

# ITB 24-088

## COUNTYWIDE RESURFACING AND PRESERVATION PROJECTS

Bid Due Date: May 29, 2024, @ 2:00 PM

PRE-BID MEETING: APRIL 22, 2024, @ 9:00 AM

ADVERTISED:
APRIL 13, 2024:
Citrus County Chronicle

CITRUS COUNTY, FLORIDA political subdivision of the State of Florida Department of Management & Budget 3600 W. Sovereign Path, Suite 266 Lecanto, FL 34461

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#### **DEFINITIONS**

- "Addenda" means a written or graphic instrument issued by the County prior to the execution of the Agreement which modifies or interprets the Invitation to Bid by additions, deletions, clarifications, corrections or other type of modifications. Addenda will become part of the Contract Documents when the Agreement is executed.
- "Agreement" means a legal document, executed by the County and the Successful Bidder. The Agreement, as amended from time to time, forms the Contract between County and the Successful Bidder setting forth the roles, responsibilities and obligations of the parties including, but not limited to, the performance of the Services and the basis of payment.
- "Apparent Low Bidder" means the bidder who has submitted the lowest Bid at the Bid Opening without correction of numerical discrepancies, consideration or alternates of determination of responsiveness and responsibility. The Apparent Low Bidder is not necessarily the Successful Bidder.
- "Best value" means the highest overall value to the County based on factors that include, but are not limited to, price, quality, design, and workmanship.
- "Bid" means a written response to this Invitation to Bid.
- "Bid Documents" means the Invitation to Bid, inclusive of the plans and specifications.
- **"Bidder"** means any person or firm (corporation, sole-proprietor, limited partnership, etc.) who submits a Bid in response to this Invitation to Bid.
- "Contract Documents" means the Invitation to Bid, including Addenda to such, the Agreement, including Addenda to such, General Terms and Conditions of the Agreement, Bidder's Bid, Scope of Services, Certificate(s) of Insurance, Notice of Intent to Award, Notice of Award, Notice to Proceed, Drawings and Specifications, and any other documents mailed, e-mailed or otherwise transmitted to the Bidder prior to or after the submittal of their Bid, and prior to or after Award, all of which are all to be treated as one in the form of the Contract Documents.
- "Contractor" means Successful Bidder, in the context of the Invitation to Bid. In the context of the Contract Documents, Contractor means any company, firm, partnership, corporation, association, joint venture, or other legal entity permitted by law to perform the Services in the State of Florida. Such legal entity shall be the entity that enters into a written Agreement with the County to perform the Services for the Project described in the Contract Documents. The Contractor will have sole responsibility for the performance of the Services covered under an Agreement that is awarded in conjunction with this Invitation to Bid.
- "County" means Citrus County, Florida, a political subdivision of the State of Florida, its officers, employees, agents and volunteers.
- "Departments Acceptance Tests" means tests adopted by County.
- "Engineer" means the same as County Engineer, or their designee, as defined in the bid document.
- "FDOT" means Florida Department of Transportation
- "Governmental Entity" means a political subdivision or agency of this state or of any state of the United States, including, but not limited to, state government, county, municipality, school district, nonprofit public university or college, single purpose or multipurpose special district, single-purpose special or multipurpose authority, metropolitan or consolidated government, separate legal entity or administrative entity, or any agency of the Federal Government.
- "Inspector" means the person designated as an agent or representative of the County to perform construction inspections.

"Invitation to Bid" means the contents of this solicitation and all supporting documents including Addendum to such, or other related information transmitted to Bidders.

"Minor Irregularity" means a variation from the Invitation to Bid terms and conditions which does not affect the price or give the Bidder an advantage or benefit not enjoyed by the other Bidder or does not adversely impact the interests of the County.

"Notice of Award" means a written notice submitted by the County notifying the Successful Bidder that they have been awarded the project.

"Notice of Intent to Award" means a written notice submitted by the County notifying the Successful Bidder that the County intends to award the project to them contingent upon the Successful Bidder executing the Agreement and submitting any outstanding documents.

"Notice to Proceed" means a written notice issued by the County to the Successful Bidder fixing the date on which the Successful Bidder shall start the performance of the Services and the length of time for the completion of the Services, in accordance with the Contract Documents.

**"Piggyback**" means a government authority other than the County purchasing commodities from the Successful Bidder under the same terms and conditions that the Successful Bidder has agreed to offer the County.

"Public Opening" means the opening of the Bids and the announcing of the Bidders who submitted a Bid in response to the Invitation to Bid in the presence of the public.

"Recommendation of Award" means a written notification sent by way of facsimile or electronic e-mail to those who submitted a Bid in response to this Invitation to Bid advising them of the County's decision for its selection of the Successful Bidder and its intent to award to that Bidder.

"Responsible Bidder" means a Bidder who has the resources, skills, knowledge and financial ability to provide the Services specified in this Invitation to Bid.

"Responsive" means a Bid that conforms in all material respects to the Invitation to Bid requirements.

"State Road" means any public roadway.

"Subcontractor" means an entity having a direct contract with the Successful Bidder or with any other subcontractor of the Successful Bidder who will provide product(s) or service(s) for the performance of a part of the Services required under the Contract Documents under the sole control and direction of the Successful Bidder.

"Successful Bidder" means the Bidder who the County awards an Agreement to for the provision of the Services specified in this Invitation to Bid.

"Timeline" means the list of critical dates and actions involved in the Invitation to Bid.

"Units of Measure" means Units of measure are how County is expressing measurements of quantities.

| AC | Acre       | EA  | Each       | LF | Linear Feet | SqYd | Square Yard |
|----|------------|-----|------------|----|-------------|------|-------------|
| AS | Assembly   | GA  | Gallon     | LS | Lump Sum    | SY   | Square Yard |
| CF | Cubic Feet | GAL | Gallons    | NM | Net Mile    | TN   | Tons        |
| CY | Cubic Yard | GM  | Gross Mile | SF | Square Feet |      |             |

**"Work"** means all supervision, labor, materials, equipment, supplies, subcontractors, and incidental expenses required by the Bidder to execute and complete the requirements of the Services outlined in the Contract Documents, including those prescribed or implied.

**"Work Order"** means a form to be initiated by the County and issued to a Contractor to furnish all labor, materials, equipment, supervision, and support for the construction of asphalt pavement preservation and/or reconstruction

processes and asphalt pavement improvements for selected project(s)/area(s) at the bid price for a length of time established in the project(s).

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#### **INSTRUCTIONS TO BIDDERS**

#### **Solicitation Overview**

Citrus County, Florida ("County") invites interested parties to submit a Bid for the Work necessary to provide construction of asphalt pavement preservation and/or reconstruction processes, and asphalt pavement improvements, said Work to include, but not be limited to, providing all supervision, labor, materials, supplies, equipment, support, and any permits required for the Work. Additional work incidental to asphalt concrete work may include, but may not be limited to, roadway edge preparation, reworking shoulders, adjusting manholes and valve covers to grade, removal and/or restoration of traffic striping, markings and raised pavement markers (RPM's), sodding, implementation of an adequate Storm Water Pollution Prevention Plan and Traffic Control and Safety.

The Countywide Resurfacing and Preservation Projects bid will not only be used for Citrus County Roadway Projects but may also be used for the construction and maintenance of other County Facilities such as County owned facility parking lots. It is the intention of the Public Works Department to allow other departments and divisions within Citrus County to utilize the resulting contract for their projects using budgets and accounts associated with their Departments and Divisions

The County intends to award multiple bidders. The award(s) will be made for each treatment section based on lowest responsive bid, meeting the respective treatment section's specification requirements. Bidders are not required to bid on all sections but must bid on all items contained within a section in order to be considered a responsive bidder for that section. All bid items that are part of the basis of the award should be bid on at a fair and reasonable price; failure to do so may cause the bid to be non-responsive.

#### **Work Orders and Examination of Site Conditions**

After bids are awarded, Work Orders will be initiated by the County and issued to a Contractor to furnish all labor, materials, equipment, supervision, and support for the construction of asphalt pavement preservation and/or reconstruction processes and asphalt pavement improvements for selected project(s) at the bid price for a length of time established in the Project Schedule(s). Upon the issuance of each Work Order, the Each Contractor, agrees that he/she shall be held responsible for examining the site, the location of all proposed work and for having satisfied themselves from their personal knowledge and experience or professional advice as to the character and location of the site, the nature of the ground, surface and subsurface, the water elevations, location of buried utilities and any other conditions surrounding and affecting the work, any obstructions, the nature of any existing construction, and all other physical characteristics of the job, and that the Work Order(s) include all materials pertaining to the work and the satisfactory completion thereof, within the Project Schedule time, including the removal, relocation, or replacement of any objects or obstructions which may be encountered in doing the proposed work.

#### Minimum Requirements for Submitting a Bid

To be qualified to submit a Bid.

- ⇒ Bidders should submit a list of three (3) projects per treatment bid that were, successfully completed within the last five (5) years, for which the Contractor's portion of the work exceeded \$50,000, with the exception of the Fog Seal, Asphalt Rejuvenation, and Crack Sealing, where the Contractor's portion of work shall have exceeded \$30,000. The projects should have been for a federal, state, or local government agency. Three projects should be listed for each of the following treatments:
  - a) Chip seal
  - b) Micro-surfacing
  - c) Crack sealing/filing
  - d) Fog seal
  - e) Asphalt rejuvenation
  - f) Scrub seal
  - g) Full depth reclamation
  - h) Cold in place recycling
  - i) Cape seal

| j) | Mil | ling |  |
|----|-----|------|--|
|    |     |      |  |

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| $\Rightarrow$ | For | each | proie | ect i | dentified, | please | include | the | follov | wina | info | rmatic | n: |
|---------------|-----|------|-------|-------|------------|--------|---------|-----|--------|------|------|--------|----|
|               |     |      |       |       |            |        |         |     |        |      |      |        |    |

| Project Name                   |
|--------------------------------|
| Governmental Agency Name       |
| Contact Person                 |
| Email Address                  |
| Telephone Number               |
| Project Date                   |
| Number of Square Yards Treated |
| Dollar Amount of the Contract  |

- ⇒ Bidder must have an individual on site during all phases of work associated with this project who is certified in work zone safety (Maintenance of Traffic (MOT) Intermediate Level) in accordance with the Florida Department of Transportation requirements. Please provide an MOT certificate.
  - Bidder must be registered in Sunbiz.org (<a href="https://dos.myflorida.com/sunbiz/">https://dos.myflorida.com/sunbiz/</a>)
- ⇒ If an FDOT Work Class exists for a specific bid item, Bidders or its subcontractor(s) must be pre-qualified by FDOT for the Bid Item.
  - Bidders shall be capable of meeting all the requirements of the specifications at the time of the bid submittal.
  - All millings from the project(s) associated with this bid will remain the property of the County. The Successful Bidders shall be responsible for the hauling and delivery of the millings to the following address: 5272 W. Homosassa Trail, Lecanto, Florida, unless otherwise stated on the Work Order. Hauling and delivery of the millings to the County Facility will be incidental to the Agreement.

#### **VENDOR SYSTEM-VENDORLINK REGISTRATION**

County has partnered with **VendorLink**, a web-based e-Procurement service. Current bid solicitations and associated addenda, notices of recommended bid award, and current bid awards will be posted at <a href="https://www.myvendorlink.com">www.myvendorlink.com</a>.

Bid Notifications will be sent electronically via e-mail from <a href="https://www.myvendorlink.com">www.myvendorlink.com</a> to registered Bidders. It is the sole responsibility of interested parties to monitor VendorLink for solicitation opportunities and updates.

Visit <a href="https://www.myvendorlink.com/external/register.aspx">https://www.myvendorlink.com/external/register.aspx</a> to register. VendorLink is an online Bidder registration system that provides a free at no cost to Bidder, secure, user-friendly Internet portal and one-stop service center to register with County. This system also allows you to receive automatic email notifications regarding County's upcoming competitive solicitations as opportunities become available. Registration assistance is available by e-mail <a href="mailto:support@evendorlink.com">support@evendorlink.com</a>.

All Citrus County Vendors/Contractors/Consultants will need to register with VendorLink in order to be able to submit Bids/Proposals/Qualifications etc., to County.

VendorLink has no affiliation with the County other than as a service that facilitates communication between the County and its Bidder. VendorLink is an independent entity and is not an agent or representative of the County.

#### **General Instructions**

Bidders are encouraged to carefully review all the materials contained herein and prepare your Bid accordingly. The detailed requirements set forth below will be used to evaluate the Bids and failure of Bidder to provide the information requested for a specific requirement may render their Bid as non-responsive and result in being rejected. Failure of Bidder to comply with all terms of this Solicitation may result in disqualification of Bidder and rejection of Bidder's proposal by County.

Bidders shall carefully study and compare the information and documents presented in this Invitation to Bid to ensure there are no conflicts. Bidders agree that upon issuance of a Work Order, Bidder shall examine the project site and local conditions, if applicable, and shall at once report to the Contact Person any errors, inconsistencies or ambiguities discovered.

County shall not be liable for any costs incurred by a Bidder in preparing or producing its Bid or for any service provided before execution of an Agreement.

All terms and conditions outlined in this Invitation to Bid, and any associated Addenda, shall become a part of the Agreement entered into between the County and the Successful Bidder.

#### **Contact Person**

All inquiries pertaining to this Invitation to Bid are to be directed to:

| Linda Morse                       | Karin McMahon                       | Leigha Utter                       |
|-----------------------------------|-------------------------------------|------------------------------------|
| Purchasing & Contracts Manager    | Purchasing & Contracts Specialist   | Purchasing Assistant               |
| Department of Management & Budget | Department of Management & Budget   | Department of Management & Budget  |
| 3600 W. Sovereign Path, Suite 266 | 3600 W. Sovereign Path, Suite 266   | 3600 W. Sovereign Path, Suite 266  |
| Lecanto, Florida 34461            | Lecanto, Florida 34461              | Lecanto, Florida 34461             |
| Phone: 352-527-5457               | Phone: 352-527-5457                 | Phone: 352-527-5457                |
| Fax: 352-527-5424                 | Fax: 352-527-5424                   | Fax: 352-527-5424                  |
| Email: linda.morse@citrusbocc.com | Email: karin.mcmahon@citrusbocc.com | Email: leigha.utter@citrusbocc.com |

<u>CAUTION</u>: In accordance with Section 287.057 (25) of the Florida Statutes, Bidders to this solicitation, or persons acting on their behalf, may not contact, between the release of the solicitation and the end of the 72-hour period following the agency posting the notice of intended award, excluding Saturdays, Sundays and legal holidays, any employee or officer of the County concerning any aspect of this solicitation, except in writing to the Contact Person noted above. Violation of this provision may be grounds for rejecting a response to this solicitation.

#### Questions/Additional Terms and Conditions/Variances/Exceptions

Bidders may submit questions about the meaning or intent of the Invitation to Bid/Agreement to the website link (www.myvendorlink.com) in written format only and shall submit such on or before the deadline for questions listed in the Event Timeline. Interpretations or clarifications considered necessary in response to such questions will be issued by a written Addendum. Only questions answered by formal written Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Questions submitted shall not constitute formal protest of the specifications or of this Invitation to Bid.

A written addendum, if applicable, will be issued online to the VendorLink (<a href="www.myvendorlink.com">www.myvendorlink.com</a>) and/or DemandStar® websites in response to questions received as of the specified deadline in the Event Timeline.

Issues regarding any discrepancies, errors or ambiguities in the Invitation to Bid documents, including those noted in the Agreement shall be submitted in writing to <a href="https://www.myvendorlink.com">www.myvendorlink.com</a> on or before deadline for questions which is listed in the Event Timeline.

#### **Event Timeline**

Bidders should review and become familiar with the Event Timeline. The dates and times of each activity within the Timeline may be subject to change. It is the responsibility of Bidder to check for any changes. All changes to the Timeline will be made through an addendum to this Invitation to Bid.

Any person requiring reasonable accommodation at this meeting because of a disability or physical impairment should contact County Administrator's Office, 3600 W. Sovereign Path, Suite 267, Lecanto, FL 34461, (352) 527-5210, at least two days before the meeting. If you are hearing or speech impaired, dial 7-1-1, 1-800-955-8771 (TTY) or 1-800-955-8770 (v), via Florida Relay Service.

\*\*All public Meetings are subject to change or can be cancelled. The public opening shall be via a recorded, online video meeting:

| EVENT   | DATE           | TIME    |
|---|----------------|---------|
| Issue Solicitation  | April 13, 2024 |         |
| NON-MANDATORY Pre-Bid Conference                          | April 22, 2024 | 9:00 AM |
| Deadline for Questions                                    | May 17, 2024   | 4:00 PM |
| Bid Due Date and Time                                     | May 29, 2024   | 2:00 PM |
| Public Opening Date and Time                              | May 29, 2024   | 2:15 PM |
| Board Approval of Selection and Award (subject to change) | July 2024      |         |

A NON-MANDATORY Pre-Bid Conference will be held on April 22, 2024, at 9:00 am. The Meeting will be held via a Microsoft Teams Video call.

# Microsoft Teams Need help?

# Join the meeting now

Meeting ID: 256 853 461 979

Passcode: 4gTDb2

<u>Public Opening of Bids</u> - Electronic Bids shall be opened and read aloud publicly on <u>May 29, 2024 at 2:15 PM</u>. This shall be held via Microsoft Teams video call.

# Microsoft Teams Need help?

# Join the meeting now

Meeting ID: 241 372 058 278

Passcode: YaVzvL

#### **Submission of Bids**

Electronic Invitation to Bid submittals are to be submitted **on or before May 29, 2024 at 2:00 pm**. It is the sole responsibility of the Bidder to ensure that their Bid response is submitted through VendorLink no later than the time and date specified in the Solicitation or subsequent addenda. **SUBMIT A SINGLE ELECTRONIC FILE AND TITLE BID SUBMITTAL TO INDICATE "ITB 24-088" AND "COMPANY NAME"** 

Bids shall be submitted through the online solicitation management portal, <a href="www.myvendorlink.com">www.myvendorlink.com</a>. You may enter information and upload completed forms/documents using the <a href="www.myvendorlink.com">www.myvendorlink.com</a> portal. Bidders must have registered and received an established account in advance of uploading submissions. When submitting an offer electronically through the solicitation posting portal, please allow sufficient time to complete the online forms and upload documents. The solicitation offer will end at the closing time listed in the Event Timeline included in this Solicitation. If you are in the middle of uploading your documents at closing time, the system will stop the process and your offer will not be received by the system. It is recommended that the submission process be completed the day prior to the due date, with the knowledge that any changes/updates will be accepted up to the due date and time. If technical difficulties arise during submission of the Solicitation submittal, it is the submitting Bidder's responsibility to contact VendorLink, LLC technical support. For support, click on the "Help" link on the Solicitation Posting portal; or email <a href="www.support@evendorlink.com">www.support@evendorlink.com</a>.

#### Submission Steps:

- 1. Submit Proposals/Bids electronically through www.myvendorlink.com
- 2. Upload files only in MS Word (.doc or .docx), Excel (.xls or .xlsx), and PowerPoint (.ppt or .pptx); Adobe Portable Document Format (.pdf); checkmark must be placed in the checkbox next to the file type to

be uploaded prior to clicking the Add Document(s) button. The Bidder Files table must have at least one document uploaded with the File Type requested, otherwise the Platform will not allow the Bidder to change the status from whatever was submitted.

- 3. Enable printing on files submitted.
- 4. Clearly identify the Solicitation Number, Name, Submission Date, and Bidder Name on the Response Cover Page on Bidder's letterhead.
- 5. Separate and identify each part of the submission (i.e. document type, form type, content type) with a divider/separation page.
- 6. Contact VendorLink technical support at <a href="mailto:support@evendorlink.com">support@evendorlink.com</a>, if technical difficulties arise during Bid/proposal submission.
- 7. All required documents must be fully filled out and signed by an official who is authorized to legally bind the Bidder on all solicitation specifications.
- 8. Follow all instructions outlined in this Solicitation and provide all requested information.

#### Timeliness of Bid Submittal

County assumes no responsibility for Bids received after the due date and time, or at any location other than that specified herein whether due to technical difficulties, user error, or any other reason. **Bids received after the due date and time will not be considered for selection.** There will be no exceptions to this policy. It is the responsibility of Bidders to make sure their Bid is submitted by the due date and time.

#### **Bid Submittal Format**

#### Bids MUST be submitted and fully completed in the order format noted below:

- ⇒ Bid Form
- ⇒ Certificate(s) of Insurance
- ⇒ Bidder's Representation and Certification Form
- ⇒ Addendum Acknowledgement Form
- ⇒ Bidder's Qualification Statement Form
- ⇒ List of Subcontractors
- ⇒Conflict of Interest Statement
- ⇒Drug-Free Workplace Certification
- ⇒Non-Collusion & Lobbying Certification
- ⇒Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions
- ⇒Certification of Subcontractor Participants Regarding Debarment, Suspension, and Other Ineligibility and Voluntary Exclusion
- ⇒Vendor Certification Regarding Scrutinized Companied List
- ⇒ Copies of Licenses and Certifications
  - Proof of license/certification to do Business in the State of Florida (i.e: Sunbiz registration/Florida Department of State.
  - o Maintenance of Traffic (MOT) Certification
  - Copies of licenses and certifications as applicable to this Invitation to Bid.
  - If Claiming Local Preference on Bid Form, attach a copy of Business Tax Receipt from Citrus County.
- ⇒ Bidders should submit a list of three (3) projects per treatment section bid, successfully completed within the last five (5) years, in which the Contractor's portion of the work exceeded \$50,000, with the exception of the Fog Seal, Asphalt Rejuvenation, and Crack Sealing, where the contractor's portion of work shall have exceeded \$30,000. The projects should have been for a federal, state, or local government agency. Three projects should be listed for each of the following treatments:
  - a) Chip seal
  - b) Micro-surfacing
  - c) Crack sealing/filling
  - d) Fog seal
  - e) Asphalt rejuvenation

- f) Scrub seal
- g) Full depth reclamation
- h) Cold in place recycling
- i) Cape seal
- j) Milling
- k) Asphalt

| П | Project Name                   |
|---|--------------------------------|
|   |                                |
| Ш | Governmental Agency Name       |
|   | Contact Person                 |
|   | Email Address                  |
|   | Telephone Number               |
|   | Project Date                   |
|   | Number of Square Yards Treated |
| П | Dollar Amount of the Contract  |

#### **Bid Form**

Bidders MUST utilize the Bid Form included with this Invitation to Bid for submitting pricing information. No substitutes will be permitted. All pages of the Bid Form must be submitted and completed in full.

Bids shall be typed or printed in **BLACK** ink. All blanks on the Bid Form must be completed. If anything is not applicable, Bidder shall indicate such with "N/A". If there is no charge for any specific item noted on the Bid Form, Bidders shall indicate such by entering "no charge".

The name of the individual signing the Bid Form must be printed below the signature. The address, telephone number and email for communications regarding the Bid must be indicated. Bids must be executed in Bidder's registered company name and must be executed by an officer of the company who has the authority to bind the Bidder.

Bidders shall acknowledge receipt of all Addenda by filling in the numbers of the respective addenda on the Bid Form.

