TRIUMPH GULF COAST, INC. PRE-SCREENING FORM

The ESCAMBIA COUNTY BOARD OF COUNTY COMMISSIONERS approved the Northwest Center for Dynamic Ocean Technologies - Port of Pensacola Warehouse 4 as one of five priority projects for Triumph first round submittal. The Escambia County BCC will provide a letter of support pending Triumph pre-application review and development of a full application.

APPLICANT INFORMATION:

Name of Individual/Entity/ Organization: City of Pensacola
Description of Background of Individual/Entity/Organization: Northwest Center for Dynamic Ocean Technologies (CDOT), Port of Pensacola Warehouse 4

Contact Information:

Primary Contact Information: Keith Wilkins
Title: Assistant City Administrator
Mailing Address: City Hall, Office of the Mayor, 222 West Main Street, Pensacola, FL 32502
Telephone Number: 850-436-5627
Email Address: kwilkins@cityofpensacola.com
Website: www.cityofpensacola.com

Co-applicants/partners:
Florida Institute for Human and Machine Cognition (IHMC)
University of West Florida (UWF)
Florida Fish and Wildlife Conservation Commission (FWC)
Pensacola and Perdido Bays Estuary Program (PPBEP)
Escambia County Board of County Commissioners
Cobalt Intelligence LLC
Pensacola Bay Oyster Company
Pensacola State College (PSC)
Naval Surface Warfare Center (NSWC)
Naval Experimental Dive Unit (NEDU)
Air Force Research Laboratory (AFRL)
Visit Pensacola

EXECUTIVE SUMMARY:

Proposed Project

(i) **Amount of funds being sought from Triumph Gulf Coast:** $15,000,000

(ii) Amount and identity of other sources of funds for the proposed project or program:

City of Pensacola (Warehouse and Land)	$2,000,000
Pensacola and Perdido Bays Estuary Program and Escambia Co.	$2,000,000
Cobalt Intelligence LLC (Private Partner):	$2,473,000
IHMC (In-kind project administration; project management):	$ 494,000
Naval Surface Warfare Center (Donation 6 unmanned surface and subsurface vehicles):	$ 600,000
Pensacola Bay Oyster Company (Equipment, boats, aquaculture):	$ 245,000
Escambia County Natural Resources Management Dept (In-kind)	$ 200,000

(iii) Location of the project or program: Warehouse 4 Port of Pensacola, City of Pensacola, Escambia County

(iv) Summary description of the proposed project or program including how it will be transformational and promote economic recovery, diversification and enhance the disproportionately affected counties:

Warehouse 4 is an approximately 43,000 sq. ft. bulk and raw materials storage warehouse at the City-owned Port of Pensacola. The warehouse will be repurposed and renovated to accommodate research space, classrooms, laboratories, manufacturing areas, storage and offices in modern recycled containers for mobility, flexibility and reusable workspace. Building renovations will be made to remove old asbestos materials, bulk storage dust and replace the roof to house the modern workplace improvements. A research vessel dockage and dry storage facility will be constructed to facilitate ocean research and commercial technologies. IHMC, UWF, and FWC will partner to deliver ocean technology research, product development, educational programming, and advanced manufacturing to commercialize research innovations and bring products to market. A private investment group, Cobalt Intelligence LLC, has formed and committed $2,000,000 to commercialize ocean technologies developed from the Center into spin off business entities in Northwest Florida, as well as an additional $248,000 in an initial artificial reef project, and $225,000 for a Director of Commercialization. The Pensacola Bay Oyster Company has committed aquaculture, boats and equipment resources. In addition, the NSWC and NEDU in Bay County and the AFRL in Okaloosa County have all committed to partnering with this Center by donating resources, creating educational programs and developing and testing technology.

