DAWOOD
ENGINEERS ► PLANNERS ► SURVEYORS

June 20, 2025

Tri-County Regional Planning Commission
320 Market Street, Suite 301E
Harrisburg, PA 17101

Attention: Andrew Bomberger, AICP, Executive Director

RE: Response to Request for Qualifications
Engineer/Planner for Federal Aid Projects
Dawood Project Number 2500170.PP

Dear Mr. Bomberger,

Dawood Engineering, Inc. (Dawood) is pleased to submit our response to your Request for Qualifications (RFQ) for Engineer/Planner for Federal Aid Projects. As a trusted partner to municipalities and transportation agencies across Pennsylvania, we bring extensive experience in transportation planning, traffic engineering, highway design, bridge design, feasibility assessments, and geographic information systems – all key elements of the RFQ.

Dawood has a strong, thirty-year track record of delivering transportation engineering and planning projects all across Pennsylvania. We are industry leaders in multimodal transportation projects including pedestrian and bicycle infrastructure with subject matter expertise in ADA compliance.

Based in our headquarters located at 1926 Good Hope Road in Enola, PA, 17025 near Harrisburg, **Chad Decker, PE, PTOE** will be our Agreement Manager for this engagement. Our team is available to discuss our qualifications further via email at chad.decker@dawood.net and by phone at 717.732.8576.

We appreciate the opportunity to support Tri-County Regional Planning Commission in shaping the future of our transportation facilities and infrastructure and look forward to the next steps in your selection process.

Sincerely,

DAWOOD ENGINEERING, INC.

Chad J. Decker, PE, PTOE, Vice President - Transportation

Federal ID# 25-1696385

PROJECT TEAM ORGANIZATION CHART

Statement of Interest
Tri-County Regional Planning Commission
Engineer/Planner for Federal Aid Projects

DAWOOD

Tri-County Regional Planning Commission

*Chad Decker, PE, PTOE
Project Manager
28 years of experience
Dawood

Stephen Janosko, PE
Quality Assurance/Quality Control Manager
36 years of experience
Dawood

Survey / Mapping and GIS Services
Dawood

Jody Carter, PLS
Surveyor
24 years of experience

SUPPORT STAFF
Michael Anthony, PLS
Scott Miller
Gregg Young
Ken Flechsig

Traffic Engineering
Dawood

***Lori Ware, PE, PTOE**
Lead Traffic Engineer
19 years of experience

SUPPORT STAFF
Chenlong Tan, EIT
Kyle Breiman, EIT
Matthew Miekley, EIT
Brian Grasley

Transportation Planning
Dawood

***Scott Bechard, AICP**
Lead Transportation Planner
24 years of experience

SUPPORT STAFF
Jon Cherry
Shree Smith
Scott Evans
Dennis Ware

Highway Engineering
Dawood

***Jason Cowen, PE**
Lead Highway Engineer
22 years of experience

SUPPORT STAFF
Evan McAninch, PE
Brian Kraus, PE
Chris Cummings, EIT
Reem Al Sinan-Oswald, EIT

Structural Engineering
Dawood

Nicholas Brien, PE, CBSI
Lead Bridge Engineer
24 years of experience

SUPPORT STAFF
Mark Conrad, PE
William Hanson, PE, CBSI
Alison McShea, PE, CBSI
Matt Miller, PE, CBSI

Environmental
Dawood

Kevin Rucker
Environmental Engineer
21 years of experience

SUPPORT STAFF
Jacob Yealy, EIT
Todd Mill
Samuel Lamport
Andrew Wicks

Environmental Studies, Stormwater Management Design, Roadway/Bridge Design Support
NTM Engineering, Inc

***Kevin R. Kozain, PE, CPESC**
Subconsultant Manager
25 years of experience

SUPPORT STAFF
Jeffrey MacKay, MS, PE, CPESC
Scott A. Brown, MS, PE, D.WRE
Bill Savage
Marcia Kodlick, RPA
John H. Newell, MEng, PE, CBSI

*** Indicates Resume Included**

Chad J. Decker, PE, PTOE

Vice President - Transportation

EDUCATION

MEng, Civil Engineering
Penn State University, 1996

BS, Civil Engineering
Penn State University, 1995

REGISTRATIONS

Professional Engineer: PA
Number: PE058928E
First Registered: 2001

Professional Engineer: NJ
Number: 24GE042800
First Registered: 2002

Professional Traffic Operations Engineer Number: 1306
First Registered: 2004

YEARS' EXPERIENCE

28

Chad Decker oversees the Transportation Division, providing departmental, strategic, and operational direction for a diverse team of engineers and planners. As a leader, he mentors engineers of all levels to assist in creating their successful career paths. Mr. Decker manages growth and drives excellence for project delivery by coordinating across business lines and providing advanced leadership at project kick-off meetings, design charettes, and project reports. He is responsible for operational and project management and day-to-day management, including traffic study preparation and reviews, traffic control plans, traffic signal designs, signing and pavement marking plans, incident management plans, and intelligent transportation systems design.

PROJECT EXPERIENCE

Parkview Residential Community, Boiling Springs, Cumberland County, Project Manager: Mr. Decker oversaw the Transportation Impact Study for the Parkview at Boiling Springs Development. Dawood was retained to provide site development and traffic engineering services. Mr. Decker's responsibilities included collection of field data, synthesis of reportable accident data, capacity analysis, signal warrant analysis and turn lane analysis. The Highway Occupancy Permit for the project involved lowering SR 174 by five feet in some sections to improve sight distance and a reconfiguration of the E. Old York Road (SR 0174)/Springville Road intersection to provide a more traditional alignment.

Bedford and East Streets Traffic Calming, Carlisle Borough, Cumberland County, Project Manager: Mr. Decker served as the Project Manager for this traffic calming and safety project in Carlisle Borough. The first phase of the project included a gateway enhancement effort at the intersection of North Bedford Street East Penn Street and Kerrs Avenue. Improvements included curb extensions, decorative crosswalks, landscaping and traffic safety upgrades. Phase 2 will entail the removal of one travel lane on Bedford and East Streets and the implementation of a bicycle lane, curb extensions, and crosswalk upgrades.

York-Trindle Connector Road, Cumberland County, PennDOT District 8-0, Project Manager: Mr, Decker served as the Project Manager for the Transportation Impact Study, Highway Occupancy Permit Application and Construction Plan preparation for the York-Trindle Connector Road Project. This new one-mile roadway directly connects SR 74 (York Road) and SR 641 (Trindle Road) in Cumberland County. The roadway will help alleviate existing congestion on Fairview and Fairfield Streets in South Middleton Township caused by the half-diamond interchanges at Interstate 81 Exits 48 and 49. Improvements included two new signalized intersections, widening turn lanes, and pedestrian accommodations.

E03030 Open End Agreement, Traffic Unit Assistance, PennDOT District 8-0, Agreement Manager: Mr. Decker is currently managing this assignment under which Dawood is acting as an extension of the District 8-0 Traffic Unit staff on assignments related to traffic signals/ITS, safety,

and operations. Projects to date have included development of traffic signal plans (temporary and permanent), traffic control plans, signing and pavement marking plans and a compilation of best practices for MPO/RPO Congestion Management Plans. We have also developed feasibility studies for horizontal curve safety improvements and the installation of cable median barriers along 190 miles of four-lane divided highways.

