

Connections

SUMMER 2011



{ historychangeopinion }



Connections
 NEWSLETTER
by Kadi Camardese
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history change opinion

SUMMER 2011

thank you

Much appreciation to the following individuals for their contribution to this issue:

- | | |
|--------------------|-------------------|
| Steve Aguiar | Henry Mykich |
| Benjamin Berardino | Malcolm Patterson |
| John Boore | Jody Porterfield |
| Mike Cegelis | Suzanne Rathbun |
| Joe Corvello | John Schober |
| Ken Farrelly | Dave Simmons |
| Nick Greco | Joe Stilson |
| Kevin Moynihan | Scott Tudor |
| | Kenny Wooten |

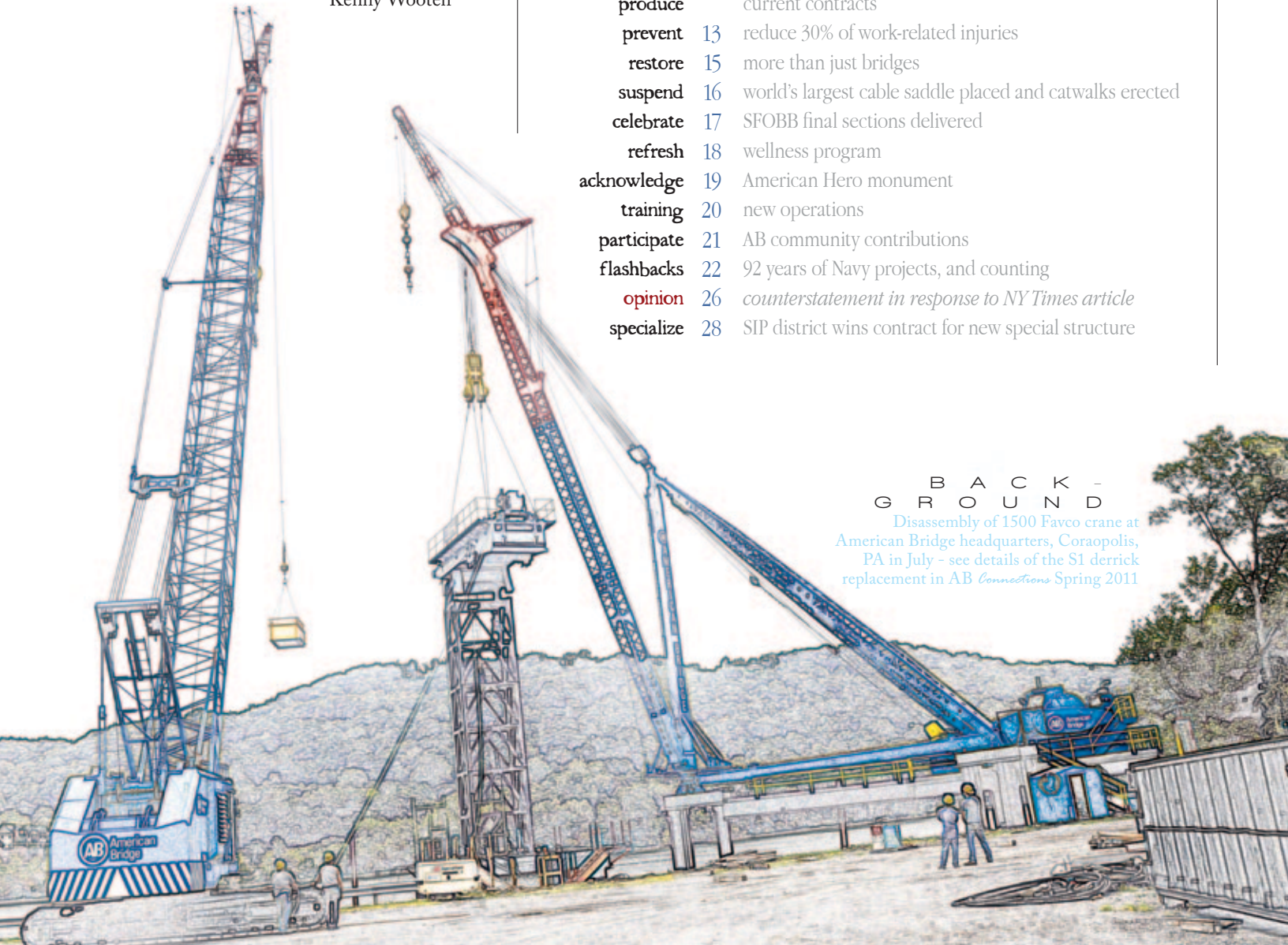
{ 4 HIGHLIGHT Pier 31 Replacement

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BACK - GROUND

Disassembly of 1500 Favco crane at American Bridge headquarters, Coraopolis, PA in July - see details of the S1 derrick replacement in AB Connections Spring 2011



{grow}

NEW HIRES

Carson Keith Copeland, crane operator, Port Fourchon Bulkhead, Tampa District
Mark Sharin, safety manager, Walt Whitman Bridge Suspension and Anchorage Spans Deck, New York District
David Geesaman, general foreman, Walt Whitman Bridge Suspension and Anchorage Spans Deck, New York District
Keith Hall, superintendent, Chincoteague Bridge Route 175, Richmond District

{update}

{produce}

HUMAN RESOURCES

Beneficiary Forms

It is important to ensure that your beneficiary information for life insurance and/or 401k is up to date. You can obtain both forms either by printing them from the American Bridge Access site under HR Forms or by requesting them by contacting the HR (Human Resources) Department. If you are unsure of your current beneficiary elect, contact the HR Department at 412-631-1000.

Highmark Medical Insurance Covered Services

Every so often we want to remind you that before you receive a medical service, it is always in your best interest to call the number located on the back of your medical card and make sure it is covered. It is also recommended that you discuss with your physician any outside service providers that may be utilized by your doctor such as labs, hospitals, etc. in connection with your medical service to ensure that they are part of the Highmark network.

Keep in mind that there is a listing of all covered preventative services on the Access site. You can also obtain this listing by contacting the HR Department. This will help you understand what covered services can be provided during an annual physical. If you have any questions regarding anything with your coverage, feel free to contact HR.

CURRENT CONTRACTS

MANUFACTURING

Walt Whitman Bridge, Philadelphia, PA
P.J. McArdle Viaduct, Pittsburgh PA
Bedford County Turnpike Girders, Bedford, PA
Clearfield County Plate Girder Bridge, Kylertown, PA
Shore Parkway, Queens, NY
Cochran Mills Bridge, Armstrong County, PA
Sun Valley Bridge Widening, Los Angeles, CA
LDH Energy Railroad Bridge, Shelibana, KY
4th Avenue Bridge, Johnstown, PA
Wilson Creek Bridge, Marshall, AK
George Washington Bridge Deck Replacement, New York, NY
Dickey Prairie Road Bridge, Clackamas County, OR

WESTERN

ABFJV San Francisco/Oakland Bay Bridge, CA

NEW YORK

Throgs Neck Bridge Structural Retrofits, New York City
Bronx Whitestone Bridge Structural Retrofits, New York City
Ogdensburg-Prescott Bridge Main Span Rehabilitation, Ogdensburg, NY
Walt Whitman Deck Replacement, Philadelphia, PA
George Washington Bridge Rehabilitation, New York City

TAMPA

Estelle Pump Station Work Platform, New Orleans, LA
Platt Street Bridge Major Repairs, Tampa, FA
Port Fourchon Bulkhead, Galliano, LA
Red Bug Lake Road Pedestrian Overpass, Oviedo, FL
Arawak Cay Port Development Phase II, Nassau, Bahamas
Container Yard Shoreline Protection Works, Freeport, Bahamas

PITTSBURGH

Kentucky Lakes Bridges, Grand Rivers, KY
Charleroi/Monessen Bridge Replacement, Charleroi, PA

RICHMOND

Chesapeake Bay Bridge Redecking, Annapolis, MD
Chincoteague Bridge, Chincoteague, VA
Pier R3 Repairs, Yorktown, VA
Pier 31, Groton, CT
Bulkhead at NOAA Marine Operations Center, Norfolk, VA
M-140 No. 2 Complex, Portsmouth Naval Shipyard, Kittery, ME
Three Nations Bridge, Cornwall, Ontario, Canada

SPECIAL AND INTERNATIONAL PROJECTS

Forth Replacement Crossing, Scotland, United Kingdom
Las Vegas High Roller Observation Wheel, NV

AMERICAN BRIDGE'S
.....
HISTORY
.....
WITH THE UNITED STATES NAVY

In 1935, American Bridge built 19 radio towers near Pearl Harbor, Hawaii that were later used for Naval communications during World War II. In 1947, AB completed the huge, green hammerhead naval crane at Hunter's Point, San Francisco. In the early 1960s a \$20M contract involved the fabrication and construction of a 300' diameter radio listening dish weighing 6,005 tons in Sugar Grove, West Virginia.

