NEW YORK CITY ECONOMIC DEVELOPMENT CORPORATION
STANDARD FORM OF AMENDMENT OF CONSULTANT CONTRACT

This is an amendment to the Contract entered into by New York City Economic Development Corporation (NYCEDC), a local development corporation organized pursuant to Section 1411 of the Not-for-Profit Corporation Law of the State of New York, having an office at 110 William Street, New York, New York 10038, and the Consultant:

Consultant's Name:	**Ocean and Coastal Consultants Engineering, PC**				
Address:	35 Corporate Drive, Ste 1200 Trumbull CT 06611				
Contract No:	59260001	**Contract Date:**	3/05/2015	**Project No:**	5926
Project Name:	Citywide Waterfront Mapping				
Type of Services:	Engineering Services				

A copy of the Contract and copies of any and all prior amendments are attached hereto as Exhibit A.

The Contract is hereby amended as follows:

Amendment No:	1	**Effective Date:**	July 7, 2015

TYPE OF AMENDMENT

☐ Extension of Term	Extension Date:		
☒ Increase in Maximum Contract Price		Original Maximum Contract Price	$ $843,000.00
		Total Prior Increases	$ 0.00
		Amount of Current Increase	$ 259,421.00
		Revised Maximum Contract Price	$ 1,102,421.00

☒ Amended Scope of Services - See attached Exhibit B

☒ Other (as described below) See attached Exhibit C - Amended and Restated Payment Schedule

NYCEDC Executive Committee Approval Date:	**8/05/2015**

Capitalized terms used herein shall have the meanings set forth in the Contract, as previously amended, unless otherwise defined herein. Except as provided herein and in the pages attached hereto, if any, all terms and conditions of the Contract, as previously amended, remain unchanged and in full force and effect.

CONSULTANT'S NAME: Ocean and Coastal Consultants Engineering, PC		**NEW YORK CITY ECONOMIC DEVELOPMENT CORPORATION**	
By:	Stephen A. Famularo	**By:**	
Printed Name:	Stephen A. Famularo	**Printed Name:**	Richard A. COTE
Title:	Vice President	**Title:**	Executive Vice President
Date Signed:	August 20, 2015	**Date Signed:**	September 17, 2015

EXHIBITA

THE CONTRACT

INCORPORATED BY REFERENCE

EXHIBIT B

AMENDED AND RESTATED SCOPE OF SERVICES

The Scope of Services (Appendix B) of the Contract is hereby amended (adding a new Task 5) and restated as follows:

I. DEFINITIONS

All definitions set forth in the Contract to which this Appendix B is attached shall have the same meaning herein unless otherwise defined or the context otherwise requires. The singular shall include the plural and vice versa as the context may dictate. The gender used in this Scope of Services shall be deemed to refer to the masculine, feminine, or neuter gender, as the context or the identity of the persons being referred to may require. The captions in this Scope of Services are inserted for convenience of reference only and in no way define, describe or limit the scope or intent of this Scope of Services or any of the provisions hereof.

"Allowable Additional Costs" as utilized to determine costs of providing this Scope of Services is defined herein to mean: Costs of out-of-pocket-expenses which may include the cost of purchasing project-related industry data, printing, special mailings (such as overnight delivery and messenger services), Services-related long distance telephone and facsimile charges, and any other out-of-pocket expenses, approved in advance by the Director, on a direct cost basis (with no additional provisions or overhead fee). Allowable Additional Costs shall not include travel to and from the Project Site (including, without limitation, costs for use of private helicopters), meals, and those costs considered to be overhead such as normal mailing, local telephone and facsimile charges, in-house copying secretarial, clerical and typist time and the purchase of office or graphic supplies.

II. BACKGROUND

In 2001 and 2002, the Corporation undertook Phase I the mapping project to identify and map the City-owned waterfront structures in the City. Phase 1 was limited to DSBS properties and the entire shoreline of Manhattan. In 2006 and 2007, the Corporation undertook Phase II of the mapping project, which included mapping and classifying the remainder of the city-owned shorelines across the remaining four boroughs.

