

# **TECHNICAL SPECIFICATIONS**

# **GENERAL REQUIREMENTS**

## **DIVISION 01**

# **GENERAL REQUIREMENTS**

**SECTION 01 11 00****SUMMARY OF WORK****PART 1 THE WORK AND ITS PERFORMANCE****1.01 CHARACTER OF THE WORK**

Unless otherwise expressly provided in the Contract Documents, the Work must be performed in accordance with best modern practice, with materials and workmanship of the highest quality to the satisfaction of the County.

**1.02 DESCRIPTION OF THE PROJECT**

- A. The project title is: **Thomas Creek Road Resurfacing Project (US301 to Duval County Line)  
Bid Number NC17-002  
Nassau County, Florida**
- B. This project consists of leveling and overlay of pavement on Thomas Creek Road from US301 to the Duval County line in Nassau County, Florida. The work to be performed is generally described as resurfacing of a two lane rural road and includes (no work is to be performed in the RR right of way):
- Performing embankment work on shoulders to match pavement profile.
  - Milling pavement at joints with existing pavement.
  - Leveling the existing asphalt.
  - Overlay of existing asphalt pavement.
  - Traffic maintenance and protection.
  - Pavement markings and signage.
  - Placing Performance Turf (Sod and Hydroseed).

All work shall be in accordance with the construction drawings, specifications, and contract documents.  
**BIDDERS MUST BE FDOT PRE-QUALIFIED FOR ALL WORK REQUIRED FOR THIS PROJECT.**

- C. The specification divisions and drawings are an integrated part of the contract documents and, as such, will not stand alone if used independently as individual sections, divisions, or drawings sheets. The drawings and specifications establish minimum standards of quality for this project. They do not purport to cover all details entering into the design and construction of materials and equipment.

**PART 2 WORKING HOURS**

**2.01 GENERAL**

Work under this contract shall not be performed on County, State and/or national holidays or during such events as the Fernandina Beach Shrimp Festival, Nassau County School System FCAT (as identified at the pre-bid conference), except in time of emergency, and then only under written permission from the County who shall be the sole judge as to the urgency of that situation. Available workdays to perform work will not include night time work, weekend work, or work before 8:00 am or after 5:00 pm (40 hours per work week).

Should the Contractor deem it necessary to work on weekends (Saturday or Sunday), holidays, or beyond the previously defined working hours in order to comply with his construction schedule or because of an emergency, the Contractor shall request permission of the County. If, in the opinion of the County, the need is bona fide, the County may authorize the Contractor to work such hours as may be necessary. If the County grants the contractor the right to work beyond the normal working hours, the charges shall be those as described in Section 2.04 or as invoiced to Nassau County by CEI and Testing or other professionals required to monitor construction activities as determined by the Owner. A subsequent reduction in pavement to the Contractor will be applied by a corresponding Change Order.

**2.02 LANE CLOSURES**

Lane closures are restricted to the hours of 9:00 am to 4:00 pm. Any changes to these lane closures restrictions must be approved by Nassau County. See the Traffic Control Plans in the construction plans set for additional work restrictions.

**2.03 ROAD CLOSURE**

Must follow Road Closure Policy in Appendix B.

**2.04 REIMBURSEMENT FEES**

Should the County approve work time beyond regular hours, the following hourly rates shall be applied as the County's reimbursement of Engineer of Record's fee to be paid by Contractor for expenses defined in Supplemental Conditions SC-6.02.C, SC-6.05.A.2.f, SC-6.17.E., SC-9.05.B and SC-13.03.A. However, the County may allow the contractor to pay the "actual" overtime charges the County incurs, whichever is lowest. The additional charges will not be paid directly to the CEI or Engineering firm but shall be executed in a deductive change order to the contract.

A. Engineer	\$250.00
B. Project Manager	\$200.00
C. Construction Administrator	\$175.00

D. Inspector	\$150.00
E. Administrative Assistant	\$100.00
F. Consultant Construction Engineering Inspector (CEI)	\$150.00

### **PART 3 ABBREVIATIONS**

#### **3.01 ORDINANCES, REGULATIONS, STANDARDS, AND CODES**

Reference in the specifications to known standards, codes, specifications, etc., promulgated by professional or technical associations, institutions, and societies, is intended to mean the latest edition of each such standard adopted and published as of the date of the Invitation to Bid on this project except where otherwise specifically indicated. Each such standard referred to shall be considered a part of the specifications to the same extent as if reproduced herein in full. The following is a list of applicable documents that apply to this contract.

