

TECHNICAL SPECIAL PROVISIONS

Florida Department of Transportation 2017 Standard Specifications for Road and Bridge Construction (Standard Specifications), as approved and adopted by FDOT, shall govern all work on this Project except that the General Requirements and Covenants Division of the Standard Specifications, is deleted and replaced by the Instructions to Bidders and General Conditions Sections of this Contract. All references to sections or articles of the General Requirements and Covenants Division of the Standard Specifications shall be considered as references to parallel sections of the General Conditions Section of this Contract or shall be dealt with in accordance with COUNTY policy or determinations.

The Construction Details and Materials Divisions of the Standard Specifications shall govern all work on this Project except as amended in the Special Provisions and the Technical Special Provisions. The Standard Specifications and Project plans are English units of measure. References in the Standard Specifications to the DEPARTMENT shall be considered as references to the COUNTY.

DIVISION I Construction Details

TSP-100 **CONSTRUCTION EQUIPMENT - GENERAL REQUIREMENTS.**

100-3 **Experimental Equipment.**
This section is deleted.

TSP-101 **MOBILIZATION**

This article is revised as follows

101-1 **Description**

This article applies with the addition that mobilization shall include those operations necessary for the movement of incidentals to and from the Project site. The cost of the final cleanup and demobilization shall also be included.

Delete the last paragraph of this section. Payment for the costs of bonds and insurance will be made under **Bid Item No.1000-2, Bonds and Insurance, Lump Sum** (see the General Conditions for the bond and insurance requirements of this bid item).

101-2-2 **Partial Payments**

101-2-3 **When No Separate Items is Included in the Proposal**

These subsections are deleted

Add the following sections

101-3 **Mail Box Relocation**

The CONTRACTOR shall provide daily, temporary access to all existing mailboxes or temporarily relocate the mailboxes. Temporary access, temporary relocation, and/or a temporary mail service scheme shall be to the satisfaction of the U.S. Postal Service and the property owner recipient and shall be subject to acceptance by the COUNTY.

Upon completion of the Project, the CONTRACTOR shall place the mailboxes in a permanent location to the satisfaction of the property owner and the U.S. Postal Service.

The installation of all mailboxes shall be in accordance with the latest version of the AASHTO publication, "A Guide for Erecting Mailboxes on Highways," and the servicing office of the U.S. Postal Service.

No direct payment will be made for the relocation of mailboxes required under the Contract. Payment for the relocation of mailboxes shall be included in the cost of all Contract Bid Items.

101-4 **Job Signs**

The COUNTY shall furnish one (1) 4' X 8' job signs - one (1) for each Project location. The CONTRACTOR shall install the Job Signs at the locations designated by the COUNTY'S Project Manager. The CONTRACTOR shall furnish two (2) 4" X 4" X 12' pressure-treated posts per sign and any and all required labor, materials, and equipment to install each sign. All signs shall be located outside the roadway clear zone and clear-sight triangle. The signs shall be the property of the CONTRACTOR for the duration of the Project and shall be maintained by the CONTRACTOR to the satisfaction of the COUNTY'S Project Manager. Upon completion of all Contract work, the CONTRACTOR shall return the signs to the COUNTY.

The price of any job sign erection, location, and removal shall be included in Bid Item No. 101-1, Mobilization, Lump Sum.

101-5

Utility Location Confirmation

The CONTRACTOR shall verify the horizontal and vertical location of any utilities within the roadway right-of-way at locations designated by the COUNTY'S Project Manager. The CONTRACTOR shall excavate around each utility by hand digging and shall use due care to protect each utility.

Utility locations will be verified at locations of potential conflict and wherever an existing utility is to remain as directed by the COUNTY'S Project Manager. Utilities located beneath the traveled roadway will be verified at each location. The utility locations will be verified within the first month of the Contract. Any utilities damaged by the CONTRACTOR shall be repaired at the CONTRACTOR'S expense.

