

# **SPECIAL PROVISION AND SUPPLEMENTAL TECHNICAL SPECIFICATIONS – ADDENDUM**

**P.I.D. No. 004607A**

## **GRAND CANAL MAINTENANCE DREDGING PROJECT**

In Pinellas County, Florida

**TO ACCOMPANY PINELLAS COUNTY STANDARD TECHNICAL SPECIFICATIONS FOR ROADWAY AND RELATED CONSTRUCTION (LATEST EDITION), AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION – DIVISIONS II & III ONLY (LATEST EDITION):**

The **Order of Precedence** for Pinellas County technical requirements shall be as follows:

- 1) Pinellas County Public Works Special Provisions (Special Provisions). Listed in Section 6 of this contract.
- 2) Pinellas County Public Works Supplemental Specifications (Supplemental Specifications). Listed in Section 6 of this contract.
- 3) Pinellas County Public Works Prefabricated Bridge Specifications (Supplemental Specifications). Listed in Section 6 of this contract.
- 4) Pinellas County Public Works Standard Technical Specifications for Roadway and General Construction – latest edition (Roadway Std. Tech. Specs.)
- 5) FDOT Standard Specification for Road and Bridge Construction, Divisions II and III only - current edition at letting date (FDOT Specifications). Division I is not applicable.

## **SPECIAL PROVISIONS SECTION**

### **SURVEY AND LAYOUT BY CONTRACTOR**

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005-0700

Technical specification SURVEY AND LAYOUT BY CONTRACTOR 005-0700 is amended to include:

#### **Horizontal and Vertical Limits**

For the Pass-a-Grille Borrow area dredging, the maximum limits of borrow are shown on the Plans. If the CONTRACTOR encounters subsurface conditions such as a hard sand bottom, a consolidated shell layer, or a rock outcrop, the CONTRACTOR shall mark the area, move away from the area and continue borrowing material away from this area. The CONTRACTOR shall notify the ENGINEER immediately of the conditions encountered and provide XYZ data of the area as well as any other information or documentation (i.e. pictures of material, etc.). The CONTRACTOR shall not over-dredge to elevations below those shown on the Drawings or specified herein.

#### **Dredge Vertical and Horizontal Accuracies**

For the Pass-a-Grille Borrow area dredging, there will be no acceptance criteria for the Pass-a-grille channel as this area is a borrow. The CONTRACTOR shall not over-dredge to elevations below those shown on the Drawings or specified herein. The CONTRACTOR shall not dredge outside the borrow limits shown on the Plans or specified herein.

#### **Basis for Payment**

The basis for payment for Line Item 005-0700 shall be on a percent complete basis with the dredging per cubic yard of channel completed for Grand Canal Dredge Channel

The basis for payment for Line Item 0001A shall be on a percent complete basis with the beach fill activities per cubic yard of beach filled for Pass-a-grille Beach.

## QUANTITY MEASUREMENTS SURVEY BY CONTRACTOR

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005-0800

Technical specification QUANTITY MEASUREMENTS SURVEY BY CONTRACTOR 005-0800 is amended replace the existing sub-sections with the below:

### Survey Requirements

Before-dredge and after-dredge surveys of the dredge area and disposal area shall be obtained by the CONTRACTOR. All surveys shall be signed and sealed by a Professional Surveyor licensed by the State of Florida.

Before-dredge surveys shall be collected at each station illustrated on the plans. Surveys shall extend a minimum of 100 ft beyond the permitted Disposal Area and 100 ft beyond the permitted Grand Canal Dredge Channel *and Pass-a-grille Channel*, unless otherwise impeded by a coastal structure or other condition reported and accepted by the COUNTY and ENGINEER. Surveys shall be collected within 7 days of active dredging of a station. *For the Grand Canal Dredge Channel*, before-dredge surveys will be used in calculation of excavation volumes for payment. *For the Pass-a-grille Channel*, *pre-fill beach surveys will be used in calculation of excavation volumes for payment.*