American Association of State Highway and Transportation Officials (AASHTO) formerly (AASHO)

American Concrete Institute (ACI)

American Institute of Steel Construction (AISC)

American Iron and Steel Institute (AISI)

American National Standards Institute (ANSI)

American Standards Association (ASA)

American Society of Mechanical Engineers (ASME)

American Society of Testing and Materials (ASTM)

American Water Works Association (AWWA)

American Welding Society (AWS)

Anti-Friction Bearing Manufacturer's Association (AFBMA)

Building Officials and Code Administrators International, Inc. (BOCA)

Construction Specifications Institute (CSI)

Federal Specifications (FS)

Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, Latest Edition

Florida Department of Traffic Design Standards (FDOT Index), Latest Edition

National Bureau of Standards (NBS)

National Electrical Manufacturer's Association (NEMA)

National Fire Protection Association (NFPA)

Portland Cement Association (PCA)

Occupational Safety and Health Act (Public Law 91-596), U.S. Department of Labor (OSHA)

Steel Structures Painting Council (SSPC)

Southern Standards Building Code (SSBC)

Underwriters' Laboratories, Inc. (UL)

United States of America Standards Institute (USASI)

Regulations of Florida Industrial Commission Regarding Safety

All local, state, county, or municipal building codes requirements of the Owner's Insurance

**SECTION 01 22 50****MEASUREMENT AND PAYMENT****PART 1 GENERAL**

Work under this Contract shall be paid as designated below under the appropriate items associated with the Bid Schedule. Payment shall be in accordance with Lump Sum or Unit Price bid by the Contractor in his proposal.

When Lump Sum prices are contained in the Bid Schedule, the Contractor shall provide a detailed schedule of values for Lump Sum cost acceptable to the Engineer of Record and the County, which will be used for estimating partial payment requests.

Contractual costs for work not specifically mentioned under a payment item and which are incidental to the overall conduct of the work shall be included in the individual items at the Contractor's option. No additional charges shall be made to the County for items not specifically mentioned under individual payment items. Examples of these types of costs include, but are not limited to, the following: bonds, insurance, permits, licenses, traffic control, dust control, clean-up, temporary access, temporary facilities, soil erosion control, temporary drainage, temporary offices, restoration of disturbed areas, temporary utilities, test pits locating existing utilities, temporary water and sewer, surveying, layout, and other items similar to above.

Measurement and payment for all items shall be in accordance with the FDOT Standard Specifications for Road & Bridge Construction, Latest Edition with the exception that reduction in the FDOT acceptance criteria based on payment factors will not be allowed.

**PART 2 BID SCHEDULE ITEMS****Item 1. Mobilization**

- A. Measurement and Payment for Mobilization shall be in accordance with Section 101 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
- B. Payment will be made under Item No. 101-1R Mobilization, on a lump sum basis.

**Item 2. Maintenance of Traffic**

- A. Measurement and Payment for Maintenance of Traffic shall be in accordance with Section 102 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.

- B. Payment will be made under Item No. 102-1R Maintenance of Traffic, on a lump sum basis.

**Item 3. Embankment**

- A. Measurement and Payment for Embankment shall be in accordance with Section 120 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
- B. Payment will be made under Item 120-6 Embankment, on a cubic yard basis.

**Item 4. Milling of Existing Asphalt Pavement**

- A. Measurement and Payment for Milling of Existing Asphalt Pavement shall be in accordance with Section 327 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
- B. Payment will be made under Item 327-70-5 Milling Existing Asphalt Pavement, 1" Avg. Depth, on a per square yard basis.

**Item 5 & 6. Superpave Asphaltic Concrete**

- A. Measurement and Payment for Superpave Asphaltic Concrete shall be in accordance with Section 334 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition. Note the County does not entertain pay factors for asphalt. Acceptance and payment will be based on normal acceptance criteria.
- B. Payment will be made under Section 334 as follows:
  - 1) Item No. 334-1-22 Superpave Asphaltic Concrete (SP 12.5), 1.5" Lift, on a per ton basis. Contractor must meet all pavement testing requirements.
  - 2) Item No. 334-1-22L Superpave Asphaltic Concrete (SP-9.5) 50 lb/sy leveling course, on a per ton basis. Contractor must meet all pavement testing requirements.

**Item 7 & 8. Performance Turf**

- A. Measurement and Payment for Performance Turf shall be in accordance with Section 570 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.

- B. Payment will be made under Item No. 570-1-1 Performance Turf (Hydroseed), on a per square yard basis.
- C. Payment will be made under Item No. 570-1-2 Performance Turf (Sod), on a per square yard basis.

**Item 9. Retro Reflective Pavement Markers**

- A. Measurement and Payment for Retro Reflective Pavement Markers (RPM) shall be in accordance with Section 706 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
- B. Payment will be made under Item No. 706-3, Raised Retro Reflective Pavement Markers (RPM) (Bi-Directional Yellow), on a per each basis.

**Item 10-14. Thermoplastic Pavement Markings**

- A. Measurement and Payment for Thermoplastic Pavement Markings shall be in accordance with Section 711 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
- B. Payment will be made under Item No. 711 Thermoplastic Traffic Stripes as follows:
  - 1) Item No. 711-15-101 Thermoplastic, Standard, White, Solid, 6", on a per net mile basis.
  - 2) Item No. 711-15-201 Thermoplastic, Standard, Yellow, Solid, 6", on a per net mile basis.
  - 3) Item No. 711-14-125 Thermoplastic, Preformed, White, Solid, 24", on a per linear foot basis.
  - 4) Item No. 711-16-231 Thermoplastic, Standard, Yellow, Skip, 6" on a per gross mile basis.
  - 5) Item No. 711-14-160 Thermoplastic Preformed, White, Message on a per each basis.

