

Heritage Fields

Future Entitlements May Include:

Residential
2,460 Units



RealEstateJournal

THE WALL STREET JOURNAL *Guide to Property*



- HOME
- PROPERTY REPORT
- COLUMNISTS
- REITS
- TECHNOLOGY
- REGIONAL NEWS

- PROPERTY SEARCH
- COMMERCIAL REAL ESTATE SITES
- RESIDENTIAL REAL ESTATE

- PROPERTY REPORT
- PROPERTY REPORT
- NEWS BRIEFS
- WORKSPACES

- TOOLKIT
- CONSTRUCTION COSTS
- MORTGAGE CALCULATOR
- MONEY & RATES
- EMAIL CENTER

- SITE HELP
- ABOUT US
- ADVERTISING INFO

WSJ.com NETWORK

[home](#) > [property report](#) > [property report](#)

Global Infrastructure: A Work in Progress

10/04/2002

By **MARK AREND, ADAM BRUNS** and **JOHN MC CURRY**

Information on this page is provided by SiteSelection.com

Phil Condit, chairman and CEO of Boeing Co., knows a thing or two about the importance of infrastructure to economic development. After all, without the airports and transport systems providing access to them, his global, multi-billion dollar aerospace company wouldn't be around.

"Economic growth follows infrastructure," Mr. Condit told members of the Economic Club of Chicago in remarks given April 18, 2002; Chicago is Boeing's new hometown, following its headquarters relocation from Seattle in 2001. "If this premise is correct -- and I believe that it is -- it leads to a critical conclusion: If a city or a region is to have a strong, vibrant economy, it needs a strong, integrated infrastructure. That means reliable, interdependent, efficient transportation and communication systems."

Mr. Condit's inclusion of communication systems in an area's expanding infrastructure -- whether that expansion involves airports, sea ports or other structures -- is worth bearing in mind when evaluating locations. Whether or not an area's long-term

10/04/2002

go [advanced search](#)

IN THIS STORY



Article courtesy of [Site Selection](#)

DID YOU KNOW...

- [The Case for Airport Investment](#)
- [Pennsylvania Center Tests Infrastructure Materials](#)

MARKET CENTER

Black's Guide: National And Featured Companies

SmartMoney Select

The

growth strategy incorporates a clear communications component that complements structural plans is a more-than-valid criterion in any site search.

Innovative Investing Tools

"Today, air transportation is absolutely essential to all cities," noted Mr. Condit. "So if cities are to have vibrant economic growth, air, sea and land transportation systems, then equally important is a communications structure. However, to be truly efficient, these infrastructures of transportation and communication must operate not as separate modes but as an integrated set. Today, I believe, they must work together, and this is a huge challenge."

"All infrastructure matters, but the two keys for the economy of the future are advanced telecommunications and airports," says Paul O'Connor, executive director of World Business Chicago, echoing Mr. Condit. "Without them, you can't get there from here."

Which is just one challenge out of many facing those working to position their areas as centers of business and industry in the future. Local opposition to airport expansion, geographic constraints and funding issues are just a few of the others.

Big Plans in Chicago

"Airports are drivers of the local economy, and here in Chicago, it's the No. 1 driver of the local economy," says Hugh Murphy, senior vice president and regional manager in the Staubach Co.'s Educational and Municipal Services division, Chicago. Mr. Murphy managed both O'Hare and Midway airports during his tenure with the city of Chicago.

"Many localities hope for the same thing, and in some cases they get it. But you can't just plunk an airport down in the middle of nowhere and think it will help." The notion of "build it and they will come" doesn't work well in this context, Mr. Murphy relates. To attract investment to the vicinity of an airport, it is not always necessary to purchase more land. Mr. Murphy is working with several airports to gauge their existing assets as potential sites for development.

A \$6 billion expansion of O'Hare International Airport is making its way through the maze of city, state and federal channels on its way to becoming reality. One runway would be added to the complex, and three would be relocated. The city of Chicago expects the annual economic benefit to grow \$16.4 billion to \$19.9 billion.

"The World Gateway Project at O'Hare is a \$3.5-billion plan that is independent of the main expansion," says Mr. O'Connor. "It includes new terminals, but it will dramatically improve the movement in and out of the airport area. And it will dramatically improve the ability to move air freight in and out of the airport, which is critical."