#### **Certificate of Insurance**

Bidders are to submit a copy of their certificate(s) of insurance evidencing policies and limits of insurance that they currently have in force.

Once ALL paperwork is completed and received by the County, an email will be sent to Bidder asking Bidder to register online with myCOI. It is critical that Bidder provide the County with an accurate email address. The cost to register is \$19.95 per year and a credit/debit card will be needed. Part of the registration process includes providing contact information for Bidder's insurance agent(s). This information must be available at the time of registration. Once Bidder has registered and entered the email address for its insurance agent(s), an email will be sent to the insurance agent(s) requesting them to upload Bidder's Certificate of Insurance (COI) directly into the myCOI website. Certificates of Insurance cannot be mailed, emailed, or faxed to County. Bidder will not be allowed to begin work and no payments will be made until registration is completed and a compliant COI is received from Bidder's insurance agent(s). This is a yearly requirement for the duration of the Agreement.

#### **Bidder's Representation and Certification Form**

Bidders are required to submit with their Bid an executed Bidder's Representation and Authorization Form.

#### **Bidder's Qualification Statement Form**

Bidders are required to submit with their Bid an executed Bidder's Qualification Statement.

To demonstrate that the Bidder is qualified to perform the Work covered under this Invitation to Bid, Bidders must include any and all documents and other information to substantiate the qualifications noted, such as: licenses, references for similar work, present commitments and other such data as required in the Bid Documents.

Bids must contain evidence of the Bidder's qualification to do business in the State of Florida or covenant to obtain such qualification prior to award of the contract. Bidders must comply with Chapter 607, Florida Statutes, to transact business in the State of Florida. If the Successful Bidder is not in compliance with such, they shall have fourteen (14) calendar days from receipt of a Notice of Intent to Award to obtain the required certificate of authority from the State of Florida and produce a copy of such to the Contact Person.

Bidders shall have all licenses, certifications and/or permits required by Federal, State, and Local Statutes, Regulations, and/or Ordinances for performing the Work specified in the Bid Documents at the time of Bid submittal. Additionally, Bidders must comply with regulations, policies and codes of Citrus County, Florida for conducting business in Citrus County.

By submitting a Bid in response to this Invitation to Bid, Bidder represents and warrants that they have the necessary licenses and/or certifications required to perform the Work covered under this Invitation to Bid, or will obtain such prior to award of Contract.

#### **Licenses and Certifications**

Bidders are required to submit with their Bid copies of their licenses and certifications applicable to this Invitation to Bid. Bidders are required to submit proof of company registration with Sunbiz.org at https://dos.myflorida.com/

Please note that Citrus County does not automatically issue licenses based on "reciprocity" from another County. Bidders who possess a "registered" license in a County other than Citrus County, will be required to obtain a "competency card" from Citrus County Licensing Board in order to be awarded a contract. Bidders can call the Citrus County Building Department / Division of Licensing for more information at (352) 527-5332.

Bidders must comply with Chapter 607, Florida Statutes, entitled "Corporations" to transact business in the State of Florida. Bidders must have the proper licenses and/or certifications in accordance with the State of Florida's regulations governing the provision of the Services outlined in this Invitation to Bid. Furthermore, Bidders must also comply with the policies, codes, and regulations of Citrus County for conducting business in County. By submitting a Bid, Bidder represents and warrants that they and their subcontractors, if applicable, have the required licenses and certifications.

#### **List of Subcontractors Form**

If Bidders will be utilizing subcontractors in the performance of the Services, Bidders are required to submit with their Bid a list of such proposed subcontractors. If no subcontractors will be utilized, Bidders are to indicate "N/A" on the form.

All subcontractors proposed by Bidder for the performance of the Services covered under this Invitation to Bid are subject to the approval of County. County reserves the right to reject any and all proposed subcontractors listed by the Bidder and bears no responsibility or liability to the Bidder or its proposed subcontractors for any commitments made between them regarding the performance of the Work covered under this Invitation to Bid.

Bidders shall furnish the names and responsibilities of those subcontractors they propose to use on the "Subcontractors List" included with this Invitation to Bid. No changes to this list shall be made after the deadline for submitting the Bid without prior written approval by County. If the County has reasonable objection to any proposed subcontractor, County reserves the right, before giving Notice of Intent to Award, to request the apparent Successful Bidder to submit an acceptable substitute without an increase in Successful Bidder's Bid Price. If the apparent Successful Bidder declines to make any such substitution, County may make the award to the next lowest Bidder that proposes to use subcontractors, who are acceptable to County.

No bidder shall be required to employ any subcontractor against which the bidder has reasonable objection.

No more than fifty percent (50%) of the Services provided by the Successful Bidder can be performed by subcontractors.

County reserves the right to request from the apparent Successful Bidder, all pertinent data, including but not limited to, the following information about the proposed subcontractors: name as registered with the State of Florida, Federal Employer Identification Number, address and phone number, State registration or license number, and such other information as deemed relevant by County for evaluating the qualifications and experience of the proposed subcontractors. If requested by County, Bidder shall also provide an experience statement with pertinent information regarding similar services and other evidence of qualification for each proposed subcontractor.

All proposed subcontractors shall be properly certified, registered or licensed by the appropriate governmental authority (as applicable) for the Work to be performed, prior to the submittal of the Bid. Proposed subcontractors shall have successfully completed work comparable to that which is noted within the Bid Documents and be qualified both technically and financially to perform the Work for which they are listed.

#### **Bid Pricing**

The Bid Pricing shall be firm until the award has been made. Bid Pricing shall include such amounts for all labor, materials, supplies, equipment, subcontractors, insurance, myCOI, bonds, overhead, profit and any other costs to provide the Services as noted in this Invitation to Bid. The Bid Pricing shall include all applicable sales and use taxes. Discrepancies in the multiplication of units and unit prices will be resolved in favor of the "verified prices".

#### Commencement and Completion of Work TC "Commencement and Completion of Work" \f C \l "4"

Successful Bidder shall commence Work upon receipt of a Work Order and shall proceed with the Work at such rate of progress to ensure full completion of the Work Order within the time specified in the Work Order Project schedule (See scope of Work, Project Quotes and Work Orders). It is expressly understood and agreed, by and between Successful Bidder and County, that the Work Order completion time of the Work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the Work.

#### **Budget**

County will appropriate approximately \$10,000,000 for the procurement of the Services of this Bid. County reserves the right to adjust this amount as availability of funding or demand for the Services dictates.

#### **Contingency Allowance**

Bidder agrees that a contingency allowance, if any, is for the sole use of County to cover unanticipated cost. When included the Contingency Allowance will be a separate line item included in the Work Order. Bidder shall not proceed with any additional work to be covered by contingencies until authorized in writing by the County.

#### **Required Warranty**

The Successful Bidder shall provide a one (1) year minimum warranty period on materials, equipment, and workmanship, starting from the date of completion and acceptance of the project.

#### **Deficiency Notices**

After Work on a project is commenced, authorized County personnel may issue a Notice of Deficiency to note that the Contractor is performing work in violation of the Contract conditions and or Work Order. Liability for any damages arising from the items listed in the Notice of Deficiency will be the responsibility of the Contractor at no additional cost to the County. Causes for a Notice of Deficiency may include, but are not limited to, failure to submit a Project Schedule, failure to complete a Work Order within the scheduled time, failure to complete a Work Order, creating unsafe conditions for the traveling public, construction workers and County personnel, inadequate maintenance of traffic, substandard workmanship and/or materials, failure to adhere to approved work hours.

a. Upon receiving a Notice of Deficiency, the Contractor shall sign receipt of the Notice, returning a signed copy to the inspector and retaining one for their records. Signature of the Notice does not constitute admittance of the deficiency, only receipt of the Notice. Failure to sign the Notice, may result in contract termination.

- b. Deficiencies noted for safety issues such as improper MOT or workers without proper safety equipment, must be immediately addressed.
- c. If the Contractor is in disagreement with the Notice, they may submit a written appeal to the Project Manager within five (5) working days of receiving the Notice. If a written appeal is not received within the allotted time, the Notice will stand. If an appeal is received, the Project Manager shall review the appeal and make a determination as to its validity. If the Project Manager, in their sole opinion, determines no cause for the deficiency, the Notice will be nullified. Otherwise, a copy of the notice will be provided to the Purchasing Department and become part of the Contractor's evaluation for that contract year. Should a Contractor be issued three (3) Notices or more for any one Work Order, or nine or more Notices for any combination of Work Orders over the term of the Contract, including extensions thereof, the Contractor may be debarred or suspended in accordance with Rights of the County as contained herein.

#### ADDITIONAL INFORMATION

#### Signing of the Agreement

When County gives a Notice of Intent to Award to the Successful Bidder, it will be accompanied by an unsigned Agreement. Within ten (10) calendar days thereafter the Successful Bidder shall execute and deliver to the County the Agreement, along with a certificate of insurance that shows policies, limits and other conditions in compliance with that outlined in the Invitation to Bid. Upon award and execution of the Agreement by the County, one certified copy of the Agreement shall be delivered to the Successful Bidder.

#### Responsiveness of the Bid and Disqualification

A responsive Bid is one that complies with and conforms to the requirements of this Invitation to Bid. A Bid requiring changes to any portion of this Invitation to Bid may be considered non-responsive. A Bid that fails to comply with the criteria outlined in this Invitation to Bid may be deemed non-responsive.

A Bid may be rejected if found to be conditional, irregular, incomplete or not in conformance with the requirements and instructions contained herein, such as, but not limited to: (1) failure to strictly comply with and satisfactorily address the prerequisite criteria, (2) failure to provide the required forms or other documentation, (3) incomplete, indefinite or ambiguous language, and (4) improper and/or undated signatures.

Other conditions which shall cause rejection of the Bid, include, but are not limited to: (1) an individual firm, partnership, corporation or combination thereof, under the same or different names submitting (as the Bidder) more than one Bid, (2) evidence of collusion among Bidders, (3) obvious lack of experience or expertise to perform the Work, (4) failure to perform or meet financial obligations for previous contracts with the County, (5) falsification of any form required by the County, or (6) not having valid and appropriate local, state or federal certifications and/or licenses necessary to perform the Work.

County may conduct such investigations as County deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidder and their proposed subcontractors. County reserves the right to seek clarifications or request any information deemed necessary for proper evaluation of Bids from all Bidders.

#### **List of Bidders**

A list of Bidders can be viewed on Vendorlink after the Public Opening date. The list of Bidders can also be obtained by contacting the Contact Person. **The County will not provide a list of Bidders by telephone.** 

#### **Examination of Bid Documents and Project Site**

It is the responsibility of the Bidder to (1) examine the Bid Documents thoroughly, (2) visit the project site to become familiar with local conditions that may affect cost, progress, or performance of the Work, (3) consider Federal, State and Local Laws and Regulations that may affect cost, progress, or performance of the Work, (4) study and carefully correlate Bidder's observations with the Bid Documents, and (5) notify the Contact Person of all conflicts, errors or discrepancies in the Bid Documents prior to submitting a formal Bid.

If reports of explorations and tests of subsurface conditions at the project site are conveyed to Bidder by County, Bidder may rely upon the accuracy of the technical data contained in such reports but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purposes of bidding or performance of the Work.

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 Bidder in performing the Work will be identified in each Work Order. Easement for permanent structures or permanent changes in existing structures is to be obtained and paid for by County unless otherwise provided in the Bid Documents.

Before submitting a Bid, it shall be the Bidder's responsibility to request from County or to obtain on their own any additional information and/or data which the Bidder deems necessary for preparing their Bid so as to be informed of anything that may affect the cost, progress, or performance of the Work in accordance with the time, price and other terms and conditions noted in the Bid Documents.

The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with all of the requirements of this Invitation to Bid, that without exception their Bid is premised upon performing the Work required by the Bid Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Bid Documents, and that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

#### Addenda

Any Addenda issued in relation to this Invitation to Bid will be transmitted by way of posting such on the VendorLink and DemandStar® e-procurement sourcing websites, which can be accessed at the following address:

https://www.myvendorlink.com/common/searchsolicitations.aspx

O

http://www.demandstar.com/supplier/bids/agency\_inc/bid\_list.asp?f=search&mi=10180

It is the Bidder's responsibility to be aware of any addenda that might have a bearing on their Bid before the Bid is due. Bidders shall acknowledge receipt of any and all addenda in the Bid Form. In the event a Bidder fails to acknowledge receipt of such addenda, their Bid will be construed as though they have received such addenda, and the submission of a Bid will constitute acknowledgement of the receipt of same. All addenda will become a part of the Bid Documents and Bidder will be bound by such, whether or not received by Bidder.

#### Modification / Withdrawal of Bid

Bidders have the right to modify or withdraw their Bid without cause or liability whatsoever at any time <u>prior to</u> the Bid submittal due date and time. Such requests must be made to County in writing.

Modified or withdrawn Bids may be resubmitted, in accordance with the instructions in this Invitation to Bid up to the Bid submittal due date and time. If applicable, any changes in pricing shall be worded so as not to reveal the pricing that was noted in the original Bid.

#### Tie Bids

Should there result in a tie Bid between two or more Bidders, County shall initiate the following actions:

- Award to Bidder whose business is physically located in Citrus County, or
- Award to Bidder who is a Disadvantaged Business Enterprise as registered with the State of Florida, or
- Divide the award equally between the tied Bidders, or
- Draw lots or flip a coin, or
- Reject all Bids and re-solicit the service.

#### **Less Than Two Bids Received**

If less than two Bids are received, County may negotiate the best terms and conditions with that Bidder or reject the Bid and re-solicit the service.

#### **Next Low Bidder**

In the event of default by the Awarded Bidder, County reserves the right to utilize the next lowest Bidder as the new Awarded Bidder. In the event of this occurrence, the next lowest Bidder, if it wishes to accept the award, shall be required to perform the Work for the price set forth in its Bid submitted in response to this Invitation to Bid.

#### **Local Preference / Contractors**

Section 2-211, Citrus County Code, provides that preference shall be given to "local business" for certain purchases of commodities and Work. "Local business" means a Bidder that has paid its local business tax to the County at least six (6) months prior to the date of Bid; does business in Citrus County by providing goods, Work, or construction; and maintains a physical business address located within the jurisdictional limits of Citrus County in an area zoned for the conduct of such business from which the Bidder operates or performs business on a day-to-day basis. Post office boxes do not establish such physical address.

- a. In bidding for, or letting contracts for procurement of supplies, materials, equipment, and services, as described in the purchasing policies of the County, County may give a preference to local businesses in making purchases or awarding contracts in an amount not to exceed five percent (5%) of the local businesses total bid price if the cost differential does not exceed \$10,000 for procurement activities.
- b. The total bid price shall include not only the base bid price but also all alterations to that base bid price resulting from alternates which were both part of the bid and actually purchased or awarded by County.
- c. In the case of requests for proposals, qualifications, letters of interest, or other solicitations and competitive negotiations and selections in which objective factors are used to evaluate the responses, local businesses shall be assigned five percent (5%) of the total points of the total evaluation points.

#### **Local Preference/Workforce Labor**

County believes Successful Bidders workforce should to the maximum extent, be citizens with County boundaries that are unemployed or seeking work for the first time. To that extent, County has agreed to notify CareerSource CLM of all awards involving construction and other types of services. CareerSource CLM is a local business-led organization that plans and coordinates quality employment and training services for businesses and individual career seekers in Citrus County. Successful Bidder will be contacted by CareerSource CLM, to discuss hiring for its staff and services. Successful Bidder's participation with CareerSource CLM is not required as a condition of award, but rather an opportunity for greater support for the community of Citrus County.

#### **Rights of the County**

County reserves the right to debar or suspend, for no longer than three (3) years, a Bidder from any solicitation process should it be discovered that (1) Bidder was in violation of any of the issues listed in the "Bidder's Representation And Authorization Form", (2) Bidder has shown a recent record of failure to perform or of unsatisfactory performance under any existing or past contracts County, provided such failure was not caused by acts beyond the control of Bidder, or (3) County became aware of anything concerning the Bidder that was found to be so serious and compelling as to affect responsibility of Bidder, including debarment or suspension by another governmental entity. County will not exercise this right until after written notice has been given to Bidder and reasonable opportunity has been given for Bidder to be heard. The decision of debarment or suspension shall be final and conclusive unless Bidder commences an action in court.

#### **Bid Evaluation and Award**

County reserves the right to (1) cancel this Invitation to Bid, (2) reject any or all Bids, (3) waive any or all irregularities in the Bids, (4) modify the scope of the Work, (5) waive any minor departure from the specifications, or (6) disregard all nonconforming, non-responsive, unbalanced or conditional Bids, as long as such does not give Bidder an advantage or benefit not enjoyed by the other Bidders or does not adversely impact the interests of County. County reserves the right to re-advertise the Invitation to Bid, when it is in the best interest of County. County also reserves the right to reject the Bid of any Bidder if County believes that it would not be in its best interest to make an award to

that Bidder, whether because the Bid is non-responsive, the Bidder is unqualified or of doubtful financial ability or Bidder fails to meet any other pertinent standard or criteria established by County.

In evaluating Bids, the County shall consider (1) the qualifications of Bidders, (2) whether or not the Bids comply with the prescribed requirements, (3) such alternates, unit prices and other data, as may be requested in the Invitation to Bid, (4) the qualifications and experience of the Bidder's proposed subcontractors and major equipment/material suppliers, (5) any additional terms and conditions, exceptions or variances stipulated by Bidder, and (6) operating costs, maintenance requirements, performance data, warranties and guarantees.

County may conduct such investigations as County deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders and their proposed subcontractors and major equipment/material suppliers to County's satisfaction. County reserves the right to seek clarification or request any information deemed necessary for proper evaluation of Bids from all Bidders deemed eligible for contract award. Failure to provide the requested information may result in rejection of the Bid.

If award of the Bid is to be made, it shall be made to the **lowest most responsive and responsible Bidder(s)** for each resurfacing and preservation technique involved in the technical specifications whose evaluation by County indicates that the award will be in the best interest of County or the Project. County shall give a Notice of Intent to Award by way of facsimile or e-mail to Successful Bidder(s), however, no contract shall be formed between Successful Bidder(s) and County until County signs the Agreement.

#### **Acceptance of Bid Content**

The submission of a Bid in response to this Invitation to Bid shall be considered as a representation that (1) Bidder has carefully investigated all conditions that affect, or may at some future date, affect the provision of the service covered by this Invitation to Bid and (2) Bidder is fully knowledgeable and possesses the skills to provide the Work covered under this Invitation to Bid.

The contents of the Bid submitted by Bidder, including any special terms and conditions, variances, and exceptions that may be agreed to by County, shall become the basis for contractual obligations if award is made to Bidder.

#### **Conflict of Interest**

Bidders shall disclose in their Bid the name of any officer, director, employee or other agent who is also an employee of the County. Bidders shall also disclose the name of any County employee who owns, directly or indirectly, an interest of five percent (5%) or more in the Bidder's company or its affiliates.

Any Bidder or their proposed subcontractors who are currently involved in a contract with the County that may have a potential or actual conflict of interest regarding this solicitation shall be required to submit such information with their Bid, which shall include sufficient details regarding the actual or potential conflict of interest to allow the County to evaluate the Bid, including but not limited to existing contracts that the Bidder has with the County that may conflict with the Work being provided pursuant to this Invitation to Bid. Failure to do so may result in an adverse determination by the County. The County also reserves the right to request additional information regarding such conflict of interest.

The County will determine whether Bidder or their proposed subcontractor has a conflict of interest that will interfere with Bidder's ability to provide the Work outlined in this Invitation to Bid and notify Bidder of the determination.

The Bidder, its employees, and proposed subcontractors, are prohibited from entering into any contract with the County or any other governmental entity during the term of any Contract covered under this Invitation to Bid that would create a conflict of interest or the appearance of a conflict of interest with the Work noted in the Invitation to Bid

#### **Documentation Becomes the Property of the County**

All documentation produced as part of this Invitation to Bid, inclusive of documentation submitted in response to this Invitation to Bid, shall become the exclusive property of County. Documentation may not be removed by the Bidder or their agent and will not be returned to the Bidder.

#### Review of Bidder's Facilities and Bid

Prior to issuance of a Notice of Award, County reserves the right to perform or have performed an on-site review of the Bidder's facilities, their qualifications, as well as documentation provided any Bidder. This review will serve to verify data and representations submitted by Bidder and may be used to determine whether Bidder has an adequate, qualified, and experienced staff that can provide the necessary resources and perform the Work covered under this Invitation to Bid. Should the County determine that (1) the Bid or subsequent documentation submitted by Bidder has material misrepresentations, or (2) the size or nature of Bidder's resources, or the number of experienced personnel (including technical staff) are not adequate to ensure satisfactory performance, or (3) County ascertains other basis for concern as to the Bidder's ability to perform the Work, County has the right to reject the Bidder's Bid.

#### **Financial Strength**

Prior to award of a contract, County reserves the right to request financial information from the Successful Bidder to assist the County in further review of that Bidder's qualifications and capabilities and to verify whether the Bidder has adequate financial capacity to meet the requirements of the Invitation to Bid. Financial information provided shall be for the current and previous two years, to include, but not be limited to a financial statement prepared by a Certified Public Accountant (i.e., balance sheet and income and cash flow statements) or a Supplier Qualifier Report prepared by Dun & Bradstreet.

#### **Clarifications**

Before contract award, County reserves the right to seek clarification from Bidders to properly evaluate their Bid.

#### **Drug-Free Workplace**

The County has a "zero tolerance" policy concerning the use of drugs and alcohol in the workplace. The Successful Bidder will be required to comply with such policy and ensure that its employees and the employees of its subcontractors follow and comply with such policy.

#### **Public Records Act**

Bidders should make themselves familiar with Chapter 119, Florida Statutes concerning availability of public records. Section 119.071, Florida Statutes provides that sealed bids, proposals, or replies received by a Florida public agency shall remain exempt from disclosure until an intended decision is announced or until 30 days from the opening, whichever is earlier. This means that Bidders will not be able to procure a copy of their competitor's Bids until an intended decision is reached or 30 days has elapsed since the time of the Bid opening. Bid Documents may be viewed during normal business hours (which is Monday through Friday; 8:00 AM to 5:00 PM) at 3600 W. Sovereign Path, Suite 283, Lecanto, Florida. To request copies, visit our public records request portal:

https://www.citrusbocc.com/departments/commissioners/public records request.php

Florida law generously defines what constitutes a public record and under Chapter 119, Florida Statutes, all Bids are to be made available by County for viewing by the general public. If a Bidder believes that their Bid contains information that should not be a public record, the Bidder shall clearly segregate and mark that information as "Confidential" and describe in writing the grounds for claiming exemption from the public records law, including the specific statutory citation for such exemption. Any documents given to the Successful Bidder as part of performing the Work covered under this Invitation to Bid shall not be sold or distributed to third parties without the written consent of County.

Any documents given to Successful Bidder as part of performing the Work covered under this Invitation to Bid shall not be sold or distributed to third parties without the written consent of County. Successful Bidder will be required to retain a copy of these documents for a minimum of three (3) years from completion of Agreement. All documents, papers, letters, e-mails, or other material made or received by Successful Bidder in conjunction with the Work, unless exempt from Section 24(a) of Article I, Florida Constitution and Section 119.07(1), Florida Statutes, shall be made available for public access. Should Successful Bidder refuse to allow such access, County has the unilateral right to cancel the Award.

