

Capital Beltway HOT Lanes

Conceptual Proposal

Public-Private Transportation Act of 1995

Submitted to

Virginia Department of Transportation

Submitted by

Fluor Daniel

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Authorized Representative

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June 26, 2002

Cover photo: Governor Warner cuts the ribbon to open the Pocahontas Parkway, the first PPTA project to be constructed in the Commonwealth using new money.



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June 26, 2002

Mr. Pierce Homer
Deputy Secretary of Transportation
Virginia Department of Transportation
1401 East Broad Street, Room 414
Richmond, Virginia 23219

Subject: Capital Beltway HOT-Lane Conceptual Proposal

Dear Secretary Homer:

Fluor Daniel presents this conceptual proposal for the development, financing, design, and construction of the Capital Beltway HOT-Lane project. This proposal has been prepared in accordance with the Implementation Guidelines of the Public-Private Transportation Act of 1995. Enclosed are 20 copies of the proposal and a check in the amount of \$10,000. A copy of the proposal is being delivered to Fairfax County Executive Anthony H. Griffin.

We have received Ms. Barbara Reese's letter of June 25, confirming that Tab 3: Project Financing will be treated as confidential and proprietary under the Code of Virginia Section 2.1-342.01.A.56 and shall be exempt from all Freedom of Information Act requests.

The Fluor Daniel team appreciates the opportunity to submit this proposal. Fluor Daniel is confident our solution to improving Virginia's busiest road will allow that critical facility to be delivered at a substantially lower cost, in a more environmental friendly manner, and much faster than originally planned.

Sincerely,

Herbert W. Morgan
Project Director

Executive Summary

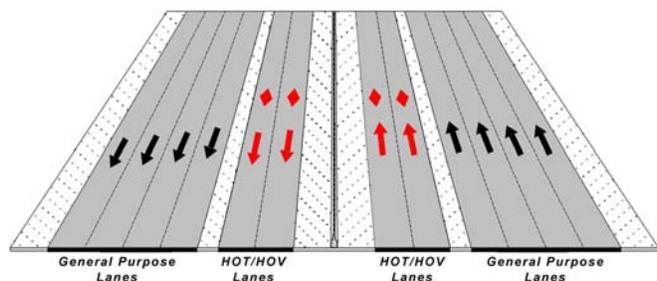
Travel demand on the Beltway routinely exceeds capacity during peak periods and commonly results in extended periods of congestion. More than 75 percent of the motorists who travel on the Beltway begin or end their trip within Fairfax County, and 30 to 40 percent of these trips are to or from locations within 2 miles of the Beltway. Future growth of traffic volumes and off-peak trips will further lengthen the periods of congestion. Without additional roadway capacity, the level and duration of congestion will get worse on the Beltway and on other parts of the regional transportation network.

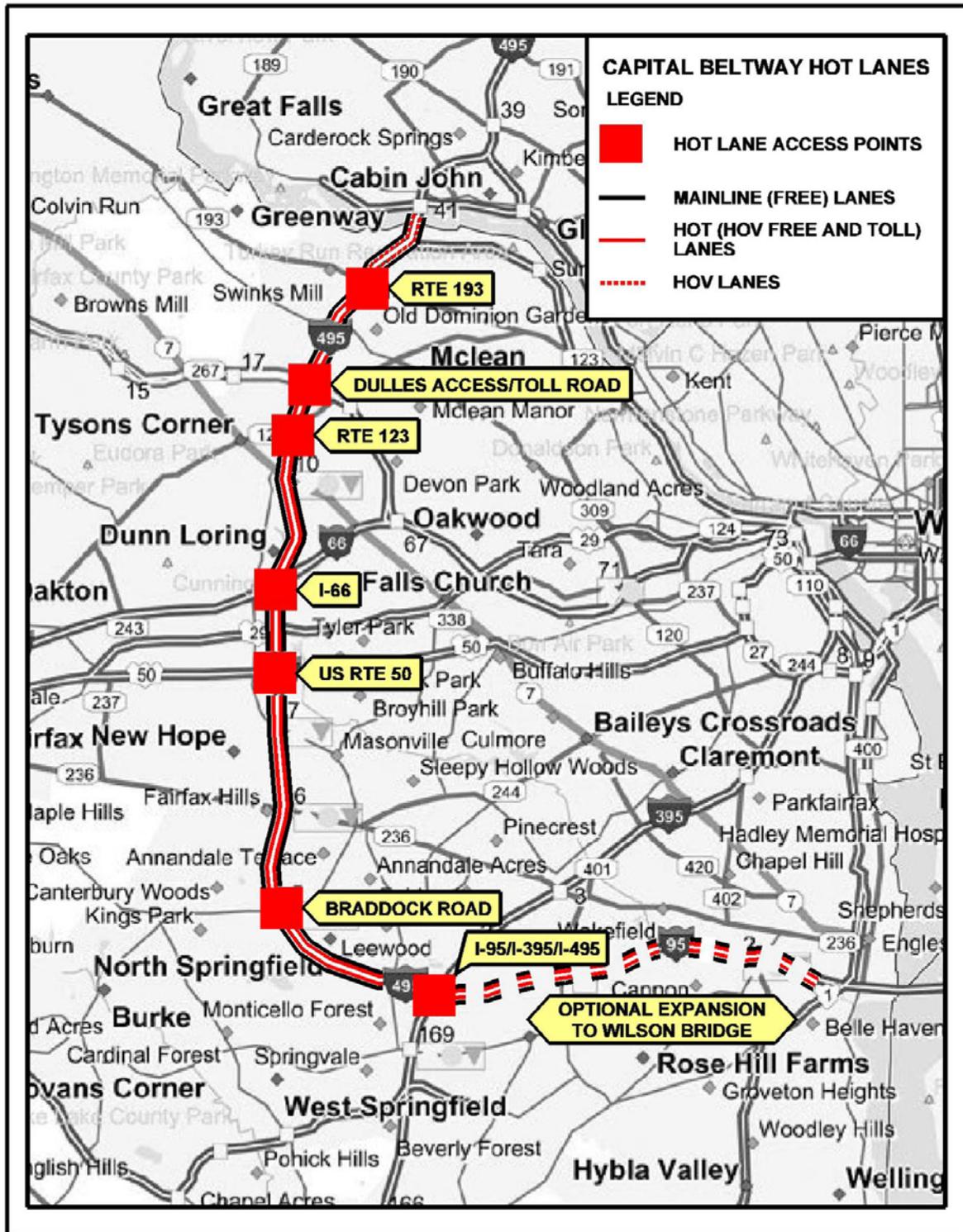
The Beltway is critical to the transportation network because of its unique dual role as a regional circumferential bypass and a major local road. At present, the Beltway has four through lanes in each direction with auxiliary lanes or collector-distributor roadways provided at several interchanges. Although still functioning as a bypass, the Beltway is now used primarily for travel to and from destinations within the region and has been called Fairfax County's Main Street. The Beltway comprises only 3 percent of the total highway lane-miles in Northern Virginia but carries almost 11 percent of all daily regional trips.

Fluor Daniel proposes 4 new high-occupancy toll (HOT) lanes to be constructed within the 14-mile segment of the Virginia's Capital Beltway that is currently under study by VDOT. Fluor Daniel projects these Capital Beltway HOT Lanes could divert up to 15 percent of the 2015 traffic from the eight free lanes. The segment starts at the American Legion Bridge and extends to the I-95/I-395/I-495 Interchange. The 64-mile Beltway is multilane circumferential freeway serving the Washington, D.C., metropolitan area. This segment passes through some of the most environmentally sensitive and economically vital areas to the Commonwealth. It also provides connections to other major interstate highways (I-66, I-95, and I-395), limited-access roadways (George Washington Memorial Parkway and Dulles Access/Toll Road), and some high-capacity primary and secondary routes through its 11 interchanges.

The Fluor Daniel Project Concept and Schedule

The Capital Beltway HOT Lanes will extend from Springfield immediately north of the Beltway Bridge crossing over the Norfolk Southern Railway to north of Dulles Airport Access and Toll Road. This mainline roadway type consists of a continuous 12-lane system configured as 4-2-2-4, eight general-purpose lanes with 4 new HOT lanes in the center. The new lanes (two in either direction) will be dedicated for use by qualifying HOT-lane traffic and are separated from the adjacent general-purpose roadways by a buffer. The existing eight (four in each direction) general-purpose roadways will remain.



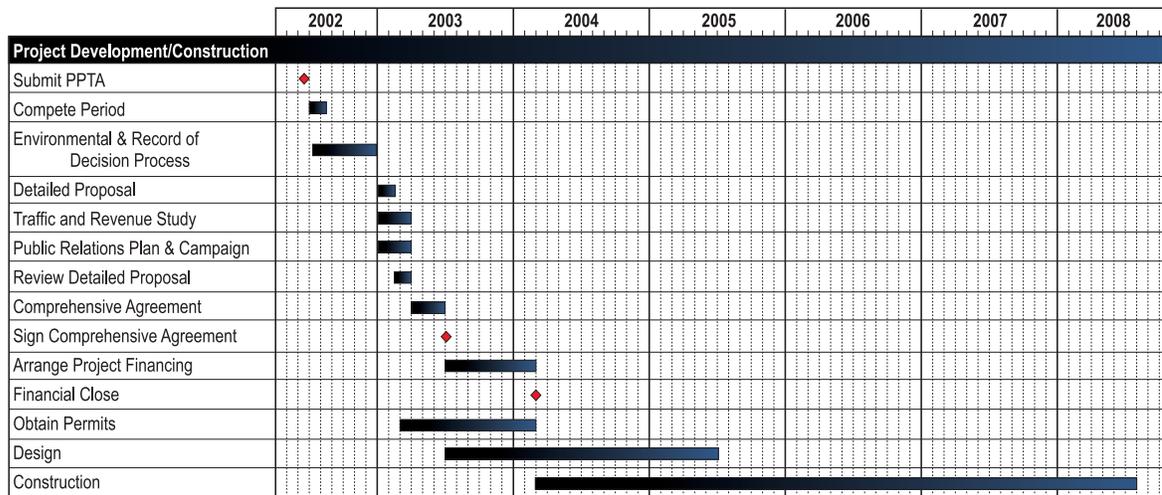


Capital Beltway HOT-Lane System Plan



In addition to the beginning and ending points of the HOT lanes, five intermediate access/egress points to the HOT lanes will be provided through a combination of direct ramps and a limited number of intermediate access points through entry/exit points in the buffer. See following exhibit illustrating the HOT-lane system plan. The mainline general-purpose lanes connect to all of the interchanges from and to the right. Collector-distributor (C-D) roadways located at interchanges to minimize the possibility for movement conflicts and ensure safer traffic operations will be relocated to accommodate the proposed widening.

The proposed HOT lanes will be completed by August 1, 2008, assuming the concept wins environmental approval in a record of decision and that a comprehensive agreement is signed by June 30, 2003.



