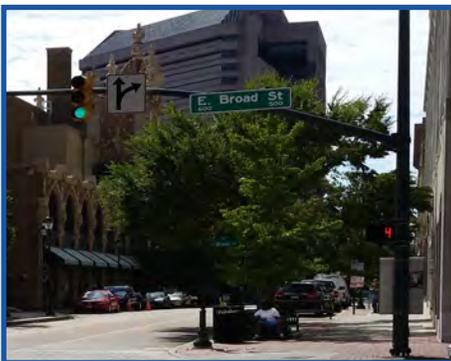


# Design-Build GRTC Bus Rapid Transit (BRT) Project County of Henrico and Richmond, Virginia

Contract ID Number C00108069DB87



## STATEMENT OF QUALIFICATIONS

Submitted by



Submitted to



November 4, 2015



## 3.2 Letter of Submittal

November 4, 2015

Mr. Bryan Stevenson, PE  
Alternate Project Delivery Office  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, VA 23219

**RE: Letter of Submittal | Design Build GRTC Bus Rapid Transit (BRT) Project  
County of Henrico and Richmond, Virginia | Contract ID Number: C00108069DB87**

Dear Mr. Stevenson:

**3.2.1** Corman Construction, Inc. (Corman), 12001 Guilford Road, Annapolis Junction, MD, 20701 is the legal entity who will execute the contract with VDOT and submits the following:

- One original Statement of Qualifications (SOQ) with full supporting documentation
- One CD-ROM containing the entire SOQ in a single cohesive Adobe PDF file
- 10 abbreviated copies of the original SOQ

3.2.2 Point of Contact	Secondary Point of Contact	3.2.3 Principal Officer of Legal Entity
<p><b>Chris Rutkai, PE, Division Manager, Corman South</b> Corman Construction, Inc. 6500 Happy Hill Road Colonial Heights, VA 23834 804-520-9766 Telephone   804-520-9810 Fax crutkai@cormanconstruction.com</p>	<p><b>Lou Robbins, PE, DBIA, Vice President Design-Build</b> Corman Construction, Inc., 12001 Guilford Road Annapolis Junction, MD 20701 410-792-9400 Telephone   301-953-0384 Fax lrobbins@cormanconstruction.com</p>	<p><b>Arthur C. Cox, III, Vice President Corman Construction, Inc.</b> 12001 Guilford Road Annapolis Junction, MD 20701 410-792-9400 Telephone ccox@cormanconstruction.com</p>

**3.2.4 Corporate Structure:** Corman will be the design-build contracting entity for this project. Corman is a corporation titled in Delaware and a wholly-owned subsidiary of CG Enterprises, Inc., and will be the sole major participant firm and responsible party to the design-build contract with VDOT. Corman will hold all financial responsibility for the contract.

**3.2.5 Lead Contractor:** Corman Construction, Inc. | **Lead Designer:** Parsons Transportation Group, Inc.

**3.2.6 Affiliated and/or Subsidiary Companies Table (Attachment 3.2.6)** is in the Appendix.

**3.2.7 Certification Regarding Debarment Forms (Attachments 3.2.7(a) and 3.2.7(b))** are in the Appendix.

**3.2.8** Corman Construction, Inc. (C097-Active) VDOT Prequalification certificate is in the Appendix.

**3.2.9 Surety Letter** is in the Appendix.

**3.2.10** SCC and DPOR information are in **Attachment 3.2.10** and supporting documentation is in the Appendix.

**3.2.11** Corman is committed to achieving a 10% DBE participation goal for the entire value of the contract.

We present to you a design-build team equipped with the experience, knowledge, and resources to partner with the Virginia Department of Transportation in successfully delivering the GRTC Bus Rapid Transit (BRT) Design-Build project.

Sincerely,

**CORMAN CONSTRUCTION, INC.**



Arthur C. Cox, III, Vice President



## 3.3 Team Structure

### 3.3 TEAM STRUCTURE



Figure 2: Corporate Organizational Chart

With a Design-Build portfolio of over \$1.6 billion, Corman Construction (Corman) comes to VDOT with the hands-on experience and top notch personnel it takes to execute the design and construction, and manage the risks of the GRTC Bus Rapid Transit (BRT) Design-Build project.

Through the years, Corman has built a solid reputation of strategically aligning with the design-build partners most suited to meet project needs and requirements. For this project, we have selected Parsons Transportation Group, Inc. (Parsons) as the Lead Designer. Parsons was specifically chosen, along with Cliff Roberts, PE as the Design Manager, for their past successes working with Corman on the recently completed Design-Build I-64/Route 15 Zion Crossroads project for VDOT and the Design-Build Intercounty Connector Contracts A and B in Maryland. These projects included paving, grading, extensive MOT, public outreach, utility relocations and traffic signals. Both had aggressive schedules and were completed on time. As part of a joint venture, Corman was also recently awarded VDOT’s Design-Build Military Highway project where Parsons is the Lead Designer.



Figure 1: VIA Primo BRT, San Antonio, TX where Parsons was the Lead Designer and Lead Architect

With their nationwide footprint as a leader in roadway, transit, including Bus Rapid Transit (BRT) and Light Rail Transit (LRT) and in house systems engineering and transit architecture, combined with over \$10 Billion of worldwide Design-Build experience and successful experience with VDOT Design-Builds and Corman, Parsons brings a unique skill set to the Project team. They prepared the Alternatives Analysis and Environmental Assessment for the GRTC BRT for DRPT, which was completed in 2014 and have provided management and design services for many TIGER funded projects. Parsons’ Principal-in-Charge, Nick Nicholson, PE was the Chief Engineer for the District of Columbia Dept. of Transportation and oversaw FTA and FHWA TIGER funded projects.

**WHAT SETS US APART:** Parsons provides GRTC BRT project continuity, has an extensive transit practice, including in-house systems engineers and transit architects, and VDOT Design-Build experience.

For the above-listed projects, the Parsons Team brought in their national experts to perform peer reviews of the design. This integration reduced the cost and maintenance of the facility while enhancing the traffic operations. **We will do the same for the GRTC Bus Rapid Transit project!**

Our team will deliver a high-quality project using an integrated team of seasoned design and construction professionals. Combining our local, regional, and national resources will ensure project completion within our

proposed budget and schedule. We confidently make these statements based on a collaborative history of the key design and construction firms working together on these design-build projects:

	Corman	Parsons	AMT	MBP	Utility Pros	Diversified Property Services
Design-Build I-64/Route 15 DDI, Zion Crossroads, VA	✓	✓		✓		
Design-Build Military Highway, Norfolk, VA	✓	✓			✓	✓
Design-Build Route 1 Improvements at Ft. Belvoir, Lorton, VA	✓		✓		✓	✓
Design-Build Intercounty Connector Contract A, Montgomery County, MD	✓	✓	✓			
Design-Build Intercounty Connector Contract B, Montgomery County, MD	✓	✓	✓			

Table 1: Collaborative design-build project history

**3.3.1 Key Personnel:** The Corman/Parsons Team has assembled highly-qualified and experienced individuals and structured them for optimal performance. Our key staff and design firms come together with a shared history of successful projects and established working relationships which will minimize VDOT’s risks and staffing requirements. Although our task leaders and technical staff are responsible for items, such as design, public involvement, and/or construction, everyone is responsible for project success. Table 2 introduces our Key Personnel with resumes in the Appendix (Attachment 3.3.1).

<b>.1 Design-Build Project Manager (DBPM)</b>	Chris Rutkai, PE
<b>.2 Quality Assurance Manager (QAM)</b>	Duncan Stewart, PE
<b>.3 Design Manager (DM)</b>	Cliff Roberts, PE
<b>.4 Construction Manager (CM)</b>	Jake Leffler, EIT
<b>.5 Lead Architect</b>	Damien Jackson, RA, LEED AP BD+C
<b>.6 Systems Engineer</b>	Eric Gross, PE
<b>.7 Lead Utility Coordination Manager</b>	Dale Kniffin

Table 2: Key Personnel

**Value-Added Staff:** In addition to the above key personnel, the Corman/Parsons Team will include the following value-added staff, with an emphasis on station architecture, systems integration, and third party stakeholder involvement, to deliver a quality project on time and on budget. **DB** symbolizes having Design-Build experience:

**DB BRT Station Architecture & Urban Design: Bill Gallagher, RA (KGP)** is a founding partner of KGP Design Studio and has 40 years of experience in transit station and urban design. *Bill is currently leading the urban design for several BRT projects in Maryland, including the Corridor Cities Transitway, Veirs Mill BRT and the Southern Maryland Transit BRT, and has led the station facilities and urban design for 12 stations on the Purple Line LRT. He was Lead Urban Designer for all the station areas of the Baltimore Red Line light rail and public outreach for the Canton Stations and new MARC Stations at West Baltimore and Bayview.* He will report to the Lead Architect.

**DB Fare Control Specialist: Gerald McCoy (Parsons)** has over 30 years of experience in the design and integration of communications and fare control systems for BRT, including serving as the systems engineer for the San Bernardino Express in San Bernardino, CA; Light Rail, and Heavy Rail transit

systems. **Gerald participated in the Technical Consulting Support Services for WMATA NEPP Fare Collection Project for DRPT.** He participated in Design-Build projects and has experience implementing new fare control systems within an existing transit fare regime. Gerald will provide this specialized expertise and will report to the Systems Engineer.

DB

**Traffic Signal Engineer: Sunita Nadella, PE, PTOE (Parsons)** has 14 years of experience, including traffic studies, operational analysis, micro simulation analysis, traffic signals, ITS roadway signing and pavement markings and public involvement and is proficient in SYNCHRO, VISSIM and CORSIM.

**Sunita was the Lead Traffic Engineer for Design-Build I-64/ Route 15 Zion Crossroads and Military Highway with Corman and I-395 HOV Ramp, both VDOT Design-Build projects.** She will report to the Systems Engineer.

DB

**Community/Stakeholder Involvement/NEPA Commitment Compliance: Steve Walter (Parsons)** has more than 35 years of experience in environmental planning, NEPA compliance, stakeholder involvement and community relations. He was Parsons' Principal in Charge for the Broad Street

Alternative Analysis and Environmental Assessment prepared for DRPT which has resulted in the GRTC BRT project; consequently he is intimately familiar with the GRTC BRT project's NEPA commitments, stakeholders and public relation "hot buttons" for this project. Steve currently serves as the Environmental Compliance Manager for the Design-Build Virginia Avenue Tunnel project in Washington, DC. **Steve is currently Environmental Manager for the DC2RVA Rail Project for DRPT and is routinely in that project's Richmond project office.** He will report to the DBPM.

DB

**Design/Construction Integrator: Ryan Gorman, PE, DBIA (Corman)** will coordinate the contractor and designers and meet VDOT's requirements. He will review design submittals for constructability and conformance to scheduling needs. Ryan has been involved with local design-build projects since 2007 and has over 19 years of heavy civil construction experience. As a VA PE, he performs engineering designs and estimates for construction. His career path as Corman's Superintendent to Sr. Project Manager to Design-Build Project Manager has broadened his attention to detail and quality which will position the Corman/Parsons team in meeting VDOT's requirements. Ryan will review design submittals for conformance to project requirements, constructability and project scheduling needs. Ryan will report to the DBPM.

DB

**Wet Utility Relocations: Don Rissmeyer, PE (AMT)** has 25 years of experience in utility design, including projects for VDOT, City of Richmond, Virginia Commonwealth University (VCU), Richmond

Redevelopment & Housing Authority and the Dept. of General Services. **His experience includes projects in downtown Richmond at the State Capitol and along Broad Street at VCU. His knowledge of utilities in the area of the project will be invaluable. He works with Corman on the Design-Build Route 1 at Fort Belvoir project.** Don will report to the DM.

DB

**Right of Way (ROW): Pat Dablock (Diversified Property Services)** has 27 years of experience in ROW acquisition and will lead preparing the ROW Acquisition and Relocation Plan. **Pat is working with Corman as the ROW Manager on VDOT's Design-Build Military Highway project and is responsible**

**for ROW acquisition for over 600 affected parcels on the Purple Line project for the Maryland Transit Administration.** Pat will report to the DBPM.

DB

**Structural Design: Dan Sengupta, PE (Parsons)** is a structural design engineer with over 22 years of experience, including the Design-Build Metro Silver Line Extension to Dulles Airport in Northern

Virginia and the Design-Build Gold Line LRT in Pasadena, CA. **Dan has designed the structural elements for bus transit stations, including the Columbia Pike Transit Stations and the Ballston-MU Station Multimodal Improvements, both in Arlington, VA.** He will report to the DM.

DB

**Roadway Drainage/Stormwater Management: Brian Smith, PE (Parsons)** has 16 years of transportation and site development engineering experience, which includes highways, bridges, railroads, and commercial lots using design-build execution. **Projects include Design-Build CSX Virginia Avenue**

**Tunnel Clearance in Washington, DC, Arlington Boulevard at Park Drive, Arlington Boulevard at Manchester Street, and Ballston-MU Station Improvements in Arlington County, VA.** He will report to the DM.

DB

**Geotechnical/HAZMAT: Paul Burkart, PE (GeoConcepts)** has 30 years of experience in geotechnical engineering and materials testing and has provided geotechnical design for transportation systems, including Bus Rapid Transit (BRT). He provided geotechnical services on 37 VDOT

projects; 20 of which were design-build. *Paul provided technical services for bus transit-related projects for local government agencies, GRTC, PRTC, WMATA, and VRE.* He will report to the DM.

**DB Maintenance of Traffic: Conrad Scott, PE (Accompong)** has 20 years of roadway design and MOT experience, including projects for VDOT, the City of Richmond and Henrico County. *VDOT Design-Build projects include Military Highway in Virginia Beach with Corman, I-264 Rehabilitation in Virginia Beach and I-395/ Seminary Road HOV Ramp in Alexandria.* He is a former City of Richmond Assistant City Engineer and a former design section manager in VDOT's Central Office. His knowledge of Richmond and VDOT brings unparalleled value to the team. Conrad will report to the DM.

**DB Landscape Architecture: Craig Richardson, RLA (Parsons)** has professional experience as a principal landscape architect, including projects involving context-sensitive solutions, urban design, streetscape design, historical landscape preservation and landscape enhancement. He has been involved in many transit projects, including the Ballston-MU Station Improvements and Columbia Pike Transit Stations, both in Arlington, Virginia. *Craig has design-build experience, including the Inter-County Connector in Maryland with Corman.* Craig will report to the Lead Architect.

**DB Document Control Specialist: Kristen Kemp (Parsons)** is currently the Document Control Manager for VDOT's \$1.2 Billion PPTA Elizabeth River Crossing project where VDOT uses CADAC as the Electronic Document Management System (EDMS). It is our understanding that CADAC will be used on this project. Kristen has managed CADAC since 2012 and is the most experienced user in Virginia. A robust document control system will facilitate preparation of TIGER Grant Quarterly, Annual and Performance Measure Reports. Kristen will report to the DM.

***WHAT SETS US APART:** It is our understanding that CADAC will be used on this project. Kristen has managed CADAC since 2012 and is the most experienced user in Virginia.*

**DB Railroad Coordination: Pat Porzillo, PE (Parsons)** is Parsons' Mid-Atlantic railroad engineering manager with 27 years of experience in maintenance and operations, planning, design, and construction of railroad infrastructure. He leads Parsons' design for rail and transit projects, including for Norfolk Southern and CSX. Prior to joining Parsons, Pat worked for Norfolk Southern for 10 years and thoroughly understands their policies, personnel, and procedures. *He is currently involved in the DC2RVA rail project for DRPT which requires significant coordination with CSX.* Pat will report to the DM.

**3.3.2 Organizational Chart:** The Corman/Parsons Team organizational chart on Page 7 illustrates our "chain of command" of all companies, including individuals responsible for pertinent disciplines, and notes team members. Solid lines identify the reporting relationships of our team members in managing, designing and constructing the project and illustrate clear reporting lines from the DBPM to the design and construction team. Dashed lines represent indirect reporting and obligations to the owner and/or corporate management. *The chart also shows a clear separation and independence between the Quality Control (QC) and Quality Assurance (QA) programs for construction, including separation between QA and QC inspection & field/laboratory testing per Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects, January 2012.*

**DB Design-Build Project Manager (DBPM) Chris Rutkai, PE (Corman)** is responsible for overall project design and construction, quality management, contract administration, and other required services, including procuring/furnishing materials, equipment, services and labor reasonably inferable from the contract documents. He will be available to the Department, has the expertise/experience to supervise and exercise control of the work, and accept responsibility for the final work product. Chris is VDOT's primary point of contact who will coordinate, integrate, and administrate the Corman/Parsons Team, including design, construction, quality assurance, MOT, safety, and utilities. *He will be responsible for meeting our contract obligations and avoid/resolve disputes per the RFP.* Chris will supervise the Design Manager, Design/ Construction Integrator, Construction, Community Involvement, and Quality Assurance Managers and coordinate any required public outreach and public meetings. He will be involved with preconstruction, design, construction, and punch out. He will assist with constructability reviews and safety audits, and oversee the quality management program, purchasing, and construction operations.

**DB Quality Assurance Manager (QAM) Duncan Stewart, PE (MBP)** reports to the DBPM and will have direct, independent access to VDOT. He will ensure work is performed in conformance with contract requirements and "approved for construction" plans/specifications. Duncan will be responsible for

developing and adhering to the QA Plan, QA inspection and testing of all materials used, and work performed. As an independent entity, he will audit and monitor Corman/Parsons Team's Construction Quality Control Program. ***Duncan can stop construction, enforce compliance with specifications, and issue and require resolution of Non-Conformance Reports (NCRs).*** Duncan will manage the QA program, including the QA inspector and independent QA testing firm and testing technicians. ***The QA team will conduct independent and concurrent tests and analysis of the work from the construction QC team.*** He will maintain project quality records and approve/submit pay estimates. Duncan will also submit monthly written reports to VDOT's project manager and our Executive Committee. ***Duncan was the QAM on VDOT's Design-Build I-64/ Route 15 Zion Crossroads with Corman and Parsons where he was highly commended for his services.***

**DB Design Manager (DM) Cliff Roberts, PE (Parsons)** reports to the DBPM. He has 30 years of experience in the design, management, and construction of transportation projects, including roadway, BRT, light rail, automated people movers, and freight rail. He will ensure that the design meets the project's design, operational, schedule and administrative requirements. Cliff will enable the design team to work collaboratively to provide design solutions which meet the needs of VDOT, Corman, GRTC and other stakeholders. He is experienced with projects that have multi-agency responsibility for funding, operations and maintenance; currently he is the Project Manager for such a project: The Ballston-MU Station Multimodal Improvements in Arlington, VA. Cliff was the Design Manager for the Washington Metro Silver Line Phase 1, a Design-Build, FTA New Starts Grant Funded project and in the mid-1990s, he was the Project Engineer on one of the first FTA funded Design-Build projects, the Baltimore Light Rail Extension to BWI Airport. Cliff has had significant design and management roles in projects managed by several project stakeholders, including VDOT, DRPT and CSX.

**DB Construction Manager Jake Leffler, EIT (Corman)** has over 8 years onsite experience on projects, including design builds. He has the hands-on experience it takes to manage construction, including QC activities to ensure materials and work meet contract requirements and "approved for construction" plans/specifications. ***Jake was Construction Manager and Quality Control Manager on VDOT's Design-Build I-64/Route 15 Zion Crossroads where Parsons was the Lead Designer.*** Jake will report to the DBPM.

**DB Lead Architect Damien Jackson, RA (Parsons)** has 13 years of transit architecture experience, including serving as the Architect of Record for LRT stations on the Design-Build Gold Line in Pasadena, CA. He will manage station design, wayfinding signage, site furnishings selection, ADA compliance, integration of public art and will lead production of renderings and other graphics necessary for public outreach. ***Damien was instrumental in the design of other LRT and BRT projects, the Design-Build Metro Silver Line Extension to Dulles Airport and the Columbia Pike Transit Stations in Arlington.*** Damien will report to the DM.

**DB Systems Engineer Eric Gross, PE (Parsons)** has 20 years of experience in systems engineering for transit systems. He will integrate the design of the systems components, including transit signal priority and other traffic signal operations, real time bus arrival information, fare collection, CCTV surveillance cameras, emergency phones, station public address system and other communications systems needed for effective BRT operations. Eric and other Parsons system engineers have the expertise to develop and integrate new facilities into existing information systems. Eric will be responsible for development of the Systems Engineering Management Plan (SEMP), the Safety and Security Management Plan (SSMP) and a commissioning plan. ***He performed similar systems engineering design for light and heavy rail systems, including the Design-Build Metro Silver Line Extension to Dulles Airport and the Design-Build Gold Line in Pasadena, CA.*** Eric will report to the DM.

**DB Lead Utility Coordination Manager: Dale Kniffin (Utility Pros)** has over 31 years of experience in coordinating utility installations and relocations, many working for Verizon. He will be the single point of contact to coordinate utility service relocations and will work with the service providers for timely delivery. Dale tracks milestone project dates and provides complete utility notifications while consolidating documentation tracking of service correspondence to further ensure timely service deliveries. ***Dale works with Corman on these Design-Build projects: VDOT's Fall Hill Avenue and Mary Washington Boulevard Extension, Military Highway, I-64 Widening and Route 623 Interchange Improvements, and Route 1 Improvements project at Fort Belvoir for FHWA.*** He will report to the DBPM.

**Keys to Success** are communication and coordination between the many parties involved: Corman/Parsons Team, VDOT, GRTC, utilities, review agencies, EMS, and stakeholders. Success comes from open and honest communication, frequent meetings and updates. The



Corman/Parsons Team will conduct internal weekly meetings during design with key construction and design staff present. Tracking sheets will monitor progress of utilities, ROW, permits and design disciplines, as well as environmental and design approvals. Once construction starts, design participants remain involved. Added to the weekly meetings as construction begins are the superintendents, field surveyors, MOT Manager and Construction QC Manager. Key stakeholder representatives, including GRTC, City of Richmond, DRPT, FTA, utility companies, EMS responders, and others, as appropriate will be invited. Monthly meetings will also be held with the Corman/Parsons Team, VDOT, QAM, stakeholders, etc. to enhance partnering and resolve issues quickly and efficiently.