While these were major projects, AB's relationship with the United States Navy (USN) dates back even further to 1919, with construction of Crane Runways at the Philadelphia Naval Shipyard, Pennsylvania. Naval structures all over the United States have been built by American Bridge including cranes, radio and communications towers, shipfitter and boilermaker shops, crane runways, electric shops, piers and bridges.

The award of significant naval contracts in Virginia in the early 2000s was an important factor in the launch of AB's Virginia District, led by Dave Simmons. Dave had started with AB in the Florida District in 1995 (then in Orlando, now in Tampa). Upon graduation from Pennsylvania State University with his architectural engineering degree, Dave worked for several leading companies in the construction industry before joining American Bridge.

Since its startup the Richmond District has contributed over \$417M of contract revenue comprised of bridges and marine work, with Naval work forming the core of the District's operations through the decade.



AB was contractor for Pier 7, one of the Navy's last low price based awards for this project type

{change}

LOW BID VERSUS BEST VALUE

As noted, American Bridge has successfully delivered Naval projects since the early 1900s. Owing to the complexity and high quality and safety standards for their projects, the USN has been a consistent and excellent customer for American Bridge. Through most of our nearly 100 year history of naval facilities work, the basis of award has been lowest price. Over the last decade however, the Navy has transitioned to a variety of procurement types – including best value, multiple award, and indefinite quantity in addition to the traditional low price. Price remains an important factor, but previous performance for the Navy and experience meeting the strict specifications and deadlines have become key award criteria as well.

American Bridge's routinely excellent performance for the Navy has enabled us to win over a dozen best value contract awards over the past ten years.

Naval contracts are let and administered by the Naval Facilities Engineering Command (NAVFAC). Among its many programs, NAVFAC has been modernizing its pier facilities with new concrete structures complete with shore services for fueling, water and wastewater, power, communications, and ship stocking facilities that allow for safer, more environmentally sensitive, and more productive operations. By 2005, NAVFAC had completed three pier replacements at Naval Station Norfolk under the low bid standard (one of which was Pier 7, which was the most recent and for which AB was contractor).

At the time, the three contractors involved could not have known that Pier 7 would be one of the last low price based awards by the Navy on this type of project. AB certainly didn't know that its outstanding performance on Pier 7 would initiate a new phase in its contracting relationship with the Navy. When NAVFAC did begin to procure construction contracts on a best value basis, AB was well positioned based on its outstanding performance rating on the Pier 7 project.

The award of the Norfolk Naval Station Gate 5 Replacement project was a direct result of the performance on Pier 7. Wanting to affirm that the Navy's confidence in AB was well placed, the project team worked double shifts, seven days a week to complete the job on time with no closure time extensions within a three month window. During the same period, a gate of smaller capacity being rehabilitated by another contractor was months past the scheduled completion date. AB received 100 percent of the award fees for achievement of performance elements within the criteria parameters offered on Gate 5.

Dave Simmons explains, "American Bridge's exceptional work standard has earned us consistently high scores in the Navy's comprehensive grading system. Our established reputation that exceeds competitors on a national level is something we are proud of and will continue to cultivate."

Here is how the grading system works: upon a project's completion the Navy carries out a detailed performance survey evaluating the contractor's level of achievement considering every aspect of the job. This includes minority goal performance, recordable and lost time injury performance, quality of work, schedule dependability, etc. For new projects using a best value award criteria, the Navy calls for the submission of both technical and price proposals. The technical proposal is scored based on the quality and experience of personnel proposed, the innovativeness of the construction approach with respect to minimizing impact on existing operations and maximizing safety, the schedule, the proposers previous performance ratings, and other factors. The Navy then reviews the price proposal and makes the award that it believes creates the best value for the U.S. Government.

Due to our consistent performance and competitiveness, the Navy has awarded numerous projects to AB on this basis. The best value approach is testimony to the Navy's belief that project safety, quality, schedule, and minimization of claims objectives are better achieved through best value than by low bid approaches. Many other owners are concluding the same, which further illustrates the importance of strong performance on projects awarded through this criteria. AB's dedication to competence, innovation and safety has paid off with the retention of a valuable long term customer.

The best value approach is testimony to the Navy's belief that project safety, quality, schedule, and minimization of claims objectives are better achieved through best value than by low bid approaches.



Pier 6 Replacement was one of dozens of projects from which AB drew to meet the challenges of Pier 31



Work began with the demolition of the old Pier 31

{improvise}

Instead of costly time extensions, AB was able to improvise by utilizing pre-prepared additional resources.

PIER 31 PROJECT

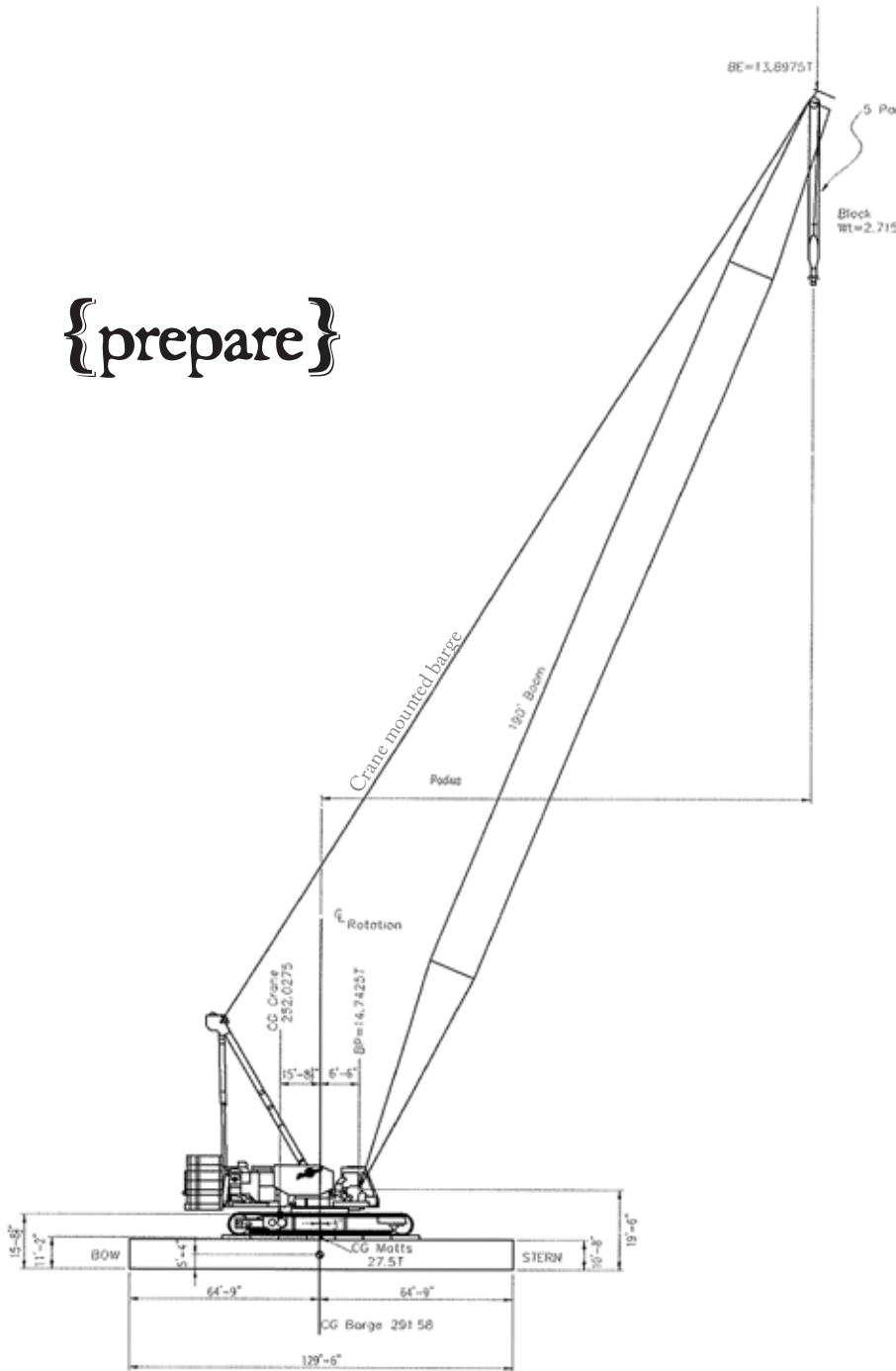
After the demolition of the old pier, construction of a new 550' long by 67' wide submarine pier began in July of 2009 at the Naval Submarine Base in Groton, Connecticut. The purpose of the project is to provide upgraded utilities including fresh water, compressed air system and oil dumps in addition to a new pier structure. Twenty-four bents with five piles each make up the new pier's substructure. The AB project team has stayed on schedule focusing on driving 36" pipe piles through granulated soils and into granite bedrock, but with it has come unforeseen challenges.