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The Financial Plan

Bear Stearns has developed a preliminary plan of finance based on a traffic and revenue analysis performed by Vollmer Associates and Fluor Daniel’s capital cost and schedule estimate. The plan leverages toll revenues to provide capital markets funding for the majority of the capital cost after making conservative assumptions concerning interest rates and debt coverage requirements. The financing plan is similar to the plan Fluor Daniel successfully implemented for the Pocahontas Parkway with additional leverage provided from federal innovative financing provisions and local contributions.

The Fluor Daniel Team

Fluor Daniel is one of America's largest engineering, procurement, and construction companies. Fluor Daniel has been assisting state governments deliver needed transportation facilities that were unable to be constructed using the conventional funding process. Recently, Fluor Daniel opened the first phase of the Pocahontas Parkway (Route 895) in Richmond. It is the first PPTA project

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executed in Virginia. The staff that developed and executed that project will be assigned to the Capital Beltway HOT-Lane project under the leadership of Herb Morgan who also led that effort. Fluor Daniel has developed and provided program management services for more than \$10 billion in transportation improvement projects in just the last five years. Fluor Daniel has assembled an exemplary team, including professionals with both national experience and the local knowledge required for keeping the project on the fast track. The team combines:

- Fluor Daniel, an international firm with strong Virginia development and construction experience specializing in innovative project financing, project development, and fast-track delivery methods
- HNTB, Inc., the largest pure design firm in the United States with a long tradition of assisting VDOT in designing some of its most complex projects from the original Beltway to the I-95/I-395/I-495 Interchange
- The Lane Construction Corporation, a major heavy construction contractor that has developed a reputation for dependability, integrity, and quality workmanship with its clients and is currently involved in construction of the I-95/I-395/I-495 Interchange
- Vollmer Associates, a transportation forecasting, revenue analysis, and traffic engineering specialist
- Bear, Stearns & Co., Inc., a recognized financial planning expert in underwriting major infrastructure projects, including the Pocahontas Parkway project
- Reed Smith, a major Virginia law firm experienced in general and environmental law and government relations
- RSM, Inc., a recognized expert in public opinion polling and analysis in the area of Virginia transportation issues
- Wetland Studies and Solutions, Inc., a leader in development of wetland mitigation banks and the development and processing of permits

Specific Benefits of the Fluor Daniel Concept

Fluor Daniel's concept provides real and tangible benefits to the Commonwealth. Fluor Daniel has developed a concept that offers the greatest possible level of transportation benefit at the lowest environmental and financial costs. Fluor Daniel's approach provides a financial plan based on a new source of revenue with no additional financial burden for the state. At the same time, this approach provides the flexibility to make future system improvements that can be phased in as additional transportation funding becomes available. Following is a summary of the Fluor Daniel concept benefits to VDOT and the public:



The project satisfies a need

- Provides for congestion relief now rather than later
- Maintains the free lanes while reducing congestion by diverting traffic to the new HOT lanes.
- Allows for future improvements as additional funding permits
- Most of the capital cost is paid for by HOT-lane revenues
- Facilitates the interconnectivity between existing HOV lanes and the HOT lanes
- Supports employment and regional economic growth goals while maintaining its important role as Fairfax County's "Main Street"

Fluor Daniel's proposal is unique

- Offers a new source of revenue, a fixed price, and schedule for design and construction with a completion guarantee
- Concept is a direct outgrowth of the VDOT Capital Beltway DEIS build alternatives and can be incorporated into the ongoing environmental study during the currently open comment period
- Indications are that the HOT lanes will gain public support to facilitate selection of the build option as part of the EIS decision process
- Offers options for both the long-term maintenance (up to 20 years) management of all facilities to include pavement and toll system equipment as well as the operations

Reduces congestion and preserves future capacity

- Provides for speedy congestion relief by constructing the facility years before VDOT's six-year plan would permit
- Assures future mobility by use of HOT lanes and variable pricing, permitting the HOT lanes to guarantee a traffic level of service much farther into the future than the conventional widening approach
- Establishes an express (with a higher speed limit) and local lane (at the current speed limit) traffic flow pattern with access at only specified interchanges



Minimizes adverse impacts and is compatible with the ongoing location/environmental study

- Potentially eliminates the need for any public or private displacements by staying within the existing Beltway right-of-way
- Potentially avoids the taking of any protected park and cultural resources
- Avoids impacting any hazardous material site
- Incorporates an air quality friendly concept that has on a number of occasions earned the support of national environmental groups like the Environmental Defense Fund

Brings new money to finance the project

Can gain public support for the project

- A public informational program is an integral part of this project, including all required design public hearings to allow continued public comments
- The marketing program will help inform the public of the benefits of HOT lanes and help promote their use by car pools and express buses
- The traveling public will have more choices — they can use the express HOT- or free local general-purpose lanes
- The project will make express bus mass transit on the HOT lanes more efficient and attractive to the traveling public

The project developer has a proven and effective team

- Fluor Daniel has opened the first PPTA road development project, the Pocahontas Parkway, in May of this year
- The Pocahontas project leader, Herb Morgan, and staff will be relocated to manage the Capital Beltway HOT-Lane project
- HNTB as the designer of the original Beltway as well as the I-95/I-395/I-495 Interchange has intimate knowledge of the facility and its environs
- Lane Construction with its vast experience in interstate-type construction and a reputation for reliability and quality is currently constructing a major portion of the I-95/I-395/I-495 Interchange



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Tab 1: Qualifications and Experience

1-a. ORGANIZATION

Identify the legal structure of the firm, or consortium of firms making the proposal. Identify the organizational structure for the project, the management approach and how each partner and major subcontractor in the structure fits into the overall team.

1-a.1 Legal Structure

Fluor Daniel, a division of Fluor Enterprises, Inc., will be the contracting party in the comprehensive agreement with the Virginia Department of Transportation similar to that used on Route 895. Fluor Daniel will use the expertise of numerous Virginia-based professionals while drawing upon the resources of its parent company, Fluor Corporation, when necessary. Fluor Daniel will provide VDOT with a single point of responsibility for project execution.

Having developed the Route 895 – Pocahontas Parkway, Fluor Daniel is well known to VDOT as a firm that can be relied upon to get the job done. Fluor is the third largest design-build contractor in the United States. Fluor Daniel is a leader in the development and execution of public-private partnership projects and has proven it is a reliable PPTA performer.

A number of legal frameworks are available to facilitate development of the Capital Beltway project. Fluor Daniel's suggested legal framework is to use the Fairfax County Economic Development Authority (EDA) or an IRS 63-20 Corporation as issuer of nonrecourse project toll revenue bonds. As illustrated by the following Figure 1-a.1, a comprehensive agreement will be made between VDOT and Fluor Daniel. Under this framework, Fluor Daniel will assign the issuer the right to receive tolls. VDOT will authorize the issuance of toll revenue bonds by the issuer, be the owner of the facility at construction completion, and be responsible for operations and maintenance.



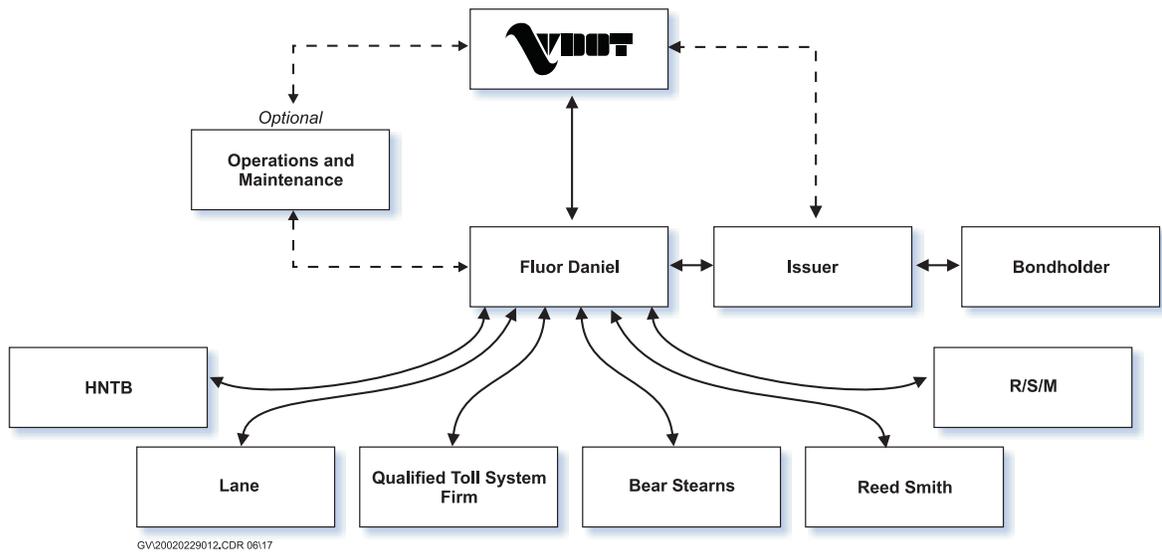


Figure 1-a.1 Legal Framework

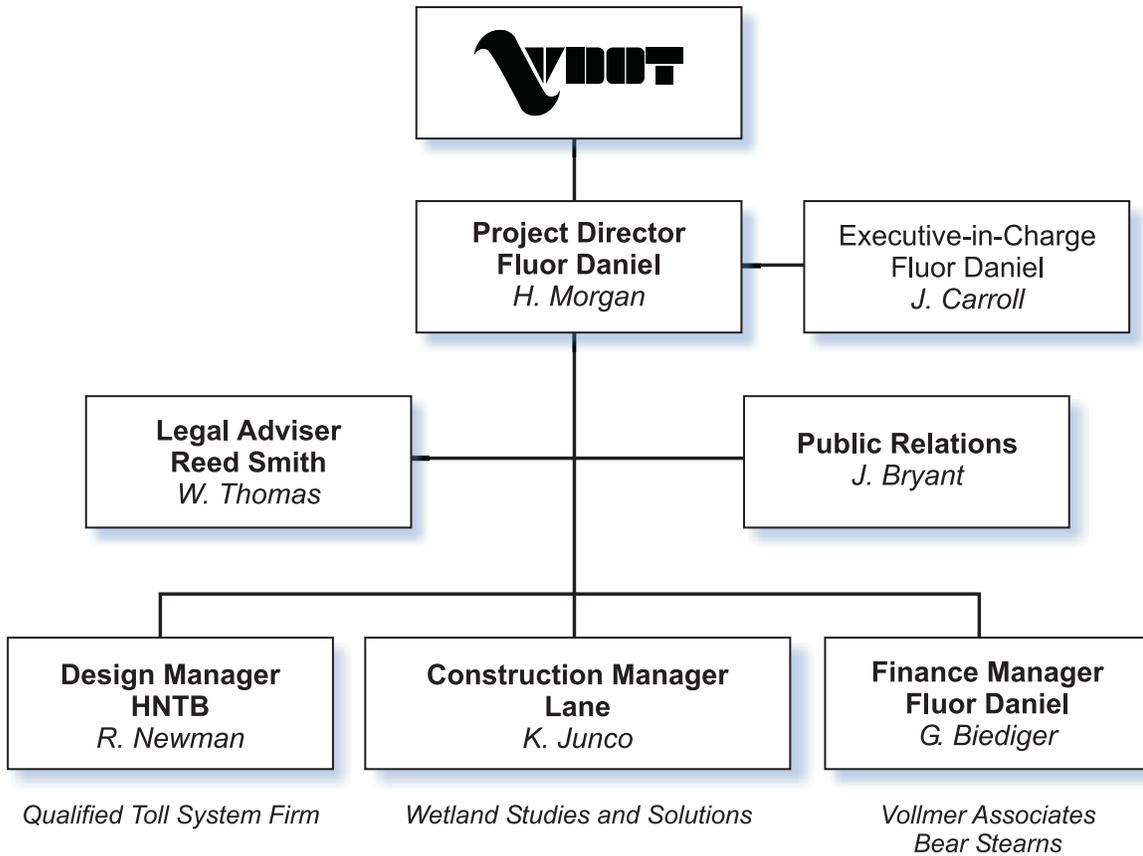
Fluor Daniel will design and build the project including all toll facilities. During construction, the trustee will make progress payments to Fluor Daniel as approved by VDOT. Fluor Daniel will offer an operations and maintenance contract and a toll system maintenance contract, both at VDOT’s option, for specified periods of time.

