



An Analysis of the Economic Benefits of  
a New Pier and Docking Facility in  
New Castle, Delaware

June 2014



# Preface

The City of New Castle, Delaware is recognized as one of the nation's most important colonial villages. Its preservation of history and recreation of life in the bustling 17th century town center draws over 35,000 visitors to the City each year. As a complement to its heritage tourism activities, the City is exploring the feasibility of building a new pier and docking facility on the City's waterfront that would allow for docking of water transportation vehicles, as well as for docking of the Kalmar Nyckel and other tall ships.

In late 2013, City officials commissioned a study to assess the benefits of such a development to the economy and community in New Castle County. The following report documents the findings of the study.



## **An Analysis of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware**

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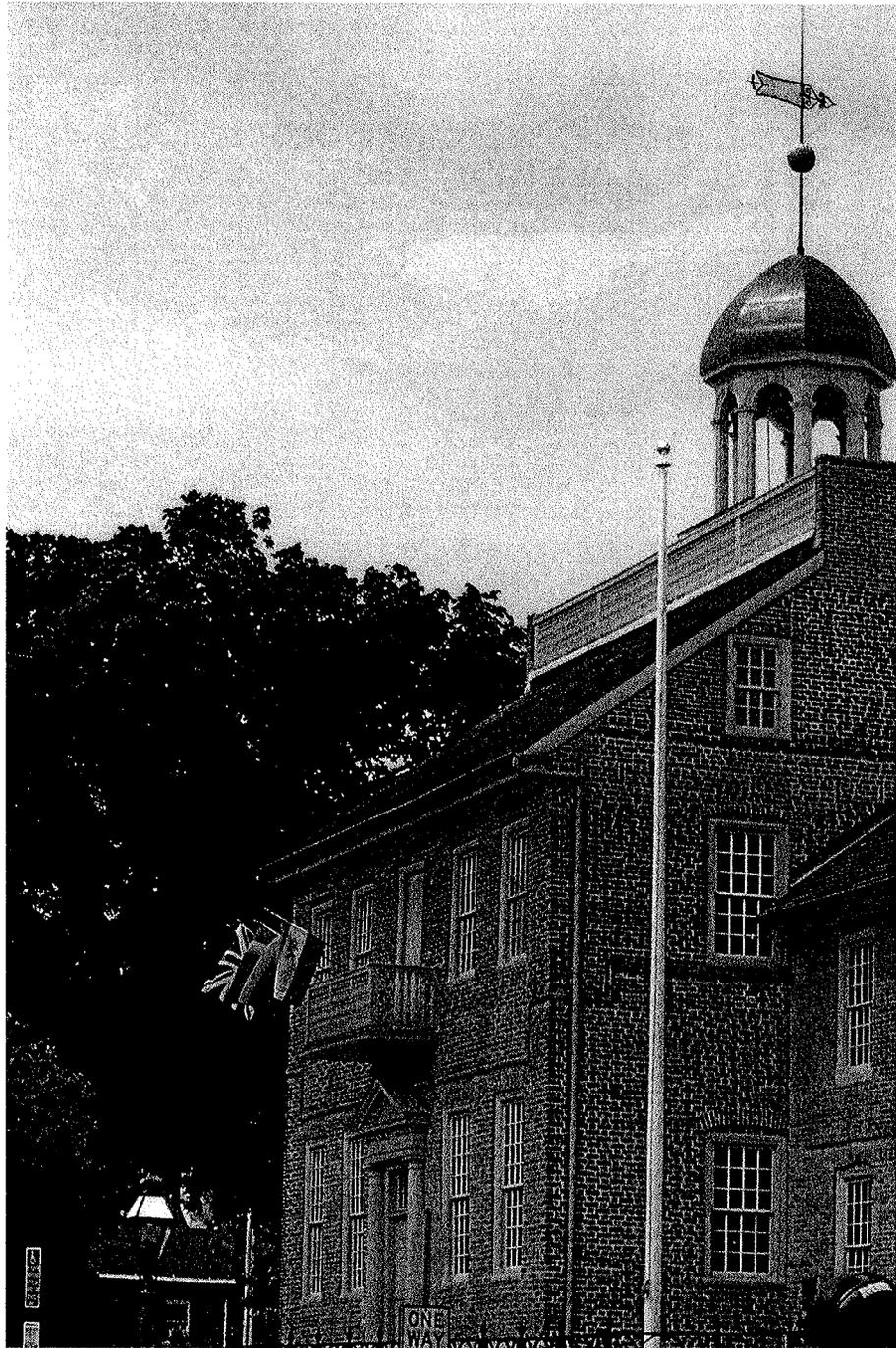
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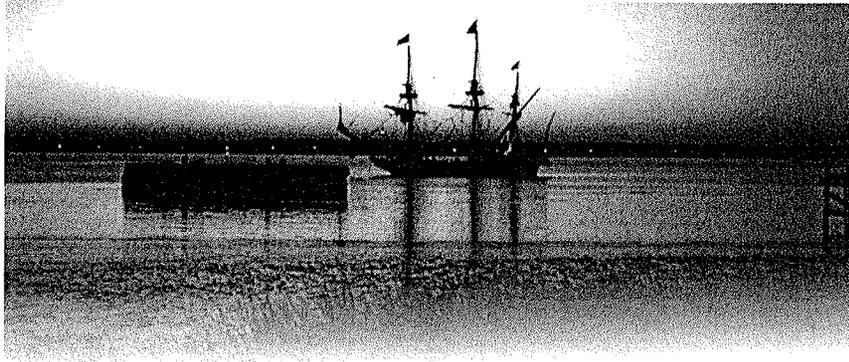


