BLUE GOOSE CONSTRUCTION

PROPOSAL CHECKLIST

1. _____LETTER OF TRANSMITTAL (Not Included)

2. _____TECHNICAL PROPOSAL - PACKAGE NO. 1

- PART I - TECHNICAL STATEMENT - QUALIFICATIONS
- PART II – TECHNICAL STATEMENT - EXPERIENCE
- PART III – TECHNICAL STATEMENT - PROJECT APPROACH
- PART IV – TECHNICAL STATEMENT - FINANCIAL INFORMATION
- OTHER FORMS LISTED BELOW

Bidders shall execute and include the following with Package No. 1:

- Indemnification Form – Attachment K
- Anti-Kickback Affidavit – Attachment L
- Public Entity Crimes Form – Attachment M
- Non-Collusion Declaration and Compliance - Attachment N
- Florida Trench Safety Act Compliance – Attachment O
- Cone of Silence Affidavit – Attachment P
- Equal Benefits for Domestic Partners Affidavit – Attachment Q

Failure to include the above forms may result in a determination that the proposal is non-responsive.

3. _____COST PROPOSAL - PACKAGE NO. 2
(SEPARATE FROM PACKAGE NO. 1 & SEALED)

- COST PROPOSAL
- BID BOND
- PRELIMINARY SCHEDULE OF VALUES

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified **Licensed**
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC1311518560

January 28, 2017

Sue Snider
Purchasing Agent
City of Key West
1300 White Street
Key West, Fl. 33040

Re: Truman Annex NOAA Seawall RFP NO. 004-17

Dear Ms. Snider,

Thank you for the opportunity to provide a quote for this project.

After reviewing the project request for proposal documents we are confident that given the opportunity, Blue Goose Construction can provide the City of Key West with a safe and quality finished product that will satisfy all participants. Our talents that factor into this project being well suited to our company include the following:

- Unique and Difficult Projects – Blue Goose Construction's team has performed unique and difficult projects which have included dealing with unforeseen conditions and the experience of our team will react quickly to discovery of any changing project requirements and deal fairly to provide the City of Key West with a quality finished project at a fair and reasonable cost. Please feel free to talk with our past clients regarding our ability to be fair and reasonable in dealings with our clients.

- In House Resources - Blue Goose Construction will be able to tightly manage this project. The project will be completed with no major subcontractors, the use of in house resources will allow us to tightly control the project and meet the tight schedule requested. Blue Goose Construction holds four contracting license's with the State of Florida. Our construction crews will do all of the excavation, tie back system, sheet pile installation and concrete cap construction. Blue Goose Construction has a great team of individuals with related experience to draw from to insure that this project is properly planned and safely executed providing a quality finished product.

See attached information regarding our projects of a similar nature and our work plan and schedule.

Regarding safety our OSHA 300 & 300A logs are included with this submission which demonstrate our ability to work safely.

Blue Goose Growers / Construction has been in business for sixteen years prior to 2015, we were doing business as "Blue Goose Growers LLC dba Blue Goose Construction".

Most importantly, safety and quality at our worksites is of the utmost importance to us. Our daily tailgate meetings include the latest updates on safety training and a review of the day's activities and work processes taking place so everyone on the job site understands the safety and quality expectations. Our safety and quality plans are of great importance to us and are not compromised. We are proud of our accomplishments in these areas and know that it is not something that occurs on its own. It takes full time dedication to keep great safety and quality plans in place and make them effective – taking pride in the quality of our completed projects and our safety record.

Sincerely,

Scott Holmes
Vice President
Blue Goose Construction

Attachment B

Technical Proposal - Package No. 1

PACKAGE NO. 1 - TECHNICAL PROPOSAL

For Design/Build Project
TRUMAN ANNEX / NOAA SEAWALL
KEY WEST, FLORIDA
RFP 004-17

NAME OF PROPOSER: Blue Goose Construction LLC

ADDRESS OF PROPOSER: PO Box 14709 Fort Pierce FL 34979

9901 Okeechobee Road Fort Pierce FL 34945

TO: City of Key West

Gentlemen:

The signer of this affidavit guarantees the truth and accuracy of all statements and information submitted herein in support of its proposal to furnish design, furnish all materials, equipment, and labor, and to perform all work in accordance with the Request for Proposal (RFP) and in accordance with the design criteria, contract, general and supplementary conditions included within the RFP entitled "Request for Proposal for Design/Build of Truman Annex / NOAA Seawall."

The undersigned hereby authorizes and requests any public official, engineer, architect, surety company, bank depository, material or equipment manufacturer or distributor or any person, firm or corporation to furnish any pertinent information requested by the City or its representatives deemed necessary to verify the statements made, information submitted, or regarding the standing and general reputation of the applicant.

The undersigned has not been disqualified by any public agency in Florida except as is explained as follows:

N/A

The undersigned further affirms that, if false information is furnished in support of its bid proposal, it can and will be prosecuted to the fullest extent of the law for perjury.

Blue Goose Construction LLC
Name of Organization

BY: _____
Scott Holmes
Vice President
Title of Person Signing
(If Corporation, Affix Seal)

Sworn to and subscribed before
me this 28 day of February, 2017

Notary Public-State of Florida

My commission expires 6/29/19

Cecilia Rose Hein
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244905
Expires 6/29/2019

(Typed, printed, or stamped
commissioned name of notary public)

Personally known X

Or Produced identification _____
(Type of identification)

Part I – Technical Statement - Qualifications

1. Legal Name, Address, and Telephone Number:

   Blue Goose Construction LLC

   9901 Okeechobee Road Fort Pierce, FL 34945 (772)461-3020

2. Check one: ~~Corporation~~ LLC X ; Partnership _____; Individual _____

3. If a Corporation, State: Florida

   Date of Incorporation: 6/13/2014
   *(5/01/2000 previously known as Blue Goose Growers, LLC d/b/a Blue Goose Construction)

   State in which Incorporated: Florida

Name and Title of Principal Officers	Date of Assuming Position
President Richard Carnell	6/2014
Vice President Scott Holmes	6/2014
Treasurer / Secretary Jeffrey Hurwitz	6/2014

   If an Out-of-State Corporation, currently authorized to do business in Florida, give date of such authorization.

4. If Partnership:

   Date of Organization: _____

   Nature of Partnership (General, Limited, or Association):

Name and Address of Partners:	Age of Partners

5. If an Individual, State – Name and Address of Owner:

   _____

   _____

6. Enumerate State, County, or other Public Agencies in which your organization is qualified to perform work by some means of prequalification:

Agency	Trade in Which Qualified	Expiration Date	Approved Amount
St Johns River Water Management District	General Contractor Civil, Underground,Marine	See attached Licenses	N/A
South Florida Water Management District	General Contractor Civil, Underground,Marine	See attached Licenses	N/A

7. Describe your organizational structure, including the number of permanent employees engaged in cost estimating, purchasing, expediting, detailing, and architecture, engineering, field supervision, field engineering, and layout:

See attach Organizational chart

(Use extension sheet if necessary)
(Include copies of Licenses/Certifications)

8. How many years has your organization been authorized to do business in Florida? 17 years (previously as Blue Goose Growers, LLC d/b/a Blue Goose Construction)

9. Has any officer or partner of your organization ever been an officer or partner of some other organization that failed to complete a construction contract? No. If within the last five (5) years, state name of individual, other organization, and reason therefore:

10. Has any officer or partner of your organization ever failed to complete a construction contract handled in his own name? No. If within the last five (5) years, state name of individual, name of owner, and reason therefore

N/A

11. Has your organization, or any officer or partner thereof, ever been party to any criminal litigation as a result of construction methods, costs, etc? No.

If yes, state case number, case name, and provide pertinent details, including judgment:

N/A

(Attach extension sheet if necessary)

12. Has your organization, or any officer or partner thereof, ever been party to any civil litigation as result of construction methods, costs, etc? No.

If yes, state case number, case name, and provide pertinent details, including judgment:

N/A

(Attach extension sheet if necessary)

13. Provide description of Design/Build Project Team:

13a. Constructor:

Legal Name, Address, and Telephone Number:

Blue Goose Construction LLC

Check one: ~~Corporation~~ LLC X; Partnership _____; Individual _____

If a Corporation, State:

Date of Incorporation: 6/13/2014

(Previously known as Blue Goose Growers, LLC d/b/a Blue Goose Construction

State in which Incorporated: Florida

Name and Title of Principal Officers	Date of Assuming Position
President Richard M. Carnell, Jr.	6/2014
Vice President Scott Ho mes	6/2014
Treasurer / Secretary Jeffrey A. Hurwitz	6/2014

If an Out-of-State Corporation, currently authorized to do business in Florida, give date of such authorization.

If Partnership:

Date of Organization: _____

Nature of Partnership (General, Limited, or Association):

Name and Address of Partners:	Age of Partnership

13b: Designer:

Legal Name, Address, and Telephone Number:

MCR Engineers

1014 NW Pine Lake Drive Stuart FL 34994

Check one: Corporation X; Partnership _____; Individual _____

If a Corporation, State:

Date of Incorporation: _____

State in which Incorporated: Florida

Name and Title of Principal Officers	Date of Assuming Position

If an Out-of-State Corporation, currently authorized to do business in Florida, give date of such authorization.

If Partnership:

Date of Organization: _____

Nature of Partnership (General, Limited, or Association):

Name and Address of Partners:	Age of Partnership
_____	_____
_____	_____
_____	_____
_____	_____

13c: Major Subcontractor(s): There will be no Major Subcontractors.

Legal Name, Address, and Telephone Number:

_____

_____

Check one: Corporation _____; Partnership _____; Individual _____

If a Corporation, State:

Date of Incorporation: _____

State in which Incorporated: _____

Name and Title of Principal Officers	Date of Assuming Position
_____	_____
_____	_____
_____	_____

If an Out-of-State Corporation, currently authorized to do business in Florida, give date of such authorization.

If Partnership:

Date of Organization: _____

Nature of Partnership (General, Limited, or Association):

Name and Address of Partners:	Age of Partnership
_____	_____
_____	_____
_____	_____

14. List all Architects, Engineers, and Surveyors to be used for the Project. (Submit proof of license or certification.)

Name	Address	License Number
Roger Baber	1014 NW Pine Lake Drive	43855
MRC Engineers	Stuart, FL 34994	
Bryan Smith	PO Box 14709	LS6844
Blue Goose Construction LLC	Fort Pierce, FL 34979	

15. Identify Project Manager by name and state qualifications and experience:

Constructor:

Lee Corrign Project Manager See attached resume

Joe Frederickson Sr. Project Manager See attached resume

Design Firm:

Roger Baber MCR Engineers See attached resume

Major Subcontractor:

N/A

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

TECHNICAL PROPOSAL QUALIFICATIONS ADDITIONAL INFORMATION

Item # 7 – *"Describe your organizational structure, including the number if permanent employees engaged in cost estimating, purchasing, expediting, detailing, and architecture, engineering, field supervision, field engineering and layout".*

See the attached project organizational chart which depicts our structure. Our project manager will be on site with a senior project manager having oversight for the project. Additionally the operations manager will approve all work plans.

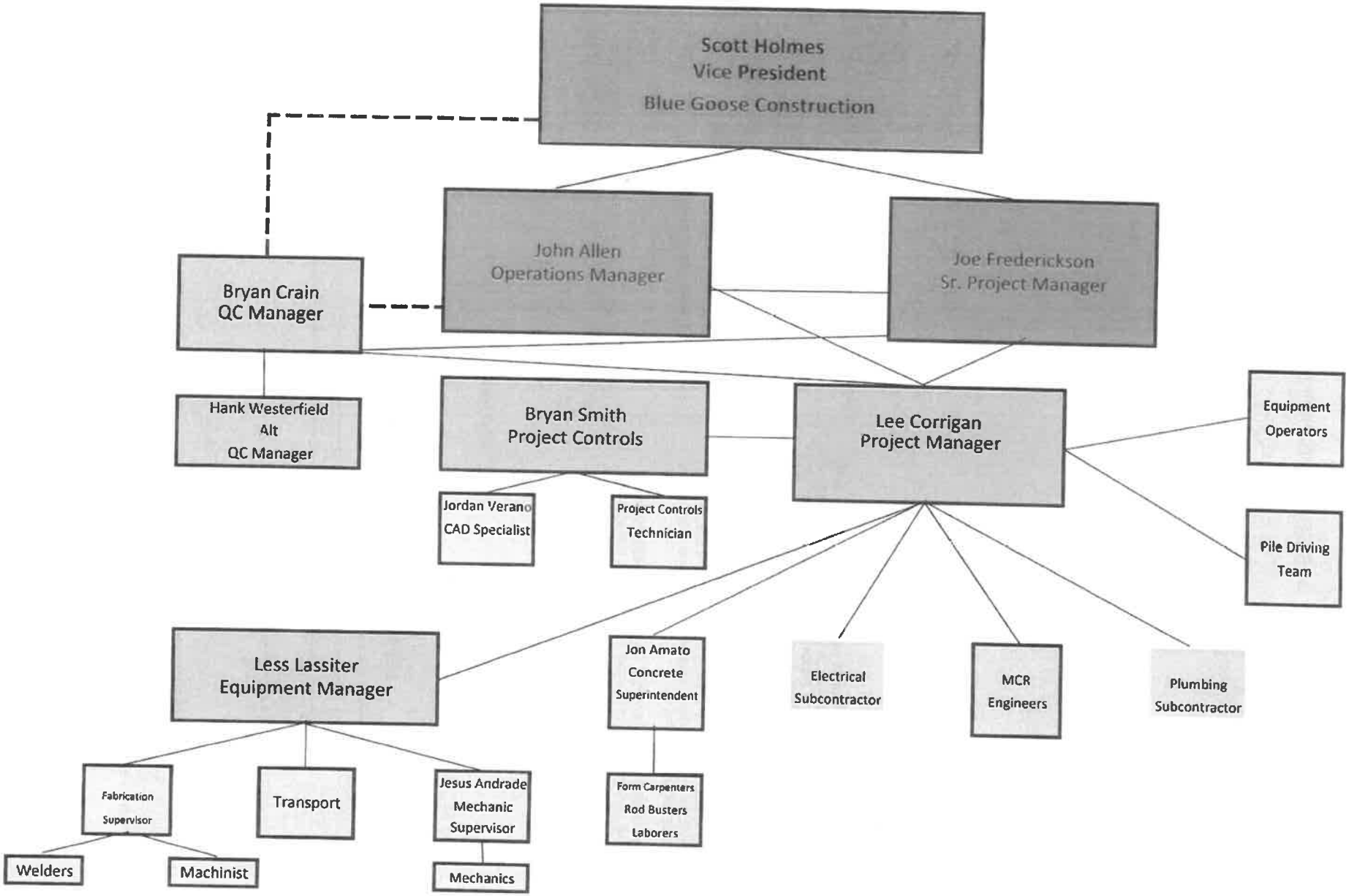
Quality control will include a three phase quality meetings on site for each definable work feature. A daily quality control report is generated and this can be shared with the project owner if requested. Blue Goose construction currently has 4 personnel who have completed the "Construction Quality Management for Contractors" class and they are important pieces of our Quality Control program.

Safety will include daily tail gate meetings to talk about possible safety issues and developing job safety analysis which will become a living document to be modified as work conditions require.

Environmental protection plan will be developed, submitted and approved prior to starting work on site. Blue Goose Construction has 9 Florida Department of Environmental Protection Stormwater Inspectors in our work force and they will ensure that all work is in permit compliance and records keeping will meet or exceed permit requirements.

Blue Goose Construction currently has fifty seven full time employees and 217 contracted labor working this week. Three Employees are dedicated to estimating, two purchasers / expediters, zero detailing and architecture, two engineers with MCR Engineers, eighteen field supervisors, five field engineering for Blue Goose included a registered surveyor and three field engineers for MCR Engineering and an additional registered surveyor this will be combined effort to do our field engineering and layout. These groups have successfully worked together on projects previously.

Blue Goose Construction
TRUMAN ANNEX / NOAA SEAWALL



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD (850) 487-1395
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
2751 TALL PINE STREET
FORT PIERCE FL 34945

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND
PROFESSIONAL REGULATION

CGC1517686 ISSUED: 07/17/2016

CERTIFIED GENERAL CONTRACTOR
HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC

IS CERTIFIED under the provisions of Ch 489 FS
Expiration date AUG 31 2018 L1607170001578

DETACH HERE

RICK SCOTT, GOVERNOR KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
CGC1517686	

The GENERAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2018

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
9901 OKEECHOBEE ROAD
FORT PIERCE FL 34946

ISSUED 07/17/2016 DISPLAY AS REQUIRED BY LAW SEQ # L1607170001578

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD (850) 487-1395
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
9901 OKEECHOBEE ROAD
FORT PIERCE FL 34946

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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND
PROFESSIONAL REGULATION

SCC131151860 ISSUED: 01/09/2017

CERTIFIED SPECIALTY CONTRACTOR
HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
MARINE SPECIALTY CONTRACTOR

IS CERTIFIED under the provisions of Ch.489 FS
Expiration date AUG 31 2018 L1701090000609

DETACH HERE

RICK SCOTT, GOVERNOR KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
SCC131151860	

The MARINE SPECIALTY CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2018

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
9901 OKEECHOBEE ROAD
FORT PIERCE FL 34946

ISSUED: 01/09/2017 DISPLAY AS REQUIRED BY LAW SEQ # L1701090000609

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
2751 TALL PINE STREET
FORT PIERCE FL 34945

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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND
PROFESSIONAL REGULATION

PCC056727 ISSUED: 07/17/2016

CERT POLLUTANT STORAGE SYS CONTR
HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC

IS CERTIFIED under the provisions of Ch.489 FS
Expiration date AUG 31 2018 L1607170001982

DETACH HERE

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
PCC056727	

The POLLUTANT STORAGE SYSTEMS CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2018

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
9901 OKEECHOBEE ROAD
FORT PIERCE FL 34946

ISSUED 07/17/2016

DISPLAY AS REQUIRED BY LAW

SEQ # L1607170001982

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
2751 TALL PINE STREET
FORT PIERCE FL 34945

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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CUC1225110 ISSUED: 07/17/2016

CERT UNDERGROUND & EXCAV CNTR
HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC

IS CERTIFIED under the provisions of Ch 489 FS
Expiration date AUG 31 2018 L1607170001944

DETACH HERE

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
CUC1225110	

The UNDERGROUND UTILITY & EXCAVATION CO
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2018

HOLMES, ROBERT SCOTT
BLUE GOOSE CONSTRUCTION LLC
9901 OKEECHOBEE ROAD
FORT PIERCE FL 34946

ISSUED 07/17/2016

DISPLAY AS REQUIRED BY LAW

SEQ # L1607170001944

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

January 27, 2017

BRYAN C SMITH
6000 BAMBOO DR
FORT PIERCE, FL 34982-3776

SUBJECT: Professional Surveyor and Mapper License # LS6844

Your application / renewal as a professional surveyor and mapper as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2019.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here

Florida Department of Agriculture and Consumer Services
Board of Professional Surveyors and Mappers

LS6844

Professional Surveyor and Mapper
BRYAN C SMITH

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2019

Detach Here

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS6844**
Expiration Date February 28, 2019

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

BRYAN C SMITH
6000 BAMBOO DR
FORT PIERCE, FL 34982-3776

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor #SCC131151860

About Blue Goose Construction

Headquartered in Fort Pierce, Florida (60 miles north of West Palm Beach), Blue Goose Construction provides the following services to the Agricultural, Commercial, Marine and Governmental markets:

- Precision Controlled (GPS) Underwater Excavation
- Specialty Excavation & Marine Dredging
- Levee Construction & Repair
- Site Work
- Storm Water Drainage Systems and Underground Utilities
- Foundation Work
- Waterway Construction
- Revetment Systems
- Extreme Long Reach Excavation

What We Believe?

BGC strives for continuous improvement in client services, project management, quality, safety, reliability, and trustworthy business operations from Plan and Specification jobs to Design/Build Projects of all sizes. Our dedicated professionals work with our clients to create solid and innovative solutions to complex engineering conditions, situations and requirements.

What We Believe?

At BGC, we believe in five core principles which serve as our internal barometer of success:

1. It's through assisting our clients to achieve their goals and reach their highest levels of construction success that we become successful.
2. Our clients' trust in our firm is paramount to all our endeavors.
3. Jobsite Safety and Quality are always our field focus while completing our work plan.
4. Continually sharpening and increasing our skills so clients receive the benefits through a significant return on investment.
5. Honesty and integrity throughout all of our business operations.

Our Promises:

At BGC, we hold steadfast to our promises to our Clients as well as our staff.

To Our Clients:

- Main Focus is client satisfaction in all facets of our business operations
- Customized, innovative, collaborative, and targeted solutions to meet our clients' needs
- A team of professionals with unparalled and open communication
- Resource availability to beat demanding production schedules
- Fair, equitable, and competitive pricing
- Superior Project Management, Planning, and Coordination
- Efficient and expedient delivery of services

Who We Are?

We are a construction company, (who also provides agricultural management, development & real estate services - www.bluegoosegrowers.com), based in Ft Pierce with offices in Arcadia and Labelle. As a General Contractor we provide many heavy equipment construction services. Our experience with managing large tracts of land for agricultural development and production, where smaller margins and efficiency is key, has taught us that it is important to get the quality and work right the first time, but more importantly, do it efficiently.

Recently Blue Goose Construction has taken on larger projects and increased the scope of work completed with in house resources. The construction of the C - 44 reservoir in Indiantown Florida represents a 100 million dollar project for SFWMD. On this project Blue Goose has been performing sheet pile and concrete pile driving allowing us to offer additional services to our clients. On this and all of our successful projects the collaborative efforts of Blue Goose, our clients, and subcontractors have yielded results that only a team of persons who care about the outcome could provide. We consider ourselves to be creative, out of the box thinkers and work cooperatively and diligently to ensure our clients' satisfaction with every facet of our business operations.

The Blue Goose workforce receives extensive ongoing safety training and is accustomed to working to high safety and security standards. We have worked to the elevated security requirements to access nuclear power plant secured areas. Regarding safety our worker's compensation EMR and OSHA 200 logs highlight the results of our efforts to provide accident free projects. Our environmental record is compliance on all of our projects, we have never received a non - compliance from the DEP on any of our numerous projects.

Our field teams, consisting of project managers and superintendents respect our customers and provide courteous and professional interaction and communications. Team BGC is comprised of individuals united by teamwork and common goals who share a respect for our community, the environment, and one another. That cooperative mission of teamwork, safety, quality and efficiency produces superior results for our clients, shareholders, and associates. Our commitment to helping our clients with creative and cost effective solutions is grounded in our solution-driven workplace.

What We Offer?

Our ability to create collaborative environments and to share innovations has proven to be a valuable asset to our mission to become our client's preferred heavy equipment and sitework provider.

BGC strives for:

- Continuous performance improvement – In all our business operations
- Safety – We are committed to safety from the field to the offices
- Quality - Our mission is to provide expert workmanship
- Reliability – Emphasis on a significant return on investment for our clients

LEE CORRIGAN

ESTIMATOR / PROJECT COORDINATOR

Blue Goose Construction

Heavy Civil / Underground Utilities / Complete Site Development / Marine

Education

- Martin County High School. Advanced Mathematics
- Martin County High School Carpentry
- Martin County High school Drafting 1
- IRSC Construction Technology (ongoing)

Certifications and Training

- Florida State Certified General Contractor
- Occupational Safety and Health Administration 10hr
- FAU Project management training certificate

Experience Summary

- Extensive experience estimating and managing high risk pile driving and marine projects
- Experience estimating and managing large, complex marine projects with strong understanding of building practices and regulatory compliance requirements and the ability to coordinate construction activities effectively to meet scope, schedule, and budgetary guidelines
- Supervisory, team building and training
- Strong capability for establishing teams and developing relationships with all stakeholders including engineers, architects, client representatives, contractors, inspectors and construction crews. The ability to manage multiple marine projects.
- Health and Safety Focus

Professional Experience

Vice President, Lead Estimator, Project manager and Qualifier
Custom Built Marine Construction, Inc. (1/6/2013- 10/20/2016)
Port St. Lucie, FL

Foreman/ Equipment Operator
Custom Built Marine Construction, Inc. (6/5/2008- 1/16/2013)
Port St. Lucie, FL

Equipment Manager
Custom Built Marine Construction, Inc. (5/1/2007- 6/5/2008)
Port St. Lucie, FL

Representative Projects

Key Projects:

- Torry Island Marine Reconstruction (Belle Glade, FL) - installation of 52 driven concrete piles FDOT Road and Bridge Specification, PDA testing, heavy timber substructure, decking, handrail, floating dock structure.
- Manatee Pocket Baffle Box (Salerno Road, Stuart, FL) - installation of custom nutrient separating baffle box, Dewatering, trench shoring, water main relocation, 56" RCP, desilting of pipes, erosion controls, excavation, and paving.
- FPL PFM Steel Sheet Pile Wall (Fort Myers, FL) - Installation of 500lf of steel sheet pile with Wad-It interlock sealer between the top of canal bank and high pressure natural gas lines and piping.
- Darwin Blvd Pedestrian Bridge (Darwin Blvd Port Saint Lucie, FL)- Driven pile foundation adjacent to large force main, protection of existing structures, PDA testing, including an 80,000lbs tandem crane pick, all work was completed in a confined work site between overhead powerline and traffic.
- Waterway Park (Jupiter, FL) 1800lf of steel sheet pile with concrete cap, aluminum rail, fixed timber fishing pier, three slip boat ramp with concrete floating docks and driven concrete piles.
- Flagler County Boardwalk (Flagler County, FL) - Installation of approximately 108 driven timber piles in low head room areas utilizing specialty equipment.
- FPL TMT (Port Manatee, FL) Installation of 150LF of steel sheet pile combination wall.

JOE FREDERICKSON

PROJECT MANAGER / ESTIMATOR

Blue Goose Construction

Heavy Civil / Underground Utilities / Complete Site Development / Marine

Education, Training, and Certifications

- USACE Construction Quality Management for Contractors
- Commercial Dive School –EMT Certificate 1981
- Qualified Stormwater Management Inspector
- St. Lucie County Marine Contractors License Cert #28852
- OSHA 10 Hour Construction Safety & Health
- EPA Pesticide Handler and Worker Safety
- ATSSA MOT Supervisor Training
- Heavy Bid, Heavy Job & Microsoft project proficient

Experience Summary

- Project Management and Business Development of Marine Construction projects. Work scope including embankment armoring and repair, marine structure restoration and construction, and submarine utility related work.
- Preparing and approving bids, proposals, work plans, submittals, scheduling, and cost tracking for marine construction projects.
- Embankment work has included revetment construction and repairs with ABC Mats, Fabric Form, Anchored Turf Reinforcement Mat, and rip rap for armoring.
- Marine Structure restoration services for bridges, wharves, dams, coral reefs, and revetments. Concrete restoration has included extensive use of anti - washout concrete and difficult access projects including delivering high quality concrete by means other than ready mix.
- Submarine utility includes installing and repairing cable and pipelines throughout Florida, including 11 offshore outfall projects.

Professional Experience

BLUE GOOSE CONSTRUCTION LLC. (2015 – Present)
Project Engineer/ Project Manager

FERREIRA MARINE COONSTRUCTION (2014-2015)
Estimator / Project Manager

BALLARD MARINE CONSTRUCTION (2013-2014)
Estimator / Project Manager

UNDERWATER ENGINEERING SERVICES (1990-2005)
Construction Manager - VP of Construction Operations

Mr. Frederickson grew the marine construction division for this company from a 2 person operation to a 120 person operation. Day to day activities included working with team members on every aspect of projects from business development to working with on site personnel to implement safety, quality and production plans. The growth of the marine construction division was based on delivering safe, quality projects on time and on budget.

TEAM MARINE SERVICES, CSA MARINE, ALLIANCE INC. (1990-1998)
General Manager / Field Supervisor for (3) small diving and marine construction companies

INDUSTRIAL DIVERS (1988-1990)
Diver / Supervisor

CAL - DIVE INTERNATIONAL (1982-1987)
Tender / Diver / Mixed gas Diver / Saturation Diver / Saturation Technician

Representative Projects

EAU GALLIE IRVER RESTORATION DREDGING (CURRENT)
Senior Project Manager and Estimator
Removal of muck via hydraulic dredge, material will be sent via a 7 mile pipeline and booster pumps to a spoil containment area we are constructing where the material will be dried and unloaded and trucked to the county landfill. Work valued at $18.5 million

C43 PRELOAD MOUND CONSTRUCTION (CURRENT)
Senior Project Manager and Estimator
Clearing 450 acres including the removal of farm structures, farm infrastructure and service bridges. Moving 1.9 million yards of soil from on site borrow areas to form 7 preload mounds 56 feet above the existing elevation. Work Valued at $10.5 million

FPL PORT EVERGLADES REVETMENT CONSTRUCTION
Project Manager and Estimator
Revetment construction for new power plant construction included grading and installing 12,000 lb precast mats for erosion protection and 300linear feet of sheet piling for a discharge structure improvement. Work valued at $17 million project

WOLF CREEK NUCLEAR POWER PLANT DISCHARGE PIPE INSTALLATION
Assistant Project Manager and Estimator
Marine Installation of a 24" stainless steel discharge pipe including concrete and rock pipe protection. Work valued as a $10 million project

BROWARD COUNTY OUTFALL REPAIRS
Project Manager and Estimator
Installed rock and ACB mats offshore on waste water plant effluent pipe. Also moved and reestablished corals. (This is one of two similar projects at UESI.)

ST. LUCIE NUCLEAR POWER PLANT EXCAVATION AND PIPE REPLACEMENT
Project Manager
Completed excavation and shoring to allow for the removal of a 36" pipe. The shoring included holding back up to 50' of soil and 20' of water. Project was unplanned outage work and critical path.

ST. LUCIE NUCLEAR POWER PLANT CANAL REVETMENT PROJECT
Assistant Project Manager and Estimator
Re-graded slopes and orchestrated placement of precast mats, with the plant in operation, to repair hurricane damage and established a revetment on the intake and discharge canals. Work was valued as a $61 million project

USACE MANATEE PROTECTION SYSTEM STATEWIDE INSTALLATION
Project Manager and Estimator
Installed and maintained systems to protect against Manatee mortalities at various USACE maintained locks and gates throughout the state of Florida. The project, valued at $21 million, was the culmination of 12 years of work and 4 contracts.

SUBMARINE CABLE EMERGENCY REPAIR CONTRACT WITH FPL
Project Manager and Estimator
Has provided marine support on an emergency basis to enable cable splicing amongst other activities in various waterways throughout Florida. Maintained this contract for 12 years.

ST. LUCIE POWER PLANT OCEAN OUTFALL EMERGENCY REPAIR
Project Manager and Estimator
Conducted stabilization at the discharge point of an offshore outfall pipe and placed fabric formed grout support under the offshore discharge structure.

BRYAN C. SMITH PSM

DIRECTOR OF SURVEYING

Blue Goose Construction

Heavy Civil / Underground Utilities / Complete Site Development / Marine

Education and Training

FAU Bachelor of Business Administration
IRCC Associate of Arts, Business Administration
FIT Associate of Science, Environmental Science

Registrations and Professional Affiliations

Licensed Professional Surveyor and Mapper, LS6844
Florida Surveying and Mapping Society
National Society of Professional Surveyors

Experience Summary

- Over 29 years of surveying and mapping experience in Florida
- Knowledgeable in all facets of drafting, computer graphics, and comprehensive development of surveying maps
- Plat preparation and filing
- Extensive GPS experience, including RTK and static data collection, pre-planning and post processing from field to drafting, as well as all aspects of conventional surveying
- Responsibilities have included the supervision of field projects and office projects and included managing survey drafting personnel
- Bryan C. Smith has worked on many private development surveys, boundary surveys, topographic surveys, school projects, F.D.O.T. intersections, roadway design and layout projects, and environmental delineation surveys

Professional Experience

BLUE GOOSE CONSTRUCTION LLC

ENGINEERING DESIGN & CONSTRUCTION, INC.

GEOMATICS SERVICES INC.

CULPEPPER & TERPENING INC.

LINDAHL, BROWNING, FERARRI AND HELSTROM, INC.

Representative Projects

SAN LUCIE DRAINAGE PROJECT
Provided topographic survey of 161 +/- acre residential development. The scope of the project was to provide horizontal and vertical control to aerial photogrameters/surveyors, provide ground truth for aerial mapping efforts, and supplement topographic map with drainage structure improvements with rim elevation, invert elevation, pipe size and type. Contact Rod Kennedy, EDC 772-462-2455

LINCOLN PARK ACADEMY MIDDLE SCHOOL RENOVATION
This project consisted of a boundary and topographic survey, construction layout services, sketch & descriptions of easements, and as-built surveys, all in support of renovations to the middle school campus at LPA. Ref: Joseph Capraro, Morganti, 772-785-5700

LEONARD ROAD
Leonard Road project consisted of construction layout and as-builts for 1-mile road construction in St. Lucie County. Ref: Ben Guettler, Guettler Construction 772-461-8345

HOME GOODS
The project consisted of boundary and topographic surveys and re-platting for a shopping center redevelopment. It also included construction layout and as-builts, as well as development and creation of sketches and descriptions for easements on the project. Ref: Rod Kennedy, Engineering, Design & Construction (772) 462-2455

HEATHCOTE BOTANICAL GARDENS
This project was stormwater improvement in a city owned botanical park and consisted of construction layout and as-builts of updated drainage for the park. Ref: Chris Singley, Jacquin & Sons (772) 465-2475

FOUNTAIN VIEW
Project consisted of boundary and topographic survey and re-platting for a mixed use development. Ref: Brett Harris, Centerstar Group (305) 582-6284

DAN MCCARDY MIDDLE SCHOOL
Surveyor determined right-of-way and staked, set grades, and prepared as-builts of chiller on campus. Ref: Chris Singley, Jacquin & Sons (772) 465-2475

RIO TOWN CENTER
Project consisted of boundary & topographic survey for mixed use marina development project including Condominiums, Apartments, Restaurants and Retail. Project required specific purpose survey to FDEP for lands filled prior to July 1, 1975 and submerged land lease. O & A Design Studio, Raul O'Campo (772) 286-9004

ROGER M. BABER
Professional Engineer
EMAIL: rbaber@mcrengineers.com

GOAL: Maximum utilization and application of civil engineering, surveying, and structural analysis skills. Provide facility owners with accurate inspection and evaluation services utilizing state of the art equipment and skilled courteous personnel. Benefit owners of reinforced concrete structures with timely and accurate options for maintenance and repair. Operate engineering business in an efficient and ethical manner.

EXPERIENCE

Owner MCR\ Engineers, Inc (Marine Civil Restoration). 2008-2017
Structural, Civil, Underwater engineering. Presently 6 person firm in Stuart Florida with 2 CAD draftsmen, survey crew chief, two engineers, 2 field technicians for structural inspection, repair program development. Inspection and specifications for repair of hotels, marinas, seawalls, bulkheads, and waterfront construction (building foundations, piling supported structures, gazebos, beach access structures).