Pier 31 is Project Manager Kevin Moynihan's seventh naval job with AB. He has witnessed the evolution of Naval contracting procedures and knows the Navy's strict requirements better than most. "Despite the opposing assessments that at times arise on complex projects like this, we push forward, putting forth our best effort at all times to develop solutions that expedite the work in a timely and economical fashion," explains Kevin.

The Navy's original design required the first 61 piles to be driven into deeply sloping rock which ranged in depth from 88' to 165'. These piles were then anchored into rock by drilling a 32" diameter by a 2' deep rock socket. The balance of the 55 piles were to be driven in soil for a friction pile to a depth of 180', to reach a capacity of 1,540 kips. However, the piles were not developing their required capacity. The AB team was able to implement a two week re-strike program along with adding 60' of additional pile to reach capacity.

This meant that AB had to act quickly, ordering more piles and welding them to those already driven – all in the same scheduled time allotted to drive the piles in the original schedule. Instead of costly time extensions, AB was able to improvise by utilizing these pre-prepared additional resources. In one case where a pile was driven to 240' (original design called for 180'), the capacity could still not be developed. Therefore the Navy reduced their design requirement to 1,200 kips.

{prepare}



With barge mounted equipment flexibility limited due to spatial constraints, progress would have suffered while the obstruction problems were resolved.



Pier 31 obstruction

TRESTLE ADVANTAGES

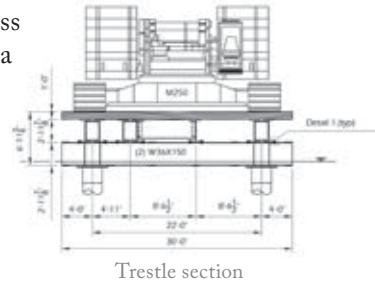
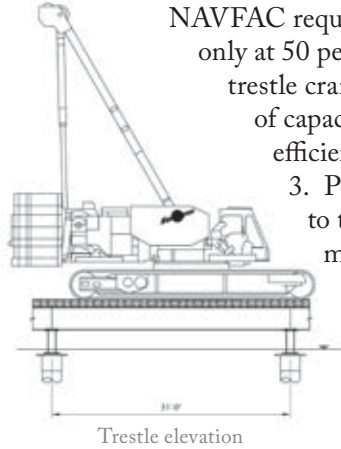
With the successful completion of the similar Pier 6 Replacement contract at the Groton Naval Base in 2008 and dozens of other related projects under our belt, American Bridge was well positioned to meet this job's unique challenges. Use of a temporary trestle on Pier 31 is an example of an improvement over the Pier 6 project, which was constructed using barge mounted cranes. The unusual geotechnical conditions combined with the presence of debris and previous structure remnants resulted in the need for special solutions and procedures. With barge mounted equipment flexibility limited due to spatial constraints, progress would have suffered while the problem was resolved – except for AB's special preparations. The trestle enabled work to proceed on other fronts while the special problems were resolved.

The 1940s era original pier utilized H-pile that was welded together using splice kits. The splices had deteriorated over the years, and during demolition numerous piles broke off – in some cases below the mud line. This created obstructions to the new structure. Furthermore, it resulted in the necessity of three additional piles due to locational shifts of some piles to avoid obstructions and counterbalance the load for design purposes. With the trestle, AB was able to keep moving while resolutions to the obstruction issues were developed.

“We didn't have to reinvent the wheel, but rather, enhanced one that was already in motion,” says Kevin Moynihan, commenting on the use of standard AB F-1 falsework to build the trestle. “These beams can support a crane from 100 to 300 tons and be used in other construction applications.”

The advantage of the 30' wide 350' long trestle designed by Engineering Manager Win Patchell, and Kevin Moynihan are:

1. Able to work in any area along the new pier regardless of obstructions, enabling the opportunity to work out of sequence when needed while the obstruction is resolved
2. Better resource management for crane utilization - since NAVFAC requirements allow a crane on a barge to work only at 50 percent of rated capacity - by utilizing a trestle cranes are permitted to work at 75 percent of capacity, providing heightened daily efficiency
3. Provided concrete delivery access to the trestle avoiding the use of a multiple pump truck operation
4. Enabled precast segment delivery directly to the trestle; bypassing double handling associated with barge delivery



PIER TO LAST 75 YEARS

Pier 31 is the first Naval project on the east coast designed to last at least 75 years, made through the collective effort of the Navy, American Bridge and select concrete suppliers. The quality of concrete is verified through the 'stadium testing process', costing over \$300,000 which involves:

1. Submittal of concrete mix designs for approval
2. Building a mock up test panel
3. Providing core drill samples to a materials laboratory
4. Making required changes to the mix according to the indicated model results from these samples after they have aged for 90 days
5. Sending concrete cylinders to the lab for testing throughout the construction process

ORIGINAL TRESTLE DESIGN

Supported on 32" pipe piles which are all seated on rock, the original temporary trestle was designed to run the full length of the 550' pier. However, due to lack of friction capacity at the point where the underwater granite terrain disappears, the trestle was reduced to 350'. This allowed all piles to bear on the rock. Shortening the structure was the most cost and time effective solution to the pile capacity problem, and still allowed AB to take advantage of material delivery to the trestle.

{ design }

PILE DRIVING

A total of 116 piles in 24 bents, typically with five piles each, make up the new pier. Installing one bent at a time, 61 piles were driven through the overburden and 2” into the rock with an HPSI 500 vibratory hammer utilizing the 350’ trestle and the AB-Tampa-designed floating template. Next, each pile was cleaned by airlifting. For this procedure AB utilized a specially designed 12” airlift system built by AD&T (American Dock and Transfer – AB’s equipment division), making the best use of in-house resources. With extensive experiences on previous projects, Superintendent Steve Aguiar worked directly with AD&T to optimize the airlift. By making the airlift just 4” larger, huge boulders were prevented from clogging the pipe.



Pile driving process



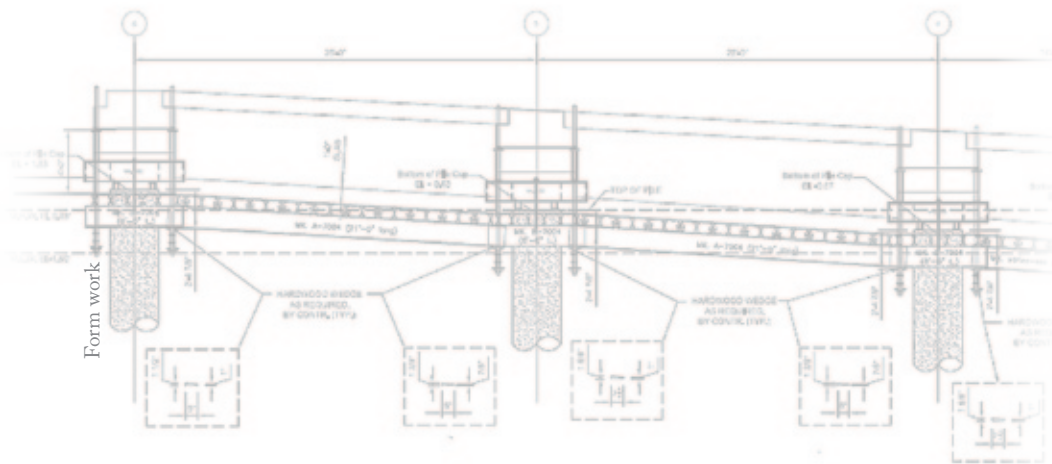
Floating out deck

By making the airlift just 4” larger, huge boulders were prevented from clogging the pipe.

After the holes were cleaned, rock socket installation could begin. Steve Aguiar used his past experience to innovate the drilling process with the confirmation that a 32” diameter socket drilled with four bits would get the job done faster than a 24” with three bits used in the previous project. Next, the lower rebar cage was installed into the rock socket and the upper at the top of the pile connecting into the pier. Finally, the piles were filled with concrete to their full height.

The work transitioned to barge from trestle to drive the remaining 55 piles into the sand-gravel layer using the HPSI 500 vibratory hammer. The final tip elevation was reached using a Pilco D-100 hammer.

{monitor}



One challenge uniquely associated with any submarine pier is that the concrete is underwater at high tide, whereas in the construction of an aircraft carrier pier there is access to all form work regardless of the time of day and month.

FORM WORK

One challenge uniquely associated with any submarine pier is that the concrete is underwater at high tide, whereas in the construction of an aircraft carrier pier there is access to all form work regardless of the time of day and month. Due to the vast network of duct banks and utility chases poured intricately into the new Pier 31, the team must constantly monitor the river's current and tides.

A previous AB constructed naval pier was formed and poured using a wood paralam system because the form work could be dropped into the water and floated into place. However, due to deflections in the wooden forms the concrete qualities were greater than necessary.

