# IFB No. 18-TA002778JP ROADWAY RESURFACING COMMUNITY DEVELOPMENT BLOCK GRANT PROJECT (913-95)

July 12, 2018

Manatee County BCC Procurement Division 1112 Manatee Avenue West Ste 803 Bradenton, FL 34205 purchasing@mymanatee.org



# INVITATION FOR BID CONSTRUCTION NO. 18-TA002778JP ROADWAY RESURFACING CDBG PROJECT

Manatee County, a political subdivision of the State of Florida (hereinafter referred to as County), will receive sealed bids from individuals, corporations, partnerships, and other legal entities authorized to do business in the State of Florida, to provide roadway resurfacing construction work as part of a Community Development Block Grant (CDBG) Project, as specified in this Invitation for Bid to include roadway resurfacing and milling works situated at Orange Ridge, Overstreet Park and Sunny Lakes area.

#### **DATE, TIME AND PLACE DUE:**

The Due Date and Time for submission of Bids in response to this IFB **is August 13, 2018 at 3:00 P.M. ET.** Bids must be delivered to the following location: Manatee County Administration Building, 1112 Manatee Ave. W., Suite 803, Bradenton, FL 34205 prior to the Due Date and Time. Bids will be opened immediately following the Due Date and Time at the County Administration Building, Suite 803 and the Bidder's name and total bid amount will be read aloud. Interested parties may attend the opening.

#### **SOLICITATION INFORMATION CONFERENCE:**

In order to ensure all prospective Bidders have sufficient information and understanding of County's needs, a non-mandatory Information Conference will be held at: 11:00 A.M. on July 24, 2018 at the Manatee Procurement Division, 1112 Manatee Ave West, Ste. 803, Bradenton, FL 34205. Attendance is not mandatory, but is strongly encouraged.

#### **DEADLINE FOR QUESTIONS AND CLARIFICATION REQUESTS:**

The deadline to submit all questions, inquiries, or requests concerning interpretation, clarification or additional information pertaining to this Invitation for Bid to the County Procurement Division is July 30, 2018. Questions and inquiries should be submitted via email to the Designated Procurement Contact shown below.

Important: A prohibition of lobbying is in place. Review Section A.12 carefully to avoid violation and possible sanctions.

DESIGNATED PROCUREMENT CONTACT: Joe Pretorius, Procurement Agent
(941) 749-3045, Fax (941) 749-3034

Email: johannes.pretorius@mymanatee.org

Manatee County Financial Management, Procurement Division

AUTHORIZED FOR RELEASE:

IFB No. 18-TA002778JP Roadway Resurfacing Community Development Block Grant Project

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# SECTION A INFORMATION FOR BIDDERS

To receive consideration, entities who submit a response to this Invitation for Bid (Bidders) must meet the minimum qualification requirements and comply with the following instructions. Bid responses (Bids) will be accepted from single business entities, joint ventures, partnerships or corporations.

#### A.01 BID DUE DATE

Bids must be delivered before the Due Date and Time to the following location: County Administration Building, 1112 Manatee Ave. W., Suite 803, Bradenton, FL 34205 and time stamped by a Procurement representative prior to the Due Date and Time.

Bids received after the Due Date and Time will not be considered. It will be the sole responsibility of the Bidder to deliver its bid to the County Procurement Division for receipt on or before the Due Date and Time. If a bid is sent by U.S. Mail, courier or other delivery services, the Bidder will be responsible for its timely delivery to the Procurement Division. Bids delayed in delivery will not be considered, will not be opened at the public opening, and arrangements will be made for their return at the Bidder's request and expense.

#### A.02 PUBLIC OPENING OF BIDS

Sealed Bids will be publicly opened at County Administration Procurement Division, 1112 Manatee Avenue West, 8<sup>th</sup> Floor, Suite 803, Bradenton, Florida 34205, in the presence of County officials immediately upon expiration of the Due Date and Time. Bidders or their representatives may attend the Bid opening.

County will make public at the opening the names of the business entities which submitted a Bid, the city and state in which they reside, and the total bid price. No review or analysis of the Bids will be conducted at the bid opening.

#### A.03 SUBMISSION OF BIDS

The contents of the Bid sealed package must include:

- One (1) bound original clearly identifying Bidder and marked "ORIGINAL".
- One (1) bound copy clearly identifying Bidder and marked "COPY" with all required information and identical to the original.
- One (1) electronic format copy clearly identifying Bidder.

Electronic format copy should be submitted on a Universal Serial Bus (USB) portable flash memory drive or compact disc (CD) in MicroSoft Office or Adobe Acrobat portable document format (PDF) in one continuous file. Do not password protect or otherwise encrypt electronic Bid copies. Electronic copies must be searchable and contain an identical Bid to the original.

Submit the Bid package in a sealed container with the following information clearly marked on the outside of the package: IFB No. 18-TA002778JP, Roadway Resurfacing CDBG Project, Bidder's name, and Bidder's address. Bids must be delivered to the County Procurement Division prior to the Due Date and Time at the following address:

Manatee County Administration Building 1112 Manatee Ave. West, Suite 803 Bradenton, FL 34205

#### A.04 DISTRIBUTION OF SOLICITATION DOCUMENTS

All documents issued pursuant to this IFB are distributed electronically and available for download at no charge at <a href="www.mymanatee.org">www.mymanatee.org</a> > Bids and Proposals. This link is located on the left side of the County website home page. Documents may be viewed and downloaded for printing using Adobe Reader\* software.

At its sole discretion, the County may utilize a third-party provider, such as DemandStar by Onvia® (DemandStar) to distribute proposals. Visit the DemandStar website at <a href="www.Demandstar.com">www.Demandstar.com</a> for more information regarding this service. Participation in the DemandStar system is not a requirement for doing business with County.

Additionally, the IFB and all related documents are available for public inspection at the County Procurement Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205. Call (941) 749-3014 to schedule an appointment. Documents are available between the hours of 8:00 A.M. and 5:00 P.M., Monday through Friday, with the exception of County holidays.

As a courtesy, County notifies the Manatee County Chamber of Commerce and the Manasota Black Chamber of Commerce of all active solicitations, who then distributes the information to its members.

#### A.05 EXAMINATION OF BID DOCUMENTS AND SITE(S)

It is the responsibility of each bidder before submitting a bid, to (a) examine the IFB documents thoroughly; (b) visit the Project Site(s) to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate bidder's observations with the IFB documents; and (e) notify County of all conflicts, errors, or discrepancies in the IFB documents.

Each bidder may, at bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the Project Site(s) or otherwise which may affect cost, progress, performance or furnishing of the Work and which bidder deems necessary to determine his bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the IFB documents. County will provide each bidder access to the site(s) to conduct such explorations and tests.

Bidder shall fill all holes, clean up and restore the Project Site(s) to its former condition upon completion of such explorations. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by successful bidder in performing the Work are identified in the IFB documents.

All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by successful Bidder. Easements for permanent

structures or permanent changes in existing structures are to be obtained and paid for by County unless otherwise provided in the IFB documents.

Inspection of the Project Site(s) is a requirement to be considered for award of this bid. Prior to submitting a bid, each bidder shall examine the Project Site(s) and all conditions thereon fully familiarizing themselves with the full scope of the Work. Failure to become familiar with Project Site conditions will in no way relieve the successful bidder from the necessity of furnishing any materials or performing any Work that is required to complete the Project in accordance with the Project Plans and Specifications. Bidder shall acknowledge inspection of the Project Site(s) on his/her signed, submitted Bid Form.

#### A.06 ADDENDA

Any interpretations, corrections or changes to this IFB will be made by addenda. Addenda will be posted on the Procurement Division's web page of the County website at <a href="http://www.mymanatee.org/purchasing">http://www.mymanatee.org/purchasing</a> > Bids and Proposals. For those solicitations that are advertised on DemandStar, addenda will also be posted on the DemandStar distribution system on the 'Planholders' link.

All addenda are a part of the IFB and each Bidder will be bound by such addenda. It is the responsibility of each Bidder to read and comprehend all addenda issued. Failure of any Bidder to acknowledge an issued addendum in its Bid will not relieve the Bidder from any obligation contained therein.

#### A.07 BID FORMS

Bids must include the forms provided in this IFB. If needed, additional pages may be attached to a form. Bidders must fully complete and execute all Bid Forms. Bid Forms must be executed by an authorized official of the company who has the legal authority to bind the company.

#### A.08 BID EXPENSES

All costs incurred by Bidder in responding to this IFB will be the sole responsibility of the Bidder.

#### A.09 QUESTION AND CLARIFICATION PERIOD

Each Bidder shall examine all IFB documents and will judge all matters relating to the adequacy and accuracy of such documents. Any questions or requests concerning interpretation, clarification or additional information pertaining to this IFB, including the sample Agreement, shall be made in writing via email to the County Procurement Division to the Designated Procurement Contact or to <a href="mailto:purchasing@mymanatee.org">purchasing@mymanatee.org</a>. All questions received and responses given will be provided to potential bidders via an addendum to this IFB.

County will not be responsible for oral interpretations given by other sources including County staff, representative, or others. The issuance of a written addendum by the Procurement Division is the only official method whereby interpretation, clarification or additional information will be given.

#### A.10 FALSE OR MISLEADING STATEMENTS

Bids which contain false or misleading statements or which provide references which do not support an attribute or condition claimed by the Bidder, may be rejected. If, in the opinion of the County, such information was intended to mislead the County in its evaluation of the Bid, and the attribute, condition or capability is a requirement of this IFB. Such Bidder will be disqualified from consideration for this IFB and may be disqualified from submitting a response on future solicitation opportunities with the County.

#### A.11 CONFIDENTIALITY OF SECURITY RELATED RECORDS

- a. Pursuant to Florida Statutes § 119.071(3), the following records (hereinafter referred to collectively as "the Confidential Security Records") are confidential and exempt from the disclosure requirements of Florida Statutes § 119.07(1):
  - i. A Security System Plan or portion thereof for any property owned by or leased to County or any privately owned or leased property held by County.
  - ii. Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility, or other structure owned or operated by County.
  - iii. Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout or structural elements of an attractions and recreation facility, entertainment or resort complex, industrial complex, retail and service development, office development, or hotel or motel development in the possession of, submitted to County.
- b. Successful Bidder agrees that, as provided by Florida Statute, it shall not, as a result of a public records request, or for other reason disclose the contents of, or release or provide copies of the Confidential Security Records to any other party absent the express written authorization of County's Property Management Director or to comply with a court order requiring such release or disclosure. To the extent Successful Bidder receives a request for such records, it shall immediately contact the County's designated Contract administrator who shall coordinate County's response to the request.

#### A.12 LOBBYING

After the issuance of any IFB, prospective bidders, bidders, or their agents, representatives or persons acting at the request of such bidder shall not contact, communicate with or discuss any matter relating to the IFB with any officer, agent or employee of County other than the Procurement Official or the contact identified in this IFB, pursuant to the County Code of Laws. This prohibition includes copying such persons on all written communication, including email correspondence. This requirement begins with the issuance of an IFB and ends upon execution of the final Agreement or when the IFB has been cancelled. Violators of this prohibition shall be subject to sanctions as provided in the County Code of Laws.

#### A.13 UNBALANCED BIDDING PROHIBITED

County recognizes that large and/or complex projects will often result in a variety of methods, sources, and prices. However, where in the opinion of the County such variation does not appear to be justified given bid requirements and industry and market conditions, the Bid will be presumed to be unbalanced. Examples of unbalanced Bids will include:

- a. Bids showing omissions, alterations of form, additions not specified, or required conditional or unauthorized alternate bids.
- b. Bids quoting prices that substantially deviate, either higher or lower, from those included in the Bids of competitive Bidders for the same line item unit costs.
- c. Bids where the unit costs offered are in excess of, or below reasonable cost analysis values.

In the event County determines that a Bid is presumed unbalanced, it will request the opportunity to and reserves the right to, review all source quotes, bids, price lists, letters of intent, and other supporting documentation which the Bidder obtained and upon which the Bidder relied upon to develop its Bid. County reserves the right to deem any presumptive unbalanced Bid where the Bidder is unable to demonstrate the validity and/or necessity of the unbalanced unit costs as non-responsive.

#### A.14 FRONT LOADING OF BID PRICING PROHIBITED

Prices offered for performance and/or acquisition activities which occur early in the Project Schedule, such as mobilization; clearing and grubbing; or maintenance of traffic; that are substantially higher than pricing of competitive bidders within the same portion of the Project Schedule, will be presumed to be front loaded. Front loaded bids could reasonably appear to be an attempt to obtain unjustified early payments creating a risk of insufficient incentive for the bidder to complete the Work or otherwise creating an appearance of an undercapitalized bidder.

In the event County determines that a bid is presumed to be front loaded, it will request the opportunity to, and reserves the right to, review all source quotes, bids, price lists, letters of intent, and other documents which the bidder obtained and upon which the bidder relied upon to develop the pricing or acquisition timing for these bid items. County reserves the right to reject as nonresponsive any presumptive front loaded bids where the bidder is unable to demonstrate the validity and/or necessity of the front-loaded costs.

#### A.15 WITHDRAWAL OR REVISION OF BIDS

Bidders may withdraw Bids under the following circumstances:

- a. If Bidder discovers a mistake(s) prior to the Due Date and Time. Bidder may withdraw its Bid by submitting a written notice to the Procurement Division. The notice must be received in the Procurement Division prior to the Due Date and Time for receiving Bids. A copy of the request shall be retained and the unopened Bid returned to the Bidder; or
- b. After the Bids are opened but before a contract is signed, Bidder alleges a material mistake of fact if:
  - 1. The mistake is clearly evident in the solicitation document; or
  - 2. Bidder submits evidence which clearly and convincingly demonstrates that a mistake was made in the Bid. Request to withdraw a Bid must be in writing and approved by the Procurement Official.

#### A.16 IRREVOCABLE OFFER

Any Bid may be withdrawn up until the Due Date and Time. Any Bid not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of ninety (90) days to provide the goods or services set forth in this IFB or until one or more of the Bids have been duly accepted by County, whichever occurs first.

#### A.17 RESERVED RIGHTS

County reserves the right to accept or reject any and/or all bids, to waive irregularities and minor technicalities, and to request resubmission. Also, County reserves the right to accept all or any

part of the bid and to increase or decrease quantities to meet additional or reduced requirements of County. Any sole response received by the first submission date may or may not be rejected by County depending on available competition and current needs of County. For all items combined, the bid of the lowest, responsive, responsible bidder will be accepted, unless all bids are rejected.

The lowest, responsible bidder shall mean that bidder who makes the lowest bid to sell goods and/or services of a quality which meets or exceeds the quality of goods and/or services set forth in the IFB documents or otherwise required by County.

To be responsive, a bidder shall submit a bid which conforms in all material respects to the requirements set forth in the IFB.

To be a responsible bidder, the bidder shall have the capability in all respects to perform fully the bid requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance.

Also, County reserves the right to make such investigation as it deems necessary to determine the ability of any bidder to furnish the service requested. Information County deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to current financial statements, verification of availability of equipment and personnel, and past performance records.

#### A.18 APPLICABLE LAWS

Bidder must be authorized to transact business in the State of Florida. All applicable laws and regulations of the State of Florida and ordinances and regulations of County will apply to any resulting Agreement. Any involvement with the County Procurement Division shall be in accordance with the Manatee County Code of Laws as amended.

#### A.19 COLLUSION

By submitting a bid in response to this IFB, Bidder certifies that it has not divulged, discussed or compared its bid with any other bidder, and has not colluded with any other bidder or parties to this bid whatsoever. Further, Bidder, and in the case of a joint bid each party thereto, certifies as to their own organization, that in connection with this IFB that:

- a. All prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor;
- All prices and/or cost data quoted for this bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder, prior to the scheduled opening, directly or indirectly to any other bidder or to any competitor;
- c. No attempt has been made, or will be made, by Bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition;

- d. The only person or persons interested in this bid is/are named in Bidder's Bid and that no person other than those identified has any interest in the Bid or in the resulting Agreement to be entered into.
- e. No person or agency has been employed or retained to solicit or secure the resulting Agreement upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee except bona fide employees or established commercial agencies maintained by Bidder for purpose of doing business.

#### A.20 CODE OF ETHICS

With respect to this and any bid, if a Bidder violates, directly or indirectly, the ethics provisions of the Manatee County Code of Laws and/or Florida criminal or civil laws related to public procurement, including but not limited to Florida Statutes Chapter 112, Part II, Code of Ethics for Public Officers and Employees, such Bidder will be ineligible for award to perform the work described in this IFB, and may be disqualified from submitting on any future quote or bid requests to supply goods or services to County. By submitting a bid, the Bidder represents to County that all statements made and materials submitted are truthful, with no relevant facts withheld.

#### A.21 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime, as that term is defined in Section 287.133, Florida Statutes, may not submit a bid to provide any goods or services to a public entity; may not submit a bid with a public entity for the construction or repair of a public building or public work; may not submit bids on leases of real property to a public entity; may not be awarded or perform Work as a contractor, supplier, Subcontractor, or consultant under an agreement with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of thirty-six (36) months following the date of being placed on the convicted list.

In addition, the Manatee County Code of Laws prohibits the award of any bid to any person or entity who/which has, within the past five (5) years, been convicted of, or admitted to in court or sworn to under oath, a public entity crime or of any environmental law that, in the reasonable opinion of the Purchasing Official, establishes reasonable grounds to believe the person or business entity will not conduct business in a responsible matter.

To ensure compliance with the foregoing, the Code requires all persons or entities desiring to do business with County to execute and file with the Purchasing Official an affidavit, executed under the pain and penalties of perjury, confirming that person, entity and any person(s) affiliated with the entity, does not have such a record and is therefore eligible to seek and be awarded business with County. In the case of a business entity other than a partnership or a corporation, such affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, such affidavit shall be executed by the general partner(s). A Public Contracting and Environmental Crimes Certification form is attached herein for this purpose.

#### A.22 SCRUTINIZED COMPANIES

Florida Statutes § 287.135, as amended from time to time, may contain limitations on the part of a company to conduct business with the County. Submission of a response to this solicitation shall be subject to all procedural requirements contained within that statute including the submission

of any required certification of eligibility to contract with the County. It shall be the responsibility of the company responding to this solicitation to concurrently review the current version of the statute and ensure it is compliant. To the extent a certification is required, it shall be provided on the form located at Attachment E *Vendor Certification Regarding Scrutinized Companies Lists*.

#### A.23 AGREEMENT

The successful Bidder will be required to execute the Agreement, a sample of which is attached hereto and made a part hereof. The County will transmit the Agreement to the successful Bidder for execution. The successful Bidder agrees to deliver the required number of duly executed copies of the Agreement, with any other required documents, to the County within ten calendar days of receipt.

#### A.24 LEGAL NAME

Bidders shall clearly indicate the full legal name, including any d/b/a, address, email address, and telephone number on the Bid Form. Bid Forms shall be signed above the typed or printed name and title of the signer. The signer must be an official of the organization and have the authority to bind the bidder to the submitted bid.

When bidder is a partnership, the Bid Form shall be signed in the name of the firm and by all partners required under the terms of the partnership agreement. When a corporation is a bidder, the authorized corporate officers shall sign.

Bidders who are corporations or limited partnerships shall provide a certified copy of their permit to transact business in the State of Florida, preferably along with the Bid Form, or within forty-eight (48) hours after request by County.

When submitting a bid as a joint venture, it must have filed paper documents with the Division of Profession's Construction Industry Licensing Board prior to submitting a bid.

#### A.25 DISCOUNTS

All discounts must be incorporated in the prices contained in the bid and not shown separately. Unless otherwise specified in this IFB, pricing must be all inclusive, including delivery costs. The prices indicated on the Pricing Form shall be the prices used in determining award.

#### A.26 TAXES

County is exempt from Federal Excise and State Sales Taxes. (F.E.T. Cert. No. 59-78-0089K; Florida Sales Tax Exempt Cert. No. 85-8012622206C-6). Therefore, the Bidder is prohibited from delineating a separate line item in its bid for any sales or service taxes.

The Successful Bidder will be responsible for the payment of taxes of any kind, including but not limited to sales, consumer, use, and other similar taxes payable on account of the work performed and/or materials furnished under the award in accordance with all applicable laws and regulations.

#### A.27 QUALITY

Unless otherwise specifically provided in the IFB documents, all goods provided shall be new, the latest make or model, of the best quality, of the highest grade of workmanship, and of the most suitable for the purpose intended.

Unless otherwise specifically provided in the IFB documents, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

#### A.28 AUTHORIZED PRODUCT REPRESENTATION

Bidder, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to do so may, in the County's sole discretion, be deemed a material breach of the resulting agreement and shall constitute grounds for County's immediate termination of the resulting agreement.

#### A.29 ROYALTIES AND PATENTS

The successful Bidder shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Successful Bidder shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save County harmless from loss on account thereof, including costs and attorney's fees.

#### A.30 AMERICANS WITH DISABILITIES ACT

County does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of County's functions including one's access to participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation for an information conference or bid opening should contact the person named on the cover page of this document at least twenty-four (24) hours in advance of either activity.

#### A.31 EQUAL EMPLOYMENT OPPORTUNITY

In accordance with Title VI of the Civil Rights Act of 1964, Title 15, Part 8 of the Code of Federal Regulations and the Civil Rights Act of 1992, County hereby notifies all Bidders that it will affirmatively ensure minority business enterprises are afforded full opportunity to participate in response to this IFB and will not be discriminated against on the grounds of race, color, national origin, religion, sex, age, handicap, or marital status in consideration of award.

#### A.32 MINORITY AND/OR DISADVANTAGED BUSINESS ENTERPRISES

The State of Florida Office of Supplier Diversity provides the certification process and maintains the database of certified MBE/DBE firms. Additional information may be obtained at <a href="http://www.osd.dms.state.fl.us/iframe.htm">http://www.osd.dms.state.fl.us/iframe.htm</a> or by calling (850) 487-0915.

#### A.33 DELIVERY

Unless otherwise specified, all prices shall include all delivery cost (FOB Destination).

#### A.34 MATHEMATICAL ERRORS

- 1. Bid pricing forms without imbedded mathematical formulas: In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s) the extension totals will prevail. In the event the dollar amount for contract contingency is omitted, it will be added to the total price of the Bid.
- 2. Bid pricing forms with imbedded mathematical formulas: Interactive bid pricing forms that contain mathematical formulas may be provided to automate lengthy and complex bid forms. In the event bid pricing forms with imbedded formulas are used and a multiplication/extension error(s) is discovered in the formula, the unit price entered by the Bidder shall prevail.

- 3. Bidder shall assume the responsibility and accuracy of the information input in the bid pricing form and therefore shall verify that the calculations are correct before submitting its Bid.
- 4. Regardless of the type of bid pricing form used, all Bids shall be reviewed mathematically by the County using these standards.

#### A.35 SUBCONTRACTORS

The successful bidder will obtain prior written approval from the County for any subcontractor(s) and the work each will perform. A subcontractor is defined as any entity performing work within the scope of the project who is not an employee of the successful Bidder.

Bidders subcontracting any portion of the work shall include a list of subcontractors along with their bid. The list shall include: name and address of subcontractor, type of work to be performed and the percent of the contract amount to be subcontracted.

#### A.36 E-VERIFY

Prior to the employment of any person under this contract, the Successful Bidder shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of (a) all persons employed during the contract term by the Successful Bidder to perform employment duties within Florida and (b) all persons, including subcontractors, assigned by the Successful Bidder to perform work pursuant to the contract with County. For more information on this process, please refer to United States Citizenship and Immigration Service site at: http://www.uscis.gov/.

Only those individuals determined eligible to work in the United States shall be employed under this contract.

By submission of a bid in response to this IFB, the successful Bidder commits that all employees and subcontractors will undergo e-verification before placement on this contract.

The successful Bidder shall maintain sole responsibility for the actions of its employees and subcontractors. For the life of the contract, all employees and new employees brought in after contract award shall be verified under the same requirement stated above.

#### A.37 DISCLOSURE

Upon receipt, all inquiries and responses to inquiries related to this IFB become "Public Records," and shall be subject to public disclosure consistent with Florida Statues, Chapter 119.

Bids become subject to disclosure thirty (30) days after the opening or if a notice of intent to award decision is made earlier than this time as provided by Florida Statutes § 119.071(1)(b). No announcement or review of the bids shall be conducted at the public opening.

Based on the above, County will receive bids at the time and date stated and will make public at the opening the names of the business entities of all that submitted a bid.

If County rejects all bids and concurrently notices its intent to reissue the solicitation, the rejected bids are exempt from public disclosure until such time as County provides notice of an intended

decision concerning the reissued solicitation or until County withdraws the reissued solicitation. A bid is not exempt for longer than twelve (12) months after the initial notice rejecting all bids.

Pursuant to Florida Statutes 119.0701, to the extent Successful Bidder is performing services on behalf of the County, Successful Bidder must:

- a. Keep and maintain public records required by public agency to perform the service.
- b. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Florida Statutes, Chapter 119, or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Successful Bidder does not transfer the records to the public agency.
- d. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of contractor or keep and maintain public records required by the public agency to perform the service. If the Successful Bidder transfers all public records to the public agency upon completion of the contract, the Successful Bidder shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Successful Bidder keeps and maintains public records upon completion of the contract, the Successful Bidder shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

IF THE SUCCESSFUL BIDDER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE SUCCESSFUL BIDDER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO ANY RESULTING CONTRACT, CONTACT COUNTY'S CUSTODIAN OF PUBLIC RECORDS AT: (941) 742-5845, DEBBIE.SCACCIANOCE@MYMANATEE.ORG, ATTN: RECORDS MANAGER, 1112 MANATEE AVE W., BRADENTON, FL 34205.

#### A.38 LOCAL PREFERENCE

Local business is defined as a business legally authorized to engage in the sale of the goods and/or services, and which certifies within its Bid that for at least six (6) full months prior to the advertisement of this IFB it has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one full-time employee at that location. Local preference shall not apply to the following categories of agreements:

- 1. Purchases or agreements which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions governing the funds prohibit the preference.
- 2. Any bid announcement which specifically provides that local preference, as set forth in this section, is suspended due to the unique nature of the goods or services sought, the existence

- of an emergency as found by either the County Commission or County Administrator, or where such suspension is, in the opinion of the County Attorney, required by law.
- 3. For a competitive solicitation for construction services in which fifty percent (50%) or more of the cost will be paid from state.
- 4. To qualify for local preference under this section, a local business must certify to County by completing an "Affidavit as to Local Business Form," which is available for download at <a href="https://www.mymanatee.org/vendor">www.mymanatee.org/vendor</a>. Click on "Affidavit for Local Business" to access and print the form. Complete, notarize, and <a href="mailto:m
- 5. It is the responsibility of the bidder to ensure accuracy of the Affidavit as to Local Business and notify County of any changes affecting same.

#### A.39 VENDOR REGISTRATION

Registering your business will provide County a sourcing opportunity to identify suppliers of needed goods and services and identify local businesses. To register as a supplier with the County go to <a href="www.mymanatee.org/vendor">www.mymanatee.org/vendor</a>. For assistance with supplier registration, call the Procurement Division main number at (941) 749-3014. Office hours are Monday – Friday, 8:00 A.M. to 5:00 P.M., excluding County holidays.

A link to Vendor Registration is listed on the Procurement Division's web page at <a href="http://www.mymanatee.org/home/government/departments/financial-management/purchasing.html">http://www.mymanatee.org/home/government/departments/financial-management/purchasing.html</a>. Click on "Register as a Vendor", then "Vendor Registration Form". Registration is not mandatory to submit a Bid.

#### A.40 ENVIRONMENTAL SUSTAINABILITY

All bidders are encouraged to use as many environmentally preferable "green" products, materials, as supplies, as possible to promote a safe and healthy environment. Environmentally preferable are products or services that have a reduced adverse effect on the environment.

Bidder shall acknowledge in its Bid if Bidder has an environmental sustainability initiative. In addition, Bidder shall submit with its Bid a brief summary of its environmental sustainability initiative. This information will be used as a determining factor in the award decision when all other factors, including local preference, are otherwise equal.

#### A.41 ePAYABLES

County Board of County Commissioners and the County Clerk of the Circuit Court have partnered to offer the ePayables program, which allows payments to be made to vendors via credit cards.

The Clerk of the Circuit Court will issue a unique credit card number to vendor after goods are delivered or services rendered, vendors submit invoices to the remit to address on the purchase order. When payments are authorized, an email notification is sent to the vendor. The email notification includes the invoice number(s), invoice date(s), and amount of payment. There is no cost for vendors to participate in this program; however, there may be a charge by the company that processes your credit card transactions.

If Bidder is interested in participating in this program, complete the ePayables Application attached herein and return the completed form via to <a href="lori.bryan@manateeclerk.com">lori.bryan@manateeclerk.com</a>.

#### A.42 BASIS OF AWARD

County will not make award to a Bidder who is delinquent in payment of any taxes, fees, fines, contractual debts, judgments, or any other debts due and owed to the County, or is in default on any contractual or regulatory obligation to the County. By submitting this solicitation response, bidder attests that it is not delinquent in payment of any such debts due and owed to the County, nor is it in default on any contractual or regulatory obligation to the County. In the event the Bidder's statement is discovered to be false, bidder will be subject to suspension and/or debarment and the County may terminate any award it has with bidder.

Award, with preference given to certified Minority or Woman-owned Business Enterprises and Section 3 Businesses (MBE/WBE/SEC3), shall be to the lowest, responsive, responsible bidder meeting specifications, qualification requirements, and having the lowest total offer for requirements listed on the Bid Form for the Work as set forth in this IFB. Bid prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in the IFB documents to County's satisfaction and within the prescribed time. If Bidder is a certified MBE, WBE, SEC3, Bidder must include a copy of its certification with its Bid.

Based upon the requirements of the Community Development Block Grant, the bid received from a MBE/WBE/SEC3 shall be given preference in award. Certified Section 3 business concerns shall receive the following preference in the award of a Section 3 covered contract. An award shall be made to the lowest, responsive, responsible Section 3 business concern with the highest priority ranking if that bid:

- i. Is within the maximum total contract price established in the budget for the specific project for which bids are being received; and
- ii. Is not more than "7%" higher than the total bid price of the lowest, responsive bid from any responsible bidder as set forth on the following chart.

LOWEST RESPONSIVE BID	"X" = lesser of:
< \$100,000	10% of that bid or \$9,000
≥ \$100,000 and < \$200,000	9% of that bid or \$16,000
≥ \$200,000 and < \$300,000	8% of that bid or \$21,000
≥ \$300,000 and < \$400,000	7% of that bid or \$24,000
≥ \$400,000 and < \$500,000	6% of that bid or \$25,000
≥ \$500,000 and < \$1,000,000	5% of that bid or \$40,000
≥ \$1,000,000 and < \$2,000,000	4% of that bid or \$60,000
≥ \$2,000,000 and < \$4,000,000	3% of that bid or \$80,000
≥ \$4,000,000 and < \$7,000,000	2% of that bid or \$105,000
≥ \$7,000,000	1½% of that bid; no dollar limit

In evaluating Bids, County shall consider the qualifications of the Bidders; and if required, may also consider the qualifications of the subcontractors, suppliers, and other persons and organizations proposed. County may also consider the operating costs, maintenance requirements, performance

data and guarantees of major items of materials and equipment proposed for incorporation in the Work.

Whenever two or more bids are equal with respect to price, the bid received from a certified MBE/WBE/SEC3 shall be given preference in award.

Whenever two or more bids are equal with respect to price, and all other evaluative factors are otherwise equal, including local preference policies, if the company provides documented environmentally preferable "green" products, materials, or supplies, they shall be given preference in award.

Whenever two or more bids which are equal with respect to price are received, and neither of these bids are from a local business, and neither of these bids provides documented "green" products, the award shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the Procurement Division and open to the public.

Award shall be made per Group, independently, to the responsive, responsible bidder(s) meeting the specifications and having the lowest total bid price for an individual group. This project is being funded by CDBG with a monetary limit for each group as stated below:

Group 1- Orange Ridge \$88,200.00

Group 2- Overstreet Park \$73,400.00

Group 3- Sunny Lakes \$115,000.00.

NOTE: Award for each group is subject to the availability of funding.

The three Groups, as shown above and specified on the Bid Form, are not listed in priority or preference of order for award. Bidders are required to bid all items within a Group to be considered responsive.

Any Bidder potentially receiving more than one award shall confirm in writing prior to any award, that the construction completion time for all Groups collectively shall be 30 calendar days.

Only one schedule for completion of work shall be considered.

#### A.43 REGISTRATION - CAREERSOURCE SUNCOAST WORKFORCE

All prime contractors identified in the bid submittal must be registered with CareerSource Suncoast Workforce, as an employer recruiting service organization (provide proof of registration). For more information, Bidders can contact Rachel Infanti, Account Executive, at the CareerSource Suncoast Office located at 1112 Manatee Avenue East, Bradenton, FL 34208 by phone at (941) 358-4080, Ext. 3116, by fax at (941) 358-2944, or via Email at rinfanti@careersourcesc.com or contact Karima Habity by phone at (941) 358-4080, Ext. 3109 or via Email at KHabity@careersourcesc.com.

#### A.44 SOLICITATION SCHEDULE

The following schedule has been established for this Solicitation process. Refer to the County's website (<a href="www.mymanatee.org">www.mymanatee.org</a> > Online Services > Bids & Proposals) for meeting locations and updated information pertaining to any revisions to this schedule.

Scheduled Item	Scheduled Date
Non-Mandatory Solicitation Information Conference: Location: Manatee County Administration Bldg., 1112 Manatee Ave West, Ste. 803, Bradenton, FL 34205	July 24, 2018 at 11:00 A.M.
Question and Clarification Deadline	July 30, 2018
Final Addendum Posted	August 3, 2018
Bid Response Due Date and Time	August 13, 2018 by 3:00 P.M.
Due Diligence Review Completed	August 20, 2018
Projected Award	August, 2018

NOTE:

ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS: SCOPE OF WORK, CONSTRUCTION AGREEMENT FOR STIPULATED SUM, AND/OR GENERAL CONDITIONS OF THE CONSTRUCTION AGREEMENT, WHICH VARY FROM THE INFORMATION TO BIDDERS, SHALL HAVE PRECEDENCE OVER THE INFORMATION TO BIDDERS.

#### **END OF SECTION A**

# SECTION B SCOPE OF WORK

#### B.01 SCOPE OF WORK

The Successful Bidder shall furnish and install all materials, equipment and labor which is reasonably inferable and necessary for the proper completion of the Work specified in this IFB, whether specifically indicated in the IFB or not. The project provides for roadway milling and resurfacing civil construction work at the listed streets in each group situated in the Orange Ridge, Overstreet Park and Sunny Lakes areas respectively.

The Successful Bidder shall furnish all shop drawings, work drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all Work required by these Specifications.

The Successful Bidder shall perform the Work complete, in place and ready for continuous service and shall include any repairs, replacements, and / or restoration required as a result of damages caused prior to acceptance by the County.

#### B.02 COMPLETION OF WORK

The Work will be completed and ready for final inspection within the specified calendar days from the date the Contract Time commences to run. Only one bid shall be submitted and considered based on 30 calendar days completion time. Only one award shall be made.

#### **B.03 LIQUIDATED DAMAGES**

If the successful bidder fails to achieve Substantial Completion of the Work within the Contract Time and as otherwise required by the Contract Documents, the Owner shall be entitled to retain or recover from the successful bidder, as liquidated damages and not as a penalty, the sum of \$964 per calendar day, commencing upon the first day following expiration of the Contract Time and continuing until the actual date of Substantial Completion. Such liquidated damages are hereby agreed to be a reasonable estimate of damages the Owner will incur because of delayed completion of the Work. The Owner may deduct liquidated damages as described in this paragraph from any unpaid amounts then or thereafter due the successful bidder under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due the successful bidder shall be payable to the Owner at the demand of the Owner, together with interest from the date of the demand at the maximum allowable rate.

#### **B.04 CONTRACT CONTINGENCY WORK**

Contract Contingency is a monetary allowance used solely at County's discretion to handle unexpected conditions as required to satisfactorily complete the Work in accordance with the FBC documents. A Field Directive must be issued by an authorized County representative to authorize use of Contract Contingency funds.

The percentage for contract contingency is listed on the Bid Form. Bidder shall enter the dollar amount for contract contingency based on the percentage of the total base bid. The total contract award will include Contract Contingency.

Appropriate uses of Contract Contingency include increases to existing bid item quantities that do not change the initial scope of Work, which may be directed by County staff; modification items not originally bid which were unforeseen yet necessary during the Work to provide a complete

Project; and unanticipated conflicts and/or design changes required during construction which are necessary to provide a complete.

Inappropriate uses of contract contingency include anything that changes the initial Scope of Work, including the Contract Sum and Contract Time, and adding bid items not previously contemplated that change the initial scope of Work.

#### **B.O5** LICENSES AND PERMITS

The successful Bidder shall be solely responsible for obtaining all necessary license and permit fees, including, but not limited to, all license fees, permit fees, impact fees, or inspection fees, and responsible for the costs of such fees. Successful Bidder is solely responsible for ensuring all work complies with all Federal, State, local, and County ordinances, orders, codes, laws, rules, regulations, directives, and guidelines.

**END OF SECTION B** 

# SECTION C COMPLIANCE WITH FEDERAL LAWS

#### C.01 GENERAL PROVISIONS

- a. Equal Employment Opportunity Contractor is required to comply with EO 11246, "Equal Employment Opportunity," as amended by E.O 11246, Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR, Part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."; and
- b. Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S. 276c) Contractor is required to comply with the Copeland "Anti-Kickback" Act (18 USC 874), as supplemented by Department of Labor Regulations (29 CFR Pat 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each Contractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled; and
- c. Rights to Inventions Made Under a Contract Contractor shall comply with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by HUD; and
- d. Byrd Anti-Lobbying Amendment (31 U.S.C., 1352) Contractor is required to file the required certification for Bids over \$100,000. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal Contract, grant or other award covered by 31 USC 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award; and
- e. Debarment and Suspension No Contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Non-procurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension," as set forth at 24 CFR part 24. This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and Contractors declared ineligible under statutory or regulatory authority other than E.O 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees; and
- f. Drug-Free Workplace Requirements The Drug-Free Workplace Act of 1988 (42 U.S.C. 701) requires grantees (including individuals) of federal agencies, as a prior condition of being awarded a grant, to certify that they will provide drug-free workplaces. Contractor is required to comply with drug-free workplace requirements in accordance with the Act and with HUDs rules at 24 CFR part 24, subpart F.

#### C.02 SECTION 3 CLAUSE

- a. The work to be performed under this Contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended; 12 U.S.C. 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- b. The parties to this Contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no Contractual or other impediment that would prevent them from complying with the part 135 regulations.
- c. The Contractor agrees to send each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding; if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 Clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- d. The Contractor agrees to include this Section 3 clause in every Subcontract subject to compliance with regulations in 24 CFR Part 135; and agrees to take appropriate action, as provided in an applicable provision of the Subcontract or in this section 3 clause; upon a finding that the Subcontractor is in violation of the regulations in 24 CFR part 135. The Contractor will not Subcontract with any Subcontractor where the Contractor has notice or knowledge that the Subcontractor has been found in violation of regulations in 24 CFR Part 135.
- e. The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the Contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR part 135.
- f. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted Contracts.
- g. With respect to work performed in connection with section 3 covered Indian housing assistance; section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of Contracts and Subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

#### C.03 FEDERAL REQUIREMENTS FOR CONSTRUCTION PROJECTS

- a. Davis Bacon Act, as amended (40 U.S.C. 267a to a-7) Contractor is required to comply with the Davis-Bacon Act (40 U.S.C 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts governing Federally Financed and Assisted Construction"). Under this Act, Contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of labor. In addition, Contractors shall be required to pay wages not less than once a week. (See Attachment K, Current Federal Wage Decision); and
- b. Contract Work Hours and Safety Standards Act (40 U.S.C. 327 through 333) Contractor is required to comply with Sections 103 and 107 of the Contract Work Hours Safety Standards Act (40 U.S.C. 327-333), as supplemented by Department of Labor regulations (29 CFR, Part 5). Under Section 102 of the Act, each Contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours.
  - Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1 ½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous; and
- c. Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended Contractor is required to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.).

#### C.04 BONDING REQUIREMENTS FOR PROJECTS OVER \$100,000

- a. A Bid guarantee equivalent to five percent (5%) of the Bid price is required. The "Bid guarantee" shall consist of a firm commitment such as a Bid bond, certified check, or other negotiable instrument which must be submitted with the Bid as assurance that the Bidder will, upon acceptance of his Bid, execute such Contractual document as may be required within the time specified; and
- b. Performance bond on the part of the Contractor for 100 percent of the Contract price. A "performance bond" is one executed in connection with a Contract to secure fulfillment of all the Contractor's obligations under such Contract; and
- c. A payment bond on the part of the Contractor for 100% of the Contract price. A "payment bond" is one executed in connection with a Contract to assure payment is required by law of all persons supplying labor and material in the execution of the work provided for in the Contract.

#### C.05 LABOR STANDARDS (PROJECTS OVER \$2,000)

The following Federal Labor Standards provisions are in effect and must be complied with by all Contractors and Subcontractors. As before mentioned it is mandatory that these legislative acts are complied with. Specific reporting requirements include, but shall not be limited to the following:

- a. Federal Wage Decision for Manatee Owner in Florida. Per the Davis-Bacon Act, these are applicable prevailing federal wage rates for this project. There are no State prevailing wage rates. These wage rates will be compared against those posted by the U.S. Department of Labor.
  - In the event the Federal Wage Decision has been updated, bidders will be notified via an Addendum with the current Federal Wage Decision.
- b. United States Department of Labor, Payroll Form WH-347 (Attached) (OMB Approval No. 1215-0149) with accompanying Statement of Compliance. Per the Davis-Bacon Act and the Copeland Act, the awarded Contractor and its subcontractor's are required to submit weekly payrolls, being accompanied by the Statement of Compliance, bearing an original signature; and
- c. United States Department of Housing and Urban Development and the Office of Labor Relations, Record of Employee Interview, Form HUD-11 (OMB Approval No 2501-0009) (Attachment B). Employees of the Contractor and its sub-Contractors will be interviewed at different intervals for public recording purposes only, and is used to measure compliance with the Federal Labor Standards.

**END OF SECTION C** 

## Section D

# **CONSTRUCTION AGREEMENT**

for

## STIPULATED SUM

between

MANATEE COUNTY (AS OWNER)

and

\_\_\_\_\_ (AS CONTRACTOR)

# CONSTRUCTION AGREEMENT FOR [STIPULATED SUM] [PROJECT NAME]

<b>THIS AGREEMENT</b> ("Agreement") is made and entered into by and between Manatee County, a political subdivision of the State of Florida, referred to herein as "Owner", and the firm of,
incorporated in the State of and registered and licensed to do business in the State of Florida (license #), referred to herein as "Contractor."
WHEREAS, the Owner intends to construct [PROJECT DESCRIPTION], the aforementioned improvements being hereinafter referred to and defined as the "Project"; and
<b>WHEREAS,</b> in response to Owner's Invitation for Bid No (the "IFB"), Contractor has submitted its Bid (the "Contractor's Bid") to provide the aforementioned construction services.
<b>NOW THEREFORE,</b> the Owner and the Contractor, in consideration of the mutual covenants hereinafter set forth, the sufficiency of which is hereby acknowledged, agree as follows:
Exhibits, the attached General Conditions of the Construction Agreement, Supplementary Conditions (if any), Special Conditions (if any), Drawings (the titles of which are attached hereto as Exhibit A), Specifications (the titles of which are attached hereto as Exhibit B), Addenda issued prior to execution of this Agreement, the Invitation for Bid (including any Instructions to Bidders, Scope of Work, Bid Summary, Supplements, and Technical Specifications), any interpretations issued pursuant to the Invitation for Bid, the Contractor's Bid, permits, notice of intent to award, Notice to Proceed, purchase order(s), any other documents listed in this Agreement, and Modifications [to include written Amendment(s), Change Order(s), Work Directive Change(s) and Field Directive(s)] issued after execution of this Agreement. These form the Agreement, and are as fully a part of the Agreement as if attached or repeated herein. This Agreement represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. No other documents shall be considered Contract Documents.
<b>2. Work.</b> The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.
3. Date of Commencement and Substantial Completion.
A. <u>Date of Commencement</u> . The date of commencement of the Work shall be the date fixed in a Notice to Proceed issued by the Owner.
B. <u>Contract Time</u> . The Contract Time shall be measured from the date of commencement.
C. <u>Substantial Completion</u> . The Contractor shall achieve Substantial Completion of the entire Work not later than days from the date of commencement, or as follows:

**Portion of Work** 

**Substantial Completion Date** 

subject to adjustments of this Contract Time as provided in the Contract Documents.

Time is of the essence in the Contract Documents and all obligations thereunder. If the Contractor fails to achieve Substantial Completion of the Work within the Contract Time and as otherwise required by the Contract Documents, the Owner shall be entitled to retain or recover from the Contractor, as liquidated damages and not as a penalty, the sum of \$\_\_\_\_\_ per calendar day, commencing upon the first day following expiration of the Contract Time and continuing until the actual date of Substantial Completion. Such liquidated damages are hereby agreed to be a reasonable estimate of damages the Owner will incur because of delayed completion of the Work. The Owner may deduct liquidated damages as described in this paragraph from any unpaid amounts then or thereafter due the Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due the Contractor shall be payable to the Owner at the demand of the Owner, together with interest from the date of the demand at the maximum allowable rate.

#### 4. Contract Sum.

	A.	Payment.	The Owner	shall pay the (	Contractor th	e Contract Sum in	current funds for
the Contractor'	s perfor	mance of th	ne Contract.	The Contract	Sum shall be	·	Dollars and Zero
Cents (\$		), subject to	additions a	nd deduction:	s as provided	in the Contract Do	ocuments.

- B. <u>Alternates</u>. The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner. (State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)
  - C. <u>Unit Prices</u>. Unit prices, if any, are reflected in the Contractor's Bid.

#### 5. Payments.

#### A. Progress Payments.

- (1) Based upon Applications for Payment submitted to the Architect/Engineer by the Contractor and Certificates for Payment issued by the Architect/Engineer, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.
- (2) The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.
- (3) Payments shall be made by Owner in accordance with the requirements of Section 218.735, Florida Statutes.
- (4) Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions

of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect/Engineer may require. This schedule, unless objected to by the Owner or Architect/Engineer, shall be used as a basis for reviewing the Contractor's Applications for Payment.

- (5) Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- (6) Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:
  - i. Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of ten percent (10.00%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 3.3.B. of the General Conditions;
  - ii. Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), supported by paid receipts, less retainage of ten percent (10.00%);
  - iii. Subtract the aggregate of previous payments made by the Owner; and
  - iv. Subtract amounts, if any, for which the Architect/Engineer has withheld or nullified an Application for Payment, in whole or in part as provided in Section 3.3.C. of the General Conditions.
- (7) The progress payment amount determined in accordance with Section 5.A(6) shall be further modified under the following circumstances:
  - i. Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect/Engineer shall determine for incomplete Work, retainage applicable to such work and unsettled claims.
  - ii. Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 3.2.B. of the General Conditions.
- (8) Reduction or limitation of retainage, if any, shall be as follows:

Notwithstanding the foregoing, upon completion of at least 50% of the Work, as determined by the Architect/Engineer and Owner, the Owner shall reduce to five percent (5%) the amount of retainage withheld from each subsequent progress

payment.

- (9) Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.
- B. <u>Final Payment</u>. Final Payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:
  - (1) The Contractor has fully performed the Work except for the Contractor's responsibility to correct Work as provided in Section 2.4.C. of the General Conditions, and to satisfy other requirements, if any, which extend beyond final payment; and
  - (2) A final Application for Payment has been approved by the Architect/Engineer.