The CONTRACTOR shall notify each utility company prior to excavation in the vicinity of the utility. The intent of this work is to determine the accuracy of the utility location information provided to the COUNTY by the utility companies and to further evaluate the potential of utility conflicts with proposed construction at the start of construction. **All costs associated with this work shall be included in Bid Item No. 101-1, Mobilization, Lump Sum.**

TSP-102

MAINTENANCE OF TRAFFIC (Also refer to the Special Provisions for particular MOT provisions regarding this Project)

102-4

Alternative Traffic Control Plan

This section is deleted and replaced with the following:

The CONTRACTOR shall be responsible for developing and implementing an MOT Plan that shall comply with this section, any documents incorporated by reference, and the requirements of the COUNTY Traffic Operations Engineer. The CONTRACTOR shall **NOT** begin any work within or near the Project limits without an approved MOT Plan. The MOT Plan shall address each and every phase or stage of the CONTRACTOR'S construction operations.

The COUNTY shall have fourteen (14) calendar days from the date of submittal of the MOT Plan to either: approve the plan as submitted or to return the plan to the CONTRACTOR for correction and re-submittal. If the CONTRACTOR wishes to modify an approved MOT Plan that is in use, the CONTRACTOR shall submit a modified MOT Plan which might be subject to the fourteen (14) day calendar, review period.

The information to be shown on the MOT Plan shall include, but not be limited to, the construction to be performed, the existing roadway, the limits of any proposed temporary pavement, all intersecting streets, the width of maintained travel lanes, the dimensions and locations of important geometry features, the location and types of all signs, the location and types of striping, and the location and type of all barricades.

102-5.3

Number of Traffic Lanes

Add the following to this subsection:

One-way operations are only allowable with authorization from the COUNTY Traffic Operations Manager.

- 102-5.6 **Protection of the Work from Injury by Traffic.**
Substitute the terms "damage" and "damaging" for "injury" and "injurious", respectively, in this subsection.
- 102-6 **Detours.**
This section is deleted and replaced with the following:

Detours are only allowable with authorization from the COUNTY Traffic Operations Manager and his approval of a detailed Detour Route Plan. All parties potentially affected by the detour shall be notified in accordance with the COUNTY Traffic Operations Manager direction.
- 102-11.8 **Warning - Channelizing Devices.**
Add the following to this subsection:

Only Type IIIB reflective sheeting, as specified in Section 994, shall be used for signs and barricades used in connection with MOT. All construction warning signs shall be 48" X 48" or larger along the Project. All construction signs for signalized intersections shall be 48" X 48" or larger along crossroads.
- 102-13.1 **Maintenance of Traffic (General Work).**
Add the following text at the end of this subsection:

Any costs associated with compliance with the above provisions of this section shall be included in Bid Item No.102-1, Maintenance of Traffic, Lump Sum. Partial payments for Bid Item No.102-1 shall be a pro-ration of the lump sum price over Contract time. The COUNTY has the complete discretion to adjust this calculation based on the quantity and quality of work actually performed.
- TSP-103 **TEMPORARY WORK STRUCTURES**
This article is deleted
- TSP-104 **PREVENTION CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**
Control of CONTRACTOR'S Operations, Which May Result in Water Pollution.
Add the following text to the end of this section:

Stabilized construction entrances shall be constructed to comply with the requirements of the Storm Water Pollution Prevention Plan (SWPPP) at all points of the Project ingress and egress.
- 104-9 **Method of Measure**
Add following subsections
- 104-9.1 **Compliance**
The CONTRACTOR shall become familiar with SWFWMD ERP, EPA NPDES General Permit conditions, the **SWPPP and any other applicable local, state and federal permit which the CONTRACTOR shall provide for this Project.** The CONTRACTOR shall also become familiar with all the permits and conditions as contained in these Contract Documents and shall be wholly and singularly responsible for compliance with the conditions and terms contained therein, The CONTRACTOR shall further hold the COUNTY harmless from all consequences resulting from any lack of compliance with the permit conditions, **Payment for this compliance and all other necessary work under Article 104 shall be made under the Bid Item No. 1000-1, NPDES Permits, Lump Sum.**
- 104-9.2 **NPDES Permit Compliance.**

The CONTRACTOR shall, at all times, perform construction activities in accordance with the terms and conditions of the NPDES Permit and SWPPP, **The project-specific SWPPP (see EPA publication, *Construction Fact Sheet, Part III*) shall be provided and completed by the CONTRACTOR.** The CONTRACTOR shall then submit a NOI and NOT as required by the *Construction Fact Sheet, Part II*, and the SWPPP to EPA. A second set of originals of SWPPP, NOI, and NOT shall be simultaneously submitted to the COUNTY, Regardless of EPA requirements, a final draft of SWPPP, NOI, and NOT shall be submitted to the COUNTY.