Carlisle Borough, Downtown Carlisle Improvements, Cumberland County, Project Manager: Mr. Decker serves as project manager for the design of traffic calming improvements and preparation of construction drawings and bid documents for the Carlisle Road Diet. This project is the implementation of the recommendations of the Comprehensive Traffic Study of Downtown Carlisle. Mr. Decker's responsibilities include the design of ADA-compliant curb ramps at 15 intersections in Downtown Carlisle and pavement marking revisions to convert the existing four-lane cartways of High and Hanover Streets to three lanes with bike lanes for each direction. Mr. Decker's is also responsible for the design and implementation of the first traffic adaptive traffic signal system in PennDOT District 8-0 using the proprietary InSync traffic responsive system. The new traffic signal system will encompass 21 intersections in the Borough of Carlisle.

Carlisle Borough, Comprehensive Traffic Study of Downtown Carlisle, Cumberland County, Project Manager: Mr. Decker serves as project manager for a comprehensive traffic study of downtown Carlisle focusing on Hanover and High Streets. Mr. Decker's responsibilities include identification of traffic calming measures to promote walking and bicycling and improve safety. Recommendations include a "road diet" on Hanover and High Streets to calm traffic and improve Carlisle's livability. Mr. Decker is also responsible for an inventory of existing bike and pedestrian facilities within the borough and making recommendations to improve these facilities. Bike lanes are proposed on both Hanover and High Streets adjacent to downtown traffic. Additionally, Mr. Decker is also responsible for traffic counts, identifying of methods to reduce truck traffic, and public involvement.

Carlisle Bike and Pedestrian Trail Network, Carlisle Borough, Cumberland County, Project Manager: Mr. Decker served as project manager for the design of a 13.8-mile network of trails for walking, running and biking. The network, which includes on-road and off-road trails, connects all Borough parks, schools and downtown Carlisle. Extensive stakeholder coordination and public involvement was required to determine the bike routes and educate the public on bicycle safety.

Carlisle Pike/Sporting Hill Road Intersection Improvement Project, Hampden Township, Cumberland County, QA/QC Manager: Mr. Decker is serving as our QA/QC Manager on this intersection widening project. The Carlisle Pike at its intersection with Sporting Hill Road is being widened to provide right turn lanes onto Sporting Hill Road in both the Eastbound and Westbound directions to improve peak hour traffic flow. This area of Hampden Township has witnessed tremendous traffic growth in recent years and the project was necessary to relieve congestion and improve safety. The project was right-sized with 11' travel lanes to reduce right-of-way impacts and avoid the need to relocate utility poles. The project is funded through PennDOT's Multimodal Transportation Fund program.

E03755, Riverlands Safety Study Implementation, PennDOT District 8-0, Project Manager: Mr. Decker is leading Dawood's design for improvements to US 22/322 in Dauphin County featuring the installation of median barrier to eliminate crash-prone left turns, a frontage lane for access to commercial properties, signing and pavement marking upgrades, and interchange upgrades to facilitate new traffic patterns. Numerous intersection alternatives were developed at the US 11/15 and PA 147 interchanges, including an innovative contraflow continuous left turn-lane configuration (PA 147) and a continuous flow right-turn lane design at Ramp Road/US 11/15. Lessons learned regarding project-delivery challenges that have been accounted for in project scheduling, including mitigating cultural resource impacts, right-of-way, and property owner and stakeholder coordination will be applied to future projects. Dawood also coordinates with District 8-0 Maintenance and Construction Units via monthly meetings to address any maintenance/constructability concerns.

E03832/E05166, HOP Permit Reviews, PennDOT District 8-0, Subconsultant Project Manager: These agreements are to provide all aspects of Highway Occupancy Permit (HOP) Application Review Services to assure that proposed modifications are in compliance with all PennDOT Manuals, Strike-off Letters, Policies and Procedures. Work under this agreement includes but is not limited to the review of the following: Roadway Construction Plans, Traffic Impact Studies, Hydrologic and Hydraulic Designs, Traffic Signal Timings and Plans, Traffic Control Plans, Signing and Pavement Marking Plans, Highway Lighting Plans.

Jason Cowen, PE

Manager of Highway Services

EDUCATION

BS, Civil Engineering
Penn State University, 2002

REGISTRATIONS

Professional Engineer: PA
Number: PE074817
First Registered: 2007

Professional Engineer: DE
Number: 14748
First Registered: 2007

YEARS' EXPERIENCE

22

Jason Cowen has experience in all aspects of highway design. His work experience includes highway engineering design tasks associated with various Pennsylvania Department of Transportation and local/municipal projects, as well as conducting highway occupancy permits (HOP) reviews. Mr. Cowen also possesses experience in traffic control plan design, signing and pavement marking plans, stormwater management, erosion and sedimentation control, right-of-way coordination, design field view preparation, and ADA design and review. His computer experience encompasses AutoCAD and Civil 3D Land Desktop Companion, Microstation, and he has used them to implement geometric designs and to assist in the design of stormwater management systems. Additional technical skills include Darwin, Hydraflow, PennDOT AutoTab, Electronic Permitting Systems (EPS), and ECMS.

PROJECT EXPERIENCE

PA Turnpike General Design Open End 3-269, PA Turnpike Commission General Design Open End – Work Order 2: Lead Highway Engineer for the Rehabilitation of the Mid-County Interchange, Exit No. A-020 including concrete pavement repairs, bituminous resurfacing, miscellaneous structure repairs, and signing and pavement markings, guiderail and median barrier improvements. Project featured a complex traffic control scheme to maintain traffic at one of the busiest interchanges on the Turnpike system. Project was completed under an expedited schedule in order to coincide with a planned shutdown of the EZPass Express Lanes for equipment upgrades.

PA Turnpike General Design Open End T00151 Work Order 2: Lead Highway Engineer for the Rehabilitation of the Asphalt Lanes from MP 345.73 to MP 353.49, including asphalt milling, asphalt resurfacing, bridge deck and joint repairs, pavement markings, guide rail and median barrier improvements and drainage modifications.

PA Turnpike General Design Open End T00151 Work Order 4: Lead Highway Engineer for the Rehabilitation of the roadway shoulders and side slopes, east of the Somerset Interchange from MP 114.20 to MP 120.20, including east and westbound shoulder milling and reconstruction, guide rail replacement, drainage channel reconstruction, replacement of inlets, side slope repair, access ramp surfacing, rock armor, rock blanket and Geosynthetic Reinforced Soil Slope repairs.

E03755, Riverlands Safety Study Implementation, (PennDOT District 8-0): Lead Highway Engineer for Dawood for this agreement. Dawood is leading the design for improvements to US 22/322 in Dauphin County featuring the installation of median barrier to eliminate crash-prone left turns, a frontage lane for access to commercial properties, signing and pavement marking upgrades, and interchange upgrades to facilitate new traffic patterns. Numerous intersection alternatives were developed at the US 11/15 and PA 147 interchanges, including an innovative contraflow continuous left turn-lane configuration (PA 147) and a continuous flow right turn lane design at Ramp Road/US 11/15. Lessons learned regarding project-delivery challenges that have been accounted for in project

scheduling, including mitigating cultural resource impacts, right-of-way, and property owner and stakeholder coordination will be applied to future projects. Dawood also coordinates with District 8-0 Maintenance and Construction Units via monthly meetings to address any maintenance/constructability concerns.