#### 6. Termination or Suspension.

- A. <u>Termination</u>. The Agreement may be terminated by the Owner or the Contractor as provided in Article XIV of the General Conditions.
- B. <u>Suspension by Owner</u>. The Work may be suspended by the Owner as provided in Article XIV of the General Conditions.

#### 7. Other Provisions.

- A. <u>Substantial Completion Defined</u>. Substantial Completion shall be defined as provided in Article I of the General Conditions. In the event a temporary certificate of occupancy or completion is issued establishing Substantial Completion, the Contractor shall diligently pursue the issuance of a permanent certificate of occupancy or completion.
- B. <u>Project Meetings</u>. There shall be a project meeting, at the jobsite or other location acceptable to the parties, on a regularly scheduled basis. The meeting will be attended by a representative of the Contractor, Architect/Engineer and Owner. These representatives shall be authorized to make decisions that are not otherwise contrary to the requirements of this Agreement.
- C. <u>Weather</u>. Any rainfall, temperatures below 32 degrees Fahrenheit or winds greater than 25 m.p.h. which actually prevents Work on a given day, shall be considered lost time and an additional day added to the Contract Time, provided no work could be done on site, and provided written notice has been submitted to the Owner by the Contractor documenting same.
- D. <u>Shop Drawings; Critical Submittals</u>. In consideration of the impact of timely review of submittals and shop drawings on the overall progress of the Work, it is hereby agreed that the Owner shall cause his agents and design professionals to accomplish the review of any particular "critical" submittals and/or shop drawings and return same to the Contractor within fourteen (14) days.

- E. <u>Applications for Payment</u>. Applications for Payment shall be submitted once monthly at regular intervals and shall include detailed documentation of all costs incurred.
- F. <u>Punch List</u>. Within 30 days after obtainment of Substantial Completion, the Owner shall generate a "punch list" of all work items requiring remedial attention by the Contractor. Within 5 days thereafter the Architect/Engineer shall assign a fair value to the punch list items, which sum shall be deducted from the next scheduled progress payment to the Contractor. Upon satisfactory completion of the punch list items, as certified by the Architect/Engineer, the previously deducted sum shall be paid to the Contractor.
- G. <u>Closeout documentation</u>. Within 30 days after obtainment of Substantial Completion and before final payment, Contractor shall gather and deliver to Owner all warranty documentation, all manufacturer's product and warranty literature, all manuals (including parts and technical manuals), all schematics and handbooks, and all as-built drawings.
- H. <u>Governing Provisions; Conflicts</u>. In the event of a conflict between this Agreement and the Specifications or as between the General Conditions and the Specifications, the Specifications shall govern.
- I. <u>E-Verify</u>. The Contractor's employment of unauthorized aliens is a violation of Section 274(e) of the Federal Immigration and Employment Act. The Contractor shall utilize the U.S. Department of Homeland Security E-Verify system to verify the employment eligibility of all new employees hired during the term of this Agreement, and shall require the same verification procedure of all Subcontractors.
- **8. Insurance and Bonding.** If and to the extent required by the Invitation for Bid documents, the Contractor shall furnish insurance coverage for (but not necessarily limited to) workers' compensation, commercial general liability, auto liability, excess liability, and builder's risk. The Contractor shall furnish to the Owner all appropriate policies and Certificate(s) of Insurance. The Contractor shall also post a Payment and Performance Bond for the Contract Sum, within ten (\_\_) days following notification of intent to award, and otherwise in accordance with the Invitation for Bid documents.
- **9. Independent Contractor.** The Contractor acknowledges that it is functioning as an independent contractor in performing under the terms of this Agreement, and it is not acting as an employee of the Owner.
- **10. Entire Agreement.** This Agreement (inclusive of the Contract Documents incorporated herein by reference) represents the full agreement of the parties.

#### 11. Amendments; Waivers; Assignment.

- A. <u>Amendments</u>. This Agreement may be amended only pursuant to an instrument in writing that has been jointly executed by authorized representatives of the parties hereto.
- B. <u>Waivers</u>. Neither this Agreement nor any portion of it may be modified or waived orally. However, each party (through its governing body or properly authorized officer) shall have the right, but not the obligation, to waive, on a case-by-case basis, any right or condition herein reserved or intended for the benefit or protection of such party without being deemed or considered to have waived such right or condition for any other case, situation, or circumstance and without being deemed or considered to have

waived any other right or condition. No such waiver shall be effective unless made in writing with an express and specific statement of the intent of such governing body or officer to provide such waiver.

- C. <u>Assignment</u>. The rights and obligations of either party to this Agreement may be assigned to a third party only pursuant to a written amendment hereto.
- **12. Validity.** Each of the Owner and Contractor represents and warrants to the other its respective authority to enter into this Agreement.
- 13. Covenant To Defend. Neither the validity of this Agreement nor the validity of any portion hereof may be challenged by any party hereto, and each party hereto hereby waives any right to initiate any such challenge. Furthermore, if this Agreement or any portion hereof is challenged by a third party in any judicial, administrative, or appellate proceeding (each party hereby covenanting with the other party not to initiate, encourage, foster, promote, cooperate with, or acquiesce to such challenge), the parties hereto collectively and individually agree, at their individual sole cost and expense, to defend in good faith its validity through a final judicial determination or other resolution, unless all parties mutually agree in writing not to defend such challenge or not to appeal any decision invalidating this Agreement or any portion thereof.
- 14. Disclaimer of Third-Party Beneficiaries; Successors and Assigns. This Agreement is solely for the benefit of the parties hereto, and no right, privilege, or cause of action shall by reason hereof accrue upon, to, or for the benefit of any third party. Nothing in this Agreement is intended or shall be construed to confer upon or give any person, corporation, partnership, trust, private entity, agency, or other governmental entity any right, privilege, remedy, or claim under or by reason of this Agreement or any provisions or conditions hereof. This Agreement shall be binding upon, and its benefits and advantages shall inure to, the successors and assigns of the parties hereto.

#### 15. Construction.

- A. <u>Headings and Captions</u>. The headings and captions of articles, sections, and paragraphs used in this Agreement are for convenience of reference only and are not intended to define or limit their contents, nor are they to affect the construction of or be taken into consideration in interpreting this Agreement.
- B. <u>Legal References</u>. All references to statutory sections or chapters shall be construed to include subsequent amendments to such provisions, and to refer to the successor provision of any such provision. References to "applicable law" and "general law" shall be construed to include provisions of local, state and federal law, whether established by legislative action, administrative rule or regulation, or judicial decision.
- **16. Severability.** The provisions of this Agreement are declared by the parties hereto to be severable. In the event any term or provision of this Agreement shall be held invalid by a court of competent jurisdiction, such invalid term or provision should not affect the validity of any other term or provision hereof; and all such terms and provisions hereof shall be enforceable to the fullest extent permitted by law as if such invalid term or provision had never been part of this Agreement; provided, however, if any term or provision of this Agreement is held to be invalid due to the scope or extent thereof, then, to the extent permitted by law, such term or provision shall be automatically deemed modified in order that it may be enforced to the maximum scope and extent permitted by law.

- 17. Governing Law; Venue. This Agreement shall be governed by the laws of the State of Florida. Venue for any petition for writ of certiorari or other court action allowed by this Agreement shall be in the Circuit Court of the Twelfth Judicial Circuit in and for Manatee County, Florida.
- **18. Attorney's Fees and Costs.** In any claim dispute procedure or litigation arising from this Agreement, each party hereto shall be solely responsible for paying its attorney's fees and costs.
- 19. Notices. All notices, comments, consents, objections, approvals, waivers, and elections under this Agreement shall be in writing and shall be given only by hand delivery for which a receipt is obtained, or certified mail, prepaid with confirmation of delivery requested, or by electronic mail with delivery confirmation. All such communications shall be addressed to the applicable addressees set forth below or as any party may otherwise designate in the manner prescribed herein.

To the Owner:		
	Email:	_
To the Contractor:		
		_
	Email:	_

Notices, comments, consents, objections, approvals, waivers, and elections shall be deemed given when received by the party for whom such communication is intended at such party's address herein specified, or such other physical address or email address as such party may have substituted by notice to the other.

**20. Exhibits.** Exhibits to this Agreement are as follows:

Exhibit A—Title(s) of Drawings

Exhibit B—Title(s) of Specifications

Exhibit C—Affidavit of No Conflict

<u>Exhibit D</u>—Certificate(s) of Insurance

Exhibit E—Payment and Performance Bond

Exhibit F—Standard Forms

1—Application for Payment

2—Certificate of Substantial Completion

- 3—Final Reconciliation / Warranty / Affidavit
- 4—Change Order

#### WHEREFORE, the parties hereto have executed this Agreement as of the date last executed below.

Name of Contractor
Ву:
Printed Name:
Title:
Date:
MANATEE COUNTY, a political subdivision of the State of Florida
By:
Printed Name:
Title:
Date:

## **Construction Agreement**

#### **Exhibits & Standard Forms**

A.	Exhibit, Attachment 1	Drawings
В.	Exhibit, Attachment 2	Specifications
C.	Exhibit, Attachment 3	Affidavit of No Conflict
D.	Exhibit, Attachment 4	Contractor's Certificate(s) of Insurance
Ε.	Exhibit, Attachment 5	Contractor's Payment and Performance Bond
F.	Standard Form, Attachment 6	Application for Payment
G.	Standard Form, Attachment 7	Contract Change Order
Н.	Standard Form, Attachment 8	Administrative Contract Adjustment (ACA)
I.	Standard Form, Attachment 9	Certificate of Substantial Completion
J.	Standard Form, Attachment 10	Final Reconciliation Warranty Period Declaration and Contractor's Affidavit
K.	Standard Form, Attachment 11	Public Construction Bond

# Construction Agreement Attachment 1 Title(s) of Drawings (To be inserted prior to final execution)

<TITLE>
PROJECT NO. XXXX

pages

(Signed and Sealed

# Construction Agreement Attachment 2 Title(s) of Specifications (To be inserted prior to final execution)

Contract Documents / Specifications
For

<TITLE>
PROJECT NO. XXXX

(Dated – pages)

(Date Issued xxxxxxx, 2017 – xx pages)

#### Construction Agreement Attachment 3 Affidavit of No Conflict

COUNTY C	)F							
STATE OF								
			undersigned	, a	principal	with	full authority	to bind
sworn, de					ncremare	ci tiic i	ecosec j, who be	ing mist duty
	that will r	equire th	ntly engaged or w e Lessee to mainta mendations or qua	ain an adver	sarial role a	gainst th	e County or that	
(b disclosure			d full disclosure o ationships deemed			_		ships and full
(c) raise possi		•	d full disclosure of nflict(s).	prior work	history and	qualifica	ations that may b	e deemed to
Affiant ma			or the purpose of i	inducing Co	unty, a polit	cical subo	division of the Sta	ite of Florida,
Signature	5							
Print Nar	ne							
SUBSCRIBI	ED to and	sworn b	efore me this	_day of		, <u>2</u>	<u>0</u> .	
[Notary Se	eal]							
Notary Pu	blic							
My comm	ission exp	ires:						
				_	Notary Sigi	nature		
				-	Print Name	9		
OR Production (Type of Ic			n the form of iced)					

## Construction Agreement Attachment 4 Contractor's Certificate(s) of Insurance

(to be inserted prior to final execution)

## Construction Agreement Attachment 5 Contractor's Payment and Performance Bond

(To be inserted prior to final execution)

#### Attachment 6, Application for Payment

	APPLICATION FOR PA		Purchase Order No	Project No.:
		CONTRACT PAY	MENT SUMMARY	
Original Cont	tract Amount:			\$ -
Change Orde				\$ -
		order summary:		
Number	Date Approved	Additive	Deductive	
SUBTO	OTALS:	<b>\$</b> -	\$ -	
Net change o	order subtotal (Additive	less Deductive):		\$ -
		(Original Amount + Chan		<b>\$</b>
Carront Cont	radi / imodnic (CO/i):	Previous Status		
Value of the	Work in Place (WIP)	\$	\$	
Value of Stor		\$	\$	
Materials		\$	\$	
i otal Earned	(\$ and % of CCA)	- \$	<u> </u>	
Retainage	(\$ and % of CCA)		<u>-</u>	<b>\$</b>
	Net	Earned (Total earned m	inus retainage)	<u> </u>
TOTAL PRE	VIOUS PAYMENTS			\$ 
AMOUNT DU	JE THIS PAYMENT (N	Net Earned minus Previou	us Payments)	\$ 
		CONTRACTOR'S AI	FIDAVIT OF NOTICE	
CERTIFICATE	: The undersigned CONTR	RACTOR certifies that all ite	ms and amounts shown on t	this Application for Payment are

NOTARY:

**CONTRACTOR:** 

State of Florida, County of			
Sworn to (or affirmed ) and subscrib	ped before me	Name of person authorized	to sign Affidavit of Notice
this day of	by		
		TIT	LE
(Name of person giving	notice)		
(Signature of Notary Public - S Print, Type or Stamp Commiss Notary Public:		Contractor name, address a	nd telephone no.:
Personally Known or Proceed:	· · · · · · · · · · · · · · · · · · ·		
VERIFIC	ATION, RECOMMENDATION, CO (Sign	ONCURRENCES AND APPRO eatures)	VALS (Date)
Quantities verified by:			
Consultant/Engineer:			
Project Management:			
Department Head:			
Payment approved by the			
Board of County Commissioner	S:	<del></del>	
Attested to by the Clerk of Circu	uit Court:		

COUNTY PROJECT MANAGEMENT FORM PMD-1

**REV OCTOBER 2011** 

CONT	RACT CHANGE ORDER	Change Order No.:		
	tract Adjusted Amount Greater than \$1,000,000)	Contract Amount (Present Value)		
		Project Number:		
NO. OF ITEM	DESCRIPTION OF ITEM AND CHANGE	DECREASE	INCREASE	
	BY EXECUTION OF THIS CHANGE ORDER THE CONTRACTOR AGREES THAT ALL CLAIMS FOR ADDITIONAL CONTRACT TIME AND FEES FOR THE ITEMS IN THIS CHANGE ORDER HAVE BEEN SATISFIED.			
		TOTAL DECREASE:	TOTAL INCREASE:	
Contractor:	-	THE NET CHANG	•	
Address:		ADJUSTS THE CONTRACT AM		
City / State:		ТО		
Contractor Signature:		CALEND. ARE ADDED TO SCHEDULE WHITE CHANGES THE FINAL COM DATE TO	CH	
Date:		[ENTER MONTH	DAY, YEAR]	

TION, CONCURRENCES AND APPROVALS	
SIGNATURES DATE	
Project Management Div. Mgr	
Purchasing Official	
Authority to execute this contract per County Code, Chapter 2-26, and per the delegation by the County Administrator effective January 26, 2009	
	Project Management Div. Mgr  Purchasing Official Authority to execute this contract per County Code, Chapte 26, and per the delegation by the County Administrator

JUSTIFICATION FOR CHANGE	Change Order No: Project Number:
1. NECESSITY FOR CHANGE:	
2. Is change an alternate bid? (If yes, explain)	
3. Does change substantially alter the physical size of the project?	(If yes, explain)
4 Effect of this change on other 'prime' contractors?	
5 Has the Surety and insurance company been notified, if applicable	? CONTRACTOR RESPONSIBILITY

<b>ADM</b> I Project	NISTRATIVE CONTRACT ADJUSTMENT	Contract Adjustment No.: Contract Amount:		
Name:		Project Number:		
ITEM	DESCRIPTION OF ITEM AND CHANGE	DECREASE	INCREASE	
	BY EXECUTION OF THIS ADMINISTRATIVE CONTRACT ADJUSTMENT, THE CONTRACTOR AGREES THAT ALL CLAIMS FOR ADDITIONAL CONTRACT TIME AND FEES FOR THE ITEMS IN THIS ADMINISTRATIVE CONTRACT ADJUSTMENT HAVE BEEN SATISFIED.			
		TOTAL DECREASE:	TOTAL INCREASE:	
Contractor: Address:			T CHANGE OF  IT CONTRACT AMOUNT  TO	
City/State: Contractor Signature:		SCHEDULE WHICH CH	ROM	
	RECOMMENDATION, CONCURRE	NCES AND APPR	OVALS	

	SIGNATURES	DATE
Consultant / Engineer:		
Project Manager:		
Division Manager:		
Department Director /	Project Management Div. Mgr	
Deputy Director	Deputy Director, Engineering Serv	vices
COUNTY PROJECT MANAGEMEN	T DIVISION FORM PMD-14	JANUAR 2011
		Change Order No:
JUSTIFICATION FOR CHAN	IGE	Project Number:
1. NECESSITY FOR CHANGE:		
<ol><li>Does this change alter explain)</li></ol>	the scope of work? (If yes,	
<ol><li>It is the Contractor's reagency been notified?</li></ol>	esponsibility to notify the bonding ag	ency. Has the bonding

#### Attachment 9, Certificate of Substantial Completion

			CHEC	K ONE:
CERTIFICATE OF SUBSTANTIAL COMI	PLETION (S.C.	)	Partial	Total
Project Title:			Date Submitted	<u> </u> :
Contractor Data: Name:			Project No:	
Address: City/State/Zip:			S. C. Date (Propo	osed)
If the "Partial" completion box abov substantial completion is being sougl changes, if any, is certified to be subs (Description of the portion of work su	nt. Otherwise tantially comp	e, the work described plete:		
(USE C	CONTINUATIO	ON SHEETS IF NECESSA	λRY)	
A tentative list of items to be compall-inclusive, and the failure to inclusive all of the contract work the tentative list shall be completed substantial completion. The approx	oleted or corr lde an item do in accordanco l or corrected	rected is attached he oes not alter the Con e with the Contract by the Contractor wit	reto. This list ma tractor's respons Documents. The	sibility to
Contractor Signature	Date	Engineer's Approva	al	Date
Printed Name and Title		Printed Name and	Title	

The Contractor shall be responsible for security, operation, safety, maintenance, HVAC, insurance and warranties in accordance with the Contract. The County will assume the responsibility for paying the cost of electrical power from midnight of the date of Engineer's approval as indicated above.

ATTACH THE INSPECTOR'S FINAL WALKTHROUGH LIST OF DEFICIENCIES.

#### FINAL RECONCILIATION, WARRANTY PERIOD DECLARATION AND CONTRACTOR'S AFFIDAVIT Project Title: Date Submitted: Contractor Data: Project No: Name: Address: Warranty (months): City/State/Zip: This Final Reconciliation is for the work performed for Manatee County by the named contractor, hereinafter called CONTRACTOR, pursuant to the contract as amended, and acts as an addendum thereto. It is agreed that all quantities and prices in the attached Final Pay Estimate No. are correct and that the amount of \$ including retainage is due CONTRACTOR, that no claims are outstanding as between the parties, and that the stated sum represents the entirety of monies owed the CONTRACTOR. It is further agreed that the warranty period for CONTRACTOR'S work pursuant to the ( is from for CONTRACTOR, I have authority to bir As (title) CONTRACTOR, and as such make this final reconciliation, declaration and affidavit purpose of inducing Manatee County to make final payment to CONTRACTOR for wo at/upon under said contract: CONTRACTOR has paid all social security and withholding taxes accrued in connection construction project. CONTRACTOR has paid all workers' compensation and other insurance premiums inc connection with this construction project. CONTRACTOR has paid for all required permits in connection with this construction All laborers, material, men, suppliers, subcontractors and service professionals who we and/or supplied materials, equipment and/or services to the CONTRACTOR un construction contract have been paid in full. (Affiant Signature)

#### Attachment 11, Public Construction Bond

## COUNTY GOVERNMENT PUBLIC CONSTRUCTION BOND

BY TH	HIS BOND, We	, located at	, as
	(Name of Contractor)	(Address)	
Princi	ipal and(Name of Surety)	a corporation, whose a	ddress is
	(Name of Surecy)		_
Are b	ound to County, a political subdivisio	on of the State of Florida, herein called Co	unty, in the sum
of \$	. for payme	ent of which we bind ourselves, our	heirs, persona
	esentatives, successors, and assigns, j		, <b>.</b>
WHEI	REAS, the Contractor has entered into	o Contract No with the County for	the project titled
	, with conditions and provisions as	s are further described in the aforemen	tioned Contract,
		t hereof for the purposes of explaining th	
	, , , , , , , , , , , , , , , , , , , ,	or a second property of the contract of the co	
THE C	CONDITION OF THIS BOND is that Pri	ncipal:	
1 P4	erforms Contract No, between Pi	rincipal and County for construction of	
1	,	melparana county for construction of	
(Title o	f Project)		
the C	ontract Being made a part of this bon	id by reference, at the times and in the ma	anner prescribed
in the	e Contract; and		
2. Pr	romptly makes payments to all claiman	ts, as defined in Section 255.05(1), Florida S	tatutes, supplying
Pr	rincipal with labor, materials, or supplie	s, used directly or indirectly by Principal in t	he prosecution of
th	ne Work provided for in the Contract; an	d	
3. Pa	ays County all losses, damages, expense	es, costs, and attorney's fees, including appe	llate proceedings,
th	nat County Sustains because of a default	by Principal under the Contract; and	
4. Pe	erforms the guarantee of all Work and n	naterials furnished under the Contract for the	e time specified in
th	ne Contract, then this bond is void; other	rwise it remains in full force.	

notice and time limitation provisions of Section 255.05(2), Florida Statutes.

Any action instituted by a claimant under this bond for payment must be in accordance with the

Any changes in or under the Contract documents and compliance or non-compliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this bond.

DATED ON				
CONTRACTOR AS PRIN	CIPAL	SURETY		
Contractor Name		Surety Name		
Signature		Signature		
Print Name	Title	Print Name	Title	
(Corporate Seal)		(Corporate Seal)		
AGENT OR BROKER		Licensed Florida In: Yes	surance Agent? No	
Company Name		License #:		
Address		State of		
City/State/Zip		County of		
Telephone		City of		

## ATTACHMENT 12 COUNTY COMMUNITY DEVELOPMENT BLOCK GRANT CONTRACTOR AND SUBCONTRACTOR REPORT

		Date:
Project Name:		<del>-</del>
Contractor / Subcontractor:		<del></del>
Street:		<del>-</del>
City:		State: Zip:
Phone:	FAX:	
Email:		
Contractor /Subcontractor IRS Identifi	cation Number:	
Contractor/Subcontractor DUNS Num	ber:	
Contractor/Subcontractor Race/Ethnic	city: (Circle One)	
1 – White American;	2 – Black American;	3- Native American
4 – Hispanic American;	5- Asian/Pacific American;	6 – Hasidic Jew
Women-Owned Business? Yes No	(Circle One) If yes, attach cert	ification
Section 3 Contractor? Yes No	(Circle One)	
Contracts/Subcontracts Awarded for t	his Project:	

	Т	ype Contract
	Construction	Non-Construction
Total dollar amount of all contracts/subcontracts		
awarded		
Total dollar amount awarded to Section 3 businesses		
Percentage of the total dollar amount that was		
awarded to Section 3 businesses		
Total number of Section 3 businesses receiving		
contracts		

#### Employment and Training Resulting from this Project:

Job Category	Number of	Number of New	Number
	New Hires	Hires that are	of Section 3
		Section 3 Residents	Trainees
Professionals			
Technicians			
Office/Clerical			
Sales			
Craft Workers (skilled)			
Operatives (semiskilled)			
Laborers (unskilled)			
Service Workers			
Other (List)			
Total			

Detailed Narrative Description of Specific Actions Taken to Comply with Section 3 Requirements (attacadditional supporting documentation):								
Contractor/Subcontractor Signature: _		_						
Date:	-							

#### ATTACHMENT 13 RECORD OF EMPLOYEE INTERVIEW

#### Record of Employee Interview

U.S. Department of Housing and Urban Development Office of Labor Relations OMB Approval No. 2501-0009 (exp. 12/31/2013)

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid CMIB control number. The information is collected to ensure compliance with the Federal labor standards by recording interviews with construction workers. The information collected will assist HUD in the conduct of compliance monitoring; the information will be used to test the versicity of certified payori reports submitted by the employer. <u>3ensitive information</u>. The information collected on this form is considered sensitive and is protected by the Privacy Act. The Privacy Act requires that these records be maintained with appropriate administration, the information obligated administrative, the character of the protected against any anticipated threats or hexards to their security or integrity that could result in substantial harm, embarrassment, inconvenience, or unfairness to any individual on whom the information is maintained. The information obligated herein is voluntary, and any information provided shall be kept confidential.

			y Information provided chall		
1a. Project Name			2a. Employee Name		
1b. Project Number			2b. Employee Phone Nu	imber (including area code)	
1c. Contractor or Sub	ocontractor (Employer)		2c. Employee Home Ad	dress & Zip Code	
			2d. Verification of identif	fication?	
3a. How long on this job?	3b. Last date on this job before today?	3c. No. of hours last day on this job?	4a. Hourly rate of pay?	Medical Yes No	4c. Pay stub?  Yes No
<ol><li>Your job classifica</li></ol>	tion(s) (list all) continue	on a separate sheet if ne	ecessary		
Your duties	co	MEI	$\cap$ F	$\Delta = \Delta$	
Tools or equipmer     Are you an apprent     Are you paid for all     Employee Signs     Duties observed	tice or trainee?	11. Have you e		hours worked in excess of 40 in road into giving up any part of yo	
14. Remarks 15a. Interviewer nam	ve (nlessee nrint)	155 8	ignature of Interviewer	15c. Date of	of interview
Tod. Interviewer man	е (реазе рин)	150. 5	ghaldre of mierviewer	Tod. Date (	of micer view
Payroll Exam	ination				
16. Remarks					
17a. Signature of Pa	ayroll Examiner		17b. Date		

#### ATTACHMENT 14 SECTION 3 SUMMARY REPORT

#### Section 3 Summary Report

Economic Opportunities for Low – and Very Low-Income Persons

U.S. Department of Housing and Urban Development Office of Fair Housing And Equal Opportunity

OMB Approval No: 2529-0043 (exp. 11/30/2010) HUD Field Office:

Section back of page for Public Reporting Burden stateme	ent				
Recipient Name & Address: (street, city, state, zip)	2. Fed	leral identification: (gran	itno.)	Total Amount of Award:	
	4. Con	itact Person		5. Phone: (Include area code	4
	6. Len	gth of Grant		7. Reporting Period:	-
Date Report Submitted:	9. Pro	gram Code: (Use se for eac	parate sheet h program code)	10. Program Name:	
Part I: Employment and Training (** Colu	ımns B, (	Cand Fare mand	atory fields. Include New I	lires in E &F)	
Job Category N	B lumber of lew Hires	O Number of New Hires that are Sec. 3 Residents	No of Aggregate Number of Staff Hours of New Hires that are Sec. 3 Residents	E % of Total Staff Hours for Section 3 Employees and Trainees	Number of Section 3 Trainees
Professionals					j i
Technicians					
Office/Clerical Construction by Trade (List)					i i
Trade Trade					
Trade					
Trade					
Trade					
Other (List)					
				*	1
8					
Total					
* Program Codes 3 =	Public/India	an Housing	4 = Homeless Assis	tance 8 -	CDBG State Administered

5 = HOME 6 = HOME State Administered 7 = CDBG Entitlement

Page 1 of 2

form HUD 60002 (6/2001) Ref 24 CFR 135

#### Part II: Contracts Awarded

Construction Contracts:		
A. Total dollar amount of all contracts awarded on the project	\$	
B. Total dollar amount of contracts awarded to Section 3 businesses	5	
C. Percentage of the total dollar amount that was awarded to Section 3 businesses		%
D. Total number of Section 3 businesses receiving contracts		
2. Non-Construction Contracts:		ì
A. Total dollar amount all non-construction contracts awarded on the project/activity	5	
B. Total dollar amount of non-construction contracts awarded to Section 3 businesses	\$	
C. Percentage of the total dollar amount that was awarded to Section 3 businesses		%
D. Total number of Section 3 businesses receiving non-construction contracts		

#### Part III: Summary

Indicate the efforts made to direct the employment and other economic opportunities generated by HUD financial assistance for housing and community development programs, to the greatest extent feasible, toward low-and very low-income persons, particularly those who are recipients of government assistance for housing. (Check all that apply.)

Attempted to recruit low-income residents through: local advertising media, signs prominently displayed at the project site,

Attempted to recruit low-income residents through: local advertising media, signs prominently displayed at the project site, contracts with the community organizations and public or private agencies operating within the metropolitan area (or nonmetropolitan county) in which the Section 3 covered program or project is located, or similar methods.

Participated in a HUD program or other program which promotes the training or employment of Section 3 residents.

Participated in a HUD program or other program which promotes the award of contracts to business concerns which meet the definition of Section 3 business concerns.

Coordinated with Youthbuild Programs administered in the metropolitan area in which the Section 3 covered project is located.

Coordinated with Youthbuild Programs administered in the metropolitan area in which the Section 3 covered project is located. Other; describe below.

Public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB number.

Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u, mandates that the Department ensures that employment and other economic opportunities generated by its housing and community development assistance programs are directed toward low- and very-low income persons, particularly those who are recipients of government assistance housing. The regulations are found at 24 CFR Part 135. The information will be used by the Department to monitor program recipients' compliance with Section 3, to assess the results of the Department's efforts to meet the statutory objectives of Section 3, to prepare reports to Congress, and by recipients as self-monitoring tool. The data is entered into a database and will be analyzed and distributed. The collection of information involves recipients receiving Federal financial assistance for housing and community development programs covered by Section 3. The information will be collected annually to assist HUD in meeting its reporting requirements under Section 808(e)(8) of the Fair Housing Act and Section 918 of the HCDA of 1992. An assurance of confidentiality is not applicable to this form. The Privacy Act of 1974 and OMB Circular A-108 are not applicable. The reporting requirements do not contain sensitive questions. Data is cumulative; personal identifying information is not included.

Page 2 of 2

form HUD 60002 (11/2010) Ref 24 CFR 135

#### ATTACHMENT 15 PAYROLL

ess if displays a currently val	OMB control number.	Rev. April 2005
		OMB No.: 1215-0149 Expires: 04/30/2009
PROJECT AND LOCATION		PROJECT OR CONTRACT NO
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#### ATTACHMENT 16 – GENERAL DECISION NO. FL 180218 01/05/2018

General Decision Number: FL180218 01/05/2018 FL218

Superseded General Decision Number: FL20170218

State: Florida

Construction Type: Highway

County: Manatee County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a) (2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date 01/05/2018

#### \* SUFL2013-036 08/19/2013

1	Rates	Fringes
CARPENTER, Includes Form Work\$	8.00	0.00
CEMENT MASON/CONCRETE FINISHER\$	13.89	0.00
ELECTRICIAN\$	21.80	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine)\$	16.79	0.00
HIGHWAY/PARKING LOT STRIPING: Painter\$	12.13	0.00
INSTALLER - GUARDRAIL5	11.94	0.20
IRONWORKER, ORNAMENTAL	13.48	0.00
IRONWORKER, REINFORCING5	16.39	0.00
IRONWORKER, STRUCTURAL\$	16.42	0.00
LABORER (Traffic Control Specialist)\$	13.19	2.11
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	13,89	0.00
LABORER: Common or General\$	10,87	0.00
LABORER: Flagger\$	11.77	0.00
LABORER: Grade Checker\$	15.00	0.00
LABORER: Mason Tender + Cement/Concrete\$	12.93	0.00
LABORER: Pipelayer\$	13.95	0.00
OPERATOR: Backhoe/Excavator/Trackhoe\$	14.81	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader\$	12.80	0.00
OPERATOR: Broom/Sweeper\$	13.69	0.00
OPERATOR: Bulldozer\$	16.79	0.00
OPERATOR: Concrete Finishing Machine\$	15.44	0.00
OPERATOR: Crane\$	21.69	0.00
OPERATOR: Curb Machine\$	19.67	0.00
OPERATOR: Drill\$	14.78	0.00
OPERATOR: Forklift\$	12.58	0.00

OPERATOR:	Gradal1\$ 14.71	0.00
OPERATOR:	Grader/Blade \$ 18.04	0.00
OPERATOR:	Loader \$ 14.51	0.00
OPERATOR:	Mechanic \$ 19.49	0.00
OPERATOR:	Milling Machine\$ 16.09	0.00
OPERATOR:	Oiler \$ 17.31	0.00
OPERATOR: Aggregate,	Paver (Asphalt, and Concrete) 18.32	0.00
OPERATOR:	Piledriver \$ 17.23	0.00
	Post Driver /Fences)\$ 19.35	0.00
OPERATOR:	Roller \$ 13.79	0.00
OPERATOR:	Scraper \$ 11.74	0.00
OPERATOR:	Screed \$ 16.74	0.00
OPERATOR:	Tractor\$ 12.89	0.00
OPERATOR:	Trencher \$ 16.07	0.66
PAINTER: S	Spray \$ 16.38	0.00
TRUCK DRIVE	ER: Dump Truck 14.22	0.00
TRUCK DRIVE	CR: Flatbed Truck\$ 14.13	0.00
TRUCK DRIVE	ER: Lowboy Truck\$ 18.29	0.00
TRUCK DRIVE	CR: Slurry Truck\$ 11.96	0.00
TRUCK DRIVE	CR: Water Truck\$ 14.88	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the

2 of 4 7/10/2018, 2:52 PM

most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

> Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

> Administrative Review Board U.S. Department of Labor

200 Constitution Avenue, N.W. Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

### EXHIBIT 1

#### **TECHNICAL SPECIFICATIONS**

#### **GROUP 1 TECHNICAL SPECIFICATIONS**

#### MC-1 TYPE S ASPHALT CONCRETE, QUALITY ASSURANCE AND ACCEPTANCE PROCEDURES

#### 331-1 Description.

331-1.1 General: Construct a Type S Asphalt Concrete course (using the Quality Assurance acceptance system) using the type of mixture specified in the Contract, or when offered as alternates, as selected. If offered as alternates, meet the layer thickness criteria specified in 331-1.2. Type S mixes are identified as Type S-I, Type S-II, or Type S-III. The composition and physical test properties for all mixes including Type S Asphalt Concrete are shown in Tables 331-1 and 331-2. This Section establishes Acceptance Procedures for materials and work performed under Sections 280, 290, 331, 332, 333, 335, and 337.

Where Type S Asphalt Concrete is specified in the Contract, if approved by the Engineer, the equivalent fine Type SP Asphalt Concrete mixture (Traffic Level C) meeting the requirements of Section 334 may be selected as an alternate at no additional cost to the Department. The equivalent mixes are as follows:

Type S-I	Type SP-12.5
- 1	Type SP-19.0
- 1	Type SP-9.5

Meet the requirements for plant and equipment specified in Section 320. Meet the general construction requirements specified in Section 330.

	Table 331-1								
			Bituminous	Concrete M	lixtures				
			(Gradation	n Design Ra	ange)				
Type			Total A	Aggregate P	assing Sieve	es <sup>1</sup>			
	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 10	No. 40	No. 80	No. 200	
	[19.0 mm]	[12.5 mm]	[9.5 mm]	[4.75 mm]	[2.0  mm]	[425 µm]	[180 µm]	[75 µm]	
S-I <sup>5</sup>	100	88-98	75-93	47-75	31-53	19-35	7-21	2-6	
S-II <sup>2</sup>	83-98	71-87	62-78	47-63	33-49	19-35	9-18	2-6	
S-III <sup>5</sup>		100	88-98	60-90	40-70	20-45	10-30	2-6	
Type II		100	90-100	80-100	55-90			2-12	
Type III		100	80-100	65-100	40-75	20-45	10-30	2-10	
SAHM		100						0-12	
ABC-1		100						0-12	
ABC-2		100			55-90			0-12	
ABC-3 <sup>3</sup>	70-100			30-70	20-60	10-40		2-10	
FC-2 <sup>4</sup>		100	85-100	10-40	4-12			2-5	
FC-3 <sup>5</sup>		100	88-98	60-90	40-70	20-45	10-30	2-6	

<sup>&</sup>lt;sup>1</sup> In inches [mm] or sieves [μm].

Table 331-2 Non SI Units
Marshall Design Properties For Bituminous Concrete Mixes

<sup>&</sup>lt;sup>2</sup> 100% passing 1 1/4 inch [31.5 mm] sieve and 94 to 100% passing 1 inch [25.0 mm] sieve.

<sup>3 100%</sup> passing 1 1/2 inch [37.5 mm] sieve.

<sup>&</sup>lt;sup>4</sup> The Engineer may increase the design range for the No. 10 [2.00 mm] sieve for lightweight aggregates.

The Engineer may retain up to 1% on the maximum sieve size.

Mix Type	Minimum Marshall Stability (lbs.)	Flow** (0.01 in.)	Minimum VMA (%)	Air Voids (%)	Minimum Effective Asphalt Content (%)	VFA Voids Filled with Asphalt (%)
S-I	1,500*	8-13	14.5	4-5	***	65-75
S-II	1,500*	8-13	13.5	4-5	***	65-75
S-III	1,500*	8-13	15.5	4-6	***	65-75
Type II	500-750	7-15	18	5-16	6.0	-
Type III	750-1,000	7-15	15	5-12	5.5	-
SAHM	300-500	7-15	15	5-16	6.0	-
ABC-1	500	7-15	15	5-16	6.0	-
ABC-2	750	7-15	15	5-14	5.5	-
ABC-3	1,000	8-13	14	4-7	***	65-78
FC-2	-	-	-	-	-	-
FC-3	1,500	8-13	15.5	4-6	***	65-75

<sup>\*</sup>The minimum Marshall Stability for Type S mixes used on limited access facilities (Interstate, Turnpike, and Expressways) shall be 1,800 lbs.

<sup>\*\*\*</sup>The ratio of the percentage by weight of total aggregate passing the No. 200 sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

Table 331-2 SI Units								
Marshall Design Properties For Bituminous Concrete Mixes								
	Minimum				Minimum			
	Marshall			Air	Effective			
	Stability	Flow**	Minimum	Voids	Asphalt	VFA Voids Filled with Asphalt		
Mix Type	(kN)	(mm)	VMA (%)	(%)	Content (%)	(%)		
S-I	6.7*	2.0-3.3	14.5	4-5	***	65-75		
S-II	6.7*	2.0-3.3	13.5	4-5	***	65-75		
S-III	6.7*	2.0-3.3	15.5	4-6	***	65-75		
Type II	2.2-3.3	1.8-3.8	18	5-16	6.0	-		
Type III	3.3-4.4	1.8-3.8	15	5-12	5.5	-		
SAHM	1.3-2.2	1.8-3.8	15	5-16	6.0	-		
ABC-1	2.2	1.8-3.8	15	5-16	6.0	-		
ABC-2	3.3	1.8-3.8	15	5-14	5.5	-		
ABC-3	4.4	2.0-3.3	14	4-7	***	65-78		
FC-2	-	-	-	-	-	-		
FC-3	6.7	2.0-3.3	15.5	4-6	***	65-75		

<sup>\*</sup>The minimum Marshall Stability for Type S mixes used on limited access facilities (Interstate, Turnpike, and Expressways) shall be 8.0 kN.

The Engineer will accept the work on a LOT to LOT basis in accordance with the applicable requirements of Sections 5, 6, and 9. The size of the LOT will be as specified in 331-6 for the bituminous mixture produced at the plant and as stipulated in 331-7 for the material placed on the roadway.

#### 331-1.2 Layer Thicknesses:

<sup>\*\*</sup>The maximum Flow value during production shall not exceed one point more than shown in the Table.

<sup>\*\*</sup>The maximum Flow value during production shall not exceed 0.25 mm more than shown in the Table.

<sup>\*\*\*</sup>The ratio of the percentage by weight of total aggregate passing the 75µm sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

**331-1.2.1 Structural Layers:** The allowable layer thicknesses for Type S Asphalt Concrete mixtures used in structural and overbuild applications is as follows:

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on Type S mixtures when used as a structural course:

Type S-III – Limited to the final (top) structural layer, one layer only.

Type S-I – May not be used in the first layer of courses over 3 1/2 inches

[90 mm] thick, nor in the first layer of courses over 2 3/4 inches [70 mm] thick on limited access facilities.

Type S-II – May not be used in the final (top) structural layer.

- **331-1.2.2 Additional Requirements:** The following requirements also apply to Type S Asphalt Concrete mixtures:
- 1. A minimum 1 1/2 inch [40 mm] initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).
- 2. When construction includes the paving of adjacent shoulders (#5 feet [#1.5 m] wide), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless shown differently in the plans.
- 3. All overbuild layers shall be Type S asphalt concrete. Use the minimum and maximum layer thicknesses as specified in 331-1.2.1 unless shown differently in the plans. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by 1/2 inch [13 mm], and the maximum allowable thickness may be increased 1/2 inch [13 mm], unless shown differently in the plans. Other variations from these thicknesses must be approved by the Engineer.

#### 331-2 Materials.

**331-2.1 General Requirements:** Meet the material requirements specified in Division III. Specific references are as follows:

Superpave PG Asphalt Binder or Recycling Agent	916-1, 916-2
Mineral Filler	917-1, 917-2
Coarse Aggregate, Stone, Slag or Crushed Gravel	Section 901
Fine Aggegate	Section 902

Asphalt concrete mixes containing crushed gravel as coarse aggregate component must show no potential for stripping during laboratory testing for mix design verification.

Crushed Reclaimed Portland Cement Concrete Pavement may be used as a coarse aggregate or screenings component subject to meeting all applicable specifications.

#### 331-2.2 Specific Requirements:

**331-2.2.1 Condition of Aggregate:** Use clean aggregate containing no deleterious substances. Do not use coarse or fine aggregate which contains more than 0.5% of phosphate.

- 331-2.2.2 Fine Aggregate and Mineral Filler: In laboratory tests, and for the purpose of proportioning the paving mixture, consider all material passing the No. 10 [2.00 mm] sieve and retained on the No. 200 [75  $\mu$ m] sieve as fine aggregate, and the material passing the No. 200 [75  $\mu$ m] sieve as mineral filler.
- 331-2.2.3 Screenings: Do not use any screenings in the combination of aggregates containing more than 15% of material passing the No. 200 [75  $\mu$ m] sieve. When two screenings are blended to produce the screening component of the aggregate, one of such screenings may contain up to 18% of material passing the No. 200 [75  $\mu$ m] sieve, as long as the combination of the two does not contain over 15% material passing the No. 200 [75  $\mu$ m] sieve. Screenings may be washed to meet these requirements.

**331-2.2.4** Use of Reclaimed Asphalt Pavement (RAP): Subject to certain requirements, Reclaimed Asphalt Pavement (RAP) may be used as a component material of the asphalt mixture. Where the material is recovered from a FDOT project, the Composition of Existing pavement may be available on the Department's web site. The URL for obtaining this information, if available, is: www11.myflorida.com/statematerialsoffice/Bituminous/CentralBitLab/AsphaltCompositions/Compositions.htm

RAP may be used as a component material of the bituminous mixture subject to the following:

- 1. Assume responsibility for the design of asphalt mixes which incorporate RAP as a component part.
- 2. Do not allow RAP to exceed 60% by weight of total aggregates for Asphalt Base Courses nor more than 50% by weight of total aggregates for Structural and Leveling Courses. Do not use RAP in Friction Courses.
- 3. Mount a grizzly or grid with openings of a sufficient size to prevent clogging of the cold feed over the RAP cold bin.

Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycled mixture.

If oversized RAP material appears in the completed recycled mix, cease plant operations and take appropriate corrective action.

- 4. Ensure that the RAP material as stockpiled is reasonably uniform in characteristics and contains no aggregate particles which are soft or conglomerates of fines.
- 5. Ensure that the RAP has a minimum average asphalt content of 4% by weight of total mix. The Department reserves the right to sample the stockpile in order that this requirement is met.

When material milled from the project is used as a component of the asphalt mixture and a Composition of Existing Pavement is known, use the following procedures for obtaining representative samples for the mix design:

- 1. Cut ten 6-inch [150 mm] cores in area(s) approved by the Engineer. Fill the core holes immediately prior to opening to traffic.
- 2. Representative samples may also be obtained by milling the existing pavement to the full depth shown on the plans for pavement removal for a length of approximately 200 feet [60 m]. Immediately replace the pavement removed with the specified mix in the Contract.
- 3. Submit a request in writing to the Engineer for any variance from the above outlined methods of obtaining samples for mix designs.

When the RAP to be used as a component in a mix design is stockpiled from a previous DOT project and the Composition of Existing Pavement is known, design the mix and submit to the Department for verification.

When the composition of stockpiled RAP to be used as a component in a mix design is not known, design the mix as follows:

- 1. Submit a bag of RAP, composed of samples from several locations in the stockpile(s), to the Department at least four weeks prior to the planned start of mix design. The Engineer will run viscosities on the reclaimed asphalt pavement and furnish the information to the Contractor.
- 2. Run a minimum of six extraction gradation analyses of the RAP. Take the samples at random locations around the stockpile(s).
- 3. Request the Engineer to make a visual inspection of the stockpile(s) of RAP. Based on visual inspection, the Engineer will determine the suitability of the stockpiled materials.
- 4. When the proposed mix design is submitted to the Department for verification, submit the data from the extraction gradation analyses required above.

**331-2.2.5 Binder for Mixes with RAP:** Use a PG 67-22 where RAP is less than 20% by weight of total aggregate; use a PG 64-22 where RAP is 20% or greater but less than 30% by weight of total aggregate; use appropriate recycle agent where RAP is 30% or greater.

The Engineer reserves the right to change binder type and grade at design based on the characteristics of the RAP binder, and reserves the right to request reasonable changes during the production based on the requirements of 331-4.4.4.

- **331-2.2.6** Use of Recycled Crushed Glass: Recycled crushed glass may be used as a component of the bituminous mixture subject to the following:
- 1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.
- 2. The percentage of recycled crushed glass in any bituminous mixture does not exceed 15% of the total aggregate weight.
- 3. The asphalt binder used with mixtures containing recycled crushed glass contains 0.5% anti-stripping agent from an approved source. The addition of the specified amount of anti-stripping agent must be certified by the supplier.
- 4. Test bituminous mixtures containing recycled crushed glass in accordance with AASHTO T 283 as part of the mix design approval. The minimum tensile strength ratio must not be less than 80%. An increase in the amount of anti-stripping agent may be necessary in order to meet this requirement.
- 5. Recycled crushed glass must not be used in friction course mixtures nor in structural course mixtures which are to be used as the final wearing course.

#### 331-3 Permissible Variation for the Coarse Aggregate.

Size and uniformly grade or combine the aggregate or aggregates shipped to the job in such proportions that the resulting mixture meets the grading requirements of the mix design.

#### 331-4 General Composition of Mixture.

**331-4.1 General:** Use a bituminous mixture composed of a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and bituminous material. Ensure that not more than 20% by weight of the total aggregate used is silica sand or local materials as defined in Section 902. Consider the silica sand and local materials contained in any RAP material, if used in the mix, in this limitation. Size, grade and combine the several aggregate fractions in such proportions that the resulting mixture meets the grading and physical properties of the verified mix design.

RAP meeting the requirements of 331-2.2.4 may be approved as a substitution for a portion of the combination of aggregates, subject to all applicable specification requirements being met.

**331-4.2 Grading Requirements:** In all cases, use a mix design within the design ranges specified in Table 331-1.

#### **331-4.3 Mix Design:**

**331-4.3.1 General:** Prior to the production of any asphalt paving mixture, submit a mix design and representative samples of all component materials to the Department at least two weeks before the scheduled start of production. The Engineer will verify the mix design before use. Send a copy of the proposed mix design to the Engineer at the same time. (Open-graded mixes will be designed by the Engineer.) Furnish the following information:

- 1. The specific project on which the mixture will be used.
- 2. The source and description of the materials to be used.
- 3. The gradation and approximate proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use.

