

Perspective

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Current Trends & Considerations in Cruise Destination Development

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Introduction

The cruise industry has experienced incredible growth over the past three decades, expanding at an annual rate of 7.2%. Coinciding with the strong overall growth of the industry, the cruise lines are adding significant vessel capacity - reported to include 23 new vessels by the end of 2014. The current generation of newbuild ships will provide the largest cruise ships built to date, including the *Carnival Magic* (3,652 PAX), Norwegian *Epic* (4,100 PAX), and the Royal Caribbean *Allure* and *Oasis of the Seas* (5,400 PAX) (Source: CLIA, 2008 & 2010).

The cruise industry's growth is generating consistent demand for new berths. Cruise destinations are also evolving significantly, expanding from basic pier structures to

comprehensive day destinations with entertainment, retail, and dining facilities. The Caribbean region - long the world's largest and most economically important cruise market - is poised to continue capturing the majority of global cruise passengers; however, a significant expansion of port and tourism capacity will be required to accommodate the burgeoning cruise demand.

The typical cruise ship carrying 2,550 passengers and 480 crew members conservatively generates over USD \$285,000 in passenger and crew expenditures during a single port-of-call visit (Source: BREA, 2009). Based on these significant operational revenues, cruise destination developers and the cruise lines have been successful in securing financing for large-scale, multi-million dollar development projects.

This volume of *Perspective* reviews current trends in cruise destination development and delineates important development considerations that must be addressed in the early stages of project design and planning.



Smaller cruise ports such as Roatan, Honduras, which occupies approximately 2 hectares of lands reclaimed from the seabed, are used as embarkation points for a variety of shore excursions.



The next generation of cruise vessels, such as Royal Caribbean International's Genesis Class, will require larger port facilities capable of accommodating upwards of 3,000 passengers per vessel call.

Industry Trends

Developing cruise destination infrastructure can require a significant investment in terms of land acquisition and infrastructure development. Costs for basic piers and associated marine works can vary between \$USD 10M-40M, and total development costs for large cruise destination ports such as Falmouth in Jamaica that recently opened in March, 2011 were reported to be \$USD 220M. The cruise industry has been trending toward the design and construction of comprehensive destination developments - whereby investors can finance the basic capital costs for cruise infrastructure based upon the long-term capture of significant operational revenues (associated with shore excursions, leasing of commercial and retail space, and in some instances the sale of residential units).

The cruise lines themselves are increasingly investing in port destination facilities, as evidenced by Royal Caribbean International's recent investment in the Falmouth, Jamaica and Roatan, Honduras Ports; Carnival Cruise Line's investment in Grand Turk, TCI; Norwegian Cruise Line's investment in its private island at Great Stirrup Cay, Bahamas; and multiple other port and private island destinations throughout the world.



The revitalization of the Frederiksted waterfront in St. Croix, USVI, created an authentic and attractive visitor experience at the Ann E. Abramson cruise terminal. The architectural design elements of the waterfront are reflective of the history and culture of the town.

Given the trend toward larger ships that can accommodate 3,000+ passengers, the cruise lines have expressed a preference for ports of call with a pier structure to facilitate the rapid offloading/onloading of the increasingly greater numbers of passengers who visit foreign port facilities. Where fixed piers are not viable (due to physical or economic constraints), a high-efficiency vessel tendering operation provides an alternative mechanism to accommodate movement of high volumes of passengers.

The market is also trending toward the creation of authentic ports of call that capture the history and local culture of a cruise destination - this is particularly evident in the newly opened Falmouth, Jamaica Port which incorporates the history of the town of Falmouth into the port promotional materials and shore excursions. The revitalization of the Frederiksted waterfront in St. Croix, U.S. Virgin Islands, provides another example of an existing waterfront town that has been redeveloped to support cruise-based tourism and also appeal to local residents. These "authentic" ports can either integrate within an existing town or be located adjacent to an established population center; however, these types of port facilities require adequate land space to accommodate the infrastructure and amenities to support and entertain thousands of visitors on a daily basis.



Project Siting Parameters

New cruise destinations should ideally be located along existing cruise navigational corridors - to maximize the opportunity to draw multiple operators and vessels to the port facility. Cruise ports are optimally located adjacent to deep water, given the significant depths required to support deep-draft cruise vessels, which can draw more than 10 meters (33 feet). Cruise ports should also be located in semi-protected or sheltered areas to facilitate operations in suboptimal weather conditions including times of moderate wind and wave activity. For cruise ports contemplated in more exposed areas, a variety of engineering and design options exist to provide for safe mooring conditions. These options may include dredging, land reclamation, breakwater or jetty structures, creation of piers with internal wave attenuation devices, and other creative approaches.

Given the industry trend toward larger ships, prospective cruise destination developers should also consider the feasibility of pier construction in the overall development program. Existing cruise piers located in the Caribbean and throughout the world are generally less than 600 meters in length (2,000 feet); however, to minimize construction costs of an extended pier structure, potential project sites located within significantly closer proximity to deepwater (within 300 meters of the 10 meter depth contour) would be considered more ideal for pier construction.