The Center for Dynamic Ocean Technologies (CDOT or the Center), to be housed at Warehouse Building 4, will consist of this network of partners focused on technology-driven research, education, and economic development activity to transform how we measure, respond, produce, manage and travel across our coastal areas. The network of technologists, scientists, educators and entrepreneurs will focus their expertise on engineering/R&D, education and economic development to catalyze the Pensacola Bay area waterways. This program will transform Northwest Florida's coast and its ocean resources through cutting edge research, educational programs and spin off technologies that grow local businesses and enable the Pensacola port to grow its own "ocean business". Much of the growth in the coasts and the problems and opportunities in the marine environment will need to be resolved by the application of complex and cost-effective automation technology and teaming such technology with humans for maximum effectiveness and benefit. This partnership network of IHMC, UWF, FWC, PSC, City, County, Military and private partners is well poised to deliver lasting and sustainable results. The public infrastructure improvements to Warehouse 4 are necessary to ready this port facility to accommodate the partners, and jumpstart this economic development and community initiative.

The Deep-Water Horizon event significantly impacted the number of visitors to Northwest Florida. The reduced number of visitors and tourists were driven by perception of persistence of oil in the waterways which impacted the regional economy. Creating a state of the art measurement for water quality is key to prevent a similar event in the future. Other sectors benefiting from an adaptive subsea sentinel and response capability include: fisheries, military, environmental science, oil & gas processing, tourism and waterway transportation. The next major development in management of the oceans and waterways will be a vast increase in the number and sophistication of instruments, sensors and automated

systems that can measure, respond and control ocean activities, resources, and processes, for clean, "smart", and economically productive waterways. This ocean automation needs to interact with humans and provide maximum benefit to the community. The CDOT will target Advanced Industries and R&D in the areas of Robotics Automation, Artificial Intelligence, Big Data, and Human-Machine Interfaces. These R&D efforts are key skill sets that support other critical industries such as Aerospace & Defense, Cyber security, and IT and are the future of the water transportation industry. R&D in these key areas is the foundation of high tech business development and provides the opportunities necessary for developing the human talent and creativity needed to drive local innovation and entrepreneurship.

Current Needs identified to be included in CDOT research and technology development include ocean technologies adequate to test the complexity of ecosystems; ocean and coastal control mechanisms for ecosystems, climate dynamics and resilient coasts; sustainable ocean resource extraction and management of data; ocean science knowledge on the duration and intensity of processes across large spaces and long times; Automated Ocean Transportation systems, Computer Modeling and Biosensor Technology, and Molecular and Biosensor-based Research to combine biobanking, sample processing, complex data modeling, and sensor development. These needs drive the demand for innovative manned, unmanned, and human-machine ocean systems that can perform measurement, management, control and smart resource use that can aid the flow of information for management support, community information, participation, build diversity and economic resilience of coastal water assets. The Center will also focus on research innovations in aquaculture and the control of invasive species and harmful and pathogenic marine species.

This Center is envisioned as a project of compelling and national significance, where a repurposed port facility and its participating local partners (government, K to 20 education, research, military, and private sector investments) can serve as an example for how an ocean community can collaborate and marshal resources to better understand and respond to a rapidly-changing ocean climate and species shifts in the region, while creating educational opportunities from high school through graduate programs, high paying research and development jobs, spin off technologies, corporate creation and diversifying a waterfront tourist community.

Initial job creation of 25 high wage jobs through the Center will focus on research, education and technology with salaries ranging from $60,000 to $150,000. It is anticipated that this initial investment will have a multiplier effect on direct and indirect future job growth. Initial educational opportunities include high school career academies focused on marine technology, aerospace engineering, computer programming, advanced manufacturing, and will lead to internships, state college apprenticeship, certificate programs, and traditional university undergraduate and graduate degree production. In additional to world class R&D, an essential component of the Center will be talent development. UWF, PSC and IHMC impact thousands of students with STEM outreach from 3rd grade through post-doctoral internships. Through established programs of Science Saturday, Kids College, Robotics Camps, Tech Connect, Career Academy ACE, Skills USA, internships and participation in collegiate capstone projects, a workforce development ladder has helped hundreds of young people increase their STEM skills and progress to a higher employable skill level. The long-term Center objective is to create a local ladder for careers and job placement in ocean technology, including ocean engineering, programming, advanced manufacturing, undersea robotics, autonomous water vehicles, sensors, aquaculture, and marine biology. As the Center progresses and intellectual property is created, patented and commercialized, the Center will also generate local job opportunities in commercial business, supply chain logistics and sales and marketing to aid in the diversification of regional employment opportunities.