The Pier 31 project team was successful in the development of more advanced form work in order to pour the concrete monolithically, which was time-effective. However this created a new challenge: to develop an efficient stripping solution. The innovative solution was to pour concrete onto an AB designed form made up of 21' wide by 73' long wood joist I-beams atop a steel frame. Due to tidal constraints there are only three days out of a month that the form work can be removed.

Following pier construction, the 98 precast deck panels are installed. The panels range from 4' by 6'4" (1.58 tons) to 21'4" by 13'4" (17.78 tons). The cast in place concrete deck surface is constructed following erection of the precast panels.



Pier 31 form work



It took two years to produce the special electrical switchgear due to the applications specially designed to meet the needs of today's submarines.

Pier substructure concrete completed from bents 1 to 21

{produce}

ADDITIONAL AND REMAINING WORK

The new state-of-the-art pier is being outfitted with a fender system, and advanced electrical and mechanical systems. The fender system consists of driving 194 composite piles with steel H-piles attached, plastic lumber and floating camels. It took two years to produce the special electrical switchgear due to the applications specially designed to meet the needs of today's submarines.

Pile driving was completed in June 2011 and concrete has been placed over 21 of the 24 bents. In addition to completing deck placement and casting, AB will complete the fender system, jib cranes, retractable brow, high mast lighting, cleats, bollards, two electrical substations, mechanical piping and precast utility trench panels in order to meet its contractual completion date of January, 2012. 📍



Early-risers participate in the Stretch and Flex session starting at 5:30 a.m. and other employees begin this daily routine at 6:00 a.m.

{prevent}

PILOT SAFETY PROGRAM IMPLEMENTED AT PIER 31 JOBSITE

Jody Porterfield
CORPORATE SAFETY AND HEALTH MANAGER

Working with Zurich Services Corporation and Risk Engineering (Zurich), the Pier 31 Replacement Project at the Naval Submarine Base in Groton, Connecticut, implemented a pilot *Stretch and Flex* program to help prevent injuries.

Joe Corvello, AB safety manager on the project, was interested in proactively reducing strain and sprain type injuries associated with repetitive motions and an aging workforce. After contacting the AB Corporate Safety

and Health Office to discuss his idea, Zurich was contacted and they were ready and willing to offer their assistance.

According to Zurich, establishing a stretching program has many positive benefits. Poor body mechanics, lifting, awkward postures, repetitive motion, material handling, climate and even noise can lead to musculoskeletal disorders (MSD's). To minimize risks, numerous leading health experts promote stretching. Elite athletes, military personnel – even cats and dogs – stretch.

continued on next page

AB Safety Manager Joe Corvello was interested in proactively reducing strain and sprain type injuries which, according to the Bureau of Labor Statistics, account for 30 percent of injuries and illnesses involving days away from work.

Companies who have implemented such programs have found that stretching three to five days a week help improve:

- **Range of motion** – facilitates better balance and enables employees to stay mobile and less prone to injury
- **Posture** – minimizes fatigue that can lead to aches and pains
- **Circulation** – speeds healing and recovery after muscle injuries
- **Flexibility** – pliable muscles can improve your daily performance of tasks such as lifting, bending, reaching, stooping and pushing/pulling
- **Morale** – many employees report that providing this healthy and fun activity in the workplace greatly improves their daily environment
- **Stress levels** – stretching relaxes the tense muscles that often accompany stress

Over the past five years, 24 percent of all American Bridge Company's workers' compensation claims were the result of sprains and strains. In addition, incurred costs associated with these claims totaled approximately \$2.5M.

The *Stretch and Flex* program involves five to six stretching movements customized to each project depending on work activity, the environment, and the employee's range of motion. The stretching sessions are performed at the start of each day, lasting approximately nine minutes.

The program's goal is to increase flexibility and range of motion. Stretching lengthens muscle tissue and can help prevent sprains and strains which, according to the Bureau of Labor Statistics, account for 30 percent of injuries and illnesses involving days away from work.

The program development begins with a Zurich representative reviewing case information from the

project, then setting up an introductory meeting on site with project management, safety personnel, superintendents and foremen. At the meeting, a Zurich representative discusses the program steps, benefits of stretching, and implementation of the program. The program material is then developed off site and includes items such as posters, wallet cards, and placards with pictures of project employees demonstrating the customized stretches. Designated 'stretching leaders' are trained to guide their crew through the movements each day on site. The program involves both employee and management participation.

The American Bridge Company Safety and Health Department would like to commend the entire Pier 31 project for initiating steps to implement a *Stretch and Flex* program and advancing the safety culture on its project.

Thank you to the following AB contributors:
Joe Corvello, safety manager, Devin Muir, carpenter Andy Pelletier, laborer, John Donaldson, operating engineer, Mark VanWart, pile driver.

Special thanks to: Lance Fredericks, Sr., risk engineering consultant, Absence Health and Productivity Services; and David Bucy, Sr., risk engineering consultant, Zurich Services Corporation.

Other projects throughout the company are noticing the benefits and are showing interest in implementing the program. In addition to Pier 31, the NOAA Marine Operations project in Norfolk, Virginia also chose to implement the *Stretch and Flex* program on their site. The American Bridge Company Safety and Health Department would like to extend our appreciation to the NOAA Marine Operations Safety Manager Ron Fontenot and Project Manager Steve Jackson for using this tool as a proactive approach in the reduction of work-related injuries and illnesses. 🙏



"Pipeline projects require innovative engineering to solve their unique access and rigging challenges. These issues are made more complex by the fact that the pipelines are typically in service and under high pressure while work is performed."

John Schober
AB DISTRICT MANAGER, CHICAGO

{restore}

I HIGH STAKES INVOLVED WITH REHABILITATION OF PIPELINE BRIDGE


In addition to AB's specialization in the construction and rehabilitation of all bridge types, a vast array of marine works and the erection of special structures, many pipeline bridges, especially suspension bridges, have been completed in the company's history. The restoration of pipeline suspension bridges is similar to vehicular suspension bridges as it includes the repair or replacement of deteriorated steel and cable.

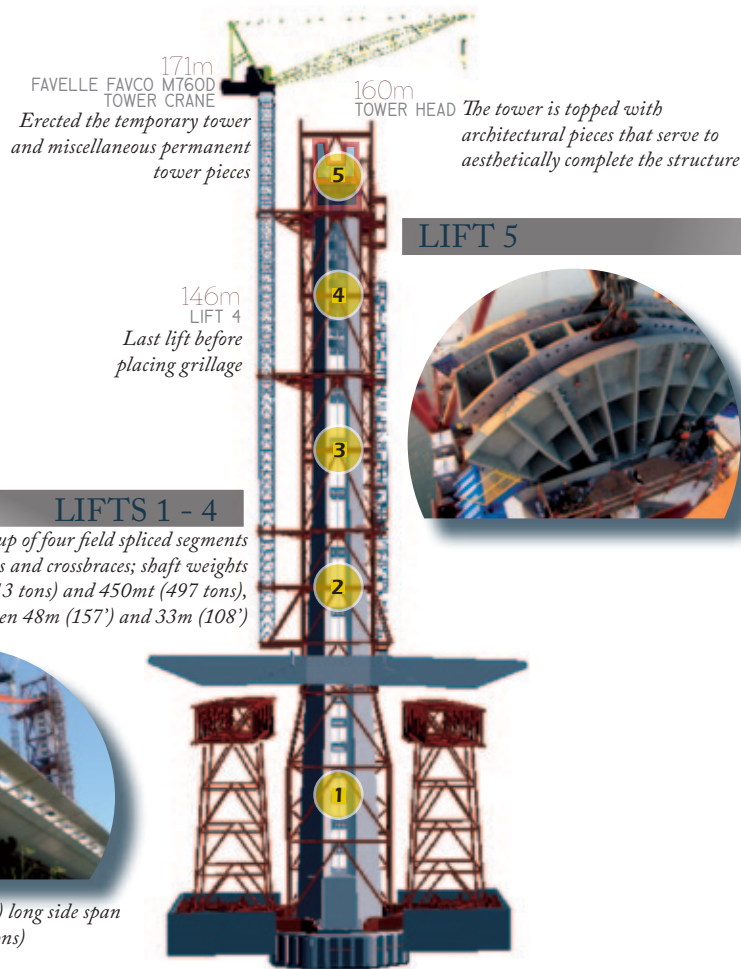
John Schober, Chicago district manager, explains, "In general the restoration may include replacing suspenders, main cable, adjusting suspender length to improve the bridge pipeline profile and furnishing better permanent access on the bridge since a roadway work platform does not exist. All temporary construction must be kept to a minimum due to the fact that these bridge types are designed for lighter loads. Pipeline projects require innovative engineering to solve their unique access and rigging challenges. These issues are made more complex by the fact that the pipelines are typically in service and under high pressure while work is performed."