**SECTION 01 31 19****PROJECT MEETINGS****1.01 PRECONSTRUCTION CONFERENCE**

- A. A preconstruction conference will be scheduled after award of contract and prior to beginning work. This meeting shall be attended by Engineer of Record, the County, and an authorized representative of Contractor.
- B. Meeting will consider matters of contract administration and initial construction operations.
- C. Contractor shall submit proposed construction schedule prior to or at preconstruction conference; see Section 01 33 00.

**1.02 PROGRESS MEETINGS**

- A. Periodic progress meetings will be held at a time and place mutually agreed upon at preconstruction conference. A responsible representative of Contractor who can bind Contractor/subcontractor to decisions shall attend. A responsible representative of other subcontractors working on site shall also attend.
- B. Meetings will be held to coordinate and expedite progress of work and shall be conducted by Contractor. Contractor and each subcontractor on site shall submit a written report at each meeting indicating:
  - 1. Work progress since last meeting.
  - 2. Upcoming work sequences and schedules.
  - 3. Requests for information.
- C. Contractor shall record meeting minutes and shall distribute a written summary of items discussed to all parties involved in the project within 48 hours of each meeting. The written summary shall document all issues discussed and decisions reached at the progress meeting.

**SECTION 01 33 00****SUBMITTAL PROCEDURES****1.01 SUMMARY**

- A. Submit items to Engineer of Record for review as listed below and as required by the other Contract Documents. Refer to individual specification sections, General Conditions, Supplementary Conditions, and sections of Division 01 - General Requirements for submittal requirements.

**1.02 CONSTRUCTION SCHEDULE**

- A. Prior to or at preconstruction conference, submit two copies of a proposed schedule of operations. Coordinate activities of the various trades for orderly completion of the work. Coordinate activities with those of the County to schedule a minimum of temporary disruptions to continuing operations. Allow ample time for the County to alter operations as required.
- B. After acceptance of construction schedule, distribute copies to subcontractors and other parties required to comply with scheduled dates.
- C. When revisions to schedule are made, notify all parties of changes in writing.

**1.03 SCHEDULE OF SUBMITTALS**

- A. Within 10 days of acceptance of construction schedule, submit two copies of a schedule of submittals. Schedule shall list anticipated date for each required submittal and shall allow A/E reasonable time for reviews. Submit all submittals requiring Engineer of Record review within 30 days of acceptance of construction schedule.
- B. After acceptance of schedule of submittals, distribute copies to subcontractors and other parties required to comply with submittal dates.

**1.04 SHOP DRAWINGS**

- A. Required shop drawings are designated under the various specification sections. Submit shop drawings for review prior to fabrication, delivery, or installation. Submit a minimum of five copies; two copies will be retained and the remainder returned to Contractor who shall keep one copy at project site.

- B. Fabrication and erection drawings may consist of a reproducible and two sets of prints; the reproducible copy will be returned to Contractor.
- C. Each brochure of shop drawings shall contain an index of contents and shall consist of layout details, schedules, setting instructions, manufacturer's literature, and other data specifically prepared for the work. Shop drawings shall be identified with project name, numbered consecutively, and bear the stamp of approval of Contractor as evidence of accuracy, compatibility, and conformance with contract requirements. Drawings not so stamped will be returned without being examined.
- D. Specific written notice shall be given of each variation that shop drawings may have from requirements of the Contract Documents.
- E. Partial submittals will not be considered; each portion of work shall be complete in one submittal.
- F. Shop drawings shall not be used in the work unless they have been reviewed and bear the stamp and signature of Engineer of Record. Shop drawings will only be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Contractor shall be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his or her work with that of all other trades, and performing all work in a safe and satisfactory manner. Corrections or comments made on shop drawings shall not relieve Contractor from compliance with requirements of Drawings and Specifications and shall not be considered an order for extra work.
- G. If information on previously reviewed shop drawings is altered, submit changes for review.

#### **1.05 PRODUCT DATA**

- A. Required product data submittals are designated under the various specification sections. Submit product data for review in accordance with procedures for shop drawings.
- B. Product data shall consist of manufacturer's literature, illustrations, and brochures of catalog cuts; instructions for handling, storage, and installation; and specifications and design data. Where multiple options are indicated, identify specific options as required for this project.

- C. Products subject to product data review shall not be used in the work until they have been reviewed and bear the stamp and signature of Engineer of Record.