**DELTA DEVELOPMENT GROUP**  
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## Summary of Benefits

In 2011, New Castle City officials unveiled plans for a new pier and docking facility that would extend from the end of Delaware Street for approximately 200 feet into the Delaware River. The new docking facility will allow for docking for water transportation vehicles, which will provide connectivity to the City without increasing automobile traffic. The depth of the river at the new docking facility will also allow for the docking of the Kalmar Nyckel and other tall ships, which will increase foot traffic in the City as tourists visit to see the tall ships.

The construction of a new pier and docking facility on New Castle's waterfront and the new activity it will create will result in significant benefits to the local economy and to the quality of life for local residents.

### ***It will increase tourism.***

Over 35,000 tourists visited tourism amenities in the City of New Castle in 2012. The construction of a new pier and docking facility, along with the new activity it will generate, is expected to nearly double the number of tourists who visit the City each year. As many as 34,400 new visitors are expected to visit the City each year as a result of this new development.

### ***It will bring new spending to the area.***

New visitors to the activities associated with the new pier and docking facility are expected to bring between \$4.1 million and \$5.3 million in new spending to the local area each year. While spending by local residents represents respending of dollars within the local economy, new spending by tourists from outside the area brings **new** dollars into the local economy.

### ***It will support local businesses and create opportunities for new business development.***

As new visitors spend money in local restaurants, retail stores, entertainment venues, and hotels, existing businesses will likely expand and/or new businesses will open to meet the new consumer demand. The new spending referenced above could potentially support as much as 15,000 square feet of commercial space and as many as 60 new hotel rooms in the local area.

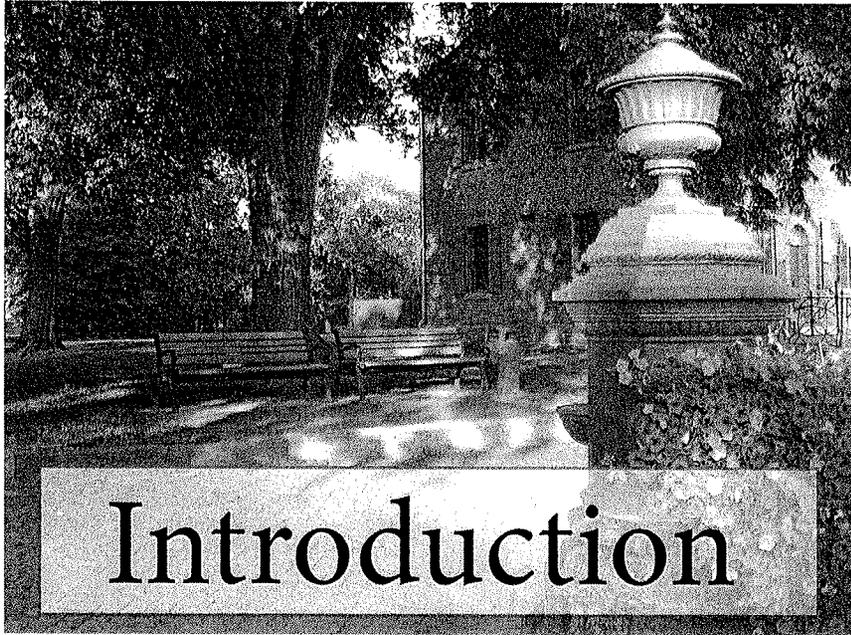
### ***It will bring new jobs to the City and the County.***

Construction of the new pier and docking facility will require at least four construction workers over the course of the construction period, and two additional jobs will be created as the construction spending ripples through the County's economy.

After construction is complete, the operations of new water transportation and tourism businesses (e.g., water taxis, tall ships, museums, etc.), coupled with spending by visitors, will create between 40 and 55 new permanent jobs in New Castle County, and an additional 12 to 16 new permanent jobs will be created as spending ripples through the County's economy.







