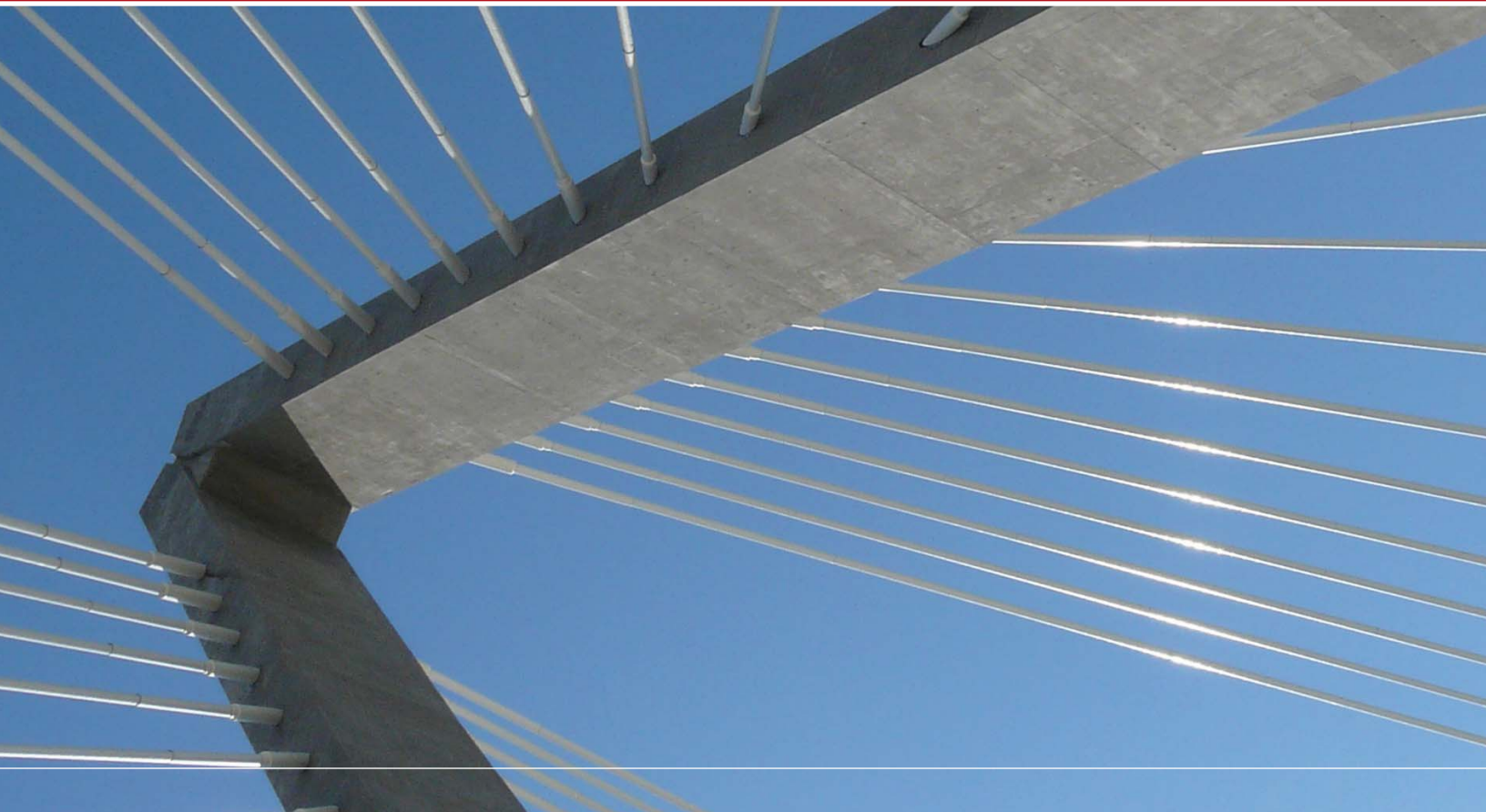


PARSONS

Parsons Bridge and Tunnel
People and power to
move the world.



Power to
change
the global
landscape.



Parsons' Bridge and Tunnel Division provides connections to communities of the past, present, and future. We understand the importance of our customers' existing infrastructure and the history of their community, as well as the principles of sustainability, safety, and quality. Parsons has proudly provided design, construction management, and inspection services for some of the world's largest and most complex bridges. Our reputation for innovative design and construction methods, and our commitment to safety and quality, are what our customers depend on.

We understand the challenges our customers face and provide solutions that meet their needs today and in the future. Our designs are aesthetically pleasing, constructible,

and cost-efficient. By combining form with function, economy, and sustainability, our award-winning bridges and tunnels fulfill an important purpose and often serve as historic or world-class landmarks.

Across the globe, our bridges enrich skylines and our tunnels feature state-of-the-art technology. And by minimizing impacts to the environment and maintaining the culture of the community, Parsons' custom infrastructure pays homage to the past while recognizing the importance of tomorrow.