Bidders should consult an attorney as to their duties under the records and information laws (Section 257.36, Florida Statutes) and public records laws (Chapter 119, Florida Statutes) of the State of Florida. Significant judicial sanctions can be imposed for violation of these Statutes.

#### **Protests**

Any Bid award recommendation may be challenged on the grounds of material irregularities in the procurement procedure or in the evaluation of the Bid. Any person who submits a Bid, but is not recommended for award of the contract, may protest such decision in strict compliance with this section. Failure to comply with the Solicitation Protest Procedures within the time frames prescribed herein shall constitute a waiver of such protest and any resulting claims.

- Notice of Intent to File a Protest. Any person who wishes to file a protest hereunder must file a Notice of Intent to File a Protest ("Notice"), in writing, with Department of Management & Budget ("DMB") within 72 hours of the public opening for Invitations to Bids. Such Notice is considered filed when it is received by DMB. A copy of the Notice must also be provided to the apparent best Bidder. The Notice shall include the name and address of the protester, County Bid number and title, the grounds upon which it is based, and must clearly indicate it is a Notice of Intent to File a Protest.
- 2. <u>Formal Protest.</u> Within five (5) business days after the filing of the written Notice of Intent to File a Protest, a formal Bid protest must be filed with DMB. The formal protest is considered filed when it is received by DMB. A copy of the formal protest must also be provided to the apparent best Bidder. The formal protest shall include the following:
  - a. County Bid number and title.
  - b. Name and address of the protester.
  - c. Concise statement of the facts alleged and of the rules, regulations, ordinances, statutory or constitutional provision, or other legal authorities entitling the protester to the relief requested.
  - d. Specifically request the relief to which the protester deems themselves entitled.
  - e. Any other relevant information that the protester deems to be material to the protest.
- 3. <u>Protest Bond.</u> Each formal protest must be accompanied by a protest bond in the form of a certified check, cashier's check, or money order made payable to Citrus County, Florida in an amount not less than five percent (5%) of the protester's Bid submitted to the County. If the protester prevails, the bond shall be returned to the protester. However, if after completion of the Solicitation Protest Procedures the County denies the protest, the bond shall be forfeited to County.
- 4. <u>Stay of Procurement.</u> Once a formal protest is timely filed, DMB shall stay the award of the contract unless the County Administrator determines that delaying the award of the contract will adversely impact substantial interests of the county.
- 5. Review of Protest by DMB. Within ten (10) business days of the filing of the formal protest, the DMB Director shall issue a written determination, including the rationale for reaching such a determination. The written determination shall also inform the protester of his/her right to appeal the DMB Director's decision to the County Administrator.
- 6. <u>Appeal of DMB Determination.</u> The protester may appeal the DMB Director's determination, in writing, to the County Administrator no later than five (5) business days after receipt of the DMB Director's determination.
- 7. <u>Final Determination of County Administrator.</u> Within seven (7) business days of the filing of the appeal, the County Administrator, upon consulting with the County Attorney, shall issue a final determination. The decision of the County Administrator will be final.

#### Solicitations or Awards in Violation of Law

If, prior to Award, it is determined that this Invitation to Bid or proposed Award is in violation of law, then this Invitation to Bid or Award shall be cancelled or revised to comply with the law.

If, after Award, it is determined that this Invitation to Bid or the Award is in violation of law, then the Award may be ratified and affirmed, provided it is determined that doing so is in the best interest of County, or the Award may be terminated.

#### Lobbying

Bidders shall not lobby any County or State Agency on any aspect of this Invitation to Bid during the procurement process (i.e., from the time the Invitation to Bid is advertised to execution of an Agreement).

#### **E-Verification System**

Bidder and its subcontractors shall utilize the U.S. Department of Homeland Security's E-Verify system, <a href="https://e-verify.uscis.gov/emp">https://e-verify.uscis.gov/emp</a>, in accordance with Section 448.095, Florida Statutes, to verify the employment eligibility of: (1) all persons employed by Contractor during the contract term to perform any duties within Florida, and; (2) all persons, including subcontractors, assigned by Contractor to perform work pursuant to this Contract. Bidders meeting the terms and conditions of the E-Verify System are deemed to be in compliance with this provision. Bidder and its subcontractors shall provide County with affidavits stating that they do not employ, contract with, or subcontract with an unauthorized alien. County is obligated to terminate this Agreement upon a good faith belief that Bidder or its subcontractor(s) has knowingly violated Section 448.095, Florida Statutes.

#### **Immigration and Nationality Act**

Bidder shall comply with all immigration laws as outlined in 8 USC § 1324a – Unlawful employment of aliens. County will not intentionally award contracts to any Bidder who knowingly employs unauthorized Alien workers. Any violation of the employment provisions outlined in the Immigration and Nationality Act throughout the term of any Agreement with County may constitute grounds for immediate termination of said Agreement.

#### **Indemnification**

Bidder shall indemnify and hold harmless County and all their officers, agents, and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Bidder and persons employed or utilized by Bidder, including any subcontractors, in the performance of the construction contract. Neither Bidder nor any of its agents will be liable under this section for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of County or any of its officers, agents, or employees. The parties agree that this clause shall not waive the benefits or provisions of Section 768.28, Florida Statutes, or any similar provision of law. The provisions and obligations of this section shall survive the expiration or earlier termination of this Agreement. To the extent considered necessary by County, any sums due Bidder under this Agreement may be retained by County until all of County's claims for indemnification pursuant to this Agreement have been settled or otherwise resolved; and any amount withheld shall not be subject to payment of interest by County.

#### **Gopher Tortoise Relocation**

Only for Treatment Sections that include FDR, Milling, and or Asphalt placement. Bidder will inspect the Project area for the presence of gopher tortoises/burrows when issued a Work Order and again prior to work commencing. If necessary, it shall be the Bidders responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Bidder. Costs for inspection, permitting, protection, excavation of burrows, and any other associated work shall be incidental to the Contract/Work Order(s). Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County. Contractor must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order.

#### MINIMUM INSURANCE REQUIREMENTS

REGARDLESS OF WHETHER BIDDER HAS THE POLICIES AND LIMITS AS STIPULATED BELOW, BIDDER IS TO SUBMIT A COPY OF THEIR CERTIFICATE(S) OF INSURANCE EVIDENCING POLICIES AND LIMITS OF INSURANCE THAT THEY CURRENTLY HAVE IN FORCE.

Bidder shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the contractor, his agents, representatives, employees, or subcontractors. The coverages, limits or endorsements required herein protect the primary interests of the County, and these coverages, limits or endorsements shall in no way be required to be relied upon when assessing the extent or determining appropriate types and limits of coverage to protect the Bidder against any loss exposures, whether as a result of the project or otherwise. The requirements contained herein, as well as the County's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Bidder under this contract.

#### A. COMMERCIAL GENERAL LIABILITY

1) Bidder must obtain a general liability policy with minimum limits of \$1,000,000 per occurrence and a \$2,000,000 general aggregate.

#### **B. AUTOMOBILE LIABILITY**

1) Bidder must obtain coverage for all vehicles for Bodily Injury and Property Damage of not less than \$1,000,000 combined single limit each accident. In the event the Bidder does not own vehicles, the Bidder shall maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

#### C. WORKERS COMPENSATION AND EMPLOYER'S LIABILITY

- 1) Bidder must obtain Workers Compensation insurance with limits in compliance with applicable state and federal laws; if any operations are to be undertaken on or about navigable waters, coverage must be included for the US Longshoremen & Harbor Workers Act. Employer's Liability limits for not less than \$100,000 for each accident, \$500,000 disease policy limit, and \$100,000 disease each employee must be included.
- 2) For any officer of a Bidder that has exempt status as an individual, the County requires proof of workers' compensation insurance coverage for that bidder/employer/owner's employees. If the bidder/employer/owner or individual has applied for a workers' compensation exemption, the County does not recognize this exemption to extend to the employees of the contractor/employer/owner.
- 3) The purpose of this section is to ensure that all bidders, subcontractors, sole proprietors, or business entities of any kind who contract with the County for provision of goods or services, provide workers' compensation coverage for all employees, and principles of subcontractors, subcontractors, sole proprietors, or other business entities. All provisions of this Section shall be construed in accord with this intent.

#### D. CYBER INSURANCE

1) If any operations to be undertaken by Bidder include interfacing with County information technology (IT), operation technology (OT), computer hardware or software, or accessing, processing, or storing personally identifiable information (PII), payment card industry data security standard (PCI), personal health information (PHI), confidential or protected data, Bidder must obtain Claims-Made coverage in an amount not less than \$1,000,000 per claim for actual or alleged breaches of data and loss of data. The Claims-Made policy form shall provide continuous coverage that remains in place for three (3) years after contract completion.

#### E. OTHER INSURANCE PROVISIONS

- 1) The Bidder shall provide a Certificate of Insurance to the County with a thirty (30) day notice of cancellation, ten (10) day notice if cancellation is for nonpayment of premium. The certificate shall indicate if coverage is provided under a "claims-made" or "occurrence" form. If any coverage is provided under a claims-made form, the certificate will show a retroactive date, which should be the same date as the contract (original if contract is renewed) or prior.
- 2) The project's Bid number should be noted on the certificate. ITB 24-088
- 3) All required insurance policies must be maintained until the contract work has been accepted by the County. In addition, a minimum 30-day notification clause is required if any changes in policy language occur, or in the event the policy is canceled.
- 4) Citrus County, Florida, a political subdivision of the State of Florida, its officials, employees, and volunteers are to be **covered as an Additional Insured on all policies** except Worker's Compensation. The

- coverage shall contain no special limitation on the scope of protection afforded to the County, its officials, employees, or volunteers.
- 5) The Bidder's insurance coverage shall be primary insurance as respects 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 Bidder's insurance and shall be non-contributory.
- 6) For all policies of insurance: The Bidder, and its insurance carrier, waive all subrogation rights against the County for all losses or damages that occur during the contract and for any events occurring during the contract period, whether the suit is brought during the contract period or not. The County requires General Liability policies to be endorsed with CG 24 04 Waiver of Transfer of Rights of Recovery Against Others to Us or similar endorsement, and a WC 00 0313 Waiver of our Right to Recover from Others for Workers Compensation coverage.
- 7) The Certificate Holder should read as follows: Citrus County, Florida, a political subdivision of the State of Florida, 3600 W. Sovereign Path, Lecanto, FL 34461.
- 8) It is the Bidder's responsibility to ensure that all subcontractors comply with these insurance requirements. Bidders shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.
- 9) All required insurance policies must be written with a carrier having a minimum A.M. Best rating of A-.
- 10) All Certificates must show that the Bidder's policies have been endorsed per the requirements.
- 11) Once ALL paperwork is completed and received by the County, an email will be sent to Bidder requesting online registration with myCOI. It is critical that the County is provided with an accurate email address. The cost to register is \$19.95 per year and a credit/debit card will be needed. Part of the registration process includes providing contact information for Bidder's insurance agent(s), which will be needed at the time of registration. Once registered, an email will be sent to the insurance agent(s) requesting them to upload a current Certificate of Insurance (COI) directly into the myCOI website. Certificates of Insurance cannot be mailed, emailed or faxed to the County. Bidder will not be allowed to begin work and no payments will be made until registration is completed and a compliant Certificate of Insurance is received from Bidder's agent(s). This is a yearly requirement for the duration of the Agreement.

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| CONSTRUCT  | TION AGREEMENT  |  |  |  |  |  |
|--|---|--|--|--|--|--|
| This Services Agreement is entered into by the partie  | s this, 2024.   |  |  |  |  |  |
| 1.0 Parties:   |   |  |  |  |  |  |
| Citrus County, Florida, a political subdivision of the S   | State of Florida, (County).   |  |  |  |  |  |
| and  |   |  |  |  |  |  |
| DO NOT EXECUTE THIS AGREEMENT, (Contractor).   |   |  |  |  |  |  |
| 2.0 Designated Contact Person as to County:  | 3.0 Designated Contact Person as to Contractor:   |  |  |  |  |  |
| Charles Leazott, Engineering Operations Mgr. Department of Public Works/Engineering 3600 W. Sovereign Path, Suite 241 Lecanto, Florida 34461   |   |  |  |  |  |  |
| Phone: 352-527-5269<br>Fax: 352-527-5482   | Phor. :   |  |  |  |  |  |
| Email: charles.leazott@citrusbocc.com  | EL a".  |  |  |  |  |  |
| 4.0 Notices: All notices between Cour vala contractor, as required under the Agreement, shall be by telephone, facsimile, e-mail, mail, corb, personal delivery to the respective designated contact person identified above. Either designated to receive notice. |   |  |  |  |  |  |
| any executed Addenda, shall constitute the (hereinafter referred to as the "Agreement"). In concerning the scope of Work or other rights on the following order (1) a fully executed Addendal, (2) Invitation to Bid, (4) provisions of Contractor                 | ssociated Documents referenced herein, together with entire Agreement between Contractor and County resolving conflicts, errors, discrepancies, and disputes or obligations of the parties, precedence shall be given indum to this Agreement (later executed Addenda taking) provisions of this Agreement, (3) provisions of the S Bid, (5) provisions of the Purchase Order and (6) ulation incorporated herein by reference. There are no in expressly stated. |  |  |  |  |  |
| 6.0 Agreement Documents:  1. Exhibit A – Compensation 2. Exhibit B – Scope of Work   |   |  |  |  |  |  |

7.0 Duration of Agreement and Commencement of Work: The duration of the Agreement shall be for a period of two (2) years from the date of execution of the Agreement with an option to renew for three (3) additional one (1) year renewal periods, or until the completion of projects authorized through a Work Order Assignment to County's satisfaction. The date that Contractor shall commence the provision of Services shall be the date on which a Purchase Order and/or Work Order and/or a Notice to Proceed is received by Contractor. The County reserves the right to automatically extend any agreement for a maximum period not to exceed ninety (90) calendar days in order to provide County departments with continual service and supplies while a new agreement is being solicited, evaluated, and/or awarded.

- **8.0 Modification of Agreement:** The Agreement may only be modified or amended upon mutual written agreement of County and Contractor. No oral agreements or representations shall be valid or binding upon County or Contractor. No alteration or modification of the Agreement terms, including substitution of product, shall be valid or binding against County. Contractor may not unilaterally modify the terms of the Agreement by affixing additional terms by incorporating such terms onto Contractor's documents forwarded by Contractor to County for payment. County's acceptance of product or processing of documentation on forms furnished by Contractor to County for approval or payment shall not constitute acceptance of the proposed modification to terms and conditions.
- **9.0 Work Provided by Contractor:** The Work to be performed by Contractor is summarized in the Scope of Work, attached to this Agreement as Exhibit "B", Technical Specifications attached to the ITB 24-088 Solicitation document and Work Order form provided to Contractor for each project. If County identifies any additional Work to be provided by Contractor that is not covered under the original Agreement, such additional Work shall be made a part of this Agreement by a written Addendum.
  - **9.1 Work Orders:** Anytime County requires Contractor's Work for a project, County will develop a "conceptual" scope of Work for the project and share such with Contractor. Contractors will be required to (a) evaluate the conceptual scope and gather additional information, if necessary, (b) visit and familiarize themselves with the project site, if applicable. All Work to be performed by Contractor under a Work Order shall be to the satisfaction of County. Furthermore, Contractor shall have the responsibility to answer questions, provide County information, and resolve issues that may arise during the County's Projects. County shall have the right to rescind its request for Contractor's Work and seek the services of another Contractor. Under no circumstances shall County be liable to Contractor for any costs incurred by Contractor for in the event a Work Order is rescinded or for unauthorized Work performed by Contractor.
    - **9.1.1 Duration of Work Orders:** Project Work and duration will be established for each Work Order. Work Orders issued under the Agreement will remain in force until completed by Contractor or cancelled by County and time is of the essence per performance of this Agreement and each of its provisions.
    - **9.1.2 Notices of Work Orders:** Work Orders are "sub-agreements" to this Agreement whereby County and Contractor mutually agree to the scope, schedule and price of a project that is assigned to Contractor. All notices between the County and Contractor concerning Work Orders shall be between County and Contractor. Notices shall be in writing and delivered by regular mail, certified mail, courier service, facsimile, and e-mail or personal delivery.
  - **9.2 Suspension of Contractor's Work under a Work Order Assignment**: County may, in its sole discretion, suspend Contractor's Work covered under any Work Order assignment, at any time, when in the best interest of County. County shall provide Contractor written notice outlining the particulars of the suspension. Upon receiving a notice of suspension, Contractor and subcontractor shall immediately comply with the notice, stopping all work in-progress and not perform any further Work covered under the Work Order assignment. Within ninety (90) days after the notice of suspension, or any longer period agreed to between County and Contractor, County shall either issue a written notice authorizing Contractor to resume the Work or terminate the Work Order assignment. If County issues notice to Contractor to resume its Work, Contractor will be allowed a mutually agreed upon extension of time that is directly attributable to the suspension. In the event of suspension, County will be responsible for compensating Contractor only for Work satisfactorily completed, or partially completed, up to the date of suspension. Suspension of Contractor's Work shall not entitle Contractor to any loss of anticipated profit under this provision.
- **10.0** Compensation to Contractor: Compensation to be paid to Contractor for the performance of the Work shall be at the unit prices noted in Exhibit "A", attached to this Agreement. All Work shall be paid for based on actual units of work performed to the satisfaction of County.
  - **10.1 Price Increase:** Contractor may request an increase in price for the Work each year after the initial two (2) year period. The request to increase the price must be made in writing to County supported by a detailed justification that warrants the requested increase. The request must be submitted at least ninety (90) calendar days prior to each Agreement renewal date in order for a request to be considered by County. Such an increase may be no greater than five percent (5%).

#### 11.0 Payment of Payment Requests:

- 11.1 Payment Requests: Request for payment may be made upon completion, testing and acceptance of work included in a Work Order or combination of Work Orders associated with a Project/Area. For Work Order(s) in the amount of \$100,000 or more, requests for payment for the provision of the Work provided under the Work Order shall be submitted no more frequently than once per month, unless stipulated differently in the Work Order. At a minimum, the payment requests shall include the Work Order Number, Purchase Order Number, a description of the Work completed, tested, and accepted by County, and the amount of the payment request. All requests for payment shall be submitted in sufficient detail to demonstrate compliance with the terms of the Work Order and to allow for the proper pre-audit and post-audit thereof. Requests for payment that include travel expenses shall be in accordance with Section 112.061, Florida Statutes. County reserves the right to request any information from Contractor that County deems necessary to substantiate claims for remuneration. Upon receipt of Contractor's payment request, County will review such to ensure that it is in proper order, and that the Work covered under the payment request have been completed, tested and accepted by County, in accordance with this Agreement. If it is found that the payment request is not in proper order, or the Work covered under the payment request does not satisfy the Work Order, the payment request may be rejected.
- **11.2 Prompt Payment:** County shall make payment of a payment request in accordance with Chapter 218, Part VII of the Florida Statutes "Local Government Prompt Payment Act" from the date which a payment request in proper order is recorded as received by County, for Work completed to the satisfaction of County.
- 11.3 Form of Request: If the payment request is not received in proper order, County may reject the payment request within twenty (20) business days after the date on which the payment request is recorded as received by County. County shall provide Contractor with a written notification of the rejection specifying the deficiency and corrective measures necessary to make the payment request proper. Upon receipt of a payment request that corrects the deficiency, County shall make payment in accordance with Chapter 218, Part VII of the Florida Statutes "Local Government Prompt Payment Act", or reject the payment request, within twenty (20) business days after the date on which the corrected and proper payment request is recorded as received by County.
- 11.4 Resolution of Payment Request Disputes: In the event of a dispute between Contractor and County concerning the full or partial payment of a payment request, such disagreement shall be finally determined by County. If the dispute between Contractor and County involves a portion of a payment request, the undisputed portion shall be paid by County in a timely manner, as long as the payment request for the undisputed portion is in proper order. Proceedings to resolve the dispute will be commenced within forty-five (45) business days after the date the payment request in dispute was recorded as being received by County and will be concluded by final decision of County within sixty (60) business days after the date on which the payment request was recorded as being received by County. Such procedures do not constitute an administrative proceeding that prohibits a court from deciding de novo any action arising out of the dispute.
- **11.5 Purchase Order:** Although an Agreement will be executed by County and Contractor for the Work being purchased by County, a purchase order will also be issued to Contractor for the purpose of facilitating payment to Contractor. Except under an "emergency request", Contractor shall not provide any Work to County until Contractor has received a purchase order from County. Contractor shall be permitted to accept an order to provide Work under an emergency purchase without a purchase order; however, such request from County must be transmitted to the Contractor via facsimile or e-mail. The written transmission order must be submitted with any payment request submitted by the Contractor for such emergency requests.
- **11.6 Payments to Subcontractors:** When Contractor receives from County any payment for Work covered under the Agreement, Contractor must pay such moneys received to each subcontractor or supplier in proportion to the percentage of the Work completed by each subcontractor or supplier within ten (10) business days after Contractor's receipt of the payment. If Contractor receives less than full payment, then Contractor shall be required to disburse only the funds received on a pro rata basis to its subcontractors and suppliers, each receiving a prorated portion based on the amount due on the payment. If a subcontractor receives payment from Contractor for labor, services or materials furnished by subcontractors or suppliers hired by the subcontractor, the subcontractor must remit payment due to those subcontractors or suppliers within seven (7) business days after the subcontractor's receipt of payment from Contractor.