1-a.2 Team Organization

VDOT, working with Fluor Daniel, has set the standard in the United States for delivery of innovative transportation facilities through the development and construction of the Route 895-Pocahontas Parkway project. Like the 895 project, Fluor Daniel’s approach includes an innovative financial arrangement and a very aggressive timetable for delivery of a completed Capital Beltway project. Fluor Daniel’s 895 project proved that a major construction project can proceed at an accelerated pace without significant environmental impacts while involving a high percentage of local labor and firms.

Fluor Daniel will make the same commitment to bring these benefits and lessons learned to the completion of the Capital Beltway project. Fluor Daniel intends to offer the Commonwealth an aggressive and forward-looking financial package coupled with a project approach that minimizes the time between financial closing and making the new Capital Beltway HOT Lanes available to the public. This coupling of financial innovation and aggressive management approach, Figure 1-a.2, will allow VDOT to deliver the Capital Beltway in the shortest possible timeframe.

The Fluor Daniel Team



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Figure 1-a.2 Project Team Organization

The Fluor Daniel team is a fully integrated organization that will develop, finance, and execute this complex project. The organization illustrated in Figure 1-a.2 will benefit from the core of experienced Fluor Daniel professionals who have "done it before with VDOT," eliminating the PPTA learning curve and allowing more time to focus on the timely development of the project. After signing the design-build agreement, the project team will shift its focus to successful fast-track design and construction. Key Fluor Daniel team leaders include:

Jim Carroll, Executive-in-Charge – Having successfully led Fluor's team in the development of the Route 895 project, Jim will be in charge of the development effort. He will use his considerable development experience to fashion an innovative project financing and execution package to maintain a win-win approach for VDOT, the local area governments, and the traveling public.

Herb Morgan, Project Director – Having led the Route 895 project, Herb will direct the execution of this project. He is currently serving as project director on the successful 895 project and will be available to take on this challenging assignment upon completion of his current work this year.

William Thomas, Legal Adviser – William Thomas of Reed Smith LLP will be the team’s legal adviser.

Kirk Junco, Construction Manager – Kirk is a vice president with Lane Construction who has managed the construction of numerous complex transportation and civil projects involving major bridge and road work such as the Springfield Interchange. He will coordinate the fast-track design with the construction of the Capital Beltway.

Robert Newman, HNTB Lead Design Manager – Robert is director of engineering for the HNTB Alexandria office and is project manager for the I-95/I-395/I-495 Interchange improvement. He will be the lead design manager for the project providing leadership and direction to all designers involved in the project.

Jay Bryant, Public Relations – Jay will develop and manage the community relations plan that will educate and inform local governmental officials, businesses, the driving public, and the public at large about the project to maintain and increase their support.

George Biediger, Finance Manager – George was a key leader in developing the Route 895 financial plan as well as providing ongoing oversight. He will work with Fluor Daniel's underwriter **David Klinges** (Bear Stearns) and legal adviser (Reed Smith) and VDOT to develop a workable financial plan.

Fluor Daniel is prepared to start many of the project work activities well in advance of financial close providing for timely completion of the project. Backing up these key project leaders are firms that are recognized leaders in the engineering and construction industry: Fluor Daniel, Lane Construction, and HNTB. On *Fortune* magazine’s 2002 Fortune 500 list, Fluor ranks number one in the “Engineering, Construction” category based on 2001 revenues. Lane Construction is ranked ninth in highway construction by *Engineering News-Record (ENR)*. HNTB tops *ENR*’s pure design firm list and is fourth in transportation design for 2002.



1-a.3 Management Approach

Fluor Daniel’s project management approach entails completing the Capital Beltway project on schedule and within budget while providing high quality and a safe working environment in the process. Fluor Daniel’s goal is to work effectively and proactively as a team to complete the project on time so that the benefits of the project can be offered to the public quickly and cost efficiently. All our various work activities will be aimed at contributing to these goals. There are a number of techniques that we will use to achieve these objectives. Each of these techniques is quite simply the product of experience, and each is a proven project management tool. These techniques include:

- Partnership approach
- Dedicated full-time staff participation
- Safety/traffic management emphasis
- Goal-driven planning, design, and construction process
- Quality assurance/quality control (QA/QC)
- Over-the-shoulder design review
- Construction completion focus
- Continual schedule and cost analysis

The Fluor Daniel management organization that will develop and construct this project is structured in a simple form with clear lines of authority and coordination from VDOT to the project director, and through him the legal adviser, public relations manager, and the major task managers - design, construction, and finance. Specific functions of each key element are:

Program Manager – The Fluor Daniel management approach will be a fully integrated, full-time dedicated team tailored to focus on the major challenges of the Capital Beltway project. The Fluor Daniel project director will provide the program management oversight for each of the major functional work components of the team. All key Fluor Daniel team decision-makers and much of the staff will be housed in one Virginia project office. The Fluor Daniel program director will manage the project assisted by senior managers for public relations, finance, design, and construction.

Public Relations Manager – Since many of the revenue strategies discussed in Tab 3 are dependent on the support of state and local elected officials, business organizations, the driving public, and the public at large, Fluor Daniel feels it is critical to make this effort an early priority. Fluor Daniel, under its PR manager, will develop a plan using education and information to maintain or increase support for the project. Without this support, none of the currently pending PPTA approaches to this project will succeed.

Finance Manager – Fluor Daniel's finance manager will coordinate the efforts of our underwriter, legal adviser, bond counsel, and traffic forecasting specialists (Vollmer Associates) to prepare its financial plan that will identify the sources and uses of funds. This approach will be refined throughout the project development phase and will be adjusted as necessary to stay in step with the public support.

Design Team Manager – HNTB will lead the design team and coordinate all engineering activities in the Fluor Daniel organization. Its experience in managing large, complex transportation projects throughout the United States and Virginia will allow it to initiate these activities with a minimal learning curve. Although HNTB has adequate capacity to handle this assignment, it may subcontract many of the design tasks to accelerate the work and provide business opportunities for other Virginia design firms.

Construction Manager – The construction manager will focus on integrating the fast-track permitting and design efforts with the expedited construction activities of the Capital Beltway project.

- Fluor Daniel's construction staff will be actively involved in the preliminary design process.
- Innovative design and construction are required to allow development of a cost-effective financing plan. Considering the known risks, Fluor Daniel believes its proposal provides the greatest benefits to the Commonwealth and area residents at the lowest total fixed cost. Fixed design and construction pricing is required to achieve project financing.
- Fluor Daniel intends to subcontract the Capital Beltway project to local contractors to the maximum extent possible.
- Constructibility will be an integral part of the Fluor Daniel team's effort, not just a review exercise. With a fully integrated team in the same office, such a process will be effectively executed.
- Leading the construction effort will be The Lane Construction Corporation with three decades of experience working on VDOT contracts.



1-b. EXPERIENCE

Describe the experience of each firm and the key principals involved in the proposed project. Describe the length of time in business, business experience, public sector experience and other engagements of the firm(s). The lead organization must be identified.

1-b.1 Experience with Similar Projects and Company Descriptions

THE FLUOR DANIEL TEAM

Fluor Daniel has assembled a world-class team experienced in the financing, design, and construction of projects similar to the Capital Beltway project. Fluor Daniel will lead the team effort and has substantial capability in project development and proven team performance in project delivery. Following are selected relevant projects for Fluor Daniel and our team members: HNTB Corporation, The Lane Construction Corporation, Bear, Stearns & Co., Inc., Research/Strategy/Management, Inc., and Reed Smith LLP.



FLUOR DANIEL

Company Description

Fluor Daniel is the engineering and construction services business of Fluor Corporation (NYSE: FLR), one of the world's largest, publicly owned engineering, procurement, construction, operations, maintenance, and project management companies. Fluor has an international workforce exceeding 50,000 serving clients in both traditional and evolving industries through a network of more than 25 offices. Consistently rated as one of the world's safest contractors, the company continued its outstanding safety achievements in 2001 recording a 0.03 lost-workday incidence rate nationally and 0.05 globally. Fluor Daniel's experience encompasses the entire spectrum of project delivery services. Fluor Daniel has become a trusted global business leader by providing industry expertise and technical knowledge to an extensive range of industrial, commercial, infrastructure, utility, natural resources, and energy clients. From experience gained in support of other industries, the company has been able to offer unique solutions and innovative approaches to transportation projects.

The Fluor Daniel Transportation Strategic Business Unit is dedicated to serving the roads, aviation, transit, water, and port facility markets globally. Its portfolio of infrastructure experience includes major highways, toll roads, rail and transit systems, aviation facilities and systems, water treatment facilities, and port facilities. A full range of services is provided that includes program management, turnkey design and construction, operations and maintenance, and build-own-operate-transfer (BOOT).

Fluor Daniel is recognized as a leader in the development of innovative, privately financed transportation projects. The company's projects in Denver, Colorado, and Richmond, Virginia, are first-of-a-kind, privately financed, design-build toll roads. Fluor Daniel was instrumental in the development of both of these projects that used tax-exempt bonds to finance the debt.

Fluor Daniel has completed multiple highway projects that total billions of dollars in construction cost and represent a host of challenges for every level of design, approval, and construction. While designing and managing construction of many individual projects, both large and small in scale, the company has developed a strong reputation for the specialized work of program management and is currently managing several large-scale programs in California and South Carolina representing more than \$10 billion in highway improvements.