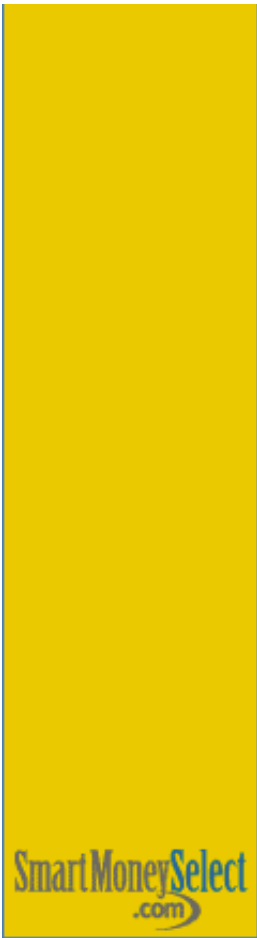
Midway Airport southwest of town is in the midst of a major expansion that involves a new, 900,000-square-foot terminal and other facilities. The project is expected to generate 94,000 temporary and permanent jobs and \$4 billion in annual benefits to the southwest side of Chicago.

Long-term Growth Is on Track

The drop-off in passenger volumes following Sept. 11 did little to alter long-term airport expansion plans, most experts concur.

"The current lull in air travel is also related to an economic cycle, and once that bottoms out and we start back up the curve, the volumes will grow again," says Doug Banez, principal consultant at Eclat Consulting, Arlington, Va., which specializes in airports and aviation. "But airports have long-term views, and aviation is definitely a growth business."

Airports in midsize cities are likely to see expansion activity as more air carriers elect to serve cities point to point rather than through hubs.



Get The Journal
THE WALL STREET JOURNAL

What's News... Fed's Surprise Rate Cut Spooked...


>> And 4 Free Weeks!
SUBSCRIBE NOW
 to The Online Journal
 and get 2 weeks FREE

 THE WALL STREET JOURNAL
 ONLINE

▶ TAKE OUR TOUR

Buffalo Niagara International Airport recently added 10 new gates to its new terminal, which attracted point-to-point carrier Southwest Airlines. And Connecticut's Bradley International Airport, serving Hartford, Conn., and Springfield, Mass., is winding up a \$213 million expansion that includes a new 242,500-square-foot terminal and 12-gate concourse building. But brand new airport plans are few and far between.

"While I am doubtful that we will see many brand new airports in the U.S. in the near future, those airports with the best chance for success will be the ones where airport planners work closely with their communities and economic development groups," says Mr. Banez. "To gain support for airport development plans, planners must effectively convey both the direct and indirect benefits of airports to their communities."

San Diego Feels the Pinch

Right in the thick of that task is Bryan Enarson, director, air service and commercial development at the San Diego Unified Port District. If a new airport is announced in the U.S. any time soon, it is likely to be in San Diego, where the current airport, Lindbergh Field (vintage 1928), is bursting at the seams. Studies have been under way since 1947 to assess the feasibility of relocating the airport. The 28th study is now in the works.

"We're taking a hard look at the economic impact of the airport on the region -- it currently has about a \$4.5 billion impact," says Mr. Enarson. "We're forecasting a \$9 billion impact in the next 20 years if it's allowed to grow unrestricted. However, if the airport stays at Lindbergh Field on our 524 acres with one runway, that will be difficult to do." Mr. Enarson says the current facility will be at passenger capacity in 2018. The addition of a second runway, possible only if the adjacent Marine Corps Recruit Depot were relocated, would add about 30% capacity. That would extend the time until peak capacity is reached to only about 2022.

"Lindbergh Field is not going to be able to serve the air-transportation needs of the region past the 2020 timeframe, which will have a negative impact on the economic growth of the region," says Mr. Enarson. A new terminal with nine gates was completed in 2000. And additional terminal expansions are under consideration to meet the annual growth in passenger volume of about 4%.

A second strategy involves seeking a site for a new airport. More than 300 scenarios have been analyzed for suitability, and 21 sites are now under consideration. Those will be narrowed down to a preferred site alternative, which in 2004 will go to a vote to determine public acceptance. If it's rejected, Lindbergh Field may have to do, for now. Two scenarios involving airport sites at the nearby Mexican border -- one right on the border -- have been removed from the list of potential sites.