- **11.7 Records of Costs:** Records of costs incurred under terms of this Agreement will be maintained and made available upon request to County at all times during the term of this Agreement and for three (3) years after the expiration or termination of the Agreement. Copies of these documents and records will be furnished to the County upon request. Records of costs incurred will include Contractor's general accounting records and the project records, together with supporting documents and records, of Contractor, their sub-consultants, and subcontractors, performing work on the project, and all other records of Contractor, their sub-consultants and subcontractors considered necessary by County for a proper audit of project costs.
- 11.8 Right to Withhold: Except for issues arising from contract indemnification provisions, County will have the right to retain out of any payment due Contractor under this Agreement an amount sufficient to satisfy any amount due and owing to County by Contractor on any other Agreement between Contractor and County. County may withhold payment on any invoice in the event that Contractor is in default under any provision of this Agreement or any other Agreement between Contractor and County as of the time of processing the invoice or as of the time payment is made available on the invoice. This right to withhold will continue until such time as the default has been cured, and, upon cure, County will have the right to retain an amount equal to the damages suffered as a result of the default.
- **11.9 Final Payment**: Once the Work have been completed, delivered to and accepted by County, and provided there are no outstanding disputes, no outstanding security claims, claims or demands between County and Contractor, Contractor may submit a final payment request to County. Upon receipt of such, County shall pay the retainage withheld to Contractor.
- **11.10 Retainage:** Pursuant to Section 255.078, Florida Statutes, County may withhold an amount from each payment made to Contractor as retainage. Provided there are no outstanding disputes between County and Contractor, no outstanding surety claims, and no outstanding claims or demands by County or Contractor, County shall make payment of such retainage to Contractor in accordance with Sections 255.077 and 255.078, Florida Statutes. If County makes payment of retainage to Contractor which is attributable to any subcontracted Work or equipment and materials provided by suppliers, Contractor shall remit payment to those subcontractors and suppliers from the retainage.
- **11.11 ACH Enrollment:** All Contractors will be required to complete an "Authorization Agreement for ACH Credits Enrollment Form" Contractor payments will be deposited directly to Contractor's bank account. This means there is no need to wait for the check to come in the mail and eliminates the possibility of a lost check. The Clerk's Accounts Payable Department will provide confirmation via email when payments are transmitted, ensuring immediate notification.
- **12.0 Deficiency Notices:** After Work on a project is commenced, Authorized County personnel may issue a Notice of Deficiency to note that the Contractor is performing work in violation of the Contract conditions and or Work Order. Liability for any damages arising from the items listed in the Notice of Deficiency will be the responsibility of the Contractor, at no additional cost to the County. Causes for a Notice of Deficiency may include, but are not limited to, failure to submit a Project Schedule, failure to complete a Work Order within the scheduled time, failure to complete a Work Order, creating unsafe conditions for the traveling public, construction workers and County personnel, inadequate maintenance of traffic, substandard workmanship and/or materials, failure to adhere to approved work hours.
  - **12.1** Upon receiving a Notice of Deficiency, the Contractor shall sign receipt of the Notice, returning a signed copy to the inspector and retaining one for their records. Signature of the Notice does not constitute admittance of the deficiency, only receipt of the Notice. Failure to sign the Notice may result in contract termination.
  - **12.2** Deficiencies noted for safety issues such as improper Maintenance of Traffic ("MOT") or workers without proper safety equipment, must be immediately addressed.
  - 12.3 If the Contractor is in disagreement with the Notice, they may submit a written appeal to the Project Manager within five (5) working days of receiving the Notice. If a written appeal is not received within the allotted time, the Notice will stand. If an appeal is received, the Project Manager shall review the appeal and make a determination as to its validity. If the Project Manager, in their sole opinion, determines no cause for the deficiency, the Notice will be nullified. Otherwise, a copy of the notice will be provided to the Purchasing Department and become part of the Contractor's evaluation for that contract year. Should a Contractor be

issued three (3) Notices or more for any one Work Order, or nine (9) or more Notices for any combination of Work Orders over the term of the Contract, including extensions thereof, the Contractor may be debarred or suspended in accordance with Rights of the County as contained herein.

#### 13.0 Warranties:

- **13.1 Warranty of Ability to Perform**: Contractor warrants that, to the best of its knowledge, there are no pending or threatened actions, proceedings, investigations, or any other legal or financial conditions, that would in any way prohibit, restrain, or diminish Contractor's ability to satisfy its obligations under the Agreement.
- **13.2 Warranty Against Defects in Workmanship:** Contractor shall warrant its Work against defects in materials and workmanship for a minimum period of one (1) year from acceptance of the Work by County. Should any defects in materials or workmanship appear during the warranty period, Contractor shall replace the materials or equipment, or repair or re-do the service, immediately upon receipt of written notice from County, at no additional expense to County. The Contractor shall warrant such replaced materials or equipment, or repaired or re-done Work, for a period of one (1) year after acceptance of such by County.
- 13.3 Warranty of Standard of Care: In the performance of professional services, Contractor will use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. Contractor will use due care in performing its Work and will have due regard for acceptable professional standards and principles. Contractor's standard of care shall not be altered by the application, interpretation, or construction of any other provision of this Agreement. If any of the Work performed by Contractor do not comply with the foregoing warranties and County notifies Contractor of such, then Contractor shall (at its sole expense) promptly re-execute the nonconforming Work. All such re-performed Work shall be performed on a mutually agreed schedule. Contractor shall and does hereby assign to County the benefits of any of Contractor's sub-consultant's or subcontractor's warranties. Such assignment shall not relieve Contractor of its warranty obligations for performance or standard of care to County under this Agreement.
- **13.4 Warranty of Title:** Title to any work product furnished by Contractor under the Agreement shall pass to County to the extent of the payments made for such by County, or on the date that County accepts the completed Work of Contractor. When title passes to County in accordance with the Agreement, Contractor warrants that the work product furnished will be free and clear of all security interests, liens and encumbrances or claims of any party.
- 14.0 Public Records: Contractor will keep and maintain public records required by the County to perform the service. Upon request from the County's custodian of public records, Contractor will provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time and at a cost that does not exceed the cost provided in Chapter 119, Florida Statues, or as otherwise provided by law. Contractor will ensure that the 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 term of the Agreement and following completion of the Agreement if Contractor does not transfer the records to the County. Upon completion of the Agreement, Contractor will transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by County to perform the service. If Contractor transfers all public records to County upon completion of the Agreement, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of the Agreement, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the information technology system of the County. If Contractor does not comply with the County's request for public records, the County shall enforce the provisions of the Agreement in accordance with the terms of the Agreement and may cancel the Agreement.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT CUSTODIAN OF PUBLIC RECORDS, AT 3600 W. SOVEREIGN PATH,

# LECANTO, FL 34461; EMAIL: RMLO@CITRUSBOCC.COM; PHONE: (352) 527-5235.

- **15.0 Insurance:** During the term of the Agreement, Contractor, at its sole expense, shall provide insurance of such a type and with such terms and limits as noted below. Providing and maintaining adequate insurance coverage is a material obligation of Contractor. The Contractor shall provide County a certificate(s) of insurance, evidencing such coverage.
  - **15.1 Minimum Insurance Requirements:** Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees, or Subcontractors. The coverages, limits or endorsements required herein protect the primary interests of County, and these coverages, limits or endorsements shall in no way be required to be relied upon when assessing the extent or determining appropriate types and limits of coverage to protect Contractor against any loss exposures, whether as a result of the project or otherwise. The requirements contained herein, as well as County's review or acknowledgement, is not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this contract.
  - **15.2 Commercial General Liability:** Contractor must obtain a general liability policy with minimum limits of \$1,000,000 per occurrence and a \$2,000,000 general aggregate.
  - **15.3 Automobile Liability:** Contractor must obtain coverage for all vehicles for Bodily Injury and Property Damage of not less than \$1,000,000 combined single limit each accident. In the event Contractor does not own vehicles, Contractor shall maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

#### 15.4 Workers Compensation and Employer's Liability:

- **15.4.1** Contractor must obtain Workers Compensation insurance with limits in compliance with applicable state and federal laws; if any operations are to be undertaken on or about navigable waters, coverage must be included for the US Longshoremen & Harbor Workers Act. Employer's Liability limits of not less than \$100,000 for each accident, \$500,000 disease policy limit, and \$100,000 disease each employee must be included.
- **15.4.2** For any officer of a Contractor that has exempt status as an individual, County requires proof of workers' compensation insurance coverage for that contractor/employer/owner's employees. If Contractor/employer/owner or individual has applied for a workers' compensation exemption, County does not recognize this exemption to extend to the employees of Contractor/employer/owner.
- **15.4.3** The purpose of this section is to ensure that all contractors, subcontractors, sole proprietors, or business entities of any kind who contract with County for provision of goods or services, provide workers' compensation coverage for all employees, and principles of subcontractors, subcontractors, sole proprietors, or other business entities. All provisions of this Section shall be construed in accord with this intent.
- **15.5 Cyber insurance**. If any operations to be undertaken by Contractor include interfacing with County information technology (IT), operation technology (OT), computer hardware or software, or accessing, processing, or storing personally identifiable information (PII), payment card industry data security standard (PCI), personal health information (PHI), confidential or protected data, Contractor must obtain Claims-Made coverage in an amount not less than \$1,000,000 per claim for actual or alleged breaches of data and loss of data. The Claims-Made policy form shall provide continuous coverage that remains in place for three (3) years after contract completion.

#### 15.6 Other Insurance Provisions:

**15.6.1** Contractor shall provide a Certificate of Insurance to County with thirty (30) day notice of cancellation, ten (10) day notice if cancellation is for nonpayment of premium. The certificate shall indicate if coverage is provided under a "claims-made" or "occurrence" form. If any coverage is provided under a

claims-made form, the certificate will show a retroactive date, which should be the same date of the contract (original if contract is renewed) or prior.

- 15.6.2 The project's Bid number should be noted on the certificate. ITB 24-088
- **15.6.3** Contractor has sole responsibility for all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. For deductible or self-insured amounts that exceed \$10,000, Contractor shall maintain a Commercial Surety Bond or Letter of Credit in an amount equal to said deductible or self-insured retention.
- **15.6.4** All required insurance policies must be maintained until the contract work has been accepted by the County. In addition, a minimum 30-day notification clause is required if any changes in policy language occur, or in the event the policy is canceled.
- **15.6.5** Citrus County, Florida, a political subdivision of the State of Florida, its officials, employees, and volunteers are to be covered as an Additional Insured on all policies except Workers Compensation. The coverage shall contain no special limitation on the scope of protection afforded to the County, its officials, employees, or volunteers.
- **15.6.6** Contractor's insurance coverage shall be primary insurance as respects County, its officials, employees, and volunteers. Any insurance or self-insurance maintained by County, its officials, employees, or volunteers shall be excess of Contractor's insurance and shall be non-contributory.
- **15.6.7** For all policies of insurance: Contractor, and its insurance carrier, waive all subrogation rights against County for all losses or damages that occur during the contract and for any events occurring during the contract period, whether the suit is brought during the contract period or not. County requires General Liability policies to be endorsed with CG 24 04 Waiver of Transfer of Rights of Recovery Against Others to Us or similar endorsement, and a WC 00 0313 Waiver of our Right to Recover from Others for Workers Compensation coverage.
- **15.6.8** Certificate Holder should read as follows: Citrus County, Florida, a political subdivision of the State of Florida, 3600 W. Sovereign Path, Lecanto, FL 34461.
- **15.6.9** It is the Contractor's responsibility to ensure that all subcontractors comply with these insurance requirements. Contractors shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.
- **15.6.10** All required insurance policies must be written with a carrier having a minimum A.M. Best rating of A-.
- **15.6.11** All Certificates must show that Contractor's policies have been endorsed per the requirements.
- **15.6.12** Once ALL paperwork is completed and received by County, an email will be sent to Contractor requesting online registration with myCOI. It is critical that County is provided with an accurate email address. The **cost to register is \$19.95** per year and a credit/debit card will be needed. Part of the registration process includes providing contact information for Contractor's insurance agent(s), which will be needed at the time of registration. Once registered, an email will be sent to the insurance agent(s) requesting them to upload a current Certificate of Insurance (COI) directly into the myCOI website. Certificates of Insurance cannot be mailed, emailed, or faxed to County. Contractor will not be allowed to begin work and no payments will be made until registration is completed and a compliant Certificate of Insurance is received from Contractor's agent(s). This is a yearly requirement for the duration of the Agreement.
- **16.0 Indemnification:** Contractor shall indemnify save and hold harmless County and all their officers, agents, and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of contractor and

persons employed or utilized by Contractor, including any subcontractors, in the performance of the construction contract. Neither Contractor nor any of its agents will be liable under this section for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of County or any of its officers, agents, or employees. The parties agree that this clause shall not waive the benefits or provisions of Section 768.28, Florida Statutes, or any similar provision of law. The provisions and obligations of this section shall survive the expiration or earlier termination of this Agreement. To the extent considered necessary by County, any sums due Contractor under this Agreement may be retained by County until all of County's claims for indemnification pursuant to this Agreement have been settled or otherwise resolved; and any amount withheld shall not be subject to payment of interest by County.

- 17.0 Change Orders: County may at any time, as the need arises, order changes that will only apply to addressing Work Order elements that were not previously known, extensions due to inclement weather without invalidating the initial Work Order. If such changes result in an increase or decrease in the Work Order Price, or in the time required for performance of the Work, an equitable adjustment shall be authorized by way of an amended Work Order, and if needed a change order to the original Purchase Order. The County also may at any time, by issuing a Field Order, make changes to the details of the Work. Contractor shall proceed with the performance of any changes in the Work so ordered by County unless Contractor believes that such Field Order entitles it to a change in Work Order Price or Time, or both, in which event Contractor shall give County written notice thereof within fifteen (15) calendar days after the receipt of the ordered change, and Contractor shall not execute such changes pending the receipt of an amended Work Order, and if needed a change order to the original Purchase Order, or further instruction from the County. See Scope of Work, Project Quotes, and Work Orders.
- **18.0 Termination of Agreement** Either party may terminate this Agreement by giving the other party thirty (30) days written notice. In the event of termination, County will be responsible for compensating Contractor only for those Work satisfactorily completed or partially completed up to the date of termination. The Contractor shall not be entitled to compensation for loss of anticipated profit.
- **19.0 Licenses and Certifications:** Contractor, or its subcontractor(s), shall possess and maintain during the term of this Agreement any and all licenses required to perform the Work covered under this Agreement, as stipulated by the State of Florida and Citrus County Florida.

#### 20.0 Omitted

#### 21.0 Additional Terms and Conditions:

- **21.1 Advertising:** Subject to Chapter 119, Florida Statutes, Contractor shall not publicly disseminate any information concerning the Agreement without prior written approval from County, including, but not limited to mentioning the Agreement in a press release or other promotional material, identifying County as a reference, or otherwise linking Contractor's name and either a description of the Agreement or the name of County in any material published, either in print or electronically, to any entity that is not a party to the Agreement.
- **21.2 Assignment**: Neither County nor Contractor shall sell, assign, or transfer any of its rights, duties, or obligations under the Agreement without the prior written consent of the other Party. In the event of any assignment, Contractor remains secondarily liable for performance of the Agreement, unless County expressly waives such secondary liability.
- **21.3 Bankruptcy or Insolvency:** Contractor shall promptly notify County in writing of the filing of any voluntary or involuntary petition for bankruptcy and/or of any insolvency of Contractor or any of its subcontractors who are involved in the provision of the Work under this Agreement.
- **21.4 Contingency Allowance:** Contractor agrees that a contingency allowance, if any, is for the sole use of County to cover anticipated cost. When included, the Contingency Allowance will be a separate line item included in the Work Order. Contractor shall not proceed on any additional work to be covered by contingencies until authorized in writing by the County.
- **21.5 Compliance with Laws:** Contractor shall comply with all laws, rules, codes, ordinances, and licensing requirements that are applicable to the conduct of its business, including those of Local, State and Federal agencies having jurisdiction and authority. These laws, shall include, but not be limited to, Chapter 287, Florida

Statutes, the Uniform Commercial Code, the Immigration and Nationalization Act, the Americans with Disabilities Act, the United States Occupational Safety and Health Act, the United States Environmental Protection Agency, the State of Florida Department of Environmental Protection, and all prohibitions against discrimination on the basis of race, religion, sex, creed, national origin, handicap, marital status, sexual orientation, gender identity or expression or veteran's status. Violation of such laws shall be grounds for termination of the Agreement.

- **21.6 Certification of Qualification:** Contractor is certifying that their Certificate of Qualifications has not been suspended, revoked, denied or have further been determined by the Department to be a non-responsible Contractor may not submit a bid or perform work for the construction or repair of a public building or public work on a contract with the County.
- 21.7 Conflict of Interest: Contractor covenants that it presently has no interest and shall not acquire any interest which would conflict in any manner of degree with the performance of the Work covered under this Agreement. Furthermore, Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Contractor to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for Contractor any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Contractor, and its subcontractors at any tier, certify that they have not entered into any contract, sub-contract, or arrangement in connection with the Project covered under this Agreement, or of any property included or planned to be included in the Project, in which any member, officer, of employee of Contractor or its subcontractors, during its tenure, or for two years thereafter, has any interest, direct or indirect. Contractor, and its subcontractors at any tier, shall insert the following provision into each of their contracts and sub-contracts:

"No member, officer, or employee of the subcontractor, during their tenure or for two years thereafter, shall have any interest, direct or indirect, in this contract or the proceeds thereof."

- **21.8 Correction of Work:** Contractor shall promptly remove from the premises all Work rejected by County for failure to comply with the Contract Documents, whether incorporated into the Project or not, and Contractor shall promptly replace and re-execute the Work in accordance with the Contract Documents, without additional expense to County, and shall bear the expense of making good all Work of other contractor's work destroyed or damaged by such removal or replacement. All removal and replacement of Work shall be done at Contractor's expense. If Contractor does not take action to remove such rejected Work within ten (10) calendar days after receipt of written notice from County, County may remove such Work on their own and store the materials at the expense of Contractor.
- **21.9 County and State Funds:** If sufficient funding is not available for Contractor to complete the Work, County reserves the right to modify the terms and conditions of the Agreement to change the Scope of Work to reduce the cost to match any available funding. If such modifications to the Scope of Work are not feasible, or if funding has been totally exhausted prior to Contractor's completion of its Work, the Agreement shall be terminated on terms reasonably acceptable to both parties. Additionally, in accordance with Section 216.347, Florida Statutes, and as provided herein, Contractor may not expend any County funds for the purpose of lobbying the legislature, or local, state, or federal agencies.
- **21.10 Debarment:** Contractor certifies to the best of their knowledge and belief, that they and their principals 1) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Municipal, County, State or Federal department or agency, 2) have not, within a three-year period preceding execution of this Agreement, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements; or receiving stolen property, 3) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated above, 4) have not within a five-year period preceding execution of this Agreement had one or more public transactions (Federal, State or local) terminated for cause or default, and 5) will advise County immediately if their status changes and will provide an explanation for the change in status.

- **21.11 Discriminatory Vendor:** Contractor certifies that they are not subject to Section 287.134 (2)(a) which specifies that an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a Bid on a contract with a public entity for the construction or repair of a public building or public work, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with public entity.
- **21.12 Disposal of Wastes:** Contractor shall handle any waste materials generated in the performance of the Work in full compliance with all laws, regulations, and requirements of all governmental authorities and those of County. Contractor shall use only disposal facilities which have proper permits and are in full compliance with all Laws. Contractor agrees that County has the right to reject, for any reason, Contractor's use of any particular disposal facility.
- **21.13 Dispute Resolution**: For any dispute concerning performance of the Agreement, which includes without limitation controversies based upon breach of contract, mistake, misrepresentation, or other cause for contract modification or rescission, County shall attempt to reach a mutual agreement as to the settlement and resolution of the dispute with Contractor. Should a mutual agreement not be reached, County shall render a decision and reduce such to writing and serve a copy on Contractor. The decision shall be final and conclusive.
- **21.14 Documentation**: All tracings, plans, specifications, maps, computer files and/or reports prepared or obtained under this Agreement, as well as all data collected, together with summaries and charts derived there from, will be considered works made for hire and will become the property of County upon expiration or termination of the Agreement without restriction or limitation on their use. Upon delivery to the County of said document(s), County will become the custodian thereof in accordance with Chapter 119, Florida Statutes. Contractor will not copyright any material and products or patent any invention developed under this Agreement. Copies of these documents are not to be sold or distributed to third parties without the written consent of County.
- **21.15 Drug Free Workplace:** Contractor certifies that it has in place a Drug-Free Workplace Program in accordance with the Drug-Free Workplace Act of 1988 (41 U.S.C. 702-706).
- 21.16 Employees, Subcontractors and Agents: All Contractor employees, subcontractors, and agents performing any of the Work under the Agreement shall be properly trained to meet or exceed any specified training qualifications. Upon request, Contractor shall furnish a copy of certification or other proof of qualification. All employees, subcontractors, and agents of Contractor must comply with all security and administrative requirements of County. County may conduct, and Contractor shall cooperate in, a security background check or otherwise assess any employee, subcontractor, and agent of Contractor. County may refuse access to, or require replacement of, any of Contractor's employee, subcontractor, and agent for cause, including, but not limited to, technical or training qualifications, quality of services, change in security status, or non-compliance with County's security or other requirements. Such refusal shall not relieve Contractor of its obligation to perform all Work in compliance with the Agreement. County may reject and bar from any facility for cause any of Contractor's employees, subcontractors, or agents. County shall have the right to review and approve any subcontractor used by Contractor. Contractor shall be fully responsible to County for the acts and omissions of its subcontractors, and persons directly or indirectly employed by them. It is Contractor's responsibility to ensure that their subcontractors are properly licensed to do business in the State of Florida and Citrus County, as required by law.
- **21.17 Environmental Issues:** All notifications regarding environmental issues or requirements shall be sent immediately to County's Contact Person. Unless directed otherwise by the County, Contractor is not to contact any local, state, or federal governmental agencies concerning environmental issues involving the Project Site.
- **21.18 Equal Employment Opportunity:** Contractor shall not discriminate on the basis of race, color, sex, sexual orientation, gender identity, age, national origin, religion, and disability or handicap in accordance with the Provisions of: Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000 et seq.), Title VII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), Florida Civil Rights Act of 1992 (§ 760.10 et seq.), Title 41 CFR Part 60 for compliance with Executive Orders 11246 and 11375, Title 49 CFR 23 and Title 49 CFR 26 for Disadvantaged Business Enterprises, Age Discrimination Act of 1975 (42 U.S.C. § 6101, et seq.), Title 49

CFR 21 and Title 49 CFR 23, Nondiscrimination on the basis of handicap, Title 49 CFR 27, Americans with Disabilities Act of 1990 (42 U.S.C. 12102, et. seq.), Federal Fair Labor Standards Act (29 U.S.C. § 201, et seq.), Small and Minority Businesses, Women-Owned Business and any other Federal and State discrimination statutes. Contractor shall furnish pertinent information regarding its employment policies and practices as well as those of their proposed subcontractors as the State of Florida Department of Transportation, the Secretary of Labor, or County may require. The above shall be required of any subcontractor hired by Contractor. All Equal Employment Opportunity requirements shall be included in all non-exempt sub-contracts entered into by the Contractor. Sub-contracts entered into by Contractor shall also include all other applicable labor provisions. No sub-contract shall be awarded to any non-complying subcontractor. Additionally, Contractor shall insert in its sub-contracts a clause requiring subcontractors to include these provisions in any lower tier sub-contracts that may in turn be made. Contractor shall comply with all state laws and local ordinances, except that any preferential consideration of local in-state subcontractors is NOT allowed.

