Gerald Desmond Bridge Replacement Project
Mobile App – LB Bridge App
Gerald Desmond Bridge Replacement Project Mobile App – LB Bridge App

Summary:

The $1.5 billion Gerald Desmond Bridge Replacement Project is the centerpiece of the $4 billion capital improvement program at the Port of Long Beach – the biggest capital investment of any U.S. seaport. The bridge connects several terminals in the San Pedro Bay port complex with the 710 Freeway, a major cargo corridor. About 15 percent of all containerized cargo coming into the U.S. travels over the Gerald Desmond Bridge, which opened in 1968 and was not designed to accommodate today’s jumbo-size cargo ships or handle current and future traffic volumes. Informing Port stakeholders and the driving public about bridge progress and construction impacts was critical, but now the communications focus is shifting to preparing the port industry, commuters and the community in general for the new bridge’s opening and the opportunities for accessing the new bridge as it opens up in late 2020. The new LB Bridge App, launched in January 2019, serves as an extension of the bridge project website (updated, redesigned and relaunched in March 2018), informing project stakeholders of construction status, benefits and impacts, and communicating its key messages and announcements – at the touch (or flick) of a finger.

Designs of the final updated product
The Port of Long Beach is a premier U.S. gateway for trans-Pacific trade and a trailblazer in innovative goods movement, safety, environmental stewardship and sustainability. As the second-busiest container seaport in the United States, the Port handles trade valued at $170 billion annually and supports 2.6 million trade-related jobs across the nation, including more than 575,000 in Southern California. One in five Long Beach jobs is Port-related. The Port of Long Beach prides itself on its top-notch customer service and operational excellence, and in 2019 industry leaders named it “The Best West Coast Seaport in North America.” Founded in 1911, the Port today encompasses 3,200 acres with 35 miles of waterfront, 10 piers, 80 berths and 66 gantry cranes. In 2019, the Port handled 7.6 million container units, the second-best year in its history.

More than 40 percent of seaborne cargo that enters the United States passes through the San Pedro Bay ports of Los Angeles and Long Beach, with about 2,000 vessels calling at the Port of Long Beach each year, serving 175 shipping lines with connections to 217 seaports around the world. Goods moving through the Port of Long Beach reach every U.S. congressional district.

During the past decade, the Port of Long Beach committed $4 billion to capital projects to support trade and jobs growth, including terminal, railway, roadway, waterway and bridge improvements. This decade, another $1 billion has been committed to increasing on-dock rail accessibility and other improvements to ensure that the Port of Long Beach remains the Port of Choice for its customers.

A centerpiece of the Port’s capital improvement program is the replacement of the current Gerald Desmond Bridge, which connects several terminals in the San Pedro Bay ports complex with the 710 Freeway, a major cargo corridor. About 15 percent of all containerized cargo coming into the U.S. travels over the Gerald Desmond Bridge, which opened in 1968 and was not designed to handle today’s volume of car and truck traffic. Lane configuration on the bridge causes weaving and merging, as there are three lanes ascending but only two lanes descending in both directions.
Lastly, the 155-foot-high water clearance over the Port’s Back Channel limits the size of vessels that can enter the Port’s Inner Harbor. In short, the current bridge is what engineers refer to as “functionally obsolete.”

To better meet today’s growing traffic volumes, the California Department of Transportation (Caltrans) and the Port of Long Beach are near completion of a project to replace the Gerald Desmond Bridge. The project also receives funding contributions from the U.S. Department of Transportation and the Los Angeles County Metropolitan Transportation Authority (Metro).

With a budget of $1.5 billion, the new bridge is built with a cable-stayed design that lowers budget, resources, and time in construction versus traditional suspension bridges. With 205 feet of clearance above the water, the bridge will be high enough to accommodate large container vessels.

Bridge construction has provided an immediate and significant economic boost to Long Beach and the region, and the $1.5 billion in spending has generated economic activity of more than $2 billion in Southern California. During the life of the project, construction will support approximately 3,000 jobs.

The new bridge will be an iconic landmark for Southern California.

As the Bridge Project nears completion (planned for mid-late 2020), the top priorities of the 2018-2019 communications program shifted from addressing traffic impacts (e.g. road closures, construction delays and congestion) to marketing the significance of and key storylines around the vital role the new bridge will play in goods movement for the local, regional and national economy.

Our challenge?