After-dredge surveys shall be collected at each station illustrated on the plans. Surveys shall extend a minimum of 100 ft beyond the permitted Disposal Area and 100 ft beyond the permitted Grand Canal dredge channel *and Pass-a-grille Channel*, unless otherwise impeded by a coastal structure or other condition reported and accepted by the COUNTY and ENGINEER. Surveys shall be collected within 7 days of active dredging of a station. *For the Grand Canal Dredge Channel*, after-dredge surveys will be used in calculation of excavation volumes for payment. *For the Pass-a-grille Channel*, *post-fill beach surveys will be used in calculation of excavation volumes for payment.*

### Profile Spacing

As identified in the section SURVEY AND LAYOUT BY CONTRACTOR of this document, a construction baseline will be established for conducting BD and AD survey profiles of the beach placement area. Stations along this baseline will be spaced generally 100 feet apart along an azimuth perpendicular to the baseline station with actual distance and location defined by the CONTRACTOR and approved by the ENGINEER prior to the start of construction.

BD and AD surveys will also be conducted by the CONTRACTOR along the established construction baseline in the *Grand Canal Dredge Channel and Pass-a-grille Channel* as shown on the Plans. BD and AD surveys will be conducted to a minimum distance of 100 feet beyond or seaward of the project templates.

## **Payment Surveys**

For Grand Canal dredging, payments will be based on the results of the comparison of BD and AD surveys conducted by the surveyor at the pay stations along the channel construction baseline shown on the Plans *using tin vs. template method in AutoCAD Civil 3D or HYPACK or similar software*. The ENGINEER will verify the pay quantities provided by the CONTRACTOR based on these surveys *using tin vs. template method in AutoCAD Civil 3D or HYPACK or similar software*. Payment surveys shall be performed and certified by a registered land surveyor employed by the CONTRACTOR. The CONTRACTOR shall notify the COUNTY and the ENGINEER in advance when the payment surveys will be conducted.

*For the Pass-a-Grille Borrow area dredging, payments will be based on the results of the comparison of pre-fill and post-fill surveys conducted by the surveyor at the pay stations along the disposal construction baseline shown on the Plans using tin vs. template method in AutoCAD Civil 3D or HYPACK or similar software. The ENGINEER will verify the pay quantities provided by the CONTRACTOR based on these surveys using tin vs. template method in AutoCAD Civil 3D or HYPACK or similar software. Payment surveys shall be performed and certified by a registered land surveyor employed by the CONTRACTOR. The CONTRACTOR shall notify the COUNTY and the ENGINEER in advance when the payment surveys will be conducted.*

*Payment by application of compensating slope will be allowed for beach fill placed below +0.34' NAVD88. Material placed above the template and below +0.34' NAVD88 can be used to offset deficiencies in filling the template below +0.34' NAVD88. The CONTRACTOR is responsible for any additional costs incurred to satisfy compensating slope measurements (i.e. expanded surveys, expanded calculations, etc.).*

## **Basis for Payment**

*The basis of payment for Grand Canal dredging shall be:*

- *40% of total lump sum cost upon delivery of BD surveys of the channel*
- *20% of total lump sum cost upon 50% completion progress draft AD surveys of the channel*
- *40% of total lump sum cost upon delivery of final 100% AD surveys of the channel*

*The basis of payment for the Pass-a-Grille Borrow Area dredging shall be:*

- *40% of total lump sum cost upon delivery of BD surveys of the beach*
- *20% of total lump sum cost upon 50% completion progress draft AD surveys of the beach*
- *40% of total lump sum cost upon delivery of final 100% AD surveys of the beach*

## PERMITTING AS-BUILT SURVEY REQUIREMENTS BY CONTRACTOR

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005-0850

Technical specification PERMITTING AS-BUILT SURVEY REQUIREMENTS BY CONTRACTOR 005-0850 is amended to include:

### **Basis for Payment**

The basis of payment will be lump sum for Line Item 005-0850 shall be paid upon delivery of As-Built Drawings.