We will also include key business and community stakeholders to address construction access and business parking issues along the corridor. Coordinating vehicular and pedestrian access to the businesses along the corridor will be key to maintain schedule and acceptance of the project by the community.

Quality assurances will be coordinated with, but independent of, daily QC and construction. The QAM will be given timely notice of construction activities so his QA staff can be onsite to document compliance. He will have access to meetings and records he feels are required to provide independent assurance that construction complies with contractual and design requirements. The QAM will report to the DBPM and will provide VDOT and the Executive Committee with the reports and assurances required. He will have unrestricted access to the construction and fabricator sites/facilities. A Corman/Parsons Management Team representative will contact the QAM monthly to confirm project compliance.

Team members were selected because of their firsthand knowledge of the site, their ability to handle issues that may arise, and minimize VDOT/other agency involvement. The team has effectively delivered past design-build projects together and will bring proven management procedures to this project.

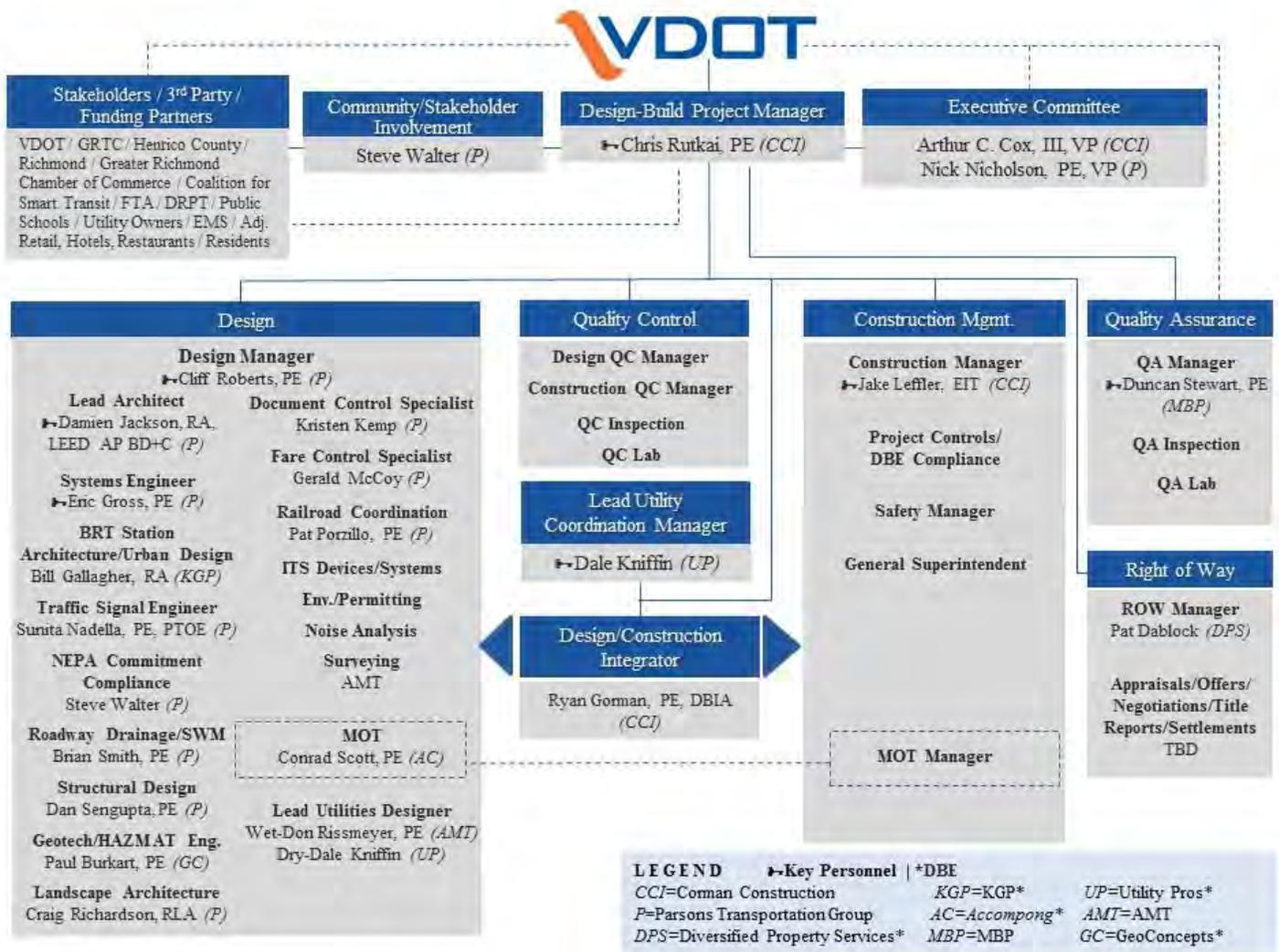


Figure 4: Organizational Chart



## 3.4 Team Experience

## 3.4

## TEAM EXPERIENCE

**Corman and Parsons have successfully teamed on over \$1 billion of Virginia and Maryland DB projects.** Corman was recently awarded VDOT's Design-Build Military Highway contract where Parsons is the Lead Designer. This collaboration raises the bar in identifying, discussing, and resolving issues as they arise. Our team members already know each other and have trust and effective working relationships in place.

**CORMAN CONSTRUCTION** **Corman Construction Inc. (Corman)** will serve as the Lead Contractor. A privately-held family business since 1920, Corman is a licensed heavy civil contractor specializing in highway, bridge, restoration, and heavy utility construction. With a corporate headquarters in Annapolis Junction, MD, and offices in Colonial Heights, VA and Chesapeake, VA, Corman delivers projects on time and on budget without lingering disputes. We hold employee and public safety to a high standard and our 0.72 EMR validates this commitment.

Throughout the last few years, Corman received 20 local and national awards on our design-build projects, including the 2015 DBIA National and Mid-Atlantic Region Merit Awards for the I-64/Route 15 (Zion Crossroads) Interchange Improvements project. Other recent honors include 2015 and 2014 Hampton Roads Utility and Heavy Contractors Association (HRUHCA) Safety Award, 2011 Maryland Washington Minority Contractors Association Prime Contractor of the Year Award, 2014 VTCA Transportation Contractor Safety Award Honorable Mention, and 2011 ARTBA Women Leadership in Transportation Glass Hammer Award. Corman has constructed projects in Virginia for over 30 years. Our experience also extends to having constructed 17 light rail stations throughout Baltimore, Maryland and an aerial concrete bridge to support a second track structure at Kloman Street, adjacent to the single track bridge, north of Westport Station which was part of the multi-phased double tracking for the Baltimore Light Rail System for the Maryland Transit Administration.

**PARSONS** **Parsons Transportation Group Inc. (Parsons)** will serve as the Lead Designer and the Lead Architect. Parsons is an *Engineering News Record Top 10 Design Firm* and has been providing consulting engineering services to public and private clients since 1944. Locally, Parsons provides over 36 years of full-service transportation consultant services having developed design plans throughout Virginia. In addition to the over 3,400 transportation experts across our firm to draw upon and on staff engineers with the expertise to develop and integrate new facilities into existing information systems, Parsons has more than 150 local highway, traffic and systems engineers and other transit professionals that can be focused on this project and VDOT's needs.

Parsons is a world leader in transit design and has participated in the management, development and design of countless transit systems worldwide, including over 40 BRT systems using design-build, design-bid-build and other project delivery methods. Parsons has served as FTA's Program Management Oversight Consultant (PMOC) for BRT, as well as other transit projects. **Parsons has prepared alternative analysis, environmental documents and FTA grant applications for BRT projects, including the GRTC BRT.** Parsons BRT design experience includes system integration, fare collection, dedicated and mixed traffic BRT lanes, safety and security systems and station design. Parsons has a robust transit architecture practice which has performed final design for BRT, LRT and heavy rail systems. In Virginia, Parsons' transit architects have provided design for passenger stations, bus shelters and wayside buildings for Metro's Silver Line Extension to Dulles Airport and for Arlington's Columbia Pike Transit Stations, which are designed to be used by standard bus service, BRT or streetcars. Parsons will be assisted by several major sub-consultants, including:

**GeoConcepts Engineering, Inc.** will provide geotechnical engineering services. They are particularly well-suited for this project due to their experience completing 50 VDOT projects, their involvement on similar bus transit facilities, and their expertise addressing Richmond's subsurface challenges. GeoConcepts has successfully completed over 50 design-build projects, including 19 VDOT design-builds, and understands the complexities associated with this project delivery approach. **They have worked on 14 bus transit facility projects for entities, such as Greater Richmond Transit Company (GRTC), Potomac and Rappahannock Transportation Commission (PRTC), Arlington County Bus Rapid Transit (BRT), and Washington Metropolitan Area Transit Authority (WMATA).** GeoConcepts is a certified VDOT DBE.

**KGP design studio** will provide station architecture and urban design. They are the "go to" firm for transit architecture services in the Mid-Atlantic region and their knowledge of the current state-of-the-art locally will benefit this project. KGP has worked with Parsons on numerous projects and are currently the architecture sub-consultant to Parsons on the Ballston-MU Station Improvements which provides new bus stations and bicycle parking structure in Arlington, Virginia. KGP is a certified VDOT DBE.



# 3.5 Project Risks



### 3.5 PROJECT RISKS

The Corman/Parsons Team will employ the Construction Management Association of America (CMAA) endorsed approach to risk management through a “Risk Register” which includes a list of identified risks, potential impacts and mitigation for each. A robust risk management process considers risks throughout the project’s life and delivery processes. Our Team’s risk management process has sprung into action, will evolve throughout design and construction, and position us to respond to changes as specific as issues unfold. The Corman/Parsons Team employs a five-step Risk Management Approach:



1. **Identify** – name risks, determine cause and effect, and categorize
2. **Assess** – assign probability of occurrence, severity of impact, and determine response
3. **Analyze** – quantify severity, determine exposure, establish tolerance level, and determine contingency (applicable during preliminary design and pricing)
4. **Manage** – define response plans and actions, establish risk ownership, and manage response (after NTP)
5. **Monitor / Review** – monitor/review/update risks, monitor response plans, update exposure, analyze trends, and produce reports (after NTP, during design, during construction)

We have reviewed the available information, visited the site during various traffic and weather conditions, and jointly discussed the major risks. With the mindset of project *risk* being defined as an issue that has the potential to impact the schedule, budget, or both, we have identified the three most critical risks we will face during the project:

#### RISK NO. 1: MAINTENANCE OF TRAFFIC

The project is along a major urban thoroughfare that starts at the Willow Lawn Shopping Center in Henrico County, travels through one of the busiest and densely-developed corridors in downtown Richmond, including the Fan District, VCU, City Center, Capitol District, Downtown, Shockoe bottom and south along Route 5, terminating at Rocketts Landing. Many modes of transportation will be impacted by construction, including vehicles, buses, pedestrians, and bicyclists. On-street parking and access to businesses, residences, public buildings, and VCU facilities will be impacted by construction.

**Why Critical:** User impacts must be managed to minimize disruptions and provide a safe work zone for construction workers and the general public.

**Impact:** Construction will impact vehicular traffic via lane shifts, closures, and potential detours; cross street traffic will experience impacts at/through the intersections, including permanent changes to traffic patterns; driveways and access points will be impacted by work outside of the roadway, pedestrians and sidewalk vendors will be impacted when constructing the stations and utility relocations, and crosswalks and on-street parking areas will be impacted, as will be other GRTC bus transit and the VCU “Ram Ride” bus transit system. Businesses could experience economic impacts if customer traffic is restricted, especially at peak seasons and if not effectively coordinated.

**Mitigation:** The Corman/Parsons Team has extensive experience on urban projects with ADTs in excess of 30,000, including work for DC Water where impacts to 11 bus stops were coordinated with WMATA. Community outreach and door-to-door business communications may be needed to educate on parking and customer traffic impacts. We will utilize many of the same strategies that generated success and also adapt to new/improved techniques from past experience, including:

- ✓ Consider/address all modes of transportation when developing the Transportation Management Plan (TMP) and Maintenance of Traffic (MOT) Plans.
- ✓ Analyze traffic patterns and road usage through the project at macroscopic and microscopic levels.

- ✓ Design the MOT Plan to minimize lane closures, business parking impacts, and detours.
- ✓ Provide highly-visible signage for construction, lane closures, parking impacts, and detours in advance.
- ✓ Communicate with affected business owners to understand their operations, accommodate their business schedules, and maintain access during business hours.
- ✓ Establish a Public Outreach Program to notify local residents, businesses, and students of major construction events and impacts to service.
- ✓ Coordinate with public transit agencies, VCU, and EMS early in the design to establish communication, identify critical routes/services, and get feedback.
- ✓ Establish a maintenance of parking plan to include staging closure of on-street parking areas and identifying replacement parking with pedestrian routes.
- ✓ Develop an Incident Management Plan to effectively handle work zone incidents effectively.
  - **MOT Example 1:** Traffic traveling south along High Point Avenue will no longer be able to turn onto EB Broad Street once local bus station construction begins. The Public Outreach Program will notify local citizens about this change in traffic pattern, and signing for the turn restriction and detour will be provided. Coordination meetings will be held with M&T Bank to ensure access is provided to employees/customers during ADA ramp construction and that business is not interrupted.
  - **MOT Example 2:** Special attention will be given to ensure pedestrians have access to corridor businesses and to the Greater Richmond Convention Center when the bus stations are installed and utility relocations are completed between 4<sup>th</sup> and 5<sup>th</sup> Streets. We will meet with the community leaders and Chamber of Commerce to minimize parking and business traffic impacts. We will meet with the Convention Center to coordinate access and signage to alert pedestrians of any changes in routes and access points.

**Role of VDOT and other Agencies:** The Corman/Parsons Team will meet early and often with VDOT, the GRTC, DRPT, City of Richmond, VCU, and Henrico County regarding the TMP and MOT. We will provide initial design ideas and concepts and will look to the agencies for feedback prior to finalizing design. *This over-the-shoulder review/collaborative design approach provides the foundation to achieve the best possible design, while minimizing VDOT and other agency review efforts.*

## RISK NO. 2: SCHEDULE | FUNDING

The Tiger Grant Narrative Project Schedule anticipated approximately 13 months of Final Design and Approval and 12 months of Construction (Application Project Narrative, Page 28) and has been disseminated to the public. Per the RFQ, the anticipated Award Date is 3/16/16 and the anticipated Final Completion Date is 8/16/17, leaving 17 months to finalize the design, acquire permits and ROW, and construct the project eight months less than the Grant Application Schedule. According to the *Application for Urban Design Committee Review*, the location of numerous stations has been adjusted subsequent to the submission of these locations to the Federal Transit Authority (FTA), thus potentially requiring additional approval steps.

**Why Critical:** As stated in the Application for Urban Design Committee Review, Page 4, the “*GRTC BRT will improve transit service, increase livability, enhance economic opportunity, revitalize commercial properties, improve environmental sustainability and stimulate economic development in the city, county and the greater Richmond region.*” Throughout project development, DRPT (the project sponsor) and GRTC have consistently highlighted these benefits and the project’s delivery schedule. The project gained support from the business community, VCU, other major stakeholders, residents and the travelling public. Failure to complete the project on time will result in a loss of credibility for many public agencies, including VDOT, will erode support for this and similar future projects, could jeopardize funding, and will delay delivering project benefits.

**Impact:** Extended increased congestion due to construction delayed local economic benefits, erosion of public confidence in transportation agencies, and possible loss of funding for this highly-visible project in Richmond and at the foot of the State Capital make attaining the aggressive schedule paramount.

**Mitigation:** The Corman/Parsons Team is uniquely qualified to mitigate this risk and complete this project on schedule. By selecting Parsons as our Lead Designer, we brought in house and mitigated the most non-traditional components, *Systems Engineering and System Integration*, and required coordination between them and existing components. Selecting Parsons was driven by our strategy to mitigate this risk associated with

implementing and integrating these two key technological aspects by engaging a firm with decades of experience, not only designing, but implementing and integrating their design seamlessly into the desired end product. Based on the budget submitted on Page 8 of the Tiger Grant Application Project Narrative, the Systems portion of the work is about 20% of the project. Implementation and integration with existing technology is a much more substantial percentage of the risk to successfully completing this project on schedule.

Parsons will design and steer the project through approvals. The approval process itself is a challenge. Different from most transportation projects, aesthetics, particularly related to the stations, can threaten the schedule. Selections, such as brick, mortar, and letter size, color, and fonts at stations, as well as other decisions important to The Greater Richmond Transit Company, City of Richmond, DRPT and other stakeholders will take a disciplined process to minimize potential schedule impacts. Breaking the design into multiple work packages will allow for critical path items to be approved early on so construction can begin while final project “finish” items are being finalized. Parsons is highly experienced at managing this process from start up to close out and will lead this effort.

Coordinating design, permitting, and construction is critical to project success. Failing to recognize utility relocations or delays in acquiring a permit can be disastrous to the project schedule. To mitigate this risk, we designated Chris Rutkai, PE to be the DBPM. With many successful local Richmond and design-build projects to his credit, he brings over 16 years of experience. His organizational skills, support staff, ability to recognize potential schedule impacts early on to resolve issues before they impact the schedule, will bring value to the project that few teams can match.

According to the Application for Urban Design Committee Review, much of the existing condition on Broad Street is 10-ft. lanes, minimizing opportunities to narrow existing traffic lanes for construction. Corman is highly experienced working in constrained urban settings, such as this. Limited access and egress, as well as the challenges in getting materials to a project with high volumes of traffic, are issues Corman is accustomed to, having constructed local urban projects with ADTs in excess of 30,000. This depth of experience will be critical to completing the project on schedule.

**Role of VDOT and other Agencies:** VDOT, the City of Richmond, the Greater Richmond Transit Company and DRPT will all play important roles in decision making. We would expect submittal reviews to take place timely and would suggest “over the shoulder” reviews to replace “revise and resubmit” with “approved as noted” whenever feasible.

### RISK NO. 3: MULTI-AGENCY COORDINATION

All projects include funding providers, approval agencies, stakeholders, and other third parties. For the GRTC Bus Rapid Transit Project, there is an unusual high number of third parties, including:

1. **Greater Richmond Transit Company (GRTC)**–Will own the BRT and responsible for operations/maintenance.
2. **Utilities**-17 individual utility companies have facilities in the Broad Street BRT corridor, including City of Richmond Dept. of Public Utilities, Dominion Power, Verizon and other communications companies.
3. **City of Richmond**-Funding partner where the project will impact city transportation, parking and utilities.
4. **Henrico County**-Funding partner that will need to weigh in on operating plans, station design, and other key factors driving project costs.
5. **Dept. of Rail and Public Transportation (DRPT)**-Funding partner that oversees State transit projects.
6. **Federal Transit Administration (FTA)**–Administering the TIGER grant.
7. **Bureau of Capital Outlay Management (BCOM)**–May be the code official for the stations.
8. **Virginia Dept. of Historic Resources**-Must approve station design as it relates to visual impacts on the corridor’s many historic buildings.
9. **Metropolitan Planning Organization (MPO)**-Arm of Richmond Regional Planning District Commission (RRPDC).
10. **Virginia Commonwealth University (VCU)**–Since the BRT passes the campus, many riders will be VCU students, and construction will impact the VCU shuttles.
11. **Business partners**, including Anthem, Shockoe Bottom Neighborhood Association, and small business associations representing corridor business owners in the downtown and Rockets Landing areas.

- 12. Regional Stakeholders** that support the project's economic benefits, including RVA Rapid Transit, Venture Richmond, and Greater Richmond Chamber of Commerce.
- 13. CSX and Norfolk Southern Railroads**—Project has several grade separated crossings of major railroad facilities. Design and construction adjacent to and crossing railroad property will have to conform to railroad requirements.
- 14. Watchdog groups with interest in the project**—An example is the Coalition for Smart Transit. They have concerns related to parking, pedestrian access, proper integration of BRT operations with regular traffic and maintaining the character and functionality of Broad Street. These are significant concerns which will be addressed in final design, taking into account lessons learned from other BRT projects and being aware of design development to date.

**Why Critical:** Typically, VDOT manages projects where they will be responsible for maintenance and operations. This project is different as VDOT will be delivering the completed project to GRTC, another public agency. The fixed facilities are only one part of the BRT project as GRTC will be acquiring new BRT vehicles. Because of this, the project requires significant interaction, coordination and approval from GRTC to ensure compatibility with the new vehicles, is consistent with GRTC BRT branding and their expectations for maintenance and other items. Additionally, the stations require systems, permits, and approvals which are uncommon in a VDOT project.

Finally, approximately half of the project funding is from a TIGER Grant, which is administered by the FTA, whose project oversight tends to be more robust than the FHWA's.

**Impact:** Multiple third parties escalate the potential of design delay due to increased submittal review times, multiple permit submittals, and change in design direction.

**Mitigation:** Simply being aware of the third parties is partial mitigation in and of itself. The design team, and especially Design Manager Cliff Roberts, is highly experienced with projects that involve multiple third parties. Cliff was the Design Manager for the Dulles Corridor Metrorail Project (the Silver Line) during Phase 1 procurement, design and construction and consequently is experienced in third party project delivery and FTA oversight. Other tangible mitigations include:

- ✓ Consistency with project development efforts to date. Considerable effort has already been expended on this project. In addition to the typical alternative analysis and NEPA documentation, design has been advanced during the time GRTC was managing the design. To maximize the benefit of this time and cost, we will provide design consistent with the work performed to date unless revisions provide a schedule or public acceptance benefit. It is recognized that much of the design development to date may have been expressly approved or at least had general concurrence from the multiple stakeholders. Evaluation of schedule savings will include the need to revisit previous approvals.
- ✓ **Schedule:** Include third party reviews in the project schedule and provide them a copy so they can allocate resources for reviews in advance.
- ✓ Determine and follow third party review procedures. This will minimize review times and re-work to comply with agency procedures. Establish a third party working group, which meets bi-weekly to inform third parties and to communicate their concerns and information needs.
- ✓ Be aware that third parties require information to approve and oversee and that the need for this information is not always instinctive. Providing the requested information timely will help maintain the schedule.