IHMC and UWF regularly secure large federal research grants to sustain their research operations and both have a history of partnering with the private sector to license and commercialize technology. IHMC to date has secured funding of over $20 million per year from various federal research agencies based on competitively issued awards and partnerships. The UWF Center for Environmental Diagnostics and Bioremediation is actively engaged in ocean research and has received major federal and state awards. The Center will be continued after the initial 2 years of funding with research grants and collaborations from agencies including NOAA, EPA, ONR, NSF, DARPA, NIST, AFRL, ARL, NASA, NAMRU and MCWL. IHMC will provide accounting, audit, reporting, and project management support for the Center.

Other significant partners are the Pensacola and Perdido Bays Estuary Program (PPBEP), Escambia County Department of Natural Resources and Marine Resources Division. They will co-locate personnel and/or operations providing support and independent research for real time data collection and analysis. The PPBEP has recently received $2 million in funding from the US Environmental Protection Agency (EPA) for a new Estuary Program that will be supported by IHMC, UWF and partners. The ability of the UWF, FWC, IHMC and Escambia County to collaborate on marine research and early restoration of natural resources in a saltwater environment is unprecedented.

Of added benefit is the addition of the two passenger ferries being funded by over $5 million in monies from the Federal Lands Transportation Project and the National Park Service. These ferries will dock adjacent to Warehouse 4 in downtown Pensacola and provide for tourist traffic to a Visit Pensacola display area in the Center, showcasing Pensacola and NW Florida for its vision in developing a marine technology incubator in the wake of a series of natural and manmade disasters. The Center further leverages more than $10 million in committed federal ferry monies and paves the way for Northwest Florida to become a leader and innovator in marine research and ocean related technologies.

The Escambia County Board of County Commissioners approved the Port of Pensacola Center for Dynamic Ocean Technologies as one of five priority projects for Triumph first round submittal.

(v) Summary timeline for the proposed project or program:

Anticipated Commencement December 2017. This project will be located at the existing, repurposed Warehouse 4 at the Port of Pensacola. The City of Pensacola has committed to removing Warehouse 4 from the secured area of the Port making the building accessible to workers, student interns and the general public without the necessity of a security clearance. The Warehouse is immediately available for the abatement and upgrades estimated at $7.5 million. The City has already commenced with an environmental assessment and developed a solicitation for abatement services. Permits, anticipated at 3 days, will be received once the abatement contract is let. The boat dock facility had previously received an Environmental Resource Permit. That permit expired when the facility was not constructed and will be reapplied. The upland portion of the project will proceed independently of the boat dock facility.

An innovative interior design concept is also currently underway using a combination of colorful shipping containers and the DIRTT Environmental Solutions Interior to transform the 43,000 square foot port warehouse into a research and educational economic game changer. This proprietary wall system integrates every phase from design through installation with pricing integral to the process, environmentally friendly high quality materials and ultimately fabrication all in the same computer program to avoid cost overruns and time delays associated with labor, contingencies and conditions. The distribution of electricity, technology and fiber is designed into the modular walls and factory installed in controlled conditions assuring the highest quality, all tested prior to arrival on site. The Design incorporates an open concept utilizing the volume and spaciousness of the warehouse interior with the repurposed shipping containers modified with glass walls to bring in light and connecting containers both horizontally and vertically for large open collaborative spaces for research, advanced manufacturing, classrooms, offices and tourist observation areas.

The result in six months from project start will be the home of a collaborative center for dynamic ocean technologies at the Port of Pensacola bringing together academia, industry, military, and commercial investors to foster innovation and entrepreneurship around the coastal environment. The Center, utilizing the remaining $7.5 million matched with $7.5 million of local investment will provide a transformative hub that enables new connections of people, organizations and assets in a uniquely relevant industry cluster. It provides expanded research opportunities in ocean technologies and closer collaboration with existing k-12 educational programs, while fostering a tighter connection to regional military partners along the Northwest Florida coast. Finally, the project will enhance the diversification of the region with the creation and growth of unique businesses arising from spin off technologies developed at the Center and leveraged with private and local investment.