Mr. Enarson and his colleagues are acutely aware of the importance of resolving the matter correctly and in a timely fashion. "The business community has been very supportive of a new airport location," he says. "They understand the need for corporate America to have good air transportation when they set up shop in a city. Having an airport that can serve those needs from both a passenger and a cargo standpoint is very important."

The nearly downtown location of Lindbergh Field is very attractive from a consumer standpoint, but its growth limitations will be restrictive to the business community in the long run. "Businesses support the incremental expansion of Lindbergh Field to keep up with demand," says Mr. Enarson, "and they are very supportive of finding a new location and of the process of looking for a new location."

Global Airport Expansion Update

Expansions and major new facilities are underway at airports around the world as demand for air service and cross-border trade gains momentum. Here are some examples:

- Tradeport Hong Kong, a 366,000-square-foot cargo terminal, is now under development at

Hong Kong's Chek Lap Kok International Airport.

- In the U.K., each of London's four airports are seeing upgrade investments. Terminal Five is planned at Heathrow, the primary international airport; Gatwick's capacity is increasing from 30 million to 42 million passengers per year; Stansted is planning to expand its passenger terminal, improve transit systems and roads and add support, cargo and maintenance facilities; Luton and London City Airport also have expansion plans in the works.
- Seattle-Tacoma International Airport (Sea-Tac) is doubling the gates in Concourse A, renovating and expanding the main terminal, modernizing the satellite transit system and building a third runway.
- Lambert-St. Louis International Airport has embarked on a \$1.1-billion expansion that involves a third runway, a 50% increase in the airport's footprint and relocation of seven major roadways west and north of the airport.
- A fourth runway under construction at Miami International Airport is scheduled to be completed in May 2003.
- In the Middle East, airports in Jeddah, Saudi Arabia, and Sharjah in the United Arab Emirates are embarking on expansions. A multibillion dollar third terminal is in the works at Dubai International Airport. And Egypt's government is modernizing 26 airports. It plans to expand the Alexandria airport to make it the largest air cargo hub in North Africa.
- Canada's Ottawa International Airport is expanding to meet passenger growth for the next 20 years.

Container Ports Are Key to World Intermodal Economy

The role of containerized waterborne cargo maintains a pretty low profile given its immense volume. But a look at the stacks adorning ships and terminal landings around the world shows how crucial those colorful mosaics of TEUs (twenty-foot equivalent units) have become. What's more, container ships accounted for nearly a quarter of the new vessel tonnage (2,700 ships) ordered by customers around the world in 2001, soon to join the world-wide fleet of more than 87,000 merchant vessels.

Receiving those vessels are some of the busiest hubs of commerce in the world, led far and away by Asian cities, which fill 10 of the berths on the top-20 list.

But look out on the horizon, because another Asian city is entering the fray. P&O Ports, a dominant force in the shipping industry with 8 million TEUs (or 4% of world trade) moved annually, is partnering with China Merchant Holdings, Swire Pacific and Modern Terminals to build a \$200-million container terminal at Shekou, in the white-hot Pearl River region of southern China. Expected to be operational by the end of 2003, the port's 500,000-TEU annual capacity should mesh nicely with the busiest port in the world just across the water: Hong Kong, which moved 17.8 million TEUs in 2001.

Eight container terminals in Hong Kong's Kwai Chung port are not enough, so the ninth is now under construction. Expected to handle more than 2.6 million TEUs at its six berths, the terminal will be completed by 2004, and join the other terminals in benefiting from new dredging of shipping channels to a depth of 51 feet, allowing the very largest ships to get in and out smoothly. The cranes are speeding up, the containers are stacking higher and the ships just keep getting bigger, with projects underway on the construction of 10,000-TEU vessels. But you can only stack them high if the water is there underneath, adding even more emphasis to the importance of dredging. Call it "brown harbor" redevelopment.

"Sediment is being recognized as something to be dealt with," says Omer Kadaster, executive engineer for Atlanta engineering firm Brown & Caldwell and the contract task order leader for

the Navy Clean Program at Long Beach Naval Ship Yard. "It used to be dumped into the open ocean. Now all the harbors are dredging, because they have to maintain the water depth. A lot of the old companies are now being asked to clean it up, so they can revitalize the dockyards. Sediment quality in harbors which support industrial activities along its shores, as well as in areas where municipal or industrial discharges into harbors are occurring, has become increasingly more visible."