- **21.19 E-Verification System:** Contractor and its subcontractors shall utilize the U.S. Department of Homeland Security's E-Verify system, <a href="https://e-verify.uscis.gov/emp">https://e-verify.uscis.gov/emp</a>, in accordance with Section 448.095, Florida Statutes, to verify the employment eligibility of: (1) all persons employed by Contractor during the contract term to perform any duties within Florida, and; (2) all persons, including subcontractors, assigned by Contractor to perform work pursuant to this Contract. Contractors meeting the terms and conditions of the E-Verify System are deemed to be in compliance with this provision. Contractor and its subcontractors shall provide County with affidavits stating that they do not employ, contract with, or subcontract with an unauthorized alien. County is obligated to terminate this Agreement upon a good faith belief that Contractor or its subcontractor(s) has knowingly violated Section 448.095, Florida Statutes.
- **21.20 Force Majeure Event:** Neither party shall be considered to be in default in the performance of its obligations under this Agreement, except obligations to make payments with respect to amounts already accrued, to the extent that performance of any such obligations is prevented or delayed by any cause, existing or future, which is beyond the reasonable control, and not a result of the fault or negligence of, the affected party (a "Force Majeure Event"). If a party is prevented or delayed in the performance of any such obligations by a Force Majeure Event, such party shall immediately provide notice to the other party of the circumstances preventing or delaying performance and the expected duration thereof. Such notice shall be confirmed in writing as soon as reasonably possible. The party so affected by a Force Majeure Event shall endeavor, to the extent reasonable, to remove the obstacles which prevent performance and shall resume performance of its obligations as soon as reasonably practicable. A Force Majeure Event shall include, but not be limited to acts of civil or military authority (including courts or regulatory agencies), act of God (excluding normal or seasonal weather conditions), war, riot, or insurrection, inability to obtain required permits or licenses, hurricanes, and severe floods.
- 21.21 Gopher Tortoise Relocation: Only for Treatment Sections that include FDR, Milling, and or Asphalt placement. Contractor will inspect the Project area for the presence of gopher tortoises/burrows when issued a Work Order and again prior to work commencing. If necessary, it shall be the Contractors responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Contractor. Costs for inspection, permitting, protection, excavation of burrows, and any other associated work shall be incidental to the Contract/Work Order(s). Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County. Contractor must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order.
- **21.22 Governing Law and Venue:** The Agreement shall be governed in accordance with the laws of the State of Florida. In the event of litigation with respect to the obligation of the parties to the Agreement, the jurisdiction and venue of such action shall be an appropriate State Court in Citrus County, Florida.
- **21.23 Governmental Restrictions:** If Contractor believes that any governmental restrictions have been imposed that require alteration of the materials used, the quality, workmanship or performance of the Work offered under the Agreement, Contractor shall immediately notify County in writing, indicating the specific

restriction. County reserves the right and the complete discretion to accept any such alteration or to cancel the Agreement at no further expense to County.

- 21.24 Immigration and Nationality Act: Contractor shall comply with all immigration laws as outlined in 8 USC § 1324a Unlawful employment of aliens. County will not intentionally award County contracts to any Contractor who knowingly employs unauthorized Alien workers. Any violation of the employment provisions outlined in the Immigration and Nationality Act throughout the term of any Agreement with County may result in immediate termination of the Agreement. County will consider the employment of unauthorized aliens a violation of Section 274A (e) of the Immigration and Nationality Act. Such violation will be cause for unilateral cancellation of the Agreement, by County, if Contractor knowingly employs unauthorized aliens.
- 21.25 Inspection, Performance, Supervision: County reserves the right to inspect the Work provided by Contractor, whether partially or fully completed, at any time, as deemed appropriate by County for the purpose of ensuring Contractor's performance under the Agreement. Such inspections performed by County shall not be construed as a final approval of Contractor's Service and shall not relieve Contractor from its obligations under the Agreement. County reserves the right to inspect, at any reasonable time with prior notice, Contractor's facilities to assess conformity of the provision of the Work with the Agreement requirements. County reserves the right to investigate or inspect, at any time, whether the provision of the Work complies with the Agreement requirements. Contractor shall at all times during the Agreement term remain responsive and responsible. Contractor must be prepared, if requested by County, to present evidence of experience, ability, and financial standing, as well as a statement as to capacity of Contractor for the performance of the provision of the Work covered under the Agreement. This paragraph shall not mean or imply that it is obligatory upon County to make an investigation either before or after award of the Agreement, but should County elect to do so, Contractor is not relieved from fulfilling all Agreement requirements. Contractor shall supervise and direct the performance of its Work and shall be solely responsible for the means, methods, techniques, sequences, and safety of construction. The Contractor will employ and maintain at the Project Site a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the Project Site. The supervisor or superintendent shall have full authority to act on behalf of Contractor and all communications given to the supervisor or superintendent shall be as binding as if given directly to Contractor. The supervisor or superintendent shall be present on the Project Site at all times as required to perform adequate supervision and coordination of the Contractor's Work.
- **21.26 Inspector General:** Contractor agrees to comply with the Inspector General in any investigation, audit, inspection, review, or hearing performed pursuant to Section 20.055, Florida Statutes.
- **21.27 Lawful Claims and Demands:** Should any outstanding claims by subcontractors or suppliers incurred in the performance of the Work materialize after County has made Payment to Contractor, Contractor will indemnify and save County harmless from such claims. Acceptance by Contractor of payment shall be and shall operate as a release to County of all claims and all liabilities to Contractor, other than claims in stated amounts as may be specifically excepted by Contractor for things done or furnished in connection with the provision of the Work, and for every act and neglect of County and others relating to or arising out of the provision of the Work covered under this Agreement. Any payment, whether final or otherwise, shall not release Contractor or his sureties from any obligations under the Agreement.
- **21.28 Lobbying:** Contractor shall not, in connection with the Agreement, directly or indirectly (1) offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for any County officer or employee's decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty, or (2) offer, give, or agree to give to anyone any gratuity for the benefit of, or at the direction or request of, any County officer or employee. For purposes of clause (2), "gratuity" means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, Work, employment, or contracts of any kind.
- **21.29 Workforce Labor:** County believes that the hiring of workforce labor by contractors to whom County awards contracts should, to the maximum extent, be citizens within its boundaries that are unemployed or seeking work for the first time. To that extent, County has agreed to notify CLM Workforce Connection of all awards involving construction and other types of services. CLM Workforce Connection is a local business-led organization that plans and coordinates quality employment and training services for businesses and individual career seekers in Citrus County. The Contractor will be contacted by CLM Workforce Connection, to discuss

hiring through its staff and services. Contractor's participation with CLM Workforce Connection is not required as a condition of this Agreement, but rather an opportunity for greater support for the community of Citrus County and Contractor in hiring assistance.

- **21.30 Materials, Work, and Facilities:** It is understood that, except as otherwise specifically stated in the Contract Documents, Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the Work within the specified time.
- **21.31 Non-Collusion:** Contractor agrees that neither it, nor any of its officers, partners, agents or employees have entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of a free competitive solicitation in connection with this Agreement, and that Contractor intends to do the work with its own bona fide employees or subcontractors and has not provided a response for the benefit of another contractor. Furthermore, Contractor certifies that its affiliates, subsidiaries, directors, officers, and employees are not currently under investigation by any governmental authority and have not in the last ten (10) years been convicted or found liable for any act prohibited by law in any jurisdiction, involving conspiracy or collusion with respect to submitting a response on any public contract.
- **21.32 Project Site Conditions:** Upon submitting to County, Contractor's Final Estimate, Contractor shall be deemed to have examined the Project Site, if applicable and to have secured full knowledge of all conditions under which the Work are to be executed and completed.
- **21.33 Protection of Persons:** Contractor will be responsible for the safety of its employees and the employees of its subcontractors, during the provision of the Work. Contractor will be responsible for initiating, maintaining, and supervising all safety programs in connection with the provision of the Work in accordance with applicable safety standards and regulations, as promulgated by the United States Occupational Safety and Health Act. Contractor shall report promptly to County any accident or unusual occurrence during performance of the Work, including personal injury or death to any Contractor employee, subcontractor employee or any member of the public, or any damage to any of County's property, the Project Site, or adjacent property.
- **21.34 Public Entity Crime:** Pursuant to Section 287.133, Florida Statute, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.
- **21.35 Relationship:** Contractor is an independent Contractor to County in the provision of the Work under this Agreement and is not an employee, agent, joint-venture, or partner of County.
- **21.36 Risk of Loss:** Until the Work has been accepted by County, risk of loss or damage to any materials, equipment, supplies, or work product, whether partially or fully completed, that are associated with the Work shall remain with Contractor.
- **21.37 Schedules, Reports and Records:** Contractor shall submit to County cost schedules, progress schedules, Work Order schedules, estimates, records, reports, shop drawings, material specification submittals, certified material, test(s)/report(s) and any other data, as related to the provision of the Work covered under the Work Orders and Agreement. Furthermore, County reserves the right to inspect and audit Contractor's books and records relating to the Work Orders and Agreement, when deemed appropriate by County. All schedules, reports, and records of Contractor, as they relate to the Work Orders and Agreement, shall be retained by Contractor for a period of six (6) years from the date of final disposition under the Agreement.
- **21.38 Scrutinized Companies:** Contractor certifies that it is not listed on (a) the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, Florida Statues, or is engaged in a boycott of Israel;

(b) the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in Iran Terrorism Sectors List, created pursuant to Section 215.473, Florida Statutes; or (c) is engaged in business operations in Cuba or Syria. Contractor further understands and accepts that any contract issued as a result of this Bid shall be subject to Section 287.135, Florida Statutes, and subject to immediate termination by County in the event there is any misrepresentation or false certification on the part of Contractor.

#### 21.39 Security:

- **21.39.1 Confidentiality:** Contractor shall comply fully with all security procedures of County in the performance of the Agreement. Contractor shall not divulge to third parties any information obtained by Contractor or its agents, distributors, resellers, subcontractors, officers, or employees in the course of the provision of the Work without the written consent of County. However, Contractor shall be permitted to release information to third parties if such information is publicly available through no fault of Contractor, information that Contractor developed independently without relying on County's information, or information that is otherwise obtainable under State and Federal law as a public record. To ensure confidentiality, Contractor shall take appropriate measures as to its personnel, agents, and subcontractors. The warranties of this paragraph shall survive the Agreement.
- **21.39.2 Cybersecurity:** Contractor shall take commercially reasonable measures to protect and secure electronic data. Contractor's products and services shall comply with the standards and practices established by the National Institute of Standards and Technology Cybersecurity Framework and the Florida Cybersecurity Act, federal and state regulations, statutes, rules, and requirements applicable to any data in Contractor's or its affiliates or subcontractor's control. Contractor's, its affiliates, and subcontractors' employees shall have completed level II background checks when required by federal, state, or local law. The warranties of this paragraph shall survive the Agreement.
- **21.39.3 Security of Information:** Contractor and its subcontractor's must implement technical and organizational measures to ensure security of processing personally identifiable information (PII), payment card industry data security standard (PCI), personal health information (PHI), confidential or protected data. Contractor must provide for the security of such information by using appropriate technology, security practices, computer access security, data access security, data storage encryption, data transmission encryption, security inspections and audits. Contractor agrees to maintain reasonable network security that, at a minimum, includes a network firewall. The warranties of this paragraph shall survive the Agreement.
- **21.39.4 Security Incident Notification and Action:** If Contractor becomes aware of a cybersecurity event or security incident, Contractor must: notify County, in writing, within twenty-four (24) hours of becoming aware of any confirmed or suspected cybersecurity incident or threat; investigate such incident or threat; conduct an analysis of the cause of such incident; and provide County with periodic updates of any ongoing investigation. Contractor shall implement an appropriate plan to remediate the cause of such security incident and mitigate any loss or compromise of data due to the security incident. Contractor shall also provide notification of the security incident to potentially affected persons; credit monitoring services; identification protection services; a call center established and operated by Contractor; notification to any regulatory authorities; and any other functions, services or penalties as may be required by law. The warranties of this paragraph shall survive the Agreement.
- **21.40 Severability:** If a court deems any provision of the Agreement void or unenforceable, that provision shall be enforced only to the extent that it is not in violation of law or is not otherwise unenforceable and all other provisions shall remain in full force and effect.
- **21.41 Survival:** All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.
- **21.42 Taxes:** Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by Contractor in accordance with the laws and regulations of the State of Florida which are applicable to the provision of the Work under the Agreement. County will not pay for any personal property taxes levied on Contractor or for any taxes levied on Contractor's employees' wages. County is a political subdivision of the State of Florida and holds a State of Florida Sales Tax Exemption Certificate (No. 85-8012621778C-1). All

purchases made by County directly from a dealer, distributor or manufacturer for materials, equipment, or supplies ("direct purchase") instead of through the Contractor are exempt from sales, consumer, use and other similar taxes.

- **21.43 Waiver:** The delay or failure by County to exercise or enforce any of its rights under this Agreement shall not constitute or be deemed a waiver of County's right thereafter to enforce those rights, nor shall any single or partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right by County.
- **22.0 Accessible Electronic Information Technology:** Contractor must provide electronic and information technology resources in complete compliance with the accessibility standards provided in Rule 60-8.002, F.A.C., as modified from time to time.
- **23.0 Subcontracts:** The Contractor agrees to include in all subcontracts, that the subcontractor is bound by the terms of this Agreement, and the subcontractor is bound by all applicable state and federal laws and regulations. Each subcontract with every subcontractor must contain a clause committing the subcontractor to employment of local labor to the maximum extent possible.
- **24.0 Grant Agreement(s):** If applicable, the Contractor and any of Contractor's Subcontractor(s) must comply with the terms and conditions of the grant Agreement(s) and all federal, state, and local laws and regulations applicable to the project.
- **25.0 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements:** If applicable, Contractor and any of Contractor's Subcontractors shall comply with the requirements set forth in the "2 CFR, Part 200," and the Florida Single Audit Act, Florida Statute, Section 215.97.
- **26.0** Appendix II to Part 200 Contract Provision for Non-Federal Entity Contracts Under Federal Awards: If applicable, Contractor and any of Contractor's Subcontractor(s) shall comply with Appendix II to Part 200 contract provision.
- **27.0 Authority**: Each person signing the Agreement warrants that he or she is duly authorized to do so and to bind the respective party to the Agreement.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

**IN WITNESS WHEREOF**, this Agreement is accepted by the parties as of the date noted below.

### CONTRACTOR

| Signature of Witness (1)  Printed Name of Witness (1)  |                         | DO NOT EXECUTE   |          |
|--|-------------------------|--|----------|
| Signature of Witness (2)   | SAN                     |  |          |
| Printed Name of Witness (2)  |                         |  |          |
| STATE OF   |                         |  |          |
| COUNTY OF  |                         |  |          |
| The foregoing instrument was acknow  | rledged before me, by m | neans of  physical presence or [                                 | ີ onlin∈ |
| notarization, this   | -                       | , 2024   |          |
|  | as                      | w  | /ho is [ |
| personally known to me or   who produces the produce of the produc |                         |  |          |
| ificial use only   | Commission N            | LIC Signature  o.:   |          |
|  | SEAL                    |  |          |
| ATTEST:  |                         | S COUNTY, FLORIDA, A POLITICAL<br>VISION OF THE STATE OF FLORIDA |          |
| ANGELA VICK, CLERK   | BY:                     | HOLLY L. DAVIS, CHAIRMAN   | _        |
|  | DATE:                   |  |          |

## SOLICITATION SUBMITTAL CHECKLIST

## **Solicitation Submittal Checklist**

This checklist is provided as a courtesy and may not be all inclusive or items required with the solicitation.

The items listed below are required for submission with your submittal. Failure to submit any items indicated as required may result in rejection of your submittal.

Bid Form (Signed and Completed)

Certificate of Insurance (Proof of Insurance)

Addenda Acknowledgement Form

Bidder's Representation and Certification Form (Signed and Completed)

Bidder's Qualification Form (Signed and Completed)

List of Sub-Contractors Form (Signed and Completed)

Maintenance of Traffic (MOT) Certification

Conflict of Interest Statement

Drug Free Workplace Certification

Non-Collusion & Lobbying Certification

Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions

Certification of Subcontractor Participants Regarding Debarment, Suspension, and Other Ineligibility and Voluntary Exclusion

Copies of Licenses and Certifications

- Proof of license/certification to do Business in the State of Florida (i.e: Sunbiz registration/Florida Department of State.
- Maintenance of Traffic (MOT) Certification
- Copies of licenses and certifications as applicable to this Invitation to Bid.
- If Claiming Local Preference on Bid Form, attach a copy of Business Tax Receipt from Citrus County.
- ⇒ Bidders should submit a list of three (3) projects per treatment bid, successfully completed within the last five (5) years, in which the Contractor's portion of the work exceeded \$50,000, with the exception of the Fog Seal, Asphalt Rejuvenation, and Crack Sealing, where the contractor's portion of work shall have exceeded \$30,000. The projects should have been for a federal, state, or local government agency. Three projects should be listed for each of the following treatments:
  - a) Chip seal.
  - b) Micro-surfacing.

- c) Crack sealing/filing.
- d) Fog seal.
- e) Asphalt rejuvenation.
- f) Scrub seal.
- g) Full depth reclamation.
- h) Cold in place recycling.
- i) Cape seal.
- j) Milling.
- k) Asphalt.
- ⇒ For each project identified, please include the following information:
  - a) Project Name
  - b) Governmental Agency Name
  - c) Contact Person
  - d) Email Address
  - e) Telephone Number
  - f) Project Date
  - g) Number of Square Yards Treated
  - h) Dollar Amount of the Contract

### **BIDDER'S REPRESENTATION AND CERTIFICATION FORM**

#### **BIDDER'S REPRESENTATION AND CERTIFICATION FORM**

| (Page 1)   |
|--|
| NAME OF BIDDER:  |
| In submitting a Bid, Bidder understands, represents, and certifies the following (if the Bidder cannot so certify to any of following, the Bidder shall submit with its Bid a written explanation of why it cannot do so). If County finds, before or after Award of the Bid that Bidder was not truthful concerning any of the following, County shall have the right to terminate the Award without liability and, at its discretion, to seek damages from Bidder, if damages result to County from such act, in any way whatsoever.   |
| Compliance with Laws: Bidder shall comply with all laws, rules, codes, ordinances, and licensing requirements that are applicable to the conduct of its business, including those of Local, State and Federal agencies having jurisdiction and authority. These laws, shall include, but not be limited to, Chapter 287, Florida Statutes, the Uniform Commercial Code, the Immigration and Nationalization Act, the Americans with Disabilities Act, the United States Occupational Safety and Health Act, the United States Environmental Protection Agency, the State of Florida Department of Environmental Protection, Code of Federal Regulations and all prohibitions against discrimination on the basis of race, religion, sex, creed, national origin, handicap, marital status, sexual orientation, gender identity or expression or veteran's status. Violation of such laws shall be grounds for termination of the Agreement.  |
| Initial  |
| Conflict of Interest: Bidder covenants that it presently has no interest and shall not acquire any interest which would conflict in any manner of degree with the performance of the Services covered under this Agreement. Furthermore, Bidder warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Bidder to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for Bidder any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Bidder, and its sub-consultants at any tier, certify that they have not entered into any contract, sub-contract, or arrangement in connection with the Project covered under this Agreement, or of any property included or planned to be included in the Project, in which any member, officer, of employee of Bidder or its sub-consultants, during its tenure, or for two years thereafter, has any interest, direct or indirect. Bidder, and its sub-consultants at any tier, shall insert the following provision into each of their contracts and sub-contracts: |
| "No member, officer, or employee of the sub-consultant, during their tenure or for two years thereafter, shall have any interest, direct or indirect, in this contract or the proceeds thereof."   |
| Initial  |
| <u>Convictions:</u> Bidder has fully informed Owner of all convictions of the firm, its affiliates (as defined in section 287.133(1) (a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees who were convicted of contract crimes while in the employ of another company.  |
| Initial  |
| Deharmant: Ridder certifies to the hest of their knowledge and helief, that they and their principals 1) are   |

Debarment: Bidder certifies to the best of their knowledge and belief, that they and their principals 1) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Municipal, County, State or Federal department or agency, 2) have not, within a three-year period preceding execution of this Agreement, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements; or receiving stolen property, 3) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated above, 4) have not within a three-year period preceding execution of this Agreement had one or more public transactions (Federal, State or local)

### **BIDDER'S REPRESENTATION AND CERTIFICATION FORM**

(Page 2)

| terminated for cause or default, and 5) will advise County immediately if their status changes an provide an explanation for the change in status.  | d will  |
|---|---|
| Initial   |   |
| <u>Drug Free Workplace:</u> Bidder certifies that it has a Drug-Free Workplace Program in accordance with Drug-Free Workplace Act of 1988. (41 U.S.C. 702-706)  | th the  |
| Initial   |   |
| <u>Discriminatory Vendor:</u> Bidder certifies that they are not subject to Section 287.134 (2)(a) which spethat an entity or affiliate who has been placed on the discriminatory vendor list may not submit a Bid contract to provide any goods or services to a public entity, may not submit a Bid on a contract with a pentity for the construction or repair of a public building or public work, may not be awarded or perform as a contractor, supplier, sub-consultant, or consultant under a contract with any public entity, and matransact business with public entity.  | l on a<br>oublic<br>work  |
| Initial   |   |
| Equal Employment Opportunity: Bidder shall not discriminate on the basis of race, color, sex, sorientation, gender identity, age, national origin, religion, and disability or handicap in accordance with Provisions of: Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000 et seq.), Title VII of the Civil Ract of 1968 (42 U.S.C. § 3601 et seq.), Florida Civil Rights Act of 1992 (§ 760.10 et seq.), Title 41 Part 60 for compliance with Executive Orders 11246 and 11375, Title 49 CFR 23 and Title 49 CFR 23 Disadvantaged Business Enterprises, Age Discrimination Act of 1975 (42 U.S.C. § 6101, et seq.), Title CFR 21 and Title 49 CFR 23, Nondiscrimination on the basis of handicap, Title 49 CFR 27, Americans Disabilities Act of 1990 (42 U.S.C. 12102, et. seq.), Federal Fair Labor Standards Act (29 U.S.C. § 20 seq.), and any other Federal and State discrimination statutes. Bidder shall furnish pertinent inform regarding its employment policies and practices as well as those of their proposed sub-consultants a State of Florida Department of Transportation, the Secretary of Labor, or County may require. The ashall be required of any sub-consultant hired by Bidder. All Equal Employment Opportunity requirer shall be included in all non-exempt sub-contracts entered into by Bidder. Sub-contracts entered in Bidder shall also include all other applicable labor provisions. No sub-contracts a clause requiring consultants to include these provisions in any lower tier sub-contracts that may in turn be made. Eshall comply with all state laws and local ordinances, except that any preferential consideration of located sub-consultants is NOT allowed. | th the Rights CFR 26 for the 49 s with 01, et nation as the above ments ato by 5 sub-Bidder |
| Initial   |   |
| E-Verification System: Bidder and its subcontractors shall utilize the U.S. Department of Home Security's E-Verify system, <a href="https://e-verify.uscis.gov/emp">https://e-verify.uscis.gov/emp</a> , in accordance with Section 448.095, F Statutes, to verify the employment eligibility of: (1) all persons employed by Bidder during the contract to perform any duties within Florida, and; (2) all persons, including subcontractors, assigne Coordinating Contractor to perform work pursuant to this Contract. Bidder meeting the terms and cond of the E-Verify System are deemed to be in compliance with this provision. Bidder and its subcontract with unauthorized alien. County with affidavits stating that they do not employ, contract with, or subcontract with unauthorized alien. County is obligated to terminate this Agreement upon a good faith belief that Bidd its subcontractors has knowingly violated Section 448.095, Florida Statutes. E-Verification Identification in the subcontractors in the subcontractors has knowingly violated Section 448.095, Florida Statutes. E-Verification Identification in the subcontractors is a subcontractor of the subcontractors has knowingly violated Section 448.095, Florida Statutes.  | lorida t term d by litions actors th an der or  |
| Number: Initial   |   |
| Gopher Tortoise Relocation: Only for Treatment Sections that include FDR. Milling, and or As  | sphalt  |

Gopher Tortoise Relocation: Only for Treatment Sections that include FDR, Milling, and or Asphalt placement. Bidder will inspect the Project area for the presence of gopher tortoises/burrows when issued a Work Order and again prior to work commencing. If necessary, it shall be the Bidders responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Bidder. Costs for inspection, permitting, protection, excavation of burrows, and any other associated work shall be incidental to the contract. Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County.

