

URS Corporation Southern (URS)

**City Contact: Albert Carbon
City E.P.O. No.: TBD**

**Task Order No. 7
City of Fort Lauderdale
Proposal to provide Professional Coastal Engineering Services
Atlantic Intracoastal Waterway South Marina Dredge Project**

Scope of Consulting Services

Dated this 5 day of September, 2012

Between

The City of Fort Lauderdale, Florida

and

**URS Corporation Southern (URS)
Gary Nemeth
(561) 994-6500**

Task Order No. 7
City of Fort Lauderdale
Proposal to provide Professional Coastal Engineering Services
Atlantic ICWW Marina South Dredging Project

TASK ORDER 7
CONTINUING CONTRACT FOR COASTAL ENGINEERING SERVICES

This task order is submitted in compliance with Agreement between the City of Fort Lauderdale and URS Corporation Southern for Consultant Services approved by CCM on June 2, 2009 with Agreement dated July 28, 2009, extended and amended by the Second Extension and Amendment to Agreement dated May 1, 2012.

BACKGROUND

Herewith transmitted is the URS Corporation Southern (URS) Task Order to assist the City of Fort Lauderdale (City) with professional services related to the City of Fort Lauderdale Atlantic Intracoastal Water Way **South** Marina Dredging project (South Project) The South Marina Dredging project includes the City's Bahia Mar Yachting Center facility.

This Scope of Work includes:

1. **Permit Planning and Field Coordination** – Develop strategic plan to permit the project and mitigate for potentially unavoidable impacts to seagrass, collect field data at the dredge site and candidate mitigation sites and conduct field work in a safe and workmanlike manner.
2. **Natural Resource Field Data Collection** – Conduct and document observations of natural resource, infrastructure and conditions at each candidate (in-county and out-of-county) mitigation site to support development of the conceptual mitigation plan.
3. **Conceptual Mitigation Strategy** – Evaluate field data and identify preferred and alternate mitigation sites. Prepare conceptual level drawings, identify design and regulatory timelines, and prepare a preliminary Order-of-Magnitude Engineers Opinion of Probable Construction Cost (EOPCC).

A. SCOPE OF SERVICES

1.0 Permit Planning and Field Coordination

1.1 Permit Strategy – A **Permit Plan Strategy Document** will be developed that utilize the results of the 2011 seagrass survey and potential impacts, agency requirements and objectives, replacement values, to evaluate candidate and alternate mitigation site(s).

1.2 Health and Safety Plan – A **Health and Safety Plan** will be developed for the field data collection programs that documents field organization, field data collection efforts, field team and responsibilities including subcontractor(s), boater safety requirements, anticipated field conditions, access, diver safety, incident and near-miss reporting, first aid and

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emergency response, and onsite welfare arrangements.

1.3 Field Data Collection Plan – A **Field Data Collection Plan** will be prepared that documents field data collection objectives identify standard protocols, reporting, site and sample control and QMS (Quality Management) requirements. Site and sampling locations, sample collection techniques, observational documentation and reporting requirements and chain of custody protocols will be included.

2.0 Natural Resource Field Data Collection

2.1 Field Data Update at Dredge Sites – A visual reconnaissance/observation of the current condition of the natural resources identified previously at the proposed dredge site fronting the City’s Marine facilities will be conducted to identify any significant changes in the seagrass growth since the performance of the seagrass survey. If significant changes have occurred in the visual observation of the natural resources, recommendation and evidence through a technical memorandum will be presented to the City to justify the need for an update to the 2011 Benthic and seagrass survey.

2.2 Seagrass Survey Update – Based on the visual reconnaissance of the proposed dredge site, and City Staff acceptance, URS biologist will perform an update of the Seagrass Survey at City’s Bahia Mar Yachting Center to allow for documentation of changes in seagrass areas and densities.

2.3 In-County Mitigation Sites - URS will conduct field data collection at candidate mitigation site situated at in-county locations. Field data collection at candidate mitigation sites will include a visual reconnaissance/observations of existing natural resources, area condition and adjoining land uses, proximity of observable utilities (e.g., storm water outfalls), general bathymetric conditions; *in situ* observations and data collection activities may include water clarity (using secchi disc readings), salinity, general bathymetric conditions, substrate type and sampling and in-field general sediment characteristics (USC soil classification) and sediment depth, general observations of natural resources and limits and locations of seagrasses and other submerged resources within potential work areas at each candidate site. Collected sediment samples will be analyzed for mechanical characteristics (gradation and sieve analysis) ASTM D1140 and organic content (ASTM D2974)

2.4 Out-of-County Mitigation Sites - URS will conduct field data collection at candidate mitigation site(s) situated at out-of-county locations. Field data collection at candidate mitigation site(s) may include a visual reconnaissance/observations of existing natural resources, area condition and adjoining land uses, proximity of observable utilities (e.g., storm water outfalls), general bathymetric conditions; *in situ* observations and data collection activities may include water clarity (using secchi disc readings), salinity, general bathymetric conditions, substrate type and sampling and in-field general sediment characteristics (USC soil classification) and sediment depth, general observations of natural resources and limits and locations of seagrasses and other submerged resources within potential work areas at each candidate site. Collected sediment samples will be analyzed for mechanical characteristics (gradation and sieve analysis) ASTM D1140 and organic content (ASTM D2974)

2.5 Documentation and Reporting - A Field Summary Report will be prepared which

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documents the field observations and results of field testing at candidate mitigation site(s) for the City's South Dredging project. The Field Summary Report will be submitted to the City and discussed with City personnel.

3.0 Conceptual Mitigation Plan

Mitigation Plan – Candidate mitigation sites will be evaluated to assess capability to offset potential impacts to natural resources within the project footprint and compliance with regulatory requirements in order to identify preferred and alternate In-County and Out-of-County Mitigation site(s). A conceptual permit-level mitigation plan will be developed that includes mitigation calculations, mitigation site plan and cross sectional permit sketches detailing the mitigation plan for direct and secondary impacts for each preferred and alternate mitigation site, planting/transplanting specifications, permit-level schematics for the recipient mitigation area, and long-term monitoring plan(s) (up to 5 years typical) for the South Marina Dredging project. The mitigation plan will include a preliminary order-of-magnitude **Engineers Estimate of Probable Construction Cost (EOPCC)** for the Preferred and Alternate Mitigation Sites.

A **Draft Conceptual Mitigation Plan** will be submitted to the City for review and approval. Once approved, the document will be finalized and submitted to the relevant regulatory agencies for their review and comment. Any additional mitigation that is determined to be required following submittal of this mitigation plan will be limited to minor revisions utilizing available site information and data. No additional mitigation sites will be identified or evaluated following identification of preferred sites under this Task Order.

A **Technical Memorandum** documenting the conceptual mitigation plan will be prepared and submitted to the City.

B. DELIVERABLES

Deliverable work products associated with each task include:

1.0 Permit Planning and Field Coordination – Deliverables:

- **Permit Plan Strategy Document** – Technical Memorandum documenting potential unavoidable impact, mitigation requirements, and mitigation strategies for evaluating candidate and alternate mitigation sites.
- **Health and Safety Plan** – Technical Memorandum summarizing health and safety objectives, requirements and operational requirements associated with field data collection.
- **Field Data Collection Plan** – Technical Memorandum summarizing data collection, observation and sampling locations and protocols, field documentation requirements, equipment calibration requirements, chain of custody protocols, Quality Management requirements, subcontractor responsibilities, Statement of Work objectives.

2.0 Natural Recourse Field Data Collection – Deliverable:

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- **Field Summary Report** - report documenting field activities, site data, observation and sample collection protocol and locations, equipment calibration, including a summary of findings for each candidate mitigation site.