**Role of VDOT and other Agencies:** Some third parties prefer or require that communication come from the Owner's Project Manager rather than from the Design-Builder. In these cases, we will ensure that VDOT's Project Manager has the information to respond.



## 3.6 Understanding Scope of Work

### 3.6 UNDERSTANDING THE PROJECT SCOPE

**PROJECT SCOPE:** The GRTC Broad Street BRT project is 7.6 miles through the heart of Richmond from the Willow Lawn and Broad Street intersection in Henrico County on the west to Rocketts Landing on the east. It includes constructing a new bus shelter at the beginning and end of the project, as well as 12 locations with two shelters each, totaling 26 shelters.

Major roadway modifications are limited to Broad Street and begin just east of the I-195 overpass. From this location to just west of N. Foushee Street, dedicated bus lanes will be constructed in the median along with 10 bus shelters in this stretch. Dedicated bus lanes adjacent to the outside curb will be colored on Broad Street from 4<sup>th</sup> Street to just east of 12<sup>th</sup> Street. In all other areas on the route the buses will travel in mixed traffic.

#### MAJOR DESIGN ELEMENTS

**Roadway / Signing and Pavement Markings:** Although the roadway work is not substantial, the importance of the roadway design cannot be underestimated. Broad Street is narrow and this project will not appreciably widen the footprint of this major access to the heart of Richmond, thus there will be major vehicular, pedestrian, and parking impacts during reconfiguration of the roadway section to accommodate the median dedicated transit way. This reconfiguration will also impact roadway drainage and underground utilities. Use of all available space is critical to maximizing the traffic flow during construction and upon project completion. Since this project does not appreciably widen the footprint of Broad Street, MOT challenges are exacerbated.

**Parking:** The project eliminates sections of on-street parking from Broad Street. Parking disruption during construction will be included in our MOT. However, based on the project documentation prepared to date, replacement parking on a permanent basis is an issue that has not yet been completely resolved. This will require interfacing with the City, impacted businesses, and other stakeholders along the corridor.

**Maintenance of Traffic:** The work elements described above will disrupt streets and sidewalks. Strategically planning construction will reduce impacts to motorists, pedestrians, bicyclists, parking and existing GRTC and VCU bus operations. To minimize emergency responder impacts, close coordination will be maintained with regular updates on planned disruptions.

**Traffic Signals, ITS, Communications, System Integration:** Modifications to the existing traffic signal system are needed to accommodate the revised roadway typical section and provide Transit Signal Priority (TSP). ITS and communication systems will be added to the corridor to provide Real Time Bus Arrival information and communication with the fare collection system. Safety and Security features specific to transit station will be added, including emergency communications and CCTV. Parsons has on staff Engineers with the expertise to develop and integrate new faculties into existing information systems. The opportunity will be given to the city to include additional empty ducts for future fiber adjacent to the new GRTC conduit.

**Architecture and Landscape Architecture:** Shelter design/approvals will be a major design element. In addition to major stakeholders, such as VDOT, Greater Richmond Transit Company (GRTC), City of Richmond, Henrico County, Dept. of Rail and Public Transportation (DRPT), Federal Transit Administration (FTA), there will also be demands for aesthetic input from groups, such as Virginia Dept. of Historic Resources, Virginia Commonwealth University (VCU), affected properties and businesses, and small business associations representing corridor business owners in the downtown, Fan District and Shockoe Bottom areas. Although the project has been presented to the Urban Design Committee, conflicting comments from stakeholders regarding our architecture and landscape drawings can be expected and may be the most substantial design challenge. Our team will corral the stakeholders to form a consensus early on. To avoid re-evaluating previously agreed to design elements, our design will form a seamless transition from the Alternatives Analysis and conceptual design prepared by others and the final design and construction prepared by the Corman/Parsons Team. This will be led by Design/Construction Integrator Ryan Gorman.

**Hydraulics:** A Virginia Stormwater Management Permit (VSMP) to authorize construction activity stormwater discharge under the VPDES Construction Permit, is required. Parsons will produce an erosion and sediment control (E&SC) design that will conform to VPDES requirements. For post-construction stormwater management, Parsons will analyze the project disturbance per VSMP Regulations, using Virginia Runoff Reduction Methodology for water quality and the Energy Balance Equation for erosion and flood control in downstream receiving channels. Parsons will employ the Virginia Runoff Reduction Method compliance worksheets in order to select VDOT-preferred Best Management Practices (BMP's) listed in the Virginia

Stormwater BMP Clearinghouse with consideration of locations within a Chesapeake Bay Resource Management Area. Low Impact Development water quality control methods will be used to the maximum extent practical.

Modifying existing roadway drainage system will be necessary, but the project will be designed to minimize storm sewer impacts.

**Utilities:** Water, sanitary sewer, storm sewer, gas, electric and communication lines will need to be located and reviewed at each of the 26 shelters, new signal pole foundations, along the pathway for the new ITS communication lines, and other areas where excavations are planned for potential conflicts and appropriate solutions designed.

**Survey and Right of Way:** This includes confirming survey work previously performed and preparing right of way plans. While most work is located in the existing VDOT right of way, new utility easements will be needed for relocated utilities, and easements/agreements may be required for GRTC to access these stations for operations and maintenance.

**Geotechnical:** Geotechnical investigations and engineering will determine the adequacy of the existing roadway pavement structure and for station foundations and signal pole foundations.

**Permitting:** Permits will be required for utilities, stormwater management and water quality, and stations. Falling into this category are compliance with the NEPA Document and other previous agreements. Early on, a permit task force will be established and a permit spreadsheet will list and track when each permit is required for construction, the date the applications are due, and our progress to meet the deadlines. This tracking tool will be reviewed weekly at our regular progress meetings.

**Concurrent Project for BRT Operations:** In the mixed traffic running section, the GRTC BRT route on Main Street near Rocketts Landing crosses Norfolk Southern's track on a bridge constructed in 1913. This bridge is load rated at three tons; consequently, it will need to be replaced prior to BRT operations. A DRPT Rail Enhancement Grant was awarded for this bridge replacement; Norfolk Southern will use this opportunity improve railroad clearances. This bridge replacement is challenging as the roadway geometry is constrained by the nearby CSX railroad bridge over Main Street. Corman will coordinate with this project as necessary and could perform this work, if included in VDOT's GRTC BRT Design-Build project for scheduling efficiency.

## MAJOR CONSTRUCTION ELEMENTS

**Utilities:** Relocations of water, gas and other utilities are needed at each shelter to move existing facilities outside of the shelters' footprint, to avoid conflicts with shelter foundations and other elements, and to allow utility maintenance to occur without impacts. Additional utility relocations may be required to accommodate the ITS communication systems. New electrical and communications services will be required for shelters and signals. Integration and testing of communication and signals will be a major part of this construction.

**Roadway Modifications:** Tight working conditions will challenge construction. Median construction will be further complicated by traffic limiting material deliveries.

**Signing, Striping and Pavement Marking:** Throughout the BRT corridor, new signing, striping and pavement coloring and markings will delineate areas reserved for BRT vehicles and BRT stations from standard bus stops, and guide pedestrians to the stations. Wayfinding will take on a heightened role from most VDOT projects.

**System Integration:** Unlike most traditional VDOT roadway installations will be the development of the Real Time Bus Arrival information systems and displays as well as the integration of the new fare collection system with GRTC's existing systems.

**Maintenance of Traffic** will be a key element for the safety of our workforce and motorists.

**TEAM APPROACH:** Our team has extensive experience working together on previous projects. This collaborative history proves we know how to integrate construction personnel into the design to conduct early constructability reviews and design professionals into construction to quickly and efficiently adjust to unanticipated field conditions. This will be critical to completing the design and the project in the limited time available.

**RESOURCING:** Nick Nicholson PE, Vice President of Parsons has committed Parsons to providing the resources to complete this challenging design. Cliff Roberts, PE will coordinate the design disciplines and accelerate those with long-lead times, such as the shelters, to allow approval and fabrication time, and the signalization to order the specified fluted signal poles early.

Design/Construction Integrator Ryan Gorman, PE, DBIA will apply the right resources at critical times to ensure design and construction both minimize the time required. Our experience confirms this is critical to successful design-build projects. Ryan, a resident of Richmond, will play a major role with Lead Utility

Coordination Manager Dale Kniffin to identify potential utility conflicts early and relocations occur timely. He will take the lead in coordinating permits and with stakeholders. Our Community/Stakeholder Involvement Manager Steve Walter of Parsons will provide a team of community and business outreach staff to address daily business access and parking issues along the corridor.

Construction Manager Jake Leffler will staff the project to handle multiple crews at all times. He has the proven flexibility to handle and react to unanticipated issues and shift resources to maintain a tight construction schedule.

Corman commits to providing the resources required to complete the project on schedule.

**COORDINATION WITH STAKEHOLDERS** will be a key issue for this project to be a renowned success. Recognizing this, our team has selected Steve Walter with Parsons to be our point person. Steve was Parsons' Principal-in-charge for the Alternatives Analysis and Environmental Assessment for the GRTC BRT, making him intimately familiar with the stakeholders and issues. In addition to standard public outreach, Steve will work with our design team and Design/Construction Integrator Ryan Gorman to facilitate timely decisions. He will work with the stakeholders to generate consensus decisions on selection issues related to the project with a focus on the 26 bus shelters at the 14 stations. Knowing the shelters may not all be identical due to aesthetic issues at differing locations, we anticipate this to be a challenge and will be proactive in finalizing conflicts early on. We understand the potential conflicting aesthetic requests by different stakeholders of the new facilities and will work closely with VDOT staff to push for direction early in the process so critical order dates are not missed.

***WHAT SETS US APART:** Steve Walter was Parsons' Principal-in-charge for the Alternatives Analysis and Environmental Assessment for the GRTC BRT, making him intimately familiar with the stakeholders and issues.*

**SUMMARY:** Our team has extensive experience with VDOT Design-Build projects, BRT design, working in high traffic urban areas and, most importantly, systems integration. While not typical for VDOT, Parsons has significant systems integration experience having provided this service on transit projects. For BRT projects, Parsons integrated the traffic signal communication systems to provide for Transit Signal Priority for traffic signals, coordinated communications backbones to allow functionality of real time bus arrival information, fare collection equipment, CCTV cameras, and other safety and security devices. They understand the scope and recognize where potential roadblocks can impact the project. We have professionals on our combined staff experienced in working to mitigate design, selection and construction issues to generate a successful project for all stakeholders. Corman's experience includes constructing 17 light rail stations throughout Baltimore, Maryland and an aerial concrete bridge to support a second track structure at Kloman Street, adjacent to the single track bridge, north of Westport Station which was part of the multi-phased double tracking for the Baltimore Light Rail System for the Maryland Transit Administration.



# Appendix



**ATTACHMENT 3.1.2**

**Project: GRTC BRT**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
<b>Statement of Qualifications Checklist and Contents</b>	Attachment 3.1.2	Section 3.1.2	no	16-18
<b>Acknowledgement of RFQ, Revision and/or Addenda</b>	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	19
<b>Letter of Submittal (on Offeror's letterhead)</b>				
Authorized Representative's signature	NA	Section 3.2.1	yes	1
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	1
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	1
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	20
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	21-29
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	30
Evidence of obtaining bonding	NA	Section 3.2.9	no	31-35

**ATTACHMENT 3.1.2**

**Project: GRTC BRT**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
<b>SCC and DPOR registration documentation (Appendix)</b>	Attachment 3.2.10	Section 3.2.10	no	36-37
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	38-46
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	47-60
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	62-65
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	61
<b>DBE statement within Letter of Submittal</b> confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
<b>Offeror's Team Structure</b>				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	3 & 5-6
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	66-67
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	68-69
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	70-71
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	72-73
Key Personnel Resume – Lead Architect	Attachment 3.3.1	Section 3.3.1.5	no	74-75
Key Personnel Resume – System Engineer	Attachment 3.3.1	Section 3.3.1.6	no	76-77
Key Personnel Resume – Lead Utility Coordination Manager	Attachment 3.3.1	Section 3.3.1.7	no	78-79

**ATTACHMENT 3.1.2**

**Project: GRTC BRT**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
Organizational chart	NA	Section 3.3.2	yes	7
Organizational chart narrative	NA	Section 3.3.2	yes	6-7
<b>Experience of Offeror's Team</b>				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	80-82
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	83-85
Lead Architect Work History Form	Attachment 3.4.1(c)	Section 3.4	no	86
<b>Project Risk</b>				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	9-12
<b><u>Understanding of the Scope of Work</u></b>				
<u>Identify and discuss Project scope of work</u>	<u>NA</u>	<u>Section 3.6.1</u>	<u>yes</u>	13-15

**ATTACHMENT 2.10**

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00XXXXXXDB87C00108069DB87  
PROJECT NO.: GRTC BRT

**ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA**

Acknowledgement shall be made of receipt of the Request for Qualifications (RFQ) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Statement of Qualifications (SOQ) submission date shown herein. Failure to include this acknowledgement in the SOQ may result in the rejection of your SOQ.

By signing this Attachment 2.10, the Offeror acknowledges receipt of the RFQ and/or following revisions and/or addenda to the RFQ for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

- 1. Cover letter of RFQ – September 25, 2015  
(Date)
- 2. Cover letter of Addendum #1- October 2, 2015  
(Date)
- 3. Cover letter of Addendum #2- October 16, 2015  
(Date)

 11.4.15  
SIGNATURE DATE

Arthur C. Cox, III Vice President  
PRINTED NAME TITLE

**ATTACHMENT 3.2.6**

**Project: GRTC BRT**

**Affiliated and Subsidiary Companies of the Offeror**

Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

<input type="checkbox"/> <b>The Offeror does not have any affiliated or subsidiary companies.</b>
<input checked="" type="checkbox"/> <b>Affiliated and/ or subsidiary companies of the Offeror are listed below.</b>

<b>Relationship with Offeror (Affiliate or Subsidiary)</b>	<b>Full Legal Name</b>	<b>Address</b>
Affiliate (Parent)	CG Enterprises, Inc.	12001 Guilford Road, Annapolis Junction, MD 20701
Affiliate (Sister)	Corman Marine Construction, Inc.	711 East Ordnance Road, Suite 715, Baltimore, MD 21226
Affiliate (Joint Venture)	CK Constructors, A Joint Venture	12001 Guilford Road, Annapolis Junction, MD 20701
Affiliate (Joint Venture)	Intercounty Constructors Joint Venture	120 White Plains Road, Suite 310, Tarrytown, NY 10591
Affiliate (Joint Venture)	MD 200 Constructors, A Joint Venture	450 Dividend Drive, Peachtree City, GA 30269
Affiliate (Joint Venture)	Wagman, Corman, McLean Joint Venture	3290 North Susquehanna Trail, York, PA 17406
Affiliate (Joint Venture)	Corman-Wagman, A Joint Venture	12001 Guilford Road, Annapolis Junction, MD 20701
Affiliate (Joint Venture)	KC Constructors, A Joint Venture	1800 South Bell Street, Suite 300, Arlington, VA 22202
Affiliate (Joint Venture)	LANE/Corman Joint Venture	14500 Avion Parkway, Suite 200, Chantilly, VA 20151
Affiliate (Joint Venture)	Corman-E.V. Williams, a Joint Venture	925 S. Military Highway, Virginia Beach, VA 23464

**ATTACHMENT NO. 3.2.7(a)**

**CERTIFICATION REGARDING DEBARMENT  
PRIMARY COVERED TRANSACTIONS**

**Project:** GRTC BRT

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	11/4/15	Vice President
Signature	Date	Title

Corman Construction, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.:** GRTC BRT

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Stephen Winter      10/27/15      VICE PRESIDENT  
Signature                      Date                      Title

PARSONS TRANSPORTATION GROUP  
Name of Firm

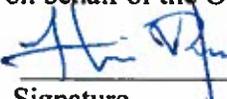
**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.: GRTC BRT**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	10/19/15	Managing Principal
Signature	Date	Title

KGP design studio  
Name of Firm

**ATTACHMENT NO. 3.2.7(b)**

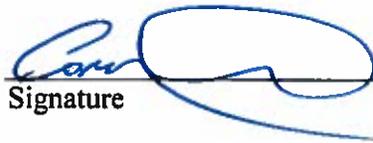
**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.: GRTC BRT**

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

October 19, 2015

Date

President

Title

ACCOMPONG ENGINEERING GROUP LLC

Name of Firm

**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.:** GRTC BRT

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Don Young                      10/16/2015                      Senior Vice President/Regional Manager  
Signature                      Date                      Title

MBP  
Name of Firm

**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.:** GRTC BRT

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Canya A. Howe      10/17/2015      President  
Signature                      Date                      Title

Utility Professional Services, Inc.  
Name of Firm

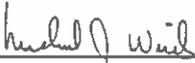
**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.:** GRTC BRT

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

<u></u>	<u>October 19, 2015</u>	<u>Principal</u>
Signature	Date	Title

A. Morton Thomas and Associates, Inc.  
Name of Firm



**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.:** GRTC BRT

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this form.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

*William E. Doherty*      *10/23/15*      *President*  
Signature                      Date                                      Title

*Diversified Property Services, Inc.*  
Name of Firm



COMMONWEALTH OF VIRGINIA



# CERTIFICATE OF QUALIFICATION

## CORMAN CONSTRUCTION, INC.

Vendor Number: C097

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

**PREQUALIFIED**

Your firm specializes in the noted Classification(s):

**GRADING; MAJOR STRUCTURES; MINOR STRUCTURES; UNDERGROUND UTILITIES**

Issue Date: March 31, 2015

Suzanne FR Lucas, State Prequalification Officer

This Rating and Classification will Expire: March 31, 2016

Don E. Sillies, Director of Contracts

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.



Construction Risk Solutions, LLC  
11311 McCormick Road, Suite 450  
Hunt Valley, MD 21030  
Main: 443-798-7499  
Fax: 443-798-7290

November 4, 2015

Virginia Department of Transportation  
Alternate Project Delivery Office  
1401 East Broad Street  
Richmond, VA 23219  
Attn: Mr. Bryan Stevenson, P.E.

Re: Corman Construction, Inc. – Surety Qualification  
Request for Qualifications – A Design-Build Project  
GRTC Bus Rapid Transit (BRT) Project  
Contract ID No.: C00108069DB87

Dear Mr. Stevenson:

As Surety for Corman Construction, Inc., Fidelity and Deposit Company of Maryland and Zurich American Insurance Company with A.M. Best Financial Strength Ratings “A+” and Financial Size Category “XV” are capable of providing 100% Performance Bond & 100% Labor and Materials Payment Bond in the anticipated amount of \$38,000,000.00 and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

If Corman Construction, Inc. is short-listed and/or awarded a contract for the referenced project and requests that we provide the necessary Bid and Performance and Payment Bonds, we will be prepared to execute the bonds subject to our acceptable review of the contract terms and conditions, bond forms and any other underwriting considerations at the time of the request.

Fidelity and Deposit Company of Maryland and Zurich American Insurance Company are proud to have represented Corman Construction, Inc.’s as its surety for over twenty (20) years. Based on Corman Construction, Inc.’s financial strength and track record, we are prepared to consider jobs of \$250,000,000 single/\$600,000,000 aggregate total program.

Our consideration and issuance of bonds is a matter solely between Corman Construction, Inc. and ourselves, and we assume no liability to third parties or to you by the issuance of this letter.

We trust that this information meets with your satisfaction. If there are further questions, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert A. Chlada", is written over a light blue horizontal line.

Robert A. Chlada,  
Attorney-in-Fact

# Commonwealth of Virginia

## STATE CORPORATION COMMISSION

July 1, 2015

FIDELITY AND DEPOSIT COMPANY OF MARYLAND  
600 RED BROOK BLVD  
OWINGS MILLS MD 21117-5153

is hereby licensed to transact the business of

Aircraft Liability	Glass
Auto Liability	Homeowners Multi-Peril
Auto Physical Damage	Inland Marine
Boiler & Machinery	Liability Other than Auto
Burglary & Theft	Misc Property & Casualty
Commercial Multi-Peril	Ocean Marine
Credit	Surety
Credit Property Insurance	Water Damage
Fidelity	Workers Compensation & Employers'
Fire	Liability

in the Commonwealth of Virginia through the thirtieth day of June next succeeding the date hereof unless this license shall be sooner revoked or otherwise cancelled.

ID: 39306



State Corporation Commission  
Bureau of Insurance

By: Jacqueline K. Conlan  
Commissioner

**FIDELITY AND DEPOSIT COMPANY**

OF MARYLAND

600 Red Brook Blvd., Suite 600, Owings Mills, MD 21117

**Statement of Financial Condition  
As Of December 31, 2014**

**ASSETS**

Bonds.....	\$ 142,720,308
Stocks .....	21,816,223
Cash and Short Term Investments .....	2,077,768
Reinsurance Recoverable .....	10,375,303
Other Accounts Receivable .....	46,778,921
<b>TOTAL ADMITTED ASSETS .....</b>	<b>\$ 223,768,523</b>

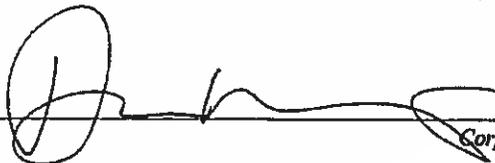
**LIABILITIES, SURPLUS AND OTHER FUNDS**

Reserve for Taxes and Expenses .....	\$ 1,321,332
Ceded Reinsurance Premiums Payable.....	49,965,411
Securities Lending Collateral Liability.....	4,009,064
<b>TOTAL LIABILITIES .....</b>	<b>\$ 55,295,807</b>
Capital Stock, Paid Up.....	\$ 5,000,000
Surplus.....	163,472,717
Surplus as regards Policyholders .....	168,472,716
<b>TOTAL.....</b>	<b>\$ 223,768,523</b>

Securities carried at \$58,191,540 in the above statement are deposited with various states as required by law.