The sediment control / erosion control measures outlined in the construction plans are considered to be the minimum requirements for preventing sediment from leaving the Project site and entering adjacent properties, It shall be the CONTRACTOR'S responsibility to maintain all the sediment/erosion control devices in good working order and to furnish and install additional control measures to prevent sediment from leaving the Project site as required, Additional measures and their costs shall be approved in advance by the COUNTY and covered under the unit costs for the respective items.

Compensation for SWPPP, NOI, SWPPP inspections and NOT, and all other work required by the NPDES General Permit including, but not limited to, preparation and submission of the documents as well as all labor and materials required for compliance shall be included in **Bid Item No. 1000-1 NPDES and SWFWMD Permit, Lump Sum.**

Payment schedule for work under Bid Item No. 1000-1, if applicable, will be as follows: thirty (30) percent on the initial pay request accompanied by the Storm Water Pollution Prevention Plan (SWPPP) and the NOI, 2.5 percent per month up to a combined maximum of seventy-five (75) percent, and twenty-five (25) percent or the balance due with the final pay request accompanied by the Stormwater Permit NOT.

TSP-105

CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS.

This article is revised as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.

Temporary Traffic Control (Maintenance of Traffic) Personnel:

Worksite Traffic Supervisors, flaggers, and other personnel responsible for work zone related transportation management and traffic control must obtain training and certification in accordance with the Department's Temporary Traffic Control (Maintenance of Traffic) Training Handbook located at the following URL address:

<http://www.dot.state.fl.us/rddesign/TTC>

TSP-110
110-3

**CLEARING ANDD GRUBBING
Selective Clearing & Grubbing.**

Add the following text to the end of this subsection:

Any trees and/or shrubbery located within the right-of-way shall be protected and preserved unless otherwise directed by the COUNTY'S Project Manager or indicated in the Plans.

Any fences located within the areas of temporary, construction easement limits shall be relocated to the edge of the temporary construction easement and then relocated to the new right-of-way when construction is completed.

No direct payment will be made for the relocation of fencing or the installation of in-kind fencing and gates as it is considered to be incidental to Clearing and Grubbing under this Contract.

- 110-6.3 Partial Removal of Bridges
This subsection is deleted.
- TSP-160
160-3.2.1 **STABILIZING
Sampling and Testing of Local Material.
Verification Comparison Criteria and Resolution Procedures.
Acceptance Program.**
These sections are replaced as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.
- 160-7 **Test Frequency**
This subsection is added as follows:

Lime Rock Bearing Ratio

- One (1) per 500 linear feet in randomly selected locations (left, right, and on the centerline).
- One (1) per street minimum.

Field Density

1. Test Frequency for Roadway
- One (1) per 300 linear feet in randomly selected locations (left, right, and on the centerline).
- One (1) per street minimum

2. Test Frequency for Curb Pad (where curb is required)
- One (1) per 300 linear feet.
- One (1) per street minimum.

Thickness

Test Frequency

- One (1) at each density test location.
- If the thickness is not specified, twelve (12) inches is assumed.
- TSP-162 **PREPARED SOIL LAYER
Acceptance Testing**

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.
- TSP-175 **CRACKING AND RESEATING EXISTING CONCRETE PAVEMENT.**
TSP-200 **ROCK BASE.**
TSP-204 **GRADED AGGREGATE BASE.**
TSP-210 **REWORKING LIME ROCK BASE.**
TSP-230 **LIMEROCK STABILIZED BASE.**
TSP-234 **SUPERPAVE ASPHALT BASE**
These articles are deleted.
- TSP-283 **RECLAIMED ASPHALT PAVEMENT BASE.**
These articles are deleted.