- 4. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly No. 200 [75  $\mu$ m]) should be accounted for and identified for the applicable sieves.
- 5. A single percentage of asphalt by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%. For structural mixes (S-I, S-II and S-III) establish the optimum asphalt content at a level corresponding to a minimum of 4.5% air voids. For FC-3 mixes, establish optimum asphalt content at a level corresponding to a minimum of 5.0% air voids.
  - 6. A single temperature at which the mixture is intended to be discharged from
- 7. The laboratory density of the asphalt mixture for all mixes except Open-Graded Friction Courses.
- 8. Evidence that the completed mixture will meet all specified physical requirements.
- 9. The name of the individual responsible for the Quality Control of the mixture during production.
- 331-4.3.2 Revision of Mix Design: Submit all requests for revisions to approved mix designs, along with supporting documentation, in writing to the Engineer. In order to expedite the revision process, a verbal revision request or discussion of the possibility of a revision request may be made, but must be followed up with a written request. The verified mix design will remain in effect until a change is authorized by the Engineer. In no case will the effective date of the revision be established earlier than the date of the first communication with the Engineer regarding the revision.

Provide a new mix design for any change in source of aggregate.

331-4.3.3 Resistance to Plastic Flow: Include with the submitted mix design test data showing that the material as produced will meet the requirements specified in Table 331-2 when tested in accordance with FM 1-T 245. Further, determine the bulk specific gravity of the laboratory compacted bituminous mixture in accordance with FM 1-T 166.

Determine the percent of unfilled voids and the percent of aggregate voids filled with asphalt using the maximum specific gravity of the bituminous mixture and on the asphalt content of each group of specimens prepared from the same sample. Determine maximum specific gravity of the bituminous mixture by FM 1-T 209.

**331-4.3.4 Revocation of Mix Design:** The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

#### 331-4.4 Contractor's Quality Control:

the plant.

**331-4.4.1 Personnel:** In accordance with the requirements of 331-5.2 provide the necessary quality control personnel. Ensure that the Quality Control Technician is certified by the Department and possesses a valid certificate of qualification. When it becomes evident to the Department that the Quality Control Technician cannot perform as required by the position, the Department will revoke the certification and require replacement with a certified technician.

**331-4.4.2 Extraction Gradation Analysis:** Sample the bituminous mixture at the plant in accordance with FM 1-T 168. Determine the percent bitumen content of the mixture in accordance with FM 5-563, and determine the percent passing the standard sieves in accordance with FM 1-T 030. In the event the calibration factor for the mix exceeds 0.50%, conduct the extraction and gradation analysis in accordance with FM 5-544 and FM 5-545, respectively. Show all test results to the nearest 0.01. Carry all calculations to the nearest 0.001 and rounded to the nearest 0.01, in accordance with the Department's rules of rounding.

Run a minimum of one extraction gradation analysis of the mixture for each day's or part of a day's production and immediately following any change in the production process. Take the quality control sample of mixture for the extraction gradation analysis each day as soon as the

plant operations have stabilized. Obtain the results in a timely manner (no later than the end of the day) so that adjustments can be made if necessary.

On initial use of a Type S or FC-3 mix design at a particular plant, as a minimum, run an additional extraction gradation analysis if more than 500 tons [450 metric tons] of mixture are produced on the first day of production.

Extraction gradation analysis will not be required on the days when mix production is less than 100 tons [90 metric tons]. However, when mix production is less than 100 tons [90 metric tons] per day on successive days, run the test when the accumulative tonnage on such days exceeds 100 tons [90 metric tons].

Use the target gradation and asphalt content as shown on the mix design. Any changes in target will require a change in the mix design in accordance with 331-4.3.2.

If the percentage of bitumen deviates from the optimum asphalt content by more than 0.55% or the percentage passing any sieve falls outside the limits shown in Table 331-3, make the necessary correction. If the results for two consecutive tests deviate from the optimum asphalt content by more than 0.55% or exceeds the limits as shown in Table 331-3 for any sieve, stop the plant operations until the problem has been corrected. In addition, if the results of two consecutive tests show an amount greater than 99.0% passing the 1/2 inch [12.5 mm] sieve for Type S-I, an amount greater than 99.0% passing the 3/8 inch [9.5 mm] sieve for Types S-III or FC-3, stop the plant operation until the problem has been corrected.

Maintain control charts showing the results of the extraction gradation analysis (bitumen content and sieve analysis).

Table	331-3			
Tolerances for Quality Control Tests (Extraction Gradation Analysis)				
Sieve Size	Percent Passing			
1 inch [25.0 mm]	7			
3/4 inch [19.0 mm]	7			
1/2 inch [12.5 mm]	7			
3/8 inch [9.5 mm]	7			
No. 4 [4.75 mm]	7			
No. 10 [2.00 mm]	5.5			
No. 40* [*425 μm]	4.5			
No. 80* [*180 μm]	3			
No. 200 [75 μm]	2			
*Does not apply to SAHM, ABC-1 or Type II.				

**331-4.4.3 Plant Calibration:** At or before the start of mix production, perform a wash gradation on a set of hot bin samples for batch or continuous mix plants or belt cut for drum mix plants to verify calibration of the plant. When approved by the Engineer, extraction gradation analysis of the mix may be used to verify calibration of the plant. This extraction gradation analysis may also be used to fulfill the quality control requirements for the first day's production.

331-4.4.4 Viscosity of Asphalt in Mixes Containing RAP: When RAP is a component material, the viscosity of the asphalt material in the bituminous mixture, determined by the Engineer in accordance with ASTM D 2171, shall be  $6,000 \pm 2,000$  poises  $[600 \pm 200 \text{ Pa·s}]$ . This determination will be made on samples obtained by the Department on a random basis at a frequency of approximately one per 2,000 tons [1,800 metric tons] of mix.

If the viscosity determined by the Engineer is out of the specified range, adjust the binder formulation or blend of RAP in the mix to bring the viscosity within tolerance.

#### 331-5 Acceptance Procedures.

The Department will approve all materials for acceptance through the Department's Acceptance Procedures specified herein. The Engineer is responsible for determining the acceptability of the construction and materials incorporated therein. The Contractor is responsible for the quality of construction and materials incorporated therein. Accomplish all quality control sampling and testing on a random basis in accordance with the approved Quality Control Plan. The Department will perform all necessary sampling and testing for acceptance purposes on a random basis as specified herein, in addition to monitoring and observing the Contractor's quality control test procedures and results. Maintain effective quality control until final project acceptance.

A LOT is defined as an isolated quantity of a specified material produced from a single source or operation, or it is a measured amount of specified construction produced by the same process. In order to change the process, thereby necessitating the termination of the current LOT and starting a new LOT, submit a written request, with justification, to the Engineer for approval. Obtain the Engineer's approval prior to making the process change.

Perform all quality control sampling and testing of materials in strict conformance with the Florida Method of Sampling and Testing as found in the Field Sampling and Testing Manual. The Department will perform all acceptance sampling and testing of materials in strict conformance with the Florida Method of Sampling and Testing as found in the Field Sampling and Testing Manual. This manual, developed and distributed by the FDOT Materials Office, contains the detailed sampling and testing procedures from AASHTO and ASTM as modified by the Department.

#### 331-5.1 Acceptance Plans:

**331-5.1.1 Payment Based on Acceptance Results:** The Department will adjust the payment for each LOT of material, product, item of construction or completed construction on the basis of acceptance test results in accordance with the requirements specified hereinafter in the applicable Sections.

**331-5.1.2 Resampling of LOTs:** The Department requires that LOTs of materials, products, items of construction or completed construction meet the requirements of these Specifications at the time of submission. The Department will not take check samples for acceptance purposes.

331-5.1.3 Referee System: The Department has established a referee system to verify the validity of the acceptance test results on LOTs at the asphalt plant. The Department will evaluate the acceptance test results with data from split samples run by the District and Central Labs. The Engineer will make a final determination and disposition of the acceptance test results. Acceptance results will be considered non-representative if the test results from the Field and Referee samples differ by more than 0.44% for asphalt content when obtained by the use of FM 5-563 or 0.56% for FM 5-544. Acceptance results for gradation will be considered non-representative if the test results from the Field and Referee samples differ by more than the precision values given in Figure 2 of FM 1-T 030 when using FM 5-563 or Figure 2 of FM 5-545 when using FM 5-544. When the referee analysis indicates that one or more test results are not representative, the Engineer will discard the non-representative test value(s) and base payment calculations for the LOT (including the sublot with the non-representative test values) on the remaining sublot(s) test data as defined in 331-6.

**331-5.2 Quality Control by the Contractor:** Provide and maintain a quality control system that provides reasonable assurance that all materials, products and completed construction submitted for acceptance meet Contract requirements. Develop and maintain a quality control system in conformance with the following requirements:

#### CONTRACTOR QUALITY CONTROL SYSTEM

#### I. SCOPE:

These Specifications establish minimum requirements and activities for a Contractor quality control system. These requirements pertain to the inspections and tests necessary to substantiate material and product conformance to Contract requirements and to all inspections and tests required by the Contract.

#### II. FUNCTIONS AND RESPONSIBILITIES:

1. The Department. The Department will verify the Contractor's design mixes, inspect plants and monitor control of the operations to ensure conformance with these Specifications. The Department will design all open-graded friction mixes (FC-2 and FC-5).

At no time will the Engineer issue instructions to the Contractor or producer as to the setting of dials, gauges, scales and meters. However, the Department's representatives may question and warn the Contractor against the continuance of any operations or sequence of operations that obviously do not result in satisfactory compliance with the requirements of these Specifications.

2. The Contractor. Submit in writing the proposed Quality Control Plan for each asphalt plant for the Engineer's approval. Maintain the approved Quality Control Plan in effect for the plant to which it is assigned until the Engineer rejects it in writing. Include in the plan the sampling, testing, inspection and the anticipated frequencies of each to maintain process control. A recommended series of sampling, testing and inspecting activities are shown in Table 331-4.

#### Table 331-4

### RECOMMENDATIONS FOR A CONTRACTOR QUALITY CONTROL PLAN

#### A. All Types of Plants

- 1. Stockpiles
  - a. Place materials in the correct stockpile.
  - b. Use good stockpiling techniques.
  - c. Inspect stockpiles for separation, contamination, segregation, etc.
- 2. Incoming Aggregate
  - a. Obtain gradations and bulk specific gravity (BSG) values from the aggregate supplier.
  - b. Determine gradation of all component materials.
  - c. Compare gradations and BSG to mix design.
- 3. Cold Bins
  - a. Calibrate the cold gate/feeder belt settings.
  - b. Observe operation of cold feed for uniformity.
- 4. Dryer
  - a. Observe pyrometer for aggregate temperature control.
  - b. Observe efficiency of the burner.
- 5. Hot Bins
  - a. Determine gradation of aggregates in each bin.
  - b. Determine theoretical combined grading.
- 6. Bituminous Mixture
  - a. Determine asphalt content.
  - b. Determine mix gradation.
  - c. Check mix temperature.
  - d. Verify modifier addition.

#### B. Batch Plants

- 1. For batch weights, determine percent used and weight to be pulled from each bin to ensure compliance with the mix design.
  - 2. Check mixing time.
  - 3. Check operations of weigh bucket and scales.

#### C. Continuous Mix Plant

- 1. Determine gate calibration chart for each bin.
- 2. Determine gate settings for each bin to ensure compliance with the mix design.

3. Determine gallons [cubic meters] per revolution or gallons [cubic meters] per minute to ensure compliance with the mix design.

#### D. Drum Mixer Plant

- 1. Calibrate the cold feed and prepare a calibration chart for each cold gate.
- 2. Develop information for the synchronization of the aggregate feed, reclaimed asphalt pavement (RAP) feed and the bituminous material feed.
  - 3. Calibrate the weigh bridge on the changing conveyor.

The activities shown in Table 331-4 are the normal activities necessary to control the production of bituminous concrete at an acceptable quality level. The Department recognizes, however, that depending on the type of process or materials, some of the activities listed may not be necessary and, in other cases, additional activities may be required. The frequency of these activities will also vary with the process and the materials. When the process varies from the defined process average and variability targets, increase the frequency of these activities until the proper conditions are restored. Take one sample and test for every 1,000 tons [900 metric tons] of incoming aggregate (including RAP) as it is stockpiled. Test RAP material for extracted gradation and asphalt content.

Plot and keep up-to-date control charts for all quality control sampling and testing. Provide control charts for the following:

- a. gradation of incoming aggregates
- b. gradation and asphalt content of RAP
- c. combined gradations of hot bins
- d. extracted asphalt content
- e. mix gradation
- f. gradation of cold feed (drum mixers)

Post all current control charts in the asphalt lab where they can be seen.

Formulate all design mixes with the exception of open-graded friction mixes (FC-2 and FC-5). Submit design mixes to the Engineer for verification prior to their use. Provide process control of all materials during handling, blending, mixing and placing operations.

#### III. QUALITY CONTROL SYSTEM:

- 1. General Requirements. Furnish and maintain a quality control system that provides reasonable assurance that all materials and products submitted to the Engineer for acceptance meet the Contract requirements. Perform, or have performed, the inspection and tests required to substantiate product conformance to Contract requirements, and also perform, or have performed, all inspections and tests otherwise required by the Contract. Keep a quality control technician, who has been certified by the Department as a Qualified Asphalt Plant Technician (Plant Level II), available at the asphalt plant at all times when producing asphalt mix for the Department. Place a person in responsible charge of the paving operations who is qualified by the Department as a Qualified Asphalt Paving Technician (Paving Level II). Document the quality control procedures, inspection and tests, and make that information available for review by the Engineer throughout the life of the Contract.
- 2. Documentation. Maintain adequate records of all inspections and tests. Record the nature and number of tests made, the number and type of deficiencies found, the quantities approved and rejected, and the nature of corrective action taken, as appropriate. The Department may review and approve all documentation procedures prior to the start of the work. The Department will take ownership of all charts and records documenting the Contractor's quality control tests and inspections upon completion of the work.
- 3. Charts and Forms. Record all conforming and nonconforming inspections and test results on approved forms and charts, and keep them up to date and complete and make them available at all times to the Engineer during the performance of the work. Prepare charts of test properties for the various materials and mixtures on forms that are in accordance with the applicable requirements of the Department. The Engineer will furnish a copy of each applicable chart and form. Provide a supply of the

charts and forms from the copy furnished. Obtain the Engineer's approval of non-standard forms and charts prior to using them.

- 4. Corrective Actions. Take prompt action to correct any errors, equipment malfunctions, process changes or other problems that result or could result in the submission of materials, products or completed construction that do not meet the requirements of these Specifications. When it becomes evident to the Department that the Contractor is not controlling his process and is making no effort to take corrective actions, the Department will require the Contractor to cease plant operations until such time as the Contractor can demonstrate that he can and is willing to control the process.
- 5. Laboratories with Measuring and Testing Equipment. Furnish a fully equipped asphalt laboratory (permanent or portable) at the production site, and meeting the following requirements:
- a. Area Provide an effective working area for the laboratory that is a minimum of 180 ft<sup>2</sup> [17 m<sup>2</sup>]. This area does not include the space for desks, chairs and file cabinets.
  - b. Lighting Provide lighting in the lab adequate to illuminate all areas of work.
- c. Temperature Control Equip the lab with heating and air conditioning units that provide a satisfactory working environment.
- d. Ventilation Equip the lab with fume hoods and exhaust fans that will remove all hazardous fumes from within the laboratory in accordance with OSHA requirements.
- e. Equipment and Supplies Furnish the lab with the necessary sampling and testing equipment, and supplies, for performing Contractor quality control and Department acceptance sampling and testing. A detailed list of equipment and supplies required for each test is included in the Field Sampling and Testing Manual.

When running plants at a high production rate, furnish additional testing equipment as necessary to allow the completion of the Contractor's quality control tests and the Department's Acceptance tests within the specified time frame.

- 6. Sampling and Testing. Use the sampling and testing methods and procedures that the Department provides to determine quality conformance of the materials and products. The Department will use these same methods and procedures for its acceptance tests. Include the sampling for other material characteristics on a random basis and the plotting of the test results on control charts in the Quality Control Plan.
- 7. Alternative Procedures. The Contractor may use alternative sampling methods, procedures and inspection equipment when such procedures and equipment provide, as a minimum, the quality assurance required by the Contract Documents. Prior to applying such alternative procedures, describe them in a written proposal and demonstrate for the Engineer's approval that their effectiveness is equal to or better than the Contract requirements. In case of dispute as to whether certain proposed procedures provide equal assurance, use the procedures stipulated by the Contract Documents.
- 8. Nonconforming Materials. Establish and maintain an effective and positive system for controlling nonconforming materials, including procedures for identification, isolation and disposition. Reclaim or rework nonconforming materials in accordance with procedures acceptable to the Engineer. Discuss the details of this system at the preconstruction conference, and make these details a part of the record of the conference.
- 9. Department Inspection at Subcontractor or Supplier Facilities. The Department reserves the right to inspect materials not manufactured within the Contractor's facility. The Department's inspection does not constitute acceptance and does not, in any way, replace the Contractor's inspection or otherwise relieve the Contractor of his responsibility to furnish an acceptable material or product. When the Department inspects the subcontractor's or supplier's product, such inspection does not replace the Contractor's responsibility to inspect such subcontractor's or supplier's product.

Inspect subcontracted or purchased materials when received, as necessary, to ensure conformance to Contract requirements. Report to the Engineer any nonconformance found on Department source-inspected material, and require the supplier to take necessary corrective action.

## **331-5.3 Defective Materials:**

**331-5.3.1 Acceptance or Rejection:** Following the application of the appropriate acceptance plan, the Engineer will make the final decision as to the acceptance, rejection or acceptance at an adjusted payment of the LOTs.

**331-5.3.2 Disposition of LOTs:** For nonconforming LOTs of materials, products, items of construction or complete construction that are not adaptable to correction by reworking, either remove and replace the nonconforming work, or accept no payment or an adjusted payment as stated in these Specifications, or, if not stated, as directed by the Engineer.

331-5.4 General Basis of Adjusted Payment For Deficiencies: When the Engineer determines that a deficiency exists, the Engineer will apply the applicable payment factor as shown in these Specifications to the entire LOT. When the Engineer determines that multiple deficiencies exist, the Engineer will apply an adjustment to the LOT of material that is identified by each deficiency. The Engineer will apply the adjustment for each deficiency separately as it occurs. The Engineer will not allow an adjustment to be affected by any other adjustment occurring for the same LOT. As an exception to the foregoing requirements, when there are two or more deficiencies in the gradation acceptance tests (% pass No. 4 [4.75 mm] sieve, % pass No. 10 [2.0 mm] sieve, % pass No. 40 [425 μm sieve], % pass No. 200 [75 μm] sieve) the Engineer will only apply the greater adjustment. The Engineer will express all reductions in payment in terms of equivalent pay items at no pay. When the item is measured by the ton [metric ton], the Engineer will convert the LOT in the field, which is measured in feet [meters], to equivalent tons [metric tons] and by using the average calculated spread for that LOT. When the pay item is measured by the square yard [square meter], the Engineer will convert the LOT at the production point, which is measured in tons [metric tons], to equivalent square yards [square meters] at the design thickness and by using the laboratory density as a conversion factor.

## 331-6 Acceptance of the Mixture at the Plant.

**331-6.1 General:** The Engineer will accept the bituminous mixture at the plant, with respect to gradation and asphalt content, on a LOT to LOT basis. The material will be tested for acceptance in accordance with the provisions of 331-5 and the following requirements. However, the Engineer will reject any load or loads of mixture which are unacceptable for reason of being excessively segregated, aggregates improperly coated, or of excessively high or low temperature for use in the work.

For initial use of a Type S or FC-3 mix design with a Florida limestone source north of the 28th parallel at a particular plant, limit the first day's production to a maximum of 300 tons [275 metric tons]. Resume production upon notification of acceptable Marshall properties as determined in accordance with 331-6.4

A standard size LOT at the asphalt plant will consist of 4,000 tons [3,600 metric tons] with four equal sublots of 1,000 tons [900 metric tons] each. As an exception, the first LOT for the initial use of a Type S or FC-3 mix design with a particular plant will consist of four sublots, the first sublot of 500 tons [450 metric tons] or the first day's production (300 tons [275 metric tons] maximum for mix design with a Florida limestone source north of the 28th parallel), the second sublot of 500 tons [450 metric tons], and the remaining two sublots of 1,000 tons [900 metric tons] each.

A partial LOT may occur due to the following:

- (1) the completion of a given mix type on a project.
- (2) an approved LOT termination by the Engineer due to a change in process, extended delay in production, or change in mix design.

If the partial LOT contains one or two sublots with their appropriate test results, then the previous full-size LOT will be redefined to include this partial LOT and the evaluation of the LOT will be based on either five or six sublot determinations. If the partial LOT contains three sublots with their appropriate test results, this partial LOT will be redefined to be a whole LOT and the evaluation of it will be based on three sublot determinations.

When the total quantity of any mix is less than 3,000 tons [2,700 metric tons], the partial LOT will be evaluated for the appropriate number of sublots from n=1 to n=3. When the total quantity of

any mix type is less than 500 tons [450 metric tons], the Department will accept the mix on the basis of visual inspection. The Department may run extraction and gradation analysis for information purposes; however, the provisions for partial payment will not apply.

On multiple project contracts, the LOT(s) at the asphalt plant will carry over from project to project.

331-6.2 Acceptance Procedures: Control all operations in the handling, preparation, and mixing of the asphalt mix so that the percent bitumen and the percents passing the No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425  $\mu$ m and 75  $\mu$ m] sieves will meet the approved job mix formula within the tolerance shown in Table 331-6.

Table 331-6 Tolerances for Acceptance Tests					
	•				
Characteristic	Tolerance*				
Asphalt Content (Extraction)	±0.55%				
Asphalt Content (Printout)	±0.15%				
Passing No. 4 [4.75 mm] sieve	±7.00%				
Passing No. 10 [2.00 mm] sieve	±5.50%				
Passing No. 40 [425 μm] sieve**	±4.50%				
Passing No. 200 [75 μm] sieve ±2.00%					
*Tolerances for sample size of n=1. See Table 331-7 for other sample sizes n=2 through n=6.					
**Applies only to Types S-I, S-III, S-III, and FC-3.					

Acceptance of the mixture will be on the basis of test results on consecutive random samples from each LOT. One random sample will be taken from each sublot. The bituminous mixture will be sampled and tested at the plant as specified in 331-4.4.2.

Calculations for the acceptance test results for bitumen content and gradation (percentages passing No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425  $\mu$ m and 75  $\mu$ m] sieves) will be shown to the nearest 0.01. Calculations for arithmetic averages will be carried to the nearest 0.001 and rounded to the nearest 0.01 in accordance with the Department's rules of rounding.

Payment will be made on the basis of Table 331-7, "Acceptance Schedule of Payment". The process will be considered out of control when the deviation of any individual test result from the mix design falls in the 80% pay factor for the "one test" column of Table 331-7. When this happens, the LOT will be automatically terminated and production stopped. The approval of the Engineer will be required prior to resuming production of the mix. Acceptance of the LOT will then be determined in accordance with Table 331-7.

All acceptance tests will be completed on the same day the sample was taken, when possible, and on no occasion will they be completed later than the following work day.

	Table 331-7								
	Accepta	nce Schedule o	of Payment (Aspha	lt Plant Mix Char	acteristics)				
1	Average of Ac	cumulated Dev	iations of the Acce	eptance Tests fron	n the Mix Desig	şn.			
Pay Factor	1-Test	2-Tests	3-Tests	4-Tests	5-Tests	6-Tests			
Asphalt Cer	Asphalt Cement Content (Extraction - FM 5-544 or 5-563)								
1.00	0.00-0.55	0.00-0.43	0.00-0.38	0.00-0.35	0.00-0.33	0.00-0.31			
0.95	0.56-0.65	0.44-0.50	0.39-0.44	0.36-0.40	0.34-0.37	0.32-0.36			
0.90	0.66-0.75	0.51-0.57	0.45-0.50	0.41-0.45	0.38-0.42	0.36-0.39			
0.80*	0.80* over 0.75 over 0.57 over 0.50 over 0.45 over 0.42 over 0.39								
Asphalt Cer	Asphalt Cement Content (Printout)								
1.00	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15			

			Table 331-7						
Acceptance Schedule of Payment (Asphalt Plant Mix Characteristics)									
1	Average of Accumulated Deviations of the Acceptance Tests from the Mix Design.								
Pay Factor	1-Test	2-Tests	3-Tests	4-Tests	5-Tests	6-Tests			
0.95	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25			
0.90	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35			
0.80*	over 0.35	over 0.35	over 0.35	over 0.35	over 0.35	over 0.35			
No. 4 [4.75]	mm] sieve**								
1.00	0.00-7.00	0.00-5.24	0.00-4.46	0.00-4.00	0.00-3.68	0.00-3.45			
0.98	7.01-8.00	5.25-5.95	4.47-5.04	4.01-4.50	3.69-4.13	3.46-3.86			
0.95	8.01-9.00	5.96-6.66	5.05-5.62	4.51-5.00	4.14-4.58	3.87-4.27			
0.90	9.01-10.00	6.67-7.36	5.63-6.20	5.01-5.50	4.59-5.02	4.28-4.67			
0.80*	over 10.00	over 7.36	over 6.20	over 5.50	over 5.02	over 4.67			
No. 10 [2.00	mm] sieve**								
1.00	0.00-5.50	0.00-4.33	0.00-3.81	0.00-3.50	0.00-3.29	0.00-3.13			
0.98	5.51-6.50	4.34-5.04	3.82-4.39	3.51-4.00	3.30-3.74	3.14-3.54			
0.95	6.51-7.50	5.05-5.74	4.40-4.96	4.01-4.50	3.75-4.18	3.55-3.95			
0.90	7.51-8.50	5.75-6.45	4.97-5.54	4.51-5.00	4.19-4.63	3.96-4.36			
0.80*	over 8.50	over 6.45	over 5.54	over 5.00	over 4.63	over 4.36			
No. 40 [425	μm] sieve**								
1.00	0.00-4.50	0.00-3.91	0.00-3.65	0.00-3.50	0.00-3.39	0.00-3.32			
0.98	4.51-5.50	3.92-4.62	3.66-4.23	3.51-4.00	3.40-3.84	3.33-3.72			
0.95	5.51-6.50	4.63-5.33	4.24-4.81	4.01-4.50	3.85-4.29	3.73-4.13			
0.90	6.51-7.50	5.34-6.04	4.82-5.39	4.51-5.00	4.30-4.74	4.14-4.54			
0.80*	over 7.50	over 6.04	over 5.39	over 5.00	over 4.74	over 4.54			
No. 200 [75	μm] sieve**								
1.00	0.00-2.00	0.00-1.71	0.00-1.58	0.00-1.50	0.00-1.45	0.00-1.41			
0.95	2.01-2.40	1.72-1.99	1.59-1.81	1.51-1.70	1.46-1.63	1.42-1.57			
0.90	2.41-2.80	2.00-2.27	1.82-2.04	1.71-1.90	1.64-1.80	1.58-1.73			
0.80*	over 2.80	over 2.27	over 2.04	over 1.90	over 1.80	over 1.73			

<sup>\*</sup>If approved by the Engineer based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay. Otherwise, remove and replace the material at no cost to the Department at any item.

331-6.3 Automatic Batch Plant With Printout: Acceptance determinations for asphalt content for mixtures produced by automatic batch plants with printout will be based on the calculated bitumen content using the printout of the weights of asphalt actually used. Acceptance determinations for gradations (No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425 μm and 75 μm] sieves) will be based on the actual test results from extraction gradation analyses. Payment will be made based on the provisions of Table 331-7.

331-6.4 Additional Tests: The Engineer reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control.

331-6.4.1 Determination of Marshall and Volumetric Properties: The Engineer will determine the Marshall and Volumetric Properties of the mix at a minimum frequency of one set per LOT, to determine whether or not the produced mix is meeting the specification requirements. The

<sup>\*\*</sup>When there are two or more reduced payments for these items in one LOT of material, only the greatest reduction in payment will be applied. CAUTION: This rule applies only to these four gradation test results.

NOTES:

<sup>(1)</sup> The No. 40 [425 μm] sieve applies to Type S-I, S-II, S-III and FC-3.

<sup>(2)</sup> Deviations are absolute values with no plus or minus signs.

Department will sample and prepare test specimens and test them in accordance with FM 5-511 for Marshall stability and flow, FM 1-T 209 for maximum specific gravity, and FM 1-T 166 for density. Volumetric properties will be determined for Type S and FC-3 mixes only.

**331-6.4.2 Failing Marshall Properties:** When the average value of the specimens fails to meet specification requirements for stability or flow, the Engineer may stop the plant operations until all specification requirements can be met or until another verified mix design has been approved. Make revisions to a mix design in accordance with 331-4.3.2. If the Lab Density of the mix during production differs from the value shown on the verified mix design by more than 2 lbs/ft³ [32 kg/m³] for two consecutive tests, the Engineer will revise the target value.

**331-6.4.3 Failing Volumetric Properties (Type S and FC-3 mixes only):** When the Engineer determines the air void content to be less than 3.0%, or greater than 6.5%, make appropriate adjustments to the mix. When the air void content is determined to be less than 2.5% or greater than 7.0% on any one test, or less than 3.0% on two consecutive tests, cease operations until the problem has been resolved.

**331-6.4.4 Resuming Production:** In the event that plant operations are stopped due to a failure to meet specification requirements, obtain the Engineer's approval before resuming production of the mix. Limit production to a maximum of 300 tons [270 metric tons]. At this time, the Marshall and volumetric properties of the mix will be verified. After the Marshall and volumetric properties are verified, full scale production of the mix may be resumed.

**331-6.5.5 Disposition of In-Place Material:** Any material in-place that is represented by the failing test results (low stability, high flow, or less than 2.5% air voids) will be evaluated by the Engineer to determine if removal and replacement is necessary. Remove and replace any in-place material, if required, at no cost to the Department.

# 331-7 Acceptance of the Mixture at the Roadway

**331-7.1 Density Control Nuclear Method:** Determine the in-place density of each course of asphalt mix construction using the Nuclear Density Backscatter Method as specified by FM 1-T 238 (Method B). For a completed course, obtain an average in-place LOT density of at least 98% of the valid control strip density.

Do not perform density testing on patching courses, leveling and intermediate courses less than 1 inch [25 mm] thick (or a specified spread rate less than 100 lb/yd² [55kg/m²]), overbuild courses where the minimum thickness is less than 1 inch [25 mm], projects less than 1,000 feet [300 m], sections with variable width, or open-graded friction courses. Compact these courses, with the exception of open-graded friction courses in accordance with 330-10.1.2.

**331-7.2 Control Strips:** In order to determine the density of compacted asphalt mixtures for the purpose of acceptance, first establish a control strip. Construct one or more control strips for the purpose of determining the control strip density. Construct a control strip at the beginning of asphalt construction and one thereafter for each successive course. Construct a new control strip for any change in the composition of the mix design, underlying pavement structure, compaction equipment, or procedures. The Engineer may require an additional control strip when the Engineer deems it necessary to establish a new control strip density or confirm the validity of the control strip density being used at that time. The Contractor may also request a confirmation of the control strip density. Construct the control strip as a part of a normal day's run.

Construct a control strip 300 feet [100 m] in length and of an adequately uniform width to maintain a consistent compactive effort throughout the section. When constructing the control strip, start it between 300 and 1,000 feet [100 and 300 m] from the beginning of the paving operation. Construct a control strip of a thickness that is the same as that specified for the course of which it is a part. Construct the control strip using the same mix, the same paving and rolling equipment, and the same procedures as those used in laying the asphalt course of which the control strip is to become a part. Leave every control strip in place to become a portion of the completed roadway.

In order to determine the acceptability of the control strip, make ten nuclear density determinations at random locations within the control strip after completing the compaction of the control strip. Do not make any determinations within 12 inches [300 mm] of any unsupported edge. Use the average of these ten determinations for the Control Strip Density. For purposes of determining the percent of laboratory density, as required in Table 331-8, the Engineer will develop a correction factor at four nuclear density locations from 6 inch [150 mm] diameter cores or by direct transmission nuclear determination where applicable. Cut the cores prior to opening the roadway to traffic. The Engineer will calculate the percent of lab density to the nearest 0.01% and round it to the nearest 0.1%. Should the percent of lab density in a control strip exceed 99.0%, notify the Engineer immediately. In the event that a control strip does not meet the minimum density requirements specified in Table 331-8, take appropriate corrective actions and construct a new control strip. If three consecutive control strips fail to meet specification requirements, the Engineer will limit production and placement of the mix to 800 to 1,000 feet [250 to 300 m], regardless of the thickness and width the Contractor is placing, until the Contractor obtains a passing control strip.

Once the Contractor has obtained a passing control strip after a failing control strip (for the same mix, layer, and project), the Department will use the passing control strip to accept all previously laid mix. In the event the Contractor does not obtain a passing control strip, and this particular mix, layer, etc., is completed on the project, the Engineer will evaluate density in accordance with FM 5-543.

Table 331-8						
Roadw	ay Requirements fo	r Bituminous Concrete Mixes				
Minimum Control Strip Density*  Density* Surface Tolerance (% of Lab Density)						
S-I, S-II, S-III, Type II, Type III, SAHM	per 331-7	96	per 330-12			
ABC-1, ABC-2, ABC-3	per 280-8.6	96	per 200-7			
FC-2	No density required	N/A	per 330-12			
FC-3 per 331-7 96 per 330-12						
* The minimum control strip density re	equirement for shoulders	s is 95% of lab density.				

**331-7.3 LOTs:** For the purpose of acceptance and partial payment, the Engineer will divide each day's production into LOTs. The Engineer will close out all LOTs at the end of the day. The standard size of a LOT is 5,000 feet [1,500 m] of any pass made by the paving train regardless of the width of the pass or the thickness of the course. A sublot will be 1,000 feet [300 m] or less. The Engineer will consider pavers traveling in echelon as two separate passes. When at the end of a production day, the completion of a given course, layer, or mix, or at the completion of the project, and a LOT size is determined to be less than 5,000 feet [1,500 m], it will be considered a partial LOT. Handle partial LOTs as follows:

If the length of the partial LOT is 2,000 feet [600 m] or less, and a previous full-size LOT from the same day, mix, layer, and project is available, then the previous full-size LOT will be redefined to include this partial LOT and the number of tests required for the combined LOT will be as shown in Table 331-9.

If the partial LOT is 2,000 feet [600 m] or less, and a previous full-size LOT from the same day, mix, layer, and project is not available, the Engineer will evaluate the partial LOT separately and perform the number of tests required for the partial LOT as shown in Table 331-9. If the partial LOT is greater than 2,000 feet [600 m] long, the Engineer will evaluate the partial LOT separately and perform the number of tests required for the partial LOT as shown in Table 331-9.

Table 331-9					
Testing Requireme	ents for Partial LOTs				
LOT Size	Number of Tests				
Less than 3,000 feet [900 m]	3				
3,001 to 4,000 feet [901 to 1,200 m]	4				
4,001 to 5,000 feet [1,201 to 1,500 m]	5				
5,001 to 6,000 feet [1,501 to 1,800 m]	6				
6,001 to 7,000 feet [1,801 to 2,100 m]	7				
Greater than 7,000 feet [2,100 m]	2 LOTs				

For each LOT and partial LOT, the Engineer will make density determinations at a frequency shown in Table 331-9 at random locations within the LOT, but will not take them within 12 inches [300 mm] of any unsupported edge. The Engineer will determine the random locations by the use of statistically derived stratified random number tables. For the Contractor to receive full payment for density, the average density of a LOT shall be a minimum of 98.0% of the control strip density. Once the Engineer determines the average density of a LOT, do not provide additional compaction to raise the average. Notify the Engineer should the average density for two consecutive LOTs be greater than 102% of control strip density.

**331-7.4 Acceptance:** The Engineer will accept the completed pavement with respect to density on a LOT basis. The Department will make partial payment for those LOTs that have an average density less than 98.0% of the Control Strip Density based on Table 331-10:

Table 331-10					
Payment Scho	edule For Density				
Percent of Control Strip Density* Percent of Payment					
98.0 and above	100				
97.0 to less than 98.0	95				
96.0 to less than 97.0	90				
Less than 96.0**	75				

<sup>\*</sup> In calculating the percent of control strip density, do not round off the final percentage.

## 331-7.5 Density Requirements for Small Projects and Other Non-mainline Roadway Areas:

For projects less than 1,000 feet [300 m] in length and bridge projects with approaches less than 1,000 feet [300 m] each side, do not apply the requirements for control strips and nuclear density determination. Use the standard rolling procedures as specified in 330-10.1.2. Do not apply the provisions for partial payment to these small projects.

In other non-mainline roadway areas where it is not practical to establish a control strip, such as parking areas, toll plazas, turn lanes, and acceleration/deceleration lanes, the Contractor may use the standard rolling procedure to determine density requirements if so authorized in writing by the Engineer.

**331-7.6 Surface Tolerance:** The bituminous mixture will be accepted on the roadway with respect to surface tolerance in accordance with 330-12.

### 331-8 Method of Measurement.

<sup>\*\*</sup> If approved by the Engineer, based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay; otherwise, remove and replace the material at no expense to the Department. The Contractor may remove and replace the material at no expense to the Department at any time.

The quantity to be paid for will be the weight of the mixture, in tons [metric tons], completed and accepted. The weight will be determined as provided in 320-2 (including the provisions for the automatic recordation system).

The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent. There will be no separate payment or unit price adjustment for the bituminous material in the asphalt mix.

# 331-9 Basis of Payment:

Price and payment will be full compensation for all the work specified under this Section, including the applicable requirements of Sections 320 and 330.

Payment will be made under:

Item No. 331- 2- Type S Asphaltic Concrete - per ton.

Item No. 2331- 2- Type S Asphaltic Concrete - per metric ton.

## **GROUP 2 TECHNICAL SPECIFICATIONS**

# MC-1 TYPE S ASPHALT CONCRETE, QUALITY ASSURANCE AND ACCEPTANCE PROCEDURES

## 331-1 Description.

331-1.1 General: Construct a Type S Asphalt Concrete course (using the Quality Assurance acceptance system) using the type of mixture specified in the Contract, or when offered as alternates, as selected. If offered as alternates, meet the layer thickness criteria specified in 331-1.2. Type S mixes are identified as Type S-I, Type S-II, or Type S-III. The composition and physical test properties for all mixes including Type S Asphalt Concrete are shown in Tables 331-1 and 331-2. This Section establishes Acceptance Procedures for materials and work performed under Sections 280, 290, 331, 332, 333, 335, and 337.

Where Type S Asphalt Concrete is specified in the Contract, if approved by the Engineer, the equivalent fine Type SP Asphalt Concrete mixture (Traffic Level C) meeting the requirements of Section 334 may be selected as an alternate at no additional cost to the Department. The equivalent mixes are as follows:

Type S-I	Type SP-12.5
Type S-II	Type SP-19.0
- 1	Type SP-9.5

Meet the requirements for plant and equipment specified in Section 320. Meet the general construction requirements specified in Section 330.

	Table 331-1								
	Bituminous Concrete Mixtures								
			(Gradation	n Design Ra	ange)				
Type			Total A	Aggregate P	assing Sieve	es <sup>1</sup>			
	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 10	No. 40	No. 80	No. 200	
	[19.0 mm]	[12.5 mm]	[9.5 mm]	[4.75 mm]	[2.0  mm]	[425 µm]	[180 µm]	[75 µm]	
S-I <sup>5</sup>	100	88-98	75-93	47-75	31-53	19-35	7-21	2-6	
S-II <sup>2</sup>	83-98	71-87	62-78	47-63	33-49	19-35	9-18	2-6	
S-III <sup>5</sup>		100	88-98	60-90	40-70	20-45	10-30	2-6	
Type II		100	90-100	80-100	55-90			2-12	
Type III		100	80-100	65-100	40-75	20-45	10-30	2-10	
SAHM		100						0-12	
ABC-1		100						0-12	
ABC-2		100			55-90			0-12	
ABC-3 <sup>3</sup>	70-100			30-70	20-60	10-40		2-10	
FC-2 <sup>4</sup>		100	85-100	10-40	4-12			2-5	
FC-3 <sup>5</sup>		100	88-98	60-90	40-70	20-45	10-30	2-6	

In inches [mm] or sieves [µm].

<sup>&</sup>lt;sup>2</sup> 100% passing 1 1/4 inch [31.5 mm] sieve and 94 to 100% passing 1 inch [25.0 mm] sieve.

<sup>&</sup>lt;sup>3</sup> 100% passing 1 1/2 inch [37.5 mm] sieve.

<sup>&</sup>lt;sup>4</sup> The Engineer may increase the design range for the No. 10 [2.00 mm] sieve for lightweight aggregates.

<sup>&</sup>lt;sup>5</sup> The Engineer may retain up to 1% on the maximum sieve size.

	Table 331-2 Non SI Units								
	Marshall Design Properties For Bituminous Concrete Mixes								
Mix Type	Minimum Marshall Stability (lbs.)	Flow** (0.01 in.)	Minimum VMA (%)	Air Voids (%)	Minimum Effective Asphalt Content (%)	VFA Voids Filled with Asphalt (%)			
S-I	1,500*	8-13	14.5	4-5	***	65-75			
S-II	1,500*	8-13	13.5	4-5	***	65-75			
S-III	1,500*	8-13	15.5	4-6	***	65-75			
Type II	500-750	7-15	18	5-16	6.0	-			
Type III	750-1,000	7-15	15	5-12	5.5	-			
SAHM	300-500	7-15	15	5-16	6.0	=			
ABC-1	500	7-15	15	5-16	6.0	-			
ABC-2	750	7-15	15	5-14	5.5	-			
ABC-3	1,000	8-13	14	4-7	***	65-78			
FC-2	-	-	-	-	-	-			
FC-3	1,500	8-13	15.5	4-6	***	65-75			

<sup>\*</sup>The minimum Marshall Stability for Type S mixes used on limited access facilities (Interstate, Turnpike, and Expressways) shall be 1,800 lbs.

<sup>\*\*\*</sup>The ratio of the percentage by weight of total aggregate passing the No. 200 sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

	Table 331-2 SI Units						
	Marshall Design Properties For Bituminous Concrete Mixes						
	Minimum				Minimum		
	Marshall			Air	Effective		
	Stability	Flow**	Minimum	Voids	Asphalt	VFA Voids Filled with Asphalt	
Mix Type	(kN)	(mm)	VMA (%)	(%)	Content (%)	(%)	
S-I	6.7*	2.0-3.3	14.5	4-5	***	65-75	
S-II	6.7*	2.0-3.3	13.5	4-5	***	65-75	
S-III	6.7*	2.0-3.3	15.5	4-6	***	65-75	
Type II	2.2-3.3	1.8-3.8	18	5-16	6.0	•	
Type III	3.3-4.4	1.8-3.8	15	5-12	5.5	-	
SAHM	1.3-2.2	1.8-3.8	15	5-16	6.0	-	
ABC-1	2.2	1.8-3.8	15	5-16	6.0	•	
ABC-2	3.3	1.8-3.8	15	5-14	5.5	-	
ABC-3	4.4	2.0-3.3	14	4-7	***	65-78	
FC-2	-	-	-	-	-	-	
FC-3	6.7	2.0-3.3	15.5	4-6	***	65-75	

<sup>\*</sup>The minimum Marshall Stability for Type S mixes used on limited access facilities (Interstate, Turnpike, and Expressways) shall be 8.0 kN.

The Engineer will accept the work on a LOT to LOT basis in accordance with the applicable requirements of Sections 5, 6, and 9. The size of the LOT will be as specified in 331-6 for the bituminous mixture produced at the plant and as stipulated in 331-7 for the material placed on the roadway.

<sup>\*\*</sup>The maximum Flow value during production shall not exceed one point more than shown in the Table.

<sup>\*\*</sup>The maximum Flow value during production shall not exceed 0.25 mm more than shown in the Table.

<sup>\*\*\*</sup>The ratio of the percentage by weight of total aggregate passing the 75µm sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

## 331-1.2 Layer Thicknesses:

**331-1.2.1 Structural Layers:** The allowable layer thicknesses for Type S Asphalt Concrete mixtures used in structural and overbuild applications is as follows:

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on Type S mixtures when used as a structural course:

Type S-III – Limited to the final (top) structural layer, one layer only.

Type S-I – May not be used in the first layer of courses over 3 1/2 inches

[90 mm] thick, nor in the first layer of courses over 2 3/4 inches [70 mm] thick on limited access facilities.

Type S-II – May not be used in the final (top) structural layer.

- **331-1.2.2 Additional Requirements:** The following requirements also apply to Type S Asphalt Concrete mixtures:
- 1. A minimum 1 1/2 inch [40 mm] initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).
- 2. When construction includes the paving of adjacent shoulders (#5 feet [#1.5 m] wide), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless shown differently in the plans.
- 3. All overbuild layers shall be Type S asphalt concrete. Use the minimum and maximum layer thicknesses as specified in 331-1.2.1 unless shown differently in the plans. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by 1/2 inch [13 mm], and the maximum allowable thickness may be increased 1/2 inch [13 mm], unless shown differently in the plans. Other variations from these thicknesses must be approved by the Engineer.

## 331-2 Materials.

**331-2.1 General Requirements:** Meet the material requirements specified in Division III. Specific references are as follows:

Superpave PG Asphalt Binder or Recycling Agent	916-1, 916-2
Mineral Filler	917-1, 917-2
Coarse Aggregate, Stone, Slag or Crushed Gravel	Section 901
Fine Aggegate	Section 902

Asphalt concrete mixes containing crushed gravel as coarse aggregate component must show no potential for stripping during laboratory testing for mix design verification.

Crushed Reclaimed Portland Cement Concrete Pavement may be used as a coarse aggregate or screenings component subject to meeting all applicable specifications.

## **331-2.2 Specific Requirements:**

**331-2.2.1 Condition of Aggregate:** Use clean aggregate containing no deleterious substances. Do not use coarse or fine aggregate which contains more than 0.5% of phosphate.

331-2.2.2 Fine Aggregate and Mineral Filler: In laboratory tests, and for the purpose of proportioning the paving mixture, consider all material passing the No. 10 [2.00 mm] sieve and retained on the No. 200 [75  $\mu$ m] sieve as fine aggregate, and the material passing the No. 200 [75  $\mu$ m] sieve as mineral filler.

331-2.2.3 Screenings: Do not use any screenings in the combination of aggregates containing more than 15% of material passing the No. 200 [75  $\mu$ m] sieve. When two screenings are blended to produce the screening component of the aggregate, one of such screenings may contain up to 18% of material passing the No. 200 [75  $\mu$ m] sieve, as long as the combination of the two does not

contain over 15% material passing the No. 200 [75  $\mu$ m] sieve. Screenings may be washed to meet these requirements.

**331-2.2.4** Use of Reclaimed Asphalt Pavement (RAP): Subject to certain requirements, Reclaimed Asphalt Pavement (RAP) may be used as a component material of the asphalt mixture. Where the material is recovered from a FDOT project, the Composition of Existing pavement may be available on the Department's web site. The URL for obtaining this information, if available, is: www11.myflorida.com/statematerialsoffice/Bituminous/CentralBitLab/AsphaltCompositions/Compositions.htm

RAP may be used as a component material of the bituminous mixture subject to

1. Assume responsibility for the design of asphalt mixes which incorporate RAP as a component part.

the following:

- 2. Do not allow RAP to exceed 60% by weight of total aggregates for Asphalt Base Courses nor more than 50% by weight of total aggregates for Structural and Leveling Courses. Do not use RAP in Friction Courses.
- 3. Mount a grizzly or grid with openings of a sufficient size to prevent clogging of the cold feed over the RAP cold bin.

Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycled mixture.

If oversized RAP material appears in the completed recycled mix, cease plant operations and take appropriate corrective action.

- 4. Ensure that the RAP material as stockpiled is reasonably uniform in characteristics and contains no aggregate particles which are soft or conglomerates of fines.
- 5. Ensure that the RAP has a minimum average asphalt content of 4% by weight of total mix. The Department reserves the right to sample the stockpile in order that this requirement is met.