One of our frontline communications tools – although a 2014 AAPA Award of Excellence recipient – was an outdated, clunky mobile app that did not allow for content updates, customization, or integration with our website without the involvement of a developer, who was the one and only expert on the app’s back end.

Given the advances in technology, the 5-year-old app was ripe for a replacement. Unable to easily update the information ourselves, it became virtually impossible to keep our stakeholders (local residents, regional commuters, Port-related businesses, international shipping companies, importers and exporters, government agencies and more) properly informed of real-time updates. Heightening the need for a new app was an anticipated opening of the new bridge as soon as summer 2020. This meant our new app had to support the accompanying visual identity of a new look and feel as well as a large amount of visual assets, including more than seven years’ worth of video, photos, podcasts, infographics and other collateral content.

Budget was another challenge. Given constractive budgets that sometimes accompany infrastructure projects, this redesigned, newly coded, asset-rich app had to be created for under $20,000, which eliminated many app development firms.

![Old bridge app displays](image)
One of the goals of the Port’s updated Strategic Plan, released by the Port of Long Beach in April 2019, is to develop and maintain state-of-the-art infrastructure that enhances productivity and efficiency in goods movement. The Gerald Desmond Bridge Replacement Project is clearly a major element in meeting that goal.

The Port has a long-entrenched commitment to keeping its stakeholders in the loop regarding the bridge through a wide variety of effective communications (including the bridge website at www.newgdbridge.com that was a 2019 AAPA Award of Excellence recipient).

And the challenges of shifting focus to activities leading up to renaming the bridge and the grand opening require clear communication.

The new LB Bridge App accomplishes this.

Westbound Communications, the Port’s longtime public relations and marketing contractor for the Gerald Desmond Bridge Replacement Project, led the LB Bridge App update project in collaboration with the Port’s Communications & Community Relations team, as they did for the 2018 bridge website redesign.

Complementing the Overall Mission

One of the goals of the Port’s updated Strategic Plan, released by the Port of Long Beach in April 2019, is to develop and maintain state-of-the-art infrastructure that enhances productivity and efficiency in goods movement. The Gerald Desmond Bridge Replacement Project is clearly a major element in meeting that goal.

The Port has a long-entrenched commitment to keeping its stakeholders in the loop regarding the bridge through a wide variety of effective communications (including the bridge website at www.newgdbridge.com that was a 2019 AAPA Award of Excellence recipient).

And the challenges of shifting focus to activities leading up to renaming the bridge and the grand opening require clear communication.

The new LB Bridge App accomplishes this.

Westbound Communications, the Port’s longtime public relations and marketing contractor for the Gerald Desmond Bridge Replacement Project, led the LB Bridge App update project in collaboration with the Port’s Communications & Community Relations team, as they did for the 2018 bridge website redesign.
Planning and Programming Components

Goal

The goal was to create an app that served as an extension of the project website, informing project stakeholders of the project’s status, benefits and impacts, and communicating its key messages and announcements – at the touch (or flick) of a finger. It needed to be clean, simple and easily transferred to a future branding design.

To meet this goal, Westbound outlined the structure and homepage of the app to align with the website’s most popular features for mobile users, including links to live construction cameras, photo and video galleries, and tour and presentation requests. They integrated all other outreach platforms (MailChimp [for bulk emails], social media channels, Google Maps, Eventbrite [for event registrations], etc.) to maximize reach and streamline the process of updating information. Integration of various marketing channels and content reuse across them were the first major steps toward an improved user experience on the newly designed app, and a more informed and engaged public. An emergency-notification feature was added for real-time communications on major traffic impacts and other immediate news items. Lastly, Westbound carefully worked to weave in new visuals and refined messaging that would underscore the project as a new icon for Southern California.

Objectives

• **Objective No. 1** – Deliver a full custom-coded app within 10 weeks to meet an event-driven launch deadline;

• **Objective No. 2** – Perform all project definition, planning, coding, quality control, and launch within an all-in $20,000 budget;

• **Objective No. 3** – Secure 1,000 downloads within the first three months after launch;

• **Objective No. 4** – Increase visits to News & Announcements section on the new app by 30% in the first three months.

To accomplish these objectives, seamless integration with the project website was required that would enable the Port to create, edit, and publish content without the aid of an app developer. Also necessary were intuitive, modern navigation options; a homepage that pulled directly from the bridge website for daily news and announcements; highly visual, downloadable and searchable assets (photos, videos, detour fact sheets, etc.); and more – all within a $20,000 budget.