ECMS 110169 SR 29/Cedar Crest Boulevard Design Build (PennDOT District 5-0): Lead Highway Engineer – Mr. Cowen is leading the highway design efforts on this safety and operational enhancement project on SR 29/Cedar Crest Boulevard in Lehigh County. Project included the widening on the eastbound I-78 off-ramp, traffic signal improvements at six intersections, traffic control plan, signing and pavement marking plan, extensive utility coordination, right-of-way acquisition, E&S Plan and FAA permitting.

E03174, SR 0715 & SR 611, Monroe County (PennDOT District 5-0): Subconsultant Project Manager – Mr. Cowen served as the subconsultant project manager for the widening of SR 715 and I-80 to SR 611 from the I-80 ramp intersection to Shine Hill Road. Dawood's responsibilities included surveying services, utility coordination, Right-of-Way activities and a final geotechnical engineering report.

E02635 SR 0209, Section 03S, Monroe County (PennDOT District 5-0): Subconsultant Project Manager – Mr. Cowen served as the subconsultant project manager for the long-term safety improvements along the US209/Business 209 Corridor. Dawood's tasks included field survey, pavement design, utility coordination, Geotechnical and Structural Foundation reports.

E03887 Bridge Group 53, Lackawanna County, PA (PennDOT District 4-0): Project Engineer – Mr. Cowen was project engineer for the preliminary and final design tasks as well as the construction consultation tasks for this Prime Project. The project included three full bridge replacements and one rehabilitation. SR 307-D53 consisted of the replacement of a stone masonry arch culvert at the entrance to the historic Williams Bridge Reservoir. A finding of No Adverse Effect was determined for the project allowing the single span spread box beam bridge on integral abutments to be constructed without mitigation. To achieve project goals of eliminating underwater inspections and moving substructure units out of the flow line, the profile was increased several feet. Additionally, a PA Water Company access road and private driveway on the western end were relocated. Staged construction was utilized to maintain two lanes of traffic at all times. SR 4036-D50 replaced an existing corrugated metal arch culvert with a precast concrete reinforced box culvert under a detour. SR 632-D51 replaced an existing corrugated metal pipe arch with a precast concrete reinforced box culvert under a detour. SR 107-277 rehabilitated an existing concrete arch culvert under 30' of fill by lining the culvert with a steel arch, extending the culvert at the inlet and outlet to provide new end sections. Mr. Cowen was responsible for roadway design (including pavement design) and plan preparation for PennDOT's design field view and PS&E submissions, traffic control plans, and utility coordination.

E00141 SR 0313, Section B02, Bucks County (PennDOT District 6-0): Project Engineer – Mr. Cowen served as the project engineer for the pavement reconstruction and addition of a truck passing lane along the section of SR 0313 (Swamp Road) between Broad Street and Curly Hill Road. Intersection improvements will also be conducted at the intersection of Swamp and Ferry Roads. The project also includes two structure replacements at the unnamed tributary to the North Branch of Neshaminy Creek (Culvert) and at the North Branch of Neshaminy Creek (Bridge). Dawood's tasks included structural design of a culvert, pavement design, utility coordination, Traffic Signal design, Geotechnical and Structural Foundation reports.

Lori Ware, PE, PTOE

Manager of Traffic Services

EDUCATION

MS, Transportation
Villanova University, 2012

BS, Civil Engineering
Rutgers University, 2006

REGISTRATIONS

Professional Engineer:
PANumber: PE079831
First Registered: 2012

Professional Engineer:
NJNumber:
24GE04962800
First Registered: 2012

Professional Traffic Operations Engineer:
PA Number: 3450
First Registered: 2013

YEARS' EXPERIENCE

19

Ms. Ware has coordinated the design and drafting of transportation and civil facilities,with budgets of up to ten million dollars. These facilities include roadways, signalized and un-signalized intersections, parking lots, parks, private developments, and walking/biking amenities. She has coordinated permitting, design standards, and traffic control with government agencies, such as PennDOT and the New Jersey DOT. Ms. Ware has experience with preparing budgets and cost breakdowns for the subjectappraisal and approval process.

PROJECT EXPERIENCE

ECMS 110169 SR 29/Cedar Crest Boulevard Design Build (PennDOT District 5-0): Lead Traffic Engineer – Ms. Ware is leading the traffic signal design and traffic engineering efforts on this safety and operational enhancement project on SR 29/Cedar Crest Boulevard in Lehigh County. Project included the widening on the eastbound I-78 off-ramp, traffic signal improvements at six intersections, traffic control plan, signing and pavement marking plan, extensive utility coordination, right-of-way acquisition, E&S Plan and FAA permitting.

E05615 SR 0202, Section M2W Dekalb Street Two-Way Conversion, Montgomery County (PennDOT District 6-0): Project Manager - Ms. Ware is managing the analysis and design for the reconstruction associated with the one-way to two-way conversion project in the Municipality of Norristown. The project involves data collection, trip distribution, signing and pavement markings, traffic signal design, utility coordination, traffic control, roadway design, and highway lighting. Dawood is also responsible for public outreach, historic and cultural resource coordination, drainage design, and geotechnical evaluation. This conversion is anticipated to improve traffic flow, reduce congestion, and enhance accessibility within the corridor.

E05830, Hanover Street/Red Hill Road & PA 24/Druck Valley Road Intersection Upgrades (PennDOT District 8-0) – Lead Traffic Engineer - Ms. Ware is leading the traffic engineering efforts for this two-intersection improvement agreement. Preliminary Alternatives Analyses were conducted each location to determine preferred alternatives (roundabout and traffic signalization with turn lanes) to advance to Preliminary Engineering. The objective of each project is to improve safety and operations while minimizing environmental, utility and right-of-way impacts.

E03580, Green Light-Go Technical Support - Central Region, Bureau of Maintenance and Operations – Lead Traffic Engineer for Dawood providing traffic signal design and related services to municipalities throughout PennDOT Districts 2-0, 3-0 and 9-0. Projects include a signalized intersection upgrade with optimized timings, ADA compliant curb ramps, Wavetronics radar detection, pedestrian push buttons and countdown signals and overhead lighting.

2017 Green-Light-Go Program Grant (PennDOT District 8-0) – Dauphin County, PA : As our Lead Traffic Engineer, Ms. Ware performed the analysis and design of the new signal equipment at an intersection in Swatara Township. Thetasks included replacement of the existing span wire signal equipment and design for new mast arms, poles, vehicularsignal heads, pedestrian signal heads, pedestrian push buttons, emergency pre-emption, and video detection. The tasks also included analysis and optimizing the signal phasing and timings using current traffic data. Also included was the updates to any pavement marking or signage associated with the signal design improvements.

E03030, Open End Agreement (Traffic Unit Assistance), (PennDOT District 8-0): Ms. Ware is currently serving as Lead Traffic Engineer for this assignment under which Dawood is acting as an extension of the District 8-0 Traffic Unit staff on assignments related to traffic signals/ITS, safety and operations. Projects to date have included the development of traffic signal plans (temporary and permanent), traffic control plans, signing and pavement marking plans and a compilation of best practices for MPO/RPO Congestion Management Plans. We have also developed Road Safety Audits, feasibility studies for horizontal curve safety improvements and the installation of cable median barriers along 190 miles of four lane divided highways. Additional assignments included white papers on ITS Device Maintenance Best Practices, DMS Travel Time Advisory Best Practices and a Grab-n-Go Procedure Document for the Implementation of portable temporary traffic signals.

E04294, District 6-0 ADA Review Support Services 2018-2023 (PennDOT District 6-0): Assistant Project Manager – Ms. Ware was responsible for the development of Plans, Specifications and Estimate packages for design build curb ramp construction projects in the four suburban counties surrounding the City of Philadelphia. Additional responsibilities included coordination with subconsultants and various PennDOT District 6-0 Units (Plans, Environmental, Construction, Utilities, Right-of-Way). On this agreement, Ms. Ware is also responsible for the day-to-day management and client contact while being responsible for the review of consultant submitted ramp designs as well as the development of the District 6-0 ADA Guidance Document. Additional responsibilities include frequent coordination with the City of Philadelphia on ramp reviews and design consultation.

City of Philadelphia, Department of Streets: Contract 1720150 On-Call General Engineering Services: Assistant Project Manager – Ms. Ware managed and designed ADA curb ramps throughout the City of Philadelphia, wrote and drafted comments to coordinate submitted ramp designs to regulations, redlined alternate ramp designs to coordinate with comments and follow standard procedures. She also provided clarification for questions regarding ADA guidelines. She also provided training to City of Philadelphia Department of Streets staff regarding ADA regulations and design procedures.

SR 0041 Section VCB (PennDOT District 6-0) – Chester County, PA: Traffic Engineer - Ms. Ware for this Design-Build project featuring the modification and retiming of four intersections and the installation of a new traffic signal at one intersection along the detour route for the replacement of the SR 41 bridge over Valley Creek in Chester County. Tasks included traffic modeling and simulation, traffic signal design, appropriate traffic signal phasings, timings, traffic control devices, traffic and pedestrian indications and plan and specification preparation.

Canton Borough ARLE Traffic Signal Upgrade, Bradford County (PennDOT District 3-0): Lead Traffic Engineer – Ms. Ware was responsible for the design of the improvements to the traffic signal equipment at the intersection of SR 14/SR 414. Project featured signal timing optimization, replacement of the controller and signal heads, emergency vehicle preemption, video detection, ADA compliant pedestrian accommodations and pedestrian countdown signals.

Scott Bechard, AICP

Senior Transportation Planner

EDUCATION

MS, Community and Regional Planning, Temple University, 2009

BS, Geo-Environmental Science, Shippensburg University, 2001

REGISTRATION

American Institute of Certified Planners (AICP)
Certification Number: 025291

AICP Certification Date: 2011

YEARS' EXPERIENCE

24

Mr. Bechard has 24 years of broad-based and progressively responsible experience in transportation planning, engineering consulting and task management. Mr. Bechard has experience conducting a wide range of traffic engineering and planning studies including traffic impact studies, corridor planning, parking studies, traffic signal warrant studies, speed restriction studies, trip generation studies, multimodal planning and environmental categorical exclusion documentation. He has performed numerous analyses utilizing Synchro, SimTraffic, FreeVAL and Highway Capacity Software. In addition, Mr. Bechard is experienced with GIS technology. Typical examples include Regional Traffic Gravity Models, municipal sidewalk and asset inventories used to objectively prioritize project selection, identify order of magnitude right-of-way costs along extensive corridors, and conduct various wayfinding signage inventories.

PROJECT EXPERIENCE

District 8-0, PennDOT District 8-0 Agreement E03030 – Traffic Unit Assistance – Road Safety Audits
Senior Transportation Planner

Mr. Bechard served as lead transportation planner for a series of Road Safety Audits in York, Adams, Dauphin and Lebanon Counties. Each RSA followed the FHWA RSA Guidelines and utilized the Crash Modification Clearinghouse. He was responsible for crash data analyses, GIS implementation, development of safety countermeasure recommendations and participated in the RSA meetings. He also assisted with the development of the draft and final RSA Reports.

District 8-0, MulDer Square Traffic Improvements - Harrisburg, PA
Senior Transportation Planner

Mr. Bechard provided technical design support, Highway Occupancy Permit coordination/permitting and quality assurance / quality control for this roadway project along Derry Street and Mulberry Street (SR 3012) involving the design and permitting of a safety and streetscape project which included a mini-roundabout, pavement design, curb bump-outs, green storm water solutions and updated pedestrian and lighting features.

District 8-0, PennDOT District 8-0 Agreement E03030 – Traffic Unit Assistance; PennDOT Eastern Region Dynamic Message Sign (DMS) Efficiency Recommendations
Transportation Planner

Mr. Bechard served as Lead Transportation Planner responsible for recommendations to efficiently locate and operate Dynamic Message Signs (DMS) throughout the PennDOT Eastern Region. An evaluation of standard message formatting and display, optimal destination references, DMS placement considerations, traffic data alternatives and message delay thresholds were included, along with a review of the current state-

of-practice in surrounding states and jurisdictions. Recommendations for placement of new deployments were also included.

District 8-0, Heritage Village Transportation Impact Study
Transportation Planner
Mr. Bechard was responsible for the preparation and submission of a joint transportation impact study for two adjacent land developments in South Middleton Township, Cumberland County, PA. The combined site is owned by two separate interests and collectively consists of a mixed-use development with nearly 200,000 square feet of commercial, industrial and office uses and over 500 residential units. This project serves as a P3 partner to assist in financing public improvements and is proposing a new mile long connector road relief route and additional off-site improvements as part of the project.

District 8-0, Market Street (SR 0462 / Zarfoss Drive Green Light-Go
Senior Transportation Planner
In Dawood's capacity as Township Engineer, Mr. Bechard served as Lead Transportation Planner for this green-light-go signal improvement project consisting of a total replacement of the existing traffic signal, including the installation of a new battery backup system, video detection, emergency vehicle preemption and a complete replacement of the supports, signals and signs. During the design of this project, Green Light-Go construction funding was pulled due to the COVID-19 pandemic. In the same fiscal year, Mr. Bechard submitted a grant application for ARLE funding to cover the deficit in funding.

District 8-0, Regional Connections Grant Sidewalk Study
Transportation Planner
Mr. Bechard served as lead transportation planner to develop a prioritized inventory of sidewalks and curbing in Swatara Township, Dauphin County as well as the identification of areas to be targeted for future linkages. Mr. Bechard was responsible for coordinating the inventory of existing pedestrian facilities, GIS mapping, facilitating two public meetings and the synthesis of data and development of project recommendations.