## MOBILIZATION

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101-0100

Technical specification MOBILIZATION 101-0100 is amended to replace the existing subsection with the below:

### **Basis for Payment**

*The basis of payment for Line Item 101-0100 shall be:*

- 60% of total lump sum cost upon completion of mobilization of Earthwork equipment to Pass-a-Grille Beach
- 40% of total lump sum cost upon demobilization of Earthwork equipment from Pass-a-Grille Beach

*The basis of payment for Line Item 0004A shall be:*

- 60% of total lump sum cost upon completion of mobilization of Earthwork equipment to Pass-a-Grille Beach
- 40% of total lump sum cost upon demobilization of Earthwork equipment from Pass-a-Grille Channel

## PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

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104

Technical specification PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION 104 is amended to replace the existing sub-sections with the below:

### **Turbidity Monitoring**

The Grand Canal Dredge Channel and the Pass-a-grille Channel are located in the Gulf of Mexico in waters designated as Class III Waters, Pinellas County Aquatic Preserve, Outstanding Florida Waters (OFW).

The CONTRACTOR shall maintain State required water quality standards and shall adhere to all applicable permit requirements and COUNTY Specification 104 for water quality and turbidity during construction. The CONTRACTOR is responsible for performing the turbidity monitoring and reporting in accordance with the FDEP Permit No. 0221569-20-JM, Specific Condition Nos. 31 – 33 under “Monitoring Required”. In the event of a water quality issue, the CONTRACTOR will be required to stop work and take remedial action.

The CONTRACTOR shall be bound and obligated to maintain the quality of the State's waters as stipulated in Chapter 62-302 of the *Florida Administrative Code*. The CONTRACTOR will conduct water quality monitoring procedures with an independent third-party subcontractor as defined in the permits for the project, the qualifications for whom shall be supplied with the Bid to comply with the FDEP Permit, Specific Condition No. 5b. Payment for water quality monitoring and reporting shall be included in the project construction bid under the line item for Turbidity Monitoring. The CONTRACTOR will also provide the ENGINEER with daily water quality monitoring reports immediately after completion of the water quality analysis if there are any violations and no later than with the daily report in all other cases.

The permits for the project require water quality monitoring to occur during project construction, which the CONTRACTOR will provide in strict accordance with Specific Condition Nos. 31 – 33 of the FDEP permit.

The ENGINEER, using CONTRACTOR water quality monitoring data and maps, will provide all reporting to the FDEP per permit requirements.

### **Basis for Payment**

*The Basis of Payment for PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION shall be on a percent complete based on linear foot of dredging completed for Grand Canal Dredge Channel and beach filled for Pass-a-grille Beach.*

## **HYDRAULIC PLACEMENT OF BEACH FILL**

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Supplemental Spec – Hydraulic Placement of Beach Fill

The Supplemental Technical specification HYDRAULIC PLACEMENT OF BEACH FILL is amended to replace the existing sub-sections with the below:

### **Basis for Payment**

The Work specified under this Section shall include all work, labor, materials, equipment, and all costs associated with restoring the site. The Work specified under this Section shall be paid for under the Lump Sum unit cost for *Line Items Supplemental Spec – Hydraulic Placement of Beach Fill shall be on a percent complete based on linear foot of beach filled for Pass-a-grille Beach.*

## **DREDGE MOBILIZATION/DEMOBILIZATION**

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### Supplemental Spec – Dredge Mob/Demob

The Supplemental Technical specification DREDGING MOBILIZATION/DEMOBILIZATION is amended to replace the existing sub-sections with the below:

#### **Basis for Payment**

The Work specified under this Section shall include all work, labor, materials, equipment, and all costs associated with restoring the site. The Work specified under this Section shall be paid for under the Lump Sum unit cost for *Pay Items Supplemental Spec – Dredge Mob/Demob*.

