

# OVERVIEW

# SAFE ROUTES TO SCHOOL/DESIGN ASSISTANCE PROGRAM

## NV5 RELATED SERVICES



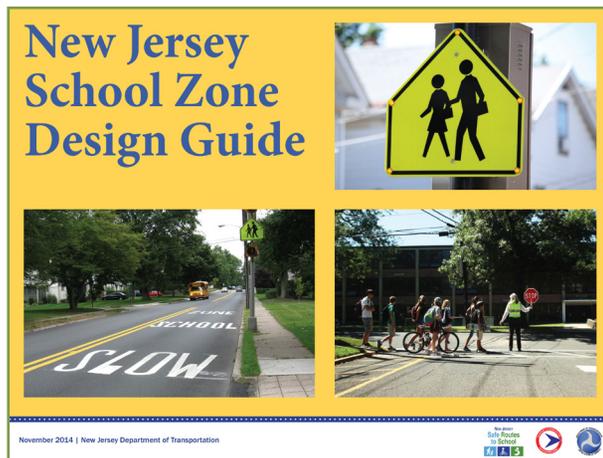
NV5, Inc. (NV5) is a nationwide, professional and technical consulting firm and is ranked 54th in the Engineering News Record listing of top 500 A/E design firms. The northeast infrastructure team (formerly The RBA Group) is headquartered in Parsippany, NJ and has multiple offices in the northeast, including Trenton, NJ, New York, NY and Philadelphia, PA. We are a multidiscipline firm of professionals dedicated to developing cost-effective solutions and designs that enhance quality of life. Core specialties include bicycle/pedestrian planning, recreational planning and design, landscape architecture and streetscape design, highway and traffic design, transportation planning, structural and bridge design, site design, utility design services, environmental permitting and processing services, hydraulics/hydrology and construction management. We have provided design services for various counties and municipalities throughout New Jersey, and other major transportation agencies including NJDOT, NJTA, NJTPA, NJ TRANSIT, PANY&NJ, DRJTBC, NYSDOT, NYCDOT, and NYCDDC.

SRTS is a comprehensive mobility program that uses proven planning and engineering approaches, including the latest traffic calming measures, to make school routes safer for student walkers, bicyclists and motorists. Planning efforts focus on education, enforcement, encouragement and evaluation and include conceptual designs as part of School Travel Plans. Engineering Design components include development of final plans and specifications, environmental review and obtaining approvals for construction projects.



## SRTS DESIGN

As a consultant for NJDOT, NV5 developed the School Zone Design Guide, a statewide resource focused on engineering measures that can be used to make the environment to, from, and around schools a place where children and their parents feel safe and want to walk and bicycle.



## SRTS DESIGN EXPERIENCE

*NV5 is a full service multidiscipline firm. Below are some specific SRTS services.*

**SRTS PLANNING AND TRAINING:** NV5 has developed Original and Urban Demonstration SRTS projects, Transportation Management Agency SRTS overview and Site Evaluation for engineering design concept training, and Walking School Bus training.

**COMPLETE STREETS:** NV5 prepared Complete Streets program support documents for NJDOT. NV5 helped NJDOT refine the Capital Project Delivery Process, and recommendations were made to the associated Activity Descriptions and Guidelines (Concept and Design phases) so that the Complete Streets policy was addressed.

**STREET/INTERSECTION IMPROVEMENTS/INTEGRATED PROJECTS:** NV5 prepared concept designs for all NJ SRTS Demonstration Project Schools and New York City School Safety Engineering (210 school campus areas). SRTS elements are routinely integrated in our major project designs such as Route 35 Reconstruction (Super-Storm Sandy), Route 206 in Chester, Route 46 in Netcong, Bridge Street Stockton Historic Streetscape, etc. many of which are within Historic Districts.

**ADA COMPLIANCE:** NV5 routinely integrates ADA requirements, an important element for SRTS projects. We have extensive ADA compliance experience from teaching seminars to trained staff, to assisting NJDOT on policy procedures, to proven experience. NV5 has also been awarded NJDOT projects specific to ADA improvements, including the design of over 100 curb ramps along Route 17 in Bergen County.

**SURVEY:** Field survey and base mapping involve the careful and efficient location of roadway/sidewalk elements and proposed improvements, which are critical to SRTS design. Our Survey Department, which includes four survey crews with state-of-the-art equipment, also has an NJDOT Survey Term agreement.

**SUSTAINABLE ENVIRONMENTAL AND COMMUNITY DESIGN:** Even small SRTS improvements require identification/avoidance of environmental, historic resources and opportunities for achieving context sensitive, sustainable designs. NV5 has a long history of environmental services to support transportation and mobility projects in NJ and the region.