Owner CSM Engineers Inc., (Civil Structural Marine) Inc. 1995-2005
Similar to MCR Engineers above.

Independent Consultant /Stephen J. Brown Land Surveyors 1994-1995
Independent engineering contractor for roadway design and site development projects. As built surveys of commercial and residential developments. Certification to lendors concerning site condition (paving condition and drainage, system adequate function.) Contract mediation and supervision for sitework for 10 commercial projects and 3 subdivisions.

Underwater Engineering Services Inc. 1990-1994
Responsible for design, project management, and technical supervision of 20 inspection divers and technical specialists augmented by 25+- contract inspectors/engineering field technicians on a project specific basis. Specialized in the inspection and restoration of bridges, hydroelectric dams, nuclear power plants, water control structures, harbor facilities and aquariums. Utilized project management and supervision skills to value engineer waterproofing and concrete restoration projects for TVA and ALCOA dams in Virginia, North Carolina, and Tennessee.

Quillen-Velasco Surveyors-Engineers 1989-1990
Land development including site planning & permitting, cost estimating, as built inspections, and contractor mediation with owners. Designed/Supervised the development of 200 + acres residential and commercial property

U.S. NAVY (Reserve) 1982-2003
Unrestricted Line Officer with specialty of Deep Sea Diving & Special Operations (Harbor Clearance, water way topography, removal of stranded vessels); harbor facility repair (piers, piles, pile bents, bulkheads). All aspects of underwater work including underwater demolition, hydraulic tools, cutting & welding, inspection techniques. Rank - Commander.

EDUCATION

BS Ocean Engineering - Florida Atlantic University - Honors	1984
Deep Sea Diving - Naval Diving & Salvage Training Ctr. - Panama City FL	1986
Corrosion/Protective Coatings - N.A.C E. Level II - New Orleans LA	1992
FHWA Bridge Inspector Training & Certification - Tampa FL	1992

CERTIFICATIONS & LICENSES

Professional Engineer, **Florida # 43855.**
200 Ton Coast Guard Captain Private Pilot
ANSI Level II Quality Assurance Coatings Inspection, Nuclear Power Plants

COMPUTER SKILLS

Auto-Cad 2017, SURVCADD Coordinate Geometry, EARTHWORKS, Word, Excel, Pagemaker, Quick Books, Survey Total Station with TOPCON Data Collector

EQUIPMENT & SOFTWARE

5 Networked and Internet PC Work Stations with ACAD 2017, HP color printer, HP Design Jet D size Plotter, ,Windows 10 Sokkia Level set and Shonstatt Survey Monument Detector. TOPCON-GTS 211D Electronic Total Station. 2 Survey Trucks, 2 Bathymetric Survey Boats, Commercial Diving Equipment for 3 man Dive Team. Global Positioning System Survey Equipment . All software licensed and maintained upgraded.

Part II – Technical Statement - Experience

Please include project client reference information for each project detailed. (Name, Company, Address, and Telephone Number)

1. State design and construction experience of principal members of your organization:

Name	Title	Experience Years	Type of Work	Cost Range	In What Capacity
See attached resume Scott Holmes Blue Goose Construction LLC					
See attached resume Roger Baber MCR Engineers					

2. List the Design Contracts your organization has underway at this time: MCR Engineers

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract $ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
SJRWMD Eau Gallie	Blue Goose Constructior	6/2016	$27,000.00.	SJRWMD 4049 Reid Street. Palatka Florida 32177		Engineering ,Permitting
FPL ManDatee Embankment Restoration	Ballard marine Construction		$18,000.00	FPL 700 Universe Blvd FL 33408		Engineering ,Permitting

(Use extension sheet if necessary)

3. List the Construction Contracts your organization has underway at this time:

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract $ Amount Complete	Design Architect/Engineer Name and Address	Owner Name and Address	Scope of Work
SFWMD C44	Blue Goose Construction LLC	10/2014	$100,792,387.00	SFWMD	3301 Gun Club Road West Palm Beach FL 33406	
SFWMD C43	Blue Goose Construction LLC	10/2015	$10,817,748.00	SFWMD	3301 Gun Club Road West Palm Beach FL 33406	
SJRWMD Eau Gallie	Blue Goose Construction LLC	6/2016	$18,549,271.00	SJRWMD	4049 Reid Street, Palatka,Florida 32177	
SJRWMD WO#35	Blue Goose Construction LLC	10/2016	$887,081.61	SJRWMD	4049 Reid Street, Palatka,Florida 32177	
FPL Manatee Embankment Restoration	Ballard marine Construction		$24,000,000.00	FPL 700 Universe Blvd FL 33408		construct and delivery of precast panels construct placement tomic placement helcal piles

(Use extension sheet if necessary)

4. List the Design Contracts your organization has completed in the past five (5) years with relevance to this proposed Design/Build project.

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract $ Amount	Owner Name and Address	Scope of Work	Were Permitting Services Provided?
See attached project references for MCR Engineers						

(Use extension sheet if necessary)

5. List the Construction Contracts your organization has completed in the past five (5) years with relevance to this proposed Design/Build project.

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract $ Amount Complete	Design Architect/Engineer Name and Address	Owner Name and Address	Scope of Work
See attached Project reference sheets for Blue Goose Construction LLC						

(Use extension sheet if necessary)

6. Statement on firm familiarity with local conditions:

See attached

7. List other projects firm has constructed or has under construction in the Florida Keys/Monroe County:

See attached

8. Statement on experience in providing design/build services in Florida:

See attached

9. Statement on corporate safety program, safety record, and OSHA violations, including handling of violators, for both Proposer and Subcontractors.

See attached

MCR ENGINEERS RELEVANT PROJECT REFERENCE LIST
TRUMAN ANNEX SEAWALL

MARINE-CIVIL-RESTORATION ENGINEERING

MCR Engineers consists of 2 Professional Engineers, 2 draftsmen, and a survey field crew specializing in marine related structures and infrastructure. Work includes industrial and municipal sites and facilities, condominium associations, and residential projects. Multi faceted design specialty includes waterfront site and civil engineering, seawall structural analysis, docks, marinas, and subaqueous utilities (underwater water, electric, and sewer lines). MCR Engineers supports projects with environmental and permitting consulting, underwater inspection, and coordination with geotechnical engineers. While MCR is technically capable of any size project, 50% of fees are generated from residential seawall design and permitting for marine structures of every variety. All projects listed completed last five years or ongoing.

Annual Revenue	$ 425,000
Annual Project Value	$ 10,000,000

Project	Sea Ranch Club of Boca
	4301 North Ocean Blvd
	Boca Raton, FL 33431
Contact	Steve Mauro
	561-395-0447
Contract Amount	$400,000
Engineering Fee	$40,000
Project Description	Rehabilitation of Marina and Seawall

Project	Portofino Condominium
	2600 North Flagler Drive
	West Palm Beach, FL
Contact	Kenneth Ufkin, LCAM
	561-655-3391
Contract Amount	$200,000
Engineering Fee	$15,000
Project Description	Rehabilitation of Marina and Seawall

Project	Shoreclub Condominium
	111 Shore Court
	North Palm Beach, FL 33408
Contact	Francis Jones
	561-882-0989
Contract Amount	$150,000
Consultant	$10,000
Project Description	Remove-Repair-Replace Seawall

Project	Florida Power & Light
	Saint Lucie Nuclear Power Station
	6501 S Ocean Dr
	Jensen Beach, FL 34957
Contact	Edward Hollowell
	772-467-7468
Contract Amount	$1,900,000
Engineering Fee	$45,000
Project Description	Steel retaining structure for emergency circulating water repair, Saint Lucie Nuclear Power Station

Project	Chapman School of Seamanship
	4343 SE St Lucie Blvd
	Stuart, FL 34997
Contact	Jennifer Fields
	772-283-8680
Contract Amount	$ 350,000
Engineering Fee	$ 30,000
Project Description	Comprehensive marina rehabilitation to include 1500 feet of seawalls, travel lift, upland marina facilities (ongoing)

SCOTT HOLMES

VICE PRESIDENT / GENERAL MANAGER

Blue Goose Construction

Heavy Civil / Underground Utilities / Complete Site Development / Marine

Education and Training

- University of Central Florida, Business Administration
- Indian River Community College

Certifications

- Licensed Certified State General Contractor
- Licensed Certified State Underground Utility Contractor
- Licensed Certified State Pollutants Storage Contractor
- Licensed Excavation Contractor
- Licensed Directional Boring / Tunneling Contractor
- Member Treasure Coast Builders Association (St. Lucie County, FL)
- Possess License Security Agent "D" License
- Metal Fabrication / Design Certifications Various
- Possess Numerous Heavy Equipment Operation Certifications / Capable of Operating Numerous Type of Heavy Equipment of Various Brands
- Licensed Pilot / Twin Engine / IFR
- Licensed Maritime Captain / 100 ton
- Licensed Class A Commercial Drivers License w/ HAZMAT, Air Brakes, Doubles, Triples, Tanker, and Motorcycle Endorsement
- OSHA Certification in

Experience Summary

- Ensures the safety and welfare of all company employees, subcontractors, clients and the public working on and around company properties and project work sites
- Adept manager of the protection of the environment on all company properties and project sites
- Prepares bid determinations, developing project estimates, securing bonds, writing proposals and contract negotiations with clients and subcontractors
- Overseen vertical and underground construction in the areas of residential and commercial construction.
- Specialties have included removal and abandonment of Underground Storage Tank Systems, installation of ground up retail and commercial gasoline stations, various petroleum cleanup activities

Professional Experience

BLUE GOOSE CONSTUCTION LLC. (2014-Present)
Vice President / General Manager
Primary Construction License Qualifier of the State of Florida
Project General Oversight and Management of a Heavy Civil Construction Company with varying expertise in Earthwork, Reservoir Construction, Underground Utilities, Road Building, Agricultural Installations and Aquatics Management

GULFSTREAM BUILDING GROUP, INC. (2008-2014)
Owner and Licensed Qualifier
Vertical / Underground Construction Firm specializing in construction management for General Contractor activities.

DITCHDIGGER, INC. (1998-2014)
Owner and Licensed Qualifier
Utility Continuing Services Contractor specializing in Municipal Utility Installation, Repair and Management related to capital infrastructure and emergency construction activities.

ATLANTIC PETRO SALES & SERVICES INC. (1998-2014)
Owner and Licensed Qualifier
Pollutants Storage Construction Contractor specializing in fuel related installations and environmental cleanups.

HOLMES OIL COMPANY (1987-1998)
Branded Petroleum Jobber / Distributor
Family Owned and Operated Petroleum Fuel and Lubricants Distributor responsible for fuel delivery and storage logistics for construction, agricultural and retail markets.

Representative Projects

FELLSMERE WATER MANAGEMENT AREA CONSTRUCTION

Construction consisted of 13.3 miles of 28 to 30 foot high, 150 foot wide, earthen levee around 10,000 acres of water management area (including irrigation and drainage pipes through the levee and canal crossings). Some of the numerous stages included clearing trees, grubbing roots, stripping topsoil, prepare the levee footprint, site grading and leveling, removing muck and coarse soils. There was also mixing of high fines content soil (split layers) with sand to develop material for levee construction. Installed sand filters for drainage system into levee toe drain, gated concrete water control structures across Fellsmere Main canal, and large diameter piping networks. The project also included construction and installation of a master concrete gated water control structure for an adjoining landowner including irrigation pipes. (a $35 million project)

C-44 Reservoir/STA Storm Water Treatment Area

Construction consists of the 32 miles of STA levees/berms; 30 miles of distribution, collection, and drainage canals; 6,300 acres of clearing and STA cell interior grading. Utilization of 60'+ long reach excavators, LPG dozers, 9000 series tractors with pans, and drones, all equipped with GPS, allow for safe, precise production and as-built surveys.

The C-44 STA project presented accelerated scheduling challenges due to a delay of over 60 days in issuance of the NTP. Through the implementation of creative sequencing for men and machines, over 2 and a half miles of Milestone 1 levee was completed on schedule. Scheduling challenges continued as the customer incurred fiscal year budgetary issues. Blue Goose Construction (BGC) responded by removing/remediating, tracking, and relocating 500,000 cubic yards of impacted soil from 26 separate locations 6 months ahead of the initial contract schedule, while meeting all other milestone activities.

PLATTS CREEK COMPENSATORY MITIGATION CONSTRUCTION

Primary contractor for the project, the scope of work included the construction of 47.87 acres of wetland mitigation within an 80.66 acre parcel. The mitigation activities within the Platts Creek project included: 13.54 acres of Hydric Hammock, 23.10 acres of Depression Marsh, and 12.70 acres of Floodplain Swamp. In addition, two Mesic Flatwoods areas, totaling 13.65 acres, were provided as a buffer between the mitigation site and the storm water facility to the north of Sunrise Boulevard. The construction of the stormwater treatment area occurred along the bank of the St. Lucie River with a zero turbidity requirement while exporting approximately 300,000 tons of soil and placing 15 pre-cast concrete weirs control structures while maintaining cross flow water control along and throughout until the project completed. The mitigation area was a joint effort between St. Lucie County and the City of Port St. Lucie.

JOHN ALLEN

OPERATIONS MANAGER

Blue Goose Construction

Heavy Civil / Underground Utilities / Complete Site Development / Marine

Education and Training

- Indian River Community College, Business Management
- Miami Christian College, Counseling
- Miami Dade Community College, First Aid / Emergency Response
- Jupiter High School, Architectural and Mechanical Drafting
- Mine Safety, US Department of Labor

Certifications

- OSHA Level R – First Responder
- OSHA Level 5 Human Resources
- Red Cross CPR and First Aid
- Auto Safety Driver, Crane Safety, and Pile Boss Vibratory Hammer

Experience Summary

- Maintenance and repair of Florida Power and Light power plant reservoirs and piping
- South Florida Water Management District Dike / Levee embankment erosion repairs including but not limited to articulated mats, fabric pump mats, geoweb, erosion control mats, riprap, soil, cement
- DOT Right of Way Maintenance
- Railway Right of Way repair maintenance bridge approach and crossings
- Vertical revetment construction, sheet piling solder beam and lagging, "H" beam and panel
- Flood control structure construction and repair
- Civil Engineering Projects
- Road and Bridge Construction
- Site Development and Public Utilities
- Marine Construction with floating work platforms and barges
- Agricultural, municipal and private flood water control pump stations
- Mining and excavating
- Aquatic weed maintenance and removal by use of aquatic weed harvesters and other specialized heavy equipment

Professional Experience

BLUE GOOSE CONSTRUCTION LLC. (1995 – Present)
Operations Manager

B&B BUILDING SYSTEMS (1990-1995)
Field Superintendent

ALLEN & SON CONTRACTORS (1984-1990)
Project Manager

LAWSON, NOBLE & WEBB, INC.DICKERSON FLORIDA, INC. (1984-1985)
Project Superintendent - DOT and Municipality Projects

CAPELETTI BROTHERS, INC. (1979-1983)
Project Superintendent - DOT, ACOE, and Municipality Projects

Licensing

St Lucie County Contractor License – Land Clearing / Excavation
City of Fort Pierce Contractor License – Land Clearing
Brevard County Certificate of Competency – Specialty Contractor Excavating
Palm Beach County Occupational License – Specialty Excavation / Land Clearing
Martin County Contractor License – Specialty Excavation / Land Clearing

Representative Projects

ST. LUCIE NUCLEAR CANAL REVETMENT PROJECT
Blue Goose acted as the primary sub-contractor responsible for reconstructing embankments damaged by two hurricanes in 2004. Blue Goose's proposal was selected based on our repair method that would allow the plant to remain in operation during the repair. The construction activities involved: Excavating the bench in existing levees, removing existing riprap, excavating and installing drainage layer and preparing slopes and installation of approximately 1.2 million cubic yards of articulated concrete mat. Two thirds of the slope was underwater and the bottom of the containment area was 40 feet deep. Blue Goose designed and implemented specialty excavation equipment by working with worldwide equipment manufacturers for final testing and implementation. To the best of our knowledge, Blue Goose Construction is the only company in the world to own and operate these types of equipment. (This was a $20 million project.)

FELLSMERE WATER MANAGEMENT AREA CONSTRUCTION
Construction consisted of 13.3 miles of 28 to 30 foot high, 150 foot wide, earthen levee around 10,000 acres of water management area (including irrigation and drainage pipes through the levee and canal crossings). Some of the numerous stages included clearing trees, grubbing roots, stripping topsoil, prepare the levee footprint, site grading and leveling, removing muck and coarse soils. There was also mixing of high fines content soil (split layers) with sand to develop material for levee construction. Installed sand filters for drainage system into levee toe drain, gated concrete water control structures across Fellsmere Main canal, and large diameter piping networks. The project also included construction and installation of a master concrete gated water control structure for an adjoining landowner including irrigation pipes. (a $35 million project)

TURKEY POINT CROCODILE SANCUARY
Constructed 9 Yearling Refugia and a 7 acre Nesting Habitat in FPL's Everglades Mitigation Bank. Excavate per lines and grades on engineering plans, blend existing soils with imported fill. Extremely environmentally sensitive work. Extensive environmental monitoring and oversight from multiple agencies.

PLATTS CREEK COMPENSATORY MITIGATION CONSTRUCTION
Primary contractor for the project, the scope of work included the construction of 47.87 acres of wetland mitigation within an 80.66 acre parcel. The mitigation activities within the Platts Creek project included: 13.54 acres of Hydric Hammock, 23.10 acres of Depression Marsh, and 12.70 acres of Floodplain Swamp. In addition, two Mesic Flatwoods areas, totaling 13.65 acres, were provided as a buffer between the mitigation site and the storm water facility to the north of Sunrise Boulevard. The construction of the stormwater treatment area occurred along the bank of the St. Lucie River with a zero turbidity requirement while exporting approximately 300,000 tons of soil and placing 15 pre-cast concrete weirs control structures while maintaining cross flow water control along and throughout until the project completed. The mitigation area was a joint effort between St. Lucie County and the City of Port St. Lucie.

BRIAN H. CRAIN

Project Engineer / Project Manager

Blue Goose Construction

Heavy Civil / Underground Utilities / Complete Site Development / Marine

Education and Training

- Largo Senior High School AutoCAD
- Suitland Vocational Technical School AutoCAD
- Prince George's Community College A.A. in Speech Development and Presentation
- University of Maryland Bachelor of Science in Civil Engineering with a Minor in Civil Construction / Project Management

Certifications

- NPDES Certified
- Army Corps of Engineers – Construction Quality Management Certification
- FDOT MOT Intermediate & Advanced Certified
- FDOT Aggregate Base Testing Tech.
- FDOT Asphalt Paving – Level I & Level II
- FDOT ACI Concrete Field Testing Tech. — Level I & Level 2
- FDOT Concrete Field Inspector Specification
- FDOT Earthwork Construction Inspection – Level I & Level II
- FDOT Pile Driving
- FDOT Drilled Shaft
- FDOT CTQP 17 self-study completion certificates
- MSHA Safety Training
- Cranes & Rigging Certification
- OSHA Focus Four Excavation Safety Certification
- American Red Cross CPR / AED Certification
- Dale Carnegie Course Certificate of Completion

Experience Summary

- Engineering Project Management for Roadway and Bridge Development as well as Civil Site development work
- Extensive experience in Engineering Project Management for new construction as well as the expansion of existing infrastructure
- Complete understanding and application of FDOT Standard Specifications and Design Standards
- 26 years of Extensive Project / Construction Management Civil Design experience with highlights in Roadway and Bridge development, Subdivision development, and Commercial development
- Civil Construction techniques and improvements for roadways, drainage, potable/non-potable water distribution systems, and wastewater collection/transmission systems
- Extensive hands-on experience including: soils density testing, sub-grade inspection, lime rock base inspection, concrete field inspection, roadway asphalt inspection, drainage inspection, water main, force main, low pressure main and sanitary sewer inspection
- Experience with computer software: Microsoft Office (Word, Excel & Outlook), Microsoft Project, Adobe Acrobat, Heavy Job, LPC Tracker, FTP site, AutoCAD/Soft desk

Professional Experience

BLUE GOOSE CONSTRUCTION LLC (2014 – Present)
Ft. Pierce, FL
Project Engineer/ Project Manager

INDIAN RIVER COUNTY ENGINEERING (2007-2014)
Vero Beach, FL
Project Manager / Senior Engineering Inspector

GINN DEVELOPMENT COMPANY (2004-2006)
Port St. Lucie, FL
Project Engineer/ Project Manager

CULPEPPER & TERPENING INC. (1999-2004)
Ft. Pierce, FL
Project / Construction Management / Inspections

LAWSON, NOBLE & WEBB, INC. (1995-1999)
Port St. Lucie, FL
Project / Construction Management / Inspections

STEHLE ENGINEERING, INC. (1988-1995)
Upper Marlboro, MD
Construction Management / Inspections

Representative Projects

HARBOR BRANCH MANGROVE MARSH RESTORATION PROJECT

Project Engineer / Project Manager: The Harbor Branch Mangrove Restoration Project was a complete hydrological reconnection and restoration of Impoundment 14C, a 178-acre mosquito impoundment located within the Harbor Branch Preserve Project area. This project was an extensive one of earthwork and drainage culvert installation. It included excavation of 6,340 linear feet of perimeter ditch and placement of the dredged fill into 3,600 linear feet of geo-tubes, reconstruction of 11,070 linear feet of textile-wrapped dike or Geo-Grid to stabilize the berm, 10,880 linear feet of Rip Rap, and the installation of 18 new CAP Culverts. The culverts will provide exchange of tidewater between the estuary and the wetlands. The Harbor Branch Project proved to have many challenges for Blue Goose: construction access issues, coupled with heavy amounts of rain causing the dike soils to sink and additional fill to slough into the impoundment ditch. A geotechnical firm was brought in, and necessary changes were made to complete the project. Existing severely limited soil conditions proved difficult for installation of water control structures while at the same time maintaining dike integrity and environmental eco system stabilization.

NORTH HUTCHINSON ISLAND WASTE WATER TREATMENT PLANT EXPANSION

Project Engineer / Project Manager: NHWWTP Project, consisted of furnishing all labor, materials, equipment and incidentals required to expand the existing waste water treatment plant from a 250,000 GPD to 850,000 GPD plant including the installation or retrofit of new Clarifiers, Digester-Reuse-Reject tanks, Odor Control, Nitrate Recycle & Effluent Transfer pumps, demolition of existing drainage, installation of new drainage RCP and CAP, and the reconfiguration of the existing lake system and ancillary items needed to complete the project as specified in the contract documents.

FPL – SANFORD COOLING POND / LEVEE IMPROVMENTS

Project Engineer / Project Manager: FPL - Sanford Project, consisted of furnishing all labor, materials, equipment and incidentals required to widen the existing cooling pond / Levee from 12' wide to 14' wide which included the regrading of the outside 3:1 slope of the existing Levee for 5.8 miles, the excavation of a 2' wide by 2' deep box along the outside of the top of the existing Levee, filling said box in with coquina base material, placing 3" of black base material to cap off the coquina rock, and paving a 2" overlay 14' wide to include the existing 12' wide roadway with an addition 2'. Finally, there was grading for and the placing of 12 ± acres of sod and ancillary items needed to complete the Project as Specified in the contract documents.

ROGER M. BABER
Professional Engineer
EMAIL: rbaber@mcrengineers.com

GOAL: Maximum utilization and application of civil engineering, surveying, and structural analysis skills. Provide facility owners with accurate inspection and evaluation services utilizing state of the art equipment and skilled courteous personnel. Benefit owners of reinforced concrete structures with timely and accurate options for maintenance and repair. Operate engineering business in an efficient and ethical manner.

EXPERIENCE

Owner MCR\ Engineers, Inc (Marine Civil Restoration). 2008-2017
Structural, Civil, Underwater engineering. Presently 6 person firm in Stuart Florida with 2 CAD draftsmen, survey crew chief, two engineers, 2 field technicians for structural inspection, repair program development. Inspection and specifications for repair of hotels, marinas, seawalls, bulkheads, and waterfront construction (building foundations, piling supported structures, gazebos, beach access structures).

Owner CSM Engineers Inc., (Civil Structural Marine) Inc. 1995-2005
Similar to MCR Engineers above.

Independent Consultant /Stephen J. Brown Land Surveyors 1994-1995
Independent engineering contractor for roadway design and site development projects. As built surveys of commercial and residential developments. Certification to lendors concerning site condition (paving condition and drainage, system adequate function.) Contract mediation and supervision for sitework for 10 commercial projects and 3 subdivisions.

Underwater Engineering Services Inc. 1990-1994
Responsible for design, project management, and technical supervision of 20 inspection divers and technical specialists augmented by 25+- contract inspectors/engineering field technicians on a project specific basis. Specialized in the inspection and restoration of bridges, hydroelectric dams, nuclear power plants, water control structures, harbor facilities and aquariums. Utilized project management and supervision skills to value engineer waterproofing and concrete restoration projects for TVA and ALCOA dams in Virginia, North Carolina, and Tennessee.

Quillen-Velasco Surveyors-Engineers 1989-1990
Land development including site planning & permitting, cost estimating, as built inspections, and contractor mediation with owners. Designed/Supervised the development of 200 + acres residential and commercial property

U.S. NAVY (Reserve) 1982-2003
Unrestricted Line Officer with specialty of Deep Sea Diving & Special Operations (Harbor Clearance, water way topography, removal of stranded vessels); harbor facility repair (piers, piles, pile bents, bulkheads). All aspects of underwater work including underwater demolition, hydraulic tools, cutting & welding, inspection techniques. Rank - Commander.

EDUCATION

BS Ocean Engineering - Florida Atlantic University - Honors	1984
Deep Sea Diving - Naval Diving & Salvage Training Ctr. - Panama City Fl.	1986
Corrosion/Protective Coatings - N.A.C.E. Level II - New Orleans LA	1992
FHWA Bridge Inspector Training & Certification - Tampa FL	1992

CERTIFICATIONS & LICENSES

Professional Engineer, **Florida # 43855,**
200 Ton Coast Guard Captain Private Pilot
ANSI Level II Quality Assurance Coatings Inspection, Nuclear Power Plants

COMPUTER SKILLS

Auto-Cad 2017, SURVCADD Coordinate Geometry, EARTHWORKS, Word, Excel, Pagemaker, Quick Books, Survey Total Station with TOPCON Data Collector

EQUIPMENT & SOFTWARE

5 Networked and Internet PC Work Stations with ACAD 2017, HP color printer, HP Design Jet D size Plotter, ,Windows 10 Sokkia Level set and Shonstatt Survey Monument Detector. TOPCON-GTS 211D Electronic Total Station, 2 Survey Trucks, 2 Bathymetric Survey Boats, Commercial Diving Equipment for 3 man Dive Team, Global Positioning System Survey Equipment . All software licensed and maintained upgraded.

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

PROJECT DESCRIPTION:

CONTRACT TITLE: CALOOSAHATCHEE RIVER (C-43) WEST BASIN STORAGE RESERVOIR PRE-LOADING AND DEMOLITION, HENDRY COUNTY, FLORIDA

Project Description:

The Caloosahatchee River (C-43) West Basin Storage Reservoir Project (C-43 WBSR) will be located on approximately 10,500 acres of land located west and south of LaBelle, Florida south of SR 80 in western Hendry County. This contract includes demolition of agricultural citrus production facilities including buried pipes and underdrains; removal of culverts and above ground irrigation facilities throughout the entire 10,000 +/- acre project site including irrigation risers, pump stations, sheds, demolition of other identified buildings, demolition of a concrete bridge, earthmoving for construction of seven (7) compacted above ground preloading mounds approximately 1,800,000 +/- cubic yards to a height 56 feet above grade along the northern and western perimeter and the separator dam of the planned location of the C43 Reservoir, consolidation monitoring instrumentation, installation of drainage culverts with flashboard risers, installation of earthen plugs (ditch blocks), the preparation of a construction compound including the clearing, grubbing and placement of shell rock in the parking area, the construction trailer area, and providing a construction trailer.

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

PROJECT DESCRIPTION:

C-44 RESERVOIR/STA PROJECT, STORMWATER TREATMENT AREA, MARTIN COUNTY, FL

Project includes; but is not limited to the construction of six (6) STA cells and associated canals and control structures. These cells generally include approximately 32 miles of STA cell berms with shell rock roads; approximately 6,300 acres of graded STA bottom; approximately 30 miles of distribution, collection, and drainage canals; 20 gated inlet structures;
20 fixed weir outlet structures; six (6) gated outlet structures; nine (9) box culvert road crossings; one (1) fixed crest spillway; placement and tracking of residual agricultural chemicals impacted soils; maintenance and operation of the
DISTRICT Field Office, System Discharge Spillways, and System Discharge Canal after construction completed by others; relocation of electrical power for the C-44 Communication Tower and relocation of power poles; installation of
power conduits, communication conduits, primary electrical lines, and transformers; abandonment of a Florida Aquifer monitoring well; installation of a new Florida Aquifer monitoring well; repaving of the C-44 Access Road at the completion of the WORK; and all of the associated roads, swales, drains, boundary wells, instrumentation, SCADA RTU
Sites, gates, guardrails, handrails, bollards, fencing, and utilities associated
with these features.

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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

PROJECT DESCRIPTION:

CONTRACT TITLE SJRWMD WO #35

Project includes; but is not limited to the construction of four concrete box culverts, construction of concrete wing walls, placement of water control gates, and placement of rip rap erosion protection. The excavation of the footprint of the four box culverts to plan grade and prepare the footprint of the concrete box culverts for culvert installation, as well as place the four water control gates on the southern side of the box culverts

The objective of this work order is to construct the Southern Inlet water control structure located at the south end of the project near the location of Pump Station #6.

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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

PROJECT DESCRIPTION:

CONTRACT TITLE Eau Gallie River and Elbow Creek Restoration Dredging Project

Project includes; but is not limited to hydraulic dredging, dewatering, and handling of muck sediments and construction of a dredged material management area (DMMA) from the Eau Gallie River and from Elbow Creek in Melbourne, Brevard County, Florida. The DMMA is located north of New York Avenue, south of Sarno Road, west of North Wickham Road, and east of the Sarno Road Landfill in Melbourne. The project generally entails dredging up to 750,000 cubic yards of muck sediments from the Eau Gallie River and from Elbow Creek.

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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC122511(
Marine Specialty Contractor # SCC131151860

Project Reference Sheet

Project: Access Point 1 & Southern Inlet Structure

Owner / Contact: St. Johns River Water Management District Woody Boynton
(386)312 2300 (o) – (386) 546 – 1833 (c) WBoynton@sjrwmd.com

Access Point #1 (Work Order 29) & Pump Station #6 (Work Order 35) Value: $1,644,382.49

Date Completion: 08/2015 (work order 29) & current - delivery date of 3/17 (work order 35)

Relevancy: Driven Sheet piles, Concrete Work

Description:

Access Point 1 (Work Order 29) - Constructed as the main public access point for the Fellsmere Water Management Area, the Fellsmere Waterway Crossing was constructed across the main Fellsmere water Conveyance Canal by providing twin 400 linear foot long 72" diameter CAP w coal tar epoxy coating drainage pipes and associated water control gates w access walkways on driven H pile structures. These twin 72" drainage pipes were installed with associated mechanically operated gates by imbedding the basin pipes in structural high pressure concrete to prevent water piping through the structural embankment. Drainage pipes and control gates were anchored additionally with helical anchor ground penetrating devices and cabling to prevent buoyant forces from floating the pipe sections, 75 foot pile supported dock / walkway to access the gate were installed. Sheet pile wing walls were installed.
Drainage piping section was capped with embanked structural fill and rip rap wave dispersion systems to prevent erosion along the drainage corridor. The Project was completed with staff monitoring devices that provide water control depth measurements during water management activities. This project contained a huge amount of dewatering due to an existing canal condition, drainage pipes being installed in an existing flow way while maintaining drainage as well as large amounts of rainfall during the project completion.

Blue Goose Construction crews coated the aluminum culvert pipes with MO – Tar47 Coal Tar Coating 47 – BX-4 on the Access Point two contract.

Pump Station 2 (Work Order 35) – Construction of four poured in place concrete box culverts, wing walls, four water control gates, water control gates access walkways, gated irrigation structure just north of the box culverts and rip rap erosion control. This project is part of the

SJRWMD effort to restore 10,000 acres to a mosaic of wetland and open water communities, additional benefit to the district is the area will be used as a water supply source and to improve water quality and flood protection within the Upper St. Johns River Basin.
The walkways are coated with Dura Plate 235 epoxy.

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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor#SCC131151860

Project Reference Sheet

Project: FJV Pump Station 2 – FWMA

Owner / Contact: Fellsmere Joint Venture / Jeff Murray (772)489-7270 jmurray@dneworld.com

Contract Amount: $1,500,000.00

Date Completion: September 2015

Description: Blue Goose was the Prime contractor for the construction of FJV Pump Station 2 which serves as a master pump station for an approximate 19,000 acre citrus grove/pasture/vegetable growing property, adjoining the 10,000 acre Fellsmere Water Management Area. This project consisted of excavation of a 20 foot deep entrance channel, the installation of 4 pumps, 2 concrete slabs, and use of crane to install 175 feet of sheet pile, Whaler system, Deadman system and 120 tons of Rip Rap. The construction of the sheet pile pump station included an earthen basin of over 40,000 cubic yards of moved material, Rip Rap installation, specialty concrete work at the intake basin, site grading and leveling. The pump station has a capacity 600 CFS, utilizing engines with a horsepower capacity of 1200/prime electric drive with diesel backup. The instrumentation installed contains MMC Controls Emergency Power Generation; stand by diesel power units, Weather/Level/VFO Drives. Belt and direct driven. Controls; Telemetry for operation/Auto Run Management; capacity – VFD Automation/ATS Switch gear for emergency.