JOHN JAMES AUDUBON BRIDGE

OWNER
Louisiana Department of Transportation and Development

PROGRAM VALUE
\$347,000,000

LOCATION
St. Francisville, Louisiana

PROJECT HIGHLIGHTS

Parsons served as equity partner and lead designer for the \$347 million John James Audubon Bridge, which is part of Louisiana's Transportation Infrastructure Model for Economic Development (TIMED) program. This project involved the construction of a new 1,583-foot cable-stayed span designed for a 100-year service life with 2 miles of approach spans, 7 additional bridges, and approximately 12 miles of new roadway. Our team incorporated several innovations into this project, including the elimination of sunken caissons by substituting tip-grouted drilled shafts, and the use of galvanized strand for additional corrosion protection of the stay cables. Because part of the wetlands that surround the project is habitat for the threatened Louisiana black bear, 10 bear crossings were incorporated into the project. Tunnels were constructed under the roadway for the bears to travel through and to provide a continuous habitat. This is the Louisiana Department of Transportation and Development's first design-build project. The bridge opened to traffic in May 2011 and has the longest cable-stayed span in the Western Hemisphere. The John James Audubon Bridge connects Pointe Coupee and West Feliciana parishes in south-central Louisiana and replaces a ferry between the communities of New Roads and St. Francisville. The team has been recognized for its commitment to quality, safety, and innovation.



AUTOROUTE 25 COMPLETION PROJECT

OWNER
Quebec Ministry of Transportation

PROGRAM VALUE **LOCATION**
USD \$500,000,000 Montreal, Quebec, Canada

PROJECT HIGHLIGHTS

Parsons, as an equity partner, managed and led the design and engineering services during construction and provided quality assurance on this project. The 7.2-kilometer toll highway includes a four-lane connector highway, 10 grade-separated bridges, 3 interchanges, a 1.2-kilometer main bridge crossing the Rivière-des-Prairies, a pedestrian-cyclist path, and accommodations for public transit lanes. The main bridge includes a 280-meter main span cable-stayed bridge — the first of its kind in Montreal in more than 40 years. The Autoroute 25 Completion project serves as a model for sustainable practices, as measures were taken to ensure no interruption to the Atlantic sturgeon spawning season, which occurs under the main span; excess excavation material was kept and used on site; and the off-site fabrication of materials occurred nearby, bolstering the regional economy. In recognition of these efforts, this project received the Prize of Distinction from the Quebec Association of Transportation.

WOODROW WILSON MEMORIAL BRIDGE

OWNER
Maryland State Highway Administration

PROGRAM VALUE **LOCATION**
\$680,000,000 Virginia, Maryland, and Washington, D.C.

PROJECT HIGHLIGHTS

The Woodrow Wilson Memorial Bridge includes the largest moveable bridge span in the United States and is the only moveable structure in the federal highway system. When the previous span became obsolete, Parsons provided innovative solutions by working with area residents, the Federal Highway Administration, the U.S. Environmental Protection Agency, and the transportation agencies in the three states to develop a multiple jurisdiction review and approval agreement. As a result of our collaborative process, delivery of the finished bridge was cut by nearly a decade. Parsons went on to win a rigorous design competition by engineering a dual structure composed of 34 fixed V-pier spans that combine post-tensioned segmental concrete and cost-effective steel-plate girders with twin double-leaf bascule spans — a first-time achievement in bridge design.