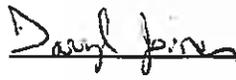
Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2014 would be \$227,936,393 and surplus as regards policyholders \$172,640,586.

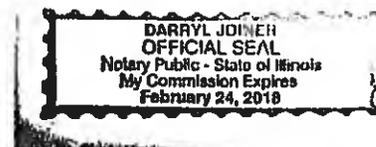
I, DENNIS F. KERRIGAN, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2014.

  
Corporate Secretary

State of Illinois }  
City of Schaumburg } SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 15th day of March, 2015.

  
Notary Public



**ZURICH AMERICAN INSURANCE COMPANY  
 COLONIAL AMERICAN CASUALTY AND SURETY COMPANY  
 FIDELITY AND DEPOSIT COMPANY OF MARYLAND  
 POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by THOMAS O. MCCLELLAN, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Joseph A. PIERSON, Robert A. CHLADA, Cynthia M. CHARVAT, Dennis C. OURAND, Steven A. DZURIK, JR., John J. MARKOTIC and Diane S. LOUGHRY, all of Hunt Valley, Maryland, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 21st day of August, A.D. 2014.

ATTEST:

**ZURICH AMERICAN INSURANCE COMPANY  
 COLONIAL AMERICAN CASUALTY AND SURETY COMPANY  
 FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



By: Eric D. Barnes  
 Secretary  
 Eric D. Barnes

Thomas O. McClellan  
 Vice President  
 Thomas O. McClellan

State of Maryland  
 County of Baltimore

On this 21st day of August, A.D. 2014, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, THOMAS O. MCCLELLAN, Vice President, and ERIC D. BARNES, Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposed and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written

Constance A. Dunn



Constance A. Dunn, Notary Public  
 My Commission Expires: July 14, 2015

**EXTRACT FROM BY-LAWS OF THE COMPANIES**

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

**CERTIFICATE**

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 4th day of November, 2015.



  
Michael Bond, Vice President

## ATTACHMENT 3.2.10

### Project GRTC BRT

#### SCC and DPOR Information

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 3.2.10 and that all businesses and individuals listed are active and in good standing.

<b>SCC &amp; DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)</b>							
<b>Business Name</b>	<b>SCC Information (3.2.10.1)</b>			<b>DPOR Information (3.2.10.2)</b>			
	<b>SCC Number</b>	<b>SCC Type of Corporation</b>	<b>SCC Status</b>	<b>DPOR Registered Address</b>	<b>DPOR Registration Type</b>	<b>DPOR Registration Number</b>	<b>DPOR Expiration Date</b>
<b>Corman Construction, Inc.</b>	<b>F046798-7</b>	<b>Foreign</b>	<b>Active/In Good Standing</b>	<b>12001 Guilford Road Annapolis Junction, MD 20701</b>	<b>Class A Contractor</b>	<b>2701014794</b>	<b>10/31/17</b>
<b>Parsons Transportation Group, Inc.</b>	<b>F194302-8</b>	<b>Foreign</b>	<b>Active/In Good Standing</b>	<b>*4701 Hedgemore Dr. Charlotte, NC 28209</b>	<b>Eng</b>	<b>0407006418</b>	<b>12/31/15</b>
				<b>7447 Central Business Park Drive Suite 100 Norfolk, VA 23513</b>	<b>Eng</b>	<b>0411001226</b>	<b>2/29/16</b>
				<b>*4701 Hedgemore Dr. Charlotte, NC 28209</b>	<b>Eng</b>	<b>0411001042</b>	<b>2/29/16</b>
<b>KGP Design Studio, LLC</b>	<b>Limited Liability Co.</b>	<b>T021918-0</b>	<b>Active/In Good Standing</b>	<b>1099 14<sup>th</sup> Street, NW Suite 101-L Washington, DC 20005</b>	<b>ARC</b>	<b>0407005686</b>	<b>12/31/15</b>
<b>Accompong Engineering Group, LLC</b>	<b>Limited Liability Co.</b>	<b>S283521-5</b>	<b>Active/In Good Standing</b>	<b>9510 Iron Bridge Road Suite 200 Chesterfield, VA 23832</b>	<b>Eng</b>	<b>0407005442</b>	<b>12/31/15</b>
<b>McDonough Bolyard Peck, Inc. (MBP)</b>	<b>Incorporated</b>	<b>0351800-8</b>	<b>Active/In Good Standing</b>	<b>3040 Williams Drive Suite 300 Fairfax, VA 22031</b>	<b>Eng</b>	<b>0407002955</b>	<b>12/31/15</b>
				<b>676 Independence Parkway, Suite 220 Chesapeake, VA 23320</b>	<b>Eng</b>	<b>0411000606</b>	<b>2/29/16</b>
				<b>7400 Beaufont Spring Drive, Boulders II Suite 403 Richmond, VA 23225</b>	<b>Eng</b>	<b>0411000604</b>	<b>2/29/16</b>
				<b>711D Fifth St., NE Roanoke, VA 24016</b>	<b>Eng</b>	<b>0411000605</b>	<b>2/29/16</b>

\*Please refer to the notes on the corresponding DPORs.

## ATTACHMENT 3.2.10

### Project GRTC BRT

#### SCC and DPOR Information

Utility Professional Services, Inc. (Utility Pros)	Incorporated	0588987-8	Active/In Good Standing	PO Box 923 Colonial Beach, VA 22443	Eng	0407005942	12/31/15
A. Morton Thomas & Assocs., Inc. (AMT)	Foreign	F049431-2	Active/In Good Standing	100 Gateway Centre Parkway, Suite 200 Richmond, VA 23235	Eng, LS	0411000587	2/29/16
				14900 Conference Center Dr., Suite 180 Chantilly, VA 20151	LS, Eng	0411000586	2/29/16
GeoConcepts Engineering, Inc.	Incorporated	0516767-1	Active/In Good Standing	19955 Highland Vista Drive, Suite 170 Ashburn, VA 20147	Eng	0407004404	12/31/15
Diversified Property Services, Inc.	Foreign	F130410-6	Active/In Good Standing	20 E. Timonium Road, Suite 111 Timonium, MD 21093	Real Estate Appraiser Board Appraisal Bus. Reg.	4008001190	11/30/16
<b>DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)</b>							
Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date	
McDonough Bolyard Peck, Inc. (MBP)	Duncan Stewart, PE	Richmond, VA	13318 Railey Hill Drive Midlothian, VA 32114	PE	0402036991	6/30/16	
Parsons Transportation Group, Inc.	Cliff Roberts, PE	Washington, DC	4740 6 <sup>TH</sup> Street South Arlington, VA 22204	PE	0402020740	1/31/16	
Parsons Transportation Group, Inc.	Damien Jackson, RA, LEED AP BD+C	Washington, DC	708 N. Ave. 53 Los Angeles, CA 90042	Architect	0401016913	11/30/16	
Parsons Transportation Group, Inc.	Eric Gross, PE	Washington, DC	1808 Christian Street Philadelphia, PA 19146	PE	0402048107	10/31/16	

**Please note: The SCC website will be unavailable Thursday, October 22, from 6 p. 10 p.m., for system maintenance. We apologize for the inconvenience and appreciate your patience.**

c



Commonwealth of Virginia  
**State Corporation Commission**

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CISM0180

CORPORATE DATA INQUIRY

10/20/15

11:05:22

CORP ID: F046798 - 7 STATUS: 00 ACTIVE STATUS DATE: 01/06/06  
 CORP NAME: CORMAN CONSTRUCTION, INC.

DATE OF CERTIFICATE: 11/02/1984 PERIOD OF DURATION: INDUSTRY CODE: 00  
 STATE OF INCORPORATION: DE DELAWARE STOCK INDICATOR: S STOCK  
 MERGER IND: CONVERSION/DOMESTICATION IND:  
 GOOD STANDING IND: Y MONITOR INDICATOR:  
 CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX ROAD, SUITE 285 AR RTN MAIL:

CITY: GLEN ALLEN STATE : VA ZIP: 23060-0000  
 R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC : 143  
 ACCEPTED AR#: 214 17 5971 DATE: 12/22/14 HENRICO COUNTY  
 CURRENT AR#: 214 17 5971 DATE: 12/22/14 STATUS: A ASSESSMENT INDICATOR: 0  

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
15	100.00				100.00	1,000

(Screen Id:/Corp\_Data\_Inquiry)

**Please note: The SCC website will be unavailable Thursday, January 22, from 6 p. 10 p.m., for system maintenance. We apologize for the inconvenience and appreciate your patience.**

**An ALERT to Virginia Corporations Regarding Solicitations from VIRGINIA COUNCIL ON CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.**



Commonwealth of Virginia  
State Corporation Commission

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CISM0180

CORPORATE DATA INQUIRY

01/21/15

15:06:58

CORP ID: F194302 - 8 STATUS: 00 ACTIVE STATUS DATE: 10/08/13  
CORP NAME: PARSONS TRANSPORTATION GROUP INC.

DATE OF CERTIFICATE: 10/08/2013 PERIOD OF DURATION: INDUSTRY CODE: 00  
STATE OF INCORPORATION: IL ILLINOIS STOCK INDICATOR: S STOCK  
MERGER IND: CONVERSION/DOMESTICATION IND:  
GOOD STANDING IND: Y MONITOR INDICATOR:  
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:  
R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX ROAD, SUITE 285

AR RTN MAIL:

CITY: GLEN ALLEN STATE : VA ZIP: 23060  
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC : 143  
ACCEPTED AR#: 214 15 2462 DATE: 10/23/14 HENRICO COUNTY  
CURRENT AR#: 214 15 2462 DATE: 10/23/14 STATUS: A ASSESSMENT INDICATOR: 0  
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES  
14 100.00 100.00 CR 500

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(Screen Id:/Corp\_Data\_Inquiry)



Commonwealth of Virginia  
**State Corporation Commission**

Vir

11/02/15

LLCM3220

LLC DATA INQUIRY

20:39:28

LLC ID: T021918 - 0 STATUS: 00 ACTIVE STATUS DATE: 04/03/15  
 LLC NAME: KGP Design Studio, L.L.C.

DATE OF FILING: 02/14/2003 PERIOD OF DURATION: 99/99/9999 INDUSTRY CODE: 00

STATE OF FILING: DC WASHINGTON, D.C MERGER INDICATOR:

CONVERSION/DOMESTICATION INDICATOR:

P R I N C I P A L O F F I C E A D D R E S S

STREET: 1099 14TH ST NW SUITE 101L

CITY: WASHINGTON STATE: DC ZIP: 20005-0000

R E G I S T E R E D A G E N T I N F O R M A T I O N

R/A NAME: VIRGINIA PROFESSIONAL SERVICES LLC

STREET: 3850 Gaskins Rd., Suite 120

RTN MAIL:

CITY: Richmond STATE: VA ZIP: 23233-0000

R/A STATUS: 5 ENTITY AUTHORIZ EFF DATE: 05/04/11 LOC: 143 HENRICO COUNTY

YEAR	FEES	PENALTY	INTEREST	BALANCE
15	50.00	25.00		

(Screen Id:/LLC\_Data\_Inquiry)



Commonwealth of Virginia  
**State Corporation Commission**

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10/30/15

LLCM3220

LLC DATA INQUIRY

11:10:07

LLC ID: S283521 - 5 STATUS: 00 ACTIVE STATUS DATE: 02/17/09  
 LLC NAME: Accompong Engineering Group, LLC

DATE OF FILING: 02/17/2009 PERIOD OF DURATION: INDUSTRY CODE: 00  
 STATE OF FILING: VA VIRGINIA MERGER INDICATOR:

CONVERSION/DOMESTICATION INDICATOR:

P R I N C I P A L O F F I C E A D D R E S S

STREET: 8425 LYLWOOD CT

CITY: CHESTERFIELD STATE: VA ZIP: 23838-0000

R E G I S T E R E D A G E N T I N F O R M A T I O N

R/A NAME: CONRAD A SCOTT

STREET: 9510 IRONBRIDGE ROAD  
 SUITE 200

RTN MAIL:

CITY: CHESTERFIELD STATE: VA ZIP: 23832-0000

R/A STATUS: 1 MEMBER/MANAGER EFF DATE: 12/27/11 LOC: 120 CHESTERFIELD CO

YEAR	FEES	PENALTY	INTEREST	BALANCE
15	50.00			

(Screen Id:/LLC\_Data\_Inquiry)



Commonwealth of Virginia  
**State Corporation Commission**

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CISM0180

CORPORATE DATA INQUIRY

10/30/15

10:21:58

CORP ID: 0351800 - 8 STATUS: 00 ACTIVE STATUS DATE: 02/05/09  
 CORP NAME: McDonough Bolyard Peck, Inc.

DATE OF CERTIFICATE: 12/29/1989 PERIOD OF DURATION: INDUSTRY CODE: 00  
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK  
 MERGER IND: CONVERSION/DOMESTICATION IND:  
 GOOD STANDING IND: Y MONITOR INDICATOR:  
 CHARTER FEE: 500.00 MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: REES BROOME, PC

STREET: 1900 GALLOWS RD STE 700

AR RTN MAIL:

CITY: TYSONS CORNER STATE : VA ZIP: 22182-0000  
 R/A STATUS: 4 ATTORNEY EFF. DATE: 09/01/12 LOC : 129  
 ACCEPTED AR#: 214 16 5794 DATE: 11/20/14 FAIRFAX COUNTY  
 CURRENT AR#: 214 16 5794 DATE: 11/20/14 STATUS: A ASSESSMENT INDICATOR: 0  

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
15	1,570.00				1,570.00	250,000

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 (Screen Id:/Corp\_Data\_Inquiry)



Commonwealth of Virginia  
State Corporation Commission

c

Vir

CISM0180

CORPORATE DATA INQUIRY

10/30/15

10:59:11

CORP ID: 0588987 - 8 STATUS: 00 ACTIVE STATUS DATE: 12/31/02  
 CORP NAME: Utility Professional Services, Inc.  
 DATE OF CERTIFICATE: 12/31/2002 PERIOD OF DURATION: INDUSTRY CODE: 00  
 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK  
 MERGER IND: CONVERSION/DOMESTICATION IND:  
 GOOD STANDING IND: Y MONITOR INDICATOR:  
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: FREDERIC N HOWE III  
 STREET: 390 SHORE DRIVE AR RTN MAIL:  
 P.O. BOX 923  
 CITY: COLONIAL BEACH STATE : VA ZIP: 22443-0000  
 R/A STATUS: 2 OFFICER EFF. DATE: 07/16/13 LOC : 196  
 ACCEPTED AR#: 214 16 0263 DATE: 11/04/14 WESTMORELAND CO  
 CURRENT AR#: 214 16 0263 DATE: 11/04/14 STATUS: A ASSESSMENT INDICATOR: 0  
 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES  
 15 100.00 100

---

(Screen Id:/Corp\_Data\_Inquiry)



Commonwealth of Virginia  
**State Corporation Commission**

Vir

CISM0180

CORPORATE DATA INQUIRY

10/30/15

10:45:48

CORP ID: F049431 - 2 STATUS: 00 ACTIVE STATUS DATE: 12/15/09  
 CORP NAME: THOMAS & ASSOCIATES, INC., A. MORTON

DATE OF CERTIFICATE: 11/26/1997 PERIOD OF DURATION: INDUSTRY CODE: 00  
 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK  
 MERGER IND: CONVERSION/DOMESTICATION IND:  
 GOOD STANDING IND: Y MONITOR INDICATOR:  
 CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: NATIONAL CORPORATE RESEARCH, LTD.

STREET: 250 BROWNS HILL COURT

AR RTN MAIL:

CITY: MIDLOTHIAN STATE : VA ZIP: 23114-0000  
 R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 09/30/15 LOC : 120  
 ACCEPTED AR#: 215 15 3245 DATE: 10/05/15 CHESTERFIELD CO  
 CURRENT AR#: 215 15 3245 DATE: 10/05/15 STATUS: A ASSESSMENT INDICATOR: 0  

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
15	400.00					52,000

(Screen Id:/Corp\_Data\_Inquiry)



CISM0180

CORPORATE DATA INQUIRY

10/01/15

15:07:09

CORP ID: 0516767 - 1 STATUS: 00 ACTIVE STATUS DATE: 02/25/99  
CORP NAME: GEOCONCEPTS ENGINEERING, INC.

DATE OF CERTIFICATE: 02/25/1999 PERIOD OF DURATION: INDUSTRY CODE: 00  
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK  
MERGER IND: CONVERSION/DOMESTICATION IND:  
GOOD STANDING IND: Y MONITOR INDICATOR:  
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:  
R/A NAME: VIVIAN LEWIS

STREET: GEOCONCEPTS ENGINEERING INC AR RTN MAIL:  
19955 HIGHLAND VISTA DR #170

CITY: ASHBURN STATE : VA ZIP: 20147-0000

R/A STATUS: 2 OFFICER EFF. DATE: 11/24/04 LOC : 153

ACCEPTED AR#: 215 02 3065 DATE: 01/20/15 LOUDOUN COUNTY

CURRENT AR#: 215 02 3065 DATE: 01/20/15 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
15	100.00					5,000



Commonwealth of Virginia  
**State Corporation Commission**

CISM0180

CORPORATE DATA INQUIRY

11/02/15

21:17:09

CORP ID: F130410 - 6 STATUS: 00 ACTIVE STATUS DATE: 09/04/15  
 CORP NAME: **DIVERSIFIED PROPERTY SERVICES OF VIRGINIA, INC. (U  
 SED IN VA BY: DIVERSIFIED PROPERTY SERVICES, INC.)**  
 DATE OF CERTIFICATE: 08/05/1997 PERIOD OF DURATION: INDUSTRY CODE: 00  
 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK  
 MERGER IND: CONVERSION/DOMESTICATION IND:  
 GOOD STANDING IND: Y MONITOR INDICATOR:  
 CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: BRENDAN R HANTZES  
 STREET: 3771 VERMACCHIA DR AR RTN MAIL:  
 CITY: CHANTILLY STATE : VA ZIP: 20151-0000  
 R/A STATUS: 2 OFFICER EFF. DATE: 08/09/02 LOC : 129  
 ACCEPTED AR#: 215 15 5962 DATE: 10/13/15 FAIRFAX COUNTY  
 CURRENT AR#: 215 15 5962 DATE: 10/13/15 STATUS: A ASSESSMENT INDICATOR: 0  

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
15	100.00	10.00				5,000

---

(Screen Id:/Corp\_Data\_Inquiry)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

10-31-2017

NUMBER

2701014794

BOARD FOR CONTRACTORS  
CLASS A CONTRACTOR  
\*CLASSIFICATIONS\* H/H

CORMAN CONSTRUCTION INC  
12001 GULFORD RD  
ANNAPOLIS JUNCTION, MD 20701-0160



*[Signature]*  
W. B. B...  
Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

CLASS A BOARD FOR CONTRACTORS  
CONTRACTOR

\*CLASSIFICATIONS\* H/H

NUMBER 2701014794 EXPIRES: 10-31-2017

CORMAN CONSTRUCTION INC  
12001 GULFORD RD  
ANNAPOLIS JUNCTION, MD 20701-0160



(FOLD)

DPOR-LIC (05/2015)

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Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (05/2015)

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA**

EXPIRES ON  
12-31-2015

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

NUMBER  
0407006418

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

PARSONS TRANSPORTATION GROUP INC  
ATTN: LICENSING  
4701 HEDGEMORE DRIVE  
CHARLOTTE, NC 28209



*Gordon N. Dixon*  
Gordon N. Dixon, Director

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(POCKET CARD)

**COMMONWEALTH OF VIRGINIA**

BOARD FOR APPEALS  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407006418 EXPIRES: 12-31-2015  
PROFESSIONS: ENG  
PARSONS TRANSPORTATION GROUP INC  
ATTN: LICENSING  
4701 HEDGEMORE DRIVE  
CHARLOTTE, NC 28209



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9960 Mayland Dr., Suite 400, Richmond, VA 23233

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON

02-29-2016

NUMBER

0411001226

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION



PARSONS TRANSPORTATION GROUP INC  
7447 CENTRAL BUSINESS PARK DR  
SUITE 100  
NORFOLK, VA 23513

*James W. DeBeard*  
James W. DeBeard, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411001226 EXPIRES: 02-29-2016  
PROFESSIONS: ENG  
PARSONS TRANSPORTATION GROUP INC  
7447 CENTRAL BUSINESS PARK DR  
SUITE 100  
NORFOLK, VA 23513



Status can be verified at <http://www.dpor.virginia.gov>

DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA**

**EXPIRES ON**  
02-29-2016

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

**NUMBER**  
0411001042

**BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION**

**PROFESSIONS: ENG**

**PARSONS TRANSPORTATION GROUP INC  
ATTN: LICENSING  
4701 HEDGEMORE DRIVE  
CHARLOTTE, NC 28209**



*Nick A. Christner*  
Nick A. Christner, Interim Director

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(POCKET CARD)

**COMMONWEALTH OF VIRGINIA**

**BOARD FOR APPLSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411001042 EXPIRES: 02-29-2016  
PROFESSIONS: ENG  
PARSONS TRANSPORTATION GROUP INC  
ATTN: LICENSING  
4701 HEDGEMORE DRIVE  
CHARLOTTE, NC 28209**



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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
12-31-2015

NUMBER  
0407005686

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ARC

KGP DESIGN STUDIO LLC  
1099 14TH ST NW  
STE 101-L  
WASHINGTON, DC 20005



*Nick A. Christner*  
Nick A. Christner, Interim Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA  
BOARD FOR APPLICANTS  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407005686 EXPIRES: 12-31-2015  
PROFESSIONS: ARC  
KGP DESIGN STUDIO LLC  
1099 14TH ST NW  
STE 101-L  
WASHINGTON, DC 20005