#### **1.06 SAMPLES**

- A. Prior to fabrication, delivery, or installation, submit samples as designated in the various specification sections; allow reasonable time for review and testing.
- B. Submit samples in sufficient quantity and of adequate size to show quality, type, and extremes of color range, finish, and texture. Submit a minimum of two sets of appearance and color samples. Label each sample stating material, description, project name, and Contractor's name. Expedite submittal of appearance and color samples following Notice to Proceed.
- C. Submit samples with transmittal letter requesting review; prepay transportation charges. Samples shall become the County's property, unless otherwise designated.
- D. Samples will be reviewed for acceptability or selection of color, pattern, and texture only. Compliance with specifications is the responsibility of Contractor.
- E. Order no materials subject to sample review until receipt of written notice of completion of review. Installed materials shall match reviewed samples. No review of samples shall be taken in itself to change contract requirements.

#### **1.07 CERTIFICATES OF COMPLIANCE**

- A. Submit two copies of certificates of compliance as designated in the various specification sections.
- B. Certificates shall be furnished by manufacturer, producer, or supplier of material or product and shall indicate that material or product conforms to or exceeds specified requirements. Include supporting reference data as appropriate. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer of Record.

#### **1.08 PERMITS AND APPROVALS**

- A. Submit one copy of permits, code inspections, and agency approval documents, as designated in the various specification sections.

**1.09 TEST REPORTS**

- A. Submit two copies of test reports as designated in the various technical specifications.

**1.10 PROJECT RECORD DOCUMENTS**

- A. Keep a current set of documents at job site that are marked to show all changes made during construction. Dimension underground and concealed work and utilities from permanent reference points; record vertical distances. Submit project record documents upon completion of Work.

**SECTION 01 41 23****PERMITS AND FEES****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. County Responsibilities: The County has obtained the following permits: N/A
- B. Contractor responsibilities: Obtain and pay for all other permits and licenses required by authorities having jurisdiction, including but not limited to: land clearing permit, NPDES Notice of Intent and dewatering permit.
- C. Contractor shall be responsible to adhere to all provisions, requirements, and cost contained in all permits applicable to this project.

**PART 2 - PRODUCTS (NOT USED)****PART 3 - EXECUTION (NOT USED)**

**SECTION 01 45 00****QUALITY CONTROL****PART 1 GENERAL****1.01 CONTRACTOR QUALITY CONTROL PLAN**

The Contractor is responsible for his own quality control and must comply with FDOT Specifications Section 105 Contractor Quality Control General Requirements. Nassau County will act as the Department in all issues relating to Quality Control.

**1.02 SECTION INCLUDES**

Certification and testing, examination by the County, quality assurance testing, and final approval or work.

**1.03 CERTIFICATION AND TESTING**

The materials and equipment used in the construction of the project shall be subject to adequate certification and testing in accordance with generally accepted standards, as required and defined in the Contract Documents.

**1.04 CONTRACTOR TO PROVIDE**

The Contractor shall provide all tools, testing apparatus, materials to be tested, and labor as necessary to provide certification required by the Contract Documents.

**1.05 OUTSIDE AGENCY**

If the Contract Documents, laws, ordinances, rules, regulation or orders of any public authority having jurisdiction require any work to be certified, tested, or approved by someone other than the County, the Contractor will give the Engineer of Record timely notice of readiness. The Contractor will then furnish the County the required certification and/or testing certificates for approval.

**1.06 LIMIT OF APPROVALS**

Certifications, tests, or approvals by the County, Engineer of Record, or others shall not relieve the Contractor from his obligations to perform the work in accordance with the requirements of the Contract Documents.

**1.07 ACCESS TO WORK SITE**

The County and his representative will at all times have access to the work. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted access to all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the work.

**PART 2 EXAMINATION BY THE COUNTY****2.01 ACCESS**

The County contemplates and the Contractor agrees to thorough examination of the work at all times by the County and the Engineer of Record, including all labor performed and materials furnished, delivered, or intended to be used in the work, including manufacture, preparation, and testing. The Contractor shall not use any material which has not been tested and accepted. The Contractor shall keep the Engineer of Record advised of the progress of the work away from the site requiring certification of witnessing of tests to ensure that scheduling conflicts or delays do not develop.

**2.02 ACCEPTANCE TESTS**

Tests, or acceptance of any materials prior to shipment, shall not be deemed as a final acceptance of the materials. The County may require tests or analysis of any portion of the materials at any time. Any material which is found to be defective or which does not otherwise conform to the requirements of the specifications shall be rejected and removed forthwith from the site, as provided in the contract.

**2.03 RIGHT TO EXAMINE WORK**

The County and the Engineer of Record shall have the right to examine all materials and work done during any phase of construction, fabrication, or manufacture. The Contractor shall furnish all reasonable facilities and aid to the Engineer of Record and safe and convenient means for the examination of any part of the work. No work shall be closed or covered until it has been duly examined and approved.