SHEIKH KHALIFA BRIDGE

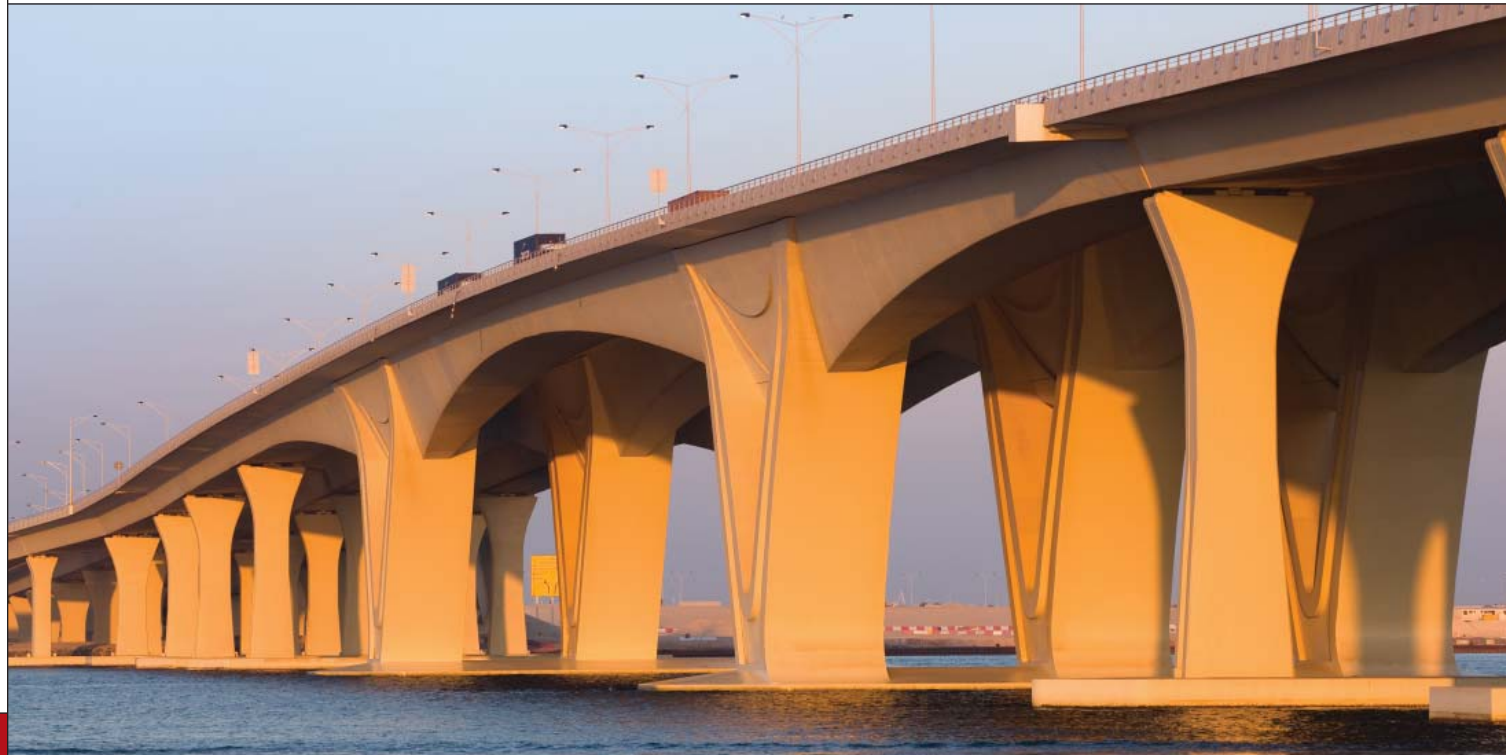
OWNER
Tourism Development & Investment Company

PROGRAM VALUE
USD \$226,000,000

LOCATION
Abu Dhabi, United Arab Emirates

PROJECT HIGHLIGHTS

Parsons provided complete planning and design services for the project, which included the bridge and a 2-kilometer access road in a dense urban environment, support to the Tourism Development & Investment Company during the procurement process, and construction supervision. The Sheikh Khalifa Bridge opened to traffic in October 2009 and links the port district of Abu Dhabi to the Saadiyat Island development, where it sets the stage for visitors to the island's cultural district, which will include the Louvre Abu Dhabi, Guggenheim Museum, and Sheikh Zayed Museum. The 1.5-kilometer-long segmental concrete bridge has a main span of 200 meters, carries 10 lanes of traffic, and has the capacity to accommodate two future passenger rail tracks. It is one of the largest bridges in the Middle East. The bridge was built using several complex bridge construction methods, in particular balanced cantilever and incremental launching, to ensure the optimum use of materials and timely delivery under a tight schedule, and to minimize the construction's impact on the waterway.



CHRISTOPHER S. BOND BRIDGE

OWNER
Missouri Department of Transportation

PROGRAM VALUE LOCATION
\$232,000,000 Kansas City, Missouri

PROJECT HIGHLIGHTS

The award-winning kcICON design-build project involved the design and construction of the iconic Christopher S. Bond Bridge over the Missouri River and the reconstruction of 4.7 miles of I-29/35 in Kansas City. As lead designer, Parsons provided all technical and supervisory personnel and services necessary to prepare a best-value solution for the project. To make this effort sustainable, we embedded various fundamental aspects into the design, including landmark aesthetics for the community, energy savings with reduced overhead roadway lighting, increased durability with a 100-year bridge service life, and sound walls for noise mitigation. From improved safety, traffic operations, and geometrics to an increased mainline capacity, Parsons delivered a solution that embodies valuable aspects of sustainability and quality — all within budget and to the public's satisfaction.



TACOMA NARROWS BRIDGE

OWNER
Washington State Department of Transportation

PROGRAM VALUE LOCATION
\$615,000,000 Tacoma, Washington

PROJECT HIGHLIGHTS

To relieve significant traffic congestion on the Tacoma Narrows Bridge, the primary link between the Seattle-Tacoma metropolitan area and the Olympic Peninsula, Parsons, as engineer-of-record, designed the new 5,400-foot suspension bridge using the design-build delivery method for the first time on a major suspension bridge. In addition to contributing to the overall bridge design, Parsons oversaw the seismic engineering of the structure, developed multiple value engineering solutions, and saved money on overall material by utilizing innovative design techniques. We also oversaw seismic design and overcame significant technical challenges in support of demanding construction milestones that eventually led to a timely project completion. The new bridge has alleviated congestion and has significantly improved traffic flow over the Puget Sound.

