

**CITY OF SANIBEL
Weir Resiliency 2026**

Approval of Professional Services Proposal by Johnson Engineering, LLC

This agreement constitutes a work order made through and under the Professional Services Agreement between City of Sanibel (CITY) and Johnson Engineering, LLC (CONSULTANT) for Hurricane Ian Architectural and Engineering professional services dated October 3rd, 2023, the terms and conditions of which are still in full force and effect, except as modified herein.

Services not set forth, or not listed or described herein, are expressly excluded from the Scope of the Professional Services of the CONSULTANT. The CONSULTANT assumes no responsibility to perform any service not specifically identified and/or otherwise described in this Proposal.

SCOPE OF SERVICES

PROFESSIONAL SERVICE OF THE CONSULTANT:

The City of Sanibel owns and operates the Tarpon Bay and Beach Road surface water management water control structures (i.e. weirs) which are used to allow the release of surface water stored within two large freshwater basins - the Sanibel River West Basin and the Sanibel River East Basin – which serve as freshwater reservoirs for the island. The basins outfall to Pine Island Sound to the north via their water control structures. Each water control structure also incorporates operable sluice gates which can be opened to allow additional flow out of the freshwater basins to their ultimate outfall.

Historically, CITY has monitored water levels at the weirs via onsite inspection and controlled the release of stormwater through the sluice gates through manual operation at each weir. The *City of Sanibel Surface Water Management Master Plan, Johnson Engineering, September 2025*, recommended two stormwater capital projects that were subsequently included in Sanibel’s FY 2026 budget:

- Weir Flap Gate Modifications (Design FY 2026)
- Feasibility Study of Pump & Automation

CITY seeks to contract for professional consulting services with CONSULTANT to provide design services for the above weir resiliency projects.

The objective of the Weir Flap Gate Modifications project is to reduce saltwater intrusion over the Tarpon Bay Weir and Beach Road Weir into the freshwater basins behind the weirs, which can occur during annual high tides and minor storm surge events. The Weir Flap Gate Modifications project would not protect against major storm surge events, such as those caused by Hurricanes Ian, Helene, and Milton. Currently, there is no flap gate at the Tarpon Bay Weir, and this proposal includes design for adding a flap gate at that structure. There is a flap gate at the Beach Road Weir, which will be modified to increase its height as part of a separate project that is being designed by others.

The objectives of the Feasibility Study of Pump and Automation project are to investigate the viability of improving surface water management by adding pumping capability and/or sluice gate automation at the Tarpon Bay and Beach Road weirs. These improvements could also include adding remote monitoring and control of the pumps and/or sluice gates at the weirs using supervisory control and data acquisition (SCADA) technology.

TASK 1 – TARPON BAY WEIR FLAP GATE ADDITION DESIGN

CONSULTANT will provide a topographic survey of the project site, prepare a design memorandum, prepare construction plans and technical specifications, and provide an opinion of probable construction cost for the addition of a flap gate to the existing Tarpon Bay Weir.

Task 1.1 - Topographic Survey

CONSULTANT will visit the project site to verify existing conditions and gather additional information needed for project design. CONSULTANT shall collect vertical and horizontal survey data sufficient to create plans for the proposed project, including visible above-ground utilities in the project area, property features (e.g., property corners, permanent buildings, fencing), weir layout (including crest, geometry, and sluice gates), stormwater outlets (including elements such as culvert size, type, invert elevation, and end treatments), extent of concrete slabs, water surface elevation, and topography changes such as top of bank and toe of slope. Horizontal data will be in feet and shall be projected on the Florida State Plane Coordinate System, West Zone, NAD83 (2011). Vertical data will be in feet and shall be referenced to the North American Vertical Datum of 1988 (NAVD 88). The collected survey information will be incorporated into the Construction Plans.

Task 1.2 - Preliminary Design Memorandum

CONSULTANT will perform a review of the existing weir configuration, historical water levels, sea level rise projections, and will prepare a preliminary design memorandum containing weir flap gate design alternates for CITY's review. CONSULTANT will attend an initial kick-off meeting with CITY to review project objectives, two design progress meetings, and a final design meeting upon completion of the memorandum. CONSULTANT will also prepare for and attend one briefing for City Council, if requested by CITY.

