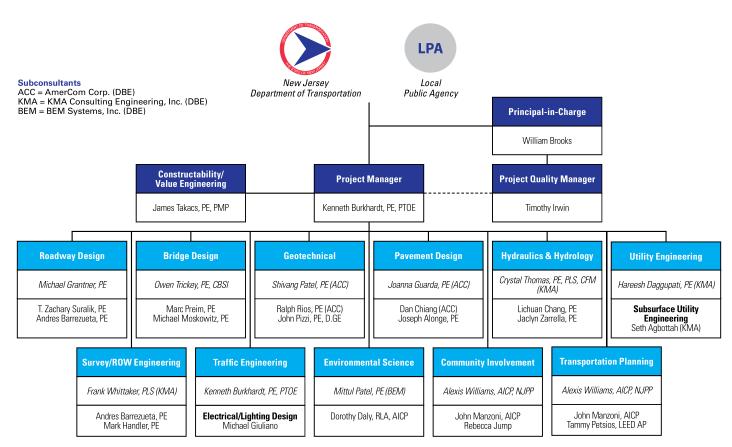


Town of Stratford Pedestrian and Traffic Improvement Studies Aiming to soften the appearance of a 2-mile stretch of Barnum Avenue (US 1) between Stratford and Bridgeport, CT, the Town of Stratford introduced various streetscape improvements. STV provided conceptual through final design for this phased effort. Improvements ranged from sidewalk and landscape treatments to sewer replacements.



Frances Appleton Pedestrian Bridge | As part of STV's role as lead designer for the rehabilitation of the Longfellow Bridge over the Charles River between Boston and Cambridge, MA, the firm designed the adjacent, award winning Frances Appleton Pedestrian Bridge connecting downtown Boston and the Charles River Esplanade.





Contact Information

Kenneth Burkhardt, PE, PTOE, STV's project manager for the SRTS Program, has 30 years of experience in the planning, design, and management of transportation improvement projects in New Jersey. His project history includes managing numerous highway, bridge, traffic, and Complete Streets projects through all phases of

the NJDOT project delivery process. He also has served as project manager on NJDOT local aid TAP and Safe Routes to School contracts for the past five years and has completed the Rutger's CAIT Federal-Aid Responsible Charge Training.

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