Relevancy: Concrete work, sheet pile w backfill, Whaler & dead man system, Turbidity control

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General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor#SCC131151860

Project Reference Sheet

Project: Cutrale Farms Pump House Rehabilitation

Owner / Contact: Cutrale Farms Inc. Kevin Schreifels (Creel Pump Rep) (863) 840-1799

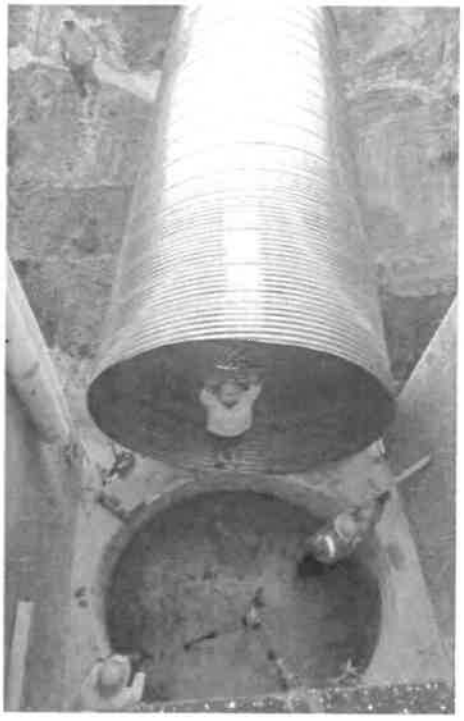
Work Value: $320,000.00

Date Completion: 12/2016

Relevancy: Concrete Construction, Backfill, turbidity control

Description: Restoration of pump station at Cutrale Farms in Venus Florida. Work was completed under the direction of Creel Pumps to insure proper operation of pump. Work included concrete repairs, increasing volume by lowering the floor, extending the walls and modifying the intake for a farm pump station. Work elements include:

- Installation of well point system and earthen dike to complete work in dry conditions
- Diamond wire sawing and demolition existing pump station floor and one wall
- Excavation to specified elevation
- Construction of new floor and wall extensions
- Replaced existing damaged wall
- Aluminum culvert Pipe with grating installation from modified pump station to existing canal
- Changed contour of inlet canal and backfilled to meet compaction



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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

Project Reference Sheet

Project: Temporary Road Crossing: C-44 Reservoir/STA Storm water Treatment Area

Owner / Contact: South Florida Water Management District

Pile Supported Structures & Road Crossing cost: $3,200,000.00 **Contract Amount:** $100,792,387.00

Date Completion: Road crossing and 15 structures completed currently

Relevancy: Sheet Pile Driving, coatings, turbidity control, backfill with limestone

Work Description:

Pile Driving – Installation of coated sheet piling for 20 outlet structures and one spillway structure. Construction of 21 concrete pile supported walkway structures, pile supported staff gauges. The walkway structures are concrete supports for I – beam and grating walkways to allow access to operate gate valves and check stilling wells being constructed as part of the same contract.

Road Crossing -The scope of work for the Temporary Extensive Water Control Canal Road Crossing for the C-44 Reservoir/STA Storm Water Treatment Area consisted of the installation of 540 LF of Engineered 25'-S64 Sheet Pile with crossed bracing. A dewatering well point system was constructed consisting of 600 LF of 8" header pipe supported by two 12" vacuum pumps. Approximately 1,000 cubic yards of imported soil was removed from the cofferdam area to install 280 LF of twin 84" CAP drainage pipes. The pipes were backfilled per FDOT specifications while obtaining material densities. Wildlife concerns were addressed utilizing a Blue Goose Construction custom designed and fabricated Manatee protection grate. To complete the construction both slopes were armored with Rip Rap, sodded, and a 12' wide FDOT Rock Road was constructed to accommodate heavy construction vehicles as well as commercial traffic.

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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # SCC131151860

Project Reference Sheet

Project: Sanford Plant ~ Sanford Cooling Pond

Owner / Contact: FPL Sylvania Jackson (561)694-3203

Contract Amount: $940,000.00

Date Completion: April 2008

Description: Construction of drainage improvement system to Power Plant Cooling Pond. Installed seepage, surface drainage and lift stations . Five structures were installed at the levee base along a 1,200 acre reservoir. Sheet piling and dewatering was necessary. Work was performed adjacent to levee in accordance to strict dam protection measures.

Relevancy: Steel sheet pile coffer dam, setting precast concrete structures

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State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110
Marine Specialty Contractor # Scc131151860

Project Reference Sheet

Project: FPL Turkey Point Everglades Mitigation Bank

Owner / Contact: FPL

Contract Amount: $2,600,000.00

Date Completion: May 2015

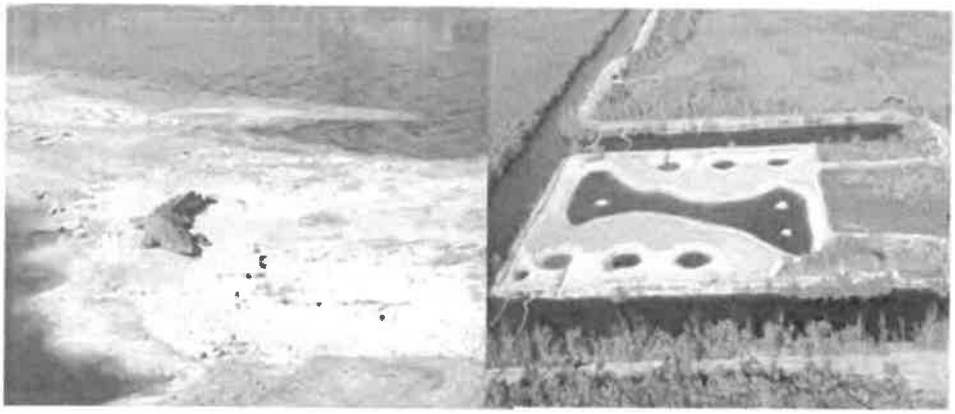
Description: Four separate jobs with the primary purpose of restoring the natural sheet flow of water from the north to the south into Biscayne Bay. All work was performed to the turbidity standard of zero NTU's above background including excavation of rock, culvert installation, sheet pile installation, dewatering, tremie poured concrete, rip rap installation as well as maintenance of traffic. The project consisted of installing (2) 84" x 132' long CAP culverts with dual aluminum slide gates. Culvert ends were protected with rip rap. Work was performed within 50' of the centerline of Card Sound Road. Card Sound Road is one of two roads that lead into and out of the Florida Keys Traffic had to be maintained at all times, no road closures could occur

Excavations: Canal demucking prior to backfilling was done to accommodate an excavator and crane. The canal was backfilled with approximately 800CY of material to provide a working platform for heavy equipment and dewatering pump system. Excavation was performed into olitic limestone and required a sump area to be excavated to create a seating position for the installation of the ballast cans. The ballast cans were filled with tremie concrete as was the surrounding sump area.

Dewatering: A challenge of this project was when the area was dewatered. The sump area still remained underwater and due to the lack of head pressure water was upwelling from the rock causing the concrete to separate when it was tremie poured. The challenge was overcome by halting the dewatering evolutions and actually pumping water into the cofferdam to create additional head pressure. Divers were utilized to assist with the tremie pour

Sheet Pile: Driving sheet pile into rock became a challenge during this project. The rock was pre-drilled and pre-dug with an excavator equipped with a specialized rock bucket. The original plan was to make the cofferdam large(150' x 40'), however due to the large amount of water upwelling through the fragmented rock, we had constructed smaller cofferdams and move them back as we installed pipe and backfilled them.

Relevancy: Placed temporary sheet pile coffer dams, concrete work, Site work



Blue Goose Construction
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General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110

Project Reference Sheet

Project: Tradition 20 Million Gal/Day Master Irrigation Plant
(Competent experience while with Ditch Diggers Construction)

Owner / Contact: Core Communities/Matthew Amman/(912)898-9993

Contract Amount: 13,000,000.00

Date Completion: June 2004

Description: Provide design build activities for the complete design for the Master Irrigation Filtration Plant servicing the entire community of Tradition in Port St. Lucie. Tasks include design, implementation and construction of raw water filtration systems, large intake structures, 2 million gallon precast storage tanks and final connections to transmission.

TECHNICAL PROPOSAL EXPERIENCE ADDITIONAL INFORMATION

FLORIDA KEYS FAMILIARITY

Blue Goose Construction key personnel bring a lot of experience dealing with working in the Florida Keys, including:

Scott Holmes – Underground utilites, trenching, vacuum sewer systems, water main installation, directional boring, wash reclaim systems for the Key West Power Plant

John Allen – completed four (4) projects at Turkey Point for the Crocodile estuary/ preserve. The projects included steel sheet pile, excavation and dredging.

Joe Frederickson – During the 30 years of contracting experience in Florida Mr. Frederickson has worked 8 projects in the keys including Key West. Four of the projects were over 4 months in duration with two of them being over 10 months. During this time an understanding of local conditions and labor forces was gained.

Lee Corrigan – I have gained my competent experience while with Custom Built Marine Construction, Inc. and during my time with Custom Built we completed the Curry Hammock State Park Bridge Replacement project which incorporated a steel sheet pile cofferdam and concrete footers.

MCR ENGINEERS RELEVANT PROJECT REFERENCE LIST
TRUMAN ANNEX SEAWALL

MARINE-CIVIL-RESTORATION ENGINEERING

MCR Engineers consists of 2 Professional Engineers, 2 draftsmen, and a survey field crew specializing in marine related structures and infrastructure. Work includes industrial and municipal sites and facilities, condominium associations, and residential projects. Multi faceted design specialty includes waterfront site and civil engineering, seawall structural analysis, docks, marinas, and subaqueous utilities (underwater water, electric, and sewer lines). MCR Engineers supports projects with environmental and permitting consulting, underwater inspection, and coordination with geotechnical engineers. While MCR is technically capable of any size project, 50% of fees are generated from residential seawall design and permitting for marine structures of every variety. All projects listed completed last five years or ongoing.

Annual Revenue	$ 425,000
Annual Project Value	$ 10,000,000

Project	Sea Ranch Club of Boca
	4301 North Ocean Blvd
	Boca Raton, FL 33431
Contact	Steve Mauro
	561-395-0447
Contract Amount	$400,000
Engineering Fee	$40,000
Project Description	Rehabilitation of Marina and Seawall

Project	Portofino Condominium
	2600 North Flagler Drive
	West Palm Beach, FL
Contact	Kenneth Ufkin, LCAM
	561-655-3391
Contract Amount	$200,000
Engineering Fee	$15,000
Project Description	Rehabilitation of Marina and Seawall

Project	Shoreclub Condominium
	111 Shore Court
	North Palm Beach, FL 33408
Contact	Francis Jones
	561-882-0989
Contract Amount	$150,000
Consultant	$10,000
Project Description	Remove-Repair-Replace Seawall

Project	Florida Power & Light
	Saint Lucie Nuclear Power Station
	6501 S Ocean Dr
	Jensen Beach, FL 34957
Contact	Edward Hollowell
	772-467-7468
Contract Amount	$1,900,000
Engineering Fee	$45,000
Project Description	Steel retaining structure for emergency circulating water repair, Saint Lucie Nuclear Power Station

Project	Chapman School of Seamanship
	4343 SE St Lucie Blvd
	Stuart, FL 34997
Contact	Jennifer Fields
	772-283-8680
Contract Amount	$ 350,000
Engineering Fee	$ 30,000
Project Description	Comprehensive marina rehabilitation to include 1500 feet of seawalls, travel lift, upland marina facilities (ongoing)

Employee Safety Handbook

Blue Goose Construction

A Guide to Safety Policies & Procedures
to Support a Safety-Conscious Work Environment

Blue Goose Construction, LLC recognizes that our people drive the business. As the most critical resource, employees will be safeguarded through training, provision of appropriate work surroundings, and procedures that foster protection of health and safety. All work conducted by Blue Goose Construction, LLC's employees will take into account the intent of this policy. No duty, no matter what its perceived result, will be deemed more important than employee health and safety.

Blue Goose Construction, LLC is firmly committed to the safety of our employees. We will do everything possible to prevent workplace accidents and we are committed to providing a safe working environment for all employees.

We value our employees not only as employees but also as human beings critical to the success of their family, the local community, and Blue Goose Construction, LLC.

Employees are encouraged to report any unsafe work practices or safety hazards encountered on the job. All accidents/incidents (no matter how slight) are to be immediately reported to the supervisor on duty.

A key factor in implementing this policy will be the strict compliance to all applicable federal, state, local, and company policies and procedures. Failure to comply with these policies may result in disciplinary actions.

Respecting this, Blue Goose Construction, LLC will make every reasonable effort to provide a safe and healthful workplace that is free from any recognized or known potential hazards. Additionally, Blue Goose Construction, LLC subscribes to these principles:

1. All accidents are preventable through implementation of effective Safety and Health Control policies and programs.

2. Safety and Health controls are a major part of our work every day.

3. Accident prevention is good business. It minimizes human suffering, promotes better working conditions for everyone, holds Blue Goose Construction, LLC in higher regard with customers, and increases productivity. This is why Blue Goose Construction, LLC will comply with all safety and health regulations which apply to the course and scope of operations.

4. Management is responsible for providing the safest possible workplace for Employees. Consequently, management of Blue Goose Construction, LLC is committed to allocating and providing all of the resources needed to promote and effectively implement this safety policy.

5. Employees are responsible for following safe work practices and company rules, and for preventing accidents and injuries. Management will establish lines of communication to solicit and receive comments, information, suggestions and assistance from employees where safety and health are concerned.

6. Management and supervisors of Blue Goose Construction, LLC will set an exemplary example with good attitudes and strong commitment to safety and health in the workplace. Toward this end, Management must monitor company safety and health performance, working environment and conditions to ensure that program objectives are achieved.

7. Our safety program applies to all employees and persons affected or associated in any way by the scope of this business. Everyone's goal must be to constantly improve safety awareness and to prevent accidents and injuries.

Everyone at Blue Goose Construction, LLC must be involved and committed to safety. This must be a team effort. Together, we can prevent accidents and injuries. Together, we can keep each other safe and healthy in the work that provides our livelihood.

President

Risk Manager

March 02, 2006

BB&T Insurance Services
Global Resources — Client Focused

850 Concourse Parkway S., Suite 200
Maitland, FL 32751-6141
Main (407) 691-9600, Toll Free (800) 896-0554

January 25, 2017

Re: Blue Goose Construction LLC

To Whom It May Concern:

Please accept this letter as confirmation that the current 2017 National Council on Compensation Insurance Experience Modification Factor for Blue Goose Construction LLC is currently .86. For the two (2) years previous to 2017, the following are the Experience Modification Factors:

2016-17 = .85
2015-16 = .87

If there are any questions or additional information needed, please contact our office.

Regards,

Patti Post, CRM, AAI
Assistant Vice President
Account Executive/Commercial Lines

/pp

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employee to the extent possible while the information is being used for occupational safety and health purposes.

Year 2016

U.S. Department of Labor

Occupational Safety and Health Administration

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Form approved OMB no. 1218-0176

Company name: Blue Goose Growers, LLC

Establishment name: DIVISION 6 - CONSTRUCTION DIVISION

City: FL Pierce State: FL

Identify the person			Describe the case			Classify the Case				Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness					
						CHECK ONLY ONE box for each case based on the most serious outcome for that case:											
								Remained at Work				(M)					
(A) Case no.	(B) Employee's name	(C) Job Title	(D) Date of injury or onset of illness	(E) Where the event occurred	(F) Describe the injury or illness, parts of body affected, and object/substance that directly injured or made the person ill	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from Work (K)	On Job transfer or restriction (L)	Injury (1)	Skin Disorder (2)	Respiratory Condition (3)	Poisoning (4)	Hearing Loss (5)	All other illnesses (6)
AIM-0155832	Thompson, Daikeith	Mechanic	02/11	Blue Goose Mine	Hitting a big bucket (from a piece of equipment) with a hammer. Felt a sharp pain in the middle of his left arm.	☐	☐	☑	☐	0	23	☑	☐	☐	☐	☐	☐
AIM-0155851	Wilkins, Charles	Mechanic	02/26	9901 Okeechobee Road Fort Pierce, FL 34945	Employee was swinging a bar against a metal pin that holds an excavator bucket. He felt a noise coming from his left shoulder.	☐	☐	☑	☐	0	81	☑	☐	☐	☐	☐	☐
AIM-0159019	Thompson, Daikeith	Mechanic	08/25	3588 Corgen Road Labelle, FL	Was putting tooth on backhoe bucket, holding with thumb on machine, heating with cutting torch to make fit better, when operator released thumb tooth flew off and hit his finger.	☐	☑	☐	☐	3	41	☑	☐	☐	☐	☐	☐
AIM-0159546	Mulford, Joseph	QC Inspector	09/24	C-44 Indiantown	While working went down the spillway to help fellow employees clean off materials, felt sweaty dehydrated and dizzy.	☐	☐	☐	☑	0	0	☐	☐	☐	☐	☐	☑
AIM-0159918	Hatfield, Danny	Foreman	10/19	SR 78	While driving fell asleep and veered onto the grass shoulder, colliding into the end of a guardrail.	☐	☐	☐	☑	0	0	☑	☐	☐	☐	☐	☐
					Page Totals >>	0	1	2	2	3	145	4	0	0	0	0	1
												Injury (1)	Skin Disorder (2)	Respiratory Condition (3)	Poisoning (4)	Hearing Loss (5)	All other illnesses (6)

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2016

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing the summary.

Using the Log, count the individual entries you made in each category. Then write the total below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".

Employees, former employees, and their representatives have the right to review the OSHA 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	2	2
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days with job transfer or restriction
3	145
(K)	(L)

Injury and Illness Types

Total number of ...

	(M)		(M)
(1) Injuries	4	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	1

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Establishment information

Establishment name
Blue Goose Growers, LLC

Location
DIVISION 6 - CONSTRUCTION DIVISION

Street
9901 Okechobee Rd

City: **Ft. Pierce** State: **FL** Zip: **34945**

Industry Description
None

Standard Industry Classification (SIC)
0

North American Industrial Classification (NAICS), if known
N/A

Employment Information

Annual average number of employees: **N/A**

Total hours worked by all employees last year: **123,460**

Sign Here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate and complete.

Company Executive — Title

(772) 461-3020 — 1/12/17

Phone — Date

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employee to the extent possible while the information is being used for occupational safety and health purposes.

Year 2015

U.S. Department of Labor

Occupational Safety and Health Administration

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident report (OSHA 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Form approved OMB no. 1218-0176

Company name Blue Goose Growers, LLC

Establishment name DIVISION 6 - CONSTRUCTION DIVISION

City FL Pierce State FL

Identify the person			Describe the case			Classify the Case												
						CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness						
								Remained at Work										
(A) Case no.	(B) Employee's name	(C) Job Title	(D) Date of injury or onset of illness	(E) Where the event occurred	(F) Describe the injury or illness, parts of body affected, and objects/substance that directly injured or made the person ill	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from Work (K)	On Job transfer or restriction (L)	(M) Injury (1)	Skin Disorder (2)	Respiratory Condition (3)	Poisoning (4)	Hearing Loss (5)	All other illnesses (6)
AIM-015309 0	Wilkins, Charles	Mechanic	09/13	9901 Okeechobee Road Fort Pierce	While painting a crane, came down the ladder and a love bug got into his left eye. He rubbed his eye.	☐	☐	☐	☑	0	0	☑	☐	☐	☐	☐	☐
AIM-015394 7	Maldonado, Jorge	Mechanic	10/29	C-41 Indiantown	While replacing a starter in the water truck, strained something in his abdominal area	☐	☐	☑	☐	0	7	☑	☐	☐	☐	☐	☐
					Page Totals >>	0	0	1	1	0	7	2	0	0	0	0	0

Injury (1) Skin Disorder (2) Respiratory Condition (3) Poisoning (4) Hearing Loss (5) All other illnesses (6)

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2015

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing the summary.

Using the Log, count the individual entries you made in each category. Then write the total below, making sure you've added the entries from every page of the Log. If you no cases write "0".

Employees, former employees and their representatives have the right to review the OSHA 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	1	1
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days with job transfer or restriction
0	7
(K)	(L)

Injury and Illness Types

Total number of ...	(M)		
(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Establishment Information

Establishment name
Blue Goose Growers, LLC

Location
DIVISION 6 - CONSTRUCTION DIVISION

Street
9901 Okechobee Rd

City	State	Zip
Ft. Pierce	**FL**	**34945**

Industry Description
None

Standard Industry Classification (SIC)
0

North American Industrial Classification (NAICS), if known
N/A

Employment Information

Annual average number of employees **N/A**

Total hours worked by all employees last year **N/A**

Sign Here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate and complete

Company Executive	Title	Phone	Date
	CONSTRUCTION GEN MGR	(772) 461 - 3020	1/4/16

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employee to the extent possible while the information is being used for occupational safety and health purposes.

Year 2014

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Company name: Blue Goose Growers, LLC

Establishment name: DIVISION 6 - CONSTRUCTION DIVISION

City: FL Pierce State: FL

Identify the person			Describe the case			Classify the Case												
						CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness						
								Remained at Work				(M)						
(A) Case no.	(B) Employee's name	(C) Job Title	(D) Date of injury or onset of illness	(E) Where the event occurred	(F) Describe the injury or illness, parts of body affected, and objects/substance that directly injured or made the person ill	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from Work (K)	On Job transfer or restriction (L)	Injury (1)	Skin Disorder (2)	Respiratory Condition (3)	Poisoning (4)	Hearing Loss (5)	All other illnesses (6)
005-2014 AIM01 44982	ANDRADE, JESUS	Mechanic	05/19	9901 Okeechobee Rd Fort Pierce, FL 34945	While lifting a small radiator, he stretched too much. Later his low back was hurting.	☐	☐	☑	☐	0	5	☑	☐	☐	☐	☐	☐

Page Totals >> 0 0 1 0 0 5 1 0 0 0 0 0

Injury (1) | Skin Disorder (2) | Respiratory Condition (3) | Poisoning (4) | Hearing Loss (5) | All other illnesses (6)

OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

Year 2014
U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing the summary.

Using the Log, count the individual entries you made in each category. Then write the total below, making sure you've added the entries from every page of the Log. If you no cases write "0".

Employees, former employees and their representatives have the right to review the OSHA 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	1	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days with job transfer or restriction
0	5
(K)	(L)

Injury and Illness Types

Total number of ...
(M)

(1) Injuries	1	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection is estimated at 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB number. If you have any comments about these estimates or any other aspects of this data collection, contact: US department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Establishment name
Blue Goose Growers, LLC

Location
DIVISION 6 - CONSTRUCTION DIVISION

Street
9901 Okechobee Rd

City: Ft. Pierce | State: FL | Zip: 34945

Industry Description
None

Standard Industry Classification (SIC)
0

North American Industrial Classification (NAICS), if known
N/A

Employment Information

Annual average number of employees: N/A

Total hours worked by all employees last year: N/A

Sign Here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate and complete

[signature] CONSTRUCTION GENERAL MANAGER

Company Executive — Title

(772) 461 - 5020 — 1/29/15

Phone — Date

Part III - Technical Statement - Project Approach

The following statements shall be addressed by the Proposer on separate paper as required in the order presented herewith.

A. Statement of Project scope and requirements and design approach.

B. Management structure for project staffing including design/builder administrative and supervisory staff and proposed subcontractors.

C. Statement on Management Process, which will be used during design phase and construction phase.

D. Statement of resources, capacity to perform and Mobilization Plan.

E. Statement regarding approach to Schematic Site Plan, grading and level changes.

F. Statement on Construction Phasing approach.

G. Statement on quality and sufficiency of proposed staffing and organizational structure, including project organization charge and identification of key project team members.

H. Statement of proposed design process with review schedule and scope of each deliverable.

I. Statement of proposed Design/Build Milestones with time schedule.

J. Statement of construction systems and materials proposed for the exterior of the proposed buildings.

K. Statement on design and construction Quality Control Program of Proposer.

L. Design areas where Design/Builder would suggest alternate methods, materials, or systems.

Technical statement- Project Approach

A. The Truman Annex Seawall project scope is to deconstruct five (5) timber docks, existing concrete seawall cap, twenty five (25) mooring piles, and utilities to allow access for the installation of approximately 370LF of new cold formed steel sheet pile with a cast in place concrete cap using 6000psi concrete and epoxy coated rebar, concrete cap is to receive a class 5 coating, and 6000psi precast concrete dead-man. All utilities are to be relocated upland of the new seawall with pull boxes, the five (5) timber docks are to be reconstructed with utilities reconnected and all mooring piles are to be reinstalled. BGC will approach the project with the mindset of performing a value engineering assessment.

B. Please see the attached management organizational chart and BGC will not have any major sub contractors.

C. Please see the attached letter titled technical proposal qualification additional information

D. Please see the attached letter titled technical proposal qualification additional information

E. BGC will provide a schematic site plan showing the trailer/ office location, proposed work area, grading plan and level changes showing the soil slopped back from the top of the new seawall cap and toward the existing storm drain as to prevent runoff of stormwater over the seawall.

F. BGC will phase construction so as to limit the possibility damage to the existing concrete seawall structures and allow sufficient room for the large equipment need to perform the pile driving.

G. Please see the attached letter titled technical proposal qualification additional information as well as the organizational chart.

H. Use a collaborative, integrated design process for all stages of project delivery with comprehensive performance goals for site protection, storage of work items equipment and/or materials, water and electrical supply, material selection, and environmental protection. Ensure incorporation of these goals in project delivery. Consider all stages of the project lifecycle, including environmental protection, demolition or salvage, deconstruction, construction and/or rehabilitation.

I. The proposed design build milestones will be the delivery and acceptance of the proposed design, mobilization, utilities relocation, installation of sheet pile, completion of steel sheet pile, concrete cap construction, and tie-back and dead-man installation. The proposed design build milestones will be the delivery and acceptance of the proposed design, mobilization, utilities relocation, installation of sheet pile, completion of steel sheet pile, concrete cap construction, and tie-back and dead-man installation.

J. BGC will use a 60ton rough terrain crawler crane for increased mobility on the site, a crane suspended vibratory hammer (MKT V-22) to drive the Cold formed sheet pile to

final elevation. The concrete cap will be constructed with plywood box forms, epoxy coated rebar, 6000psi concrete and a class 5 protective coating.

K. Please see the attached quality control table of contents and introduction.

L. BGC along with MCR Engineers does not propose any alternate method, material, or system at this time. However if there is a variation in the geotechnical information or any other structural information provided that required a change to stay within the city's budget, options would be provided.

Part IV - Technical Statement - Financial Information

1. State number of years the company has been in business. 17 yrs
(previously known as Blue Goose Growers., LLC d/b/a Blue Goose Construction

2. Statement on credit rating of Proposer:

   a. Give total contract value of work accomplished by your organization in each of the last three years.

   20 14 $7,500,000.00 20 15 $23,500,000. 20 16 $41,500,000.00

   b. Give contract value of work now under contract with your organization: $ 62,000,000.00

3. Strength of latest financial statement: See attached letter

4. Statement on any bankruptcies, value of judgment or liens outstanding against your organization: N/A

5. Statement on ability to secure performance and payment bonds: See attached letter from bond company

   Give names of Surety Companies and agent under which you have functioned within last three years:

   20 14 Western Surety Company

   20 15 Western Surety Company

   2016 Western Surety Company

6. Estimate your maximum bonding capacity $ see attached letter

   How much is unencumbered and available at this date? See attached letter

7. Statement on bonding capacity committed to current and pending projects: see attached

8. What is the largest (dollar cost) project ever performed by your organization? $100,792,387.00

INSURANCE/SURETY BONDS

JOHNSON & COMPANY

March 2, 2017

City of Key West
1300 White Street
Key West, Florida 33040

RE: ***Blue Goose Construction LLC***
Project Name: Truman Annex / NOAA Seawall Key West, Florida

To Whom It May Concern,

Brett Ragland of Johnson and Company is the bonding agent for Blue Goose Construction LLC and has handled the bond needs of this fine company since 2006. The bonds are written through Western Surety Company (part of the CNA Insurance Group), which is A.M. Best rated A, XV and listed with the United States Department of the Treasury at $765,476,000.

General limits on single projects are in the $100,000,000 range, with an aggregate work program in the area of $250,000,000, if requested we would favorably consider bonds of higher parameters as maximum limits have not yet been established. Requests are subject to normal underwriting requirements; this letter is not an assumption of liability, nor is it a bid bond or performance bond. It is issued only as a bonding reference from us, as requested by our client. Any arrangement for surety credit is a matter between Blue Goose Construction LLC and the surety.

We give Blue Goose Construction LLC our highest recommendation. If you should have further questions or require additional information, please don't hesitate to contact us.

Best Regards,
JOHNSON AND COMPANY

Brett A. Ragland,
Vice President

P.O. Drawer 672 • Orlando, FL 32802-0672 • 801 N. Orange Avenue, Suite 510 • Orlando, FL 32801-5202 (407) 843-1120
(800) 331-3379 • FAX (407) 843-5772

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110

Credit References

Diamond R Fertilizer
P.O. Box D860237
Orlando, FL 32886
PH: (772)464-7237
Fax: (772)464-9308 (Pat)

Chavis and Dearnell Inc.
PO Box 210
Titusville, FL 32780
PH :(321)225-6643
Fax: (321)225-4944

Crop Production Services
P.O. Box 1021
Greeley, CO 80632-1021
PH: (772)464-0111
Fax (863)425-7448 (Diane Henry)

Everglades Equipment
PO Box 910
Belle Glade, FL 33430
PH : (561)996-6531

Port Consolidated
P.O. Box 2638
Fort Pierce, FL 33168
PH: (772)461-1020 (Mike)

Ring Power Corp.
500 World Commercial Pkwy
St. Augustine, FL 32092
PH: (813)671-3700

Como Oil Company
PO Box 386
Palm City, FL 34991
PH: (772)287-1900

Mosley & Sons Construction
1400 SE Monterey Road
Stuart, FL 34994
PH: (772)287-6962
Fax (772)287-7224

Our Owner is:
Bernard A. Egan Groves, Inc. 1900 Old Dixie Hwy, Fort Pierce, FL 34946

A/P Contact person Tiffany Freeman, accounts payable (772) 466-7555
Email: bggap@bluegooseconstruction.com.

Dun & Bradstreet information:
DUNS: 079888643
SIC#'s 0721 6531 0762

Contractor's Quality Control Plan

Table of Contents

Attachments:

Contractor's Quality Control (CQC) Plan

1. Introduction

Quality Control will be a fully integrated process within all construction activities. The following plan outlines the individuals involved and the general procedures per the Technical Specifications for the project. Quality Control is an ongoing process that occurs on a daily basis. The purpose of the CQC Plan is to ensure that quality control is maintained throughout the project in accordance with the contract terms and conditions and to provide a quality end product that complies with the project specifications.

In general, construction activities will be performed in accordance with this CQC Plan and the following supporting documents:

- South Florida Water Management District (District) contract documents (drawings, specifications, change orders, RFIs, etc).
- Specific detailed plans developed by the contractor (as required by the specifications) submitted and approved by the District such as, but not limited to, the following:
    - Demolition Plan (02050)
    - Clearing and Land Preparation Plan (02110)
    - Tree Removal Plan (02114)
    - Earthwork Plan (02200)
    - HDPE Culvert Installation Plan (02434)
    - Corrugated Aluminum – Alloy Pipe & Riser Installation Plan (02645)
- Turbidity Control & Monitoring (02435)
- Environmental Protection Plan (02436) – Provided by Subcontractor
-

2. CQC Organizational Structure

The CQC Organizational Structure specifically delineates the organization, roles and responsibilities of all members of the BGC Project Staff. The Organization Structure is detailed in Attachment A. Below, the project staff is described in general terms:

2.1 VP & General Manager – Scott Holmes

The VP & General Manager (VP) for BGC is the senior most member of BGC in the Quality Organizational Structure and as such is charged as a Quality Manager. The BGC VP is the final signatory authority for all contract documents for legal purposes where required in accordance with BGCs Procedures.

2.2 Operations Manager (OM) – John Allen / Project Manager (PM) - Joseph Fredrickson

The Operations Manager is responsible to the VP for overall management of the project and will lead the project through its entire lifecycle including initiating, planning, executing, monitoring and closeout. He will also ensure all required field level quality related activities are performed and documented in accordance with the CQC Plan. The OM is responsible for the quality workmanship produced in the field by the Superintendent / Quality Manager, Field Inspectors and Quality Technicians.

2.3 Superintendent (SP) – Jimmy Sconyers

The Superintendent is responsible to the OM / PM for all events occurring in the field throughout the life of the project. The SP is responsible for attending all project meetings and events or sending an authorized / qualified representative in his place and is the primary point of contact for communication with the District. He will be onsite full time and is the highest level manager onsite. The SP has overall accountability for quality workmanship of the Field Inspectors, Quality Technicians and Sub-Tiered Firms as well as required documentation from

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110

City of Key West- Truman Annex Seawall Restoration Design Build

Work Plan

*P.O. Box 14709 * Ft Pierce, FL 34979-4709 * Ph. (772) 461-3020 * Fax: (772) 468-4669*

Blue Goose Construction
Heavy Civil / Underground Utilities / Complete Site Development / Marine

State Certified Licensed
General Contractor #CGC1517686
Pollutant System Contractor # PCC056727
Underground Utility & Excavation # CUC1225110

City of Key West - Truman Annex Seawall Restoration Design/Build

General Requirements

Summary of Work

Blue Goose Construction along with MCR Engineers work includes design and installation of a steel sheet pile wall with concrete cap and tie-back system, and the incidental work needed to remove, store and replace the existing mooring piles and portions of the five (5) existing dock platforms that are fixed to the existing seawall cap. The existing concrete panel seawall and tieback system will remain in place with the exception of the concrete cap which will be removed and disposed of in an appropriate landfill. The existing electrical, water and storm sewer connections along the wall will be temporarily disconnected, protected and reinstalled upland of the proposed steel sheet pile seawall. MCR Engineers will provide calculations to support the design of the replacement wall based on the geotechnical information included with the RFP. BGC proposes the use of cold formed DZ-85 sheet pile, A690 steel sheets with a line item alternative for applying 16mils of Targuard coal tar epoxy coating to both sides of the sheet for the top 25 feet. Upon review of the geotechnical engineering report and site conditions BGC along with MCR Engineers will provide value engineering to provide a sheet pile that is both strong enough to endure the strenuous pile driving conditions and provide the most value to the City . BGC will provide engineered shop drawings signed and sealed by MCR Engineers who is a Florida licensed Professional Engineer, and will serve as the projects engineer of record (EOR). The shop drawings will include the sheet selection, concrete cap mix design, tie-back anchor size and spacing, size of dead-man anchors, final embedment depth of the mooring piles, repairs to the five dock structures and any other ancillary items such as electrical, water and storm sewer connections, but not limited to. The electrical, water and sewer connections shall be reinstalled in like kind upland of the new sheet pile wall. For the electrical, BGC has included the addition of pull boxes on the upland side of the wall as shown on the conceptual drawings. If possible BGC leave the existing undisturbed and the new tiebacks will be installed above/between the existing wall tie-back with minimal excavation. BGC proposes that the new tie-backs should be angled at a minimum of 10 degrees and extend to a point beyond the existing tie-backs. BGC will field verify the location and depth of the existing tie-backs. BGC in accordance with the RFP assumed the bid length for the DYWIDAG rods selected to be 20-feet. BGC will provide a minimum of two load tests on the tieback system each test will be performed and verified by the EOR. The required loading is assumed to be approximately 100-150kips but will depend on the EOR's wall design and the spacing of the tie-back systems. Live loads and loading duration will be prescribed by the EOR. BGC will provide the loading requirements and testing dates to the EOR, the City and its representatives prior to initiating the tests. The results of the test shall be provided to the City and its representative for verification and approval before proceeding with the remaining installation. The space between the existing wall and the proposed steel sheet pile wall shall be filled with 57-stone, pea-gravel or other suitable stone locally sourced. Contractor shall supply alternate bid item for substituting the pea-gravel or 57-stone between the walls with crushed rock. There are twenty five (25) existing timber mooring piles that run along the face of the seawall that are in good condition and will need to be removed, stored and replaced. The mooring piles are assumed to be 45-feet long with 25-feet of embedment. The contractor shall assume the piles will need to be embedded to a minimum of 25-feet in the RFP response and assume it will be necessary to use a pile guide template and/or provide predrilling or punching to set the piles. All of the existing cleats and bollards on the existing wall shall be removed, stored and reinstalled using stainless steel hardware. The existing five (5) dock platforms are fixed to the existing seawall cap and will need to be partially demolished and/or deconstructed, stored and reattached. This will require portions of the decking and stringers to be replaced as necessary. The five existing aluminum access gates shall be carefully removed, stored, and reused. These gates will need to be modified (new anchor plates will need to be welded to the post) so they can be remounted to the new cap, and reused. The contractor shall assume that the docks will need to be constructed in like kind and reattached to the proposed seawall cap as required.