When material milled from the project is used as a component of the asphalt mixture and a Composition of Existing Pavement is known, use the following procedures for obtaining representative samples for the mix design:

- 1. Cut ten 6-inch [150 mm] cores in area(s) approved by the Engineer. Fill the core holes immediately prior to opening to traffic.
- 2. Representative samples may also be obtained by milling the existing pavement to the full depth shown on the plans for pavement removal for a length of approximately 200 feet [60 m]. Immediately replace the pavement removed with the specified mix in the Contract.
- 3. Submit a request in writing to the Engineer for any variance from the above outlined methods of obtaining samples for mix designs.

When the RAP to be used as a component in a mix design is stockpiled from a previous DOT project and the Composition of Existing Pavement is known, design the mix and submit to the Department for verification.

When the composition of stockpiled RAP to be used as a component in a mix design is not known, design the mix as follows:

- 1. Submit a bag of RAP, composed of samples from several locations in the stockpile(s), to the Department at least four weeks prior to the planned start of mix design. The Engineer will run viscosities on the reclaimed asphalt pavement and furnish the information to the Contractor
- 2. Run a minimum of six extraction gradation analyses of the RAP. Take the samples at random locations around the stockpile(s).
- 3. Request the Engineer to make a visual inspection of the stockpile(s) of RAP. Based on visual inspection, the Engineer will determine the suitability of the stockpiled materials.

4. When the proposed mix design is submitted to the Department for verification, submit the data from the extraction gradation analyses required above.

**331-2.2.5 Binder for Mixes with RAP:** Use a PG 67-22 where RAP is less than 20% by weight of total aggregate; use a PG 64-22 where RAP is 20% or greater but less than 30% by weight of total aggregate; use appropriate recycle agent where RAP is 30% or greater.

The Engineer reserves the right to change binder type and grade at design based on the characteristics of the RAP binder, and reserves the right to request reasonable changes during the production based on the requirements of 331-4.4.4.

- **331-2.2.6** Use of Recycled Crushed Glass: Recycled crushed glass may be used as a component of the bituminous mixture subject to the following:
- 1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.
- 2. The percentage of recycled crushed glass in any bituminous mixture does not exceed 15% of the total aggregate weight.
- 3. The asphalt binder used with mixtures containing recycled crushed glass contains 0.5% anti-stripping agent from an approved source. The addition of the specified amount of anti-stripping agent must be certified by the supplier.
- 4. Test bituminous mixtures containing recycled crushed glass in accordance with AASHTO T 283 as part of the mix design approval. The minimum tensile strength ratio must not be less than 80%. An increase in the amount of anti-stripping agent may be necessary in order to meet this requirement.
- 5. Recycled crushed glass must not be used in friction course mixtures nor in structural course mixtures which are to be used as the final wearing course.

## 331-3 Permissible Variation for the Coarse Aggregate.

Size and uniformly grade or combine the aggregate or aggregates shipped to the job in such proportions that the resulting mixture meets the grading requirements of the mix design.

# 331-4 General Composition of Mixture.

**331-4.1 General:** Use a bituminous mixture composed of a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and bituminous material. Ensure that not more than 20% by weight of the total aggregate used is silica sand or local materials as defined in Section 902. Consider the silica sand and local materials contained in any RAP material, if used in the mix, in this limitation. Size, grade and combine the several aggregate fractions in such proportions that the resulting mixture meets the grading and physical properties of the verified mix design.

RAP meeting the requirements of 331-2.2.4 may be approved as a substitution for a portion of the combination of aggregates, subject to all applicable specification requirements being met.

**331-4.2 Grading Requirements:** In all cases, use a mix design within the design ranges specified in Table 331-1.

### **331-4.3** Mix Design:

**331-4.3.1 General:** Prior to the production of any asphalt paving mixture, submit a mix design and representative samples of all component materials to the Department at least two weeks before the scheduled start of production. The Engineer will verify the mix design before use. Send a copy of the proposed mix design to the Engineer at the same time. (Open-graded mixes will be designed by the Engineer.) Furnish the following information:

- 1. The specific project on which the mixture will be used.
- 2. The source and description of the materials to be used.
- 3. The gradation and approximate proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use.

- 4. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly No. 200 [75  $\mu$ m]) should be accounted for and identified for the applicable sieves.
- 5. A single percentage of asphalt by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%. For structural mixes (S-I, S-II and S-III) establish the optimum asphalt content at a level corresponding to a minimum of 4.5% air voids. For FC-3 mixes, establish optimum asphalt content at a level corresponding to a minimum of 5.0% air voids.
  - 6. A single temperature at which the mixture is intended to be discharged from
- 7. The laboratory density of the asphalt mixture for all mixes except Open-Graded Friction Courses.
- 8. Evidence that the completed mixture will meet all specified physical requirements.
- 9. The name of the individual responsible for the Quality Control of the mixture during production.
- 331-4.3.2 Revision of Mix Design: Submit all requests for revisions to approved mix designs, along with supporting documentation, in writing to the Engineer. In order to expedite the revision process, a verbal revision request or discussion of the possibility of a revision request may be made, but must be followed up with a written request. The verified mix design will remain in effect until a change is authorized by the Engineer. In no case will the effective date of the revision be established earlier than the date of the first communication with the Engineer regarding the revision.

Provide a new mix design for any change in source of aggregate.

331-4.3.3 Resistance to Plastic Flow: Include with the submitted mix design test data showing that the material as produced will meet the requirements specified in Table 331-2 when tested in accordance with FM 1-T 245. Further, determine the bulk specific gravity of the laboratory compacted bituminous mixture in accordance with FM 1-T 166.

Determine the percent of unfilled voids and the percent of aggregate voids filled with asphalt using the maximum specific gravity of the bituminous mixture and on the asphalt content of each group of specimens prepared from the same sample. Determine maximum specific gravity of the bituminous mixture by FM 1-T 209.

**331-4.3.4 Revocation of Mix Design:** The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

# 331-4.4 Contractor's Quality Control:

the plant.

**331-4.4.1 Personnel:** In accordance with the requirements of 331-5.2 provide the necessary quality control personnel. Ensure that the Quality Control Technician is certified by the Department and possesses a valid certificate of qualification. When it becomes evident to the Department that the Quality Control Technician cannot perform as required by the position, the Department will revoke the certification and require replacement with a certified technician.

**331-4.4.2 Extraction Gradation Analysis:** Sample the bituminous mixture at the plant in accordance with FM 1-T 168. Determine the percent bitumen content of the mixture in accordance with FM 5-563, and determine the percent passing the standard sieves in accordance with FM 1-T 030. In the event the calibration factor for the mix exceeds 0.50%, conduct the extraction and gradation analysis in accordance with FM 5-544 and FM 5-545, respectively. Show all test results to the nearest 0.01. Carry all calculations to the nearest 0.001 and rounded to the nearest 0.01, in accordance with the Department's rules of rounding.

Run a minimum of one extraction gradation analysis of the mixture for each day's or part of a day's production and immediately following any change in the production process. Take the quality control sample of mixture for the extraction gradation analysis each day as soon as the

plant operations have stabilized. Obtain the results in a timely manner (no later than the end of the day) so that adjustments can be made if necessary.

On initial use of a Type S or FC-3 mix design at a particular plant, as a minimum, run an additional extraction gradation analysis if more than 500 tons [450 metric tons] of mixture are produced on the first day of production.

Extraction gradation analysis will not be required on the days when mix production is less than 100 tons [90 metric tons]. However, when mix production is less than 100 tons [90 metric tons] per day on successive days, run the test when the accumulative tonnage on such days exceeds 100 tons [90 metric tons].

Use the target gradation and asphalt content as shown on the mix design. Any changes in target will require a change in the mix design in accordance with 331-4.3.2.

If the percentage of bitumen deviates from the optimum asphalt content by more than 0.55% or the percentage passing any sieve falls outside the limits shown in Table 331-3, make the necessary correction. If the results for two consecutive tests deviate from the optimum asphalt content by more than 0.55% or exceeds the limits as shown in Table 331-3 for any sieve, stop the plant operations until the problem has been corrected. In addition, if the results of two consecutive tests show an amount greater than 99.0% passing the 1/2 inch [12.5 mm] sieve for Type S-I, an amount greater than 99.0% passing the 3/8 inch [9.5 mm] sieve for Types S-III or FC-3, stop the plant operation until the problem has been corrected.

Maintain control charts showing the results of the extraction gradation analysis (bitumen content and sieve analysis).

Table 331-3					
Tolerances for Quality Control Tes	sts (Extraction Gradation Analysis)				
Sieve Size	Percent Passing				
1 inch [25.0 mm]	7				
3/4 inch [19.0 mm]	7				
1/2 inch [12.5 mm]	7				
3/8 inch [9.5 mm]	7				
No. 4 [4.75 mm]	7				
No. 10 [2.00 mm]	5.5				
No. 40* [*425 μm]	4.5				
No. 80* [*180 μm]	3				
No. 200 [75 μm] 2					
*Does not apply to SAHM, ABC-1 or Type II.					

**331-4.4.3 Plant Calibration:** At or before the start of mix production, perform a wash gradation on a set of hot bin samples for batch or continuous mix plants or belt cut for drum mix plants to verify calibration of the plant. When approved by the Engineer, extraction gradation analysis of the mix may be used to verify calibration of the plant. This extraction gradation analysis may also be used to fulfill the quality control requirements for the first day's production.

331-4.4.4 Viscosity of Asphalt in Mixes Containing RAP: When RAP is a component material, the viscosity of the asphalt material in the bituminous mixture, determined by the Engineer in accordance with ASTM D 2171, shall be  $6,000 \pm 2,000$  poises  $[600 \pm 200 \text{ Pa·s}]$ . This determination will be made on samples obtained by the Department on a random basis at a frequency of approximately one per 2,000 tons [1,800 metric tons] of mix.

If the viscosity determined by the Engineer is out of the specified range, adjust the binder formulation or blend of RAP in the mix to bring the viscosity within tolerance.

## 331-5 Acceptance Procedures.

The Department will approve all materials for acceptance through the Department's Acceptance Procedures specified herein. The Engineer is responsible for determining the acceptability of the construction and materials incorporated therein. The Contractor is responsible for the quality of construction and materials incorporated therein. Accomplish all quality control sampling and testing on a random basis in accordance with the approved Quality Control Plan. The Department will perform all necessary sampling and testing for acceptance purposes on a random basis as specified herein, in addition to monitoring and observing the Contractor's quality control test procedures and results. Maintain effective quality control until final project acceptance.

A LOT is defined as an isolated quantity of a specified material produced from a single source or operation, or it is a measured amount of specified construction produced by the same process. In order to change the process, thereby necessitating the termination of the current LOT and starting a new LOT, submit a written request, with justification, to the Engineer for approval. Obtain the Engineer's approval prior to making the process change.

Perform all quality control sampling and testing of materials in strict conformance with the Florida Method of Sampling and Testing as found in the Field Sampling and Testing Manual. The Department will perform all acceptance sampling and testing of materials in strict conformance with the Florida Method of Sampling and Testing as found in the Field Sampling and Testing Manual. This manual, developed and distributed by the FDOT Materials Office, contains the detailed sampling and testing procedures from AASHTO and ASTM as modified by the Department.

## 331-5.1 Acceptance Plans:

**331-5.1.1 Payment Based on Acceptance Results:** The Department will adjust the payment for each LOT of material, product, item of construction or completed construction on the basis of acceptance test results in accordance with the requirements specified hereinafter in the applicable Sections.

**331-5.1.2 Resampling of LOTs:** The Department requires that LOTs of materials, products, items of construction or completed construction meet the requirements of these Specifications at the time of submission. The Department will not take check samples for acceptance purposes.

331-5.1.3 Referee System: The Department has established a referee system to verify the validity of the acceptance test results on LOTs at the asphalt plant. The Department will evaluate the acceptance test results with data from split samples run by the District and Central Labs. The Engineer will make a final determination and disposition of the acceptance test results. Acceptance results will be considered non-representative if the test results from the Field and Referee samples differ by more than 0.44% for asphalt content when obtained by the use of FM 5-563 or 0.56% for FM 5-544. Acceptance results for gradation will be considered non-representative if the test results from the Field and Referee samples differ by more than the precision values given in Figure 2 of FM 1-T 030 when using FM 5-563 or Figure 2 of FM 5-545 when using FM 5-544. When the referee analysis indicates that one or more test results are not representative, the Engineer will discard the non-representative test value(s) and base payment calculations for the LOT (including the sublot with the non-representative test values) on the remaining sublot(s) test data as defined in 331-6.

**331-5.2 Quality Control by the Contractor:** Provide and maintain a quality control system that provides reasonable assurance that all materials, products and completed construction submitted for acceptance meet Contract requirements. Develop and maintain a quality control system in conformance with the following requirements:

## CONTRACTOR QUALITY CONTROL SYSTEM

## I. SCOPE:

These Specifications establish minimum requirements and activities for a Contractor quality control system. These requirements pertain to the inspections and tests necessary to substantiate material and product conformance to Contract requirements and to all inspections and tests required by the Contract.

### II. FUNCTIONS AND RESPONSIBILITIES:

1. The Department. The Department will verify the Contractor's design mixes, inspect plants and monitor control of the operations to ensure conformance with these Specifications. The Department will design all open-graded friction mixes (FC-2 and FC-5).

At no time will the Engineer issue instructions to the Contractor or producer as to the setting of dials, gauges, scales and meters. However, the Department's representatives may question and warn the Contractor against the continuance of any operations or sequence of operations that obviously do not result in satisfactory compliance with the requirements of these Specifications.

2. The Contractor. Submit in writing the proposed Quality Control Plan for each asphalt plant for the Engineer's approval. Maintain the approved Quality Control Plan in effect for the plant to which it is assigned until the Engineer rejects it in writing. Include in the plan the sampling, testing, inspection and the anticipated frequencies of each to maintain process control. A recommended series of sampling, testing and inspecting activities are shown in Table 331-4.

### Table 331-4

# RECOMMENDATIONS FOR A CONTRACTOR QUALITY CONTROL PLAN

## A. All Types of Plants

- 1. Stockpiles
  - a. Place materials in the correct stockpile.
  - b. Use good stockpiling techniques.
  - c. Inspect stockpiles for separation, contamination, segregation, etc.
- 2. Incoming Aggregate
  - a. Obtain gradations and bulk specific gravity (BSG) values from the aggregate supplier.
  - b. Determine gradation of all component materials.
  - c. Compare gradations and BSG to mix design.
- 3. Cold Bins
  - a. Calibrate the cold gate/feeder belt settings.
  - b. Observe operation of cold feed for uniformity.
- 4. Dryer
  - a. Observe pyrometer for aggregate temperature control.
  - b. Observe efficiency of the burner.
- 5. Hot Bins
  - a. Determine gradation of aggregates in each bin.
  - b. Determine theoretical combined grading.
- 6. Bituminous Mixture
  - a. Determine asphalt content.
  - b. Determine mix gradation.
  - c. Check mix temperature.
  - d. Verify modifier addition.

## B. Batch Plants

- 1. For batch weights, determine percent used and weight to be pulled from each bin to ensure compliance with the mix design.
  - 2. Check mixing time.
  - 3. Check operations of weigh bucket and scales.

# C. Continuous Mix Plant

- 1. Determine gate calibration chart for each bin.
- 2. Determine gate settings for each bin to ensure compliance with the mix design.

3. Determine gallons [cubic meters] per revolution or gallons [cubic meters] per minute to ensure compliance with the mix design.

### D. Drum Mixer Plant

- 1. Calibrate the cold feed and prepare a calibration chart for each cold gate.
- 2. Develop information for the synchronization of the aggregate feed, reclaimed asphalt pavement (RAP) feed and the bituminous material feed.
  - 3. Calibrate the weigh bridge on the changing conveyor.

The activities shown in Table 331-4 are the normal activities necessary to control the production of bituminous concrete at an acceptable quality level. The Department recognizes, however, that depending on the type of process or materials, some of the activities listed may not be necessary and, in other cases, additional activities may be required. The frequency of these activities will also vary with the process and the materials. When the process varies from the defined process average and variability targets, increase the frequency of these activities until the proper conditions are restored. Take one sample and test for every 1,000 tons [900 metric tons] of incoming aggregate (including RAP) as it is stockpiled. Test RAP material for extracted gradation and asphalt content.

Plot and keep up-to-date control charts for all quality control sampling and testing. Provide control charts for the following:

- a. gradation of incoming aggregates
- b. gradation and asphalt content of RAP
- c. combined gradations of hot bins
- d. extracted asphalt content
- e. mix gradation
- f. gradation of cold feed (drum mixers)

Post all current control charts in the asphalt lab where they can be seen.

Formulate all design mixes with the exception of open-graded friction mixes (FC-2 and FC-5). Submit design mixes to the Engineer for verification prior to their use. Provide process control of all materials during handling, blending, mixing and placing operations.

# III. QUALITY CONTROL SYSTEM:

- 1. General Requirements. Furnish and maintain a quality control system that provides reasonable assurance that all materials and products submitted to the Engineer for acceptance meet the Contract requirements. Perform, or have performed, the inspection and tests required to substantiate product conformance to Contract requirements, and also perform, or have performed, all inspections and tests otherwise required by the Contract. Keep a quality control technician, who has been certified by the Department as a Qualified Asphalt Plant Technician (Plant Level II), available at the asphalt plant at all times when producing asphalt mix for the Department. Place a person in responsible charge of the paving operations who is qualified by the Department as a Qualified Asphalt Paving Technician (Paving Level II). Document the quality control procedures, inspection and tests, and make that information available for review by the Engineer throughout the life of the Contract.
- 2. Documentation. Maintain adequate records of all inspections and tests. Record the nature and number of tests made, the number and type of deficiencies found, the quantities approved and rejected, and the nature of corrective action taken, as appropriate. The Department may review and approve all documentation procedures prior to the start of the work. The Department will take ownership of all charts and records documenting the Contractor's quality control tests and inspections upon completion of the work.
- 3. Charts and Forms. Record all conforming and nonconforming inspections and test results on approved forms and charts, and keep them up to date and complete and make them available at all times to the Engineer during the performance of the work. Prepare charts of test properties for the various materials and mixtures on forms that are in accordance with the applicable requirements of the Department. The Engineer will furnish a copy of each applicable chart and form. Provide a supply of the

charts and forms from the copy furnished. Obtain the Engineer's approval of non-standard forms and charts prior to using them.

- 4. Corrective Actions. Take prompt action to correct any errors, equipment malfunctions, process changes or other problems that result or could result in the submission of materials, products or completed construction that do not meet the requirements of these Specifications. When it becomes evident to the Department that the Contractor is not controlling his process and is making no effort to take corrective actions, the Department will require the Contractor to cease plant operations until such time as the Contractor can demonstrate that he can and is willing to control the process.
- 5. Laboratories with Measuring and Testing Equipment. Furnish a fully equipped asphalt laboratory (permanent or portable) at the production site, and meeting the following requirements:
- a. Area Provide an effective working area for the laboratory that is a minimum of 180 ft<sup>2</sup> [17 m<sup>2</sup>]. This area does not include the space for desks, chairs and file cabinets.
  - b. Lighting Provide lighting in the lab adequate to illuminate all areas of work.
- c. Temperature Control Equip the lab with heating and air conditioning units that provide a satisfactory working environment.
- d. Ventilation Equip the lab with fume hoods and exhaust fans that will remove all hazardous fumes from within the laboratory in accordance with OSHA requirements.
- e. Equipment and Supplies Furnish the lab with the necessary sampling and testing equipment, and supplies, for performing Contractor quality control and Department acceptance sampling and testing. A detailed list of equipment and supplies required for each test is included in the Field Sampling and Testing Manual.

When running plants at a high production rate, furnish additional testing equipment as necessary to allow the completion of the Contractor's quality control tests and the Department's Acceptance tests within the specified time frame.

- 6. Sampling and Testing. Use the sampling and testing methods and procedures that the Department provides to determine quality conformance of the materials and products. The Department will use these same methods and procedures for its acceptance tests. Include the sampling for other material characteristics on a random basis and the plotting of the test results on control charts in the Quality Control Plan.
- 7. Alternative Procedures. The Contractor may use alternative sampling methods, procedures and inspection equipment when such procedures and equipment provide, as a minimum, the quality assurance required by the Contract Documents. Prior to applying such alternative procedures, describe them in a written proposal and demonstrate for the Engineer's approval that their effectiveness is equal to or better than the Contract requirements. In case of dispute as to whether certain proposed procedures provide equal assurance, use the procedures stipulated by the Contract Documents.
- 8. Nonconforming Materials. Establish and maintain an effective and positive system for controlling nonconforming materials, including procedures for identification, isolation and disposition. Reclaim or rework nonconforming materials in accordance with procedures acceptable to the Engineer. Discuss the details of this system at the preconstruction conference, and make these details a part of the record of the conference.
- 9. Department Inspection at Subcontractor or Supplier Facilities. The Department reserves the right to inspect materials not manufactured within the Contractor's facility. The Department's inspection does not constitute acceptance and does not, in any way, replace the Contractor's inspection or otherwise relieve the Contractor of his responsibility to furnish an acceptable material or product. When the Department inspects the subcontractor's or supplier's product, such inspection does not replace the Contractor's responsibility to inspect such subcontractor's or supplier's product.

Inspect subcontracted or purchased materials when received, as necessary, to ensure conformance to Contract requirements. Report to the Engineer any nonconformance found on Department source-inspected material, and require the supplier to take necessary corrective action.

## **331-5.3 Defective Materials:**

**331-5.3.1 Acceptance or Rejection:** Following the application of the appropriate acceptance plan, the Engineer will make the final decision as to the acceptance, rejection or acceptance at an adjusted payment of the LOTs.

**331-5.3.2 Disposition of LOTs:** For nonconforming LOTs of materials, products, items of construction or complete construction that are not adaptable to correction by reworking, either remove and replace the nonconforming work, or accept no payment or an adjusted payment as stated in these Specifications, or, if not stated, as directed by the Engineer.

331-5.4 General Basis of Adjusted Payment For Deficiencies: When the Engineer determines that a deficiency exists, the Engineer will apply the applicable payment factor as shown in these Specifications to the entire LOT. When the Engineer determines that multiple deficiencies exist, the Engineer will apply an adjustment to the LOT of material that is identified by each deficiency. The Engineer will apply the adjustment for each deficiency separately as it occurs. The Engineer will not allow an adjustment to be affected by any other adjustment occurring for the same LOT. As an exception to the foregoing requirements, when there are two or more deficiencies in the gradation acceptance tests (% pass No. 4 [4.75 mm] sieve, % pass No. 10 [2.0 mm] sieve, % pass No. 40 [425 μm sieve], % pass No. 200 [75 μm] sieve) the Engineer will only apply the greater adjustment. The Engineer will express all reductions in payment in terms of equivalent pay items at no pay. When the item is measured by the ton [metric ton], the Engineer will convert the LOT in the field, which is measured in feet [meters], to equivalent tons [metric tons] and by using the average calculated spread for that LOT. When the pay item is measured by the square yard [square meter], the Engineer will convert the LOT at the production point, which is measured in tons [metric tons], to equivalent square yards [square meters] at the design thickness and by using the laboratory density as a conversion factor.

## 331-6 Acceptance of the Mixture at the Plant.

**331-6.1 General:** The Engineer will accept the bituminous mixture at the plant, with respect to gradation and asphalt content, on a LOT to LOT basis. The material will be tested for acceptance in accordance with the provisions of 331-5 and the following requirements. However, the Engineer will reject any load or loads of mixture which are unacceptable for reason of being excessively segregated, aggregates improperly coated, or of excessively high or low temperature for use in the work.

For initial use of a Type S or FC-3 mix design with a Florida limestone source north of the 28th parallel at a particular plant, limit the first day's production to a maximum of 300 tons [275 metric tons]. Resume production upon notification of acceptable Marshall properties as determined in accordance with 331-6.4

A standard size LOT at the asphalt plant will consist of 4,000 tons [3,600 metric tons] with four equal sublots of 1,000 tons [900 metric tons] each. As an exception, the first LOT for the initial use of a Type S or FC-3 mix design with a particular plant will consist of four sublots, the first sublot of 500 tons [450 metric tons] or the first day's production (300 tons [275 metric tons] maximum for mix design with a Florida limestone source north of the 28th parallel), the second sublot of 500 tons [450 metric tons], and the remaining two sublots of 1,000 tons [900 metric tons] each.

A partial LOT may occur due to the following:

- (1) the completion of a given mix type on a project.
- (2) an approved LOT termination by the Engineer due to a change in process, extended delay in production, or change in mix design.

If the partial LOT contains one or two sublots with their appropriate test results, then the previous full-size LOT will be redefined to include this partial LOT and the evaluation of the LOT will be based on either five or six sublot determinations. If the partial LOT contains three sublots with their appropriate test results, this partial LOT will be redefined to be a whole LOT and the evaluation of it will be based on three sublot determinations.

When the total quantity of any mix is less than 3,000 tons [2,700 metric tons], the partial LOT will be evaluated for the appropriate number of sublots from n=1 to n=3. When the total quantity of

any mix type is less than 500 tons [450 metric tons], the Department will accept the mix on the basis of visual inspection. The Department may run extraction and gradation analysis for information purposes; however, the provisions for partial payment will not apply.

On multiple project contracts, the LOT(s) at the asphalt plant will carry over from project to project.

331-6.2 Acceptance Procedures: Control all operations in the handling, preparation, and mixing of the asphalt mix so that the percent bitumen and the percents passing the No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425  $\mu$ m and 75  $\mu$ m] sieves will meet the approved job mix formula within the tolerance shown in Table 331-6.

Table 331-6 Tolerances for Acceptance Tests					
	•				
Characteristic	Tolerance*				
Asphalt Content (Extraction)	±0.55%				
Asphalt Content (Printout)	±0.15%				
Passing No. 4 [4.75 mm] sieve	±7.00%				
Passing No. 10 [2.00 mm] sieve	±5.50%				
Passing No. 40 [425 μm] sieve**	±4.50%				
Passing No. 200 [75 μm] sieve ±2.00%					
*Tolerances for sample size of n=1. See Table 331-7 for other sample sizes n=2 through n=6.					
**Applies only to Types S-I, S-III, S-III, and FC-3.					

Acceptance of the mixture will be on the basis of test results on consecutive random samples from each LOT. One random sample will be taken from each sublot. The bituminous mixture will be sampled and tested at the plant as specified in 331-4.4.2.

Calculations for the acceptance test results for bitumen content and gradation (percentages passing No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425  $\mu$ m and 75  $\mu$ m] sieves) will be shown to the nearest 0.01. Calculations for arithmetic averages will be carried to the nearest 0.001 and rounded to the nearest 0.01 in accordance with the Department's rules of rounding.

Payment will be made on the basis of Table 331-7, "Acceptance Schedule of Payment". The process will be considered out of control when the deviation of any individual test result from the mix design falls in the 80% pay factor for the "one test" column of Table 331-7. When this happens, the LOT will be automatically terminated and production stopped. The approval of the Engineer will be required prior to resuming production of the mix. Acceptance of the LOT will then be determined in accordance with Table 331-7.

All acceptance tests will be completed on the same day the sample was taken, when possible, and on no occasion will they be completed later than the following work day.

	Table 331-7								
	Accepta	nce Schedule o	of Payment (Aspha	lt Plant Mix Char	acteristics)				
1	Average of Ac	cumulated Dev	iations of the Acce	eptance Tests fron	n the Mix Desig	şn.			
Pay Factor	1-Test	2-Tests	3-Tests	4-Tests	5-Tests	6-Tests			
Asphalt Cer	Asphalt Cement Content (Extraction - FM 5-544 or 5-563)								
1.00	0.00-0.55	0.00-0.43	0.00-0.38	0.00-0.35	0.00-0.33	0.00-0.31			
0.95	0.56-0.65	0.44-0.50	0.39-0.44	0.36-0.40	0.34-0.37	0.32-0.36			
0.90	0.66-0.75	0.51-0.57	0.45-0.50	0.41-0.45	0.38-0.42	0.36-0.39			
0.80*	over 0.75	over 0.57	over 0.50	over 0.45	over 0.42	over 0.39			
Asphalt Cer	Asphalt Cement Content (Printout)								
1.00	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15			

			Table 331-7						
Acceptance Schedule of Payment (Asphalt Plant Mix Characteristics)									
1	Average of Accumulated Deviations of the Acceptance Tests from the Mix Design.								
Pay Factor	1-Test	2-Tests	3-Tests	4-Tests	5-Tests	6-Tests			
0.95	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25			
0.90	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35			
0.80*	over 0.35	over 0.35	over 0.35	over 0.35	over 0.35	over 0.35			
No. 4 [4.75]	mm] sieve**								
1.00	0.00-7.00	0.00-5.24	0.00-4.46	0.00-4.00	0.00-3.68	0.00-3.45			
0.98	7.01-8.00	5.25-5.95	4.47-5.04	4.01-4.50	3.69-4.13	3.46-3.86			
0.95	8.01-9.00	5.96-6.66	5.05-5.62	4.51-5.00	4.14-4.58	3.87-4.27			
0.90	9.01-10.00	6.67-7.36	5.63-6.20	5.01-5.50	4.59-5.02	4.28-4.67			
0.80*	over 10.00	over 7.36	over 6.20	over 5.50	over 5.02	over 4.67			
No. 10 [2.00	mm] sieve**								
1.00	0.00-5.50	0.00-4.33	0.00-3.81	0.00-3.50	0.00-3.29	0.00-3.13			
0.98	5.51-6.50	4.34-5.04	3.82-4.39	3.51-4.00	3.30-3.74	3.14-3.54			
0.95	6.51-7.50	5.05-5.74	4.40-4.96	4.01-4.50	3.75-4.18	3.55-3.95			
0.90	7.51-8.50	5.75-6.45	4.97-5.54	4.51-5.00	4.19-4.63	3.96-4.36			
0.80*	over 8.50	over 6.45	over 5.54	over 5.00	over 4.63	over 4.36			
No. 40 [425	μm] sieve**								
1.00	0.00-4.50	0.00-3.91	0.00-3.65	0.00-3.50	0.00-3.39	0.00-3.32			
0.98	4.51-5.50	3.92-4.62	3.66-4.23	3.51-4.00	3.40-3.84	3.33-3.72			
0.95	5.51-6.50	4.63-5.33	4.24-4.81	4.01-4.50	3.85-4.29	3.73-4.13			
0.90	6.51-7.50	5.34-6.04	4.82-5.39	4.51-5.00	4.30-4.74	4.14-4.54			
0.80*	over 7.50	over 6.04	over 5.39	over 5.00	over 4.74	over 4.54			
No. 200 [75	μm] sieve**								
1.00	0.00-2.00	0.00-1.71	0.00-1.58	0.00-1.50	0.00-1.45	0.00-1.41			
0.95	2.01-2.40	1.72-1.99	1.59-1.81	1.51-1.70	1.46-1.63	1.42-1.57			
0.90	2.41-2.80	2.00-2.27	1.82-2.04	1.71-1.90	1.64-1.80	1.58-1.73			
0.80*	over 2.80	over 2.27	over 2.04	over 1.90	over 1.80	over 1.73			

<sup>\*</sup>If approved by the Engineer based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay. Otherwise, remove and replace the material at no cost to the Department at any item.

331-6.3 Automatic Batch Plant With Printout: Acceptance determinations for asphalt content for mixtures produced by automatic batch plants with printout will be based on the calculated bitumen content using the printout of the weights of asphalt actually used. Acceptance determinations for gradations (No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425 μm and 75 μm] sieves) will be based on the actual test results from extraction gradation analyses. Payment will be made based on the provisions of Table 331-7.

331-6.4 Additional Tests: The Engineer reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control.

331-6.4.1 Determination of Marshall and Volumetric Properties: The Engineer will determine the Marshall and Volumetric Properties of the mix at a minimum frequency of one set per LOT, to determine whether or not the produced mix is meeting the specification requirements. The

<sup>\*\*</sup>When there are two or more reduced payments for these items in one LOT of material, only the greatest reduction in payment will be applied. CAUTION: This rule applies only to these four gradation test results.

NOTES:

<sup>(1)</sup> The No. 40 [425 μm] sieve applies to Type S-I, S-II, S-III and FC-3.

<sup>(2)</sup> Deviations are absolute values with no plus or minus signs.

Department will sample and prepare test specimens and test them in accordance with FM 5-511 for Marshall stability and flow, FM 1-T 209 for maximum specific gravity, and FM 1-T 166 for density. Volumetric properties will be determined for Type S and FC-3 mixes only.

**331-6.4.2 Failing Marshall Properties:** When the average value of the specimens fails to meet specification requirements for stability or flow, the Engineer may stop the plant operations until all specification requirements can be met or until another verified mix design has been approved. Make revisions to a mix design in accordance with 331-4.3.2. If the Lab Density of the mix during production differs from the value shown on the verified mix design by more than 2 lbs/ft³ [32 kg/m³] for two consecutive tests, the Engineer will revise the target value.

**331-6.4.3 Failing Volumetric Properties (Type S and FC-3 mixes only):** When the Engineer determines the air void content to be less than 3.0%, or greater than 6.5%, make appropriate adjustments to the mix. When the air void content is determined to be less than 2.5% or greater than 7.0% on any one test, or less than 3.0% on two consecutive tests, cease operations until the problem has been resolved.

**331-6.4.4 Resuming Production:** In the event that plant operations are stopped due to a failure to meet specification requirements, obtain the Engineer's approval before resuming production of the mix. Limit production to a maximum of 300 tons [270 metric tons]. At this time, the Marshall and volumetric properties of the mix will be verified. After the Marshall and volumetric properties are verified, full scale production of the mix may be resumed.

**331-6.5.5 Disposition of In-Place Material:** Any material in-place that is represented by the failing test results (low stability, high flow, or less than 2.5% air voids) will be evaluated by the Engineer to determine if removal and replacement is necessary. Remove and replace any in-place material, if required, at no cost to the Department.

# 331-7 Acceptance of the Mixture at the Roadway

**331-7.1 Density Control Nuclear Method:** Determine the in-place density of each course of asphalt mix construction using the Nuclear Density Backscatter Method as specified by FM 1-T 238 (Method B). For a completed course, obtain an average in-place LOT density of at least 98% of the valid control strip density.

Do not perform density testing on patching courses, leveling and intermediate courses less than 1 inch [25 mm] thick (or a specified spread rate less than 100 lb/yd² [55kg/m²]), overbuild courses where the minimum thickness is less than 1 inch [25 mm], projects less than 1,000 feet [300 m], sections with variable width, or open-graded friction courses. Compact these courses, with the exception of open-graded friction courses in accordance with 330-10.1.2.

**331-7.2 Control Strips:** In order to determine the density of compacted asphalt mixtures for the purpose of acceptance, first establish a control strip. Construct one or more control strips for the purpose of determining the control strip density. Construct a control strip at the beginning of asphalt construction and one thereafter for each successive course. Construct a new control strip for any change in the composition of the mix design, underlying pavement structure, compaction equipment, or procedures. The Engineer may require an additional control strip when the Engineer deems it necessary to establish a new control strip density or confirm the validity of the control strip density being used at that time. The Contractor may also request a confirmation of the control strip density. Construct the control strip as a part of a normal day's run.

Construct a control strip 300 feet [100 m] in length and of an adequately uniform width to maintain a consistent compactive effort throughout the section. When constructing the control strip, start it between 300 and 1,000 feet [100 and 300 m] from the beginning of the paving operation. Construct a control strip of a thickness that is the same as that specified for the course of which it is a part. Construct the control strip using the same mix, the same paving and rolling equipment, and the same procedures as those used in laying the asphalt course of which the control strip is to become a part. Leave every control strip in place to become a portion of the completed roadway.

In order to determine the acceptability of the control strip, make ten nuclear density determinations at random locations within the control strip after completing the compaction of the control strip. Do not make any determinations within 12 inches [300 mm] of any unsupported edge. Use the average of these ten determinations for the Control Strip Density. For purposes of determining the percent of laboratory density, as required in Table 331-8, the Engineer will develop a correction factor at four nuclear density locations from 6 inch [150 mm] diameter cores or by direct transmission nuclear determination where applicable. Cut the cores prior to opening the roadway to traffic. The Engineer will calculate the percent of lab density to the nearest 0.01% and round it to the nearest 0.1%. Should the percent of lab density in a control strip exceed 99.0%, notify the Engineer immediately. In the event that a control strip does not meet the minimum density requirements specified in Table 331-8, take appropriate corrective actions and construct a new control strip. If three consecutive control strips fail to meet specification requirements, the Engineer will limit production and placement of the mix to 800 to 1,000 feet [250 to 300 m], regardless of the thickness and width the Contractor is placing, until the Contractor obtains a passing control strip.

Once the Contractor has obtained a passing control strip after a failing control strip (for the same mix, layer, and project), the Department will use the passing control strip to accept all previously laid mix. In the event the Contractor does not obtain a passing control strip, and this particular mix, layer, etc., is completed on the project, the Engineer will evaluate density in accordance with FM 5-543.

Table 331-8						
Roadw	ay Requirements fo	r Bituminous Concrete Mixes				
Minimum Control Strip Density*  Density* Surface Tolerance (% of Lab Density)						
S-I, S-II, S-III, Type II, Type III, SAHM	per 331-7	96	per 330-12			
ABC-1, ABC-2, ABC-3	per 280-8.6	96	per 200-7			
FC-2	No density required	N/A	per 330-12			
FC-3 per 331-7 96 per 330-12						
* The minimum control strip density re	equirement for shoulders	s is 95% of lab density.				

**331-7.3 LOTs:** For the purpose of acceptance and partial payment, the Engineer will divide each day's production into LOTs. The Engineer will close out all LOTs at the end of the day. The standard size of a LOT is 5,000 feet [1,500 m] of any pass made by the paving train regardless of the width of the pass or the thickness of the course. A sublot will be 1,000 feet [300 m] or less. The Engineer will consider pavers traveling in echelon as two separate passes. When at the end of a production day, the completion of a given course, layer, or mix, or at the completion of the project, and a LOT size is determined to be less than 5,000 feet [1,500 m], it will be considered a partial LOT. Handle partial LOTs as follows:

If the length of the partial LOT is 2,000 feet [600 m] or less, and a previous full-size LOT from the same day, mix, layer, and project is available, then the previous full-size LOT will be redefined to include this partial LOT and the number of tests required for the combined LOT will be as shown in Table 331-9.

If the partial LOT is 2,000 feet [600 m] or less, and a previous full-size LOT from the same day, mix, layer, and project is not available, the Engineer will evaluate the partial LOT separately and perform the number of tests required for the partial LOT as shown in Table 331-9. If the partial LOT is greater than 2,000 feet [600 m] long, the Engineer will evaluate the partial LOT separately and perform the number of tests required for the partial LOT as shown in Table 331-9.

Table 331-9					
Testing Requireme	ents for Partial LOTs				
LOT Size	Number of Tests				
Less than 3,000 feet [900 m]	3				
3,001 to 4,000 feet [901 to 1,200 m]	4				
4,001 to 5,000 feet [1,201 to 1,500 m]	5				
5,001 to 6,000 feet [1,501 to 1,800 m]	6				
6,001 to 7,000 feet [1,801 to 2,100 m]	7				
Greater than 7,000 feet [2,100 m]	2 LOTs				

For each LOT and partial LOT, the Engineer will make density determinations at a frequency shown in Table 331-9 at random locations within the LOT, but will not take them within 12 inches [300 mm] of any unsupported edge. The Engineer will determine the random locations by the use of statistically derived stratified random number tables. For the Contractor to receive full payment for density, the average density of a LOT shall be a minimum of 98.0% of the control strip density. Once the Engineer determines the average density of a LOT, do not provide additional compaction to raise the average. Notify the Engineer should the average density for two consecutive LOTs be greater than 102% of control strip density.

**331-7.4 Acceptance:** The Engineer will accept the completed pavement with respect to density on a LOT basis. The Department will make partial payment for those LOTs that have an average density less than 98.0% of the Control Strip Density based on Table 331-10:

Table 331-10					
Payment Scho	edule For Density				
Percent of Control Strip Density* Percent of Payment					
98.0 and above	100				
97.0 to less than 98.0	95				
96.0 to less than 97.0	90				
Less than 96.0**	75				

<sup>\*</sup> In calculating the percent of control strip density, do not round off the final percentage.

## 331-7.5 Density Requirements for Small Projects and Other Non-mainline Roadway Areas:

For projects less than 1,000 feet [300 m] in length and bridge projects with approaches less than 1,000 feet [300 m] each side, do not apply the requirements for control strips and nuclear density determination. Use the standard rolling procedures as specified in 330-10.1.2. Do not apply the provisions for partial payment to these small projects.

In other non-mainline roadway areas where it is not practical to establish a control strip, such as parking areas, toll plazas, turn lanes, and acceleration/deceleration lanes, the Contractor may use the standard rolling procedure to determine density requirements if so authorized in writing by the Engineer.

**331-7.6 Surface Tolerance:** The bituminous mixture will be accepted on the roadway with respect to surface tolerance in accordance with 330-12.

### 331-8 Method of Measurement.

<sup>\*\*</sup> If approved by the Engineer, based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay; otherwise, remove and replace the material at no expense to the Department. The Contractor may remove and replace the material at no expense to the Department at any time.

The quantity to be paid for will be the weight of the mixture, in tons [metric tons], completed and accepted. The weight will be determined as provided in 320-2 (including the provisions for the automatic recordation system).

The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent. There will be no separate payment or unit price adjustment for the bituminous material in the asphalt mix.

# 331-9 Basis of Payment:

Price and payment will be full compensation for all the work specified under this Section, including the applicable requirements of Sections 320 and 330.

Payment will be made under:

Item No. 331- 2- Type S Asphaltic Concrete - per ton.

Item No. 2331- 2- Type S Asphaltic Concrete - per metric ton.

# **GROUP 3 TECHNICAL SPECIFICATIONS**

# MC-1 TYPE S ASPHALT CONCRETE, QUALITY ASSURANCE AND ACCEPTANCE PROCEDURES

## 331-1 Description.

331-1.1 General: Construct a Type S Asphalt Concrete course (using the Quality Assurance acceptance system) using the type of mixture specified in the Contract, or when offered as alternates, as selected. If offered as alternates, meet the layer thickness criteria specified in 331-1.2. Type S mixes are identified as Type S-I, Type S-II, or Type S-III. The composition and physical test properties for all mixes including Type S Asphalt Concrete are shown in Tables 331-1 and 331-2. This Section establishes Acceptance Procedures for materials and work performed under Sections 280, 290, 331, 332, 333, 335, and 337.

Where Type S Asphalt Concrete is specified in the Contract, if approved by the Engineer, the equivalent fine Type SP Asphalt Concrete mixture (Traffic Level C) meeting the requirements of Section 334 may be selected as an alternate at no additional cost to the Department. The equivalent mixes are as follows:

Type S-I	Type SP-12.5
• 1	Type SP-19.0
	Type SP-9.5

Meet the requirements for plant and equipment specified in Section 320. Meet the general construction requirements specified in Section 330.

	Table 331-1								
	Bituminous Concrete Mixtures								
			(Gradation	n Design Ra	ange)				
Type			Total A	Aggregate P	assing Sieve	es <sup>1</sup>			
	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 10	No. 40	No. 80	No. 200	
	[19.0 mm]	[12.5 mm]	[9.5 mm]	[4.75 mm]	[2.0 mm]	[425 µm]	[180 µm]	[75 µm]	
S-I <sup>5</sup>	100	88-98	75-93	47-75	31-53	19-35	7-21	2-6	
S-II <sup>2</sup>	83-98	71-87	62-78	47-63	33-49	19-35	9-18	2-6	
S-III <sup>5</sup>		100	88-98	60-90	40-70	20-45	10-30	2-6	
Type II		100	90-100	80-100	55-90			2-12	
Type III		100	80-100	65-100	40-75	20-45	10-30	2-10	
SAHM		100						0-12	
ABC-1		100						0-12	
ABC-2		100			55-90			0-12	
ABC-3 <sup>3</sup>	70-100			30-70	20-60	10-40		2-10	
FC-2 <sup>4</sup>		100	85-100	10-40	4-12			2-5	
FC-3 <sup>5</sup>		100	88-98	60-90	40-70	20-45	10-30	2-6	

In inches [mm] or sieves  $[\mu m]$ .

<sup>&</sup>lt;sup>2</sup> 100% passing 1 1/4 inch [31.5 mm] sieve and 94 to 100% passing 1 inch [25.0 mm] sieve.

<sup>&</sup>lt;sup>3</sup> 100% passing 1 1/2 inch [37.5 mm] sieve.

<sup>&</sup>lt;sup>4</sup> The Engineer may increase the design range for the No. 10 [2.00 mm] sieve for lightweight aggregates.

The Engineer may retain up to 1% on the maximum sieve size.

	Table 331-2 Non SI Units								
	Marshall Design Properties For Bituminous Concrete Mixes								
Mix Type	Minimum Marshall Stability (lbs.)	Flow** (0.01 in.)	Minimum VMA (%)	Air Voids (%)	Minimum Effective Asphalt Content (%)	VFA Voids Filled with Asphalt (%)			
S-I	1,500*	8-13	14.5	4-5	***	65-75			
S-II	1,500*	8-13	13.5	4-5	***	65-75			
S-III	1,500*	8-13	15.5	4-6	***	65-75			
Type II	500-750	7-15	18	5-16	6.0	-			
Type III	750-1,000	7-15	15	5-12	5.5	-			
SAHM	300-500	7-15	15	5-16	6.0	=			
ABC-1	500	7-15	15	5-16	6.0	-			
ABC-2	750	7-15	15	5-14	5.5	-			
ABC-3	1,000	8-13	14	4-7	***	65-78			
FC-2	-	-	-	-	-	-			
FC-3	1,500	8-13	15.5	4-6	***	65-75			

<sup>\*</sup>The minimum Marshall Stability for Type S mixes used on limited access facilities (Interstate, Turnpike, and Expressways) shall be 1,800 lbs.

<sup>\*\*\*</sup>The ratio of the percentage by weight of total aggregate passing the No. 200 sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

	Table 331-2 SI Units							
	Marshall Design Properties For Bituminous Concrete Mixes							
	Minimum				Minimum			
	Marshall			Air	Effective			
	Stability	Flow**	Minimum	Voids	Asphalt	VFA Voids Filled with Asphalt		
Mix Type	(kN)	(mm)	VMA (%)	(%)	Content (%)	(%)		
S-I	6.7*	2.0-3.3	14.5	4-5	***	65-75		
S-II	6.7*	2.0-3.3	13.5	4-5	***	65-75		
S-III	6.7*	2.0-3.3	15.5	4-6	***	65-75		
Type II	2.2-3.3	1.8-3.8	18	5-16	6.0	•		
Type III	3.3-4.4	1.8-3.8	15	5-12	5.5	-		
SAHM	1.3-2.2	1.8-3.8	15	5-16	6.0	-		
ABC-1	2.2	1.8-3.8	15	5-16	6.0	•		
ABC-2	3.3	1.8-3.8	15	5-14	5.5	-		
ABC-3	4.4	2.0-3.3	14	4-7	***	65-78		
FC-2	-	-	-	-	-	-		
FC-3	6.7	2.0-3.3	15.5	4-6	***	65-75		

<sup>\*</sup>The minimum Marshall Stability for Type S mixes used on limited access facilities (Interstate, Turnpike, and Expressways) shall be 8.0 kN.

The Engineer will accept the work on a LOT to LOT basis in accordance with the applicable requirements of Sections 5, 6, and 9. The size of the LOT will be as specified in 331-6 for the bituminous mixture produced at the plant and as stipulated in 331-7 for the material placed on the roadway.

<sup>\*\*</sup>The maximum Flow value during production shall not exceed one point more than shown in the Table.

<sup>\*\*</sup>The maximum Flow value during production shall not exceed 0.25 mm more than shown in the Table.

