April 25, 2017

Greetings,

We appreciate the opportunity to present our qualifications in response to the Indiana Department of Transportation RFP 1704, Item No. 10. The combined team that we have assembled includes trusted partners Burgess & Niple, LLC and The Etica Group / PCS Engineers.

Our project management, qualifications, project approach, and experienced staff make us the best choice for this On-Call Project Development Contract. Our ability to provide the highest quality service and value for this contract stems from the following key elements:

- **Ample Team Capacity** - We have assembled a team with unparalleled experience and staff availability to assure the District of ample capacity to complete a variety of assignments.

- **Demonstrated Qualifications** - Strand and Burgess & Niple both have extensive experience developing successful projects through INDOT On-Call Project Development contracts.

- **Proven Project Management** - Our Project Manager and team leaders have a long history of successfully delivering a variety of INDOT Project Development contracts.

- **Successful Project Approach** - Our extensive understanding of the INDOT Project Development Process and the guiding principles of the Open Roads policy are key to our project approach.

Thank you for this opportunity to present our qualifications. We look forward to providing exceptional service to the Fort Wayne District while managing assignments associated with this On-Call Project Development Contract.

Sincerely,

Strand Associates, Inc.®

Bill Hawkins, P.E.
Director of Operations
Project Team and Capacity

Design Team with Unparalleled Experience and Staff Availability Assures District of Ample Capacity to Complete a Variety of Assignments

This is an exciting time to be a consulting partner with INDOT. As an industry, we are working with project development and construction budgets that have allowed for a significant expansion of INDOT’s Capital Improvement Program. Through our current involvement with two District on-call contracts (150804b and 160203a), the Fort Wayne District is familiar with our full-service Indiana Transportation staff. Understanding the importance of capacity in the current environment, we have teamed with Burgess & Niple, LLC and The Etica Group / PCS Engineers, Inc. for this on-call project development contract. Burgess & Niple also manages an active on-call contract with the District, and our firms have successfully teamed on several assignments in the Fort Wayne, Crawfordsville, and Vincennes districts. Each of our firms is full-service, and our combined resources will provide instant availability of survey, bridge design, roadway design, right of way, and environmental services. The illustration below indicates the organization of our team for this contract, showing the extensive combination of resources that we offers.
Demonstrated Qualifications

Extensive Experience Developing Successful Projects Through On-Call Project Development Demonstrates Our Ability to Manage This Contract

Nothing speaks more to the qualifications of our team to manage this on-call project development contract for the District than the fact that we have “been there, and done that”. Managing an active on-call project development contract is a job in its own right. Both Strand Associates, Inc.® and Burgess & Niple, LLC (B&N) have extensive experience managing these types of contracts, and have developed tools and resources to effectively manage multiple assignments, budgets, and deadlines. We know that the combination of our two firms, with the addition of The Etica Group/PCS Engineers and the other support subconsultants on our team, provides the expertise and resources for the successfully delivery of any combination of assignments.

The Strand/B&N team has successfully developed a significant number of projects for the District through current on-call contracts, and we look forward to continuing to provide Excellence in Engineering to the District through our selection for this assignment. The chart below depicts the valued team members that we propose to utilize, as well as the possible work categories for which each is prequalified, the approximate percentage of work to be assigned, and the DBE status of each subconsultant.

Budget Management / Practical Design

Open Roads is an important tool in budget management. We are well versed in Open Roads, looking for cost savings to stretch every dollar, and we have successfully applied this process to every project over the last several years. We have found that the Open Roads policy enables us to utilize our engineering judgment to develop appropriate common-sense solutions. With the appropriate use of Design Exceptions, the project can provide a safe improvement, fit the area in which it is constructed, and save money. Identifying these potential cost and right of way savings early in the process will help avoid unnecessary engineering, environmental, or land acquisition expenditures.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Open Road / Practical Design Changes</th>
<th>Cost Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 30 over Tippecanoe River</td>
<td>Full Replacement of Barrier Wall Changed to Point Repair</td>
<td>$50,000</td>
</tr>
<tr>
<td>SR 9 over Haw Creek</td>
<td>Bridge Replacement Changed to Rehabilitation</td>
<td>$432,000</td>
</tr>
<tr>
<td>SR 56 over Elk Creek</td>
<td>Latex Overlay with New Barrier Rail Changed to Polymeric Overlay</td>
<td>$350,000</td>
</tr>
<tr>
<td>SR 116 Small Structure</td>
<td>Design Exception to Eliminate Need for Guardrail</td>
<td>$130,000</td>
</tr>
<tr>
<td>SR 156 over Fisk Creek</td>
<td>Bridge Replacement Changed to Rehabilitation</td>
<td>$300,000</td>
</tr>
<tr>
<td>Doc Hamilton Boulevard</td>
<td>Reduction of Bridge and Shoulder Width</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Huntersville over I-74</td>
<td>Latex Overlay Changed to Polymeric Overlay</td>
<td>$300,000</td>
</tr>
</tbody>
</table>
Proven Project Management

Project Manager with a Long History of Success Working with the Fort Wayne District Provides Confidence in Future Assignments

Marc Rape, P.E., will serve as our overall Project Manager and the primary point of contact for this on-call project development services contract. He is a senior transportation engineer with 26 years of experience in the design and project management of INDOT and Local Public Agency (LPA) transportation projects. Marc is also our Indiana Transportation Discipline Coordinator, responsible for scheduling and monitoring the budgets and progress of all of our transportation design projects. Over the course of his career, Marc has designed and managed projects ranging from $400,000 small structure replacements to multi-million dollar interstate reconstructions. He has an excellent record of always meeting submittal dates, and he takes an active role in monitoring the construction budgets to keep projects on track.

Marc’s focus for any assignment is to assemble a team that addresses the demands of the project. He currently manages two on-call contracts with the Fort Wayne District (150804b and 160203a), and has developed a collaborative working relationship with the District’s entire project management team.

To the left is a map showing Strand’s completed and active projects in the Fort Wayne District.

Whether or not he had direct involvement as the Project Manager for a particular assignment, Marc has taken an active role in the successful development and delivery of each of these assignments.

Marc and the rest of Strand’s Indiana transportation staff look forward to continuing and strengthening their relationships with District staff, and remain committed to providing the District with the best service possible.
Key Personnel and Team Leaders Have a Long History of Delivering a Variety of INDOT Project Development Contracts

Quality Control Engineers

Bill Hawkins, P.E., will be the Principal Quality Control Reviewer for this assignment. Bill is the Director of Operations for our Indiana offices, and has 25 years of experience in design and project management of transportation projects. Bill’s management experience includes roadway reconstruction projects on SR 32 in the city of Winchester, and Chestnut Street in the city of Huntingburg. He also has a significant work history overseeing the construction of large INDOT and LPA projects, which gives him a clear understanding of constructability issues and maintenance of traffic operations. Bill has designed or supervised projects ranging from $400,000 to $32 million.

We feel that it is important to have a qualified person conduct a thorough quality control review at each phase of a project. We also feel that to get an honest and thorough critique of the project, the key is to use an individual to conduct the quality control review who is not actively working on the project development.

Greg Rominger, P.E. (Burgess & Niple) will be the Principal Quality Control Reviewer for projects that are assigned to Burgess & Niple. Greg has 36 years of design experience. He has managed a wide variety of projects, including highway interchanges, rural and urban roadways, storm sewer and open drainage design, intersection design, and traffic design. He has successfully managed more than 80 highway design projects for INDOT and LPA clients using federal aid and local funding in Indiana. Greg has been involved in consultant design review and has contributed to the design manual rewrite. He has used the new Intersection Decision Guide to develop “Open Roads” practical designs for projects.

Greg currently manages Burgess & Niple’s active on-call contract with the Fort Wayne District, so he has developed a strong familiarity with District personnel. Having performed INDOT Consultant Plan Review for many years, he has a thorough eye regarding the IDM and the Plan Development Process.

Team Leader (Road) Utility Coordinator

Jeremy Brodhacker, P.E., will serve as Team Leader for road projects, and principal Utility Coordinator for all assignments. He has 13 years of experience in the design, management, and construction of INDOT and LPA projects, ranging from intersection improvements and small structure replacements to road reconstruction and roundabout designs. Jeremy’s experience not only includes conventional intersection improvements at SR 332 in Hartford City and SR 3 in Muncie, but also includes the design of a roundabout at the intersection of McKenzie and Franklin Streets in the city of Greenfield.

Jeremy has also completed INDOT’s Certified Utility Coordinator training and certification. Jeremy’s proactive coordination with City Utility representatives greatly reduced the number of potential conflicts on a recent project for the reconstruction of SR 1 on the south side of Bluffton.