Submittal Procedure

BGC will supply all submittal in confrmance with section 01-33-00 of the technical specs. Submittals will be identified by Submittal Description (SD) numbers and titles as follows.

SD-01 Preconstruction Submittals
All submittals requiring approval will be designated with a "G" as requested in section 01-33-00 of the technical specs.

Submittals required prior to construction:

- Certificates of insurance
- Surety bonds
- List of proposed subcontractors
- List of proposed products
- Construction progress schedule
- Submittal register
- Schedule of prices or Earned Value Report
- Health and safety plan
- Work plan
- Quality control (QC) plan
- Environmental protection plan

BGC may submit plans in a written (paragraph) or graphical (drawing) form depending on the needs of the City's Representative. Plans written in paragraph from will be detailed enough to adequately describe the plan of action for the work item. Plans and shop drawings prepared in graphical form will be clear, concise and drawn to scale if possible. Drawings not drawn to scale shall be clearly identified as such using the abbreviation N.T.S.. All drawings submitted will use the same elevation data provided on the design build (RFP) drawings.

SD-02 Shop Drawings
The shop drawings for the steel sheet pile selection, the tie-back rod selection, the dead-man anchor selection, the concrete cap mix design, timber pile installation, dock reconstruction, and water and electrical reconstruction will all be signed and sealed by a MCR Engineers and submitted to the City or its representatives for approval. All diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to BGC for integrating the product or system in the project will notbe signed and sealed but will be included as a reference. Drawings prepared by or for BGC to show how multiple systems and interdisciplinary work will interact with one another will be coordinated with the CITY and/or its representatives as necessary.

SD-03 Product Data
Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work. Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples
Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the

work can be judged. Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project. Field samples and mock-ups constructed on the project site establish standards by which the ensuing work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-05 Design Data
Design calculations, mix designs, analyses or other data pertaining to a part of work.

SD-06 Manufacturer's Instructions
Preprinted material describing installation of a product, system or material, including special notices and (MSDS) concerning impedances, hazards and safety precautions.

SD-07 Operation and Maintenance Data
Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item. This data is intended to be incorporated in an operations and maintenance manual or control system.

SD-08 Closeout Submittals
Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism. Submittals required for Guiding Principle Validation (GPV) or Third Party Certification (TPC). Special requirements necessary to properly close out a construction contract. For example, Record Drawings and as-built drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

All submittals shall be approved by the City of Key West Engineering Department or authorized representative.

Submittal Register
BGC will prepare and maintain submittal register, as the work progresses. BGC will not change data which is output in columns (c), (d), (e), and (f) as delivered by CITY; retain data which is output in columns (a), (g), (h), and (i) as approved. A submittal register showing items of equipment and materials for which submittals are required by the specifications is provided as an attachment. This list may not be all inclusive and additional submittals may be required. The CITY will provide an initial submittal register in electronic format with the following fields completed.

Column (c): Lists specification section in which submittal is required.
Column (d): Lists each submittal description (SD No. and type, e.g. SD-02 Shop Drawings) required in each specification section.
Column (e): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column
(e) as limiting project requirements

BGC will track all submittals by maintaining a complete list, including completion of all data columns, including dates on which submittals are received and returned by the CITY.

Design Data

After award, BGC along with MCR Engineers will develop the accepted proposal into the completed design, as described herein. Use a collaborative, integrated design process for all stages of project delivery with comprehensive performance goals for site protection, storage of work items equipment and/or materials, water and electrical supply, material selection, and environmental protection. Ensure incorporation of these goals in project delivery. Consider all stages of the project lifecycle, including environmental protection, demolition or salvage, deconstruction, construction and/or rehabilitation.

Order of Precedents

In the event of a conflict or inconsistency between any of the requirements within the Contract, precedence is applied to:

a. Any portions of the accepted proposal which both conform to and exceed the requirements of the solicitation.
b. The provisions of the solicitation.
c. All other provisions of the accepted proposal.
d. Any design products including, but not limited to, plans, specifications, engineering studies and analyses, shop drawings, and equipment installation drawings. These are "deliverables" under the contract are not part of the contract itself. Design products must conform to all provisions of the contract, in the order of precedence.

Post Award Conference

The CITY will conduct a post award conference at the project site or office location specified by the CITY, as soon as possible after Contract award, coordinated with issuance of the notice to proceed (NTP). BGC will attend the post award conference and will also invite its minor subcontractor. MCR Engineers will not be required to attend. BGC will look to the CITY to provide an agenda, meeting goals, meeting place, and meeting time to participants prior to the meeting.
As a minimum the following will be addressed during the conference: determination and introduction of contact person and their authorities; contract administration requirements; discussion of expected project progress processes; and coordination of subsequent meeting.

a. The CITY will introduce the CITY project delivery team members and representatives, facility users and representatives, and installation representatives.
b. Introduce key personnel, major subcontractors and other needed staff.
c. Define expectations and duties of each participant.
d. Develop a meeting roster with complete contact information including name, office, project role, phone, mailing and physical address, and e-mail address for distribution to all participants. Also, provide minutes of the meeting to all participants.

Initial Design Conference

After Contract award, the CITY will conduct the initial design conference, and provide a record of the meeting. All Designers of Record must participate in the conference. The primary purpose of the meeting is to make sure any needs are assigned and due dates established, as well as points of contact identified. The initial design conference may be scheduled and conducted at the project installation after the Post Award Conference and prior to initiation of significant preliminary design development, although it is recommended that the partnering process be initiated at the time of or before the initial

design conference. Limit any design work conducted after award and prior to this conference to site work.

Preconstruction Conference
The initial design conference may be scheduled and conducted at the project installation after the Post Award Conference and prior to initiation of significant preliminary design development, although it is recommended that the partnering process be initiated at the time of or before the initial design conference. Limit any design work conducted after award and prior to this conference to site work.

Delivery, Storage and Handling

BGC along with MCR Engineers will provide project data on disc-based (DVR or R/RW) or zip-drive media. BGC/MCR will provide the full submittal on one single disc/drive whenever possible. When separation of the submittal is required BGC/MCR will separate deliverables onto separate media.

a. BGC/MCR will directly print identification of contents onto storage media. Do not provide adhesive labels.Include the name of the submittal, project, project location, Contract number, Designer of Record firm/Prime Contractor Company's name, and title of submission on the label. If multiple discs are provided, BGC/MCR will clearly document the contents of each disc on the label.

b. BGC/MCR will Include the name and contact information of the individual who produced the final data disc to ensure that any problems with the data or media can be easily resolved.

c. When browsed on any computer, the disc displays the following folders and their associated content:

(1) Submittal files (containing all submittal data)
(2) All supporting documents associated with the submittal
(3) Readme containing one TXT, PDF, or HTML file with general use information, organizational instructions, and basic preparer contact information.

City Furnished Materials
The CITY will provide drawing files as CFM for use in design development. Develop and maintain the information and level of detail contained in the CFM in the Project design, as required by this Contract.

Design Drawings
BGC/MCR from advanced model files, produce design drawings that describe the scope of the Contract for all required submittals including all interim and final deliverables. BGC/MCR will provide electronic drawing files in PDF format for each project drawing in the design set. BGC/MCR will provide an index of drawing sheets as part of the drawing set, and an electronic table of all drawings submitted (as required). Include the electronic file name, the sheet reference number, the sheet number, and the sheet title containing the data for each drawing. Design drawings may be prepared similar to shop drawings to minimize construction submittals after the Design Complete Submittals. Prepare and submit with the design drawings, appropriate connection, fabrication, layout, and product specific drawings. Use the Contractor-originated drawings as the basis for the record drawings. Conform shop drawings included as design documents with the same drawing requirements such as drawing format, sheet size, layering, lettering, and title block used in design drawings. Indicate which shop drawings are being submitted as design drawings in the transmittal letter. Sign, date and seal all Contractor-originated design drawings by the registered architect or the registered engineer of the respective discipline. This is

the seal of the Designer of Record for that drawing. Application of the electronic seal and signature accepts responsibility for the work shown thereon. BGC/MCR will provide a Contractor-originated design specification that, in conjunction with the drawings, demonstrates compliance with materials, equipment, execution, and field quality control requirements of the RFP and accepted proposal. Specifications will be formatted in accordance with section 2.3.1 of the technical specifications. BGC/MCR Engineers will provide a complete and legible catalog cut sheets, product data, installation instructions, operation and maintenance instructions, warranty, and certifications for products and equipment for which final material and equipment choices have been made. Indicate, by prominent notation, each product that is being submitted including optional manufacturer's features, and indicate where the product data shows compliance with the Contract requirements. Submit a bundled specification package in PDF format for each design package. As a minimum, BGC/MCR will bookmark each specification section in the bundled package. As well as, submit the source files, in the processing system format, used to create the PDF. Design specifications will include the following:
a. Cover sheet and project table of contents.
b. Specification sections, each section with a table of contents.
c. Manufacturer's Product Data. If providing as attachments to the applicable specification section, incorporate as attachment reference within the section and section table of contents

Execution of design
Design Submittals:
BGC/MCR will include all deliverable products and associated support documents described in Part 2 of specification with each design submittal. The stages of design submittals described below define requirements with respect to process and content. BGC/MCR will determine how to best plan and execute the design and review process for the project, within the parameters listed below. As a minimum, BGC/MCR will provide at least one interim design submittal, at least one final design submittal before construction of a design package may proceed, and at least one Design Complete submittal that documents the accepted design.

a) Interim design submittal- Submit a single interim design for review, representing a complete package with all design disciplines.
b) Fast tracking- Identify the project elements that will be fast-tracked in the Design Quality Control Plan.
c) Over the shoulder progress review- To facilitate a streamlined design-build process, the CITY and the Contractor may agree to one-on-one review or small group reviews, on-line, or at the Contractor's design offices or other agreed location, when practicable to the parties. Coordinate such reviews to minimize or eliminate disruptions to the design process. Due to limits on project funding, utilize the maximum virtual teaming methods. Facilitate these reviews with electronic format data transfer and collaboration. Through the partnering process, find ways to facilitate the quality assurance process and to facilitate meeting or bettering the design-build schedule.
d) Interim design development review waiver- The CITY may agree to shorten or waive the formal interim design development review period for design package(s) if an effective, mutually agreeable partnering procedure is established and implemented for regular (e.g., weekly) over-the shoulder review. During the course of the procedure, keep the CITY reviewers fully informed of the progress, contents, design intent, design documentation, and other pertinent factors of the design package.
e) Final design submission- After acceptance of the interim design package, revise the design package to incorporate the comments generated and resolved, perform and document a back-check review and submit the final design package.

f) Design complete submittals- After the final design submission and review conference for a design package, revise the design package to incorporate the comments generated and resolved in the final review conferences, perform and document a back-check review and submit the final, design complete documents, which represents released for construction documents.

Design Platforms and file formats:
All content produced through CAD authoring software shall be compliant with Autodesk AutoCAD.

Discipline design requirements:
BGC/MCR will provide interim design deliverables that include drawings, specifications, and design analysis for the part of design that the Contractor considers ready for review.

a. Drawings: Include comments from any previous design conferences incorporated into the documents to provide an interim design for the feature of work submitted.
b. Specifications: Provide specifications to ensure that all project design features are addressed, meeting current code requirements, and regulatory requirements. Use the track changes feature (redlines) to facilitate review of additions and deletions.
c. Design Analysis: Prepare and present design analysis under the authority of the EOR, with calculations necessary to substantiate and support all design documents submitted. Address design substantiation required by the applicable codes and references in the submittal distribution list.

Geotechnical investigations and reports:
BGC/MCR may perform additional geotechnical investigations/exploratory excavation, as necessary, to determine the conditions for the actual locations of existing wall tie-backs and buried electrical (if any) features and other site features. BGC/MCR will submit a final geotechnical evaluation report that shows the typical spacing of the buried tie-back systems along with the proposed tie-back spacing and down angle design submittal. BGC/MCR will make this information available as early as possible during the over-the-shoulder progress review process.

a. Summarize the subsurface conditions and provide recommendations for the design of appropriate utilities disconnection/reconnection, tie-backs and dead men anchors.
b. Include the raw field data and typical photos if available.

Inconsistency with the preliminary soils information:

If irregularities arise BGC/MCR will arrange a meeting with the CITY subsequent to completion and evaluation of the site specific geotechnical exploration to outline any differences encountered that are inconsistent with the CITY provided preliminary soils information. BGC/MCR will clearly outline differences which require changes in the tieback type, and earthwork requirements from that possible and contemplated using the CITY furnished preliminary soils investigation, which result in a change to the design or construction.

Certifications:

BGC/MCR shall certify in writing that the design of the project has been developed consistent with the construction documents. BGC/MCR will submit the signed and sealed certification, with the first design submission. If revisions are made to the initial design submission, BGC/MCR will provide a new certification with the final design submission.

Civil, site and utilities design content:

BGC/MCR shall include the following in the interim design for the site and utilities. This list is not intended to limit the contractor from providing different or additional information as needed to support the design presented.

a. Storm drainage maintenance and protection design
b. Pavement maintenance design
c. Location and vicinity maps
d. Removal and/or relocation plan
e. Layout plan
f. Excavation, tie-back placement, grading and drainage management plan
g. Utility Plan: Identify and locate all subsurface utility features to be relocated, temporarily disconnected and then reconnected, or protected in place
h. Concrete Joint Plan: Provide a construction joint layout plan for each concrete joint based on production expectations (e.g. 100 LF per week, construction joint will be 100 LF apart).
i. Erosion and Sediment Control Plan

Structural Systems

General

a. BGC/MCR shall Identify all loads to be used for design.
b. BGC/MCR shall identify the program name, source, and version used for computer generated calculations. As well as provide input data, including loads, and documentation to illustrate the design.

Corrosion Control and Prevention Systems

BGC intends to use A690 marine grade steel sheet pile. Any additional Epoxy coatings or Galvanic protection will be discussed by MCR and shown on a shop drawing if deemec necessary.

Final Design Requirements

BGC/MCR shall provide final design submittals for CITY review and acceptance.

a. BGC/MCR will include any building permits and or permit application fees, required by the City of Key West.
b. In order to expedite the final design review, prior to the conference, BGC/MCR will ensure that the design configuration management data and all review comment resolutions are up-to-date.

Design Drawings

BGC/MCR shall submit shop or design drawings complete with all contract requirements incorporated into the documents to provide a 100 percent design for each package submitted. In addition to all native Advanced Modeling files, provide separate electronic files in a PDF format.

Design Analysis

BGC/MCR will provide a design analysis with calculations necessary to validate and support all design work submitted. Expand and advance calculations and information presented in the interim design stage to the current level of design. MCR's stamp, sign and date the design analysis.

Specifications

BGC/MCR will provide specifications 100 percent complete and in final form.

Submittal Register

BGC/MCR shall submit an updated, cumulative submittal register with each design package that identifies the design and construction submittals required by that design package.

DESIGN COMPLETE CONSTRUCTION DOCUMENT REQUIREMENTS

After the Final Design Submission and Review Conference, MCR revise the design documents for the design package to incorporate the comments generated and resolved in the final review conference. Perform and document a back-check review and submit the final, design complete documents. The deliverable includes all documentation and supporting design analysis in final form, as well as the final review comments, disposition and the back-check. As part of the quality assurance process, the CITY may perform a review of the released for construction documentation. BGC/MCR will promptly correct any errors or omissions found during the CITY review.

ACCEPTANCE AND RELEASE FOR CONSTRUCTION

After acceptance of the Design Complete Construction Documents the Contracting Officer will allow construction to start for that design package. CITY review and acceptance of design submittals is for contract conformance only and does not relieve BGC/MCR from responsibility to fully adhere to the requirements of the contract, including the BGC's accepted proposal, or limit BGC's responsibility of design as prescribed under Special Contract Requirement: "Responsibility of the Contractor for Design" or limit the CITY's rights under the terms of the contract. The CITY reserves the right to rescind inadvertent acceptance of design submittals containing contract deviations not separately and expressly identified in the submittal for CITY consideration and approval.

Temporary Construction Facilities and Controls

SUBMITTALS

CITY approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00

SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Site Plan; G

Hurricane Preparedness Plan; G

CONSTRUCTION SITE PLAN

Prior to the start of work, BGC/MCR will submit a site plan showing the locations and dimensions of temporary facilities (including layouts and details, equipment and material storage area onsite and offsite), and access and haul routes, avenues of ingress/egress to the fenced area and details of the fence installation. Identify any areas which may have to be graveled to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.

HURRICANE CONDITION OF READINESS

Unless directed otherwise, BGC will comply with:

a. Condition FOUR Sustained winds of 50 knots or greater expected within 72 hours: Normal daily

jobsite cleanup and good housekeeping practices. Collect and store in piles or containers scrap lumber, waste material, and rubbish for removal and disposal at the close of each work day. Maintain the construction site including storage areas, free of accumulation of debris. Stack form lumber in neat piles less than 4 feet high. Remove all debris, trash, or objects that could become missile hazards.

b. Condition THREE Sustained winds of 50 knots or greater expected within 48 hours: Maintain "Condition FOUR" requirements and commence securing operations necessary for "Condition ONE" which cannot be completed within 18 hours. Cease all routine activities which might interfere with securing operations. Commence securing and stow all gear and portable equipment. Make preparations for securing buildings. Review requirements pertaining to "Condition TWO" and continue action as necessary to attain "Condition THREE" readiness. Contact CITY for weather and Condition of Readiness (COR) updates and completion of required actions.
c. Condition TWO Sustained winds of 50 knots or greater expected within 24 hours: Curtail or cease routine activities until securing operation is complete. Reinforce or remove form work and scaffolding. Secure machinery, tools, equipment, materials, or remove from the jobsite. Expend every effort to clear all missile hazards and loose equipment from general base areas. Contact CITY for weather and COR updates and completion of required actions.
d. Condition ONE. Sustained winds of 50 knots or greater expected within 12 hours: Secure the jobsite, and leave CITY premises.

TEMPORARY SIGNAGE
Bulletin Board
Immediately upon beginning of work, BGC will post a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, Wage Rate Information poster, and other information approved by the CITY.

Project and Safety Signs
The requirements for the signs, their content, and location are as indicated. BGC will erect signs within 15 days after receipt of the notice to proceed. Correct the data required by the safety sign daily, with light colored metallic or non-metallic numerals.

EMPLOYEE PARKING
BGC's employees will park privately owned vehicles in an area designated by the CITY. This area will be within reasonable walking distance of the construction site. BGC's employee parking must not interfere with existing and established parking requirements of the CITY, NOAA or NAVY installation.

TEMPORARY BULLETIN BOARD
BGC will locate the bulletin board at the project site in a conspicuous place easily accessible to all employees, as approved by the CITY.

Temporary Utilities
BGC will provide temporary utilities required for construction. Materials may be new or used but will be adequate for the required usage, not create unsafe conditions, and not violating applicable codes and standards.

Sanitation
a. BGC will provide and maintain within the construction area minimum field-type sanitary facilities approved by the CITY and periodically remove waste to a commercial facility. Any penalties and / or fines associated with improper discharge will be the responsibility of the BGC. BGC will maintain these conveniences at all times without nuisance. Include provisions for pest control and elimination of odors. CITY toilet facilities will not be utilized by BGC personnel.

Telephone
BGC provides all competent personnel assigned to the project with Cellular telephones

Obstruction Lighting of Cranes
Although not anticipated, BGC will provide a minimum of 2 aviation red or high intensity white obstruction lights on temporary structures (including cranes) over 100 feet above ground level. Light construction and installation will comply with FAA AC 70/7460-1. Lights must be operational during periods of reduced visibility, darkness, and as directed by the CITY.

Fire Protection
BGC will supply temporary fire protection equipment such as but not limited to fire extinguisher, fire blankets and first-aid for the protection of personnel and property during construction. BGC will remove debris and flammable materials daily to minimize potential hazards.

TRAFFIC PROVISIONS

Maintenance of Traffic

BGC will perform the following tasks as necessary to maintain traffic:
a. Conduct operations in a manner that will not close any thoroughfare or interfere in any way with traffic on roads or highways except with written permission of the CITY at least 15 calendar days prior to the proposed modification date. BGC may move oversized and slow-moving vehicles to the worksite provided requirements of the highway authority have been met.

b. Conduct work so as to minimize obstruction of traffic, and maintain traffic on at least half of the roadway width at all times. Obtain approval from the CITY prior to starting any activity that will obstruct traffic.

c. Provide, erect, and maintain, at BGC's expense, lights, barriers, signals, passageways, detours, and other items, that may be required by the Life Safety Signage, overhead protection authority having jurisdiction.

Protection of Traffic

BGC will maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the CITY. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment, the work, and the erection and maintenance of adequate warning, danger, and direction signs, will be as required by the State and local authorities having jurisdiction. Protect the traveling public from damage to person and property. Minimize the interference with public traffic on roads selected for hauling material to and from the site. Investigate the adequacy of existing roads and

their allowable load limit. BGC is responsible for the repair of any damage to roads caused by construction operations.

Rush Hour Restrictions
Do not interfere with the peak traffic flows preceding and during normal operations without notification to and approval by the CITY.

Dust Control
Dust control methods and procedures must be approved by the CITY. Treat dust abatement on access roads with applications of calcium chloride, water sprinklers, or similar methods or treatment

BGC's TEMPORARY FACILITIES
BGC's trailers will be identified by CITY assigned numbers. Apply the number to the trailer within 14 calendar days of notification, or sooner, if directed by the CITY.

Safety
Protect the integrity of any installed safety systems or personnel safety devices. If entrance into systems serving safety devices is required, the BGC will obtain prior approval from the CITY. If it is temporarily necessary to remove or disable personnel safety devices in order to accomplish contract requirements, BGC shall provide alternative means of protection prior to removing or disabling any permanently installed safety devices or equipment and obtain approval from the CITY.

Storage Area
BGC intends to fence off the existing entrance to the site and provide a safe path of travel from the rear exist/entrance of the NOAA building.

Appearance of Trailers
BGC will maintain at all times a clean and orderly site storage unit/ office trailer.

Maintenance of Storage Area
BGC will implement the following measures to maintain the proposed storage area.
Keep fencing in a state of good repair and proper alignment. Grassed or unpaved areas, which are not established roadways, will be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways, should BGC elect to traverse them with construction equipment or other vehicles; gravel gradation will be at BGC's discretion. Mow and maintain grass located within the boundaries of the construction site for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers will be edged or trimmed neatly.

Security Provisions
If necessary BGC will provide adequate outside security lighting at the temporary facilities. BGC will be responsible for the security of its own equipment; in addition, BGC will notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office.

Weather Protection of Temporary Facilities and Stored Materials

BGC will take necessary precautions to ensure that roof openings and other critical openings in the building are monitored carefully. Take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday. Ensure that the openings are completely sealed off to protect materials and equipment in the work area from damage.

Building and Site Storm Protection

When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby CITY property. Precautions must include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work when storms of lesser intensity pose a threat to the work or any nearby CITY property.

FIELD OFFICE

Trailer-Type Mobile Office

The Contractor may, at its option, furnish and maintain a trailer-type mobile office acceptable to the CITY and providing as a minimum the facilities specified above. Securely anchor the trailer to the ground at all four corners to guard against movement during high winds.

TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, furnish and erect temporary project safety fencing at the work site. Maintain the safety fencing during the life of the contract and, upon completion and acceptance of the work, will become the property of the Contractor and be removed from the work site.

CLEANUP

Remove construction debris, waste materials, packaging material and the like from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways must be cleaned away. Store any salvageable materials resulting from demolition activities within the fenced area described above or at the supplemental storage area. Neatly stack stored materials not in trailers, whether new or salvaged.

RESTORATION OF STORAGE AREA

Upon completion of the project remove the bulletin board, signs, barricades, haul roads, and any other temporary products from the site. After removal of trailers, materials, and equipment from within the fenced area, remove the fence that will become the property of the Contractor. Restore areas used by the Contractor for the storage of equipment or material, or other use to the original or better condition. Remove gravel used to traverse grassed areas and restore the area to its original condition, including top soil and seeding as necessary.

TEMPORARY ENVIRONMENTAL CONTROLS

BGC intend to install temporary environments controls consisting of floating turbidity barrier, Turbidity monitoring, silt fence, dumpsters to remove construction waste, paint and chemical storage cabinets, spill containment areas where fueling is to take place, biodegradable hydraulic fluid for equipment that is to be used over the water such as the vibratory hammer.

Waters of the United States
Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

Universal Waste
The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, mercury-containing equipment (for example, thermostats), and lamps (for example, fluorescent bulbs). The rule is designed to reduce hazardous waste in the municipal solid waste (MSW) stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. These regulations can be found at 40 CFR 273.

SUBMITTALS
CITY approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
SD-01 Preconstruction Submittals
Environmental Protection Plan; G
Stormwater Notice of Intent (for NPDES general permit for construction); G
SD-08 Closeout Submittals
Stormwater Pollution Prevention Plan Compliance Notebook; G
Stormwater Notice of Termination (for NPDES general permit for construction); G

Temporary Environmental Controls

ENVIRONMENTAL PROTECTION REQUIREMENTS
BGC will provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.
Tests and procedures assessing whether construction operations comply with Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by law, the laboratories must be certified.

Conformance with the Environmental Management System
BGC will perform work in a manner that conforms to objectives and targets of the environmental programs and operational controls identified by the EMS. BGC will support the City personnel when environmental compliance and EMS audits are conducted by escorting auditors at the Project site, answering questions, and providing proof of records being maintained. Provide monitoring and measurement information as necessary to address environmental performance relative to environmental, energy, and transportation management goals. In the event an EMS nonconformance or environmental noncompliance associated with the contracted services,

tasks, or actions occurs, BGC will take corrective and preventative actions. BGC will coordinate with the installation's EMS coordinator to identify training needs associated with environmental aspects and the EMS, and arrange training or take other action to meet these needs. BGC will deliver training documentation to the CITY. The Installation Environmental Office will retain associated environmental compliance records. Make EMS Awareness training completion certificates available to CITY auditors during EMS audits and include the certificates in the Employee Training Records.

QUALITY ASSURANCE

Preconstruction Survey and Protection of Features

Prior to start of any onsite construction activities, BGC will conduct a Preconstruction Confirmation Survey of the project site with the CITY, and take photographs showing existing environmental conditions in and adjacent to the site. BGC will submit a report for the record.

Regulatory Notifications

BGC will provide regulatory notification requirements in accordance with federal, state and local regulations. BGC will submit copies of regulatory notifications to the CITY within 14 days prior to commencement of work activities. Work activities include but are not limited to demolition, renovation, NPDES defined site work, construction, removal or use of a permitted air emissions source, and remediation of controlled substances (asbestos, hazardous waste, lead paint).

Environmental Brief

BGC will deliver to the City the following information: types, quantities, and use of hazardous materials that will be brought onto the installation;

ENVIRONMENTAL PROTECTION PLAN

BGC along with MCR engineer will develop an EPP. Included in the EPP will be measures for protecting natural and cultural resources, required reports, and other measures to be taken. During Construction, BGC will identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain the current version onsite.

Descriptions

A brief description of each specific plan required by environmental permit or elsewhere in this Contract such as stormwater pollution prevention plan, spill control plan, solid waste management plan, wastewater management plan, contaminant prevention plan, a historical, archaeological, cultural resources, biological resources and wetlands plan, traffic control plan, Non-Hazardous Solid Waste Disposal Plan, borrowing material plan, etc.

Duties

The duties and level of authority assigned to the person(s) on the job site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

Procedures

A copy of any standard or project-specific operating procedures that will be used to effectively manage and protect the environment on the project site.

Communications
Communication and training procedures that will be used to convey environmental management requirements to BGC employees and subcontractors.

Contact Information
Emergency contact information (office phone number, cell phone number, and e-mail address).

General Site Information

Drawings
Drawings showing locations of staging areas, material storage areas, structures, sanitary facilities, maintenance of existing storm drains and conveyances, and stockpiles of excess soil.

Work Area
Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized work areas and methods to control runoff and to contain materials on site, and a traffic control plan.

Documentation
BGC will submit a letter signed by an officer of the firm appointing the Environmental Manager (Foreman) and stating that person is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work.

Management of Natural Resources
Natural resources includes but are not limited to:
a. Land resources
b. Tree protection
c. Replacement of damaged landscape features
d. Temporary construction
e. Fish and benthic resources

Protection of Historical and Archaeological Resources
a. Objectives
b. Methods

Stormwater Management and Control
a. Ground cover
b. Erodible soils
c. Temporary measures
(1) Structural Practices
(2) Temporary and permanent stabilization
d. Effective selection, implementation and maintenance of Stormwater Best Management Practices (BMPs).

Protection of the Environment from Waste Derived from Contractor Operations

Control and disposal of solid and sanitary waste. Control and disposal of hazardous waste. This item consists of the management procedures for hazardous waste to be generated. The elements of those procedures will coincide with the Installation Hazardous Waste Management Plan. The CONTRACTOR will provide a copy of the Installation Hazardous Waste Management Plan. As a minimum, include the following:

a. List of the types of hazardous wastes expected to be generated

b. Procedures to ensure a written waste determination is made for appropriate wastes that are to be generated

c. Sampling/analysis plan, including laboratory method(s) that will be used for waste determinations and copies of relevant laboratory certifications

d. Methods and proposed locations for hazardous waste accumulation/storage (that is, in tanks or containers)

e. Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted)

f. Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268)

g. Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and similar

h. Used oil management procedures in accordance with 40 CFR 279; Hazardous waste minimization procedures

i. Plans for the disposal of hazardous waste by permitted facilities; and Procedures to be employed to ensure required employee training records are maintained.

Prevention of Releases to the Environment

BGC will implement procedures to prevent releases to the environment and provide notifications in the event of a release to the environment.

Regulatory Notification and Permits

BGC will provide a list of what notifications and permit applications must be made. Some permits require up to 180 days to obtain. Demonstrate that those permits have been obtained or applied for by including copies of applicable environmental permits. The EPP will not be approved until the permits have been obtained.

Clean Air Act Compliance

Haul Route

BGC will submit truck and material haul routes along with a Dirt and Dust Control Plan for controlling dirt, debris, and dust on Installation roadways. As a minimum, identify in the plan the subcontractor and equipment for cleaning along the haul route and measures to reduce dirt, dust, and debris from roadways.

Pollution Generating Equipment

BGC will identify air pollution generating equipment or processes that may require federal, state, or local permits under the Clean Air Act. Determine requirements based on any current installation permits and the impacts of the project. Provide a list of all fixed or mobile equipment, machinery or operations that could generate air emissions during the project to the Installation Environmental

Office (Air Program Manager).

Stationary Internal Combustion Engines

BGC will list all and identify portable and stationary internal combustion engines that will be supplied, used or serviced. BGC will include with the list at minimum, the make, model, serial number, manufacture date, size (engine brake horsepower), and EPA emission certification status of each engine. Maintain applicable records and log hours of operation and fuel use. Logs must include reasons for operation and delineate between emergency and non-emergency operation.

Air Pollution-engineering Processes

BGC will identify planned air pollution-generating processes and management control measures (including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions). Log hours of operations and track quantities of materials used.

Monitoring

For the protection of public health, monitor and control contaminant emissions to the air from Hazardous, Toxic, and Radioactive Waste remedial action area sources to minimize short-term risks that might be posed to the community during implementation of the remedial alternative in accordance with the following.

a. Perimeter Air Contaminant of Concern (TBD if necessary).
b. Time Averaged Perimeter Action Levels (TBD if necessary),Concentration (TBD if necessary), Time (TBD if necessary)
c. Perimeter Sampling/Monitoring Location[s] (TBD if necessary).
d. Monitoring Instruments/Sampling and Analysis Methods (TBD if necessary).
e. Staffing (TBD if necessary).

Compliant Materials

BGC will provide the CITY a list of MSDSs for all hazardous materials proposed for use on site. Materials must be compliant with all Clean Air Act regulations for emissions including solvent and volatile organic compound contents, and applicable National Emission Standards for Hazardous Air Pollutants requirements.

LICENSES AND PERMITS

BGC along with it's subcontractors will obtain licenses and permits required for the construction of the project and in accordance with FAR 52.236-7. Notify the CITY of all general use permitted equipment the Contractor plans to use on site.

a. The following permits have been obtained by the CITY:
(1) FDEP File No.: 44-03418446-001-EE, Monroe County
(2) ACOE File No.: SAJ-2016-00621 (NW-GGM)

ENVIRONMENTAL RECORDS BINDER

BGC will maintain on-site a separate three-ring Environmental Records Binder and submit at the completion of the project. Make separate parts within the binder that correspond to each submittal.

SOLID WASTE MANAGEMENT PERMIT

BGC will provide the CITY with written notification of the quantity of anticipated solid waste or debris that is anticipated or estimated to be generated by construction. Included in the report will be locations

where various types of waste will be disposed or recycled. BGC will also include letters of acceptance from the receiving location or as applicable; submit one copy of the receiving location state and local Solid Waste Management Permit or license showing such agency's approval of the disposal plan before transporting wastes off property.

Solid Waste Management Report

BGC will submit a monthly, solid waste disposal report to the City. For each type of waste, the report will state the classification, amount, location, and name of the business receiving the solid waste.

PROTECTION OF BENTHIC and other NATURAL RESOURCES

BGC will minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, BGC will consult with the Installation Environmental Office, regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is BGC's responsibility. The following species are known and could be affected within the construction area: Corals referenced in the Benthic Resources Report. BGC will best management practices to preserve the natural resources within the project boundaries. BGC will restore to an equivalent or improved condition upon completion of work that is consistent with the requirements of the Installation Environmental Office or as otherwise specified. BGC will confine construction activities to within the limits of the work indicated or specified.

Vegetation

Except in areas to be cleared, BGC will not remove, cut, deface, injure, or destroy trees or shrubs without the CITY's permission. BGC will not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized by the City in writing. Where such use of attached ropes, cables, or guys is authorized, BGC is responsible for any resultant damage. BGC will use fencing or barricades to protect existing trees that are to remain to ensure they are not injured, bruised, defaced, or otherwise damaged by construction operations. BGC will coordinate with the City and Installation Environmental Office to determine appropriate action for trees and other landscape features scarred or damaged by equipment operations.

STORMWATER

BGC will not discharge stormwater from construction sites to the sanitary sewer. If the water is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted. BGC will obtain authorization in advance from the Installation Environmental Office for any release of contaminated water.

Construction General Permit

Under the terms and conditions of the permit, BGC will install, inspect, maintain BMPs, prepare stormwater erosion and sediment control inspection reports, and submit SWPPP inspection reports and maintain construction operations and management in compliance with the terms and conditions of the general permit for stormwater discharges from construction activities.