During this same timeframe, Bowne Management Systems Inc. was retained by the Corporation to create the NYCEDC Waterfront Facilities Maintenance Management System ("WFMMS"). This database was completed in 2011 and it houses the mapping data with an ArcGIS component, as well as a SQL database that connects the mapped facilities to waterfront inspection data.

The Consultant shall provide Services for the mapping of Phase III which includes the mapping and classification of the remainder (all non-city owned properties) of the shoreline in the four boroughs of the City. Phase III will map all of the properties that were not previously mapped. Additionally some work will be required to update data from Phase I and II.

II. SERVICES

The Consultant shall provide the following Services (including, without limitation, "Deliverables" noted below) in connection with each of the following tasks (the "Tasks", and each individually, a "Task").

Task 1 – Review Existing Data and Property Information

The Consultant shall research the construction and rehabilitation history of the structures located on the relevant shoreline through information made available by the Corporation, DSBS, and other City agencies. The Consultant shall identify structure type and material with certainty. Property descriptions and block and lot limits may be researched through, but not limited to, IPIS, tax block and lot boundaries (COGIS), the New York City Department of Finance records, aerial photographs, and additional GIS information.

All properties that were not previously mapped, border a body of water and/or are under water shall be mapped by the Consultant. Certain property information and documentation may not be available; accordingly, information and documentation may be collected from aerial photography and oblique/orthogonal photography.

See Attachment A – Phase I and II Mapping Data (ArcMap Layer) for the extent of the previous mapping efforts. The Consultant shall map all unmapped properties therein as part of the Phase III Services, including privately-owned property, state-owned property and federally-owned property.

The Consultant shall provide up to five (5) two-hour meetings at the Corporation (one for each of the five boroughs) for research review and to develop the list of properties to be mapped in consultation with the Corporation.

Task 2 – GIS Mapping and Surveying

The Consultant shall physically survey all accessible properties and digitally survey (for example, through aerial imagery, orthogonal imagery, and waterside photographs) all inaccessible (private properties) properties to be mapped, including:

- Map the remaining shoreline using a mobile DGPS system (sub-meter accuracy).
- Provide precise and detailed information regarding the limits and types of structures along the waterfront.
- Take a precise (accuracy within 3cm) elevation measurement at each street end to be mapped.
- Take representative site photographs during the investigation that are dated, geo-referenced (both location and orientation/direction and correct if necessary), and provide a general description of the property or structure in the photograph. Photos from both land (where possible) and water are required.
- Provide a written description of the water edge treatment (composition and cursory visual condition using the NYCEDC Inspection Guidelines Manual).

The Corporation and relevant City agencies shall assist the Consultant with site access. The Corporation recommends that the Consultant assesses private properties by boat to gather the requisite data.

A summary of the database fields to be gathered as well as guidance on the structure classification and condition for each property will be provided by the Corporation during the Project kickoff meetings.

The Consultant's field team that performs the surveying shall include an engineer with City waterfront engineer experience and at least one GIS field technician and/or land surveyor. Final structure confirmation (both structural type and condition) shall be completed by a NYS licensed professional engineer with at least 10 years of experience in waterfront structure design, inspection, and construction.

If necessary and permitted by the property owner, a cursory underwater inspection shall be performed to confirm any property structure type and condition. This Task may include up to 15 dive days.

The Consultant's field team shall maintain a mobile phone during surveying and mapping to directly contact the Corporation regarding any safety hazards that require immediate attention. A standard site issue letter shall be developed by the Consultant to notify the Corporation, DSBS and other appropriate agencies of hazardous properties.

The Consultant shall provide up to ten five (10) four-hour meetings at the Corporation under this Task. Additionally, the Consultant shall provide up to five (5) four-hour site visits by boat with a Corporation representative to verify and resolve any related Project issues. The Corporation may request such site visits at any time during the Project.

Task 3 – GIS Data Preparation

The Consultant shall:

- Convert all previously mapped line segments to polygons.
- Provide all maps as shape files.
- Provide the projection in NAD83 State Plane, New York Long Island Coordination System.
- Provide location and orientation corrected digital photos as well as the associated shape files identifying both location and orientation.
    - Update the NYCEDC WFMMS database to be compatible with ArcGIS 10.2. using:
        - Windows Server 2008 (32 bit)
        - ESRI ArcGIS Server
        - ESRI ArcGIS Server Web Application Development Framework (ADF)
        - Microsoft .Net Framework
        - Microsoft SQL Server 2005
        - Microsoft IIS 7
        - Dev Express tools: ASPxGridView and Editor Suite 2009, ASPxperience Suite 2009, and XtraCharts Suite

All GIS map layers and data shall be input into the existing WFMMS database. The Consultant shall provide up to ten (10) two-hour meetings at the Corporation in connection with this Task.

Task 4 – Site Limits, Grouping and Defining of Properties

Property limits may be difficult to define due to overlapping structure types and imprecise block and lot lines. A site may consist of multiple blocks and lots as well as multiple structures and structure types. The Consultant shall define the limits of any facilities and corresponding structures so that the Corporation can perform waterfront inspections with improved consistency.

The Consultant shall follow the NYCEDC Inspection Guidelines Manual (Attachment B) to identify each level requiring definition. The hierarchy used by the Corporation is defined in section 2.4.2 (page 2-13) of the NYCEDC Inspection Guidelines Manual. The Consultant shall define the boundaries of each site, the facilities within that site and the structures within that facility. The result of these limits, groupings and definitions shall have similar fields to those already established by existing inspection reports.

The Consultant shall provide up to fifteen (15) four-hour meetings with the Corporation under this Task. The Consultant shall provide the Corporation with a shape file for each level of facility hierarchy (Site, Facility, and System) as outlined in the NYCEDC Inspection Guidelines Manual which shall be delivered to the Corporation upon completion of this Task.

All shape files are provided to proposers solely for purposes of this RFP. Proposers may not use the attached data for any other purpose or project without the prior written permission of the Corporation.

Task 5 – Additional 360-degree photos, Mitigate the WFMMS to the cloud and Canton Court Rapid Inspection

The Consultant shall provide 360-degree waterside photographs of all previously mapped locations during phase I and II of the mapping project. This stretch consists of approximately 250 miles of shoreline. The Consultant shall use the same technology used in Task 2 to capture the photographs.

The Consultant shall migrate the WFMMS from the current internal hosting to the cloud. All existing data will be migrated. A test environment will be added to complement production. All WFMMS application users must be authenticated with two-factor authentication. All NYCEDC application users will be authenticated using a connection to the NYCEDC's Active Directory. User accounts for all non-NYCEDC application users will be automatically disabled after 14 days of in-activity. A configuration change management solution will be put in-place to include functionality for generating change requests, review and approval or rejection.

The Consultant shall perform a Rapid Level Inspection of a bulkhead located at the dead end street of Canton Court in Gerritsen Beach. The inspection shall follow NYCEDC's Inspection Guidelines Manual. The inspection will examine the bulkhead and supporting roadway to determine its condition, define a potential scope of work for repairs or reconstruction, and provide an estimate for recommended work. The inspection deliverable will consist of a letter report with photographs and sketches.

EXHIBIT C

AMENDED AND RESTATED PAYMENT SCHEDULE
(EXHIBIT 1.A TO APPENDIX C)

Tasks	Maximum Payment
Task 1– Review Existing Data and Property Information	**$54,000**
Task 2– GIS Mapping and Surveying	**$469,500**
Task 3– GIS Data Preparation	**$158,000**
Task 4- Site Limits, Grouping and Defining of Properties	**$62,000**
Task 5 – Additional 360-degree photos, Mitigate the WFMMS to the cloud and Canton Court Rapid Inspection	**$259,421**
Allowance (for services based on Unit Costs below):	**$ 99,500**
MAXIMUM CONTRACT PRICE	**$1,102,421**

All Allowable Additional Costs (except as noted below) are included in the cost of the Tasks.

Unit Costs

Item	Unit Price
1. Dive Crew with Boat	$4,200/day
2. Dive Crew without Boat	$3,800/day
3. Land Based Survey Team	$2,100/day
4. Boat Based Survey Team	$3,500/day