Team Leaders (Road)

Jason Mathias, P.E. (Burgess & Niple) will serve as a Road Team Leader, utilizing his 12 years of transportation experience, which have included many different types and sizes of projects. These various projects have included small structure replacements, new terrain divided highway, urban and rural roadway reconstruction, intersection improvements, and interchanges. His project responsibilities have included project management, geometric design, storm sewer design, turning analysis, complex maintenance of traffic, Utility coordination, and right of way design.
Jason Hoy, P.E., will serve as Team Leader for road projects under this contract. He has 11 years of experience in both design and construction of transportation projects. Jason has been involved with a variety of road and bridge projects, including the construction of the 17th Street reconstruction in the city of Columbus and the design of two small structures on SR 16 in Huntington and Wabash counties.

Jason is currently serving as the Lead Project Engineer for overlay projects on SR 1 in the town of Ossian and on SR 9 in Grant county. On SR 9, Jason’s understanding of construction practices was instrumental in helping to develop details that supplemented the pavement design for some of the unique site conditions. He has also been significantly involved with our INDOT Consultant Plan Review efforts, especially with the recent increase in STS and ADA Improvement projects.

Jeffrey Mahan, P.E., (The Etica Group/PCS Engineers), has more than 18 years of experience in the design of transportation-related projects. He will serve as Team Leader for roadway or intersection projects under this contract. His experience in design services include small structure replacements, maintenance of traffic, drainage evaluation, traffic studies, signing, and bridge rehabilitation. He has served on many INDOT transportation design teams as Project Manager.

Team Leaders (Bridge)

Eric Brunn, P.E., will serve as Team Leader for bridge assignments, and he has 34 years of experience designing and managing INDOT bridge and transportation projects. As Project Manager, Eric has developed plans, specifications, and cost estimates for numerous road and bridge projects for both INDOT and LPAs. His experience encompasses all phases of design, including hydraulic analysis, roadway design, and structural design. His structural experience ranges from box culverts to structures spanning up to 1,100 feet in length.

Eric also serves as the Overall Project Manager for our current on-call project development contract with the Seymour District (161310c), so he also has developed an extensive understanding of the unique project management aspects of working with multiple assignments and aggressive schedules.

Jeff Drake, P.E., (Burgess & Niple) will serve as a Team Leader for bridge projects under this assignment. His design experience includes bridges, highway interchanges, and utility infrastructure projects. Jeff’s background includes field investigation and analysis, structural design, project coordination, and construction administration. Jeff has also been involved with structural analysis and coordination of architectural preservation and restoration. He has more than 32 years of design experience with more than 22 years of that focused on INDOT projects. As Department Supervisor, Jeff has the full resources of the entire bridge staff at his disposal to meet INDOT’s needs.
Chris Bland, P.E., will serve as a Team Leader for bridge projects; he has 11 years of experience in transportation engineering working on a variety of projects, including bridge rehabilitation, bridge design, small structure replacement, and construction observation. Chris will serve as the lead engineer on bridge or small structure replacements for this contract.

Chris’ early career featured several construction projects, including 17th Street Reconstruction and Bartholomew County Bridge 290 Rehabilitation in Columbus and CR 600 N in Bartholomew county. He not only transitioned seamlessly into design, but his ability to bring his constructability knowledge to design projects has resulted in the completion of several successful projects. Chris’ bridge design experience includes Hamilton Boulevard over the CSX Railroad in Mitchell, SR 203 over Town Creek in Scott county, Bridge 228 over the White River in Jackson county, and SR 67 over Lamb’s Creek Morgan county.

Environmental Documentation

Brandi Rodriguez, P.E., Brandi has been involved in all aspects necessary to effectively execute the environmental documentation that will be required for this project. Brandi has more than 8 years of experience and is knowledgeable in state and federal environmental regulations, is aware of the timeline requirements for various permits, and is familiar with the agency coordination that is crucial to the environmental permitting process. Brandi has compiled categorical exclusion (CE) documents for trail, bridge, and road projects, and has most recently completed CE documents for Bridge 228 replacement in Jackson county, and street lighting project in the town of Milton’s historical district, and a trail project in the town of Ferdinand. Brandi is certified to complete environmental documents through the INDOT and FHWA training courses, NEPA and the INDOT Decision Making Process and Indiana Categorical Exclusion Process.