Stormwater Pollution Prevention Plan

BGC/ MCR will develop a project-specific Stormwater Pollution Prevention Plan (SWPPP) to the CITY for approval, prior to the commencement of work. The SWPPP will meet the requirements of 40 CFR 122.26 and the State General Permit for stormwater discharges from construction sites.
Include the following:
a. Comply with terms of the FDEP NPDES general permit for stormwater discharges from construction activities. Prepare SWPPP in accordance with state requirements.
b. Select applicable BMPs from EPA Fact Sheets located at http://water.epa.gov/polwaste/npdes/swbmp/Construction-Site-StormWater-Run-Off-Control.cfm or in accordance with applicable state or local requirements.
c. Include a completed copy of the Notice of Intent, BMP Inspection Report Template, and Stormwater Notice of Termination, except for the effective date.

Stormwater Notice of Intent for Construction Activities

BGC will prepare and submit the Notice of Intent for NPDES coverage under the general permit for construction activities to the City for review and approval. The Notice of Intent will be submitted as a co-permittee to the CITY, for review and approval. BGC will the approved NOI and appropriate permit fees onto the appropriate federal or state agency for approval. No land disturbing activities may commence without permit coverage. Maintain an approved copy of the SWPPP at the onsite construction office, and continually update as regulations require, reflecting current site conditions.

Inspection Reports

BGC will submit "Inspection Reports" to the City in accordance with the State of Florida Construction General Permit.

Stormwater Pollution Prevention Plan Compliance Notebook

BGC will create and maintain a three ring binder of documents that demonstrate compliance with the Construction General Permit. It will include a copy of the permit Notice of Intent, proof of permit fee payment, SWPPP and SWPPP update amendments, inspection reports and related corrective action records, copies of correspondence with the State Permitting Agency, and a copy of the permit Notice of Termination in the binder. At project completion, the notebook becomes property of the City. BGC will provide the compliance notebook to the City.

Stormwater Notice of Termination for Construction Activities

BGC will submit a Notice of Termination to the CITY for approval once construction is complete and final stabilization has been achieved on all portions of the site for which the permittee is responsible. Once approved, submit the Notice of Termination to the appropriate state or federal agency.

Erosion and Sediment Control Measures

BGC will install erosion and sediment control measures in accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable. Erosion control inspection reports may be compiled as part of a stormwater pollution prevention plan inspection reports.

Sediment Control Practices

BGC will implement sediment control practices to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.

Work Area Limits

BGC will mark the areas that need not be disturbed under this Contract prior to commencing construction activities. Mark or fence isolated areas within the general work area that are not to be disturbed. Protect monuments and markers before construction operations commence. Where construction operations are to be conducted during darkness, any markers must be visible in the dark. Personnel must be knowledgeable of the purpose for marking and protecting particular objects.

Contractor Facilities and Work Areas

BGC will place field offices, staging areas, stockpile storage, and temporary buildings in areas designated on the drawings prepared by MCR or as directed by the City. BGC will only move or relocate the facilities only when approved by the City. Provide erosion and sediment controls for onsite borrow and spoil areas to prevent sediment from entering nearby waters. Control temporary excavation and embankments for plant or work areas to protect adjacent areas.

Municipal Separate Storm Sewer System (MS4) Management

BGC and its subcontractors will comply with the Installation's MS4 permit requirements.

SURFACE AND GROUNDWATER

Waters of the United States

BGC will not enter, disturb, destroy, or allow discharge of contaminants into waters of the United States except as authorized herein. The protection of waters of the United States shown on the drawings in accordance with paragraph LICENSES AND PERMITS is the BGC's responsibility. Authorization to enter specific waters of the United States identified does not relieve the Contractor from any obligation to protect other waters of the United States within, adjacent to, or in the vicinity of the construction site and associated boundaries.

PROTECTION OF CULTURAL RESOURCES

Historical Resources

Existing historical resources within the work area are shown on the drawings. BGC will protect these resources and be responsible for their preservation during the life of the contract.

WASTE MINIMIZATION

BGC intends to minimize the use of hazardous materials and the generation of waste. BGC will include procedures for pollution prevention/ hazardous waste minimization in the Hazardous Waste Management Section of the EPP. BGC will obtain a copy of the installation's Pollution Prevention/Hazardous Waste Minimization Plan for reference material when preparing this part of the EPP. If no written plan exists, BGC will obtain information by contacting the CITY. Describe the anticipated types of the hazardous materials to be used in the construction when requesting information.

Salvage, Reuse and Recycle

BGC will identify anticipated materials and waste for salvage, reuse, and recycling. To the extent practicable, all scrap metal must be sent for reuse or recycling and will not be disposed of in a landfill.

BGC will include the name, physical address, and telephone number of the hauler, if transported by a franchised solid waste hauler. Include the destination and, unless exempted, provide a copy of the state or local permit (cover) or license for recycling.

WASTE MANAGEMENT AND DISPOSAL

Disposal of wastewater must be as specified below.

Treatment

BGC will not allow wastewater from construction activities, such as onsite material processing, concrete curing, concrete clean-up, water used in concrete trucks, and forms to enter water ways or to be discharged prior to being treated to remove pollutants. Dispose of the construction- related waste water off-CITY property in accordance with 40 CFR 403, state, regional, and local laws and regulations.

PREVIOUSLY USED EQUIPMENT

BGC will clean previously used construction equipment prior to bringing it onto the project site. Equipment must be free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. BGC will consult with the U.S. Department of Agriculture jurisdictional office for additional cleaning requirements.

PETROLEUM, OIL, LUBRICANT (POL) STORAGE AND FUELING

POL products include flammable or combustible liquids, such as gasoline, diesel, lubricating oil, used engine oil, hydraulic oil, mineral oil, and cooking oil. BGC will store POL products and fuel equipment and motor vehicles in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent POL products from spilling and entering the ground, storm or sewer drains, stormwater ditches or canals, or navigable waters of the United States.

Used Oil Management

BGC manages used oil generated on site in accordance with 40 CFR 279 and will determine if any used oil generated while onsite exhibits a characteristic of hazardous waste. Used oil containing 1,000 parts per million of solvents is considered a hazardous waste and disposed of at BGC's expense.
Used oil mixed with a hazardous waste is also considered a hazardous waste and dispose in accordance with paragraph HAZARDOUS WASTE DISPOSAL.

Oil Storage Including Fuel Tanks

BGC will construct a secondary containment and overfill protection for oil storage tanks. A berm used to provide secondary containment will be of sufficient size and strength to contain the contents of the tanks plus 5 inches freeboard for precipitation. BGC will construct the berm to be impervious to oil for 72 hours that no discharge will permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Use drip pans during oil transfer operations; adequate absorbent material must be onsite to clean up any spills and prevent releases to the environment. Cover tanks and drip pans during inclement weather. Provide procedures and equipment to prevent overfilling of tanks. If tanks and containers with an aggregate aboveground capaCity greater than 1320 gallons will be used onsite (only containers with a capaCity of 55 gallons or greater are counted), provide and implement a SPCC plan meeting the requirements of 40 CFR 112. BGC will not bring underground storage tanks to the installation for

use during a project. BGC shall submit the SPCC plan to the City for approval. BGC will monitor and remove any rainwater that accumulates in open containment dikes or berms and inspect the accumulated rainwater prior to draining from a containment dike to the environment, to determine there is no oil sheen present.

INADVERTENT DISCOVERY OF PETROLEUM-CONTAMINATED SOIL OR HAZARDOUS WASTES

If petroleum-contaminated soil, or suspected hazardous waste is found during construction that was not identified in the Contract documents, BGC will immediately notify the City and will not disturb this material until authorized by the CITY.

POST CONSTRUCTION CLEANUP

BGC will clean up areas used for construction in accordance with Contract Clause: "Cleaning Up". Unless otherwise instructed in writing by the CITY, remove traces of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. Grade parking area and similar temporarily used areas to conform with surrounding contours.

CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

CITY POLICY

CITY policy is to apply sound environmental principles in the design, construction and use of facilities. As part of the implementation of that policy: (1) practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction and demolition waste from landfills and incinerators and to facilitate their recycling or reuse. If possible, divert project solid waste from the landfill. **Do not use solid waste to fill the void between the old wall and the new wall. Use clean pea gravel or 57 stone only**.

MANAGEMENT

BGC will develop and implement a waste management program. BGC will take a pro-active, responsible role in the management of construction and demolition waste and require all subcontractors, vendors, and suppliers to participate in the effort. Construction and demolition waste includes products of demolition or removal, excess or unusable construction materials, packaging materials for construction products, and other materials generated during the construction process but not incorporated into the work. In the management of waste, consider the availability of viable markets, the condition of the material, the ability to provide the material in suitable condition and in a quantity acceptable to available markets, and time constraints imposed by internal project completion mandates. Implement any special programs involving rebates or similar incentives related to recycling of waste. Revenues or other savings obtained for salvage, or recycling accrue to the Contractor. Appropriately permit firms and facilities used for recycling, reuse, and disposal for the intended use to the extent required by federal, state, and local regulations. Also, provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.

MEETINGS

If necessary, BGC will conduct Construction Waste Management meetings. After award of the Contract and prior to commencement of work, schedule and conduct a meeting with the City to discuss the proposed Waste Management Plan and to develop a mutual understanding relative to the details of

waste management. The requirements for this meeting may be fulfilled during the coordination and mutual understanding meeting outlined in section quality control. At a minimum, discuss environmental and waste management goals and issues at the following additional meetings:
a. Pre-bid meeting.
b. Preconstruction meeting.
c. Regular site meetings.
d. Work safety meetings.

WASTE MANAGEMENT PLAN

BGC will submit a waste management plan within 15 days after notice to proceed and not less than 10 days before the preconstruction meeting. The plan demonstrates how to meet the project waste diversion goal. Also, include the following in the plan:
It is understood that the mooring piles and portions of the docks will be removed, stored and replaced. Only the existing concrete cap will need to be managed as a part of the demolition.
a. Name of individuals on the Contractor's staff responsible for waste prevention and management. foreman
b. Actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.
c. Description of the regular meetings to be held to address waste management.
d. Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.
e. Characterization, including estimated types and quantities, of the waste to be generated.
f. Name of landfill and/or incinerator to be used and the estimated costs for use, assuming that there would be no salvage or recycling on the project.
g. Identification of local and regional reuse programs, including non-profit organizations such as schools, local housing agencies, and organizations that accept used materials such as materials exchange networks and Habitat for Humanity. Include the name, location, and phone number for each reuse facility to be used, and provide a copy of the permit or license for each facility.
h. List of specific waste materials that will be salvaged for resale, salvaged and reused on the current project, salvaged and stored for reuse on a future project, or recycled. Identify the recycling facilities by name, location, and phone number, including a copy of the permit or license for each facility.
i. Identification of materials that cannot be recycled/reused with an explanation or justification, to be approved by the CITY.
j. Description of the means by which any waste materials identified in item (h) above will be protected from contamination.
k. Description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site).
l. Anticipated net cost savings determined by subtracting Contractor program management costs and the cost of disposal from the revenue generated by sale of the materials and the incineration and/or landfill cost avoidance.
Revise and resubmit Plan as required by the CITY. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project cumulative waste diversion requirement. Distribute copies of the Waste Management Plan to each subcontractor, the Quality Control Manager, and the CITY.

RECORDS

BGC will maintain records to document the quantity of waste generated; the quantity of waste diverted through sale, reuse, or recycling; and the quantity of waste disposed by landfill or incineration and make the records available to the City during construction, and deliver a copy to the City upon completion of the construction.

COLLECTION

BGC inteds to separate, store, protect, and handle at the site identified recyclable and salvageable waste products in a manner that maximizes recyclability and salvagability of identified materials. BGC will povide the necessary containers, bins and storage areas to facilitate effective waste management and clearly and appropriately identify them. BGC will supply materials for barriers and enclosures around recyclable material storage areas which are nonhazardous and recyclable or reusable. Locate out of the way of construction traffic. Provide adequate space for pick-up and delivery and convenience to subcontractors. Recycling and waste bin areas are to be kept neat and clean, and handle recyclable materials to prevent contamination of materials from incompatible products and materials. Clean contaminated materials prior to placing in collection containers. Use cleaning materials that are nonhazardous and biodegradable. Separate materials by one of the following methods:

Source Separated Method.

BGC will separate waste products and materials that are recyclable from trash and sorted as described below into appropriately marked separate containers and then transported to the respective recycling facility for further processing. Deliver materials in accordance with recycling or reuse facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process). BGC shall separate materials into the following category types as appropriate to the project waste and to the available recycling and reuse programs in the project area:

a. Land clearing debris.
b. Asphalt.
c. Concrete and masonry.
d. Metal (e.g. banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized, stainless steel, aluminum, copper, zinc, lead brass, bronze).
(1) Ferrous.
(2) Non-ferrous.
e. Wood (nails and staples allowed).
f. Debris.
g. Paper.
(1) Bond.
(2) Newsprint.
(3) Cardboard and paper packaging materials.
h. Non-hazardous paint and paint cans
i. Beverage containers.

DISPOSAL

BGC will control accumulation of waste materials and trash. Recycle or dispose of collected materials off-site at intervals approved by the City and in compliance with waste management procedures. Except as otherwise specified in other sections of the specifications BGC will dispose of in accordance with the following:

Reuse.
Give first consideration to salvage for reuse since little or no re-processing is necessary for this method, and less pollution is created when items are reused in their original form. Coordinate reuse with the City. Consider sale or donation of waste suitable for reuse.

Recycle.
Recycle waste materials not suitable for reuse, but having value as being recyclable. Arrange for timely pickups from the site or deliveries to recycling facilities in order to prevent contamination of recyclable materials.

CLOSEOUT SUBMITTALS

As-Built Drawings
As-built drawings will be developed and maintained by BGC and depict actual conditions, including deviations from the Contract Documents. These deviations and additions may result from coordination required by, but not limited to: contract modifications; official responses to BGC submitted requests for information; direction from the City; designs which are the responsibility of the design build team, and differing site conditions. BGC will maintain the as-builts throughout construction as redlined hard copies on site. These files will serve as the basis for the creation of the record drawings.

Record Drawings
The record drawings are the final compilation of actual conditions reflected in the as-built drawings.

SOURCE DRAWING FILES
BGC/ MCR will request the full set of electronic drawings, in the source format, for Record Drawing preparation, after award and at least 30 days prior to required use.

SUBMITTALS
City approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
SD-08 Closeout Submittals
Final Approved Shop Drawings; G
As-Built Drawings; G

WARRANTY MANAGEMENT

Warranty Management Plan
BGC will develop a warranty management plan which contains information relevant to the clause Warranty of Construction. Included within the warranty management plan all required actions and documents to assure that the City receives all warranties to which it is entitled. The plan will be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below must include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase must be submitted to the City for approval prior to each monthly pay estimate. BGC will assemble approved information in a binder and turn over to the City upon acceptance of the work. The construction warranty period will begin on the date of project acceptance and continue for the full

product warranty period. Include within the warranty management plan, but not limited to, the following:
a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.
b. Furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.
c. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include workmanship, corrosion, coatings, fasteners, etc.
d. A list for each warranted equipment, item, and feature of construction or system indicating:
(1) Name of item.
(2) Location where installed.
(3) Name and phone numbers of manufacturers or suppliers.
(4) Names, addresses and telephone numbers of sources of suppliers.
(5) Warranties and terms of warranty. Include one-year overall warranty of construction, including the starting date of warranty of construction. Items which have extended warranties must be indicated with separate warranty expiration dates.
(8) Cross-reference to warranty certificates as applicable.
(9) Starting point and duration of warranty period.
(10) Summary of maintenance procedures required to continue the warranty in force.
(11) Organization, names and phone numbers of persons to call for warranty service.
(12) Typical response time and repair time expected for various warranted equipment.
e. Procedure and status of tagging of all equipment covered by extended warranties.

AS-BUILT DRAWINGS

Markup Guidelines

BGC will make comments and markup the drawings complete without reference to letters, memos, or materials that are not part of the As-Built drawing. Show what was changed, how it was changed, where items were relocated and change related details. These working as-built markup prints must be neat, legible and accurate as follows:
a. Use base colors of red, green, and blue. Color code for changes as follows:
(1) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes. (2) Deletions (Red) - Over-strike deleted graphic items (lines), lettering in notes and leaders.
(3) Additions (Green) - Added items, lettering in notes and leaders.
b. Provide a legend if colors other than the "base" colors of red, green, and blue are used.
c. Add and denote any additional equipment or material facilities, service lines, incorporated under As-Built Revisions if not already shown in legend.
d. Use frequent written explanations on markup drawings to describe changes. Do not totally rely on graphic means to convey the revision.
e. Use legible lettering and precise and clear digital values when marking prints. Clarify ambiguities concerning the nature and application of change involved.
f. Wherever a revision is made, also make changes to related section views, details, legend, profiles, plans and elevation views, schedules, notes and call out designations, and mark accordingly to avoid conflicting data on all other sheets.
g. For deletions, cross out all features, data and captions that relate to that revision.
h. For changes on small-scale drawings and in restricted areas, provide large-scale inserts, with

leaders to the applicable location.
i. Indicate one of the following when attaching a print or sketch to a markup print:
1) Add an entire drawing to contract drawings.
2) Provided for reference only to further detail the initial design.
j. Incorporate all shop and fabrication drawings into the markup drawings.

As-Built Drawings Content

BGC will show on the as-built drawings, but not limited to, the following information:
a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, show by offset dimensions to two permanently fixed surface features the end of each run including each change in direction on the record drawings. Locate valves, splice boxes and similar appurtenances by dimensioning along the utility run from a reference point. Also record the average depth below the surface of each run.
b. The location and dimensions of any changes within the building structure.
c. Layout and schematic drawings of electrical circuits and piping.
d. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans. e. Changes in details of design or additional information obtained from working drawings specified
to be prepared and/or furnished by the Contractor; including but not limited to shop drawings, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
f. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
g. Changes or Revisions which result from the final inspection.
h. Where contract drawings or specifications present options, show only the option selected for construction on the working as-built markup drawings.
i. If borrow material for this project is from sources on CITY property, or if CITY property is used as a spoil area, furnish a contour map of the final borrow pit/spoil area elevations.
j. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.
k. Changes in location of equipment and architectural features.
j. Modifications (include within change order price the cost to change working as-built markup drawings to reflect modifications).
l. Actual location of anchors, construction and control joints, etc., in concrete.
m. Unusual or uncharted obstructions that are encountered in the contract work area during construction.
n. Location, extent, thickness, and size of stone protection particularly where it will be normally submerged by water.

CLEANUP

BGC will leave premises "broom clean." Also clean and remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces, clean equipment and fixtures to a sanitary condition, clean debris from drainage systems, sweep paved areas and rake clean landscaped areas, remove waste and surplus materials such as rubbish and construction facilities from the site.

DEMOLITION AND DECONSTRUCTION

PROJECT DESCRIPTION

Demolition/Deconstruction Plan

BGC will prepare a combined Demolition and Deconstruction Plan and submit proposed salvage, demolition, deconstruction, and removal procedures for approval before work is started. Include in the plan procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, a disconnection schedule of utility services, a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Plans shall be approved by City prior to work beginning.

General Requirements

BGC will not begin demolition or deconstruction until authorization is received from the City. Remove rubbish and debris from the project site; do not allow accumulations to occur near the water. The work includes demolition, deconstruction, salvage of identified items and materials, and removal of resulting rubbish and debris. Remove rubbish and debris from CITY and/or NOAA property daily, unless otherwise directed. Store materials that cannot be removed daily in areas specified by the City.

ITEMS TO REMAIN IN PLACE

BGC will take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the CITY and/or NOAA. Repair or replace damaged items as approved by the City. BGC shall coordinate the work of this section with all other work indicated. Construct and maintain shoring, bracing, and supports as required. BGC will ensure that structural elements are not overloaded. Increase structural supports or add new supports as may be required as a result of any cutting, removal, deconstruction, or demolition work performed under this contract. Do not overload structural elements. Provide new supports and reinforcement for existing construction weakened by demolition, deconstruction, or removal work. Repairs, reinforcement, or structural replacement require approval by the City prior to performing such work.

Existing Construction Limits and Protection

BGC will not disturb existing construction beyond the extent indicated or necessary for installation of new construction. Provide temporary shoring and bracing for support of building components to prevent settlement or other movement. Provide protective measures to control accumulation and migration of dust and dirt in all work areas. Remove dust, dirt, and debris from work areas daily.

Weather Protection

For portions of the wall to remain, BGC will protect from the weather when possible during deconstruction. Where removal of existing overburden or concrete is necessary to accomplish work, have materials and workmen ready to provide adequate and temporary covering of exposed areas.

Trees

BGC will protect trees within the project site which might be damaged during demolition or deconstruction, and which are indicated to be left in place, by a 6 foot high fence. Erect and secure fence a minimum of 5 feet from the trunk of individual trees or follow the outer perimeter of branches

or clumps of trees. Replace any tree designated to remain that is damaged during the work under this contract with like-kind or as approved by the City.

Utility Service

BGC along with its subcontractor will maintain existing utilities indicated to stay in service and protect against damage during demolition and deconstruction operations. Prior to start of work, utilities serving each area of alteration or removal will be shut off by the City and/or NOAA and disconnected and sealed by BGCs subcontractor.

Facilities

BGC and its subcontractor will protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities. Sheet Pile and mooring piles or any other structural components that are designed and constructed to stand without lateral support or shoring, and are determined to be in stable condition, must remain standing without additional bracing, shoring, or lateral support until demolished or deconstructed, unless directed otherwise by the CITY. Ensure that no elements determined to be unstable are left unsupported and place and secure bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, deconstruction, or demolition work performed under this contract.
The existing concrete panel wall is the most unstable on the east end of the wall nearest the boat ramp. BGS and its subcontractors shall take every precaution when working in this area to protect the existing panels and other upland facilities.

BURNING

BGC will not burn any debris on-site and the use of burning at the project site for the disposal of refuse and debris will not be permitted.

SUBMITTALS

CITY and/or NOAA approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
SD-01 Preconstruction Submittals
Demolition & Deconstruction Plan; G

QUALITY ASSURANCE

BGC will submit a timely notification of demolition, deconstruction, and renovation projects to Federal, State, Regional, and CITY authorities. Notify the FDEP, NOAA, the ACOE and the CITY in writing 10 working days prior to the commencement of work. Comply with federal, state, and local hauling and disposal regulations. Explosives will not be used on the project.

Dust and Debris Control

BGC will prevent the spread of dust and debris and avoid the creation of a nuisance in the surrounding area. BGC will not use water if it results in hazardous or objectionable conditions such as, but not limited to, flooding, or pollution. Clean the work area daily. Sweep pavements as often as necessary to control the spread of debris that may result in foreign object damage potential to vehicular and/or pedestrian.

PROTECTION

Traffic Control Signs

a. Where pedestrian and driver safety is endangered in the area of removal work, use barricades with flashing lights. Anchor barricades in a manner to prevent displacement by wind. Notify the CITY prior to beginning such work. Tripping or fall hazards should not be left unprotected overnight.
b. Provide a minimum of 2 FAA type L-810 steady burning red obstruction lights on temporary structures (including cranes) over 100 feet above ground level. The use of LED based obstruction lights are not permitted.

Protection of Personnel

Before, during and after the demolition and deconstruction work BGC will continuously evaluate the condition of the structure being demolished and deconstructed and take immediate action to protect all personnel working in and around the project site. No area, section, or component of floors, roofs, walls, columns, pilasters, or other structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

RELOCATIONS

BGC and it subs will perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Repair or replace items to be relocated which are damaged by BGC with new undamaged items as approved by the City.

EXISTING CONDITIONS

Prior to beginning any demolition or deconstruction work BGC will survey the site and examine the drawings and specifications to determine the extent of the work. Record existing conditions in the presence of the City showing the condition of structures and other facilities adjacent to areas of alteration or removal. Photographs sized 4 inch will be acceptable as a record of existing conditions. Include in the record the elevation of the top of foundation walls, finish floor elevations, possible conflicting electrical conduits, plumbing lines, alarms systems, the location and extent of existing cracks and other damage and description of surface conditions that exist prior to before starting work. It is the Contractor's responsibility to verify and document all required outages which will be required during the course of work, and to note these outages on the record document. Submit survey results.

EXISTING FACILITIES TO BE REMOVED

BGC and its subs will inspect and evaluate existing structures onsite for reuse. Existing construction scheduled to be removed for reuse shall be disassembled. Dismantled and removed materials are to be separated, set aside, and prepared as specified, and stored or delivered to a collection point for reuse, remanufacture, recycling, or other disposal, as specified. Materials shall be designated for reuse onsite whenever possible.

Structures

a. Remove existing structures indicated to be removed to top of existing seawall. Fill above the existing tie-back systems will be excavated only as required to install the proposed tie-back systems and will otherwise be left in place. b. Demolish and/or deconstruct structures in a systematic manner from the top of the structure to
the ground. Demolish the concrete cap in small sections. Remove structural members and mooring piles with a crane or other equipment (preferably from the upland), and lower to ground by means of suitable methods.

c. Locate demolition and deconstruction equipment as far away from the face of the existing wall as possible so as to not impose excessive loads or surcharges on the structure.

Utilities and Related Equipment

General Requirements

BGC and its subs will not interrupt existing utilities serving NOAA's occupied or used facilities, except when authorized in writing by the City and/or NOAA. Do not interrupt existing utilities serving facilities occupied and used by the City and/or NOAA except when approved in writing and then only after temporary utility services have been approved and provided. Do not begin demolition or deconstruction work until all utility disconnections have been made. Shut off and cap utilities for future use, as indicated.

Disconnecting Existing Utilities

BGC or its subs will remove existing utilities uncovered by work and terminate in a manner conforming to the nationally recognized code covering the specific utility and approved by the CITY. When utility lines are encountered but are not indicated on the drawings, notify the CITY prior to further work in that area. Remove meters and related equipment and deliver to a location in accordance with instructions of the City.

a. Electrical: When cutting the electrical wiring serving the docks, do so knowing that the dock facilities will need to be reconnected to the upland service at the proposed pull boxes. The wires that are cut should be rolled up and stowed in a manner that will protect them from the elements until they can be reconnected. The wires from the main breaker panel out to the proposed pull boxes will all be new.

b. Water service: The existing water service will be reconfigured so that the manifold line is buried in the upland behind the old and new wall. New globe valves should be provided as indicated on the plans.

Chain Link Fencing

BGC will remove only a portion of the chain link fencing, gates and other related salvaged items scheduled for removal and transport to designated areas. Remove gates as whole units. Cut chain link fabric to 20 foot lengths and store in rolls off the ground.

Paving and Slabs

BGC will remove concrete and asphaltic concrete paving and slabs including aggregate base as required. Provide neat sawcuts at limits of wall-cap or other concrete removal as indicated. Pavement and slabs designated to be recycled and utilized in this project shall be moved, ground and stored as directed by the CITY. Pavement and slabs not to be used in this project shall be removed from the Installation at Contractor's expense.

Concrete

BGC shall saw concrete along straight lines to a depth of a minimum 2 inch. Make each cut perpendicular to the face and in alignment with the cut in the opposite face. Break out the remainder of the concrete provided that the broken area is concealed in the finished work, and the remaining concrete is sound. At locations where the broken face cannot be concealed, grind smooth or saw cut entirely through the concrete. Salvage removed concrete.

Structural Steel

BGC shall dismantle structural steel at field connections and in a manner that will prevent bending or damage. Salvage structural steel, angles, plates, columns and shapes. Flame-cutting torches are permitted when other methods of dismantling are not practical.

Miscellaneous Metal

Salvage light-gage and cold-formed metal pieces, such as steel studs, sections of steel sheet pile, accessories and similar items. Scrap metal shall become the Contractor's property. Recycle scrap metal as part of demolition and deconstruction operations. Provide separate containers to collect scrap metal and transport to a scrap metal collection or recycling facility, in accordance with the Waste Management Plan.

Carpentry

Salvage for reuse lumber, millwork items, and finished boards, and sort by type and size. Chip or shred and recycle salvaged wood unfit for reuse, except stained, painted, or treated wood.

Mechanical Equipment and Fixtures

Disconnect mechanical hardware at the nearest connection to existing services to remain, unless otherwise noted. Disconnect mechanical equipment and fixtures at fittings. Do not remove equipment until approved.

Electrical Equipment and Fixtures

Salvage motors, motor controllers, and operating and control equipment that are attached to the driven equipment. Salvage wiring systems and components. Box loose items and tag for identification. Disconnect primary, secondary, control, communication, and signal circuits at the point of attachment to their distribution system.

Conduit and Miscellaneous Items

BGC will salvage conduit except where embedded in concrete or masonry. Consider corroded, bent, or damaged conduit as scrap metal. Sort straight and undamaged lengths of conduit according to size and type. Classify supports, knobs, tubes, cleats, and straps as debris to be removed and disposed.

CONCURRENT EARTH-MOVING OPERATIONS

BGC will not begin excavation, filling, and other earth-moving operations that are sequential to demolition
or deconstruction work in areas occupied by structures to be demolished or deconstructed until all demolition and deconstruction in the area has been completed and debris removed. Fill holes, open basements and other hazardous openings.

DISPOSITION OF MATERIAL

Title to Materials

Except for salvaged items specified in related Sections, and for materials or equipment scheduled for salvage, all materials and equipment removed and not reused or salvaged, shall become the property of the Contractor and shall be removed from CITY and/or NOAA property. Title to materials resulting from demolition and deconstruction, and materials and equipment to be removed, is vested in the Contractor upon approval by the CITY of the Contractor's demolition, deconstruction, and removal procedures, and authorization by the CITY to begin demolition and deconstruction. The CITY and/or NOAA will not be responsible for the condition or loss of, or damage to, such property after contract award. Showing for sale or selling materials and equipment on site is prohibited.

Reuse of Materials and Equipment
BGC shall remove and store materials in the Demolition and Deconstruction Plan to be reused or relocated to prevent damage, and reinstall as the work progresses.

Salvaged Materials and Equipment
BGC will remove materials in the Demolition and Deconstruction Plan specified to be removed by the Contractor and that are to remain the property of the CITY and/or NOAA, and deliver to a storage site as directed.
a. Salvage items and material to the maximum extent possible.
b. Store all materials salvaged for the Contractor as approved by the CITY and remove from CITY and/or NOAA property before completion of the contract. On site sales of salvaged material is prohibited
c. Remove salvaged items to remain the property of the CITY and/or NOAA in a manner to prevent damage, and packed or crated to protect the items from damage while in storage or during shipment. Items damaged during removal or storage must be repaired or replaced to match existing items. Properly identify the contents of containers.
d. Remove historical items in a manner to prevent damage. Store the historical items for reuse in the project.

Unsalvageable and Non-Recyclable Material
BGC Shall dispose of unsalvageable and non-recyclable noncombustible material in the disposal area approved to accept the waste. Dispose of unsalvageable and non-recyclable combustible material in the sanitary fill in this approved area.

CLEANUP
BGC will remove debris and rubbish from basement and similar excavations. Remove and transport the debris in a manner that prevents spillage on streets or adjacent areas. Apply local regulations regarding hauling and disposal.

DISPOSAL OF REMOVED MATERIALS

Regulation of Removed Materials
BGC shall dispose of debris, rubbish, scrap, and other non-salvageable materials resulting from removal operations with all applicable federal, state and local regulations as contractually specified in the Waste Management Plan. Storage of removed materials on the project site is prohibited.

Burning on CITY and/or NOAA Property
BGC does not intend to burn any of the materials removed from demolished and deconstructed structures and will not be permitted on City and/or NOAA property.

Removal to Spoil Areas on CITY and/or NOAA Property
BGC shall transport noncombustible materials removed from demolition and deconstruction structures to designated spoil areas on City and/or NOAA property

Removal from CITY and/or NOAA Property

BGC will transport waste materials removed from demolished and deconstructed structures, except waste soil, from City and/or NOAA property for legal disposal. Dispose of waste soil as directed.

REUSE OF SALVAGED ITEMS

BGC will recondition salvaged materials and equipment designated for reuse before installation. Replace items damaged during removal and salvage operations or restore them as necessary to usable condition.

REMOVAL AND SALVAGE OF HISTORIC CONSTRUCTION MATERIALS

PROJECT DESCRIPTION

The work includes removal and salvage of identified historic items and materials, and removal of resulting rubbish and debris. General demolition of non-historic materials and removal of resulting rubbish and debris shall comply with the requirements of Section 02 41 00 DEMOLITION AND DECONSTRUCTION. Materials to be salvaged or recycled shall be stored daily in areas and manner specified by the CITY. In the interest of conservation, salvage and recycling shall be pursued to the maximum extent possible.

Dust Control

The amount of dust resulting from removal, salvage and demolition operations shall be controlled to prevent the spread of dust to occupied portions of the construction site and to avoid creation of a nuisance in the surrounding area. Use of water to control dust will not be permitted when it will result in, or create, damage to existing building materials and hazardous or objectionable conditions such as ice, flooding and pollution.

Protection

Protection of Existing Historic Property

Before beginning any removal, salvage or demolition work, survey the site and examine the drawings and specifications to determine the extent of the work. Take necessary precautions to avoid damage to existing historic items that are to remain in place, to be reused, or to remain the property of the CITY. Repair or restore items damaged by the Contractor to original condition, or replaced, as approved by the CITY. Coordinate the work of this section with all other work and shall construct and maintain shoring, bracing and supports, as required. Ensure that structural elements are not overloaded and shall provide additional supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

Protection from the Weather

The interior of buildings to remain and salvageable materials shall be protected from the weather at all times. Salvaged historic materials shall be stored out of contact with the ground and under weathertight covering if possible.

Environmental Protection

BGC shall coordinate with the City for any additional environmental protection measures that arise as a result of the implementation of this specification.

SUBMITTALS

City approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00

SUBMITTAL PROCEDURES:
SD-03 Work Plan; G

QUALIFICATIONS

BGC will provide qualified workers trained and experienced in recycling, removal and salvage of historic materials. A current point-of-contact for identified references shall be provided.

EXECUTION

SALVAGED ITEMS

Salvage items to the maximum extent possible. Prior to any demolition work, historic items to be salvaged shall be removed from the structure. Removal of salvageable items shall be accomplished by hand labor to the maximum extent possible. Care shall be taken to not damage portions of the structure to remain or items identified for salvage. Materials not scheduled for salvage or recycling shall be removed prior to any salvaging procedures. Keep a complete recording of all salvaged materials including the condition of such materials before, and after, salvage operations.

Site Work

The following site items shall be removed intact and salvaged: Mooring piles, white plastic pile caps, and the marginal portions of the five existing docks.

Concrete

The following concrete items shall be removed intact and salvaged: Contractor shall coordinate with the City to confirm the disposition of the concrete cap. For bidding purposes, the contractor should plan to demo and remove the concrete cap.

Wood

The following materials shall be removed intact and salvaged: wood decking, wood stairs and handrails, ladders, timber mooring piles, header boards, and other timber products that can be reused if removed and stored in good condition. No wood that appears to have been damaged during the deconstruction process shall be reused.