In fact, much of that sediment goes toward the buildup of new landfill for berths, mimicking the island-building that Hong Kong executed for its new airport several years ago. But containerized cargo never complains at the ticket counter.

"The cargo demand for the Hong Kong container port in the next 15 years will grow at an annual rate of 5%," said Sandra Lee, Hong Kong secretary for economic services, at the Terminal Operations Conference Asia last year, predicting volume of 30 million TEUs in 2010. "Hong Kong is expected to benefit from the continuing growth in Southern China as the main source of cargo for Hong Kong comes from the Pearl River Delta," she said. She also noted that intermodal links and the city-state's airport are crucial connections to the port's operations

"A study is being conducted to examine the feasibility of a Container Port Rail Line to support the long-haul freight transport need between Hong Kong and our hinterland," she announced, noting as well the almost 11% growth year-to-year in airport cargo shipments, which has sparked the development of a marine cargo terminal and logistics center on the airport's island, both expected to help in tripling the airport's cargo capacity to 9 million tons annually.

And what Ms. Lee told multinational shippers in June at an international conference in Greece could just as easily apply to other corporate locators. "Hong Kong offers the conducive business environment and facilities to facilitate the development of the shipping industry," she said. "These include a low tax regime, efficient banking services, excellent communications, modern infrastructures, a sound legal system, business-friendly policies, a clean and accountable civil service as well as a highly educated and skilled work force," she said.

Felixstowe is the leading port in the U.K., where three new container facilities are being constructed, including a port and distribution hub in London. But those ports and their labor unions, along with those of other European cities, are fighting a European Union directive that would limit the time range on terminal leases, thereby warning away container giants like Maersk Sealand, P&O, ECT and Evergreen.

Hamburg, Germany can rightly claim to have been in business since 1189, when the Count of Schauenburg founded it. It reached the status of third-largest in the world by 1912, but World War II saw 80% of its facilities destroyed. Today it offers four container terminals and eight multipurpose terminals that also handle containers. With a handling capacity of 2,500 TEUs or more in less than 24 hours, these terminals ensure that even the biggest container ships can leave Hamburg again in less than a day. Forty-four percent of its container turnover involves Asian trade, with a growing portion accounted for by Scandinavia. In addition to the waterborne vessels, Hamburg can boast to being Europe's largest rail container handler. Germany as a whole will soon benefit from increased port activity in Bremen, and from the \$740 million deep-sea container terminal at the port of Wilhelmshaven.

Combined, the ports of Long Beach, Calif., and Los Angeles represent the third busiest container port complex in the world, after Hong Kong and Singapore. And East Asian trade accounts for more than 90% of the shipments through the port (according to port officials, 550 million tons of machinery went to China in 2001). Container throughput has increased by more than 175% since 1990. Long Beach plans to invest \$1.9 billion in capital projects to improve and enlarge its facilities, creating five container terminals of more than 300 acres each and two other large terminals. The average container terminal operator is charged a guaranteed minimum of \$100,000 per acre per year to lease a terminal.

In May, the number of imported containers rose to 231,382 TEUs, an increase of 18% over May 2001, and exported containers increased to 84,062 TEUs, a gain of 3.6% over May 2001, but

still behind the number of empty containers shipped out, at 112,589. The leading exports shipped through Long Beach include factory equipment and raw materials such as plastics, chemicals and recycled metal and paper.

Antwerp, Belgium and smaller port Zeebrugge in Flanders were significant factors in the choice by Singapore-based terminal operator PSA Corp. to acquire logistics operator Hesse-Noord Natie. The company will grow to operate a combined 22 terminals in both ports, including three container terminals in Antwerp. Earlier this year, the European Distribution Report by Healey & Baker, a part of Cushman & Wakefield, ranked Belgium first of 16 countries in Europe for logistics and distribution operations, based on population density, geographic access, transportation networks, land supply, and costs of land and labor.

Up-and-Comers

Ports on the rise include Durban, South Africa, with more than 880,000 TEUs; Tianjin, in northern China; and Charleston, S.C., and Savannah, Ga., which may operate as rivals but function much like Los Angeles and Long Beach in terms of clustered port activity.

The Charleston Regional Development Alliance indicates that one-third of the companies they have worked with over the past five years in business expansions and new locations have come because of the port, the fourth-largest container ship port in the U.S. And, similar to the Savannah bridge project of a decade ago, Charleston's port expansion work includes a new -- higher -- bridge, assuring that the tallest laden container vessels can find a berth.