**FULL-SERVICE ORGANIZATION:** NV5 has all required engineering, utility coordination/design, environmental and public outreach services in-house, enabling production of efficient, cost effective SRTS designs. NV5 has served as an on-call consultant to NJDOT for bicycle/pedestrian planning and design for over 22 years.

# SAFE ROUTES TO SCHOOL (SRTS) / DESIGN ASSISTANCE PROGRAM



NV5's specialists have not only developed School Travel Plans for many schools throughout NJ, they helped 'write the book' for what School Travel Plans should include and showed schools how these plans can make the trip to and from school more safe and enjoyable for everyone. Through developing pilot SRTS programs throughout New Jersey, NV5 set the bar for School Travel Plans, including streamlining the process for identifying physical enhancements for routes to school.

As National Complete Streets Coalition instructors, we make sure our engineering concepts help balance the needs of all travelers, emphasizing the needs of children getting to

and from school, and provided workshops and specialized training for school and municipal representatives to help plan and advance both SRTS activities and improvements.

Our understanding of how SRTS concepts are planned strengthens our ability to design SRTS projects efficiently, avoid scope creep and support environmental and community contexts. NV5 has all required engineering and environmental services in-house to efficiently design SRTS projects. Design elements can include ADA compliant sidewalk and curb ramps, crosswalks, reducing street crossing distances, curb extensions, traffic signalization and signal upgrades, pedestrian traffic control devices, intersection improvements, signing, pavement markings/stripping, traffic calming, connectivity paths, bicycle safety improvements, etc. We also integrate SRTS with our Complete Streets design approach.

## NV5 REPRESENTATIVE PROJECTS



**WESTFIELD TRAFFIC CALMING:** The objective was to provide a safer environment for pedestrians and bicyclists, by addressing through-traffic and speeding issues. NV5 evaluated traffic calming strategies, examined the feasibility of methods and alternatives, recommended appropriate treatments, and prepared final design plans and specifications. Recommended treatments constructed include raised intersections, speed tables, curb extensions and raised crosswalks.



**CAMDEN, NJ—SAFE ROUTES TO SCHOOL URBAN DEMONSTRATION PROGRAM:** The NJ SRTS Urban Demonstration Program in Camden focused, primarily, on making sure that all children can benefit from SRTS programs. NV5 developed an approach for two schools, which recognized that the issues faced by students may be different than those affecting children in other NJ suburban or rural areas. The program goal was to assist the schools with strategies to develop and implement local SRTS programs that were reflective of individual school neighborhoods. SRTS planning assistance was provided to the Harry C. Sharp Elementary School and Camden's Promise Charter School, and its City partners. This program demonstrates how communities can collaborate to plan SRTS improvements, and serves to guide other urban schools and cities in establishing successful partnerships to promote SRTS activities.

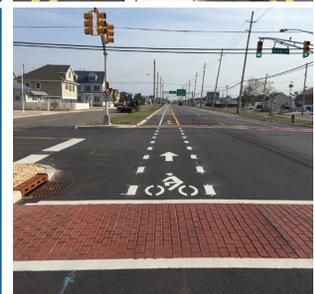


**NORTH AVENUE HAWK SIGNAL IN WESTFIELD, NJ:** In response to numerous pedestrian crashes on North Avenue, NV5 designed a hybrid traffic signal for pedestrians to safely access a parking lot across North Avenue.

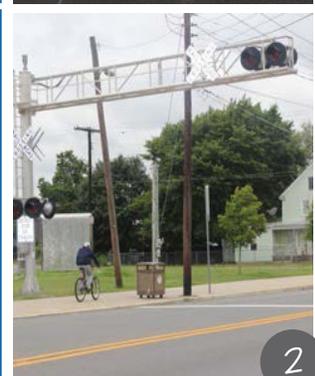
**ESSEX COUNTY ON-CALL TRAFFIC ENGINEERING SERVICES:** As part of an ongoing traffic engineering on-call agreement, NV5 designed new traffic signals for over 70 intersections, many near schools. All signals featured substantial ADA pedestrian improvements, including count-down pedestrian timers, push buttons that light up and beep, and new crosswalks and sidewalk.



**ROUTE 35 RECONSTRUCTION MP 4.0 TO 9.0 (SUPER-STORM SANDY EMERGENCY CONTRACT):** NV5 provided final design and construction support services for a 5-mile section of Route 35, involving pavement replacement, corridor-wide drainage system upgrades, replacement/upgrades to 19 signalized intersections, significant sidewalk improvements, enhanced crosswalks, bike lanes and over 800 ADA compliant curb ramp installations, which were designed in accordance with NJDOT American Disabilities Act policies.