Mechanical Equipment

The following mechanical equipment shall be removed intact and salvaged: Access gates to docks.
3.1.6 Storm water systems
All existing storm drainage and other upland facilities will be protected.

Electrical Equipment:

The following electrical fixtures and equipment shall be removed intact and salvaged: Electrical wiring on the docks shall be protected and reused. New wiring shall be provided from the main breaker panel to the proposed pull boxes. Existing solar powered field lighting will be protected and/or removed, stored and replaced.

RECYCLED MATERIALS

The following materials shall be recycled: timber piles, plastic pile caps, and portions of existing decking, electrical wiring serving the docks and other works as required. The following materials may

be recycled (if possible): dimension lumber, scrap wood from form work, and rubble from concrete cap. Recycle materials to the maximum extent possible. Removal of recyclable materials shall be accomplished by hand labor wherever possible. Historic portions of the structure to remain and items identified for salvage shall not be damaged while removing materials for recycling. No rubble or other recycled materials shall be placed between the old and new wall.

DISPOSITION OF MATERIALS

Title to materials and equipment to be demolished, is vested in the Contractor upon receipt of notice to proceed. The City will not be responsible for the condition, loss or damage to such property after notice to proceed.

Material Salvaged for the Contractor

Temporarily store salvaged material as approved by the City and remove from City property before completion of the contract. Sale of salvaged material on the site is prohibited.

Items Salvaged for the CITY

Salvaged items to remain the property of the CITY shall be removed in a manner to prevent damage, packed or crated to protect the items from damage, or as directed by the CITY. Items damaged during removal or storage shall be repaired or replaced to match existing items. Containers shall be properly identified as to contents. The following items reserved as property of the CITY shall be delivered to the areas designated: TBD. Contractor shall coordinate with CITY if materials are salvaged and not used on the project.

CLEAN-UP

Upon completion of the work, portions of structure to remain and adjacent areas and structures shall be cleaned of dust, dirt, and debris caused by salvage and demolition operations. Debris and rubbish shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

CONCRETE FORMWORK

REQUIREMENT

A. BGC shall design and furnish all materials for concrete formwork, bracing, and supports and shall design and construct all falsework, all in accordance with the provisions of the Contract Documents.

RESPONSIBILITY

The design and engineering of the formwork as well as safety considerations are the responsibility of BGC.

REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Without limiting the generality of other requirements of these Specifications, all work specified herein shall conform to or exceed the requirements of the Florida Building Code and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of this Section

1. Codes and Standards

The Building Code, as referenced herein, is the Florida Building Code (FBC).

2. Government Standards

PS 1 U.S. Product Standard for Concrete Forms, Class I.

3. Commercial Standards

ACI 347 Recommended Practice for Concrete Formwork.

ACI 318R Building Code Requirements for Reinforced Concrete.

QUALITY ASSURANCE

The variation from established grade or lines shall not exceed 1/4 inch in 10 feet and there shall be no offsets or visible bulges or waviness in the finished surface. All tolerances shall be within the "Suggested Tolerances" specified in ACI 347. The Contractor shall grind smooth all fins and projections between formwork panels as directed by the Engineer.

Curved forms shall be used for curved and circular structures that are cast-in-place. Straight panels will not be acceptable for forming curved structures.

PRODUCTS

FORM MATERIALS

Except as otherwise expressly accepted by the Engineer BGC intends to use 5/8" thick plywood box forms fastened to 2x4 framing.

PREFABRICATED FORMS

Form materials shall be wood and plywood that will not adversely affect the concrete and will facilitate placement of concrete to the shape, form, line, and grade indicated. Wood forms for surfaces to be painted shall be Medium Density Overlaid plywood, MDO Ext. Grade.

FORMWORK ACCESSORIES

Exterior corners in concrete members shall be provided with 3/4-inch chamfers. Reentrant corners in concrete members shall not have fillets unless otherwise shown.
Form ties shall be provided with a plastic cone or other suitable means for forming a conical hole to insure that the form tie may be broken off back of the face of the concrete. The maximum diameter of removable cones for rod ties, or of other removable form-tie fasteners having a circular cross-section, shall not exceed 1-1/2 inches; and all such fasteners shall be such as to leave holes of regular shape for reaming. Form release agent shall be a blend of natural and synthetic chemicals that employs a
chemical reaction to provide quick, easy and clean release of concrete from forms. It shall not stain the concrete and shall leave the concrete with a paintable surface. Formulation of the form release agent shall be such that it would minimize formation of "Bug Holes" in cast- in-place concrete.

EXECUTION

EXAMINATION

A. Forms to confine the concrete and shape it to the required lines shall be used wherever necessary. BGC shall assume full responsibility for the adequate design of all forms, and any forms which are unsafe or inadequate in any respect shall promptly be removed from the Work and replaced at BGC's expense. A sufficient number of forms of each kind shall be provided to permit the required rate of progress to be maintained. The design and inspection of concrete forms and falsework, shall comply with applicable local, state and Federal regulations. Plumb and string lines shall be installed before concrete placement and shall be maintained during placement. Such lines shall be used by BGC's personnel and by the Engineer and shall be in sufficient number and properly installed. During concrete placement, BGC shall continually monitor plumb and string line form positions and immediately correct deficiencies.
B. Concrete forms shall conform to the shape, lines, and dimensions of members as called for on the Drawings, and shall be substantially, free from surface defects, and sufficiently tight to prevent leakage. Forms shall be properly braced or tied together to maintain their position and shape under a load of freshly-placed concrete.
C. All forms shall be true in every respect to the required shape and size, shall conform to the established alignment and grade, and shall be of sufficient strength and rigidity to maintain their position and shape under the loads and operations incident to placing and vibrating the concrete. Suitable and effective means shall be provided on all forms for holding adjacent edges and ends of panels and sections tightly together and in accurate alignment so as to prevent the formation of ridges, fins, offsets, or similar surface defects in the finished concrete. Plywood, 5/8 inch and greater in thickness, may be fastened directly to studding if the studs are spaced close enough to prevent visible deflection marks in the concrete. The forms shall be tight so as to prevent the loss of water, cement and fines during placing and vibrating of the concrete. Specifically, the bottom of wall forms that rest on concrete footings or slabs shall be provided with a gasket to prevent loss of fines and paste during placement and vibration of concrete. Such gasket may be a 1 to 1-1/2-inch diameter polyethylene rod held in position to the underside of the wall form. Adequate clean-out holes shall be provided at the bottom of each lift of forms. The size, number, and location of such clean-outs shall be as acceptable to the Engineer.
D. Concrete construction joints will not be permitted at locations other than those shown or specified, except as may be acceptable to the Engineer. When a second lift is placed on hardened concrete, special precautions shall be taken in the way of the number, location,

and tightening of ties at the top of the old lift and bottom of the new to prevent any unsatisfactory effect whatsoever on the concrete. Pipe stubs and anchor bolts shall be set in the forms where required.

EARTH FORMS

A. All vertical surfaces of concrete members shall be formed, except where placement of the concrete against the ground is called for on the Drawings. Not less than 1 inch of concrete shall be added to the thickness of the concrete member as shown where concrete is permitted to be placed against trimmed ground in lieu of forms. Such permission will be granted only for members of comparatively limited height and where the character of the ground is such that it can be trimmed to the required lines and will stand securely without caving or sloughing until the concrete has been placed.

APPLICATION - FORM RELEASE AGENT

A. Apply form release agent on formwork in accordance with manufacturer's recommendations.

FORM CLEANING

BGC will reuse form only if in good condition and only if acceptable to the Engineer. Light sanding between uses will be required wherever necessary to obtain uniform surface texture on all exposed concrete surfaces. Exposed concrete surfaces are defined as surfaces which are permanently exposed to view. Unused tie rod holes in forms shall be covered with metal caps or shall be filled by other methods acceptable to the Engineer.

FORMWORK TOLERANCES

A. Formwork shall be constructed to insure that finished concrete surfaces will be in accordance with the tolerances listed in ACI 347.
1. The following construction tolerances are hereby established and apply to finished walls and slab unless otherwise shown in the Drawings:

Item Tolerance

Variation of the constructed Variation of the
constructed linear outline from the
established position in plan
In 10 feet: 1/4 inch;
In 20 feet or more: 1/2 inch
Variation from the level or from the grades
shown on the Drawings
In 10 feet: 1/4 inch;
In 20 feet or more: 1/2 inch
Variation from the plum In 10 feet: 1/4 inch;
In 20 feet or more: 1/2 inch
Variation in the thickness of slabs and walls Minus 1/4 inch;
Plus 1/2 inch
Variation in the locations and sizes of slab
and wall openings
Plus or minus 1/4 inch

FORM REMOVAL

A. Remove top forms on sloping surfaces of concrete as soon as removal operations will not allow the concrete to sag. Perform any needed repairs or treatment required on sloping surfaces at once and follow immediately with the specified curing.
B. The Contractor shall be responsible for the removal of forms and shores. Forms or shores shall not be removed before test cylinders have reached the specified minimum 28 day comprehensive strength for the class of concrete specified in Section 03300 entitled "Cast- in-Place Concrete", nor sooner than listed below:
1. Grade beam side forms ..... 3 days
2. Wall forms ..... 3 days
3. Column forms ..... 3 days
4. Beam and girder side forms ..... 3 days
5. Beam bottoms and slab forms/shores ..... 14 days

MAINTENANCE OF FORMS

A. Forms shall be maintained at all times in good condition, particularly as to size, shape, strength, rigidity, tightness, and smoothness of surface. Forms, when in place, shall conform to the established alignment and grades. Before concrete is placed, the forms shall be thoroughly cleaned. The form surfaces shall be treated with a nonstaining mineral oil or other lubricant acceptable to the Engineer. Any excess lubricant shall be satisfactorily removed before placing the concrete. Where field oiling of forms is required, the Contractor shall perform the oiling at least two weeks in advance of their use. Care shall be exercised to keep oil off the surfaces of steel reinforcement and other metal items to be embedded in concrete.

CAST -IN-PLACE CONCRETE

REQUIREMENT

A. BGC shall furnish all materials for concrete in accordance with the provisions of this Section and shall form, mix, place, cure, repair, finish, and do all other work as required to produce finished concrete, all in accordance with the requirements of the Contract Documents.
B. The requirements in this section shall apply to the following types of concrete:
1. Class A Concrete: Normal weight concrete used at all locations, unless otherwise noted.
2. Class B Concrete: Normal weight concrete with pea-rock aggregate. Class B concrete shall be used only at locations indicated on the Drawings.
3. Class C Concrete: Normal weight concrete used in electrical/ instrumentation ductbanks, pipe encasements and sidewalks.
4. Tremie concrete: Concrete indicated to be placed underwater.

REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Without limiting the generality of other requirements of these Specifications, all work specified herein shall conform to or exceed the requirements of the Florida Building Code (FBC) and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of this Section.
B. Codes and Standards
1. The Building Code, as referenced herein, shall be the Florida Building Code.
C. Federal Specifications
1. UU-B-790A (Int. Amd. 1) Building Paper, Vegetable Fiber (Kraft, Waterproofed,

Water Repellant and Fire Resistant).
D. Commercial Standards
ACI 214.1 R-81 Recommended Practice for Evaluation of Strength Test Results of Concrete.
AC1318R Building Code Requirements for Reinforced Concrete.
ACI 301 Specifications for Structural Concrete for Buildings.
ACI 315R Details and Detailing of Concrete Reinforcement.
ACI 347R Recommended Practice for Concrete Formwork.
ASTM C 31 Methods of Making and Curing Concrete Test Specimens in the Field.
ASTM C 33 Specification for Concrete Aggregates.
ASTM C 39 Test Method for Compressive Strength of Cylindrical Concrete Specimens.
ASTM C 94 Specification for Ready-Mixed Concrete.
ASTM C 114 Method for Chemical Analysis of Hydraulic Cement. ASTM C 136 Method for Sieve Analysis of Fine and Coarse Aggregate.
ASTM C 143 Test Method for Slump of Portland Cement Concrete.
ASTM C 150 Specification for Portland Cement.
ASTM C 156 Test Method for Water Retention by Concrete Curing Materials.
ASTM C 157 Test Method for Length Change of Hardened Cement Mortar and Concrete.
ASTM C 192 Method of Making and Curing Concrete Test Specimens in the Laboratory.
ASTM C 260 Specification for Air-Entraining Admixtures for Concrete.
ASTM C 494 Specification for Chemical Admixtures for Concrete.

SUBMITTALS

The design mix to be used shall be prepared by qualified persons and submitted for review. The design of the mix is the responsibility of the Contractor subject to the limitations of the specifications. Review processing of this submission will be required only as evidence that the mix has been designed by qualified persons and that the minimum requirements of the specifications have been met. Such review will in no way alter the responsibility of the Contractor to furnish concrete meeting the requirements of the specifications relative to strength and slump. If in the progress of the work the sources of materials change in characteristics or the Contractor requests a new source in writing, the Contractor shall, at his expense submit new test data and information for the establishment of a new design mix. Submit mix designs for all classes of concrete.
B. Where ready-mix concrete is used, the Contractor shall provide delivery tickets at the time of delivery of each load of concrete. In addition to the information required by ASTM C94, each ticket shall show the mix number, cement content and water/cement ratio.
C. Location of all proposed construction joints.
D. Manufacturer's data on all admixtures.
E. Concrete mix designs for each type of mix proposed and its intended locations.
F. A schedule of all concrete placement with volume of concrete planned to be placed each day.
G. A layout of all structures with all planned construction joint locations.

QUALITY ASSURANCE

A. Plant equipment and facilities shall meet all requirements of the Check List for

Certification of Ready Mixed Concrete Production facilities of the National Ready Mixed Concrete Association and ASTM C 94.
B. Tests for compressive strength and slump of concrete will be performed as specified herein. Test for determining slump will be in accordance with the requirements of ASTM C 143.
C. The cost of all tests, will be borne by the Owner. However, the Contractor shall be charged for the cost of any additional tests and investigation on work performed which does not meet the Specifications.
D. Concrete for testing shall be supplied by the Contractor at no cost to the Owner, and the Contractor shall provide assistance to the Engineer in obtaining samples. The Contractor shall dispose of and clean up all excess material.
E. Construction Tolerances
1. The Contractor shall set and maintain concrete forms and perform finishing operations so as to ensure that the completed work is within the tolerances specified herein. Surface defects and irregularities are defined as finishes are to be distinguished from tolerances. Tolerance is the specified permissible variation from lines, grades, or dimensions shown. Where tolerances are not stated in the Specifications, permissible deviations will be in accordance with ACI 347 and Section 03100 entitled "Concrete Formwork".

FIELD SAMPLES

A. Field Compression Tests
1. Compression test specimens shall be taken during construction from the first placement of each class of concrete specified herein and at intervals thereafter as selected by the Engineer to insure continued compliance with these Specifications. At least one set of test specimens shall be made for each 50 yards of concrete placed. Each set of test specimens shall be a minimum of 5 cylinders.
2. Compression test specimens for concrete shall be made in accordance with ASTM C 31. Specimens shall be 6-inch diameter by 12-inch high cylinders
3. Compression test shall be performed in accordance with ASTM C 39. One cylinder tested at three days, one test cylinders will be tested at 7 days and 2 at 28 days. The remaining cylinder will be held to verify test results, if needed.
B. Evaluation and Acceptance of Concrete
1. Evaluation and acceptance of the compressive strength of concrete shall be according to the requirements of ACI 318, Chapter 5 "Concrete Quality Mixing and Placing", and as specified herein.
2. If any concrete fails to meet these requirements, immediate corrective action shall be taken to increase the compressive strength for all subsequent batches of the type of concrete affected.
3. All concrete which fails to meet the ACI requirements and these specifications, is subject to removal and replacement at the cost of the Contractor

PRODUCTS

CONCRETE MATERIALS

A. Materials shall be delivered, stored, and handled so as to prevent damage by water or breakage. Only one brand of cement shall be used. Cement reclaimed from cleaning bags or leaking containers shall not be used. All cement shall be used in the sequence of receipt of shipments.

B. All materials furnished and stored for the work shall comply with the requirements of ACI 301, as applicable.
C. Materials for concrete shall conform to the requirements of Florida Department of Transportation Road and Bridge Design

ADMIXTURES

Concrete admixtures will be implemented and applied in accordance with the Florida Department of Transportation Road and Bridge Design.

ACCESSORIES

A. Epoxy adhesives shall be the following products for the applications specified to be used in strict accordance with manufacturer's recommendations.
1. For bonding freshly-mixed, plastic concrete to hardened concrete, Sikadur 32 Hi-Mod, LPL Epoxy Adhesive, as manufactured by Sika Chemical Corporation; Concresive 1001-LPL, as manufactured by Adhesive Engineering Company; or equal.
2. For bonding hardened concrete or masonry to steel, Colma-Our Gel, Sikadur Hi-Mod Gel, or equal.
3. Epoxy grouting of vertical and horizontal dowels in existing concrete: A twocomponent structural epoxy gel such as Rawl/Sika Foil-Fast Epoxy Injection Gel, Sikadur injection gel as manufactured by Sika Chemical Corp., EPCON G5 or approved equal. Place with pneumatic or manual injection gun.

1.04 CONCRETE MIX

A. Concrete shall be composed of cement, admixtures, aggregates and water. These materials shall be of the qualities specified. The exact proportions in which these materials are to be used for different parts of the work will be determined by the Contractor. In general, the mix shall be designed to produce a concrete capable of being deposited so as to obtain maximum density and minimum shrinkage and, where deposited in forms, to have good consolidation properties and maximum smoothness of surface. Mix designs with more than 41 percent of sand of the total weight of fine and coarse aggregate shall not be used for Class A Concrete. The aggregate gradations shall be formulated to provide fresh concrete that will not promote rock pockets around reinforcing steel or embedded items. The proportions shall be changed whenever necessary or desirable to meet the required results at no additional cost to the Owner. All changes shall be subject to review by the Engineer.
B. The proportions of cement, aggregates, admixtures and water used in the concrete shall be based on tests of grading and moisture content of materials, slump of concrete mixture, strength of concrete and the following factors:
C. All Class A concrete, unless noted otherwise on the Drawings, shall be air entrained concrete and contain the high range water-reducing admixture (superplasticizer). A water reducing admixture may be added to the mix at the Contractor's option.
D. The mix proportions used shall be changed subject to the limitation specified herein, whenever such change is necessary or desirable to secure the required strength, density, workability, and surface finish and the Contractor shall be entitled to no additional compensation because of such changes.

1.05 CONSISTENCY

A. The quantity of water entering into a batch of concrete shall be just sufficient, with a

normal mixing period, to produce a concrete which can be worked properly into place without segregation, and which can be compacted by the vibratory methods herein specified to give the desired density, impermeability and smoothness of surface. The quantity of water shall be changed as necessary, with variations in the nature or moisture content of the aggregates, to maintain uniform production of a desired consistency. The consistency of the concrete in successive batches shall be determined by slump tests in accordance with ASTM C 143. Slumps shall be 4 inches ± 1 inch measured at the form. Slump with high range water reducers shall be 6 inches ± 1 inch at the form.

1.06 READY-MIXED CONCRETE

A. Ready-mixed concrete shall be used meeting the requirements as to materials, batching, mixing, transporting, and placing as specified herein and in accordance with ASTM C 94.
B. Ready-mixed concrete shall be delivered to the site of the work, and discharge shall be completed within one and one-half hour after the addition of the cement to the aggregates or before the drum has been revolved 250 revolutions, whichever is first. Upon delivery from the truck concrete temperature shall not exceed 90 degrees Fahrenheit.
C. Truck mixers shall be equipped with electrically-actuated counters by which the number of revolutions of the drum or blades may be readily verified. The counter shall be of the resettable, recording type. The counters shall be actuated at the time of starting mixers at mixing speeds.
D. Each batch of concrete shall be mixed in a truck mixer for not less than 70 revolutions of the drum or blades at the rate of rotation designated by the manufacturer of equipment. Additional mixing, if any, shall be at the speed designated by the manufacturer of the equipment as agitating speed. All materials including mixing water shall be in the mixer drum before actuating the revolution counter for determining the number of revolution of mixing.

EXECUTION

1.01 PROPORTIONING AND MIXING

A. Proportioning of the concrete mix shall conform to the requirements of Chapter 3 "Proportioning" of ACI 301; provided, that the maximum slump for any concrete shall not exceed the limits specified in this Section of the Specifications.
B. Mixing of concrete shall conform to the requirements of Chapter 7 of ACI 301 Specifications.
C. Re-tempering of concrete or mortar which has partially hardened will not be permitted.

PREPARATION

A. Earth surfaces shall be thoroughly wetted by sprinkling, prior to the placing of any concrete, and these surfaces shall be kept moist by frequent sprinkling up to the time of placing concrete thereon. A vapor barrier specified in Section 07190 entitled "Vapor Barrier" shall be placed. The surface shall be free from standing water, mud, and debris at the time of placing concrete.
B. No concrete shall be placed until the reinforcement steel and formwork have been erected in a manner acceptable to the Engineer. The Contractor shall notify the Engineer not less than two working days prior to Concrete Placement, allowing one day for review and any corrective measures which are required.
C. Joints in Concrete

1. Concrete surfaces upon or against which concrete is to be placed shall be given a roughened surface for good bond and a bonding agent shall be placed.
2. After the surfaces have been prepared all approximately horizontal construction joints shall be covered with a layer of mortar approximately one-inch thick. The mortar shall have the same proportions of cement and sand as the regular concrete mixture. The water-cement ratio of the mortar in place shall not exceed that of the concrete to be placed upon it, and the consistency of the mortar shall be suitable for placing and working in the manner hereinafter specified. The mortar shall be spread uniformly and shall be worked thoroughly into all irregularities of the surface. Wire brooms shall be used where possible to scrub the mortar into the surface. Concrete shall be placed immediately upon the fresh mortar.

D. Placing Interruptions

1. When placing of concrete is to be interrupted long enough for the concrete to take a set, the working face shall be given a shape by the use of forms or other means, that will secure proper union with subsequent work; provided that construction joints shall be made only where acceptable to the Engineer. Cold joints will be sufficient cause for rejection of the work.

A. Embedded Items

1. No concrete shall be placed until all formwork, installation of parts to be embedded, reinforcing steel, and preparation of surfaces involved in the placing have been completed and accepted by the Engineer at least four hours before placement of concrete. All surfaces of forms and embedded items that have become encrusted with dried grout from concrete previously placed shall be cleaned of all such grout before the surrounding or adjacent concrete is placed.
2. All inserts or other embedded items shall conform to the requirements herein.

B. All reinforcement, anchor bolts, sleeves, inserts, and similar items shall be set and secured in the forms where shown on the Drawings or by shop drawings and shall be acceptable to the Engineer before any concrete is placed. Accuracy of placement is the responsibility of the Contractor.

G. All anchor bolts called for on the drawings shall be cast-in-place in the concrete. Drilled, impact, adhesive or other types of anchors shall not be substituted for anchor bolts unless otherwise shown on the Drawings. Anchor bolts shall conform to the requirements set forth in Section 05500 entitled "Miscellaneous Fabrications."

H. Casting New Concrete Against Old

1. Where concrete is to be cast against old concrete (any concrete which is greater than 60 days of age), the surface of the old concrete shall be thoroughly cleaned and roughened by sand-blasting (exposing aggregate) to an amplitude of ¼" prior to the application of an epoxy bonding agent.

I. No concrete shall be placed in any structure until all water entering the space to be filled with concrete has been properly cut off or has been diverted by pipes, or other means, and carried out of the forms, clear of the work. No concrete shall be deposited underwater, except where shown on the Drawings to be placed by the tremie method, nor shall the Contractor allow still water to rise on any concrete until the concrete has attained its initial set. Water shall not be permitted to flow over the surface of any concrete in such manner and at such veloCity as will injure the surface finish of the concrete. Pumping or other necessary dewatering operations for removing ground water, if required, will be subject to the review of the Engineer.

J. Corrosion Protection
1. Pipe, conduit, dowels, and other ferrous items required to be embedded in concrete construction shall be so positioned and supported prior to placement of concrete that there will be a minimum of 2 inches clearance between said items and any part of the concrete reinforcement. Securing such items in position by wiring or welding them to the reinforcement will not be permitted.
2. Openings for pipes, inserts for pipe hangers and brackets, and the setting of anchors shall, where practicable, be provided for during the placing of concrete.
3. Anchor bolts shall be accurately set, and shall be maintained in position by templates while being embedded in concrete.
4. The surfaces of all metalwork to be in contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed.

PLACING CONCRETE
All concrete will be placed by chute directly from the truck or by hopper method.

CONCRETE FINISHING
BGC intends to apply to all exposed sides a light broom finish in accordance with FDOT standard road and bridge design.

CURING AND PROTECTION
BGC will coat all exposed concrete surfaces with either wet burlap or FDOT approved curing compound.

ORDER OF PLACING CONCRETE
In order to minimize the effects of shrinkage, the concrete shall be placed in units as bounded by construction joints shown on the Drawings and maximum lengths as indicated on Drawings. The placing of units shall be done by placing alternate units in a manner such that each unit placed shall be have cured at least seven days before the contiguous unit or units are placed, except that the corner sections of vertical walls shall not be placed until the two adjacent wall panels have cured at least 14 days.
The surface of the concrete shall be level whenever a run of concrete is stopped.

DEFECTIVE CONCRETE
As soon as forms are removed, all exposed surfaces shall be carefully examined and any irregularities shall be immediately rubbed or ground in a satisfactory manner in order to secure a smooth, uniform, and continuous surface. Plastering or coating of surfaces to be smoothed will not be permitted. No repairs shall be made until reviewed by the Engineer.
In no case will extensive patching of honeycombed concrete be permitted. Concrete containing minor voids, holes, honeycombing, or similar depression defects shall have them repaired as specified herein. Concrete containing extensive voids, holes, honeycombing, or similar depression defects, shall be completely removed and replaced.
All repairs and replacements herein specified shall be promptly executed by the Contractor at its own expense.

Defective surfaces to be repaired as specified in Article 3.06, Paragraph A of this Section, shall be cut back from trueline a minimum depth of 1/2 inch over the entire area. Feathered edges will not be permitted. Where chipping or cutting tools are not required

in order to deepen the area properly, the surface shall be prepared for bonding by the removal of all laitance or soft material, and not less than 1/32-inch depth of the surface film from all hard portions. The material used for repair proposed shall consist of a mixture of one sack of cement to 3 cubic feet of sand. For exposed walls, the cement shall contain such a proportion of Atlas white portland cement as is required to make the color of the patch match the color of the surrounding concrete.
All repairs shall be built up and shaped in such a manner that the completed work will conform to the requirements of Article 3.04 or 3.06 of this Section, as applicable, using acceptable methods which will not disturb the bond, cause sagging, or cause horizontal fractures. Surfaces of said repairs shall receive the same kind and amount of curing treatment as required for the concrete in the repaired section.
Prior to backfilling, all cracks that may have developed shall be "vee'd" and filled with sealant conforming to the requirements of Section 03290 entitled, " Joints in Concrete". This repair method shall be done on the faces of members in contact with fill.

CONCRETE SEALER
BGC will apply to the top surface of all finished concrete Tex-cote bridge cote XL70

QUALITY ASSURANCE
Field Test Panels
BGC intends to sub contract Terracon to perform all concrete testing in accordance will the specifications. All findings will be delivered to the City

WELDING STRUCTURAL ALUMINUM FRAMING
All welding will be performed either on site or in a shop by certified structural aluminum welders. The materials will be prepared and welded in accordance with AWS.

PIER TIMBERWORK

SUBMITTALS
CITY approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the CITY. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
SD-02 Shop Drawings
- Pier timberwork
- Submit drawings of treated timber showing dimensions of cut, framed, or bored timbers.

MATERIALS
All timber materials salvaged from the demolition of the docks shall be reused or replaced in kind. All replacement materials will be in treated in accordance with AWPA and local building codes.

BASIC ELECTRICAL MATERIALS AND METHODS

REFERENCES
The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)
ASTM D709 (2013) Laminated Thermosetting Materials
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)
IEEE 100 (2000; Archived) The Authoritative Dictionary of IEEE Standards Terms
IEEE C2 (2012; Errata 1 2012; INT 1-4 2012; Errata 2 2013; INT 5-7 2013; INT 8-10 2014; INT 11 2015) National Electrical Safety Code
IEEE C57.12.28 (2014) Standard for Pad-Mounted Equipment - Enclosure Integrity
IEEE C57.12.29 (2014) Standard for Pad-Mounted Equipment - Enclosure Integrity for Coastal Environments
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
NEMA 250 (2014) Enclosures for Electrical Equipment (1000 Volts Maximum)
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
NFPA 70 (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code

RELATED REQUIREMENTS

This section applies to certain sections of Division 02, EXISTING CONDITIONS. This section applies to existing electrical connections providing power to the five excising dock facilities along the NOAA seawall.

DEFINITIONS

a. Unless otherwise specified or indicated, electrical and electronics terms used in these specifications, and on the drawings, shall be as defined in IEEE 100.
b. The technical sections referred to herein are those specification sections that describe products, installation procedures, and equipment operations and that refer to this section for detailed description of submittal types.
c. The technical paragraphs referred to herein are those paragraphs in PART 2 - PRODUCTS and PART 3 - EXECUTION of the technical sections that describe products, systems, installation procedures, equipment, and test methods.

ELECTRICAL CHARACTERISTICS

This section will require field verification to match existing characteristics. Final connections to the power distribution system at the existing hand hole or drop box shall be made by the Contractor as directed by the CITY.

SUBMITTALS INFORMATION

Submittals required in other sections that refer to this section must conform to the following additional requirements as applicable.

Shop Drawings (SD-02); G

Include wiring diagrams and installation details of equipment indicating proposed location, layout and arrangement, control panels, accessories, piping, ductwork, and other items that must be shown to ensure a coordinated installation. Wiring diagrams shall identify circuit terminals and indicate the

internal wiring for each item of equipment and the interconnection between each item of equipment. Drawings shall indicate adequate clearance for operation, maintenance, and replacement of operating equipment devices.

QUALITY ASSURANCE

Regulatory Requirements

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction," or words of similar meaning, to mean the CITY. Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory provisions of NFPA 70 unless more stringent requirements are specified or indicated. **1.6.2**

Standard Products

Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship. Products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year period shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been on sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2-year period. Where two or more items of the same class of equipment are required, these items shall be products of a single manufacturer; however, the component parts of the item need not be the products of the same manufacturer unless stated in the technical section.

Alternative Qualifications

Products having less than a 2-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturers' factory or laboratory tests, is furnished.

Material and Equipment Manufacturing Date

Products manufactured more than 3 years prior to date of delivery to site shall not be used, unless specified otherwise.

WARRANTY

The equipment items shall be supported by service organizations which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

ELECTRICAL REQUIREMENTS

Electrical installations shall conform to IEEE C2, NFPA 70, and requirements specified herein.

INSTRUCTION TO CITY PERSONNEL

Confirmation of operation shall be provided to designated NOAA personnel. Instruction shall be given during the first regular work week after the equipment or system has been accepted and turned over to the CITY/NOAA for regular operation.

EXCAVATION AND FILL

SUBMITTALS

CITY approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the CITY. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
SD-01 Preconstruction Submittals
Shoring and Sheeting Plan, Submit 15 days prior to starting work.
Copies of all supplier cut sheets and field test reports within 24 hours of the completion of the test.

DELIVERY, STORAGE, AND HANDLING

Perform in a manner to prevent contamination or segregation of materials.

Utilities

Movement of construction machinery and equipment over pipes and utilities during construction shall be at the Contractor's risk. Excavation made with power-driven equipment is not permitted within two feet of known CITY-owned utility or subsurface construction. For work immediately adjacent to or for excavations exposing a utility or other buried obstruction, excavate by hand. Start hand excavation on each side of the indicated obstruction and continue until the obstruction is uncovered or until clearance for the new grade is assured. Report damage to utility lines or subsurface construction immediately to the CITY.

SOIL MATERIALS

Satisfactory Materials

Any materials classified by ASTM D2487 as GW, SW, SP, free of debris, roots, wood, scrap material, vegetation, refuse, soft unsound particles, and deleterious, or objectionable materials. Unless specified otherwise, the maximum particle diameter shall be specified by the engineer of record and shown on the plans for that location.

Unsatisfactory Materials

Materials which do not comply with the requirements for satisfactory materials. Unsatisfactory materials also include man-made fills, trash, refuse, construction debris, or backfills from previous construction. Unsatisfactory material also includes material classified as satisfactory which contains root and other organic matter, and stones larger than 3 inches. The CITY shall be notified of any contaminated materials.

Select Material

Provide materials classified as GW, GP, SW, SP, by ASTM D2487 where indicated. Coefficient of permeability shall be a minimum of0.002 feet per minute when tested in accordance with ASTM D5084.
Bearing Ratio: At 0.1 inch penetration, the bearing ratio shall be determined in accordance with ASTM D1883 for a laboratory soaking period of not less than 4 days. The combined material shall conform to the following sieve analysis:]]
Sieve Size Percent Passing by Weight
2 1/2 inches 100
No. 4 40 - 85
No. 10 20 - 80
No. 40 10 - 60

PROTECTION

Drainage

So that construction operations progress successfully, completely drain construction site during periods of construction to keep soil materials sufficiently dry. The Contractor shall establish/construct storm drainage features at the earliest stages of site development, and throughout construction grade the construction area to provide positive surface water runoff away from the construction activity and/or provide temporary drainage features and equipment as required to prevent erosion and undermining of existing seawall foundations and/or tie-back systems. When unsuitable working platforms for equipment operation and unsuitable soil support for subsequent construction features develop, remove unsuitable material and provide new soil material as specified herein. It is the responsibility of the Contractor to assess the soil and ground water conditions presented by the plans and specifications and to employ necessary measures to permit construction to proceed. Excavated slopes and backfill surfaces shall be protected to prevent erosion and sloughing. Excavation shall be performed so that the site, the area immediately surrounding the site, and the area affecting operations at the site shall be continually and effectively drained.

Underground Utilities

Location of the existing utilities indicated is approximate. The BGC will physically verify the location and elevation of the existing utilities indicated prior to starting construction. BGC will contact the "Sunshine 811 One-Call of Florida (www.sunshine811.com)" and or the local Public Works Department for assistance in locating existing utilities.

3.1.3 Machinery and Equipment

Movement of construction machinery and equipment over pipes during construction shall be at the Contractor's risk. Repair, or remove and provide new pipe for existing or newly installed pipe that has been displaced or damaged.

SURFACE PREPARATION

EXCAVATION

Excavate to contours, elevation, and dimensions indicated. Reuse excavated materials that meet the specified requirements for the material type required at the intended location. This specifically applies to the areas excavated for tie-back installation. Keep excavations free from water. Excavate soil disturbed or weakened by Contractor's operations, soils softened or made unsuitable for subsequent construction due to exposure to weather. Excavations below indicated depths will not be permitted except to remove unsatisfactory material. Unsatisfactory material encountered below the grades shown shall be removed as directed. Refill with satisfactory material and compact to 95 percent of ASTM D698 maximum density. Unless specified otherwise, refill excavations cut below indicated depth with satisfactory material 95 percent of ASTM D698 maximum density. Satisfactory material removed below the depths indicated, without specific direction of the CITY, shall be replaced with satisfactory materials to the indicated excavation grade; except as specified for spread footings. Determination of elevations and measurements of approved overdepth excavation of unsatisfactory material below grades indicated shall be done under the direction of the CITY.