Experience

Route 895 Pocahontas Parkway, Richmond, Virginia – Fluor Daniel is the majority partner and development lead in the venture responsible for the financing, design, and construction of the Pocahontas Parkway, the first capital project under the Commonwealth of Virginia Public-Private Transportation Act of 1995. During the three-year development period, the team raised private capital funding and employed an innovative use of tax-exempt bond financing to bring this \$324 million project to reality while fostering local support and obtaining agency clearances. The tax-exempt toll revenue bonds to finance the design and construction of the parkway were issued by a nonprofit organization created to serve as a bond-financing conduit.

The four-lane, limited access tollway project consists of a high-level river crossing, connecting I-95 to the I-295 in the vicinity of Richmond, Virginia. As part of the regional beltway around the metropolitan area, Route 895 will help relieve existing highway congestion through downtown Richmond and offer a faster connection to the regional airport. It will link Chesterfield and Henrico Counties. The



The 8.8-mile divided highway includes interchanges with the two interstates; a 200-meter clear-span, cast-in-place bridge over the James River; pre-cast segmental elevated ramp structures; smaller bridges; and toll facilities. The toll system uses the “Smart Tag” AVI technology being established throughout the Northeast. The Virginia Department of Transportation will own, maintain, and operate Route 895.

Project activities include utility relocations, wetland mitigation, right-of-way property acquisition, obtaining permits, and design and construction. Field construction on the Pocahontas Parkway began November 1998. Site staffing peaked at approximately 600 workers. The eastbound lanes of the parkway were opened to traffic May 2002; the remaining portion is scheduled for completion October 2002.

Tab 1: Qualifications and Experience

1-b.1 Experience with Similar Projects and Company Descriptions

Conway Bypass, Horry County, South Carolina – Fluor Daniel provided fast-track design and construction services for a 28.5-mile controlled-access highway around the traffic congestion caused by the city of Conway. Culminating from teamwork among government agencies, private industry, and local communities, the \$386 million Conway Bypass is the first major public-private partnership project to be constructed in South Carolina. The bypass is also the first project funded by the State Infrastructure Bank (SIB) established by the South Carolina General Assembly in mid-1997.



As the first phase of the Road Improvement Development Effort (RIDE) Program, the Conway Bypass stretches from Highway 501, 6 miles north of Conway, to North Myrtle Beach, South Carolina. The roadway varies from four to six lanes in width, with provisions for widening the entire length to six lanes, and includes five major interchanges. Seventeen main-line bridges span wetlands, railway, and the Waccamaw River.

The project scope included numerous bridges over wetland areas making up 9.85 miles of the approximately 28-mile roadway. By working closely with state and federal agencies, Fluor Daniel identified minimally productive wetlands that allowed the elimination of approximately 5 miles of bridges resulting in a \$50 million reduction in total project cost. Project personnel worked with U.S. Army Corps of Engineers representatives in the field, conducting actual field reconnaissance of the project to identify these wetlands, and then with multiple agencies in modifying the permit.

Fluor Daniel’s team included local state design and construction firms. Project staffing peaked at 720 during construction.

The new road, officially named Veterans Highway, opened May 2001, seven months ahead of schedule despite the disruption of three hurricanes and attention to sensitive environmental issues requiring special methods of construction. As a result of early project completion, Fluor Daniel returned to the South Carolina Department of Transportation more than \$300,000 in budgeted construction costs. These savings and other efficiencies realized during the construction have allowed the state to begin work on other transportation needs.

The project achieved 2.6 million hours without a single lost-time accident. This record ranks it as one of the safest major transportation projects in the United States.



Tab 1: Qualifications and Experience

1-b.1 Experience with Similar Projects and Company Descriptions

E-470 Toll Road, Denver, Colorado – Fluor Daniel is a partner in the Platte River Constructors, Limited, joint venture, responsible for the design and construction services of the \$321 million, 29-mile, initially 4-lane toll highway for the E-470 Public Highway Authority. Designed for an ultimate 8-lane configuration from Parker Road to and beyond the Denver International Airport, E-470 will eventually be a complete ring around eastern Denver. This facility is the first major design-build toll highway in the United States to reach the construction phase.

The public-private partnership developed on this project included the used of tax-exempt financing and the teaming of underwriter, traffic consultant, designers, construction subcontractors, environmental counsel, and others into a team that developed the project with the E-470 Public Highway Authority. An extensive value engineering effort resulted in the relocation of the highway, saved \$90 million in construction costs, and increased toll revenues to a level making the project economically feasible.



The E-470 roadway was opened to traffic in May 1999, two months ahead of schedule. Achieving 2.25 million workhours without a single lost-time accident, the project encompassed 12 major interchanges, 34 bridge structures, 3 mainline and 16 ramp toll plazas, 7 mainline grade separations, and full environmental remediation measures. Included in the project scope were design and construction of roadway and bridges and toll facilities featuring a state-of-the-art Toll Beltway Management System (TBMS). The TBMS scope included the complete turnkey services for design, fabrication, technical support, equipment software testing, installation, restraints, and documentation and a three-year warranty for the fully functional and integrated system.

HNTB CORPORATION

Company Description

Since 1914, public- and private-sector clients have turned to HNTB Corporation for design solutions. HNTB is one of the country's leading architecture, engineering, and planning firms, providing services throughout the United States and around the world. With more than 3,000 employees and more than 60 offices nationwide, HNTB offers a full complement of services across multiple disciplines including surface transportation, aviation, architecture, environmental engineering, construction services, and urban design and planning. Listed as *Engineering News-Record's* No. 1 Pure Design Firm, HNTB has designed highways in nearly every state and more than half of America's toll roads. The company is a leader in the design of both concrete and steel long-span and movable bridges and has designed more than 14,000 bridges worldwide.

Established in 1963, HNTB's Alexandria office has been involved in designing, planning, and constructing a large share of the Commonwealth's infrastructure. The Virginia Department of Transportation (VDOT) was HNTB's first client when the office opened its doors, and a strong relationship has continued ever since. HNTB has been responsible for hundreds of millions of dollars worth of construction in this time period and has worked on some of the most visible and prominent transportation projects in the Commonwealth. In 1997, VDOT recognized HNTB with its "Consultant of the Year" award. VDOT has routinely awarded HNTB its most sizable projects, as the firm has proven its capabilities to successfully complete complex, multidiscipline endeavors.

Currently, HNTB has several major VDOT contracts: I-95/I-395/I-495 Springfield Interchange design; design of the US Route 1/I-95 (Woodrow Wilson Bridge) Interchange; the I-95 Fourth Lane Widening Plan; and most recently, the I-95 single-occupancy connections to the Franconia/Springfield Parkway. Past projects include design for the expansion of the Northern Virginia Traffic Management System, the Traffic Management System for the Monitor-Merrimac Bridge Tunnel in Newport News, and the Capital Beltway Improvement Study. As a result, our management, administrative, and technical personnel thoroughly understand the Department's requirements.

In addition, HNTB has performed construction engineering inspection (CEI) services for VDOT including shop drawing review, notice of intent analysis, claim review, and CPM review since 1986, beginning with Route 1 in Crystal City. As part of the NOVA District wide contract, the firm performed CEI services for the Manassas Residency on the second Route 234 Bypass project from Balls Ford to Route 28. HNTB is very familiar with the construction environment, terrain, and VDOT resident personnel, standards, and expectations.



Experience

I-95 Phases I and II, Extension of High Occupancy Vehicle (HOV) Lanes, Springfield and Newington, Virginia – HNTB performed both design and CEI services on the two-phased HOV extension project for VDOT. This project included three major interchanges; major bridge construction/reconstruction under traffic in the heaviest-traveled corridor in Virginia (200,000 vehicles per day); retained earth walls; retaining walls; intelligent television cameras, transportation systems, variable message boards, and HOV gate systems; electrical systems/lighting; signage; 20-lane miles of asphalt pavement; and drainage structures and systems, sound walls, etc. These two projects were contiguous (\$65 million and \$55 million respectively) and had an overlapping construction schedule, so in essence the QA/QC consisted of \$120 million program value being inspected concurrently with a staff ranging from 12 to 25 personnel.

I-95/I-395/I-495 Interchange, Northern Virginia – The Springfield Interchange has the most complex configuration of any interchange along the entire I-95 corridor. The roughly ¾-mile interchange is fed by three major interstate routes, carrying local, long-distance, and HOV traffic. Here, some 425,000 vehicles converge every typical weekday. Rush-hour backups of a mile and more are common.

Completed in its current configuration in the early 1960s, this bottleneck is now undergoing a redesign and construction to be completed in eight stages over a period of approximately eight years.

The design requirements are strict. Major environmental issues involving federal, state, and local agencies were addressed. The project also had to meet noise abatement criteria and the requirements of the amended Clean Air Act of 1990. Moreover, the new interchange must also integrate with future transportation system designs. HOV connections between I-395 and I-495 were added to preliminary designs as a means of accommodating integration.

I-95/Route 1 Interchange, Alexandria, Virginia – HNTB is leading a team of 12 subconsultants to provide preliminary design development and preliminary design and final design documents for this complex interchange comprising 1 of 5 elements for the Woodrow Wilson Bridge Replacement project. The specific items included in the effort are:

- Supplemental survey to provide pavement elevations using low-altitude photogrammetry, mapping existing conditions and designating right-of-way to support the design processes.
- Geotechnical borings and analysis involving extensive and diverse knowledge and experience with the investigation of thick deposits of soft organic silt and clay. Design of foundations bearing in/on these materials. Conventional and state-of-the-art methods of laboratory and in situ testing of soils and analysis.



Tab 1: Qualifications and Experience
1-b.1 Experience with Similar Projects and Company Descriptions

- Traffic data and analysis including evaluation and qualification of traffic operations for the proposed interchange configuration as well as analysis of any proposed changes.
- Right-of-way and utility plans including the design of utility adjustment plans for water, sewer, gas, overhead and underground power, telecommunications, cable television, and existing TMS cable. Also included is the review of shop drawings, catalog cuts, construction administration, and inspection of utility work.
- Roadway, structure, and bridge plans for the new configuration that include approximately 15 new bridges, final plans, estimates, special provisions, review of shop drawings, consultation during construction, geotechnical investigation (boring and analysis), and surveying to locate borings.

The program for the revised arterials and a new urban deck includes a pedestrian plaza with connections for the urban trails that traverse the site. Extensive landscaping and special attention to historical themes are important elements for this work. This project also includes planning and design documents for signs, pavement markings/markers, signals, lighting, traffic management systems, and intelligent transportation systems to support state-of-the-art technology.



THE LANE CONSTRUCTION CORPORATION

Company Description

The Lane Construction Corporation is one of the largest heavy civil and transportation contractors in the nation. Established in 1890 and incorporated in 1902, Lane Construction Corporation is headquartered in Meriden, Connecticut, with construction field offices throughout the United States including Northern Virginia. Through its long history, Lane has completed billions of dollars worth of contracts for both public and private owners across the United States. The firm consistently ranks among the top 20 transportation contractors in the nation as reported by *Engineering News-Record* and is ninth in the 2002 ranking. Lane is also ranked among the leading five builders of federal highways.