CARQUINEZ STRAIT BRIDGE

OWNER
California Department of Transportation

PROGRAM VALUE
\$225,000,000

LOCATION
Vallejo, California

PROJECT HIGHLIGHTS

The new Carquinez Strait Bridge spans the windswept Carquinez Strait, just miles from three active earthquake faults. It is the first major suspension bridge to be built in the United States in more than 35 years. Parsons, as the engineer-of-record, designed the award-winning bridge with a service life of 150 years utilizing low-maintenance materials, all while setting the standard for seismic safety. The new bridge, with an overall length of 3,464 feet, incorporates state-of-the-art advancements in the design of orthotropic steel box girders, four lanes of traffic to accommodate increased traffic, a pedestrian and bicycle lane, and two standard shoulders. We completed this design on a fast-track basis, with final design plans delivered in just over a year. Following the design phase, Parsons provided total construction support services throughout the project.



U.S. 90 BRIDGE OVER BILOXI BAY

OWNER
Mississippi Department of Transportation

PROGRAM VALUE
\$339,000,000

LOCATION
Biloxi, Mississippi

PROJECT HIGHLIGHTS

The U.S. 90 Bridge over Biloxi Bay, connecting the communities of Biloxi and Ocean Springs, Mississippi, was one of many major highway and railroad bridges knocked out of service due to extensive damage from Hurricane Katrina. As lead design engineer, Parsons was responsible for the design and construction support for the 1.6-mile-long bay bridges, CSX railroad bridges, and approach roadways. The navigation spans consist of a spliced bulb-tee girder main span of 250 feet, and the approaches are 150-foot bulb-tee girder spans. The bridge is supported on waterline footings with 24-inch and 30-inch precast piles that are designed to resist marine-vessel collision loading. The first bridge opened to one lane of traffic in each direction two weeks ahead of schedule, and the entire project was completed in just under 21 months, six weeks ahead of schedule.



HASTINGS BRIDGE

OWNER
Minnesota Department of Transportation

PROGRAM VALUE
\$120,000,000

LOCATION
Hastings, Minnesota

PROJECT HIGHLIGHTS

Parsons is providing the lead engineering design services for the new bridge and approach roadway carrying Trunk Highway 61 over the Mississippi River in Hastings, Minnesota. Parsons' design features an innovative 545-foot, free-standing tied-arch bridge that will be erected off site and lifted 70 feet into place using strand jacks. The bridge will be the longest free-standing arch in North America. It will also have a 100-year service life, utilizing steel box arch ribs with post-tensioned concrete tie girders and a network hanger system. The design involves a vessel impact study, hydraulics, and wind and corrosion evaluations. Additional scope elements include roadway, drainage, maintenance of traffic, and overall quality systems management. The Parsons design-build joint venture team was selected through the best-value procurement method, when our innovative tied-arch structure best-value score rated 20 percent higher than any other team.

MESSINA STRAIT BRIDGE

OWNER
Stretto Di Messina S.P.A.

PROGRAM VALUE
EUR €6,100,000,000

LOCATION
Calabria and Sicily, Italy

PROJECT HIGHLIGHTS

Parsons serves as the program manager and independent design checker for the world's longest suspension bridge, which will connect the mainland Calabria region and Sicily. Once complete, the bridge will be 5,300 meters long and will serve as one of Italy's most important transportation facilities. It will carry six lanes of traffic, two railroad tracks, and two emergency service lanes, all while being able to withstand an earthquake of 7.1 on the Richter scale. This project also includes approximately 20.3 kilometers of road links, and 19.8 kilometers of railway links as part of the 22 kilometers of tunnels on the approaches. This magnificent structure brings with it several design challenges, including seismic activity, treacherous waters, and high winds. When complete, the Messina Strait Bridge and its links will have a positive socioeconomic impact and will serve as a major component of the national and European transport system that will connect Europe to the heart of the Mediterranean.



I-15 PIONEER CROSSING EAST/WEST CONNECTOR

OWNER
Utah Department of Transportation

PROGRAM VALUE
\$180,000,000

LOCATION
American Fork, Utah

PROJECT HIGHLIGHTS

The award-winning I-15 Pioneer Crossing East/West Connector design-build project consists of a six-mile new arterial connection between two major development centers in Utah County and one mile of reconstruction on I-15, just south of Salt Lake City. Parsons' diverging diamond interchange (DDI) solution at I-15 and American Fork's Main Street uses a crossover to eliminate signalized left turns at the interchange's ramp access points, thereby increasing capacity and enhancing safety. The DDI in American Fork is the third such innovation in the United States. The precast and prestressed bridges were built next to I-15 and then moved into place using self-propelled modular transporters (SPMTs). Using accelerated construction techniques, this project marks the successful implementation of two major milestones: the third DDI; and the longest and heaviest documented precast, prestressed spans moved into place using SPMTs in the United States.