<sup>\*\*\*</sup>The ratio of the percentage by weight of total aggregate passing the 75µm sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

## 331-1.2 Layer Thicknesses:

**331-1.2.1 Structural Layers:** The allowable layer thicknesses for Type S Asphalt Concrete mixtures used in structural and overbuild applications is as follows:

Type S-III.......... 3/4 - 1 1/4 inches [20 - 30 mm] Type S-I.......... 1 1/4 - 2 1/2 inches [30 - 60 mm] Type S-II................ 2 - 2 3/4 inches [50 - 70 mm]

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on Type S mixtures when used as a structural course:

Type S-III – Limited to the final (top) structural layer, one layer only.

Type S-I – May not be used in the first layer of courses over 3 1/2 inches

[90 mm] thick, nor in the first layer of courses over 2 3/4 inches [70 mm] thick on limited access facilities.

Type S-II – May not be used in the final (top) structural layer.

- **331-1.2.2 Additional Requirements:** The following requirements also apply to Type S Asphalt Concrete mixtures:
- 1. A minimum 1 1/2 inch [40 mm] initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).
- 2. When construction includes the paving of adjacent shoulders (#5 feet [#1.5 m] wide), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless shown differently in the plans.
- 3. All overbuild layers shall be Type S asphalt concrete. Use the minimum and maximum layer thicknesses as specified in 331-1.2.1 unless shown differently in the plans. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by 1/2 inch [13 mm], and the maximum allowable thickness may be increased 1/2 inch [13 mm], unless shown differently in the plans. Other variations from these thicknesses must be approved by the Engineer.

## 331-2 Materials.

**331-2.1 General Requirements:** Meet the material requirements specified in Division III. Specific references are as follows:

Superpave PG Asphalt Binder or Recycling Agent	916-1, 916-2
Mineral Filler	917-1, 917-2
Coarse Aggregate, Stone, Slag or Crushed Gravel	Section 901
Fine Aggegate	Section 902

Asphalt concrete mixes containing crushed gravel as coarse aggregate component must show no potential for stripping during laboratory testing for mix design verification.

Crushed Reclaimed Portland Cement Concrete Pavement may be used as a coarse aggregate or screenings component subject to meeting all applicable specifications.

## **331-2.2 Specific Requirements:**

**331-2.2.1 Condition of Aggregate:** Use clean aggregate containing no deleterious substances. Do not use coarse or fine aggregate which contains more than 0.5% of phosphate.

331-2.2.2 Fine Aggregate and Mineral Filler: In laboratory tests, and for the purpose of proportioning the paving mixture, consider all material passing the No. 10 [2.00 mm] sieve and retained on the No. 200 [75  $\mu$ m] sieve as fine aggregate, and the material passing the No. 200 [75  $\mu$ m] sieve as mineral filler.

331-2.2.3 Screenings: Do not use any screenings in the combination of aggregates containing more than 15% of material passing the No. 200 [75  $\mu$ m] sieve. When two screenings are blended to produce the screening component of the aggregate, one of such screenings may contain up to 18% of material passing the No. 200 [75  $\mu$ m] sieve, as long as the combination of the two does not

contain over 15% material passing the No. 200 [75  $\mu$ m] sieve. Screenings may be washed to meet these requirements.

**331-2.2.4** Use of Reclaimed Asphalt Pavement (RAP): Subject to certain requirements, Reclaimed Asphalt Pavement (RAP) may be used as a component material of the asphalt mixture. Where the material is recovered from a FDOT project, the Composition of Existing pavement may be available on the Department's web site. The URL for obtaining this information, if available, is: www11.myflorida.com/statematerialsoffice/Bituminous/CentralBitLab/AsphaltCompositions/Compositions.htm

RAP may be used as a component material of the bituminous mixture subject to

the following:

- 1. Assume responsibility for the design of asphalt mixes which incorporate RAP as a component part.
- 2. Do not allow RAP to exceed 60% by weight of total aggregates for Asphalt Base Courses nor more than 50% by weight of total aggregates for Structural and Leveling Courses. Do not use RAP in Friction Courses.
- 3. Mount a grizzly or grid with openings of a sufficient size to prevent clogging of the cold feed over the RAP cold bin.

Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycled mixture.

If oversized RAP material appears in the completed recycled mix, cease plant operations and take appropriate corrective action.

- 4. Ensure that the RAP material as stockpiled is reasonably uniform in characteristics and contains no aggregate particles which are soft or conglomerates of fines.
- 5. Ensure that the RAP has a minimum average asphalt content of 4% by weight of total mix. The Department reserves the right to sample the stockpile in order that this requirement is met.

When material milled from the project is used as a component of the asphalt mixture and a Composition of Existing Pavement is known, use the following procedures for obtaining representative samples for the mix design:

- 1. Cut ten 6-inch [150 mm] cores in area(s) approved by the Engineer. Fill the core holes immediately prior to opening to traffic.
- 2. Representative samples may also be obtained by milling the existing pavement to the full depth shown on the plans for pavement removal for a length of approximately 200 feet [60 m]. Immediately replace the pavement removed with the specified mix in the Contract.
- 3. Submit a request in writing to the Engineer for any variance from the above outlined methods of obtaining samples for mix designs.

When the RAP to be used as a component in a mix design is stockpiled from a previous DOT project and the Composition of Existing Pavement is known, design the mix and submit to the Department for verification.

When the composition of stockpiled RAP to be used as a component in a mix design is not known, design the mix as follows:

- 1. Submit a bag of RAP, composed of samples from several locations in the stockpile(s), to the Department at least four weeks prior to the planned start of mix design. The Engineer will run viscosities on the reclaimed asphalt pavement and furnish the information to the Contractor
- 2. Run a minimum of six extraction gradation analyses of the RAP. Take the samples at random locations around the stockpile(s).
- 3. Request the Engineer to make a visual inspection of the stockpile(s) of RAP. Based on visual inspection, the Engineer will determine the suitability of the stockpiled materials.

4. When the proposed mix design is submitted to the Department for verification, submit the data from the extraction gradation analyses required above.

**331-2.2.5 Binder for Mixes with RAP:** Use a PG 67-22 where RAP is less than 20% by weight of total aggregate; use a PG 64-22 where RAP is 20% or greater but less than 30% by weight of total aggregate; use appropriate recycle agent where RAP is 30% or greater.

The Engineer reserves the right to change binder type and grade at design based on the characteristics of the RAP binder, and reserves the right to request reasonable changes during the production based on the requirements of 331-4.4.4.

- **331-2.2.6** Use of Recycled Crushed Glass: Recycled crushed glass may be used as a component of the bituminous mixture subject to the following:
- 1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.
- 2. The percentage of recycled crushed glass in any bituminous mixture does not exceed 15% of the total aggregate weight.
- 3. The asphalt binder used with mixtures containing recycled crushed glass contains 0.5% anti-stripping agent from an approved source. The addition of the specified amount of anti-stripping agent must be certified by the supplier.
- 4. Test bituminous mixtures containing recycled crushed glass in accordance with AASHTO T 283 as part of the mix design approval. The minimum tensile strength ratio must not be less than 80%. An increase in the amount of anti-stripping agent may be necessary in order to meet this requirement.
- 5. Recycled crushed glass must not be used in friction course mixtures nor in structural course mixtures which are to be used as the final wearing course.

## 331-3 Permissible Variation for the Coarse Aggregate.

Size and uniformly grade or combine the aggregate or aggregates shipped to the job in such proportions that the resulting mixture meets the grading requirements of the mix design.

# 331-4 General Composition of Mixture.

**331-4.1 General:** Use a bituminous mixture composed of a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and bituminous material. Ensure that not more than 20% by weight of the total aggregate used is silica sand or local materials as defined in Section 902. Consider the silica sand and local materials contained in any RAP material, if used in the mix, in this limitation. Size, grade and combine the several aggregate fractions in such proportions that the resulting mixture meets the grading and physical properties of the verified mix design.

RAP meeting the requirements of 331-2.2.4 may be approved as a substitution for a portion of the combination of aggregates, subject to all applicable specification requirements being met.

**331-4.2 Grading Requirements:** In all cases, use a mix design within the design ranges specified in Table 331-1.

### **331-4.3** Mix Design:

**331-4.3.1 General:** Prior to the production of any asphalt paving mixture, submit a mix design and representative samples of all component materials to the Department at least two weeks before the scheduled start of production. The Engineer will verify the mix design before use. Send a copy of the proposed mix design to the Engineer at the same time. (Open-graded mixes will be designed by the Engineer.) Furnish the following information:

- 1. The specific project on which the mixture will be used.
- 2. The source and description of the materials to be used.
- 3. The gradation and approximate proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use.

- 4. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly No. 200 [75  $\mu$ m]) should be accounted for and identified for the applicable sieves.
- 5. A single percentage of asphalt by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%. For structural mixes (S-I, S-II and S-III) establish the optimum asphalt content at a level corresponding to a minimum of 4.5% air voids. For FC-3 mixes, establish optimum asphalt content at a level corresponding to a minimum of 5.0% air voids.
  - 6. A single temperature at which the mixture is intended to be discharged from
- 7. The laboratory density of the asphalt mixture for all mixes except Open-Graded Friction Courses.
- 8. Evidence that the completed mixture will meet all specified physical requirements.
- 9. The name of the individual responsible for the Quality Control of the mixture during production.
- 331-4.3.2 Revision of Mix Design: Submit all requests for revisions to approved mix designs, along with supporting documentation, in writing to the Engineer. In order to expedite the revision process, a verbal revision request or discussion of the possibility of a revision request may be made, but must be followed up with a written request. The verified mix design will remain in effect until a change is authorized by the Engineer. In no case will the effective date of the revision be established earlier than the date of the first communication with the Engineer regarding the revision.

Provide a new mix design for any change in source of aggregate.

331-4.3.3 Resistance to Plastic Flow: Include with the submitted mix design test data showing that the material as produced will meet the requirements specified in Table 331-2 when tested in accordance with FM 1-T 245. Further, determine the bulk specific gravity of the laboratory compacted bituminous mixture in accordance with FM 1-T 166.

Determine the percent of unfilled voids and the percent of aggregate voids filled with asphalt using the maximum specific gravity of the bituminous mixture and on the asphalt content of each group of specimens prepared from the same sample. Determine maximum specific gravity of the bituminous mixture by FM 1-T 209.

**331-4.3.4 Revocation of Mix Design:** The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

# 331-4.4 Contractor's Quality Control:

the plant.

**331-4.4.1 Personnel:** In accordance with the requirements of 331-5.2 provide the necessary quality control personnel. Ensure that the Quality Control Technician is certified by the Department and possesses a valid certificate of qualification. When it becomes evident to the Department that the Quality Control Technician cannot perform as required by the position, the Department will revoke the certification and require replacement with a certified technician.

**331-4.4.2 Extraction Gradation Analysis:** Sample the bituminous mixture at the plant in accordance with FM 1-T 168. Determine the percent bitumen content of the mixture in accordance with FM 5-563, and determine the percent passing the standard sieves in accordance with FM 1-T 030. In the event the calibration factor for the mix exceeds 0.50%, conduct the extraction and gradation analysis in accordance with FM 5-544 and FM 5-545, respectively. Show all test results to the nearest 0.01. Carry all calculations to the nearest 0.001 and rounded to the nearest 0.01, in accordance with the Department's rules of rounding.

Run a minimum of one extraction gradation analysis of the mixture for each day's or part of a day's production and immediately following any change in the production process. Take the quality control sample of mixture for the extraction gradation analysis each day as soon as the

plant operations have stabilized. Obtain the results in a timely manner (no later than the end of the day) so that adjustments can be made if necessary.

On initial use of a Type S or FC-3 mix design at a particular plant, as a minimum, run an additional extraction gradation analysis if more than 500 tons [450 metric tons] of mixture are produced on the first day of production.

Extraction gradation analysis will not be required on the days when mix production is less than 100 tons [90 metric tons]. However, when mix production is less than 100 tons [90 metric tons] per day on successive days, run the test when the accumulative tonnage on such days exceeds 100 tons [90 metric tons].

Use the target gradation and asphalt content as shown on the mix design. Any changes in target will require a change in the mix design in accordance with 331-4.3.2.

If the percentage of bitumen deviates from the optimum asphalt content by more than 0.55% or the percentage passing any sieve falls outside the limits shown in Table 331-3, make the necessary correction. If the results for two consecutive tests deviate from the optimum asphalt content by more than 0.55% or exceeds the limits as shown in Table 331-3 for any sieve, stop the plant operations until the problem has been corrected. In addition, if the results of two consecutive tests show an amount greater than 99.0% passing the 1/2 inch [12.5 mm] sieve for Type S-I, an amount greater than 99.0% passing the 3/8 inch [9.5 mm] sieve for Types S-III or FC-3, stop the plant operation until the problem has been corrected.

Maintain control charts showing the results of the extraction gradation analysis (bitumen content and sieve analysis).

Table	331-3				
Tolerances for Quality Control Tes	sts (Extraction Gradation Analysis)				
Sieve Size	Percent Passing				
1 inch [25.0 mm]	7				
3/4 inch [19.0 mm]	7				
1/2 inch [12.5 mm]	7				
3/8 inch [9.5 mm]	7				
No. 4 [4.75 mm]	7				
No. 10 [2.00 mm]	5.5				
No. 40* [*425 μm]	4.5				
No. 80* [*180 μm]	3				
No. 200 [75 μm] 2					
*Does not apply to SAHM, ABC-1 or Type II.					

**331-4.4.3 Plant Calibration:** At or before the start of mix production, perform a wash gradation on a set of hot bin samples for batch or continuous mix plants or belt cut for drum mix plants to verify calibration of the plant. When approved by the Engineer, extraction gradation analysis of the mix may be used to verify calibration of the plant. This extraction gradation analysis may also be used to fulfill the quality control requirements for the first day's production.

331-4.4.4 Viscosity of Asphalt in Mixes Containing RAP: When RAP is a component material, the viscosity of the asphalt material in the bituminous mixture, determined by the Engineer in accordance with ASTM D 2171, shall be  $6,000 \pm 2,000$  poises  $[600 \pm 200 \text{ Pa·s}]$ . This determination will be made on samples obtained by the Department on a random basis at a frequency of approximately one per 2,000 tons [1,800 metric tons] of mix.

If the viscosity determined by the Engineer is out of the specified range, adjust the binder formulation or blend of RAP in the mix to bring the viscosity within tolerance.

## 331-5 Acceptance Procedures.

The Department will approve all materials for acceptance through the Department's Acceptance Procedures specified herein. The Engineer is responsible for determining the acceptability of the construction and materials incorporated therein. The Contractor is responsible for the quality of construction and materials incorporated therein. Accomplish all quality control sampling and testing on a random basis in accordance with the approved Quality Control Plan. The Department will perform all necessary sampling and testing for acceptance purposes on a random basis as specified herein, in addition to monitoring and observing the Contractor's quality control test procedures and results. Maintain effective quality control until final project acceptance.

A LOT is defined as an isolated quantity of a specified material produced from a single source or operation, or it is a measured amount of specified construction produced by the same process. In order to change the process, thereby necessitating the termination of the current LOT and starting a new LOT, submit a written request, with justification, to the Engineer for approval. Obtain the Engineer's approval prior to making the process change.

Perform all quality control sampling and testing of materials in strict conformance with the Florida Method of Sampling and Testing as found in the Field Sampling and Testing Manual. The Department will perform all acceptance sampling and testing of materials in strict conformance with the Florida Method of Sampling and Testing as found in the Field Sampling and Testing Manual. This manual, developed and distributed by the FDOT Materials Office, contains the detailed sampling and testing procedures from AASHTO and ASTM as modified by the Department.

## 331-5.1 Acceptance Plans:

**331-5.1.1 Payment Based on Acceptance Results:** The Department will adjust the payment for each LOT of material, product, item of construction or completed construction on the basis of acceptance test results in accordance with the requirements specified hereinafter in the applicable Sections.

**331-5.1.2 Resampling of LOTs:** The Department requires that LOTs of materials, products, items of construction or completed construction meet the requirements of these Specifications at the time of submission. The Department will not take check samples for acceptance purposes.

331-5.1.3 Referee System: The Department has established a referee system to verify the validity of the acceptance test results on LOTs at the asphalt plant. The Department will evaluate the acceptance test results with data from split samples run by the District and Central Labs. The Engineer will make a final determination and disposition of the acceptance test results. Acceptance results will be considered non-representative if the test results from the Field and Referee samples differ by more than 0.44% for asphalt content when obtained by the use of FM 5-563 or 0.56% for FM 5-544. Acceptance results for gradation will be considered non-representative if the test results from the Field and Referee samples differ by more than the precision values given in Figure 2 of FM 1-T 030 when using FM 5-563 or Figure 2 of FM 5-545 when using FM 5-544. When the referee analysis indicates that one or more test results are not representative, the Engineer will discard the non-representative test value(s) and base payment calculations for the LOT (including the sublot with the non-representative test values) on the remaining sublot(s) test data as defined in 331-6.

**331-5.2 Quality Control by the Contractor:** Provide and maintain a quality control system that provides reasonable assurance that all materials, products and completed construction submitted for acceptance meet Contract requirements. Develop and maintain a quality control system in conformance with the following requirements:

## CONTRACTOR QUALITY CONTROL SYSTEM

## I. SCOPE:

These Specifications establish minimum requirements and activities for a Contractor quality control system. These requirements pertain to the inspections and tests necessary to substantiate material and product conformance to Contract requirements and to all inspections and tests required by the Contract.

### II. FUNCTIONS AND RESPONSIBILITIES:

1. The Department. The Department will verify the Contractor's design mixes, inspect plants and monitor control of the operations to ensure conformance with these Specifications. The Department will design all open-graded friction mixes (FC-2 and FC-5).

At no time will the Engineer issue instructions to the Contractor or producer as to the setting of dials, gauges, scales and meters. However, the Department's representatives may question and warn the Contractor against the continuance of any operations or sequence of operations that obviously do not result in satisfactory compliance with the requirements of these Specifications.

2. The Contractor. Submit in writing the proposed Quality Control Plan for each asphalt plant for the Engineer's approval. Maintain the approved Quality Control Plan in effect for the plant to which it is assigned until the Engineer rejects it in writing. Include in the plan the sampling, testing, inspection and the anticipated frequencies of each to maintain process control. A recommended series of sampling, testing and inspecting activities are shown in Table 331-4.

### Table 331-4

# RECOMMENDATIONS FOR A CONTRACTOR QUALITY CONTROL PLAN

## A. All Types of Plants

- 1. Stockpiles
  - a. Place materials in the correct stockpile.
  - b. Use good stockpiling techniques.
  - c. Inspect stockpiles for separation, contamination, segregation, etc.
- 2. Incoming Aggregate
  - a. Obtain gradations and bulk specific gravity (BSG) values from the aggregate supplier.
  - b. Determine gradation of all component materials.
  - c. Compare gradations and BSG to mix design.
- 3. Cold Bins
  - a. Calibrate the cold gate/feeder belt settings.
  - b. Observe operation of cold feed for uniformity.
- 4. Dryer
  - a. Observe pyrometer for aggregate temperature control.
  - b. Observe efficiency of the burner.
- 5. Hot Bins
  - a. Determine gradation of aggregates in each bin.
  - b. Determine theoretical combined grading.
- 6. Bituminous Mixture
  - a. Determine asphalt content.
  - b. Determine mix gradation.
  - c. Check mix temperature.
  - d. Verify modifier addition.

## B. Batch Plants

- 1. For batch weights, determine percent used and weight to be pulled from each bin to ensure compliance with the mix design.
  - 2. Check mixing time.
  - 3. Check operations of weigh bucket and scales.

# C. Continuous Mix Plant

- 1. Determine gate calibration chart for each bin.
- 2. Determine gate settings for each bin to ensure compliance with the mix design.

3. Determine gallons [cubic meters] per revolution or gallons [cubic meters] per minute to ensure compliance with the mix design.

### D. Drum Mixer Plant

- 1. Calibrate the cold feed and prepare a calibration chart for each cold gate.
- 2. Develop information for the synchronization of the aggregate feed, reclaimed asphalt pavement (RAP) feed and the bituminous material feed.
  - 3. Calibrate the weigh bridge on the changing conveyor.

The activities shown in Table 331-4 are the normal activities necessary to control the production of bituminous concrete at an acceptable quality level. The Department recognizes, however, that depending on the type of process or materials, some of the activities listed may not be necessary and, in other cases, additional activities may be required. The frequency of these activities will also vary with the process and the materials. When the process varies from the defined process average and variability targets, increase the frequency of these activities until the proper conditions are restored. Take one sample and test for every 1,000 tons [900 metric tons] of incoming aggregate (including RAP) as it is stockpiled. Test RAP material for extracted gradation and asphalt content.

Plot and keep up-to-date control charts for all quality control sampling and testing. Provide control charts for the following:

- a. gradation of incoming aggregates
- b. gradation and asphalt content of RAP
- c. combined gradations of hot bins
- d. extracted asphalt content
- e. mix gradation
- f. gradation of cold feed (drum mixers)

Post all current control charts in the asphalt lab where they can be seen.

Formulate all design mixes with the exception of open-graded friction mixes (FC-2 and FC-5). Submit design mixes to the Engineer for verification prior to their use. Provide process control of all materials during handling, blending, mixing and placing operations.

# III. QUALITY CONTROL SYSTEM:

- 1. General Requirements. Furnish and maintain a quality control system that provides reasonable assurance that all materials and products submitted to the Engineer for acceptance meet the Contract requirements. Perform, or have performed, the inspection and tests required to substantiate product conformance to Contract requirements, and also perform, or have performed, all inspections and tests otherwise required by the Contract. Keep a quality control technician, who has been certified by the Department as a Qualified Asphalt Plant Technician (Plant Level II), available at the asphalt plant at all times when producing asphalt mix for the Department. Place a person in responsible charge of the paving operations who is qualified by the Department as a Qualified Asphalt Paving Technician (Paving Level II). Document the quality control procedures, inspection and tests, and make that information available for review by the Engineer throughout the life of the Contract.
- 2. Documentation. Maintain adequate records of all inspections and tests. Record the nature and number of tests made, the number and type of deficiencies found, the quantities approved and rejected, and the nature of corrective action taken, as appropriate. The Department may review and approve all documentation procedures prior to the start of the work. The Department will take ownership of all charts and records documenting the Contractor's quality control tests and inspections upon completion of the work.
- 3. Charts and Forms. Record all conforming and nonconforming inspections and test results on approved forms and charts, and keep them up to date and complete and make them available at all times to the Engineer during the performance of the work. Prepare charts of test properties for the various materials and mixtures on forms that are in accordance with the applicable requirements of the Department. The Engineer will furnish a copy of each applicable chart and form. Provide a supply of the

charts and forms from the copy furnished. Obtain the Engineer's approval of non-standard forms and charts prior to using them.

- 4. Corrective Actions. Take prompt action to correct any errors, equipment malfunctions, process changes or other problems that result or could result in the submission of materials, products or completed construction that do not meet the requirements of these Specifications. When it becomes evident to the Department that the Contractor is not controlling his process and is making no effort to take corrective actions, the Department will require the Contractor to cease plant operations until such time as the Contractor can demonstrate that he can and is willing to control the process.
- 5. Laboratories with Measuring and Testing Equipment. Furnish a fully equipped asphalt laboratory (permanent or portable) at the production site, and meeting the following requirements:
- a. Area Provide an effective working area for the laboratory that is a minimum of 180 ft<sup>2</sup> [17 m<sup>2</sup>]. This area does not include the space for desks, chairs and file cabinets.
  - b. Lighting Provide lighting in the lab adequate to illuminate all areas of work.
- c. Temperature Control Equip the lab with heating and air conditioning units that provide a satisfactory working environment.
- d. Ventilation Equip the lab with fume hoods and exhaust fans that will remove all hazardous fumes from within the laboratory in accordance with OSHA requirements.
- e. Equipment and Supplies Furnish the lab with the necessary sampling and testing equipment, and supplies, for performing Contractor quality control and Department acceptance sampling and testing. A detailed list of equipment and supplies required for each test is included in the Field Sampling and Testing Manual.

When running plants at a high production rate, furnish additional testing equipment as necessary to allow the completion of the Contractor's quality control tests and the Department's Acceptance tests within the specified time frame.

- 6. Sampling and Testing. Use the sampling and testing methods and procedures that the Department provides to determine quality conformance of the materials and products. The Department will use these same methods and procedures for its acceptance tests. Include the sampling for other material characteristics on a random basis and the plotting of the test results on control charts in the Quality Control Plan.
- 7. Alternative Procedures. The Contractor may use alternative sampling methods, procedures and inspection equipment when such procedures and equipment provide, as a minimum, the quality assurance required by the Contract Documents. Prior to applying such alternative procedures, describe them in a written proposal and demonstrate for the Engineer's approval that their effectiveness is equal to or better than the Contract requirements. In case of dispute as to whether certain proposed procedures provide equal assurance, use the procedures stipulated by the Contract Documents.
- 8. Nonconforming Materials. Establish and maintain an effective and positive system for controlling nonconforming materials, including procedures for identification, isolation and disposition. Reclaim or rework nonconforming materials in accordance with procedures acceptable to the Engineer. Discuss the details of this system at the preconstruction conference, and make these details a part of the record of the conference.
- 9. Department Inspection at Subcontractor or Supplier Facilities. The Department reserves the right to inspect materials not manufactured within the Contractor's facility. The Department's inspection does not constitute acceptance and does not, in any way, replace the Contractor's inspection or otherwise relieve the Contractor of his responsibility to furnish an acceptable material or product. When the Department inspects the subcontractor's or supplier's product, such inspection does not replace the Contractor's responsibility to inspect such subcontractor's or supplier's product.

Inspect subcontracted or purchased materials when received, as necessary, to ensure conformance to Contract requirements. Report to the Engineer any nonconformance found on Department source-inspected material, and require the supplier to take necessary corrective action.

### **331-5.3 Defective Materials:**

**331-5.3.1 Acceptance or Rejection:** Following the application of the appropriate acceptance plan, the Engineer will make the final decision as to the acceptance, rejection or acceptance at an adjusted payment of the LOTs.

**331-5.3.2 Disposition of LOTs:** For nonconforming LOTs of materials, products, items of construction or complete construction that are not adaptable to correction by reworking, either remove and replace the nonconforming work, or accept no payment or an adjusted payment as stated in these Specifications, or, if not stated, as directed by the Engineer.

331-5.4 General Basis of Adjusted Payment For Deficiencies: When the Engineer determines that a deficiency exists, the Engineer will apply the applicable payment factor as shown in these Specifications to the entire LOT. When the Engineer determines that multiple deficiencies exist, the Engineer will apply an adjustment to the LOT of material that is identified by each deficiency. The Engineer will apply the adjustment for each deficiency separately as it occurs. The Engineer will not allow an adjustment to be affected by any other adjustment occurring for the same LOT. As an exception to the foregoing requirements, when there are two or more deficiencies in the gradation acceptance tests (% pass No. 4 [4.75 mm] sieve, % pass No. 10 [2.0 mm] sieve, % pass No. 40 [425 μm sieve], % pass No. 200 [75 μm] sieve) the Engineer will only apply the greater adjustment. The Engineer will express all reductions in payment in terms of equivalent pay items at no pay. When the item is measured by the ton [metric ton], the Engineer will convert the LOT in the field, which is measured in feet [meters], to equivalent tons [metric tons] and by using the average calculated spread for that LOT. When the pay item is measured by the square yard [square meter], the Engineer will convert the LOT at the production point, which is measured in tons [metric tons], to equivalent square yards [square meters] at the design thickness and by using the laboratory density as a conversion factor.

### 331-6 Acceptance of the Mixture at the Plant.

**331-6.1 General:** The Engineer will accept the bituminous mixture at the plant, with respect to gradation and asphalt content, on a LOT to LOT basis. The material will be tested for acceptance in accordance with the provisions of 331-5 and the following requirements. However, the Engineer will reject any load or loads of mixture which are unacceptable for reason of being excessively segregated, aggregates improperly coated, or of excessively high or low temperature for use in the work.

For initial use of a Type S or FC-3 mix design with a Florida limestone source north of the 28th parallel at a particular plant, limit the first day's production to a maximum of 300 tons [275 metric tons]. Resume production upon notification of acceptable Marshall properties as determined in accordance with 331-6.4

A standard size LOT at the asphalt plant will consist of 4,000 tons [3,600 metric tons] with four equal sublots of 1,000 tons [900 metric tons] each. As an exception, the first LOT for the initial use of a Type S or FC-3 mix design with a particular plant will consist of four sublots, the first sublot of 500 tons [450 metric tons] or the first day's production (300 tons [275 metric tons] maximum for mix design with a Florida limestone source north of the 28th parallel), the second sublot of 500 tons [450 metric tons], and the remaining two sublots of 1,000 tons [900 metric tons] each.

A partial LOT may occur due to the following:

- (1) the completion of a given mix type on a project.
- (2) an approved LOT termination by the Engineer due to a change in process, extended delay in production, or change in mix design.

If the partial LOT contains one or two sublots with their appropriate test results, then the previous full-size LOT will be redefined to include this partial LOT and the evaluation of the LOT will be based on either five or six sublot determinations. If the partial LOT contains three sublots with their appropriate test results, this partial LOT will be redefined to be a whole LOT and the evaluation of it will be based on three sublot determinations.

When the total quantity of any mix is less than 3,000 tons [2,700 metric tons], the partial LOT will be evaluated for the appropriate number of sublots from n=1 to n=3. When the total quantity of

any mix type is less than 500 tons [450 metric tons], the Department will accept the mix on the basis of visual inspection. The Department may run extraction and gradation analysis for information purposes; however, the provisions for partial payment will not apply.

On multiple project contracts, the LOT(s) at the asphalt plant will carry over from project to project.

331-6.2 Acceptance Procedures: Control all operations in the handling, preparation, and mixing of the asphalt mix so that the percent bitumen and the percents passing the No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425  $\mu$ m and 75  $\mu$ m] sieves will meet the approved job mix formula within the tolerance shown in Table 331-6.

Table : Tolerances for A	
Characteristic	Tolerance*
Asphalt Content (Extraction)	±0.55%
Asphalt Content (Printout)	±0.15%
Passing No. 4 [4.75 mm] sieve	±7.00%
Passing No. 10 [2.00 mm] sieve	±5.50%
Passing No. 40 [425 μm] sieve**	±4.50%
Passing No. 200 [75 μm] sieve	±2.00%
*Tolerances for sample size of n=1. See Table 331-7 for other sar **Applies only to Types S-I, S-II, S-III, and FC-3.	mple sizes n=2 through n=6.

Acceptance of the mixture will be on the basis of test results on consecutive random samples from each LOT. One random sample will be taken from each sublot. The bituminous mixture will be sampled and tested at the plant as specified in 331-4.4.2.

Calculations for the acceptance test results for bitumen content and gradation (percentages passing No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425  $\mu$ m and 75  $\mu$ m] sieves) will be shown to the nearest 0.01. Calculations for arithmetic averages will be carried to the nearest 0.001 and rounded to the nearest 0.01 in accordance with the Department's rules of rounding.

Payment will be made on the basis of Table 331-7, "Acceptance Schedule of Payment". The process will be considered out of control when the deviation of any individual test result from the mix design falls in the 80% pay factor for the "one test" column of Table 331-7. When this happens, the LOT will be automatically terminated and production stopped. The approval of the Engineer will be required prior to resuming production of the mix. Acceptance of the LOT will then be determined in accordance with Table 331-7.

All acceptance tests will be completed on the same day the sample was taken, when possible, and on no occasion will they be completed later than the following work day.

	Table 331-7							
	Accepta	nce Schedule o	of Payment (Aspha	lt Plant Mix Char	acteristics)			
I	Average of Ac	cumulated Dev	riations of the Acce	eptance Tests from	n the Mix Desig	gn.		
Pay Factor	1-Test	2-Tests	3-Tests	4-Tests	5-Tests	6-Tests		
Asphalt Cen	nent Content (	Extraction - FN	1 5-544 or 5-563)					
1.00	0.00-0.55	0.00-0.43	0.00-0.38	0.00-0.35	0.00-0.33	0.00-0.31		
0.95	0.56-0.65	0.44-0.50	0.39-0.44	0.36-0.40	0.34-0.37	0.32-0.36		
0.90	0.66-0.75	0.51-0.57	0.45-0.50	0.41-0.45	0.38-0.42	0.36-0.39		
0.80*	over 0.75	over 0.57	over 0.50	over 0.45	over 0.42	over 0.39		
Asphalt Cen	Asphalt Cement Content (Printout)							
1.00	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15	0.00-0.15		

			Table 331-7					
	Acceptance Schedule of Payment (Asphalt Plant Mix Characteristics)							
1			riations of the Acce			n.		
Pay Factor	1-Test	2-Tests	3-Tests	4-Tests	5-Tests	6-Tests		
0.95	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25	0.16-0.25		
0.90	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35	0.26-0.35		
0.80*	over 0.35	over 0.35	over 0.35	over 0.35	over 0.35	over 0.35		
No. 4 [4.75]	mm] sieve**							
1.00	0.00-7.00	0.00-5.24	0.00-4.46	0.00-4.00	0.00-3.68	0.00-3.45		
0.98	7.01-8.00	5.25-5.95	4.47-5.04	4.01-4.50	3.69-4.13	3.46-3.86		
0.95	8.01-9.00	5.96-6.66	5.05-5.62	4.51-5.00	4.14-4.58	3.87-4.27		
0.90	9.01-10.00	6.67-7.36	5.63-6.20	5.01-5.50	4.59-5.02	4.28-4.67		
0.80*	over 10.00	over 7.36	over 6.20	over 5.50	over 5.02	over 4.67		
No. 10 [2.00	mm] sieve**							
1.00	0.00-5.50	0.00-4.33	0.00-3.81	0.00-3.50	0.00-3.29	0.00-3.13		
0.98	5.51-6.50	4.34-5.04	3.82-4.39	3.51-4.00	3.30-3.74	3.14-3.54		
0.95	6.51-7.50	5.05-5.74	4.40-4.96	4.01-4.50	3.75-4.18	3.55-3.95		
0.90	7.51-8.50	5.75-6.45	4.97-5.54	4.51-5.00	4.19-4.63	3.96-4.36		
0.80*	over 8.50	over 6.45	over 5.54	over 5.00	over 4.63	over 4.36		
No. 40 [425	μm] sieve**							
1.00	0.00-4.50	0.00-3.91	0.00-3.65	0.00-3.50	0.00-3.39	0.00-3.32		
0.98	4.51-5.50	3.92-4.62	3.66-4.23	3.51-4.00	3.40-3.84	3.33-3.72		
0.95	5.51-6.50	4.63-5.33	4.24-4.81	4.01-4.50	3.85-4.29	3.73-4.13		
0.90	6.51-7.50	5.34-6.04	4.82-5.39	4.51-5.00	4.30-4.74	4.14-4.54		
0.80*	over 7.50	over 6.04	over 5.39	over 5.00	over 4.74	over 4.54		
No. 200 [75	μm] sieve**							
1.00	0.00-2.00	0.00-1.71	0.00-1.58	0.00-1.50	0.00-1.45	0.00-1.41		
0.95	2.01-2.40	1.72-1.99	1.59-1.81	1.51-1.70	1.46-1.63	1.42-1.57		
0.90	2.41-2.80	2.00-2.27	1.82-2.04	1.71-1.90	1.64-1.80	1.58-1.73		
0.80*	over 2.80	over 2.27	over 2.04	over 1.90	over 1.80	over 1.73		

<sup>\*</sup>If approved by the Engineer based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay. Otherwise, remove and replace the material at no cost to the Department at any item.

331-6.3 Automatic Batch Plant With Printout: Acceptance determinations for asphalt content for mixtures produced by automatic batch plants with printout will be based on the calculated bitumen content using the printout of the weights of asphalt actually used. Acceptance determinations for gradations (No. 4, No. 10, No. 40 and No. 200 [4.75 mm, 2.00 mm, 425 μm and 75 μm] sieves) will be based on the actual test results from extraction gradation analyses. Payment will be made based on the provisions of Table 331-7.

331-6.4 Additional Tests: The Engineer reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control.

331-6.4.1 Determination of Marshall and Volumetric Properties: The Engineer will determine the Marshall and Volumetric Properties of the mix at a minimum frequency of one set per LOT, to determine whether or not the produced mix is meeting the specification requirements. The

<sup>\*\*</sup>When there are two or more reduced payments for these items in one LOT of material, only the greatest reduction in payment will be applied. CAUTION: This rule applies only to these four gradation test results.

NOTES:

<sup>(1)</sup> The No. 40 [425 μm] sieve applies to Type S-I, S-II, S-III and FC-3.

<sup>(2)</sup> Deviations are absolute values with no plus or minus signs.

Department will sample and prepare test specimens and test them in accordance with FM 5-511 for Marshall stability and flow, FM 1-T 209 for maximum specific gravity, and FM 1-T 166 for density. Volumetric properties will be determined for Type S and FC-3 mixes only.

**331-6.4.2 Failing Marshall Properties:** When the average value of the specimens fails to meet specification requirements for stability or flow, the Engineer may stop the plant operations until all specification requirements can be met or until another verified mix design has been approved. Make revisions to a mix design in accordance with 331-4.3.2. If the Lab Density of the mix during production differs from the value shown on the verified mix design by more than 2 lbs/ft³ [32 kg/m³] for two consecutive tests, the Engineer will revise the target value.

**331-6.4.3 Failing Volumetric Properties (Type S and FC-3 mixes only):** When the Engineer determines the air void content to be less than 3.0%, or greater than 6.5%, make appropriate adjustments to the mix. When the air void content is determined to be less than 2.5% or greater than 7.0% on any one test, or less than 3.0% on two consecutive tests, cease operations until the problem has been resolved.

**331-6.4.4 Resuming Production:** In the event that plant operations are stopped due to a failure to meet specification requirements, obtain the Engineer's approval before resuming production of the mix. Limit production to a maximum of 300 tons [270 metric tons]. At this time, the Marshall and volumetric properties of the mix will be verified. After the Marshall and volumetric properties are verified, full scale production of the mix may be resumed.

**331-6.5.5 Disposition of In-Place Material:** Any material in-place that is represented by the failing test results (low stability, high flow, or less than 2.5% air voids) will be evaluated by the Engineer to determine if removal and replacement is necessary. Remove and replace any in-place material, if required, at no cost to the Department.

### 331-7 Acceptance of the Mixture at the Roadway

**331-7.1 Density Control Nuclear Method:** Determine the in-place density of each course of asphalt mix construction using the Nuclear Density Backscatter Method as specified by FM 1-T 238 (Method B). For a completed course, obtain an average in-place LOT density of at least 98% of the valid control strip density.

Do not perform density testing on patching courses, leveling and intermediate courses less than 1 inch [25 mm] thick (or a specified spread rate less than 100 lb/yd² [55kg/m²]), overbuild courses where the minimum thickness is less than 1 inch [25 mm], projects less than 1,000 feet [300 m], sections with variable width, or open-graded friction courses. Compact these courses, with the exception of open-graded friction courses in accordance with 330-10.1.2.

**331-7.2 Control Strips:** In order to determine the density of compacted asphalt mixtures for the purpose of acceptance, first establish a control strip. Construct one or more control strips for the purpose of determining the control strip density. Construct a control strip at the beginning of asphalt construction and one thereafter for each successive course. Construct a new control strip for any change in the composition of the mix design, underlying pavement structure, compaction equipment, or procedures. The Engineer may require an additional control strip when the Engineer deems it necessary to establish a new control strip density or confirm the validity of the control strip density being used at that time. The Contractor may also request a confirmation of the control strip density. Construct the control strip as a part of a normal day's run.

Construct a control strip 300 feet [100 m] in length and of an adequately uniform width to maintain a consistent compactive effort throughout the section. When constructing the control strip, start it between 300 and 1,000 feet [100 and 300 m] from the beginning of the paving operation. Construct a control strip of a thickness that is the same as that specified for the course of which it is a part. Construct the control strip using the same mix, the same paving and rolling equipment, and the same procedures as those used in laying the asphalt course of which the control strip is to become a part. Leave every control strip in place to become a portion of the completed roadway.

In order to determine the acceptability of the control strip, make ten nuclear density determinations at random locations within the control strip after completing the compaction of the control strip. Do not make any determinations within 12 inches [300 mm] of any unsupported edge. Use the average of these ten determinations for the Control Strip Density. For purposes of determining the percent of laboratory density, as required in Table 331-8, the Engineer will develop a correction factor at four nuclear density locations from 6 inch [150 mm] diameter cores or by direct transmission nuclear determination where applicable. Cut the cores prior to opening the roadway to traffic. The Engineer will calculate the percent of lab density to the nearest 0.01% and round it to the nearest 0.1%. Should the percent of lab density in a control strip exceed 99.0%, notify the Engineer immediately. In the event that a control strip does not meet the minimum density requirements specified in Table 331-8, take appropriate corrective actions and construct a new control strip. If three consecutive control strips fail to meet specification requirements, the Engineer will limit production and placement of the mix to 800 to 1,000 feet [250 to 300 m], regardless of the thickness and width the Contractor is placing, until the Contractor obtains a passing control strip.

Once the Contractor has obtained a passing control strip after a failing control strip (for the same mix, layer, and project), the Department will use the passing control strip to accept all previously laid mix. In the event the Contractor does not obtain a passing control strip, and this particular mix, layer, etc., is completed on the project, the Engineer will evaluate density in accordance with FM 5-543.

Table 331-8							
Roadw	Roadway Requirements for Bituminous Concrete Mixes						
Mix Type Density Density*  Of Lab Density  Minimum Control Strip Density* Surface Tole (% of Lab Density)							
S-I, S-II, S-III, Type II, Type III, SAHM	per 331-7	96	per 330-12				
ABC-1, ABC-2, ABC-3	per 280-8.6	96	per 200-7				
FC-2	No density required	N/A	per 330-12				
FC-3 per 331-7 96 per 330-12							
* The minimum control strip density re	equirement for shoulders	s is 95% of lab density.					

**331-7.3 LOTs:** For the purpose of acceptance and partial payment, the Engineer will divide each day's production into LOTs. The Engineer will close out all LOTs at the end of the day. The standard size of a LOT is 5,000 feet [1,500 m] of any pass made by the paving train regardless of the width of the pass or the thickness of the course. A sublot will be 1,000 feet [300 m] or less. The Engineer will consider pavers traveling in echelon as two separate passes. When at the end of a production day, the completion of a given course, layer, or mix, or at the completion of the project, and a LOT size is determined to be less than 5,000 feet [1,500 m], it will be considered a partial LOT. Handle partial LOTs as follows:

If the length of the partial LOT is 2,000 feet [600 m] or less, and a previous full-size LOT from the same day, mix, layer, and project is available, then the previous full-size LOT will be redefined to include this partial LOT and the number of tests required for the combined LOT will be as shown in Table 331-9.

If the partial LOT is 2,000 feet [600 m] or less, and a previous full-size LOT from the same day, mix, layer, and project is not available, the Engineer will evaluate the partial LOT separately and perform the number of tests required for the partial LOT as shown in Table 331-9. If the partial LOT is greater than 2,000 feet [600 m] long, the Engineer will evaluate the partial LOT separately and perform the number of tests required for the partial LOT as shown in Table 331-9.

Table 331-9				
Testing Requireme	ents for Partial LOTs			
LOT Size	Number of Tests			
Less than 3,000 feet [900 m]	3			
3,001 to 4,000 feet [901 to 1,200 m]	4			
4,001 to 5,000 feet [1,201 to 1,500 m]	5			
5,001 to 6,000 feet [1,501 to 1,800 m]	6			
6,001 to 7,000 feet [1,801 to 2,100 m]	7			
Greater than 7,000 feet [2,100 m]	2 LOTs			

For each LOT and partial LOT, the Engineer will make density determinations at a frequency shown in Table 331-9 at random locations within the LOT, but will not take them within 12 inches [300 mm] of any unsupported edge. The Engineer will determine the random locations by the use of statistically derived stratified random number tables. For the Contractor to receive full payment for density, the average density of a LOT shall be a minimum of 98.0% of the control strip density. Once the Engineer determines the average density of a LOT, do not provide additional compaction to raise the average. Notify the Engineer should the average density for two consecutive LOTs be greater than 102% of control strip density.

**331-7.4 Acceptance:** The Engineer will accept the completed pavement with respect to density on a LOT basis. The Department will make partial payment for those LOTs that have an average density less than 98.0% of the Control Strip Density based on Table 331-10:

Table 331-10					
Payment Sch	edule For Density				
Percent of Control Strip Density*	Percent of Payment				
98.0 and above	100				
97.0 to less than 98.0	95				
96.0 to less than 97.0	90				
Less than 96.0**	75				

<sup>\*</sup> In calculating the percent of control strip density, do not round off the final percentage.

### 331-7.5 Density Requirements for Small Projects and Other Non-mainline Roadway Areas:

For projects less than 1,000 feet [300 m] in length and bridge projects with approaches less than 1,000 feet [300 m] each side, do not apply the requirements for control strips and nuclear density determination. Use the standard rolling procedures as specified in 330-10.1.2. Do not apply the provisions for partial payment to these small projects.

In other non-mainline roadway areas where it is not practical to establish a control strip, such as parking areas, toll plazas, turn lanes, and acceleration/deceleration lanes, the Contractor may use the standard rolling procedure to determine density requirements if so authorized in writing by the Engineer.

**331-7.6 Surface Tolerance:** The bituminous mixture will be accepted on the roadway with respect to surface tolerance in accordance with 330-12.

### 331-8 Method of Measurement.

<sup>\*\*</sup> If approved by the Engineer, based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay; otherwise, remove and replace the material at no expense to the Department. The Contractor may remove and replace the material at no expense to the Department at any time.

The quantity to be paid for will be the weight of the mixture, in tons [metric tons], completed and accepted. The weight will be determined as provided in 320-2 (including the provisions for the automatic recordation system).

The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent. There will be no separate payment or unit price adjustment for the bituminous material in the asphalt mix.

### 331-9 Basis of Payment:

Price and payment will be full compensation for all the work specified under this Section, including the applicable requirements of Sections 320 and 330.

Payment will be made under:

Item No. 331- 2- Type S Asphaltic Concrete - per ton.

Item No. 2331- 2- Type S Asphaltic Concrete - per metric ton.