Since the early 1970s, Lane has constructed more than \$450 million of contracts for the Virginia Department of Transportation. The corporation is currently qualified to conduct business in the Commonwealth of Virginia with a Class A License (BLD, H/H). Lane has also been a major contractor for The Washington Metropolitan Area Transit Authority having completed several sections of the mass transit system in the nation's capital.

Current annual revenues approaching \$600 million with the majority of contracts for state, federal, and municipal agencies include more than \$60 million of highway and bridge contracts under construction for the Virginia Department of Transportation. It should also be noted that Virginia Paving Company, a division of The Lane Construction Corporation, is under contract with VDOT for more than \$10 million in paving contracts at various locations throughout Northern Virginia. Lane has more than \$382 million of major highway and bridge projects under way at various locations including the \$57 million Springfield Interchange project, locally known as the "Mixing Bowl" project, on I-395 and I-95 for VDOT.

Lane is committed to a project's success backed by the financial, managerial, and professional resources of the total corporation. We have the construction expertise and engineering capabilities to complete the most complex project within the time specified. In its 100-year history, the firm has never failed to complete a contract nor has it ever been terminated from a contract for any reason.

Experience

Interstate 95 HOV Lanes, Woodbridge, Virginia – As general contractor, Lane constructed 2.5 miles of HOV commuter express lanes to Washington, D.C., in the median of existing I-95. Construction included two 12-foot lanes with shoulder, 3 high-level flyover bridges for access into the new HOV lanes on I-95, and earthwork and grading and placement of cement-treated aggregate subbase with bituminous concrete surfacing along the I-95 corridor. All work required extensive traffic coordination for egress of construction vehicles in and out of the work area for all contract items.



Tab 1: Qualifications and Experience

1-b.1 Experience with Similar Projects and Company Descriptions

Construction of the HOV lanes included these major quantities: 250,000 cubic yards of excavation, 91,000 square feet of reinforced earthwall, 79,000 tons of wall backfill material, 90,000 tons of aggregate subbase material, 94,500 tons of bituminous concrete pavement, and 4,012,000 pounds of structural steel.

Since I-95 is a 6-lane highway (3 lanes each direction) with a 120- to 150-foot wooded median, the primary concern for Lane was the ingress and egress from the median construction area for delivery trucks. A traffic control crew was formed to maintain traffic lights, signs, and barricades and to perform the daily lane closures as required. The same personnel remained assigned to traffic control, which resulted in a constant pattern of safety. Next were the shifting and narrowing of the existing travel lanes of I-95 in both directions to facilitate the setting of temporary concrete barrier along the left edge of pavement to protect the construction area. Temporary left lanes were also constructed in several locations to help construction traffic decelerate and accelerate from or into the median construction area. Daily lane closures in the left lane were also used to aid in safe access during high volumes of construction traffic periods. Another method of working around traffic was to set structural steel at night when traffic volumes are at their lowest. Lane also placed a large amount of bituminous concrete pavement at night to avoid traffic. Also constructed was a temporary ramp made of earth and temp concrete barrier from the median up to an existing overpass bridge for access from a secondary road.

Similarities of this project with the Capital Beltway HOT lanes include high volume of traffic; truck hauling from the median with entrance and exit ramps onto the interstate; staging of work with placement of portable concrete barriers to facilitate construction; bituminous concrete construction on new subbase; bridge construction involving bearing installations and deck construction; installation of overhead signs, guardrail, and roadside development items; and time-sensitive project requiring detailed traffic phasing and multi-shift construction coordination.

Route 22 Renew, Allentown, Pennsylvania

– Lane was the prime contractor for the reconstruction of nine miles of existing four-lane limited-access highway including demolition and construction of seven bridge structures under staged traffic patterns. The \$65 million Route 22 is a major 4-lane, limited-access highway through Pennsylvania’s Lehigh Valley. It serves the towns of Allentown, Bethlehem, and Easton, and is a main route to Lehigh Valley International Airport accommodating more than 85,000 motorists a day. Under a nine-phase traffic pattern scheme designed to reduce the restriction of



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FLUOR DANIEL
A FLUOR Company

Capital Beltway HOT Lanes

Tab 1: Qualifications and Experience

1-b.1 Experience with Similar Projects and Company Descriptions

traffic flow, Lane completely reconstructed nine miles of existing concrete pavement including the demolition and construction of seven bridge structures. More than 352,000 cubic yards of earth and hard rock removal were required for safety improvements. The initial stage of the project required milling 143,000 square yards of existing pavements. More than 37,000 square feet of new mechanically stabilized retaining walls were built through the restricted right-of-way area to support embankments and bridge abutments. The *22/renew* project, as it is known locally, is one where engineering vision has been sharpened by public participation and where safety will be elevated through the use of information-age technology such as traffic flow sensors, electronic changeable message signs, and the use of highway incident management system components. Approximately 220,000 tons of bituminous asphalt pavement and more than 93,000 cubic yards of concrete pavement were placed to return this major freeway to new standards. The project was completed as scheduled.

Dulles Toll Road Extension Project, Loudon, Virginia –
Lane was general contractor for the complete construction of 6.3 miles of a 4-lane limited-access toll road in Northern Virginia. The Dulles Toll Road Extension was the first privately built toll road in the Commonwealth of Virginia.

The project, known locally as the “Greenway,” included 12 bridge structures and 3 large cast-in-place box culverts. In addition to the massive earthwork involving more than 1,500,000 cubic yards, Lane crews drilled and blasted 1,400,000 cubic yards of solid rock ledge.



This rock was hauled to the company’s portable onsite crushing plant where it was processed for use as roadway subbase material as well as riprap for ditch linings and erosion control. Mainline pavement consisted of bituminous concrete that was produced and placed by Virginia Paving Company, a division of the Lane Construction Corporation. This project was a fast-track contract. By working closely with the design team and adjacent contractors, Lane finished its portion of the project ahead of schedule.

BEAR STEARNS

Company Description

Bear, Stearns & Co. Inc. is a leading global investment banking, securities trading, and brokerage firm with more than \$31.1 billion in capital. The firm's businesses include underwriting, sales and trading activities, financial advisory services, real estate finance, securities research, and asset management. Bear Stearns has devoted a significant amount of resources to assisting public and private entities in the development and implementation of financing strategies for infrastructure projects, particularly in the area of surface transportation. Founded in 1923, Bear Stearns currently has 20 offices worldwide and employs approximately 10,500 people serving federal, state, and local governments and agencies; foreign governments and agencies; and domestic and foreign corporations, institutions, and individuals. Its parent company is The Bear Stearns Companies Inc. (NYSE: BSC).

Experience

Route 895–Pocahontas Parkway, Richmond, Virginia – In June 1998, Bear Stearns served as senior managing underwriters for \$353 million of tax-exempt toll revenue bonds issued to finance the design and construction of the Route 895–Pocahontas Parkway. The bonds were issued by the Pocahontas Parkway Association, a nonprofit organization created to service as a conduit for the bond financing. Bear Stearns helped secure investment grade ratings on the senior project debt from three rating agencies (the first time a start-up nonrecourse toll project has received a rating from more than one agency before issuance). Because of the risks associated with project financings and the unique structure of the transaction (more than 50 percent of the debt was structured as capital appreciation bonds callable in 10 years), the bond offering was limited to qualified institutional investors. To ensure sufficient demand for the bond, a successfully pre-sale marketing effort was undertaken resulting in virtually every institution with an interest in high-yield tax-exempt debt and/or Virginia tax-exempt securities approving the credit for purchase.

Northwest Parkway Project, Denver, Colorado – Bear Stearns recently handled the first financing for the Northwest Parkway, a public highway authority under State of Colorado law. The Authority sought to implement the plan of finance so an accelerated schedule could be met to permit the highway to open to traffic by year-end 2003. Bear Stearns serves as co-senior manager for more than \$400 million of tax-exempt toll revenue bonds issued to finance the design and construction of the Northwest Parkway. The parkway is an extension of the E-470 beltway in Denver from I-25 (approximately 10 miles north of I-70) west and south through the City of Broomfield to US 36, the Boulder Turnpike. The financing team secured investment grade credit ratings for the senior lien project debt and received bids from bond insurers to provide credit enhancement.



Tab 1: Qualifications and Experience

1-b.1 Experience with Similar Projects and Company Descriptions

E-470 Toll Road, Denver, Colorado – The professionals in Bear Stearns’ Public-Private Ventures Group have been the lead bankers for the E-470 Public Highway Authority for more than a decade. In 1995, they structured and successfully marketed \$640 million of debt that funded the design and construction of approximately 29 miles of a 46-mile tolled beltway. The 1995 financing was recognized by *Institutional Investor* magazine as a “Project Finance Deal of the Year.” The financing team secured credit enhancement for a \$822 million refinancing of the project debt in 1997 that produced substantial debt service savings and eliminated certain restrictive bond covenants. That transaction facilitated a \$358 million financing in April 2000, underwritten by Bear Stearns, which funded construction of the final 12-mile segment of the project. In May 2001, Bear Stearns closed an innovative transaction involving variable rate securities and an interest rate swap that will enable the Authority to stop collecting vehicle registration fees eight years earlier than anticipated.



RESEARCH/STRATEGY/MANAGEMENT, INC. (R/S/M)

Company Description

The key to success in the modern world is information – acquiring it (research), figuring out what to do with it (strategy), and applying it (management). For nearly 20 years, R/S/M has been providing data, plans, and implementation guidelines in these areas to a growing list of some of America’s most successful corporations, associations, civic and political leaders, and educational institutions through its extensive experience in conducting public opinion surveys, focus groups, executive interviewing, experimental design studies, issue opinion tracking, and comparative benchmark studies. R/S/M operates out of Great Falls, Virginia, conducting studies from Hudson Bay to Tierra del Fuego and from Europe to Asia. It specializes in custom-made studies that meet its clients’ unique needs.

Experience

R/S/M counts among its corporate clients Boise Cascade, Digital Equipment Corporation, Geneva Steel, Kraft Foods, Bozell Worldwide, and the Vollrath Corporation. It has completed surveys for the *Wall Street Journal* and NBC News, and its principals have written articles for *The Christian Science Monitor* and professional and academic journals. Other clients include government agencies such as the Census Bureau. Research has been conducted for agencies, associations, and foundations such as the American Automobile Association, AARP, the National Mental Health Association, the Alliance to Save Energy, the American Medical Association, the PEW Charitable Trusts, the Kellogg Foundation, the National Immigration Forum, the Rockefeller Foundation, the Public Relations Society of America Foundation, and the Communications Consortium Media Center. R/S/M has also worked with educational institutions such as the National Center on Education and the Economy, Editorials Project in Education (publishers of *Ed Week*), the National Defense University, American University, Brigham Young University, Dartmouth College, the Malaysian Institute for Diplomacy and Foreign Relations, Northwestern University, and Princeton University.