## BIDDER'S REPRESENTATION AND CERTIFICATION FORM (Page 3)

Bidder must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order. Initial Immigration and Nationality Act: Bidder shall comply with all immigration laws as outlined in 8 USC § 1324a - Unlawful employment of aliens. County will not intentionally award County contracts to any Bidder who knowingly employs unauthorized Alien workers. Any violation of the employment provisions outlined in the Immigration and Nationality Act throughout the term of any Agreement with County may result in immediate termination of the Agreement. County will consider the employment of unauthorized aliens a violation of Section 274A (e) of the Immigration and Nationality Act. Such violation will be cause for unilateral cancellation of the Agreement, by County, if Consultant knowingly employs unauthorized aliens. Initial Lobbying: Bidder shall not, in connection with the Agreement, directly or indirectly (1) offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for any County officer or employee's decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty, or (2) offer, give, or agree to give to anyone any gratuity for the benefit of, or at the direction or request of, any County officer or employee. For purposes of clause (2), "gratuity" means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, Services, employment, or contracts of any kind. Initial Non-Collusion: Bidder agrees that neither it, nor any of its officers, partners, agents or employees have entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of a free competitive solicitation in connection with this Agreement, and that Bidder intends to do the work with its own bona fide employees or sub-consultants and has not provided a Bid for the benefit of another Consultant, Furthermore, Bidder certifies that its affiliates, subsidiaries, directors, officers, and employees are not currently under investigation by any governmental authority and have not in the last ten (10) years been convicted or found liable for any act prohibited by law in any jurisdiction, involving conspiracy or collusion with respect to submitting a Bid on any public contract. Initial Prohibited Interests: Bidder, and its sub-consultants at any tier, certify that they have not entered into any contract, sub-contract, or arrangement in connection with the project covered under this Request for Qualification, or of any property included or planned to be included in the project, in which any member, officer, of employee of the Bidder or its sub-consultants, during its tenure, or for two years thereafter, has any interest, direct or indirect. Initial \_\_\_ Public Entity Crime: Pursuant to 287.133, Florida Statute, A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Bid, or reply on a contract to provide any goods or services to a public entity; may not submit a Bid, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit Bids, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, sub-consultant, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017, Florida Statutes for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor

Initial

## BIDDER'S REPRESENTATION AND CERTIFICATION FORM (Page 4)

<u>Scrutinized Companies:</u> Bidder certifies that it is not listed on (a) the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, Florida Statues, or is engaged in a boycott of Israel; (b) the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Terrorism Sectors, created pursuant to Section 215.473, Florida Statutes; or (c) is engaged in business operations in Cuba or Syria. Bidder further understands and accepts that any contract issued as a result of this Bid shall be subject to Section 287.135, Florida Statutes, and subject to immediate termination by County in the event there is any misrepresentation or false certification on the part of Bidder.

| Initial   |
|---|
| Bidder certifies that they comply (or will comply) with the above statements concerning: Compliance with Laws, Conflict of Interest, Convictions, Debarment, Discriminatory Vendor, Drug Free Workplace, Equal Employment Opportunity, E-Verification System, Gopher Tortoise Relocation, Immigration and Nationality Act, Lobbying, Non- Collusion, Prohibited Interests, Public Entity Crime and Scrutinized Companies. |
| If Bidder cannot attest to any of the above, they must submit an explanation as to why on their letterhead, signed by the individual signing this Form, and attach such to this Form.   |
| Bidder's Name:  |
| Federal Employer Identification No.:  |
| E-Verification Identification Number:   |
| Bidder's Address:   |
| By:   |
| Signature   |
| Name:   |
| Print Name  |
| Title:  |
| Secretary/Assistant Secretary/President/Vice President/Assistant Vice President   |
| Phone No.: Fax No.:   |
| E-Mail Address:   |

Date:

**CORPORATE SEAL** 

## ADDENDA ACKNOWLEDGEMENT FORM

### ADDENDA ACKNOWLEDGEMENT FORM

By signing below, Bidder acknowledges that...

| Bidder has received | all addenda associated    | with this Invi | tation to Bid: |                |
|---------------------|---------------------------|----------------|----------------|----------------|
| ADDENDUM            | #1 ADDENDUM               | 1#2            | ADDENDUM#3     | ADDENDUM # 4   |
| ADDENDUM            | # 5 ADDENDUM              | 1#6            | ADDENDUM # 7   | ADDENDUM # 8   |
| ADDENDUM #          | #9 ADDENDUM               | # 10           | ADDENDUM # 11  | ADDENDUM # 12  |
|                     |                           |                |                |                |
|                     |                           |                |                |                |
| Bidder's Name:      |                           |                |                |                |
| Federal Employer    | Identification No.:       |                |                |                |
| , ,                 | <del></del>               |                |                |                |
| Bidder's Address:   |                           |                |                |                |
| Bv:                 |                           |                |                |                |
| ,                   | Signature                 |                |                |                |
| Name:               |                           |                |                |                |
|                     | Print Name                |                |                |                |
|                     |                           |                |                |                |
|                     | cretary/Assistant Secreta | •              |                |                |
| Phone No.:          |                           | Fa             | x No.:         |                |
| E-Mail Address: _   |                           |                |                |                |
| Date:               |                           |                |                | CORPORATE SEAL |

## **BIDDER'S QUALIFICATIONS STATEMENT**

# BIDDER'S QUALIFICATIONS STATEMENT (Page 1)

| ושטטום             | R'S NAME:  |  |  |  |
|--------------------|--|--|--|--|
| necess<br>outlined | ary. Print in BLACK ink or type a  | of all statements and answers herein contained. Include additional sheets if all answers. Bidders proposing to be qualified to provide the Services as ed that they must address each item of this qualification statement. Any on for refusal to qualify. |  |  |
| 1.                 | How many years has your organization been in business as a Contractor performing the type of serv outlined in the Invitation to Bid? |  |  |  |
| 2.                 |  | as your organization ever failed to complete an awarded project within the ere, when, and why? Attach additional sheet, if necessary.  |  |  |
|                    |  |  |  |  |
|                    |  |  |  |  |
| 3.                 |  | phone and facsimile numbers of individuals from three (3) organizations that to that outlined in the Invitation to Bid who can be contacted as a reference. ary.   |  |  |
|                    | Name and Title:  |  |  |  |
|                    | Company Name:  |  |  |  |
|                    | Address:   |  |  |  |
|                    | Phone:   | Fax:   |  |  |
|                    | E-mail Address:  |  |  |  |
|                    | Name and Title:  |  |  |  |
|                    | Company Name:  |  |  |  |
|                    | Address:   |  |  |  |
|                    | Phone:   | Fax:   |  |  |
|                    | E-mail Address:  |  |  |  |
|                    | Name and Title:  |  |  |  |
|                    |  |  |  |  |
|                    | Address:   |  |  |  |
|                    |  | Fax:   |  |  |
|                    |  |  |  |  |
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# BIDDER'S QUALIFICATIONS STATEMENT (Page 2)

| Complete the table below as     | s fully as possible, describing projects | s similar in character and scop | oe to the      |
|---------------------------------|--|---------------------------------|----------------|
| specified in this Invitation to | Bid which have been successfully co      | mpleted during the past three   | (3) yea        |
| Type of Work                    | Name/City                                | Year<br>Completed               | Contr<br>Price |
|                                 |  | Completed                       | 11100          |
|                                 |  |                                 |                |
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# BIDDER'S QUALIFICATIONS STATEMENT (Page 3)

| illigation. A   | ttach additional sheets, if necessary.   |
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|   | ast seven (7) years, has your company ever filed for bankruptcy, is currently in bankruptcy, o action pending? |
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| State the tru   | e and exact, correct, and complete name under which you do business as registered in the                       |
| of Florida.   | e and exact, correct, and complete name under which you do business as registered in the                       |
| of Florida.<br>Bidder's Na  | me:  |
| of Florida.<br>Bidder's Na  |  |
| of Florida.  Bidder's Na  Federal Em                                | me:  |
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| of Florida.  Bidder's Na Federal Em Bidder's Add                    | me: ployer Identification No.: dress:  |
| of Florida.  Bidder's Na  Federal Em  Bidder's Ade                  | me: ployer Identification No.: dress:  |
| of Florida.  Bidder's Na Federal Em Bidder's Add By: Name:          | me:  |
| of Florida.  Bidder's Na Federal Em Bidder's Add By: Name:          | me: ployer Identification No.: dress: Signature  Print Name  |
| of Florida.  Bidder's Na Federal Em Bidder's Add By:  Name:  Title: | me:  |

## **LIST OF SUBCONTRACTORS**

### **LIST OF SUB-CONTRACTORS**

In the Space below, Bidders shall list sub-contractors they intend to utilize for the performance of major aspects of the Services covered under this Invitation to Bid. Bidders shall indicate the sub-contractor's name and address and what part of the Services the sub-contractor will be performing. Also, provide a brief description of their qualifications for performing the proposed work.

| NAME, ADDRESS AND WORK TO BE PERFORMED             | QUALIFICATIONS                     |
|--|------------------------------------|
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|  |                                    |
| Bidder's Name:                                     |                                    |
| Federal Employer Identification No.:               |                                    |
| . ,  |                                    |
| Bidder's Address:                                  |                                    |
|  |                                    |
| By:Signature                                       |                                    |
| Name:  |                                    |
| Print Name   |                                    |
| Title:Secretary/Assistant Secretary/President/Vice | President/Assistant Vice President |
|  |                                    |
| Phone No.:   | Fax No.:                           |
| E-Mail Address:                                    |                                    |
| Date:  |                                    |

## **CONFLICT OF INTEREST STATEMENT**



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS CITRUS COUNTY, FLORIDA

|          | (              | Conflict of Interest Form   |   |
|----------|----------------|-----------------------------|---|
| I am the | (Insert Title) | of<br>(Insert Company Name) | · |

- A. The CONSULTANT/CONTRACTOR hereby submits a proposal/offer to the Citrus County Board of County Commissioners, Citrus County, Florida in response to the Invitation to Bid.
- B. The CONSULTANT/CONTRACTOR has made diligent inquiry and provided the information in this statement affidavit based upon its full knowledge.
- C. The CONSULTANT/CONTRACTOR states that only one submittal for this solicitation has been submitted and tendered by the appropriate date and time and that said above stated CONSULTANT/CONTRACTOR has no financial interest in other entities submitting a proposal for the work contemplated hereby.
- D. Neither the CONSULTANT/CONTRACTOR nor the above named CONSULTANT/CONTRACTOR has directly or indirectly entered into any agreement, participated in any collusion or collusive activity, or otherwise taken any action which in any way restricts or restraints the competitive nature of this solicitation, including but not limited to the prior discussion of terms, conditions, pricing, or other offer parameters required by this solicitation.
- E. Neither the CONSULTANT/CONTRACTOR nor its affiliates, nor anyone associated with them, is presently suspended or otherwise prohibited from participation in this solicitation or any contract to follow thereafter by any government entity.
- F. Neither the CONSULTANT/CONTRACTOR nor its affiliates, nor anyone associated with them, have any potential conflict of interest because and due to any other clients, contracts, or property interests in this solicitation or the resulting project.
- G. I hereby also certify that no member of the CONSULTANT/CONTRACTOR's ownership or management or staff has a vested interest in any of County's Division/Department/Office.
- H. I certify that no member of the CONSULTANT/CONTRACTOR's ownership or management is presently applying, actively seeking, or has been selected for an elected position within Citrus County Board of County Commissioner's government.
- I. In the event that a conflict of interest is identified in the provision of services, I, the undersigned will immediately notify the County in writing.

By the signature(s) below, I/we, the undersigned, as authorized signatory to commit the firm, certify that the information as provided in this **Conflict of Interest Statement**, is truthful and correct at the time of submission.

| Name          |  |  |
|---------------|--|--|
|               |  |  |
| <br>Signature |  |  |

### **DRUG-FREE WORKPLACE CERTIFICATION**



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS CITRUS COUNTY, FLORIDA

| Drug-Free Workplace  | e Certification   |
|--|---|
|  |   |
| (In Compliance with the Drug-Free Workplace Act of 1988 (41  | U.S.C. 702-706) or (Section 287.087 Florida Statute)  |
| The drug-free certification form below must be signed an   | d returned with the Invitation to Bid submittal.  |
| Whenever two or more Bids that are equal with respect to the State or by any political subdivision for the procure Bid received from a business that certifies that it has in shall be given preference in the award process. Establish followed if none of the tied Bidders have a drug-free woworkplace program, a business shall: | ement of commodities or contractual services, a<br>nplemented a drug-free workplace program<br>ed procedures for processing tie Bids will be                |
| A. Publish a statement notifying employees that the possession, or use of a controlled substance is prohibited will be taken against employees for violations of such pro-   | d in the workplace and specifying the actions that  |
| B. Inform employees about the dangers of drug abuse in a drug-free workplace, any available drug counseling, re and the penalties that may be imposed upon employees   | ehabilitation, and employee assistance programs,  |
| C. Give each employee engaged in providing the commo   | odities or contractual services that are under bid a  |
| D. In the statement specified in the first paragraph, notify the commodities or contractual services that are under statement and will notify the employer of any conviction violation of chapter 893, Florida Statutes, or of any cont state, for a violation occurring in the workplace no later the                               | bid, the employee will abide by the terms of the<br>n of, or plea of guilty or nolo contendere to, any<br>trolled substance law of the United States or any |
| E. Impose a sanction on, or require the satisfactory participrogram if such is available in the employee's community   |   |
| F. Make a good faith effort to continue to maintain a driforegoing provisions.   | ug-free workplace through implementation of the   |
| By the signature(s) below, I/we, the undersigned, as authorinformation as provided in <b>this Drug-Free Workplace C</b> submission.  |   |
| Name   | Title   |
| Signature  | Name of Company   |

### **NON-COLLUSION/LOBBYING CERTIFICATION**



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS CITRUS COUNTY, FLORIDA

### Non-Collusion/Lobbying Certification

(Compliance with 49CFR, Section 20.100 (b))

This statement is required to submit with the Invitation to Bid

#### A. NON-COLLUSION PROVISION CERTIFICATION.

The undersigned hereby certifies, to the best of his or her knowledge and belief, that on behalf of the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. Failure to submit the executed statement as part of the bidding documents will make the bid nonresponsive and not eligible for award consideration.

### B. LOBBYING CERTIFICATION.

The undersigned hereby certifies, to the best of his or her knowledge and belief, that:

- 1. No County appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence either directly or indirectly an officer or employee of the County, Federal Agency, or Member of Congress in connection with the awarding of any County or Federal Contract.
- 2. If any funds other than County appropriated funds have been paid or will be paid to any person for influencing or attempting to influence a member of Citrus County Board of County Commissioners, Federal, State or an officer or employee in connection with this contract, the undersigned shall complete and submit Standard Form-LLL "Disclosure of Lobbying Activities", in accordance with its instructions.
- 3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers and that all consultants and subcontractors shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. 1352 (as amended by the Lobbying Disclosure Act of 1995). Any persons who fail to file the required certification shall be subject to a civil penalty of not less than \$10,000.00 and not more than \$100,000.00 for each failure. In addition, the Consultant/Contractor understands and agrees that the provision of 31 U.S.C. 3801 et seq. and provisions of 11.062, Florida Statutes, apply to this certification and disclosure.

By the signature(s) below, I/we, the undersigned, as authorized signatory to commit the firm, certify that the information as provided in **the Non-Collusion/Lobbying Certification**, is truthful and correct at the time of submission.

| Name          |                 |
|---------------|-----------------|
| Name          | Title           |
| <br>Signature | Name of Company |

# CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS CITRUS COUNTY, FLORIDA

# Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions

(Compliance with 2 CFR Parts 180 and 1200)

- (1) By signing and submitting this proposal, the prospective primary Contractor certifies to the best of its knowledge and belief, that it and its principals:
  - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or Local agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction or violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (I)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- (3) The prospective primary Contractor further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all sub-contracts and in all solicitations for subcontractors exceeding the \$25,000 threshold.

| Name      | Title           | _ |
|-----------|-----------------|---|
| Signature | Name of Company |   |

CERTIFICATION OF SUBCONTRACTOR PARTICIPANTS REGARDING DEBARMENT, SUSPENSION, AND OTHER INELIGIBILITY AND VOLUNTARY EXCLUSION



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS CITRUS COUNTY, FLORIDA

### Certification of Sub-Contractor Participants Regarding Debarment, Suspension, and Other Ineligibility and Voluntary Exclusion

(Compliance with 2 CFR Parts 180 and 1200)

- (1) By signing and submitting this proposal, the prospective primary Contractor certifies to the best of its knowledge and belief, that it and its principals:
  - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or Local agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction or violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (I)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary Contractor is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- (3) The prospective primary Contractor further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all sub-contracts and in all solicitations for subcontractors exceeding the \$25,000 threshold.

| Name      | Title           |
|-----------|-----------------|
| Signature | Name of Company |

**VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS** 

Florida Statutes: 287.135

#### PROCUREMENT

# VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

| Respondent Vend   | lor Name:   |  |
|---|---|--|
| Vendor FEIN:  |   |  |
| Vendor's Authoriz   | ed Representative Name and Title:   |  |
| Address:  |   |  |
|   |   | Zip:   |
| Phone Number: _   |   |  |
| Email Address: _  |   |  |
|   |   |  |
| into or renewing a company is on the Florida Statutes, company from big services of \$1,00 or the Scrutinize pursuant to s. 215  As the person aut the section entitle Activities in Sudathe Scrutinized Coboycott of Israel. | a contract for goods or services of any amone Scrutinized Companies that Boycott Israel or is engaged in a boycott of Israel. Secuding on, submitting a proposal for, or ent 0,000 or more, that are on either the Scrud Companies with Activities in the Iran 5.473, Florida Statutes.  horized to sign on behalf of Respondent, I held "Respondent Vendor Name" is not list in List or the Scrutinized Companies with Activities in the Iran 5.473, Florida Statutes. | bidding on, submitting a proposal for, or entering bunt if, at the time of contracting or renewal, the seel List, created pursuant to Section 215.4725, tion 287.135, Florida Statutes, also prohibits a tering into or renewing a contract for goods or tinized Companies with Activities in Sudan List Terrorism Sectors List which were created ereby certify that the company identified above in ted on either the Scrutinized Companies with Activities in the Iran Terrorism Sectors List, or certify that the company is not engaged in a 135, Florida Statutes, the submission of a false fees, and/or costs. |
| Certified Bv:   |   |  |
| , <u> </u>  | to sign on behalf of the above referenced co  | mpany.   |
|   | ure Print Name and Title:   | •  |
| Date:   |   |  |

# COUNTY WORK ORDER FORM (SAMPLE)

| ITB#:                     |             | PO#:                    |                              |          |  |  |
|---------------------------|-------------|-------------------------|------------------------------|----------|--|--|
| Contract Date:            |             | Work Order#:            | Work Order#:                 |          |  |  |
| Contract Expiration Date: |             | NTP:                    | NTP:                         |          |  |  |
| Contractor:               |             |                         | Substantial Completion       |          |  |  |
| Address:                  |             |                         | Date: Final Completion Date: |          |  |  |
| Contact Name:             |             | <u>'</u>                |                              |          |  |  |
| Contact Phone Number:     |             | County's Estimate Cost: | ed                           |          |  |  |
| Contact Email Address:    |             | Contractor's Fina       | L                            |          |  |  |
|                           |             | Estimate:               |                              |          |  |  |
| Deficiency Notices Issued |             | Comments:               |                              |          |  |  |
|                           | Descripti   | on of Services          |                              |          |  |  |
|                           |             |                         |                              |          |  |  |
| Street Name               | From Street | To Street               | Est. Length<br>(ft)          | Comments |  |  |
|                           |             |                         |                              |          |  |  |
|                           |             |                         |                              |          |  |  |
|                           |             |                         |                              |          |  |  |
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|                           |             |                         |                              |          |  |  |
|                           |             |                         |                              |          |  |  |

The Contractor's Final Estimate for the described work is hereby approved and they are authorized to begin work.

| X                                | _ |
|----------------------------------|---|
| Charles leazott                  |   |
| Engineering Operations Cupanises |   |

### **SCOPE OF WORK**

### **Scope Of Work**

The scope of work to be done under this project consists of furnishing all labor, materials, equipment, material testing, supervision, and support for the construction of asphalt pavement preservation, rehabilitation and/or reconstruction processes, and asphalt pavement improvements. Additional work incidental to asphalt concrete work may include, but may not be limited to, roadway edge preparation, reworking shoulders, adjusting manholes and valve covers to grade, implementation of an adequate Storm Water Pollution Prevention Plan and Implementation, and Traffic Control and Safety.

- 1. Except as amended in the Bid document or otherwise directed by Technical Services or other County representatives for which the work is being completed, all work shall conform to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (<a href="https://www.fdot.gov/programmanagement/specs.shtm">https://www.fdot.gov/programmanagement/specs.shtm</a>); the Florida Department of Transportation Roadway and Traffic Design Standards (<a href="https://www.fdot.gov/design/standardplans/current/default.shtm">https://www.fdot.gov/design/standardplans/current/default.shtm</a>); and the Manual of Uniform Traffic Control Devices, all current editions (<a href="https://mutcd.fhwa.dot.gov">https://mutcd.fhwa.dot.gov</a>).
- 2. No work shall be performed under the provisions of this bid on any properties outside the limits of the project area without prior written permission of the lawful affected landowner. Any such permission shall be obtained by the Contractor(s) and shall identify the provisions under which such work is to be performed and written permission obtained shall be provided to the County Project Manager prior to the associated work being performed. The Contractor(s) shall not be compensated for any work outside the project area and shall hold the County harmless for all liabilities associated with said work outside the project area, if any work is performed without prior written permission from the County Project Manager.

### 3. FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

- a. The current Division II Construction Details and Division III Materials in the FDOT Standard Specifications for Road and Bridge Construction, including all revisions current at the time of the bid due date, shall apply to this Bid except as modified by Special Provisions or Technical Specifications attached to this Bid document.
- b. If any conflicts exist between the specifications prescribed in this Bid document, the more stringent requirement shall apply.

### 4. PROJECT QUOTES AND WORK ORDERS

- a. This bid includes asphalt roadway project Work Orders at various locations throughout Citrus County, according to the requirements of the Bid document. The project Work Order locations may be anywhere within Citrus County.
- b. When Out-of-Scope work is determined to be needed by the Project Manager, the Contractor will be instructed to include an Out-of-Scope line item in a Work Order with their Final Estimate for the project. The Contractor's Final Estimates will be returned to the County Project Manager including those out-of-scope costs previously identified by the Project Manager or Contractor. Once the Final Estimate is approved by the County Project Manager, a Purchase Order (PO) will be issued, and the County Project Manager will notify the

Contractor they are authorized to proceed to schedule the work with Inspection by means of the SAMPLE Pavement Management Work Order Form. If the Work Order is for \$500,000 or more, a new Public Construction Bond for the total amount of the PO must be delivered and approved by the Purchasing Section prior to the Project Manager issuing the Notice to Proceed. The approved Final Estimate should be attached to the PO. The Contractor may then coordinate with Inspection to schedule and commence work and proceed in accordance with the approved Project Schedule, if applicable. Payment for each project will be based on actual quantities used and unit prices from the bid, as approved by the County.