A primary challenge in the development was the timeline. The Port of Long Beach’s annual “State of the Port” event, scheduled for January 23, 2019, which draws a crowd of more than 700 of the most involved industry leaders, community members and elected officials, was 10 short weeks away. The event presented an ideal launch platform for the app, especially to help meet our objective of 1,000 downloads in the first three months. After a significant amount of research into different app development options, a custom-coded approach was selected to pull content directly from the open-source WordPress platform behind the bridge website. This would accelerate the content population of the app to save time, and an app developer was chosen that would deliver the desired design and features within 10 weeks and the outlined budget.
Target Audiences

The target audiences for the mobile app included many stakeholders, but the primary ones were the following:

- Members of the Long Beach Board of Harbor Commissioners
- Area residents
- Local property owners
- Commuters
- Motorists in the general project vicinity
- Commercial vehicle operators
- Port employees, clients and consultants
- Local, regional and state government agencies
- Downtown Long Beach business organizations
- Long Beach Area Chamber of Commerce
- City, county and state elected and appointed officials
- School districts
- School district transportation agencies/charter companies
- Local business owners, employees and customers
- Neighborhood, community and business associations
- News media, including the Long Beach Press-Telegram, Long Beach Business Journal, the Gazettes, Los Angeles Times, Daily Breeze, Journal of Commerce, Los Angeles Business Journal, Long Beach Post and student newspapers, broadcast media, trade publications, and national media as pertinent
- Emergency response organizations, including the U.S. Coast Guard and local police and fire agencies
- Los Angeles County Sheriff’s Department
- Major utility companies and related businesses
- Railroads and related businesses
- The Aquarium of the Pacific, Queen Mary and other local tourist destinations and hospitality organizations, including the Long Beach Convention and Visitors Bureau
- Local delivery and courier services
- Water management organizations, environmental permitting agencies and other local service districts
- Environmental activists
- ILWU leadership and membership
- Trade unions, IBEW, Pile Drivers union, LA-OC Building Trade Council
- National and international bridge enthusiast groups

Design mockups for digital channels
Actions Taken and Communication Outputs Used

To transform the outdated app to an engaging, user-friendly and inviting digital experience – and build excitement within Southern California for the new bridge – the team researched best practices from other bridge and infrastructure project apps across the U.S. What was discovered was that the handful of infrastructure apps out there delivered function, but not a branded customer experience worthy of sustained engagement. The team quickly pivoted and began to study popular consumer apps (e.g., Pinterest, Starbucks, YouTube, Nordstrom, Yelp, OpenTable, etc.) to create a visually compelling infrastructure app that delivered valuable content and literally thousands of photo and video assets in an easy-to-use, engaging way.

From this deep audit, the team learned the following: App users expect real-time updates and notifications, powerful visuals and an intuitive design, and interactive and customizable capabilities. Once the external review was completed, Westbound conducted an internal analysis, examining current mobile usage on the app and comparing it with qualitative feedback from the larger Bridge Project team and community members to determine the most important features and most frequently visited pages to optimally path visitors through the new app interface. For example, like the bridge website, the project tour sign-up feature and live construction cameras were the most visited app screens. However, what was surprising was how few mobile users visited the news and announcements sections of the app, in comparison to the high numbers seen on our website analytics. This research and analysis informed the strategy and objectives for the development and navigational pathing of the app.
Westbound approached the development of the new app using their standard four-phase process – but compressing what is typically a 16- to 20-week process into just 10 weeks. Rief Media was selected as the app development firm. The scope of work included the following phases:

1. **Scoping** – Westbound worked with the Port of Long Beach Communications Division to clearly understand the target audiences, objectives, and functions of the desired app. From this input, a site map was crafted to guide the design and development.

2. **App Design** – Once the app site map and scope were confirmed, Westbound conducted a storyboarding session to establish design direction, then provided three design composites of the app home page and several interior pages. Based on the Port’s feedback on the composites, final comps of the home page and interior pages were delivered for final review and approval, then ultimately implemented with the app development firm.

3. **Website Integration** – With the existing website serving as the central hub for content, tight integration with the app was required to ensure its timely updating, which now occurs on a consistent, real-time basis.

4. **App Development** – Once the design and website integration were finalized, Westbound project-managed the coding of the staged app to include a responsive experience, ensuring users could easily access all the great content and features, whether they were on a smartphone or tablet. Rigorous quality-assurance testing was performed to detect and eliminate bugs, content errors, bad links, etc., for both iPhone and Android versions of the app.