MAROON CREEK BRIDGE

OWNER
Colorado Department of Transportation

PROGRAM VALUE
\$13,970,000

LOCATION
Aspen, Colorado

PROJECT HIGHLIGHTS

Parsons was selected for the design of a Maroon Creek replacement structure, the primary access into the world-class Aspen ski resort. The design was completed in five months to meet the fast-track schedule, while also meeting the requirements of the environmental impact statement/record of decision for minimal environmental construction impacts. We completed preliminary design studies to determine a safe, cost-effective, environmentally friendly, and aesthetically pleasing bridge structure. The shape of the pier columns is innovative and unique and was developed to harmonize with the existing historic railroad trestle bridge adjacent to the new bridge. The new bridge is 620 feet long, 73 feet wide, and includes a 12-foot pedestrian bike path.

Parsons Bridge and Tunnel at a Glance

LAFAYETTE BRIDGE

OWNER
Minnesota Department of Transportation

PROGRAM VALUE
\$185,000,000

LOCATION
St. Paul, Minnesota

PROJECT HIGHLIGHTS

Parsons performed the final design for the replacement of U.S. 52 over the Mississippi River in downtown St. Paul. The new, twin 16-span structures will include a main river span of 362 feet, haunched trapezoidal steel boxes, and aesthetic pier designs. The significant shipping and barge fleeting area required close coordination with the U.S. Coast Guard, the St. Paul Port Authority, and the U.S. Army Corps of Engineers. Parsons utilized an intensive value-engineering-style approach early in the project to optimize the design by lengthening the spans and reducing the number of substructures. Our approach included a design for a 100-year service life; a river pier design using steel shell piles with 60 feet of scour; and a state-of-the-art, industry-integrated approach to steel detailing, design, and fabrication techniques. When completed, the two new structures each will provide two through-lanes and an auxiliary lane in each direction for entering and exiting traffic. A pedestrian and bicycle crossing over the river is also included in the plans.



CHICAGO TUNNEL AND RESERVOIR PLAN

OWNER
Metropolitan Water Reclamation District of Greater Chicago

PROGRAM VALUE
\$307,000,000

LOCATION
Des Plaines, Illinois

PROJECT HIGHLIGHTS

For more than 20 years, Parsons has supported the Metropolitan Water Reclamation District of Greater Chicago in the administration of its Tunnel and Reservoir Plan (TARP). We have provided design and construction support services for several elements of the plan, including the Little Calumet Leg, Torrence Avenue, Des Plaines North Leg, North Branch Mainstream, and Calumet tunnels. Parsons also designed several projects that included flood-control reservoirs, surge chambers, flow-control structures, and pump stations. The total TARP system consists of 109.4 miles of deep, large-diameter rock tunnels providing 2.3 billion gallons of volume to capture combined sewer overflows that previously discharged at hundreds of outfall locations.

CROSTOWN COMMONS INTERCHANGE

OWNER
Minnesota Department of Transportation

PROGRAM VALUE
\$288,000,000

LOCATION
Minneapolis, Minnesota

PROJECT HIGHLIGHTS

Parsons was responsible for the final design and construction plans for two of the six precast segmental ramp bridges as part of the I-35W/TH62 Crosstown Commons interchange in Minneapolis. Bridge 27V76 is a five-span, 811-foot curved structure carrying two lanes of traffic, and Bridge 27V66 is a three-span, 509-foot curved structure that carries a single lane of traffic. Both bridges utilize single-cell, precast box girder superstructures supported by pot bearings on single-column piers and erected using balanced cantilever construction with ground-based cranes. The project included heavy coordination with two other design teams for the other four segmental bridges in the interchange. We also implemented several innovations, including methods to improve constructibility and the use of an anti-icing system to improve safety and eliminate the need to apply corrosive de-icing agents, thus improving the life-cycle performance of the deck.



TAGUS RIVER BRIDGE

OWNER
Government of Portugal

PROGRAM VALUE
USD \$240,000,000

LOCATION
Lisbon, Portugal

PROJECT HIGHLIGHTS

Parsons has provided engineering, design, and construction support/inspection services for the 3.2-kilometer-long Tagus River Bridge since the 1960s, beginning with the original design of the structure. The suspension bridge includes a 1,013-meter main span and two side spans measuring 483 meters each. The towers rise 190 meters above the water, and the main span provides a clearance of 70 meters to accommodate the world's largest vessels. In the 1990s, we provided the engineering, design, and construction monitoring for the addition of a second deck. Though the original bridge design had provisions for 650 metric tons of steel to support a second deck, dramatic increases in rail loading necessitated a secondary suspension system. The new component design also included rail expansion joints with 1.5-meter movement capacity and the development of acceptance criteria for these unique devices.