District 8-0, Paxton Street (SR 3010) / 28th Street Green Light-Go Intersection Improvements
Senior Transportation Planner
Mr. Bechard served as Project Manager and Lead Transportation Planner for this Green Light-go signal improvement project consisting of upgrades to a traffic signal along the Paxton Street corridor, including replacing span wire with two twin mast arm traffic signal supports, emergency vehicle pre-emption, updated vehicle detectors, new controller cabinet, curbing and optimized signal timings. During the design of this project, Green Light-Go construction funding was pulled due to the COVID-19 pandemic. Mr. Bechard coordinated with PennDOT and Swatara Township to include the construction of this project in a concurrent PennDOT Signals Project along the Paxton Street corridor. This required modifying the schedule to meet the PennDOT project milestones and including several additional scope items, such as ADA curb ramp design.

District 8-0, Paxton Street (SR 3010) Sidewalk Connection
Senior Transportation Planner
Mr. Bechard served as Lead Transportation Planner for this project to construct a missing sidewalk connection along the heavily traveled Paxton Street Corridor. The project was identified through a Sidewalk Study project previously completed for Swatara Township and was funded through a Local Share Gaming Grant offered by Dauphin County DCED/IDA. The project involves the design and permitting of 500 feet of sidewalk, including the installation of guiderail and extension of a stormwater pipe. Mr. Bechard was responsible for conceptual design, and technical assistance and coordination associated with the preparation of the required PennDOT Highway Occupancy Permit.

Kevin R. Kozain, PE

Director, Stormwater & Civil/Site

Professional Experience

Total Years of Experience: 25

Education:

BS, Civil Engineering Technology, University of Pittsburgh, 1999

Licenses/Certifications:

Professional Engineer:
PA No. PE-075052-E, 2007

Certified PennDOT Instructor, 2013

Key Qualifications:

- *25 years of stormwater management, erosion and sediment control, transportation, highway, geometric design, and land development experience*
- *Multidisciplinary civil engineering and stormwater design and land development experience*
- *Internal auditor for an ISO 9001 engineering quality program from 2003 through 2007*

Mr. Kozain serves as Director of the Stormwater Department on Pennsylvania transportation improvement projects. His responsibilities include but are not limited to designing erosion and sediment (E&S) controls and drainage and stormwater management systems; performing NPDES and waterway permitting and hydrology and hydraulic (H&H) analysis; and developing traffic control and construction phasing plans. Mr. Kozain is proficient in performing designs according to PennDOT and PA DEP design standards and also offers a background in land development design and traffic engineering. Mr. Kozain has provided calculations, construction plans, and specifications for grading and drainage, erosion and sedimentation control, stormwater management, highway geometry, pavement, and signage and has coordinated project designs with clients, utility owners, and project review agencies. His related project experience includes:

Stormwater Design and NPDES Permits, PennDOT Bureau of Project Delivery, Harrisburg, PA—*Contributing Developer* who helped develop this course that offers a comprehensive review of stormwater management concepts and design practices for highway applications. The course focuses primarily on design procedures and acceptable stormwater best management practices, as in PennDOT's design manuals. It provides step-by-step instructions for completing an NPDES permit and a post-construction stormwater management plan and narrative and provides valuable background on the NPDES permit process. It also reviews how the NPDES permit process relates to PennDOT's Antidegradation and Post-Construction Stormwater Management Policy (written by NTM) and how it can impact scope and schedule. Tasks included designing and developing class materials.

Erosion and Sediment Control Design Course, PennDOT Bureau of Project Delivery, Harrisburg, PA—*Contributing Developer/Lead Instructor* who helped develop this course that thoroughly examines erosion and sediment (E&S) pollution control concepts and design procedures as they apply to PennDOT construction projects. The course provides the designer/engineer with the guidance and direction to evaluate the Department's E&S design options by addressing a broad range of issues related to design. The *PennDOT Drainage Manual*, PA DEP's *E&S Manual*, and other documents relevant to E&S are highlighted. The changes to 25 Pa. Code 102 and how they affect PennDOT plans are also discussed.

Specialty Stormwater Services, PennDOT Bureau of Project Delivery, Highway Division, Harrisburg, PA—*Engineer* for as-needed engineering to help PennDOT make programmatic decisions regarding drainage, stormwater management, and erosion and sediment control. Assignments have included developing Department-wide guidance on regulatory compliance, QA reviewing of stormwater designs, assisting Districts with NPDES permitting, and participating in Pro Team or VEACTT meetings to help find the most cost-effective solutions for stormwater design. Collaborated with several Districts on large projects to reduce or eliminate costly and maintenance-intensive stormwater management facilities from preliminary designs.

E03755, Riverlands Study Implementation (Riverlands Part 2), PennDOT District 8-0, Dauphin County, PA—*Project Manager* for NTM's services which include H&H, waterway permitting, stormwater design and NPDES permitting for the entire project. The project includes safety improvements that include creating a limited access condition and a frontage road for commercial business, and ramp improvements along 1.75 miles of the SR 0022/SR 0322 corridor in Dauphin and Perry Counties.

E03423 Interstate 83 Reconstruction, Section 78 (Eisenhower Interchange), PennDOT District 8-0, Swatara Township, Dauphin County, PA—*Project Manager* for the interchange reconstruction, highway and structure reconstruction, lane addition, and rehabilitation of the I-83 Eisenhower Interchange. NTM is completing a hydraulic analysis using the EPA SWMM model for the lining and replacement of approximately 7,000 LF of trunk storm sewer. The analysis includes two upstream conveyance systems connecting at the upstream end of the existing 8 ft. by 7 ft. box culvert. NTM is also conducting a drainage field view to visually assess field conditions and geophysical characteristics of off-site tributary areas, including karst features to help refine hydrologic flows. NTM is also providing H&H studies for the preliminary engineering. In addition to the H&H tasks, NTM will also be responsible for the E&S design and E&S Plan for the entire project, which includes five separate construction projects. Throughout this project, NTM has extensively coordinated with the USACE as part of their ongoing FEMA Flood Insurance remapping efforts for Dauphin County. Currently, NTM is working on the final E&S design and plan for Contract 1 which involves constructing a new interchange at the Harrisburg Mall, as well as side road improvements that will improve the flow of local traffic in and around the area of the Eisenhower Interchange. (E03423)

E03424, Main Street, Scotland, PennDOT District 8-0, Franklin County, PA—*Project Manager* The SR 1006-005 Scotland Road project in Greene Township, Franklin County, PA was a roadway safety improvement project with a bridge replacement over Mountain Run. NTM's tasks included drainage design and hydrologic and hydraulic (H&H) analysis. Curb was added throughout the portion of the SR 1006 corridor that is located in the village of Scotland. The drainage design required extensive coordination with existing utilities to maintain connections, as well as the Township-owned existing drainage system. The H&H evaluated the bridge replacement over Mountain Run and the Conococheague Creek floodplain encroachment due to roadway improvements.