# Introduction

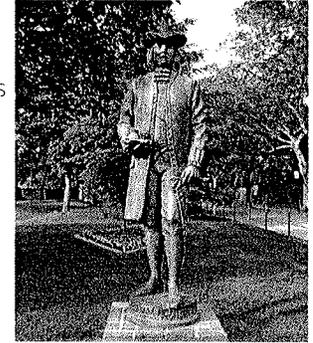
Located 10 minutes south of downtown Wilmington along the Delaware River waterfront, the rich history of the City of New Castle, Delaware and its preservation of authentic, historic structures has distinguished the City



as one of our nation's most important colonial villages. Today, New Castle is home to over 5,300 residents who live in distinct neighborhoods throughout the City.

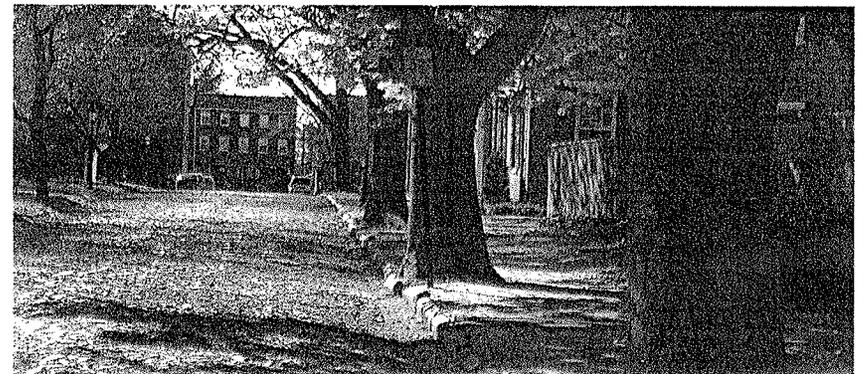
An area of New Castle's downtown along its waterfront has been designated as a Historic District. The Historic District is listed in the National Register of Historic Places, and was declared a National Historic Landmark in 1967.

There are over 500 historic structures within the Historic District including structures such as the Amstel House, built by one of the City's wealthiest residents in the 1730s, and the Old Courthouse, which served as Delaware's first capital building and as the meeting place for the colonial and first state Assembly.



In 2013, President Obama established the First State National Monument to protect and manage over 1,000 acres that are home to a number of historic sites that tell the story of the early colonial history of Delaware and the role of Delaware as the first state to ratify the Constitution. These sites include the New Castle Courthouse Museum and the New Castle Green. The future headquarters and visitor center for the National Monument will be located in the City of New Castle.

New Castle's historic village recreates life in the bustling 17th century town center and allows its visitors to experience life in Colonial America. Based on ticket sales and registries, it is estimated that over 35,000 visitors toured the City's historic sites in 2012.



## An Assessment of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware

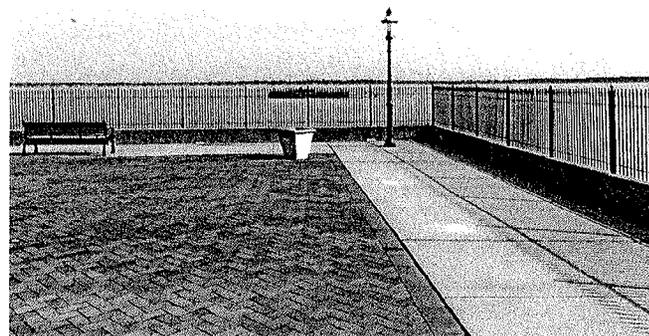
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One of New Castle's most popular amenities is Battery Park. Located adjacent to the Historic District along the waterfront, this 18-acre park provides active and passive recreational opportunities for the City's residents and to its visitors. In October 2012, the Battery Park pier was destroyed during Superstorm Sandy.

One of the goals recommended in the City of New Castle's 2009 Comprehensive Plan was to "continue to encourage mixed residential/retail/office uses" in the City, and one of the specific issues to be addressed was the creation of a waterfront plan that would strengthen the City's ties to the waterfront and enhance waterfront connections.

In 2011, New Castle City officials unveiled plans for a new pier and docking facility that would extend from the end of Delaware Street for approximately 200 feet into the Delaware River. The new docking facility will allow for docking of water transportation vehicles, which will provide connectivity to the City without increasing automobile traffic. The depth of the river at the new docking facility will also allow for the docking of the Kalmar Nyckel and other tall ships, which will increase foot traffic in the City as tourists visit to see the tall ships.

The increased activity along New Castle's waterfront resulting from the new pier and docking facility will provide a boost to the local economy, and will also mean an increase in state and local tax revenues. The following pages provide an overview of economic benefits of the pier and docking facility to New Castle County and the state of Delaware.



*Location of New Pier and Docking Facility at the End of Delaware Street*



*Remains of Battery Park Pier Destroyed by Superstorm Sandy*

# Benefits to the Community

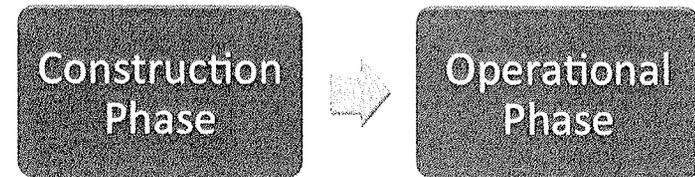
The construction of the new pier and docking facility on New Castle's waterfront will bring changes to the local economy. The economy is shaped by complex interactions among businesses, workers, and households. The dynamic exchange among producers, workers, and consumers defines our economy. An economic impact analysis replicates this multifaceted relationship and captures the flow of spending from producer to consumer. Due to the dynamic nature of our economy, it is difficult to conceptualize these economic interdependencies. Computer impact modeling helps simplify these relationships – adding new jobs, improving output, or downsizing an industry sector – enabling the cumulative effects of these changes on industries and households to be measured.

The IMPLAN<sup>(1)</sup> model was used to measure the impacts of the new pier and docking facility, and was constructed to capture the impacts of the project to New Castle County (the Local Economy). IMPLAN is an input/output modeling system that estimates the effects of economic change. With the national Input-Output (I-O) account as its foundation, IMPLAN uses local labor force and commuting pattern data to develop county-level descriptive models that become the foundation for examining impacts. When new spending is injected into the economy, businesses and households

will respond by altering their spending habits. IMPLAN seeks to replicate real-world interdependencies that exist between producers, workers, and consumers.

The analysis differentiates between economic impacts that are temporary, such as impacts during the construction phase, and those that are more permanent, such as impacts during the operational phase.

## Phases of the Pier and Docking Facility Project



The **construction phase** of a project results in a wide range of temporary benefits. The personnel hired to manage the job and work the construction site are often transplants from other communities. Contracted for a specific project, they spend a portion of their wages on local goods and services (e.g., lodging, food, clothes), but their resource contribution does not represent a sustained contribution.

In contrast, the **operational phase** of a project results in permanent new jobs that attract people from the local labor market. As these new hires increase their earnings, their discretionary spending activity creates demand for goods and services. Changes in demand drive the IMPLAN model.



<sup>(1)</sup> The IMPLAN model is an economic modeling tool that tracks the interdependence among various producing and consuming sectors of an economy, measures the relationship between the local supply and demand for goods and services, and estimates the effects of changes in supply and/or demand to the economy. There are over 2,000 active users of IMPLAN databases and software in the United States, as well as internationally. IMPLAN's client base includes federal and state government, colleges and universities, and private-sector businesses and consultants.

## An Assessment of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware

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Because the operational phase of a project results in sustained economic change, IMPLAN estimates these impacts separately from the construction phase. Both project phases have a "ripple effect" on the economy. To capture these ripple effects, IMPLAN recognizes three types of impacts: direct, indirect, and induced.

The I-O accounting framework establishes interdependencies among the industry sectors. The **direct impact** – in this case, the construction of a new pier and docking facility and spending by the new visitors it attracts – creates new opportunities for industries in the supply chain. As this impact trickles throughout the I-O framework, other industries are affected by the change – the **indirect impact**. As these supplier industries modify their behavior, their workforce follows suit, making different decisions about how to spend or invest their new earnings – the **induced impact**.

**Direct Effects** represent the immediate change to the economy. The direct impacts reflect any spending associated with on-site construction activity and the operating expenses associated with the project at build-out.

Direct impacts look at the combined value of the jobs, wages, and output associated with development.

**Indirect Effects** examine how other industries respond to the direct industry investment. As an example, if Company X maintains close ties with key suppliers, these business-to-business relationships often grow as Company X grows. Supplier industries may likewise expand, hiring new employees and increasing production. Both the construction phase and the operational phase will inject new money into the economy. The direct purchase of building materials, business services, and employees will stimulate other industries to do the same.

**Induced Effects** are often referred to as "consumer impacts" because they measure how household spending responds to changes in industry production. When new jobs are created, individuals have greater spending power. A portion of their disposable income is recirculated through the economy when they purchase goods and services. These induced impacts are part of the "ripple effect" that is modeled by IMPLAN.



*The Kalmar Nyckel*

## An Assessment of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware

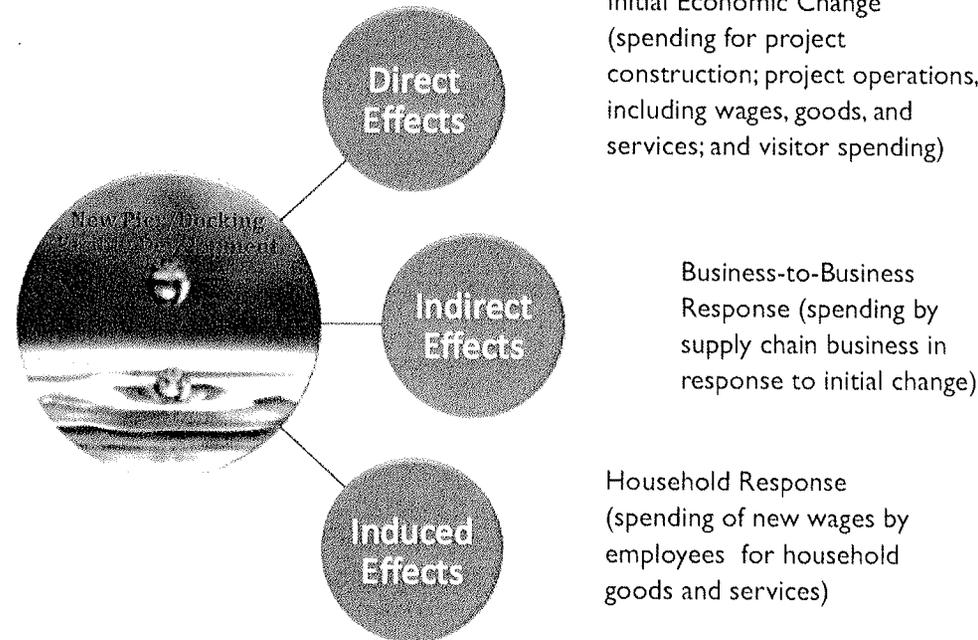
The impacts on three economic variables are presented in the following analysis. These variables, as defined by IMPLAN, include the following:

- 1. Employment/Jobs** – A job in IMPLAN equals the annual average of monthly jobs in a given industry, and can be either full-time or part-time.
- 2. Output** – Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers, this would be sales plus/minus a change in inventory. For service sectors, production equals sales. For retail and wholesale trade, output equals gross margin and not gross sales.

- 3. Value Added** – The difference between an industry's total output and the cost of its intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus.

Value added is a measure of the contribution to the Gross Regional Product (GRP). Since this analysis is focused on New Castle County, the value added is a measure of the project's contribution to the County's GRP.

### The Flow of Spending Through the Local Economy



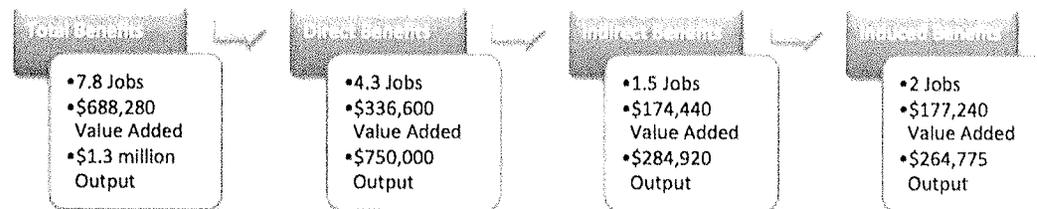
## The Economic Benefits of Construction

Construction impacts are stimulated by spending that occurs during the construction phase of a project. The IMPLAN model for the construction phase was driven by the estimated cost of the construction for the new pier and docking facility of \$750,000. These costs include administrative, legal, financing, and accounting services; architectural and engineering services; and construction hard costs. IMPLAN's examination of a project's construction phase is driven by the labor hours associated with construction-related activity. Construction phase impacts are a one-time injection into the economy.

As shown in Figure 1 below, the construction of the new pier and docking facility will inject a total of \$1.3 million into the local economy, contributing over \$688,000 to the County's GRP. An estimated 7.8 jobs will be created in New Castle County during construction, which includes the direct jobs (4.3), the indirect jobs (1.5), and the induced jobs (2). The construction phase of the project will generate nearly \$42,671 in state and local tax revenues.

Dividends	\$33
Social Insurance Tax	
Employee Contribution	\$238
Employer Contribution	\$468
Tax on Production and Imports	
Sales Tax	\$3,976
Property Tax	\$5,284
Motor Vehicle License	\$156
Other Taxes	\$10,025
State and Local NonTaxes	\$131
Corporate Profits Tax	\$1,692
Personal Tax	
Income Tax	\$12,089
NonTaxes (Fines- Fees)	\$8,037
Motor Vehicle License	\$382
Property Taxes	\$120
Other Tax (Fish/Hunt)	\$40
<b>Total State and Local Tax</b>	<b>\$42,671</b>

Figure 1 - Economic Benefits of the Construction Phase of the Project

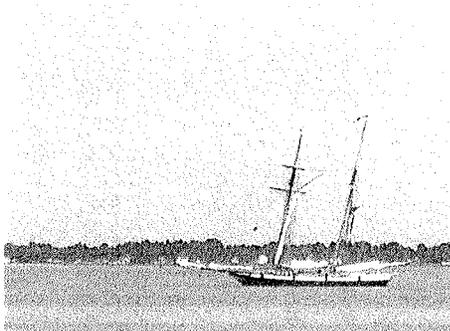


## The Economic Benefits of Operations

Unlike the one-time economic benefits of the construction phase of the project, once construction is completed and new activities are taking place at the new pier and docking facility, the economic benefits will be ongoing as the number of activities and the number of visitors increase. The economic benefits of the project will be realized primarily through visitor spending. Current estimates obtained from the New Castle County Courthouse, the Delaware Historical Society, and the New Castle Historical Society suggest that around 30,500 visitors toured historic amenities in New Castle in 2011, and over 35,000 visitors toured in 2012.

The new pier and docking facility will provide for water transportation and tours, as well as for the docking of tall ships, including the Kalmar Nyckel. These new activities are expected to draw additional visitors to the New Castle waterfront.

City officials, in consultation with local tourism organizations, have estimated the expected number of visitors based on discussions with potential users of the pier and docking facility, and on visitors to other similar waterfront activities. These estimates are presented in the following chart as the

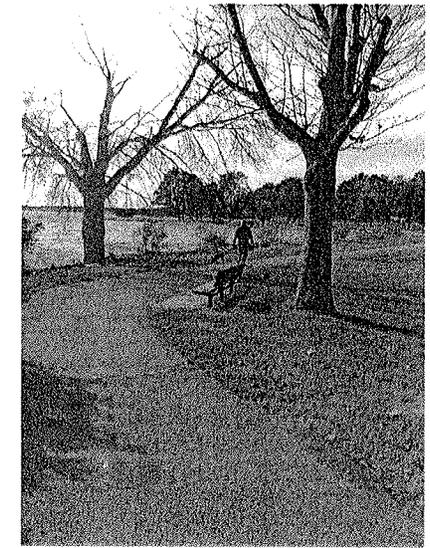


“medium” estimate. To put the benefits of the project in perspective, low and high range estimates are also provided to provide “what if” scenarios for lower-than-expected and higher-than-expected visitation. The high and low estimates are presented in the following chart.

### Estimated Number of New Visitors by Activity

	Low	Medium	High
<b>Water Transportation/Tours</b>			
Wilmington Water Taxi	800	1,000	1,200
Wilmington River Boat Queen	880	1,100	1,300
Ft. Delaware - Salem Ferry	1,450	2,900	5,800
Bicycle Taxi	320	400	500
<b>Tall Ships</b>			
Kalmar Nyckel	7,200	9,000	11,000
Other Tall Ships	4,000	5,000	6,000
<b>William Penn Landing Festival</b>	2,400	3,000	3,600
<b>Other Events at Battery Park</b>	3,000	4,000	5,000
<b>Total Estimated New Visitors</b>	<b>20,050</b>	<b>26,400</b>	<b>34,400</b>

In addition to the visitors to water transportation/tour activities and to the tall ships, utilizing the open spaces of Battery Park for additional events and activities could also increase visitation to New Castle's waterfront. Also, scheduling activities in conjunction with the other events and activities such as the docking of the Kalmar Nyckel and other tall ships could increase the waterfront's attractiveness to visitors during those times, thereby increasing the number of visitors to the waterfront.



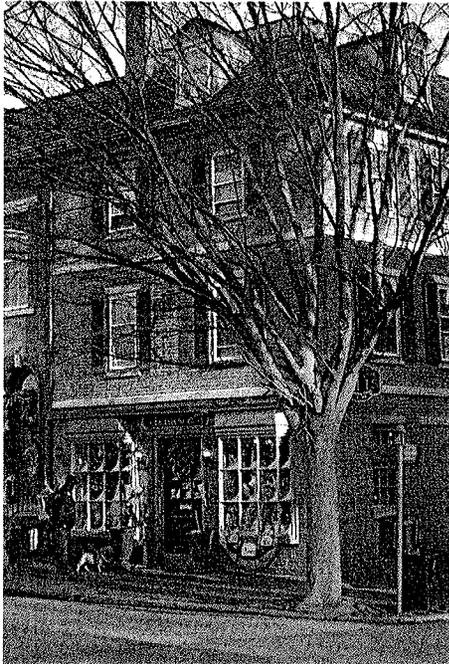
Battery Walk

## An Assessment of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware

If three to five events were scheduled in the park, based on visitation to similar events, the number of annual visitors to the waterfront could increase by 3,000 to 5,000.

The new flows of spending associated with the new pier and docking facility include: (1) the operations of the water transportation/tour businesses; (2) the operations of the Kalmar Nyckel and other tall ships for the time they are docked in New Castle; and (3) the spending by visitors for such things as meals in restaurants, gasoline, lodging, and retail purchases while in the New Castle area. Based on the estimated number of visitors to the tall ships and users of water transportation, the operations of these businesses will inject as much as \$362,000 into the local economy each year, assuming average fees/admissions of \$10 to \$15 per person.

Between 26,000 and 34,400 new visitors are expected to visit amenities



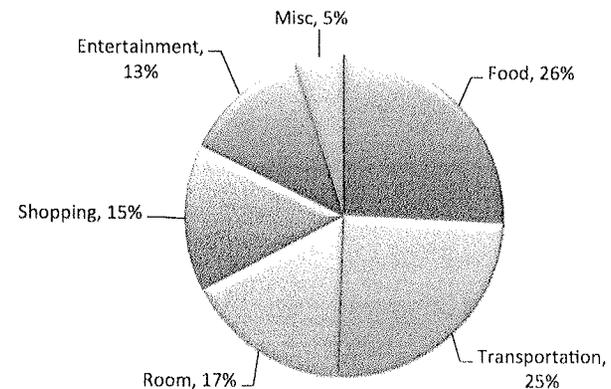
*Cobblestones Gift Shop*

and/or participate in events in New Castle as a result of the new pier and docking facility; however, a portion of the total number of the estimated new visitors by activity will likely participate in more than one activity while in New Castle. To allow for this overlap in estimating visitor spending, we assumed that 13% of the total visitors by activity would participate in more than one activity; therefore, visitor spending estimates were based on a range between 17,400 to 29,900 total visitors.

Using tourism spending benchmarks provided in a recent tourism study conducted by D.K. Shifflet & Associates for the Delaware Tourism Office (the Shifflet Study), visitors to the new pier and docking facility could spend between \$3.12 million and \$5.35 million in establishments in the New Castle area such as restaurants, gasoline station, hotels, and retail stores.

According to the Shifflet Study, visitors to Delaware attractions in 2012 spent on average \$104 per person as shown in Figure 2. Assuming that spending patterns by visitors to New Castle will mirror the patterns found in the Shifflet Study, these patterns were applied to the range of estimated visitor spending and were used in the IMPLAN model, along with the operational spending of the water tour/transportations businesses, as the initial spending that stimulates additional economic activity in the local area.

Figure 2 - Visitor Spending by Category



## An Assessment of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware

Figure 3 below shows the estimated benefits of the project that will be realized annually in New Castle County throughout the life the pair and docking facilities. The job estimates include both full-time and part-time workers.

Figure 3 - Estimated Economic Benefits of a New Pier and Docking Facility on New Castle's Waterfront

		Direct Effects	Indirect Effects	Induced Effects	Total Effects
<b>High</b>	Employment	55	7	8	70
	Value Added	\$2,299,759	\$717,967	\$750,216	\$3,767,940
	Output	\$3,815,551	\$1,066,658	\$1,120,774	\$6,002,984
<b>Medium</b>	Employment	42	5	7	54
	Value Added	\$1,763,985	\$552,100	\$577,376	\$2,893,461
	Output	\$2,923,400	\$820,004	\$862,563	\$4,605,967
<b>Low</b>	Employment	33	4	5	42
	Value Added	\$1,394,352	\$440,518	\$449,740	\$2,284,610
	Output	\$2,324,879	\$553,548	\$571,883	\$3,650,310

## An Assessment of the Economic Benefits of a New Pier and Docking Facility in New Castle, Delaware

As shown in the Table below, the operations of the water tour/transportation companies and the tall ships, along with spending by new visitors to New Castle, are expected to generate between \$243,859 and \$319,427 in state and local tax revenue each year.

New tax revenue can be used to improve local infrastructure and services. The new amenities and activities will also promote pedestrian activity, which will help to create a sense of place for local residents AND for visitors.

Table 1 - Estimated Annual State and Local Tax Revenue Generated by a New Pier and Docking Facility on New Castle's Waterfront

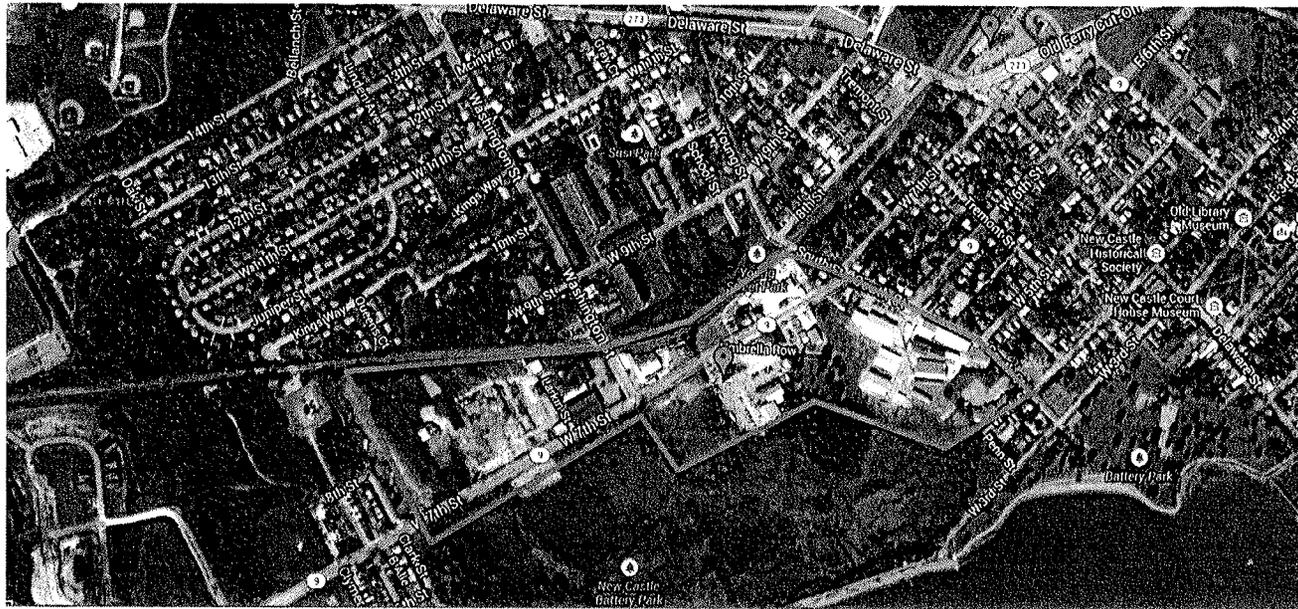
	Low	Medium	High
Dividends	\$180	\$237	\$311
Social Ins Tax- Employee Contribution	\$642	\$842	\$1,094
Social Ins Tax- Employer Contribution	\$1,261	\$1,656	\$2,151
Tax on Production and Imports			
Sales Tax	\$29,994	\$39,461	\$51,399
Property Tax	\$39,862	\$52,445	\$68,309
Motor Vehicle License	\$1,180	\$1,552	\$2,022
Other Taxes	\$75,631	\$99,505	\$129,604
State and Local NonTaxes	\$989	\$1,301	\$1,694
Corporate Profits Tax	\$9,099	\$11,991	\$15,689
Household/Personal Taxes			
Income Tax	\$29,693	\$38,980	\$50,639
NonTaxes (Fines- Fees)	\$19,739	\$25,913	\$33,663
Motor Vehicle License	\$939	\$1,232	\$1,601
Property Taxes	\$296	\$388	\$504
Other Tax (Fish/Hunt)	\$100	\$130	\$170
<b>Total State and Local Tax</b>	<b>\$209,605</b>	<b>\$275,33</b>	<b>\$358,850</b>

Source: Visitor Assumptions and IMPLAN Model Results

## A Catalyst for Future Development

The City of New Castle's 2009 Comprehensive Plan update identifies an underutilized site located adjacent to Battery Park and the Historic District as a priority redevelopment site (see site map below). The 45-acre site was recently re-zoned as a Downtown Gateway (DG) Zone, which is intended to create a pedestrian-oriented neighborhood with a neighborhood-scale commercial district with primarily local goods and services. To create a critical mass of commercial activity in a neighborhood such as this, a commercial

center would probably need at least 30K to 50K square feet of retail/restaurant/entertainment space, with a strategic mix of daytime/nighttime hours. Developing a thriving commercial center in this setting would typically be heavily dependent on the development and fill-up of residential units and office space. New Castle's tourism base can be a catalyst to "jump-start" the commercial portion of development on this site by supporting some anchor establishments that will attract other commercial tenants. New visitor spending as estimated in this analysis could potentially support as much as 15,000 s.f. of new commercial space. Jump-starting a commercial district will make the neighborhood more attractive for residential, office development, and additional retail, entertainment, and restaurants -- which could accelerate development and fill-up.



*Designated Mixed-Use Retail and Residential Redevelopment Area "Downtown Gateway (DG) Zone"  
Adopted 2003 Comprehensive Plan, updated in 2009*

Another attractive component of a neighborhood district such as this would be a boutique hotel. Information provided in the Shifflet Study suggests that over half of the state's visitor spending for hotels is spent in New Castle County. Using the assumptions regarding overnight visitor stays in this analysis, overnight visitors to the City of New Castle could potentially support a 60 room hotel (assuming an overall occupancy rate of around 75%).

How would the City of New Castle and New Castle County benefit from a development such as this? Fully developed, the 45-acre site could support 80,000 square feet of commercial space (retail, restaurant, office, hotel) and up to 700 new housing units. New households in the housing units would spend as much as \$36.7 each year in the local economy. This new spending and the new commercial business activity could create as many as 700 new permanent jobs (500 in the development area and 200 in existing businesses in the County), and could generate as much as \$4.7 million each year in new state and local tax revenue.

*Note: The above estimates of the square feet of commercial space and hotel rooms that could potentially be supported are based on statistical physical analysis only and should not be used as a statement of market or financial feasibility for such development.*



## Other Benefits to the Community

### Community Image

New tourism activities will enhance the City's image as a tourist destination, which will, in turn, increase the attractiveness of the City's quality of life to potential new residents and businesses.

### Increased Property Values and Tax Base

An enhanced image will mean increased demand for commercial and residential properties, which will lead to new development, increased property values, and a higher tax base..

### Enhanced Quality of Life

While the new amenities and activities associated with the new pier and docking facility will draw visitors to the area, they will also serve local residents and will improve the quality of life in the area. This new activity will radiate renewed energy into the community, which can inspire local civic leaders to organize new community events in Battery Park or other locations within the City. These events would create additional spending that will further strengthen the local economy and enhance the quality of life for local residents.