U.S. 20 TIED ARCH OVER THE MISSISSIPPI RIVER

OWNER
Iowa Department of Transportation

PROGRAM VALUE
\$165,000,000

LOCATION
Dubuque, Iowa

PROJECT HIGHLIGHTS

The Iowa Department of Transportation selected Parsons for preliminary and final design of the U.S. 20 crossing over the Mississippi River between Dubuque, Iowa, and East Dubuque, Illinois. The new main span bridge and corresponding approaches are designed to complement the existing historic bridge and its approaches. The new two-lane viaduct is approximately 5,600 feet in length, with an 845-foot tied-arch bridge navigation span, and the new crossing also features a 10-foot-wide bike path. Various arch and truss bridge types were studied in the preliminary design. The project, which has an overall length of 2.5 miles, also included the design of a large single-point urban interchange on the Iowa side, modifications to the existing highway alignment, a railroad grade separation, and numerous other improvements.



WMATA GENERAL ENGINEERING CONSULTANT

OWNER
Washington Metropolitan Area Transportation Authority

PROGRAM VALUE
\$9,700,000,000

LOCATION
Washington, D.C.

PROJECT HIGHLIGHTS

Since 1966, Parsons has served as general engineering consultant to the Washington Metropolitan Area Transit Authority (WMATA) for the 103-mile, \$9.7 billion rail rapid transit system serving Washington, D.C., and its suburbs. A significant portion of the transit system was built within heavily developed commercial and residential areas. Facilities include 48 miles of subway, including 22 miles of cut-and-cover tunnel, 11 miles of earth tunnel, and 15 miles of rock tunnel. In addition, the Parsons team worked closely with WMATA, contractors, and designers to provide innovative solutions to challenging tunnel situations through densely populated areas without adversely affecting revenue operations. As a result of our ongoing partnership and quality work, Parsons has received a number of commendations and awards.

DUBAI METRO RED AND GREEN LINES

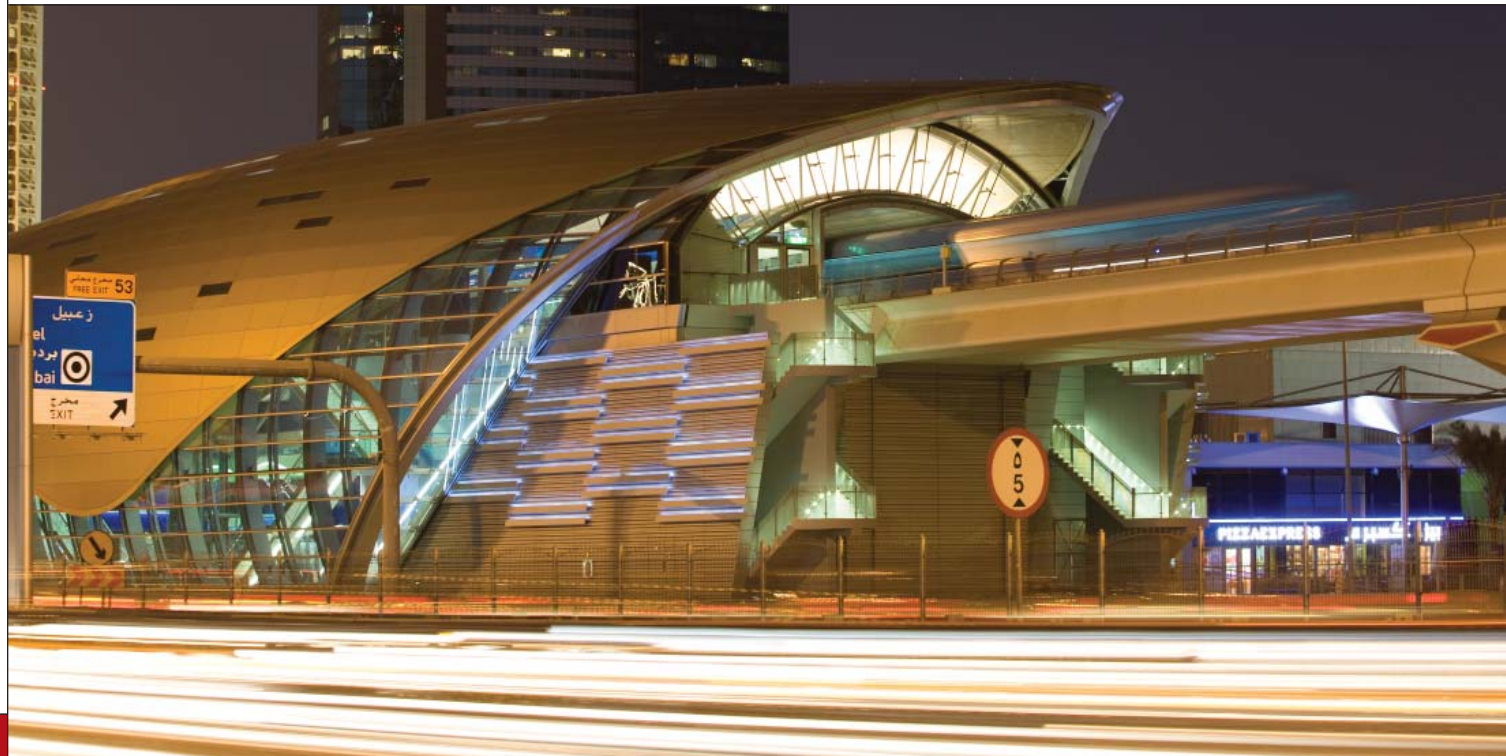
OWNER
Dubai Roads and Transport Authority