R/S/M has conducted an extensive array of public policy-oriented attitudinal studies and analyses. These public opinion studies include ones on mental health issues, education reform and school accountability, education standards, food and drug issues, sustainable energy, the environment, biodiversity and wildlife conservation, national parks, abortion and population issues, physician-assisted death with dignity, immigration, welfare reform, civil liberties, juvenile justice and youth issues, public health care, and attitudes towards the U.S. Census.

Tab 1: Qualifications and Experience

1-b.1 Experience with Similar Projects and Company Descriptions

R/S/M conducts the National Credibility Index study for the Public Relations Society of America Foundation. This ongoing project on credibility establishes a national credibility index and measures its change by issue and information source. The project has been supported by the Rockefeller Foundation and the Columbia University School of Business.



REED SMITH LLP

Company Description

In its 125th year, Reed Smith maintains one of the most extensive administrative law and legislative practices of any law firm in Virginia. Its Virginia Government Relations team offers sophisticated regulatory and government relations capabilities to businesses, organizations, and associations that require representation before the Virginia General Assembly and agencies at all levels of state and local government.

The firm employs more than 700 lawyers located in 13 cities, including Falls Church, Leesburg, and Richmond, Virginia. Reed Smith's approach combines legal knowledge, political judgment, and proactive interaction with key legislators and government agency officials on both sides of the political aisle to formulate and articulate clients' public policy strategies. Its administrative law attorneys practice regularly before major boards and agencies of the Commonwealth, including State Corporation Commission, State Water Control Board, State Air Pollution Control Board, Waste Management Board, Department of Transportation, Health Department, Virginia Employment Commission, Department of Environmental Quality, Alcoholic Beverage Control Commission, Board and Department of Health Professions, Board of Counseling, Department of Motor Vehicles, and Department of Medical Assistance Services.

Experience

Reed Smith has extensive experience providing comprehensive legislative representation to numerous state, regional, and national clients. This experience includes:

- Representation of Virginia's largest electric utility on the deregulation of the electric energy industry in Virginia
- Protecting the interests of a large community-based hospital group and a major specialty group with regard to the elimination of the Certificate of Public Need program
- Representation of the Virginia General Assembly in a dispute with the Governor over the scope of the Governor's budget item veto power
- A dispute over the constitutionality of the Virginia Alcohol Beverage Control Act
- Representation of one of Virginia's largest federal contractors on sales and use taxation of certain purchases under federal government contracts



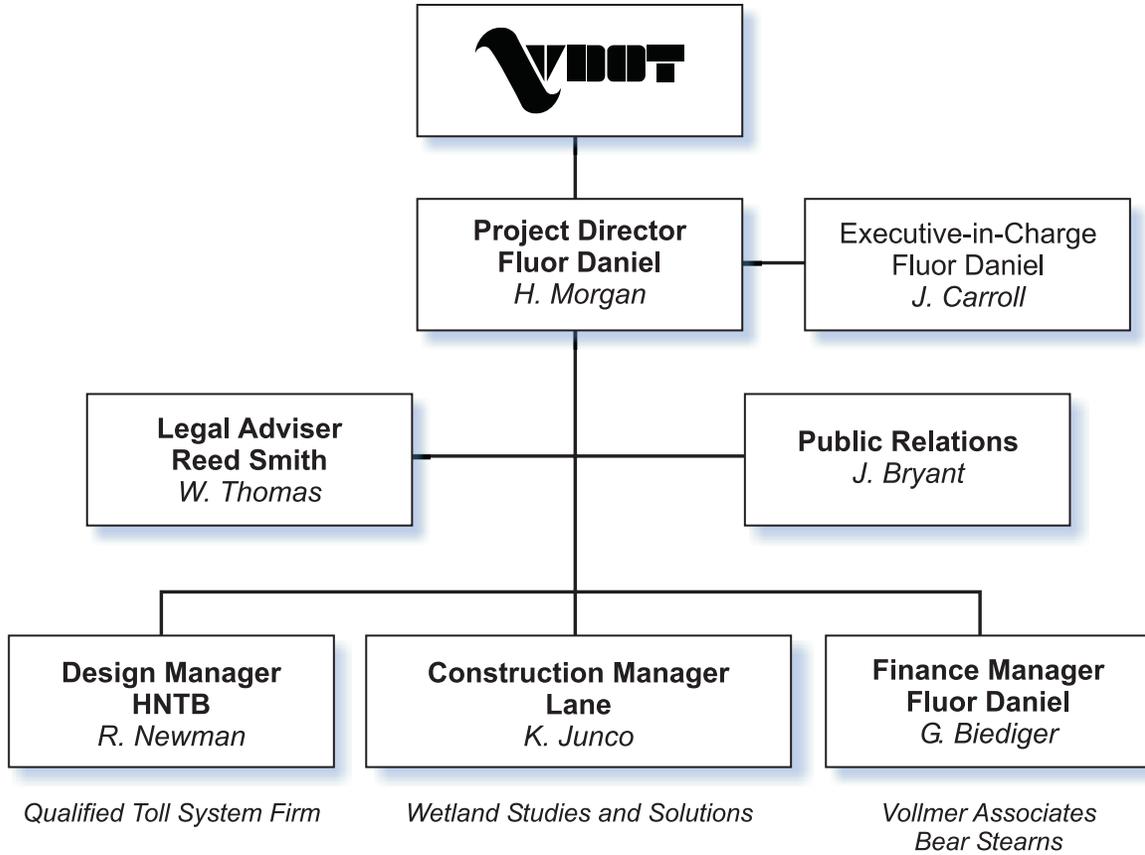
Tab 1: Qualifications and Experience
1-b.1 Experience with Similar Projects and Company Descriptions

Following is a representative sample of major clients represented by the Reed Smith Virginia Government Relations team during the most recent session of the Virginia General Assembly: American Maglev Technology, Inc.; Apartment and Office Building Association of Metropolitan Washington, Inc.; The Charles E. Smith Companies; Chesterfield County School Board; Dominion Resources, Inc.; ExxonMobil Corporation; Home Builders Association of Virginia; INOVA Health System; Lockheed Martin Corporation; Maryland Jockey Club; Mid-Atlantic Medical Services, Inc.; National Wildlife Federation; R.J. Reynolds Tobacco Company; Virginia Automobile Dealers Association; Virginia Baseball Club LLC; Virginia Beer Wholesalers Association; Virginia Cemetery Association; Virginia Chapter, American College of Radiology; Virginia Health Care Association; Virginia Wine Wholesalers Association, Inc.



1-b.2 Key Personnel

For the proposed Capital Beltway project, Fluor Daniel offers the following key personnel, many of whom are known to VDOT. Combining their proven design-build experience on Route 895 with their experience on the I-95/I-395/I-495 Interchange and other major complex road and bridge design and construction provides VDOT with a proven team possessing substantial knowledge to successfully deliver the Capital Beltway project.



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Mr. Carroll has 38 years of construction experience. Currently he leads Fluor Daniel's efforts related to public-private partnerships in the transportation sector. Half of his experience is accrued from engineering and management positions on six large foreign and domestic projects with a total current capital value of approximately \$7 billion. The other half is from engineering, training, marketing, and management positions in the corporate office. He maintains a broad range of interrelationships from clients and foreign governments to superintendents, designers, and corporate executives.

Specific Experience

Executive Director, Project Development, Fluor Daniel Transportation Strategic Business Unit

Mr. Carroll is responsible for leading the project development efforts related to public-private partnerships for public transportation facilities. He was the first president of the limited liability company formed by Fluor Daniel and Morrison Knudsen to pursue and execute work in Virginia. Fluor Daniel is the majority partner and the overall leader of FD/MK LLC. Mr. Carroll led FD/MK's team in the development of the Route 895-Pocahontas Parkway. FD/MK is responsible for the financing, design, and construction of the high-level river crossing connecting I-95 to the I-295 near Richmond.

Vice President, Development, Morrison Knudsen

Mr. Carroll was responsible for developing the new market for public-private partnerships in the transportation industry. Among his accomplishments is the development of the E-470 toll road in Denver, Colorado, and the SR 520 improvement in Seattle, Washington.

Vice President, Marketing, Morrison Knudsen, Construction Group

Responsible for business planning, business development, and proposal support, Mr. Carroll directed a staff of 18 specialists in the front-end efforts of a \$10-billion-a-year bid/proposal volume.

Construction Manager, Intercor (Exxon/Colombia Government), Cerrejon Coal, Colombia

Mr. Carroll was responsible for the overall construction effort on the \$1 billion Cerrejon Coal project. Construction responsibilities included temporary facilities, built on a direct-hire basis, to support work in a remote area, as well as the permanent port, railroad, and mine facilities, which were subcontracted to local contractors. He directed 2,000 direct-hire personnel and 6,000 subcontractor personnel.

Director of Engineering, Corps of Engineers, King Khalid Military City, Al Batton, Saudi Arabia

Mr. Carroll directed the design, project control, and construction support for the \$1.1 billion cost-plus award fee contract for preliminary site development, utilities, precast concrete plant, and all support services for the remote site in northeast Saudi Arabia.

Education: Master of Business Administration, Boise State University
Bachelor of Science, Civil Engineering, University of Detroit

Registration: Professional Engineer, Idaho

Affiliations: American Society of Civil Engineers, Fellow; Academic Council of the Construction Industry Institute, Boise State University Construction Program Industry Advisory Committee

Publications: Presented "Organizing for Program Management" to American Institute of Constructors
Authored the Industrial/Building Group "Management Manual"
Coauthored CII "Organizing for Project Success" workbook
Presented "Elements of Project Success" at ASCE Construction Congress I



Mr. Morgan has 27 years of experience in the engineering and construction industry. He is experienced in managing highway, road, and bridge construction for major expressways and for multiple-facility industrial and medical complexes. Project director for Pocahontas Parkway, Mr. Morgan is also president of the venture selected to deliver the privately financed, design-build toll road project in Richmond, Virginia. His extensive experience includes design engineering management on various food and consumer products facilities, construction management of a large medical complex, and project management responsibilities encompassing project planning, final design, scheduling, procurement and contract administration, quality assurance and control, construction, and safety. Mr. Morgan has been with Fluor Daniel for 25 years.

Specific Experience

Project Director, Virginia Department of Transportation, Route 895–The Pocahontas Parkway, Richmond, Virginia

Mr. Morgan has responsibility for the overall management of design, right-of-way acquisition, scheduling, permitting, procurement, construction, and administrative functions of the project team along with coordination with the Virginia Department of Transportation and local jurisdictions. The \$324 million privately financed project consists of a new high-level crossing of the James River, a major freeway to toll road elevated interchange, and approximately eight miles of roadway. The Pocahontas Parkway is currently the largest single construction project and the first major design-build highway project under the PPTA undertaken by VDOT.

Construction Manager, Philip Morris, Cabarrus Expansion, Concord, North Carolina

Mr. Morgan managed all field activities involved in the construction management of major additions to a tobacco processing facility. He assisted in preparation of master project schedules; supervised civil, architectural, mechanical, and electrical contract engineers; and monitored contractors' staffing and equipment against approved schedules for this \$400 million expansion.