Task 1.3 - Construction Plans

CONSULTANT will prepare, for incorporation with the Contract Documents, drawings which provide the general scope, extent, and character of the work to be furnished and performed by the Contractor. Design submittals shall proceed to and be submitted to CITY at 60-, 90-, and 100-percent completion stages with a final construction set, ready for bidding by CITY. Submittals for review will be made electronically in PDF format. Drawings will be prepared using AutoCAD Civil 3D, release 2015 or newer. Drawings will be prepared using 20-scale (or similar) on 22x34-inch drawing sheets (to allow for reduction at half-scale using 11x17-inch sheets). The following preliminary list of drawings is anticipated:

General – 2 Sheets

- Cover Sheet
- Notes and Abbreviations Sheet

Civil – 3 Sheets

- Tarpon Bay Water Control Structure Existing Site Plan
- Tarpon Bay Water Control Structure Proposed Site Plan
- Tarpon Bay Water Control Structure Section Views

Structural – 3-4 Sheets

- Tarpon Bay Water Control Structure Structural Plan
- Tarpon Bay Water Control Structure Section Views
- Structural Notes and Details

CONSULTANT will perform quality assurance/quality control reviews at the 60-, 90-, and 100-percent and construction ready completion stages. CONSULTANT will conduct project design meetings between CITY and CONSULTANT following CITY's review of the 60-, 90-, and 100-percent submittals to review comments from CITY on the draft contract documents.

Task 1.4 – Technical Specifications

Technical specifications will be prepared by CONSULTANT as needed to supplement the construction plans. In addition to technical specifications, CONSULTANT will coordinate with CITY staff to develop necessary General Conditions, Supplemental Conditions, and Special Provisions Specifications specifically for the project being constructed. Technical specifications will accompany the 90 percent and 100 percent submittals. Standard CITY Specifications may be used for reference, but the CONSULTANT shall not rely on them as a replacement for sound engineering judgment and responsibility. CITY will provide Division 00 documents (e.g., General Terms and Conditions), excluding the bid form, for bidding purposes.

Task 1.5 – Opinions of Probable Construction Cost

CONSULTANT will furnish an opinion of probable construction cost for the project based on the drawings and specifications at the 60-, 90-, and 100-percent and construction ready completion stages of design. CONSULTANT shall advise CITY of any adjustments to the latest preliminary opinion of probable construction costs based on changes in general scope, extent, or character of the project.

Task 1.6 – Bidding Assistance

CONSULTANT shall assist CITY with preparation of final bid documents for construction of the project. Package includes bid documents, bid tab, construction plans, and construction specifications for those portions of work designed by CONSULTANT. CONSULTANT will review the documents prepared by CITY and assist with drafting recommended supplemental conditions, if appropriate. This task includes responding to bidder clarification requests, assisting CITY with the development of Addenda, assisting with evaluation of bidder qualifications, preparing bid tabulation and contract award recommendation letter, and preparing a conformed set of documents issued for construction.

CONSTRUCTION PHASE SERVICES

It is understood that construction phase services will be negotiated with CITY in a separate work authorization.

DELIVERABLES:

- Preliminary Design Memorandum
- 60, 90, 100% Flap Gate Construction Plans
- 90, 100% Technical Specifications
- 60, 90, 100% Opinion of Probable Construction Cost

TASK 2 – TARPON BAY WEIR PUMP STATION AND SLUICE GATE AUTOMATION FEASIBILITY ANALYSIS

CONSULTANT will prepare a preliminary design report, 30% conceptual design plans, and an opinion of probable construction cost for the addition of a pump station and sluice gate automation to the existing Tarpon Bay Weir. CONSULTANT understands that CITY intends to use the feasibility analysis to assist OWNER with deciding whether to move forward with adding pumping capability and/or sluice gate automation at the Tarpon Bay Weir.

The Tarpon Bay Weir is located approximately 200 feet north of Sanibel Captiva Road, approximately 0.5 miles west of Tarpon Bay Road. This structure includes four (4) sluice gates, each with openings six (6) feet wide and five (5) feet tall and manual gear assemblies to open and close each sluice gate. Each set of gears utilizes a single gear handle that, when turned, operates each gear box. To automate this water control structure, the following improvements will be required:

- Each of the gear assemblies need to be modified (and possibly replaced) to allow an actuator to be attached to each sluice gate's primary gear box.
- Electrical power needs to be extended to the sluice gates.
- A generator may need to be added for emergency power for sluice gate operation.
- SCADA improvements will need to be added to allow monitoring and control of the sluice gates.
- Cellular data transmission (or other communications) would need to be provided for remote monitoring and operation through SCADA.