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**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA**

EXPIRES ON  
12-31-2015

NUMBER  
0407005442

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

ACCOMPONG ENGINEERING GROUP, LLC  
9510 IRON BRIDGE RD  
SUITE 200  
CHESTERFIELD, VA 23832



*Gordon N. Dixon*  
Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA  
BOARD FOR APELSCIDLA  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407005442 EXPIRES: 12-31-2015  
PROFESSIONS: ENG  
ACCOMPONG ENGINEERING GROUP, LLC  
9510 IRON BRIDGE RD  
SUITE 200  
CHESTERFIELD, VA 23832



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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
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COMMONWEALTH OF VIRGINIA**

EXPIRES ON  
12-31-2015

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

NUMBER  
0407002955

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

MCDONOUGH BOLYARD PECK INC  
3040 WILLIAMS DR., STE 300  
FAIRFAX, VA 22031



*Gordon N Dixon*  
Gordon N Dixon, Director

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(POCKET CARD)

**COMMONWEALTH OF VIRGINIA**

BOARD FOR AP/ELSC/DLA  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407002955 EXPIRES: 12-31-2015  
PROFESSIONS: ENG  
MCDONOUGH BOLYARD PECK  
3040 WILLIAMS DR., STE 300  
FAIRFAX, VA 22031



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10010 (7/11) 107028-3

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA

EXPIRES ON  
02-29-2016

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

NUMBER  
0411000606

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

MCDONOUGH BOLYARD PECK INC  
676 INDEPENDENCE PARKWAY  
SUITE 220  
CHESAPEAKE, VA 23320



*Nick A. Christner*  
Nick A. Christner, Interim Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA  
BOARD FOR APPEALS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000606 EXPIRES: 02-29-2016  
PROFESSIONS: ENG  
MCDONOUGH BOLYARD PECK INC  
676 INDEPENDENCE PARKWAY  
SUITE 220  
CHESAPEAKE, VA 23320



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9960 Mayland Dr., Suite 400, Richmond, VA 23233

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COMMONWEALTH OF VIRGINIA**

**EXPIRES ON  
02-29-2016**

**9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500**

**NUMBER  
0411000604**

**BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION**

**PROFESSIONS: ENG**

**MCDONOUGH BOLYARD PECK INC  
7400 BEAUFONT SPRING DRIVE  
BOULDERS II SUITE 403  
RICHMOND, VA 23225**



*Nick A. Christner*  
Nick A. Christner, Interim Director

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(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

(POCKET CARD)

**COMMONWEALTH OF VIRGINIA**

**BOARD FOR APPELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000604 EXPIRES: 02-29-2016  
PROFESSIONS: ENG  
MCDONOUGH BOLYARD PECK INC  
7400 BEAUFONT SPRING DRIVE  
BOULDERS II SUITE 403  
RICHMOND, VA 23225**



(DETACH HERE)

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
9960 Mayland Dr., Suite 400, Richmond, VA 23233**

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**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA**

**EXPIRES ON**

02-29-2016

**NUMBER**

0411000605

9960 Mayland Dr., Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
PROFESSIONS: ENG

MCDONOUGH BOLYARD PECK INC  
711D FIFTH ST NE  
ROANOKE, VA 24016



*Nick A. Christner*  
Nick A. Christner, Interim Director

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(POCKET CARD)

**COMMONWEALTH OF VIRGINIA**

BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000605 EXPIRES: 02-29-2016  
PROFESSIONS: ENG  
MCDONOUGH BOLYARD PECK  
711D FIFTH ST NE  
ROANOKE, VA 24016



(FOLD)

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA**

EXPIRES ON  
12-31-2015

NUMBER  
0407005942

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

UTILITY PROFESSIONAL SERVICES INC  
UTILITY PROS  
P O BOX 923  
COLONIAL BEACH, VA 22443



*Gordon N. Dixon*  
Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA**

EXPIRES ON  
02-29-2016

NUMBER  
0411000587

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, LS

A MORTON THOMAS AND ASSOCIATES INC  
100 GATEWAY CENTRE PKWY  
SUITE 200  
RICHMOND, VA 23235



*Nick A. Christner*  
Nick A. Christner, Interim Director

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(DETACH HERE)

(POCKET CARD) COMMONWEALTH OF VIRGINIA

**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA**

**EXPIRES ON**  
02-29-2016

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

**NUMBER**  
0411000586

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: LS, ENG

A MORTON THOMAS AND ASSOCIATES INC  
14900 CONFERENCE CENTER DR STE 180  
CHANTILLY, VA 20151



*Gordon N. Dixon*  
Gordon N. Dixon, Director

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(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

(POCKET CARD)

**COMMONWEALTH OF VIRGINIA**

BOARD FOR APPELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000586 EXPIRES: 02-29-2016  
PROFESSIONS: LS, ENG  
A MORTON THOMAS AND ASSOCIATES INC  
14900 CONFERENCE CENTER DR STE 180  
CHANTILLY, VA 20151



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**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
COMMONWEALTH OF VIRGINIA

EXPIRES ON

12-31-2015

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

NUMBER

0407004404

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

GEOCONCEPTS ENGINEERING INC  
19955 HIGHLAND VISTA DRIVE  
SUITE 170  
ASHBURN, VA 20147



*Gordon N. Dixon*  
Gordon N. Dixon, Director

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GEOCONCEPTS ENGINEERING INC  
19955 HIGHLAND VISTA DRIVE  
SUITE 170  
ASHBURN, VA 20147



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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION  
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Telephone: (804) 367-8500

**NUMBER  
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**REAL ESTATE APPRAISER BOARD  
APPRAISAL BUSINESS REGISTRATION**

**DIVERSIFIED PROPERTY SERVICES OF VIRGINIA INC  
20 E TIMONIUM ROAD  
SUITE 111  
TIMONIUM, MD 21093-0000**



*Jay W. DeBoer*  
Jay W. DeBoer, Director

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NUMBER: 4008001190 EXPIRES: 11-30-2016**

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TIMONIUM, MD 21093-0000**



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Telephone: (804) 387-8600

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**BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE**

DUNCAN KENNETH STEWART  
13318 RAILEY HILL DRIVE  
MIDLOTHIAN, VA 32114



*James W. DeBor*  
James W. DeBor, Director

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13318 RAILEY HILL DRIVE  
MIDLOTHIAN, VA 32114



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9960 Mayland Dr., Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

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BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE

CLIFFORD ALBERT ROBERTS  
4740 6TH STREET SOUTH  
ARLINGTON, VA 22204



*Gordon N. Dixon*  
Gordon N. Dixon, Director

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PROFESSIONAL ENGINEER LICENSE  
NUMBER: 0402020740 EXPIRES: 01-31-2016

CLIFFORD ALBERT ROBERTS  
4740 6TH STREET SOUTH  
ARLINGTON, VA 22204



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11-30-2016**

9960 Mayland Dr., Suite 400, Richmond, VA 23233  
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**DAMIEN GERARD JACKSON  
708 N AVE 53  
LOS ANGELES, CA 90042**



*J. W. DeBorja*  
By **W. DeBorja, Director**

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ARCHITECT LICENSE  
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**DAMIEN GERARD JACKSON  
708 N AVE 53  
LOS ANGELES, CA 90042**



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EXPIRES ON

10-31-2016

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0402048107

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE

ERIC JOHN GROSS  
1808 CHRISTIAN ST  
PHILADELPHIA, PA 19146



*James W. DeBorja*  
James W. DeBorja, Director

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*Systems, new intersection traffic signal, ADA sidewalks, installed storm drainage system along Washington Street, environmental, including permits.*

**Project Name:** Design-Build I-64 to Route 623 Widening & Improvements, Short Pump, VA **Dates:** May 2015-Present

**Project Role:** Division Manager **With Current Firm?** Yes

As **Division Manager**, Chris oversees the project team, attends onsite progress meetings, tracks the schedule, safety compliance, and allocates/reviews crew and equipment resources for this project that widens I-64 from a 4 to a 6 lane divided highway and I-64/Route 623 interchange improvements for 4.52 miles. **Client: VDOT | Cost: \$33.2 Million**

*Relevancy: VDOT Design-Build, traffic control devices, Intelligent Transportation Systems, traffic management plan, roadway improvements, working with utilities, MOT, QA/QC, public involvement/relations, stakeholders, survey, environmental, including SWM, permitting, geotechnical, hydraulics, construction engineering & inspection.*

**Project Name:** Austin Pike Interchange, Montgomery County, Ohio **Dates:** 2009-2010

**Project Role:** Project Manager/Construction Manager **With Current Firm?** No

As **Project Manager/Construction Manager**, Chris was the primary contact with the owner, supervised superintendent, foremen, and engineer, managed construction, was involved in public outreach meetings with localities, created/updated the schedule, met milestones, supervised subcontractors, material purchases, ensured plans/specifications and QC compliance, cost control and EEO goals. He integrated signalization with stakeholders, including the owner and local municipalities, partnered with the owner, three adjacent municipalities, and local developers for this multi-phased construction of heavily-travelled connector roads with complex traffic control consisting of constructing a Continuous Flow Intersection (CFI) with displaced crossover left turn lane and a new diamond interchange with excavation, retaining and MSE walls, bridge overpass replacement with substructure concrete, bridge deck concrete and parapet construction, box culverts, drainage pipe and structures under drain, water main installation, sanitary sewer gravity and force main pipe/structures, asphalt pavement, noise walls, lighting, signalization and fiber optic communication lines. Utility relocations included gas, fiber optic, electrical, water, sanitary, and traffic signal interconnect fiber. MOT consisted of multi-phased CFI, a new interchange with I-75, urban lane closures, and traffic switches. Chris led the project to successful completion overcoming challenges, including adding an intersection due to a large adjacent development project and a large box culvert due to a drainage re-design. The new interchange ramps opened ahead of schedule. **Client: Ohio DOT | Cost: \$22 Million**

*Relevancy: Traffic control devices, communications installation & upgrades, systems integration, transportation management plan, roadway improvements, survey, environmental, including permitting, geotechnical, milling & overlay of existing pavement, hydraulics, storm drainage & SWM facilities, signing, striping & pavement marking, ROW, utilities, ADA & sidewalk upgrades, stakeholder/third party coordination, public involvement/relations, QA/QC, construction engineering & inspection, safety and security plan compliance, testing, curb & gutter.*

**Project Name:** I-70 Reconstruction, Columbus, OH **Dates:** 2010-2012

**Project Role:** Project Manager/Construction Manager **With Current Firm?** No

As **Project Manager/Construction Manager**, Chris was the primary contact with the owner, supervised superintendent, foremen, engineer, field labor, and subcontractors, managed construction, created/updated the schedule, met milestones, supervised subcontractors, material purchases, ensured plans/specifications and QC compliance, cost control and EEO goals. Project was a 6-mile widening and phased reconstruction of I-70 (limited access highway) and two highway interchanges with pavement reconstruction, concrete and asphalt pavement demolition, installed cement stabilized subgrade, under drain, drainage pipe/structures, mass excavation/grading, guardrail, seeding/mulching, aggregate base course and asphalt pavement. Included crossover pavement and split lane phased construction. **Client: Ohio Dept. of Transportation | Cost: \$27 Million**

*Relevancy: Traffic control devices, transportation management plan, public involvement/relations, utilities, roadway improvements, survey, environmental, including permitting, geotechnical, milling & overlay of existing pavement, hydraulics, storm drainage & SWM facilities, signing, striping, & pavement marking, ROW, QA/QC, construction engineering & inspection, safety & security plan compliance, and testing.*

**Project Name:** SR 22/3 Project/US 68 Project, Wilmington, Ohio **Dates:** 2011

**Project Role:** Project Manager/Construction Manager **With Current Firm?** No

As **Project Manager/Construction Manager**, Chris was the primary contact with the owner, supervised superintendent, foremen and engineer, and attended a City Council Meeting that was open to the public where he fielded questions. Project included pavement rehabilitation and streetscapes through downtown Wilmington with curb, sidewalk and pavement demolition, installing new curb and sidewalk and asphalt pavement milling and installation. **Client: Ohio Dept. of Transportation | Cost: \$4 Million**

*Relevancy: Urban setting, roadway improvements, survey, environmental, including permitting, milling & overlay of existing pavement, traffic control devices, signing, striping, & pavement marking, ROW, utilities, landscaping, ADA & sidewalk upgrades, stakeholder/third party coordination, public involvement/relations, QA/QC, construction engineering & inspection, safety and security plan compliance, & testing.*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUME FORM**

<b>Brief Resume of Key Personnel anticipated for the Project.</b>									
a. Name & Title: <b>Duncan Stewart, PE, CCM, PSP, Engineer Project Manager &amp; Richmond Branch Operation Manager</b>									
b. Project Assignment: <b>Quality Assurance Manager</b>									
c. Name of Firm with which you are now associated: <b>MBP</b>									
<p>d. Employment History: With this Firm <u>16</u> Years With Other Firms <u>2</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p><b>Engineer Project Manager, and MBP's Richmond Branch Operations Manager, MBP Inc..... 1999-Present</b> Duncan served multiple roles for clients and has been MBP's Richmond Branch Operations Manager since 2011. He has experience in quality assurance and project management for VDOT construction. He served VDOT as part of their consultant CEI staff on high-profile projects in the Richmond District and as the Project Manager for MBP's Final Estimate review contract for over seven years. In these roles he gained expert knowledge of VDOT's inspection and record-keeping requirements and is often called on by VDOT for support and training.</p> <p>Since 2008, Duncan has been a Quality Assurance Manager (QAM) on six VDOT design-build projects, totaling over \$75 million in construction value. He has supported VDOT in providing IA/IV oversight of design-build projects, as well as project controls support to the Ohio Dept. of Transportation for their design-build program.</p> <p>Duncan has also worked for the City of Richmond's Traffic Engineering section continuously since 2011. In this capacity he has become extremely familiar with key decision makers and policies of the City. He has also served as the Project Manager for signalized intersection projects on Broad Street and has worked with and for Kimley-Horn and Associates when they were the BRT's Engineer of Record.</p>									
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>Royal Military College of Canada, Kingston, Ontario, Canada   B.Eng.   1997   Civil Engineering</b>									
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>2002   Virginia Professional Engineer   #036991</b> <b>2014   Certified Construction Manager (CCM)   CMCI ID: 2423</b> <b>2015   Planning &amp; Scheduling Professional (PSP)  1490</b>									
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> <li><i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li> <li><i>Note whether experience is with current firm or with other firm.</i></li> <li><i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li> </ol> <p><b>(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)</b></p> <table border="1"> <tr> <td><b>Project Name:</b></td> <td>GRTC Facility Upgrade, Richmond, VA</td> <td><b>Dates:</b></td> <td>2011-2013</td> </tr> <tr> <td><b>Project Role:</b></td> <td>Quality Manager</td> <td><b>With Current Firm?</b></td> <td>Yes</td> </tr> </table> <p>Maintenance facility renovation, including safety systems upgrade, converting fleet to natural gas, and installing a new generator.</p> <p>As <b>Quality Manager</b>, Duncan supervised the project schedule, budget, safety and QC/QA programs. He prepared a detailed preliminary QA/QC plan, schedule and budget, managed the final design review, and supported the procurement process. Duncan and his team provided full-time owner's representative services during the construction phase. Notably, under his leadership, the MBP team addressed significant design and quality issues during construction and kept the project on-track. Duncan also oversaw developing the commissioning plan and commissioning of the final mechanical and electrical systems. As GRTC's representative, he became uniquely familiar with their management team, key architect, and engineering consultants, as well as their policies and procedures. <b>Client: GRTC   Cost: \$1.5 Million</b></p> <p><b>Relevancy: GRTC project, extensive electrical upgrades, controls system integration, commissioning, City of Richmond permitting, environmental, architectural features, QA/QC, stakeholder &amp; third party coordination.</b></p>		<b>Project Name:</b>	GRTC Facility Upgrade, Richmond, VA	<b>Dates:</b>	2011-2013	<b>Project Role:</b>	Quality Manager	<b>With Current Firm?</b>	Yes
<b>Project Name:</b>	GRTC Facility Upgrade, Richmond, VA	<b>Dates:</b>	2011-2013						
<b>Project Role:</b>	Quality Manager	<b>With Current Firm?</b>	Yes						

<b>Project Name:</b>	Design-Build Virginia Capital Trail, Henrico and Charles City, VA	<b>Dates:</b>	2012-2015
<b>Project Role:</b>	Quality Assurance Manager (QAM)	<b>With Current Firm?</b>	Yes
<p>Fast track construction of 14 miles of multi-use asphalt pathway, including 10 bridges. As <b>Quality Assurance Manager</b>, Duncan supervised the QA inspection and assured materials used and work performed were tested and inspected per the QA/QC Plan. He monitored the contractor's QC program, coordinated Preparatory Inspection Meetings, reviewed daily inspection reports, assurance of materials testing requirements, coordinated IA/IV testing/inspection, reviewed materials documentation, including approval of Source of Materials, and final inspection and acceptance of project.</p> <p>In this capacity, Duncan became extremely familiar with key decision makers and policies of the Richmond District, particularly as related management of Design-Build projects.</p> <p><b>Client: VDOT   Cost: \$14 Million</b></p> <p><b>Relevancy:</b> <i>QAM role, VDOT Richmond District, Design-Build, Henrico County, QA/QC, environmental, including permitting, federally funded, public involvement, stakeholder &amp; third-party coordination, stormwater management and storm drainage.</i></p>			
<b>Project Name:</b>	Design-Build I-64 Active Traffic and Safety Management System, Afton, VA	<b>Dates:</b>	2014-Ongoing
<b>Project Role:</b>	Quality Assurance Manager (QAM)	<b>With Current Firm?</b>	Yes
<p>As <b>Quality Assurance Manager</b>, Duncan ensured all work and materials, testing, and sampling were performed in conformance with contract requirements and "approved for construction" plans/specifications. He regularly coordinated between VDOT and the contractor's QC staff, as well as notifying VDOT, tracking and resolving QC issues. <b>Client: VDOT   Cost: \$4.8 Million</b></p> <p><b>Relevancy:</b> <i>QAM role, VDOT Design-Build, involved extensive coordination with key VDOT Operations managers, and installed Intelligent Transportation System (ITS) related features, including fiber optic cable, conduit, electrical cabling, poles, foundations, digital signs, monitoring equipment, controllers, switches, battery back-ups, weather stations and integration of communication and electrical networks with VDOT and third parties.</i></p>			
<b>Project Name:</b>	Design-Build I-64/Route 15 (Zion Crossroads) Interchange Improvements, Zion Crossroads, VA	<b>Dates:</b>	2012-2014
<b>Project Role:</b>	Quality Assurance Manager (QAM)	<b>With Current Firm?</b>	Yes
<p>As <b>Quality Assurance Manager</b>, Duncan established/implemented the QA/QC Plan, supervised MBP and sub-consultant inspectors and technicians, oversaw QC construction inspection, materials testing, and sampling of work performed by the design-builder's quality control, verified quality compliance, seeing that there were minimal interruptions due to quality issues, and that the project was delivered to the contract requirements. He oversaw the quality assurance and quality control (QA/QC) program, materials testing, and IA/IV interactions with VDOT and FWHA. The project improves the I-64 Interchange on Route 15 at Zion Crossroads, reconstructs a stretch of Route 15, improving the Route 15 and Spring Creek Parkway intersection and realigning the standard diamond interchange into a Diverging Diamond Interchange (DDI) which is the first one in Virginia. <b>Duncan worked with Design-Builder Corman and Lead Design Parsons where he was highly commended for his services. Client: VDOT   Cost: \$6.9 Million</b></p> <p><b>Relevancy:</b> <i>QAM Role, VDOT Design-Build, roadway improvements, environmental, permitting, geotechnical, TMP, ROW, stakeholder/third party coordination, public relations, QA/QC, construction engineering &amp; inspection. The complex MOT, concrete, utility relocation, asphalt paving and signalized intersection work completed in a tight/compressed schedule, is very similar to the work and risks associated with the GRTC BRT project.</i></p>			
<p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>			
<p><b>h.</b> For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.</p>			
<b>CURRENT ASSIGNMENTS</b>	<b>ROLE</b>	<b>ANTICIPATED DURATION</b>	
VDOT Virginia Capital Trail	QAM	Present - November 2015	
VDOT Route 35 Bridge	QAM	Present – November 2015	
VDOT I-64 ATSMS	QAM	Present – January 2016	
VDOT Statewide Support	PM*	Present - March 2017	
VDOT Region 3 Finals	PM*	Present - June 2018	
<p><b>*PM support is required on a limited basis, averaging approximately two hours per week.</b></p>			

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUME FORM**

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Clifford A. Roberts, PE, Principal Project Manager**

b. Project Assignment: **Design Manager**

c. Name of Firm with which you are now associated: **Parsons**

d. Employment History: With this Firm 2.5 Years With Other Firms 28.5 Years  
Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):  
Cliff has over 30 years of experience in the design, management, and construction of transportation projects, including roadway, BRT, light rail, automated people movers, and freight rail. His experience includes design-build and spans projects with a wide range of technical disciplines, management of sub-consultants, project scheduling, inter-agency coordination, and public participation. He is experienced with projects that have multi-agency responsibility for funding, operations and maintenance. Cliff participated in projects for many agencies, including Virginia Dept. of Transportation (VDOT), Virginia Dept. of Rail and Public Transportation (DRPT), the Arlington County Transit Bureau, Virginia Railway Express (VRE), Fairfax County Dept. of Transportation, Washington Metropolitan Area Transit Authority (WMATA), Maryland Mass Transit Administration (MTA), and CSX.

**Principal Project Manager, Parsons.....2013–Present**  
Management project roles for VDOT, transit projects for Arlington County, a design-build CSO tunnel and a design-build rail tunnel.