*The basis of payment for Line Item Supplement Spec – Dredge Mob/Demob shall be:*

- 60% of total lump sum cost upon completion of mobilization of Dredge to Grand Canal Dredge Channel
- 40% of total lump sum cost upon demobilization of Dredge from Grand Canal Dredge Channel

*The basis of payment for Line Item 0011A shall be:*

- 60% of total lump sum cost upon completion of mobilization of Dredge to Pass-a-Grille Channel
- 40% of total lump sum cost upon demobilization of Dredge from Pass-a-Grille Channel

## **DREDGING**

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### Supplemental Spec – Dredging

The Supplemental Technical specification DREDGING is amended to replace the existing sub-sections with the below:

The Grand Canal Dredge Channel and Pass-a-grille Channel have been designated for use in this project. Dredging operations will be completed using either hydraulic or mechanical dredging methods. If a hydraulic dredge is used, a submerged pipeline will be laid from Grand Canal Dredge Channel and/or Pass-a-grille Channel to the Pass-A-Grille Beach disposal area (R-160-200 to R-165+500), avoiding any known submerged aquatic vegetation (SAV). The elevations for the dredge area is referenced to the datum described on the Plan Sheets. Excavation shall be by cutterhead suction, dustpan suction dredge, or a method proposed by the CONTRACTOR and approved by the ENGINEER with pump out. Multiple simultaneous dredges will be allowed at the CONTRACTOR's own discretion and risk. Construction using truck haul methods or shore-based pumps with divers will not be permitted. All subsequent specifications referring to a "cutterhead" shall also be applicable to other dredges. Failure to repair leaks or change the method of operations which has resulted in spillage that exceeds turbidity and water quality standards during the loading or any overflow during transport to the placement sites will require suspension of dredging.

#### **Dredging Order**

The order in which the channel will be dredged is left up to the discretion of the CONTRACTOR. The CONTRACTOR shall exhaust all material within the *Grand Canal Dredge*

channel. The Grand Canal Deposition Basin shall not be dredged. *Pass-a-grille Channel shall be dredged in a manner to obtain borrow material to complete the Pass-a-grille beach fill template shown in the Plans.*

### **Dredge Area Excavation Limitations**

The Grand Canal Dredge Channel shall be cut to -11.5 ft NAVD with a 1 ft overdredge allowance to -12.5 ft NAVD. The channel is 150-ft wide with 1:3 side slopes. Refer to Plans for coordinating on other details. *The Pass-a-grille Channel varies in width up to 500' wide with a maximum dredge depth of -15' MLLW (-16.59' NAVD88).*

Bid quantities and excavation volume may change based on pre-construction conditions. Bathymetry of the dredge area, location of SAV, and surveys of the disposal area are planned to be surveyed pre-construction. Changes will be within the maximum permitted limits.

**No dredging will take place outside of the channel limits as shown in the Plans. No sediment removal will exceed the permitted maximum overdredge excavation limit as shown on the drawings.** Either event represents a violation of the contract and of permits for the project. The CONTRACTOR will be required to certify in each Daily Quality Control Report that excavation occurred within the horizontal and vertical limits of the Plans. The ENGINEER will deduct quantities of sand dredged outside of and/or below the allowable dredge depths from pay quantities. The CONTRACTOR will be required to pay for any costs, fines or other expenses related to dredging outside of the channel limits or permit violations resulting from CONTRACTOR negligence in complying with permits for the project, and to remove unacceptable material from the beach fill. If the CONTRACTOR does not pay all costs, fines or other expenses related to dredging outside of the dredge area limits and/or for permit violation and/or remove unacceptable material from the beach fill, the COUNTY will deduct from payments due to the CONTRACTOR from the COUNTY, or may be recovered from the CONTRACTOR's bond to cover all costs, fines, or expenses related to excavating outside of dredge area limits and/or deeper than allowed within the dredge area. The final survey depth of the dredge area will be the basis for determining violations of this provision.