Task 2.1 – Pump Station and Sluice Gate Automation Preliminary Design Report

CONSULTANT will prepare a preliminary design report for the addition of a pump station and sluice gate automation at the existing Tarpon Bay Weir. The report will include estimates for peak flow and make recommendations for the proposed facility modifications. Research for the report will include a review of past and current hydrologic and hydraulic analyses to identify a range of potential pumping rates, preliminary pump selection, and a due diligence analysis of permitting requirements for the proposed project. The report will include preliminary design analyses and a narrative that describes the civil, mechanical, structural, electrical, and instrumentation components that would be required to implement the pump station and sluice gate automation improvements.

CONSULTANT will attend an initial kick-off meeting with CITY to review project objectives, two design progress meetings, and a final meeting upon completion of the report. CONSULTANT will also prepare for and attend one briefing for City Council, if requested by CITY.

Task 2.2 - Pump Station and Sluice Gate Automation 30% Conceptual Design Plans

CONSULTANT will prepare 30% conceptual plans that will be incorporated into the preliminary design report. The plans will utilize the topographic survey of the project site described in Task 1 and will depict existing utilities, property lines, easement lines, aerial photography, and the conceptual design components of the proposed pump station and sluice gate automation at the Tarpon Bay Weir. Submittals for review will be made electronically in PDF format. Drawings will be prepared using AutoCAD Civil 3D, release 2015 or newer. Drawings will be prepared using 20-scale (or similar) on 22x34-inch drawing sheets (to allow for reduction at half-scale using 11x17-inch sheets). The following preliminary list of drawings is anticipated:

General – 2 Sheets

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- Tarpon Bay Water Control Structure Site Section Views
- Civil Details

Structural – 3-4 Sheets

- Tarpon Bay Water Control Structure Structural Plan
- Tarpon Bay Water Control Structure Section Views
- Structural Notes and Details

Electrical & Instrumentation - 3 sheets

- Tarpon Bay Water Control Structure Electrical Plan – 1 sheet
- Tarpon Bay Water Control Structure Single Line Diagram – 1 sheet
- Electrical Notes and Details – 1 sheet

CONSULTANT will perform quality assurance/quality control reviews at the 30-percent completion stage.

Task 2.3 – Opinion of Probable Construction Cost

CONSULTANT will furnish a preliminary opinion of probable construction cost based on the drawings at the 30-percent completion stage of design. CONSULTANT shall advise CITY of any adjustments to the previous preliminary opinions of probable construction costs based on changes in general scope, extent or character or design requirements of the project.

DELIVERABLES

- Preliminary Design Report
- 30% Conceptual Design Plans
- 30% Opinion of Probable Construction Cost

TASK 3 – BEACH ROAD WEIR PUMP STATION AND SLUICE GATE AUTOMATION FEASIBILITY ANALYSIS

CONSULTANT will prepare a preliminary design report, 30% conceptual design plans, and an opinion of probable construction cost for the addition of a pump station and sluice gate automation to the existing Beach Road Weir. CONSULTANT understands that CITY intends to use the feasibility analysis to assist OWNER with deciding whether to move forward with adding pumping capability and/or sluice gate automation at the Beach Road Weir.

The Beach Road Weir is located approximately 130 feet north of Demere Lane adjacent to Beach Road. This structure includes two (2) sluice gates, each with openings six (6) feet wide and five (5) feet tall and manual gear assemblies to open and close each sluice gate. Each set of gears utilizes a single gear handle that, when turned, operates each gear box. To automate this water control structure, the following improvements will be required:

- Each of the gear assemblies need to be modified (and possibly replaced) to allow an actuator to be attached to each sluice gate's primary gear box.
- Electrical power needs to be extended to the sluice gates.
- A generator may need to be added for emergency power for sluice gate operation.
- SCADA improvements will need to be added to allow monitoring and control of the sluice gates.
- Cellular data transmission (or other communications) would need to be provided for remote monitoring and operation through SCADA.

Task 3.1 – Pump Station and Sluice Gate Automation Preliminary Design Report

CONSULTANT will prepare a preliminary design report for the addition of a pump station and sluice gate automation at the existing Beach Road Weir. The report will include estimates for peak flow and make recommendations for the proposed facility modifications. Research for the report will include a review of past and current hydrologic and hydraulic analyses to identify a range of potential pumping rates, preliminary pump selection, and a due diligence analysis of permitting requirements for the proposed project. The report will include preliminary design analyses and a narrative that describes the civil, mechanical, structural, electrical, and instrumentation components that would be required to implement the pump station and sluice gate automation improvements.