Survey / Right of Way

Jacob (Jake) Fitzsimmons, P.L.S., has 13 years of experience as a survey crew party chief and right of way engineering designer. Over the past year, alone, he has completed 12 Location Control Route Surveys for various bridge and roadway projects in the Fort Wayne district, in addition to similar work performed in the Seymour and Vincennes districts. Jake combines his knowledge of surveying with the requirements of right of way engineering to help resolve difficult property ownership, section corner issues, and legal documentation of existing rights of way. Jake’s knowledge of project design and his experience in topographic surveying will provide effective and efficient results.

By working closely with Eric, Chris has developed relationships with many of the District Project Managers and clearly understands their expectations.

Jake has 13 years of experience as survey party crew chief.

Brandi’s complete understanding of NEPA requirements will help expedite the environmental documentation process.
Project Approach

Our extensive understanding of the INDOT Project Development Process and the Guiding Principles of Open Roads are Key to Our Project Approach

We (Strand) are currently managing approximately 17 active projects in the Fort Wayne District assigned under two on-call contracts. Eight of our CPR and HMA Overlay projects assigned in 2016 are currently under construction, and we are awaiting notice-to-proceed on several more assignments. Burgess & Niple has 14 active project assignments under their on-call contract. Between our two firms, we have also submitted five contract bundles to the Fort Wayne District, and have three more pending. Since this bundling concept was initiated last year, our two firms have been at the forefront of utilizing this emergent tool to work with the contracting community to save Indiana taxpayer dollars during construction.

Just as with our current assignments, Marc and the rest of our project team will collaborate with District personnel to define project goals and expectations. In particular, we will review each project scope in order to determine if a more economically prudent solution is available.

Our transportation teams have been fortunate to have the opportunity to develop such an active roster of projects with the District, which has enabled us to fill our schedules for the near-term and continue to grow our staff capabilities. We look forward to this opportunity as a way of continuing to focus so much of our effort on working with the Fort Wayne District.

As with our previous project assignments, Marc will work with each team to evaluate preliminary project scopes and implement Open Roads and Practical Design policies. This effort will ensure that the District gets the greatest benefit for its cost. We also look to minimize environmental and right of way impacts whenever possible, and constantly review projects to potential be moved forward on INDOT’s development timeline in case the need for a “shelf ready” project arises.

Achieving success requires much more than just fulfilling technical design requirements. The foundation of our project approach is communication, leadership, and thoughtful decision-making. Communication in particular, has a dramatic effect on successful project delivery to make sure our final product meets the needs of our clients. Our team members possess the experience, expertise, and desire to work efficiently and collaboratively with INDOT.
Active Communication Plan

For each assignment under this on-call contract, our team will create an Active Communication Plan uniquely tailored to the needs of each of the District’s project managers. A monthly update on each project, even when there is no activity, will effectively keep everyone up-to-date. These updates will include what we have accomplished in the previous month, pending month’s work plan, potential scheduling issues, or questions that need attention. These monthly project updates have been well received by the District managers on our current projects. Understanding the importance of this tool, Marc is committed to implementing these status reports for ALL of our active assignments.

We offer the following overview to explain the key aspects of our project approach, which will be tailored to the specific needs of each assignment.

- **Identification of Key Personnel**
  Each project is unique and we select our team members accordingly. After we thoroughly review the Engineering Assessment or other scoping documents and discuss them with the INDOT project manager, we will determine the critical elements and assign the appropriate team with the requisite expertise. The key objective is to identify the project team members who will provide the highest value and availability for INDOT.

- **Integrated Schedule**
  Developing an Integrated Work Plan and Critical Path Schedule is key to timely project completion. Our approach to managing schedules and construction budgets is consistent from initial planning through design and construction. We understand that every project decision has potential to impact schedule and budget.

  Our Integrated Design Approach relies on our proven critical path schedule method to facilitate adherence to potential time-sensitive delivery objectives. We conduct an Early Action Project Evaluation of critical design parameters that require advance coordination, decision-making, and/or approval. As a result, we define critical decisions and performance milestones early in the process. To meet the schedule for any project or assignment under this contract, we begin by developing a project work plan that will be guided by District input and framed within the schedule. Additional time-sensitive milestones and decision points for external project stakeholders will also be defined and incorporated.