PROGRAM VALUE
USD \$8,000,000,000

LOCATION
Dubai, United Arab Emirates

PROJECT HIGHLIGHTS

Dubai Metro, the first mass transit rail system in the United Arab Emirates, is being constructed in response to escalating traffic demands. Parsons is providing design review, construction management services, and project management services for the Dubai Metro project, a 75-kilometer Metro system that involves two phases: Phase 1 (Red Line), which is 52 kilometers long with 5.5 kilometers in tunnels and 29 stations, and Phase 2 (Green Line), which is 23 kilometers long with 8 kilometers in tunnels and 20 stations. Under a joint venture, Parsons is providing overall program management, design review, and construction supervision for the design-build of the Red and Green lines. The Dubai Metro uses a fully automated, state-of-the-art driverless railway system. We are applying the latest technologies and construction methods to deliver this innovative system on a fast-track, 55-month schedule.



WASHINGTON NATIONAL/DULLES INTERNATIONAL AIRPORTS EXPANSION

OWNER
Metropolitan Washington Airports Authority

PROGRAM VALUE **LOCATION**
\$640,000,000 Washington, D.C.

PROJECT HIGHLIGHTS

Parsons is the managing partner of Parsons Management Constructors, a joint venture assisting the Authority in managing a multi-project program that includes airside, landside, terminal, and support facility construction and renovations at both Dulles International and Washington National airports. The single largest component of the program is the \$1.2 billion AeroTrain System, completed in September 2010, which includes 29 vehicles, four stations, a maintenance facility, and more than three miles of trackway. The construction of this system encompassed more than 15,000 feet of tunneling, including cut-and-cover, New Austrian Tunneling Method, and tunnel boring machine mining. In addition, the joint venture team was selected to manage the design and construction of a new automated people mover system that includes new stations and underground tunnels.

CALDECOTT TUNNEL IMPROVEMENT PROJECT

OWNER
Transbay Joint Powers Authority

PROGRAM VALUE **LOCATION**
\$420,000,000 Contra Costa and Alameda, California

PROJECT HIGHLIGHTS

The Caldecott Tunnel improvement project involves the construction of a fourth bore through the Berkeley Hills near Oakland. Parsons partnered with the Contra Costa Transportation Authority and Caltrans District 4 to provide project approval/environmental document and design services for the project. Parsons supported Caltrans District 4 in the preparation of the environmental impact report and led the effort to prepare preliminary engineering and final design for the tunnel, the operations building, and two related roadway projects. The Parsons team was responsible for the final design of tunnel and portal structures, drainage, waterproofing, ventilation, fire and life safety, traffic control systems, and building architectural design. The tunnel design was based on the Sequential Excavation Method, also known as the New Austrian Tunneling Method.



AL SALAM STREET AND EASTERN RING ROAD UPGRADES

OWNER
Abu Dhabi Municipality

PROGRAM VALUE
USD \$360,000,000

LOCATION
Abu Dhabi, United Arab Emirates

PROJECT HIGHLIGHTS

Al Salam Street and Eastern Ring Road is a major urban arterial running the length of Abu Dhabi Island, serving as the main carrier of traffic between the central business district and the Sheikh Zayed Bridge and Maqta Bridge. Under four separate contracts, the project encompasses the construction of a series of tunnels and grade-separated interchanges for a section of the road, resulting in an urban expressway. A 5.2-kilometer-long depressed roadway, one bypass tunnel, six underpasses, one overpass bridge, and grade-separated intersections will be constructed to total approximately 13.5 kilometers. When complete, motorists will have the ability to bypass signalized intersections on Al Salam Street and travel uninterrupted for the entire length of Abu Dhabi Island. These projects are a significant long-term investment in the continued growth and prosperity of Abu Dhabi, and will significantly enhance traffic throughout Abu Dhabi Island and meet anticipated future needs.



GREECE MOTORWAY TUNNELS

OWNER
Aegean Motorway S.A.

PROGRAM VALUE **LOCATION**
USD \$1,900,000,000 Tempi, Greece

PROJECT HIGHLIGHTS

Parsons is the independent engineer for this 230-kilometer-long project that runs through mountainous terrain and includes the rehabilitation of 200 kilometers of existing divided-highway; 30 kilometers of new four-lane highway; and three major twin-bore tunnels (2 kilometers, 6 kilometers, and 3 kilometers) in both competent and weak rock. The project is one of six major highway projects being tendered by the Greek government to upgrade the national transportation infrastructure according to European Union standards. It is one of a series of public-private partnerships initiated by the government to offset budgetary constraints and to maximize investments in the private sector.