CONSULTANT will attend an initial kick-off meeting with CITY to review project objectives, two design progress meetings, and a final meeting upon completion of the report. CONSULTANT will also prepare for and attend one briefing for City Council, if requested by CITY.

Task 3.2 - Pump Station and Sluice Gate Automation 30% Conceptual Design Plans

CONSULTANT will prepare 30% conceptual plans that will be incorporated into the preliminary design report. The plans will utilize the topographic survey of the project site already obtained by CONSULTANT and will depict existing utilities, property lines, easement lines, aerial photography, and the conceptual design components of the proposed pump station and sluice gate automation at the Beach Road Weir. Submittals for review will be made electronically in PDF format. Drawings will be prepared using AutoCAD Civil 3D, release 2015 or newer. Drawings will be prepared using 20-scale (or similar) on 22x34-inch drawing sheets (to allow for reduction at half-scale using 11x17-inch sheets). The following preliminary list of drawings is anticipated:

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- Beach Road Water Control Structure Site Section Views
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Structural – 3-4 Sheets

- Beach Road Water Control Structure Structural Plan
- Beach Road Water Control Structure Section Views
- Structural Notes and Details

Electrical & Instrumentation - 3 sheets

- Beach Road Water Control Structure Electrical Plan – 1 sheet
- Beach Road Water Control Structure Single Line Diagram – 1 sheet
- Electrical Notes and Details – 1 sheet

CONSULTANT will perform quality assurance/quality control reviews at the 30-percent completion stage.

Task 3.3 – Opinion of Probable Construction Cost

CONSULTANT will furnish a preliminary opinion of probable construction cost based on the drawings at the 30-percent completion stage of design. CONSULTANT shall advise CITY of any adjustments to the previous preliminary opinions of probable construction costs based on changes in general scope, extent or character or design requirements of the project.

DELIVERABLES

- Preliminary Design Report
- 30% Conceptual Design Plans
- 30% Opinion of Probable Construction Cost

SCHEDULE

The scope of services will be performed in accordance with the following schedule:

Task 1 – Tarpon Bay Weir Flap Gate Addition Design - to be completed within 180 days of notice to proceed.

Task 2 – Tarpon Bay Weir Pump Station and Sluice Gate Automation Feasibility Analysis - to be completed within 180 days of notice to proceed.

Task 3 – Beach Road Weir Pump Station and Sluice Gate Automation Feasibility Analysis - to be completed within 180 days of notice to proceed.

COMPENSATION

The Price Proposal submitted by CONSULTANT attached hereto as Exhibit A is accepted and summarized as follows:

Definitions:

Lump Sum (LS): Includes all direct and indirect labor costs, personnel related costs, overhead and administrative costs, which may pertain to the services performed, provided and/or furnished by the CONSULTANT as may be required to complete the services in Exhibit A. The total amount of compensation to be paid the CONSULTANT shall not exceed the amount of the total Lump Sum compensation established and agreed to. The portion of the amount billed for CONSULTANT’s services which is on account of the Lump Sum will be based upon CONSULTANT’s estimate of the portion of the total services actually completed at the time of billing.

Time and Materials (T&M): For the actual hours expended by the CONSULTANT’s professional and technical personnel, multiplied by the applicable hourly rates for each classification or position on the CONSULTANT’s standard billing rate schedule set forth in the Master Contract. For the services of CONSULTANT’s Sub-Consultants engaged to perform or furnish services, the amount billed to CONSULTANT therefore times a factor of 1.10. The amount payable for Reimbursable Expenses will be the charge actually incurred by or imputed cost allocated by CONSULTANT, therefore times a factor of 1.10.

Estimated Fees: CONSULTANT’s estimate of the amount that will become payable for Services (including CONSULTANT’s Sub-Consultants and reimbursable expenses) is only an estimate for planning purposes, is not binding on the parties and is not the maximum amount payable to CONSULTANT for the services under this Agreement. Notwithstanding the fact that the estimated amount for the services is exceeded, CONSULTANT shall receive compensation for all Services furnished or performed under this Agreement.

If it becomes apparent to CONSULTANT at any time before the Services to be performed or furnished under this Agreement are about eighty percent complete that the total amount of compensation to be paid to CONSULTANT on account of these Services will exceed CONSULTANT’s estimate, CONSULTANT shall endeavor to give CITY written notice thereof. Promptly thereafter CITY and CONSULTANT shall review the matter of compensation for such Services, and either CITY shall accede to such compensation exceeding said estimated amounts or CITY and CONSULTANT shall agree to a

reduction in the remaining services to be rendered by CONSULTANT under this Agreement so that total compensation for such Services will not exceed said estimated amount when such services are complete. The CONSULTANT shall be paid for all services rendered if CONSULTANT exceeds the estimated amount before CITY and CONSULTANT have agreed to an increase in the compensation due to CONSULTANT or a reduction in the remaining services.