**Technical Director, AECOM..... 2011–2013**  
Provided technical guidance and management for a wide range of project types, sizes and delivery methods, including BRT, LRT and roadway projects.

**Design and Engineering Manager, Jacobs..... 2006-2011**  
As part of the program management team for a multi-billion dollar PPTA, Cliff was responsible for design oversight of the design-build contractor and agency coordination.

**Senior Project Manager, HNTB.....2000–2006**  
Deputy Project Manager for Dulles Airport Aero train tunnels and fixed facilities; Project Manager for VDOT & Fairfax County roadway improvement projects.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:  
**Steven Institute of Technology, Hoboken, NJ | Bachelor of Engineering | 1984**

f. Active Registration: Year First Registered/ Discipline/VA Registration #:  
**1990 | Virginia PE | #20740      1994 | Maryland PE | #21277**

g. Document the extent and depth of your experience and qualifications relevant to the Project.  
1. *Note your role, responsibility, and specific job duties for each project, not those of the firm.*  
2. *Note whether experience is with current firm or with other firm.*  
3. *Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.*

**(List at least three (3), but no more than five (5) relevant projects\* for which you have performed a similar function.)**

<b>Project Name:</b>	Design-Build Dulles Corridor Metrorail Project (Silver Line), Dulles, VA	<b>Dates:</b>	2006-2011
<b>Project Role:</b>	Design and Engineering Manager for Program Management Team	<b>With Current Firm?</b>	No

As **Design and Engineering Manager for the Program Management Team**, Cliff was responsible for design oversight of the design-build contractor to ensure the design met the project technical, regulatory and contractual requirements, including compliance with the FEIS and Quality Assurance Plan. Responsible for design staff located in the project office and in eight other remote offices.

Project was an FTA New Starts program grantee and required compliance with FTA documentation, reporting and monitoring requirements. Oversight and management of design of five passenger stations, including locating and design of bus bays and canopies at three stations and the new bus bays constructed on the ramp from the Dulles Toll Road to Wiehle Avenue serving the Wiehle-Reston East Station. These bus bays required a high level of coordination between VDOT (owner of the highway ramp), WMATA (ultimate owner/operator) and the adjacent property owner to maximize potential redevelopment. Coordinated configuration of the Spring Hill Station Kiss and Ride Lot to facilitate future joint development. There was roadway construction, including reconstruction of Route 7 through Tyson's Corner

transforming it into a more pedestrian-friendly urban boulevard, including ADA compliant sidewalks, street crossings, and bus stop access, erosion and sediment control, and new stormwater management facilities in the median of Route 7 and along Dulles Toll Road. High level coordination and interaction with funding agencies, permit agencies, and other stakeholders, including VDOT, Fairfax County, WMATA, Virginia Dept. of Conservation and Recreation (DCR), Virginia Dept. of General Services, Bureau of Capital Outlay Management (BCOM). **Client: Metropolitan Washington Airports Authority (MWAA) | Cost: \$2 Billion**

**Relevancy:** *Design-Build transit project, third party delivery, FTA oversight, work in VDOT right-of-way, roadway reconstruction, stormwater management, utility relocation, transit bus stations, roadway MOT, maintenance of bus stops, maintenance of pedestrian facilities, landscaping, traffic signals, communications, ITS, signing & pavement markings, ADA compliant pedestrian facilities, coordination with adjacent land owners, QA/QC; construction engineering & inspection; compliance with safety & security plans; testing.*

<b>Project Name:</b>	Ballston Multimodal Improvements, Arlington, VA	<b>Dates:</b>	2014-Present
<b>Project Role:</b>	Project Manager	<b>With Current Firm?</b>	Yes

Developed improvement plans to improve modes, including transit, bus and Metrorail, taxi, pedestrian, bicycle and automobiles. Developed concepts to improve transit facilities, such as bus stops, information systems, lighting, seating, and the related utility connections; new storm drainage system, stormwater management facilities, bicycle storage building, pedestrian circulation areas; public open space and gathering areas; and landscaping. After public meetings and comments from stakeholders and the County, a preferred concept was designed in 30%, 60%, 90% and 100% completion phases.

As **Project Manager**, Cliff coordinated the design disciplines, provided single point of contact communication between the design team and client and third parties, supervised production of drawings, specifications and cost estimates, led Technical, Stakeholder and Public meetings, prepared/implemented the design QA/QC Plan, and tracked progress to adhere to budget and schedule. **Client: Arlington County Transit Bureau | Cost: \$4 Million**

**Relevancy:** *Third party delivery, transit bus stations, including incorporating WMATA Next Bus information, work in VDOT right-of-way, roadway reconstruction, stormwater management & green infrastructure, utility relocation, roadway MOT, maintenance of bus stops & pedestrian facilities, traffic signals, communications, signing & pavement markings, ADA compliant pedestrian facilities, landscaping, QA/QC, coordination with the adjacent land owner & the Ballston Business Improvement District & FTA funding.*

<b>Project Name:</b>	Corridor Cities Transitway, Montgomery County, MD	<b>Dates:</b>	2011-2013
<b>Project Role:</b>	Senior Technical Advisor	<b>With Current Firm?</b>	No

A 15 mile exclusive right-of-way transitway to accommodate high frequency Bus Rapid Transit with the ability to convert to future light rail use. As **Senior Technical Advisor**, Cliff participated in evaluating light rail transit and BRT alternatives to reduce utility conflicts and developing aerial and at-grade passenger station concepts and station access concepts. **Client: Maryland Mass Transit Administration (MTA) | Cost: \$500 Million**

**Relevancy:** *BRT alignment, BRT Stations, utility relocation roadway design.*

<b>Project Name:</b>	Broad Street Corridor Alternatives Analysis and Environmental Assessment Richmond, VA	<b>Dates:</b>	2013
<b>Project Role:</b>	Senior Transit/Roadway Engineer	<b>With Current Firm?</b>	Yes

Conducted an Alternatives Analysis (AA) and Environmental Assessment (EA) to identify/evaluate transit improvements to the Broad Street Corridor in Richmond, VA. Developed capital and operating costs in addition to identifying any fatal flaws prohibiting the project from moving forward. BRT was determined to be the most appropriate locally-preferred alternative for providing high capacity transit along the Broad Street corridor. Parsons was the prime consultant who developed the problem statement, definition of alternatives, evaluation of alternatives, conceptual design, capital and operating cost estimating, financial planning, station area and land use planning, and environmental impact assessment. Public outreach included public meetings, web site, social media, e-mail, and print notifications.

As **Senior Transit/Roadway Engineer**, Cliff provided constructability reviews, review of cost estimates based on conceptual level engineering and high level review of the Alternatives Analysis and Environmental Assessment. **Client: Dept. of Rail and Public Transit (DRPT) | Cost: \$1.4 Million (fee)**

**Relevancy:** *Planning Phase of the GRTC BRT project, BRT alignment, BRT Stations, utility relocation, roadway design, FTA requirements.*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUME FORM**

<b>Brief Resume of Key Personnel anticipated for the Project.</b>	
a. Name & Title: <b>John "Jake" Leffler, EIT</b>	
b. Project Assignment: <b>Construction Manager</b>	
c. Name of Firm with which you are now associated: <b>Corman Construction, Inc.</b>	
d. Employment History: With this Firm <u>6</u> Years With Other Firms <u>5</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>Project Manager/Sr. Project Engineer/Project Engineer/Construction Quality Control Manager/Construction Manager/Quality Control Manager/Deputy Construction Manager- Corman Construction.....2009-Present</b> Jake has been assigned to Design-Build and Design-Bid-Build roadway, sewer, and pump station projects where he manages project teams, schedule, budget, safety, and quality control, works with clients and engineers, attends onsite progress meetings, negotiates change orders, maintains records, provides material procurement, coordinates subcontractors, oversees field crews, identifies issues, and performs troubleshooting with minimal cost and schedule impacts. <b>Project Engineer - Manhattan Construction Company, Fairfax, VA.....2005-2009</b> Jake coordinated materials, labor, schedules, and methods to optimize construction on a Public Safety and Transportation Operations Center and Forensics Facility project in Fairfax, VA and on a Defense Intelligence Analysis Center Addition in Bolling Air Force Base in Washington, DC. He worked with subcontractors, clients, and architects to resolve issues timely and cost-effectively. He prepared, reviewed, and processed RFIs and submittals, submitted client billings, reviewed subcontractor payment applications, reviewed drawings for constructability/ resolved conflicts, performed quality control inspections and oversaw punch list operations. <b>Engineering Technician/Intern - Mactec Engineering, Richmond, VA.....2004-2005</b> Jake performed onsite preconstruction geotechnical exploration, prepared proposals and technical reports, coordinated subcontractors and utilities, and oversaw project analyses.	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>University of Virginia / BS / 2005 /Civil Engineering</b>	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>VDOT Erosion &amp; Sediment Control Contractor Certification #1-05007 Commonwealth of Virginia Responsible Land Disturber #RLD02626</b>	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)</b>	
<b>Project Name:</b>	Design-Build I-64 Route 15 (Zion Crossroads) Interchange Improvements, Zion Crossroads, VA
<b>Dates:</b>	Sept. 2013-May 2014
<b>Project Role:</b>	Construction Manager/Quality Control Manager
<b>With Current Firm?</b>	Yes
As <b>Construction Manager</b> , Jake oversaw construction to close-out for this project that improves the I-64 Interchange on Route 15 at Zion Crossroads, reconstructs a stretch of Route 15, improving the Route 15 and Spring Creek Parkway intersection and realigning the standard diamond interchange into a Diverging Diamond Interchange (DDI) which is the first one in Virginia. He managed the project team, equipment and material procurement, work plans, budgets, and resources; coordinated subcontractors; monitored schedules; conducted progress meetings; minimized exposures and risks; mitigated issues; reviewed/approved deliverables, RFIs, and change orders; administered contracts; oversaw budget, safety, and quality compliance; and ensured project was completed per contract. He coordinated issue resolutions, managed submittal procedures and material procurement, was the main contact for operations and procedures, and participated in design development and reviews. Jake also supervised the signalization and signage work which kept the project on schedule. As <b>Quality Control Manager</b> , Jake provided QC inspection and testing and assessed construction processes relative to the applicable standards/specifications. With the QC staff, he performed independent QC testing in accordance with the QA/QC Plan and maintained inspections and testing of materials documentation in the project records. Jake coordinated with the Quality Assurance Manager and provided monthly scheduling and payment application tasks. He was instrumental in planning and executing the successful switch over of	

the first DDI in Virginia. *Jake worked with Duncan Stewart who was the QAM and Parsons where the team worked extremely well together as evidenced by the 2015 DBIA National and Mid-Atlantic Awards of Merit. Client: VDOT | Cost: \$6.9 Million*

*Relevancy: VDOT Design-Build, roadway improvements, environmental, permitting, geotechnical, TMP, ROW, stakeholder/third party coordination, public relations, QA/QC, construction engineering & inspection. The complex MOT, concrete, utility relocation, asphalt paving and signalized intersection work completed in a tight/compressed schedule is very similar to the work and risks associated with the GRTC BRT project.*

<b>Project Name:</b>	Design-Build I-64 & Route 623 Widening & Improvements, Short Pump, VA	<b>Dates:</b>	May 2014-Present
<b>Project Role:</b>	Construction QC Manager/Deputy Construction Manager	<b>With Current Firm?</b>	Yes

As **Construction Quality Control Manager** for this project that widens I-64 from a four lane to a six lane divided highway and improvements to the I-64/Route 623 interchange for 4.52 miles, Jake oversees the QC team to assure work is in compliance with VDOT’s Minimum Requirements for QA/QC on DB and P3 Projects. He provides QC inspection and testing and assesses construction processes relative to applicable standards/specifications. Jake assures QA/QC inspections and testing of materials documentation are maintained in the project records, manages scheduling inspection and testing, holds weekly QC meetings, coordinates preparatory meetings with the Quality Assurance Manager (QAM), and maintains QC records for submission to the QAM monthly. As **Deputy Construction Manager**, Jake assists from start up to close out managing the project team, equipment and material procurement, work plans, budgets, and resources, coordinates subcontractors, monitors schedules, leads progress meetings, minimizes exposures and risks, mitigates issues, reviews/approves deliverables, RFIs, and change orders, administers subcontractor contracts, oversees budget, safety, and quality compliance, and ensures project is completed per contract. He coordinates issue resolutions, manages submittal procedures and material procurement, is a secondary contact for operations and procedures, and participates in design development and reviews. **Client: VDOT | Cost: \$33.2 Million**

*Relevancy: VDOT Design-Build, traffic control devices, Intelligent Transportation Systems, traffic management plan, roadway improvements, working with utilities, MOT, QA/QC, public involvement/relations, stakeholders, survey, environmental, including SWM, permitting, geotechnical, hydraulics, construction engineering & inspection.*

<b>Project Name:</b>	Downtown Expressway Open Road, Richmond, VA	<b>Dates:</b>	June 2011-August 2013
<b>Project Role:</b>	Sr. Project Engineer	<b>With Current Firm?</b>	Yes

As **Sr. Project Engineer** for this fast-track, multi-phase project that widens an existing toll plaza and adds three open road toll lanes to the westbound Downtown Expressway, one of the main arteries heading out of downtown Richmond, Jake worked with VDOT and adjacent contractors in achieving project milestones, which were successfully met. Challenges included keeping traffic moving, complex detours, multiple phases with multiple traffic pattern changes, and getting materials and subcontractors to their assigned locations. Jake provided project management, monitored construction, safety and quality standards, ensured conformance to plans/specifications, daily planning and CPM schedules, updated monthly schedules and reviewed two-week look ahead schedules with the Superintendent, attended onsite progress meetings, supervised and coordinated submittals / drawings, subcontractor / supplier coordination, material procurement, cost control, budgets, negotiated change orders, worked with clients and engineers, identified issues and field troubleshooting with minimal cost and schedule impacts, and prepared invoices and subcontracts. **Client: Richmond Metropolitan Authority | Cost: \$8.2 Million**

*Relevancy: Roadway improvements, survey, environmental, including permitting, geotechnical, milling & overlay of existing pavement, hydraulics, storm drainage and SWM facilities, traffic control devices, communication installation and upgrades, systems integration, Traffic Management Plan, signing, striping and pavement marking, utilities, landscaping, stations and platforms, Intelligent Transportation Systems, including Closed Circuit TV, Emergency Phones, ADA and sidewalk upgrades, stakeholder and third party coordination, public involvement/relations, construction engineering and inspection, and testing.*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

CURRENT ASSIGNMENTS	ROLE	ANTICIPATED DURATION
Design-Build I-64, Route 623 Widening & Improvements	Construction QC Manager/ Deputy Construction Manager	11/20/15

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUME FORM**

<b>Brief Resume of Key Personnel anticipated for the Project.</b>	
a. Name & Title: <b>Damien Jackson, RA, LEED AP BD+C, Principal Architect</b>	
b. Project Assignment: <b>Lead Architect</b>	
c. Name of Firm with which you are now associated: <b>Parsons</b>	
d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>8</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):	
<b>Principal Architect, Parsons</b> .....	<b>2010-Present</b> Design Segment Manager; Station Architect; Facility Architect
<b>Designer, AECOM</b> .....	<b>2007-2010</b> Project Architect; Construction Administration; Entitlements
<b>Designer, Stenfors Associates</b> .....	<b>2005-2007</b> Building Designer
<b>Designer, Acheson Doyle Partners</b> .....	<b>2000-2002</b> Building Designer, Construction Administration
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>University of California, Los Angeles, CA   Master of Architecture   2005   Architecture</b> <b>Columbia University, New York, NY   Bachelor of Arts   2000   Architecture</b>	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>2014   Virginia Registered Architect   0401016913</b> <b>2011   California Registered Architect   c32902</b> <b>Maryland Registered Architect   17764</b> <b>Washington Registered Architect   11042</b>	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)</b>	
<b>Project Name:</b> Design-Build Metro Gold Line Foot Extension, LA, CA	<b>Dates:</b> 2011- 2015
<b>Project Role:</b> Lead Architect	<b>With Current Firm?</b> Yes
Design and construction of the Metro Gold Line Foothill Extension from Pasadena to Azusa, including final design and construction of 11.5 miles of track, utilities, crossings, and systems; six LRT passenger stations; 12 new light rail and three new freight railroad bridges; and a 25-acre light rail maintenance facility that will include a storage yard and a maintenance and repair shop. The facilities design includes a 120,000 SF Maintenance and Operations (M&O) Facility, which is expected to achieve U.S. Green Building Council (USGBC) LEED Gold certification. Parsons is providing engineering and construction support services.	
Damien was the <b>Lead Architect</b> for the six new passenger stations. He led the architectural design, including station canopies and windscreens, station and streetscape site furnishings, wayfinding signage, ADA compliance for the stations and station access. Damien coordinated the design and production of architectural; structural; mechanical, electrical, and plumbing (MEP); signage, landscape and irrigation drawings and complete construction specifications. He conducted regular meetings with the client and third parties. During construction, Damien continued to support the joint venture with design services, and coordinating new design packages and change orders. <b>Client: Foothill Transit Constructors (FTC)   Cost: \$486 Million</b>	
<b>Relevancy: Design-Build transit project, LRT passenger stations; pedestrian access to stations; wayfinding signage; ADA, code, &amp; criteria compliance, coordination with real time transit vehicle arrival information displays, CCTV, Emergency Phones &amp; other surveillance systems; landscaping, stakeholder &amp; third party coordination; public involvement/ relations; QA/QC.</b>	
<b>Project Name:</b> Design-Build Mid-City Exposition Light Rail Transit, Los Angeles, CA	<b>Dates:</b> 2010- 2013
<b>Project Role:</b> Architect	<b>With Current Firm?</b> Yes
An 8.6-mile double-track LRT extension to the existing metro system in Los Angeles. Construction entailed nine new passenger stations measuring 270-ft. long. Three of the passenger stations are on elevated structures crossing major arterials. The station design integrated operating systems, including train control and grade-crossing warnings, radio,	

telephone, public address, variable message signs (VMS), closed-circuit televisions (CCTV), supervisory control and data acquisition (SCADA), and fare collection. The alignment is heavily landscaped to parkway standards with bike paths and park-and-ride surface lots, along with a 500-space parking structure.

As **Architect**, Damien coordinated a team of subconsultants during construction of 10 stations and 8.6 miles of landscape design. He coordinated the complete facility design production for a new station, including architectural; structural; mechanical, electrical, and plumbing (MEP); signage; and landscape and irrigation design. **Client: Flatiron Fluor Parsons JV (FFP) | Cost: \$900 Million**

**Relevancy:** *Design-Build transit project, LRT passenger stations; pedestrian access to stations; wayfinding signage; ADA, code, & criteria compliance, coordination with real time transit vehicle arrival information displays, CCTV, Emergency Phones & other surveillance systems; landscaping, QA/QC.*

<b>Project Name:</b>	Design-Build Purple Line Extension (Westside Subway) Phase 1, Los Angeles, CA	<b>Dates:</b>	2015-present
<b>Project Role:</b>	Station Architect, Design Unit Manager	<b>With Current Firm?</b>	Yes

The first phase will lay a 3.9-mile extension from the current terminus at Wilshire/Western in Los Angeles to three new stations in Los Angeles and Beverly Hills: Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. The project will increase regional mobility and improve connectivity throughout the Metro system. Parsons is the lead designer to the joint venture. Damien is the **Lead Architect** and **Design Unit Manager** for the first of the three new stations of this alignment. He is overseeing the design coordination of all disciplines involved in the station design and related civil and utilities improvements, as well as the packaging and submittal of all design documents. During the proposal phase, Damien was the design task force lead for the facilities and stations for the winning submittal. **Client: Skanska| T aylor| Shea Joint Venture (STS) | Cost: \$1.6 Billion**

**Relevancy:** *Design-Build transit project, passenger stations; pedestrian access to stations; wayfinding signage; ADA, code, & criteria compliance, coordination with real time transit vehicle arrival information displays, CCTV, Emergency Phones & other surveillance systems; QA/QC.*

<b>Project Name:</b>	Vermont Avenue Corridor Bus Rapid Transit Technical Study  Los Angeles, CA	<b>Dates:</b>	2015-present
<b>Project Role:</b>	Station Architect	<b>With Current Firm?</b>	Yes

Parsons is developing a technical study and conceptual engineering plans for the 12.5-mile north-south corridor which is the second-busiest bus corridor in LA County with 50,000 weekday boardings. The project involves analysis of the corridor for potential bus rapid transit service, evaluation of the project's competitiveness for Federal Transit Administration's Small Starts funding, travel demand/ridership forecasting, analysis of bus and traffic operations, traffic and parking analysis, guideway layout and plan development, and station layout and urban design. It also involves extensive coordination with LA Metro, the City of Los Angeles, the Federal Transit Administration, and local stakeholders. As a **Station Architect**, Damien is contributing to producing the conceptual engineering plans. **Client: Los Angeles County Metropolitan Transportation Authority | Cost: \$3 Million (fee)**

**Relevancy:** *BRT passenger stations; pedestrian access to stations; wayfinding signage; ADA, code, & criteria compliance; landscaping, stakeholder & third party coordination; public involvement/ relations; QA/QC, & FTA Requirements.*

<b>Project Name:</b>	Columbia Pike Transit Stations  Arlington , VA	<b>Dates:</b>	2014 - 2015
<b>Project Role:</b>	Architect	<b>With Current Firm?</b>	Yes

Design of eight ADA compliant transit stations for current use with standard Metro busses and designed to be used for potential future BRT or Streetcar. Canopy and station element design provides a unique transit brand for Columbia Pike in Arlington, VA and are ADA compliant. Includes accommodation of Metro Next Bus information, wayfinding signage and lighting.