"It's my observation that Charleston has done extraordinarily well post-Naval presence at the base," says Russell Lamb. "While there was much consternation during the process, the end result has been a very positive economic impact to the city, making it potentially stronger by having less reliance on a single employer."

The Port of New Orleans combines the best of river and ocean terminals and is the only U.S. port served by six Class 1 railroads. The Port of New Orleans has invested nearly \$500 million over the last 10 years in new facilities, the latest being the Napoleon Avenue container facility currently under construction. The 57-acre terminal, with a projected annual capacity is 366,000 TEUs, is scheduled to open in November 2002.

One port that is stealing attention as well as development is Tanjung Pelepas, Malaysia, where sweetheart deals have lured such major players as Maersk Sealand and Evergreen Marine away from longtime leader Singapore, which is now pursuing a similar strategy of equity stakes by container companies in terminal facilities.

Gaining ground in the U.S. is the port of Norfolk, where the level of facility development inspired Target Corp. to locate a huge distribution facility, expected to be up and running by spring 2003.

"This facility varies from other warehouses that we build because it will function primarily as an import warehouse," says Target's Jim Theusch, who has helped the company locate other regional distribution centers this year in Midlothian, Tex., and Topeka, Kan. "We were looking for a major port facility on the East Coast, with adequate transportation systems that would service the port and allow us to service our eastern retail operations. It also had to afford our management group a quality of life that would allow us to put executives into this area, and it had to have a labor supply that would accommodate our operation requirements."

Looking at labor-market stress, other corporate activity and the available labor pool, Target officials saw an opportunity in Norfolk, enhanced by accommodating relations with the state, the port authority and the local redevelopment authority. The port is undergoing a 300-acre expansion that will double container cargo capacity to almost 50,000 TEUs, enabling the port to maximize its high-cube intermodal capabilities.

"We handle more intermodal containers than our two closest competitors, New York and Baltimore, by rail," says Port Promotions Director Linda Ford. Should a statewide voter

referendum pass later this year, the planned port improvements in and around Hampton Roads will be further supported by major highway improvements over the next 20 years, costing an additional \$10 million annually.

Further ports or port clusters on the rise include Seattle-Tacoma and Portland in the U.S. Pacific Northwest, and Panama, which offers a whole lot more than a throughway. The Manzanillo International Terminal began operations last year on the Atlantic side, where Taiwanese firm Evergreen, has negotiated the construction of a second container port. The ports, combined with the trans-isthmian railroad, are projected to move two million cargo containers by 2002.

Hartz Mountain Industries began the construction of a 400,000-square-foot industrial distribution facility in Secaucus, N.J., in large part because of port growth. "The improvements being made to Ports Elizabeth and Newark have added momentum to the northern New Jersey industrial market despite slower economic times," said Hartz Emanuel Stern, referring to the ports' dredging to 50-foot depths to enable them to accommodate larger container ships.

In May 2002, the Alabama State Port Authority Board approved funding for contracts in preparation for the \$240-million Choctaw Point Container/Intermodal Distribution Terminal, due to be operational by 2005.

In Puerto Rico, the development of a transshipment hub at Port of the Americas (in Ponce and Guayanilla) is just underway, with the selection of a port-development firm expected by the end of 2003, and a hoped-for completion date of 2007. Planning for ships that could carry as many as 12,000 TEUs, the Commonwealth aims to back its port with a new cargo airport at Aguadilla and a 1,000-acre (405-hectare) free trade zone devoted to light manufacturing and assembly plants (packaging, labeling), and logistics and distribution firms. The new facility should have a capacity approaching 3 million TEUS, to pair with the 2.3 million currently moved annually by the Port of San Juan.

Fast, Efficient and Secure

Whether facilities are being refurbished or tacked onto, activity is bustling on every waterfront. Just ask the people who design the software to handle the tile-game complexity of container management, as they just opened an office in Hong Kong and signed a contract with an unnamed Chinese port.

"To make it effective, a lot of players, like Dubai Ports Authority and others, are making free-trade zones, so it attracts all the major players who are major product purveyors," observes Jim Schreitmueller, vice president of sales and marketing for Navis, an Oakland, Calif.-based leader in development of container-handling software. He says port development basically follows two courses -- trans-shipment hubs or distribution centers -- with some performing both functions.