The original construction of these bridge types was in the 1950s and they are now in need of rehabilitation. Due to the enormously high stakes of a fault in a pipeline suspension bridge rehabilitation project, the owners of these structures place a high value on demonstrated engineering competence in this field. As a result, AB has found this to be a market squarely in its wheelhouse, as the high risks of these projects can be mitigated only by the engineering skills that American Bridge so highly values and invests in.

In the case of the Williams Pipeline Bridges rehabilitation project completed for Transcontinental Gas Pipeline Company (TGPC), a \$4.5M contract in Houston which finished in February of 2010, American Bridge won the contract against just two other general contractors. The recently completed Coosa River Bridge project is also owned by TGPC, who negotiated directly with AB due to our precise, ahead-of-schedule work for Williams.

The Coosa project in Clanton, Alabama involved overall maintenance and access improvements, suspender adjustment and additional temporary support for hydrotesting of a double gas pipeline suspension bridge with a 700' mainspan. AB replaced the handrail cable system, installed ladders and railing on the bridge towers, adjusted suspenders to correct the bridge's profile, separated gas pipes for maintenance and rehabilitation, replaced the 90 degree elbows and riser gas pipe sections, replaced and tightened various fittings and bolts, and monitored the geometry of the entire structure during hydrotesting.

With an average of one new pipeline rehabilitation project annually, AB plans to continue pursuing this work as future opportunities become available. 



LIFT 5



SADDLE
Supporting element for mile-long self-anchored cable made up of 17,399 steel wires

GRILLAGE
A single, built-up piece weighing approximately 453.6mt (500 tons) that caps the four shafts and evenly distributes cable saddle weight

It is one of few double cable saddles in existence, allowing it to carry the 1,402m (4,600') long, 784mm (30.9") diameter main cable over it twice.

LIFTS 1 - 4

Four independent shafts, each made up of four field spliced segments interconnected by shear link beams and crossbraces; shaft weights range between 1,100 mt (1,213 tons) and 450mt (497 tons), with final lengths ranging between 48m (157') and 33m (108')




Each of the two 182.9m (600') long side span catwalks weigh 23.6 mt (26 tons)

{ suspend }

SAS SADDLES AND CATWALKS

On April 15, 2011 the tower saddle was hoisted over 152.4m (500') using a strand jack to bring the tower to a height of 163.26m (535.6'). The 414mt (metric tonne, 456 ton) tower saddle has a 7.25m (meter, 23.8') long base, a 6m (19.7') width, and a 10.86m (35.6') length at the saddle trough. It is one of few double cable saddles in existence, allowing it to carry the 1,402m (4,600') long, 784mm (millimeter, 30.9") diameter main cable over it twice, running continuously from the north east deck anchorage to tower top, around the west loop, back to tower top and terminating at the south east deck anchorage.

Early 2012 will mark the beginning of the cable installation phases. To facilitate the cable erection, the ABFJV team installed two side span catwalks in June, and will install mainspan catwalks by early August. The catwalks will be utilized to winch the prefabricated parallel wire strands (PPWS) into position, tension the strands and compact them into a single cable, install the cable bands, wrap the cables, and install the suspender ropes. Each of the 182.9m (600') long side span catwalks weigh 23.6mt (26 tons).

Currently, the remaining two mainspan catwalks are being fabricated on the bridge deck. After all four catwalks are erected the ABFJV will begin preparing tramway systems, swifts and other equipment in order to pull the PPWS. 

{celebrate}

“... none
of the challenges that ZPMC
has faced have been more significant than the
fabrication of the east end orthotropic box girders,
the complexity of which tested all of our skills.

Through hard work and determination, but more importantly through the
strength of our common goal and teamwork, we have met the challenge!

These giant roadway sections for the east end have taken over
3,000,000 man-hours to complete and will shortly cross the
Pacific and serve to anchor the 'lifeline' suspension cable
which supports the entire bridge.”*




American Bridge President and CEO Michael Flowers (center, black suit jacket) and ZPMC representatives celebrate completion of this five year project

SFOBB FABRICATION COMPLETE

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A ceremony celebrating completion of fabrication of the San Francisco/Oakland Bay Bridge’s (SFOBB) final east span sections took place in Changxing Island, China on July 11, 2011. Since the project’s commencement in 2006, 50,000 tons of steel has been transported from the ZPMC (Shanghai Zhenhua Heavy Industries Co., Ltd.) fabrication plant to California’s bay area as American Bridge/Fluor, joint venture, erects the new self-anchored-suspension span.

*The excerpt above is part of the American Bridge President and CEO Mike Flowers speech made at the event. 

{ refresh }



WELLNESS PROGRAM

As of August, we are over the half-way point for the 2011 Wellness Program. So far, we have a higher participation rate than last year at this time. We even have one employee who hit the 250 level, and will be receiving their wellness basket and another not very far behind. It cannot be stressed enough to get out there and participate. Many of the items to be completed are things you are doing anyway, such as preventative screenings, physicals, dental appointments and vision exams. All you have to do is take a wellness certificate with you and turn it in to the Human Resources Department (HR). You will then receive points for the item completed.

As a reminder, for those of you that signed up for *Move it to Music* or *Strides for Health*, please keep in mind that in order to receive points you must turn in your completed program booklet. Until the HR Department receives the booklet, you will not receive any points.

August

The focus for August will be biometric screenings, which measure your blood pressure, total cholesterol, LDL, HDL, glucose and triglycerides. This is an early detection/preventative screening tool and the results can be shared with your doctor at your next visit. LabCorp will be the company administering the tests. You will have the option of either locating a LabCorp site near you or receiving a home test kit. The HR Department will send out communication in mid-July to inquire as to who would like to participate and whether you will need a slip to go to LabCorp or would like to receive a home test kit. Once LabCorp has received a sample, they will notify the HR Department as to who completed their screening and the points will be awarded.

September

The wellness initiative for September will be *Personal Nutrition Coaching*. This is a one-on-one counseling service with a registered dietician designed to help you make healthy lifestyle and nutrition changes. Issues such as weight management, heart health and other health related issues can be discussed. The coaching is done telephonically. Enrollment information was sent out in late-July.

Another initiative for September will be CPR and First Aid Training. American Bridge will reimburse you for the cost of CPR training as well as becoming certified in First Aid for a total of the two of \$75. Points are awarded separately for CPR and First Aid. More information will be sent out in mid-September.

October

In October we will kick off the third newsletter campaign of 2011 called *Daily Steps to Less Stress*. This is a four week daily stress management newsletter campaign designed to help you get to the root of your stress. You will receive a Stress Management Journal and CD to help you develop daily strategies to control and manage your stress. HR will send out correspondence regarding this campaign in October. You will receive ten wellness points for signing up for this newsletter campaign. Your name will also be put into a raffle to win a \$50 restaurant gift card of your choice. 🍎


{ acknowledge }



NAVAL STATION BRIDGE DEDICATED TO THE LATE LT. FRANCIS L. TONER, IV

The Vehicular Bridge Replacement project (AB order no.: 485510) completed by American Bridge Company in June 2010 within the Newport Naval Station facility, Rhode Island was dedicated to the late Lieutenant Francis L. Toner, IV in March. Toner was 26 when killed by an insurgent dressed as an Afghan National Army soldier on March 27, 2009 and has since been awarded a Bronze Star Medal with the Valor Device and a Purple Heart.

Steve Aguiar, superintendent, and Ken Farrelly, operations manager, of the AB Pier 31 Replacement Project attended the event. Ken explains, “AB started the project building a bridge. It turns out we actually constructed a monument to honor an American hero who sacrificed his life for our country. We are proud to be associated with such an admirable tribute.”

The project included the construction of a 900’ long, 32’ wide bridge, founded on 48” diameter drilled shafts approximately 30’ deep, cast-in-place concrete piers and pier caps, two cast-in-place concrete abutments with wing walls, cast-in-place concrete deck, aluminum railings and an asphalt overlay roadway surface. Also included was miscellaneous electrical work, a water supply line, site drainage, relocation of steam line, asphalt paving and concrete sidewalks. *Steven Aguiar, superintendent; Laura Furtado, field engineer; Kenneth Farrelly, operations manager; Jon Moebis and David Fowler, quality control managers; Devin Muir, carpenter foreman; Malcom Patterson, project engineer; Robert Smith, project manager* 

“AB started the project building a bridge. It turns out we actually constructed a monument to honor an American hero who sacrificed his life for our country. We are proud to be associated with such an admirable tribute.”