As project **Architect**, Damien prepared conceptual and final design for the station canopies, canopy supports and windscreens, and site furnishings. **Client: Arlington County Transit Bureau | Cost: \$12 Million**

**Relevancy:** *BRT passenger stations; pedestrian access to stations; wayfinding signage; ADA, code, & criteria compliance; landscaping; coordination with real time bus arrival information displays.*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUME FORM**

<b>Brief Resume of Key Personnel anticipated for the Project.</b>	
a. Name & Title: <b>Eric J. Gross, PE, Sr. Project Manager</b>	
b. Project Assignment: <b>Systems Engineer</b>	
c. Name of Firm with which you are now associated: <b>Parsons</b>	
d. Employment History: With this Firm <u>20</u> Years With Other Firms <u>0</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>Senior Project Manager, Parsons.....1995- Present</b> Eric Gross was educated as an electrical engineer and has worked throughout his professional career as a telecommunications engineer, specializing in communications systems and power distribution systems. Eric's functional capabilities include preliminary engineering, design, installation support/oversight, testing, and system commissioning. He is an experienced project manager for multidisciplinary rail transit systems projects, including both fixed-price and cost reimbursable type contracts. His project background includes both design-bid-build and design-build type contracts. Eric has more than 20 years of electrical communications systems experience involving the design and construction support of fiber optic cable plant, telephone, closed-circuit television (CCTV), supervisory control and data acquisition (SCADA), fire detection and alarm, access control and intrusion detection, and audio/visual public address systems within the rail transit and intelligent transportation system (ITS) industries.	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>University of Maine, Orono, Maine   Bachelor of Science   1994   Electrical Engineering Technology</b>	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>2010   Virginia PE Electrical   0402048107</b> <b>Maryland PE-Electrical   39340</b> <b>Washington, DC PE-Electrical   905879</b> <b>New Jersey PE-Electrical   24GE04486800</b> <b>Pennsylvania PE-Electrical   PE058856</b> <b>California PE-Electrical   19803</b> <b>Utah PE-Electrical   7107116-2202</b>	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)</b>	
<b>Project Name:</b>	Design-Build SEPTA New Payment Technologies, Philadelphia, PA
<b>Dates:</b>	2013-2015
<b>Project Role:</b>	Project Manager
<b>With Current Firm?</b>	Yes
The Southeastern Pennsylvania Transportation Authority (SEPTA) New Payment Technologies Project includes a full implementation of a new fare collection system for all modes of transportation: Subway/Elevated (Sub/EI), Regional Railroad (RRD) and Surface/Bus fleet. The system will provide modern contactless fare media for patrons and will allow SEPTA to phase out using tokens. Parsons is a subcontractor to the Prime Integration Contractor (Xerox), and is managing the phased installation of equipment at over 50 Sub/EI stations, 10 Bus Loops, and 140 RRD stations. We are conducting the on-board processor installations at depot facilities for over 1,600 surface fleet vehicles, the installation for the roll-out of new/replacement fare equipment, including over 400 turnstiles, 330 fare vending devices, 110 ADA turnstiles, 300 parking payment stations and 700 media information display (kiosks), new/modified fareline fencing and exit/service gates. Parsons performed the design and managed the installation for new Sub/EI and RRD fiber optic communications networks. The communications network links the primary control center and a backup control center. The project will provide SEPTA with new revenue infrastructure for all Subway/Elevated Regional Rail farelines and surface fleet. As <b>Project Manager</b> , Eric is managing construction for the implementation of new equipment installations. He supervises the development of the phased implementation, coordinates with team subcontractors plan	

and conducts the work in collaboration with the prime and owner. Eric supervises the development of Site Specific Work Plans for work on all areas of the property, manages modifications to deployment of equipment quantities at all project work locations in accordance with periodic owner-driven requests, leads the design of new fareline additions and modifications as they develop during the project, including final device placement and cable interface configuration.

**Client: Xerox | Cost: \$150 Million**

**Relevancy: Design-Build Transit Project, communications installation & upgrades; systems integration; Intelligent Transportation Systems for stations, including CCTV, Emergency Phones & other surveillance systems, passenger information displays, ADA upgrades for communication systems, fare collection, QA/QC; construction engineering & inspection, compliance with safety & security plans, & testing.**

<b>Project Name:</b>	Design-Build Metro Gold Line Foothill Extension, Los Angeles, CA	<b>Dates:</b>	2011 – Present
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<b>Project Role:</b>	Systems Design Manager	<b>With Current Firm?</b>	Yes
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Design and construction of the Metro Gold Line Foothill extension from Pasadena to Azusa, including final design and construction of 11.5 miles of track, utilities, crossings, and systems; six passenger stations; 12 new light rail and three new freight railroad bridges; and a 25-acre light rail maintenance facility with a storage yard and a full maintenance and repair shop. The facilities design includes a 120,000 SF Maintenance and Operations (M&O) Facility, which is one of the first facilities of its kind in the country to achieve U.S. Green Building Council (USGBC) LEED Silver status. Parsons is providing engineering and construction support services. The project reached Substantial Completion on September 23, 2015 (on schedule).

As **Systems Design Manager**, Eric led the systems design which consisted of the traction power system, overhead contact system, communications, LRT train control/signaling, a new Freight signaling system along 3.5 miles of parallel track, Transit Signal Priority (TSP) for rail/road at-grade crossings, communications and signal ductbank and conduit system, real time vehicle arrival information, fare collection, surveillance systems, including CCTV cameras, systems assurance, system safety and security, and systems integration. He helped lead the development of a Systems Integration Test Plan, which was the basis for the following development of individual test procedures and processes.

**Client: Foothill Transit Constructors (FTC) | Cost: \$486 Million**

**Relevancy: Design-Build Transit Project, communications installation & upgrades; traffic control devices, including Transit Signal Priority (TSP) system & signals; systems integration; Intelligent Transportation Systems for stations, including CCTV, Emergency Phones & other surveillance systems, passenger information displays, ADA upgrades for communication systems, fare collection, QA/QC; construction engineering & inspection, railroad coordination; compliance with safety & security plans, & testing.**

<b>Project Name:</b>	SEPTA Smart Stations, Philadelphia, PA	<b>Dates:</b>	2006- 2011
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<b>Project Role:</b>	Project Manager	<b>With Current Firm?</b>	Yes
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Parsons led a major design effort to complete new communications infrastructure upgrades for SEPTA's subway passenger stations to improve operations, life safety, and communications, as well as to provide an Americans with Disabilities Act-compliant environment. Phase 1 covered 21 Subway/Elevated stations; Phase 2 included system improvements at 37 subway stations. For all stations, Parsons designed the layout and cable interfaces, including detailed raceway routing for equipment located on platforms, stairways/corridors, mezzanines, station rooms, elevators/escalators, ticket sales offices, tunnel emergency exits and subway portals with cable interfaces back to local communications rooms. To put the size of the Smart Stations program into perspective, over 1,300 contract drawings were developed by Parsons to define the Bid requirements for more than 7,000 devices and 900 miles of communications and power cable. Parsons innovative design and construction staging plans allowed the program to be deployed on schedule with no significant impact to operations. **Client: SEPTA| Cost: \$65 Million**

As **Project Manager**, Eric led design for new life safety (fire protection, fire detection, and alarm), communications (telephone, intercom, and Ethernet data network), security (including more than 1,000 CCTV cameras), and lighting infrastructure upgrades for all 58 passenger stations and ancillary facilities.

**Relevancy: Communications installation & upgrades; systems integration; Intelligent Transportation Systems for stations, including CCTV, Emergency Phones & other surveillance systems, passenger information displays, ADA upgrades for communication systems, fare collection, QA/QC; construction engineering & inspection, compliance with safety & security plans, & testing.**

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUME FORM**

<b>Brief Resume of Key Personnel anticipated for the Project.</b>	
a. Name & Title: <b>Dale Kniffin, Director – Telecommunication Distribution Engineering</b>	
b. Project Assignment: <b>Lead Utility Coordination Manager</b>	
c. Name of Firm with which you are now associated: <b>Utility Professional Services, Inc.</b>	
d. Employment History: With this Firm <b>10</b> Years With Other Firms <b>16</b> Years <b>Director/Lead Project Manager, Utility Professional Services, Inc..... 2005-Present</b> Dale manages daily operations, providing consulting and engineering services, including civil plan reviews to identify relocation, conflict resolution, new service needs and requirements per current tariffs and regulations. Coordinates conduit crossings plans, easements preparations, relocations, CE-7 filings and new service delivery timelines. As Director and Lead Project Manager, Dale manages a team of experts in telecommunications, natural gas, power, and CAD Design. With his team he has developed excellent working relationships with many of the dry utility companies in Virginia, including Dominion Virginia Power, Verizon, Comcast, Cox, Washington Gas, Columbia Gas of Virginia, Virginia Natural Gas, Level 3 Communications, and other local jurisdictions and providers. Dale is the chain of command for escalation filings with the SCC, if needed to resolve delays in timely completion of customer funded relocations and new service delivery. He was part of the team to successfully rewrite the Verizon tariffs for the State Virginia to clarify timelines and expectation on service delivery and expectations. <b>Verizon Virginia, Inc..... 1989-2005</b> Dale served in several positions, including installer of residential, retail, and commercial services of copper and fiber optic networks, a network cable splicing position including, overhead and underground copper and fiber optic cable splicing throughout the Northern Virginia and Piedmont Districts, a network engineer designing outside plant network facilities for copper and fiber optic networks. Dale was responsible for network engineering operations, including T-1 and DS-3 circuit designs, Litespan deployment and provisioning, completed community network design and deployments, regulated and deregulated, relocation design and cost estimates, highway relocation design work and project management for multiple wire centers.	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>N/A</b>	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>N/A</b>	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List at least three (3), but no more than five (5) relevant projects* for which you have performed a similar function.)</b>	
<b>Project Name:</b>	Design-Build Route 1 Road Improvements at Ft. Belvoir, Lorton, VA
<b>Dates:</b>	2013 to present
<b>Project Role:</b>	Lead Utility Coordination Manager
<b>With Current Firm?</b>	Yes
As <b>Lead Utility Coordination Manager</b> , Dale’s services include civil plan reviews to identify relocation needs and requirements per current tariffs and regulations, coordination of conduit crossings plans, easements preparations, relocations, UFI-Meetings, Plan and Estimate review, auditing, and coordination to the responsible party for approval by all the dry utility providers for the project. He is responsible for escalations through the proper channels within the dry utility provider to ensure the providers are delivering per project requirements. Project also includes the utilities servicing the US Government at Fort Belvoir, requiring additional coordination with Eastern Federal Land, Base Security, and special MOT related activities with the Base utilities and their protocols. Responsible for ensuring each utility filed the necessary paperwork with the Base and maintained their permits.  The site plan proffers required the relocations of dry utilities along a 3.68 mile stretch of US Route 1 passing through Fort Belvoir property which includes Dominion Virginia Power, Dominion Virginia Power-Federal, Verizon, Verizon-Federal, Comcast, Cox Communication, AT&T, Washington Gas Transmission, and Washington Gas distribution. Dale led establishing the dry utility easement corridors and provided direction to each provider as to the exact location the utilities would be able to relocate into with coordination with the other civil engineering site plan conflicts.  Dale is managing the utilities to use the least cost method-of-service practices, including joint use aerial construction, joint use underground construction, Plan and Estimate (P&E) reviewing and challenging of the proposed utility practices on their design and cost methodology for the relocation of onsite aerial and underground utilities, and established the jurisdictional boundary for dictating site improvements. He provided temporary utility relocation options to maintain the outlined construction schedule while working around condemnations schedules of properties in conflict with the ultimate roadway improvement designs. Negotiated and assisting with relocating two Washington Gas transmission regulator stations, as well as the transmission line tying the two regulator stations together. Providing the Design Build team	

with leadership in following the VDOT practices including, UFI meetings, UT-9 preparations, UT-4 documentation, and UT-11 cost prorate calculations. Also responsible for inputting and maintaining the dry utilities in the RUMS database. **Dale works with Corman who is the Lead Design-Build contractor. Client: VDOT | Cost: \$69.3 Million (Utility relocation costs exceed \$6 Million).**

**Relevancy: Design-Build and will require similar dry utility relocations with many of the same utility companies.**

<b>Project Name:</b>	Design-Build Fall Hill Avenue Widening and Mary Washington Blvd. Extension, Fredericksburg, VA	<b>Dates:</b>	2013 to present
<b>Project Role:</b>	Lead Utility Coordination Manager	<b>With Current Firm?</b>	Yes

As **Lead Utility Coordination Manager**, Dale is responsible for the dry utility engineering and utility project management for the dry utility relocations. His services include civil plan reviews to identify relocation needs and requirements per current tariffs and regulations, coordination of conduit crossing plans, easement preparations, relocations, UFI-Meetings, Plan and Estimate review, auditing, and coordination to the responsible party for approval by all the dry utility providers for the project. Responsible for escalations through the proper channels within the dry utility provider to ensure the providers are delivering per the project requirements. Impacted utilities include Dominion Virginia Power (Transmission and Distribution), Verizon Virginia Inc., Verizon South, Comcast, Cox Communication, AT&T, City of Fredericksburg, and Columbia Gas of Virginia. Established the dry utility easement corridors and provided direction to each provider regarding the exact relocation for utilities which was coordinated with the other civil engineering site plan conflicts. Dale is managing the utilities to use the least cost-method-of-service practices, including joint use aerial construction, joint use underground construction, Plan and Estimate (P&E) reviewing, and challenging the proposed utility practices on their design and cost methodology to relocate onsite aerial and underground utilities and establishing the jurisdictional boundary for dictating site improvements. Provided the Design Build team with leadership in following the VDOT practices, including UFI meetings, UT-9 preparations, UT-4 documentation, and UT-11 cost prorate calculations. Also responsible for inputting and maintaining the dry utilities in the VDOT RUMS database. **Dale works with Corman who is the Design-Build contractor. Client: VDOT | Cost: \$30.7 Million (Utility relocation costs exceed \$4 Million).**

**Relevancy: VDOT Design-Build and will require similar dry utility relocations with many of the same utility companies.**

<b>Project Name:</b>	Design-Build Military Highway Intersection Improvements, Norfolk, VA	<b>Dates:</b>	2015- present
<b>Project Role:</b>	Lead Utility Coordination Manager	<b>With Current Firm?</b>	Yes

As **Lead Utility Coordination Manager**, Dale is responsible for the dry utility engineering and utility project management for the dry utility relocations. Services include civil plan reviews to identify relocation needs and requirements per current tariffs and regulations, coordination of conduit crossing plans, easement preparations, relocations, UFI-Meetings, Plan and Estimate review, auditing, and coordination to the responsible party for approval by all the dry utility providers for the project. Responsible for escalations through the proper channels within the dry utility provider to ensure the providers are delivering per the project requirements. Impacted utilities include Dominion Virginia Power (Distribution), Verizon, Cox Communication, Level 3 Communications, City of Norfolk, and Virginia Natural Gas. Dale is establishing the dry utility easement corridors and providing direction to each provider regarding the exact relocation for utilities which is coordinated with the other civil engineering site plan conflicts. Managing the utilities to use the least cost-method-of-service practices, including joint use aerial construction, joint use underground construction, Plan and Estimate (P&E) reviewing, and challenging the proposed utility practices on their design and cost methodology to relocate onsite aerial and underground utilities and establish the jurisdictional boundary for dictating site improvements. Providing the Design Build team with leadership in following the VDOT practices including, UFI meetings, UT-9 preparations, UT-4 documentation, and UT-11 cost prorate calculations. Also responsible for inputting and maintaining the dry utilities in the VDOT RUMS database. **Dale works with Corman, the Lead Design-Build contractor and Parsons, the Lead Designer. Client: VDOT | Cost: \$59.8 Million (Utility relocation costs exceed \$14 Million).**

**Relevancy: VDOT Design-Build and will require similar dry utility relocations with many of the same utility companies.**

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

**ATTACHMENT 3.4.1(a)**  
**LEAD CONTRACTOR - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Route 1 Tie In to Woodrow Wilson Bridge Urban Deck VA-4  Alexandria, VA	HNTB	Virginia Dept. of Transportation 703-259-2215 Jalal Masumi -Deputy Project Manager 571-237-2696-Cell Jalal.masumi@VDOT.Virginia.gov	04/2008	04/2008	\$54,634	\$62,737 <i>Plan revisions &amp; obstructions/ differing conditions</i>	\$62,737
h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on <u>this</u> Project, so the relevancy of that work can be considered accordingly.							



*Reconstructing Washington Street*

**CORMAN'S ROLE:** Corman as the prime contractor was responsible for construction and proposed innovative, cost-effective value engineering. Highlights included eliminating an Urban Deck construction phase resulting in a cost savings and working with the designer to design/build a temporary low-density cementitious fill ramp to replace a proposed bridge for maintenance of traffic for an environmentally-friendly approach, adjacent to wetlands, to exceed at a higher level. Corman also worked with the sound wall producer to design/build the noise walls. ***But it was the solution to separate schedule dependence from other Woodrow Wilson Bridge projects that became Corman's crowning achievement. The award-winning, two phase "Virginia Advance Connector" was constructed to the bridge by shifting the Capital Beltway, which allowed construction to commence on the north half nine months earlier making it independent of the other projects.*** Corman planned and executed this traffic switch by closing the beltway to one lane at each direction. Close coordination and collaborative teamwork proved conducive in performing work each weekend ahead of schedule with minimal impact to the public.

Corman supervised, assisted and maintained approximately 16,000 LF of 12" HDPE used for the 2,500' pump around the existing 48" sewer main located under the Beltway Inner Loop. Lines were fed by 6"-12" dri-prime pumps that were monitored 24 hours a day during the pump around. We self-performed City of Alexandria's 42" water and sewer relocations.

**PROJECT FEATURES/NARRATIVE:** Two-phased, urban park, roadway demolition/reconstruction and multi-level bridge project. Widened ½ mile of the I-495 Beltway from six lanes to the final 14-lane configuration from the Route 1 Interchange to the Woodrow Wilson Bridge west abutment, and adjacent to the extremely congested I-95/I-495 Beltway in the densely-populated City of Alexandria. There was utility relocations: water mains, sewer lines, storm drains, CCTV, lighting, and electrical facilities, one-mile reconstruction of Washington Street, construction of 9 parking lots, and the new South Washington Street Urban Deck Bridge constructed in four quadrants to maintain South Washington Street traffic flow. Major maintenance of traffic included four major shifts on the beltway with a complete shift from the inner loop to the newly-widened outer loop over a weekend and eight major shifts on Washington Street. Working in a heavily-traveled area among many other Woodrow Wilson Bridge corridor projects resulted in daily communication and formal weekly corridor-wide MOT coordination meetings.

**SCOPE AND COMPLEXITY SIMILARITIES**

- Installed Intelligent Transportation Systems and a new intersection traffic signal.
- Stakeholder and Third-Party Coordination, including partnering meetings for issue resolution.
- Public Relations: Corman partnered with VDOT, PCC, and other stakeholders to keep current project information flowing to the public and involving them to ensure understanding and safety.
- Roadway improvements. Constructed new roadways with pavement markings.
- Utility relocations.
- Transportation Management Plan: Constant attention to MOT functionality and signs and MOT devices were critical to maintaining the smooth flow of heavy commuter traffic. Corman drove the project several times daily to review effectiveness and condition of the controls. Also communication with adjacent contracts paid off by minimizing delays and improving safety.
- Milled and resurfaced one mile of Washington Street and the Beltway (approximately 10,000 tons of asphalt).
- Complex MOT with ADT of 160,000
- Constructed ADA sidewalks along Washington Street and on bridge
- Environmental, including permitting
- Design-Build elements used an augmented geotechnical investigation program to develop an alternative MOT plan. This replaced an urban deck construction phase with a temporary low density cementitious fill ram and eliminated a major structure for MOT. This shortened construction, reduced cost and enhanced environmental stewardship.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:**

Project was completed on schedule and on budget. All eight milestones were met. As a testament to quality, Corman maintained a 99.29% C-36 Quality rating. Regarding the "Beltway Shift", the VDOT Project Manager of the Woodrow Wilson Bridge, stated, *"The outcome was surprisingly better than expected. The shift was completed ahead of schedule and without incident – and with no significant traffic delays. The phenomenal results are attributable to excellent teamwork, advance planning and constant coordination."*

**AWARDS**

- 2008 VDOT'S Commitment to Excellence Award for Environmental Compliance Distinction
- 2006 VDOT Commissioner's Award for Outstanding Achievement for the "Beltway Shift" -Innovation and Quality Improvement

**TEAMING**

- Proposed DBPM Chris Rutkai, PE was the Sr. Project Engineer/Deputy Project Manager



*Installing new sidewalk in a confined area*

\*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.

**ATTACHMENT 3.4.1(a)**  
**LEAD CONTRACTOR - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Design-Build South Capitol Street Over Anacostia River & Frederick Douglass Bridge  Washington, DC	RK&K	DC Dept. of Transportation Nick Nicholson <i>(formerly with DDOT, now with Parsons)</i> 202-549-6063-Cell ronaldo.nicholson@parsons.com	02/2008	02/2008	\$26,348	\$34,430 <i>Due to additional emergency work and removing contaminated materials</i>	\$34,430
h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on <u>this</u> Project, so the relevancy of that work can be considered accordingly.							



*MOT in an urban setting*

**PROJECT FEATURES/NARRATIVE:** South Capitol Street is a primary artery leading into the Nation's Capital from southern Maryland. Four blocks were reconstructed in front of the new Washington Nationals Stadium. This streetscape and bridge rehabilitation was a primary piece of the District of Columbia's vision to revitalize the Anacostia Waterfront. 1,200 LF of bridge structure that ran next to the new stadium was demolished and replaced with a new upgraded streetscape with 1,700' of six-lane divided urban arterial roadway on the northern approach to the bridge and new intersections. Decorative elements included 3,535 LF granite curb with brick gutter, 1,320 SF exposed aggregate sidewalk and new architectural bridge and street lighting.