- TSP-285 **OPTIONAL BASE COURSE.**
This article is revised as follows:
- Only lime rock and asphalt shall be considered acceptable optional, base-course materials.
- 285-8 **Method of Measurement.**
This section is deleted and replaced with the following:
- The quantity to be paid shall be the actual area, in square yards, of material placed and accepted. There will be no payment for additional square yards of surface area of base due to measured thickness greater than the thickness shown in the plans.
- TSP-287 **ASPHALT TREATED PERMEABLE BASE.**
TSP-288 **CEMENT TREATED PERMEABLE BASE.**
TSP-290 **GRANULAR SUBBASE.**
These articles are deleted.
- TSP-300 **PRIME AND TACK COAT FOR BASE COURSES.**
300-4 **CONTRACTOR'S Quality Control.**
This section is revised as follows:
- Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.
- TSP-330 **HOT BITUMINOUS MIXTURES-GENERAL CONSTRUCTION REQUIREMENTS.**
- 330-14 **Density Control.**
Add the following to this section:
- The following field density requirements and test frequencies shall be used in lieu of those specified in Section 330:
- Field Density**
The field density shall be ninety-five (95) percent of the laboratory density.
- Test Frequency, Per Course
- One (1) per 300 linear feet per lane taken along the roadway mainline in randomly selected locations (left, right, and on the centerline).
 - One (1) per acceleration/deceleration lane and taper in a randomly selected location.
 - One (1) per median opening in a randomly selected location.
 - Two (2) per street minimum.
- Thickness.**
- Test Frequency.
- One (1) per 300 linear feet for both roadway mainlines in randomly selected locations (left, right, and on the centerline).
 - One (1) per acceleration/deceleration lane and taper in a randomly selected location.
 - One (1) per median opening in a randomly selected location.
 - Two (2) per street minimum
- TSP-334 **SUPERPAVE ASPHALT COCRETE**
For any asphalt used on this Project, a Marshal mix, rather than a Super Pave mix shall be used.

Therefore, FDOT Standard Specification for Road & Bridge Construction, edition year 2000 shall apply.

The employment of Superpave asphalt shall be at the discretion of the County. The CONTRACTOR shall submit for its review and approval by the COUNTY.

If the COUNTY approves the use of Superpave, FDOT Standard Specification for Road & Bridge Construction, edition year 2018 applies on its entirety

TSP-337
337-5

337 ASPHALT CONCRETE FRICTION COURSE.

CONTRACTOR'S Process Control.

This section is revised as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements. The criteria, methods, requirements, and determinations included in this article shall be as directed by the COUNTY'S Project Manager

The employment of Superpave asphalt shall be at the discretion of the County. The CONTRACTOR shall submit for its review and approval by the COUNTY.

If the COUNTY approves the use of Superpave, FDOT Standard Specification for Road & Bridge Construction, edition year 2018 applies on its entirety

TSP-338

338 VALUE ADDED ASPHALT PAVEMENT.

This article is deleted.

TSP-339

MISCELLANEOUS ASPHALT PAVEMENT.

For any asphalt used on this Project, a Marshal mix, rather than a Super Pave mix shall be used.

Therefore, FDOT Standard Specification for Road & Bridge Construction, edition year 2000 shall apply.

The employment of Superpave asphalt shall be at the discretion of the County. The CONTRACTOR shall submit for its review and approval by the COUNTY.

If the COUNTY approves the use of Superpave, FDOT Standard Specification for Road & Bridge Construction, edition year 2018 applies on its entirety

For any asphalt used on this Project, if a Marshal mix, rather than a Super Pave mix shall be used, the following tests and frequencies shall be used in lieu of Super Pave tests and frequencies:

Extraction/Gradation.

Test Frequency.

- One (1) per day minimum.
- One (1) per change of mix design minimum.

Marshall Stability and Flow.

Test Frequency

- One (1) per day minimum
- One (1) per change of mix design minimum.

TSP-341

ASPHALT RUBBER MEMBRANE INTERLAYER

This article is deleted

TSP-346

PORTLAND CONCRETE CEMENT

The following test frequencies shall be used in lieu of the frequencies outlined in this article:

Compressive Strength

Test Frequency per Type

- Set of three (3) cylinders for each day's placement or per fifty (50) cubic yards, whichever is greater.
- Air content, where applicable.

346-4.2.2

Certification

346-4.2.2

Control Level for Corrective Action

346-4.2.2

Sampling and Testing Methods

346-4.2.2

Control of Quality

346-4.2.2

Plastic Concrete Sampling and Testing

346-4.2.2

Acceptance Sampling and Testing

346-4.2.2

Pay Adjustments for Low Strength Concrete

These sections and subsections are revised as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.

TSP-347

PORTLAND CEMENT CONCRETE, CLASS NS

347-4

Control of Quality

347-5

Certification and Acceptance

These sections are revised as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.

TSP-350

CEMENT CONCRETE PAVEMENT

350-14 **Thickness Determinations**

350-15 **Deficient Thickness**

These sections are revised as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.