Our thorough understanding of INDOT’s project development process is integral to project success. We have successfully developed numerous INDOT and LPA Federal Aid projects recently, and delivered all of these projects on schedule and within budget, which has been largely aided by our grasp of the Indiana Design Manual, the AASHTO Green Book, and other technical principles that guide our design decisions. Our project managers further realize that items such as Utility Coordination, waterway permits, and right of way acquisition are often the key elements in a project’s critical path. Each member of the project team understands his or her responsibility to make sure that those elements are understood and incorporated early. From the initial data gathering for the topographic survey through developing the final special provisions for the tracings submittal, our project managers are proactively involved in managing each project element, knowing that each is key to a successful outcome.
Project Experience

SR 15 HMA Overlay Projects – Wabash County
- Two separate projects span the 17 miles between Marion and Wabash.
- Met expedited schedule by submitting tracings 2 weeks after stage 3.
- Designed ADA-compliant curb ramps at the Wabash River bridge.
- Worked closely with INDOT Central Office to utilize Kansas DOT nested guardrail standards.
- Completed the Utility coordination and the environmental document.

SR 105 HMA Overlay – Huntington County
- 1.2-mile project through the town of Andrews.
- Designed 30 ADA-compliant curb ramps, including proper warning in advance of railroad crossing.
- Coordinated with local stakeholders to help address drainage issues in the town.
- Completed hydraulic analysis for culvert replacement.
- Performed Utility coordination.
- Prepared environmental document.
- Performed length of need calculations for the existing guardrail.

I-69 HMA Overlay – DeKalb County
- 4-mile project between SR 8 and US 6.
- Managed the contract bundle by coordinating the submittal documents for more than a dozen projects with multiple designers.
- Completed traffic analysis to obtain an exception to the Interstate Highway Congestion Policy to allow extended working hours to the contractor.
- Developed MOT plan to maintain ramp access, which helped reduce costs and minimize delays.
- Utilized Open Roads policy to generate a level-one design exception by performing crash analysis along the corridor.
- Coordinated with pavement designers to modify pavement design in accordance with existing site conditions.

SR 9 Thin Concrete Overlay – Huntington County
- 2.4-mile overlay on four-lane divided highway.
- Project scope change from HMA to PCCP overlay.
- First PCCP overlay project in Fort Wayne district.
- Coordinated with pavement designers to address unique project features.
- Effectively communicated with project manager, District Construction, District Traffic, and local stakeholders to develop MOT.
- Completed hydraulic analysis for standard culvert replacements.
I-69 and SR 14 / Illinois Road – Fort Wayne, Indiana
To meet the budget constraints, our team developed short-term and long-term solutions for this interchange. Currently a full cloverleaf, parts of this interchange operate over capacity and cause dangerous weaving movements within short segments. Conversion to a partial cloverleaf was recommended in two phases to accommodate the project budget as well as fix the immediate weaving issue. A retrofit diverging diamond design was also modeled at this interchange; however, the partial cloverleaf was determined to be more cost-effective.

US 6 and SR 13 / CR 33 – Syracuse, Indiana
Our team evaluated a signal alternative and roundabout alternative for this rural, high-speed intersection with a significant crash history. Crash modification factors were used to estimate the impact on safety, and network travel time was used as a measure of mobility. Our team then developed cost estimates that were compared to each alternative’s effectiveness in safety and mobility. Despite being more expensive initially, a roundabout was recommended because its substantial safety benefits made it more cost-effective in the long term.

US 33 and College Avenue – Goshen, Indiana
This urban intersection experienced excessive mainline queuing, so CAP-X 2.0, a tool from the Federal Highway Administration, was used to identify three different potential intersection designs for this analysis: conventional signal, roundabout, and displaced left turn. Our team completed traffic modeling and a cost estimate for each alternative. Although the displaced left turn alternative operated at the highest level, the conventional signal alternative had the highest overall score when considering cost and mobility, and, therefore, was recommended.

US 24 and CR 300 E – Lagro, Indiana
This rural intersection was programmed as a safety project based on its significant fatal and injury crash rates. Our team discovered that more than 80 percent of the crashes at this intersection were right-angle crashes, so a modified RCUT intersection, called a J-turn, was recommended to improve safety. This configuration will eliminate left-turns and crossing movements from the minor road and left-turns from the major road, all of which are very low-volume movements, and will require all such movements to use a U-turn located approximately 700 feet downstream of the intersection. Our solution causes no disruptions to the majority of traffic while eliminating all crossing movements, which should decrease the frequency and severity of crashes.