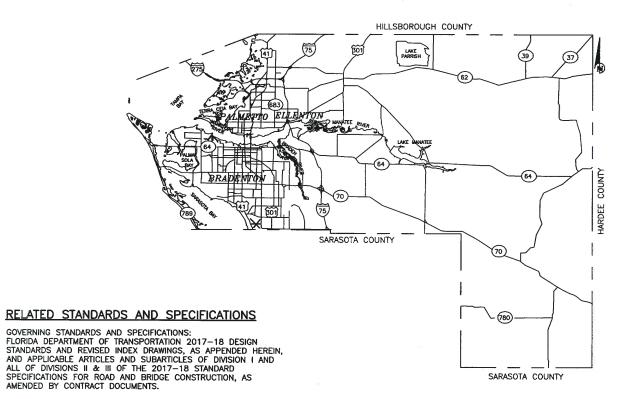
### Exhibit 2

### **PLAN SET / DRAWINGS**



# MANATEE COUNTY, FLORIDA CDBG RESURFACING PROJECT ORANGE RIDGE SOUTH COUNTY (GROUP 1) PROJECT #166-0019904

**MARCH 2018** 



FINAL PLANS

INDEX OF SHEETS
COVER SHEET
GENERAL NOTES & LEGEND
SUMMARY OF QUANTITIES
GROUP #1 PLAN & LOCATION

PROJECT DESCRIPTION
MILLING AND RESURFACING

FOR DESIGN STANDARDS CLICK ON THE "DESIGN STANDARDS" LINK AT THE FOLLOWING WEB SITE: http://www.dot.state.fl.us/rddesign/

FOR THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CLICK ON THE "SPECIFICATIONS" LINK AT THE FOLLOWING WEB SITE:
http://www.dot.state.fl.us/specificationsoffice/

Know what's below Call before you dig



MANATEE COUNTY, FLORIDA
CDBG RESURFACING PROJECT
SOUTH COUNTY (GROUP 1)

	DATE				3			
	Ы							
	REVISION DESCRIPTION							
	NO.							
	PROJECT #				166-0019904			
	SURVEY #				N/A			
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BRIAN MARTINEAU

By 4-24-19

### GENERAL

- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: BRIAN MARTINEAU AND CAN BE REACHED AT (941) 708-7450; EXT. 7243
- SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER.
- ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE COUNTY TO OBTAIN THE COUNTY CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
- ALL STATIONS AND OFFSETS REFER TO BASELINE OF CONSTRUCTION, UNLESS OTHERWISE NOTED.
- THE CONSTRUCTION LENGTHS IN THESE PLANS ARE APPROXIMATE. ACTUAL LIMITS MAY BE SET IN THE FIELD AS DIRECTED BY THE ENGINEER.
- 10. SEPARATE PAYMENT SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT PRICE FOR THE APPROPRIATE BID ITEM.
- 1. THE CONTRACTOR SHALL HAVE A FOREMAN, OR RESPONSIBLE PARTY, ON SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. ALL WORKERS ON THE JOB SITE WILL BE COURTEOUS TO THE PUBLIC AT ALL TIMES, AND SHALL REFER ANY QUESTIONS OR CONCERNS TO THE CONTRACTOR'S FOREMAN OR THE COUNTY INSPECTOR. THE FOREMAN SHALL SPEAK AND UNDERSTAND ENGLISH AND SHALL BE AVAILABLE AT ALL TIMES FOR TIMELY RESOLUTION OF PROJECT—RELATED ISSUES.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE COORDINATION OF CONSTRUCTION SCHEDULING BETWEEN CONTRACTOR AND ALL UTILITY AGENCIES.
- NOTE:
  THIS INCLUDED MEETING WITH UTILITY AGENCIES PRIOR TO THE PRE—CONSTRUCTION
  CONFERENCE TO ADJUST THEIR SCHEDULES TO COINCIDE WITH THE CONTRACTORS

  (REFERENCE CONTRACT DOCUMENTS)
- . ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTORY OF THE COUNTY PROJECT MANAGER. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
- . ALL CONSTRUCTION WITHIN FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH CURRENT FDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE DESIGN STANDARDS.
- 15. ALL SIGNING, STRIPING AND RPM PLACEMENT WITHIN THE FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH FDOT STANDARD INDEX 17346.

- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED, THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
- . THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
- 18. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
- . THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

### ENVIRONMENTAL

- O. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION ALL SEDIMENT AND EROSION CONTROL (SEC) DEVICES (E.G., BARRIERS, SEDIMENT TRAPS/BASINS, VEGETATIVE BUFFERS, ETC.) AS SPECIFIED IN THE FINAL APPROVED PLANS FOR THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SEC DEVICES UTILIZED DURING THE PROJECT, AS WELL AS INSTALLATION & MAINTENANCE OF ANY ADDITIONAL MEASURES DEEMED NECESSARY DURING PROJECT IMPLEMENTATION, TO PREVENT EROSION AND OFF-SITE SEDIMENT MIGRATION. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL SEC DEVICES UPON CONCLUSION OF THE PROJECT, AND UPON ADEQUATE STABILIZATION
- . WHEN A BENTONITE SPILL OR FRACK-OUT OCCURS OR THERE IS A LOSS OF RETURN INDICATING EXCESSIVE SEEPAGE OR LOSS OF DRILLING FLUID, DRILLING MUST BE STOPPED UNTIL THE LOCATION OF THE SPILL IS IDENTIFIED. UNDER NO CIRCUMSTANCES WILL DRILLING CONTINUE WHEN A SPILL IS APPARENT.
- 22. ONCE LOCATED, THE BENTONITE SPILL MUST BE ISOLATED AND SEEPAGE INTO ANY NEARBY WATER BODIES WILL BE BLOCKED DEPENDING ON THE DEGREE OF THE SPILL, THE ISOLATED BENTONITE MUST BE REMOVED MANUALLY OR MECHANICALLY AND DISPOSED OF BY APPROPRIATE MEANS OR REUSED.
- 23. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
- I. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS. 5. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
- S. SEDIMENT BASINS AND TRAPS. PERIMETER BERMS. SEDIMENT RARRIERS. VEGETATIVE BLIEFERS, AND OTHER DESIDIENT BASINS AND TRAYS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
- 27. ALL SWALES. DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SHITATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
- SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, ENTER DEPORT OF THE PROPERTY OF TH FILTER FABRIC. AND TURBIDITY SCREENS.

- 29. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED
- THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
- 31, FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS

- 32. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
- 33. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT
- 34. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS—OF—WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCO). A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE—CONSTRUCTION MEETING.
- 35. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT—OF—WAY LINES, BASE LINES, BENCH MARKS (ELEY.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT. ROADWAY PLANS AND PROPOSED DESIGN ARE BASED ON TOPOGRAPHIC SURVEYS PROVIDED BY MANATEE COUNTY PROJECT MANAGEMENT. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER PLAN. THE CONTRACTOR SHALL COORDINATE WITH THE AFFECTED UTILITY COMPANY FOR THE ADJUSTMENT OF ANY EXISTING UTILITIES AND STRUCTURES IN ORDER TO MATCH THE PROPOSED ELEVATIONS AND ALIGNMENTS.
- 36. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

- 37. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS). THAT MAY AFFECT HIS WORK, ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEE ATTENTION FOR RESOLUTION. UTILITIES DESIGNATED W, VH, AND WH ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. EXTREME CAUTION SHALL BE EXERCISED WHEN WORKING NEAR THE 24" WATERLINE.
- 38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- 39. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.
- 40. EXCEPT WERE THE PLANS AND SPECIFICATIONS PROVIDE THAT SUCH WORK SHALL BE PERFORMED UNDER THE CONTRACT FOR THIS PROJECT. ALL UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE REMOVED, RELOCATED OR ADJUSTED BY THEIR OWNERS, AT THEIR EXPENSE. THE CONTRACTOR SHALL ARRANGE HIS SCHEDULE TO ALLOW UTILITY OWNERS TIME FOR THE NECESSARY RELOCATION AND ADJUSTMENT OF UTILITIES AND RELATED
- 41. A FLORIDA POWER AND LIGHT SPECIAL PROVISION IS THAT THE TYPE OF EQUIPMENT USED IN THE INSTALLATION OF MAST ARMS/FOUNDATIONS, OVERHEAD/CANTILEVER SIGNS/ROUNDATIONS, AND THE MOVEMENT/INSTALLATION OF STRAIN POLES SHALL MEET THE FOLLOWING REQUIREMENTS: 1) OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY 2) CONTRACTOR SHALL MEET ALL APPLICABLE OSHA REQUIREMENTS (SEPARATION SHALL FOLLOW FPL GUIDELINES). ANY COST ASSOCIATED WITH THIS TYPE OF EQUIPMENT REQUIRED FOR THIS INSTALLATION IS INCLUDED IN THE RELATED PAY ITEMS. PLEASE REFER TO THE SPECIAL CONDITIONS IN THE UTILITY WORK SCHEDULE AND UTILITY COORDINATION.
- 42. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES FOR THE RELOCATION AND ADJUSTMENT OF ALL UTILITIES, INCLUDING, ANY EXISTING POWER POLES AND/OR UTILITY CONDUITS WITHIN
- 43. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE PARTIES TO DETERMINE THE COUNTY'S FIBER COMMUNICATION NETWORK, KNOWN AS ATMS (COUNTY ISD, SCHOOL BOARD, AND TRAFFIC MANAGEMENT CENTER) IN THE AREA TO ACCOMMODATE ANY POTENTIAL CONFLICTS. AS-BUILT INFORMATION FOR EXISTING COMMUNICATION CONDUIT AND FIBER IS AVAILABLE FROM OLGA ROSIER, WITH UTILITY RECORDS (941-792-8811 EXT. 5059). CONSTRUCTION PLAN INFORMATION FOR PROJECTS UNDER CONSTRUCTION WITH THE COUNTY'S TRAFFIC MANAGEMENT CENTER ARE AVAILABLE AT WWW.MANATEEATMS.COM AND WWW MANATFFATMS2 COM

- 44. TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION, STAKED HAY BALES, STAKED SILT SCREENS OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY INFRASTRUCTURE INSPECTIONS RESOURCES DIVISION (708—7450) PRIOR TO COMMENCEMENT OF . CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE—HALF OF THE DEPTH OF THE SEDIMENTATION BARRIERS SHALL BE IMMEDIATELY REMOVED AND REPLACED IN UPLAND AREAS. IN ADDITION TO SPECIFIED EROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL LOMBOLATELY. AN INSPECTION LOG SHALL BE MAINTAINED AND AVAILABLE ONSITE AT ALL TIMES. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALL PER DETAIL ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO OFF—SITE UNITERATED RUN—OFF OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION.
- 45. ALL PIPE LENGTHS SHOWN ON PLAN VIEW ARE TO THE END OF THE MITERED END SECTION, REFER TO MITERED END SECTION DETAIL FOR LENGTH OF PIPE TO BE INCLUDED IN PRICE FOR MITERED END SECTION.
- 46. TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, AND SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS HE MAY DEEM NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
- 47. THE CONTRACTOR SHALL VERIFY TOPOGRAPHY AND SATISFY HIMSELF AS TO THE EXTENT OF FILL NECESSARY TO ACHIEVE FINISHED GRADE PRIOR TO AWARD OF CONTRACT. THERE SHALL BE NO CLAIM FOR EXTRAS NOTWITHSTANDING SITE PLAN REVISIONS PROMULGATED SUBSEQUENT TO AWARD OF CONTRACT.
- 48. ROADSIDE UNDERDRAIN SHOWN ON PLAN IS MINIMUM AND EXTENSION SHALL BE REQUIRED AS DETERMINED NECESSARY BY THE ENGINEER OF RECORD AND/OR MCPWD INSPECTION DEPARTMENT DURING THE COURSE OF CONSTRUCTION.

- 49. SUITABLE FILL MATERIAL FROM EXCAVATION SHALL BE UTILIZED FOR PROJECT FILL PER GRADING SPECIFICATIONS. UNSUITABLE MATERIAL SHALL BE PLACED IN OPEN AREAS ONLY AS DIRECTED BY THE PROJECT ENGINEER AND SOILS ENGINEER IN ACCORDANCE WITH FDOT INDEX 505.
- 50. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES PRIOR TO INSTALLATIONS.
- 51. REFER TO CONSTRUCTION TECHNICAL SPECIFICATIONS FOR COMPACTION REQUIREMENTS, GRASSING/SODDING REQUIREMENTS, AND PAVING CONSTRUCTION MATERIAL SPECIFICATIONS.
- 52 ALL FILL AREAS ARE TO BE CONSTRUCTED IN 12" MAXIMUM LIFTS
- 53. THE CONTRACTOR SHALL REVIEW SOILS TESTS AS PERFORMED BY THE SOIL CONSULTANT AND IS ENCOURAGED TO CONDUCT ON—SITE TESTING TO SATISFY HIMSELF AS TO ACTUAL LIMITS OF REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS PRIOR TO BIDDING.
- 54. ON SLOPES GREATER THAN 3:1 PEGGING OR PINNING OF SOD MAY BE REQUIRED.
- 55. STATION LOCATIONS AND OFFSETS FOR STORM DRAIN INLETS AND MANHOLES REFERENCE THE CENTER OF THE SPECIFIED STRUCTURE BOTTOM. STATION LOCATION IS CENTER OF STRUCTURE BOTTOM FOR JUNCTION BOXES, CENTER OF RISER FOR CURB INLETS. FOR PIPES WITH MITERED END SECTIONS, THE PROPOSED LENGTHS SHOWN ON THE PLANS INCLUDE THE LENGTH OF THE MITERED END SECTION. PAYMENT FOR PIPE SHALL NOT INCLUDE THE LENGTH OF THE MITERED END SECTION. AS SPECIFIED BY DIMENSION "F" AS SHOWN IN FOOT INDEX 272 AND 273. PAYMENT SHALL BE FROM INSIDE STRUCTURE WALL TO INSIDE STRUCTURE WALL TO INSIDE STRUCTURE WALL ANY EXTRA PIPE LENGTH LISTED SHALL BE CONSIDERED CONTINGENT.
- 56. ALL CURB INLET AND JUNCTION BOX STORMWATER STRUCTURES SHALL HAVE HEAVY DUTY RING AND COVER MANHOLE ACCESS. ALL DRAINAGE BOX DETAIL SHALL FOLLOW MANATEE COUNTY CURRENT STANDARD 202 UNLESS IT IS DESIGNATED IN THE PLAN. ALL DRAINAGE BOXES SHALL HAVE A WALL THICKNESS OF 6" MINIMUM.
- 57. DURING DEWATERING OPERATIONS, THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO RECEIVING WATERS, EXISTING CONVEYANCES TO RECEIVING WATERS, OR WETLAND SYSTEMS. TEMPORARY SEDIMENT BASINS, TRAPS, OR SILTATION REDUCTION DEVICES SHALL BE UTILIZED TO COLLECT THE DISCHARGE FROM DEWATERING ACTIVITIES TO ELIMINATE THE POTENTIAL FOR OFFSITE SEDIMENT TRANSPORT AND TO ENSURE THAT DIRECT DISCHARGE DOES
- 58. SLURRY WALL CONSTRUCTION OF THE SLURRY WALL SHOULD BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THE CONTRACTOR BY A GEOTECHNICAL SPECIALTY CONTRACTOR EXPERIENCED IN CONSTRUCTION OF CLAY SLURRY WALLS. CONTRACTOR SHOULD REVIEW GEOTECHNICAL REPORT, PLANS, AND RETAIN EXPERIENCED PERSONNEL TO CARRY OUT THE OPERATIONS, SAFETY ESTING AND QUALITY CONTROL AS SPECIFIED. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT TECHNICAL SPECIFICATIONS, FOR ENGINEER'S APPROVED THAT COVER MATERIALS, EQUIPMENT, EXCAVATION OF THE WORK (I.E. SLURRY TRENCHING, KEY, CLEANING TRENCH BOTTOM, BACKFILL MIXING & BACKFILL PLACEMENT), CLEAN-UP, SPILL CONTINGENCY QUALITY CONTROL, AND TESTING. IN ADDITION, THE FOLLOWING SHALL BE SUPPLIED PRIOR TO START (
- A. SOIL-BENTONITE SLURRY MIX DESIGN AND TRIAL MIX REPORTS, INCLUDING MIX PROPORTIONS, DENSITY, MOISTURE CONTENT, GRADATIONS, AND HYDRAULIC CONDUCTIVITY SHALL BE PERFORMED.
- B. SPECIFICATIONS OF THE BATCH PLANT AND LAYOUTS SHOWING LOCATIONS OF EQUIPMENT, PONDS, TANKS, PUMPS, VALVES, HOSES AND SUPPLY LINES
- C. SOURCE OF ALL IMPORTED MATERIAL, INCLUDING BENTONITE. SHIPMENT OF MATERIALS TO THE SITE SHALL BE ACCOMPANIED BY THE SHIPPER'S WRITTEN VERIFICATION OF THE QUALITY OR SPECIFICATION OF THE MATERIAL, A COPY OF WHICH SHALL BE RETAINED BY THE CONTRACTOR
- D. CERTIFICATION OF BENTONITE QUALITY, SHOWING COMPLIANCE WITH API STANDARD 13A.
- E. CERTIFICATION OF QUALITY OF ANY ADMIXTURE.

### **BOX CULVERT DESIGN SPECIFICATIONS:**

64. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANPORTATION OFFICIALS (AASHTO), STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1998 EDITION, AND APPROVED REVISIONS.

HS-20-44 LIVE LOAD, FUTURE WEARING SURFACE OF (15 LB/SF) AND ALL DEAD LOADS AS SHOWN ON THE PLANS.

### DESIGN METHOD: LOAD FACTOR DESIGN

ENVIRONMENT: EXTREMELY AGGRESSIVE

MAILEMATERIALS SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2007 EDITION & SUPPLEMENTS THERE

### ALLOWABLE SOIL BEARING: 2,500 PSF

<u>PRECAST BOX CULVERT:</u>
THE PRECAST BOX CULVERT SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR A TRIPLE—BARREL, 4 FOOT X 8 FOOT STRUCTURE OR AN APPROVED EQUAL

SUBMITTALS:
THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE PRECAST BOX CULVERT FOR THE ENGINEERS APPROVAL AND GEOTECHNICAL REPORTS FOR FOUNDATION DESIGN

### **EMERGENCY CONTACTS**

MANAILE COUNTY
PUBLIC WORKS DEPT.
INFRASTRUCTURE ENGINEERING
SCOTT MAY, P.E.
1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7650 FAX: (941) 708-7431

MANATEE COUNTY

TECO/PEOPLES GAS CO. DAN SHANAHAN 8261 VICO COURT SARASOTA, FL. 34240 (941) 342-4030 FAX: (941) 342-4011 EMERGENCY: 1-877-832-6911 dishanahan@tecoenergy.com

SUNSHINE STATE ONE CALL OF FI ORIDA 1-(800) 432-4770

FRONTIER COMMUNICATIONS 1701 RINGLING BLVD SARASOTA, FL. 34236 (941) 330-9203 denise.hutton@frt.com

FLORIDA POWER & LIGHT DISTRIBUTION
GREG COKER
1253 12TH AVENUE EAST
PALMETTO, FL 34221 (941) 723-4430 FAX: (941) 723-4444 EMERGENCY: 1-800-4-OUTAGE Greg\_Coker@fpl.com

FLORIDA POWER & LIGHT TRANSMISSION
DALIANA AMADOR
15430 ENDEAVOR DRIVE
JUPITER, FI. 33478 (561) 904-3665 Gary.n.peterson@fpl.com

MANATEE COUNTY HEALTH DEPT. HANS C. ROESE 410 6th AVENUE EAST BRADENTON, FL. 34208 (941) 748-0747 FXT. 1342 FAX: (941) 750-9364

CROWN CASTLE UTILITY COMPANY LOUIS A. SIMONE 4511 N HIMES AVE #210 TAMPA, FL 33614 (772) 579-8956

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUITVILLE ROAD SARASOTA, FL. 34240 (941) 377-3722 FAX: (941) 373-7660

FLORIDA GAS TRANSMISSION 7804 ANDERSON RD. TAMPA, FL. 33634 CHRIS LEE (813) 466-3327 CELL: (727) 639-7512 christopher.lee@sug.com

CHARTER COMMUNICATIONS JAMES CRUZAN 5413 E. STATE ROAD 64 BRADENTON, FL. 34208-5535 (941) 748-3816 EXT. 24051 DEPARTMENT OF ENVIRONMENTAL PROTECTION
ED WATSON
13051 N. TELECOM PKWY
TEMPLE TERRACE, FL 33637 PHONE: (813) 470-5875 FAX: (813) 470-5993

PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 ERIN RUHTZ (863) 767-4660 erin.ruhtz@preco.coop

MANATEE COUNTY PUBLIC WORK DEPT. TRAFFIC ENGINEERING MUKUNDA GOPALAKRISNA, P.E. (941) 749-3500 EXT, 7813 FAX: (941) 749-3571

# Manatee County PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 022 26th Avenue East, Bradenton, FL 3420

### **PROJECT** (GROUP LEGEND COUNTY CIN 8 TY NOTE COUNT SURF RAL $\square$ RE OUTH ◀ CDBG AN. S

PROJECT # 166-0019904 SURVEY # N/A SEC./TWN./RGE 00/00S/00E

SCALE DATE BY SURVEYED N/A N/A

ВМ

KHL

ВМ

3/29/18

DRAWN CHECKED

BRIAN MARTINEAU PAVEMENT MANAGER

DESIGNED

4-26-18 /Signature & Date SHEET 2

### MITIGATION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ENHANCED/ CREATED WETLANDS UNTIL PROJECT DRAINAGE AND GRADING IS COMPLETED AND ACCEPTED BY THE OWNER.
- 2. MAINTENANCE SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, WETLAND BOUNDARY AND BUFFER AREAS SHALL BE CLEARLY DELINEATED ON SITE PRIOR TO INITIAL CLEARING AND GRUBBING ACTIVITIES. THE DELINEATION SHALL ENDURE THROUGHOUT THE CONSTRUCTION PERIOD, AND BE READILY DISCERNIBLE TO CONSTRUCTION PERSONNEL. THE WETLAND (JURISDICTIONAL) AND BUFFER AREAS ARE TO BE IDENTIFIED IN THE FIELD WITH STAKES AND FLAGGED STRING LINES (STRING LINE 5' ABOVE GRADE WITH FLAGGING AT 10' INTERVALS) PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING. THE STRING LINE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL STAY OUT OF THE EXISTING WETLAND AND BUFFER AREAS, EXCEPT WHERE PLANS CALL OUT SPECIFIC WORK TO BE PERFORMED

- 3. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
- 4. ALL DISTURBED GRASSED AREAS SHALL BE SODDED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER. ALL EXISTING SHRUBS, TREES, PLANTINGS AND OTHER VEGETATION, OUTSIDE OF RIGHT-OF-WAY DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH FOUNDALENT MATERIAL BY THE CONTRACTOR AT NO ADDITIONAL
- CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS LATEST REVISION.
- 6. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY—ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
- RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

- 8. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFELS POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
- 9. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PART OF DAILY CLEAN UP.
- 10. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- 11. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT
- 12. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA, UNLESS OTHERWISE NOTED ON THE PLANS.
- 13. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM. THE CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO DISTICT FOR APPROVAL PRIOR TO CONSTRUCTION.
- 14. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND
- 15. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS AND STATION OFFSETS ARE TO CENTER OF STRUCTURES OR FITTINGS. REFER TO DETAIL SHEET FOR ALL REFERENCE POINTS.
- 16. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
- 17. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING
- 18. ALL CONCRETE AND REBAR PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
- 19. CONTRACTOR IS RESPONSIBLE FOR ALL UNSUITABLE MATERIAL REMOVAL WITHIN PROJECT LIMITS. EXCAVATION, EMBANKMENT, INCLUDING UTILIZATION, AND UNSUITABLE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS, LATEST VERSION.
- 20. WHERE EXCAVATION IS REQUIRED FOR CONSTRUCTION OF SIDEWALK, ALL STUMPS, ROOTS, ETC. SHALL BE REMOVED COMPLETELY FROM THE SIDEWALK AREA. ALL STUMPS WITHIN THE PROJECT LIMITS SHALL BE REMOVED COMPLETELY AND REPLACED WITH COMPACTED BACKFILD BEFORE THE AREA IS FILLED. TREE ROOTS IN AREA OF PROPOSED SIDEWALK, RAMP, OR DRIVEWAY REPLACEMENT SHALL BE GROUND OUT TO A DEPTH OF 6" BELOW BOTTOM OF NEW SIDEWALK OR DRIVEWAY. ALL PRUNED ROOT DEBRIS SHALL BE REMOVED FROM THE SUB-BASE MATERIAL PRIOR TO POURING CONCRETE, ASPHALT, OR APPLICATION OF OTHER SPECIFIED MATERIALS. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
- 21. ALL STUMPS, ROOTS, AND OTHER DEBRIS PROJECTING THROUGH OR APPEARING ON THE SURFACE OF THE GROUND SHALL BE REMOVED TO A DEPTH OF 1-FOOT BELOW THE COMPLETED SURFACE. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
- 22. ALL MATERIALS NOT CLAIMED BY THE COUNTY SHALL BECOME PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY THE CONTRACTOR. THIS WORK SHALL BE INCLUDED IN AND PAID UNDER THE PAY ITEM CLEARING AND GRUBBING
- 23. THE CONTRACTOR SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING REQUIRED TO PROTECT ADJACENT STRUCTURES OR TO MINIMIZE TRENCH WIDTH. WHERE A SEPARATE PAY ITEM IS NOT PROVIDED, THE COST OF ALL SHEETING, SHORING, AND BRACING REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE ITEM OF WORK FOR WHICH SHEETING, SHORING, AND BRACING IS REQUIRED.
- 24. THE CONTRACTOR SHALL DISTURB NO MORE GROUND THAN WHAT IS NECESSARY FOR CONSTRUCTION. NO OPEN EXCAVATED TRENCH, OR OTHER UNSAFE CONDITION WILL BE LEFT OVERNIGHT. ALL WORK SITES WILL BE COMPLETELY RESTORED WITHIN SEVEN (?) CALENDAR DAYS OF THE CONCRETE POUR FOR SIDEWALK.THE INTENT OF THIS PROVISION IS TO "SAFE-UP" THE PROJECT SITE AS WORK PROGRESSES, AND SHALL INCLUDE REMOVING FORMS, FILLING HOLES, GRADING, AND REMOVAL OF DEBRIS.
- 25. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- 26. ANY EXISTING SIGN TO REMAIN THAT IS DISTURBED OR RELOCATED DURING CONSTRUCTION SHALL BE RESET TO CURRENT STANDARDS FOR HEIGHT, OFFSET, AND METHOD OF INSTALLATION AT NO ADDITIONAL COST TO
- 27. ALL EXISTING SWALES NOT DESIGNATED FOR RECONSTRUCTION SHALL BE REGRADED TO PROMOTE POSITIVE DRAINAGE AND MATCH PROPOSED CENTERLINE SWALE ELEVATION AND ALIGNMENT.

- 28. ALL STORM DRAINS AND STRUCTURES TO REMAIN SHALL BE CLEANED OF DEBRIS, DIRT, VEGETATION AND OTHER MATERIAL. STORM SEWER INLETS SHALL BE MODIFIED (RAISED/LOWERED) TO MATCH PROPOSED
- 29. ALL EXISTING FENCES DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AND REINSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST. (EXISTING FENCES WITHIN R/W TAKING LIMITS SHALL BE RECONSTRUCTED TO THE NEW R/W LINE AND ARE TO BE REIMBURSED UNDER THE
- 30. ALL EXISTING TREES LOCATED WITHIN R/W LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 31. ALL EXISTING STORM DRAINAGE STRUCTURES SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- 32. ALL EXISTING BUILDINGS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 33. REMOVE AND REPLACE BASE AND SUB-BASE ACCORDING TO FDOT STANDARDS

### CONTACTS

MANATEE COUNTY
PUBLIC WORKS DEPT.
INFRASTRUCTURE ENGINEERING
SCOTT MAY, P.E.
1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7650 FAX: (941) 708-7431

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SUNSHINE STATE ONE CALL OF 1-(800) 432-4770

FRONTIER COMMUNICATIONS DENISE HUTTON 1701 RINGLING BLVD. SARASOTA, FL. 34236 (941) 330-9203 denise.hutton@frt.com

FLORIDA POWER & LIGHT DISTRIBUTION GREG COKER 1253 12TH AVENUE EAST PALMETTO, FL 34221 (941) 723-4430 FAX: (941) 723-4444 EMERGENCY: 1-800-4-OUTAGE Greg\_Coker@fpl.com

FLORIDA POWER & LIGHT (561) 904-3665 Gary.n.peterson@fpl.com

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CROWN CASTLE UTILITY COMPANY LOUIS A. SIMONE 4511 N HIMES AVE #210 TAMPA, FL 33614 (772) 579-8956

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT SARASONA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUITVILLE ROAD SARASOTA, FL. 34240 FAX: (941) 373-7660

FLORIDA GAS TRANSMISSION 7804 ANDERSON RD. TAMPA, FL. 33634 CHRIS LEE (813) 466-3327 CELL: (727) 639-7512 christopher.lee@sug.com

CHARTER COMMUNICATIONS JAMES CRUZAN
5413 E. STATE ROAD 64
BRADENTON, FL. 34208-5535 (941) 748-3816 EXT. 24051

DEPARTMENT OF ENVIRONMENTAL PROTECTION ED WATSON 13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 PHONE: (813) 470-5875

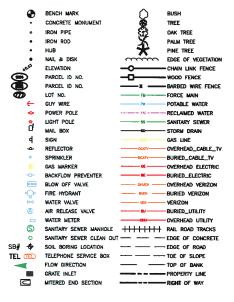
PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 ERIN RUHTZ (863) 767-4660

FAX: (813) 470-5993

MANATEE COUNTY PUBLIC WORK DEPT. TRAFFIC ENGINEERING MUKUNDA GOPALAKRISNA, P.F. (941) 749-3500 EXT. 7813 FAX: (941) 749-3571

### LEGEND

### EXISTING



### ABBREVIATIONS

RIGHT OF WAY CONCRETE ASPHALT DRIVEWAY SIDEWALK EDGE OF PAVEMENT BACK OF CURB

### PROPOSED





## **PROJECT** ORID (GROUP CING COUNTY COUN SURF RE OUTH CDBG MAN, S

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NOTE

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REVISION DESCRIPTION									
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PROJECT #				166-0019904					
SURVEY #			N/A						
SEC./TWN./RGE			00/00S/00E						
SCALE									
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BM BRIAN MARTINEAU PAVEMENT MANAGER

ВМ

KHL

3/29/18

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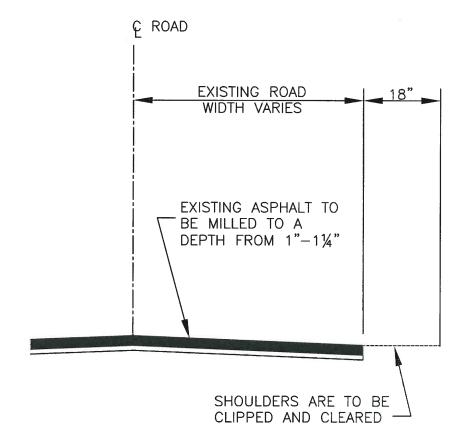
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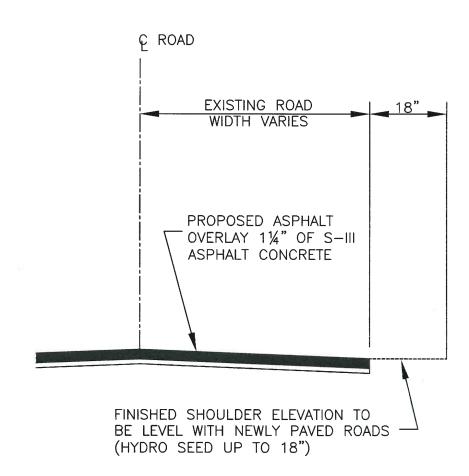
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4-26 Signature & Date

LINE	ITEM	DESCRIPTION	UNIT	QUANTITIES
1	101-1	MOBILIZATION	LS	1
2	102-1	MAINTENANCE OF TRAFFIC	LS	1
3	110-1	CLEARING & GRUBBING	LS	1
4	120-6	EMBANKMENT	CY	61
5	327-70	MILLING	SY	10,507
6	334-1-MC1	1¼" OF S-III	TON	725
7	570-1	HYDROSEED	SY	1,655



MILLING SECTION



# OVERLAY SECTION

### NOTES:

- INTERSECTION STREETS SHALL BE PULLED TO THE RADIUS POINTS OR PAVEMENT CHANGE.
- DRIVEWAYS ALONG STREET SHALL PROVIDE A SMOOTH TRANSITION FROM THE ROAD TO DRIVEWAY TO SUPPORT EDGE OF PAVEMENT.



# CDBG RESURFACING PROJECT SOUTH COUNTY (GROUP 1) SUMMARY OF QUANTITIES & TYPICAL SECTIONS

	DATE							
	ВУ							
	REVISION DESCRIPTION							
	NO.							
	PROJECT # SURVEY #				166-0019904			904
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BRIAN MARTINEAU
PAVEMENT MANAGER

BY

N/A

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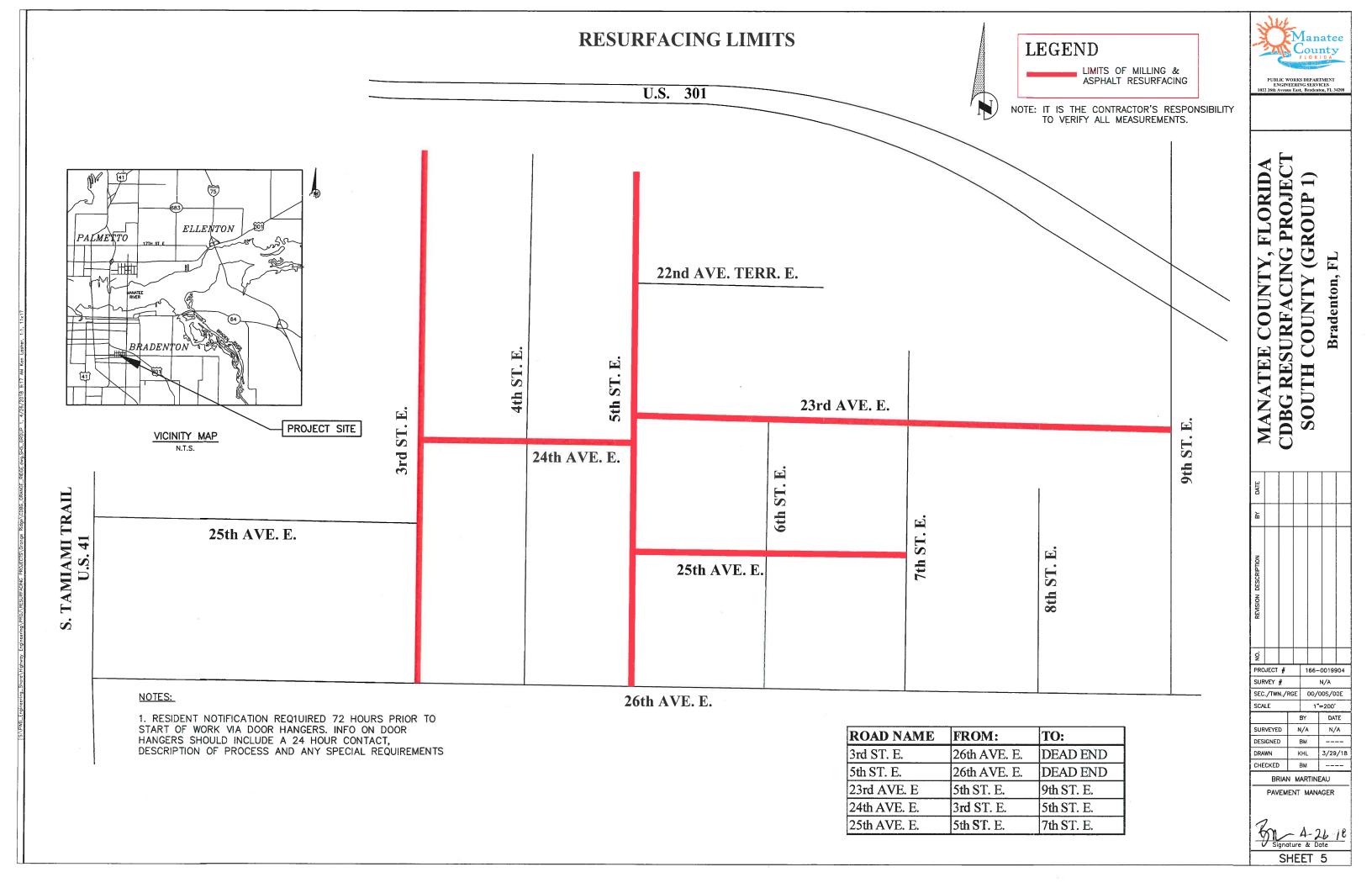
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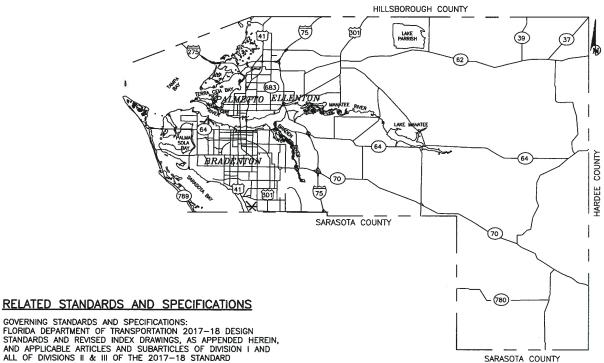
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# MANATEE COUNTY, FLORIDA **CDBG RESURFACING PROJECT** OVERSTREET PARK/TANGERINE **SOUTH COUNTY (GROUP 2)** PROJECT #166-0019904

**MARCH 2018** 



FINAL PLANS

NO.	INDEX OF SHEETS
1	COVER SHEET
2-3	GENERAL NOTES & LEGEND
4	SUMMARY OF QUANTITIES
5	GROUP #2 PLAN & LOCATION

PROJECT DESCRIPTION MILLING AND RESURFACING

GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION 2017-18 DESIGN STANDARDS AND REVISED INDEX DRAWINGS, AS APPENDED HEREIN, AND APPLICABLE ARTICLES AND SUBARTICLES OF DIVISION I AND ALL OF DIVISIONS II & III OF THE 2017-18 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

FOR DESIGN STANDARDS CLICK ON THE "DESIGN STANDARDS" LINK AT THE FOLLOWING WEB SITE: http://www.dot.state.fl.us/rddesign/

FOR THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CLICK ON THE "SPECIFICATIONS" LINK AT THE FOLLOWING WEB SITE: HTTP://WWW.DOT.STATE.FL.US/SPECIFICATIONSOFFICE/



CDBG RESURFACING PROJECT

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PAVEMENT MANAGER

- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: BRIAN MARTINEAU AND CAN BE REACHED AT (941) 708-7450; EXT. 7243
- SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE
- ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE COUNTY TO OBTAIN THE COUNTY CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY
- ALL STATIONS AND OFFSETS REFER TO BASELINE OF CONSTRUCTION, UNLESS OTHERWISE NOTED.
- THE CONSTRUCTION LENGTHS IN THESE PLANS ARE APPROXIMATE. ACTUAL LIMITS MAY BE SET IN THE FIELD AS
- D. SEPARATE PAYMENT SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT PRICE FOR THE APPROPRIATE BID ITEM.
- THE CONTRACTOR SHALL HAVE A FOREMAN, OR RESPONSIBLE PARTY, ON SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. ALL WORKERS ON THE JOB SITE WILL BE COURTEOUS TO THE PUBLIC AT ALL TIMES, AND SHALL REFER ANY QUESTIONS OR CONCERNS TO THE CONTRACTOR'S FOREMAN OR THE COUNTY INSPECTOR. THE FOREMAN SHALL SPEAK AND UNDERSTAND ENGLISH AND SHALL BE AVAILABLE AT ALL TIMES FOR TIMELY RESOLUTION OF PROJECT-RELATED ISSUES.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE COORDINATION OF CONSTRUCTION SCHEDULING BETWEEN CONTRACTOR AND ALL UTILITY AGENCIES.
- NOTE:
  THIS INCLUDED MEETING WITH UTILITY AGENCIES PRIOR TO THE PRE-CONSTRUCTION
  CONFERENCE TO ADJUST THEIR SCHEDULES TO COINCIDE WITH THE CONTRACTORS CONSTRUCTION SCHEDULE. (REFERENCE CONTRACT DOCUMENTS)
- . ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTORY OF THE COUNTY PROJECT MANAGER. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
- ALL CONSTRUCTION WITHIN FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH CURRENT FDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE DESIGN STANDARDS.
- 5. ALL SIGNING, STRIPING AND RPM PLACEMENT WITHIN THE FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH FDOT STANDARD INDEX 17346.

- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P. AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
- . THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
- 8. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

- O. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION ALL SEDIMENT AND EROSION CONTROL (SEC) DEVICES (E.G., BARRIERS, CONTRACTOR IS RESPONSIBLE FOR INSTILLATION ALL SEDIMENT AND ENOSIGN CONTROL (SEC) BEVICES (E.G., BARKIERS, SEDIMENT TRAPS/BASINS, VEGETATIVE BUFFERS, ETC.) AS SPECIFIED IN THE FINAL APPROVED PLANS FOR THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SEC DEVICES UTILIZED DURING THE PROJECT, AS WELL AS INSTALLATION & MAINTENANCE OF ANY ADDITIONAL MEASURES DEEMED NECESSARY DURING PROJECT IMPLEMENTATION, TO PREVENT EROSION AND OFF-SITE SEDIMENT MIGRATION. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL SEC DEVICES UPON CONCLUSION OF THE PROJECT, AND UPON ADEQUATE STABILIZATION OF DISTURBED SOILS.
- . WHEN A BENTONITE SPILL OR FRACK-OUT OCCURS OR THERE IS A LOSS OF RETURN INDICATING EXCESSIVE SEEPAGE OR LOSS OF DRILLING FLUID, DRILLING MUST BE STOPPED UNTIL THE LOCATION OF THE SPILL IS IDENTIFIED. UNDER NO CIRCUMSTANCES WILL DRILLING CONTINUE WHEN A SPILL IS APPARENT.
- 2. ONCE LOCATED, THE BENTONITE SPILL MUST BE ISOLATED AND SEEPAGE INTO ANY NEARBY WATER BODIES WILL BE BLOCKED DEPENDING ON THE DEGREE OF THE SPILL, THE ISOLATED BENTONITE MUST BE REMOVED MANUALLY OR MECHANICALLY AND DISPOSED OF BY APPROPRIATE MEANS OR REUSED.
- 3. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
- . STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY
- STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.

  STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.

  STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
- S. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
- 27. ALL SWALES. DITCHES. AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
- 28. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.

- 29. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- THE CONSTRUCTION SITE, ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED N COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
- 31. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

- 32. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
  33. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND
- RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT
- 34. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 35. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIFLD THE RIGHT-OF-WAY LINES. BASE III IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT. ROADWAY PLANS AND PROPOSED DESIGN ARE BASED ON TOPOGRAPHIC SURVEYS PROVIDED BY MANATEE COUNTY PROJECT MANAGEMENT. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER PLAN. THE CONTRACTOR SHALL COORDINATE WITH THE AFFECTED UTILITY COMPANY FOR THE ADJUSTMENT OF ANY EXISTING UTILITIES AND STRUCTURES IN ORDER TO MATCH THE PROPOSED ELEVATIONS AND ALIGNMENTS.
- 36. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

- 37. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY AFFECT HIS WORK, ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION. UTILITIES DESIGNATED W, VH, AND WHA ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN.

  INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. EXTREME CAUTION SHALL BE EXERCISED WHEN WORKING NEAR THE 24" WATERLINE. CAUTION SHALL BE EXERCISED WHEN WORKING NEAR THE 24" WATERLINE.
- 38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE—CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- 39. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.
- 40. EXCEPT WERE THE PLANS AND SPECIFICATIONS PROVIDE THAT SUCH WORK SHALL BE PERFORMED UNDER THE CONTRACT FOR THIS PROJECT. ALL UTILITIES INTERFERING WITH CONTRACTOR SHALL BE REMOVED, RELOCATED OR ADJUSTED BY THEIR OWNERS, AT THEIR EXPENSE. THE CONTRACTOR SHALL ARRANGE HIS SCHEDULE TO ALLOW UTILITY OWNERS TIME FOR THE NECESSARY RELOCATION AND ADJUSTMENT OF UTILITIES AND RELATED
- 41. A FLORIDA POWER AND LIGHT SPECIAL PROVISION IS THAT THE TYPE OF EQUIPMENT USED IN THE INSTALLATION OF MAST ARMS/FOUNDATIONS, OVERHEAD/CANTILEVER SIGNS/ROUNDATIONS, AND THE MOVEMENT/INSTALLATION OF STRAIN POLES SHALL MEET THE FOLLOWING REQUIREMENTS: 1) OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY 2) CONTRACTOR SHALL MEET ALL APPLICABLE OSHA REQUIREMENTS (SEPARATION SHALL FOLLOW FPL GUIDELINES). ANY COST ASSOCIATED WITH THIS TYPE OF EQUIPMENT REQUIRED FOR THIS INSTALLATION IS INCLUDED IN THE RELATED PAY ITEMS. PLEASE REFER TO THE SPECIAL CONDITIONS IN THE UTILITY WORK SCHEDULE AND UTILITY COORDINATION.
- 42. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES FOR THE RELOCATION AND ADJUSTMENT OF ALL UTILITIES, INCLUDING, ANY EXISTING POWER POLES AND/OR UTILITY CONDUITS WITHIN RIGHT-OF-WAY.
- 43. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE PARTIES TO DETERMINE THE COUNTY'S FIBER COMMUNICATION NETWORK, KNOWN AS ATMS (COUNTY ISD, SCHOOL BOARD, AND TRAFFIC MANAGEMENT CENTER) IN THE AREA TO ACCOMMODATE ANY POTENTIAL CONFLICTS. AS-BUILT INFORMATION FOR EXISTING COMMUNICATION CONDUIT AND FIBER IS AVAILABLE FROM DIGA ROSIER WITH UTILITY RECORDS (941-792-8811 EXT. 5059). CONSTRUCTION PLAN INFORMATION FOR PROJECTS UNDER CONSTRUCTION WITH THE COUNTY'S TRAFFIC MANAGEMENT CENTER ARE AVAILABLE AT WWW.MANATEEATMS.COM AND WWW.MANATEEATMS2.COM.

- 44. TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION, STAKED HAY BALES, STAKED SILT SCREENS OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. SEDIMENT AND ROSION CONTROL DEVICES SHALL LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY INFRASTRUCTURE INSPECTIONS RESOURCES DIVISION (708—7450) PRIOR TO COMMENCEMENT OF. CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY, SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE—HALF OF THE DEPTH OF THE SEDIMENTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND REPLACED IN DIPLAND AREAS. IN ADDITION TO SPECIFIED ROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL IMMEDIATELY, AN INSPECTION LOG SHALL BE MAINTAINED AND AVAILABLE ONSITE AT ALL TIMES. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALL PER DETAIL ARE 10 BE CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION.
- 45. ALL PIPE LENGTHS SHOWN ON PLAN VIEW ARE TO THE END OF THE MITERED END SECTION. REFER TO MITERED END SECTION DETAIL FOR LENGTH OF PIPE TO BE INCLUDED IN PRICE FOR MITERED END SECTION.
- 46. TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, ANI SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS HE MAY DEEM NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
- 47. THE CONTRACTOR SHALL VERIFY TOPOGRAPHY AND SATISFY HIMSELF AS TO THE EXTENT OF FILL NECESSARY TO ACHIEVE FINISHED GRADE PRIOR TO AWARD OF CONTRACT. THERE SHALL BE NO CLAIM FOR EXTRAS NOTWITHSTANDING SITE PLAN REVISIONS PROMULGATED SUBSEQUENT TO AWARD OF CONTRACT.
- 48. ROADSIDE UNDERDRAIN SHOWN ON PLAN IS MINIMUM AND EXTENSION SHALL BE REQUIRED AS DETERMINED NECESSARY BY THE ENGINEER OF RECORD AND/OR MCPWD INSPECTION DEPARTMENT DURING THE COURSE OF

- 49. SUITABLE FILL MATERIAL FROM EXCAVATION SHALL BE UTILIZED FOR PROJECT FILL PER GRADING SPECIFICATIONS. UNSUITABLE MATERIAL SHALL BE PLACED IN OPEN AREAS ONLY AS DIRECTED BY THE PROJECT ENGINEER AND SOILS ENGINEER IN ACCORDANCE WITH FDOT INDEX 505.
- 50. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES PRIOR TO INSTALLATIONS
- 51 REFER TO CONSTRUCTION TECHNICAL SPECIFICATIONS FOR COMPACTION REQUIREMENTS, GRASSING/SODDING REQUIREMENTS, AND PAVING CONSTRUCTION MATERIAL SPECIFICATIONS.
- 52. ALL FILL AREAS ARE TO BE CONSTRUCTED IN 12" MAXIMUM LIFTS.
- 53. THE CONTRACTOR SHALL REVIEW SOILS TESTS AS PERFORMED BY THE SOIL CONSULTANT AND IS ENCOURAGED TO CONDUCT ON—SITE TESTING TO SATISFY HIMSELF AS TO ACTUAL LIMITS OF REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS PRIOR TO BIDDING.
- 54. ON SLOPES GREATER THAN 3:1 PEGGING OR PINNING OF SOD MAY BE REQUIRED.
- 55. STATION LOCATIONS AND OFFSETS FOR STORM DRAIN INLETS AND MANHOLES REFERENCE THE CENTER OF THE SPECIFIED STRUCTURE BOTTOM. STATION LOCATION IS CENTER OF STRUCTURE BOTTOM FOR JUNCTION BOXES, CENTER OF RISSER FOR CURB INLETS. FOR PIPES WITH MITERED END SECTIONS, THE PROPOSED LENGTHS SHOWN ON THE PLANS INCLUDE THE LENGTH OF THE MITERED END SECTION. PAYMENT FOR PIPE SHALL NOT INCLUDE THE LENGTH OF THE MITERED END SECTION. AS SPECIFIED BY DIMENSION "F" AS SHOWN IN FOOT INDEX 272 AND 273. PAYMENT SHALL BE FROM INSIDE STRUCTURE WALL TO INSIDE STRUCTURE WALL. ANY EYEM BIPE LENGTH LISTED SHALL BE CONSIDERED CONTINICENT. EXTRA PIPE LENGTH LISTED SHALL BE CONSIDERED CONTINGENT.
- 56. ALL CURB INLET AND JUNCTION BOX STORMWATER STRUCTURES SHALL HAVE HEAVY DUTY RING AND COVER MANHOLE ACCESS. ALL DRAINAGE BOX DETAIL SHALL FOLLOW MANATEE COUNTY CURRENT STANDARD 202 UNLESS IT IS DESIGNATED IN THE PLAN. ALL DRAINAGE BOXES SHALL HAVE A WALL THICKNESS OF 6" MINIMUM.
- 57. DURING DEWATERING OPERATIONS, THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO RECEIVING WATERS, EXISTING CONVEYANCES TO RECEIVING WATERS, OR WETLAND SYSTEMS. TEMPORARY SEDIMENT BASINS, TRAPS, OF SILTATION REDUCTION DEVICES SHALL BE UTILIZED TO COLLECT THE DISCHARGE FROM DEWATERING ACTIVITIES TO ELIMINATE THE POTENTIAL FOR OFFSITE SEDIMENT TRANSPORT AND TO ENSURE THAT DIRECT DISCHARGE DOES
- 58. <u>SLURRY WALL</u> CONSTRUCTION OF THE SLURRY WALL SHOULD BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THE CONTRACTOR BY A GEOTECHNICAL SPECIALTY CONTRACTOR EXPERIENCED IN CONSTRUCTION OF CLAY SLURRY WALLS. CONTRACTOR SHOULD REVIEW GEOTECHNICAL REPORT, PLANS, AND RETAIN EXPERIENCED PERSONNEL TO CARRY OUT THE OPERATIONS, SAFETY, TESTING AND QUALITY CONTROL AS SPECIFIED. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT TECHNICAL SPECIFICATIONS, FOR ENGINEER'S APPROVED THAT COVER MATERIALS, EQUIPMENT, EXCAVATION OF THE WORK (I.E. SLURRY TRENCHING, KEY, CLEANING TRENCH BOTTOM, BACKFILL MIXING & BACKFILL PLACEMENT), CLEAN-UP, SPILL CONTINGENCY PLAN, QUALITY CONTROL, AND TESTING. IN ADDITION, THE FOLLOWING SHALL BE SUPPLIED PRIOR TO START OF
- A. SOIL-BENTONITE SLURRY MIX DESIGN AND TRIAL MIX REPORTS, INCLUDING MIX PROPORTIONS, DENSITY, MOISTURE CONTENT, GRADATIONS, AND HYDRAULIC CONDUCTIVITY SHALL BE PERFORMED.
- B. SPECIFICATIONS OF THE BATCH PLANT AND LAYOUTS SHOWING LOCATIONS OF EQUIPMENT, PONDS, TANKS, PUMPS, VALVES, HOSES AND
- C. SOURCE OF ALL IMPORTED MATERIAL, INCLUDING BENTONITE. SHIPMENT OF MATERIALS TO THE SITE SHALL BE ACCOMPANIED BY THE SHIPPER'S WRITTEN VERIFICATION OF THE QUALITY OR SPECIFICATION OF THE MATERIAL, A COPY OF WHICH SHALL BE RETAINED BY THE CONTRACTOR.
- D. CERTIFICATION OF BENTONITE QUALITY, SHOWING COMPLIANCE WITH API STANDARD 13A.
- E. CERTIFICATION OF QUALITY OF ANY ADMIXTURE.

### BOX CULVERT DESIGN SPECIFICATIONS

64. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANPORTATION OFFICIALS (AASHTO), STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1998 EDITION, AND APPROVED REVISIONS.

### DESIGN LOADING

NS-20-44 LIVE LOAD, FUTURE WEARING SURFACE OF (15 LB/SF) AND ALL DEAD LOADS AS SHOWN ON THE PLANS.

### DESIGN METHOD: LOAD FACTOR DESIGN

MATERIALS:
ALL MATERIALS SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD
SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2007 EDITION & SUPPLEMENTS THERE

### ALLOWABLE SOIL BEARING: 2,500 PSF

PRECAST BOX CULVERT:
THE PRECAST BOX CULVERT SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS FOR A TRIPLE—BARREL, 4 FOOT X 8 FOOT STRUCTURE OR AN APPROVED

<u>SUBMITALS:</u>
THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE PRECAST BOX CULVERT FOR THE ENGINEERS APPROVAL AND GEOTECHNICAL REPORTS FOR FOUNDATION DESIGN.

### **EMERGENCY CONTACTS**

MANATEE COUNTY PUBLIC WORKS DEPT. INFRASTRUCTURE ENGINEERING SCOTT MAY, P.E. 1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7650 FAX: (941) 708-7431 TECO/PEOPLES GAS CO.

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FRONTIER COMMUNICATIONS DENISE HUTTON 1701 RINGLING BLVD. SARASOTA, FL. 34236

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FLORIDA POWER & LIGHT TRANSMISSION DALIANA AMADOR 15430 ENDEAVOR DRIVE JUPITER, FI. 33478 (561) 904–3665 Gary.n.peterson@fpl.com

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SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUITVILLE ROAD SARASOTA, FL. 34240 (941) 377-3722 FAX: (941) 373-7660

FLORIDA GAS TRANSMISSION SAFETY HARBOR TEAM 7804 ANDERSON RD TAMPA, FL. 33634 CHRIS LEE (813) 466-3327 CELL: (727) 639-7512 christopher.lee@sug.com

CHARTER COMMUNICATIONS JAMES CRUZAN 5413 E. STATE ROAD 64 BRADENTON, FL. 34208-5535 (941) 748-3816 EXT. 2405 ames.cruzan@charter.com

DEPARTMENT OF ENVIRONMENTAL PROTECTION ED WATSON 13051 N. TELECOM PKWY
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PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 ERIN RUHTZ (863) 767-4660 erin.ruhtz@preco.coop

MANATEE COUNTY PUBLIC WORK DEPT.
TRAFFIC ENGINEERING
MUKUNDA GOPALAKRISNA, P.E. (941) 749-3500 EXT. 7813 FAX: (941) 749-3571

FManatee County PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 2 26th Avenue East, Bradenton, FL 3420

### PROJECT ORID ROUP 臣 5 **ACING** $\succ$ COUNT NTY NOTES RESURF GENERAL TEE OUTH ┫ CDBG AN Z

PROJECT # 166-0019904 SURVEY # N/A SEC./TWN./RGE 00/00S/00E

SCALE DATE N/A SURVEYED N/A DESIGNED ВМ DRAWN KHL 3/29/18

> ВМ BRIAN MARTINEAU PAVEMENT MANAGER

CHECKED

4-26-11 Signature & Date

### MITIGATION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ENHANCED/ CREATED WETLANDS UNTIL PROJECT DRAINAGE AND GRADING IS COMPLETED AND ACCEPTED BY THE OWNER.
- MAINTENANCE SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS. WETLAND BOUNDARY AND BUFFER AREAS SHALL BE CLEARLY DELINEATED ON SITE PRIOR TO INITIAL CLEARING AND GRUBBING ACTIVITIES. THE DELINEATION SHALL ENDURE THROUGHOUT THE CONSTRUCTION PERIOD, AND BE READILY DISCERNIBLE TO CONSTRUCTION PERSONNEL. THE WETLAND (JURISDICTIONAL) AND BUFFER AREAS ARE TO BE IDENTIFIED IN THE FIELD WITH STAKES AND FLAGGED STRING LINES (STRING LINE 5' ABOVE GRADE WITH FLAGGING AT 10' INTERVALS) PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING. THE STRING LINE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL STAY OUT OF THE EXISTING WETLAND AND BUFFER AREAS, EXCEPT WHERE PLANS CALL OUT SPECIFIC WORK TO BE PERFORMED.

### RESTORATION

- 3. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES LINLESS SHOWN OTHERWISE.
- 4. ALL DISTURBED GRASSED AREAS SHALL BE SODDED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RICHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER. ALL EXISTING SHRUBS, TREES, PLANTINGS AND OTHER VEGETATION, OUTSIDE OF RICHT-OF-WAY DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH EQUIVALENT MATERIAL BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER
- CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS LATEST REVISION.
- 6. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY—ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
- RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY—FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY—ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

### CONSTRUCTION

- 8. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFELS POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
- NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PART OF DAILY CLEAN UP.
- 10. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
- 12. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA, UNLESS OTHERWISE NOTED ON THE PLANS.
- 13. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM. THE CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO DISTICT FOR APPROVAL PRIOR TO CONSTRUCTION.
- 14. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES.
- 15. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS AND STATION OFFSETS ARE TO CENTER OF STRUCTURES OR FITTINGS. REFER TO DETAIL SHEET FOR ALL REFERENCE POINTS.
- 16. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
- 17. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD
- 18. ALL CONCRETE AND REBAR PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
- 19. CONTRACTOR IS RESPONSIBLE FOR ALL UNSUITABLE MATERIAL REMOVAL WITHIN PROJECT LIMITS. EXCAVATION, EMBANKMENT, INCLUDING UTILIZATION, AND UNSUITABLE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS, LATEST VERSION.
- 20. WHERE EXCAVATION IS REQUIRED FOR CONSTRUCTION OF SIDEWALK, ALL STUMPS, ROOTS, ETC. SHALL BE REMOVED COMPLETELY FROM THE SIDEWALK AREA. ALL STUMPS WITHIN THE PROJECT LIMITS SHALL BE REMOVED COMPLETELY AND REPLACED WITH COMPACTED BACKFILL BEFORE THE AREA IS FILLED. TREE ROOTS IN AREA OF PROPOSED SIDEWALK, RAMP, OR DRIVEWAY REPLACEMENT SHALL BE GROUND OUT TO A DEPTH OF 6" BELOW BOTTOM OF NEW SIDEWALK OR DRIVEWAY. ALL PRUNED ROOT DEBRIS SHALL BE REMOVED FROM THE SUB-BASE MATERIAL PRIOR TO POURING CONCRETE, ASPHALT, OR APPLICATION OF OTHER SPECIFIED MATERIALS. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
- 21. ALL STUMPS, ROOTS, AND OTHER DEBRIS PROJECTING THROUGH OR APPEARING ON THE SURFACE OF THE GROUND SHALL BE REMOVED TO A DEPTH OF 1—FOOT BELOW THE COMPLETED SURFACE. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
- 22. ALL MATERIALS NOT CLAIMED BY THE COUNTY SHALL BECOME PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY THE CONTRACTOR. THIS WORK SHALL BE INCLUDED IN AND PAID UNDER THE PAY ITEM CLEARING AND GRUBBING.
- 23. THE CONTRACTOR SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING REQUIRED TO PROTECT ADJACENT STRUCTURES OR TO MINIMIZE TRENCH WIDTH. WHERE A SEPARATE PAY ITEM IS NOT PROVIDED, THE COST OF ALL SHEETING, SHORING, AND BRACING REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE ITEM OF WORK FOR WHICH SHEETING. SHORING, AND BRACING IS REQUIRED SHORING.
- 24. THE CONTRACTOR SHALL DISTURB NO MORE GROUND THAN WHAT IS NECESSARY FOR CONSTRUCTION. NO OPEN EXCAVATED TRENCH, OR OTHER UNSAFE CONDITION WILL BE LEFT OVERNIGHT. ALL WORK SITES WILL BE COMPLETELY RESTORED WITHIN SEVEN (7) CALENDAR DAYS OF THE CONCRETE POUR FOR SIDEWALK.THE INTENT OF THIS PROVISION IS TO "SAFE-UP" THE PROJECT SITE AS WORK PROGRESSES, AND SHALL INCLUDE REMOVING FORMS, FILLING HOLES, GRADING, AND REMOVAL OF DEBRIS.
- 25. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- 26. ANY EXISTING SIGN TO REMAIN THAT IS DISTURBED OR RELOCATED DURING CONSTRUCTION SHALL BE RESET TO CURRENT STANDARDS FOR HEIGHT, OFFSET, AND METHOD OF INSTALLATION AT NO ADDITIONAL COST TO THE COUNTY.
- 27. ALL EXISTING SWALES NOT DESIGNATED FOR RECONSTRUCTION SHALL BE REGRADED TO PROMOTE POSITIVE DRAINAGE AND MATCH PROPOSED CENTERLINE SWALE ELEVATION AND ALIGNMENT.

- 28. ALL STORM DRAINS AND STRUCTURES TO REMAIN SHALL BE CLEANED OF DEBRIS, DIRT, VEGETATION AND OTHER MATERIAL. STORM SEWER INLETS SHALL BE MODIFIED (RAISED/LOWERED) TO MATCH PROPOSED FINISHED CRAFE
- 29. ALL EXISTING FENCES DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AND REINSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST. (EXISTING FENCES WITHIN R/W TAKING LIMITS SHALL BE RECONSTRUCTED TO THE NEW R/W LINE AND ARE TO BE REIMBURSED UNDER THE MISCELLANEOUS BID ITEM).
- 30. ALL EXISTING TREES LOCATED WITHIN R/W LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 31. ALL EXISTING STORM DRAINAGE STRUCTURES SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- 32. ALL EXISTING BUILDINGS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 33. REMOVE AND REPLACE BASE AND SUB-BASE ACCORDING TO FDOT STANDARDS

### CONTACTS

MANATEE COUNTY
PUBLIC WORKS DEPT.
INFRASTRUCTURE ENGINEERING
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(941) 708-7450 EXT. 7650
FAX: (941) 708-7431

TECO/PEOPLES GAS CO.
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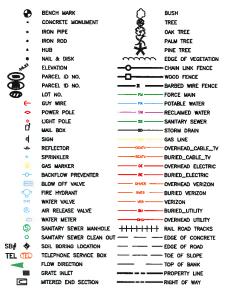
PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 ERIN RUHTZ (863) 767-4660 erin.ruhtz@preco.coop

FAX: (813) 470-5993

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### LEGEND

### EXISTING



### ABBREVIATIONS

R/W RIGHT OF WAY
CONC
CONCRETE
ASPH
ASPHALT
DRWY
DRIVEWAY
SWK
SIDEWALK
EP
EDGE OF PAVEMENT
BOC
BACK OF CURB

# PROPOSED MAIN SERVICE LINE



PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avene East, Bredeton, FL 34208

**PROJECT** FLORID ~ ROUP NTY V URE OU Ŭ TEE S RE OUTH CDBG MAN

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By A 26-18 Signature & Date

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BRIAN MARTINEAU

PAVEMENT MANAGER

3/29/1

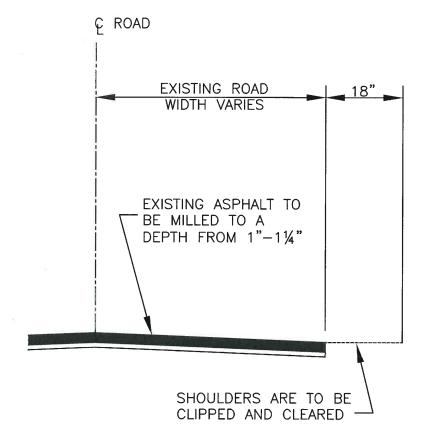
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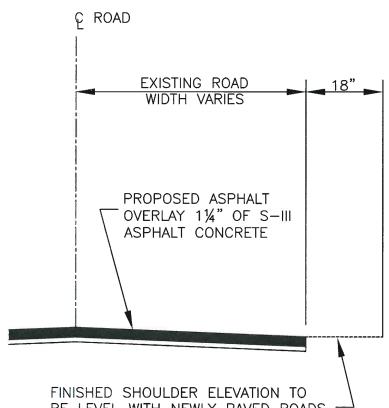
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LINE	ITEM	DESCRIPTION	UNIT	QUANTITIES
1	101-1	MOBILIZATION	LS	1
2	102-1	MAINTENANCE OF TRAFFIC	LS	1
3	110-1	CLEARING & GRUBBING	LS	1
4	120-6	EMBANKMENT	CY	61
5	327-70	MILLING	SY	11,478
6	334-1-MC1	1¼" OF S-III	TON	792
7	570-1	HYDROSEED	SY	1,664



MILLING SECTION



FINISHED SHOULDER ELEVATION TO BE LEVEL WITH NEWLY PAVED ROADS (HYDRO SEED UP TO 18")

# OVERLAY SECTION

### NOTES:

- INTERSECTION STREETS SHALL BE PULLED TO THE RADIUS POINTS OR PAVEMENT CHANGE.
- DRIVEWAYS ALONG STREET SHALL PROVIDE A SMOOTH TRANSITION FROM THE ROAD TO DRIVEWAY TO SUPPORT EDGE OF PAVEMENT.



# CDBG RESURFACING PROJECT SOUTH COUNTY (GROUP 2) SUMMARY OF QUANTITIES

DATE							
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PRO	NECT	#		1	66-0	00199	904
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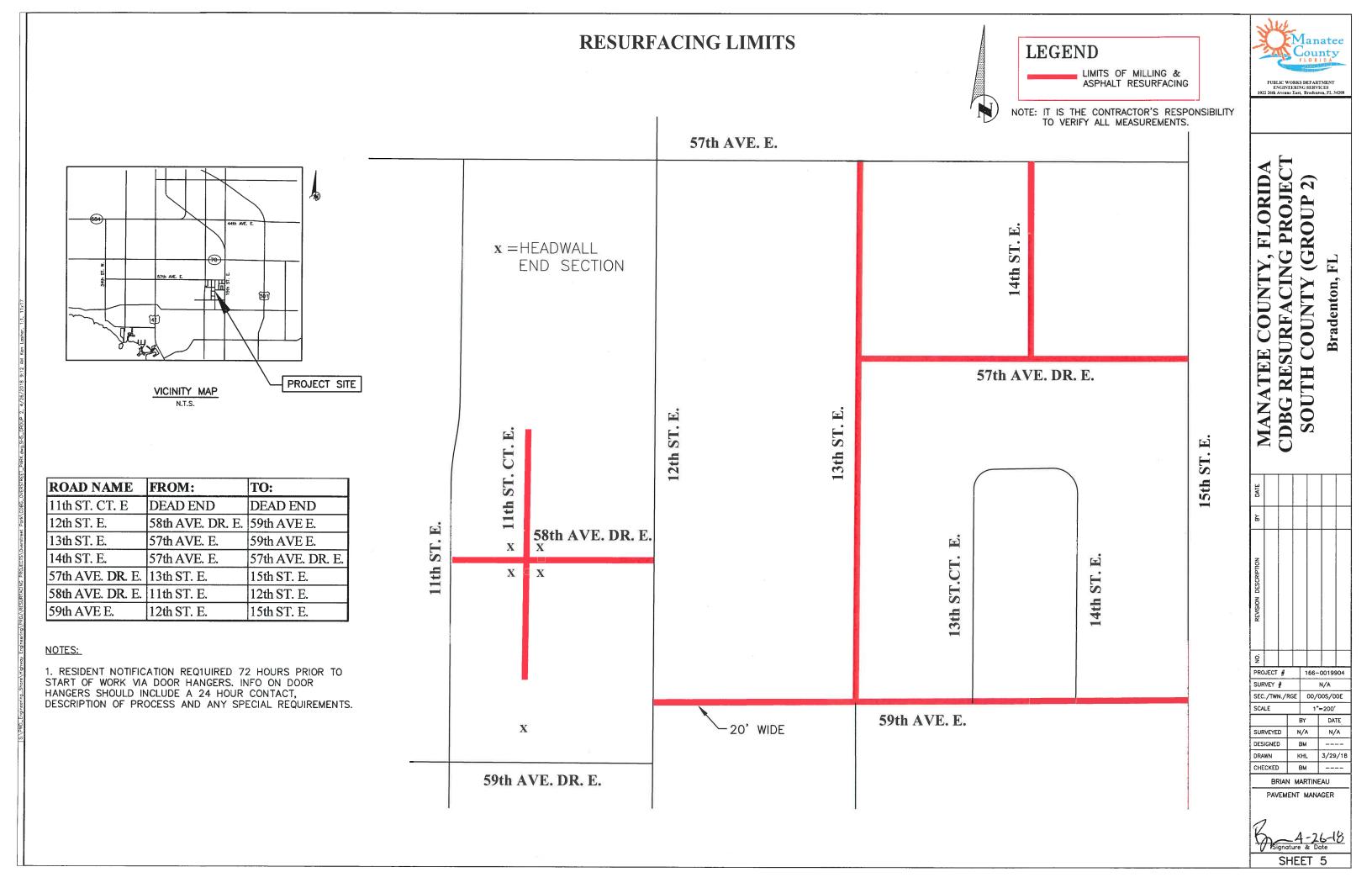
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BRIAN MARTINEAU
PAVEMENT MANAGER

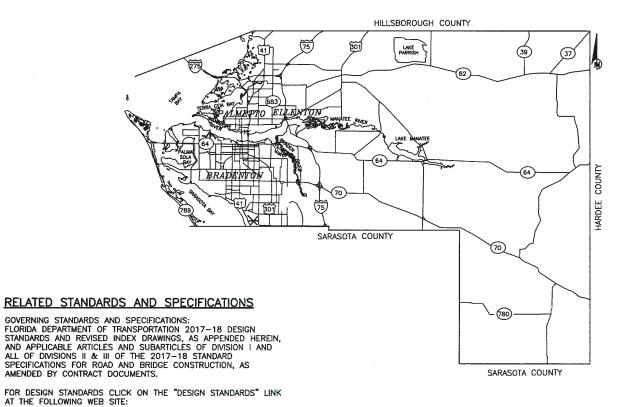






# MANATEE COUNTY, FLORIDA CDBG RESURFACING PROJECT SUNNY LAKES SOUTH COUNTY (GROUP 3) PROJECT #166-0019904

**MARCH 2018** 



FINAL PLANS

NO.	INDEX OF SHEETS
1	COVER SHEET
2-3	GENERAL NOTES & LEGEND
4	SUMMARY OF QUANTITIES
5	GROUP #3 PLAN & LOCATION
	l .

PROJECT DESCRIPTION
MILLING AND RESURFACING

Know what's below Call before you dig PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
222 26th Avenue East, Bradeston, FJ. 34268

MANATEE COUNTY, FLORIDA CDBG RESURFACING PROJECT SOUTH COUNTY (GROUP 3)

DATE						
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PRO	JECT	#	1	66-6	00199	904

PROJECT # 166-0019904
SURVEY # N/A
SEC./TWN./RGE 00/00S/00E
SCALE

 BY
 DATE

 SURVEYED
 N/A
 N/A

 DESIGNED
 BM
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 KHL
 3/29/18

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BRIAN MARTINEAU
PAVEMENT MANAGER



FOR THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CLICK ON THE "SPECIFICATIONS" LINK AT THE FOLLOWING WEB SITE:
http://www.dot.state.fl.us/specificationsoffice/

HTTP://WWW.DOT.STATE.FL.US/RDDESIGN/

### GENERAL

- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: BRIAN MARTINEAU AND CAN BE REACHED AT (941) 708-7450; EXT. 7243
- SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER.
- ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGEARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE COUNTY TO OBTAIN THE COUNTY CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
- ALL STATIONS AND OFFSETS REFER TO BASELINE OF CONSTRUCTION, UNLESS OTHERWISE NOTED.
- THE CONSTRUCTION LENGTHS IN THESE PLANS ARE APPROXIMATE. ACTUAL LIMITS MAY BE SET IN THE FIELD AS DIRECTED BY THE ENGINEER.
- D. SEPARATE PAYMENT SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE
- . THE CONTRACTOR SHALL HAVE A FOREMAN, OR RESPONSIBLE PARTY, ON SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. ALL WORKERS ON THE JOB SITE WILL BE COURTEOUS TO THE PUBLIC AT ALL TIMES, AND SHALL REFER ANY QUESTIONS OR CONCERNS TO THE CONTRACTOR'S FOREMAN OR THE COUNTY INSPECTOR. THE FOREMAN SHALL SPEAK AND UNDERSTAND ENGLISH AND SHALL BE AVAILABLE AT ALL TIMES FOR TIMELY RESOLUTION OF PROJECT—RELATED ISSUES.
- . THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE COORDINATION OF CONSTRUCTION SCHEDULING BETWEEN CONTRACTOR AND ALL UTILITY AGENCIES.
- THIS INCLUDED MEETING WITH UTILITY AGENCIES PRIOR TO THE PRE-CONSTRUCTION CONFERENCE TO ADJUST THEIR SCHEDULES TO COINCIDE WITH THE CONTRACTORS CONSTRUCTION SCHEDULE. (REFERENCE CONTRACT DOCUMENTS)
- ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTORY OF THE COUNTY PROJECT MANAGER. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
- ALL CONSTRUCTION WITHIN FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH CURRENT FDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE DESIGN STANDARDS.
- . ALL SIGNING, STRIPING AND RPM PLACEMENT WITHIN THE FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH FDOT STANDARD INDEX 17346.

### SAFETY

- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
- . THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
- 8. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
- . THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

- O. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION ALL SEDIMENT AND EROSION CONTROL (SEC) DEVICES (E.G., BARRIERS, I. LUNITAGLIUM IS RESPONSIBLE FOR INSTALLATION ALL SEDIMENT AND EROSION CONTROL (SEC) DEVICES (E.G., BARRIERS, SEDIMENT TRAPS/BASINS, VEGETATIVE BUFFERS, ETC.) AS SPECIFED IN THE FINAL APPROVED PLANS FOR THE PROJECT. CONTRACTOR SHALL BE: RESPONSIBLE FOR MAINTAINING ALL SEC DEVICES UTILIZED DURING THE PROJECT, AS WELL AS INSTALLATION & MAINTENANCE OF ANY ADDITIONAL MEASURES DEEMED NECESSARY UPLING PROJECT IMPLEMENTATION, TO PREVENT EROSION AND OFF-SITE SEDIMENT MIGRATION. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL SEC DEVICES UPON CONCLUSION OF THE PROJECT, AND UPON ADEQUATE STABILIZATION OF DISTURBED SOILS.
- WHEN A BENTONITE SPILL OR FRACK-OUT OCCURS OR THERE IS A LOSS OF RETURN INDICATING EXCESSIVE SEEPAGE OR LOSS OF DRILLING FLUID, DRILLING MUST BE STOPPED UNTIL THE LOCATION OF THE SPILL IS IDENTIFIED. UNDER NO CIRCUMSTANCES WILL DRILLING CONTINUE WHEN A SPILL IS APPARENT.
- 22. ONCE LOCATED, THE BENTONITE SPILL MUST BE ISOLATED AND SEEPAGE INTO ANY NEARBY WATER BODIES WILL BE BLOCKED DEPENDING ON THE DEGREE OF THE SPILL, THE ISOLATED BENTONITE MUST BE REMOVED MANUALLY OR MECHANICALLY AND DISPOSED OF BY APPROPRIATE MEANS OR REUSED.
- 5. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL." IT IS THE RESPONSIBILITY OF THE CONTROL TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
- . STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF
- 4. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-STILL DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILES IN AFRICAL CONTROL OF DUST FROM SUCH STOCKPILES IN REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.
  5. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BAJES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENCINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
- 6. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
- 27. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
- 28. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.

- 29. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- 30. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
- 31. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

- 32. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR
- EASEMENTS SHOWN ON THE DRAWINGS.

  33. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 34. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 35. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEY.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT. ROADWAY PLANS AND PROPOSED DESIGN ARE BASED ON TOPOGRAPHIC SURVEYS PROVIDED BY MANATEE COUNTY PROJECT MANAGEMENT. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER PLAN. THE CONTRACTOR SHALL COORDINATE WITH THE AFFECTED UTILITY COMPANY FOR THE ADJUSTMENT OF ANY EXISTING UTILITIES AND STRUCTURES IN ORDER TO MATCH THE PROPOSED ELEVATIONS AND ALCOMMENTS.
- 36. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

- 37. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER CENTURES (WHETER DROVED CHOWN) AND FINE DEAD THAT MAY REFERRING THE CONTRACTOR SHALL VERIFY THE PROPERTY OF THE PROPE FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY AFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE MOUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION. UTILITIES DESIGNATED W, VH, AND WH ARE BASED ON LIMITED INVESTIGATION. TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. EXTREME CAUTION SHALL BE EXERCISED WHEN WORKING NEAR THE 24" WATERLINE.
- 38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- 39. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.
- 40. EXCEPT WERE THE PLANS AND SPECIFICATIONS PROVIDE THAT SUCH WORK SHALL BE PERFORMED UNDER THE CONTRACT FOR THIS PROJECT. ALL UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE REMOYED, RELOCATED OR ADJUSTED BY THEIR OWNERS, AT THEIR EXPENSE. THE CONTRACTOR SHALL RARANGE HIS SCHEDULE TO ALLOW UTILITY OWNERS TIME FOR THE NECESSARY RELOCATION AND ADJUSTMENT OF UTILITIES AND RELATED
- 41. A FLORIDA POWER AND LIGHT SPECIAL PROVISION IS THAT THE TYPE OF EQUIPMENT USED IN THE INSTALLATION OF MAST ARMS/FOUNDATIONS, OVERHEAD/CONTILEVER SIGNS/ROUNDATIONS, AND THE MOVEMENT/INSTALLATION OF STRAIN POLES SHALL MEET THE FOLLOWING REQUIREMENTS: 1) OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY 2) CONTRACTOR SHALL MEET ALL APPLICABLE OSHA REQUIREMENTS (SEPARATION SHALL FOLLOW FPL GUIDELINES). ANY COST ASSOCIATED WITH THIS TYPE OF EQUIPMENT REQUIRED FOR THIS INSTALLATION IS INCLUDED IN THE RELATED PAY ITEMS. PLEASE REFER TO THE SPECIAL CONDITIONS IN THE UTILITY WORK SCHEDULE AND UTILITY COORDINATION.
- 42. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES FOR THE RELOCATION AND ADJUSTMENT OF ALL UTILITIES, INCLUDING, ANY EXISTING POWER POLES AND/OR UTILITY CONDUITS WITHIN
- 43. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE PARTIES TO DETERMINE THE COUNTY'S FIBER COMMUNICATION NETWORK, KNOWN AS ATMS (COUNTY ISD, SCHOOL BOARD, AND TRAFFIC MANAGEMENT CENTER) IN THE AREA TO ACCOMMODATE ANY POTENTIAL CONFLICTS.

  AS-BUILT INFORMATION FOR EXISTING COMMUNICATION CONDUIT AND FIBER IS AVAILABLE FROM OLGA ROSIER,
  WITH UTILITY RECORDS (941-792-8811 EXT. 5059). CONSTRUCTION PLAN INFORMATION FOR PROJECTS UNDER CONSTRUCTION WITH THE COUNTY'S TRAFFIC MANAGEMENT CENTER ARE AVAILABLE AT WWW.MANATEEATMS.COM AND WW.MANATEEATMS2.COM.

- 44. TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION. STAKED HAY BALES, STAKED SILT SCREENS OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY INFRASTRUCTURE INSPECTIONS RESOURCES BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY INFRASTRUCTURE INSPECTIONS RESOURCES DIVISION (708-7450) PRIOR TO COMMENCEMENT OF. CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF OF THE DEPTH OF THE SEDIMENTATION BARRIER SHALL BE IMMEDIATELY REMOYED AND REPLACED IN UPLAND AREAS. IN ADDITION TO SPECIFIED EROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL IMMEDIATELY. AN INSPECTION LOG SHALL BE MAINTAINED AND AVAILABLE ONSITE AT ALL TIMES. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALL PER DETAIL ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO OFF- SIE UNITEGATED RUN-OFF OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION.
- 45. ALL PIPE LENGTHS SHOWN ON PLAN VIEW ARE TO THE END OF THE MITERED END SECTION. REFER TO MITERED END SECTION DETAIL FOR LENGTH OF PIPE TO BE INCLUDED IN PRICE FOR MITERED END SECTION
- 46. TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, AND SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN RELIABLE SOURCES. THE ACCUPACY OF THIS DATA IS NOT GARANTEED, AND IS FURNISHED SULLEY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS HE MAY DEEM NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
- 47. THE CONTRACTOR SHALL VERIFY TOPOGRAPHY AND SATISFY HIMSELF AS TO THE EXTENT OF FILL NECESSARY TO ACHIEVE FINISHED GRADE PRIOR TO AWARD OF CONTRACT. THERE SHALL BE NO CLAIM FOR EXTRAS NOTWITHSTANDING SITE PLAN REVISIONS PROMULGATED SUBSEQUENT TO AWARD OF CONTRACT.
- 48. ROADSIDE UNDERDRAIN SHOWN ON PLAN IS MINIMUM AND EXTENSION SHALL BE REQUIRED AS DETERMINED NECESSARY BY THE ENGINEER OF RECORD AND/OR MCPWD INSPECTION DEPARTMENT DURING THE COURSE OF CONSTRUCTION.

- 49. SUITABLE FILL MATERIAL FROM EXCAVATION SHALL BE UTILIZED FOR PROJECT FILL PER GRADING SPECIFICATIONS. UNSUITABLE MATERIAL SHALL BE PLACED IN OPEN AREAS ONLY AS DIRECTED BY THE PROJECT ENGINEER AND SOLS ENGINEER IN ACCORDANCE WITH FOOT INDEX 505.
- 50. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES PRIOR TO INSTALLATIONS.
- 51. REFER TO CONSTRUCTION TECHNICAL SPECIFICATIONS FOR COMPACTION REQUIREMENTS, GRASSING/SODDING REQUIREMENTS, AND PAVING CONSTRUCTION MATERIAL SPECIFICATIONS.
- 52 ALL FILL AREAS ARE TO BE CONSTRUCTED IN 12" MAXIMUM LIFTS
- 53. THE CONTRACTOR SHALL REVIEW SOILS TESTS AS PERFORMED BY THE SOIL CONSULTANT AND IS ENCOURAGED TO CONDUCT ON—SITE TESTING TO SATISFY HIMSELF AS TO ACTUAL LIMITS OF REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS PRIOR TO BIDDING.
- 54. ON SLOPES GREATER THAN 3:1 PEGGING OR PINNING OF SOD MAY BE REQUIRED.
- 55. STATION LOCATIONS AND OFFSETS FOR STORM DRAIN INLETS AND MANHOLES REFERENCE THE CENTER OF THE SPECIFIED STRUCTURE BOTTOM. STATION LOCATION IS CENTER OF STRUCTURE BOTTOM FOR JUNCTION BOXES, CENTER OF RISER FOR CURB INLETS, FOR PIPES WITH MITERED END SECTIONS, THE PROPOSED LENGTHS SHOWN ON THE PLANS INCLUDE THE LENGTH OF THE MITERED END SECTION. PAYMENT FOR PIPE SHALL NOT INCLUDE THE LENGTH OF THE MITERED END SECTION. AS SPECIFIED BY DIMENSION "F" AS SHOWN IN FDOT INDEX 272 AND 273. PAYMENT SHALL BE FROM INSIDE STRUCTURE WALL TO INSIDE STRUCTURE WALL ANY EXTRA PIPE LENGTH LISTED SHALL BE CONSIDERED CONTINGENT.
- 56. ALL CURB INLET AND JUNCTION BOX STORMWATER STRUCTURES SHALL HAVE HEAVY DUTY RING AND COVER MANHOLE ACCESS. ALL DRAINAGE BOX DETAIL SHALL FOLLOW MANATEE COUNTY CURRENT STANDARD 202 UNLESS IT IS DESIGNATED IN THE PLAN. ALL DRAINAGE BOXES SHALL HAVE A WALL THICKNESS OF 6" MINIMUM.
- 57. DURING DEWATERING OPERATIONS, THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO RECEIVING WATERS, EXISTING CONVEYANCES TO RECEIVING WATERS, OR WEILAND SYSTEMS. TEMPORARY SEDIMENT BASINS, TRAPS, OR SILTATION REDUCTION DEVICES SHALL BE UTILIZED TO COLLECT THE DISCHARGE FROM DEWATERING ACTIVITIES TO ELIMINATE THE POTENTIAL FOR OFFSITE SEDIMENT TRANSPORT AND TO ENSURE THAT DIRECT DISCHARGE DOES
- 58. SLURRY WALL CONSTRUCTION OF THE SLURRY WALL SHOULD BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THE CONTRACTOR BY A GEOTECHNICAL SPECIALTY CONTRACTOR EXPERIENCED IN CONSTRUCTION OF CLAY SLURRY WALLS. CONTRACTOR SHOULD REVIEW GEOTECHNICAL REPORT, PLANS, AND RETAIN EXPERIENCED PERSONNEL TO CARRY OUT THE OPERATIONS, SAFETY, TESTING AND QUALITY CONTROL AS SPECIFIED. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT TECHNICAL SPECIFICATIONS, FOR ENGINEER'S APPROVED THAT COVER MATERIALS, EQUIPMENT, EXCAVATION OF THE WORK (I.E. SLURRY TRENCHING, KEY, CLEANING TRENCH BOTTOM, BACKFILL MIXING & BACKFILL PLACEMENT), CLEAN-UP, SPILL CONTINGENCY QUALITY CONTROL, AND TESTING. IN ADDITION, THE FOLLOWING SHALL BE SUPPLIED PRIOR TO START
- A. SOIL-BENTONITE SLURRY MIX DESIGN AND TRIAL MIX REPORTS, INCLUDING MIX PROPORTIONS, DENSITY, MOISTURE CONTENT, GRADATIONS, AND HYDRAULIC CONDUCTIVITY SHALL BE PERFORMED.
- B. SPECIFICATIONS OF THE BATCH PLANT AND LAYOUTS SHOWING LOCATIONS OF EQUIPMENT, PONDS, TANKS, PUMPS, VALVES, HOSES AND SUPPLY LINES
- C. SOURCE OF ALL IMPORTED MATERIAL, INCLUDING BENTONITE. SHIPMENT OF MATERIALS TO THE SITE SHALL BE ACCOMPANIED BY THE SHIPPER'S WRITTEN VERIFICATION OF THE QUALITY OR SPECIFICATION OF THE MATERIAL, A COPY OF WHICH SHALL BE RETAINED BY THE CONTRACTOR.
- D. CERTIFICATION OF BENTONITE QUALITY, SHOWING COMPLIANCE WITH API STANDARD 13A.
- E. CERTIFICATION OF QUALITY OF ANY ADMIXTURE.

### BOX CULVERT DESIGN SPECIFICATIONS:

64. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANPORTATION OFFICIALS (AASHTO), STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1998 EDITION, AND APPROVED REVISIONS.

 $\mbox{HS-2O-44}$  LIVE LOAD, FUTURE WEARING SURFACE OF (15 LB/SF) AND ALL DEAD LOADS AS SHOWN ON THE PLANS.

DESIGN METHOD: LOAD FACTOR DESIGN

ENVIRONMENT: EXTREMELY AGGRESSIVE

MATERIALS: ALL MATERIALS SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2007 EDITION & SUPPLEMENTS THERE

ALLOWABLE SOIL BEARING: 2.500 PSF

PRECAST BOX CULVERT:
THE PRECAST BOX CULVERT SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS FOR A TRIPLE—BARREL, 4 FOOT X 8 FOOT STRUCTURE OR AN APPROVED
EQUAL

<u>SUBMITTALS:</u> THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE PRECAST BOX CULVERT FOR THE ENGINEERS APPROVAL AND GEOTECHNICAL REPORTS FOR FOUNDATION DESIGN

### **EMERGENCY CONTACTS**

MANATEE COUNTY MANATEL COUNTY
PUBLIC WORKS DEPT.
INFRASTRUCTURE ENGINEERING
SCOTT MAY, P.E.
1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7650 FAX: (941) 708-7431

TECO/PEOPLES GAS CO. DAN SHANAHAN BAN SHANAHAN 8261 VICO COURT SARASOTA, FL. 34240 (941) 342-4030 FAX: (941) 342-4011 EMERGENCY: 1-877-832-6911 dishanghan@tecoenergy.com

SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770

FRONTIER COMMUNICATIONS DENISE HUTTON 1701 RINGLING BLVD. SARASOTA, FL. 34236 (941) 330-9203 denise.hutton@frt.com

FLORIDA POWER & LIGHT PLONDA POWER & LIGHT DISTRIBUTION GREG COKER 1253 12TH AVENUE EAST PALMETTO, FL 34221 MANAGEMENT DISTRICT
SARASOTA SERVICE OFFICE
STEVE LOPES, P.E.
6750 FRUITVILLE ROAD (941) 723-4430 FAX: (941) 723-4444 EMERGENCY: 1-800-4-OUTAGE SARASOTA, FL. 34240 (941) 377-3722 FAX: (941) 373-7660 Greq\_Coker@fpl.com

FLORIDA POWER & LIGHT TRANSMISSION
DALJANA AMADOR
15430 ENDEAVOR DRIVE
JUPITER, FI. 33478 (561) 904-3665 Gary.n.peterson@fpl.com

MANATEE COUNTY HEALTH DEPT. HANS C. ROESE 410 6th AVENUE EAST BRADENTON, FL. 3420B (941), 748-0747 EXT. 1342 FAX: (941) 750-9364 hans\_roese@doh.state.fl.us

CROWN CASTLE UTILITY COMPANY LOUIS A. SIMONE 4511 N HIMES AVE #210 TAMPA, FL 33614 (772) 579-8956

SOUTHWEST FLORIDA WATER

FLORIDA GAS TRANSMISSION 7804 ANDERSON RD. TAMPA, FL. 33634 CHRIS LEE (813) 466-3327 CELL: (727) 639-7512 christopher.lee@sug.com

CHARTER COMMUNICATIONS JAMES CRUZAN JAMES CRUZAN 5413 E. STATE ROAD 64 BRADENTON, FL. 34208-5535 (941) 748-3816 EXT. 24051 DEPARTMENT OF ENVIRONMENTAL PROTECTION
ED WATSON
13051 N. TELECOM PKWY
TEMPLE TERRACE, FL 33637 PHONE: (813) 470-5875 FAX: (813) 470-5993

PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 ERIN RUHTZ (863) 767-4660 erin.ruhtz@preco.coop

MANATEE COUNTY
PUBLIC WORK DEPT.
TRAFFIC ENGINEERING
MUKUNDA GOPALAKRISNA, P.E. (941) 749-3500 EXT. 7813

Manatee County PURLIC WORKS DEPARTMENT

ENGINEERING SERVICES 22 26th Avenue East, Bradenton, FL 3420

## **PROJECT** CORID 3 ROUP CING COUNTY OUNTY SURF RE OUTH ANA. CDBG S

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NOTE

GENERAL

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REVISION DESCRIPTION							
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ВМ

PAVEMENT MANAGER

BRIAN MARTINEAU

CHECKED

### MITIGATION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ENHANCED/ CREATED WETLANDS UNTIL PROJECT DRAINAGE AND GRADING IS COMPLETED AND ACCEPTED BY THE OWNER.
- 2. MAINTENANCE SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, WETLAND BOUNDARY AND BUFFER AREAS SHALL BE CLEARLY DELINEATED ON SITE PRIOR TO INITIAL CLEARING AND GRUBBING ACTIVITIES. THE DELINEATION SHALL ENDURE THROUGHOUT THE CONSTRUCTION PERIOD, AND BE READILY DISCERNIBLE TO CONSTRUCTION PERSONNEL. THE WETLAND (JURISDICTIONAL) AND BUFFER AREAS ARE TO BE IDENTIFIED IN THE FIELD WITH STAKES AND FLAGEDS TSRING LINES (STRING LINE 5' ABOVE GRADE WITH FLAGGING AT 10' INTERVALS) PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING. THE STRING LINE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL STAY OUT OF THE EXISTING WETLAND AND BUFFER AREAS, EXCEPT WHERE PLANS CALL OUT SPECIFIC WORK TO BE PERFORMED.

### RESTORATION

- ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
- 4. ALL DISTURBED GRASSED AREAS SHALL BE SODDED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER. ALL EXISTING SHRUBS, TREES, PLANTINGS AND OTHER VEGETATION, OUTSIDE OF RIGHT-OF-WAY DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH EQUIVALENT MATERIAL BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS LATEST REVISION.
- 6. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION, PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY—ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
- RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

### CONSTRUCTION

- 8. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFELS POSITIONED TO BREAK LINE—OF—SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
- NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PART OF DAILY CLEAN UP.
- 10. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- 11. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
- 12. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA, UNLESS OTHERWISE NOTED ON THE PLANS.
- 13. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY.

  DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM. THE CONTRACTOR SHALL SUBMIT DEWATERING
  PLAN TO DISTICT FOR APPROVAL PRIOR TO CONSTRUCTION.
- 14. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES.
- 15. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS AND STATION OFFSETS ARE TO CENTER OF STRUCTURES OR FITTINGS. REFER TO DETAIL SHEET FOR ALL PERSONNES
- 16. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
- 17. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.
- 18. ALL CONCRETE AND REBAR PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
- CONTRACTOR IS RESPONSIBLE FOR ALL UNSUITABLE MATERIAL REMOVAL WITHIN PROJECT LIMITS. EXCAVATION, EMBANKMENT, INCLUDING UTILIZATION, AND UNSUITABLE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS, LATEST VERSION.
- 20. WHERE EXCAVATION IS REQUIRED FOR CONSTRUCTION OF SIDEWALK, ALL STUMPS, ROOTS, ETC. SHALL BE REMOVED COMPLETELY FROM THE SIDEWALK AREA. ALL STUMPS WITHIN THE PROJECT LIMITS SHALL BE REMOVED COMPLETELY AND REPLACED WITH COMPACTED BACKFILL BEFORE THE AREA IS FILLED. TREE ROOTS IN AREA OF PROPOSED SIDEWALK, RAMP, OR DRIVEWAY REPLACEMENT SHALL BE GROUND OUT TO A DEPTH OF 6" BELOW BOTTOM OF NEW SIDEWALK OR DRIVEWAY. ALL PRUNED ROOT DEBRIS SHALL BE REMOVED FROM THE SUB-BASE MATERIAL PRIOR TO POURING CONCRETE, ASPHALT, OR APPLICATION OF OTHER SPECIFIED MATERIALS. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
- 21. ALL STUMPS, ROOTS, AND OTHER DEBRIS PROJECTING THROUGH OR APPEARING ON THE SURFACE OF THE GROUND SHALL BE REMOVED TO A DEPTH OF 1-FOOT BELOW THE COMPLETED SURFACE. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
- 22. ALL MATERIALS NOT CLAIMED BY THE COUNTY SHALL BECOME PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY THE CONTRACTOR. THIS WORK SHALL BE INCLUDED IN AND PAID UNDER THE PAY ITEM CLEARING AND GRUBBING.
- 23. THE CONTRACTOR SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING REQUIRED TO PROTECT ADJACENT STRUCTURES OR TO MINIMIZE TRENCH WIDTH. WHERE A SEPARATE PAY ITEM IS NOT PROVIDED, THE COST OF ALL SHEETING, SHORING, AND BRACING REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE ITEM OF WORK FOR WHICH SHEETING, SHORING, AND BRACING IS REQUIRED.
- 24. THE CONTRACTOR SHALL DISTURB NO MORE GROUND THAN WHAT IS NECESSARY FOR CONSTRUCTION. NO OPEN EXCAVATED TRENCH, OR OTHER UNSAFE CONDITION WILL BE LEFT OVERNIGHT. ALL WORK SITES WILL BE COMPLETELY RESTORED WITHIN SEVEN (7) CALENDAR DAYS OF THE CONCRETE POUR FOR SIDEWALK.THE INTENT OF THIS PROVISION IS TO "SAFE-UP" THE PROJECT SITE AS WORK PROGRESSES, AND SHALL INCLUDE REMOVING FORMS, FILLING HOLES, GRADING, AND REMOVAL OF DEBRIS.
- 25. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- 26. ANY EXISTING SIGN TO REMAIN THAT IS DISTURBED OR RELOCATED DURING CONSTRUCTION SHALL BE RESET TO CURRENT STANDARDS FOR HEIGHT, OFFSET, AND METHOD OF INSTALLATION AT NO ADDITIONAL COST TO THE COUNTY.
- 27. ALL EXISTING SWALES NOT DESIGNATED FOR RECONSTRUCTION SHALL BE REGRADED TO PROMOTE POSITIVE DRAINAGE AND MATCH PROPOSED CENTERLINE SWALE ELEVATION AND ALIGNMENT.

- 28. ALL STORM DRAINS AND STRUCTURES TO REMAIN SHALL BE CLEANED OF DEBRIS, DIRT, VEGETATION AND OTHER MATERIAL. STORM SEWER INLETS SHALL BE MODIFIED (RAISED/LOWERED) TO MATCH PROPOSED FINISHED GRADE.
- 29. ALL EXISTING FENCES DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AND REINSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST. (EXISTING FENCES WITHIN R/W TAKING LIMITS SHALL BE RECONSTRUCTED TO THE NEW R/W LINE AND ARE TO BE REIMBURSED UNDER THE MISCELLANFOUS BID ITEM).
- 30. ALL EXISTING TREES LOCATED WITHIN R/W LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 31. ALL EXISTING STORM DRAINAGE STRUCTURES SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- 32. ALL EXISTING BUILDINGS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 33. REMOVE AND REPLACE BASE AND SUB-BASE ACCORDING TO FDOT STANDARDS

### CONTACTS

MANATEE COUNTY
PUBLIC WORKS DEPT.
INFRASTRUCTURE ENGINEERING
SCOTT MAY, P.E.
1022 26TH AVENUE EAST
BRADENTON, FL. 34208
(941) 708—7450 EXT. 7650
FAX: (941) 708—7431

TECO/PEOPLES GAS CO.
DAN SHANAHAN
8261 VICO COURT
SARASOTA, FL. 34240
(941) 342-4030
FAX: (941) 342-4011
EMERGENCY: 1-877-832-6911
djshanahan@tecoenergy.com

SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770

FRONTIER COMMUNICATIONS DENISE HUTTON 1701 RINGLING BLVD. SARASOTA, FL. 34236 (941) 330-9203 denise.hutton@frt.com FLORIDA POWER & LIGHT
DISTRIBUTION
GREG COKER
1253 12TH AVENUE EAST
PALMETTO, FL 34221
(941) 723-4430
FAX: (941) 723-4444
EMERGENCY: 1-800-4-OUTAGE
Greg\_Coker@fpl.com

FLORIDA POWER & LIGHT TRANSMISSION DALIANA AMADOR 15430 ENDEAVOR DRIVE JUPITER, FI. 33478 (561) 904–3665 Gary.n.peterson@fpl.com

MANATEE COUNTY HEALTH DEPT. HANS C. RCESE 410 6th AVENUE EAST BRADENTON, FL. 34208 (941) 748-0747 EXT. 1342 FAX: (941) 750-9364 hons\_roese@doh.state.fl.us

CROWN CASTLE UTILITY COMPANY LOUIS A. SIMONE 4511 N HIMES AVE #210 TAMPA, FL 33614 (772) 579-8956 SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUTVILLE ROAD SARASOTA, FL. 34240 (941) 377–3722 FAX: (941) 373–7660

FLORIDA GAS TRANSMISSION SAFETY HARBOR TEAM 7804 ANDERSON RD. TAMPA, FL. 33634 CHRIS LEE (B13) 466-3327 CELL: (727) 639-7512 christopher.jee@sug.com

CHARTER COMMUNICATIONS
JAMES CRUZAN
5413 E. STATE ROAD 64
BRADENTON, FL. 34208-5535
(941) 748-3816 EXT. 24051
james.cruzan@charter.com

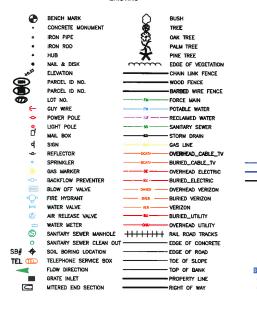
DEPARTMENT OF ENVIRONMENTAL PROTECTION ED WATSON 13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 PHONE: (813) 470-5875 FAX: (813) 470-5993

PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 ERIN RUHTZ (863) 767-4660 erin.ruhtz@precc.coop

MANATEE COUNTY PUBLIC WORK DEPT. TRAFFIC ENGINEERING MUKUNDA GOPALAKRISNA, P.E (941) 749-3500 EXT. 7813 FAX: (941) 749-3571

### LEGEND

### EXISTING



### ABBREVIATIONS

R/W RIGHT OF WAY

CONC CONCRETE
ASPHALT

DRWY DRIVEWAY

SWK SIDEWALK

EP EDGE OF PAVEMENT

BOC BACK OF CURB

### PROPOSED

PROPOSED EASEMENT



VALVE

# PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 102 226th Avene East, Bredenon, FL 34208

### **PROJECT** ORID, ROI F OUNTY 0 DS D RE H O CDBG Z S Z

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PAVEMENT MANAGER

ВМ

BRIAN MARTINEAU

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KHL 3/29/18

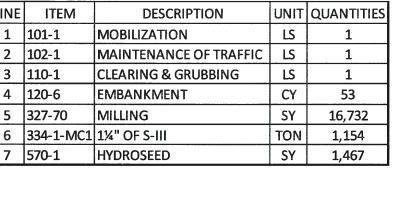
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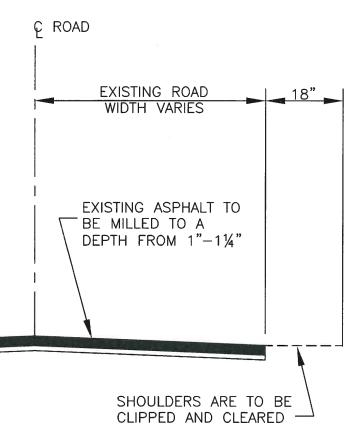
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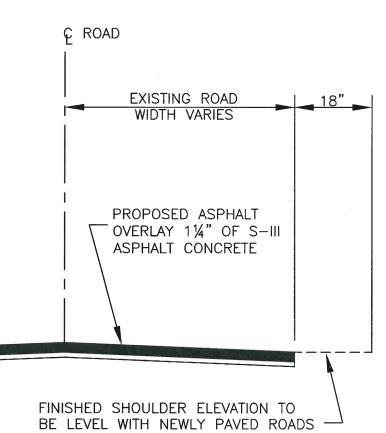
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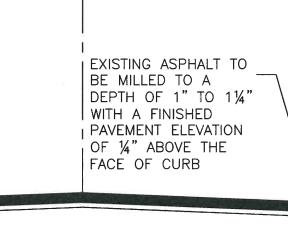
CHECKED

LINE	ITEM	DESCRIPTION	UNIT	QUANTITIES
1	101-1	MOBILIZATION	LS	1
2	102-1	MAINTENANCE OF TRAFFIC	LS	1
3	110-1	CLEARING & GRUBBING	LS	1
4	120-6	EMBANKMENT	CY	53
5	327-70	MILLING	SY	16,732
6	334-1-MC1	1¼" OF S-III	TON	1,154
7	570-1	HYDROSEED	SY	1,467









Ç ROAD

MILLING SECTION

OVERLAY SECTION

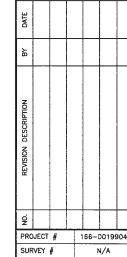
(HYDRO SEED UP TO 18")

CURB SECTION

### NOTES:

- INTERSECTION STREETS SHALL BE PULLED TO THE RADIUS POINTS OR PAVEMENT CHANGE.
- DRIVEWAYS ALONG STREET SHALL PROVIDE A SMOOTH TRANSITION FROM THE ROAD TO DRIVEWAY TO SUPPORT EDGE OF PAVEMENT.

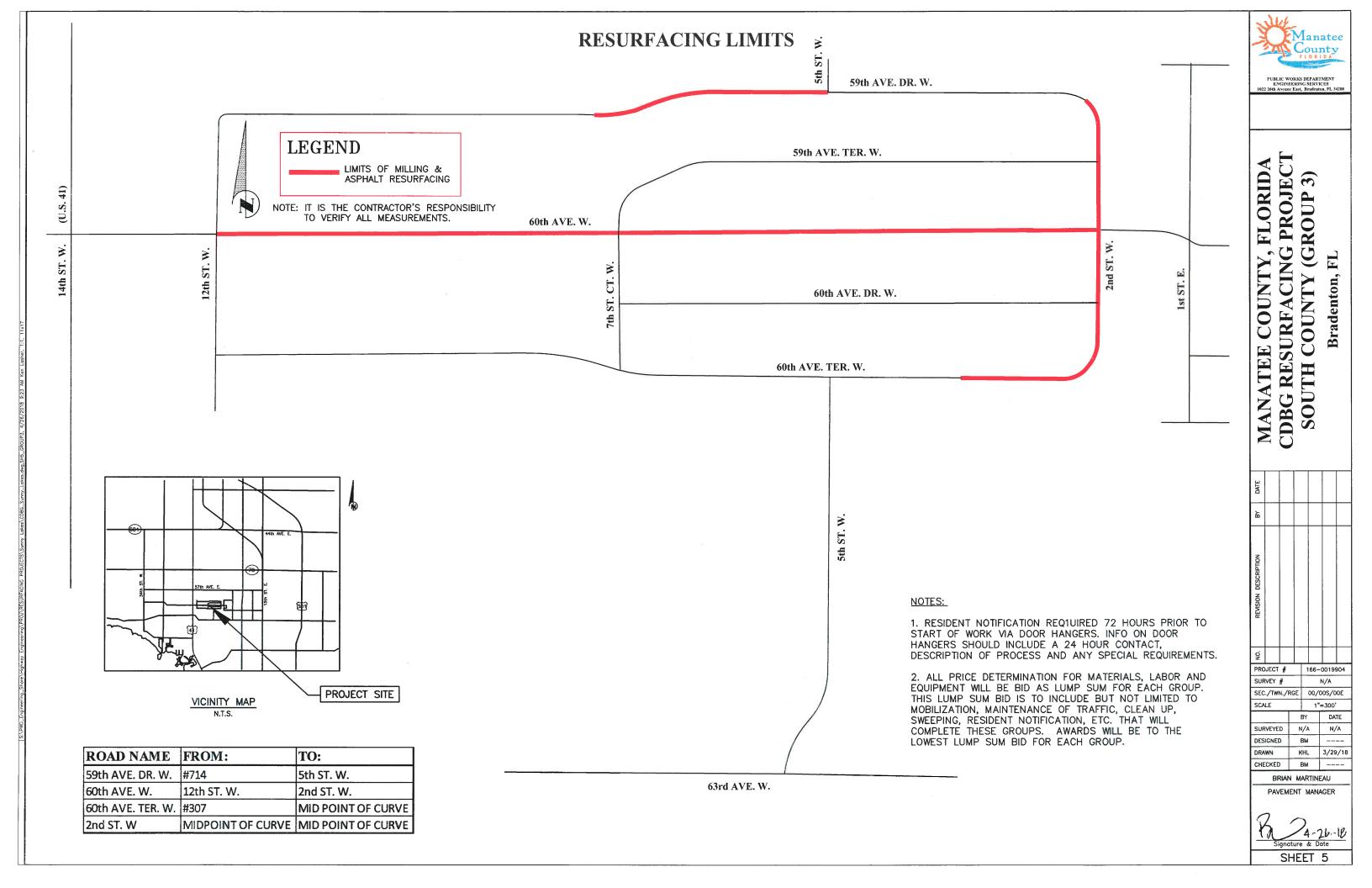
CDBG RESURFACING PROJECT SOUTH COUNTY (GROUP 3) SUMMARY OF QUANTITIES & TYPICAL SECTIONS



SEC./TWN./RGE 00/00S/00E SCALE BY

SURVEYED N/A N/A DESIGNED ВМ DRAWN KHL 3/29/18 CHECKED BM ----

BRIAN MARTINEAU



# **EXHIBIT 3**INSURANCE AND BONDING REQUIREMENTS

### **INSURANCE REQUIREMENTS**

Work under the resulting Agreement cannot commence until all insurance coverages indicated herein have been obtained. The cost for insurance coverages is the sole responsibility of successful Bidder. The Successful Bidder shall obtain and submit to the Procurement Division within ten (10) calendar days from the date of notice of intent to award, proof the following minimum amounts of insurance on a standard ACORD form (inclusive of any amounts provided by an umbrella or excess policy):

STANDARD INSURANCES	REQUIRED LIMITS
1. 🔀 Automobile Liability:	Coverage must be afforded under a per occurrence policy form including coverage for all owned, hired and non-owned vehicles.  \$ 2,000,000 combined single limit; OR  \$ 1,000,000 bodily injury and \$ 1,000,000 property damage.  \$10,000 Personal Injury Protection (No Fault)  \$ Hired, Non-Owned Liability  \$10,000 Medical Payments.  This policy shall contain severability of interests' provisions.
2.   Commercial General Liability: (Occurrence Form - patterned after the current ISO form)	Coverage shall be afforded under a per occurrence policy form.  \$ 2,000,000 single limit per occurrence;  \$ 4,000,000 aggregate  \$ Products/Completed Operations Aggregate  \$ 1,000,000 Personal and Advertising Injury Liability  \$ 100,000 Fire Damage Liability  \$ 10,000 Medical Expense, and  \$ Third Party Property Damage.  \$ Project Specific Aggregate (Required on projects valued at over \$10,000,000)  This policy shall contain severability of interests' provisions.
3. Employer's Liability	\$100,000 each accident  \$ disease each employee  \$ disease policy limit
4. Worker's Compensation  US Longshoremen & Harbor Workers Act coverage  Jones Act coverage	Statutory Limits of Chapter 440, Florida Statutes, and all Federal Government Statutory Limits & Requirements.  If any operations are to be undertaken on or about navigable waters, coverage must be included for the US Longshoremen & Harbor Workers Act and Jones Act.

	Note: Should 'leased employees' be retained for any part of the project or service, the employee leasing agency shall provide evidence of workers' compensation coverage and employee liability coverage for all personnel on the worksite and in compliance with the above requirements.  Note: Workers' compensation coverage is a firm requirement.
	Elective exemptions are considered on a case-by-case basis and are approved in a very limited number of instances.
OTHER INSURANCES	REQUIRED LIMITS
5. Aircraft Liability	\$ per occurrence
	Coverage shall be carried in limits of not less than \$5,000,000 each occurrence if applicable to the completion of the services under this Agreement.
6. Installation Floater	If the resulting Agreement <b>does not</b> include construction of or additions to above ground building or structures, but does involve the installation of machinery or equipment, Successful Bidder shall provide an " <b>Installation Floater</b> " with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).
7. Pollution Liability	\$ per occurrence
8. Professional Liability and/or Errors and Omissions (E&O) Liability	Professional (E&O) Liability shall be afforded for the Bodily Injury and Property Damage for not less than \$ Each Claim, \$1,000,000 Policy Aggregate.

9. 🛛 Builder's Risk Insurance	When this contract or agreement includes the construction of roadways and/or the addition of a permanent structure or building, including the installation of machinery and/or equipment, the following insurance coverage must be afforded:  Coverage Form: Completed Value, All Risk (Roadways/Buildings and Machinery/Equipment) in an amount equal to 100% of the value upon completion or the value of the equipment to be installed.  Coverage should include, but not be limited to, storage and transport of materials, equipment, supplies of any kind whatsoever to be used on or incidental to the project, theft coverage, and Waiver of Occupancy Clause Endorsement, where applicable.  The policy shall not carry a self-insured retention/deductible
	greater than \$ <u>10,000</u> .
10.	Coverage must comply with Florida Statute 501.171 and must be afforded under a per occurrence policy form for limits not less than  \$ Security Breach Liability  \$ Security Breach Expense (each occurrence)  \$ Security Breach Expense (aggregate)  \$ Replacement or Restoration of Electronic Data  \$ Extortion Threats  \$ Business Income and Extra Expense  \$ Public Relations Expense  The policy must not carry a self-insured retention/deductible greater than \$
11. Hazardous Materials Insurances (as noted)	Hazardous materials include all materials and substances that are currently designated or defined as hazardous by Florida or Federal law or rules of regulations.   Pollution Liability
	Coverage must be afforded under a per occurrence policy form for limits not less than the value of the contract, subject to a \$ minimum, for Bodily Injury and Property Damage to include sudden and gradual release, each claim and aggregate.

	Asbestos Liability (If handling within scope of Contract)  Coverage must be afforded under a per occurrence policy form for limits not less than the value of the contract, subject to a \$ minimum, for Bodily Injury and Property Damage to include sudden and gradual release, each claim and aggregate.
	Disposal  Coverage must be afforded under a per occurrence policy form for limits not less than the value of the contract, subject to a \$ minimum, for Liability for Sudden and Accidental Occurrences, each claim and an aggregate and not less than the value of the contract, subject to a \$ minimum, for Liability for Non-Sudden Occurrences, each claim and aggregate.
	Hazardous Waste Transportation Insurance  Coverage must be afforded under a per occurrence policy form for limits not less than the value of the contract, subject to a \$ minimum, per accident.  The Successful Bidder shall designate the hauler and have the hauler furnish a Certificate of Insurance for Automobile Liability Insurance with Endorsement MCS-90 for liability arising out of the transportation of hazardous materials.  The Successful Bidder must also provide the EPA Identification Number.
12.  Liquor Liability	Coverage must be afforded under a per occurrence policy form for limits not less than  \$ Each Occurrence and Aggregate.

Coverage shall be required if the maintenance, servicing, cleaning or repairing of any County motor vehicles is inherent or implied within the provision of the contract.  Coverage must be afforded under a per occurrence policy form for limits not less than equal to the full replacement value of the lot or garage				
Coverage must be afforded under a per occurrence policy form for limits not less than equal to the full replacement value of the lot or garage.				
\$ per occurrence				
BOND REQUIREMENTS				
A construction project over \$150,000 requires a Bid Bond in the amount of 5% of the total bid offer. Bid bond shall be submitted with the sealed bid and shall include project name, location, and / or address and project number.  In lieu of the bond, the bidder may file an alternative form of security in the amount of 5% of the total bid price/offer, in the form of a money order, a certified check, a cashier's check, or an				
irrevocable letter of credit issued to County.				
A construction project over \$150,000 requires a Payment and Performance Bond be submitted by Successful Bidder for 100% of the award amount. Contractor shall present the Performance and Payment Bond to County within ten (10) calendar days of issuance of the Notice of Intent to Award.				
For construction projects to protect against an adverse event that causes disruptions, failure to complete the project, or failure				

### **INSURANCE REQUIREMENTS**

A. THE POLICIES ABOVE ARE TO CONTAIN, OR BE ENDORSED TO CONTAIN, THE FOLLOWING PROVISIONS:

### 1. Commercial General Liability and Automobile Liability Coverages

a. "County, a Political Subdivision of the State of Florida," is to be named as an Additional Insured in respect to: Liability arising out of activities performed by or on behalf of the Successful Bidder, his agents, representatives, and employees; products and completed operations of the Successful Bidder; or automobiles owned, leased, hired or borrowed by the Successful Bidder. The coverage shall contain no special limitation(s) on the scope of protection afforded to the County, its officials, employees or volunteers.

In addition to furnishing a Certificate of Insurance, the Successful Bidder shall provide the endorsement that evidences County being listed as an Additional Insured. This can be done in one of two ways: (1) an endorsement can be issued that specifically lists "County, a Political Subdivision of the State of Florida," as Additional Insured; or, (2) an endorsement can be issued that states that all Certificate Holders are Additional Insured with respect to the policy.

- b. The Successful Bidder's insurance coverage shall be primary insurance with respect to the County, its officials, employees and volunteers. Any insurance or self-insurance maintained by the County, its officials, employees or volunteers shall be excess of Successful Bidder's insurance and shall be non-contributory.
- c. The insurance policies must be on an occurrence form.

### 2. Workers' Compensation and Employers' Liability Coverages

The insurer shall agree to waive all rights of subrogation against the County, its officials, employees and volunteers for losses arising from work performed by the Successful Bidder for the County.

### B. GENERAL INSURANCE PROVISIONS APPLICABLE TO ALL POLICIES:

- 1. Prior to the execution of contract, or issuance of a Purchase Order, and then annually upon the anniversary date(s) of the insurance policy's renewal date(s) for as long as this contract remains in effect, Successful Bidder shall furnish the County with a Certificate(s) of Insurance (using an industry accepted certificate form, signed by the Issuer, with applicable endorsements, and containing the solicitation or contract number, and title or description) evidencing the coverage set forth above and naming "County, a Political Subdivision of the State of Florida" as an Additional Insured on the applicable coverage(s) set forth above.
- 2. If the policy contains an aggregate limit, confirmation is needed in writing (letter, email, etc.) that the aggregate limit has not been eroded to procurement representative when supplying Certificate of Insurance.

In addition, when requested in writing from the County, Successful Bidder will provide the County with a certified copy of all applicable policies. The address where such certificates and certified policies shall be sent or delivered is as follows:

### County, a Political Subdivision of the State of Florida Attn: Risk Management Division 1112 Manatee Avenue West, Suite 969 Bradenton, FL 34205

- **3.** The project's solicitation number and title shall be listed on each certificate.
- **4.** Successful Bidder shall provide thirty (30) days written notice to the Risk Manager of any cancellation, non-renewal, termination, material change, or reduction in coverage of any insurance policies to procurement representative including solicitation number and title with all notices.
- **5.** Successful Bidder agrees that should at any time Successful Bidder fail to meet or maintain the required insurance coverage(s) as set forth herein, the County may terminate this contract.
- **6.** The Successful Bidder waives all subrogation rights against County, a Political Subdivision of the State of Florida, for all losses or damages which occur during the contract and for any events occurring during the contract period, whether the suit is brought during the contract period or not.
- 7. The Successful Bidder has sole responsibility for all insurance premiums and policy deductibles.
- **8.** It is the Successful Bidder's responsibility to ensure that his agents, representatives and subcontractors comply with the insurance requirements set forth herein. Successful Bidder shall include his agents, representatives, and subcontractors working on the project or at the worksite as insured under its policies, or Successful Bidder shall furnish separate certificates and endorsements for each agent, representative, and subcontractor working on the project or at the worksite. All coverages for agents, representatives, and subcontractors shall be subject to all of the requirements set forth to the procurement representative.
- **9.** All required insurance policies must be written with a carrier having a minimum A.M. Best rating of A- FSC VII or better. In addition, the County has the right to review the Successful Bidder's deductible or self-insured retention and to require that it be reduced or eliminated.
- C. Successful Bidder understands and agrees that the stipulated limits of coverage listed herein in this insurance section shall not be construed as a limitation of any potential liability to the County, or to others, and the County's failure to request evidence of this insurance coverage shall not be construed as a waiver of Successful Bidder's obligation to provide and maintain the insurance coverage specified.
- **D.** The enclosed Hold Harmless Agreement shall be signed by the Successful Bidder and shall become a part of the contract.

- E. Successful Bidder understands and agrees that the County does not waive its immunity and nothing herein shall be interpreted as a waiver of the County's rights, including the limitation of waiver of immunity, as set forth in Florida Statutes 768.28, or any other statutes, and the County expressly reserves these rights to the full extent allowed by law.
- **F.** No award shall be made until the Procurement Division has received the Certificate of Insurance and Hold Harmless Agreement in accordance with this section.

### **BONDING REQUIREMENTS**

**G. Bid Bond/Certified Check.** By submitting a bid, the bidder agrees should its bid be accepted, **to execute the form of Agreement and present the same to County for approval within ten (10) calendar days after notice of intent to award**. The bidder further agrees that failure to execute and deliver said form of Agreement within ten (10) calendar days will result in damages to County and as guarantee of payment of same a <u>bid bond/certified check</u> shall be enclosed within the submitted sealed bid in the amount of five (5%) percent of the total amount of the bid. The bidder further agrees that in case the bidder fails to enter into an Agreement, as prescribed by County, the bid bond/certified check accompanying the bid shall be forfeited to County as agreed liquidated damages. If County enters into an agreement with a bidder, or if County rejects any and/or all bids, accompanying bond will be promptly returned.

**H. Payment and Performance Bonds.** Prior to commencing work, the Successful Bidder shall obtain, for the benefit of and directed to County, a Payment and Performance Bond satisfying the requirements of Section 255.05, Florida Statutes, covering the faithful performance by the Successful Bidder of its obligation under the Contract Documents, including but not limited to the construction of the project on the project site and the payment and obligations arising thereunder, including all payments to Subcontractors, laborers, and materialmen. The surety selected by the Successful Bidder to provide the Payment and Performance Bond shall be approved by County prior to issuance of such Bond, which approval shall not be unreasonably withheld or delayed provided that surety is rated A- or better by Best's Key Guide, latest edition.

Failure to provide the required bonds on the prescribed form may result in Successful Bidder being deemed nonresponsive. Bonds must be in the form prescribed in Section 255.05, Florida Statutes, and must not contain notice, demand or other terms and conditions, including informal pre-claim meetings, not provided for in Section 255.05, Florida Statutes.

Bonds shall be in an amount equal to 100% of the contract price issued by a duly authorized and nationally recognized surety company, authorized to do business in the State of Florida, satisfactory to County. Surety shall be rated as "A-" or better by Best's Key Guide, latest edition. The attorney-in-fact who signs the bonds must file with the bonds, a certificate and effective dated copy of power-of-attorney. Payment and Performance Bonds shall be issued to County, a political subdivision of the State of Florida, within ten (10) calendar days after issuance of notice of intent to award.

In addition, pursuant to Section 255.05(1)(b), Florida Statutes, prior to commencing work, the Successful Bidder shall be responsible and bear all costs associated to record the Payment and Performance Bond with the County Clerk of the Circuit Court. A certified copy of said recording shall be furnished to the Procurement Division upon filing. Pursuant to Section 255.05(1)(b), Florida Statutes, County will make no payment to the Successful Bidder until the Successful Bidder has complied with this paragraph.

Furnishing Payment and Performance Bonds shall be requisite to execution of an Agreement with County. Said Payment and Performance Bonds will remain in force for the duration of the Agreement with the premiums paid by the Successful Bidder. Failure of the Successful Bidder to execute such Agreement and to supply the required bonds shall be just cause for cancellation of the award. County may then contract with the next lowest, responsive and responsible bidder or re-advertise this IFB.

Failure of County at any time to require performance by the Successful Bidder of any provisions set out in the resulting Agreement will in no way affect the right of County, thereafter, to enforce those provisions.

[Remainder of page intentionally left blank]

### **APPENDIX A, BIDDER'S QUESTIONNAIRE**

Bidder must fully complete and return this form with its Bid. Bidder warrants the truth and accuracy of all statements and answers herein contained. (Attach additional pages if necessary.)

(	Contact Information:
	FEIN #:
	License #:
	License Issued to:
	Date License Issued (MM/DD/YR):
	Company Name:
	Physical Address:
	City: State of Incorporation: Zip Code:
	Phone Number: ( ) Fax Number: ( ) Email address:
١	Bidding as: an individual; a partnership; a corporation; a joint venture
: i	if any venture are a corporation for each such corporation, partnership, or joint venture:
	if any venture are a corporation for each such corporation, partnership, or joint venture:
i	Your organization has been in business (under this firm's name) as a
i - - -	

	Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, so when, where (contact name, address and phone number) and why.
-	
	Have you ever failed to complete Work awarded to you? Or failed to complete projects within contract tire If so, state when, where (contact name, address, phone number) and why.
	Have you ever been debarred or prohibited from providing a bid to a governmental entity? If yes, name entity and describe the circumstances.
-	
	Will you subcontract any part of this Work? If so, describe which portion(s) and to whom.
-	
	If any, list MBE/DBE/SEC3 (with Agreement amount) to be utilized:

	What equipment do you own to accomplish this Work? (A listing may be attached)
-	What equipment will you purchase/rent for the Work? (Specify which)
•	
	Drilling Supervisor Qualifications: Contractor shall provide a boring specialist who sham remain on the project site during the entirety of the directional boring operation. This includes, but is not limited to, drilling fluid preparation, seaming, boring and pulling. The boring specialist shall have a minimum of five (5) years experience in supervising directional bores of similar nature, diameter, materials and lengths. (Reference Specification Section 02619, Horizontal Directional Drilling).
	Provide a minimum of three (3) projects wherein the boring specialist has performed this type of work diameter, materials and lengths.
	Provide contact name, and contact number:
	Pipe Fusion Qualifications: All boring and fusing equipment shall be certified for operation. The Contractor responsible for thermal butt fusing pipe and fittings shall have manufacturer certification for performing such work or a minimum of five (5) years of experience performing this type of work.
	BIDDER:

If no certification is available, written documentation of the required work experience shall be submitted for approval. (A listing may be attached). (Reference: Specification Section 02619, Horizontal Directional Drilling).

Pipe Bursting Qualifications: The Contractor shall be certified by the manufacturer of the pipe bursting system that they are fully trained licensed installer of the manufacturer's pipe bursting system. Contractor

shall provide a letter to the County documenting this requirement. (Reference: Specification Section 02619A, Pipe Bursting (PB) of Existing Mains). Provide the following regarding the surety which is providing Bidder's bond(s): 18. Surety's Name: Address: Name, address, phone number and email of surety's resident agent for service of process in Florida: Agent's Name: Address: Phone: Email: Is Bidder a local business as defined in Section A.38, Local Preference? Yes No If yes, by signing below Bidder certifies that for at least six months prior to the advertisement date of this IFB it has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota counties with at least one full-time employee at that location. BIDDER: BY: \_\_\_\_\_ PRINTED NAME: \_\_\_\_\_ TITLE/DATE:

17.

PHYSICAL ADDRESS OF QUALIFYING LOCAL LOCATION:

	NAME OF QU	JALIFYING EMPLOYEE AT LOCAL LOCATION:
20.	Confirm if Bide	der has an environmental sustainability initiative as defined in Section A.40.
	Yes	□No
	If ves. submit	a brief summary (2-3 paragraphs) of the environmental sustainability initiative

#### APPENDIX B, ENVIRONMENTAL CRIMES CERTIFICATION

# SWORN STATEMENT PURSUANT TO ARTICLE V, COUNTY PROCUREMENT CODE

Bidder must fully complete and return this form with its Bid. This form must be signed and sworn to in the presence of a notary public or other official authorized to administer oaths.

This sworn statement is submitted to the County Board of County Commissioners by									
[Print individual's name a	[Print name of entity submitting sworn statement]  business address is  eral Employer Identification Number (FEIN) is If the entity has no FEIN, y Number of the individual signing this sworn statement:  son or entity shall be awarded or receive an Owner's Agreement for public improvements, or services (including professional services) or an Owner's lease, franchise, concession or , or shall receive a grant of Owner's monies unless such person or entity has submitted a wner that it has not:  invicted of bribery or attempting to bribe a public officer or employee of County, the rida, or any other public entity, including, but not limited to the Government of the es, any state, or any local government authority in the United States, in that officer's e's official capacity; or  invicted of an agreement or collusion among bidders or prospective bidders in restraint of competition, by agreement to bid a fixed price, or otherwise; or  invicted of a violation of an environmental law that, in the sole opinion of Owner's Official, reflects negatively upon the ability of the person or entity to conduct business								
for	for[Print name of entity submitting sworn statement]								
whose	business	address	is						
procurement of goods	or services (including professional s t, or shall receive a grant of Owner'	services) or an Owner's lea	ase, franchise, concession or						
State of Flo United Stat	orida, or any other public entity, inclu	uding, but not limited to the	e Government of the						
	_								
Purchasing			-						
matter of r guilt of suc	ecord, but has not been prosecuted h conduct, which is a matter of record	for such conduct, or has m d, pursuant to formal prosec	nade an admission of						
admitted g the direction if he is an one above set f whether w Board of D	an officer, official, agent or employee uilt to any of the crimes set forth about or authorization of an official there official of the business entity), the busiforth. A business entity shall be chally owned, or on on our or purposes of this Formone business entity controls or has the	ove on behalf of such an ereof (including the person con iness shall be chargeable wit rgeable with the conduct on the which has common own m, business entities are aff	ntity and pursuant to mmitting the offense, th the conduct herein of an affiliated entity, ership or a common filiated if, directly or						

an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity. (Continued)

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction shall prove the same with documentation satisfactory to Owner's Purchasing Official. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with Owner.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY AGREEMENT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR COUNTY ADMINISTRATOR DETERMINES THAT **SUCH** PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.

[Signature]			
STATE OF			
Sworn to and subscribed before me this day of	, 20	by	
Who is personally known / has produced	[Type of identification]		as identification
My commission expires	_		
Notary Public Signature			
Print, type or stamp Commissioned name of Notary Pub	licl		

**Signatory Requirement** - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

## APPENDIX C, FLORIDA TRENCH SAFETY ACT

Bidder must fully complete and return this form with its Bid. This form must be singed in the presence of a notary public or by an officer authorized to administer oaths.

1.	This Sworn Statement is s	ubmitted with <u>I<b>FB N</b>(</u>	D. 18-TA002778JI	<u> </u>	
2.	This Sworn Statement is su	ubmitted by			whose business address
	is Identification Number (FF	IN) is	. If the entit		e, its Federal Employer the Social Security Number
	of the individual signing th				
3.					
4.	-	la, Chapters 90-96, 1	RENCH SAFETY A	• •	
5.	_	ess Owner and Engir	• •	• •	
6.	The undersigned has appr	opriated the followin Units of	ng costs for comp	liance with the applica	ble standards:
	Trench Safety Measure	Measure	Unit		Extended
	(Description)	(LF, SY)	<b>Quantity</b>	Unit Cost	<u>Cost</u>
	a			\$	
	b				
	C				
	d			\$	
7.	The undersigned intends t	to comply with these	standards by ins	tituting the following p	procedures:
	THE UNDERSIGNED, in su	ubmitting this bid, r	epresents that t	— hey have reviewed a	nd considered all available
	design the trench safety s		•	and, if applicable, If the entity has no FEIN, include the is:  during the construction of this project s NCH SAFETY ACT, and OSHA RULES AN apply with the applicable Trench Safety S and any of their agents or employees costs for compliance with the applicable  Unit  Quantity  S  S  S  And and any of their agents or employees costs for compliance with the applicable  Unit  Quantity  S  S  S  And any of their agents or employees costs for compliance with the applicable  Unit  Ouantity  S  S  S  And Any of S  Any	,
				•	
	SWORN to and subscribed (Impress official seal)	I before me this	day of	, 20	
	Notary Public, State of Flo	rida:			
	My commission expires: _				

#### APPENDIX D, SCRUTINIZED COMPANY CERTIFICATION

IFB No. 18-TA002778JP Roadway Resurfacing CDBG Project

This certification is required pursuant to Florida State Statute Section 287.135.

As of July 1, 2011, a company that, at the time of bidding or submitting a proposal for a new contract or renewal of an existing contract, is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List is ineligible for, and may not bid on, submit a proposal for, or enter into or renew a contract with an agency or local governmental entity for goods or services of \$1 million or more.

Bidder must fully complete and return this form with its Bid.

Company	FID or EIN No	
Address		_
City	State Zip	_
	, as a representative of	
•	pany is not on the Scrutinized Companies with Activities in Sudan List or ivities in the Iran Petroleum Energy Sector List.	th
ooratiinii ee	The same training the section and the section	
Signature		
Signature	Title	
Printed Name	Date	_

## APPENDIX E, INDEMNITY AND HOLD HARMLESS COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

#### Bidder must fully complete and return this form with its Bid.

Bidder shall defend, indemnify and hold harmless the County and all of the County's officers, agents, employees, and volunteers from and against all claims, liability, loss and expense, including reasonable costs, collection expenses, attorneys' fees, and court costs which may arise because of the negligence (whether active or passive), misconduct, or other fault, in whole or in part (whether joint, concurrent, or contributing), of Respondent, its officers, employees, representatives and agents in performance or non-performance of its obligations under the Contract/Agreement. Bidder recognizes the broad nature of this indemnification and hold harmless clause, as well as the provision of a legal defense to the County when necessary, and voluntarily makes this covenant and expressly acknowledges the receipt of such good and valuable consideration provided by the County in support of these indemnification, legal defense and hold harmless contractual obligations in accordance with the laws of the State of Florida. This clause shall survive the termination of this Contract/Agreement. Compliance with any insurance requirements required elsewhere within this Contract/Agreement shall not relieve Bidder of its liability and obligation to defend, hold harmless and indemnify the County as set forth in this article of the Contract/Agreement.

Nothing herein shall be construed to extend the County's liability beyond that provided in section 768.28, Florida Statutes.

PROJECT NUMBER AND/OR NAME	
INSURANCE AGENT	
RESPONDENT SIGNATURE	DATE
Acknowledgement:	
STATE OF	COUNTY OF
The foregoing instrument was acknowledged before	me this, day of,
20 by	[FULL LEGAL NAME], who is
personally known to me / has produced	as identification.
Notary Signature	
Print Name	

#### APPENDIX F, DRUG FREE WORKPLACE CERTIFICATION

This Form must be signed and sworn to in the presence of a notary public or other official authorized to administer oaths.

This	sworn	statement	is	submitted	to	the	County	Board	of	County	Commissioners	by
[print	individual'	s name and title	<u>.</u> ]									
				foı	r							_
							[print na	me of enti	ty sub	mitting swo	orn statement]	
ء مارين			_									
wnos	se busine	ss address is:	:								_	_
and (	if applica	ble) its Fede	ral E	mployer Ider	ntific	ation I	Number (F	EIN) is:			(If	the
entit	y has no	FEIN, include	the	Social Securi	ty N	umbei	r of the in	dividual	signiı	ng this sw	orn statement:	_
				)								

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free work place by:

- (1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by § 893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's work place is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:
  - (i) the dangers of drug abuse in the work place;
  - (ii) the person's or entity's policy of maintaining a drug free environment at all its work places, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;
  - (iii) any available drug counseling, rehabilitation, and employee assistance programs; and
  - (iv) the penalties that may be imposed upon employees for drug abuse violations.
- (2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its work places a written statement of its policy containing the foregoing elements (i) through (iv).
- (3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:
  - (i) abide by the terms of the statement; and Attachment A (Cont'd.)
  - (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such a conviction.
- (4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.

- (5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.
- (6) Making a good faith effort to continue to maintain a drug free work place through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- (2) Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or subsection 3-101(7)(B); or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the work place as to indicate that such person or entity has failed to make a good faith effort to provide a drug free work place as required by subsection 3-101(7)(B).

	-		[Signature]
STATE OF FLORIDA			
COUNTY OF			
Sworn to and subscribed before me this	day of	, 201 b	у
Personally known OR Produced identification _			
	[Type of identification	]	
	My commission expire	es	
Notary Public Signature			
[Print_type or stamp Commissi	and name of Nataur D		<u> </u>

**Signatory Requirement** - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

#### APPENDIX G, MINIMUM QUALIFICATIONS

Bidders must submit the information and documentation requested in this Attachment that confirms Bidder meets the following minimum qualification requirement(s):

1. Must have been registered with the State of Florida, Division of Corporations to do business in Florida for the past three years, since July 1, 2015.

No documentation is required. The County will verify registration.

2. Bidder, or its representative(s), has made an inspection of the construction sites for work specified in this ITB on or after the date of advertisement of this ITB and prior to the Due Date and Time.

If a mandatory site visit is required for this ITB, no documentation is required. County will verify attendance from the site visit sign-in sheet. If no mandatory site visit is required for this ITB, Bidder must submit a statement on company letterhead and signed by an authorized official of Bidder that Bidder or its representative(s) has made an inspection of the construction site, listing the date of the inspection and the individuals, by name, who conducted the inspection.

3. Must have possessed a General Contractor's license issued by the Florida Department of Business and Professional Regulation or be registered as a Florida Department of Transportation (FDOT) Prequalified Contractor in work classified as roadway resurfacing and milling construction works for a period of at least three consecutive years since July 1, 2015. License must be current and valid through the Due Date for submission of bids for this IFB.

Provide a copy of Bidder's General Contractor's license issued by the Florida Department of Business and Professional Regulation and documentation confirming Bidder has been licensed and/or certified for the period of 2015 through the date of submission of the Bid.

4. Bidder has provided roadway resurfacing and milling construction works for at least three (3) clients since July 1, 2015.

Provide the following information for the three (3) qualifying clients.

- a) Name of client
- b) Location (City/State)
- c) Client contact name
- d) Contact phone
- e) Contact email
- f) Service dates (Start/End)
- 5. If Bidder is submitting as a joint venture must file the required documents with the Florida Department of Business and Professional Regulation as required by Florida Statute Section 489.119, prior to the Due Date and Time.

If Bidder is a joint venture, provide a copy of Bidder's approved filing with the Florida Department of Business and Professional Regulation. If Bidder is not a joint venture, provide a statement to that effect.

6. Bidder has no reported conflict of interests in relation to this IFB.

Disclose the name of any officer, director or agent who is also an employee of the County. Disclose the name of any County employee who owns, directly or indirectly, any interest in the Bidder's firm or any of its branches. If no conflicts of interests are present, Bidder must submit a statement to that affect.

7. Bidder submitted a Bid Bond in the amount of five percent of the total bid price.

No additional documentation is required. The County will verify submission.

8. All prime contractors identified in the Bid response must be registered with CareerSource Suncoast Workforce as an employer recruiting service organization.

Provide a copy of prime contractor's registration with CareerSource Suncoast Workforce as an employer recruiting service organization.

9. Bidder, on the day the bid is submitted, has a certified or registered Qualifying Agent, as required by Section 489.119, Florida Statutes, and that Qualifying Agent has been the same Qualifying Agent of Bidder for a period of at least three consecutive years, since July1, 2015.

Submit a copy of Bidder's Qualifying Agent's registration or certification along with supporting documentation confirming Qualifying Agent has been the Qualifying Agent for Bidder for three years, since July 1, 2015.

## APPENDIX H, INSURANCE AND BOND STATEMENT

## Bidder must fully complete and return this form with its Bid.

THE UNDERSIGNED has read and understands the insurance and bond requirements of this ITBC applicable to any contract resulting from this solicitation and shall provide the insurances and bonds required within ten (10) days from the date of Notice of Intent to Award.

Bidder Name:	Date:
Signature (Authorized Official):	
Printed Name/Title:	
Insurance Agency:	
Agent Name:	Agent Phone:

# APPENDIX I, ACKNOWLEDGMENT OF ADDENDA IFB 18-TA002778JP

The undersigned acknowledges receipt of the following addenda:

Addendum No	Date Receiv	ved:			
Addendum No	Date Received:				
Addendum No	Date Received:				
Addendum No	Date Received:				
Addendum No	Date Receiv	ved:			
Addendum No	Date Receiv	ved:			
Addendum No	Date Receiv	ved:			
Addendum No	Date Received:				
Addendum No	Date Received:				
Print or type Bidder's information below:					
Name of Bidder		Telephone Number			
Street Address		City/State/Zip			
Email Address					
Print Name & Title of Authorized Off	ficer	Signature of Authorized Official	Date		

## APPENDIX J, BID PRICING

## Roadway Resurfacing CDBG Project

<b>Total Bid Price/Offer Group 1: \$</b> completion time of 30 calendar days.	Complete. Based on a
Total Bid Price/Offer Group 2: \$completion time of 30 calendar days	Complete. Based on a
Total Bid Price/Offer Group 3: \$completion time of 30 calendar days	Complete. Based on a
We, the undersigned, hereby declare that we have careful and with full knowledge an understanding of the Bid inforr which is complete in meeting each specification, term, and	nation and all its requirements, submit this Bid,
As Bidder, we understand that the IFB documents, includ and conditions shall be made part of any resulting Agreem Failure by successful Bidder to comply with such specific Agreement default, whereupon, the defaulting successful procurement costs, damages, and attorney fees as incurred	ent between County and the successful Bidder. fications, terms and conditions shall result in ful Bidder shall be required to pay for all re-
Authorized Signature(s):	
Name and Title of Signer(s):	
Date:	

#### Appendix J 18-TA002778JP- Roadway Resurfacing CDBG Project

PRICING FOR EACH GROUP SHALL INCLUDE MATERIALS, LABOR, EQUIPMENT, MOBILIZATION, MAINTENANCE OF TRAFFIC, CLEANUP, TESTING, 72 HOUR NOTIFICATION TO RESIDENTS, RESURFACE, INCLUDING ANY AND ALL INCIDENTALS REQUIRED TO COMPLE

ITEM NO	DESCRIPTION	EST QTY	U/M	UNIT PRICE	EXTENDED PRICE
	GROUP 1 (ORANGE RIDGE)				
101-1	Mobilization	1	LS	\$	\$
102-1	Maintenance of Traffic	1	LS	\$	\$
110-1	Clearing and Grubbing	1	LS	\$	\$
120-6	Embankment	61	CY	\$	\$
327-70	Milling	10,507	LS	\$	\$
334-1-MC1	1 1/4" of Type S-III Asphalt	725	TON	\$	\$
570-1	Hydroseed	1,655	SY	\$	\$
	Contract Contingency - 5% of Subtotal (Used only with County Approval)	5	%		\$
	TOTAL CONTRACT AWARD (Group 1) (Including Contract Contingency) - Based on 30 Calendar Day Completion Time				\$
	GROUP 2 (OVERSTREET PARK / TANGERINE)				
101-1	Mobilization	1	LS	\$	\$
102-1	Maintenance of Traffic	1	LS	\$	\$
110-1	Clearing and Grubbing	1	LS	\$	\$
120-6	Embankment	61	CY	\$	\$
			LS	\$	\$
327-70	Milling	11,478			
334-1-MC1	1 1/4" of Type S-III Asphalt	792	TON	\$	\$
570-1	Hydroseed	1,664	SY	\$	\$
	Contract Contingency - 5% of Subtotal (Used only with County Approval)	5	%		\$
	TOTAL CONTRACT AWARD (Group 2) (Including Contract Contingency) - Based on 30 Calendar Day Completion Time				\$
	GROUP 3 (SUNNY LAKES)				
101-1	Mobilization	1	LS	\$	\$
102-1	Maintenance of Traffic	1	LS	\$	\$
110-1	Clearing and Grubbing	1	LS	\$	\$
120-6	Embankment	53	CY	\$	\$
327-70	Milling	16,732	LS	\$	\$
334-1-MC1	1 1/4" of Type S-III Asphalt	1,154	TON	\$	\$
570-1	Hydroseed	1,467	SY	\$	\$
	Contract Contingency - 5% of Subtotal (Used only with County Approval)	5	%		\$
	TOTAL CONTRACT AWARD (Group 3) (Including Contract Contingency) - Based on 30 Calendar Day Completion Time		,		\$

BIDDER:\_\_\_\_\_
AUTHORIZED SIGNATURE:\_\_\_\_\_