In terms of identification of appropriate tracts of real estate to support cruise destination development, typical cruise ports in the Caribbean occupy a minimum land area of approximately 2 hectares (for a pier structure accompanied by a basic arrival facility to facilitate offloading to shore excursions, such as Castries, Saint Lucia; Roatan, Honduras; or Nassau, The Bahamas). Cruise ports increase in size to approximately 4 hectares for more comprehensive facilities (such as Cozumel, Mexico), and can occupy greater



Identification of an appropriate development site for a cruise project requires consideration of multiple aesthetic, physical, environmental, regulatory, and financial factors. Sites should ideally be located within close proximity to deep water and established cruise corridors.



The marina basin at Norwegian Cruise Line's Great Stirrup Cay private island destination provides berthing for multiple tender vessels - providing a safe tendering system in a protected basin that can accommodate large volumes of cruise passengers. The day destination (including beach and recreational amenities) is located immediately adjacent to the tender operation.



than ten hectares when multiple entertainment venues are incorporated (such as Carnival's port in Grand Turk, TCI or the private island destinations prevalent in the Bahamas).

Given the significant appreciation that would be anticipated to occur in real estate surrounding the cruise destination development, developers should seek to capture as much surrounding real estate as possible (in addition to the basic tract of land required for onloading/offloading operations) to optimize the return generated by the development project in the mid to long-term.

Predevelopment Activities

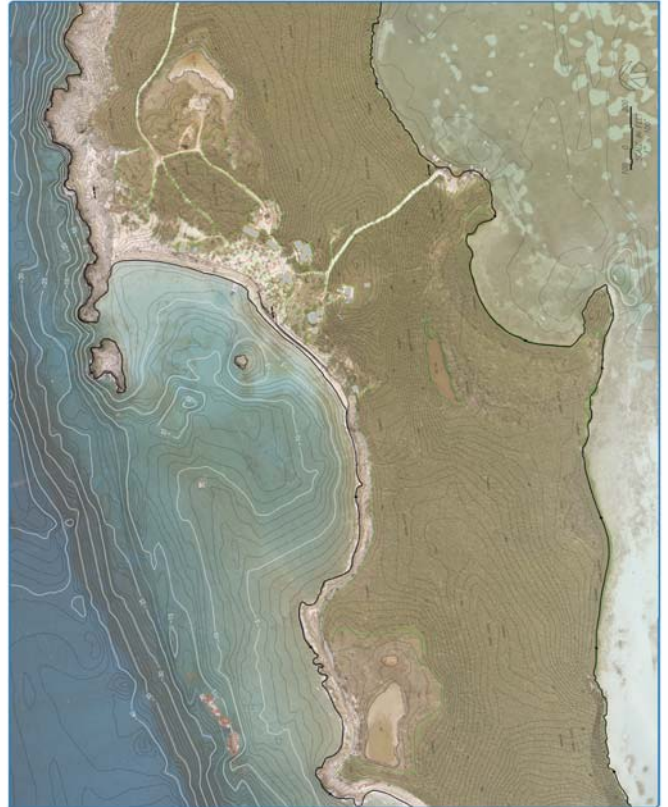
The following pre-development activities are typically required to position these projects as "turn-key" - ready for presentation to qualified investment entities for receipt of senior debt or equity implementation funding:

Detailed Property Mapping, including completion of boundary surveys, capture of high-resolution aerial photography, and preparation of topographic and bathymetric surveys.

Preliminary Geotechnical Analysis, to provide structural design criteria for cruise pier and any associated dredging or filling of the seabed (if required).

Coastal Engineering Analysis, to provide planning and structural design criteria for cruise pier and upland structures.

Environmental Impact Analysis, to identify impacts and mitigation required and serve as precursor to preparation of final Environmental Impact Assessment (EIA) which will likely be required as a component of project approvals.



Proper site surveying (both physical and environmental) is needed to generate a basemap for the potential project site - which will provide the basis for land planning and engineering design. The use of LIDAR laser-based remote sensing provides a cost-effective mechanism to map large areas of undeveloped property.



A marine geotechnical investigation is oftentimes required to confirm a project site's suitability to accommodate cruise pier structures and any required dredge/fill operations. A jack-up barge is typically utilized as a stable platform for offshore drilling.



Regulatory Feasibility Evaluation, to define the regulatory approval process and provide a feasibility assessment regarding the likelihood of securing relevant permits and entitlements at the political, administrative, and agency levels.

Master Planning and Architectural Layout, to provide a "project vision" for presentation to investors and to identify upland real estate components for inclusion in the project proforma.

Cruise Pier and Site/Civil Engineering Design, to provide construction documents for scheduling/costing purposes.

Preparation of Financial Proforma, summarizing project costs and revenue streams and Return on Investment (ROI).

Preparation of Project Summary / Business Plan, for use in discussions with potential debt/equity investors.

Market Outlook

Given the growth in the cruise industry and the present availability of financing for projects with strong revenue forecasts, we believe that cruise destination developments will continue to display significant growth for the foreseeable future.

References

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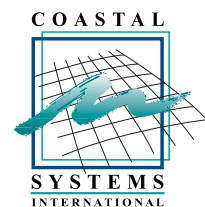
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During the master planning phase of a cruise destination project, it is important to evaluate both the port's physical capacity to receive cruise vessels and the development potential of surrounding real estate - to adequately model the proforma returns of the development over its life cycle.

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