E03424, Rt 34 Improvements, PennDOT District 8-0, Perry County, PA—*Project Manager* (Part 10,11,12). The SR 0034 Section 035 project involved a roundabout at the SR 0034 / SR 0851 / Pisgah State Road in Carroll Township, Perry County, PA. NTM was responsible for the drainage design, H&H analysis, stormwater design, and the NPDES Permit. The stormwater design converted the impervious surface of an adjacent commercial property that was acquired as part of the project into a landscape restoration, non-structural stormwater control measure (SCM). The H&H evaluated a pipe replacement on an UNT to Sherman Creek and roadway widening in the floodplain due to the roundabout. The project was able to manage peak rate, volume, and water quality increases without any basin type CMS which will minimize future maintenance costs.

Interstate 83 Reconstruction, South Bridge, PennDOT District 8-0, Dauphin County, PA—*E&S, Stormwater, and NPDES Permit Lead* for the I-83 Reconstruction project (East Shore Section 3) from the west of the Eisenhower Interchange to the East side of the South (John Harris) Bridge, which includes interchange reconstruction, highway and structure reconstruction, lane addition and rehabilitation. NTM is responsible for developing the E&S design and plan, stormwater management design, Post Construction Stormwater Management Plan, and NPDES Permitting. Three Stormwater Control Measures (SCMs) will be constructed to mitigate increases in stormwater runoff from the proposed improvements. NTM will be submitting a major amendment to the I-83 Harrisburg corridor wide NPDES permit to include the proposed South Bridge project improvements to that permit. NTM is also providing H&H and waterway permitting services on this project.

E04729, SR 1010 Lemoyne Bottleneck Improvements, PennDOT District 8-0, Cumberland County & Dauphin County, PA—Project Manager for this project that was for the design for two highway improvement projects, the SR 1010 Lemoyne Bottleneck and the SR 0022 Cameron Street Improvements between Elmerton Avenue and Paxton Street. NTM provided drainage design for the source of offsite runoff that enters the SR 1010 corridor and proposed remediation solutions. The intersection is situated near an abandoned railroad bridge abutment. NTM is also completing the E&S and drainage layout for SR 0022 Cameron Street/Azalea Drive intersection to the SR 0022 Cameron Street/Maclay Street intersection and the SR 0230 Cameron Street/Berryhill Street intersection. NTM also provided environmental services, including wetland delineation, cultural resource investigations , and threatened and endangered species.

Dawood Engineering, Inc. (Dawood) welcomes the opportunity to submit our qualifications and experience for this agreement. We have assembled a team of extremely well-qualified transportation engineering consultants with the depth of staff and breadth of skills necessary to serve TCRPC on this agreement. **Chad Decker, PE, PTOE** will be assigned as our overall **Agreement Manager**. We have teamed with **NTM Engineering, Inc. (NTM),** a **Disadvantaged Business Enterprise.** They will perform environmental studies, stormwater management modeling/design, and roadway/bridge design support to meet any DBE requirements that may arise on projects with Federal funding.

The team's technical knowledge and experience across the technical areas identified.

Dawood has assembled a project team that possesses the specialized experience and technical competence necessary to complete any assignment given on this Agreement. All design and planning activities will be performed under the direct supervision of **Chad Decker, PE, PTOE** who has 28 years of transportation engineering and project management experience. He has a wealth of knowledge related to intersection and interchange improvements, pedestrian and bicycle accommodations, traffic signal design, traffic control plans, and signing and pavement marking plans. He will be responsible for managing the subconsultants and monitoring the work progress, budget, and schedule for all projects on this agreement.

Our **Lead Highway Engineer, Jason Cowen, PE,** has 22 years of experience in highway design and serves as our Manager of Highway Services. His expertise covers the full spectrum of transportation services, including roadway design, intersection design, drainage and stormwater management design, H&H studies, utility coordination, and traffic control.

Lori Ware, PE, PTOE, will serve as the **Lead Traffic Engineer** for the project. Ms. Ware is Dawood's Manager of Traffic Services and has over 19 years of experience in traffic analyses, traffic signal design, and pedestrian and bicycle accommodation.

Scott Bechard, AICP, with over 24 years of broad-based and progressively responsible experience in transportation planning and engineering consulting, will be our **Lead Transportation Planner**. Mr. Bechard has experience conducting a wide range of traffic engineering and planning studies including traffic impact studies, parking studies, traffic signal warrant studies, speed restriction studies, trip generation studies, and pedestrian and bicycle facility planning.

Our **Lead Bridge Engineer** will be **Nicholas Brien, PE, CBSI**, with 24 years of experience. Having worked on over 100 bridges throughout PA, including 40 culvert and short-span structures, Mr. Brien and his structural design team are very familiar with the project development process and PennDOT Design Manuals.

Kevin Kozain, PE, from **NTM,** with over 25 years of stormwater management modeling and design for transportation and land development projects, will serve as the **Subconsultant Task Manager**.

The **Dawood** team has extensive experience working on PennDOT, PA Turnpike, and municipal projects covering the broad spectrum of tasks and responsibilities identified in the Request for Qualifications. The following projects are examples of our similar work.

E03030, District 8-0 Traffic Unit Assistance Open-End: Dawood served as an extension of the District 8-0 Traffic Unit staff on a wide variety of assignments related to traffic safety, planning and operations. Projects included:

- High Tension Cable Median Barrier Feasibility Study, multiple counties
- SR 24 Safety Evaluation in York County, which includes conceptual safety enhancements and cost estimates
- Road Safety Audits including PA 116 (Adams Co.), SR 3010 (Paxton Street, Dauphin Co.), SR 181 (George Street, York Co.) and SR 3056 (Richland Ave./Country Club Rd., York County)
- Development of a Grab-n-Go Packet for District-owned Temporary Traffic Signals for Emergency Responses
- I-81/Bow Creek Road Interchange Penn National Racetrack Special Event Management Traffic Analysis

Of special importance is our experience of having served as the organizer and facilitator of the **Joint Task Force for Congestion Management Plans (CMP) and Highway Safety Improvement Programs (HSIP**) with the six Metropolitan Planning Organizations (MPO's) within District 8-0. The goal of the task force was to promote consistency and cooperation among the MPO's to share experiences and best practices for traffic safety, congestion and operations.

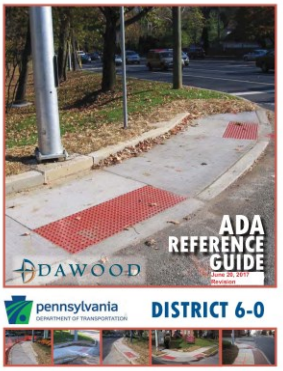
ArcGIS Online Specialty

Dawood's GIS staff prides themselves on working with our clients to identify innovative ways to improve and streamline project delivery and assist with decision making. Our team recently assisted Swatara Township, Dauphin County with an evaluation of Emergency Services

Response Time. With the Eisenhower Interchange Improvements on I-83, there will be new traffic patterns throughout this region of the Township. It was important for Swatara Township to understand how these improvements will impact the delivery of public safety services to the residents of the Township and neighboring municipalities. A ***scenario planning*** GIS interactive map was prepared to define the current response times and future response times with the proposed improvements. This GIS evaluation demonstrated the response times would not be negatively impacted by the transportation improvements.