**ROUTE 47, HENDERSON AVE TO HIGH ST, MP 39.23-41.93/CITY OF MILLVILLE CONCEPT DESIGN:** NV5 is providing Design Services for a 2.7-mile section of Route 47, with twenty-seven (27) intersections, six (6) signalized intersections and two (2) railroad crossings. Services include: traffic counts, crash analysis, intersection improvement recommendations, ADA recommendations, bus turnout improvements, recommendations to improve bicycle and pedestrian safety (including traveling at RR crossings), identification of substandard design elements, public outreach, etc.



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## REPRESENTATIVE PROJECTS CONTINUED

### ROUTE 36, MP 7.7 TO 11.5 BICYCLE AND PARKING FACILITY DESIGN



NV5 is preparing final design documents for the Borough of Sea Bright, NJ to construct designated (signed and striped) bicycle lanes for 3.8 miles of Route 36. The project includes accommodating parking throughout a recently constructed streetscape project in the downtown district of Sea Bright.



### BRIDGE STREET STOCKTON STREETScape

NV5 provided landscape architecture and streetscape design services for this NJDOT, Borough of Stockton \$2 million project, which is the connector roadway between the Route 29 Scenic Byway and Delaware River. Because Bridge Street crosses the D&R State Park and Canal, all design elements required approval from the NJ State Historic Preservation Office (SHPO). Streetscape improvements included: new blue stone curb and sidewalks, period lighting, street trees, ornamental plantings, bicycle trail crossing design and historic signage. *2010 Hunterdon County Planning and Design Award*



### NEW YORK CITY SCHOOL SAFETY ENGINEERING PROJECT

Since 2002, NV5 has been conducting pedestrian safety assessments for NYCDOT's School Safety Program which manages pedestrian safety for over 1,470 elementary and middle schools. The School Safety Engineering Project seeks to improve pedestrian safety for children in the vicinity of schools by redesigning sidewalks, intersections, and travel corridors along school routes. NV5 visited and studied streets around hundreds of schools, met with school representatives, and identified pedestrian safety concerns. Schools were ranked as to the severity of the problems and improvements identified. We then conducted more detailed assessments for the 210 highest ranked 'priority' schools (with the most severe pedestrian safety concerns) identifying specific engineering and traffic improvements around each school. In subsequent contracts, we develop engineering designs for over 46 capital projects.

### COMPLETE STREETS—COMPREHENSIVE PROGRAM SUPPORT SERVICES

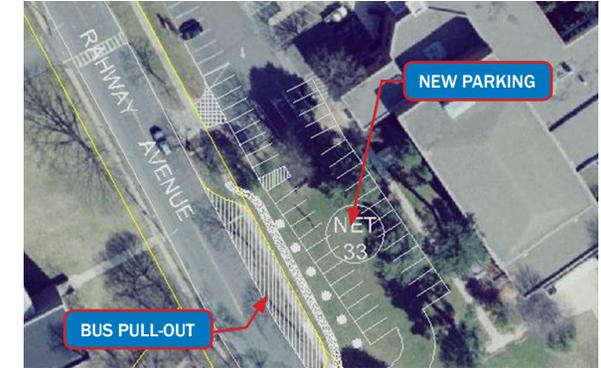


NV5 is at the forefront of planning and design firms applying a Complete Streets approach to transportation solutions. Key Complete Streets projects led by NV5 include outreach, training and implementation workshops, and local planning and design assistance.



### PEMBERTON COMPLETE STREETS IMPLEMENTATION

NV5 provided assistance to the Township in the development of a Complete Streets Implementation plan to address Complete Streets education, implementation tools, and project development and delivery. Recommendations included: Typologies for Township-wide Corridor Treatments; Intersection Treatments; Amenities and Maintenance; and Signage.



