

**DIVISION 2 - TECHNICAL PROVISIONS**

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## **SECTION 001 - TECHNICAL SPECIFICATIONS**

### **STANDARD SPECIFICATIONS**

- A. All work of this Contract shall conform to the applicable technical specifications of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, January 2019, and Supplemental Specification, Special Provisions and addenda thereto, except as modified and supplemented hereinafter. Reference to Article numbers herein-after apply to the FDOT Standard Specifications, and reference in FDOT Standard Specifications to Department shall be taken as the Owner or its appointed Representative. Wherever the Specifications, Supplementals, etc. may refer to the "Owner", "Department", "State of Florida Department of Transportation", or words relating to offices of State Government, such words shall be taken as meaning Owner or Indian River County, Florida. Wherever the word "Owner's Engineer", "District Engineer", "Engineer", "Project Engineer", etc., appears, it shall be taken to mean the Registered Professional Project Engineer of the Indian River County Public Works Department, Engineering Division acting directly or through duly authorized representatives. Wherever the word "Resident Engineer" appears, it shall be taken to mean an authorized representative of the Owner's Engineer on the Project (Resident Construction Inspector) who will act as an agent for Indian River County, assigned to observe the progress quantity and quality of the work.

The work to be performed for utility work (if any) shall conform to the applicable technical specifications of the "Indian River County Department of Utility Services, Water, Wastewater, and Reclaimed Water Utility Construction Standards" March, 2018 or the current version.

The work to be performed per line items 700 through 711 shall conform to the applicable standards of Indian River County Typical Drawings for Pavement Markings, Signing & Geometrics Revised March 2012.

## **SECTION 004 - SCOPE OF WORK**

Section 4-3.9 Value Engineering Incentive is deleted in its entirety.

## **SECTION 101 - MOBILIZATION**

The work specified in this section shall conform to Section 101 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

- A. The Contractor shall maintain all grassed and landscaped areas within the project limits in a satisfactory condition until final acceptance of the project. Such maintenance within the limits of construction shall include the mowing of all existing grassed areas within the Right-of-Way, removal of all trash and debris on a weekly basis, and keeping vegetation

trimmed on all sidewalks. Grass height shall not exceed 6" without mowing. Clippings shall be removed from sidewalk.

### Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0101 1 - Mobilization – Per Lump Sum

Bid Item No. 100-1 - Mobilization – Per Lump Sum

Bid Item No. 101-1 – Mobilization – Per Lump Sum

### **SECTION 102 - MAINTENANCE OF TRAFFIC**

The work specified in this item shall conform to Section 102 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, except as modified herein.

- A. **GENERAL PROVISIONS-DESCRIPTION:** The work specified in this Section consists of maintaining traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. It shall include the construction and maintenance of any necessary detour facilities; the providing of necessary facilities for access to residences, businesses, etc., along the project; the furnishing, installing and maintaining of traffic control and safety devices during construction, the control of dust through the use of calcium chloride if necessary, and any other special requirements for safe and expeditious movement of traffic as may be called for on the plans. The term, Maintenance of Traffic, as used herein, shall include all of such facilities, devices and operations as are required for the safety and convenience of the public as well as for minimizing public nuisance; all as specified in this Itemized Section 14 of these provisions and Paragraph 24 in General Conditions Section.
- B. **BEGINNING DATE OF CONTRACTOR'S RESPONSIBILITY:** The Contractor shall present his Maintenance of Traffic Plan at or before the pre-construction conference. The Maintenance of Traffic Plan shall indicate the type and location of all signs, lights, barricades, striping and barriers to be used for the safe passage of pedestrians and vehicular traffic through the project and for the protection of the workmen. The plan will indicate conditions and setups for each phase of the Contractor's activities.

When the project plans include or specify a specific Maintenance of Traffic Plan, alternate proposals will be considered when they are found to be equal to or better than the plan specified.

In no case may the Contractor begin work until the Maintenance of Traffic Plan has been approved in writing by the Engineer. Modifications to the Maintenance of Traffic Plan that become necessary shall also be approved in writing. Except in an emergency, no changes to the approved plan will be allowed until approval to change such plan has been received.

The cost of all work included in the Maintenance of Traffic Plan shall be included in the pay item for Maintenance of Traffic.

The Contractor shall be responsible for performing daily inspections, including weekends and holidays, with some inspections at nighttime, of the installations on the project and replace all equipment and devices not conforming with the approved standards during that inspection. The project personnel will be advised of the schedule of these inspections and be given the opportunity to join in the inspection as is deemed necessary.

- C. **TRAFFIC CONTROL - STANDARDS:** The FDOT Design Standards For Design, Construction, Maintenance and Utility Operations On The State Highway System, Edition as dated on the plans set forth the basic principles and prescribes minimum standards to be followed in the design, application, installation, maintenance and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and workmen from hazards within the project limits. The standards established in the aforementioned manual constitute the minimum requirements for normal conditions, and additional traffic control devices warning devices, barriers or other safety devices will be required where unusual, complex or particularly hazardous conditions exist.

The above referenced standards were developed using F.H.W.A., U.S.D.O.T. Manual on Uniform Traffic Control Devices (MUTCD).

- D. **TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS - INSTALLATION:** The responsibility for installation and maintenance of adequate traffic control devices, warning devices and barriers, for the protection of the travel in public and workmen, as well as to safeguard the work area in general shall rest with the Contractor. Consideration shall be given to recommendations of the Engineer. The required traffic control devices, warning devices and barriers shall be erected by the Contractor prior to creation of any hazardous condition and in conjunction with any necessary re-routing of traffic. The Contractor shall immediately remove, turn or cover any devices or barriers which do not apply to existing conditions. All traffic control devices shall conform to MUTCD standards and shall be clean and relatively undamaged. Damaged devices diminishing legibility and recognition, during either night or day conditions, are not acceptable for use.
- E. **NO WAIVER OF LIABILITY:** The Contractor shall conduct his operations in such a manner that no undue hazard will result due to the requirements of this article, and the procedures and policies described therein shall in no way act as a waiver of any of the terms of the liability of the Contractor or his surety.
- F. **Contractor's Maintenance of Traffic Plan shall maintain continuous vehicular traffic on 66th Avenue at all times. The Contractor shall maintain one lane of traffic at all times during 66th Avenue cross drain culvert constructions. The Contractor may elect to close through traffic for a period not to exceed 120 calendar days per roadway during the construction of the following bridges:**

**a. 53rd Street Bridge**

- b. 66th Avenue
- c. 57th Street Bridge
- d. 61st Street Bridge
- e. 65th Street Bridge

The Contractor may also elect to close the following roadways at the same time:

**Alternative 1**

- 53rd Street
- 61st Street

**Alternative 2**

- 57th Street
- 65th Street

Please note the not to exceed 120 total calendar days will apply to both closing alternatives (i.e. Alternative 1; closings 53rd St, 61st St. cannot exceed 120 calendar days total).

- G. The Changeable Variable Message Sign shall be used as necessary. The location, message, and duration shall be as directed by Engineer.
- H. In addition to above, the Contractor shall comply with INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION SPECIAL CONDITIONS FOR RIGHT-OF-WAY CONSTRUCTION in Appendix C.

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0102 1 - Maintenance of Traffic – Per Lump Sum
- Bid Item No. 102-1 - Maintenance of Traffic – Per Lump Sum

**SECTION 104 - PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**

**PART 1 – GENERAL**

**1.1 SCOPE**

- A. This Section covers erosion control and the treatment of dewatering water and stormwater runoff from the construction site and work area. Pollution control measures shall prevent polluted or turbid waters from being discharged from the construction site or work area to undeveloped portions of the site or offsite, including but not limited to Multiple Separate Storm Sewer Systems (MS4s) and Waters of the State.

- B. The OWNER considers pollution from dewatering water and stormwater runoff from a construction site or work area to be a very serious offense. The CONTRACTOR is solely responsible for preventing pollution caused by dewatering water and stormwater runoff from the construction site or work area. Note that state regulations do not allow mixing stormwater and dewatering groundwater in the same release – separate and independent discharges are required.
- C. Pollution control measures specified herein represent minimum standards to be adhered to by the CONTRACTOR throughout the Project’s construction. The OWNER reserves the right to require the CONTRACTOR to employ additional pollution control measures, when in the sole opinion of the OWNER, they are warranted. If site specific conditions require additional erosion and stormwater pollution control measures during any phase of construction or operation to prevent erosion or to control sediment or other pollution, beyond those specified in the Drawings, the Project’s approved Stormwater Pollution Prevention Plan (SWPPP), or herein, implement additional best management practices as necessary, in accordance with [Chapter 4, “Best Management Practices for Erosion and Sedimentation Control” of the Florida Erosion and Sediment Control Inspector’s Manual](#) and other references as may be applicable or required by regulatory permits.
- D. The OWNER may terminate this Contract if the CONTRACTOR fails to comply with this Section. Alternatively, the OWNER may halt the CONTRACTOR’s operations until the CONTRACTOR is in full compliance with this Section. If the OWNER halts the CONTRACTOR’s Work as a result of failure to comply with this Section, the Contract time clock will continue to run.
- E. In addition to these Specifications, comply with [Chapter 4 - “Best Management Practices for Erosion and Sedimentation Control”](#) and [Chapter 5 – “Best Management Practices for Dewatering” of the Florida Erosion and Sediment Control Inspector’s Manual](#). In the event of a conflict between the referenced chapters and these Specifications, the more stringent requirement shall prevail.
- F. Submit to SJRWMD a “Notice to District of Dewatering Activity” (SJRWMD Form No. 40C-2.900(12)) prior to commencement of dewatering in accordance with F.A.C. 40C-2.042(9). Provide a copy of the Notice to Indian River County.

## 1.2 PERMITS

- A. The OWNER has obtained certain permits for this project and they are listed in [paragraph 6.08.B of the EJCDC Standard General Conditions of the Construction Contract \(General Conditions\)](#). Per [paragraph 6.08.C of the General Conditions](#), apply for and obtain all other required federal, state, and local permits, licenses, sampling, and tests.
- B. Provide copies of all approved permits to the OWNER and ENGINEER and comply with all conditions contained in all permits at no extra cost to the OWNER. If there is a conflict between any permit requirement and these Specifications or requirements between permits, the more stringent specification or requirement shall govern.

C. Pay for all required water quality sampling and laboratory tests.

### 1.3 GENERAL

- A. Do not begin any other construction work until the pollution control and treatment system has been constructed in accordance with approved plans, permits, and these Specifications; and the installed system has been examined by the OWNER for compliance.
- B. From time to time, the OWNER or ENGINEER will inspect the pollution control and treatment system and may take effluent samples for analysis by a testing laboratory selected and paid for by the OWNER. If at any time, the OWNER or ENGINEER determines that the pollution control and treatment system is not in compliance with the approved system, the OWNER or ENGINEER will shut the portion of the project down that is not in compliance, and it shall remain shut-down until the pollution control and treatment system is properly constructed or repaired, and complies with the approved pollution control and treatment system plans, specifications, contract documents, and permits.
- C. Schedule construction to minimize erosion and stormwater runoff from the construction site. Implement erosion control measures on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. In addition to other temporary erosion control measures that may be implemented, application of polyacrylamide is required on all such disturbed areas within 7 days after the construction activity in that portion of the site has temporarily or permanently ceased, unless final landscaping has been installed. Polyacrylamide application shall be as specified herein. Include polyacrylamide application in the Project's SWPPP.
- D. Inspect each pollution control system at least once per day and after each rainfall event. Clean and maintain each pollution control system as required until the system is no longer needed. If a water quality violation occurs, immediately cease all work contributing to the water quality violation and correct the problem. Immediately report all water quality violations to the OWNER. Immediately report the discharge of any hazardous substance to the State Warning Point at 800-320-0519 or 850-413-9911.
- E. Discharge shall not violate State or local water quality standards in receiving waters, nor cause injury to the public health or to public or private property, nor to the Work completed or in progress. The receiving point for water from construction operations shall be approved by the applicable owner, regulatory agency, and the ENGINEER. The receiving point shall be shown on the Project SWPPP.
- F. Promptly repair all damage at no cost to the OWNER.