E05615, US 202 DeKalb Street Two-Way Conversion Project: Our transportation team is currently working with PennDOT District 6-0, the Municipality of Norristown, SEPTA, and the Delaware Valley Regional Planning Commission on this multimodal, traffic calming and safety enhancement. We are spearheading a 30-intersection data collection effort and working closely with DVRPC to analyze the impacts of the conversion by updating their Regional Travel Demand Model. The results of the modeling are being utilized to conduct traffic signal warrant analyses, Intersection Control Evaluations (ICE), and Predictive Safety Modeling. The project features a corridor analysis to identify potential safety improvements to augment the conversion from one-way to two-way operation. The analysis entails environmental resource identification, traffic and crash data collection and analysis, and short-term and long-term improvement recommendations. Significant stakeholder outreach with officials from Norristown, Montgomery County, DVRPC and SEPTA is ongoing and will continue throughout the life of the project. Proposed improvements include ADA/pedestrian upgrades such as bump outs, RRFB's, enhanced crosswalks and countdown pedestrian signals, coordinated signal timings with transit priority, upgraded transit facilities, and removal of intersection sight distance obstructions.

PennDOT District 8-0 Clark's Ferry Improvement Project: Dawood is leading the design for improvements to US 22/322 in Dauphin County featuring the installation of median barrier to eliminate crash-prone left turns, a frontage lane for access to commercial properties, signing and pavement marking upgrades, and interchange upgrades to facilitate new traffic patterns. The initial effort included an update of the original safety evaluation commissioned by the Harrisburg Area Transportation Study (HATS). Numerous intersection alternatives were developed at the US 11/15 and PA 147 interchanges, including an innovative contraflow continuous left turn-lane configuration (PA 147) and a continuous flow right turn lane design at Ramp Road/US 11/15.



Non-Motorized Travel Experience: Dawood is also an industry leader in ADA compliance and curb ramp design. We have been performing ADA ramp designs and reviews for District 6-0 since 2010 and over this time Dawood has been responsible for the review of more than 25,000 consultant submitted curb ramp designs as well as the development of the District 6-0 ADA Reference Guide. In addition to our ramp review experience with District 6-0, we are currently providing the District with ADA ramp design development services on Agreement E03801, E04294 and E05911. We have also served the City of Philadelphia Streets Department since 2012 on three consecutive On-Call Contracts for ADA Ramp services providing ADA curb ramp designs, ramp design reviews, ramp as-built inspection verifications, and raised crosswalk designs.

The team's knowledge and experience in integrating planning concepts with transportation needs development and conceptual design for alternative improvements.

Our planning team is comprised of transportation planners who work alongside community and economic development planners to bring projects from concept to construction. We believe in robust public outreach and projects are undoubtedly more successful when the community obtains a sense of ownership in the direction and outcomes of projects.

Dawood staff has worked with several MPO/RPO clients in developing components of the Long Range Transportation Plans (LRTP), Congestion Management Plans (CMP) and Highway Safety Programs (HSP). Specifically, Dawood has been a member of the consultant team for LRTP development for SEDA-COG MPO, NEPA MPO, Lehigh Valley MPO and the Northwest RPO. Dawood staff had the privilege to be a member of the Statewide LRTP consultant team responsible for the Safety Component of the LRTP.

Dawood has additional planning experience through a PennDOT Program Center Transportation Planning Open End (E02554) where we contributed to the following Policy Development and training assignments:

- Work Order for Pennsylvania Infrastructure Bank Handbook Update
- Work Order for Risk Management Strategic Plan
- Work Order for Project Letting Data Standard Operating Procedure Development

- Work Order for Statewide Highway Occupancy Permit Training
- Work Order for Statewide Access Management Handbook Updates and Training
- Work Order for Statewide Funding Planning Strategy Development
- Work Order for Rails and Trails Guidebook Development

The following projects are examples of how we have integrated planning concepts with transportation needs development and produced conceptual designs for alternative transportation improvements.

Bedford and East Street Traffic Calming Project in Carlisle, Cumberland County: This project is in the conceptual planning phase but will feature the removal of one lane on both Bedford and East Streets (two-lane one-way streets) and the addition of a parking protected bicycle lane and curb extensions at each intersection. Our team has worked closely with Carlisle Borough staff, Borough Council and the East Side Neighbors Association to develop solutions for speeding and a lack of safe bicycle and pedestrian infrastructure. Through a series of public meetings and presentations to Borough Council, we developed a menu of options of traffic calming devices such as chicanes, curb extensions, raised intersections along with bike lanes and back-in angle parking. We also developed conceptual designs for low-cost short-term improvements with pavement markings and signage and longer-term permanent construction.

E05830, PennDOT District 8-0, Hanover Street/Red Hill Road & PA 24/Druck Valley Road Intersection Upgrades – Dawood is the prime consultant on this agreement which entails Preliminary Alternatives Analyses for these two intersections. The objective of each project is to improve safety and operations while minimizing environmental, utility and right-of-way impacts. After a thorough evaluation of crash data and traffic data collection, we evaluated five (5) alternatives at each location to determine a preferred alternative to present to the Municipalities and ultimately advance to Preliminary Engineering. Alternatives included no-build, addition of turn lanes, traffic signalization, roundabout, and intersection realignment/reconfiguration. The evaluation included conceptual level designs and cost estimates, completion of ICE analyses, and a summary of environmental, utility, and right-of-way impacts.

How the team will ensure that it will provide a quality product (e.g. transportation/land use studies, environmental documentation, construction plans).

Quality control is an essential aspect of Dawood's daily work process. ***As the prime consultant for this agreement, Dawood will be responsible for the quality of all project submittals, including subconsultant work***. In accordance with our Master Quality Management Plan (MQMP), our Project Manager will prepare a Project Specific Quality Assurance Plan (PSQAP) that will define our procedures for developing quality deliverables.

We have assigned **Stephen Janosko, PE**, Dawood's Senior Transportation Project Manager, with 36 years of experience, and **John Newell, MEng, PE, CBSI,** (30 years of experience with NTM) as the respective QA/QC Managers. Mr. Janosko's expertise covers the full spectrum of transportation services, including roadway design, drainage and stormwater management design, utility coordination, and traffic control. They will both conduct periodic conformance audits to ensure each design squad is adhering to the PSQAP, whose basic tenet is to ensure a qualified, senior engineer checks each design deliverable.

In addition to internal QA/QC efforts, we will allocate time in the project schedule to allow for **peer reviews** between the two design squads to ensure the highest quality deliverables are produced at each project milestone.

Our MQMP also requires that sub-consultants provide their own PSQAP or agree to implement Dawood's Plan. Several key aspects in our PSQAP that will enable us to meet provide the highest quality planning and design products include:

- ✓ Conduct in-house coordination meetings to ensure each project discipline is proceeding with current information, on schedule, and within budget.
- ✓ Attend monthly project status meetings with the TCRPC and/or District to ensure design tasks remain focused on the Department's goals and on schedule. We will conduct the meetings in person or via teleconference call.
- ✓ Follow a verification procedure to ensure plans and calculations are reviewed by experienced engineers.
- ✓ Develop lists of the required design criteria applicable for this specific project and a list of key personnel and contact information to ensure clear lines of communication.
- ✓ Follow District 8 Best Practices/Operational Preferences.
- ✓ Perform Constructability/maintainability and cost reviews during the 30%, 60% and 90% design phases.
- ✓ Submit a Certification Letter with each milestone submission attesting that all QA/QC reviews have been performed.