Tie-back Trenches

Excavate to the dimension indicated. Grade bottom of trenches to provide uniform support for each section of tie-back bedding placement. Tamp if necessary to provide a firm bed. Recesses shall be

section of tie-back bedding placement. Tamp if necessary to provide a firm bed. Recesses shall be excavated to accommodate turnbuckles so that tie-backs will be uniformly supported for the entire length. Rock, where encountered, shall be excavated to a depth of at least 6 inches below the bottom of the tie-back.

Hard Material and Rock Excavation

Remove hard material and rock to elevations indicated in a manner that will leave foundation material in an unshattered and solid condition. Roughen level surfaces and cut sloped surfaces into benches for bond with concrete. Protect shale from conditions causing decomposition along joints or cleavage planes and other types of erosion. Removal of hard material and rock beyond lines and grades indicated will not be grounds for a claim for additional payment unless previously authorized by the CITY. Excavation of the material claimed as rock shall not be performed until the material has been cross sectioned by the Contractor and approved by the CITY. Common excavation shall consist of all excavation not classified as rock excavation.

Excavated Materials

Satisfactory excavated material required for fill or backfill shall be placed in the proper section of the permanent work required or shall be separately stockpiled if it cannot be readily placed. Satisfactory material in excess of that required for the permanent work and all unsatisfactory material shall be disposed of as specified in Paragraph "DISPOSITION OF SURPLUS MATERIAL."

Final Grade of Surfaces to Support Concrete

Excavation to final grade shall not be made until just before concrete is to be placed. For pile foundations, the excavation shall be stopped at an elevation 6 to 12 inches above the bottom of the footing before driving piles. After pile driving has been completed, the remainder of the excavation shall be completed to the elevations shown. Only excavation methods that will leave the foundation rock in a solid and unshattered condition shall be used. Approximately level surfaces shall be roughened, and sloped surfaces shall be cut as indicated into rough steps or benches to provide a satisfactory bond. Shales shall be protected from slaking and all surfaces shall be protected from erosion resulting from ponding or flow of water.

SUBGRADE PREPARATION

Unsatisfactory material in surfaces to receive fill or in excavated areas shall be removed and replaced with satisfactory materials as directed by the CITY. The surface shall be scarified to a depth of 6 inches before the fill is started. Sloped surfaces steeper than 1 vertical to 4 horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When subgrades are less than the specified density, the ground surface shall be broken up to a minimum depth of 6 inches, pulverized, and compacted to the specified density. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, or other approved equipment well suited to the soil being compacted. Material shall be moistened or aerated as necessary to provide the moisture content that will readily facilitate obtaining the specified compaction with the equipment used. Minimum subgrade density shall be as specified herein.

SUBGRADE FILTER FABRIC

Place synthetic fiber filter fabric as indicated directly on prepared subgrade free of vegetation,

stumps, rocks larger than 2 inches diameter and other debris which may puncture or otherwise damage the fabric. Repair damaged fabric by placing an additional layer of fabric to cover the damaged area a minimum of 3 feet overlap in all directions. Overlap fabric at joints a minimum of 3 feet. Obtain approval of filter fabric installation before placing fill or backfill. Place fill or backfill on fabric in the direction of overlaps and compact as specified herein. Follow manufacturer's recommended installation procedures.

FILLING AND BACKFILLING

Fill and backfill to contours, elevations, and dimensions indicated. Compact each lift before placing overlaying lift.

Common Fill Placement

Use satisfactory materials. Place in 6 inch lifts. Compact areas not accessible to rollers or compactors with mechanical hand tampers. Aerate material excessively moistened by rain to a satisfactory moisture content. Finish to a smooth surface by blading, rolling with a smooth roller, or both.

Backfill and Fill Material Placement

Provide for paved areas and under concrete slabs, except where select material is provided. Place in 6 inch lifts. Do not place over wet or frozen areas. Place backfill material adjacent to structures as the structural elements are completed and accepted. Backfill against concrete only when approved. Place and compact material to avoid loading upon or against the structure.

Select Material Placement

Provide under porous fill of structures not pile supported. Place in 6 inch lifts. Backfill adjacent to structures shall be placed as structural elements are completed and accepted. Backfill against concrete only when approved. Place and compact material to avoid loading upon or against structure.

Backfill and Fill Material Placement Over Conduit and at walls

Backfilling shall not begin until construction below finish grade has been approved, underground utilities systems have been inspected, tested and approved, forms removed, and the excavation cleaned of trash and debris. Backfill shall be brought to indicated finish grade and shall include backfill for outside grease interceptors and underground fuel tanks. Where pipe is coated or wrapped for protection against corrosion, the backfill material up to an elevation 2 feet above sewer lines and 1 foot above other utility lines shall be free from stones larger than 1 inch in any dimension. Heavy equipment for spreading and compacting backfill shall not be operated closer to foundation or retaining walls than a distance equal to the height of backfill above the top of footing; the area remaining shall be compacted in layers not more than 4 inches in compacted thickness with powerdriven
hand tampers suitable for the material being compacted. Backfill shall be placed carefully around pipes or tanks to avoid damage to coatings, wrappings, or tanks. Backfill shall not be placed against foundation walls prior to 7 days after completion of the walls. As far as practicable, backfill shall be brought up evenly on each side of the wall and sloped to drain away from the wall.

Trench Backfilling

Backfill as rapidly as construction, testing, and acceptance of work permits. Place and compact backfill in 6 inch lifts to top of trench.

COMPACTION

Determine in-place density of existing subgrade; if required density exists, no compaction of existing subgrade will be required. Density requirements specified herein are for cohesionless materials. When cohesive materials are encountered or used, density requirements may be reduced by 5 percent.

Grading

Finish grades as indicated within one-tenth of one foot. Grade areas to drain water away from structures. Maintain areas free of trash and debris. For existing grades that will remain but which were disturbed by Contractor's operations, grade as directed.

Protection of Surfaces

Protect newly backfilled, graded, and/or topsoiled areas from traffic, erosion, and settlements that may occur. Repair or reestablish damaged grades, elevations, or slopes.

DISPOSITION OF SURPLUS MATERIAL

Remove from CITY property surplus or other soil material not required or suitable for filling or backfilling, and brush, refuse, stumps, roots, and timber.

FIELD QUALITY CONTROL

Testing and sampling will be completed by Terracon engineers who will be subcontracted by BGC.

Fill and Backfill Material Testing

All back fill shall come from onsite and the project should not require imported materials.

Select Material Testing

Provide certifications from the material supplier, or test select material in accordance with ASTM C136/C136M for conformance to ASTM D2487 gradation limits; ASTM D1140 for material finer than the No. 200 sieve; ASTM D698 or ASTM D1557 for moisture density relations, as applicable.

METAL SHEET PILING

ESTIMATED QUANTITIES

The estimated quantities of sheet piling listed in the unit price schedule of the contract, as to be furnished by the Contractor, are given for bidding purposes only. Sheet piling quantities for payment will consist of the linear feet of piling acceptably installed. Installed quantities will consist of all piling including fabricated sections driven between the required top and bottom elevations of pilings plus any additions thereto resulting from changes in design or alignment as provided in paragraph DRIVING.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1/D1.1M (2015; Errata 2015) Structural Welding Code - Steel

ASTM INTERNATIONAL (ASTM)

ASTM A6/A6M (2014) Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling

ASTM A690/A690M (2013a) Standard Specification for High-Strength Low-Alloy Nickel, Copper, Phosphorus Steel H-Piles and Sheet Piling with Atmospheric Corrosion Resistance for Use in Marine

Environments

SUBMITTALS

CITY approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
SD-02 Shop Drawings
Metal Sheet Piling; G
SD-03 Product Data
Driving
Pile Driving Equipment; G
Pulling and Redriving; G
SD-08 Closeout Submittals
Pile Driving Record

DELIVERY, STORAGE, AND HANDLING

Materials delivered to the site shall be new and undamaged and shall be accompanied by certified test reports. Provide the manufacturer's logo and mill identification mark on the sheet piling as required by the referenced specifications. Store and handle sheet piling in the manner recommended by the manufacturer to prevent permanent deflection, distortion or damage to the interlocks; as a minimum, support on level blocks or racks spaced not more than 10 feet apart and not more than 2 feet from the ends. Storage of sheet piling should also facilitate required inspection activities and prevent damage to coatings and corrosion prior to installation.

PRODUCTS

METAL SHEET PILING

Submit detail drawings for sheet piling, including fabricated sections, showing complete piling dimensions and details, driving sequence and location of installed piling.
a. Include in the drawings details of top protection, special reinforcing tips, tip protection, lagging, splices, fabricated additions to plain piles, cut-off method, corrosion protection, and dimensions of templates and other temporary guide structures for installing piling. Provide details of the method for handling piling to prevent permanent deflection, distortion or damage to piling interlocks.
b. Metal sheet piling shall be Grade 50, Type ASTM A572 cold-formed, epoxy coated with 16-mil coal tar epoxy on both sides for the top 25 of length of the sheet.

Interlocks

The interlocks of sheet piling shall be free-sliding, provide a swing angle suitable for the intended installation but not less than 5 degrees when interlocked, and maintain continuous interlocking when installed.

General Requirements

Sheet piling including special fabricated sections shall be full-length sections of the dimensions shown. Provide fabricated sections conforming to the requirement and the piling manufacturer's recommendations for fabricated sections. Fabricated tees, wyes and cross pieces shall be fabricated of piling sections with a minimum web thickness specified by the EOR. Provide sheet piling with standard pulling holes.

Materials Tests

BGC will certified materials tests reports showing that sheet piling and appurtenant metal materials meet the specified requirements, for each shipment and identified with specific lots prior to installing materials. Material test reports shall meet the requirements of ASTM A572. Perform materials tests conforming to the following requirements. Sheet piling and appurtenant materials shall be tested and certified by the manufacturer to meet the specified chemical, mechanical and section property requirements prior to delivery to the site. Testing of sheet piling for mechanical properties shall be performed after the completion of all rolling and forming operations. Testing of sheet piling shall meet the requirements of ASTM A572.

INSTALLATION

Pile Driving Equipment

BGC will submit complete descriptions of sheet piling driving equipment including hammers (and vibratory
hammers), extractors, protection caps and other installation appurtenances, prior to commencement of work. Descriptive information includes manufacturer's name, model numbers, capacity, rated energy, hammer details, cushion material, helmet, and templates. Provide pile driving equipment conforming to the following requirements.

Driving Hammers

BGC proposes the use of a crane suspended Vibratory hammer of sufficient size to drive the sheet pile with minimal resistance.

Placing

Any excavation required within the area where sheet pilings are to be installed shall be completed prior to placing sheet pilings. Pilings properly placed and driven shall be interlocked throughout their length with adjacent pilings to form a continuous diaphragm throughout the length or run of piling wall.

a. Pilings shall be carefully located as indicated. Pilings shall be placed plumb with out-ofplumbness not exceeding 1/4 inch per foot of length and true to line. Place the pile so the face
will not be more than 6 inches from vertical alignment at any point. Top of pile at elevation of cut-off shall be within 1/2 inch horizontally and 2 inches vertically of the location indicated. Manipulation of piles to force them into position will not be permitted. Check all piles for heave. Re-drive all heaved piles to the required tip elevation.

b. Provide temporary wales, templates, master pilings or guide structures to ensure that the pilings are placed and driven to the correct alignment. Use a system of structural framing sufficiently rigid to resist lateral and driving forces and to adequately support the sheet piling until design tip elevation is achieved. Use two templates, at least, when placing each piling not less than 20 feet apart. Templates shall not move when supporting sheet piling. Fit templates with wood blocking to bear against the web of each alternate sheet pile and hold the sheet pile at the design location alignment. Provide outer template straps or other restraints as necessary to prevent the sheets from warping or wandering from the alignment. Mark template for the location of the leading edge of each alternate sheet pile. If in view, also mark the second level to assure that the piles are vertical and in position. If two guide marks cannot be seen, other means shall be used to keep the sheet pile vertical along its leading edge.

Driving

BGC will submit records of the completed sheet piling driving operations, including a system of identification which shows the disposition of approved piling in the work, driving equipment

performance data, piling penetration rate data, piling dimensions and top and bottom elevations of installed piling. The format for driving records shall be as directed. Prior to driving pilings in water, paint a horizontal line on both sides of each piling at a fixed distance from the bottom so that it will be visible above the water line after installation. This line shall indicate the profile of the bottom elevation of installed pilings and potential problem areas can be identified by abrupt changes in its elevation. Drive pilings with the proper size hammer and by approved methods so as not to subject the pilings to damage and to ensure proper interlocking throughout their lengths.
a. Maintain driving hammers in proper alignment during driving operations by use of leads or guides attached to the hammer. Caution shall be taken in the sustained use of vibratory hammers when a hard driving condition is encountered to avoid interlock-melt or damages. Discontinue the use of vibratory hammers and impact hammers employed when the penetration rate due to vibratory loading is one foot or less per minute.
b. Employ a protecting cap in driving when using impact hammers to prevent damage to the tops of pilings. Remove and replace pilings damaged during driving or driven out of interlock at the Contractor's expense. c. Drive pilings without the aid of a water jet. Before commencing the driving of the final 5 feet,
firmly seat the pile in place by the application of a number of reduced energy hammer blows.
d. Take adequate precautions to ensure that pilings are driven plumb. Where possible, drive Z-pile with the ball end leading. If an open socket is leading, a bolt or similar object placed in the bottom of the interlock will minimize packing material into it and ease driving for the next sheet. If at any time the forward or leading edge of the piling wall is found to be out-of-plumb in the plane of the wall the piling being driven shall be driven to the required depth and tapered pilings shall be provided and driven to interlock with the out-of-plumb leading edge or other approved corrective measures shall be taken to insure the plumbness of succeeding pilings. The maximum permissible taper for any tapered piling shall be 1/8 inch per foot of length.
e. Pilings in each run or continuous length of piling wall shall be driven alternately in increments of depth to the required depth or elevation. No piling shall be driven to a lower elevation than those behind it in the same run except when the pilings behind it cannot be driven deeper. Incrementally sequence driving of individual piles such that the tip of any sheet pile shall not be more than 4 feet below that of any adjacent sheet pile. When the penetration resistance exceeds five blows per inch, the tip of any sheet pile shall not be more than 2 feet below any adjacent sheet pile. If the piling next to the one being driven tends to follow below final elevation it may be pinned to the next adjacent piling.
f. If obstructions restrict driving a piling to the specified penetration, the obstructions shall be removed or penetrated with a chisel beam. If the Contractor demonstrates that removal or penetration is impractical, make changes in the design alignment of the piling structure as directed to ensure the adequacy and stability of the structure. Pilings shall be driven to depths shown and shall extend up to the elevation indicated for the top of pilings. Piling driven to rock shall be seated individually on the rock. Pilings shall not be driven within 100 feet of concrete less than 7 days old.
g. Pre-augering or spudding may be permitted if slopes cause the sheets to slide or as required by the EOR.

Inspection of Driven Piling

BGC will perform continuous inspection during pile driving. Inspect all piles for compliance with tolerance requirements. Bring any unusual problems which may occur to the attention of the CITY. Inspect the interlocked joints of driven pilings extending above ground. Pilings found to be out of interlock shall be removed and replaced at the Contractor's expense. Use divers or pole mounted

camera to inspect underwater interlocked joints of cofferdam sheet piling. CITY divers may also inspect the interlocked joints. The inspection of cofferdams shall be performed after driving is completed, prior to filling each cell and connecting arc, and within 48 hours after filling each cell and arc.

Pulling and Redriving

BGC will submit the proposed method of pulling sheet piling, prior to pulling any piling. Pull, as directed, selected pilings after driving to determine the condition of the underground portions of pilings. Any piling so pulled and found to be damaged, to the extent that its usefulness in the structure is impaired, shall be removed and replaced at the Contractor's expense. Pilings pulled and found to be in satisfactory condition shall be re-driven when directed.

Pulling

The method of pulling piling shall be approved. Provide pulling holes in pilings, as required. Extractors shall be of suitable type and size. Care shall be exercised during pulling of pilings to avoid damaging piling interlocks and adjacent construction. If the CITY determines that adjacent permanent construction has been damaged during pulling, the Contractor will be required to repair this construction at no cost to the CITY. Pull pilings one sheet at a time. Pilings fused together shall be separated prior to pulling, unless the Contractor demonstrates, to the satisfaction of the CITY, that the pilings cannot be separated. The Contractor will not be paid for the removal of pilings damaged beyond structural use due to proper care not being exercised during pulling.

INSTALLATION RECORDS

BGC will maintain a pile driving record for each sheet pile driven. Indicate on the installation record: installation dates and times, type and size of hammer, rate of operation, total driving time, dimensions of driving helmet and cap used, blows required per foot for each foot of penetration, or number of feet per minute if vibratory hammer is used, final driving resistance in blows for final 6 inches, pile locations, tip elevations, ground elevations, cut-off elevations, and any re-heading or cutting of piles. Record any unusual pile driving problems during driving. Submit complete records to the CITY.

WOOD MARINE PILES

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

INSTALLATION

Pile Driving Equipment

Pile driving equipment shall meet the following requirements.

Pile Driving Hammers

Pile driving hammers shall be steam, air or diesel drip, single-action, double-acting, differential-acting, type. The use of vibratory hammers is strictly dependent upon satisfactory driving and load testing of piles. Embedment depths shall match the existing embedment depths for the piles that are being extracted. All elevations are to remain the same. The size or capaCity of hammers shall be as recommended by the manufacturer for the pile weights and solid formation to be penetrated. The pile hammer shall be of sufficient weight and energy to install the specified pile without damage into the soils expected to be encountered. The maximum driving energy of hammers shall be 12,000 footpounds
for piles for any length. Test piles shall be driven with the same size and type hammer, operating with the same effective energy and efficiency as that to be used in driving job piles. Diesel

powered hammers shall be operated at the rate recommended by the manufacturer throughout the entire driving period. Sufficient pressure shall be maintained at the hammer so that:
a. For double-acting hammers, the number of blows per minute during and at the completion of driving of a pile is equal approximately to that at which the hammer is rated;
b. For single-acting hammers, there is a full upward stroke of the ram; and,
c. For differential-type hammers, there is a slight rise of the hammer base during each upward stroke.

Leads

Leads are required and shall be fixed at the top and adjustable at the bottom. Swinging leads may be allowed if site conditions merit their use and are approved.

Mooring Piles

Since mooring piles will be removed and reinstalled BGCwill inspect piles prior to placement.

Driving Mooring Piles

Mooring piles require a lateral load and do not receive any axial load therefore BGC intends to install each pile using a preformed pile hole.

Tolerances in Driving

Piles shall be driven in the locations indicated. Fender piles may be manipulated a maximum of 0.50 inch per foot of pile length in a direction parallel to the pier face and 0.25 inch per foot of pile length in a direction perpendicular to the pier face. Remove and replace with new piles those damaged, mislocated, driven below the design cutoff, or driven out of alignment.

Protection of Piles

If needed BGC will square the heads and tips of piles to the driving axis. Laterally support piles during driving, but do not
unduly restrain piles from rotation in the leads. Swinging leads will be permitted. Where pile orientation is essential, take precautionary measures to maintain the orientation during driving. Handle, protect, and field treat piles in accordance with AWPA M4.

Damaged Piles

Piles pulled and found to be sound and in a satisfactory condition shall be stored and re-driven. Pulled piles found to be unsound, shall be cataloged and shown to the CITY. The contractor will need to order replacement piles at that time and will be paid accordingly for those piles.
Driving of piles shall not subject them to damage. Piles which are damaged, split, broomed, or broken by reason of internal defects or by improper driving below cutoff elevation so as to impair them for the purpose intended shall be removed and replaced; a second pile may be driven adjacent thereto at the Contractor's expense. Minor damaged areas of treated piles shall be brush-coated with creosote or the same preservative used to treat the piles. The CITY may require the Contractor to pull certain selected piles after driving for test and inspection to determine the conditions of the piles. Any pile so pulled and found to be damaged to such extent as to impair its usefulness in the completed structure shall be removed from the work and the Contractor shall furnish and drive a new pile to replace the damaged pile.

On Site Application of Wood Preservatives

All on site application of wood preservatives must be performed by a person certified through an EPA approved training program for the application of wood treatment products in accordance with 40 CFR 171, regulated under 7 U.S.C.A Sections 136 to 136y, Federal Insecticide, Fungicide, and Rodenticide

Act (FIFRA). On site treatment shall also be in accordance with AWPA M4, Sections 1.5, 2.2, 2.3, and 3.1.

Inspections

When CITY inspections result in product rejection, BGC shall promptly segregate and remove rejected material from the premises. The CITY may also charge the Contractor an additional cost of inspection or test when prior rejection makes reinspection or retest necessary. **WATER**

UTILITY DISTRIBUTION PIPING

SUBMITTALS

CITY approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Pipe, Fittings, Joints and Couplings; G Valves; G

Valve Boxes; G

SD-06 Test Reports

Bacteriological Samples; G

SD-08 Manufacturer's Instructions

Manufacturer's Instructions

QUALITY CONTROL

1.2.1 Regulatory Requirements

Comply with NSF/ANSI 61 and NSF 372 for materials for potable water piping, components and specialties for domestic water; comply with lead content requirements for "lead-free" plumbing as defined by the U.S. Safe Drinking Water Act effective January 2014.

Comply with NSF/ANSI 14 for plastic potable water piping and components. Provide plastic pipe and fittings, bearing the seal of the National Sanitation Foundation (NSF) for potable water service from the same manufacturer.

Comply with NFPA 24 for materials, installation, and testing of fire main piping and components.

DELIVERY, STORAGE, AND HANDLING

Delivery and Storage

Inspect materials delivered to site for damage. Unload and store with minimum handling and in accordance with manufacturer's instructions. Store materials on site in enclosures or under protective covering. Store plastic piping, jointing materials and rubber gaskets under cover out of direct sunlight. Do not store materials directly on the ground. Keep inside of pipes, fittings, valves, and other accessories free of dirt and debris.

Handling

Handle pipe, fittings, valves, and other accessories in accordance with manufacturer's instructions and in a manner to ensure delivery to the trench in sound undamaged condition. Avoid injury to coatings and linings on pipe and fittings; make repairs if coatings or linings are damaged. Do not place other material, hooks, or pipe inside a pipe or fitting after the coating has been applied. Inspect the pipe for defects before installation. Carry, do not drag pipe to the trench. Use of pinch bars and tongs for aligning or turning pipe will be permitted only on the bare ends of the pipe. Clean the interior of pipe and accessories of foreign matter before being lowered into the trench and keep them clean during laying operations by plugging. Replace material found to be defective before or after laying with

sound material without additional expense to the CITY. Store rubber gaskets that are not to be installed immediately, under cover out of direct sunlight.
Handle PVC pipe, fittings, and accessories in accordance with AWWA C605. Handle PE pipe, fittings, and accessories in accordance with AWWA M55.

PRODUCTS
SYSTEM DESCRIPTION
Water Distribution Mains
Provide water distribution mains indicated as through 12 inch lines of PVC pipe. Provide water main accessories and valves as specified and where indicated.

PIPE, FITTINGS, JOINTS AND COUPLINGS
Submit manufacturer's standard drawings or catalog cuts, except submit both drawings and cuts for push-on joints. Include information concerning gaskets with submittal for joints and couplings.

VALVES
Rubber-Seated Butterfly Valves
Provide PVC rubber-seated butterfly valves and wafer type valves that match the performance requirements of AWWA C504. Wafer type valves not meeting laying length requirements are acceptable if supplied and installed with a spacer, providing the specified laying length. Meet all tests required by AWWA C504. Flanged-end valves are required in a pit. Provide a union or sleeve-type coupling in the pit to permit removal. Direct-bury mechanical-end valves3 through 10 inches in diameter. Provide a valve box, means for manual operation, and an adjacent pipe joint to facilitate valve removal. Provide valve operators that restrict closing to a rate requiring approximately 60 seconds, from fully open to fully closed.

Valve Pits
Construct the valve pits at locations indicated or as required above and in accordance with the details shown.

DISINFECTION
Chlorinating materials are to conform to: Chlorine, Liquid: AWWA B301; Hypochlorite, Calcium and Sodium: AWWA B300.
EXECUTION

PRECAUTIONS
Connections to Existing System
Perform all connections to the existing water system in the presence of the CITY.

Operation of Existing Valves
Do not operate valves within or directly connected to the existing water system unless expressly directed to do so by the CITY.

INSTALLATION OF PIPELINES
General Requirements for Installation of Pipelines
Submit manufacturer's instructions for pipeline installations. These manufacturer's instructions apply to all pipeline installation except as noted herein.

Location of Water Lines
Terminate the work covered by this section at a point approximately5 feet from the building, unless otherwise indicated. Do not lay water lines in the same trench with gas lines, fuel lines, electric wiring, or any other utility. Where nonferrous metallic pipe, e.g. copper tubing, cross any ferrous piping, provide a minimum vertical separation of12 inches between pipes.

Water Piping Installation Parallel With Sewer Piping
Normal Conditions
Lay water piping at least10 feet horizontally from a sewer or sewer manhole whenever possible. Measure the distance edge-to-edge. Provide at least18 inches above the top (crown) of the sewer piping and the bottom (invert) of the water piping. The sewer piping is to be constructed of AWWAcompliant
water pipe and pressure tested in place without leakage prior to backfilling where this vertical separation cannot be obtained. Shop drawings for the waste water disposal method are required. Test the sewer manhole in place to ensure watertight construction.
Installation of Water Piping Crossing Sewer Piping
a. Normal Conditions: Provide a separation of at least18 inches between the bottom of the water piping and the top of the sewer piping in cases where water piping crosses above sewer piping.
b. Unusual Conditions: When local conditions prevent a vertical separation described above, construct sewer piping passing over or under water piping of AWWA-compliant ductile iron water piping, pressure tested in place without leakage prior to backfilling. Protect water piping passing under sewer piping by providing a vertical separation of at least18 inches between the bottom of the sewer piping and the top of the water piping; adequate structural support for the sewer piping to prevent excessive deflection of the joints and the settling on and breaking of the water piping; and that the length, minimum20 feet, of the water piping be centered at the point of the crossing so that joints are equidistant and as far as possible from the sewer piping.
Connections to Existing Water Lines
Make connections to existing water lines after coordination with the facility and with a minimum interruption of service on the existing line. Make connections to existing lines under pressure in accordance with the recommended procedures of the manufacturer of the pipe being tapped and as indicated on the utility plan.
Disinfection
Disinfection of systems supplying nonpotable water is not required.
Prior to disinfection, provide disinfection procedures, proposed neutralization and disposal methods of waste water from disinfection procedures as part of the disinfection submittal. Disinfect new water piping and existing water piping affected by Contractor's operations in accordance with AWWA C651. Fill piping systems with solution containing minimum of 50 parts per million of available chlorine and allow solution to stand for minimum of 24 hours. Flush solution from the systems with domestic water until maximum residual chlorine content is within the range of 0.2 and 0.5 parts per million, or the residual chlorine content of domestic water supply. Obtain at least two consecutive bacteriological samples from new water piping. Analyze samples by a certified laboratory, and submit the results of the bacteriological samples. Obtain approval by the CITY prior to the new water piping being placed into service.

FIELD QUALITY CONTROL

Field Tests and Inspections
Notify the CITY a minimum of five days in advance of hydrostatic testing. Coordinate the proposed

method for disposal of waste water from hydrostatic testing. Perform field tests, and provide labor, equipment, and incidentals required for testing. Provide documentation that all items of work have been constructed in accordance with the Contract documents.

Testing Procedures

Hydrostatic Testing

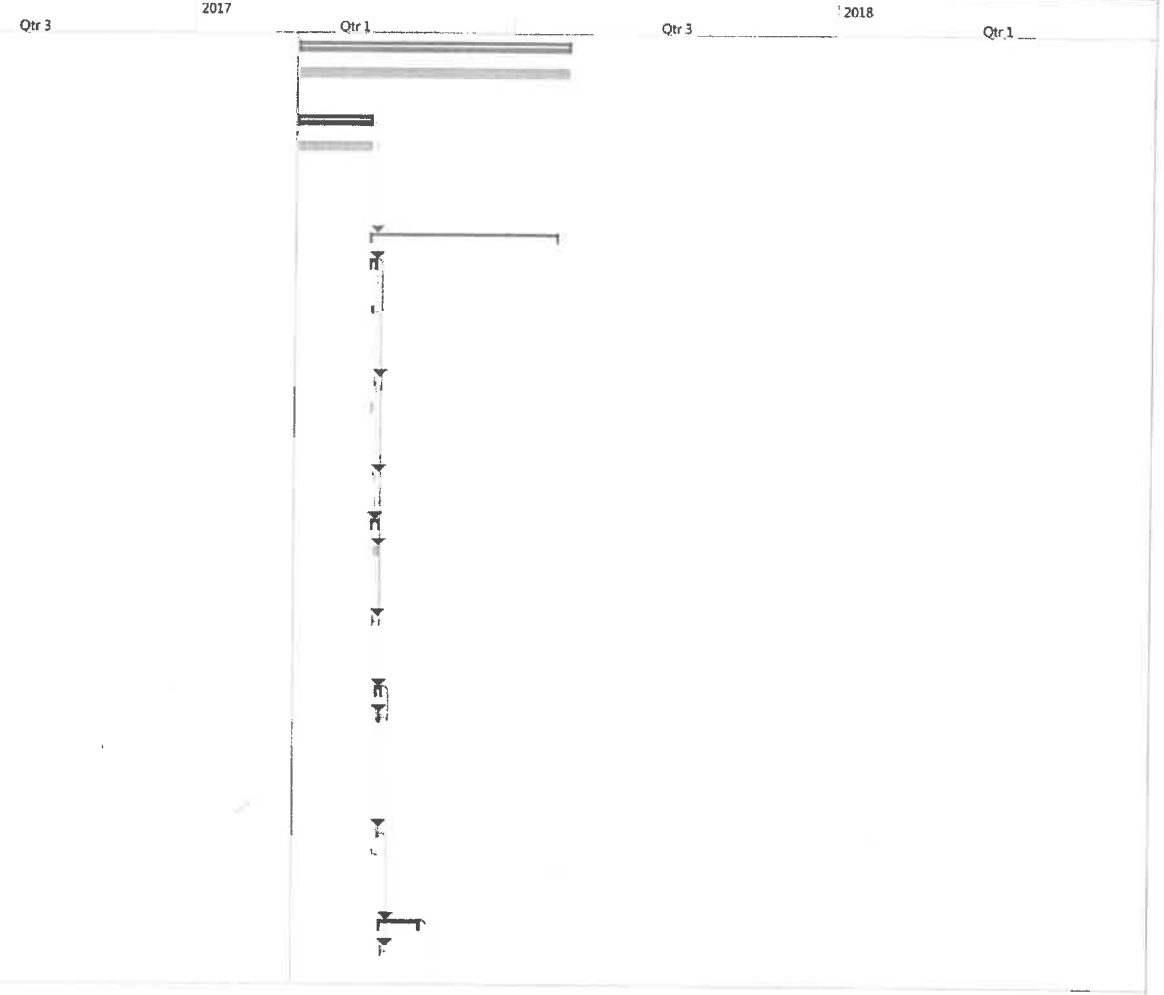
Test the water system in accordance with the applicable CITY standard.

Leakage Testing For leakage test, use a hydrostatic pressure not less than the maximum working pressure of the system. Leakage test may be performed at the same time and at the same test pressure as the pressure test.

CLEANUP

Upon completion of the installation of water lines and appurtenances, remove all debris and surplus materials resulting from the work.