### 1.4 SUBMITTALS



- A. Shop Drawings: Submit shop drawings of the proposed pollution control and treatment systems in accordance with [Section 1340](#).
- B. Approved Stormwater Pollution Prevention Plan.
- C. “Contractor’s Affidavit Regarding Erosion Control and Treatment of Dewatering Water and Stormwater From Construction Activities”

#### 1.5 STORMWATER TREATMENT AND EROSION CONTROL SYSTEM RESPONSIBILITY

- A. Prepare a site-specific design of the erosion and stormwater pollution control system. Install and maintain all erosion and stormwater pollution control devices under the supervision of a State Certified Stormwater, Erosion, and Sedimentation Control Inspector. Maintain the erosion and stormwater pollution control devices until in the ENGINEER’s sole opinion, the devices are no longer necessary (such time not to extend past the date the OWNER formally accepts the project as complete). Before beginning construction, submit to Indian River County, Florida Department of Environmental Protection (FDEP) and other applicable regulatory agencies for review and approval, a Stormwater Pollution Prevention Plan (SWPPP), prepared by the certified erosion control subcontractor. Construction shall not begin until the SWPPP has been approved by Indian River County, FDEP, and all applicable regulatory agencies. Submit the approved SWPPP to the ENGINEER before beginning construction. Include in the SWPPP, the “Contractor’s Affidavit Regarding Erosion Control and Treatment of Dewatering Water and Stormwater From Construction Activities” (located at the end of this Section).

#### 1.6 “POLLUTION” AND CERTAIN UNCONTESTABLE POLLUTION EVENTS DEFINED

- A. With respect to this Section and as may be further defined in paragraphs [1.6.B](#), [1.6.C](#), and [1.6.D](#), “pollution” is the presence in off-site waters of any substances, contaminants, or manmade or human-induced impairment of off-site waters or alteration of the chemical, physical, biological, or radiological integrity of off-site water in quantities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property. Pollutants to be removed include but are not limited to, sediment and suspended solids, solid and sanitary wastes, phosphorus, nitrogen, pesticides, oil and grease, concrete truck washout, stucco mixer washout, curb machine washout, washout from other construction equipment, construction chemicals, and construction debris.
- B. When the Discharge is Directly Into an Existing Water Body An existing water body (including ditches and canals) is defined to be polluted by the CONTRACTOR’s operations when at any time, the turbidity of the water immediately downstream of the CONTRACTOR’s discharge point(s) is at least 29 nephelometric turbidity units (NTUs) higher than the turbidity of the background water upstream of the discharge point(s). [See [Fla. Administrative Code 62-302.530](#)] Exception: When the discharge is directly into or through an outfall discharging into “Outstanding Florida Waters,” designated by [Florida Statute 403.061\(27\)](#), the turbidity

of the discharged water cannot exceed the turbidity of the immediate receiving water. The ENGINEER or OWNER shall determine the locations where the turbidity is measured.

- C. When the Discharge is not Directly Into an Existing Water Body In some instances, dewatering water or stormwater runoff from the construction site or work area may reach a water body indirectly, such as by overland flow. If the discharge water's TSS and turbidity measurements exceed pre-construction background values by 20 percent for TSS and 29 NTUs for turbidity, then the discharge is defined to be polluted.
- D. When Pollution Always Occurs The discharge from a construction site or work area is defined to be polluted whenever the pH of the discharge is less than 6.5 or greater than 8.5, or whenever any of the following is present in the discharge water:
- (1) Hazardous waste or hazardous materials in any quantity,
  - (2) Any petroleum product or by-product in any quantity,
  - (3) Any chemical in any quantity, or
  - (4) Concentrated pollutants.
- E. Above paragraphs 1.6.B, 1.6.C, and 1.6.D do not in any way, limit the types of conditions in which pollution may be determined to occur.

## 1.7 PENALTIES FOR NONCOMPLIANCE WITH THIS SECTION

- A. In addition to the OWNER's specific remedies, if erosion or pollution is caused by dewatering water or stormwater runoff from the construction site, the OWNER may report the violations to Indian River County Stormwater Enforcement, SJRWMD, FDEP, Indian River Farms Water Control District (or other F. S. Chapter 298 Drainage District, as appropriate), and other pertinent regulatory or enforcement agencies.

## PART 2 - MATERIALS AND INSTALLATION

### 2.1 GENERAL

- A. Polyacrylamide: As required in Paragraph 1.3.C, place polyacrylamide (PAM) on bare ground to reduce the potential for erosion and cover it with hay, jute, or mulch. PAM may also be used in water bodies to remove turbidity. In all cases, use the anionic form of polyacrylamide that does not stick to fish gills. For PAM information and its proper application, a contact is Applied Polymer Systems, Inc., (678) 494-5998, [www.siltstop.com](http://www.siltstop.com).
- B. Staked Silt Fences:
1. General: Use silt fences to control runoff from the construction site where the soil has been disturbed.
  2. Installation: Install per the manufacture's recommendations and as specified herein. In general, install the silt fence in a manner that allows it to stop the water long enough for the sediment to settle while the water passes through the silt fence fabric. All supporting posts shall be on the down-slope side of the fencing. Place the bottom of the fabric 6-inches minimum, under compacted soil to prevent the flow of

sediment underneath the fence. Place silt fences away from the toe of slopes. Otherwise, work shall conform to Section 104 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

3. Product: All material shall be new and unused. Use FDOT Types III through IV silt fences where large sediment loads are anticipated, where slopes are 1:2 (vertical: horizontal) or steeper, or as directed by the ENGINEER; otherwise use FDOT Type II silt fence.

C. Turbidity Barriers:

1. General: Use turbidity barriers to control sediment contamination of rivers, lakes, ponds, canals, etc.
2. Installation: Install per the manufacturer's recommendations and per Section 104 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction unless directed otherwise by the ENGINEER.
3. Product: All material shall be new and unused. The turbidity barrier shall be a pervious barrier and the fabric color shall be yellow. Use staked turbidity barriers in water less than one-foot deep. Use floating turbidity barriers in water one-foot or deeper.

D. Sedimentation Control From Dewatering or Pumping Operations Using Filter Bags:

1. Filter bags shall be manufactured using a polypropylene non-woven geotextile and sewn by a double-needle machine, using a high strength nylon thread. The bag shall have a fill spout large enough to accommodate a 4-inch pump discharge hose. Straps shall be attached to the bag to secure the hose and prevent pumped water from escaping without being filtered.
2. Installation: Install in accordance with the manufacturer's specifications. Use as many filter bags as required, at no additional cost to the OWNER. Legally dispose of the bags offsite, at no cost to the OWNER. If the bags are placed on aggregate to facilitate filtration efficiency, do not use limerock aggregate – use non-calcareous rock.
3. Product: The filter bag shall be supplied with lifting straps.
  - a. "DIRTBAG 53 or 55 as applicable," supplied by ACF Environmental, Inc. (1-800-448-3636).
  - b. "DANDY DEWATERING BAG" supplied by Dandy Products, Inc. (1-800-591-2284).
  - c. Or equivalent.

E. Curb Inlet Protection:

1. Filter stormwater before it enters curb inlets.
2. Installation: Install in accordance with the manufacturer's specifications. Use as many of the specified filtration devices as required, at no additional cost to the OWNER.
3. Product: All materials shall be new and unused. The length of the curb inlet filtration device shall be at least 2-feet longer than the curb inlet opening.
  - a. "GUTTERBUDDY," supplied by ACF Environmental, Inc. (1-800-448-3636).
  - b. Or equivalent.

F. Catch Basin Protection:

1. Filter stormwater before it enters catch basins (drop inlets). The filter “sack” shall be manufactured from woven polypropylene geotextile and sewn by a double-needle machine, using a high strength nylon thread. The sack shall be manufactured to fit the opening of the catch basin or drop inlet and it shall have the following features: two dump straps attached at the bottom to facilitate emptying; lifting loops as an integral part of the system to be used to lift the sack from the basin; and a colored restraint chord approximately halfway up the sack to keep the sides away from the catch basin walls. The colored restraint chord shall also serve as a visual means of indicating when the sack should be emptied.
2. Installation: Install in each catch basin in accordance with the manufacturer’s specifications. Use as many of the specified filtration devices as required, at no additional cost to the OWNER.
3. Product: All materials shall be new and unused.
  - a. “SILTSACK” (regular flow), supplied by ACF Environmental, Inc. (1-800-448-3636).
  - b. “FloGuard+PLUS,” supplied by Kristar Enterprises, Inc. (1-800-579-8819).
  - c. Or equivalent.

- G. Construction Site Egress Driveways: Minimize the transport of sediment and soil from the construction site or work area by vehicle wheels. Construct a crushed rock driving surface at the vehicle exit point(s). Locate the site egress driveways a minimum of 25 feet from all drainage inlets or pipes. Provide an area large enough to remove the sediment and soil from vehicle wheels before the vehicle leaves the construction site or work area. Provide wash-down stations as required to wash vehicle tires and retain all washwater on-site. Do not use limerock.

H. Rock and Stone for Erosion Control and Pollution Control and Treatment:

1. Crushed Limerock: Limerock shall not be used under any circumstance.
2. Acceptable Material: FDOT #4 non-calcareous aggregate, washed and meeting the requirements of FDOT Standard Specifications for Road and Bridge Construction, Section 901.

- I. Hay Bales: Hay bales shall not be used.

PART 3 - EXECUTION

- A. Design, construct, and maintain the pollution control and treatment system to minimize erosion and capture and remove pollutants from the construction site and from all other areas disturbed by construction activities.
- B. Apply polyacrylamide in strict accordance with the polyacrylamide manufacturer/supplier’s recommendations and specifications.

- C. REPAIR ALL EROSION DAMAGE – At no additional cost to the OWNER and regardless of the state of completion of the Work, immediately clean all dirt and debris from all pipes and drainage structures; and repair all flooding, washouts, and all other erosion damage to the Work. This responsibility shall not end until Final Acceptance of the Work by the OWNER. Included is damage caused by erosion of any kind (e.g. wind, waves, stormwater runoff, hurricanes, etc.) including Acts of God. Restore all erosion damaged areas to design grades and elevations. Also, refer to [General Conditions 6.13.B](#).

#### Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0104 10 3 – Sediment Barrier – Per Linear Foot
- Bid Item No. 0104 11 – Floating Turbidity Barrier – Per Linear Foot
- Bid Item No. 0104 15 – Soil Tracking Prevention Device – Per Each
- Bid Item No. 0104 18 – Inlet Protection System – Per Each
- Bid Item No. IRC 2 – NPDES Compliance – Per Lump Sum
- Bid Item No. 104-2 – Storm Water Pollution Prevention Plan & Water Quality Testing – per Lump Sum
- Bid Item No. 104-2 – Prevention, Control & Abatement of Erosion and Water Pollution – Per Lump Sum

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**PERMITTEE’S AFFIDAVIT REGARDING POLLUTION**

This sworn statement is submitted to Indian River County for the following project:

**66th AVENUE ROADWAY WIDENING (49TH STREET TO 69TH STREET)**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Personally, before me the undersigned authority, appeared

\_\_\_\_\_, who upon oath duly administered, stated as follows:

1. This sworn statement is submitted by the PERMITTEE,

\_\_\_\_\_  
whose business address is

\_\_\_\_\_  
\_\_\_\_\_

and (if applicable) its Federal Identification No.(FEIN) is \_\_\_\_\_

2. My name is \_\_\_\_\_ and my relationship to the  
entity named above is \_\_\_\_\_

*(if signing as Owner’s Agent, attach Letter of Authorization to Sign from Owner)*

3. PERMITTEE understands and agrees that in addition to complying with the terms and conditions of the Stormwater Management System Permit issued by Indian River County, Permittee is responsible for complying with the terms and conditions of the following as applicable to the site:

- (a) State of Florida Generic Permit for Stormwater Discharge From Large and Small Construction Activities (for projects one acre or larger),
- (b) Stormwater Pollution Prevention Plan (regardless of project size),
- (c) St. Johns River Water Management District permit(s) (regardless of project size),
- (d) Florida Department of Environmental Protection permit(s) (regardless of project size),
- (e) All other permits required for this project not specifically listed herein, and
- (f) All Codes and Ordinances of Indian River County.

4. PERMITTEE understands and agrees that “pollution” as defined by Florida Statutes Chapter 403.031(7) includes: “. . . the presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or manmade or human-induced impairment of air or waters or alteration of the chemical, physical, biological, or radiological integrity of air or water in quantities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation unless authorized by applicable law.”

5. PERMITTEE understands and agrees that in addition to the definition set forth in Item 4 above, "pollution" is also defined by Florida Administrative Code 62-302.530 and as may be further defined in the Indian River County permit(s).
6. PERMITTEE understands that Indian River County requires the design, installation, and maintenance of proper erosion control measures at all times UNTIL Final Acceptance of the Project by the OWNER.
7. PERMITTEE understands that there are civil and criminal penalties for pollution listed in Florida Statutes Ch. 403.141 and Ch. 403.161 and that there are other penalties listed in Indian River County's permits, including but not limited to, Indian River County issuing a Cease and Desist Order for the project. CONTRACTOR understands that it may be liable for these and other penalties if offsite pollution occurs as a result of activities associated with the Project.
8. Transfer of Ownership or County Issued Permits:
  - (a) Transfer of Interest in Real Property: Within twenty-one (21) days of any transfer of ownership or control of the real property at which the permitted activity, facility, or system is located or authorized, the Permittee shall notify in writing, both the Indian River County Engineering Division and the Indian River County Stormwater Division of the transfer. Permittee shall provide the name, mailing address, and telephone number of the transferee and a copy of the instrument effectuating the transfer. Said notification is in addition to notifying the County Attorney's Office as required by County Code.
  - (b) Transfer of a County Permit. To transfer a County issued permit, Permittee must provide (1) the information required in Item 8(a); (2) a written statement from the proposed transferee that it will be bound by all terms and conditions of the permit; and (3) a new "Permittee's Affidavit" form properly executed by the transferee. Upon proper receipt of these items the County shall transfer the permit to the transferee.
  - (c) Permittee is encouraged to request a permit transfer prior to the sale or legal transfer of the real property at which a permitted facility, system, or activity is located or authorized. However, the transfer shall not be effective prior to the sale or legal transfer.
  - (d) An "Illicit Discharge Sign" must be present at the site at the time of transfer. Replacement or additional signs may be obtained from the Indian River County Public Works Department at a cost of \$30.00 per sign.

Under penalty of perjury, PERMITTEE declares that it has read the foregoing affidavit and the facts stated in it are true.

**FURTHER AFFIANT SAYETH NAUGHT**

CONTRACTOR: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_

Work Telephone: \_\_\_\_\_

Mobile Telephone: \_\_\_\_\_

\*\*\*\*\*

The foregoing instrument was subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, who is personally known to me or has produced \_\_\_\_\_ as identification and who did take oath.

\_\_\_\_\_  
Notary Public State of Florida at Large

My Commission expires: \_\_\_\_\_

+ + END OF SECTION + +



## **SECTION 109 - FIELD OFFICE**

The Specifications for Field Office (Contractor) shall include furnishing and installing a Construction Field Office within the Project Limits in accordance with these Specifications.

It is the Contractor's responsibility to clean the inside of the building and provide furnishings. The building shall be a minimum of 40 feet x 8 feet converted shipping container with R-13 insulation in the walls and roof, pre-finished interior walls, tile floor with vinyl base, 8 feet high, pre-finished interior ceiling panels, and adequate fluorescent lighting. This unit shall also include air-conditioning, heat, and sufficient space to hold progress meetings. Each room shall have at least one (1) weatherproof window and two electrical and data outlets. Each window shall be a minimum of 8 square feet, be screened and able to be opened and closed to provide adequate ventilation. Equip each outside door with a deadbolt lock. ***The container office shall be made with durable, high quality materials that meet national, state and local building, electrical, and mechanical codes.*** The Building shall be equipped with tables and chairs to accommodate meetings for a minimum of 12 people. The field office must provide 2 desks, chairs, cabinets, etc. for 2 county field representatives. Also, contractor shall provide, one (1) rough plan rack, one (1) supply cabinet, a minimum of five (5) gallons of potable water maintained by the Contractor, one (1) printer/scanner machine, and one (1) fire-resistant (2) drawer legal size file cabinet meeting fire underwriters' approval for no less than a 1-hour test. The field office must include the following two computers for COUNTY PERSONNEL:

- (2) Dell Latitude Laptop E5590 CTO, Intel Core i7-8650U, 1.9Ghz, 8MB Cache Quad Core processor, integrated UHD Graphics 620, 16.0GB, DDR4-2400Mhz SDRAM, 2 DIMMS memory with 15.6" HD anti-glare, non-touch LCD screen with M.2 256GB SATA Class 20 Solid State Drive, and Dell Professional Briefcase 15.

The computers mentioned above must be purchased from a known retailer/wholesaler brand new with all warranty information included. Contractor shall warranty the computers for the length of the project. Once the project is complete, the above-mentioned computers and printer/scanner will be the property of the COUNTY.

The Contractor will be required to provide electric, (2) landline phones, ***High Speed internet service or equivalent satellite or mobile service if DSL is not available to the field office. Internet link DHCP must be user configurable to accommodate County network configurations.***

The field office shall be ready for use no later than ten (10) calendar days after the date the Contract is fully executed and before any other work is started, and shall be maintained by the Contractor until one (1) month after final acceptance of the Project by the Owner.

Once the project is complete, the field office will be the property of the COUNTY.

### **Item of Payment**

Payment for the work specified in this item shall be made under:

## Bid Item No. IRC 1 – Field Office – Per Lump Sum

**SECTION 110 - CLEARING AND GRUBBING**

The work specified in this item shall conform to Section 110 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction with the following modifications:

- A. Prior to any clearing and grubbing, the contractor will stake the right-of-way. Unimproved areas shall be cleared of trees, logs, stumps, brush, vegetation, rubbish and other perishable or objectionable matter within limits shown on the plans excepting for certain trees and shrubs shown on the plans or as directed by the Engineer which are to remain undisturbed and protected. Stumps and roots between slope stakes in cuts and in embankments 3 feet or less in depth shall be removed to a depth of 18 inches below subgrade. No stumps, roots, or perishable matter of any description shall remain under concrete slabs or footing, including pavement and sidewalks.
- B. No trees shall be removed or relocated until the Engineer or his representative has marked all trees to be saved, after a review of the project site with the Contractor's representative.
- C. Where the final pavement or structural work will be close to existing trees, the Contractor shall exercise care in the vicinity of the trees. Further, the Contractor shall saw cut along the edge of the outside limits of the stabilization, structure subgrade or sidewalk to a minimum depth of 4 feet below the finish grade and paint with a commercial grade pruning paint the ends of all sawn roots. If directed by the Engineer or where shown on the drawings, work shall be done by hand in order to protect the trees.
- D. The Contractor shall exercise care when working in the vicinity of all trees to remain so as to not damage or remove major root structures. The Contractor shall not pull hair or major root structures. All severed roots shall be sawn clean and paint with pruning paint. Stumps, roots, etc., shall be completely removed and disposed of by the Contractor. Undesirable, dead, and/or damaged trees (as so designated by the Engineer) shall be removed.
- E. All trees to be removed shall be disposed off site; burning will be strictly prohibited.
- F. All trees or shrubs which are to remain shall be preserved and protected by the Contractor. Where the removal of valuable trees or shrubs specifically for transplanting is required, this work shall be done in cooperation with the Owner and at no additional expense to the Owner.
- G. All items to be removed shall be excavated to their full depth. All culverts removed from residential driveway entrances within the right-of-way shall become the property of the respective homeowner. Those homeowners not desiring the culverts may donate them to the County free of charge. (See Paragraph C, Special Provisions) The Contractor shall transport the culverts to the County's storage yard. All metal castings for catch basins,

manholes, or other structures shall be carefully removed and stored in the County's Storage Yard if they are deemed salvageable by the Engineer. The excavated materials shall be removed from the job site and disposed in a location designated or approved by the Owner. Any culverts, structures or any material excavated or removed from the project site under clearing and grubbing deemed unsalvageable by the Engineer shall be disposed of in a legal manner by the Contractor. Where required, suitable material as approved by the Engineer shall then be backfilled and compacted to restore the original contour of the ground. The fill material shall be backfilled and compacted in accordance with Section 120 of these specifications.

- H. No additional payment will be made, nor will additional work, or change orders be authorized for work needed to remove, relocate, protect, or otherwise account for in the construction of the work depicted in the plans, for any feature, or item that would be apparent from a careful inspection of the site and review of the plans, even though such feature or item is not specifically called out in the plans. It is therefore essential the contractor make such inspection and review.
- I. The unit price bid for this item shall include the cost of all labor, tools, and equipment necessary to excavate, remove, and dispose of those items as directed by the Engineer and where designated on the Drawings. The cost of restoration and backfill and compaction for the specific area of removal shall also be included under this item.

#### Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0110 1 1 - Clearing & Grubbing – Per Lump Sum
- Bid Item No. 0110 3 - Removal of Existing Structure (Dwelling) - Per Each
- Bid Item No. 110-3 - Demolition and Removal of Existing Bridge – Per Lump Sum
- Bid Item No. 110-1-1 - Clearing & Grubbing – Per Acre
- Bid Item No. 110-7-1 - Mail Box F & I – Per Each

#### **SECTION 120 - EXCAVATION AND EMBANKMENT**

- A. Earthwork, including earthwork for drives outside the right-of-way limits, shall be paid for as embankment. Cost shall include all work specified in this section and Section 120 of the FDOT Standard Specifications for Road and Bridge Construction. Such price and payment shall specifically include all cost of any roadway, lateral ditch or canal, and final dressing operations.
- B. Earthwork quantities shall be considered as in-place material with no shrinkage or expansion factors.
- C. Subsoil Excavation - Any excavation below the proposed bottom elevation of the select fill, isolated swale bottom locations, isolated locations for pipe installations and as approved by the engineer shall be paid for as subsoil excavation. Approximately 2.0 ft of subsoil

excavation is required in sublateral canals. Cost of replacement embankment shall be included in cost of subsoil excavation. Contractor shall coordinate with county representative prior to any subsoil excavation.