All comments will receive a formal response and greenlined check sets with revisions will be provided with resubmissions.

Dawood's strong focus on controlling quality **is founded on implementing quality control procedures upon notice-to-proceed rather than trying to inject them just prior to a review submission.**

This focus will allow us to identify issues and resolve them before they become critical and possibly delay the schedule. We regulary communciate with inspectors and resident engineers to learn curb ramp construction challenges and then elminate or minimize these during design. Our constructibility reviews are extremely beneficial for identifying potential construction issues, developing a reasonable construction schedule, and providing another check of special provisions, quantities, and accurate unit prices. Our tiered checking process is graphically detailed below.

TIERED CHECKING PROCESS	
PLAN & QUANTITY ACCURACY	**CONSTRUCTABILITY**
Engineering Design, Plans, and Quantities completed and checked by qualified engineers, designers and technicians.	Plan Review by senior staff to ensure that the proposed plan is ***buildable*** given the existing site constraints.
Cross-Discipline Reviews to ensure consistency across all plan sets.	PS&E Package Review to ensure project is **biddable** through accurate tabulations and specifications.
Final QA/QC Review and Certification by Project Manager prior to PE seal application and submission.	Thorough review to confirm that the project is ***maintainable*** and seeks to minimize future maintenance.

What the team will do to ensure that cost effective projects will be planned and/or designed.

To ensure a smooth and cost effective project delivery, our Project Manager will take ownership of the work, anticipate client needs, and address issues through ***early and ongoing coordination*** with the TCRPC, PennDOT District 8-0, applicable reviewing agencies, and other project stakeholders. We will facilitate ***monthly coordination meetings*** and will develop and maintain realistic task-specific design schedules that match our scope of work to manage critical path tasks. Moving through the planning and design process, to ensure a constructable design that reduces future maintenance, we will include maintenance personnel in meetings and design reviews, and we will perform constructability and maintainability reviews throughout the design process. Some other considerations we will use to reduce future maintenance include: accounting for winter maintenance in design, ensuring access is provided for future maintenance through right-of-way or easements, considering options for reducing mowing area, and reducing obstructions in the clear zone. We will strive to minimize collision damage through effective grading and guide rail placement and analyze drainage design and pavement slope to eliminate water ponding. PennDOT County maintenance forces will be consulted to determine any other site-specific maintenance needs that must be incorporated into the design.

Using **PennDOT's core principles** outlined in Pub 10 Chapter 1 as well as the "**Design Flexibility**" section of Pub 10C as our guide, we will evaluate the project from a financial, transportation, land use, community, environmental, and overall constraints perspective to come up with effective solutions. Dawood understands that the best project outcome isn't necessarily the cheapest or simplest to deliver, but one that provides the most benefit to the highway system and the community. The Dawood team will ensure proper application of principles through the following practices:

- **Work with the Community:** We will execute a *PennDOT Connects* outreach program to **coordinate early with the community and other stakeholders** to understand **community context.** We will ensure the design fits within the community, enhances network connectivity, has broad community support, and supports all modes of transportation.
- **Select Proper Design Criteria:** The design criteria provided in the new DM-2 as well as the AASHTO Green Book are a range, inherently created to provide design flexibility. Dawood understands that values should be selected based on project constraints but that **design exceptions** are acceptable and useful when applied properly to achieve a balanced design that has considered transportation needs, safety, and project context.
- **Incorporate Smart Transportation principles:** We will ensure the project is "right-sized" and minimizes the project footprint to **reduce impacts to right-of-way, utilities, and sensitive environmental features.**
- **Utilize Innovation:** We intend to incorporate ideas from the State Transportation Innovation Council (STIC) and FHWA's Everyday Counts initiative when feasible. We will investigate incorporating green stormwater features into the project to promote sustainable design.

The team's knowledge of MPO operations, federal regulations governing MPOs, and the MPO's and PennDOT's roles in transportation project development and planning.

We understand the federal regulations governing MPO's are located in Title 23 and Title 49 of the U.S. Code and in the 23 Code of Federal Regulations (CFR) Part 450. In Pennsylvania transportation project planning and development, both Metropolitan Planning Organizations (MPOs) and PennDOT play crucial but distinct roles as summarized below:

MPO's:

- Regional Planning and Programming: MPOs are responsible for regional planning and programming for all modes of transportation within their designated areas, typically urbanized areas with populations over 50,000.
- Collaboration with PennDOT: MPOs work closely with PennDOT on local and statewide transportation matters.
- Developing Transportation Improvement Programs (TIPs): MPOs develop the Transportation Improvement Program (TIP), a four-year action plan for priority projects, which is a prerequisite for federal funding assistance.
- Public Involvement: MPOs facilitate public involvement in the planning process, providing avenues for citizens to offer project recommendations, provide comments, or express concerns.

PennDOT:

- Statewide Oversight: PennDOT oversees programs and policies regarding state and local highways, bridges, public transit, airports, railroads, ports, and waterways.
- Project Development and Implementation: PennDOT implements assigned research projects and assists in the development and maintenance of statewide, regional, and local transportation plans and programs, including project program schedules, funding plans, and budgets.
- Coordination with MPOs/RPOs: PennDOT coordinates with MPO's and RPO's to screen statewide program projects for congestion management, safety and air quality significance.
- Specific Initiatives: PennDOT initiatives like PennDOT Connects promote collaborative planning and incorporate local needs into project development.
- Funding and Resource Allocation: PennDOT plays a key role in developing project funding plans and allocating resources, as seen in the development of the Twelve-Year Program and the Safety and Mobility Initiative.

How the team has performed on past PennDOT and federally funded projects, especially those performed for MPOs and/or local governments.

Dawood has successfully led and/or assisted with numerous PennDOT projects and received excellent ratings from PennDOT for providing quality work, meeting project schedules, and controlling costs. We have ingrained a ***culture of responsiveness and client service*** into all of our staff, particularly our project managers, with the goal of ahead-of-schedule project delivery.

All members of the Dawood Team have a long history of providing high-quality work through our close attention to design details, dedicated, experienced staff, and our project managers' responsiveness to our clients. We have consistently received positive reviews from PennDOT regarding the quality of our submissions and our success in meeting deadlines. A Consultant Evaluation summary for our team members is as follows:

	Statewide			District 8-0		
	CE	EE	EP	CE	EE	EP
Dawood	71	208	765	0	27	110
NTM	145	363	776	3	79	147

CE – Consistently Exceeds EE – Exceed Expectations EP – Expected Performance

Our team takes pride in our commitment to our municipal clients. The following individuals can attest to our performance for local governments.

Kelly Kelch – Township Manager, West Manchester Township, York County
717-792-3505, kkelch@wmtwp.com

Shane Steele – Commissioner, Swatara Township, Dauphin County
717-564-2551, Commsteele@swataratwp.com