Construction Manager, King Abdulaziz University, Health Sciences Center, Jeddah, Saudi Arabia

As construction manager, Mr. Morgan was responsible for all field operations related to construction management of the Health Sciences Center and main campus that included an 800-bed teaching hospital, clinics, medical and dental academic areas, housing, administration facilities, commercial centers, a sports complex, and recreational facilities. These \$700 million facilities required major site infrastructure such as highways, diversions, new interchanges, extensive parking, walkways, and roadway systems.

Construction Engineering Manager, Virginia Power, Bath County Pumped Storage Facility, Warm Springs, Virginia

Mr. Morgan supervised the civil, mechanical, and electrical disciplines in the design of construction facilities and material procurement in executing the construction engineering program on a large hydroelectric power plant. His responsibilities included supervising area engineers and survey department and assisting construction forces in interpretation and implementation of drawings and specifications.

Construction Engineer, RMA Expressway, Richmond, Virginia

For this major commuter highway, Mr. Morgan was responsible for management of contracts for bridges and pavement, as well as inspection of bridge and retaining walls and concrete pavement.

Education: Bachelor of Science, Civil Engineering, Virginia Polytechnic Institute and State University

Registration: Professional Engineer, Virginia and Arizona



Robert B. Newman, P.E.

Design Manager

Mr. Newman is director of engineering for HNTB's Alexandria office. He has extensive transportation and public sector experience. At present, he is project manager for the \$400 million I-95/I-395/I-495 Interchange improvement in Northern Virginia. Scope of work includes conceptual design, environmental assessment, and preliminary and final design, including signing, lighting, and ITS elements.

Specific Experience

Project Manager, Virginia Department of Transportation, Extension of I-95 HOV Lanes, Northern Virginia

For the extension of HOV lanes 20 miles on I-95, Mr. Newman is responsible for the preliminary design, final design, and preparation of construction documents for roadway drainage, bridges and retaining walls, lighting, signing, signalization, and all TMS elements, including variable message signs, closed-circuit television, gates, incident detection, and control center.

Project Manager, Woodrow Wilson Memorial Bridge Surveillance and Control Systems, Washington, D.C.

Mr. Newman directed the engineering scope of work that included a surveillance and control system incorporating 9 closed-circuit television cameras and 26 variable message signs along the approaches to the bridge and a fiber-optic cable

Project Manager, I-665 Monitor-Merrimac Tunnel, Newport News, Virginia

Scope of work included \$12 million traffic control system associated with the new tunnel. Elements of the project included fixed and variable message signs, roadway lighting, pavement detectors, CCTV surveillance, lane control, signals, and a traffic control center.

Project Manager, I-395/I-66 Traffic Management System, Northern Virginia

Mr. Newman managed the design and construction services for \$26 million traffic management system. Elements of the project included fixed and variable message signs, CCTV surveillance, pavement detectors, ramp metering, and a traffic control center.

Project Manager, West Virginia Parkway's 30-Year Master Plan

As project manager, Mr. Newman was responsible for the development of conceptual plans and budgets for various aspects of turnpike operations, including traffic management systems, toll facilities system, building facilities plan, and pavement and bridge plan for this 88-mile toll road.

Project Engineer, I-395 Shirley Highway Improvements, Northern Virginia

Mr. Newman prepared the studies and final design for the 11-mile section from Springfield to the 14th Street Bridge at the Potomac River. Included in this 11-mile section were 8 full interchanges. The I-395 reversible lanes represented the first time in this country that a roadway was exclusively dedicated to HOV usage.

Education: Bachelor of Science, Civil Engineering, Polytechnic Institute of New York

Registration: Professional Engineer, Virginia, Maryland, North Carolina, New York, and District of Columbia

Affiliations: Virginia Road and Transportation Builders Association, Council of Engineering Companies of Metropolitan Washington, American Road and Transportation Builders Association



Mr. Junco has 22 years of experience in heavy civil engineering and construction. He is experienced in managing the excavation, grading, drainage, paving of highways, roads, airport runways, taxiways, and parking lots and bridge construction for major expressways. His background includes asphalt plant management and the marketing, estimating, manufacturing, placement, and billing of milling, stone subbase, and asphalt-paving related work. Projects for the Virginia Department of Transportation for which Mr. Junco has had responsibility include the Springfield Interchange, Route 28 widening, I-66 HOV widening, and I-66 median expansion.

Specific Experience

Construction Manager, Virginia Department of Transportation, Springfield Interchange, Northern Virginia

For the fifth phase of the Springfield Interchange, Mr. Junco is managing the bridge and road work on I-395 and I-95 for this major complex project. The project requires extensive coordination to accommodate the egress of construction vehicles in and out of the work area and the high volume of traffic.

Construction Manager, Stafford Regional Airport Authority, Airport Runway, Taxiway, Apron, and Landside Development

Mr. Junco is managing the heavy civil construction of a new airport in Stafford County that includes the excavation of more than 1 million cubic yards of earth and rock excavation and the asphalt paving of a 5,000-foot runway and taxiway. He also continues to oversee the asphalt plants in Northern Virginia.

Construction Manager, Virginia Department of Transportation, Route 28 and Interstate Route 66, Centerville and Arlington, Virginia

Mr. Junco managed all site activities involved in the widening of Route 28 over Interstate Route 66 at Centerville and an emergency repair of a failed retaining wall in Interstate Route 66 in Arlington. He is also responsible for managing three asphalt plants producing bituminous concrete for work throughout the Northern Virginia area including Dulles International Airport and Ronald Reagan National Airport.

Assistant District Manager, Virginia Paving Company, Northern Virginia

Assisting in the management and administration of the Virginia Paving Company division of Lane, Mr. Junco also managed various civil and transportation projects in the Northern Virginia area.

Plant Manager, Virginia Paving Company, Sterling, Virginia

Mr. Junco was responsible for the manufacture and placement of approximately 300,000 tons of asphalt per year. One of the major projects completed was the placement of 370,000 tons of asphalt on Virginia's first private toll road.

Project Manager, Virginia Department of Transportation, Widening Projects, Fairfax County, Virginia

Mr. Junco managed the I-66 HOV widening and expansion and the I-66 median expansion for VDOT. Scope included the excavation, drainage, concrete paving, concrete patching, and incidentals on a route traveled by 125,000 vehicles per day.

Education: Bachelor of Science, Civil Engineering, Clarkson College

Mr. Biediger, as senior director of Fluor Daniel's Project Finance Group, is experienced in the structuring and placement of financing of multimillion-dollar engineering and construction projects in the public infrastructure sector and in commercial, institutional, industrial, paper, and electronics industries. To support development and construction of the Route 895–Pocahontas Parkway, he led the FD/MK financing team in structuring and placing cost-effective, nonrecourse tax-exempt bonds. Mr. Biediger continues to serve on the board of directors of the Pocahontas Parkway Association, a nonprofit organization responsible for the project until bonds are retired. His background also includes strategic planning, corporate planning and development, project development, and commercial banking. He has been with Fluor Daniel for 21 years.

Specific Experience

Senior Director, Project Finance Group

In his present position, Mr. Biediger is responsible for arranging funding of client projects for all business units in Fluor Daniel. His responsibilities include financial structuring, marketing support, economic analysis, business planning, and financing placement. He has been responsible for the financial structuring of infrastructure projects totaling more than \$1 billion in value. Responsible for the implementation of public-private financing solutions for the company's Transportation Strategic Business Unit, he has extensive experience in tax-exempt bond financing. He led the financing team that structured and placed cost-effective nonrecourse tax-exempt bonds to support development and construction of the Route 895–Pocahontas Parkway project for the Virginia Department of Transportation. His involvement in the project continues as a board member of the Pocahontas Parkway Association. Other relevant project teams on which he has worked include the Conway Bypass in South Carolina, the E-470 toll road in Colorado, the Florida Overland Express high-speed rail, the Bi-Lo Center arena in South Carolina, and the Coffield Prison in Texas.

General Manager, Fluor Daniel Venture Group

Mr. Biediger was responsible for financial structuring of projects for the industrial sector and the process sector of Fluor Daniel. His responsibilities encompassed evaluation of nontraditional risks for the account of Fluor Daniel and placement of third-party equity and debt.

Vice President, Commercial Lending

Before joining Fluor Daniel, Mr. Biediger was vice president, Commercial Lending, with South Carolina National Bank. He was responsible for relationships with approximately 100 corporate accounts including corporate, real estate, trade, and export lending.

Community Involvement

In addition to serving on the Pocahontas Parkway Association board, Mr. Biediger is officer and board member of Historic Greenville Foundation and a member of the Transportation Committee of the Greenville Chamber of Commerce. He is also a graduate of the Leadership South Carolina Class of 2000 and has served on many community boards including the Greenville Symphony, The Greenville Ballet, The Greenville Central Area Partnership, St. Joseph's High School, Fall For Greenville, and the Greenville General Hospital Advisory Board.

Education: Master of Arts, Economics, Clemson University
Bachelor of Arts, Economics, Clemson University
Certificate, School of Banking of the South, Louisiana State University



Mr. Klinges has more than 17 years of experience as an investment banker and has been responsible for a variety of municipal financings. As managing director, Public-Private Ventures Group, he leads an effort within Bear Stearns to privately develop and finance public-use *infrastructure* projects, with a focus on transportation facilities. His experience includes four toll revenue bond issues for the E-470 Public Highway Authority in Denver, Colorado, totaling more than \$2 billion; the Southern Connector toll road in South Carolina; and the Route 895–Pocahontas Parkway in Richmond, Virginia. Other private finance experience includes the Atlanta Federal Center, a public-private development of a new federal office building in Atlanta. He was responsible for the refinancing of the Dulles Greenway, which had been in default on \$300 million in debt. Mr. Klinges is the lead banker for private sector efforts to develop rail service from metro Washington to Dulles Airport and a new bridge linking Detroit and Windsor, Canada, and to introduce express lane service to C-470 in Colorado. Before joining Bear Stearns, he was with Lehman Brothers where he had overall responsibility for the firm’s public finance activities throughout much of the Mid-Atlantic region.

Specific Experience

Lead Banker, Route 895–The Pocahontas Parkway, Richmond, Virginia

Mr. Klinges was one of the lead bankers for \$353 million of tax-exempt toll revenue bonds issued to finance the design and construction of the Pocahontas Parkway, an 8-mile limited-access tollway and high-level bridge crossing the James River southeast of Richmond, Virginia. The Pocahontas Parkway is currently the largest single construction project and the first major design-build highway project undertaken by the Virginia Department of Transportation.