Streetscape improvements were per city standards coordinated with the adjacent ballpark site design and included 3 new intersections, utility relocations, storm drainage, hot-mix asphalt roadway, six lanes wide, 3,535 LF granite curb, brick gutter, 1,320 SF exposed aggregate sidewalk, water quality basins, sediment control, water and sanitary sewer adjustments, communication cables, 3 new traffic signals and interconnect of traffic signals to adjacent intersections, pavement marking and new electrical service to the bridge. 6,022 LF of conduit was installed, 342 LF of waterline and 1,832 LF of storm drain piping, ranging 15" to 24". There were ADA wheelchair ramps in the intersection of South Capitol Street and Potomac Ave. As part of the new "Urban Boulevard", there were architectural upgrades: 20' DC historical teardrop lighting poles and stoplights for structure and roadway, pier floodlighting along the Anacostia River and LED accent lighting along the new steel and aluminum bridge railing. 6,000 LF old tubular bridge railings were removed and replaced with decorative steel and aluminum railings to match the street lighting.

**SCOPE AND COMPLEXITY SIMILARITIES**

- Design-Build
- Roadway improvements
- Signal integration
- Utility relocations
- MOT, including maintenance of motor vehicle, pedestrians, buses, and bus stops
- Obtain DC permits (public space, E&S controls, and building)
- Signalized intersections at O St., P St., and Potomac Ave.
- Stakeholder & third-party coordination, including Pepco, DDOT, stadium contractors
- Public involvement
- ADA wheelchair ramps
- Repaired remote-controlled traffic gates for the bascule span
- Contractor-led QC program

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:** Construction sequencing required closing the structure for up to 62 days. Traffic detours accelerated construction when demolishing a section of the bridge, hydraulically lowering 4 spans to form a new approach, and reconstructing 6 blocks of South Capitol Street within the closure. Corman worked 20 hour days/seven days a week to reopen South Capitol Street and the bridge to traffic eight days ahead of schedule during this critical period. **Project was completed two weeks ahead of schedule and on budget.**

**AWARDS**

- 2008 WTS-DC Chapter Innovative Transportation Solution Award
- 2008 ASCE National Capital (DC) Section-Outstanding Civil Engineering Project
- 2008 ACEC, Maryland Chapter-Outstanding Project of the Year in Transportation
- 2008 ACEC -Engineering Excellence Award-National Finalist in Transportation



*Architectural enhancements were designed to coincide with the new Washington Nationals Stadium, which was being constructed simultaneously.*

**CORMAN'S ROLE:** As Prime contractor, oversaw construction and performed structural roadway/bridge work (42% subcontracted). Corman and designer developed innovative drainage and bifurcated roadway design that permitted construction activities to take place simultaneously. Using precast structures instead of traditional CIP met new DC Water stormwater management requirements and allowed early completion of the work. Partnered an MOT scheme change to reduce traffic impact during expansion dam replacement by working 7 weekend shutdowns instead of using a reversible lane system.

The west side sidewalk could not be moved or raised due to occupied housing with front stoops that started a few feet from the curb. Raising it required removing/replacing the front entrances to several blocks of historic housing that fronted the street. On the east side, Nationals Baseball Stadium construction required the curb and sidewalks to be at a new, higher elevation. It was a challenge not only to meet the cross slopes for the street, but also to tie into a drainage system that carried run-off from both sides of the street.

Working with the designer, we moved the new drainage system into the center of the roadway under the grass median. West side drainage structures were constructed to match the curb and on the east new structures were placed at a higher elevation to match the curb on the east. This allowed the connecting pipes to the main drainage line in the center of the roadway to flow at different grades. We used in street drainage inlets along the west side to avoid tearing up the sidewalk and housing front stoops. On the west side, we used traditional curb drop inlets.

\*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.

**ATTACHMENT 3.4.1(a)**  
**LEAD CONTRACTOR - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Design-Build Route 1 Improvements at Fort Belvoir  Lorton, VA	AMT	Federal Highway Administration/ Eastern Federal Lands Highway Division Timothy M. Brown, Construction Operations Engineer, Special Projects 703-339-5454   703-963-7481-Cell Timothy.Brown@dot.gov	02/2016	10/2017 (Estimated)	\$69,391	\$74,966 <i>Due to owner approved or requested changes</i>	\$74,966

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.



**CORMAN'S ROLE:** Corman-Wagman, A Joint Venture, with Corman as the Lead JV partner, is the Lead Contractor responsible for design and construction of 3.5 mile road improvement project adjacent to Ft. Belvoir. Project located in both urban and suburban settings included new roadway, \$6 million dollars of utility relocations (Fairfax Water and sewer lines OH Dominion, electric, Verizon, Cox, and Comcast communication fiber and an underground Washington Gas 12" transmission main), drainage, MOT in high volume area with high rush hour volumes, maintenance of existing bus facilities, new dedicated BRT median, traffic signals and traffic improvements, ROW acquisition, building demolition, architectural and noise studies, vibration analysis and monitoring of historic brick 18<sup>th</sup> century church, and dual multi-span bridges.

**PROJECT FEATURES/NARRATIVE:** Widening US Route 1 to relieve heavy traffic near the Fort Belvoir military installation. The 3.5 mile stretch between Mount Vernon Memorial Highway and Telegraph Road is home to some of the region's worst rush hour traffic. Approximately 80,000 vehicles pass through Fort Belvoir's gates every day. Project limits begin south of the Telegraph Road intersection with US Route 1 (1.6 miles east of Fairfax County Parkway intersection with US Route 1) and continue north to the intersection of new Mulligan Road (formerly Old Mill Road) with US Route 1 and Mount Vernon Memorial Highway, totaling approximately 3.68 miles.

The project constructs and/or widens from four to six lanes with left and right turn lanes at intersecting roadways, reservation of a median to accommodate future Bus Rapid Transit, adds bicycle lanes and safer crosswalks, route realignment, intersection improvements, bridge demolition/construction, retaining walls, noise walls, street lighting, stormwater management, utility relocations, right of way acquisition, historical house relocation, and traffic signalization. These are improvements on Telegraph Road from the intersection of Route 1 Wherside Street. The project site is highly visible to local authorities and is a major focus of local and federal elected officials, with an emphasis on MOT, stakeholder communication, protecting the environment, and historical significance.

Conduits are provided under pavement at intersections for a future management and detection system for BRT facility to be located in the median and outside lanes of the proposed Route 1 improvements.

Replacing existing bus stops impacted by construction. Coordinate with the WMATA and Fairfax County Connector for temporary bus stops when existing stops cannot be in service because of construction operations. Temporary and permanent bus stops are ADA compliant.

Extensive coordination with stakeholders, including Fort Belvoir, Fairfax County, National Historic Trust, DOD Office of Economic Development, WMATA, and Fairfax County Connector

**SCOPE AND COMPLEXITY SIMILARITIES**

- Design-Build
- Median reserved for BRT

- Coordination with ongoing bus operations (3 separate transit agencies)
- Roadway improvements
- Stakeholder & third-party coordination
- Third-party project delivery
- Public outreach/community involvement
- Water, sewer, electric, gas, Verizon and Comcast utility relocations
- Traffic Management Plan/MOT
- Right of way acquisition
- Storm drainage
- Environmental
- Contractor QC and QA

**TEAMING EXPERIENCE**

Proposed Lead Utility Coordination Manager/Lead Dry Utilities Dale Kniffin of Utility Pros is the Utility Manager.

Proposed Wet Utility Relocations Don Rissmeyer, PE of AMT is the Lead Drainage Coordination Manager.

Proposed ROW Manager Pat Dablock of Diversified Property Services is the ROW Manager.



*Temporary signal heads  
Inlet Cove traffic switch*

\*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.

**ATTACHMENT 3.4.1(b)**  
**LEAD DESIGNER - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Ballston-MU Station Multi-modal Improvements  Arlington, VA	Not Yet Selected	Arlington County Dept. of Environmental Services 703-228-3935 Mark Schnauffer mschnauffer@arlingtonva.us	2016	2017	\$4,500 ( <i>budget estimate</i> )	3,600	\$639

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.



*Rendering, used for stakeholder and public information, showing completed bus transfer station*

**PARSONS' ROLE:** Lead design consultant in the Washington, DC office providing management, roadway design, site grading, including ADA compliance, stormwater management, structural, landscape architecture and stakeholder coordination.

**PROJECT FEATURES/NARRATIVE:** The Ballston-MU Metro Station has a 7-bay bus facility at the surface level serving Metrobuses, Arlington Transit (ART) buses and private shuttles. Nearby curb use includes taxis, Carshare service parking and public parallel parking. Facility is adjacent to an office/hotel/condominium complex with ground floor businesses. Due to the volume of transit users (pedestrians, business customers and bicyclists), the facilities are congested, inefficient and are not fully ADA compliant.

This project improves the transit elements with additional bus bays, bus station shelters and amenities, increased bicycle parking and ADA complaint public areas. It transform the area into a modern combined public space and transportation hub. The place making aspect of this project is similar to the BRT stations and surrounding areas for the Broad Street BRT.

There are meetings with a technical committee, stakeholder committee and the public. Most elements will be turned over to the Washington Metropolitan Area Transit Authority (WMATA) for operations and maintenance.

**SCOPE AND COMPLEXITY SIMILARITIES**

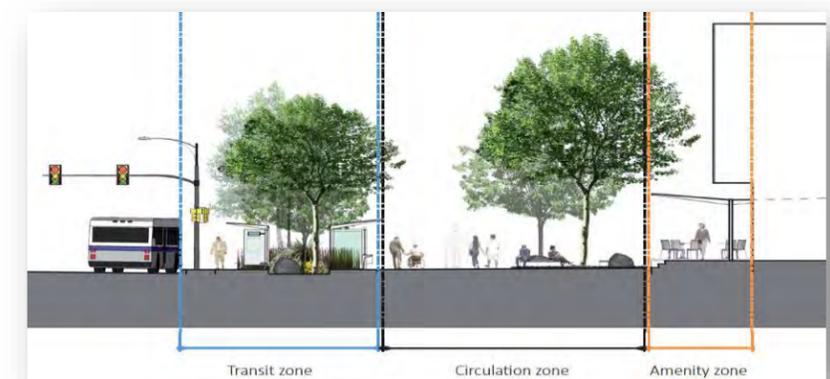
- **Transit Bus Stations** with passenger shelters & canopies, canopy foundation design considers impacts on WMATA underground traction power substation, in shelter lighting, planters for delineation between bus loading zone & circulation zone, real-time bus information displays.
- **Roadway Design:** New sawtooth bus bays, reconstructed concrete and flexible pavement for exclusive bus use, Work in VDOT ROW, AutoTURN analysis for bus movements at the sawtooth bays and roadway approaches.
- **MOT:** Prepared phased plans to maintain transit bus operation while half the existing sawtooth bays are out of service. This required use of nearby curb parallel parking spaces and converting the adjacent sidewalk to bus leading areas. Parking replaced in adjacent blocks by revising existing curb use. Parsons reduced the number of construction stages to only 2 stages rather than the 4 stages originally anticipated. Maintenance of roadway traffic accomplished in accordance with the MUTCD. Maintained pedestrian traffic through the work zone to allow Metro station entrance escalator and to adjacent business access.
- **ADA Compliance:** Bus loading areas are ADA compliant, entire site is re-graded to achieve ADA maximum cross slopes and longitudinal slopes, handrails were placed where required, and new curb cut ramps at existing and new crosswalks.
- **Stormwater Management:** Project analyzed based on current Virginia Stormwater Management Program (VSMP) compliant jurisdictional criteria. Bioswales provided in planters at each bus station.
- **Signage & Pavement Marking:** Compatible design for Wayfinding Signage for pedestrians and warning and regulatory signs for motor vehicles to avoid sign clutter, obstructions and conflicting messaging. Pavement markings to delineate exclusive bus lanes, bicycle lanes, and crosswalks.
- **Systems Engineering:** CCTV Connections to WMATA Central Operations Center using existing communication backbone. Connection to Real Time Bus Arrival information for display at each station.
- **Stakeholder Coordination:** Coordination with Adjacent individual businesses and the Ballston Business Improvement District. Third Party Delivery – Arlington County to WMATA. Public Meetings and FTA Funding.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

Agreement of design solution by Technical Committee, Stakeholder Committee and Public. Design achieved cost savings compared to original concept.

**TEAMING EXPERIENCE**

Proposed Design Manager Cliff Roberts of Parsons is the Project Manager  
Proposed Structural Designer Dan Sengupta of Parsons is the Lead Structural Engineer  
Proposed Community Stakeholder Involvement/NEPA Commitment Compliance Steve Walter of Parsons is the Principal-in-Charge  
Proposed BRT Station Architecture/Urban Designer KGP is the architect of record and a sub-consultant to Parsons.  
Proposed Drainage/SWM Engineer Brian Smith of Parsons is the Lead Drainage Engineer.  
Proposed Landscape Architect Craig Richardson of Parsons is the Lead Landscape Architect.



*Rendering showing separation of transit, circulation and amenity zones which enhances access to and visibility of adjacent business.*

\*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.

**ATTACHMENT 3.4.1(b)**  
**LEAD DESIGNER - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Alameda Corridor East Bay BRT Professional Engineering Services  Oakland, CA	Redgewick, McGuire & Hester	Alameda-Contra Costa Transit District Davis Wilkins 510-891-5427	04/1/2012	11/30/2017 (Estimated)	\$178,000	\$178,000	\$20,225

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.



*Rendering of proposed station used for stakeholder & public information showing dedicated median running BRT.*

**PARSONS' ROLE:** As the prime consultant in the Oakland, CA office, Parsons is responsible for project management, project controls, quality assurance, civil design, station design, systems engineering and systems integration, design report documentation, environmental compliance and permitting, specifications, estimates, operations and maintenance, project implementation, and scheduling. The final design contract continues Parsons' involvement in the project since its inception in 1999 for the major investment study and subsequent environmental phase.

**PROJECT FEATURES/NARRATIVE:** The East Bay Bus Rapid Transit (BRT) project, which converts one traffic lane in each direction to dedicated bus use for a 9.5-mile corridor between downtown Oakland and San Leandro in Alameda County. Project includes exclusive transit lanes over

approximately 80% of the alignment, over 40 new traffic signals and modification of 75 existing signals, transit signal priority (TSP) at all signalized intersections, 34 new passenger stations with level boarding, real-time bus information at stations, and barrier free proof-of-payment fare collection; all of which will improve reliability and travel time. Project was implemented in a series of 3 construction packages involving:

- Advance relocation of utilities.
- Improvements to adjacent arterials and construction of off-street parking lots to mitigate on-street parking loss.
- BRT corridor improvements, including construction of dedicated bus lanes, intersection pedestrian safety, installation of a backbone communications system, station infrastructure, & landscaping.

**SCOPE AND COMPLEXITY SIMILARITIES**

- Conversion of existing travel lanes to dedicated BRT lanes
- Implementation of Transit Signal Priority (TSP)
- New communications backbone
- BRT Stations
  - Level Boarding platforms
  - Fare Collection Equipment
  - Safety & Security measures, including CCTV cameras & emergency phones
  - Site furnishings
- Pedestrian access improvements.
- Street parking loss compensation.
- Communication upgrades to accommodate real time bus arrival information.
- Systems Integration of Transit Signal Priority, fare collection equipment, real time bus displays, transit signal priority (TSP) & safety/security measures.
- Roadway design.
- Hydraulics, including storm drainage & stormwater management.
- Utility relocation & service.
- Signing, striping & pavement markings
- Landscaping

- Stakeholder & third-party coordination
- Public involvement
- QA/QC
- Safety & Security Plans
- Engineering services during construction
- FTA coordination

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

This award continues Parsons' involvement in the project since its inception in 1999 for the Major Investment Study and subsequent environmental phase. The Parsons team's experience as prime/design consultants on 5 of the 6 BRT projects currently in development in the San Francisco Bay Area was instrumental in this award.



*Rendering of proposed Fruitvale Station used for stakeholder and public information, showing fare collection equipment, real time bus arrival signs, station furnishings, and ADA boarding platform.*

\*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.

**ATTACHMENT 3.4.1(b)**  
**LEAD DESIGNER - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
E Street Corridor BRT San Bernardino, CA	Griffith/Comet JV	OmniTrans Kuruppu, Director of Planning & Environmental Services 909-379-7251	2011- construction  2008 – design	4/30/2014	\$192,000	\$192,000	\$18,167

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.



*Rendering of proposed station used for stakeholder and public information showing ADA boarding platform & fare collection equipment.*

**PARSONS' ROLE:** Lead designer in the Pasadena, CA office responsible for roadway, civil, drainage, structural, architectural, landscape architectural and systems engineering, including ITS, communication and traffic engineering. Prepared systems test plans and performed safety certification. Prior to final design, Parsons prepared the Alternatives Analysis and NEPA Document; a pre-final design effort similar to Parsons' role to date on the GRTC BRT.

**PROJECT FEATURES/NARRATIVE:** The E Street Corridor is a 15.7 mile long BRT which connects Cal State University at San Bernardino, downtown San Bernardino, the Hospitality Lane commercial district, Loma Linda University and Medical Center, and the Veterans Administration Hospital. The BRT route includes 5.4 miles of exclusive bus lanes, 10.3 miles of mixed traffic lanes, transit signal priority, 16 station locations, and four park-and-ride facilities for 610 vehicles.

This BRT service, branded as San Bernardino Express, opened to revenue service in April 2014.

Similar to the GRTC BRT, San Bernardino Express provides enhanced transportation services to a through a downtown area underserved by transit and provides place making and economic development opportunities.

**SCOPE AND COMPLEXITY SIMILARITIES**

- Dedicated BRT Lanes constructed in existing roadway
- BRT Stations
  - Level boarding platforms
  - Wayfinding & User Information Signs
  - Fare Collection Equipment
  - Site furnishings
- ADA Compliance
  - ADA complaint platforms, including tactile warning strips
  - Crosswalk Communication System
- Roadway design
- Hydraulics, including storm drainage & stormwater management
- Utility relocation & service
- Signing, Striping, & Pavement Markings
- Systems Engineering & Integration
  - Provision of Transit Signal Priority (TSP) on existing signal system
  - Communication for Fare Collection System & real time bus arrival information
  - CCTV Cameras for Security Surveillance
  - Emergency telephones
- Stakeholder & third-party coordination
- Public involvement

- QA/QC
- Safety & security plans
- Engineering services during construction
- FTA Oversight & coordination

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

Omnitrans was pleased with Parsons' performance at each stage of project development that Parsons was awarded the entire project through construction support services.

**AWARDS**

Bronze BRT Ranking, Institute for Transportation & Development Policy  
BRT Standard

**TEAMING EXPERIENCE**

Proposed Fare Control Specialist Gerald McCoy of Parsons was the Systems Engineer.



*Civic Center Station in service*

\*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.

**ATTACHMENT 3.4.1(c)**  
**LEAD ARCHITECT - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Architect for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Metro Gold Line Foothill Extension  Los Angeles, CA	Foothill Transit Constructors (FTC), a joint venture between Kiewit, Parsons, and Mass Electric.	Metro Gold Line Foothill Extension Construction Authority Phone: 626-305-7001 Habib Balian, CEO 626-305-7001 hbalian@foothillgoldline.org	06/2011	03/2016	\$486,000	\$486,000	\$34,782

h. Narrative describing the Work Performed by the Firm identified as the Lead Architect for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.



**PROJECT FEATURES/NARRATIVE:** Designed and constructed the Metro Gold Line Foothill extension from Pasadena to Azusa. Project includes final design and construction of 11.5 miles of track, utilities, crossings, and systems; six passenger stations; 12 new light rail and three new freight railroad bridges; and a 25-acre light rail maintenance facility that will include a storage yard and a maintenance and repair shop. The facilities design includes a 120,000-SF Maintenance and Operations Facility, which will be one of the first facilities of its kind in the country to achieve U.S. Green Building Council (USGBC) LEED Gold status.

- SCOPE AND COMPLEXITY SIMILARITIES:** The Light Rail stations on the Foothill Extension project are similar in complexity and scope to BRT stations within an urban context. They have similar station furniture, passenger access, ADA and circulation flow considerations. Specific similarities include:
- ADA compliant boarding areas & station access & upgrades to existing pedestrian facilities.
  - Accommodation of bicycles.
  - Station canopies, including canopy & foundation structural design.
  - Site & station furnishings.
  - Wayfinding signage.
  - Accommodation of Fare Collection Equipment.
  - LRT Vehicle real time arrival/departure information displays.
  - Safety & Security features, including CCTV & emergency telephones
  - Station Lighting
  - Landscaping
  - Compliance with Environmental (CEQA) commitments
  - Permits
  - Stakeholder & third-party coordination
  - Public involvement

- QA/QC
- Safety & security plans
- Engineering services during construction

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:** All station submittals were submitted on time to the client. The project recently achieved substantial completion, on time and under budget. The Foothill Extension is expected to begin revenue service in spring 2016 in accordance with the project schedule and as promised to the public.

**TEAMING EXPERIENCE**  
Proposed Lead Architect Damien Jackson of Parsons is the Lead Architect. Proposed Systems Engineer Eric Gross of Parsons is the Lead Systems Engineer.



*Azuza Station showing ADA boarding areas, station furnishings and real time arrival signage.*

**PARSONS ROLE:** Lead design firm in the Pasadena, CA office providing engineering, architecture and landscape architecture services and construction support services. Parsons architects performed station design and Damien Jackson is the Architect of Record. The station architectural component is six new passenger stations in the cities of Arcadia, Monrovia, Duarte, Irwindale, and Azusa. Azusa will have two stations: one at Alameda Avenue, in downtown; and one at Citrus Avenue, near Citrus College and Azusa Pacific University (the Pasadena to Azusa terminus).

As Lead Architect, Parsons coordinated the design and production of architectural; structural; mechanical, electrical, and plumbing (MEP); signage; landscape and irrigation designers; and conducted regular meetings with the client and third parties.

Parsons also shepherded the project through the approval process of the owner, the Fire/Life Safety Committee (the Authority Having Jurisdiction for the project), five cities, Los Angeles County, CalTrans and adjacent freight railroads.

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