Russell Lamb, now with Allegro Realty Partners in Cleveland, used to work for Charleston County, S.C., spearheading award-winning real-estate management initiatives. And before that, his last assignment as a U.S. Navy officer involved the closure, disposition and reuse of the 1,400-acre Charleston Naval Base. Asked what makes for an ideal port facility, he said the first fundamental is navigable water, and easy access to it from shipping lanes. "You want a short route and easy access, like getting off the interstate," he says. "That's why places like Charleston and Savannah do well. It becomes a function of geography."

At the same time, working against some of those same locations is a lack of broad intermodal distribution from that easy access point, with a multitude of highway and rail routes to choose from instead of just one option.

"You are going to have natural geography, but also you have to have this node connected to the next node," says Mr. Lamb. "It's all about all the downtime. Everyone has the same objective. The ship's goal is to get loaded, time their journey at sea to pull right into the dock, get unloaded as fast as possible, and get back out to sea. That now falls onto the crane operators and to the ports themselves."

"One of the elements to begin to identify a port that's successful is that it owns more and more of its lay-down area. Usually port authorities and investors look for adjacent and outlying areas for storage and distribution. But there is money lost every time goods sit. That's the whole idea driven by just-in-time. Someone is carrying that inventory. And you have cash tied up in it. The days of 'If we can just get more land and get these companies to lay down their goods while waiting' are rapidly dwindling. At a lot of really successful ports, they pop them off the ship and put them right on the truck, off to the next point on the supply chain."

Intermodal: A Movement Trend That Is Here to Stay

Symbolic of the interwoven, multinational nature of modern global transport was an event in June at the eighth-busiest port in the world, Hamburg. The Austrian firm of Plasser & Theurer in Vienna was loading onto a Chinese-Polish Joint-Stock Shipping Co. vessel an 85-ton track-laying machine, destined for the Chinese port of Xingang in China, where it will help in the eventual \$42-billion build-out of that nation's already extensive railway network. Port officials were happy to report that the machine reached Hamburg by rolling on its own axles.

Peter Gatti, vice president of international policy for the National Industrial Transportation League, used to work for the National Association of Port Authorities. "The logistics and supply chain can have a contributive aspect to decision-making," he says. "Carrier A serves port B, that's where the determination is made of where cargo is going to go. It's not in the same sense as the colonial days, where you built in a specific spot -- intermodalism has made that less important. In terms of access, the intermodal connectors -- so that you have direct access to ports, interchanges that are in place, and sufficient clearances on railroads servicing ports so they can use double-stacked trains -- things of that sort certainly have an impact."

Just ask Chicago, where 50% of U.S. rail container freight passes through the 57 different railyards. And even though it's 800 miles to saltwater, more intermodal containers pass through the Windy City than anywhere else in the Western Hemisphere.

Developers needed no greater reasons to embark on the massive 2,032-acre railyard and warehouse complex called CenterPoint Intermodal Center nearby, to be used by Burlington Northern Santa Fe Corp. in the same way it uses a similar facility in the Alliance Texas development outside Fort Worth, Tex.

As the purveyor of software trying to shuffle all components efficiently, Jim Schreitmuller of Navis, like corporate leaders themselves, sees the benefits of intermodal immediately.

"It becomes economically more compelling, like bees to honey, as long as they have the infrastructure to service the customers," he says. "In L.A. for example, it goes right to the Alameda Corridor, in double-stacked trains going right inside the ports facility."

As such, ports and companies are looking more closely at stowing a vessel with a train in mind on the other end, he says, so it can be expedited on discharge. "You pull off the top layer in a narrow time frame, those could all be discharged, and match the schedule of outbound trains to send them right to Chicago," he says.

The \$2.4-billion, 20-mile Alameda Corridor just began operation a few months ago, and has received rave reviews.

"The universal thinking is to get the trucks off the road in the inner cities where the ports are, so you're not hammering the roadways with all this truck traffic and pollution," observes Mr. Schreitmuller. "So the general thinking is to use railhead as the conduit to move cargo from a marine facility inland. One thing we did half a dozen years ago was to introduce double-stack train planning, so we treat it just like we do a ship: measure the vertical center of gravity, and do all the stowage for the train just like we do for the vessel. You see more and more cargo moving onto the train directly from a marine facility

"It's been exceptional," says Hal Duensing, director of properties for the 3,800 acres comprising the Port of Long Beach, of the Alameda Corridor. "The number of trains has exceeded what we thought it would do. The railroads seem to be functioning very well, and living up to all our expectations."