Lead Banker, E-470 Toll Road, Denver, Colorado

Mr. Klinges was one of the lead bankers responsible for development and implementation of \$650 million revenue bond financing in 1995 of this start-up toll road that serves as a beltway around eastern Denver. He subsequently structured and secured credit enhancement for an \$822 million refinancing of the project debt in 1997. In 2000, he senior-managed a \$358 million long-term financing of the fourth segment of the highway. The fourth toll revenue bond issue proposed and implemented was a floating to fixed-rate refunding of \$49.3 million of the E-470 Public Highway Authority’s bonds backed by motor vehicle registration fees in 2001, achieving both debt service reductions as well as shortening the final maturity of the bonds by eight years.

Lead Banker, Southern Connector, Greenville County, South Carolina

Mr. Klinges served as a lead banker for a joint venture that competed for and won the right to design, construct, finance, and operate a 16-mile toll road along the southern perimeter of Greenville, South Carolina. The joint venture was composed of a private development team and a not-for-profit organization created to facilitate the financing of the project by issuing approximately \$200 million of nonrecourse, tax-exempt toll revenue bonds.

Lead Banker, Dulles Greenway, Loudoun County, Virginia

Mr. Klinges structured and marketed a \$332 million refinancing of debt issued by Toll Road Investors Partnership II, L.P., a special-purpose Virginia limited partnership created in 1993 to develop, construct, and operate a 14-mile private toll road in Loudoun County, Virginia.

Education: Master of Business Administration, Finance, Amos Tuck School of Business Administration at Dartmouth
Bachelor of Arts, Government, Dartmouth College



Mr. Bryant is a communications consultant providing a wide range of services to an international client base, including large and small corporations, associations, government agencies, and public figures. As president and founder of Jay Bryant Communications Consultants (JBCC), he creates public relations and advertising initiatives that help clients effectively achieve their communication objectives. His 38-year background in communications includes being a television producer, writer and director, teacher, speechwriter, graphic designer, and strategist and planner.

Specific Experience**President and Founder, Jay Bryant Communications Consultants, Upper Marlboro, Maryland**

Mr. Bryant founded JBCC in 1989 to provide public relations, advertising, and other communications services for companies and organizations engaged in manufacturing, education, retail sales, finance, health care, and transportation. The services he provides include advertising and public relations strategy and planning; writing; public speaking; speech, interview, and debate coaching; radio and television production; media placement; media research; direct-mail project planning; creative graphic design; and Web-site design. His television production credits include the innovative discussion-documentary series, *At Issue*, which aired nationally on CNBC and The Discovery Channel.

Division Manager, Advertising and Public Relations, Research/Strategy/Management, Inc., Great Falls, Virginia

Mr. Bryant created the advertising and public relations division for this national research and consulting company and managed it for four years.

Chief Executive Officer, Bishop, Bryant and Associates, Washington, D.C.

For six years, Mr. Bryant headed up the Bishop, Bryant and Associates ad agency, specializing in political and public affairs clients.

Staff Positions, House and Senate, Capitol Hill, Washington, D.C.

Mr. Bryant has held high-level staff positions in the U.S. Senate and was the special assistant to the Minority Whip in the U.S. House of Representatives. Previously, he served as assistant to the Governor of Illinois.

Producer-Director, State of Maine Educational TV Network

Mr. Bryant produced university-level instructional programming and was executive producer of the nationally recognized special, *A New England Town Meeting*.

Writer and Programming Assistant, WGN Television, Chicago, Illinois

Mr. Bryant won a coveted internship at WGN, and was subsequently hired as a writer and programming assistant. His writing credits included the Chicago Emmy Award-winning *The All Time Hits*.

Education: Master of Arts, Speech, Northwestern University
Bachelor of Arts, Radio-TV-Film, Northwestern University
H.B. Earhart Fellowship for graduate study, sponsored by Milton Friedman



Mr. Thomas focuses on administrative practice before all state agencies, legislative practice before the Virginia General Assembly, land use and administrative practice before all Northern Virginia jurisdictions and agencies, and a corporate governance practice. A partner at Hazel & Thomas, P.C., he became a partner at Reed Smith LLP when his firm merged with Reed Smith Shaw & McClay LLP in 1999.

Mr. Thomas is a member of the American Law Institute and the American College of Real Estate Lawyers and has written extensively in the condominium field and lectured on the changing electric utility business. He is former chairman of the Virginia Democratic Party (1970-1972) and is politically active in the Virginia and Washington, D.C., areas. Mr. Thomas has served by Governor's appointment to the board of directors of The Center for Innovative Technology, The Virginia Museum, and a Virginia member of the Washington Metropolitan Airports Authority.

Mr. Thomas is a 1963 graduate of the University of Richmond, where he served as the editor of *Richmond Law Notes*. He is a member of the Bars of the Commonwealth of Virginia and the District of Columbia. He served as a member of the board of directors for Virginia Electric and Power Company from 1987 until 2000, and is currently a member of the Fourth Circuit Judicial Conference.



1-c. INFORMATION SOURCE

Provide the names, addresses and phone numbers of persons within the firm or consortium who may be contacted for further information.

Serving as the primary contact for the Fluor Daniel team to provide any additional information requested by VDOT is:

Herbert W. Morgan
Project Director
Fluor Daniel
620 Moorefield Park, Suite 210
Richmond, VA 23236
Telephone: 804-330-5215
Facsimile: 804-560-9381
E-mail: herb.morgan@fluor.com



1-d. CLIENT REFERENCES

Include the address, telephone number, and the name of a specific contact person for an entity for which the firm/consortia or primary members of the consortia have completed a similar project.

Fluor Daniel

Route 895 - Pocahontas Parkway
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

David Wesson
Transportation Engineer Senior
804-330-5217

Conway Bypass
South Carolina Department of Transportation
955 Park Street, P.O. Box 191
Columbia, SC 29202-0191

Don H. Freeman
State Highway Engineer
803-737-1314

E-470 Toll Road
E-470 Public Highway Authority
22470 East 6th Parkway, Suite 100
Aurora, CO 80018

Matthew McDole
Director of Engineering
303-537-3470

HNTB

Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Dewey Litton
Engineering Programs Supervisor
804-786-1873

Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Malcolm Kerley
State Structure and Bridge Engineer
804-786-2635

*New Pedestrian Tunnel, Raleigh/Durham
International Airport*
Richmond Metropolitan Authority
901 East Byrd Street, Suite 1100
Richmond, VA 23219

R. Michael Berry
General Manager
804-649-8489

Tab 1: Qualifications and Experience
1-d Client References

The Lane Construction Corporation

Springfield Interchange Reconstruction I-95 and I-495
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Larry Cloyde
Construction Project Manager
703-313-6686

I-95 HOV Lanes
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Rick Lloyd
Resident Engineer – Construction
703-572-6390

Route 22 Renew
Pennsylvania Department of Transportation
555 Walnut Street
Harrisburg, PA 17101

Steven R. MacLean
Assistant District Engineer
610-791-6049

Bear Stearns

Pocahontas Parkway (Route 895 Connector)
Pocahontas Parkway Association
P.O. Box 35033
Richmond, Virginia 23235

Joseph Jenkins
President
Pocahontas Parkway Association
804-440-7599

E-470 Toll Road
E-470 Public Highway Authority
22470 East 6th Parkway, Suite 100
Aurora, Colorado 80018

John McCuskey
Director of Finance
303-537-3745

Northwest Parkway Project
Northwest Parkway Public Highway Authority
555 Eldorado Boulevard, Suite 130
Broomfield, Colorado 80021

Steve Hogan
Executive Director
303-466-0567

1-e. FINANCIAL STATEMENTS

Provide a financial statement of the firm/consortia and each major partner. Submit the most recent Securities and Exchange Commission 10-K and 10-Q reports, if such reports have been filed.

Fluor Corporation

Fluor Corporation is the largest publicly owned international engineering, construction, and diversified services firm based in the United States. Fluor ranked 175th in *Fortune* magazine's most recent listing of America's 500 largest corporations, and the company's engineering and construction business ranked second in *ENR* magazine's most recent listing of the top 400 U.S. contractors. Fluor's stock is traded on the New York Stock Exchange under the symbol FLR.

For the fiscal year ended December 31, 2001, Fluor Corporation's net earnings from continuing operations were \$143.0 million. Revenues from continuing operations were \$9.0 billion for the year. Operating profit for the engineering and construction business, which includes Fluor Daniel, a division of Fluor Enterprises, totaled \$280.7 million. New awards amounted to \$8.7 billion.

At December 31, 2001, the company had cash and cash equivalents of \$572.7 million and a debt to total capitalization ratio of 6.7 percent. Total short- and long-term debt amounted to \$56 million, and net worth totaled \$782.9 million. Contract backlog at December 31 stood at \$11.5 billion.

Liquidity is currently available through \$350 million in committed credit facilities provided by a world-class group of banks led by Citibank and Bank of America.

Fluor's debt is rated investment grade as follows:

- Long-term: Standard & Poor's – "A," Moody's – "A3," and Fitch – "A."
- Short-term (including CP): Standard & Poor's – "A-1," Moody's – "P-2," and Fitch – "F1."

The most recent 10-K and 10-Q reports filed with the Security and Exchange Commission follow.



1-f. DBE/MBE PARTICIPATION

Include any planned participation of small, women-, and minority-owned businesses during project development and implementation.

Fluor Daniel Commitment to DBE/MBE Firms

The Fluor Daniel team firms have long and successful histories of providing contracting opportunities for disadvantaged/minority business enterprises (DBE/MBEs). As leaders in design, construction, finance, and operations, the firms have developed a variety of methods and programs to address the needs and desires of the DBE/MBE communities in every locality. Each program is intended to respond to specific needs for the project and to make the best use of the local DBE/MBE community's strengths while mitigating areas of potential weakness. Using a variety of financial, bonding, and insurance programs to enable DBE/MBE participation, Fluor Daniel will maintain a proactive approach for the Capital Beltway project.

Fluor Daniel, using these proven programs on its Pocahontas Parkway project, is currently meeting or exceeding the DBE/MBE goals. Through this current project, Fluor Daniel has developed meaningful opportunities for both contracting and professional services to DBE/MBE firms. This success is being further enhanced as additional information becomes available and opportunities arise. The goal of the Fluor Daniel team is to have a minimum of 10 percent of project participation by DBE/MBE firms on the Capital Beltway project.

Fluor Daniel is committed to a contracting approach that allows the maximum participation of Virginia- and Fairfax County-based DBE/MBE firms. Fluor Daniel has a listing of DBE/MBE firms certified by the Commonwealth of Virginia and their specific capabilities. Certified businesses will be accepted by Fluor Daniel as meeting the requirements to participate in the project's DBE/MBE program. The list is being used to develop a set of contracting packages that can be executed in a quality and profitable manner by these firms.

A major reason for DBE/MBE firms being unable to compete for work is the lack of or the constraint caused by insurance and bonding requirements. During the development of this project, Fluor Daniel will investigate the use of a contractor-controlled insurance program (CCIP) to assist DBEs/MBEs in meeting the project's insurance requirements. A CCIP will allow firms that otherwise could not effectively pursue or execute work on a major public works project the opportunity to participate as part of the Fluor Daniel team.