Ken Farrelly
AB OPERATIONS MANAGER



Ashley Roberts
TRAINING COORDINATOR

NEW MANAGEMENT FOR TRAINING DEPARTMENT

Field Engineer Training Session 7 Class, March 22-23, headquarters office, Coraopolis, PA

Topics and presenters: Field engineers:

- Use of Crane Capacity Charts and Rigging* John Schober
- OSHA Crane Standards* John Schober and Henry Myklich, safety director
- Site Work and Excavation* Joe Hoopp, estimating manager
- Safety and OSHA (Occupational Safety and Health Administration)* Henry Myklich and Jody Porterfield, safety manager
- Construction Environmental Presentation* Zurich Insurance
- CEO Roundtable Discussion* Mike Flowers, president and CEO
- Arawak Cay Port Development, Nassau, Bahamas* William Campbell
- Bronx-Whitestone Bridge Structural Improvements, NY* Drew Merritts
- Kentucky Locks P&L Railway Bridges, Grand Rivers, KY* Kevin Lynch
- San Francisco/Oakland Bay Bridge, CA* Daniel Hester
- Triborough Bridge Rehabilitation, Manhattan, NY* Chad Ford
- Virginia Beach Office* Brian Binder
- Walt Whitman Suspension and Anchorage Spans Deck, Gloucester City, NJ* Michael Hartranft
- Zach Rosswog

Field Engineer Training Session 6 Class, May 9 - 11, San Francisco Oakland Bay Bridge project, CA

Topics and presenters: Field engineers:

- Concrete, Post Tensioning and Grouting* Neil Napolitano, project manager
- Barge Use and Flotation Calculations* Kevin Smith, project manager
- Pile Driving, Deep Foundations, Sheet Piling and Falsework* John Callaghan, project manager
- Bronx-Whitestone Bridge Structural Improvements, NY* Bill Batzel
- Kara Mullin
- Zach Osei
- Dan Sheehan
- Joe Stilson
- George Washington Bridge, Fort Lee, NJ* Scott Swamback
- Headquarters Office, Coraopolis, PA* Ben Crowder
- Kentucky Locks P&L Railway Bridges, Grand Rivers, KY* Troy Bodenschatz
- Navy Pier 31, Groton, CT* Ben Berardino
- Ogdensburg-Prescott International Bridge, NY* Chris Deklewa
- San Francisco/Oakland Bay Bridge, CA* Eric Blue
- Paul Fiske
- Ben Jones
- Zach Lauria
- Triborough Bridge Rehabilitation, Manhattan, NY* Mike Comstock

Effective January 1, 2011, the Training Department is operated by John Schober, training manager and Ashley Roberts, training coordinator.



Mike Flowers during session seven discussing CEO roundtable

The next AB Connections issue will cover the Field Engineer Training Session 8 Class that took place on August 1st and 2nd at the San Francisco Oakland Bay Bridge Project, California - the final session for the two pioneer classes.

In addition to field engineer training there have been other opportunities for company personnel such as Microsoft Excel in April and PowerPoint in May, both held at the headquarters training facility. Training is an ongoing process and one that we should all participate in when the opportunity presents itself. If anyone has any questions and/or suggestions, feel free to contact John or myself directly. ☺

{participate}

AB SUPPORTS NATION'S LARGEST AUTISM ADVOCACY ORGANIZATION

Another AB community event took place on Saturday, June 4th at Heinz Field in Pittsburgh to show patronage of those with autism. The 12th annual Autism Speaks activities began at 8:00 am, with a resource fair including food and drinks along with interactive activities and promotional products.

From 10:00 a.m. until 2:00 p.m. over 12,000 individuals showed their support of the neurological disorder as they walked the outskirts of the stadium. The event raised over \$700,000 to be utilized for research, specifically in the role of immune system functionality within the patient's body and brain.

AB's Dan Edwards, estimating manager, and his wife, Judy, have been supporting one of the events top groups (raising in excess of \$28,000 in 2011) called Danny's Dream Team for over ten years in support of close family friends, Pat and Elaine Carfagna. The 2011 American Bridge team walked with Maggie's Magic, the group that Bryce Copeland, AB information technology specialist, has been involved with the past three years. AB participants this year were Kadi Camardese, Bryce Copeland, Debbie Easton, Jeff Greene, Brent VanArsdale and Todd Yuhas.

Founded in 2005 by grandparents of a victim, Autism Speaks has grown into the nation's largest autism science and advocacy organization. 

AUTISM
MORE COMMON THAN JUVENILE
CANCER, DIABETES AND AIDS

10-17%
ANNUAL DIAGNOSTIC
INCREASE RATE

10's of M's
WORLDWIDE


1 IN 110
CHILDREN

1.5M
IN THE U.S.

1 OF 70
BOYS

AB FIELD ENGINEER COORDINATES EVENT IMPROVING CHILDREN'S HEALTH

The American Bridge New York District made a charitable donation in support of the 3rd annual *Chris Emerick Memorial Golf Tournament* which took place on Saturday, July 9th at the Brockport Country Club, New York.

Over 120 participants gathered in remembrance of Chris who passed away in 2008, a long time friend of Joe Stilson, AB field engineer. At the request of Helen Emerick, Chris's mother, all proceeds will be donated to the Ronald McDonald House in Rochester, New York whose mission is to 'create, find, and support programs that directly improve the health and well being of children.' 



Right to left: Joe Stilson, AB field engineer, Walt Whitman Bridge Suspension and Anchorage Spans Deck and his guests, Tom Taft, Lindsey Dillon and Keane Topor

“This is the 3rd year of the tournament, and the 2nd year we raised money to donate to a charity of Chris's family's choice. It's a great reason for friends and family to get together and remember Chris's life - I truly look forward to it every summer.”

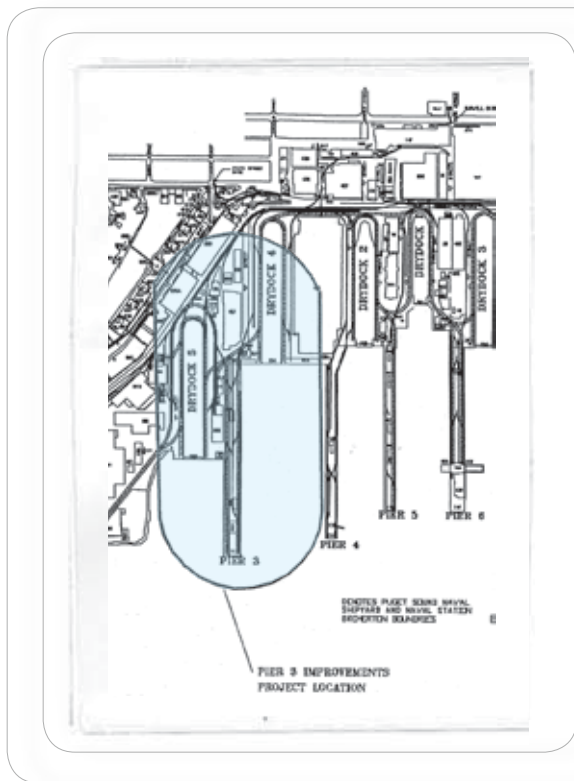
Joe Stilson
AB FIELD ENGINEER

{ flash- backs }



- 1919
- 1921
- 1935
- 1947
- 1946
- 1955
- 1954
- 2006
- 2010

This issue's Flashbacks highlight American Bridge Company's long contracting relationship with the United States Navy and the Naval Facilities Engineering Command (NAVFAC). NAVFAC frequently undertakes complex structural and marine projects that have stringent quality and documentation requirements. They also maintain a contractor evaluation system that is an important component of their best value contracting procedure. **AB's 92 year history of contracting with this highly valued customer is testament to its ability to deliver the most demanding Naval projects to the highest quality, safely and on time. During the last ten years, AB has completed 14 projects for the Navy from Maine to Florida on the east coast and from San Diego, California to Bremerton, Washington on the west coast.** Current Navy projects include the berthing wall replacement at Naval Station Mayport near Jacksonville, Florida, and the Pier 31 replacement projects at Groton Naval Station in Connecticut.



The P-359 Pier 3 Improvements project (AB order no.: 445910) was a fender replacement completed at the Puget Sound Naval Shipyard in Bremerton, Washington. The work included the removal and replacement of bollards; the replacement of a bull-rail, ladders and other features; mechanical, electrical and paving work; and the demolition of two buildings. Established in 1891, the shipyard still is the Pacific Northwest's largest naval shore facility and an important driver of the economy of Washington State. *Maureen Johns, office manager and Steve Renner, project manager*

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During World War I American Bridge completed significant improvements in overhead crane capacity and reach (AB order no.: E2200 and E2200X 1-5) at the Philadelphia, PA Naval Shipyard. The work included two new crane runways and four extensions under one contract. The runways ranged in length from 200-900' in length, up to 170' tall, all covering 100' bays. The cranes had a capacity of 10 to 40 tons. The runways were constructed from trusses which included 9,898 tons of materials.

Between the date of contract and completion of order E2200, E2200X 1 and E2200X 2 Bridgeman's wages had advanced several times. These increases account for \$23,496.18 of the cost, made up of \$17,666 labor and 5,829.99 (33 percent) pro rata distribution. *D. Burns and T.S. Melton, foremen*

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American Bridge Company fabricated and erected the hammerhead crane at the U.S. Naval Shipyard at Hunters Point in San Francisco, California in 1947 (AB order no.: G-8300-01). While no longer in use, the crane is still visible when driving on Highway 101 North from SF International Airport to the downtown area, behind Candlestick Park.



Here is a popular news excerpt written at the crane's completion in 1947: *"WORLD'S LARGEST overhead traveling crane, capable of lifting battleship gun turrets and other huge sections weighing as much as a million pounds, is shown being erected by U. S. Steel's American Bridge Company in the San Francisco Naval Shipyard at Hunter's Point, California. Completion of the giant lift will make Uncle Sam fastest on the draw among the nations in the replacing of battleship guns. These large caliber weapons wear down their rifling in a comparatively few rounds. Then the guns and their turrets are exchanged for new ones or for those which have been reconditioned. Swifter repair service for fighting ships also will be made possible by the twin cranes that will operate singly or in tandem atop a bridge type runway 207' high. The 730' runway spans a pier 405' wide, extending 162.5' over the water on each side. Total of 8,400 tons of steel went into the runway structure and cranes."*

In 1955, after about a year of work, AB completed the 50 ton portal crane on a gantry (AB order no.: Q-4260) at the Naval Shipyard in Philadelphia, Pennsylvania. The crane had a 150' boom and 49' extension boom on 25' center to center portal pairs of rails by 29'8" by 22'1 1/2" clear above top of rail. The crane consisted of a trussed boom, A-frame machinery floor with ladders, portal and bracing. The heaviest lift was 11 tons. A Bridgeman rate 56 years ago was \$3.45 per hour. *D. S. Fine, manager, E. F. Ostwalt, superintendent and D. H. Rodgers, erecting engineer*

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There are numerous records within the AB archives highlighting the details of ship and naval yard projects.

This one is representative:

In 1946 American Bridge erected a 3,251 ton **Shipfitter and Boilermaker's Shop** in San Francisco, California for the U.S. Navy

(AB order no.: H-7655). The building had a saw tooth type roof with four 75' bays for a total of 300' wide by 525' long. Each bay was equipped with crane runways. There were also two lean-to's that measured 50' by 250' and 50' by 125'. The mold loft floor was 300' by 200' with a mezzanine that was 33' wide on two sides and one end.

The Bridgeman's rate 65 years ago was \$2.00 per hour. *E. E. McKeen, manager*

Quantity	Description	Unit	Rate	Amount
1	Steel for building with saw tooth type roof & steel	Sq Ft	1.75	1,750.00
1	141' by 125' above 2' lean-to = 50' x 250' & 50' x 125'	Sq Ft	1.25	1,250.00
1	125' by 125' above 2' lean-to = 50' x 250' & 50' x 125'	Sq Ft	1.25	1,250.00
1	125' by 125' above 2' lean-to = 50' x 250' & 50' x 125'	Sq Ft	1.25	1,250.00
1	125' by 125' above 2' lean-to = 50' x 250' & 50' x 125'	Sq Ft	1.25	1,250.00
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1	125' by 125' above 2' lean-to = 50' x 250' & 50' x 125'	Sq Ft	1.25	1,250.00
1	125' by 125' above 2' lean-to = 50' x 250' & 50' x 125'	Sq Ft	1.25	1,250.00

Order No.	Description	Quantity	Unit	Rate	Amount
05-002	N 80276 284 46 2055 500' high	1	Radio tower	300'	300.00
05-003	T 509 3 Radio towers	3	Radio towers	300'	900.00
05-004	6 Radio towers	6	Radio towers	300'	1,800.00
05-005	7 Radio towers	7	Radio towers	300'	2,100.00
05-006	N 7997 4-3-35	4	Radio towers	300'	1,200.00
05-007	P 4797 6-4-35	6	Radio towers	300'	1,800.00

From 1934 to 35, American Bridge Company erected 19 radio towers at the U.S. Navy Lualualei Radio Transmitting Facility (AB order no.: G-5323 and 25), Pearl Harbor Naval Base, Hawaii to maintain communications in the Eastern Pacific before and during World War II. Thirteen of the towers were 600' tall and six were 300'. All were self supporting. The towers were erected by guy derrick; ground based through the lower portal levels and suspended within the towers above the portal level. Until the legs were connected at the portal level, they were tied back by deadmen.



65275 RADIO TOWERS, SUMMIT, C.2.
VIEW OF HOISTING ENGINE USED FOR POWER OF LARGE POLE THE BOX ON THE LEFT WITH GRASS ON IT IS USED TO KEEP THE WATER CAN IN.
5/1/35



From the 1940s to 60s some of the towers were dismantled and the remaining served as the 'Voice of America', broadcasting the country's news throughout the world. By the 1990s, all of the towers were dismantled. They were fabricated mainly at AB's Schiffler Plant in Pittsburgh, and erected by the Foreign Erection Branch of American Bridge. The total weight of structural steel was 4,336 tons. (Source: The Library of Congress)





Boston Naval Shipyard

Expansion of the **Boston Naval Shipyards Electronic and Electric Shop, Massachusetts**, took place 57 years ago (AB order no.: Q-4233). AB provided the 115' by 130' by 93' building extension of six floors, the roof, columns, beams, bracing, sag rods and crane rails. Removal of old steel was also included under the contract. The Bridgeman's hourly wage on this project was \$3.08. *W. W. Farabee, superintendent*



Archives at American Bridge headquarters contain records of 17 radio tower projects completed by the company from 1921 to 1961, located throughout the United States. The towers contained as much as 1,600 tons of structural steel each.

In 1941 a **triangular radio tower measuring 250' high 33'4" across each side and 1'4" at the top** was erected at the Naval Yard in Brooklyn, New York (AB order no.: H-5253). The next year, **three triangular type-B radio towers** were erected near the Naval Air Station in Elizabeth County, North Carolina (AB order no.: H-5573).

These 150' towers were 25' across each side at the bases and 4' at the top. Each had a platform erected at the top, two rest platforms and one ladder. They were riveted, not galvanized and included sheaves, hand winches and obstruction lighting. The Bridgeman's rate on the latter was \$1.50 per hour. *L. R. Hamilton, superintendent*

One of the **final radio projects** was in **Sugar Groove, West Virginia**, (AB order no.: V-3200-19) in 1961 for which AB fabricated and constructed a 300' diameter radio listening dish weighing 6,005 tons.



Radio tower project in Sugar Groove, West Virginia



{opinion}

Michael Cegelis

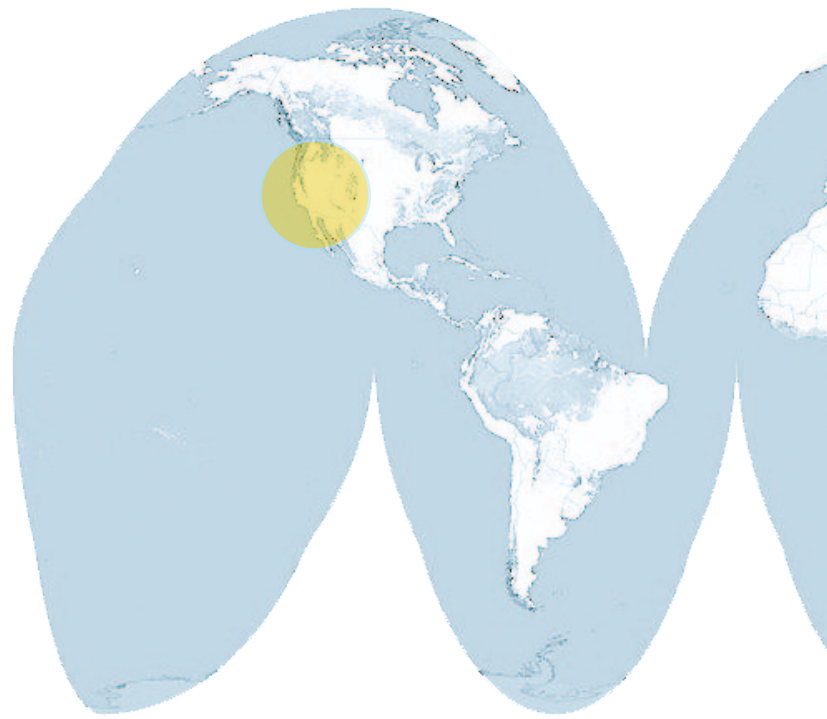
SENIOR VICE PRESIDENT OF SPECIAL AND INTERNATIONAL PROJECTS

There was a time

when American Bridge Company was the world's largest steel fabricator. From its founding as a JP Morgan engineered merger of 28 of the nation's then largest fabrication companies in 1900 through the late 1970s, AB operated a network of up to 13 fabricating facilities throughout the United States. American Bridge set the benchmarks for industrial layout, shop equipment development, safety, fabrication and shipment methods, and productivity. AB plants filled orders the world over; from the largest bridges in North and South America and Europe to the railway structures of the Philippines and Korea to the electrical transmission systems of Africa to the skyscrapers of New York and Chicago. American Bridge had the capacity, and in many cases the unique ability, to fill any order for fabricated steel – no matter how large or complex and regardless of where it was located.

Beginning in the 1970s, American Bridge faced an onslaught of new competitors. These ranged from regional fabricators around the USA who found ways to operate at lower cost structures, to large Asian fabricators, first from Japan and then from Korea. In a classic story of American industrial decline, the company was unable to unwind its high wage structure and built-up safety and environmental costs. Over a ten year period American Bridge and its then parent United States Steel shuttered all of its fabricating facilities and jettisoned its more than 10,000 skilled workers. The company's major competitors, Bethlehem and Kaiser Steel, did the same. In the process, both American Bridge and United States Steel (who had separate but equally compelling competitive issues in its steel manufacturing business) faced significant financial duress that lasted nearly two decades and could easily have resulted in the death of both companies. This is the story of why that didn't happen.

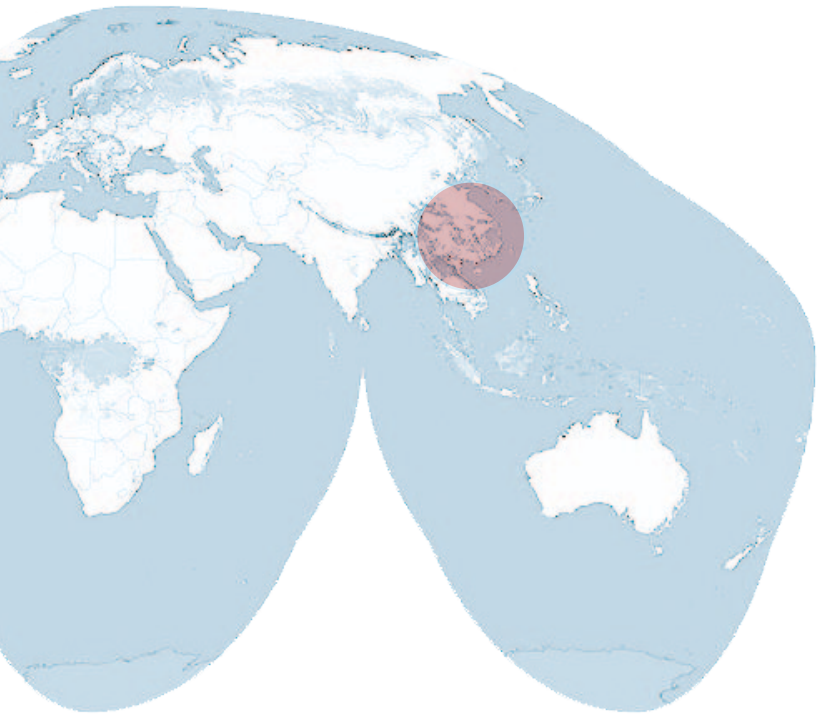
With the clarity of hindsight it can be postulated that this loss of American jobs was unavoidable. The basic infrastructure of the USA had been built, and the consistent flow of large tonnage projects shrank. The ongoing smaller needs could be filled by the regional capacity that was already operating at lower cost. Advancements in engineering design brought on by the



the *New York Times* ran a front page article in its Sunday edition about the sourcing of fabricated steel from China for the New Self Anchored Suspension Bridge

computer age reduced the quantities of steel needed for major structures like high-rise buildings and bridges. Advancements in concrete technology enabled that product to secure a larger share of the structural needs. And when large and/or complex needs did arise, it was cheaper to buy from lower cost Asian supply sources anyway. Despite the cry for jobs, Americans, like all citizens of the world, demand a competitive product.

On June 26, 2011, the *New York Times* ran a front page article in its Sunday edition about the sourcing of fabricated steel from China for the New East Bay Self Anchored Suspension (SAS) Bridge, under construction by a joint venture of American Bridge Company and Fluor Enterprises. The article was a factual and mostly accurate account (there was a notable error in the statement that Chinese fabricator ZPMC, who was ultimately selected as supplier for the SAS, had no prior experience with bridges, which was not the case) of the ascendancy of China in the manufacturing and engineering industries. It also covered the criticism of American industry interests at the Chinese sourcing, along with warnings about quality, etc. Brian Petersen, AB's project director on the job, stated quite accurately that the capacity to produce this bridge did not exist any longer in the USA. That capability died with the aforementioned shuttering of this industry in America.



This is our model,
and it's the new American model.
Embrace it, and compete!


...despite the outrage at the loss of American jobs, most young Americans do not find the factory floor of a steel fabrication plant to be an attractive career prospect!

Nevertheless, American Bridge has far from abandoned American manufacturing jobs. The company has invested heavily in specialized fabrication, building new plants in Pennsylvania and Oregon. These plants are equipped with technologically advanced equipment and skilled workers, and they fill a niche in markets where neither overseas steel nor the large domestic suppliers are competitive, notably the steel required for the repair of our aging existing bridges.

However, it is the combination of advanced technological skills and the can-do American attitude that saved American Bridge Company and that drives it into the future. Time and again over the last 15 years we have relied on advanced engineering to find more productive and safer ways of constructing complex structural engineering projects and to meet ever increasing demands for higher quality, and the poise of our highly skilled field forces to execute the construction. We applied these skills to successfully accomplish numerous unprecedented structural construction feats, like the addition of new main cables on an active suspension bridge (the 25th of April Bridge, Lisbon, Portugal), the complete replacement of the stiffening truss of an in-service suspension bridge (Lions Gate Bridge, Vancouver, Canada), the construction of the world's largest movable bridge (Woodrow Wilson Bridge, Washington, DC), and the world's largest self anchored suspension bridge (the San Francisco/Oakland Bay Self Anchored suspension span). And partly as a result of the successful delivery of these complex structures, American Bridge has key roles in the construction of several new extraordinary projects: the \$1B+ cable stay bridge over the Firth of Forth in Scotland featuring a crossing stay design, and the world's largest observation wheel in Las Vegas.

The article unleashed a firestorm of frustration and pessimism in blogs and opinions at yet another example of job migration from America to China. But this writer's opinion, written over the 4th of July celebration of 235th anniversary of the founding of America, is one of unbridled optimism for the future of American Engineering. The story of the shuttering of the dozen+ plants once operated by American Bridge Company, it's ensuing two decade struggle for survival, and it's now 15 years of industry leading performance is testimony to the resilience of the American culture and the reason for optimism in the future.

The big perspective is important here. It is a fact that America will have a difficult time competing in the large scale manufacture of steel products anytime in the near future. As a relatively low value added commodity, steel fabrication needs to move where the costs are the lowest. America expects (and should expect) its workers to earn a living wage, to work in a safe environment, and to enjoy clean air and rivers. We also expect leading edge healthcare, and a dignified retirement. This is not congruent with a low cost of production in a commodity industry. Moreover, despite the outrage at the loss of American jobs, most young Americans do not find the factory floor of a steel fabrication plant to be an attractive career prospect!

In order to maintain this industry-leading position, we recruit the brightest civil engineering graduates from leading universities in America and around the world, and we teach them our technologies through an industry leading training program. These are outstanding American jobs, and this is the future. We will and we must continue to develop our technologies, our risk appetite, and our field skills to stay ahead. This is our model, and it's the new American model. Embrace it, and compete! 



1000 American Bridge Way
 Coraopolis, PA 15108
 United States of America

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 PERMIT NO. 7



Connections
 NEWSLETTER
by Kadi Camardese

Please contact the
 AB Communications and Marketing Department
 with news and inquiries:
kcamardese@americanbridge.net

{specialize}

CONTRACT FOR WORLD'S LARGEST OBSERVATION WHEEL, LAS VEGAS

American Bridge Company's Special and International Projects District (SIP) has been selected as prime structural contractor by Caesars Entertainment Operating Company, Inc. for the Las Vegas High Roller, which will be the world's largest observation wheel. The contract has a value of about \$64M.

AB will assist the design engineer Arup in the completion of the design, and will begin procurement of steel and other components immediately. Construction will begin in late summer 2012 and be complete in December, 2013.

The wheel is a tension ring with a 143m (469.16') diameter, with top elevation of 167m (550'). It will contain 28 cabins with 36 person capacity each. The cabins are delivered under separate contract and

erected by AB. The mechanization and drive system, electrical installation, and general works are being performed under separate prime contracts.

The project continues a long line of special structures experience for American Bridge Company that has included the Chicago Picasso structure, the New York World's Fair Unisphere, the Puerto Rico Convention Center Roof, and the EPCOT Millennium structure in Florida.

Congratulations to the engineering, bidding and pursuit team, which included Jared Carlson, Carson Carney, Michael Cegelis, Ugo del Costello, James diPasquale, Nick Greco, Simon Laming, Thomas Nilsson, Dan Radu, Ben Reeve, Gene Rosamilia, and Scott Tudor; along with continuous support from Mike Flowers, Lanny Frisco, and Amr el Nokali. 