TSP-352

GRINDING CONCRETE PAVEMENT

TSP-353

CONCRETE PAVEMENT SLAB REPLACEMENT

TSP-355

VALUE ADDED PORTLAND CEMENT CONCRETE PAVEMENT.

These articles are deleted

TSP-407

THREE SIDED PRECAST CONCRETE CULVERT

This article is deleted

TSP-425

INLETS, MANHOLES AND JUNCTION BOXES

425-1

Description

The following text shall be added at the end of this section

Constructed elevations for inlets, manholes, and junction boxes shall not vary more than

0.05± feet from the grades as shown on the plans and shall maintain the designated direction of flow.

425-3.2

Gratings

The following text shall be added at the end of this subsection:

All grates shall be traffic-bearing steel grates, Alternate G, hot-dipped galvanized after fabrication.

TSP-430
430-1

PIPE CULVERTS

Description

The following text shall be added at the end of this section:

Constructed elevations and grades for pipe culverts shall not vary more than 0.10 percent in slope or 0.05± feet in elevation from grades as shown on the plans and shall maintain the designated direction of flow.

430-4.1

General

The following text shall be added at the end of this subsection:

Drainage structures shall not be altered to accommodate pipe not laid true to line and grade.

430-4.2

Trench Excavation

The following text shall be added at the end of this subsection:

The cost for excavation and backfill for culverts shall be included in the unit cost for the culverts.

430-9

Specific Requirements for Steel Reinforced Polyethylene, Corrugated High Density Polyethylene (HDPE), Polypropylene and Polyvinyl Chloride (PVC) Pipe

The following text shall be added at the beginning of this section:

The use and/or employment of any of the above pipe materials is to the discretion of the COUNTY.

The CONTRACTOR shall submit for its review and approval by the COUNTY.

If the COUNTY approves the use of any of these pipe materials, FDOT Standard Specification for Road & Bridge Construction, edition year 2018 applies on its entirety

430-12
430-12.1

Basis of Payment

General

This subsection is revised as follows:

All pipes shall be paid for at the contract unit price, per linear foot, for the quantity of pipe measured in place, completed, and accepted.

TSP-431

PIPE LINER

The following text shall be added at the beginning of this section:

The use and/or employment of pipe liner methodology is to the discretion of the COUNTY.

The CONTRACTOR shall submit for its review and approval by the COUNTY.

If the COUNTY approves the use of pipe liner, FDOT Standard Specification for Road & Bridge Construction, edition year 2018 applies on its entirety

TSP-435

STRUCTURAL PLATE PIPE AND PIPE ARCH CULVERTS

This article is deleted.

TSP-450
450-2
450-4

**450 PRECAST PRESTRESSED CONCRETE CONSTRUCTION
Quality Control Program
Material Acceptance and Testing**

These sections are revised as follows:

Provide and maintain a quality control system that provides reasonable assurance that all materials, products, and completed construction submitted for acceptance meet Contract requirements.

TSP-520
520-11

**CONCRETE GUTTER, CURB ELEMENTS AND TRAFFIC SEPARATOR
Method of Measurement**

This section is revised as follows:

The term "plan quantity" is deleted and replaced with "quantity placed".

TSP-521
521-8

**CONCRETE BARRIERS, TRAFFIC RAILING BARRIERS AND PARAPETS.
Method of Measurement**

This section is revised as follows:

The term "plan quantity" is deleted and replaced with "quantity in placed".

TSP-523
TSP-525
TSP-526
TSP-534

**PATTERN TEXTURE PAVEMENT
ASPHALT CONCRETE CURB
ARCHITECTURAL PAVERS
NOISE AND PERIMETER WALLS**

Delete these articles.

TSP-550
550-5.1

**FENCING
General**

Delete the text in this section and replace with the following:

The quantities to be paid for under this section shall be the length of each type of fence constructed and accepted, including corner pull and end-post assemblies constructed. In addition, no extra payment will be made for any additional lengths of post that are necessary for the crossing of depressions in accordance with 550-4.4.3, muck areas, or other areas of inadequate support for a post of standard length.

No direct payment will be made for the relocation of fencing or the installation of in-kind fencing and gates as it is considered to be incidental to Clearing and Grubbing under this Contract.

TSP-563

ANTI-GRAFFITI COATING SYSTEM.

Delete these articles.

TSP-570
570-8

**PERFORMANCE TURF.
Method of Measurement.**

Delete the text in this section and replace with the following:

The quantity of Performance Turf to be paid for under this section shall be the area in square yards of turf satisfactorily installed and accepted. The CONTRACTOR shall be required to mow the established turf when the height exceeds six (6) inches as determined by the COUNTY'S Project Manager.

570-9

Basis of Payment.

Delete the text in this section and replace with the following:

The quantity shall be paid for under **Bid Item No. 570-1, Performance Turf, per square yard**. The price and payment for performance turf shall constitute full compensation for all work, described herein, and soil preparation and application including, but not limited to, grass seed (permanent type), mulch material, fertilizer, dolomitic limestone, water, grass seed (quick growing), and complete maintenance of grassing areas until accepted by the COUNTY.

TSP-581

CONSTRUCTION LAYOUT

The CONTRACTOR shall retain a registered Professional Surveyor and Mapper (CONTRACTOR'S Surveyor) licensed in the State of Florida to establish all centerlines, base lines, horizontal and vertical control for all structures, roads, pipelines, and facilities, and set benchmarks as necessary to establish the basic layout. The CONTRACTOR'S Surveyor shall be responsible for developing all detail surveys needed for construction, such as slope stakes, batter boards, stakes for pipe locations, utility locations, and other working points, lines, elevations, and cut sheets. The CONTRACTOR shall furnish the necessary labor and materials to accurately layout the work and set the required elevations from the information indicated, and shall utilize the CONTRACTOR'S Surveyor for all detailed surveys needed for construction.

Prior to the start of construction, the CONTRACTOR'S Surveyor shall stake the right-of-way. At a minimum, staking shall be at 100 foot intervals and at all changes in right-of-way width or direction. Station numbers (e.g., 50+00) shall be painted on the stakes and shall be maintained in legible condition by the CONTRACTOR until final acceptance of the Project. All survey baseline control points must be referenced outside the limits of construction and a copy of field notes submitted to the COUNTY Surveyor prior to the start of construction.

The dimensions for lines, elevations, and grades for structures and appurtenances are indicated in the plans, together with other pertinent information required for laying out the work.

If site conditions vary from those indicated on the plans, the CONTRACTOR shall notify the COUNTY'S Project Manager immediately of such variations. The COUNTY'S Project Manager shall then make adjustments to the plans as may be required. The location and elevation of the benchmarks are shown in the plans. The CONTRACTOR'S Surveyor shall check all benchmarks shown on the plans and notify the COUNTY'S Project Manager of any discrepancies prior to the start of construction.

The CONTRACTOR'S Surveyor shall provide the COUNTY'S Project Manager with all original field notes used and generated during the construction of the Project. All notes shall be kept in bound field books supplied by the COUNTY. All survey notes taken for the "As-Built" Drawings shall also be contained in bound field books. The COUNTY shall provide two (2) field books to the CONTRACTOR'S Surveyor. Additional field books shall be provided, if necessary, within forty-eight (48) hours of the receipt of a written request. The field books shall be returned to the COUNTY prior to the final acceptance of the Project.

The CONTRACTOR shall also be responsible for all property monuments, geodetic survey control points, and points shown on the plans with State plane coordinates. The CONTRACTOR shall, at his/her own expense, utilize the CONTRACTOR'S Surveyor to set such markers. All geodetic control points and monuments with State plane coordinates shall be re-established using standard GPS methods acceptable within the industry. Monumentation of same shall be by a method approved by the COUNTY Surveyor. **After the Project is constructed, the CONTRACTOR'S Surveyor shall monument the right-of-way unless excused, in writing, by the COUNTY Surveyor's office. Monuments for the right-of-way shall be approved by the COUNTY Surveyor's office for installation and location and shall be concrete monuments.**

A boundary survey drawing must be prepared in accordance with Chapter SJ-17, FAC by the CONTRACTOR'S Surveyor.

The CONTRACTOR'S Surveyor shall be available during normal hours to assist the COUNTY'S Project Manager, when required, in checking lines and elevations in the CONTRACTOR'S layout and for measuring quantities for payment purposes as the work proceeds. The CONTRACTOR shall cooperate with the COUNTY'S Project Manager so that the checking and measuring may be accomplished with the least interference to the CONTRACTOR'S operations. The CONTRACTOR'S Surveyor shall provide the COUNTY'S Project Manager with survey assistance for subsoil excavation quantities and other Project quantities as required by the COUNTY'S Project Manager.

All costs associated with this work including but not limited to construction layout, survey, and staking the right-of-way and maintenance of the stakes by the CONTRACTOR'S Surveyor shall be incidental to the Contract and included in the other bid items in the contract.

TSP-582

SECTION CORNER BOX

The CONTRACTOR shall furnish and install a section-corner box at each section-corner monument or quarter section-corner monument within the Project work area prior to the application of the asphaltic-concrete surface course. In the event that a section-corner or quarter section-corner is not located within the boundary of the Project, a minimum of two (2) monuments inside boxes shall be set as directed by the COUNTY Surveyor. The COUNTY Surveyor shall be notified forty-eight (48) hours prior to the installation of the section-corner boxes. If the section or quarter section-corner monuments are destroyed during construction, the CONTRACTOR shall furnish and install a new monument as established by GPS methods and certified as to State plane coordinates by the CONTRACTOR'S Surveyor. The section-corner box shall be an adjustable monument box as manufactured by the Neenah Foundry Company, R-1968, Type 36-8, or approved equal. The existing monuments must be referenced outside the construction limits and a copy of the field notes submitted to the COUNTY Surveyor prior to the start of construction. **All costs associated with this work shall be incidental to the Contract and included in the other bid items in the Contract.**

TSP-700
700-2.1

**HIGHWAY SIGNING
General**

Add the following text at the end of this subsection.

All post systems, mounting brackets, and hardware shall be a type currently in use by the COUNTY Road and Bridge Department and currently certified by FDOT for use in the State of Florida. Alternative systems, brackets, or hardware shall only be used if approved by the COUNTY'S Project Manager.

Add the following section:

700-11

Certification of Materials

All traffic-control devices and materials shall be on the current FDOT Approved Products List (APL). Proof of certification is required for all traffic-control devices. A Traffic-Control Device Submittal Data Form shall be submitted for approval prior to the installation of any traffic control device. No traffic-control device shall be installed until the COUNTY Traffic Operations Division has approved the certification submittal. These forms are available from the COUNTY Traffic Operations Division.

TSP-706
706-1

**REFLECTIVE PAVEMENT MARKERS AND BITUMINUS ADHESIVE
Description**

Add the following text at the end of this section:

Raised retro-reflective pavements markers shall be Class B.

TSP-911
911-2

**BASE AND STABILIZED BASE MATERIAL
Furnishing of Material.**

Add the following text at the end of this section:

LIME ROCK

All lime rock material utilized in the execution of this Contract shall originate from a certified FDOT quarry. The lime rock material shall be supplied from a currently certified stockpile from the FDOT quarry. A certification stamp must appear on the tickets supplied to the COUNTY'S Project Manager prior to the placement of the material. The COUNTY reserves the right to split samples with the supplier's quality control, testing laboratory at the point of production.

TSP-934
934-1

**NON-SHRINK GROUT
Scope.**

The following shall be *added* at the end of this section:

Testing will be carried out using samples of actual job materials mixed according to manufacturer's recommendation.

934-5

Product Acceptance on the Project.

Delete the text of this section and replace with the following:

For job site acceptance, the CONTRACTOR shall submit a unit sample to the COUNTY'S Project Manager for testing. Materials will be accepted at the job site after meeting the test requirements of 934-4. Unit samples submitted for testing shall be a single package of no less than one (1) cubic foot. Materials remaining in storage for more than six (6) months after testing must be re-tested before use.

TSP-1000-3

RECORD DRAWINGS ("AS-BUILT" DRAWINGS)

During the entire construction, the CONTRACTOR shall maintain records of all deviations from the plans and specifications and shall submit those deviations to the COUNTY'S Project Manager in the form of Record Drawings ("As-Built" Drawings). The "As-Built" Drawings shall be initiated at the Notice to Proceed and shall be updated at least every seven (7) days (or as frequently as necessary to capture the necessary information) throughout the Contract duration. The CONTRACTOR shall engage the services of a Florida-registered Professional Surveyor and Mapper (CONTRACTOR'S Surveyor) to prepare the "As-Built" Drawings. The "As-Built" Drawings shall be developed in accordance with Florida's Minimum Technical Standards, FAC, Chapter SJ-17, FAC. The "As-Built" Drawings shall be developed using the CONTRACTOR'S records of all deviations from the Plans and "As-Built" surveying performed by the CONTRACTOR'S Surveyor.

The "As-Built" Drawings shall be plotted on the plans and/or detail sheets of the Contract Plans. The COUNTY will lend the mylar originals to the CONTRACTOR to allow for the production of the base mylars to be used for the "As-Built" Drawings. As-built information shall be plotted in ink on the base mylars so as to be easily distinguished from the "proposed" plan, boldly denoted as "as-built."

At a minimum, the following information shall be shown on the "As-Built" Drawings:

Vertical as-built information:

- Final elevations along the profile grade line at least every 100 feet for linear grades and at least every fifty (50) feet along vertical curves.
- Final elevations on the edge of pavement and transitions every 100 feet, with stationing matching as-built elevations on the profile grade line.

- Final elevations of pipe inverts for all manholes and inlets. Final grate or rim elevations for manholes and inlets. Final elevations of inlets for all end walls or mitered end sections. Final elevations and dimensions for pond discharge structures.
- Final elevations for ditch bottoms, pond bottoms, and berms at locations where proposed elevations are given.

Horizontal as-built information:

- Horizontal locations (station and offset) confirmed, if located per plan and plotted, and denoted if not plotted for all manholes, inlets, mitered end sections, end walls, and pond discharge structures.
- Horizontal locations plotted and denoted for any significant deviation from the roadway's geometric features.
- Horizontal locations and approximate dimensions plotted for constructed driveways.
- Horizontal locations plotted and denoted for signalization poles, pull boxes, and controllers.
- Horizontal locations plotted for power poles.

Pond mitigation area as-built information:

"As-Built" Drawings for stormwater management ponds and mitigation areas shall meet the as-built requirements of various environmental permitting agencies issuing permits for the Project. These Contract Documents contain the permits issued by the various environmental permitting agencies issuing permits for this Project, for example; SWFWMD.

The CONTRACTOR shall deliver to the COUNTY prior to final acceptance or final payment four (4) sets of blue-line "As-Built" Drawings signed and sealed by the CONTRACTOR'S Surveyor. The CONTRACTOR shall also submit one (1) set of reproducible "As-Built" Drawings (mylar) that will bear the name and Professional Surveyor and Mapper number of the CONTRACTOR'S Surveyor as well as the CONTRACTOR'S Surveyor company name and address.

Unless a separate bid item is provided in the Contract, all costs associated with the preparation of "As-Built" Drawings shall be included in the Contract price for Bid Item No. 101-1, Mobilization, Per Lump Sum.

TSP-1000-4

CONSTRUCTION PHOTOGRAPHS

Preconstruction Videos

The CONTRACTOR shall provide professionally recorded, color videos showing the preconstruction site. **The video(s) shall show pertinent, physical features, including existing structures located adjacent to the right-of-way, along the entire centerline of construction prior to the start of construction.** One (1) copy of the video(s) shall be furnished to the COUNTY'S Project Manager prior to the start of construction. The video(s) shall be in one-half inch VHS format and shall be labeled at the beginning of the tape and on the front of the cassette with the date, project name, location, and a brief description of the video. The person taking the video shall sign the video log. A representative of the COUNTY shall be present when the pre-construction video is recorded.

Progress Photographs

Aerial progress photographs taken at a low altitude shall be provided by the CONTRACTOR prior to the start of construction for the entire length of the Project and on a bimonthly basis illustrating the work executed in the preceding sixty (60) days. The 8" X 10" glossy, color photographs shall be of professional quality and shall be submitted in an album with the date, station or location, and direction printed or typed on the reverse side of each photograph. A negative of each photograph shall also be submitted.

Submission of the aerial photographs shall accompany every other pay request submitted by the CONTRACTOR (i.e., bimonthly). All aerial photographs shall be organized in an album, in a logical fashion, from front to back, first from earliest to latest date, and then by Project begin to end stationing. The album shall be permanently bound and contain a pouch or similar compartment in which the negatives may be stored. The Project name and date shall be permanently embossed on the outside front cover of the album.

All costs associated with the preparation of construction photographs shall be included in the Contract price for Bid Item No.101-1, Mobilization, Lump Sum, except when a separate Bid Item No. 1000-4, Construction Photographs, Lump Sum, is included in the Contract.

END OF THE TECHNICAL SPECIFICATIONS SECTION

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