For the services provided and performed by CONSULTANT for providing and performing the Task(s) set forth and enumerated in Exhibit A entitled “Price Proposal”, the CITY shall compensate the CONSULTANT as follows:

ITEM	AMOUNT (Estimated if T&M)	FEE TYPE (LS; T&M)
Task 1 - Tarpon Bay Weir Flap Gate Addition Design	\$64,660	LS
Task 2 - Tarpon Bay Weir Pump Station and Sluice Gate Automation Feasibility Analysis	\$75,404	LS
Task 3 – Beach Road Weir Pump Station and Sluice Gate Automation Feasibility Analysis	\$74,566	LS
TOTAL COMPENSATION FOR CONSULTANT’S SERVICES	\$214,630	LS

For services of CONSULTANT’s Sub-Consultants engaged to perform or furnish services, the CITY shall compensate the CONSULTANT as follows:

SUB-CONSULTANT	AMOUNT (Estimated if T&M)	FEE TYPE (LS; T&M)
N/A		
TOTAL COMPENSATION FOR SUB-CONSULTANT’S SERVICES		

For reimbursable expenses of CONSULTANT, CITY shall compensate the CONSULTANT as follows:

REIMBURSABLE EXPENSES	AMOUNT (Estimated if T&M)	FEE TYPE (LS; T&M)
Airline Fares, hotels, rental car, fuel, courier and express delivery charges, reproduction of plans and reports, photography, field supplies and costs of other materials and/or equipment specifically used for and solely applicable to this project	N/A	N/A
TOTAL COMPENSATION FOR REIMBURSABLE EXPENSES	N/A	N/A

TOTAL COMPENSATION INCLUDING CONSULTANT’S SERVICES, SUB-CONSULTANT’S SERVICES & REIMBURSABLE EXPENSES	\$214,630	LS
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IN WITNESS WHEREOF, the parties hereto have executed the Agreement to be effective as of the date above.

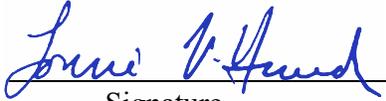
OWNER:
CITY OF SANIBEL

Signature

By: Dana Souza

Title: City Manager

CONSULTANT:
JOHNSON ENGINEERING, LLC


Signature

By: Lonnie V. Howard

Title: Vice President

Exhibit A - Price Proposal

Project Name: City of Sanibel - Weir Resiliency 2026
 Project Number: 20236161-005
 Project Manager: Jordan Varble, P.E.
 Date: February 5, 2026

TASK OUTLINE	TOTALS	Professional 8	Professional 7	Professional 6	Professional 2	Technician 6	Technician 3	Technician 2	Field Crew 3- Person	Administrative 3	
		1	Tarpon Bay Weir Flap Gate Addition Design	\$ 64,660.00	12	66	8	140	48	8	82
2	Tarpon Bay Weir Pump Station and Sluice Gate Automation Feasibility Analysis	\$ 75,404.00	14	88	0	216	24	0	168	0	8
3	Beach Road Weir Pump Station and Sluice Gate Automation Feasibility Analysis	\$ 74,566.00	13	87	0	215	23	0	168	0	8
		\$ -	0	0	0	0	0	0	0	0	0
		\$ -	0	0	0	0	0	0	0	0	0
TOTAL LABOR HOURS		1,440	39	241	8	571	95	8	418	20	40
LABOR BILLING RATE			\$ 270.00	\$ 248.00	\$ 220.00	\$ 138.00	\$ 182.00	\$ 110.00	\$ 88.00	\$ 231.00	\$ 105.00
TOTAL COST		\$ 214,630.00	\$ 10,530.00	\$ 59,768.00	\$ 1,760.00	\$ 78,798.00	\$ 17,290.00	\$ 880.00	\$ 36,784.00	\$ 4,620.00	\$ 4,200.00
Materials	COST										
	TOTAL MATERIAL COST	\$ -									
SUMMARY											
	TOTAL LABOR HOURS	1,440									
	TOTAL COST	\$ 214,630.00									
	TOTAL MATERIAL COST	\$ -									
	TOTAL PROJECT COST	\$ 214,630.00									