As development of the staged app neared completion, the team experienced their next big challenge. The deadline was two weeks away; Port final approval was still forthcoming, and the process of publishing the app to the Apple App Store or Google Play had not been started – a sometimes painstaking ordeal that frequently takes more than a month.

Westbound worked with our app developer and the Port to streamline the approval process, and identified opportunities to accelerate the timeline to publish in both app stores. In parallel with the effort, the Westbound team sourced budget-friendly giveaways to secure downloads at the State of the Port, then use later on project tours, presentations and other community events, selecting miniature branded binoculars that people could use to “see the bridge better” from a distance. Westbound also created a visually appealing 85-second walkthrough video that covered all of the primary features of the mobile app. To promote awareness and downloads, this video (available at [https://newgdbridge.com/walkthrough-of-the-lb-bridge-app/](https://newgdbridge.com/walkthrough-of-the-lb-bridge-app/)) was distributed through all of the Bridge Project communications channels and shown extensively at community and industry events. The hard work paid off. The app was launched just hours before the State of the Port event. In the first day alone, more than 150 new downloads were secured. The in-person launch activation was complemented by an online and social media advertising campaign, primarily focused on the newly popular and unsaturated Stories feature on Instagram and Facebook.
Communications Outcomes and Evaluation Methods

The launch of the new app has succeeded beyond expectations. Through Firebase Analytics and a comprehensive post-launch input session with the larger Bridge team, the results were as follows:

- **Objective No. 1** – Delivered a full custom-coded app within 10 weeks to meet an event-driven launch deadline;
- **Objective No. 2** – Performed all project definition, planning, coding, quality control, and launch under budget at $19,500;
- **Objective No. 3** – Secured 1,000 downloads on March 29, nearly two weeks ahead of the three month goal;
- **Objective No. 4** – Increased visits to News & Announcements section, an overall hike of 65% in the first 3 months.

Through the integration with the project website, the Bridge Project Communications Team has been successful in offering consistent and engaging content via the mobile app, which seamlessly delivers social media, photos and videos, weekly updates and e-blasts, collateral, and English and Spanish traffic-impact podcasts for truckers traveling in the Port. In fact, the Bridge Project Communications Team has realized tremendous time savings because updating the website automatically updates the mobile app within minutes.

Perhaps more rewarding than hitting targeted metrics were the scores of individuals – from executives at Port events to community members on tours – who specifically praised the high-quality user experience and new features included on the app, with several individuals comparing it to their favorite consumer app. The digital analytics prove that the ability to consistently publish fresh, original content will continue to captivate target audiences and ensure important updates are received – and also deliver invaluable, long-term digital marketing momentum as completion of the bridge approaches, enabling the strategic telling of the larger Bridge Project story and reinforcing the brand both now and after construction is complete.
Pages of the new Bridge App
“Given the magnitude of the Bridge Project and its impact to the regional economy, it was critically important to have a multi-faceted, front-line tool to communicate traffic impacts and news to a wide, diverse range of stakeholders. The project mobile app provided easy-to-use features, immediate notifications when needed, and a constant flow of information to ensure goodwill among residents and businesses in Long Beach, the seventh-largest city in California.”

– Duane Kenagy, Port of Long Beach Capital Program Executive overseeing the Gerald Desmond Bridge Replacement Project

“As we approach the completion of the spectacular new bridge replacing the Gerald Desmond Bridge, it’s more important than ever to have an up-to-date bridge app to sync with our updated bridge website, the anchor for the project’s outreach campaign. The new app exceeds expectations, and helps to tell the story of the new bridge, and its importance to international trade and regional commuting.”

– Kerry Gerot, Port of Long Beach Director of Communications & Community Relations

“The truly innovative part of this project was the openness of the Port of Long Beach to approach an infrastructure app with a consumer interface that led to increased stakeholder downloads and use, and that we expect will set a new standard in construction mobile app design, just as the first version of this app did in 2014.”

– Daniel Rhodes, Senior Vice President, Westbound Communications

“Finding my way around the app to view pictures and videos, watch the livecams, sign up for a tour or see what’s happening with the new bridge was so simple. Everything is on the home screen and only one swipe or click away. And each feature has a large image associated with it that makes the interface easy to navigate and use.”

– Scott Prusko, App user

Follow the Port of Long Beach: