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I. INTRODUCTION:

Task Area I - Purpose, Components and Approach:

Task Area I is the first of a two - phased approach for the development of a comprehensive feasibility study to evaluate the economic and operational viability of development of a port for commercial cargo, non-cargo related commercial activities and recreational activities in Citrus County, Florida in the vicinity of the Cross Florida Barge Canal, west of US 19.

Task Area I was designed and executed to develop and complete a preliminary determination of feasibility for the establishment of a port that could include multiple maritime-related commercial activities, is economically viable, and is operationally feasible at or near the Barge Canal. The goal of the first task area was to comprehensively identify and explore, at a more macro level, the multiple commercial and operational issues and critical environmental, financial and infrastructure-related elements that would impact and ultimately determine development feasibility. The conclusions of Task Area I will support a “Go – No Go” decision to proceed to Task Area 2 for the further and more detailed analysis of the commercial opportunities, funding availability and viable operating scenarios identified in Task Area I.

TranSystems has completed Task Area I and contained further in this report is a detailed finding as it pertains to a preliminary determination of feasibility. The following sub-task areas comprised the effort required for completion of Task Area I:

I. Market / Cargo Analysis:

- ▶ Identification of cargo shippers within the region who are potential port users
- ▶ Identification of cargoes that have significant potential for future movement through Port Citrus
- ▶ Identification and evaluation of the current and planned development of regionally significant Intermodal Logistics Centers (ILCs), distribution centers and trans-loading centers
- ▶ Development potential for recreational, commercial fishing and ship construction and repair uses

2. Analysis and Assessment of Opportunities and Competitiveness:

- ▶ Identify and evaluate the existing regional waterborne cargo flows in terms of trade lanes, ports currently used within the region, vessel type, current costs for movement and schedule
- ▶ Identify means by which Port Citrus could be more competitive than other Gulf ports in terms of reduced costs and enhanced efficiencies that will reduce transit time and possible redundant handling costs
- ▶ Identify potential addition of value through processing, repackaging and component assembly at regional ILCs or distribution centers

3. Identify Optimal Port Location, Needed Infrastructure and any Environmental Impacts:

- ▶ Identify the most feasible (optimal) location for development of Port Citrus
- ▶ Identify infrastructure needed to realize cargo and trade lane opportunities identified in sub-task area I.
- ▶ Assess needed infrastructure in relation to: the existing infrastructure and physical attributes and their realistic and economical development potential
- ▶ Identify and evaluate any and all potential environmental, legal, political or physical impediments to essential infrastructure development

Preliminary Feasibility Determination**4. Identify Sources of Funding at Private, State and Federal Levels:**

- ▶ All historical and potential state funding (grant) or infrastructure loan programs for port development, maintenance, intermodal access enhancement and specific operations (e.g. security operations) will be identified and evaluated for applicability to specific infrastructure needs at Port Citrus
- ▶ All historical and potential federal funding programs for any and all port landside or waterside development and maintenance as well as security enhancement will be identified and evaluated for applicability to specific infrastructure needs at Port Citrus
- ▶ Other funding sources that might be available for initial port development will be identified and thoroughly explored. They would include bond funding and P3s or public-private-partnerships

5. Evaluate and Validate the Eligibility of Port Citrus for Port Funding and Grant Programs:

- ▶ Identify all requirements for a public port's eligibility for state and federal funding in the form of grants through FSTED, FDOT and other participatory state agencies, loans from the State Infrastructure Bank under the auspices of FDOT, grants and appropriations from federal agencies (DoT, DoC, Homeland Security and Corps of Engineers) and etc.
- ▶ TranSystems will ensure that all identified criteria can be addressed by Port Citrus, thus ensuring future eligibility for available state and federal funding programs

6. Determination of the Preliminary Feasibility Finding:

- ▶ The conclusions drawn by the TranSystems team from sub-tasks 1, 2, 3, 4 and 5 will be presented to the Port Citrus leadership and appear to lead to a determination of feasibility for port development with the clear identification of constraints which must be addressed in the course of development planning, design and execution.

Task Area 2 - Purpose, Components and Approach:

Task Area 2 will follow Task Area 1, pending the preliminary determination of port development feasibility is sufficient. Task Area 2 is designed to continue, in greater depth, the efforts initiated in Task area 1, in order to develop and produce a comprehensive, thoroughly researched and evaluated feasibility determination. Task Area 2 will be comprised of the following sub-tasks:

- I. Identification of Port Citrus' markets, specifically the trade lanes, carriers, commodities, non-cargo activity operators and recreation activities with the highest potential to become long term port customers, tenants and operators. The approach to be employed will refine and further develop the preliminary market/cargo analysis with considerable specificity to identify and evaluate the highest potential port users after comprehensive consideration of commodity types, cargo characteristics, trade lanes, facility requirements, intermodal connectivity criteria, connections to and advantages provided by potential Foreign Trade Zone (FTZ) and ILC operations and the Enterprise Zone.

The competitiveness analysis performed in Task Area 1 will be further developed to evaluate and prioritize potential port customers and tenants. Other non-cargo activities such as recreational marina facility operations, commercial fishing, vessel construction and repair operations will be fully developed, analyzed and evaluated. The product of this sub task will be the determination and evaluation of the business model that yields the greatest feasibility for the development of Port Citrus.

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Based upon the identification of the Port's most probable tenants and customers, TranSystems will evaluate potential revenue generating activities and cargo volumes as port activities initiate, diversify and increase over time.

2. Identification of the optimal Port location and the development sequence of initial operating infrastructure. The specific port infrastructure required for initial market entry. A recommended implementation schedule will be developed to maximize operational efficiency, maximize growth and minimize development cost while maintaining and growing a sustainable revenue stream from port operations.

A macro level estimate of the costs and timing for land and infrastructure development will be prepared. A funding schedule and strategy will be concurrently developed that accesses any available funding at local, state and federal levels as well as any opportunities for private sector investment (public-private partnerships).

3. The final feasibility report will comply with the statutory requirements of section 311.09 (13). The report will be prepared and formatted in accordance with FSTED and FDOT requirements for inclusion in the FDOT budget request. Assuming a finding of feasibility, the final report will form the basis for future state and federal funding for the port master plan, infrastructure and intermodal access development as well as federally sponsored maintenance of the Barge Canal.

Existing Conditions:

Citrus County is located on the Gulf of Mexico in central Florida. The central and eastern part of the county has rolling topography with numerous lakes and waterways. The western part flattens out toward the Gulf of Mexico. Numerous rivers, bays and tidal streams make up the shoreline. Much of the area is covered with forest. The Withlacoochee River forms the north and east boundaries, Hernando County forms the south boundary, and the Gulf of Mexico is the west boundary. The Cross Florida Barge Canal bisects the northern part of the county.

The property bordering the Barge Canal is a mix of state lands and privately owned property. West of the U.S. 19 bridge, the private lands along the north shore are owned by Citrus Mining & Timber. The lands to the south of the Barge Canal are owned by Holcim, Inc., one of the nation's leading manufacturers and suppliers of cement and mineral components.



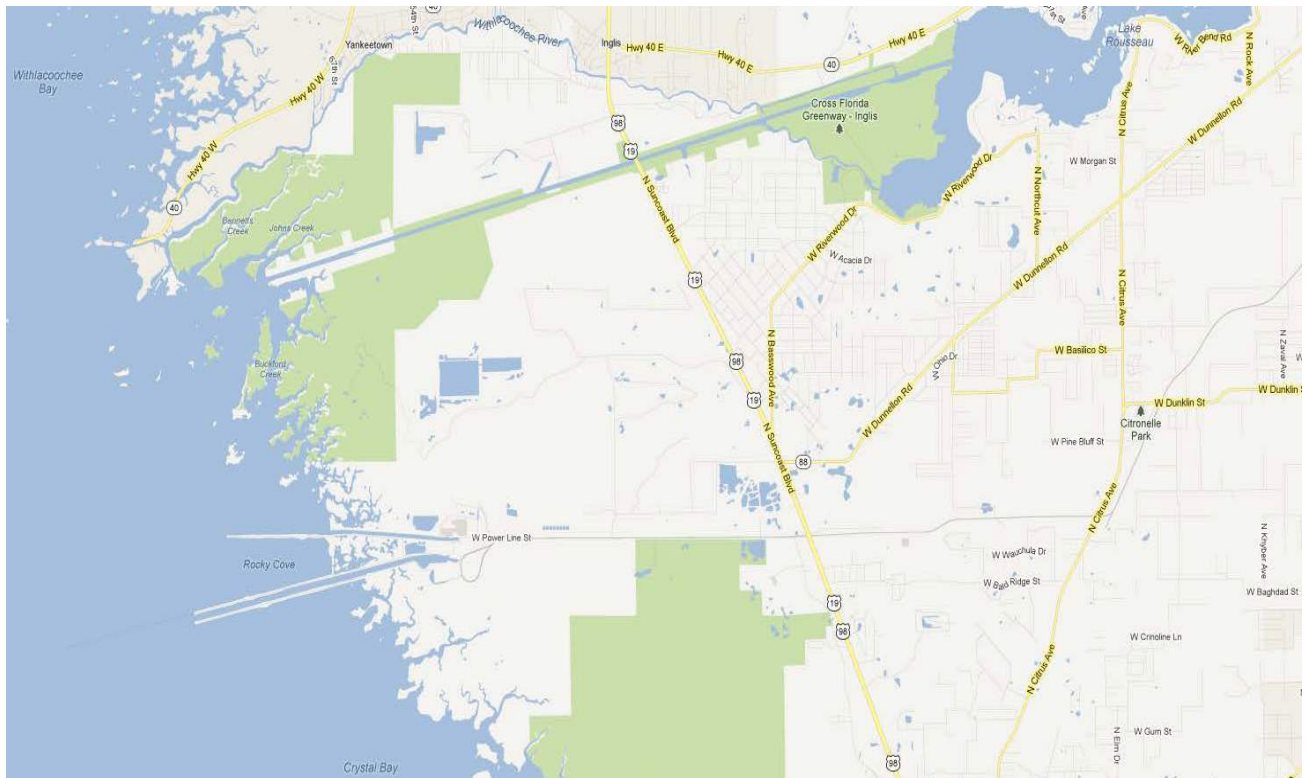
► Port Citrus Area Aerial Photograph

In an effort to grow and improve the Citrus County's economic vitality and quality of life, the Citrus County Port Authority commissioned TranSystems Corporation to develop a Port Citrus Feasibility Study, with the goal of creating a port in the county to take full advantage of the Cross Florida Barge Canal. The final feasibility study will address markets and competitive position, infrastructure needs, potential activity levels, current and future facilities, infrastructure development costs and potential funding sources for the proposed port. The development of a port in Citrus County would facilitate turning the area's unique physical assets into sustainable economic opportunities and jobs. The existing direct connection to the Gulf of Mexico offers obvious potential for port development.

The expansion of the Panama Canal may have an economic impact on Florida. It is being expanded to handle ships that carry twice the amount of containers carried on traditional Panamax vessels by adding a wider, longer and deeper set of locks to handle Post-Panamax vessels in 2015. This expansion presents an opportunity for the state of Florida to expand its role as a major import and export state and national distribution center. What impact these potential developments will have on Citrus County is unclear at this time.

The TranSystems project team conducted site visits and numerous interviews to compile a thorough grasp of existing conditions. This section is a summary of the existing conditions at the proposed port site area. This includes a comprehensive review of waterside items, site and utility characteristics, and transportation infrastructure.

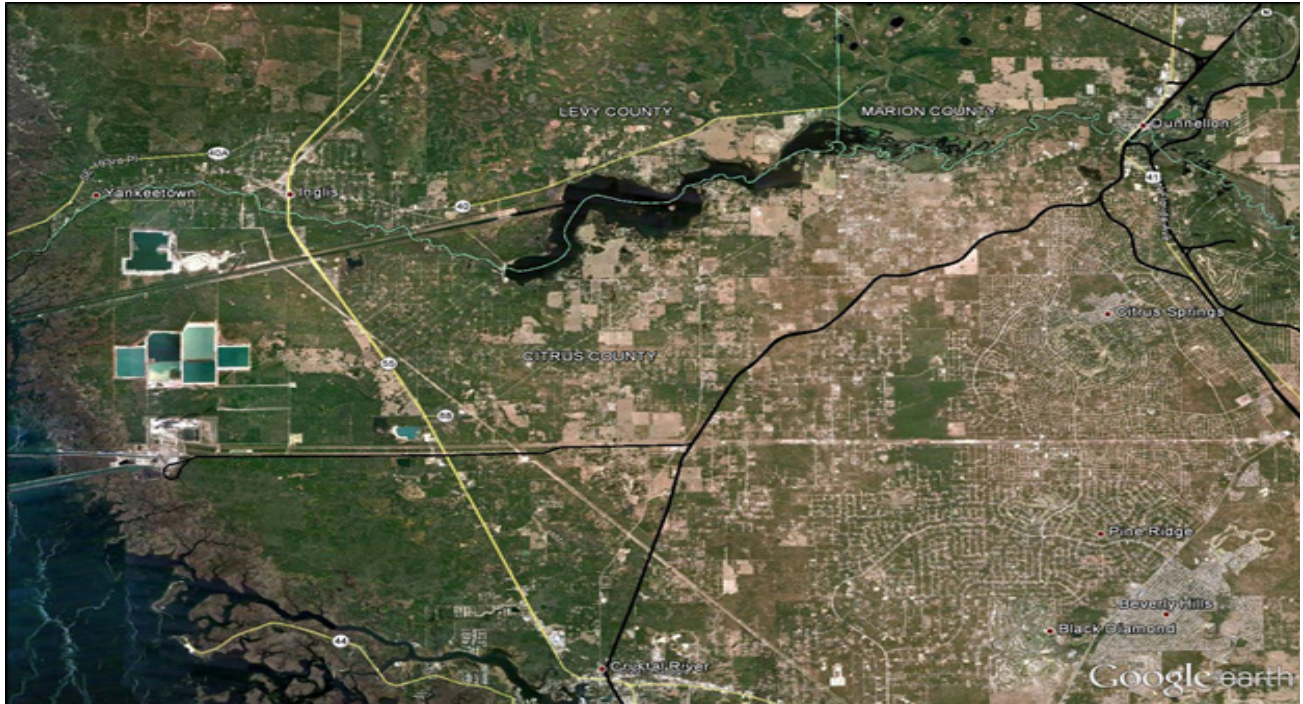
Port Citrus Major Roadways:



Port Citrus facilities would be accessed from landside by a state highway system, mainly U.S. Route 19, a south to north stretch of interstate that runs along Florida's west coast and U.S. Route 98 which runs northwest to southeast from Hernando County, Florida and joins U.S. 19.

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At the intersection of Citrus County Road 44 W, U.S. 19-98 becomes a six-lane divided boulevard. The division of this highway ends just south of the intersection of Florida State Road 44, where the road curves west as it approaches Citrus County Road 495 (North Citrus Avenue). U.S. 19-98 curves back north and becomes a divided highway once again.



The Cross Florida Barge Canal area was the last section of U.S. 19 that is two lanes wide in Citrus County. A new four-lane divided bridge was completed by FDOT in the early 2010s. It was originally planned in conjunction with the proposed Suncoast Parkway extension to Red Level, Citrus County. A smaller four-lane bridge carries U.S. 19-98 across the Withlacoochee River as it crosses the Citrus-Levy County Line.

Two new modern bridges over the Barge Canal have been recently completed. The Port Citrus area is also in close proximity to the northern terminus of the North Suncoast Parkway.

Rail Lines in Citrus and Surrounding Counties:

One rail line operates within Citrus County, a freight line to the Crystal River Energy Complex in northern Citrus County. Other lines that ran through Citrus County were either converted into rail trails such as the Cross Town Trail in Crystal River and Withlacoochee State Trail in eastern Citrus County or abandoned. The Florida Northern Railroad connects the Duke Energy power plant in Crystal River to a CSX rail near Alachua. It is operated by Pinsky Railroad Company, a Plymouth, Florida company that operates the regional connection track.

Levy County has only one railroad line running throughout the County and only within eastern Levy along US 41. The line is a former Atlantic Coast Line Railroad (ACL) line that is now used by the Florida Northern Railroad to carry freight to the Crystal River 3 Nuclear Power Plant in Red Level, Citrus County. Notable abandoned lines include a Seaboard Air Line Railroad line that is in close proximity to the existing former ACL line, a Florida Railway and Navigation Company line running parallel to Florida State Road 24, and a third in western and southern Levy County from Fanning Springs towards the Dunnellon area.

EXISTING WATERSIDE PORT ACCESS CHANNELS:

The Cross Florida Barge Canal was authorized in 1942 by the United States Congress and was designed to provide a route for water transportation between the Gulf of Mexico and the St. Johns River for barge traffic. Construction was halted in January 1971 with only one-third of the project completed.

The standard cross section of the canal waterway from the Gulf to a point east of the Port Citrus site includes a 150 foot wide channel bottom and minimum 250 foot wide water surface. The channel depth varies, as shown by a sounding survey by the U. S. Army Corps of Engineers in 1981, from between 12 and 14 feet below mean low water. This is one foot below mean sea level. At several points along the Barge Canal, high points were measured at slightly less than 12 feet, while the deepest locations were between 17 and 18 feet below mean low water.

The dredged channel from the Barge Canal mouth into the Gulf of Mexico is 300 feet wide and deepens to about 15 feet over the first one and one-half miles, and it reaches a depth of about 20 feet approximately 9.5 miles offshore. At that point it is joined by the Florida Power Corporation's (FPC) Crystal River Barge Channel [also referred to as the Progress (Duke) Energy barge channel or canal]. Channel depths of between 23 and 28 feet are maintained for an additional four miles. The FPC Barge Channel has lighted channel markers over its entire length. There are also lighted navigational aids just inshore from the FPC Channel turn and at a second point approximately two statute miles farther east. A well-marked, though unlighted channel extends the remaining distance to the canal mouth.

Outside the channel, bottom depth of the Gulf shoals gradually from nearly 20 feet at the FPC channel to about 4 feet at a point about one mile offshore. From there bottom depth varies between two and four feet below mean low water, except for numerous sandbars and spoil areas. Overhead clearance is restricted by a fixed bridge at U.S. Route 19, where bottom girders are 65 feet above mean high water. Intermediate overhead power cable crossings are at an elevation of 87 feet or higher above mean high water.

Current and Tidal Considerations:

The relatively large tidal variation at the Port Citrus site is an issue that must be addressed in the Port's design. The Big Bend region of the Gulf of Mexico, because of the very flat offshore slope (about one foot per mile, or less), has a normal coastal tidal range of about 3.1 feet. This is up to one foot more than is experienced in areas to the northwest or south. In addition, the Cross Florida Barge Canal is blocked at the lock and dam upstream, thus exacerbating the tidal highs and lows to even greater extent.

This is a common phenomenon occurring wherever dams are built in tidal waters, or entrance channels are deepened up to a fixed point, such as in Tampa Bay. The water level values measured by the Corps of Engineers at the navigation lock, approximately 9000 feet upstream (east) from the Port Citrus area, will apply inside Port Citrus. This results in 3.1 feet for the low tidal range and 4.0 feet for the higher tidal range. For spring tides with heavy rains, a 5.0 feet extreme height of water range has been assumed as the worst operating condition. Fixed walkway structures and other industrial facilities should be built above this level. The expected range of rise and fall makes boarding of boats difficult at low water levels, especially for low-freeboard sailboats and small outboard motorboats. The 3.5 foot to 5.0 foot tidal range is the crossover between fixed and floating walkways. Therefore, a floating walkway system is proposed for berths up to 35 foot lengths to facilitate boarding, while most of the larger berths will be at fixed walkway height. The use of floating berths is unusual in Florida, but this is not the usual site and the tide is more typical of mid-latitude American harbors.

Task Area One: Preliminary Feasibility Determination



Waterside and Utility Considerations, Key Cut and U.S. 19:

The Cross Florida Barge Canal has a key cut approximately 5.75 miles east of the western-most spoil island at N 28 degrees, 58 minutes, 57 seconds and W 82 degrees, 45 minutes, 57 seconds. This key cut, which branches off the Barge Canal, diagonally to the northeast, east of the limestone quarry and west of the U.S. 19 Bridge, is 250 feet wide and approximately 1,650 feet long. Existing conditions at the key cut include a simple 125 – 150 foot long concrete bulkhead. There are no drainage systems or structures at the key cut, nor is there potable water service available. The land not covered by the concrete apron has an approximate slope of 3:1. There are no bollards, pilings or other mechanisms to secure a vessel, other than the sheet pile with concrete cap.

Existing high capacity electric transmission lines are in the vicinity and are available for large scale service to the potential port site. A gas transmission line is already present stretching directly through to proposed study area.

Port Citrus:

The unique aspect of this port development study is the existence of the Cross Florida Barge Canal and the Duke Energy barge canal to the south. The Cross Florida Barge Canal was authorized by Congress in 1942 and the US Army Corps of Engineers began construction after Congressional appropriation of funds in 1964. Five years into construction, environmental groups sought an injunction and construction of the canal was curtailed by issuance of an injunction in 1971. Work on the canal was suspended until the project was deauthorized in 1990. At the time construction was halted, the project was approximately 30 – 35% complete. The portion that was finished was the canal which traverses west to east across northern Citrus County from the Gulf past US – 19.

In 1984, the Citrus County Port Authority was established by a special act of the Florida Legislature and the board was charged with the development of the port. Today the port board membership is comprised of the five county commissioners and the current port director is the county administrator.

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The Board of the CCPA, comprised of the five county commissioners, has considerable rights and authorities to include the ability to:

- ▶ Acquire lands by purchase, gift or condemnation; hold and dispose of land
- ▶ Construct wharves, docks, and all other infrastructure necessary to promote, create and operate a commercial port
- ▶ Contract
- ▶ Take by eminent domain
- ▶ Sue and be sued in the name of its corporate authority or administrative agency
- ▶ Prescribe, fix, maintain and regulate charges, tolls or rents for any of its facilities
- ▶ Mortgage, pledge or otherwise encumber any of its property or assets, consistent with FL law
- ▶ Borrow money and incur indebtedness by issuance of revenue bonds or certificates
- ▶ Adopt and enforce reasonable rules, regulations and procedures for use, acquisition, maintenance, development, operation or disposal of any facilities or projects within the port
- ▶ Employ secretaries, attorneys, engineers and other technical assistants and employees as necessary

A port feasibility study was commissioned and presented to the Port Board in July 1985. The study focused on the development of a new port located at an existing dolomite mine site (approximately 7.5 miles east of the western-most spoil island located at N 28 degrees, 58 minutes, 57 seconds and W 82 degrees, 45 minutes, 57 seconds) adjacent to the existing Cross Florida Barge Canal. The potential site was 133 acres east of US - 19, including a 23 acre excavated mine pit that was separated from the Barge Canal by a 30 foot dike.

The 1985 feasibility study recognized multiple site parameters and attributes that supported the conclusion that the property and Barge Canal constituted an “excellent port site.” Those conditions, recognized in 1985, exist, undiminished, today. The original port site was to the east of the US – 19 roadway bridge. At this time, the potential port site is to the west of the bridge, adjacent to and north of the Barge Canal.

The 1985 feasibility study analyzed various potential port-related development strategies to include public-private partnerships. It based recommended uses on adaptability to the site, probable generation of employment and tax base and sustainability of the market sector to insure financially viable development. Five use categories were thoroughly analyzed – public marina, commercial fisheries, vessel repair, cargo port and industrial park.

- ▶ **Public Marina:** The feasibility study found that, at the time, the demand for marina facilities, primarily to accommodate large power boats exceeded supply and thus suggested that development of a public marina was financially reasonable and appropriate to the site characteristics.
- ▶ **Commercial Fisheries:** The feasibility study revealed that the potential site and the Barge Canal were well suited for this use. The location of the Barge Canal’s entrance relative to fishing grounds and the Canal’s ability to handle the draft of a large commercial fishing fleet strongly supported this use of the site. The report predicted success of a commercial fishery operation based upon market demand and the site’s favorable location and vessel handling capabilities.
- ▶ **Vessel Repair:** The feasibility report suggested that vessel repair operations would be most viable as a supporting operation for a public marina and a commercial fishing operation. Therefore, if the site were used for a public marina and a commercial fishing operation, a vessel repair facility was a viable supplementary development.

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- ▶ **Cargo Port:** The feasibility report found in 1985 that the draft limitations of the Barge Canal would so limit the size of cargo carrying vessels that given the regional demand for such vessel use, at the time, the development of Port Citrus as a predominantly or pure cargo port was a highly speculative venture, and such use was not recommended by the consultant.
- ▶ **Industrial Park:** The feasibility report recognized the county's need to diversify its economic base and determined that the development of an industrial park would address this need, providing needed economic diversification. The consultant suggested that the county actively recruit industries that could locate in the vicinity of the Barge Canal to take advantage of the ability to receive materials and ship finished goods or components via waterborne transportation.

The feasibility report concluded that the most viable pursuit, at the time, was to develop a public marina and a commercial fishing operation, supported by a vessel repair operation and use the remaining property as an industrial park. The specific reasons or rationale for not pursuing the 1985 feasibility study recommendations is not known by the TranSystems team at this time.

The governing board of the Citrus County Port Authority (CCPA) was recently reconvened as a result of House Bill No. 283 which amended s. 311.09, FS to include Port Citrus as a member of the Florida Seaport Transportation and Economic Development Council (FSTED). Inclusion in the FSTED Council provided Citrus County with the ability to request grant funding from the Council for the preparation of a feasibility study. The funding for this study was included in the FDOT budget request.

By statute, the CCPA has until July 1, 2014 to apply for a grant for the feasibility study through FSTED. TranSystems was selected and commissioned in January 2013 to perform the feasibility study and anticipates conclusion of the previously described Task Area 2 by October 2013. At that time, the final feasibility report will be presented to the CCPA and then to FSTED. According to HB 283, if the study determines that a port in Citrus County is not feasible, the membership of Port Citrus on the council shall terminate.

The original port element of the comprehensive plan was adopted in 1989 and pursuant to a 1996 Evaluation and Appraisal Report, the Port Element was removed from the comprehensive plan, in which it had been a portion of Chapter 8, entitled Ports and Aviation Element. In May 2012, the current port element was adopted as Chapter 17 of the Comprehensive Plan. Its stated purpose is to quantify the county's efforts to establish a public port within Citrus County and the proposed location is along the Cross Florida Barge Canal.

II. Preliminary Site Location, Infrastructure Needs and Environmental Impact Identification:

Waterway Navigability Description

1. Cross Florida Barge Canal:

The Cross Florida Barge Canal was constructed between 1964 and 1971 in a linear design with a general east – west orientation. It has a width of 250' (bank to bank) and a central channel with a 150' width. It has a general depth of 13'. Maintenance dredging requirements are minimal as significant siltation has not been an issue in the past.

The probability of deepening the Cross Florida Barge Canal is extremely low given the Corps of Engineers' federal navigation project development process, project justification requirements and the extraordinary cost of dredging from the Gulf into the most probable port site. Therefore, the vessel traffic on the Cross Florida Barge Canal will be limited to coastwise and ocean-going (shallow draft) barges and tugs. Nevertheless, jumbo hopper barges are 195' in length, 35' wide, draw approximately 11' fully loaded with 1600 tons (maximum), but normally carry a load of 1200 tons. We believe tandem tows would be possible. A shallow draft tug could tow two barges on a hawser to the seabouy and then transition into a pushing configuration in the Barge Canal with barges made up "head to tail."

2. Progress Energy Canal:

Progress Energy Florida (now Duke Energy) operates the Crystal River Power Complex several miles south of the Cross Florida Barge Canal. To support the conventional coal burning power generators, Duke Energy operates a barge loading-unloading facility on the intake canal. Coal is received at the plant by both rail delivery and barge. Coal barges are normally 460 feet in length and transport approximately 14,000 tons of coal. The intake canal (Progress (Duke) Energy Canal) has a navigable depth of 20 feet at MLW and is connected by a 3 mile, maintained channel. The width of the intake canal at the barge loading/unloading facility is adequate to accommodate the rotation of a 500+ foot barge or vessel.

Description and Analysis of Potential Port Sites:

The port element of the comprehensive plan addresses the location of Port Citrus in section XII. Goals, Objectives and Policies. Objective 24.1.1 - Location: Port Citrus should be located on the Cross Florida Barge Canal west of US 19 based on a "Port Feasibility Study".

Three potential sites were identified and evaluated for feasibility. One potential site, the Progress Energy intake canal and barge loading/unloading facility, is not on the Cross Florida Barge Canal. However, given the significant navigability and cargo handling capabilities of this facility as it currently exists and its current use level, Port management prudently directed TranSystems to explore the feasibility of the development of commercial cargo operations using the intake canal and the loading/unloading facility in conjunction with nearby rail connection. Such an operation might become Port Citrus if there were the potential for the development and execution of a shared use agreement between Citrus County and Duke Energy.

A description and feasibility analysis of the three sites considered in this report follows:

1. Citrus Mining and Timber: On the north bank of the Cross Florida Barge Canal, immediately west of US 19, is a tract of land called Hollinswood Harbor. It contains 545 acres including canal bottom. Hollinswood Harbor is an approved development with a subarea plan that contains commercial, industrial and water dependent uses. It is planned as a working waterfront with marina, resort, recreational, residential, industrial and support educational/institutional uses incorporated in the master plan. Applications have been

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approved and are reflected in the comprehensive plan and the future land use map. In 2009 application was filed by the Genesis Group on behalf of Citrus Mining and Timber, Inc. to create a Port District in the Citrus County Comprehensive Plan on the 545 acres. The application was approved and provides specific criteria to create a working waterfront along the Cross Florida Barge Canal adjacent to the property.

Adjacent to and west of Hollinswood Harbor is an active CEMEX, fully permitted, rock mining operation that occupies approximately 1,000 acres that have been leased by Citrus Mining and Timber to CEMEX until 2030. This mining operation has been continuous for several decades and includes the mining and exportation of lime rock and dolomite via truck and barge. An existing barge loading facility exists on the western bank of a diagonal 1650' by 250' key cut that projects northeast from the Cross Florida Barge Canal.

In 1999 a cruise ship terminal was permitted as a Development of Regional Impact (DRI 99-01) east of the barge loading facility. Though currently not in use, the DRI is still valid.

2. Holcim Mining: The Holcim Mining site is situated between the Cross Florida Barge Canal on the north and the Crystal River Power Park (Duke Energy) on the south. It is west of US-19. The property and the mining activities operate under the provisions of a Florida Department of Environmental Protection Environmental Resource Permit (ERP No. 092952179) dated June 9, 1997. This permit was issued under the authority of part IV of Chapter 373, F.S. and Title 62, Florida Administrative Code. It has a life of the mine duration which is expected to be 80 years. The project described by the permits allows for the expansion of an existing lime rock mine to a total area of 4,815 acres of mining and mine related activities. An element of the permit authorizes, "disturbing of approximately 3.44 acres of waters of the state in and adjacent to the Cross Florida Barge Canal for the construction of a barge loading facility. This includes 0.23 acres of littoral zone wetlands and 3.21 acres of canal bottom. In addition, 3 acres of uplands adjacent to the canal will be disturbed."

Under the section entitled "SPECIFIC CONDITIONS" in paragraph 8, "The Department acknowledges that Holnam's (Holcim) continuing ability to use the existing barge loading facility, located at the Florida Power Corporation's Crystal River Power Plant site, is subject to factors beyond Holnam's control. Nothing in this specific condition shall be deemed to restrict Holnam's ability to construct the barge facility at the Cross Florida Barge Canal authorized by this permit at any time that Holnam, in its sole business judgment determines that the facility is needed." The ERP establishes specific construction and mitigation requirements to address the interruption of the Greenway Trail, should Holcim determine that opening a barge loading facility on the Cross Florida Barge Canal is warranted.

3. Progress Energy (Duke): While this site and its existing barge loading / unloading facilities as well as the navigability of the intake canal present an excellent potential site for Port Citrus, TranSystems has made inquiries of Duke Energy to explore the potential for the eventual development of a shared use agreement between the County and Duke Energy that would permit the development of commercial port operations on the Duke site and allow for the establishment of all or part of Port Citrus at that location.

The following questions were posed to Duke Energy by TranSystems:

1. Given the greater capability (channel dimensions and approach depth) of the Duke Energy Barge Canal, in comparison to the Cross Florida Barge Canal, and the current level of use, would Duke consider any sort of shared use arrangement, with either Port Citrus as an agency of Citrus County government or a private marine terminal operator?

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2. Whether the answer to the first question is “yes”, “no” or “possibly” what would be the rationale for a flat rejection or the operational limitations that would qualify a “yes” into a “possibly”?
3. Assuming that the answer to the first question is a qualified “yes” or a “possibly”, what would be the issues that an other-than Duke Energy user of the barge canal would have to successfully address and mitigate appropriately?
4. The Duke Energy Barge Canal is believed to currently be providing Holcim Mining a gateway for the exportation of lime rock to Theodore in the Mobile, AL vicinity. Assuming you have not found this backhaul operation to be disruptive to Duke Energy’s barge canal operations; on the contrary, To further surmise, the backhaul of lime rock has provided you with cheaper transportation charges for water-delivered coal since the barges depart Crystal River loaded with lime rock versus returning empty. Do you believe there is an opportunity to expand this backhaul operation, and if so, could all additional backhaul material be provided by Holcim, or would you need another source for export cargo?
5. An absolutely critical element of any successful cargo port is the intermodal linkage between waterborne transportation and land transportation. That is why virtually every major cargo port is aggressively pursuing road and rail enhancement projects, especially rail. Assuming your response to the first question is “yes” or “possibly”, would the entity that shared use of the canal with Duke be permitted to use your rail facility?
6. If Duke Energy were to consider the shared use of the canal and the rail facility, what sort of a lease or facility use and operating agreement would you consider and for what duration?

Responses to the preceding questions were received by TranSystems in April 2013. While not ruling out the eventual development of some variation of a shared use agreement with Citrus County, allowing some or all of Port Citrus to operate a commercial port operation at the Duke Energy site, it does not appear feasible at this time.

Duke Energy’s responses emphasized their need to focus on activities that relate to their “company business.” Their greatest immediate concern is for the maintenance of the integrity of the nuclear site and the NRC’s mandate for strict adherence to the stringent security requirements during the period of decommissioning.

Duke Energy has requested a significant amount of information and data that pertains to port development, the timeline, financial resources required and their source, target markets, cargo types, identification of private developers in public-private partnerships (3Ps), how rail requirements would impact the existing rail infrastructure and operations and the handling of “hazards analysis” costs. Duke Energy indicated concerns about shared operations as they relate to the security requirements within the proximity of a nuclear facility, the potential operational conflicts that might result and insuring that Duke Energy operations always took precedence over commercial port operations at a shared facility.

Evaluations (Conclusions) of Site Feasibility:

General siting criteria established in 1985 and validated as still pertinent in the Port Element (Adopted : May 8, 2012, Ord. No. 2012-A12) are:

- ▶ Reasonable proximity to the Gulf of Mexico
- ▶ Sufficient land for development
- ▶ A usable port basin area
- ▶ A dependable and “deep” access channel

- ▶ Good wind and wave protection
- ▶ Utility systems with adequate capacity
- ▶ Navigable tidal/river currents
- ▶ Adequate port basin flushing
- ▶ Appropriate zoning and land use designation
- ▶ Transportation access
- ▶ Minimal maintenance dredging requirements

Site Evaluations

1. Holcim Mining: Use of the Holcim Mining property for part or all of Port Citrus appears to hold little probability. It does not appear that Holcim will face an interruption or curtailment of their current agreement with Duke Energy for use of the barge loading facility or intake canal. That agreement which allows Holcim to export mine product (lime rock) on barges that currently import coal for power generation to the Crystal River Power Plant is beneficial to both Duke Energy and Holcim in that it provides the barge operation with backhaul cargo and thus reduces the cost for transportation per ton of cargo. Holcim has a significant investment in the conveyor that carries product from the mine to the loading facility and the stacker/reclaimer that loads the barges. Therefore, for current and future mining operations, there is no apparent motivation or economic justification for the alteration of this agreement.

The Environmental Resource Permit (ERP), under which Holcim operates, does allow for the development of a barge loading facility on a 1,000 foot section of the south bank of the Cross Florida Barge Canal. At this time, there is no reason for Holcim to exercise that option given the current lime rock exportation agreement with Duke Energy. It is our opinion that the only circumstance that would potentially justify Holcim's exercising the option to develop the barge loading facility on the Cross Florida Barge Canal would be their entrance into some other sort of commercial operation. We believe that there is scant probability of Holcim's pursuing such a course as any venture into other commercial operations would encumber portions of their property immediately south of the Cross Florida barge canal that are yet-to-be developed mine sites. Holcim's ERP is for "the life of the mine" and the area in question is most valuable to Holcim as a potential mine site when the current site(s) is depleted.

2. Duke Energy: The existing loading/unloading facilities and equipment, the navigability of the intake or barge canal and the direct access to freight rail present significant advantages for port development. If an agreement between the county and Duke Energy were possible, enabling the county to establish a commercial port operation at the site utilizing its rail and waterborne cargo infrastructure, port development costs would be minimized and the initiation of commercial cargo operations would be considerably expedited. The potential for encountering tremendous environmental impact challenges would be minimal as the cargo operation and a significant portion of the needed facilities already exist.

Inquiries were made to determine the probability of Duke Energy's consideration of an agreement with Citrus County that would allow for the county's development and operation of a commercial port operation. The specific questions asked and a synopsis of the responses to those questions is presented in a previous section of this report.

It is our conclusion that the initial establishment of Port Citrus at the Duke Energy site, with sufficient operational latitude, is not realistic given the current security-related restrictions, discussed previously. It is clear that the operational needs of the power plant would take precedence over commercial port operations, and the port's operating plan must accommodate that provision. Additionally, Duke has clearly indicated to consider any sort of an agreement, they must have much more definition about the intended port operations, cargoes, shippers, carriers, the facilities development timeline and etc.

Prior to the development of the port's master plan and identification of carriers and shippers, this information is not yet definitive enough. While the eventual expansion of Port Citrus operations onto the Duke Energy site has strong potential, our recommendation is to hold this option in abeyance until the port master plan is completed, port operations are established on another site, a more definitive schedule for future facility funding and development is available, and there is the need to expand port operations. At that point, with the information Duke has indicated as required, the Port Board may explore the potential for expansion of port operations to the Duke Energy facility.

3. Citrus Mining and Timber: In our opinion, the Citrus Mining and Timber property north of the Cross Florida Barge Canal provides the most feasible location for Port Citrus. The specific tract of land, Hollinswood Harbor, is 545 acres immediately contingent to the north bank of the Barge Canal.

Hollinswood Harbor is an approved development with a subarea plan that contains commercial, industrial and water dependent uses. It is planned as a working waterfront with marina, resort, recreational, residential, industrial and supports educational/institutional uses incorporated in the Master Plan. Applications have been approved and are reflected in the Comprehensive Plan and the Future Land Use Map.

Barge operations have been conducted by CEMEX, which leases approximately 1,000 acres to the west of Hollinswood Harbor, through the rudimentary barge loading facility in the key cut that projects diagonally from the Cross Florida Barge Canal (described previously in this report). The navigable depth at MLW is 11 feet and thus restricts barge traffic to shallow draft barges. Nevertheless, shallow draft barges carry a significant payload and are capable of both cross-ocean and coastal service.

Infrastructure and Environmental Impact Considerations (Hollinswood Harbor):

► Infrastructure Needs:

Highway and Parking: Improvements will be necessary to bring the roadway infrastructure up to industry standard. There is an existing network of access roads, currently used by Citrus Mining and Timber and CEMEX but none is paved. Existing roadways are lime rock. Parking requirements will be addressed based upon the type and needs of each port tenant.

Waterfront: Improvements to the key cut barge loading facilities will be necessary as use increases. Shoreline stabilization may be required coincident with development of expanded barge loading and cargo storage facilities.

Water and Sewer: The Hollinswood Harbor property has two permitted treatment facilities on site – a pump-out station and a well. The type and demands of the future tenants will determine service requirements and any need to upgrade these facilities. The property owner has maintained both permits in good standing. Expansion of the distribution and collection systems will be necessary to meet the requirements of the tenant(s).

Electrical: The property has good access to adequate electrical power. Tenant needs will drive electrical power requirements and thus service expansion.

Rail: The property (Hollinswood Harbor) does not have an immediately accessible rail connection. Such a connection is available at the Duke Energy site to the south. The permitting and development of a rail spur coming north off the existing line that supplies the Duke Energy power plant, along the western side of US -19 into the south side of the Cross Florida Barge Canal onto property belonging to Holcim Mining, might be a potential solution. This option would require the construction of an elevated conveyor

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to carry bulk cargoes to/from the Hollinswood Harbor property from/to the rail loading/unloading facility on the Holcim property, crossing the Cross Florida Barge Canal.

► **Environmental, Legal, Political or Physical Impediments:**

Hollinswood Harbor is an approved development with a subarea plan that contains commercial, industrial and water dependent uses. It is planned as a working waterfront with marina, resort, recreational, residential, industrial, and support educational/institutional uses incorporated in the master plan. Applications have been approved and are reflected in the Citrus County Comprehensive Plan and the Future Land Use Map. In 2009 application was filed by the Genesis Group on behalf of Citrus Mining and Timber, Inc. to create a Port District in the Citrus County Comprehensive Plan on the 545 acres. The application was approved and provides specific criteria to create a working waterfront along the Cross Florida Barge Canal adjacent to the property.

Given the current use of the property, its designation as a port district and the history of ecosystem disturbance that accompanied the construction of the Cross Florida Barge Canal in the late 1960s and early 70s, it does not appear that there are insurmountable environmental, legal, political or physical impediments or challenges to development of Port Citrus on the Hollinswood Harbor property.

III. Market / Opportunity Analysis:

Approach to Market Evaluation:

The market evaluation is intended to provide a preliminary finding on market feasibility in support of a “Go-No Go” decision by the Citrus County Port Authority to commit further resources to the assessment and development of port facilities on the Cross Florida Barge Canal. A positive finding on preliminary market feasibility, taking into consideration operational and planning findings discussed elsewhere in this report, would lead to recommendations for Port Citrus to further evaluate market opportunities, including direct discussions with potential users of a barge port. The market evaluation is macro in nature and is focused on the overall market potential for Port Citrus, given the Barge Canal’s various physical and operational characteristics and constraints, location relative to markets, local industry and other factors expanded upon in the discussion to follow. The market research draws on previous studies of the port concept, notably the 1985 “Port Citrus Feasibility Study”; a review of state, national and international industry trends and freight flows; and interviews with local companies that may offer business opportunities for Port Citrus.

The following parameters are taken into consideration when evaluating the market opportunities and market constraints for Port Citrus. The parameters were developed from a review of previous studies, site visits by the project team, and input from interviews with shippers and tug/barge operators.

► Barge Canal and Site Characteristics:

- Offers a linear east-west orientation
- Width of 250 feet (bank to bank) and a central channel with a width of 150 feet.
- It has a general depth of 13 feet.
- Minimal maintenance dredging requirements
- Dependable access channel connecting to the Gulf
- Adequate port basin flushing
- Good wind and wave protection
- Land for development
- Appropriate zoning and land use designation
- Useable port basin area
- Utility systems with adequate capacity
- Transportation access by road

► Potential Use Categories from 1985 Feasibility Study:

- Industrial park (including companies that could take advantage of the ability to receive materials and ship finished goods or components via waterborne transportation.)
- Cargo port
- Public marina
- Commercial fisheries
- Vessel repair
- The 1985 feasibility report concluded that the most viable pursuit at the time was to develop a public marina and a commercial fishing operation, supported by a vessel repair operation and use the remaining property as an industrial park. Issues such as limited draft and poor regional demand made a cargo port a high risk venture at that time.

► Main Challenges (from interviews on the market potential for Port Citrus)

- Vessel size, particularly barge size constraints
- Ability to combine barges or “fleeting” to enhance barge service economics
- Limited infrastructure (relative to other ports serving the region)
- Absence of rail connectivity at the preferred port site limits opportunities to barge-truck cargo movements
- Limited local population and industry (relative to other ports serving the region)
- Due to available infrastructure and better situated ports to the north and south, the serviceable hinterland is only within 250 miles distance, and principally up to a distance of 100 miles.

Central to the market evaluation are the project team’s interviews of key stakeholders to evaluate the Port Citrus concept and to gather “best use” ideas. Respondents offered invaluable insights, at a high level, into possible industries and cargoes that might be suitable for location at Port Citrus. This information is useful for establishing criteria that can be applied to evaluate proposed port uses. Specific industries are mentioned; however, Port Citrus will have to engage in discussions with individual potential users (industries) to understand specific cost and efficiency requirements and to provide a deeper understanding of the viability of each use at Port Citrus. It is only in these direct discussions that companies will explore and divulge the more confidential nature and aspects of their business operations and requirements.

Interview respondents also provided insight on their port selection process and how that would influence the development of Port Citrus. Ports need to capitalize on geographic advantages in order to attract business. Examples of geographic advantages are being in close proximity to large population centers, centers of manufacturing, or areas that export large quantities of agricultural or mineral products. Ports that reduce supply chain costs or improve efficiency are favored. Port Citrus will be evaluated by potential users using these same criteria. Overall, the interview respondents suggested that Port Citrus would have limited geographic reach and would be confined to primarily local traffic area reach due to the infrastructure and operational issues noted above.

Market Trends and Freight Flows:

► West Coast Florida Port Activity – International Cargo

Port activity on the West Coast of Florida is centered on the Port of Tampa, 100 miles by road from Port Citrus, and Port Manatee, a distance of 120 miles. These two deep-draft ports, with multimodal connections and extensive warehousing and logistics activity, service a hinterland in East/Central Florida of 8 million people, primarily in Pinellas, Hillsborough, Manatee, Sarasota, Pol, Pasco, Hernando and Citrus counties.

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The two ports handled a total 11.7 million metric tons (MT) of international cargo in 2012, 10.4 million MT at Tampa and 1.3 million MT at Port Manatee. The major commodities include cement, inorganic chemicals, fertilizers, iron and steel, fruit, and forest products.

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International cargo flows are dominated by trade with Latin America. In 2012, Latin America accounted for 61 percent of imports and 48 percent of exports at Tampa, and 70 percent and 22 percent respectively at Port Manatee. This dominance is driven by the ports geographic proximity to Mexico, Central and South America, and the Caribbean. However, in the small containerized trade handled by Tampa (4 percent of its total international cargo tons) the principal trading partner is Asia (57 percent of imports and 68 percent of exports). Tampa has weekly container ship service with Asia via the Panama Canal.

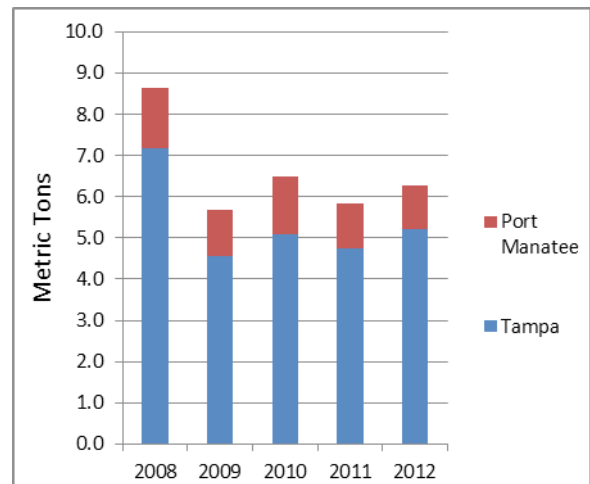
In addition to international cargo, the Port of Tampa handled 21 million short tons of domestic cargo in 2011, the latest year for data available from the U.S. Army Corps of Engineers. Port Manatee handled 233,000 short tons of domestic cargo. Tampa's domestic cargo is primarily liquid petroleum products.

Both ports are well positioned to benefit from further economic and trade integration with Latin America. Expansion of the Panama Canal is expected to generate calls by larger ships at U.S. East Coast ports. Tampa (with 41 feet of permissible draft) and Port Manatee (with 40 feet draft) may see increased ship sizes, as ocean carriers generally respond to growth across trade lanes, notably with Latin America.

The two ports are investing in new infrastructure to accelerate cargo flows through port terminals. Notable are Tampa's on-dock Gateway Rail Terminal for containers, ethanol and other cargo, and its I-4 Connector project with dedicated truck lanes. Both projects are expected to extend the reach of Tampa's port hinterland by offering more efficient transport options for importers and exporters.

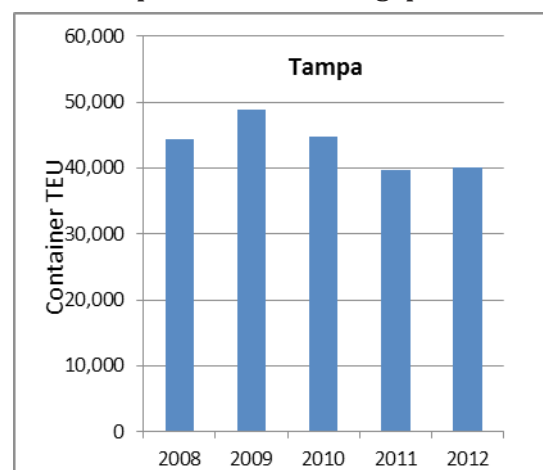
Tampa and Port Manatee are deep-draft ports serving ocean going ships and barges, carrying a broad range of commodities and serving numerous trading partners. They offer comprehensive port

West Coast Florida Ports – Total International Cargo (Metric Tons)



Source: U.S. Census Bureau: Foreign Trade Division USA Trade Online - U.S. Import and Export Merchandise trade statistics.

Tampa Container Throughput in TEU



Source: American Association of Port Authorities

¹ Data on international cargo from U.S. Census Bureau: Foreign Trade

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infrastructure and services to their customers – highway and rail connections, warehousing and logistics, vessel support and other port services. Their hinterland extends across Western and Central Florida, and through investments in new highway and rail infrastructure, they are becoming more competitive outside their traditional hinterlands.

Given the above findings, the project team does not consider a niche barge port in Citrus County as a credible competitor for the international cargo moving through Tampa and Port Manatee. However, the project team does view opportunities for collaboration or integration into the Tampa/Port Manatee port logistics system.

As discussed in the interview findings later in the market analysis, there may be opportunities to develop barge “feeder” service for bulk commodities, with shipments of bulk commodities between Port Citrus to Port Manatee or Tampa for stockpiling and onward shipment. Stockpiled commodities at Port Citrus could be distributed to local markets, while stockpiled commodities barged to Tampa and Port Manatee might be relayed to international markets via ocean-going vessel. Challenges to such a business model include improved highway access between Citrus County and Tampa, which would be offered by the proposed Suncoast Parkway 2 project, which would extend the Suncoast Parkway into Citrus County and reduce road travel time to Tampa. The Suncoast Parkway 2 project is currently suspended by Florida DOT due to financial constraints.

Alternatively, an improved highway connection between Citrus County and Tampa could allow Port Citrus to compete for light manufacturing or other activities related to cargo movement through Tampa/Port Manatee and accommodate such business on the upland portion of the proposed Port Citrus site.

Based on the above discussion, the project team suggests that Port Citrus pursue, as one of its development strategies, collaboration and integration with the Tampa/Port Manatee cargo logistics chain. A similar recommendation is made in relation to the Ocala Inland Port development (tied to the Port of Jacksonville), which is discussed under Intermodal Logistics Center and Warehousing/Distribution later in the market evaluation.

► Gulf Intracoastal Waterway

The Gulf Intracoastal Waterway (GIW) is a federally maintained channel with a navigable depth of 12 feet and a width of 125 feet. The GIW extends approximately 1,109 miles from Brownsville, Texas to Apalachee Bay, Florida. Importantly, the GIW does not extend to Citrus County, but brown-water (or GIW/inland waterway barges) are allowed to navigate on open water as far south as the Crystal River, to Port Citrus (see the interview findings later in the market analysis for a discussion of proposed changes to the rules governing access of brown-water barges to the West Coast of Florida).

The GIW is primarily used for the movement of bulk commodities, including petroleum and petroleum products, chemicals and related products, crude materials (e.g., sand and gravel) and coal. The vast majority of cargo activity takes place on the western section from New Orleans to Brownsville. A review of the Waterborne Commerce Statistics released by the U.S. Army Corps of Engineers (USACE) shows:

1. Only 661,000 short tons of cargo moved along the section from Apalachee Bay to Panama City, Florida in 2011. Traffic volume has declined steadily since a peak of 2.0 million short tons in 2003. The largest commodity is gasoline, which totaled 395,000 short tons in 2011. Other commodities included

² Defined in the Waterborne Commerce of the United States - Part 2—Waterways and Harbors Gulf Coast, Mississippi River System and Antilles, U.S. Army Corps of Engineers

other petroleum products, chemicals, iron and steel products.

2. A further 1.8 million short tons of cargo moved on the section between Panama City and Pensacola, Florida. The largest commodities were petroleum and petroleum products, and coal.
3. A total 4.7 million short tons moved on the section between Pensacola and Mobile, AL, principally coal and gasoline.

The GIW offers a reliable connection for barge traffic moving between ports on the Gulf Coast and provides access to the inland waterway system. Cargo movement is focused on low value bulk commodities. Access to the GIW presents Port Citrus opportunities to move local resources (e.g., dolomite and limestone) to markets along the Gulf Coast and the inland waterway system. In addition, the prevalence of petroleum and petroleum products as a cargo on the GIW suggests there could be an opportunity to develop a liquid bulk facility at Port Citrus for the handling of local/regional requirements. It should be noted that barge services to markets along the GIW from Port Citrus may be in competition with the rail mode, which is typically the case with most high volume bulk cargo.

► Marine Highway Program and Cross-Gulf Service:

The purpose of U.S. Department of Transportation's Marine Highway Program (MHP) is to "designate short sea transportation routes as extensions of the surface transportation system to focus public and private efforts to use the waterways to relieve landside congestion along coastal corridors."

The MHP covers 11 designated coastal and inland waterway corridors around the country. A Marine Highway Corridor (MHC) is defined as "A water transportation route that serves as an extension of the surface transportation system that can help mitigate congestion-related impacts along a specified land transportation route. It is identified and described in terms of the land transportation route that it supplements, and must, by transporting freight or passengers, provide measurable benefits to the surface transportation route in the form of traffic reductions, reduced emissions, energy savings, improved safety, system resiliency, and/or reduced infrastructure costs." The designation of corridors means the potential for federal funding for research, planning and infrastructure improvements along the corridors. The M-10 corridor extends from Brownsville, Texas to the West Coast of Florida, and is intended to accommodate cross-Gulf freight flows. The only current project on the M-10 is the Cross-Gulf Container Expansion Project, connecting Port Manatee with Brownsville. However, the project has struggled to reach viability.

³ Federal Register /Vol. 75, No. 68 / Friday, April 9, 2010 /Rules and Regulations, PART 393, § 393.1 (a)

⁴ Federal Register /Vol. 75, No. 68 / Friday, April 9, 2010 /Rules and Regulations, PART 393, § 393.1 (b)

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Map of Marine Highway Corridors



In 2008, Seabridge Freight launched a trans-Gulf container-on-barge service between Port Manatee and Brownsville, a distance of approximately 800 nautical miles, operating with a single 600 TEU (twenty-foot equivalent unit - container) capacity ocean-going barge. The service focused on demand for freight transportation between southern Texas and Northeast Mexico, and the U.S. Southeast, with an eastbound head haul cargo direction. The main commodities were steel coils, steel wire and rods, base organic chemicals, ceramic tile, paper rolls, gypsum board and related building products, beverages and ceramic plumbing fixtures. The backhaul westbound trade originated mainly in Florida, Georgia, South Carolina and North Carolina. Commodities included resins, department store merchandise, tires, steel products, cartons and waste paper. The service was very suitable for heavy cargo, with a capacity of up to 26 tons per container. At Port Manatee and Brownsville, the service connected with major highway and rail networks for inland transportation. Seabridge Freight terminated the service in early 2011 due to financial and market challenges, largely driven by the 2008-2009 recession.

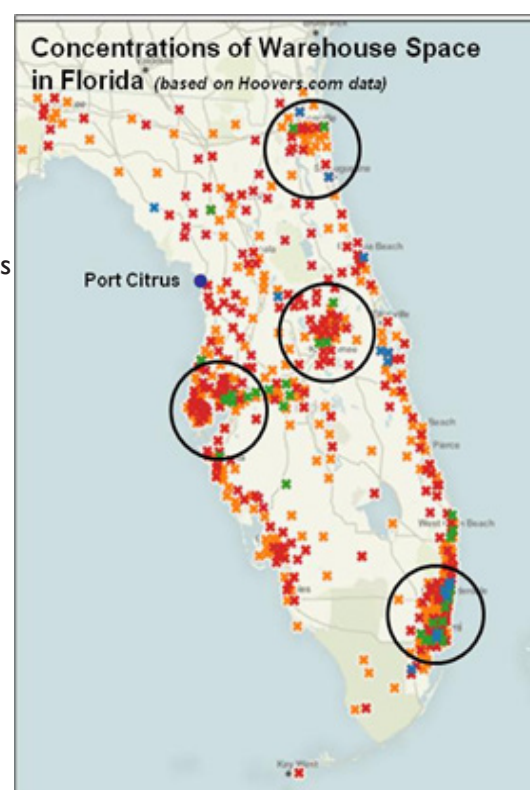
The service termination by Seabridge Freight occurred shortly after the 2010 decision by MARAD to select the "Cross Gulf Container Expansion Project", sponsored by Port Manatee and Brownsville, as suitable for grant aid. In May 2011, the two ports published a Request for Statements of Interest seeking a private sector partner to revive and expand the cross-Gulf service. Central to the expansion concept is the provision of two ocean-going barges, with greater cargo capacity than the 600 TEU barge operated by Seabridge Freight. This project remains in the development phase.

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The experiences of Seabridge Freight and Port Manatee illustrate the challenges in establishing and maintaining a cross-Gulf barge service, even for a location such as Port Manatee, which offers more competitive infrastructure (highway, rail, warehousing, etc.) and market attributes than Port Citrus. Additionally, the effort to introduce higher capacity barges illustrates the importance of large ocean-going barges to the viability of most market opportunities (as discussed further in the interview section of the market evaluation). In conclusion, given the physical and other limitations of Port Citrus, a liner-type or scheduled cross-Gulf barge service for general cargo (containerized and non-containerized) is not viewed as a viable market opportunity. However, as discussed in the interview findings, there are opportunities for niche shipments of locally sourced bulk commodities and other non-general cargo niche market sectors (e.g., over-sized project cargo).

► Warehousing and Distribution:

Warehousing and distribution activity in Florida is concentrated around three ports - Miami, Tampa, and Jacksonville – and Orlando, with additional activity around other ports in the State (e.g., Port Everglades). The state's network of intermodal logistics centers (ILC) serves the consumers and industry of Florida, both domestic shipments and international trade. The development and expansion of ILCs is viewed as important for future economic growth in Florida, alongside investment in the State's port network. Important attributes for successful ILCs are proximity to market (consumers and industry), access to multiple transportation modes (state and inter-state highways, rail, airport and seaport), available land for development and competitive labor and other costs. More recently, shippers have placed greater emphasis on locating in close proximity to rail service to minimize "last-mile" trucking costs. One example is the South Florida Logistics Center, close to Miami airport, which offers a 400-acre complex with highway and rail connectivity to Port Miami and Port Everglades.



The warehousing and distribution sector has a number of different sub-markets in terms of facility types. The following are standard building types/sectors:

- Flex – higher end properties commonly distinguished from warehouse/distribution and manufacturing facilities by high build-out of office space. Tech space and multi-stories are also common features. They are typically used for more specialized activities; for example, technical sectors.
- Warehouse/Distribution and General Industrial/Manufacturing – typically one-story and have low internal specifications with high ceiling clearance and various other building amenities, suitable storage and manufacturing activities.

While goods and investment will continue to flow to the major ILCs, it is possible for secondary locations to connect to these centers through partnerships and the carving out of niche market sectors. An example is Ocala, which is located on the I-75 corridor and less than one hour by road from Port Citrus, 100 miles from Jacksonville and Tampa. In late 2012, Ocala entered into a memorandum of understanding with the Jacksonville Port Authority to explore connecting Ocala into the port's container

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logistics network. Ocala would offer warehousing and distribution, light manufacturing and a free trade zone tied to goods moving through Jacksonville. Development would center on Ocala's Marion County Commerce Park, a 489-acre property adjacent to the I-75 and with proposals for rail connectivity to the nearby mainline railroad.

The Ocala project and other projects around Florida to develop multimodal logistics centers are designed to service the current freight market. They also address projected growth in regional freight flows, including domestic flows, driven by Florida's population and economic growth. The Freight Analysis Framework (FAF) data released by the U.S. Department of Transportation for major metropolitan statistical areas (MSA) provides guidance on the projected growth of regional freight activity. FAF data shows:

- Outbound freight by road and rail from the Tampa MSA is projected to grow at an annual average rate of 3.3 percent between 2011 and 2030. Inbound freight by road and rail to the Tampa MSA is projected to grow at an average rate of 1.9 percent. The higher growth for outbound is partly driven by Tampa's position as a gateway for import cargo.
- Outbound freight by road and rail from the Orlando MSA is projected to grow at an annual average rate of 0.8 percent between 2011 and 2030. Inbound freight by road and rail to the Orlando MSA is projected to grow at an average rate of 2.6 percent. The higher growth of inbound freight reflects Orlando's position as a major consumption market.

The successful development of Ocala would present opportunities for Port Citrus to pursue a strategy for integration of a niche barge port into the Ocala-Jacksonville corridor. Port Citrus could act as a gateway for specialty cargo, including project-type cargo, suitable for movement by shallow-draft barge. These sorts of cargo opportunities are discussed further in the section on interview findings presented later in the market analysis.

Port Citrus is viewed as having limited opportunities in the broader warehousing and distribution sector due to its capabilities compared to nearby competitors (e.g., Ocala and Tampa). Areas for concern include greater distance from major consumer and industrial centers, the absence of rail connectivity, distance from the interstate highway network, and distance from deep-draft ports.

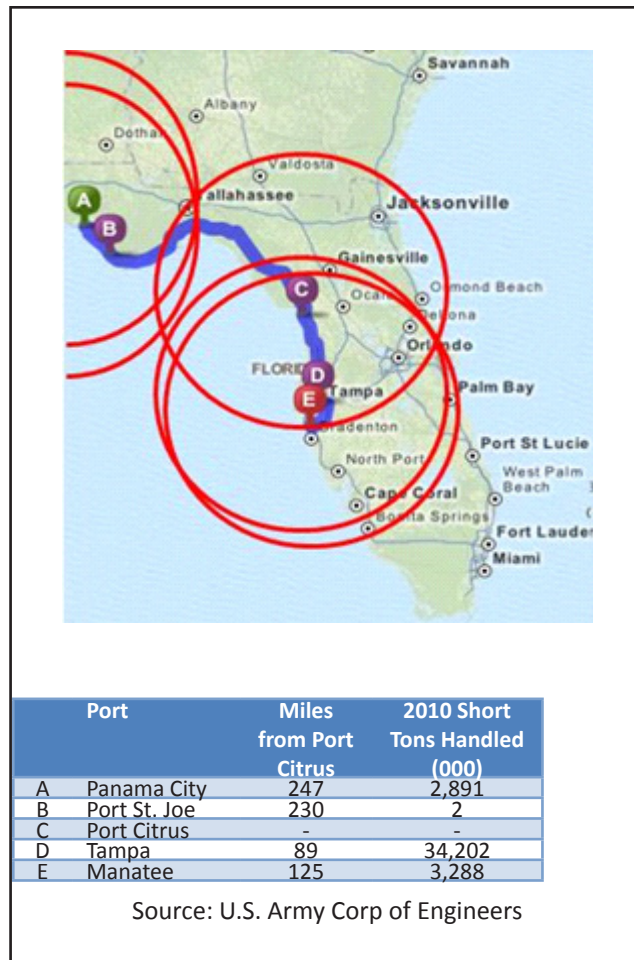
Interview Findings and Potential Market Sectors:

Given the characteristics of Port Citrus (as discussed at the start of the market evaluation), the interviews suggest that Port Citrus is most likely a niche player among Florida's Gulf Coast ports. Existing and developing ports in the vicinity of Port Citrus (e.g., Tampa) have clear and strategic advantages such as deeper draft, land and berthing for large scale port operations, rail access, and proximity to large population centers. Opportunities, however, may exist for Port Citrus serving local industry and resources, given its location near to mineral quarries, and its centralized position between the Port of Panama City to the north and Tampa to the south. This overall finding, from the interviews and research on market trends and port competition, supports preliminary market feasibility for a niche barge port, qualified by the need to satisfy the requirements of individual potential users. Deeper research into opportunities, including direct marketing to and negotiation with potential users by Port Citrus, is required to move forward with the project. This section will discuss port use ideas offered during interviews that might be suitable for Port Citrus and the criteria used to evaluate those ideas.

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► Port Citrus Service Area and Market Opportunities

Service area competition from other ports in Florida will have a direct impact on which, and how much cargo will transit Port Citrus. Interview respondents stated that the most likely inland areas served by



► **Figure 1: West Coast Florida Ports that Compete with Port Citrus**

Coast Florida ports. Certain shippers of aggregate, dolomite, wood fuel pellets and other commodities have taken advantage of their close proximity to the Barge Canal in the past. Other considerations that will be discussed below also factor into a port site selection decision, but low port delivery expenses, and nearby port locations are clearly a plus. Products that originate within or close to port boundaries, either as raw materials or as manufactured pieces, would be best positioned to take advantage of Port Citrus, as port delivery costs are eliminated or significantly minimized. Manufactured goods that require bulk raw materials might also take advantage of inbound barge shipments for delivery of these materials, thereby eliminating off-dock delivery expenses from their supply chain.

Pre-fabricated cement items, such as pavers, roof shingles, and other cement products are examples of products that might be produced at the Port. Locally sourced raw materials consist of aggregate and dolomite, which are currently moving in the area by barge (at the Progress Energy site in the case of aggregate), and by truck. Prefab cement manufacturing facilities will be evaluated using the opportunity matrix at the end of this section.

Port Citrus extend roughly within a 100 mile radius of the Port, thus mainly limiting the port to uses tied to local economic activity.

Several ports along the Florida West Coast, from the northern Port of Panama City to the Port of Manatee to the south, compete for cargo that might transit Port Citrus. Figure 1 illustrates the approximate nominal service areas of these ports. Port Citrus might be most advantageous relative to other ports shown below, for cargo originating or terminating in Northeast Florida, providing that transportation requirements discussed later in this section are met. Cargo transiting from Northeast Florida would presumably be trucked into Port Citrus due to the transit distance of less than 500 miles, which is typically the minimum mileage threshold for rail use. However, interviewees observed that the most probable market hinterland (or the hinterland with the greatest amount of opportunity), given the characteristics of Port Citrus, would primarily be within a 100 mile radius.

Port Citrus has the transportation advantage for cargo that originates or terminates closest to the port relative to other West

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Clearly, cargo originating nearest to Port Citrus maximizes the port delivery cost reduction advantages. It should be noted that port delivery cost, while important, is evaluated along with other transportation modal options (e.g., truck and rail), routes, and ports that achieve the lowest overall cost of the delivery of goods. Proximity to Port Citrus is an advantage if it fits in with shipping requirements of the entire supply chain, such as vessel draft and other requirements discussed further in this report.

Market opportunities for further investigation and marketing by Port Citrus:

1. Shippers or receivers of raw materials located within the service area that move in large shipment lots and can be accommodated on shallow-draft barges.
2. Manufacturing opportunities that can take advantage of locally sourced raw materials.

► Channel Draft Implications:

Ideally, channel depths of 20 feet or more are desirable for bulk cargo shippers who typically aim to load as much cargo as possible onto barges. Maximizing load amounts achieves economies of scale and reduces the per ton transportation cost. The 13-foot general draft of the Cross Florida Barge Canal limits the cost advantages of Port Citrus for heavy bulk cargo that requires high capacity, deep draft barges or ships. Deep water ports to the north and south of Port Citrus are more desirable locations for this cargo.

A 20-foot channel in the area just south of the Cross Florida Barge Canal is currently used for deep water barges, carrying 14,000 ton loads of coal to the Duke Energy power plant. While this canal would overcome the Cross Florida Canal draft constraint, substantial hurdles for a shared-user port on the Duke Energy Canal would have to be addressed (as discussed elsewhere in this report). For example, one central concern is security, in light of the nuclear power plant that is located on the Progress Energy site.

Not all cargo requires deep draft, and the interviews reveal examples of barge cargo that might be suitable for the port. Oversized items, such as large pieces of equipment or pre-fabricated pieces require special over-the-road arrangements, Department of Transportation (DOT) permitting, and specialized trailer equipment. Because of these requirements, barging is often the preferred transportation option. These over-high, over-wide, or over-long items are typically bulkier than they are heavy, and generally, they do not require deep draft vessels.

Another shallow-draft possibility for oversized cargo is ocean deliveries of manufactured items. An example of this type of cargo would be off-shore drilling rig supplies; although, an analysis of competing oil rig suppliers and locations of oil platforms would be required to substantiate the viability of this concept. Offshore oil rig suppliers are currently located in Louisiana, Mississippi and Texas and are closer to existing drilling platforms. Although unlikely in the near future, lifting the offshore drilling ban off Florida's coasts might prove to be a long-term opportunity for Port Citrus.

Market opportunities for further investigation and marketing by Port Citrus:

1. Oversized cargo that typically moves within the service area of Port Citrus, such as pipe, bridge trusses, and large pieces of equipment.
2. Manufactures of oversize cargo that might benefit from having barge access.

► Barge Operations:

Barge Draft

To address the draft restriction, shallow draft barges would be the primary option for Port Citrus calls. Shallow draft barges that operate on “brown water” waterways, such as the Gulf Intracoastal Waterway, and U.S. inland rivers are not eligible for operations on the open seas. However, specially designed “blue water” shallow-draft barges that are American Bureau Standard (ABS) certified are allowed to operate offshore. The drawback of these vessels is that they are more expensive to build, and the ones that do exist are in short supply. Deeper draft barges can also be “light loaded” to accommodate draft restrictions at the port, but this is not optimal.

The width of the Cross Florida Barge Canal may present another challenge for barge operations, in that a designated area is needed to “fleet” barges, that is combine or separate a group of barges. Unless additional maneuvering areas are available or developed in the key cut, barge operations would not be capable of achieving multi-barge tows in quantities (four or more barges) that are required in some cases to make barge shipment over Port Citrus competitive either with other barge ports or with rail.

Barge Feeder Example

Barge shipments of locally sourced dolomite, a soil treatment additive, have previously been moved by barge from the Cross Florida Barge Canal 125 miles south to Port Manatee, where it was stockpiled and later distributed to local farmers by truck. This practice was discontinued when the price of diesel fuel increased to the point where direct trucking from the quarry near the Canal directly to farmers became more economical than the barge and truck move. The increase in barge fuel costs, added to barge loading and unloading, material storage, and truck loading and unloading costs at Port Manatee, surpassed the cost of the one-step, direct trucking. The operation included single barge shipments of 4,000 short tons per voyage.

In the project team’s view, the circuitous route and additional cargo handling from Port Citrus to Manatee, then to farms increased the sensitivity of the operation to fuel costs in light of the availability of direct trucking to farms that were within ninety miles of Port Citrus. To be competitive with other transportation modes, barge operations must capitalize on large volume movements, while minimizing the number of hand-offs between supply-chain links in order to keep per-ton costs low. The quality of certain commodities, such as aggregate rock, is degraded as the number of hand-offs between modes increases. The additional handling tends to damage the rock, and in some cases can cause the delivered product to fail dimension specifications. Eligible barge feeder commodities must therefore be able to withstand the wear and tear of additional loading and unloading operations.

An example of a barge feeder service would be one that transports large quantities of bulk product to be stockpiled at deep draft ports, where it can be loaded on larger vessels. In this case, trucks do not have the advantage of “fewer touches” of the cargo; however, barges have the advantage of lower per ton transportation costs due to their higher cargo carrying capacity.

Market opportunities for further investigation and marketing by Port Citrus:

1. Large quantities of bulk materials moving from the Port Citrus service area to major ports, such as to the ports of Tampa or Manatee. Contact shippers to determine if stockpiling product for later loading on larger vessels is advantageous.
2. Commodities that can be stockpiled at Port Citrus for local distribution

Preliminary Feasibility Determination

► Trade Partners:

The general 13-foot draft of the barge canal is one of the primary considerations when evaluating potential markets and trade partners. In order to compete with regional ports for the Latin America markets, a deeper water port that is able to handle large vessels is a requirement. Brown-water markets, on the other hand, that have similar draft restrictions would benefit from partnering with Port Citrus, as cargo shipped between shallow draft locations increases the usefulness of shallow-barge equipment.

Locations along the Gulf Intercoastal Waterway, and even U.S. Midwestern locations along the Mississippi and other inland waterways, might be viable when considering port pairs with similar draft restrictions to Port Citrus. Brown-water barges are currently under consideration by the US Coast Guard for passage along the Florida coast from Port St. Joe past the Crystal River and onto Tampa. More research is necessary; however, an existing “inshore” route along the Florida West Coast may currently clear brown-water barges to Crystal River, according to a tug operator who participated in the survey. A note of caution here, though, is that time sensitivity of cargo deliveries and cost competitiveness with truck and rail are also factors that are considered in the decision to use barge versus other modes of transportation. Still, brown-water markets present optimal conditions for point-to-point shallow draft vessel opportunities. The U.S. Coast Guard is currently considering allowing brown-water barges to proceed from Port St. Joe to Tampa.

Market opportunities for further investigation and marketing by Port Citrus:

- I. Cargo movements between Port Citrus and the Gulf Intercoastal Waterway/U.S. inland rivers. Included in this investigation should be potential opportunities discussed earlier, such as manufactured items at the port, or locally sourced raw materials.

► Competition:

Florida has identified port development as a key to boosting economic growth in the state. The Florida Seaport Transportation and Economic Development Council (FSTED) published a plan to develop several ports in Florida, including Port Citrus.

Several established ports, such as the Tampa, Panama City, and Manatee are included in the plan. Other ports, such as Port St. Joe, and Port Citrus will have to compete with existing Florida ports. As mentioned, ports that can reduce transportation costs and improve efficiency will attract or divert cargo. Port infrastructure is therefore a critical element of ports' ability to compete.

Port draft, for example, directly impacts the size of vessels that can call at a port, which in turn impacts the cost per ton of cargo. Higher weight capacity barges lower per ton freight rates due to economies of scale that are achieved. Fifteen to twenty feet channel drafts are required to receive large ocean-going barges with 16,000 plus short ton carrying capacity. Some ocean



► **Figure 2: Charting a Course for Economic Success: The Five-Year Florida Seaport Mission Plan**

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going barges are capable of carrying 30,000 or more metric tons. New port development initiatives, such as Port St. Joe, with channel depths of 25 to 35 feet as well as direct access to the Gulf Intercoastal Waterway System, possess characteristics that are capable of handling large barges and lowering transportation costs. Port Citrus will have to compete not only with existing ports but with new deeper draft port developments as well.

► **Non-Cargo Related Port Uses:**

The principal focus of the interviews and other market research was on industrial cargo uses for Port Citrus. These uses would be required to generate the cargo traffic volume required to support full build-out of a niche barge port. Several non-cargo uses were also raised during the interviews, similar to those offered nearly thirty years ago in the 1985 “Port Citrus Feasibility Study”, such as a public marina, boat repair, or commercial fishing facilities. According to interviews, these ideas continue to hold merit for Port Citrus given the port’s position on Florida’s West Coast, available land, and channel characteristics. These non-cargo uses could be pursued in parallel with or independent of a barge port serving industrial uses. In order to advance these ideas for non-cargo uses, Port Citrus will have to prepare development and marketing strategies for each use, given their respective unique market sectors and characteristics. However, the cargo related uses discussed earlier should be viewed as higher priority as they would drive relatively larger-scale development at the proposed port site and have greater potential to positively impact the regional economy.

Port Opportunity Evaluation Criteria and Port Citrus Opportunity Matrix:

Port opportunity evaluation criteria revealed in interviews, supplemented with considerations identified by the project team’s experience, are included here to provide an evaluation framework for current and future opportunities. These help to validate and prioritize opportunities based on how well they capitalize on port advantages and contribute to development objectives. These criteria are:

- Proximity to Port Citrus – Does the opportunity take advantage of close proximity to the port?
- Shallow Draft Tolerance – What effect does the general 13 feet draft have on the opportunity?
- Trade Partner (Domestic or International) – Does the trade location have any bearing on the viability of the opportunity?
- Transportation Infrastructure – How do port, highway, rail, or air availability or capability support the opportunity?
- Economic Impact – What is the degree of increased economic activity?
- Available Resources – Are local resources, such as labor supply and utilities sufficient to support the opportunity?
- Supply Chain Cost – Will the facility reduce transportation costs?

Opportunities that are able to capitalize on advantages that Port Citrus has to offer generally are situated in close proximity to the Port and do not require a deep channel draft. Further analysis is required of all opportunities listed in the matrix; however, a combination of possible uses for Port Citrus is the most likely outcome based on interviews and a review of likely port site location candidates. Opportunities should be individually vetted by Port Citrus through detailed market analysis or case studies, including likely shipper target lists, supply chain analysis, competitive analysis of other ports, likely market areas, and direct discussions with individual target users.

Task Area One: Preliminary Feasibility Determination

Positive / Advantage								
Neutral / Status Quo								
Negative / Challenging								
Opportunity	Proximity to Port Citrus	Suitable for 13' Draft	Trade	Transportation Infrastructure	Economic Impact	Available Resources (Incl. labor supply)	Impact on Supply Chain Cost	Recommend Further Research? (Y/N)
Cement / Aggregate/ Forest Products	Sourced Locally	Need shallow draft vessels.	Could not compete with deep-water ports, but there may be "brown water" opportunities	Good highway access. Rail access desirable, but not necessary	Industry already exists, only minor growth expected	Available, trained labor force and required utilities	May reduce if currently trucking	Y
Tampa Transshipment Point for bulk cargo	On port manufacturing facilities	Draft limitation limits barge size	Once in Tampa, open to world markets	In Port Citrus, good highway access. Rail access desirable, but not necessary	Industry already exists, only minor growth expected	Available, trained labor force and required utilities	Depends on delivery distance, and competing providers	Y
Pavers, or prefab asphalt products	On port manufacturing facilities	Need shallow draft vessels	Could not compete with deep-water ports, but there may be "brown water" opportunities	Ocean access is the key	New labor demand	Available, trained labor force and required utilities	Depends on delivery distance, and competing providers	Y
Oversize Cargo	On port manufacturing facilities	Deep draft not required	Must be competitive with rail, or other deep water vessel alternatives.	Ocean access is the key	New labor demand	Labor force not yet widely established in area	Depends on delivery distance, and competing providers	Y
Off-shore service (Drilling Platforms supplies)	On port manufacturing facilities	Deep draft not required	Oil rigs closer to TX, MS, LA	Ocean access is the key	New labor demand	Labor force not yet widely established in area	Depends on distance, and competing providers	Y
FDOT Fabrication Center (cement items)	On port manufacturing facilities	Deep draft not required	Significant competition among Florida manufacturers; Some question as to aggregate strength	Ocean access is the key	Industry already exists, only minor growth expected	Available, trained labor force and required utilities	Depends on delivery distance, and competing providers	N
Central/South America Trade	On port manufacturing facilities	Shallow draft disqualifies Port Citrus	N/A	N/A	N/A	N/A	N/A	N

► Figure 3: Port Citrus Opportunity Matrix – Industrial Cargo Uses

Task Area One: Preliminary Feasibility Determination

Positive / Advantage								
Neutral / Status Quo								
Negative / Challenging								
Opportunity	Proximity to Port Citrus	Suitable for 13' Draft	Trade	Transportation Infrastructure	Economic Impact	Available Resources (Incl. labor supply)	Impact on Supply Chain Cost	Recommend Further Research? (Y/N)
Vessel/barge repair	On port manufacturing facilities	Deep draft not required	Depends on delivery distance, and competing providers	Ocean access is the key	New labor demand	Labor force not yet widely established in area	Depends on delivery distance, and competing providers	Y
Public Marina	On port manufacturing facilities	Deep draft not required	N/A	Good highway access	Minimal new labor demand	Commonly available skills	N/A	Y
Commercial Fisheries	On port manufacturing facilities	Deep draft not required	N/A	Ocean access is the key	New labor demand	Commonly available skills	N/A	Y

► **Figure 4: Port Citrus Opportunity Matrix – Non-Cargo Uses**

IV. Funding Sources, Eligibility and Application Procedures:

Funding for capital (port-related infrastructure) development, various studies, master plans and navigation enhancement generally falls within the following categories:

- ▶ State funding
- ▶ Federal funding
- ▶ Local (city or county) funding
- ▶ Self-funding (port revenues or revenue supported bonding)
- ▶ Third party or public-private partnerships (3Ps)

State Funding

Currently the most viable source of funding for Port Citrus is from the State of Florida. Funding for port-related projects, other than when included in special legislation, is contained in the Florida Department of Transportation (FDOT) annual budget and work plan.

House Bill 283 amended s. 311.09, F.S. to include a representative of Port Citrus as a member of the Florida Seaport Transportation and Economic Development Council (FSTED). The permanence of Port Citrus' membership in the FSTED Council is predicated upon the findings and presentation of this feasibility study to the FSTED Council. If the study determines that a port in Citrus County is not feasible, the membership of Port Citrus on the council shall terminate. Conversely, if feasibility is determined, membership on the FSTED council will not be altered.

FSTED funding for port projects is provided with the condition that state funds be matched at various levels of participation by the recipient (port). The cost sharing "split" (state/local) is generally:

- ▶ 50/50 for new capital infrastructure
- ▶ 75/25 for rehabilitation of existing infrastructure and intermodal projects
- ▶ 75/25 for navigation enhancement (dredging)

The majority of recurring state funding was provided in H.B. 599 (2012) which established an annual funding level of \$165 million to be administered by FDOT in consultation with the FSTED Council. The distribution of the funding is as follows:

- ▶ \$15 million to FSTED to be allocated to the Florida ports
- ▶ \$35 million to strategic port infrastructure
- ▶ \$5 million to ILC planning and development
- ▶ \$10 million for debt service for new bond financing of specific port capital improvements in the Department's Work Plan
- ▶ \$100 million for supportive infrastructure such as Intermodal Container Transfer Facilities (ICTFs), connecting roads and interchanges.

This year's legislative session (2013) fully funded the FDOT State Transportation Budget with \$284 million for the Florida ports. The budget allocation is primarily divided into three major areas: SIS, F.S. 311.07, and bond funding that will generate between \$150 and \$180 million for use by the ports. It is anticipated that Jacksonville, Everglades (Ft. Lauderdale), Miami and Tampa will each receive \$20 to \$30 million with the remainder available to the smaller Florida ports.

Preliminary Feasibility Determination

FDOT has other applicable sources of funding for port-related projects that can be appropriated at FDOT's discretion for planning, growth management and the Strategic Intermodal System (SIS) programs. The State has recognized that a multifaceted funding program is a key element to achieving the objectives of Florida's seaport system. While seaports are largely self-funding through their revenue streams, they look for funding partners, typically on a cost sharing or matching basis. There are a variety of funding sources available for specific categories of projects. Eligibility for these various sources is determined by application requirements, most of which focus on project purpose. At state level these sources include:

- ▶ **FSTED:** FSTED is the primary state seaport funding program for on-port investments. The program was created by statute and provides funding on an annual basis to Florida's ports. Projects must be consistent with a Port's Master Plan, the Florida Transportation Plan and the state's economic and land use goals.
- ▶ **Strategic Intermodal System (SIS):** The SIS was adopted in 2003 and allowed Florida to focus on investment in the development of a statewide network of high-priority transportation facilities vital to Florida's economy and quality of life. Eleven Florida ports are designated as SIS facilities, Emerging SIS or Planned Emerging SIS facilities. SIS funding is programmed over a five year period and is used for capital improvement projects enhancing multimodal connectivity and accessibility through highway, rail and aviation connections as well as port capacity projects. Depending upon the nature of the projects, funding is generally on a 50/50 or 75/25 basis.
- ▶ **State Infrastructure Bank (SIB):** The SIB is a revolving loan and credit enhancement program consisting of two separate accounts. The federally funded SIB account is capitalized by federal funds matched by state funds, as required by law. The state funded SIB account is capitalized by bond proceeds and state funding only. SIB participation from the state funded SIB account is limited to transportation facility projects that are on the State Highway System or that provide for increased mobility on the State's transportation system in accordance with Section 399.55, Florida Statutes or provide for intermodal connectivity with airports, seaports, rail facilities, transportation terminals and other intermodal options for increased accessibility and movement of people, cargo and freight.
- ▶ **FDOT District Intermodal Funds:** District discretionary intermodal funds are eligible for port-related incentives. Districts have used intermodal funds primarily to support intermodal connectivity projects. These funds can also be used, at the District's discretion, to match port-related planning studies, normally on a 50/50 basis. Several FL ports have made use of this program.

A detailed description of the grant funding application process for FDOT funding options for seaports can be found in Chapter 311, Florida Statutes. Generally the procedure is as follows:

1. As members of the FSTED Council, ports individually submit, through FDOT's online SeaCIP Program, project applications for which they are seeking state funding. In order to comply with FDOT's Annual Work Program cycle, applications are typically submitted by August 1. Initially, the applications are reviewed for completeness by FSTED Council staff (FL Ports Council). Once determined as complete, SeaCIP project applications are electronically submitted to FSTED partners (FDOT and both the planning and economic development divisions of DEO) for consistency reviews – a 45 day process. (A FL Administrative Rule applies to this process)
2. In late September to early October, the FSTED Council meets to approve a list of FSTED projects that are consistent with statutory criteria and to prioritize projects for a recommended level of funding.

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3. In October, FDOT incorporates the list of approved projects with specified FSTED program funding levels into its work program for budget development.
4. At the same time, FDOT includes all other seaport projects, funded from other FDOT funding sources, into the development of its work program for funding during that fiscal year. FDOT may require seaports to submit some of these projects into the online SeaCIP program, as well. However, these projects will not be reviewed by the FSTED Council.
5. Between #1 and #2 (above), FDOT, the FL ports and FSTED Council staff meet to prioritize the FSTED Program projects as well as some additional projects. They will recommend a specific funding allocation to each project based upon the seaport-related funding available in the FDOT budget.
6. The FDOT Work Program is approved by the State Legislature for funding in the current fiscal year. Funds for the work program become available after July 1, the start of the state's fiscal year.
7. Following Legislative approval, Joint Participation Agreements (JPAs) are executed between the seaports (local government) and the FDOT for capital projects that are to receive funding.

There are provisions within the FSTED process for the inclusion of emergency or much-needed port projects that did not get submitted in due course on August 1. Additionally, FDOT is requesting that FSTED member ports use the SeaCIP to create a base of unconstrained projects for several years into the future. Ports can enter ALL of their "needed" projects so that FDOT has a list to draw from as funding becomes available. The creation of this data base expedites the formal application process and assists the Department in development of planning documents for the SIS, the freight Plan and the Seaport Plan.

Federal Funding:

Availability of federal funding for port infrastructure and navigation projects has been steadily decreasing over the past decade as a result of several factors:

- ▶ Diversion of federal funds from infrastructure enhancement to security-related projects and equipment acquisitions
- ▶ Continued diversion of the funds in the Harbor Maintenance Trust Fund (HMTF) to non-port related uses, though recent legislation in WRDA 13 - HMTF Act of 2013 will direct the gradual increase of funding until full use of the HMTF is achieved in 2020, i.e. all funds collected will be used for the intended purpose of harbor maintenance,
- ▶ Greatly increased competitiveness among ports for limited federal funding
- ▶ Stagnation in the level of appropriations for port related projects (new work)

Nevertheless, the major avenues for federal funding for port infrastructure are:

- ▶ **U.S. Army Corps of Engineers (USACE):** The Corps of Engineers is a federal agency that develops, plans, designs and manages commercial navigation, flood control and ecosystem restoration projects. Federal funding for such projects is appropriated by Congress, based upon extensive study and economic justification, and administered by USACE. In addition to new projects USACE is responsible for the maintenance of navigable waterways and performs maintenance dredging of waterways that are designated as federal channels. Funding for such maintenance activities comes from the Corps' annual Operations and Maintenance Budget.

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The FY 14 USACE Budget requests \$4.826 billion in gross discretionary funding with \$1.35 billion for construction; \$2.588 billion for Operations and Maintenance (O&M); \$90 million for investigations such as studies to determine project need, engineering feasibility, economic and environmental return, preconstruction engineering and design, data collection, interagency coordination and research. The remainder of the budget request is for flood control programs and projects, the regulatory program, cleaning up former atomic weapons development sites, and general office operating expenses.

Florida navigation projects (new work) and the maintenance of federally designated navigation channels (O&M) are performed by the Jacksonville District of the South Atlantic Division of the U.S. Army Corps of Engineers. The FY 14 O&M budget for the Jacksonville District is \$57.9 million.

The Cross Florida Barge Canal is not currently designated as a federal channel and is therefore not included in the Jacksonville District's O&M budget for periodic maintenance.

- ▶ **America's Marine Highway Program:** The Marine Highway Program was fully implemented in April 2010. In August 2010 the U.S. Department of Transportation (DoT) Secretary identified 18 marine corridors, 8 projects and 6 initiatives for further development. \$7 million was made available by the Maritime Administration (MARAD), and grants were made through a highly competitive process. Funding is obviously very limited; nevertheless, Florida is part of two marine highway corridors (M-95 and M-10), two projects (Gulf Atlantic Marine Highway Project and Cross Gulf Container Expansion Project) and one initiative (East Coast Marine Highway Initiative).
- ▶ **Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants Program I – V:** There have been four iterations or "Rounds" of this program. Thus far \$3.1 Billion have been awarded to 218 port projects. Currently applications are being reviewed and evaluated for Round V. There are 568 applicants, and the total requested is \$9 Billion. Available grant funding is \$474 Million for 2013. The program was established to focus on funding for mobility improvements across a broad spectrum of transportation. TIGER I provided \$1.5 billion, but no Florida projects were awarded any grant funding. TIGER II provided \$600 million, again through an extremely competitive grant application and award process but differed from the shovel-ready focus of TIGER I. TIGER II concentrated on more long-term outcomes. Port Miami received \$22 million to restore and upgrade rail service between the Port's container terminals on Dodge Island and the FEC's Hialeah Rail Yard and Port Manatee received \$9 million to construct a 32 acre container terminal and expand the Port's cargo storage capacity. TIGER III and TIGER IV were funded at the \$500 to \$600 million level and TIGER III allowed planning projects. The major Florida port recipient was JaxPort, receiving \$10 million on a \$20 million request for the development of an intermodal container transfer facility (ICTF). No Florida ports received funding in TIGER IV. Currently, the application process is underway for TIGER V.