A Way In, a Way Out

Some of the greatest cities in the world did not locate near protected harbors and waterways by accident. And there is more reason than rhyme to the attraction of industry to those same shorelines. So what are the development trends in and around these busily expanding ports? There seems to be nearly universal agreement that the time is now to get as close to them as you can.

"My observation is that it is picking up quite a bit," says Omer Kadaster. "The ships are getting bigger. The ports are expanding such that they like to combine all the piers into less docking areas, but with more storage facilities."

"In general, if you look at how ports sell themselves, they sell themselves on efficiency and location," says Mr. Schreitmuller. "That's what they're selling to the line operators. They will invest, they will dredge, they will buy new cranes. Here in Oakland is a classic example: The port is spending a lot of money retrofitting the entire port to support rail. They have claim to one of the largest container cranes in the world, and they have purchased seven in the past six months."

While noting that industrial space is "very, very scarce" within the urbanized L.A.-Long Beach marketplace, Mr. Duensing says that corporations are merely looking further east, toward the Inland Empire.

"The expansion of trade through the ports has increased the demand for warehouse and distribution facilities," he says, in comments that could apply to any number of expanding port areas worldwide. "They're looking for large tracts of land and large boxes for regional and national types of facilities. An example is Hasbro Toys -- they had a distribution facility in Seattle, which they closed, and they're going to run everything out of this area now, because the shipping and distribution facilities here are much better to reach the national market."

"That's something that is becoming of great interest to a lot of port operators around the world -- to capture a market and build a business," says Mr. Schreitmuller. "They're interested in building commerce that's non-oil-related, and leveraging their geographic location."

Will Provide Development Platform

As new bridges, highway improvements, rail lines and tunnels around the globe move from concept to completion, travelers and their cargo are bound to benefit. Amazing projects, including some of the largest infrastructure efforts in history, are taking shape. All figure to improve quality of life and spur subsequent development. Stifling traffic congestion and antiquated transportation system pose threats to the U.S. economy, federal officials say.

"Congestion and bottlenecks damage air quality, slow commerce, increase energy consumption and threaten our quality of life," said Federal Highway Administrator Mary E. Peters in recent testimony before a House subcommittee on transportation and infrastructure. A report released in June by the Texas Transportation Institute supports Ms. Peters' statement, citing longer rush hours and a greater number of congested roads. However, help is on the way with a long list of transportation projects either in the works or on the drawing board.

Major U.S. bridge construction is brisk these days with impressive new spans proceeding across rivers and bays. Attribute the proliferation of projects to plenty of state and federal money available during the mid and late 1990s, industry observers say. The need for new and replacement bridges is apparent with studies showing about 28% of the nation's bridges either structurally deficient or functionally obsolete.

New bridge projects offer economic growth potential in a number of ways. For instance, the Cooper River Bridge replacement project figures to propel much-needed development on the east side of Charleston, says Al Parrish, a professor of business and economics at Charleston Southern University.

"It will make the entire area east of the Cooper more attractive by improving traffic flow," Mr. Parrish says. "We will be seeing more companies locating east of the river. This will mainly be distribution centers and retail."

The Cooper River Bridge will replace both the Grace Memorial Bridge, a cantilever structure completed in 1929, and the Silas Pearman Bridge, a parallel span, built in 1966. The total \$631-million price tag makes the new bridge the most expensive in history. The target completion date is July 15, 2006.

The largest current U.S. bridge project is the east span of the San Francisco/Oakland Bay Bridge. The total replacement project, which includes seismic upgrades, new ramps, a skyway and a new suspension bridge will cost \$2.6 billion. The bridge section that will be replaced collapsed during the 1989 San Francisco earthquake.

A new crossing from Illinois into downtown St. Louis will certainly be among the top 10 U.S. bridge projects once funding is approved. The estimated \$370-million bridge will be a cable-stayed structure with two leaning pylon towers and will carry eight lanes of traffic. New interchanges and highway improvements will push the overall cost to near \$1 billion.

New Interchanges Target Traffic Relief

Major highway-improvement projects also will make transportation easier in major cities. And in the tradition of Atlanta's "Spaghetti Junction" where I-285 and I-85 intersect, they often acquire colorful nicknames.