### **Pipeline Transport**

The CONTRACTOR shall describe the proposed method of dredging with the bid submittal utilizing the established pipeline corridor shown on the Plans, labeled P-9, or identify a more direct route from the Grand Canal Dredge Channel *and Pass-a-Grille Channel* to the approved disposal area on Pass-A-Grille Beach that avoids SAV. The project permits allow for dredging operations to be completed using either a hydraulic or mechanical dredge. If a hydraulic dredge is used, a submerged pipeline will be laid from Grand Canal *and Pass-a-Grille Channel* to the Pass-A-Grille Beach disposal area (R-160-200 to R-165+500), avoiding any known SAV and utilizing authorized construction areas to access the beach disposal area. The dredge will connect to the submerged pipeline by a floating line. Booster pumps and accessory vessels may be needed to accomplish the work. The project may also be performed by mechanical methods, with a bucket, backhoe, excavator, or similar equipment mounted on a barge. If this alternative method is used, the mechanical dredge would remove the material from the dredge areas and place it in a scow that would then be towed to the disposal area and unloaded in a manner consistent with the project permits, such as using the authorized pipeline corridor (P-9) to access the beach disposal area. Regardless of the dredging method employed by the CONTRACTOR, sand will be pumped

through a pipeline placed within the permitted template on Pass-A-Grille beach (R-160-200 to R-165+500) to the disposal area shown on the Plans, where it will be discharged and graded within the lines and grades defined thereon. The project area is in very close proximity to the federally authorized Pass-A-Grille navigation channel and under no circumstance shall the contractor be permitted to obstruct navigation with equipment, pipelines, dredging operations, or any other aspects of the Work.

## **Basis for Payment**

The Work specified under this Section shall include all work, labor, materials, equipment, and all costs associated with restoring the site. The Work specified under this Section shall be paid for under the Cubic Yard unit cost for *Supplement Spec – Dredging*.

Other than costs for mobilization, demobilization, and all other costs associated with maintenance dredging in the Dredge Channel including, but not limited to, Character of Material, Excavation, Transport of Excavated Material, Layout of Work for Hydraulic Beach Fill Placement, Construction Surveys, Hydraulic Beach Fill Placement, Work Area, Protection of Existing Structures from Construction Activities, Noise Control, Damages, Submittals and Notifications, Order of Work, Project Schedule, Acceptance Sections, Final Clean Up, Nighttime Operations, and Pumping of Bilges shall be included in the contract unit price per cubic yard on the bid form. The unit price shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.

*For dredging Grand Canal*, the basis of the payment will be the cubic yards (cy) of material dredged from the Channel maintenance dredge area and placed within the beach disposal area within the permitted template, defined as “PLACEMENT AREA” on the Plans. The location and volume of dredging will be calculated by the CONTRACTOR’s before- and after-dredge surveys using a surface-to-surface volume calculation method and verified by the ENGINEER. Any material excavated from outside of the maintenance dredge area in the Channel or placed outside of the permitted disposal area will not be eligible for payment. The CONTRACTOR shall account for this method of volume calculation when estimating the bid prices. Note that over-dredge volume shall be eligible for payment so long as the material is removed from within the permitted limits of the dredge area.

To qualify for payment, the minimum requirement of 95% of the dredge channel volume for each acceptance section must be met unless the section is otherwise accepted in writing by the ENGINEER. The CONTRACTOR is encouraged to utilize the overdredge allowance shown on the Plans to completely remove beach compatible materials to the greatest extent possible within the assigned maintenance dredge area. The CONTRACTOR shall excavate any section deemed deficient by the ENGINEER to a minimum of 95% of the dredge channel volume for the acceptance section. The COUNTY will withhold payment for acceptance sections that do not meet the minimum excavation requirements until the required excavation and subsequent surveying have been completed by the CONTRACTOR.

*For dredging the Pass-a-Grille Borrow Area*, payments will be based on the results of the comparison of pre-fill and post-fill surveys conducted by the surveyor at the pay stations along the disposal construction baseline shown on the Plans. The ENGINEER will verify the pay quantities

*provided by the CONTRACTOR based on these surveys. Payment surveys shall be performed and certified by a registered land surveyor employed by the CONTRACTOR. The CONTRACTOR shall notify the COUNTY and the ENGINEER in advance when the payment surveys will be conducted.*

*Payment by application of compensating slope will be allowed for beach fill placed below +0.34' NAVD88. Material placed above the template and below +0.34' NAVD88 can be used to offset deficiencies in filling the template below +0.34' NAVD88. The CONTRACTOR is responsible for any additional costs incurred to satisfy compensating slope measurements (i.e. expanded surveys, expanded calculations, etc.).*