- c. The Contractor may not decline to perform projects assigned by Technical Services or other County representatives for which the work is being completed.
- d. The approved Final Estimate amount on any individual Work Order shall be the maximum compensation payable to the Contractor for that Work Order. The Work Order price may only be changed for altered quantities authorized by the County. If the Contractor desires to make a claim for a change in quantity or schedule of an authorized Work Order, any such claim shall be submitted to the County Project Manager in writing within three (3) working days of the occurrence of the event giving rise to the claim If a written claim is not received within the allotted time period, the claim is dismissed with no further action. If a claim is received, the Project Manager shall review the claim and make a determination as to its validity. If the Project Manager, in their sole opinion determines no cause for the claim, the claim will be dismissed, and the Contractor advised as to same. Otherwise, a Contingency Allowance Adjustment may be made and an amended Work Order will be issued to address the claim.
- e. The Contractor(s) shall provide all services to properly complete the work described in the Work Order, including but not limited to all labor, materials, testing, tools, transportation, and supplies. The Contractor(s) is required to have a qualified superintendent on the job site at all times. If multiple jobs are under construction concurrently, each job is required to have a qualified superintendent on site. The Contractor(s) shall specifically identify the project superintendent and provide inspection with the person's contact information prior to beginning work. If the County determines that a job site is not being adequately supervised, a Deficiency Notice will be issued to the Contractor(s).
- PROJECT SCHEDULES: The County will require that the Contractor submit a Project Schedule with each Final Estimate.
- 6. Working Hours: The regular working hours for Citrus County are Monday Friday, 7:00 AM to 5:30 PM. Permission to work outside of the regular work hours should be requested in writing a minimum of five (5) working days in advance from the Technical Services, or other County representatives for which the work is being completed. Permission to work on County holidays should also be requested in writing a minimum of five (5) working days in advance from the Technical Services, or other County representatives for which the work is being completed. The County reserves the right to modify the regular work hours of a given project to account for particularities of the project, such as peak traffic considerations.
- 7. OUT OF SCOPE WORK: When preparing a preliminary estimate, if it is known or reasonably anticipated that there are necessary items of construction that are not included on the price sheets of the bid or, during the course of executing a Work Order, the County Project Manager determines that there are necessary items of construction that are not included on the price sheets of the bid, then the County Project Manager will request a cost proposal from the

Contractor for the "Out of Scope" work. The "Out of Scope" proposal shall contain all necessary costs, expenses, and time. Contractor shall not commence work on any "Out of Scope" services until approval is received from the County Project Manager, a PO is issued, and if required as stated herein, an original Public Construction Bond has been delivered and approved by Procurement.

#### 8. TESTING AND INSPECTIONS

- a. The Contractor is responsible for all required testing on the project except when the Bid document, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction specifically require any Work to be inspected or tested by someone other than the Contractor. For these inspections and testing, the Contractor shall give the Technical Services, or other County representatives for which the work is being completed, a minimum of 48 hours' notice to prepare for the required inspections or testing.
- b. For all required inspections, tests and approvals on any work prepared, performed, or assembled away from the site, the Contractor will furnish the County Project Manager with the required Certificates of Inspection, testing or approval. All such tests will be in accordance with the methods prescribed by the American Society for Testing and Material (ASTM) or such other applicable organizations as may be required by law or the Bid document.
- c. Material and workmanship test type, location and frequency will be determined by the County based on Treatment Section at time of Work Order development and will be paid for as indicated on the Work Order. Material or Work in the place that fail to pass acceptability tests shall be removed and reconstructed according to the bid requirements at the Contractor's expense.
- d. No work shall be performed, nor materials used, without supervision and/or inspections by a representative of the County. The County representative shall have the authority to test and reject any materials and suspend the subject Work at any time.
- **9. EMERGENCIES:** In the event of an emergency, the Contractor shall immediately notify the County Project Manager.
- 10. DEFICIENCY NOTICES: Authorized County personnel may issue a Deficiency Notice to note that the Contractor is performing work in violation of the Contract conditions. Liability of any damages arising from the items listed in the Deficiency Notice will be the responsibility of the Contractor. Causes for a Deficiency Notice may include, but are not limited to, failure to submit a Project Schedule, failure to complete a Work Order within the scheduled time, failure to complete a Work Order, creating unsafe conditions for the traveling public, construction workers and County personnel, inadequate maintenance of traffic, substandard workmanship and/or materials, failure to adhere to approved work hours.
  - a. Upon receiving a Notice of Deficiency, the Contractor shall sign receipt of the notice, returning a signed copy to the Inspector and retaining one for their records. Signature of the Notice does not constitute admittance of the deficiency, only receipt of the Notice. Failure to do so may result in contract termination.

- b. Deficiencies noted for safety issues such as improper MOT or workers without proper safety equipment, must be immediately addressed.
- c. If the Contractor is in disagreement with the Notice, they may submit a written appeal to the Project Manager within five (5) working days of receiving the Notice. If a written appeal is not received within the allotted time, the Notice will stand. If an appeal is received, the Project Manager shall review the appeal and make a determination as to its validity. If the Project Manager, in their sole opinion determines no cause for the deficiency, the Notice will be nullified. Otherwise, a copy of the Notice will be provided to Procurement and become part of the Contractor's evaluation for that contract year Should a Contractor be issued three Notices or more for any one Work Order, or nine or more Notices for any combination of Work Orders over the term of the Contract, including extensions thereof, the Contractor may be Debarred or Suspended in accordance with the Rights of the County as contained herein.
- **11. SUSPENSION OR STOPPING WORK BY THE CONTRACTOR:** The Contractor shall not stop work on any project work order without the consent of the County Project Manager.

#### 12. MOBILIZATION:

- a. Project Staging Areas: Upon being assigned a project, the Contractor shall identify potential staging areas. County ROW or properties are preferred. Should the Contractor identify a private property as a staging area, they should provide the County with written documentation evidencing the property owner's permission to use said property as a staging area, and any required conditions for said usage. Upon completion, the staging areas must be returned to their original condition at no additional cost of the County, unless specifically instructed by the County or private owner to do otherwise.
- b. **Project Signs:** A minimum of five (5) working days prior to mobilizing to the project area, the Contractor shall install project signs (36 inches by 42 inches) with two posts advising of upcoming works. The signs shall be provided by the Contractor at no additional cost to the County and be submitted by the Contractor for review and approval by the County. The Contractor shall be responsible for the maintenance of these signs so long as the Contract is valid. For subdivisions, a sign shall be placed at the main entrance. For collectors or arterials, a sign shall be placed at both ends of the road. The Contractor shall remove the signs once the project is completed. Specific treatments may require resident notifications in addition to the project signs, as indicated under the Treatment Sections in the Technical Specification.

#### 13. SITE AND SURFACE PREPARATION:

- a. The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment, unless otherwise specified under the Treatment Sections in the Technical Specifications. The Contractor shall:
  - i. Use products as per FDOT Section 7-1.7 Insecticides, Herbicides and Fertilizers.
  - ii. Ensure that the herbicide carries an approved label for use under paved surfaces, and that herbicide is applied in accordance with directions on the label.

- iii. Prevent damage to any adjacent vegetation during herbicide application.
- iv. Replace, at no expense to the County, any plants damaged as the result of soil treatment outside designated areas.
- b. The Contractor will be responsible for sweeping or vacuuming the road ahead of any treatment, and immediately after in the case of milling operations, to make sure the road is free of loose aggregate and other debris prior to paving. The Contractor shall make every effort to keep the dust to a minimum and ensure that the broomed material is not spread onto adjacent shoulders, properties and sidewalks. Any debris inadvertently spread onto adjacent properties shall be promptly removed to the satisfaction of the Inspector or Engineer.
- c. All manhole and valve cover, inlets and other service entrances, etc., shall be protected by adequate means for the treatment being done.
- d. Additional site and surface preparation requirements may be specified in the Treatment Sections in the Technical Specification.
- e. There is no separate pay item for Site and Surface Preparation. The cost for this work is incidental to the bid items.

#### 14. MAINTENANCE OF TRAFFIC

- a. The terms Traffic Control Plan (TCP) and Maintenance of Traffic Plan (MOT Plan) are intended to be synonymous. The term Maintenance of Traffic (MOT) is the function presented in the TCP.
- b. The Contractor shall provide, install and maintain traffic devices for any assigned work according to the FDOT Design Standards Index 600 series, latest edition, and applicable laws and ordinances. The traffic control shall provide a safe work zone and safe flow of traffic in and through the project site. i. When needed, temporary striping will be considered as part of Maintenance of Traffic.
- c. Depending on the project complexity, the County may require the Contractor submit an MOT plan showing all phases of construction in advance for approval.
- d. The Contractor shall have a designated Worksite Traffic Supervisor who shall be adequately certified per FDOT requirements, and responsible for initiating, installing and maintaining all temporary traffic control devices. When needed, the Contractor shall provide dedicated flaggers, adequately certified per FDOT requirements. The Contractor shall provide Inspection with the name and contact information of the Worksite Traffic Supervisor prior to beginning any project and should be able to provide evidence of the MOT personnel certification upon request.
- e. If the construction method being employed requires a lane closure longer than a day, it shall not be considered as a moving operation and the Contractor should submit a Lane Closure Request to the County for approval.

- f. If the construction method being employed requires a temporary road closure, the Contractor should submit a Road Closure Request at least ten (10) working days prior to the anticipated start date of the closure for County review and approval.
- **15. EROSION CONTROL:** At the instruction of the Inspector or Engineer, the Contractor shall install any necessary temporary erosion control measures.

#### 16. OMITTED

**17. UTILITY COORDINATION:** The Contractor shall be responsible for "Sunshine One Call" for all locations incorporated into the work orders.

#### 18. MATERIALS

- a. The Contractor shall provide copies of all delivery tickets, or invoices, for all materials and equipment to be used for the project to Technical Services, or other County representatives for which the work is being completed immediately upon delivery or as soon thereafter as is practical.
- b. Arrangements for storage areas for materials and equipment shall be the responsibility of the Contractor. Before mobilizing or storing any materials or equipment, the Contractor shall identify the areas to be used for storage in writing to the County. If property other than County right-of-way is proposed for storage, the Contractor shall provide the County a copy of the written approval or agreement from the property owner before mobilizing or storing any materials or equipment on said property. The Contractor shall be responsible for restoring any and all damages to storage areas at no additional cost to the County. Restoration of damage to public rights-of-way, easements, or private properties outside of the work zone area shall be the Contractor's responsibility at no additional cost to the County. The Contractor shall be responsible for restoration of storage areas outside of the work zones. Said areas shall be restored by the Contractor at no additional cost to the County.
- 19. WORKSITE VISIBILITY: No work shall be performed when the visibility is less than two (2) times the Stopping Sight Distance for the highest regulatory posted speed through the project area as defined in the FDOT Manual of Uniform Standards for Design, Construction and Maintenance for Streets and Highways. Visibility distance shall be measured in all directions of travel and at locations and directed by the County. Project time extensions for substandard visibility shall be assessed according to FDOT Standard Specification Section 8-7.3.2.

#### 20. OMITTED

21. CONTAMINATION: Any equipment that is leaking fuel, lubricant, coolant, hydraulic fluid or any other hazardous material shall immediately be repaired by the Contractor to stop the leak. The Contractor shall immediately contact the County. The Contractor shall clean up and dispose of any leaked fluids according to all applicable laws, ordinances, rules and regulations within 24 hours of occurrence. All repairs, removal, clean-up and/or disposal shall be at no cost to the County.

#### **22. SAFETY**

a. The Contractor is responsible for providing for the safety of all Contractor's or subcontractor's personnel working in the Project Area.

- b. The Contractor is required to comply with Florida Statute (F.S.), Chapter 556, Underground Facility Damage Prevention and Safety Act. The Contractor is responsible for contacting Sunshine State One-Call of Florida, Inc., at 811 or www.callsunshine.com, no less than two (2) business days (48 hours) and no more than 5 business days before beginning any excavation, the Contractor provide notification according to the procedures of the F.S. Chapter 556.
- c. The Contractor is required to comply with OSHA Respirable Crystalline Silica Standard for Construction, 29 CFR 1926.1153.
- 23. STRIPING AND PAVEMENT MARKINGS: The Contractor shall adhere to the Striping Specifications according to FDOT Standards unless otherwise noted by the County Project Manager. With the exception of the Asphalt Rejuvenation Treatment, for purposes of a project quote, the Contractor shall include the striping, raised pavement markers (RPM'S), and pavement marking quantities assuming they will restripe to the existing configuration unless otherwise instructed. The Contractor will include these quantities for both thermoplastic and traffic paint as alternatives. Once a Work Order is given for any particular project, the Inspector or Engineer will indicate per project if the striping and pavement markings shall be thermoplastic or traffic paint, and if any changes to the striping will be done. The Final Estimate will reflect the actual quantities of striping and pavement markings installed. The Contractor shall provide documentation supporting the quantities installed or constructed per project as supporting documentation for invoicing. Temporary Striping shall be considered as part of the MOT.

#### 24. WORK AREA CLEAN-UP REQUIREMENTS

- a. During the progress of the Work, the Contractor shall keep the premises and maintained travel lanes free from accumulations of waste, discarded or surplus material, rubbish and other debris or contaminates resulting from the work.
- b. Following completion of the Work, Contractor shall remove all waste material, rubbish, debris, tools, construction equipment, machinery, and surplus material from public rights-of-way, easements, and private properties. The Contractor shall leave the site clean and ready for occupancy by the County at final completion of the work.

#### 25. OMITTED

- **26. INVOICES:** Prior to submitting an invoice, the Contractor shall coordinate with the Inspector, providing all daily tickets, certified material test(s), logs and other supporting documentation substantiating actual quantities of pay items installed or constructed. Once the Inspector and Contractor are in agreement of the quantities, the Contractor shall submit the appropriate invoice. Invoices may be submitted by email to the Project Manager.
- **27. WARRANTY:** The vendor shall warrant against all defects in material and workmanship for a period of one year after acceptance, unless otherwise indicated in the treatment's technical specification.

# **TECHNICAL SPECIFICATIONS**

## **Technical Specifications**

#### 1. Bid Item No. 577-70 – SHOULDER REWORK

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations to rework existing shoulders as per FDOT Specification 577, Edition 2000.
- b. Method of Measurement: Reworking shoulders will be measured by the square yard of reworked area.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor and incidentals necessary to complete the work as specified.

# 2. Bid Item No. CC-001-1a to CC-001-1c, CC-001-2a to CC-001-2c, CC-001-3a to CC-001-3d – CHIP SEAL

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations for single, double, or triple application of combined layers of polymer modified liquid asphalt emulsion and spread aggregate.
- b. Method of Measurement: Single, double, or triple application, will be measured by the square yard as provided for in the Contract Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

## 3. Bid Item No. CC-002-1a to CC-002-1g - MICRO-SURFACING

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations for the placement of a polymer modified microsurface on a prepared existing paved road to the thickness specified by the County.
- b. Method of Measurement: Microsurfacing will be measured by the square yard, with the exception of that used for rut filling. The later will be measured per ton, as provided for in the Contract Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

#### 4. Bid Item No. CC-003-1 to CC-003-8 - CRACK FILLING/SEALING

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations for the preparation and sealing of all surface cracks 1/4" to 1" inch wide.
- b. Method of Measurement: Crack Filling/Sealing shall be measured in gallons of crack seal applied to the road, as provided in the Contract Documents.

c. Basis of Payment: The unit price as shown on the Bid Sheet "Filling/Sealing" or "Routing and Sealing" shall be all inclusive to include cleaning, sealing, FDOT traffic control, mobilization and any other incidentals required to complete the work as specified.

## 5. Bid Item No. CC-004-1a to CC-004-1g - FOG SEAL

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations for the sprayed application of a bituminous fog seal material to bituminous asphaltic concrete surface courses.
- b. Method of Measurement: Fog Seal will be measured by the square yard as provided for in the Contract Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

## 6. Bid Item No. CC-005 - ASPHALT REJUVENATOR

- a Description: Furnish all labor, material, and equipment necessary to perform all operations for the sprayed application of an asphalt rejuvenating agent to bituminous asphaltic concrete surface courses.
- b. Method of Measurement: Asphalt Rejuvenator will be measured by the square yard as provided for in the Bid Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

#### 7 Bid Item No. CC-006a to CC-006f – SCRUB SEAL

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations for the sprayed application of a scrub seal to bituminous asphaltic concrete surface courses.
- b. Method of Measurement: Scrub Seal will be measured by the square yard as provided for in the Bid Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

# 8 Bid Item No. CC-008-1 to CC-008-4, CC-008-7 to CC-008, and CC-008-11 to CC-008-12 – FULL DEPTH RECLAMATION (FDR) WITH CEMENT

- a. Description: Furnish all labor, materials, and equipment necessary to perform all operations in the preparation of a stabilized base course done by in-place pulverizing and blending of the existing pavement and base materials, and the introduction of asphalt emulsion and additives as called for under the technical specifications.
- b. Method of Measurement: Full Depth Reclamation with Cement will be measured by the square yard. Refer to the technical specification for the method of measurements of additional tasks or materials associated to FDR, as per the technical specification.

c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

# 9 Bid Item No. CC-008-1 to CC-008-14 – FULL DEPTH RECLAMATION (FDR) WITH ASPHALT EMULSION AND CEMENT

- a. Description: Furnish all labor, materials, and equipment necessary to perform all operations in the preparation of a stabilized base course done by in-place pulverizing and blending of the existing pavement and base materials, and the introduction of asphalt emulsion and additives as called for under the technical specifications.
- b. Method of Measurement: Full Depth Reclamation with Asphalt Emulsion and Cement will be measured by the square yard. Refer to the technical specification for the method of measurements of additional tasks or materials associated to FDR, as per the technical specification.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

## 10 Bid Item No. CC-009-1 to CC-009-12 – COLD-IN-PLACE RECYCLING (CIP)

- a. Description: Furnish all labor, materials, and equipment necessary to perform all operations for the in-place construction of Cold Recycled Bituminous Base Course or CIP, as set forth in the Contract Documents.
- b. Method of Measurement: CIP will be measured by the square yard. Refer to the technical specification for the method of measurements of additional tasks or materials associated to CIP, as per the technical specification.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

## 11 Bid Item No. CC-010 - CAPE SEAL

- a. Description: Furnish all labor, material, and equipment necessary to perform all operations for placement of combined layers of polymer modified liquid asphalt emulsion, spread aggregate and a polymer modified microsurface on a prepared existing paved or unpaved road to the thickness specified by the County.
- b. Method of Measurement: Cape Seal application will be measured by the square yard as provided for in the Contract Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

#### 12 Bid Item No. CC-011-1 to CC-011-3 - OPEN GRADE

a. Description: Furnish all labor, material, and equipment necessary to perform all operations for placement of open grade crack relief asphalt

- on a prepared existing paved or unpaved road to the thickness specified by the County.
- b. Method of Measurement: Open Grade will be measured by the ton as provided for in the Contract Documents.
- c. Basis of Payment: Price and payment will be full compensation for furnishing of all materials, equipment, labor, and incidentals necessary to complete the work as specified.

| Ī |           |
|---|-----------|
|   | CHIP SEAL |
| I |           |

#### CC-001 CHIP SEAL SPECIFICATION

## I. Description:

The work specified in this section consists of furnishing and applying a single, double, or triple application of bituminous surface treatment on a paved roadway or on a prepared road base, compacted to the lines, grades, and thickness established by the County and in substantial conformance with the limits established by the owner.

Description: Chip Seal is a pavement surface treatment option that combines a layer of polymer modified liquid asphalt emulsion placed on a prepared base with a layer of aggregate spread and compacted while the asphalt is still liquid.

#### II. Materials:

## A. Aggregates:

Crushed granite conforming to FDOT specifications section 901, table 1 for #89, #78 or #67 gradation for coarse aggregates except as modified herein. The aggregate shall be washed granite obtained from a source approved by the owner. Sampling and testing of the aggregate shall be the responsibility of the Contractor. Copies of test results from the aggregate supplier shall be furnished to the owner prior to the start of the surface treatment.

All aggregate, #89, #78 and #67 shall be treated prior to application with Emulsified Asphalt Grade CSS-1H at the rate of .4% to .8% residual asphalt. All aggregate, clean broken stone, shall be pre-coated with an asphaltic material prior to the oil and chip process. All of the stone shall have 100% total coverage. A pugmill shall be used to pre-coat the stone. Stone having less than 100% total coverage shall not be used. The emulsified asphalt grade CSS-1H shall coat the entire surface of all of the aggregate. The pre-coating process is to take place at a location that is approved by the County. The County shall approve the pre- coated aggregate before the seal coat process begins.

All costs for the pre-coating and placement of aggregate shall be included in the cost of the items surface treatment CRS-2P and asphaltic pre-coated cover material, clean broken stone.

Payment shall not be made for the surface treatment/pre-coated cover material, clean broken stone unless a representative of the County is present to observe the pre-coating process.

#### B. Liquid bituminous material for surface treatment:

CRS-2P liquid bituminous material conforming to AASHTO M 316-99. When CRS-2P is specified apply the following modifications:

- 1. Distill the CRS-2P at 400°F for 20 minutes.
- 2. Provide Polymer-Modified Cationic Emulsified Asphalt, CRS-2P produced by using polymer modified base asphalt only. The emulsion shall be pumpable and suitable for application through a distributor truck.

The Cationic mixing grade shall be homogenous and of high quality. The material shall be prepared from straight-run Venezuelan Asphalt of high ductility and shall contain a rubber hydrocarbon additive derived from latex in addition to carefully controlled amounts of selected diluents to promote work ability and minimize stripping. Additives that enhance pavement performance are subject to approval by the County. The polymer material shall be co-milled into the asphalt or added to the emulsifier solution prior to the emulsification process. The amount of polymer modifier shall not be less than 3.0% polymer solids based on the asphalt content (by weight) and will be certified by the emulsified asphalt supplier.

## **Cationic Asphalt Emulsion**

| Material Designation                             |         |         |
|--|---------|---------|
|  |         |         |
| Test on Emulsion:                                | Minimum | Maximum |
| Viscosity, Saybolt Furol, 77 degrees F (25 C), s |         |         |
| Viscosity, Saybolt, 122 degrees F (50 C), s      | 100     | 400     |
| Demulsibility, 35ml, 0.8 percent DSS, %          | 70      | -       |
| Sieve Test, %                                    | -       | 0.1     |
| Storage Stability                                | -       | 1       |
|  |         |         |
| Residue by Distillation, 350°F max, %            | 65      |         |
| Oil distillate, % by volume of emulsion          |         | 0.5     |
|  |         |         |
| Residue Test, ASTM D 244 Low Temp                | Minimum | Maximum |
| Penetration, 77°F, 100gr, 5 sec                  | 70      | 150     |
| Elastic Recovery, ASTM D 6084, method B, 77°F    | 50      | -       |
| 5 cm/min, %                                      |         |         |
| Softening Point, °F                              | 125     | -       |
| Solubility in Trichloroethylene, %               | 97.0    | -       |

## C. Crack Filler:

Utilize a crack filler meeting the material requirements of the CC-003 Crack Filling/Sealing Specification.