**PART 3 QUALITY ASSURANCE TESTING****3.01 DESCRIPTION**

The Contractor is required to provide all testing as described in these specifications. Testing shall be completed by an independent testing laboratory retained by the Contractor and approved by the Engineer of Record. The Contractor is required to submit independent testing laboratory qualifications. Certifications, tests, or approvals by the County, Engineer of Record, or others shall not relieve the Contractor from his obligations to perform the Work in accordance with the requirements of the Contract Documents.

**3.02 CODES AND REGULATIONS TESTING**

Testing will be in accordance with all pertinent codes and regulations and with selected standards of the American Society of Testing and Materials. The Engineer of Record shall process and distribute all required copies of test reports and related instruction to ensure all necessary retesting and/or replacement of materials with the least possible delay in progress of work.

**3.03 RETESTING**

When initial quality assurance tests indicate noncompliance with the Contract Documents, all subsequent retesting occasioned by the noncompliance shall be performed by the same testing laboratory and the costs thereof shall be borne by the Contractor.

**3.04 COOPERATION WITH THE COUNTY'S TESTING LABORATORY**

The County may perform any additional tests that they may deem necessary at its own expense. Representatives of the County's testing laboratory shall have access to the work at all times. The Contractor shall provide facilities for such access in order that the laboratory may properly perform its functions.

**3.05 ADDITIONAL TESTING**

If the County orders sampling, analysis, or tests of materials which are specified to be accepted on certification by the manufacturer, but which appear defective or not conforming to the requirements of the specifications, the Contractor shall bear all the costs of sampling, transportation, tests, and analyses if the material is in fact found defective or does not conform to the specifications. If the material is found to be sound and conforming to the specifications, the County will pay for the testing.

**PART 4 FINAL APPROVAL****4.01 FINAL APPROVAL**

Final approval of the Work shall be made by the County and the Engineer of Record shall be contingent upon the findings of a thorough examination of the Work. Such examination shall be made within ten (10) working days after receipt of the Contractor's written request. The Work will be accepted and deemed completed as of the date of such examination if, upon such examination, the Engineer of Record and the County find that no further Work remains to be done at the site. If the examination reveals items of Work still to be performed, the Contractor shall promptly perform them and request a re-examination. If upon any re-inspection the Engineer of Record and the County determine that the Work is complete, the date of completion shall be deemed to be the actual date of such re-examination.

**SECTION 01 50 00****TEMPORARY FACILITIES AND CONTROLS****1.01 TEMPORARY ELECTRICITY**

- A. Contractor shall provide temporary electric service and distribution facilities as required for its own construction purposes. Provide portable power supply or make arrangements with local utility company for temporary service including service poles, driven ground, main service switch, transformer, and metering facilities. Pay for electrical energy consumed.

**1.02 TEMPORARY LIGHTING**

- A. Contractor shall provide temporary lighting sufficient to enable its workers to complete work and to enable inspectors to check work, as required.

**1.03 TEMPORARY WATER**

- A. Contractor shall be responsible for obtaining water for its needs. Pay cost of water used and meter rental, if applicable.

**1.04 TEMPORARY SANITARY FACILITIES**

- A. Contractor shall provide temporary outside toilets sufficient for its own workers.

**1.05 TEMPORARY FIRE PROTECTION**

- A. Contractor shall provide fire extinguishers and other fire protection equipment for all possible classes and types of fire.

**1.06 PROTECTION OF WORK AND PROPERTY**

- A. Observe safety provisions of applicable laws and regulations.
- B. Erect and maintain all required planking, barricades, guardrails, fences, safety lanterns, and temporary walkways of sufficient size, strength, and type necessary for protection of material storage, adjacent property, and new construction, as well as to prevent accidents to public and workers at job site.
- C. Notify the County if existing property interferes with work so that arrangements for proper protection can be made.

- D. Protect all work, materials, apparatus, and fixtures incorporated in work or stored on site against damage. At end of day, cover all new work likely to be damaged.
- E. Protect all finished construction until acceptance by the County. Repair damage to finished work to satisfaction of the County.

#### **1.07 ENVIRONMENTAL CONTROLS**

- A. Maintain erosion control measures to protect the project site and prevent sediment pollution of adjacent water courses and properties.
  - 1. Install erosion control measures prior to start of construction and maintain them until final completion of work. Unless otherwise instructed, remove temporary erosion control measures prior to final application for payment.
  - 2. Strive to limit stripping of sod and vegetation to a period that will expose bare soil to the least possibility of erosion that construction requirements allow.
  - 3. Construct and maintain silt fence barriers, erosion bale barriers, or temporary diversions to receive runoff leaving site.
  - 4. Protect storm drain inlets by using silt fence barriers, erosion bale barriers, or equivalent.
  - 5. Remove at the end of each work day soils and sediment reaching public or private streets not part of the construction site.
  - 6. Unless otherwise shown or specified, erosion control measures shall comply with the planning, design, and maintenance provisions of Section 104 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2010 Edition and Index Nos. 102 and 103 in the 2010 Roadway and Traffic Design Standards Manual.
- B. Provide controls to confine dust and dirt within project area. Thoroughly soak masonry and debris during demolition and loading operations. Water exposed soils or aggregates as required to prevent windblown dust.
- C. Provide noise control measures to limit the amount of noise and prevent nuisance. Properly equip all equipment with mufflers. Limit construction activities generating significant noise to normal working hours.