- D. Embankment - General Requirements for Embankment Materials: The following is added after the first paragraph of Subarticle 120-7.2:

Roadway Design Standard Index No. 505, Embankment Utilization Details is modified by the addition of the following:

Any stratum or stockpile or soil which contains obvious pockets of highly organic material may be designated as muck or unsuitable for construction of subgrade by the Owner.

Backfill material containing more than 2.0% by weight of organic material, as determined by FM 1-T 267 and by averaging the test results for three randomly selected samples from each stratum or stockpile of a particular material, shall not be used in construction of the reinforced volume. If an individual test value of the three samples exceeds 3.0%, the stratum or stockpile will not be suitable for construction of the reinforced volume.

No A-8 material permitted in embankment.

#### Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0120 1 – Regular Excavation – Per Cubic Yard
- Bid Item No. 0120 5 – Channel Excavation (Lake Excavation) – Per Cubic Yard
- Bid Item No. 0120 6 – Embankment, Compacted in Place - Per Cubic Yard
  
- Bid Item No. 120-1 – Regular Excavation – Per Cubic Yard
- Bid Item No. 120-4 – Subsoil Excavation – Per Cubic Yard
- Bid Item No. 120-5 – Channel Excavation - Per Cubic Yard
- Bid Item No. 120-6 – Embankment - Per Cubic Yard

#### **SECTION 121 – FLOWABLE FILL**

The work specified in this item shall conform to Section 121 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0121 70 – Flowable Fill, – Per Cubic Yard

#### **SECTION 160 - STABILIZING**

- A. Section 160 is modified by the addition of the following:

"The stabilization thickness indicated on plans shall be considered a minimum thickness. Thickness will vary to conform to the lines, and grades shown in the plans."  
Minimum L.B.R. = 40 - No under-tolerance.

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0160 4 - Type B Stabilization - Per Square Yard  
Bid Item No. 160-4 - Type B Stabilization - Per Square Yard

**SECTION 285 - OPTIONAL BASE COURSE**

- A. Sub Article 285-4 is modified by the addition of the following:

Base material, thickness and requirements are described in the construction plans. Only one type of alternate base material shall be used. No additional payment will be made for base thickness in excess of the specified thickness

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 285709 – Optional Base, Base Group 09 – Per Square Yard  
Bid Item No. 285-709 – Cemented Coquina (LBR 100)(10”) - Per Square Yard

**SECTION 286 – TURNOUT CONSTRUCTION**

The work specified in this item shall conform to Section 286 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0286 1 – Turnout Construction – Per Square Yard  
Bid Item No. 0286 2 – Turnout Construction-Asphalt – Per Ton  
Bid Item No. 286-1 – Turnout Construction – Per Square Yard

**SECTION 334 - SUPERPAVE ASPHALT CONCRETE**

The work specified in this item shall conform to Section 334 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Sub article 334-8.1 through 334-8.3 – Basis of Payment shall be deleted in its entirety.

Sub article 334-8.4 – Payment shall be amended as follows:

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0334 1 13 – Superpave Asphaltic Concrete, Traffic C, SP-12.5, 1-3/4" Thick)  
– Per Square Yard

Bid Item No. 334-1-13 – Superpave Asphalt Concrete, (SP-12.5) (Traffic C) 1.75" Thick) - Per Ton

**SECTION 337 - ASPHALT CONCRETE FRICTION COURSES**

The work specified in this item shall conform to Section 337 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Sub article 337-12.1 through 337-12.3 – Basis of Payment shall be deleted in its entirety.

Sub article 337-12.4 – Payment shall be amended as follows:

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0337 7 82 – Asphaltic Concrete Friction Course, FC-9.5 (Traffic Level C), PG 76-22  
w/Polymer, 1-1/4", – Per Square Yard

Bid Item No. 337-7-82 – Asphaltic Concrete Friction Course (FC-9.5) (Traffic C) (1.25" Thick) – Per  
Ton

**SECTION 339 – MISCELLANEOUS ASPHALT PAVEMENT**

The work specified in this item shall conform to Section 339 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0339 1 - Miscellaneous Asphalt Pavement - Per Ton

Bid Item No. 339-1 - Miscellaneous Asphalt – Per Ton

Bid Item No. 339-1 - Miscellaneous Asphalt – Per Square Foot

Bid Item No. 339-1 - Miscellaneous Asphalt – Per Ton

### **SECTION 350 – CEMENT CONCRETE PAVEMENT**

The work specified in this item shall conform to Section 350 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 0350 3 5 – Plain Cement Concrete Pavement, 6" – Per Square Yard

### **SECTION 400 – CONCRETE STRUCTURES**

The work specified in this item shall conform to Section 400 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

##### *Roadway*

Bid Item No. 0400 1 2 – Concrete Class I, Endwalls - Per Cubic Yard

##### *Bridges*

Bid Item No. 400-2-4 – Class II Concrete for Closure Pours Between Deck Units – Per Cubic Yard

Bid Item No. 400-2-4 – Class II Concrete – Per Cubic Yard

Bid Item No. 400-2-5 – Class II Concrete for Pile Caps – Per Cubic Yard

Bid Item No. 400-2-10 – Class II Concrete – Per Cubic Yard

Bid Item No. 400-1-2 – Class I Concrete (Endwall) - Per Cubic Yard

Bid Item No. 400-2-2 – Class II Concrete (Endwall) – Per Cubic Yard

Bid Item No. 400-4-1 – Reinforced Concrete Box Culvert (12'X10') – Per Linear Foot

### **SECTION 415 – REINFORCING FOR CONCRETE**

The work specified in this item shall conform to Section 415 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 415-1-4 – Reinforcing Steel – Per Pound

Bid Item No. 415-1-5 – Reinforcing Steel – Per Pound

Bid Item No. 415-1-9 – Reinforcing Steel – Per Pound

## **SECTION 425 - INLETS, MANHOLES, AND JUNCTION BOXES**

The work specified in this item shall conform to Section 425 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 0425 1351 – Inlets, Curbs, Type P-5, <10' - Per Each
- Bid Item No. 0425 1361 – Inlets, Curb, Type P-6, <10' – Per Each
- Bid Item No. 0425 1451 – Inlets, Curb, Type J-5, <10' – Per Each
- Bid Item No. 0425 1461 – Inlets, Curb, Type J-6, <10 – Per Each
- Bid Item No. 0425 1521 – Inlets, Ditch Bottom, Type C6, <10 – Per Each
- Bid Item No. 0425 2 41 – Manholes, P-7, <10' – Per Each
- Bid Item No. 0425 2 71 – Manholes, J-7, <10' – Per Each
- Bid Item No. 0425 2 73 – Manholes, J-7, Partial – Per Each
- Bid Item No. IRC 3 – Control Structure – Per Each
- Bid Item No. IRC 4 – Conflict Structure – Per Each
- Bid Item No. 425-1-351 – Inlets (Curb) (Type P-5) (<10') - Per Each
- Bid Item No. 425-1-361 – Inlets (Curb) (Type P-6) (<10') - Per Each
- Bid Item No. 425-1-451 – Inlets (Curb) (Type J-5) (<10') - Per Each
- Bid Item No. 425-1-452 – Inlets (Curb) (Type J-5) (>10') - Per Each
- Bid Item No. 425-1-452A – Inlets (Curb) (Type J-5) (Control Structure w/Internal Weir) - Per Each
- Bid Item No. 425-1-461 – Inlets (Curb) (Type J-6) (<10') - Per Each
- Bid Item No. 425-1-462 – Inlets (Curb) (Type J-6) (>10') - Per Each
- Bid Item No. 425-1-521 – Inlets (DT Bot) (Type C) (<10') - Per Each
- Bid Item No. 425-1-521A – Inlets (DT Bot) (Type C) (<10') (Control Structure w/External Skimmer) - Per Each
- Bid Item No. 425-1-541 – Inlets (DT Bot) (Type D) (<10') - Per Each
- Bid Item No. 425-1-541A – Inlets (DT Bot) (Type D) (<10') (Control Structure w/External Skimmer) - Per Each
- Bid Item No. 425-1-543 – Inlets (DT Bot) (Type D) (<10') (w/J Bottom) - Per Each
- Bid Item No. 425-1-559 – Inlets (DT Bot) (Type E) (>10') (Control Structure w/Internal Weir) - Per Each
- Bid Item No. 425-1-581 – Inlets (DT Bot) (Type H) (<10') (Control Structure w/Internal Weir) - Per Each
- Bid Item No. 425-1-713 – Inlets (Gutter) (Valley) (J-Bottom) – Per Each
- Bid Item No. 425-1-910 – Inlets (Closed Flume) – Per Each
- Bid Item No. 425-2-61 – Manholes (P-8) (<10') – Per Each
- Bid Item No. 425-2-71 – Manholes (J-7) (<10') (Conflict Structure) – Per Each
- Bid Item No. 425-2-72 – Manholes (J-7) (>10') – Per Each



**SECTION 430 - PIPE CULVERTS**

The work specified in this item shall conform to Section 430 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

**Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. IRC 5 – Pipe Culvert, Schedule 80 PVC, Round, 8" – Per Linear Foot
- Bid Item No. 430175118 – Pipe Culvert, RCP, Round, 18" S/CD – Per Linear Foot
- Bid Item No. 430175118 – Pipe Culvert, CAP, Round, 18" S/CD – Per Linear Foot
- Bid Item No. 430175124 – Pipe Culvert, RCP, Round, 24" S/CD – Per Linear Foot
- Bid Item No. 430175124 – Pipe Culvert, CAP, Round, 24" S/CD – Per Linear Foot
- Bid Item No. 430175130 – Pipe Culvert, RCP, Round, 30" S/CD – Per Linear Foot
- Bid Item No. 430175130 – Pipe Culvert, CAP, Round, 30" S/CD – Per Linear Foot
- Bid Item No. 430175136 – Pipe Culvert, RCP, Round, 36" S/CD – Per Linear Foot
- Bid Item No. 430175142 – Pipe Culvert, RCP, Round, 42" S/CD – Per Linear Foot
- Bid Item No. 430175148 – Pipe Culvert, RCP, Round, 48" S/CD – Per Linear Foot
- Bid Item No. 430175160 – Pipe Culvert, RCP, Round, 60" S/CD – Per Linear Foot
- Bid Item No. 430982125 – Mitered End Section, RCP, 18" – Per Each
- Bid Item No. 430-175-115 – Pipe Culvert (RCP) (Round) (15" SS) – Per Linear Foot
- Bid Item No. 430-175-118 – Pipe Culvert (RCP) (Round) (18" SS) – Per Linear Foot
- Bid Item No. 430-175-118A – Pipe Culvert (CAP) (Round) (18" SS) – Per Linear Foot
- Bid Item No. 430-175-124 – Pipe Culvert (RCP) (Round) (24" SS) – Per Linear Foot
- Bid Item No. 430-175-124A – Pipe Culvert (CAP) (Round) (24" SS) – Per Linear Foot
- Bid Item No. 430-175-130 – Pipe Culvert (RCP) (Round) (30" SS) – Per Linear Foot
- Bid Item No. 430-175-130A – Pipe Culvert (CAP) (Round) (30" SS) – Per Linear Foot
- Bid Item No. 430-175-136 – Pipe Culvert (RCP) (Round) (36" SS) – Per Linear Foot
- Bid Item No. 430-175-136A – Pipe Culvert (CAP) (Round) (36" SS) – Per Linear Foot
- Bid Item No. 430-175-142 – Pipe Culvert (RCP) (Round) (42" SS) – Per Linear Foot
- Bid Item No. 430-175-142A – Pipe Culvert (CAP) (Round) (42" SS) – Per Linear Foot
- Bid Item No. 430-175-148 – Pipe Culvert (RCP) (Round) (48" SS) – Per Linear Foot
- Bid Item No. 430-175-148A – Pipe Culvert (CAP) (Round) (48" SS) – Per Linear Foot
- Bid Item No. 430-175-160 – Pipe Culvert (RCP) (Round) (60" SS) – Per Linear Foot
- Bid Item No. 430-175-166 – Pipe Culvert (RCP) (Round) (66" SS) – Per Linear Foot
- Bid Item No. 430-175-215 – Pipe Culvert (ERCP) (12"X18" SS) – Per Linear Foot
- Bid Item No. 430-175-218 – Pipe Culvert (ERCP) (14"X23" SS) – Per Linear Foot
- Bid Item No. 430-175-236 – Pipe Culvert (ERCP) (29"X45" SS) – Per Linear Foot
- Bid Item No. 430-200-43 – Flared End Section (Conc.) (60") – Per Each
- Bid Item No. 430-964-3 – PVC Pipe (8") (Sch 80) – Per Linear Foot
- Bid Item No. 430-982-123 – Mitered End Section (Conc.) (15" CD) – Per Each
- Bid Item No. 430-982-125 – Mitered End Section (Conc.) (18" CD) – Per Each
- Bid Item No. 430-982-623 – Mitered End Section (Conc.) (12"X18" CD) – Per Each
- Bid Item No. 430-982-625 – Mitered End Section (Conc.) (14"X23" CD) – Per Each

**SECTION 440 - UNDERDRAIN**

The work specified in this item shall conform to Section 440 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

**Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 0440 1 10 - Underdrain with Sock Filter (4" Diameter) - Per Linear Foot
- Bid Item No. 0440 1 10 - Underdrain with Sock Filter (8" Diameter) - Per Linear Foot
- Bid Item No. 0440 7 34 - Underdrain with Sock Filter (10" Diameter) - Per Linear Foot
- Bid Item No. 0440 7 34 - Underdrain with Sock Filter (12" Diameter) - Per Linear Foot
- Bid Item No. 440-1-60 – Rock Drain - Per Linear Foot

**SECTION 455 – STRUCTURES FOUNDATIONS**

The work specified in this item shall conform to Section 455 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

**Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 455-133-2 – 18" Square x 65'-0" Minimum (Test Pile – Abutment) – Per Linear Foot
- Bid Item No. 455-34-2 – 18" Square x 50'-0" Minimum (Abutment) – Per Linear Foot
- Bid Item No. 455-34-2 – 14" Square x 50'-0" Minimum (Wing Bent) – Per Linear Foot
- Bid Item No. 455-34-3 – 14" Square x 30'-0" Minimum (Wing Bent) – Per Linear Foot
- Bid Item No. 455-34-3 – 18" Square x 40'-0" Minimum (Abutment) – Per Linear Foot
- Bid Item No. 455-34-3 – 14" Square x 40'-0" Minimum (Wing Bent) – Per Linear Foot
- Bid Item No. 455-34-3 – 18" Square x 50'-0" Minimum (Test Pile – Intermediate Bent) – Per Linear Foot
- Bid Item No. 455-34-3 – 18" Square x 50'-0" Minimum (Abutment) – Per Linear Foot
- Bid Item No. 455-34-3 – 18" Square x 55'-0" Minimum (Test Pile – Abutment) – Per Linear Foot
- Bid Item No. 455-34-3 – 18" Square x 65'-0" Minimum (Test Pile – Intermediate Bent) – Per Linear Foot
- Bid Item No. 455-34-3 – 18" Square x 65'-0" Minimum (Test Pile – Abutment) – Per Linear Foot
- Bid Item No. 455-137 – Pile Dynamic Load Testing – Per Lump Sum
- Bid Item No. 455-14-5 – 8" x 8'-0" x 12'-0" Sheet Wall – Per Linear Foot
- Bid Item No. 455-133 – 8" x 8'-0" x 14'-0" Sheet Wall – Per Linear Foot

**SECTION 450 - STRUCTURAL STEEL AND MISCELLANEOUS METALS**

The work specified in this item shall conform to Section 450 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 12450-88-15 - PRESTRESSED PRECAST DECK UNITS (15" x 4'-5" x 14'-0") - Per Linear Foot
- Bid Item No. 12450-88-15 - PRESTRESSED PRECAST DECK UNITS (15" x 4'-8" x 14'-0") - Per Linear Foot
- Bid Item No. 12450-88-15 - PRESTRESSED PRECAST DECK UNITS (15" x 4'-5" x 34'-0") - Per Linear Foot
- Bid Item No. 12450-88-15 - PRESTRESSED PRECAST DECK UNITS (15" x 4'-8" x 34'-0") - Per Linear Foot
- Bid Item No. 12450-88-18 - PRESTRESSED PRECAST DECK UNITS (18" x 4'-3" x 36'-0") - Per Linear Foot
- Bid Item No. 12450-88-18 - PRESTRESSED PRECAST DECK UNITS (18" x 4'-6" x 36'-0") - Per Linear Foot

**SECTION 460 - STRUCTURAL STEEL AND MISCELLANEOUS METALS**

The work specified in this item shall conform to Section 460 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 460-70-2 - Aluminum Bicycle Bullet Barrier Railing - Per Linear Foot
- Bid Item No. 460-70-2 - ALUMINUM PEDESTRIAN BULLET BARRIER RAILING – Per Linear Foot
- Bid Item No. 460-70-2 - TEMPORARY BARRIER RAILING & HARDWARE– Per Linear Foot
- Bid Item No. 460-70-2 - CONCRETE TRAFFIC RAILING BARRIER (SHOULDER) WITH SPREAD FOOTING (INDEX NO. 410, SHEET NO. 5 OF 22) – Per Linear Foot
- Bid Item No. 460-70-2 - ALUMINUM BICYCLE BULLET BARRIER RAILING– Per Linear Foot

**SECTION 514 – PLASTIC FILTER FABRIC (GEOTEXTILE)**

The work specified in this item shall conform to Section 514 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 0514 71 2 – Plastic Filter Fabric, Stabilization – Per Square Yard

### **SECTION 520 - CONCRETE GUTTER, CURB ELEMENTS AND TRAFFIC SEPARATOR**

The work specified in this item shall conform to Section 520 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 0520 1 7 – Concrete Curb and Gutter, Type E (Modified) – Per Linear Foot

Bid Item No. 0520 1 10 – Concrete Curb and Gutter, Type F – Per Linear Foot

Bid Item No. 520-1-10 – Concrete Curb and Gutter (Type F) – Per Linear Foot

Bid Item No. 520-1-11 – Concrete Curb and Gutter (Type F) (Mod.) – Per Linear Foot

### **SECTION 521 – CONCRETE BARRIERS, TRAFFIC RAILING BARRIERS, AND PARAPETS**

The work specified in this item shall conform to Section 521 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 521-5-1 – Concrete Traffic Railing Barrier (32" F Shape) – Per Linear Foot

Bid Item No. 521-5-4 – Concrete Traffic Railing Barrier (32" Vertical Shape) – Per Linear Foot

Bid Item No. 521-72-3 – Shoulder Concrete Barrier Wall (Index 410 – Cantilevered Wall) – Per Linear Foot

### **SECTION 522 - CONCRETE SIDEWALK AND DRIVEWAYS**

The work specified in this item shall conform to Section 522 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 0522 1 – Sidewalk Concrete, 4" Thick (Fiber Reinforced) – Per Square Yard

Bid Item No. 0522 2 – Sidewalk Concrete, 6" Thick (Fiber Reinforced) – Per Square Yard

Bid Item No. 522-2 – Sidewalk Concrete, 6" Thick (Fiber Reinforced) – Per Square Yard

### **SECTION 523 – PATTERNED PAVEMENT**

The work specified in this item shall conform to Section 523 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 0523 2 – Patterned Pavement, Concrete Non-Vehicular Areas – Per Square Yard

### **SECTION 527 – DETECTABLE WARNINGS**

The work specified in this item shall conform to Section 570 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 527-2 – Detectable Warnings – Per Square Foot

### **SECTION 530 – RIPRAP**

The work specified in this item shall conform to Section 530 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 0530 3 3 – Riprap, Rubble, Bank and Shore – Per Ton

Bid Item No. 530-3-3 – (Rock Rubble) (Canal Excavation as Required Shall Be Included in the Cost of the Rock Rubble) – Per Ton

Bid Item No. 530-78 – (Revetment Mat) (Canal Excavation as Required Shall Be Included in the Cost of the Revetment) – Per Square Foot

Bid Item No. 530-78 – (Rock Rubble) (Canal Excavation as Required Shall Be Included in the Cost of the Slope Protection) – Per Square Foot

Bid Item No. 530-3-4 – Riprap, Rubble, (F&I) (Ditch Lining) – Per Ton

### **SECTION 536 – GUARDRAIL**

The work specified in this item shall conform to Section 536 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0536 1 1 – Guardrail – Roadway (Includes Pipe Rail Full Length) – Per Linear Foot
- Bid Item No. 0536 8 – Guardrail – Bridge Anchorage Assembly, Furnish & Install – Per Each
- Bid Item No. 0536 73 – Guardrail Removal - Per Linear Foot
- Bid Item No. 0536 82 – Guardrail Anchorage – Concrete Barrier Wall – Per Each
- Bid Item No. 0536 85 24 – Guardrail End Anchorage Assembly – Parallel – Per Each
- Bid Item No. 0536 85 25 – Guardrail End Anchorage Assembly – Type II – Per Each
- Bid Item No. 536-1-1 – Guardrail (Roadway) – Per Linear Foot
- Bid Item No. 536-85-22 – Guardrail End Anchorage Assembly (Melt) – Per Each
- Bid Item No. 536-85-25 – Guardrail End Anchorage Assembly (Type II) – Per Each
- Bid Item No. 536-85-30 – Guardrail End Anchorage Assembly (ET-2000) – Per Each

**SECTION 550 – FENCING**

The work specified in this item shall conform to Section 550 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0550 10222 – Fencing, Type B, 5.1-6.0, w/Vinyl Coating – Per Linear Foot
- Bid Item No. 0550 60214 – Fence Gate, Type B, Single, 18.1-20' Opening – Per Linear Foot
- IRC 7 – Relocate Existing Fence – Per Linear Foot
- Bid Item No. 550-10-110A – Fencing (Type A) (5.0') Standard – Per Linear Foot
- Bid Item No. 550-10-110B – Fencing (Type A) (4.0') Standard – Per Linear Foot
- Bid Item No. 550-10-220 – Fencing (Type B) (6.0') Standard – Per Linear Foot
- Bid Item No. 550-10-222 – Fencing (Type B) (6.0') (With Vinyl Coating) – Per Linear Foot
- Bid Item No. 550-10-410A – Fencing (Wood) (4.0') (3 Rail Split Rail) – Per Linear Foot
- Bid Item No. 550-10-410B – Fencing (Wood) (5.0') (3 Rail Split Rail) – Per Linear Foot
- Bid Item No. 550-60-213 – Fence Gate (Type B) (Single) (16.0' Opening) – Per Each
- Bid Item No. 550-60-225 – Fence Gate (Type B) (Double) (24.0' Opening) – Per Each
- Bid Item No. 550-60-912 – Fence Gate (Wood) (Single) (10.0' Opening) – Per Each

**SECTION 570 - PERFORMANCE TURF**

The work specified in this item shall conform to Section 570 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

- A. Description: Sod for the project shall be of the variety that is common to the area and of a variety approved by the Engineer. This work shall also include mowing, to be mowed at maximum 6" height with a mulching mower.
- B. Work Included: Scope of Work: The work specified in this section consists of the establishing of a stand of grass, within the project, right-of-way, easements, and other areas indicated on the Drawings, by furnishing and placing grass sod. Also included are fertilizing, watering and maintenance as required to assure a healthy stand of grass. Two applications of fertilizer will be required with the initial application being fertilizer and the second application being "weed and feed".
- C. Guarantee: All sodded areas shall be guaranteed for one year after date of final acceptance.

Replacement of Defective Sod: Any dead sod or sod showing (less than 95% of a square) indication of probable non survival or lack of health and vigor, or which do not exhibit the characteristics to meet specifications, shall be replaced within two weeks of notice from Owner or Engineer. All replacement sod shall be furnished/installed at no additional cost to the Owner and shall be guaranteed for three months. All replacement shall meet original specifications.

The Contractor shall notify the Owner and Engineer ten days prior to the end of the guarantee period and such guarantee shall be extended until notification is received.

At the end of the guarantee period, all sod that is dead or in unsatisfactory growth shall be replaced within two weeks.

- D. Fertilizer: Commercial fertilizers shall comply with the Indian River County Fertilizer Ordinance 2013-012 and Supplement Ordinance 2013-014 (see Appendix B).
- E. Water for Grassing: Contractor shall provide the water used in the sodding operations as necessary to meet the requirements of Article 570-3.6.
- F. Preparation of Ground: The area over which the sod is to be placed shall be scarified or loosened to a depth and then raked smooth and free from debris. Where the soil is sufficiently loose and clean, the Owner, at his discretion, may authorize the elimination of ground preparation.
- G. Application of Fertilizer: Before applying fertilizer, the soil pH shall be brought to a range of 6.0 - 7.0.

Contractor shall apply two (2) applications. The initial shall be fertilizer and the second application shall be "weed and feed".

The fertilizer shall be spread uniformly over the sodded area at the rate of 436 pounds per acre, or 10 pounds per 1,000 square feet, by a spreading device capable of uniformly distributing the material at the specified rate.

Contractor shall apply applications as per manufacturer's specification. All tickets from bags shall be handed over to the County Inspector.

On steep slopes, where the use of a machine for spreading or mixing is not practicable, the fertilizer shall be spread by hand and raked in and thoroughly mixed with the soil to a depth of approximately 2 inches.

- H. Placing Sod: The sod shall be placed on the prepared surface, with edges in close contact and shall be firmly and smoothly embedded by light tamping with appropriate tools.

Where sodding is used in drainage ditches, the setting of the pieces shall be staggered so as to avoid a continuous seam along the line of flow. Along the edges of such staggered areas, the offsets of individual strips shall not exceed 6 inches. In order to prevent erosion caused by vertical edges at the outer limits, the outer pieces of sod shall be tamped so as to produce a featheredge effect.

Where sodding is placed abutting paved shoulder, the contractor is to ensure that the finished sod elevation is 1½" below paved shoulder.

On slopes greater than 3:1, the Contractor shall prevent the sod from sliding by means of wooden pegs driven through the sod blocks into firm earth, at suitable intervals.

Sodding shall not be performed when weather and soil conditions are, in the Engineer's opinion, unsuitable for proper results.

Sod shall be placed around all structures, equipment pads, etc.

- I. Watering: The areas on which the sod is to be placed shall contain sufficient moisture, as determined by the Engineer, for optimum results. After being placed, the sod shall be kept in a moist condition to the full depth of the rooting zone for at least 2 weeks. Thereafter, the Contractor shall apply water as needed until the sod roots and starts to grow for a minimum of 60 days (or until final acceptance, whichever is latest).

- J. Maintenance: The Contractor shall, at his expense, maintain the sodded areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include repairing of any damaged areas and replacing areas in which the establishment of the grass stand does not appear to be developing satisfactorily.

Replanting or repair necessary due to the Contractor's negligence, carelessness or failure to provide routine maintenance shall be at the Contractor's expense.

The Contractor shall maintain the sodded area up to the final acceptance date as directed by the Engineer. Grass height shall not exceed 6" without mowing. Clippings shall be removed from sidewalk.

- K. Article 570-9. The first two paragraphs under this Article are deleted and the following is added:

The contract unit price for performance turf shall include the costs of sod, fertilizer (2 applications), sidewalk sweeping after mowing, mowing, pegging disposal of clippings, water, tools, equipment, labor and all other incidentals necessary.

### Item of Payment



Payment for the work specified in this item shall be made under:

- Bid Item No. 0570 1 1 – Performance Turf - Per Square Yard
- Bid Item No. 0570 1 2 – Performance Turf, Sod - Per Square Yard
- Bid Item No. 570-1-2A – Performance Turf (Sod) (Bahia) - Per Square Yard
- Bid Item No. 570-1-2 – Sod – Per Square Yard

### **SECTION 580 – LANDSCAPE AND IRRIGATION**

The work specified in this item shall be performed per the landscaping and irrigation plans.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 580-1-1 – Landscape Complete (Small Plants) – Per Each
- Bid Item No. 580-1-2 – Landscape Complete (Large Plants) – Per Each
- Bid Item No. 1 – Irrigation Complete – Per Lump Sum
- Bid Item No. 580-1-1 – Landscape (Small) – Per Each
- Bid Item No. 580-1-2 – Landscape (Large) – Per Each

### **SECTION 590 – IRRIGATION**

The work specified in this item shall be performed per the irrigation plans.

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 590-70 – Irrigation Complete – Per Lump Sum

### **SECTION 630 - CONDUIT**

The work specified in this item shall conform to Section 630 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 630-2-11 – Conduit (Signal) (F&I) (Open Trench) - Per Linear Foot
- Bid Item No. 630-2-11A – Conduit (Open Trench) (F&I) (2") – Per Linear Foot
- Bid Item No. 630-2-11B – Conduit (Open Trench) (F) (2") – Per Linear Foot

Bid Item No. 630-2-12 – Conduit (Signal) (F&I) (Directional Bore) – Per Linear Foot

### **SECTION 632 – SIGNAL CABLE**

The work specified in this item shall conform to Section 632 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 632-7-1 – Cable (Signal) (F&I) – Per Intersection

### **SECTION 633 – COMMUNICATION CABLE**

The work specified in this item shall conform to Section 632 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 633-1-123 – Fiber Optic Cable (F&I) (Underground) (49-96 Fibers) Per Linear Foot

Bid Item No. 633-2-31 – Fiber Optic Connection (Splice) - Per Each

Bid Item No. 633-2-32 – Fiber Optic Connection (Termination) – Per Each

### **SECTION 635 – PULL, SPLICE AND JUNCTION BOXES**

The work specified in this item shall conform to Section 635 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 635-2-11 – Pull Box (F&I) (Traffic Signal) – Per Each

Bid Item No. 635-2-12 – Pull and Splice Box (F&I) (17"X30") (Pull Box) – Per Each

Bid Item No. 635-2-13 – Pull and Splice Box (F&I) (30"X48") (Slack Box) – Per Each

### **SECTION 639 – ELECTRICAL POWER SERVICE ASSEMBLIES**

The work specified in this item shall conform to Section 639 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 639-1-111 – Electrical Power Service (Signals) (Above Ground) (Meter Purchased by Contractor – Per Assembly
- Bid Item No. 639-1-610 – Electrical Power Service (Signals) (Above Ground) (Remove) – Per Assembly
- Bid Item No. 639-2-1 – Electrical Service Wire (F&I) – Per Lump Sum
- Bid Item No. 639-3-11 – Electrical Service Disconnect (F&I) (Pole Mounted) - Per Each

### **SECTION 641 - PRESTRESSED CONCRETE POLES**

The work specified in this item shall conform to Section 641 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 641-2-12 – Prestressed Conc. Pole (F & I) (Type P-II Service Pole) –Per Each

### **SECTION 646 - ALUMINUM POLES, PEDESTALS, AND POSTS**

The work specified in this item shall conform to Section 646 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 646-4-11 – Aluminum Signal Poles (Pedestal) – Per Each

## **SECTION 649 - GALVANIZED STEEL POLES, MAST ARMS AND MONOTUBE ASSEMBLIES**

The work specified in this item shall conform to Section 649 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 649-31-106 – Mast Arm (F&I) (Wind Speed 150) (Single Arm W/ Luminaire) (36') – Per Each
- Bid Item No. 649-31-107 – Mast Arm (F&I) (Wind Speed 150) (Single Arm W/ Luminaire) (46') – Per Each
- Bid Item No. 649-31-108 – Mast Arm (F&I) (Wind Speed 150) (Single Arm W/ Luminaire) (60') – Per Each
- Bid Item No. 649-31-109 – Mast Arm (F&I) (Wind Speed 150) (Single Arm W/ Luminaire) (70.5') – Per Each

## **SECTION 650 - VEHICULAR TRAFFIC SIGNAL ASSEMBLIES**

The work specified in this item shall conform to Section 650 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

### **Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 650-1-34 – Traffic Signal (F&I) (Polycarbonate) (3-Section) (1-Way) – Per Assembly
- Bid Item No. 650-1-38 – Traffic Signal (F&I) (Polycarbonate) (5-Section) (1-Way) (Straight)– Per Assembly

## **SECTION 653 - PEDESTRIAN SIGNAL ASSEMBLIES**

The work specified in this item shall conform to Section 653 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 653-1-11 – Pedestrian Signal (F&I) (LED Countdown) (1-Way) - Per Assembly

Bid Item No. 653-1-12 – Pedestrian Signal (F&I) (LED Countdown) (2-Way) - Per Assembly

### **SECTION 660 - VEHICLE DETECTION SYSTEM**

The work specified in this item shall conform to Section 660 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 660-4-11 – Vehicle Detection System (F&I) (Video) (Cabinet Equipment) – Per Each

Bid Item No. 660-4-12 – Vehicle Detection System (F&I) (Video) (Above Ground Equipment) –  
Per Each

### **SECTION 665 - PEDESTRIAN DETECTION SYSTEM**

The work specified in this item shall conform to Section 665 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 665-1-11 – Pedestrian Detector (F&I) (Standard) – Per Each

### **SECTION 670 - TRAFFIC CONTROLLER ASSEMBLIES**

The work specified in this item shall conform to Section 670 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

#### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 670-5-111 – Traffic Controller Assembly (F & I) (NEMA) (One Preemption Plan) -  
Per Assembly

Bid Item No. 670-5-600 – Traffic Controller Assembly (Remove Controller with Cabinet) - Per

## Assembly

**SECTION 682 - VIDEO EQUIPMENT**

The work specified in this item shall conform to Section 682 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

The Contractor shall use "Bosch 800 series" video surveillance cameras only.

**Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 682-1-133 – ITS CCTV (F&I) (Dome Enclosure) (Non-Pressurized) (IP) (HD) – Per Each

**SECTION 684 - NETWORK DEVICES**

The work specified in this item shall conform to Section 684 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

**Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 684-1-1 – Managed Ethernet Switch (F&I) – Per Each

**SECTION 685 - TRAFFIC CONTROL SYSTEM AUXILIARIES**

The work specified in this item shall conform to Section 685 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and to the Minimum Specification for Traffic Control Signal Devices (MSTCSD) be listed on the Florida Department of Transportation Approved Product List (APL).

**Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 685-1-13 – Uninterruptable Power Supply (F&I) (Line Interactive with Cabinet) – Per Each

**SECTION 700 - HIGHWAY SIGNING**

- A. Signing for traffic control shall conform to the requirements of the Standard Specifications, Manual on Uniform Traffic Control Devices, Supplemental Specifications, Roadway and Traffic Design Standards, manufacturer's specifications.
- B. Traffic Signs: All existing signs which are the property of the Owner shall be transported to the Indian River County Road and Bridge Maintenance Yard by the Contractor during construction if they are within the construction limits. Care shall be exercised by the Contractor during removal, storage and relocation so as not to damage the signs. If any damage occurs, as determined by the Owner's Engineer or Resident Construction Inspector, the sign shall be replaced by the Contractor with no compensation.

**Item of Payment**

Payment shall be made under:

- Bid Item No. 0700 20 11 – Single Post Sign, F&I, Less than 12 SF – Per Assembly  
 Bid Item No. 0700 20 13 – Single Post Sign, F&I, 21-30 SF – Per Assembly  
 Bid Item No. 0700 1 50 – Single Post Sign, Relocate – Per Assembly  
 Bid Item No. 0700 1 60 – Single Post Sign, Remove – Per Assembly  
 Bid Item No. 0700-5-22 – Internally Illuminated Sign (F&I) (Overhead Mount, 12-18 SF) – Per Each  
 Bid Item No. 700-1-11 – Single Post Sign (Furnish & Install) (Less than 12 SF) –Per Assembly  
 Bid Item No. 700-2-12 – Single Post Sign (Furnish & Install) (12-20 SF) – Per Assembly  
 Bid Item No. 700-5-22 – Internally Illuminated Sign (F & I) (Overhead Mount, 12-18 SF) – Per Each

**SECTION 705 – OBJECT MARKERS AND DELINEATORS**

The work specified in this item shall conform to Section 705 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

**Item of Payment**

Payment for the work specified in this item shall be made under:

- Bid Item No. 705-10-4 – Object Marker, Type 4 – Per Each

**SECTION 706 - RAISED RETROREFLECTIVE PAVEMENT MARKERS AND BITUMINOUS ADHESIVE**

The work specified in this item shall conform to Section 706 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

- A. All reflective pavement markers shall be 4" x 4".

Item of Payment

Payment shall be made under:

- Bid Item No. 0706 3 – Retro Reflective Pavement Markers, (Amber/Amber) – Per Each
- Bid Item No. 0706 3 – Retro Reflective Pavement Markers, (White/Red) – Per Each
- Bid Item No. 706-3 – Retro Reflective Pavement Markers – Per Each

**SECTION 711 - THERMOPLASTIC PAVEMENT MARKINGS**

The work specified in this item shall conform to Section 711 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 0711 11102 – Thermoplastic, Standard, White, Solid, 6" – Per Net Mile
- Bid Item No. 0711 11102 – Thermoplastic, Standard, White, Solid, 8" – Per Net Mile
- Bid Item No. 0711 11123 – Thermoplastic, Standard, White, Solid, 12" – Per Net Mile
- Bid Item No. 0711 11124 – Thermoplastic, Standard, White, Solid, 18" – Per Linear Foot
- Bid Item No. 0711 11125 – Thermoplastic, Standard, White, Solid, 24" – Per Linear Foot
- Bid Item No. 0711 11131 – Thermoplastic, Standard, White, Skip, 6", 10-30 Skip– Per Gross Mile
- Bid Item No. 0711 11131 – Thermoplastic, Standard, White, Skip, 6", 6-10 Skip– Per Linear Foot
- Bid Item No. 0711 14170 – Thermoplastic, Standard, White, Arrow – Per Each
- Bid Item No. 0711 14170 – Thermoplastic, Standard, White, Arrow, U-Turn – Per Each
- Bid Item No. 0711 15202 – Thermoplastic, Standard, Yellow, Solid, 6" – Per Net Mile
- Bid Item No. 0711 11224 – Thermoplastic, Standard, Yellow, Solid, 18" – Per Linear Foot
- Bid Item No. 0711 11241 – Thermoplastic, Standard, Yellow, Dotted/Guideline/6-10 Gap Extension 6" – Per Linear Foot
- Bid Item No. 711-11-121 – Thermoplastic, Std, White, Solid, 6" – Per Linear Foot
- Bid Item No. 711-11-122 – Thermoplastic, Std, White, Solid, 8" – Per Linear Foot
- Bid Item No. 711-11-123 – Thermoplastic, Std, White, Solid, 12" – Per Linear Foot
- Bid Item No. 711-11-124 – Thermoplastic, Std, White, Solid, 18" – Per Linear Foot
- Bid Item No. 711-11-125 – Thermoplastic, Std, White, Solid, 24" – Per Linear Foot
- Bid Item No. 711-11-131 – Thermoplastic, Std, White, Skip, (10'-30') 6" – Per Linear Foot
- Bid Item No. 711-11-141 – Thermoplastic, Std, White, Skip, (2'-4' / 6'-10') 6" – Linear Foot
- Bid Item No. 711-11-160 – Thermoplastic, Std, White, Message – Per Each
- Bid Item No. 711-11-170 – Thermoplastic, Std, White, Arrow – Per Each
- Bid Item No. 711-11-221 – Thermoplastic, Std, Yellow, Solid, 6" – Per Linear Foot
- Bid Item No. 711-11-224 – Thermoplastic, Std, Yellow, Solid, 18" – Per Linear Foot



Bid Item No. 711-11-241 – Thermoplastic, Std, Yellow, Skip, (2'-4' / 6'-10') 6" – Per Linear Foot

## **SECTION 715 – HIGHWAY LIGHTING SYSTEM**

The work specified in this item shall conform to Section 715 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

### **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. 715-2117 – 2" Diameter PVC Conduit – Per Linear Foot

Bid Item No. 715-2117 – 4" Diameter PVC Conduit – Per Linear Foot

Bid Item No. 715-1-11 – Lighting Conductors (F&I) (Insulated, No.10 or <) – Per Linear Foot

## **SECTION 999 - RECORDS/AS-BUILTS**

### **GENERAL**

Maintain, prepare and provide the ENGINEER with record documents as specified below, except where otherwise specified or modified within the scope of work provided in the specific project contract documents. The Contractor and/or Developer shall be responsible for, and required to provide, Record Drawings as outlined in this section.

### **MAINTENANCE OF RECORD DOCUMENTS:**

1. Maintain in CONTRACTOR's field office in clean, dry, legible condition complete sets of the following project documents: Drawings, Specifications, Addenda, approved Shop Drawings, samples, photographs, Change Orders, other modifications of Contract Documents, test records, survey data, Field Orders, and all other documents pertinent to CONTRACTOR'S Work.
2. Provide files and racks for proper storage and easy access.
3. Make documents available at all times for inspection by ENGINEER and OWNER.
4. Do not use record documents for any other purpose and do not remove them from the field office.
5. Label each document "RECORD DRAWING" in 2-inch high printed letters.
6. Keep record documents current at all times.
7. No work shall be permanently concealed until the required record data has been obtained.

### **RECORD / AS-BUILT DRAWINGS**

- A. During the construction operation, the CONTRACTOR shall maintain records of all deviations from the approved Project Plans and Specifications and shall prepare therefrom "RECORD"

drawings showing correctly and accurately all changes and deviations from the work made during construction to reflect the work as it was actually constructed.

- B. The Record/As-Built survey shall be performed and subsequent plans prepared by a Professional Surveyor and Mapper, registered in the state of Florida and certified to the standards set forth in Chapter 472, Florida Statutes and Chapter 5J-17.050 Florida Administrative Code (Florida Minimum Technical Standards).
- C. Field measurements of vertical or horizontal dimensions of constructed improvements shall be obtained so that the constructed facility can be delineated in such a way that the location of the construction may be compared with the construction plans. Clearly shown by symbols, notations, or delineations, those constructed improvements located by the survey.
- D. All vertical information (elevations) provided on the Record Drawings shall be referenced to the North American Vertical Datum of 1988 (NAVD 88) unless otherwise specified by the Project Engineer.
- E. The horizontal information provided on the Record Drawings shall be referenced to the State of Florida, State Plane Coordinate System, Florida East Zone as established by Global Positioning System (GPS) which meets or exceeds Third Order Class I Accuracy Standards according to current publication of the Federal Geodetic Control Committee (FGCC) procedures.
- F. All Record/As-Built drawings shall be prepared in digital format (ACAD Civil 3D 2013) and shall utilize the digital design drawings as prepared by the Project Engineer as a base for the Record/As-Built drawings. It is the responsibility of the Surveyor to request these files from the Contractor or Project Owner in order to produce the Record/As-Built drawing set.
- G. ALL improvements proposed to be constructed as shown on the approved construction plans shall be field measured upon completion and shown on the Record/As-Built survey. Any improvements that appear in both plan and profile views shall show the Record/As-Built information in both views.
- H. The following items are required to be shown on all Indian River County project Record/As-Built drawings submitted to the County:

**DRAINAGE:**

1. Right-of-way Swale/Drainage – All culvert inverts, elevations and station offsets; inlet grate and bottom elevations; swale beginning and end bottom elevations; and highs and lows along top of bank. Size of swale.
2. Pipe Culvert/PVC Sleeves – All inverts, pipe size, stations and offsets.
3. Outfalls – All pipe inverts, pipe size, elevations and station offsets, weir box elevations, weir elevation, bleeder elevation and sizes.

4. Roadway/Off Site Drainage – All inverts, elevations and station offsets; manhole top elevation; grate top elevations.
5. Retention Ponds – Provide perimeter elevations, grade breaks, depths and calculated pond areas at control elevation and grade breaks above and below water surface. Show as-built of typical cross section as shown on design plan.

### **ROADWAY:**

1. Stations and offsets related to controlling baseline and elevations of all structures, side street and major driveway radius returns (edge of pavement), bends and/or change in direction of roadway alignment, minimum of 1000' intervals along roadway alignment.
2. Elevations along Profile Grade Line (PGL), of all edge of pavements on each side of Profile Grade Line (PGL), at medians at the high/low and PVI points along Profile Grade Line (PGL).
3. All final Elevations to be plotted on PGL AND Plan & Profile sheets as applicable.
4. Elevations of edge of pavement and flow line at curb inlets and on the adjacent edge of pavement at curb inlets.

### **WATER, FORCE, AND RECLAIMED WATER MAINS:**

1. Show size and type of material used to construct mains.
2. Show horizontal location and elevation of all tees, crosses, bends, terminal ends, valves, fire hydrants, air release valves, and sampling points, etc., by distances from known reference points.
3. Show location, size and type of material of all sleeves and casing pipes.
4. Elevation and horizontal location of all storm sewers, gravity sewers including laterals, force mains, water mains, etc. which are crossed; including clearance dimension at all conflicts or crossings.
5. Top of pipe elevation and horizontal location of all water and force main stub-outs.
6. Horizontal location of all services at the property lines.
7. Horizontal and vertical location of pipe including size of all mains and ground elevation shall be obtained at one-hundred (100) foot intervals. Contractor shall place temporary PVC stand pipes (tell-tales) at each of the one-hundred (100) foot intervals and at all fittings and conflicts/crossings to facilitate the record drawing survey. The tell-tale pipes shall be constructed of 2-inch PVC pipe, shall be placed on the top of the pipes to be surveyed, and shall be removed by the Contractor after completion of the field survey by the "As-Built" Professional Surveyor.
8. Location of fire lines.
9. Dedicated easement locations, identified by O.R. Book and Page Number.

### **GRAVITY SEWER:**

1. Manholes: Elevation of top rim, bottom elevation and invert of each influent and effluent line.

2. Show distance between manholes center-to-center and horizontal location by baseline station and offset.
3. Show material size and type used to construct sewer mains.
4. Show length (center of manhole to end of stub) distances from known reference points or baseline offsets, and elevation of stub-outs.
5. Show which services have twenty (20) foot length of DIP at water main crossings.
6. Show station and offset location of sanitary services' at property line. Particular care in dimensioning needed in special situations, i.e., cul-de-sacs and locations where services are not perpendicular to wye.
7. Show invert elevation of sanitary service at property line.
8. Any and all necessary dedicated easement locations, identified by O.R. Book and Page Number.

### **PUMP / LIFT STATION:**

Record Drawings shall show elevations for the top and bottom and diameter of wet well along with invert of effluent line. Record Drawings should also indicate the make, model number, horsepower, impeller and condition point of pumps selected and installed, shape of wet well, location of control panel, location of pump out connection, float level settings, any deviation from the plans, and serial number(s) of the pump(s).

### **SURVEY CONTROL**

1. Install/re-establish: It shall be the contractor's responsibility to hire a Professional Surveyor and Mapper as defined per Chapter 472, Florida Statutes, to replace any horizontal and vertical control shown on the engineering plans that was destroyed during construction.
2. New roadway alignment control points (survey baseline or controlling line and all points as indicated on the plans or control sheet) upon final roadway completion. Include all intersections and side streets. State plane coordinates and elevations for all control points.
3. If shown on plans or not: Any Public Land Corner or Governmental Survey Control point(s), vertical control (bench marks), property corners destroyed and/or disturbed during the scope of the project shall be properly re-established as per standards as set forth within Florida Statutes, Administrative code and Minimum Technical Standards for that type of survey. All said surveying mentioned above shall be performed under the direct supervision of a registered Professional Surveyor and Mapper in the state of Florida and certified accordingly. Said Governmental agency(s) shall be notified in writing of disturbance and re-establishments.

## **RECORD/AS-BUILTS DRAWINGS FORMAT - SUBMITTAL**

- A. ENGINEER will supply the CONTRACTOR with the electronic file of the approved construction plans for the input of the As-Built (record) information.
- B. CONTRACTOR shall deliver seven (7) certified sets of Record/As-Builts with Electronic Drawing files prepared in AutoCAD Civil 3D 2013 AND PDF format or in current version as agreed by the ENGINEER.
- C. CONTRACTOR's surveyor shall review, sign and seal As-Builts or Record drawing(s). Said drawing(s) shall clearly state type of survey, positional tolerances, adhere and be certified to by a registered Professional Surveyor and Mapper in the state of Florida, any standards set forth by Florida Statutes, Administrative code and Minimum Technical Standards for As-Built/Record surveys.
- D. All Record/As-Built drawings are subject to review and approval by County Surveyor.

## **ACCURACY**

The CONTRACTOR will be held responsible for the accuracy and completeness of Record Drawings and Electronic As-Builts and shall bear any costs incurred in finding utilities as a result of incorrect data furnished by the CONTRACTOR.

## **COMPLETION OF WORK**

Upon Substantial Completion of the Work, deliver Record Drawings/As-Built Drawings to ENGINEER. Final payment will not be made until satisfactory record documents are received and approved by ENGINEER.

## **AERIAL PHOTOGRAPH**

The CONTRACTOR shall provide aerial photographs of the project every 30 days during construction. The photographs shall be done in a manner to show the construction progress for the entire length of the project. The photographs can be angled and not prepared to a particular scale, however, must be detailed enough to identify the work in detail.

## **Item of Payment**

Payment for the work specified in this item shall be made under:

Bid Item No. IRC 6 – Record Drawings – Per Lump Sum

Bid Item No. 108-1 – Construction Layout/Record Drawings – Per Lump Sum

**Board of Professional Surveyors and Mappers**  
**Record As-Built Survey Checklist**

Lic. Name \_\_\_\_\_ Date: \_\_\_\_\_

Project Name: **66th AVENUE ROADWAY WIDENING (49<sup>TH</sup> STREET TO 69<sup>TH</sup> STREET)**

Project No.: **IRC-1505**

Chapter 61G17-6 Minimum Technical Standards F.A.C.

61G17-6.003 General Survey, Map, and Report Content Requirements

☐ **(1) REGULATORY OBJECTIVE: The public must be able to rely on the accuracy of measurements and maps produced by a surveyor and mapper. In meeting this objective, surveyors and mappers must achieve the following minimum standards of accuracy, completeness, and quality:**

☐ **(a) Accuracy of survey measurements based on the type of survey and expected use.**

☐ **(b) Measurements made in accordance with the United States standard, feet or meters.**

☐ **(c) Records of measurements maintained for each survey (check field notes.)**

☐ **(d) Measurement and computation records dated.**

☐ **(e) Measurement and computation records substantiate the survey map.**

☐ **(f) Measurement and computation records support accuracy statement (closure calculations or redundant measurements, if applicable.)**

**(2) Other More Stringent Requirements:**

☐ **(a) Met more stringent requirements set by federal, state, or local governmental agencies.**

**(3) Other Standards and/or Requirements that Apply to All Surveys, Maps, and/or Survey Products:**

☐ **(a) REGULATORY OBJECTIVE: In order to avoid misuse of a survey and map, the surveyor and mapper must adequately communicate the survey results to the public through a map, report, or report with an attached map.**

**(b) Survey map or report identified the responsible surveyor and mapper and contain standard content. In meeting this objective, surveyors and mappers must meet the following minimum standards of accuracy, completeness, and quality:**

**☐ (c) Type survey stated on map and report:**

**As-Built Survey**

**Construction Layout Survey**

**Boundary Survey**

**Control Survey**

**Condominium Survey**

**Hydrographic Survey**

**Mean High Water Line Survey**

**Specific or Special Purpose Survey**

**Quantity Survey**

**Topographic Survey**

**Record Survey**

**☐ (d) Name, certificate of authorization number, and street and mailing address of the business entity on the map and report.**

**☐ (e) Name and license number of the surveyor and mapper in responsible charge.**

**☐ (f) Name, license number, and street and mailing address of a surveyor and mapper practicing independent of any business entity on the map and report.**

**☐ (g) Survey date (date of data acquisition.)**

**☐ (h) Revision date for any graphic revisions (when survey date does not change.)**

**☐ (i) Map and report statement “Survey map and report or the copies thereof are not valid without the signature and the original raised seal of a Florida licensed surveyor and mapper.”**

**☐ (j) Insurance statement in ¼” high letters “The survey depicted here is not covered by professional liability insurance” if there is no professional liability insurance.**

**☐ (k) Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.**

**☐ (l) All computed data or plotted features shown on survey maps supported by accurate survey measurements unless clearly stated otherwise.**

**☐ (m) Bearings, distances, coordinates, and elevations shown on a survey map shall be substantiated by survey measurements unless clearly stated otherwise.**

**☐ (n) Bearing reference (well established and monumented line)**

**☐ (o) A designated “north arrow”**

**☐ (p) Stated scale or graphic scale**

**☐ (q) Abbreviations in legend or notes.**

**☐ (r) Special conditions and any necessary deviation from the standards noted upon the map or report.**

**☐ (s) Responsibility for all mapped features stated on the map or report**

**☐ (t) Map or report clearly states the individual primarily responsible for the map or report when mapped features have been integrated with others.**

**(u) Map Accuracy.**

**(1) Vertical Feature Accuracy:**

- ☐ **(a) Vertical Control:** Field-measured control for elevation information shown upon survey maps or reports shall be based on a level loop or closure to a second benchmark.
- ☐ **(b) Closure in feet must be accurate to a standard of plus or minus .05 ft. times the square root of the distance in miles.**
- ☐ **(c) All surveys and maps or reports with elevation data shall indicate the datum and a description of the benchmark(s) upon which the survey is based.**
- ☐ **(d) Minor elevation data may be obtained on an assumed datum provided the base elevation of the datum is obviously different than the established datum.**

**(2) Horizontal Feature Accuracy:**

- ☐ **(a) Horizontal Control:** All surveys and maps or reports expressing or displaying features in a publicly published coordinate system shall indicate the coordinate datum and a description of the control points upon which the survey is based.
- ☐ **(b) Minor coordinate data may be obtained and used on an assumed datum provided the numerical basis of the datum is obviously different than a publicly published datum.**
- ☐ **(c) The accuracy of control survey data shall be verified by redundant measurements or traverse closures. All control measurements shall achieve the following closures:**  
  
**Commercial/High Risk Linear: 1 foot in 10,000 feet;**  
**Suburban: Linear: 1 foot in 7,500 feet;**  
**Rural: Linear: 1 foot in 5,000 feet;**
- ☐ **(d) When statistical procedures are used to calculate survey accuracies, the maximum acceptable positional tolerance, based on the 95% confidence level, should meet the same equivalent relative distance standards as set forth in 61G17- 6.003(3)(p)(2.) (c) F.A.C.**
- ☐ **(e) Intended Display Scale:** All maps or reports of surveys produced and delivered with digital coordinate files must contain a statement to the effect of: "This map is intended to be displayed at a scale of 1/\_\_\_ or smaller".



## 61G17-6.004 Specific Survey, Map, and Report Requirements

### (1) As-Built/Record Survey:

- ☐ (a) Obtained field measurements of vertical or horizontal dimensions of constructed improvements so that the constructed facility can be delineated in such a way that the location of the construction may be compared with the construction plans.
- ☐ (b) Clearly shows by symbols, notations, or delineations, those constructed improvements located by the survey.
- ☐ (c) All maps prepared shall meet applicable minimum technical standards.
- ☐ (d) Vertical and horizontal accuracy of the measurements made shall be such that it may be determined whether the improvements were constructed consistent with planned locations.

(END OF SECTION)

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