High on the list of U.S. highway improvement projects is the Springfield Interchange Project in Virginia. The estimated \$700-million improvement includes construction in the "Mixing Bowl" area where the Capital Beltway (I-495) meets I-395 and I-95. An estimated 430,000 vehicles pass through the interchange daily. The 8-year project is nearing its midpoint.

In a few years, motorists in the Dallas-Fort Worth area will be given a high five. Construction began in January on a \$260 million project to upgrade the intersection of I-635 and U.S. 75. Nicknamed, the "Dallas High Five," the project will take five to six years and is the single largest contract let by the Texas Department of Transportation.

Boston's Big Dig Is Getting Closer to the Finish Line

Arguably, Boston's Central Artery/Tunnel Project, a.k.a. "The Big Dig," is the most significant highway/tunnel project in progress in the U.S. In fact, according to thebigdig.com, the project is larger than the Panama Canal and Alaska Pipeline. It does not, however, rival the English Channel and is much smaller than the current dam project across the Yangtze River in China.

The \$14-billion project, now more than 80% complete, is in the home stretch. It includes two main elements: extension of I-90 (the Massachusetts Turnpike) from its current terminus south of downtown Boston under Boston Harbor to Logan Airport, and the replacement of I-93 through downtown Boston, including a tunnel through the heart of the city.

Also in Boston, but not directly related to The Big Dig, is the Greenbush commuter rail line, a \$409-million Massachusetts Bay Transit Authority (MBTA) project that will restore rail service from Scituate, Mass., to Boston's South Station. The project, slated for completion in 2005, will restore passenger service, which was discontinued in the 1950s.

Another underground path to prosperity is being pursued by Canadian Pacific Railway, which plans to convert its present Detroit River Tunnel to truck traffic and invest hundreds of millions

of dollars on a new rail tunnel linking Detroit to its automotive industry twin: Windsor, Ontario.

The need was obvious: more than 10,000 trucks -- or 30% of all U.S.-Canada truck traffic -- cross the Ambassador Bridge each day, and trade is predicted to triple between the two countries by 2020.

High-Speed Rail Projects Are Among Global Highlights

There's no shortage of major rapid-rail projects around the world. Topping the list is the Taiwan High Speed Rail Line, which will run 215 miles, between Taipei and Kaohsiung, Taiwan's two largest cities. The Taiwanese government considers the line the nation's most important infrastructure project.

Slated to begin operation in 2005 after delays following a 1999 earthquake, the bullet train will cost \$12.7 billion. The train will be able to travel up to 186 miles per hour and make the trip, currently a four and a half hour venture, in less than 90 minutes.

The Shanghai Transrapid, the world's first commercial high-speed maglev line, is slated to open in China's financial capital next year. The line is being built between the city's Lujiazui financial district and Pudong International Airport.

An end-to-end ride will take about seven minutes at speeds up to 267 mph. Construction on the \$1.08-billion project began in 2001. Speculation is that if the Chinese government likes the finished product, it may consider a 777-mile link from Shanghai to Beijing.

In the U.K., work proceeds on the Channel Tunnel Rail Link (CTRL), 68 miles of track, tunnels and bridges connecting London with the Channel Tunnel. Construction began in 1998 and the line is currently on schedule for completion by the end of 2006.

Being built by London & Continental Railways Limited, CTRL will be able to carry up to eight Eurostar trains per hour each way. The line will cut travel time between London and the Channel Tunnel in half, to 35 minutes. Journey times from Kent to London will be reduced to 20 minutes and from Kent to Brussels to 90 minutes. It will also allow more Channel Tunnel freight trains by releasing capacity on current lines. CTRL also figures to boost development in the "Thames Gateway" in East London and other areas along the route.

"The CTRL has certainly had a significant impact on the area since construction began, making the southeast of England even better connected as a business location," says Paul Wookey, chief executive of Locate in Kent, the inward investment agency for Kent and Medway through which CTRL runs. "The creation of Ashford International Station in the center of Kent County has already proved that a project of this size brings a considerable amount of development to the area."

[Home](#)

[E-mail to a Friend](#)

[Print-Friendly Format](#)

[Write to the Editor](#)

[Top of Page](#)

Copyright © 2003 Dow Jones & Company, Inc. All Rights Reserved
By using this site, you agree to our [Privacy Policy](#).