**1.08 TRAFFIC CONTROL**

- A. Conduct operations to ensure minimum interference with streets, driveways, walks, and adjacent facilities not part of construction project.
- B. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

**1.09 CONSTRUCTION CLEANING**

- A. Remove rubbish and debris from work area promptly upon its accumulation. Perform a broom cleaning of all appropriate surfaces weekly.
- B. Immediately clean-up spillages of oil, grease, or other liquids which could cause a slippery or otherwise hazardous situation or stain a finished surface.
- C. Form or scrap lumber shall have all nails withdrawn or bent over and shall be stacked, placed in trash bins, or removed from site.
- D. At completion of project, thoroughly clean, sweep, and wash work to remove foreign matter, spots, and soil from work and equipment under this contract. Remove temporary guards and protective coatings.

**1.10 DISPOSAL**

- A. Provide industrial type waste containers in number and size required or provide other acceptable methods of disposing of debris. Place containers at adequate locations to handle debris and have them emptied as required.
- B. No burning of rubbish or debris will be allowed at site.
- C. Store combustible waste in fire-resistive containers. Store hazardous wastes, such as caustics, acids, and harmful dusts, in appropriate covered containers. Dispose of wastes regularly.
- D. If a contractor does not remove rubbish or clean work as specified above, the County reserves right to have work done by others at Contractor's expense.

**SECTION 01 55 26****TRAFFIC CONTROL****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. This Section covers procedures for developing and implementing traffic control and regulation measures and maintenance of traffic in and around the construction area to provide for safe and efficient protection and movement of vehicular and pedestrian traffic/through and adjacent to the construction site areas.

**1.02 REFERENCE STANDARDS**

- A. General
1. Codes, specifications, and standards referred to by number or title shall form a part of this Specification to the extent required by the reference thereto. Latest revisions shall apply, unless otherwise shown or specified.
- B. Florida Department of Transportation (FDOT) Standards:
1. USDOT Manual on Uniform Traffic Control Devices.
  2. FDOT Manual of Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.
  3. FDOT Standard Specifications for Road and Bridge Construction, Latest Edition.

**1.03 SUBMITTALS**

- A. Before closing or restricting traffic flow through any thoroughfare, the Contractor shall give written notice to and, if necessary, obtain a permit or permits from the duly constituted public authority having jurisdiction over the thoroughfare. Contractor shall also notify the applicable law enforcement, fire, and emergency services having jurisdiction in the area. Notice shall be given no less than seventy-two (72) hours in advance of the time when it may be

necessary in the process of construction to close or restrict traffic to such thoroughfare, or as may be otherwise required by the governing authority.

- B. For any road or lane closures on this project, Contractor shall refer to the Nassau County Road Closure Policy and contact Nassau County Engineering Services Department at (904) 530-6225.

#### **1.04 SITE CONDITIONS**

- A. The Contractor shall plan construction operations such that existing local traffic access can be maintained and shall be maintained during the construction using such barricades, lights, flagmen, and other protective devices as appropriate, whether specified for the project or required by the local governing authority. Traffic control devices and implementation used for maintenance of traffic shall comply with the FDOT Manuals.
- B. The Contractor shall conduct his work in such manner as not to unduly or unnecessarily restrict or impede normal traffic through the streets of the community. Insofar as it is practicable, excavated material and spoil banks shall not be located in such manner as to obstruct traffic. The traveled way of all roads shall be kept clear and unobstructed insofar as is possible and shall not be used for the storage of construction materials, equipment, supplies, or excavated earth, except when and where necessary. If required by duly constituted public authority, the Contractor shall, at his own expense, construct bridges or other temporary crossing structures over trenches so as not to unduly restrict traffic. Such structures shall be of adequate strength and proper construction and shall be maintained by the Contractor in such manner as not to constitute an undue traffic hazard. Private driveways shall not be closed except when and where necessary, and then only upon due advance notice to the County, property owner and applicable jurisdictional authority, and shall be for the shortest practicable period of time consistent with efficient and expeditious construction. The Contractor shall be liable for any damages to persons or property resulting from his work.
- C. The Contractor shall make provisions at cross streets for the free passage of vehicles and foot passengers, either by bridging or otherwise, and shall not obstruct the swales nor prevent in any manner the flow of water in the swales, but shall use all proper and necessary means to permit the free passage of surface water in the swales. The Contractor shall immediately cart away all offensive matter, exercising such precaution as may be directed by the County or applicable jurisdictional authority. All material excavated shall be so disposed of as to inconvenience the public and adjacent tenants as little as possible and

to prevent injury to trees, sidewalks, fences, and adjacent property of all kinds. The Contractor may be required to erect suitable barriers to prevent such inconvenience or injury.