LOS ANGELES METRO RED LINE

OWNER
Los Angeles County Metropolitan Transportation Commission

PROGRAM VALUE **LOCATION**
\$1,500,000,000 Los Angeles, California

PROJECT HIGHLIGHTS

The Los Angeles Metro Red Line is a 17-mile subway system, excavated using open-face shield tunneling and cut-and-cover methods, that links downtown Los Angeles with North Hollywood. The system serves as the backbone of a nearly 150-mile regional rapid transit system for one of the most densely populated corridors in the nation. Leading a joint venture, Parsons managed construction of the Red Line, which was built in three phases. Phase 1 included the construction of five stations and twin 22-foot-diameter tunnels, totaling 26,000 feet. Phase 2 included eight more stations and additional tunnels extending from MacArthur Park to Hollywood. Phase 3 included three stations and runs from the Hollywood/Vine station under the Hollywood Hills to North Hollywood. Passenger vehicles are designed to accommodate a total of 169 passengers at speeds up to 70 miles per hour.

BROOKLYN BRIDGE

OWNER
New York Department of Transportation

PROGRAM VALUE
\$140,000,000

LOCATION
New York, New York

PROJECT HIGHLIGHTS

One of New York City's, and America's, most recognizable and celebrated historic landmarks, the 6,000-foot-long Brooklyn Bridge is undergoing an in-depth seismic evaluation of the main bridge, arch-shaped masonry approaches, and steel approach ramps. State-of-the-art analysis procedures include the development of design criteria; extensive subsurface investigation, including geophysical testing; superstructure vibration testing; non-linear analyses of masonry structures with crack opening and closing; and an in-depth investigation of the performance of the tower caissons. Parsons is the prime consultant for the project, which also includes the development and design of retrofit measures for the bridge to withstand a 2,500-year return period earthquake and allow emergency traffic within 48 hours and full service within months. Retrofit measures include strengthening the iconic towers, the steel superstructure, and the masonry approaches.



KICKING HORSE CANYON

OWNER
Ministry of Transportation

PROGRAM VALUE **LOCATION**
USD \$125,000,000 Golden, British Columbia, Canada

PROJECT HIGHLIGHTS

As part of a design-build joint venture under a public-private partnership, Parsons designed the new five-span bridge over the existing Trans-Canada Highway, Kicking Horse River, and Canadian Pacific Railroad and provided construction quality control. The highway is the major east-west route through western Canada and carries roughly 9,000 vehicles per day. The new five-span bridge reaches a height of 290 feet, spans 1,330 feet, and accommodates four traffic lanes. The bridge deck is a composite deck consisting of a cast-in-place deck slab on partial-depth precast concrete deck panels and a steel superstructure. Due to the sizeable bridge height and limited access for equipment, incremental launching was used to erect the steel superstructure. Our team also used other innovative engineering solutions that cut millions of dollars in costs on this award-winning, fast-track program.

DUBAI FLOATING BRIDGE

OWNER
Dubai Roads and Transport Authority

PROGRAM VALUE **LOCATION**
USD \$54,100,000 Dubai, United Arab Emirates

PROJECT HIGHLIGHTS

When the Dubai Roads and Transport Authority (RTA) needed to come up with a short-term solution to ease the city's traffic congestion, it conducted a competition to determine the best design. Parsons' proposal for a floating bridge was selected as the most innovative entry, and subsequently, we were retained by RTA to provide design and supervision services for the construction of this innovative solution to provide much-needed additional capacity across Dubai Creek. The bridge was constructed within a nine-month time frame using the design-build method and serves to further reaffirm Parsons' longstanding commitment to the area's infrastructure and our role as the leading transportation firm in the city of Dubai.



WILLIAMSBURG BRIDGE

OWNER
New York City Department of Transportation

PROGRAM VALUE
\$1,100,000,000

LOCATION
New York, New York

PROJECT HIGHLIGHTS

Parsons was chosen to provide inspection, design, and construction support services for the Williamsburg Bridge. The first major rehabilitation addressed the cable suspension system and applied a preservation system to the main cables, replacing all the cable bands and suspenders and reconfiguring the most damaged cables at their anchorages. The reconstruction of the north and south roadways included a complete replacement of the approaches and the replacement of the existing deck with a new orthotropic steel deck on the main bridge. Construction also included a new pedestrian footwalk/bikeway system, resulting in a fully handicap-accessible crossing. The reconstruction of the transit structure included new approach structures in Manhattan and Brooklyn; new stringers in the suspension bridge; the rehabilitation of the suspension bridge floorbeams; and new, state-of-the-art transit signals, communications, and traction power systems. Perhaps the most important work included the rehabilitation of the bridge's main and intermediate towers, which involved the installation of new, larger travelers under its main span.



Connecting past, present, and future.

Parsons is a recognized leader in the design and construction of complex structures and bridges across the globe. Having completed more than 4,500 bridges and 250 tunnels around the world, we apply creative expertise to solve the most challenging issues our customers face today with a vision for the future.

Massive or modest, new or rehabilitated, our purpose in every bridge and tunnel is to carry traffic safely with sound engineering and exceptional style while connecting people and places.

PARSONS

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