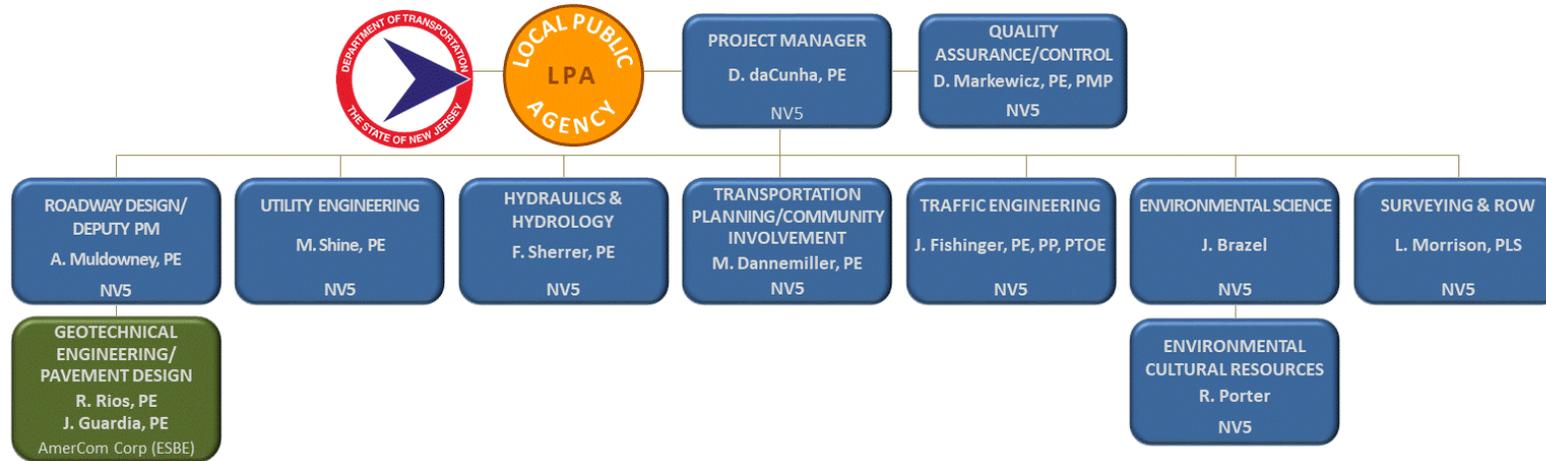
### WESTFIELD HIGH SCHOOL TRAFFIC SAFETY STUDY

In conjunction with representatives of the Town of Westfield and the Westfield Board of Education, NV5 conducted a thorough review of traffic safety and parking practices for Westfield High School. Multiple public meetings were held and parking and traffic data gathered. Recommended improvements included restricting parking from one side of the street along several streets, providing a bus pull-out and increasing school parking. Complaints from neighborhood residents were greatly reduced.

# SAFE ROUTES TO SCHOOL (SRTS) / DESIGN ASSISTANCE PROGRAM

## NV5 PROFESSIONAL STAFF

## PROJECT ORGANIZATION



**Denice daCunha, PE—Project Manager**

Direct: 973.946.5624

Denice is a Professional Engineer with over 30 years of experience at NV5, in the design and management of numerous highway, bridge and traffic engineering assignments. Her experience includes managing NJDOT projects throughout all design phases: conceptual, preliminary, final design and construction support. Projects have included school zone safety, ADA compliance, signal upgrades, transportation alternatives, signing/stripping, community outreach, etc. She has completed Rutgers CAIT Federal-Aid Responsible Charge training. Several of Denice's projects have been recognized with awards from the American Planning Association, Engineers Council of NJ, NJ Concrete Association, Federal Highway Administration, and NJDOT Value Engineering.



**Michael Dannemiller, PE—Transportation Planning/Community Involvement**

Mike has been planning and designing bicycle and pedestrian projects for the last 26 years. He has developed plans and designs for enhancing bicycle and pedestrian accommodation from New England to Florida to Oregon. He has also developed and presented training sessions on Safe Routes to School and senior mobility, Complete Streets, Traffic Calming, bicycle and pedestrian planning and design. Mike is trained by the Federal Highway Administration for facilitating Safe Routes to School and Complete Streets workshops; and serves as an Advisor to the New Jersey East Coast Greenway Committee and the September 11th National Memorial Trail Alliance.

## PROFESSIONAL MEMBERSHIPS OF NV5 PERSONNEL INCLUDE:



## SRTS DESIGN ASSISTANCE

NV5 is uniquely qualified and experienced with NJDOT's SRTS Design Assistance program, having developed the NJ School Zone Design Guide and previously assisting the Department with their SRTS Pilot Program. NV5 includes seasoned professionals, experienced in a broad range of transportation settings and Federal Aid training/experience. We are nationally and locally recognized, and active in organizations such as the Association of Pedestrian and Bicycle Professionals (APBP), American Society of Highway Engineers (ASHE), Institute of Transportation Engineers (ITE), New Jersey Chapter of the American Planning Association (APANJ), Association of New Jersey Environmental Commissions (ANJEC), New Jersey Main Street, and more.



**NV5, Inc.**

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