After four rounds of the TIGER grant process, the common elements of applications that received funding are: projects that have significant regional benefits, involve multiple modes of transportation and are accompanied by substantial local funding commitments.

- ▶ **Federal Transportation Bill:** The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA – LU) was the legislation that authorized the Federal Transportation Program. Passed in 2005, it focused on: improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity and protecting the environment. SAFETEA-LU was reauthorized several times and has been replaced by Moving Ahead for Progress in the 21st Century (MAP – 21). MAP-21 does have a freight component and allows for consideration of projects other than just road projects.

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- ▶ **Port Security Grant Program (DHS):** Security grants normally follow a two-step process, with step one being the initial application submission designed for the Federal Emergency Management Agency (FEMA) to determine the grant applicant's eligibility. Step two requires the grant applicant to submit completed grant applications. In previous years, FEMA has divided eligible applicants into groups, and in 2013 FEMA delegated applicants into two groups competing for the \$93.2 million in available funds. The first group is competing for 60% of the funds and consists of eight ports that the Department of Homeland Security considers to be at highest risk and group two consists of other ports not considered in the same high risk category. As in previous years, the performance of grant funded projects will be 24 months from the time of award.
- ▶ **Department of Commerce EDA Project Program:** The Economic Development Administration administers a discretionary grant program that is designed to fund infrastructure projects in areas of the country that have regional unemployment rates that exceed the national average so long as the infrastructure funded can be shown to increase regional employment. Several Florida ports have received infrastructure funding through this program in recent years. Given the impact of the recession beginning in the 2007 – 2008 time frame and the peak unemployment rate in Citrus County of 12.9%, it appears that the EDA Project Program might prove a viable source of federal funding for Port Citrus infrastructure.

Within the parameters of a competitive grant process, all projects are evaluated to determine if they advance global competitiveness, create jobs, leverage public and private resources, can demonstrate readiness and ability to use funds quickly and effectively, and link to specific and measurable outcomes. To facilitate evaluation, EDA has established the following investment priorities:

1. **Collaborative Regional Innovation**
Initiatives that support the development and growth of innovation clusters based on existing regional competitive strengths. Initiatives must engage stakeholders; facilitate collaboration among urban, suburban, and rural (including tribal) areas; provide stability for economic development through long-term intergovernmental and public/private collaboration; and support the growth of existing and emerging industries.
2. **Public/Private Partnerships**
Investments that use both public- and private-sector resources and leverage complementary investments by other government/public entities and/or non-profits.
3. **National Strategic Priorities**
Initiatives that encourage job growth and business expansion related to advanced manufacturing; information technology (e.g., broadband, smart grid) infrastructure; communities severely impacted by automotive industry restructuring; urban waters; natural disaster mitigation and resiliency; access to capital for small, medium-sized, and ethnically diverse enterprises; and innovations in science and health care.
4. **Global Competitiveness**
Initiatives that support high-growth businesses and innovation-based entrepreneurs to expand and compete in global markets, especially investments that expand U.S. exports, encourage foreign direct investment, and promote the repatriation of jobs back to the U.S.

5. Environmentally-Sustainable Development

Investments that promote job creation and economic prosperity through projects that enhance environmental quality and develop and implement green products, processes, places, and buildings as part of the green economy. This includes support for energy-efficient green technologies.

6. Economically Distressed and Under-served Communities

Investments that strengthen diverse communities that have suffered disproportionate economic job losses and/or are rebuilding to become more competitive in the global economy.

Other Funding Sources:

“Port Cash” and Revenue-backed Bond Funding: Established ports that have significant revenue streams from existing port operations will often fund smaller infrastructure projects in their capital improvement programs or major maintenance programs out of retained earnings or “port cash.” Ports will seldom make major investments from retained earnings and instead raise capital funds by bonding a portion of their future revenue stream. Such bond funding requires very clear definition of the supporting revenue stream, strong evidence of its continuation to provide debt service throughout the life of the bond and a strong bond rating issued by the bond rating agencies - Standard & Poor’s, Moody’s and Fitch.

- ▶ Public-Private-Partnerships: In the past decade, public ports, nationwide, have sought private sector investment as a means of completing aggressive capital development programs to address significant market expansion opportunities when they have either approached the limit or exceeded their bonding capacity. 3-Ps or public-private-partnerships follow no set pattern and will be developed individually to accommodate the specific situational conditions.

Private sector participants include major marine terminal operators like TRAPAC (Mitsui OSK), Hanjin, APM (Maersk Lines), Dubai Ports World and Ports America; major stevedoring companies; industrial suite developers like CenterPoint; cargo processors and distributors and etc. The partnership normally includes the long-term lease of the port’s property to the private sector partner to allow for amortization of the private investment in port infrastructure.

The Jacksonville Port Authority’s partnership with TRAPAC – the terminal operator for Mitsui OSK, is an example of a typical 3-P. TRAPAC invested and/or borrowed \$195 million for the construction of a 158 acre post-Panamax capable container terminal with two 1200 foot berths and provided the six post-Panamax 100’ gauge gantry container cranes and six rubber-tired gantry cranes for terminal container yard operations. JaxPort entered into a 30 year lease and operating agreement with TRAPAC for the terminal. Low container throughput rates (charges) were reflective of the tremendous investment made by TRAPAC. The real benefit to the port was the entrance into the Asian trade lane which previously not been one in which JaxPort had any real presence.

V. Conclusions and Recommendations:

Of all the many factors that influence the feasibility of the viable development of a commercial port operation in Citrus County, we believe there are three that are most influential and will ultimately determine the feasibility of this undertaking. These three factors are:

- ▶ Viable port location
- ▶ Market opportunities
- ▶ Available sources of funding

While there are numerous other significant factors such as enabling legislation, the establishment of a board of directors and port staff with an appropriate dedication of local resources, the development of a viable commercial port operation must have location, market and funding. It is our conclusion, given our findings as they pertain to the three critical factors, there is sufficient likelihood of determining feasibility for the development of Port Citrus and advising the Port Board of the conclusion of Task Area 2.

1. Location: TranSystems investigated three potential locations for the establishment of Port Citrus and found that Hollinswood Harbor is the most feasible site. From the perspectives of availability of the site, sufficient area, proximity to the Barge Canal, availability of utilities, proximity to ground transportation infrastructure, existing port infrastructure, compatibility of use (County Comp Plan) and apparent absence of insurmountable environmental or legal impediments, we believe that there is a feasible port location on the Hollinswood Harbor property.
2. Market: The project team's macro market research supports preliminary market feasibility for a niche barge port serving primarily local opportunities within a reasonable truck distance of the proposed port site. This principal finding is based on evaluation of market trends and interviews with prospective users, in the context of the physical and operating characteristics of the Barge Canal and proposed port location. The overall market finding is qualified by the requirement to satisfy the specific needs of individual potential users. The ability of a port facility to address shippers' unique requirements is often the deciding port selection criterion.

Ports need to capitalize on geographic advantages in order to attract business. Examples of geographic advantages are a location in closest proximity to large population or manufacturing centers or areas that export large quantities of agricultural or mineral products. Ports that reduce supply chain costs or improve efficiency are favored. Other existing and developing ports on Florida's West Coast have clear advantages over Port Citrus, such as deeper port drafts or closer proximity to large population centers. Port Citrus will be evaluated by potential users using these same criteria. The characteristics of Port Citrus and the presence of established ports limit opportunities to local users and resources.

Deeper research into opportunities, including direct marketing to and negotiation with potential users by Port Citrus, will be required to move forward with the project. The following principal opportunities for an industrial barge port were identified during interviews:

- ▶ Strategic Logistics Chains
 - Integration with the proposed Ocala inland port and its developing connection with the Port of Jacksonville.
 - Integration with the Tampa/Port Manatee port logistics system.

- ▶ Local Resources
 - Shippers or receivers of raw materials located within the service area that move in large shipment lots and can be accommodated on shallow-draft barges.
 - Manufacturing opportunities that can take advantage of locally sourced raw materials.
 - ▶ Oversized or Project Cargo
 - Oversized cargo that typically moves within the service area of Port Citrus, such as pipe, bridge trusses, and large pieces of equipment.
 - Manufactures of oversize cargo that might benefit from having barge access.
 - ▶ Port Feeder Operations
 - Large quantities of bulk materials moving from the Port Citrus service area to major ports, such as to the Ports of Tampa or Manatee. Contact shippers to determine if stockpiling product for later loading on larger vessels is advantageous.
 - Commodities that can be stockpiled at Port Citrus for local distribution.
 - ▶ Gulf Intracoastal Waterway
 - Evaluate possible cargo between Port Citrus and the Gulf Intracoastal Waterway/US inland rivers, including the potential opportunities discussed above.
3. Funding: Ports have multiple sources for funding various capital development initiatives, ranging from self-funding, 3-Ps, bond financing, the federal government, the state, to local government sources. As public ports develop and become more established in various commercial operations, the different avenues for funding increase. Therefore, for a port in its early stages of establishment, the sources of funding are more limited. As has been previously discussed in Section IV of this report, self-funding from bond proceeds that are supported by established revenue streams is not feasible nor are such federal programs like navigation enhancement projects or federal channel maintenance performed by the Corps of Engineers. Nevertheless, there are still several federal programs that hold promise, most notably the EDA grant program under the Department of Commerce and the TIGER grant program under the DoT.

The most fertile ground for grant funding and loans from the infrastructure bank are at the state level. Among the states that have ocean and inland ports, Florida is an anomaly when it comes to funding its ports. Few other states have recognized the extent to which their ports act as regional economic engines and the rate of return on funds invested in port infrastructure. This realization can be readily seen in HB 599 and this year's funding level at \$284 million.

The inclusion of Port Citrus as a member of the Florida Ports Council and FSTED opened the "door" for eligibility for FDOT funding for a broad spectrum of port-related studies and infrastructure development projects. We believe that Port Citrus is in a favorable position to receive port development funding, more so than at any other period in the past decade, as the current gubernatorial administration and the State Legislature fully appreciate the importance of the State's ports to the recovery and sustainment of Florida's economy.

Not since 1999 has there been any new state supported bond funding for the Florida ports, and with last year's passage of HB 599 supported by this year's appropriation of \$284 million and the state supported bond that will soon provide the ports with between \$150 and \$180 million for capital projects and studies, this is the best of times to be requesting state funding for the development of Port Citrus.

FSTED committed to support this feasibility study in 2011, and there is already a “placeholder” in the FDOT budget and Work Program that will support a master planning effort. Clearly, FSTED and the Florida Ports Council are sanguine about the development of Port Citrus, and generally, the feeling amongst the Council members and staff is that there is a definite and viable niche for Port Citrus. Assuming a finding of feasibility and the development of an implementable master plan, we believe that Port Citrus can and will receive critical state funding for both planning and capital infrastructure development.

Conclusion:

Preliminary feasibility for the development of Port Citrus is evident, based upon the availability of a viable location along the Cross Florida Barge Canal for the port, the availability and applicability of some potential federal funding, albeit it limited, the significant funding for port planning and development at the State level through FSTED and FDOT and the identification of a barge market that would fit the operating parameters of a barge port on the Cross Florida Barge Canal in Citrus County.

The 1985 feasibility study established the criteria for the physical location of the port and those characteristics are valid today. What has changed in the past three decades are an improved industrial demand for barge-carried cargo service, the availability of external funding from the State, the federal government and possibly private investors and the new, more appropriate location for the port's development.

In the second phase of the feasibility study, TranSystems will build upon the research and conclusions of Phase I to help Port Citrus identify market targets, further explore market risks and develop a marketing strategy. Areas for consideration include: the trade lanes, carriers, terminal operators, potential third party investors, commodities and viable operating plans. Non-cargo and recreation opportunities will be further identified, explored and evaluated. The conclusions drawn from this effort will form the basis of the Port's marketing strategy.

The marketing strategy, in conjunction with a plan for the funding of port planning and development from the multiple sources previously described, will drive our formulation of a plan for the sequenced development of specific port infrastructure to establish and grow the Port's business(es).

In summation, the TranSystems team finds, at this stage, that there is preliminary feasibility for the development of Port Citrus on the Hollinswood Harbor site. Task Area 2 will further explore risks and define the marketing strategy by identifying the highest potential operators, tenants and third party investors. We will develop a specific funding strategy to access available funding from all identified sources. TranSystems will prepare the plan for the sequenced development of port infrastructure that will accommodate initial demand and provide the incentives to expand the business, while relying heavily upon the availability of external funding.