3.0 Conceptual Mitigation Plan –

- **Technical Memorandum** summarizing preferred and alternate mitigation sites including conceptual level drawings, regulatory timelines and order of magnitude Estimate of Engineers Probable Construction Costs.

C. RESPONSIBILITIES OF THE CITY

The City shall be responsible for:

- timely scheduling of all required meetings;
- timely, review, comment and approval on all draft work products submitted for City review and comment;
- timely notice of any unsafe, hazardous or dangerous project site conditions;
- timely notice of any changes in project or existing project site conditions;
- timely notice of any changes in project programs;
- coordination and access to project dredge footprint for field data collection activities;
- all permitting/waiver/legal fees;
- provisions for access to all city properties and sites;
- Providing proof of ownership, or other legal documents for properties owned or in the process of being acquired by the City;

D. ITEMS NOT INCLUDED

The following items are not included in this scope of professional services or Task Order:

- Dredge Design Plans and Specifications
- Dredge Material Disposal Design and Coordination;
- Excluding subtask 2.2, detailed biological inventories or assessments, including wetland delineations;
- Permit Application development and processing;
- Design efforts beyond Conceptual level for the proposed Seagrass Mitigation Site.
- Fish Inventories and/or protected resources relocation activities are not included in this Task Order.

E. ADDITIONAL SERVICES

Any professional service omitted or excluded from this scope of professional services may be provided by URS, if mutually agreed upon as to scope, schedule and compensation, and authorized in writing under the current existing agreement between the City and URS, dated July 28, 2009 and the Agreement extension and amendment dated May 1, 2012.

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F. PROJECT SCHEDULE

Milestone deliverable dates for those deliverable outlined above will be established upon notice to proceed. Individual task completion and milestone deliverable dates will be established prior to commencement of work and will be mutually agreed upon by URS and the City of Fort Lauderdale Contract Administrator prior to the onset of the work. A final completion date for this Task Order No. 7 shall be 24 weeks following URS receipt of a Notice to Proceed. This date can be modified based on mutual agreement by the City of Fort Lauderdale Contract Administrator and URS.

G. COMPENSATION SCHEDULE

It is understood that the above tasks shall be authorized by the City to be performed on a time and expense not-to-exceed basis in the amount \$139,689 in accordance with the July 28, 2009 Continuing Contract for Coastal Engineering Consultant Services agreement between the City and URS and the Agreement extension and amendment dated May 1, 2012.

A Cost Estimate identifying the cost for services for this Task Order is provided on **Figures 1 and 2**.

H. ASSUMPTIONS

1. A maximum of 5 sediment samples will be collected and gradation testing at candidate and alternate mitigation sites.
2. Project schedule assumes timely reviews and approvals by City and Regulatory Agencies.
3. Compensation and Completion Schedules are contingent upon concurrent approval by the City of both Task Order 6, and Task Order 7.



Cost Estimate - Task Order No. 7
City of Fort Lauderdale Atlantic ICWW South Marina Dredge Project

Figure 1

		Staff Classification															Total Cost	Total Labor	Total Labor Cost	Task Total		
Task No.	Task Description	Duration (days)	Vice President	Project Manager	Principal Engineer/Scientist	Senior Engineer/Scientist	Project Engineer/QAQC	Project Engineer	Project Scientist	Project Designer	Contract Admin	Staff Engineer	Staff Scientist	Tech	Clerical	CADD	Subcontractor Sea diversified	Total Cost Directs	Total Labor Hours	Total Labor Cost	Task Total	
			\$184	\$165	\$158	\$148	\$95	\$95	\$95	\$95	\$89	\$84	\$84	\$65	\$63	\$58						
1.0	PLANNING AND FIELD COORDINATION																					
1.1	Permit Plan	5	3	3	2	0	1	5	9	0	0	3	0	0	0	0	0	0	0	0	\$3,040	\$3,040
1.2	Health and Safety Plan	5	2	3	0	0	2	5	2	0	3	13	5	0	1	0	0	0	23	0	\$3,560	\$3,560
1.3	Field Data Collection Plan	5	2	3	2	0	1	6	5	2	0	7	0	3	0	5	0	0	0	0	\$3,582	\$3,582
	Subcontractor Coordination	5	2	2	0	0	1	5	3	0	3	7	0	0	3	0	0	0	19	0	\$2,597	\$2,597
	COFL - Meeting Transmit Permit Plan and Field Data Collection Plan	10	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	\$1,065	\$1,065
	Task 1.0 Subtotal		9	14	4	0	5	24	22	2	6	30	5	3	4	5	\$0	\$0	42	\$13,844	\$13,844	
2.0	NATURAL RESOURCE FIELD DATA COLLECTION																					
2.1	Field Data Collection	45																				
2.1.1	Dredge Site(s)	5																				
	Seagrass Reconnaissance/Boring Locations	2	3	3	2	0	0	5	7	5	0	5	7	7	2	3	712	51	40		\$4,741	\$5,504
	Assessment and Documentation	3	3	7	5	0	3	9	5	0	0	0	0	5	0	5	0	0	35	0	\$4,727	\$4,727
	COFL Meeting - Seagrass Reconnaissance	0	3	3	3	0	0	3	3	0	0	0	0	0	0	0	0	0	11	0	\$2,091	\$2,091
	<i>subtotal</i>		9	13	10	0	3	17	15	5	0	5	7	12	2	8	\$712	\$51	86		\$11,559	\$12,322
2.1.2	Seagrass Survey Update	10																				
	Field Survey	5	0	0	0	0	0	0	21	0	0	0	21	21	0	0	6375	255	64		\$5,124	\$11,754
	Documentation and Reporting	5	0	5	0	0	3	17	21	11	0	0	0	0	0	21	0	0	76	0	\$6,983	\$6,983
	COFL Meeting - Seagrass Survey Update	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	\$748	\$748
	<i>subtotal</i>		2	5	0	0	3	19	44	11	0	0	21	21	0	21	\$6,375	\$255	140		\$12,855	\$19,485
2.2	In County Candidate Mitigation Sites	23																				
	Natural Resources	8	1	2	3	0	0	2	25	0	0	2	25	25	0	0	4284	306	80		\$7,446	\$12,036
	Bathymetry/Sediment Grab Samples	6	1	1	0	0	1	5	0	0	0	6	0	0	0	0	8925	0	11		\$1,423	\$10,348
	Laboratory Analysis (Gradation)	5	0	1	0	0	0	1	0	0	0	0	0	0	0	0	521	0	2		\$260	\$781
	<i>subtotal</i>		2	4	3	0	1	8	25	0	0	8	25	25	0	0	\$13,730	\$306	93		\$9,129	\$23,165
2.3	Out-of-County Mitigation Sites	22																				
	Natural Resources	5	1	2	2	0	0	2	11	0	0	2	19	12	0	0	1428	102	45		\$4,609	\$6,139
	Bathymetry/Sediment Grab Samples	3	1	1	0	0	1	2	0	0	0	3	0	0	0	0	2550	0	5		\$886	\$3,436
	Laboratory Analysis (Gradation)	5	0	1	0	0	0	1	0	0	0	0	0	0	0	0	174	0	2		\$260	\$434
	<i>subtotal</i>		2	4	2	0	1	5	11	0	0	5	19	12	0	0	\$4,152	\$102	52		\$5,755	\$10,009
2.4	Documentation and Reporting	15																				
	Compilation and Assessment of Site Data	3	2	3	0	0	0	13	9	0	0	21	0	9	0	0	0	0	53	0	\$5,302	\$5,302
	Supplementary Field Reconnaissance	2	2	0	0	0	0	5	5	0	0	0	0	5	0	0	714	51	14		\$1,643	\$2,408
	Field Summary Reporting	10	5	13	0	0	0	21	5	5	0	21	0	3	0	9	0	255	76		\$8,491	\$8,746
	COFL Meeting - Transmit Field Summary Report	0	5	5	5	0	0	5	5	0	0	3	0	0	0	0	0	0	23	0	\$3,737	\$3,737
	<i>subtotal</i>		14	21	5	0	44	24	5	0	45	0	17	0	9	0	\$714	\$306	166		\$19,173	\$20,193
	Task 2.0 Subtotal		29	47	20	0	8	93	119	21	0	63	72	87	2	38	\$25,683	\$1,020	537		\$58,471	\$85,174



Cost Estimate - Task Order No. 7
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Figure 1 Cont.

		Staff Classification															Total Cost	Total Labor	Total Labor Cost	Task Total		
Task No.	Task Description	Duration (days)	Vice President	Project Manager	Principal Engineer/Scientist	Senior Engineer/Scientist	Project Engineer/QAQC	Project Engineer	Project Scientist	Project Designer	Contract Admin	Staff Engineer	Staff Scientist	Tech	Clerical	CADD	Subcontractor Sea diversified	Directs	Hours			
			\$184	\$165	\$158	\$148	\$95	\$95	\$95	\$95	\$89	\$84	\$84	\$65	\$63	\$58						
3.0	CONCEPTUAL MITIGATION PLAN																					
3.1	Conceptual Mitigation Plan	47																				
	Conceptual Mitigation Design- Primary and Alternate Sites	20	3	4	5	0	0	17	19	13	0	15	0	3	5	21	0	0	97	\$9,645	\$9,645	
	UMAM Update	2	2	3	0	0	0	0	5	0	0	3	0	5	0	0	0	0	14	\$1,915	\$1,915	
	Agency Coordination	1	2	5	9	0	0	9	9	0	0	3	0	0	2	0	0	0	33	\$4,703	\$4,703	
	Permit Sketches/Details	10	1	3	0	0	0	13	0	9	0	3	0	0	2	21	0	0	47	\$4,365	\$4,365	
	Estimate of Probable Construction Costs (EOPCC)	5	2	5	0	17	2	5	5	0	0	9	0	0	5	7	0	0	49	\$6,326	\$6,326	
	Essential Fish Habitat (EFH) Update - Final	5	0	2	0	0	0	2	5	0	0	2	0	0	2	0	0	0	9	\$1,289	\$1,289	
	Documentation and Reporting	10	3	9	0	0	0	9	9	0	0	13	0	0	5	7	0	0	49	\$5,560	\$5,560	
	QA/QC/ Design Review	1	3	2	3	0	2	5	5	0	0	0	0	0	0	0	0	0	15	\$2,496	\$2,496	
	COFL MEETING - Transmittal Draft Mitigation Plan	0	0	5	3	0	0	3	3	0	0	0	0	0	0	0	0	0	11	\$1,869	\$1,869	
	City Review and Comment	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	
	Review / Revise Mitigation Design	3	0	2	0	0	2	5	5	0	0	0	0	0	3	5	0	0	17	\$1,949	\$1,949	
	COFL Meeting - Mitigation Plan Technical Memorandum	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	\$552	\$552	
	Task 3.0 Subtotal		19	40	20	17	6	68	65	22	0	48	0	8	24	61	\$0	\$0	344	\$40,669	\$40,669	
	TASK ORDER 7 - TOTAL		57	101	44	17	19	185	206	45	6	141	77	98	30	104	\$25,685	\$1,020	923	\$112,984	\$139,689	
	<u>Assumptions:</u>																					
	1. Task Order 6 Total Cost is contingent upon concurrent approval by the City of both Task Order 6, and Task Order 7.																					
	2. Subcontractor Sea diversified Inc. will be utilized for Diver Vessel Support, and Bathymetric Survey Data Collection. Subcontractor Costs are based upon the agreed upon rates as follows																					
	2 person Topo survey Crew	Estimated Unit Rate	\$115/ day																			
	Survey Launch 1	Estimated Unit Rate	\$300/day																			
	Cadd Operator	Estimated Unit Rate	\$90/ hr																			
	2 person GPS Survey Crew	Estimated Unit Rate	\$160/hr																			
	Side Scan Sonar System	Estimated Unit Rate	\$750/ day																			
	Survey Truck	Estimated Unit Rate	\$75/ day																			
	3. Direct Costs as outlined in the above cost estimate associated with Tasks 1, 2, and 3 of this task order are estimated for diving support materials and equipment as follows:																					
	Diver Vessel Support rate of \$1400 per day =																					
	- Scuba Tank Rental and Fills	Estimated Unit Rate	\$20/person/day																			
	- Scuba Equipment	Estimated Unit Rate	\$40/person/day																			
	- Under water camera and GPS	Estimated Unit Rate	\$10/day																			
	-Material sampling equipment and testing	Estimated Unit Rate	\$200/sample																			



Subcontractor Sea Diversified - Task Order No. 7
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Figure 2

Subcontractor Cost Breakdown - Sea Diversified									
		2 person Topo survey Crew	Survey Launch 1	Cadd Operator	2 person GPS Survey Crew	Side Scan Sonar System	Survey Truck	Engineer Technician	Total
	Unit Rate	\$115 per day	\$300 per day	\$90 per hr	\$160 per hr	\$750 per day	\$75 per day	\$95 per day	
	Task								
2.1.1	Dredge Site(s)	4.1	0.6	1.0	0.0	0.0	0.0	0.0	\$714
2.1.2	Seagrass Survey Update	0.0	2.6	0.0	20.0	2.6	2.6	2.6	\$6,372
2.2	In County Candidate Mitigation Sites								
	Natural Resources	24.5	3.1	6.0	0.0	0.0	0.0	0.0	\$4,287
	Bathymetry/Sediment Grab Samples	0.0	11.1	0.0	20.0	2.6	2.6	2.6	\$8,922
	Laboratory Analysis (Gradation)	0.0	0.0	0.0	0.0	0.0	0.0	5.5	\$523
2.3	Out-of-County Mitigation Sites								
	Natural Resources	8.2	1.0	2.0	0.0	0.0	0.0	0.0	\$1,423
	Bathymetry/Sediment Grab Samples.	0.0	1.0	0.0	8.4	1.0	1.0	1.0	\$2,559
	Laboratory Analysis (Gradation)	0.0	0.0	0.0	0.0	0.0	0.0	1.8	\$171
2.4	Documentation and Reporting								
	Supplementary Field Reconnaissance	4.1	0.6	1.0	0.0	0.0	0.0	0.0	\$714
								Total	\$25,685

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URS Corporation Southern (URS)
A California Corporation Licensed to Business In the State of Florida.

By _____ Date _____
Andrew P. Schechter, P.E.
Title: Vice President

Witness print/type name

By _____ Date _____
Gary Nemeth
Title: Vice President and Principal Coastal Marine Unit

Witness print/type name

STATE OF FLORIDA:
COUNTY OF PALM BEACH:

The foregoing instrument was acknowledged before me this ____ day of _____, 20__, by Andrew P. Schechter, P.E. and _____ as _____ and _____ respectively, of URS Corporation Southern (URS) a California corporation, on behalf of the corporation. They are personally known to me and (did not) take an oath.

Notary Public, State of Florida

Name of Notary Typed, Printed or Stamped

Commission Number

(Corporate Seal)

ATTEST:

Kristin Jones, Corporate Secretary

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IN WITNESS OF THE FOREGOING, the parties have set their hands and seals the day and year first above written.

WITNESSES:

CITY OF FORT LAUDERDALE,
a municipal corporation.

Print Name

By _____
John P. "Jack" Seiler, Mayor

Print Name

By _____
Lee R. Feldman, City Manager

(SEAL)

ATTEST:

Jonda K. Joseph, City Clerk

Approved as to form:

Carrie L. Sarver, Assistant City Attorney