- D. Unless otherwise required by the governing authority, maintenance of traffic in and around the construction zone shall conform to Section 102 of the FDOT Specification, and 600 Series Roadway Design Standards drawings of the FDOT Standards, as applicable.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**SECTION 01 60 00****PRODUCT REQUIREMENTS****1.01 PRODUCTS**

- A. Provide new, high quality products manufactured and conditioned for the particular application as recommended by manufacturer, unless otherwise noted. Transport, handle, store, and protect products as specified and in accordance with manufacturer's recommendations.

**1.02 MANUFACTURER'S DIRECTIONS**

- A. Wherever work is to be performed or products are to be installed in accordance with manufacturer's instructions, furnish copies of printed instructions before installation.

**1.03 SOURCE OF PRODUCTS**

- A. In order that ready availability of materials, parts, or components for repair, replacement, or expansion can be assured, original equipment and components shall be obtained where feasible from domestic sources which maintain a regular stock.

**1.04 ACCEPTABLE MANUFACTURERS**

- A. Products, materials, and equipment identified by reference to a manufacturer's name, catalog number, or model are identified for the purpose of establishing a standard of quality, type, and function. Products first named in specifications are depicted for general descriptive purposes only. Any other product, material, or equipment which will perform adequately the duties imposed by the general design will be considered for substitution in accordance with the provisions below.

**1.05 OPTIONS AND CHANGES**

- A. Wherever options consisting of two or more choices are permitted for any product, procedure, or method, Contractor may select any of the named alternatives.
- B. Changes and revisions to Contract Documents may be made by Change Order, Field Order, or other procedure authorized under the Contract Documents.

- C. All other revisions not defined as options or changes shall be treated as Substitutions. (Options and changes will not be treated as Substitutions.)

#### **1.06 BID PHASE SUBSTITUTIONS**

- A. Substitutions and alternatives proposed prior to the Bid Deadline shall be submitted in accordance with the Instructions to Bidders.

#### **1.07 CONSTRUCTION PHASE SUBSTITUTIONS**

- A. Substitutions proposed after Contract has been awarded shall be submitted for approval prior to their use. Consideration will be given only to proposed substitutions for those products named in the Contract Documents which are no longer available or cannot be provided within the Contract Time, or where standard products are no longer in conformance, or where the County's interests may be adversely affected.
- B. If substitutions are approved, Contractor assumes responsibility for any other changes in systems or for modifications required in other work to accommodate the substitution, regardless of approval of the substitution.
- C. Requests for substitution of alternate products shall be submitted with complete references to manufacturer's product identification and product data indicating composition, guarantee, availability, applicable standards or agency approvals met or exceeded, restrictions imposed on product, and manufacturer's recommended method of application or installation. Substitutions will be considered acceptable if the product will perform adequately the duties imposed by the general design and, in opinion of Engineer of Record, is of equal substance, quality, appearance, and function, unless the named item is necessary for interchangeability or if the named product has been demonstrated to be most cost-effective.

#### **1.08 DEFECTIVE PRODUCTS**

- A. All products which do not conform to specified requirements shall be considered defective and shall be removed from the Work. If in place, faulty materials shall be corrected or replaced to meet specified requirements.

**1.09 TRANSPORTATION AND HANDLING**

- A. Products shall be transported and handled in accordance with the Contract Documents and as defined below. Deliver in original packaging with manufacturer's brand, seals, and labels intact. Refer to individual sections of specifications for specific requirements.
- B. Arrange for product transportation as required for construction. Select means of transportation which will reasonably assure timely and safe arrival. Products shall be suitable for intended use upon arrival at project and shall be undamaged and free from defects.
- C. Select appropriate methods for handling products to preserve their integrity, quality, and function.

**1.10 MATERIAL PROTECTION**

- A. Protect materials in accordance with Section 01 50 00, specific requirements of individual sections of specifications, and according to manufacturer's recommendations.
- B. Provide and maintain watertight storage sheds with raised floors for storage of products that might be damaged by weather. Cement, lime, and other materials affected by moisture shall be stored on platforms.

**1.11 STORAGE**

- A. Confine storage of products to limits designated by the County. Do not bring products to site until needed for progress of work. Storage of products within buildings shall not exceed design capacity of structural system.
- B. The County assumes no responsibility for products stored on site. Contractor shall assume full responsibility for damage to stored products, except as covered by property insurance for the work under construction (see General and Supplementary Conditions).
- C. Contractor shall allot space to subcontractors for storage of products and erection of offices and tool sheds. Locate storage buildings, temporary sheds, and stockpiles to avoid interference with new and existing facilities; move sheds, storage platforms, and materials as necessary.
- D. Upon completion, restore areas disturbed by construction.

**SECTION 01 71 23****FIELD ENGINEERING****PART 1 - GENERAL****1.01 SECTION INCLUDES**

- A. Provide field engineering service for project as indicated on Drawings and specified in this Section.