ID	Task Mode	Task Name	Duration	Start	Finish
1		**ADMINISTRATION**	**110 days**	**Wed 3/1/17**	**Tue 8/1/17**
2		contract docuuments	110 days	Wed 3/1/17	Tue 8/1/17
3		**ENGINEERING**	**30 days**	**Wed 3/1/17**	**Tue 4/11/17**
4		DESIGN, PERMITTING, ENGINEERING, SUBMITTALS	30 days	Wed 3/1/17	Tue 4/11/17
5		**CONSTRUCTION**	**76 days**	**Wed 4/12/17**	**Wed 7/26/17**
6		**CONSTRUCTION MOBILIZATION**	**3 days**	**Wed 4/12/17**	**Fri 4/14/17**
7		SURVEY/ UTILITY LOCATES	2 days	Wed 4/12/17	Thu 4/13/17
8		OFFICE SET UP	1 day	Fri 4/14/17	Fri 4/14/17
9		EQUIPMENT AND MATERIAL DELIVERIES	2 days	Wed 4/12/17	Thu 4/13/17
10		CONSTRUCTION FENCING	1 day	Fri 4/14/17	Fri 4/14/17
11		**SECURE SITE**	**2 days**	**Fri 4/14/17**	**Mon 4/17/17**
12		PROTECTION OF EXISTING STRUCTURES	2 days	Fri 4/14/17	Mon 4/17/17
13		TURBIDITY AND EROSION CONTROLS	1 day	Fri 4/14/17	Fri 4/14/17
14		**DEMO**	**3 days**	**Mon 4/17/17**	**Wed 4/19/17**
15		REMOVE AND STORE TIMBER MOORING PILE	3 days	Mon 4/17/17	Wed 4/19/17
16		DEMO OF EXISTING DOCK ACCESS	2 days	Mon 4/17/17	Tue 4/18/17
17		**SHEET PILE**	**16 days**	**Thu 4/20/17**	**Thu 5/11/17**
18		SET UP TEMPLATE	1 day	Thu 4/20/17	Thu 4/20/17



Project: TRUMAN SEAWALL
Date: Tue 2/28/17

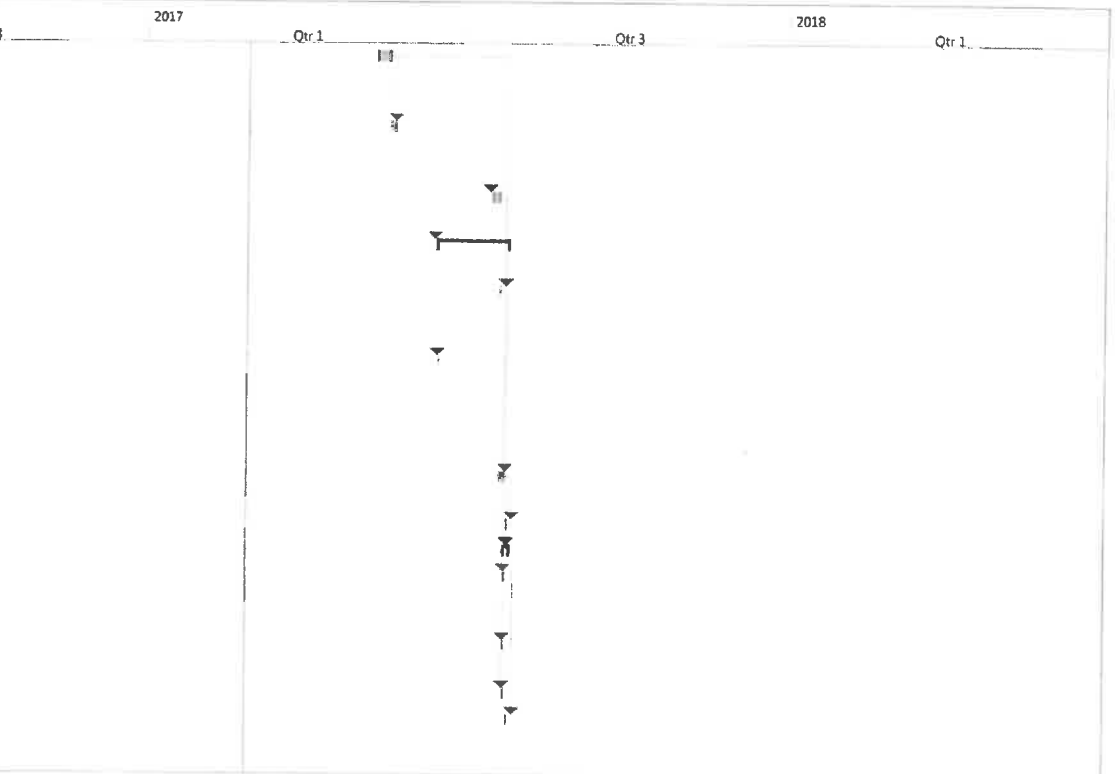
Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

ID	Task Mode	Task Name	Duration	Start	Finish
19		DRIVE SHEET PILE	15 days	Fri 4/21/17	Thu 5/11/17
20		**CONCRETE DEADMAN**	**16 days**	**Fri 5/12/17**	**Fri 6/2/17**
21		FORM AND POUR	3 days	Fri 5/12/17	Tue 5/16/17
22		EXCAVATE DEADMAN	5 days	Fri 5/12/17	Thu 5/18/17
23		INSTALL DEADMAN AND TIE-ROD	3 days	Fri 5/19/17	Tue 5/23/17
24		PROOF TEST TWO DEADMAN ANCHORS	2 days	Wed 5/24/17	Thu 5/25/17
25		BACKFILL AND COMPACT DEADMAN AND BETWEEN SEAWALLS	6 days	Fri 5/26/17	Fri 6/2/17
26		**CONCRETE CAP**	**25 days**	**Fri 5/12/17**	**Thu 6/15/17**
27		INSTALL FORMS	11 days	Fri 5/12/17	Fri 5/26/17
28		TIE STEEL REINFORCEMENT	5 days	Fri 5/12/17	Thu 5/18/17
29		POUR CONCRETE	2 days	Thu 5/18/17	Fri 5/19/17
30		STRIP FORMS	4 days	Tue 5/23/17	Fri 5/26/17
31		APPLY CLASS 5 COATING	3 days	Wed 5/24/17	Fri 5/26/17
32		**UTILITIES**	**5 days**	**Mon 7/17/17**	**Fri 7/21/17**
33		ELECTRICAL CONDUITS AND PULL BOXES	5 days	Mon 7/17/17	Fri 7/21/17
34		WATER AND FIRE CONDUITS	4 days	Mon 7/17/17	Thu 7/20/17
35		**REPLACE STORED ITEMS**	**50 days**	**Fri 5/12/17**	**Thu 7/20/17**

Project: TRUMAN SEAWALL
Date: Tue 2/28/17

Task	Project Summary	Manual Task	Start-only	Deadline			
Split	Inactive Task	Duration-only	Finish-only	Progress			
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress			
Summary	Inactive Summary	Manual Summary	External Milestone				

ID	Task Mode	Task Name	Duration	Start	Finish
36		INSTALL MOORING PILES	5 days	Fri 5/12/17	Thu 5/18/17
37		SOLAR LIGHT POLES	2 days	Fri 5/19/17	Mon 5/22/17
38		RECONSTRUCT DOCKS	4 days	Mon 7/17/17	Thu 7/20/17
39		**SITE RESTORATION**	**28 days**	**Fri 6/16/17**	**Tue 7/25/17**
40		FINAL GRADE SITE	1 day	Fri 7/21/17	Fri 7/21/17
41		REMOVE TURBIDITY AND EROSION CONTROLS	1 day	Fri 6/16/17	Fri 6/16/17
42		PUNCH LIST	2 days	Fri 7/21/17	Mon 7/24/17
43		AS-BUILT SURVE\	1 day	Tue 7/25/17	Tue 7/25/17
44		**DEMOB**	**3 days**	**Mon 7/24/17**	**Wed 7/26/17**
45		REMOVE OFFICE TRAILER	1 day	Mon 7/24/17	Mon 7/24/17
46		MATERIALS REMOVAL	1 day	Mon 7/24/17	Mon 7/24/17
47		EQUIPMENT	1 day	Mon 7/24/17	Mon 7/24/17
48		PROJECT CLOSEOUT DOCUMENTS	1 day	Wed 7/26/17	Wed 7/26/17



Project: TRUMAN SEAWALL
Date: Tue 2/28/17

Task	Project Summary	Manual Task	Start-only	Deadline			
Split	Inactive Task	Duration-only	Finish-only	Progress			
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress			
Summary	Inactive Summary	Manual Summary	External Milestone				

Attachment K
Indemnification Form

CITY OF KEY WEST INDEMNIFICATION FORM

DESIGN-BUILDER agrees to protect, defend, indemnify, save and hold harmless The City of Key West, all its Departments, Agencies, Boards, Commissions, officers, City's Consultant, agents, servants and employees, including volunteers, from and against any and all claims, debts, demands, expense and liability arising out of injury or death to any person or the damage, loss of destruction of any property which may occur or in any way grow out of any act or omission of the DESIGN-BUILDER, its agents, servants, and employees, or any and all costs, expense and/or attorney fees incurred by the City as a result of any claim, demands, and/or causes of action except of those claims, demands, and/or causes of action arising out of the negligence of The City of Key West, all its Departments, Agencies, Boards, Commissions, officers, agents, servants and employees. The DESIGN-BUILDER agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit at its sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false or fraudulent. The City of Key West does not waive any of its sovereign immunity rights, including but not limited to, those expressed in Section 768.28, Florida Statutes.

These indemnifications shall survive the term of this agreement. In the event that any action or proceeding is brought against the City of Key West by reason of such claim or demand, DESIGN-BUILDER shall, upon written notice from the City of Key West, resist and defend such action or proceeding by counsel satisfactory to the City of Key West.

The indemnification provided above shall obligate DESIGN-BUILDER to defend at its own expense to and through appellate, supplemental or bankruptcy proceeding, or to provide for such defense, at the City of Key West's option, any and all claims of liability and all suits and actions of every name and description covered above which may be brought against the City of Key West whether performed by DESIGN- BUILDER, or persons employed or utilized by DESIGN-BUILDER.

The DESIGN-BUILDER's obligation under this provision shall not be limited in any way by the agreed upon Contract Price as shown in this agreement, or the DESIGN- BUILDER's limit of or lack of sufficient insurance protection.

DESIGN-BUILDER: Blue Goose Construction LLC COMPANY SEAL

PO Box 14709 Fort Pierce, FL 34979
Address

Signature

Scott Holmes
Print Name

2/28/17
Date

Vice President
Title

NOTARY FOR THE DESIGN-BUILDER

STATE OF Florida

COUNTY OF St Lucie

The foregoing instrument was acknowledged before me this 28 day of February, 20 17.

By Scott Holmes, of Blue Goose Construction LLC

(Name of officer or agent, title of officer or agent) Name of corporation acknowledging)

or has produced FL Drivers License as identification.

Cecilia Rose Hein
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244966
Expires 6/29/2019

Signature of Notary

Print, Type or Stamp Name of Notary

Return Completed form with Supporting documents to: City of Key West Purchasing

Title or Rank

Attachment L
Anti-Kickback Affidavit

ANTI-KICKBACKAFFIDAVIT

STATE OF FLORIDA)
: SS
COUNTY OF ~~MONROE~~ St. Lucie)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein Bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

BY: _____
Scott Holmes

Sworn and subscribed before me this

28 day of February, 2017.

Cecilia Rose Hein
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244966
Expires 6/29/2019

_____
NOTARY PUBLIC, STATE OF FLORIDA AT LARGE

My Commission Expires: 6/29/19

Attachment M
Public Entity Crimes Form

SWORN STATEMENT UNDER SECTION 287.133(3)(a) FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with RFP, Bid or Contract No. RFP 004-17 for Truman Annex / NOAA Seawall Key West, Florida

2. This sworn statement is submitted by Blue Goose Construction LLC (Name of entity submitting sworn statement)

whose business address is 9901 Okeechobee Road Fort Pierce, FL 34945

and (if applicable) its Federal Employer Identification Number (FEIN) is 47-1578051 (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)

3. My name is Scott Holmes (Please print name of individual signing) and my relationship to the entity named above is Vice President.

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(l)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means

1. A predecessor or successor of a person convicted of a public entity crime: or

2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

_X_ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

___ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

___ There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

___ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove

the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

___The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(Signature) Scott Holmes

2/28/17

(Date)

STATE OF Florida

COUNTY OF St. Lucie

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Scott Holmes who, after first being sworn by me, affixed his/her signature in the
(Name of individual signing)

space provided above on this 28 day of February, 2017.

My commission expires: 6/29/19

NOTARY PUBLIC

Cecilia Rose Hein
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244966
Expires 6/29/2019

Attachment N
Non-Collusion Declaration and Compliance

NON-COLLUSION DECLARATION AND COMPLIANCE WITH 49 CFR §29

ITEM/SEGMENT NO.:_____
F.A.P. NO.:
PARCEL NO.:
COUNTY OF:
BID LETTING OF:_____ ,_____

I, Scott Holmes (NAME), hereby declare that I am Vice President (TITLE) of Blue Goose Construction LLC (FIRM) Of Fort Pierce, Florida (CITY AND STATE) and that I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid on this Project.

I further declare that:

1. The prices(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition with any other contractor, bidder or potential bidder.

2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.

3. No attempt has been made or will be made to solicit, cause or induce any other firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.

4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.

5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.

6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.

7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or

other conduct inconsistent with any of the statements and representations made in this Declaration.

8. As required by Section 337.165, Florida Statutes, the firm has fully informed the City of Key West in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(l)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

9. I certify that, except as noted below, neither my firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default..

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS: N/A

(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action.

Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: Blue Goose Construction LLC (Seal)

BY: Scott Holmes Vice President
NAME AND TITLE PRINTED

WITNESS:

BY:
SIGNATURE

WITNESS:

Executed on this 28 day of February, 2017

FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE

Attachment O
Florida Trench Safety Act Compliance

FLORIDA TRENCH SAFETY ACT COMPLIANCE

Trench Excavation Safety System and Shoring

CERTIFICATION

All excavation, trenching, and related sheeting, bracing, etc. on this project shall conform to the requirements of the Florida Trench Safety Act (90-96, CS/SB 2626), which incorporates by reference, OSHA's excavation safety standards, 29 CFR 1926.650 Subpart P including all subsequent revisions or updates to these standards.

By submission of this bid and subsequent execution of this Contract, the undersigned certifies compliance with the above mentioned standards and further stipulates that all costs associated with this compliance are detailed below as well as included in their lump sum bid amount.

Summary of Costs:

Trench Safety Measure	Units	Quantity	Unit Cost	Extended Cost
A. Benching	LF	680	$10.00	$6,800.00
B.				

Scott Holmes
Signature

2/28/17
Date

STATE OF Florida

COUNTY OF St. Lucie

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Scott Holmes, who, after first being sworn by me affixed his /her signature in the space,

provided above on the 28 day of February, 2017.

Notary Public

MY COMMISSION EXPIRES: 6/29/19

(Seal)

Cecilia Rose Hein
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244966
Expires 6/29/2019

Attachment P
Cone of Silence Affidavit

CONE OF SILENCE AFFIDAVIT

STATE OF Florida)

: SS

COUNTY OF St. Lucie)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of Blue Goose Construction LLC have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

Scott Holmes

(signature)

2/28/17

(date)

Sworn and subscribed before me this

28 Day of February, 2017.

Cecilia Rose Hein
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244966
Expires 6/29/2019

NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 6/29/19

Attachment Q
Equal Benefits for Domestic Partners

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF Florida)

: SS

COUNTY OF St Lucie)

I, the undersigned hereby duly sworn, depose and say that the firm of Blue Goose Construction LLC provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

Scott Holmes

By: Scott Holmes Vice President

Sworn and subscribed before me this

28 day of February, 2017.

Cecilia Rose Hsin
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF244986
Expires 6/29/2019

NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 2/28/17

UNANIMOUS WRITTEN CONSENT
OF THE MEMBER AND MANAGERS OF
BLUE GOOSE CONSTRUCTION LLC
IN LIEU OF SPECIAL MEETING

The undersigned, being the sole Member and Managers of **BLUE GOOSE CONSTRUCTION LLC,** a Florida limited liability company, organized and existing under the laws of the state of Florida, does hereby waive all formal requirements to the notice of holding a meeting and does hereby take the following action by unanimous consent pursuant to the provisions of Section 605.04073(2b), Florida Statutes:

WHEREAS, it is in the best interest of the Company to appoint Managers for the ensuing year, the Member appoints the following Managers:

Richard M. Carnell, Jr. Jeffrey A. Hurwitz

WHEREAS, it is in the best interest of the Company that the Managers designate officers and the officers shall hold such offices set forth opposite their respective names for one year or until their successors are designated and qualified:

President	Richard M. Carnell, Jr
Vice President	Robert Scott Holmes
Treasurer /Secretary	Jeffrey A. Hurwitz
Assistant Treasurer / Assistant Secretary	Gregory D. Hampton

WHEREAS, the Managers believe it to be in the best interest of the Company that the following individuals are authorized, empowered, and directed to be authorized signatories on the Company's bank accounts; and that each and all of the resolutions required by any bank are hereby adopted, as though set forth in full at this point, and the Secretary of the Company hereby is authorized to certify to the adoption of such resolutions on such form or forms as the bank or other entity may require; and the Secretary shall insert a copy of the resolution, if any, as so certified, in the official minute book of the Company:

Richard M. Carnell, Jr. Jeffrey A. Hurwitz

Gregory D. Hampton Robert Scott Holmes

The following unanimous written consent was adopted by the affirmative vote of the sole Member and the unanimous consent of all Managers;

BE IT RESOLVED, that the designation of the Managers, Officers, and Bank Account Signatories as designated above and other actions are hereby approved; and

FURTHER RESOLVED, that the actions of the Managers and Officers of this Company in the conduct of its business since the last meeting, be and the same are hereby in all respects ratified, approved and confirmed.

Dated this 26th day of February, 2016

Bernard A. Egan Groves, Inc., Sole Member

By: _____
Richard M. Carnell, Jr., Vice President

_____
Richard M. Carnell, Jr., Manager

_____
Jeffrey A. Hurwitz, Manager

Client#: 1723417 131BLUEGOO2

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/24/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
BB&T Insurance Services, Inc. PO Box 4927 Orlando, FL 32802-4927 407 691-9600	PHONE (A/C, No, Ext): 407 691-9600	FAX (A/C, No): 888-635-4183
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : National Trust Insurance Compan	20141
INSURER B : FFVA Mutual Insurance Company	10385
INSURER C : FCCI Insurance Company	10178
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Blue Goose Construction LLC
P. O. Box 14709
Fort Pierce, FL 34979-4709

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY		X	GL00176832	03/01/2016	03/01/2017	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
	X PD Ded:5,000						MED EXP (Any one person)	$5,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$1,000,000
	POLICY [X] PRO-JECT [ ] LOC						GENERAL AGGREGATE	$2,000,000
	OTHER:						PRODUCTS - COMP/OP AGG	$2,000,000
								$
C	AUTOMOBILE LIABILITY		X	CA002925602	03/01/2016	03/01/2017	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR			UMB002066502	03/01/2016	03/01/2017	EACH OCCURRENCE	$10,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$10,000,000
	DED X RETENTION $10000							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WC84000311432017A	01/01/2017	03/01/2017	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [N] N/A						E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Additional Insured status is granted as respects to General Liability if required by written contract or agreement per endorsement "Additional Insured-Owners Lessees or Contractor-Automatic Status" form CGL 084 (10/13)

Additional Insured status is granted as respects to Auto Liability if required by written contract or (See Attached Descriptions)

CERTIFICATE HOLDER

Proof of Insurance
FOR INFORMATIONAL PURPOSES ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Mark V. Holmes

MOCO

DESCRIPTIONS (Continued from Page 1)

agreement per endorsement "Florida Auto First Choice Endorsement" form CAU 059 (12/09)

Primary and Non-Contributory for General Liability is included per endorsement "Additional Insured-Owners Lessees or Contractor-Automatic Status" form CGL 084 (10/13)

Attachment C

Cost Proposal - Package No. 2

PACKAGE NO. 2 - COST PROPOSAL

for
TRUMAN ANNEX / NOAA SEAWALL
KEY WEST, FLORIDA

NOTE TO PROPOSER: Use ink, preferably BLACK, for completing this proposal form.

To: City Clerk, City of Key West

Address: 1300 White Street
Key West, Florida 33040

Project Title: Truman Annex / NOAA Seawall
Key West, Florida

CITY Project No.: RFP 004-17

PROPOSER'S person to contact for additional information on the Proposal:

Name: Joe Frederickson

Telephone Number: (772)461-3020

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned hereinafter called the Design/Build Proposer, declares that the only persons or parties interested in this Proposal are those names herein, that this Proposal is, in all respects, fair and without fraud, that it is made without any connection or collusion with any person submitting another Proposal on this Contract.

The Proposer further declares that the Design/Build Proposer has carefully examined the Request for Proposal for design and construction of the Project, that the Proposer attended the Pre-proposal Meeting, that the Proposer has personally inspected the site, that the Proposer has satisfied himself as to the scope of the Project, including, but not limited to required design work, permitting conditions, conditions of construction work involved, quantities of equipment, materials, and building systems as well as the detailed requirements of the Contract, and that this Proposal is made according to the provisions and under the terms of the Contract. Furthermore, the Proposer acknowledges all information presented in the Instructions to Proposers.

The Proposer further agrees that the Proposer has exercised his own judgment regarding interpretation of the Design Criteria information and has utilized all data, which the Proposer believes pertinent from CITY and other sources in arriving at his conclusions.

Contract Execution and Bonds

The Design/Build Proposer agrees that upon receiving notice of City's intent to accept this Proposal the Bidder will, within 15 working days after Notice of Award, sign the Contract, submit the executed Performance and Payment Bonds, and will, to the extent of his Proposal, furnish all design and machinery, tools, apparatus, and other means of construction and do the work and furnish all materials necessary to complete all work as specified or indicated in the Design Criteria and Contract and General and Supplementary Conditions.

Certificates of Insurance

The Design/Build Proposer further agrees to furnish to the City, before signing of the Contract, the certificates of insurance as specified in the Request for Proposal Documents. The CITY shall be listed as additionally insured on all Insurance Certificates.

Start of Project and Contract Completion Time

The Design/Build Proposer further agrees to begin work within ten (10) calendar days after the date of the Notice to Proceed and that construction shall be substantially complete and also completed and ready for final payment and acceptance by, the CITY as set forth in the Design/Build contract

Liquidated Damages

Liquidated damages, in the amount and in accordance with the terms stated in the Agreement, shall be paid by the Proposer for each day from the time specified for the completion of the Contract until final acceptance of the Work in accordance with the Agreement. This is estimated as fixed damages to the CITY for failure to complete the Work

in the time specified. This charge shall be made, unless the CITY shall grant an extension of time for the completion of the Work.

Addenda

The Design/Build Proposer hereby acknowledges that he has received Addenda No's __1__, __2__, __3__, __4__, _____(Bidder shall insert No. of each Addendum received) and agrees that all Addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that the Proposal includes all impacts resulting from said Addenda.

Sales and Use Taxes

The Design/Build Proposer agrees that all sales and use taxes are included in the stated bid prices for the work, unless provision is made herein for the Proposer to separately itemize the amount of sales tax.

Lump Sum Work

The Design/Build Proposer further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following lump sum amounts, it being expressly understood that the amounts are independent of the exact quantities involved. The Design/Build Proposer agrees that the amounts represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type of work called for in these Contract Documents. The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

Preliminary Schedule of Values

Preliminary Schedule of Values prepared in accordance with General Conditions, Paragraph 2.04.B.3 shall be attached to this Cost Proposal Package. Final Schedule of Values shall be developed in accordance with the Contract subject to approval of the City.

Public Entity Crimes

"A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list." See Attachment M.

Florida Trench Safety Act

The Design/Build Proposer further acknowledges that, included in the various items of the Proposal and in the total bid price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. These costs shall not be paid for in a separate bid item. See Attachment O.

Alternates:

Listed below are alternate options that will be considered by the City. These options, if accepted by the City will be additions to or deductions from the Total Base Bid Amount stated above. Acceptance of alternates will be at the sole discretion of the City.

ALTERNATE A – TARGUARD Coal Tar Epoxy (Lump Sum)

Under this alternate bid item, the Design/Builder must achieve coating the top 25 feet of steel sheet pile sheets on both sides with a 16-Mil minimum thickness of TARGUARD Coal Tar Epoxy.

Acceptance of Alternate A – TARGUARD Coal Tar Epoxy would increase the Total Base Bid Price.

1	Lump Sum	$ 65,124.00

ALTERNATE B – Seawall Length Adjustment (Unit Price)

Under this alternate bid item, the Design/Builder will reduce the overall wall length by the City selected footage. This unit price deduction per foot of wall would be inclusive all associated material, labor, and overhead cost.

Acceptance of Alternate B – Overall Seawall Length Adjustment would decrease the Total Base Bid Price.

1	Lineal Foot of Seawall	$ 2,809.62

ALTERNATE C – TARGUARD Coal Tar Epoxy Adjustment

Under this alternate bid item, the Design/Builder will reduce the overall wall length by the City selected footage, thus reducing the required TARGUARD Coal Tar Expoxy coating. This unit price deduction per foot of wall coating would be inclusive all TARGUARD Coal Tar Epoxy associated material, labor, and overhead cost.

Acceptance of Alternate C – TARGUARD Coal Tar Epoxy Adjustment would decrease the Total Base Bid Price:

1	Lineal Foot of Seawall	$ 2,985.63

Permits

Design / Build Proposer shall obtain and pay for any permits required for execution of the work. Separate permits will be required by the City of Key West Building Department. No permits will be waived.

The CITY has received Permits from FDEP Permit: 44-0341846-001-EE and ACOE Permit: SAJ-2016-00621 (NW-CGM)/SER-2016-18029. Permits enclosed as Appendices ii and iii respectively.

The Design/Builder shall apply for a building permit and substantially comply with all permit approvals and/or modify these permits, as necessary, to incorporate any changes in design concepts or operational procedures incorporated during the design.

Total Base Bid Amount

The Design/Build Proposer agrees to accept as full payment for the Work proposed under this Project, as herein specified and as shown on the Drawings and Engineering Design Standards, the following Total Base Bid amount and building permit allowance:

1. Administrative NTP No. 1 (includes furnishing a full progress schedule in accordance with technical specifications section, submittals schedule, and schedule of values)

1	Lump Sum	$ 100,540.00

2. Design NTP No. 2 (includes design reaching 100% submittal and securing all Permits)

1	Lump Sum	$ 21,500.00

3. Construction NTP No. 3 (Includes mobilization, installing sheet pile wall With tie-back anchors and concrete cap, electrical, plumbing, stormwater piping, and dock/wood piling removal and replacement)

1	Lump Sum	$ 1,039,560.00

TOTAL OF BASE BID ITEMS 1 THROUGH 3 LISTED ABOVE:

Total of lump sum items 1 - 3 $ 1,161,600.00

One million, one hundred sixty one thousand, six hundred Dollars & zero Cents
(amount written in words)

SURETY

The Performance and Payment Bonding will be furnished by a Surety. The Surety who will provide the Payment and Performance Bonding will be Western Surety Company

Whose address is 333 S. Wabash Ave
Street

Chicago | IL | 60604
City | State | Zip Code

PROPOSER

The name of the Design/Build Proposer submitting this Proposal is Blue Goose Construction LLC

_____, doing business at

9901 Okeechobee Road | Fort Pierce | FL | 34945

_____, _____

PO Box 14709 | Fort Pierce | FL, | 34979
Street | City | State | Zip Code

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

President Richard Carnell

Vice President Scott Holmes

Treasurer / Secretary Jeffrey Hurwitz

Assistant Treasurer / Assistant Secretary Gregory Hampton

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this _____ day of _____, 20__.

Signature of Design/Build Proposer: _____

Title: _____

LLC

If ~~Corporation~~

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this 28 day of February 2017

(SEAL)

Blue Goose Construction LLC
Name of Corporation

By Scott Holmes

Title Vice President

Attest _____
Secretary

Schedule of Values
Blue Goose Construction
Truman Annex Seawall Restoration

Draw						1	2	3	4			5		XXXXXXX
BGC Work Code #	Description	Original WO Value	Closeout Summary Value	Revised Work Order Value	% Complete	Febrauary 2017	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017	YTD	Balance to Completion
	Administration	$ 100,540.00	$ -	$ 100,540.00	100.00%	$ 16,756.67	$ 16,756.67	$ 16,756.67	$ 16,756.67	$ 16,756.67	$ 16,756.65	$ -	$ 100,540.00	$ -
	engineering	$ 21,500.00	$ -	$ 21,500.00	100.00%	$ -	$ 21,500.00	$ -	$ -	$ -	$ -	$ -	$ 21,500.00	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	construction													
	mobilization	$ 51,642.06	$ -	$ 51,642.06	100.00%	$ -	$ -	$ 51,642.06	$ -	$ -	$ -	$ -	$ 51,642.06	$ 0.00
	secure site	$ 15,363.83	$ -	$ 15,363.83	100.00%	$ -	$ -	$ 15,363.83	$ -	$ -	$ -	$ -	$ 15,363.83	$ -
	demo and protect existing	$ 72,225.00	$ -	$ 72,225.00	0.00%	$ -	$ -	$ 72,225.00	$ -	$ -	$ -	$ -	$ 72,225.00	$ -
	Sheet Pile Restoration													
	drive sheet pile	$ 369,390.06	$ -	$ 369,390.06	100.00%	$ -	$ -	$ -	$ 369,390.06	$ -	$ -	$ -	$ 369,390.06	$ -
	excavation	$ 46,704.95	$ -	$ 46,704.95	100.00%	$ -	$ -	$ -	$ 46,704.95	$ -	$ -	$ -	$ 46,704.95	$ -
	installation of deadman	$ 90,924.18	$ -	$ 90,924.18	100.00%	$ -	$ -	$ -	$ -	$ 90,924.18	$ -	$ -	$ 90,924.18	$ -
	backfill	$ 96,520.01	$ -	$ 96,520.01	100.00%	$ -	$ -	$ -	$ -	$ 96,520.01	$ -	$ -	$ 96,520.01	$ -
	concrete cap	$ 197,422.62	$ -	$ 197,422.62	100.00%	$ -	$ -	$ -	$ -	$ 197,422.62	$ -	$ -	$ 197,422.62	$ -
	utilities	$ 39,975.00	$ -	$ 39,975.00	100.00%	$ -	$ -	$ -	$ -	$ 39,975.00	$ -	$ -	$ 39,975.00	$ -
	reinstall protected items	$ 16,974.40	$ -	$ 16,974.40	100.00%	$ -	$ -	$ -	$ -	$ -	$ 16,974.40	$ -	$ 16,974.40	$ -
	final grading	$ 2,858.53	$ -	$ 2,858.53	100.00%	$ -	$ -	$ -	$ -	$ -	$ 2,858.53	$ -	$ 2,858.53	$ -
	demobilization	$ 39,559.36	$ -	$ 39,559.36	100.00%	$ -	$ -	$ -	$ -	$ -	$ 39,559.36	$ -	$ 39,559.36	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
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			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
			$ -	$ -	0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
					Monthly % Complete	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	

THE CITY OF KEY WEST
Post Office Box 1409
Key West, FL 33041-1409

ADDENDUM NO. 1
RFP 004-17
PROJECT TR1503 – TRUMAN ANNEX / NOAA SEAWALL

This addendum is issued as supplemental information to the proposal package for clarification of certain matters of both a general and a technical nature. The referenced proposal package is hereby addended in accordance with the following item in italics:

1.2.5 Questions, Interpretational Addenda

Prospective Proposers shall promptly notify the CITY in writing of all conflicts, errors, ambiguities, inconsistencies, or discrepancies that Proposers find in the Proposal Documents.

No verbal inquiries shall be received or responded to. All questions and clarification inquiries from Proposers concerning the proposals must be submitted in writing either through email, or mail. Any written inquiries must be received by CITY no later than ~~ten (10)~~ ***five (5)*** calendar days prior to the scheduled date for receipt of proposals. Questions will be answered in writing by the CITY and made available to all registered RFP holders. See also Section 1.2.18.

Questions should be sent to:
City of Key West
1300 White Street, Key West, FL 33040
Attn.: Devon Steckly
Email: dsteckly@cityofkeywest-fl.gov

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature Scott Holmes

Blue Goose Construction LLC
Name of Business

THE CITY OF KEY WEST
Post Office Box 1409
Key West, FL 33041-1409

ADDENDUM NO. 2
RFP 004-17
PROJECT TR1503 – TRUMAN ANNEX / NOAA SEAWALL

This addendum is issued as supplemental information to the proposal package for clarification of certain matters of both a general and a technical nature. The referenced proposal package is hereby addended in accordance with the following items:

Exhibit 1. February 15, 2017 Pre-Proposal Conference Minutes with meeting attendee Sign-In Sheet

Emailed Questions and Answers:
Question 1. Received on February 14, 2017 - Is the contract time set by the Design/Builder in their proposal or does the Bid Documents set a specific time frame?

> Answer: Attachment E – "Contract" specifies each Notice to Proceed time duration and the time from the first NTP Administration issuance to Substantial Completion duration as one hundred eighty (180) calendar days.

Question 2. Received on February 15, 2017 – Was the pre-proposal conference attendance mandatory?

> Answer: The "Information and Instructions to Proposers, Section 1.2.4 Pre-Proposal Conference" does not mandate potential proposer attendance at the pre-proposal conference.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 2 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature Scott Holmes

Blue Goose Construction LLC
Name of Business

THE CITY OF KEY WEST
Post Office Box 1409
Key West, FL 33041-1409

ADDENDUM NO. 3
RFP 004-17
PROJECT TR1503 – TRUMAN ANNEX / NOAA SEAWALL

This addendum is issued as supplemental information to the proposal package for clarification of certain matters of both a general and a technical nature. The referenced proposal package is hereby addended in accordance with the following items:

Exhibit 1. Shoreline Foundation, Inc. Letter dated and received by email on February 21, 2017

Question and Answer:

Question: Shoreline Foundation, Inc. requests a bid [proposal opening date] extension of two weeks.

Answer: Proposal opening date will remain March 2, 2017.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 3 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature Scott Holmes

Blue Goose Construction LLC
Name of Business

THE CITY OF KEY WEST
Post Office Box 1409
Key West, FL 33041-1409

ADDENDUM NO. 4
RFP 004-17
PROJECT TR1503 – TRUMAN ANNEX / NOAA SEAWALL

This addendum is issued as supplemental information to the proposal package for clarification of certain matters of both a general and a technical nature. The referenced proposal package is hereby addended in accordance with the following items:

Emailed Questions and Answers:

Question 1. Received on February 22, 2017 – What are the depth requirements for pull boxes?

Answer: Revise Sheets U-202 Electrical Utility Installation and C-112 Proposed Utility Detail Pull box notations to pull boxes shall provide a 12" minimum depth.

Question 2. Received on February 22, 2017 – Do pull boxes require a traffic rating?

Answer: Revise Sheets U-202 Electrical Utility Installation and C-112 Proposed Utility Detail Pull box notations to pull boxes shall be ANSI/SCTE 77 TIER 22 with Extra Heavy Duty Covers or equal meeting a minimum of AASHTO H-20 loading. Pull box sides shall be encased by a 6" wide x 12" deep fiber reinforced concrete and concrete shall be reinforced with 2 - #5 rebar.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 4 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature Scott Holmes

Blue Goose Construction LLC
Name of Business

Attachment D
Bid Bond

STATE OF FLORIDA)
)
COUNTY OF)

KNOW TO ALL MEN BY THESE PRESENTS, that we, Blue Goose Construction LLC hereinafter called the PRINCIPAL, and Western Surety Company hereinafter called SURETY, are held and firmly bound unto City of Key West, hereinafter called OWNER, in the sum of Five Percent of the Amount Bid DOLLARS ($ 5% of Bid) lawful money of the United States of America, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a bid to the OWNER for the furnishing of all design, labor, materials, equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Request for Proposal, entitled:

Truman Annex / NOAA Seawall, Key West, Florida

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check, certified check, or bid bond in the amount of 5 percent of the total bid to be submitted with said bid as a guarantee that the PRINCIPAL, would, if notified of OWNER'S intent to award the Contract to the PRINCIPAL, enter into a written Contract with the OWNER for the performance of said Contract, within 15 consecutive calendar days after written notice having been given of the award of the Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the PRINCIPAL accepts within 15 consecutive calendar days after written notice of such intended award executes and delivers to the OWNER the written Contract with the OWNER and furnishes the Performance and Payment Bonds, each in an amount equal to 100 percent of the total bid, satisfactory to the OWNER, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the OWNER and the SURETY herein agrees to pay said sum immediately upon demand of the OWNER in good and lawful money of the United States of America, as liquidated damages for failure thereof of said PRINCIPAL.

IN WITNESS WHEREOF, the said
as PRINCIPAL herein, has caused these presents to be signed in its name by its and attested by its
under its corporate seal, and the said
as SURETY herein, has caused these presents to be signed in its name by its corporate seal, this 2nd day of March A.D., 2017.

Signed, sealed and delivered in
the presence of:

Principal-Contractor

Blue Goose Construction LLC

By _____

Title Vice President

As to Principal

Western Surety Company

Surety

Brett A Ragland

Attorney-in-Fact Brett A. Ragland

By

(Power-of-Attorney to be attached)

Brett A Ragland

Brett A. Ragland

By

As to Surety

Resident Agent

END OF SECTION

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Deidre Ann Sullivan, Joseph D Johnson Jr, Francis T O'Reardon, Brett A Ragland, Joseph D Johnson III, Kanani Cordero, Individually

of Orlando, FL, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 9th day of November, 2015.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

State of South Dakota
County of Minnehaha } ss

On this 9th day of November, 2015, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
February 12, 2021

S. EICH
NOTARY PUBLIC
SOUTH DAKOTA

S. Eich, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 2nd day of March, 2017.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-7-2012