**1.02 QUALIFICATIONS OF SURVEYOR OR ENGINEER**

- A. Florida Registered Engineer or Land Surveyor.

**1.03 SURVEY REFERENCE POINTS**

- A. Existing basic horizontal and vertical control points are designated on Drawings. All elevations are based on the benchmarks shown on the plans. Establish all vertical and horizontal controls required for construction.
- B. Locate and protect control points prior to starting site work, and preserve permanent reference points during construction.
  - 1. Make no changes or relocations of such points without prior written notice to Engineer of Record and the County.
  - 2. Report to Engineer of Record and the County when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
  - 3. Require surveyor to replace control points which may be lost or destroyed. Establish replacements based on original survey control.
  - 4. Engineer of Record will identify existing control points and properly line corner stakes indicated on Drawings, as required.

**1.04 PROJECT SURVEY REQUIREMENTS**

- A. Establish a minimum of two (2) permanent bench marks on the project site, all referenced to data established by survey control points. Record locations, with horizontal and vertical data, on Project Record Documents.

- B. Establish lines and levels, locate and lay out, by instrument and similar appropriate means.
  - 1. Site improvements.
  - 2. Controlling lines and levels required for mechanical and electrical trades.
- C. Verify layouts by same methods from time to time.

#### **1.05 RECORDS**

- A. Maintain a complete, accurate log of control and survey work as it progresses.
- B. On completion of foundations and major site improvements, prepare a certified as-built survey showing finished dimensions, locations, angles and elevations of construction.
- C. Refer to Nassau County's As-Built Checklist.

#### **1.06 SUBMITTALS**

- A. Submit name and address of surveyor or professional engineer to Engineer of Record and the County.
- B. On request of Engineer of Record and the County, submit documentation to verify accuracy of field survey work.
- C. Submit certificate signed and sealed by a State of Florida Registered Engineer or Land Surveyor certifying that elevations and locations of improvements are in conformance with Contract Documents.

#### **PART 2 - PRODUCTS (NOT USED)**

#### **PART 3 - EXECUTION (NOT USED)**

**SECTION 01 77 00****CLOSEOUT PROCEDURES****1.01 SUMMARY**

- A. Complete closeout procedures and final submissions as listed below and as required by the other Contract Documents. Refer to General Conditions regarding Substantial Completion, final completion, and final payment.

**1.02 FACILITY START-UP**

- A. Submit test reports before requesting certification of Substantial Completion.

**1.03 SUBSTANTIAL COMPLETION**

- A. Contractor shall notify County or County's Representatives, in writing, when the Contractor considers the Work (or a portion of the Work which the County agrees to accept separately) to be substantially complete. Contractor's notice shall include a comprehensive list of items to be completed or corrected prior to final payment.
- B. Upon receipt of Contractor's list, Engineer of Record, the County, and Contractor shall make an inspection to verify that the Work is substantially complete.
  - 1. If the County considers the Work to be substantially complete, the County will issue a Certificate of Substantial Completion along with a "Construction Acceptance Checklist" of items to be completed or corrected prior to final payment. Items on punch list shall be completed within 60 days. Required submittals (see below) shall be completed prior to or when requesting final payment.
  - 2. If the County does not consider the work to be substantially complete, the County will inform Contractor of items that need to be completed or corrected before substantial completion. Contractor shall promptly complete these items and request a re-inspection by the County.

**1.04 FURNISHED PRODUCTS AND LOANED TOOLS**

- A. Prior to final payment, return all extra materials, unused parts, and equipment furnished by the County; return loaned tools and equipment.

**1.05 FINAL COMPLETION**

- A. Contractor shall notify Engineer of Record and the County when it considers all Work to be complete. Engineer of Record, the County, and Contractor shall make an inspection to verify that the Work is complete.
1. If the County considers the Work to be complete, Contractor shall submit final Application for Payment.
  2. If the County does not consider the Work to be complete, the County will inform Contractor of items that need to be completed or corrected before completion. Contractor shall promptly complete these items and request a re-inspection by the County.
- B. Prime Contractor is responsible for reviewing all Construction Acceptance Checklist items and verifying that each item is complete before requesting final inspection.

**1.06 CHARGES FOR REINSPECTIONS**

- A. The County will inspect the Work (or a portion of the Work which the County agrees to accept separately) at substantial completion and at final completion. If the Work is not complete to the required level at either substantial completion or final completion, and a re-inspection is required, Contractor shall reimburse the County for charges of the County and the County's consultants for performing the re-inspection.

**1.07 SUBMITTALS**

- A. Submittals required before Contract Closeout are listed below:
1. Contractor Lien Waiver
  2. Subcontractor Lien Waiver
  3. Consent of Surety to Final Payment
  4. Compliance with all permits and other governmental agencies
  5. Certification of Inspections "Certification Package"
  6. Warranties and Bonds
  7. As-Built Drawings
  8. Operation and Maintenance Manuals
  9. All other documents as required in the Contract Documents.