#### D. Material Samples:

The County will require the Contractor to sample and test each load of emulsion prior to delivery. The Contractor will also provide a sample of the emulsion, on site, prior to commencing work. The County will require the Contractor to provide sample containers and a local independent testing laboratory with no affiliation to the emulsion supplier for the analyzing of emulsion. The Contractor will be responsible for the cost of the testing. The County reserves the right to test any shipment of emulsion that is believed to be of substandard. All samples shall be

shipped and stored in clean airtight sealed wide mouth jars or bottles made of plastic.

## III. Equipment:

#### A. Distributor:

The liquid bituminous material shall be applied with a truck mounted, pressure distributor that has been calibrated within the previous twelve (12) months, for transverse and longitudinal application rate. The distributor shall be equipped, maintained, and operated so that the bituminous material can be applied at controlled temperatures and rates from .035 to 1.5 gallons per square yard. The distributor shall be capable of applying bituminous material of variable widths up to sixteen (16) feet. The distributor shall uniformly apply the bituminous material to the specified rate with a maximum allowed variation of 0.015 gallons per square yard. Distributor equipment shall include a tachometer, accurate volume measuring device, a calibrated tank and a thermometer for measuring the temperature of the tank's contents. Distributors shall be equipped with a heating device, asphalt pump and full circulating spray bars adjustable laterally and vertically. Distributors and transport trailers shall be equipped with a sampling valve. Distributor trucks shall be of the pressure type with insulated tanks. The use of gravity distributors will not be permitted. The valves shall be operated by levers so that one or all valves may be quickly opened or closed in one operation. The valves which control the flow from nozzles shall act positively so as to provide a uniform unbroken spread of bituminous material on the surface. The distributor shall be equipped with devices and charts to provide for accurate and rapid determination and control of the amount of bituminous material being applied and with a bitumeter of the auxiliary wheel type registering speed in feet per minute, and trip and total distance in feet.

## B. Aggregate Spreader:

The aggregate spreader shall be a self-propelled unit capable of uniformly spreading the aggregate at the required rate on a minimum width of six (6") inches wider than the width of the lane to be treated. The spreader shall be calibrated within the previous twelve (12) months for transverse and longitudinal application. The spreader shall be capable of extending to a width of 22 feet. The spreader shall be equipped with a computer-controlled aggregate/chip spreader in order to ensure the appropriate aggregate coverage at varying speeds, unless approved otherwise by Engineer.

#### C. Rollers:

The Contractor shall use one, ten (10) ton steel wheeled roller and two, eight (8) to twelve (12) ton self-propelled pneumatic tire rollers with oscillating wheels and low pressure, smooth tires. Maintain the inflation of the tires such that in no two tires the air pressure varies more than 5 psi. The rollers will be equipped with an

operating water system and coco pads. A sufficient number of rollers and a sufficient number of passes shall be used to ensure the cover aggregate is properly rolled. The final passes of the rolling process shall be performed by a static steel wheel roller, which shall be operated without the vibrating function.

## D. Self-Propelled Rotary Power Broom:

The self-propelled rotary broom shall be designed, equipped, maintained, and operated so the pavement surface can be swept clean. The broom shall have an adjustment to control the downward pressure.

## E. Additional equipment:

Additional equipment will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 10' straight edge) shall be the responsibility of the Contractor.

#### IV. Construction:

#### A. Layout:

The Contractor will be responsible for the string lining and lay out of the roadway prior to paving.

#### B. Weather and Seasonal limitations:

The surface treatment shall not be applied to a wet surface or when rain is occurring, or the threat of rain is present immediately before placement. The surface treatment shall not be applied when the surface and/or air temperature is less than 50 degrees Fahrenheit in the shade. If Relative humidity is between 75% and 80%, additional time may be required to allow the emulsion to set before the lane can be opened to traffic. Operations may not continue if the relative humidity is above 80%. When applying emulsions, the temperature of the surface shall be a minimum of 55°F, and no more than 140°F.

If an unexpected rainstorm ensues, sufficient aggregate should be spread to cover all of the applied binder. If possible, the road or lane should be closed to traffic and, if not, traffic should be kept to a minimum speed during this period by use of pilot vehicles. The amount of rolling should be reduced, if not completely ceased, while the aggregate is wet, to avoid binder emerging from the voids and be picked up on the wheels of the roller.

## C. Preparation of Surface:

The chip seal material shall be placed on a firm unyielding prepared roadway. Any patching or crack sealing that the Contractor is also authorized to perform for the

project should be done a minimum of one (1) month prior to the chip seal application.

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment. The Contractor will be responsible for blowing or sweeping the road immediately ahead of the chip seal operation to make sure the road is free of loose aggregate and other debris, as well as sweeping and cleaning the streets after treatment. If, in the opinion of the Engineer, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All manhole and valve cover, inlets and other service entrances, etc., shall be protected from bituminous material by placing reinforced waterproof, all-purpose paper or other suitable material, approved by the Engineer.

Thermoplastic striping and pavement markings, raised pavement markers, and raised pavement marker adhesive shall be removed.

Microsurfacing may be used as rut fill if so, contracted for the specific project to level bumps, waves and corrugations.

#### D. Resident Notification

In Residential areas, the Contractor shall distribute by hand a typed notice to all residences and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The Contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

#### E. Traffic Control:

The Contractor shall furnish all necessary traffic control, barricades, signs, and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic shall not travel on fresh mix until rolling and blotting has been completed. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

The Contractor shall submit an M.O.T plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work.

Traffic shall not be allowed on the roadway after placement of the chip seal for a minimum of two hours. During and after placement of the chip seal, pilot cars should escort traffic at a speed of 20 mph (30 kph) over the chip sealed surface for two to 24 hours. For Collector Roads, pilot cars will be required unless otherwise instructed by Inspection. Once all the loose aggregate is removed from the new chip seal surface, pilot cars are no longer needed.

## F. Application of bituminous material:

Liquid bituminous material shall be applied by means of a pressure type distributor in a uniform, continuous spread over the section to be treated. The distributor shall be moving forward at the proper speed when the liquid is discharged onto the pavement to provide an even and consistent application at the rate prescribed. If any areas are deficient the operation shall be stopped and corrected immediately. The liquid shall not be applied more than two hundred (200') feet in advance of the aggregate spreader when the ambient air temperature is above 75 degrees or one hundred (100') feet if the air temperature is below 75 degrees.

- Single Chip Seal: Application of the liquid bituminous material shall be applied at a rate of .38 -.45 gallons per square yard depending on the composition of the existing roadbed, surface texture and the size of the aggregate in use.
- Double Chip Seal: The second application of liquid bituminous material shall be applied at a rate of .38 - .42 gallons per square yard depending upon the size of the first layer of aggregate that the liquid is sprayed upon, and the size of the aggregate being placed over the first application of surface treatment.
- **Triple Chip Seal:** The third application of liquid bituminous material shall be applied at a rate of .32 .38 gallons per square yard depending upon the size of the first two layers of aggregate that the liquid is sprayed upon, and the size of the aggregate being placed over the first and second applications of surface treatment.

## G. Application of cover Aggregate:

Immediately following the spray application of the liquid bituminous material, cover aggregate shall be spread over the liquid material at a rate of 18-30 lbs. square yard depending upon the type of road base and/or the size of the existing aggregate that is being resurfaced. If the chip seal application calls for more than one layer, these shall be spread independently.

## H. Rolling:

Immediately following the first application of the cover material, roll the entire surface with a pneumatic roller, rolling first along the edge line. The second pass shall be done about the centerline. A steel drum roller shall be used for the final passes without the vibrating function, covering the entire surface.

The total number of coverages for a Single Seal is three: the first by the pneumatic tire roller and the third by the steel wheel roller with the second pass being completed by a combination of the two rollers. Each successive lift is rolled in the same manor so the number of complete coverages for a Double Seal is six and for the Triple Seal is nine. Remember; to obtain complete coverage two or three passes by each individual roller may be required depending on the width of the pull.

Apply the second application of liquid and cover material the same day as the first application, as far as it is practicable and consistent with the setting of the liquid bituminous material.

#### I. Sweeping or Vacuuming:

After sufficient time has passed for the residual binder to cure and bond to the aggregate, lightly broom the loose aggregate in a manner not to dislodge the aggregate embedded in the liquid. Sweep loose material from the center first, working towards the edges of the roadbed. Following the second application again broom loose aggregate from the roadbed prior to the application of the fog seal. If temperatures exceed 85 degrees, it may be necessary to wait 24 hours before sweeping the first application of chip seal.

The roadway shall be swept or vacuumed again within 3 to 7 days of the chip seal having been performed. The Contractor will be responsible for maintaining the roadsides clear of accumulated aggregate for a two (2) week period after the chip seal is performed.

## J. Fog Seal:

Upon direction from the engineer, fog seal is to be applied as a separate pay item. When surface treatment has been set, a fog seal is to be applied at a rate of .1 to .15 gallons per square yard to the entire surface treatment. The liquid for fog seal shall be a cationic mixing type of emulsion diluted forty (40%) percent with water. If sanding is needed, the fog seal shall be lightly sanded at a rate of plus or minus two (2) pounds per square yard by means of a mechanical spreader.

## K. Pavement Striping and Markings

As part of the Maintenance of Traffic, the Contractor shall provide the necessary temporary striping and pavement markings during the different construction phases and maintained for a minimum of two (2) weeks following the completion of the chip seal operation.

Permanent striping and pavement markings, including the installation of reflective pavement markers shall be performed after the two (2) week period. Prior to applying the permanent striping and markings, the Contractor shall broom the roadway. The Contractor shall be responsible for maintaining the permanent striping and markings for a minimum of two (2) weeks after installation.

#### L. Deliverables:

Upon completion of the project, the Contractor shall provide Inspection with logs showing the daily and running totals of aggregate and bituminous material. If a Cape Seal was performed, the daily production logs for the microsurfacing shall also be provided as backup documentation for invoicing.

## M. Warranty:

The Contractor shall provide the County upon final acceptance of the Chip Seal work, with a warranty period of two (2) years which shall include all labor, materials, hauling, traffic control and striping to repair the defective areas. Defective areas shall include debonding/delamination, bleeding, excessive raveling, and aggregate loss. The Contractor shall perform all warranty work at no cost to the County.

#### N. General Performance:

Provide completed pavement which performs to the satisfaction of the engineer without bleeding, rutting, shoving, raveling, stripping, or showing other types of pavement distress or unsatisfactory performance.

#### V. Method of Measurement:

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Chip Seal, and not specifically listed in another item in the Bid Form, shall be included in this item. Should the Contractor be directed to place Fog Seal as a secondary application to Chip Seal, it shall be measured separately as listed in the Technical Provision for Fog Seal.

## VI. Basis of Payment:

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Chip Seal, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the

specifications, except that at the direction of the County. Fog Seal shall be applied and paid separately as listed in the Specification for Fog Seal.

Payment will be made under:

| Pay Item                       | Pay Unit    |
|--------------------------------|-------------|
| Chip Seal (Single application) | Square Yard |
| Chip Seal (Double application) | Square Yard |
| Chip Seal (Triple application) | Square Yard |

**END OF SECTION** 

## **CRACK FILLING/SEAL**

#### CC-003 CRACK FILLING/SEALING SPECIFICATION

## I. Description

The work consists of applying a hot-applied, single component polymer/rubber modified Type 3 sealant supplied in solid form, to seal or fill cracks or joints in asphalt concrete or Portland cement concrete pavements. Cracks or joints that will be sealed shall be a minimum of one quarter (1/4) inch and have a maximum width of one (1) inch.

#### II. Materials

**A.** Polymer/rubber Modified Asphalt Material: Materials shall be a premixed, single component mixture of asphalt cement, aromatic extender oils, polymers, and granulized rubber in a closely controlled manufacturing process. Materials shall conform to the following specifications when heated in accordance with ASTM D5078 to the manufacturer's maximum safe heating temperatures.

| Property  | Specification  |
|---|----------------|
| Cone Penetration, (ASTM D5329)                    | 20 – 40        |
| Resilience, (ASTM D5329)                          | 30 % min.      |
| Softening Point (ASTM D36)                        | 210°F min.     |
| Ductility, 77.0°F (ASTM D113)                     | 30 cm min.     |
| Flexibility, 1/8" specimen, 90° bend, 10 sec., 1" | Pass at 30°F   |
| mandrel (ASTM D3111 Modified)                     |                |
| Flow 140°F (60°C) (ASTM D5329)                    | 3mm max.       |
| Viscocity, 400°F (ASTM D2669)                     | 100 Poise max. |
| Asphalt Compatibility (ASTM D5329)                | Pass           |
| Bitumen Content (ASTM D4)                         | 60% min.       |
| Tensile Adhesion 1" thickness (ASTM D5329)        | 400% min.      |
| Maximum Heating Temperature                       | 400°F (204°C)  |
| Minimum Heating Temperature                       | 380°F (193°C)  |

**B. Blotting Material:** If required, the blotting material shall be an aggregate such as cement dust, specialized release or detacking agent, or other cover aggregate approved by the Project Manager.

## III. Equipment

A. Crack Sealant Application Equipment: Equipment used to install the sealant into the cracks shall be as specified by the manufacturer and shall have the ability to fill cracks with two wands at the same time and maintain the proper temperature of the sealant throughout the sealing process. This heating unit shall be a jacketed double boiler melter and shall be equipped with an agitation system. The applicator hoses shall have a recirculation system or be equipped with a temperature-controlled heating system. Pouring pots or gravity-fed sealant applicators shall not be used for sealing cracks and joints.

- **B.** Compressor: The compressor shall be 75 C.F.M. capacity, or more, to ensure an adequate supply of air to effectively clean the joints. Any pneumatic tool lubricator should be bypassed, and a filter installed on the discharge valve to keep water and oil out of the lines.
- **C. Hot Compressed Air Equipment:** A hot compressed air lance shall be used to clean, dry and pre-heat cracks prior to applying sealant. The air lance shall consist of a compressor propane system providing a high temperature, high velocity blast of air.
- **D.** Crack Cleaning Equipment: Cleaning of excess debris shall be done by means of power sweepers, hand brooms, or air brooms.

#### IV. Construction

#### A. Submittals

At the beginning of this Contract, the Contractor shall submit to the Project Manager the specifications sheets along with the manufacturer's suggested installation procedures and equipment of the type of crack seal that is to be used for approval. Once approved, these documents shall be complementary documents to this specification.

If the Contractor intends to change to another product meeting this specification over the life of the Contract, they shall have to resubmit the above-mentioned information for the new product for approval prior to its use.

During the crack seal operations, the Contractor shall maintain a log sheet, the original of which shall be supplied to the Inspector at the end of the project and become supporting documentation for invoicing purposes. A minimum of the following information shall be recorded:

- 1. Date, time and amount added to the melter. The lot number of each box added shall also be recorded.
- 2. Road name, date, time application process starts, amounts installed, time application process ends.
- 3. Weather conditions

The Contractor shall supply the Inspector with tickets and the corresponding actual lot numbers removed from the boxes, showing the number of gallons used for each road.

A log of all herbicides, if any, shall be kept and a copy shall be supplied to the Inspector within one (1) week of spraying. This log shall include the type of material, mixture rate, application rate, location, date, and time of application.

**B.** Traffic Control: The Contractor shall furnish all necessary traffic control, barricades, signs, and flagmen, to ensure the safety of the traveling public and to all working personnel. If requested by the County, the Contractor shall submit an

- M.O.T plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section 102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.
- **C. Weather:** No sealant shall be installed unless the ambient and pavement temperature are 40°F and rising. There shall be no fog and no chance of rain. Any cracks that are not sealed the same day they are prepared shall be blown out with compressed air before the sealing operation continues. If rain or fog delays the sealing operation, the cracks shall be allowed to dry and shall have additional cleaning as required to remove any debris that may have been washed into the crack by rain. The cracks shall be completely dry before the seal treatment can resume. The Contractor may use the Hot Compressed Air Lance method of cleaning and drying the cracks with the approval of the Inspector. Care shall be taken to not overheat the existing asphaltic concrete surface if this method is used.
- **D.** Surface Preparation: Prior to starting any application process the Contractor shall be responsible for removing any deleterious materials, including dirt, old sealant, incompressible and organic materials that is on the asphalt, and that the cracks and joints are sufficiently dry.
- E. Crack Cleaning: When vegetation exists in the cracks and joints, it shall be removed by either using propane torch or treated with an herbicide that sterilizes the soil. The method of removal is subject to the approval of the Project Manager. If an herbicide is used it shall be applied according to the manufacturer's specifications and shall be applied ahead of the operations so that the weed is totally browned. The applicator of the herbicide shall have the proper State of Florida Pesticide Applicators License. A copy of this license shall be supplied to the Project Manager upon request. A log of all herbicides shall be kept as specified in the Submittals section of this specification, and a copy shall be supplied to the Project Manager. All cracks are to be clean and are sufficiently dry before any crack sealing material is applied. All cracks shall be blown clean by high pressure air. All old material and other debris removed from the cracks shall be removed from the pavement surface immediately. Any cracks that are not sealed the same day they are prepared shall be blown out with compressed air before the sealing operation continues.
- **F. Sealant Heating:** The temperature of the sealant shall be heated and maintained using the manufacturer's recommended procedures. The sealant compound shall be melted slowly with constant agitation until it is in a lump-free, free-flowing state, within the temperature range recommended by the manufacturer for application. Care shall be taken to ensure that the sealant is not heated above the manufacturer's recommended maximum temperature or for longer than the recommended application life. The Project Manager shall have the right to reject the product if it is determined that this has occurred.
- G. Sealant Application: The sealant shall be applied in the crack or joint

reservoir uniformly from the bottom to the top and shall be filled without formation of entrapped air or voids. The sealant shall be installed so that it is recessed approximately one eight (1/8) inch below the pavement surface to prevent tracking. Sealant shall be applied to slightly overfill the reservoir and then struck off using a "V" shaped squeegee. The remaining squeegee material shall be flushed with the pavement surface. In no case shall the width of excess material on the pavement surface exceed (4) inches. At no time shall the sealant be in excess of one sixtieth (1/16) inch above the adjacent surface and shall extend no more than one and a half (1.5) inches from the crack edges. Each wand shall have removable heads so that variable width discs from two (2) to four (4) inches may be installed at the Inspector's request.

**H. Blotting Application:** When traffic requires immediate use of the roadway, blotting material shall be broadcast or sprayed over the fresh sealant to prevent it from being picked up and tracked. Any excessive or spilled sealer shall be removed by the Contractor using approved methods.

## V. Liability and Deficiencies:

During the period of construction and the warranty period the Contractor shall be responsible for processing any and all claims for property damage and or bodily injury caused by the failure of the Crack Sealing including but not limited to, motor vehicles or pedestrians. The Contractor shall be responsible for the payment of all property damage and bodily injury claims and agrees to save and hold harmless the COUNTY from all such claims. Claims not handled by the Contractor or their representative in the proper manner will be settled by the COUNTY. The COUNTY shall recover all costs from the Contractor.

- 1. The Contractor shall be responsible for any claims of tracking as part of this specification. If there is a claim the Contractor shall be responsible for:
  - a) Applying more blotting material as necessary
  - b) Address the tracked material by either removing or repairing the object that was affected.
- 2. Where the sealant subsides in the crack by more than 1/8 inches below the adjacent pavement surface, except where the pavement will be immediately overlaid, the surface of the sealant shall be cleaned and topped up.

The sealant shall be removed, the routed crack rerouted at the Inspector's discretion, and resealed if any of the following occur:

- a) The sealant contains embedded foreign material other than dusting material.
- b) The sealant contains entrapped air bubbles.
- c) The sealant has de-bonded or pulled away from the crack.
- d) The sealant has been excessively heated.

#### VI. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Crack Filling/Sealing, and not specifically listed in another item in the Bid Form, shall be included in this item.

The measurement shall be made in the number of gallons of crack seal applied to the road, and shall be supported by the required submittals outlined in this specification. The amount of crack sealer shall be reported and invoiced for each road.

## VII. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Crack Filling/Sealing, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

Payment will be made under:

| Pay Item              | Pay Unit   |
|-----------------------|------------|
| Crack Filling/Sealing | Per gallon |

**END OF SECTION** 

#### CC-004 FOG SEAL SPECIFICATION

## I. Description

The work specified in this section consists of furnishing and applying fog seal on existing roads at application rates described here-in. Fog seals are a method of adding asphalt to an existing pavement surface to improve sealing or waterproofing, prevent further stone loss by holding aggregate in place, or simply improve the surface appearance. Generally, fog seal is a light spray application of diluted asphalt emulsion used primarily to seal an existing asphalt surface to reduce raveling and enrich dry and weathered surfaces. However, inappropriate use can result in slick pavements and tracking of excess material.

#### II. Materials

The emulsion types recommended for fog seals may be cationic (i.e., a positive surface charge on the asphalt particles), or anionic (i.e., a negative surface charge on the asphalt particles). The primary types used are CSS-1h and SS-1h. In some circumstances, CQS-1h (and LMCQS-1h) will give a faster set.

A. Liquid emulsified bituminous material for dilution: CSS-1h liquid bituminous material conforming to the requirements of AASHTO M 208 or SS-1h conforming to the requirements of AASHTO M 140 (except as modified herein) shall be utilized. The Contractor shall certify the liquid bituminous material meets the aforementioned specifications.

The asphalt emulsion may contain up to 43% water prior to dilution. Original emulsion water and dilution water shall be limited to and not exceed for any reason 50% by volume. Therefore, residual asphalt shall equal 50% (+1%, -0%).

B. **Dilution Water and Emulsion Water:** Water introduced into the asphalt should be potable and free from detectable solids or incompatible soluble salts (hard water).

## C. Material Samples:

The County will require the Contractor to sample and test each load of emulsion prior to delivery. The Contractor will also provide a sample of the emulsion, on site, prior to commencing work. The County will require the Contractor to provide sample containers and a local independent testing laboratory for the analyzing of emulsion. The Contractor will be responsible for the cost of the testing. The County reserves the right to test any shipment of emulsion that is believed to be of substandard. All samples shall be shipped and stored in clean airtight sealed wide mouth jars or bottles made of plastic.

## III. Equipment:

#### A. Distributor:

The liquid bituminous material shall be applied with a truck mounted, pressure distributor that has been calibrated within the previous twelve (12) months, for

transverse and longitudinal application rate. The distributor shall be equipped, maintained, and operated so that the bituminous material can be applied at controlled temperatures and rates from .03 to .22 gallons per square yard with nozzles adjusted to allow minimum overlap of 3x. The distributor shall be capable of applying bituminous material of variable widths up to sixteen (16) feet. The distributor shall uniformly apply the bituminous material to the specified rate with a maximum allowed variation of 0.015 gallons per square yard. Distributor equipment shall include a tachometer, accurate volume measuring device, a calibrated tank, and a thermometer for measuring the temperature of the tank's contents. Distributors shall be equipped with an asphalt pump and full circulating spray bars adjustable laterally and vertically. Distributors and transport trailers shall be equipped with a sampling valve. Distributor trucks shall be of the pressure type with insulated tanks. The use of gravity distributors will not be permitted. The valves shall be operated by levers so that one or all valves may be quickly opened or closed in one operation. The valves which control the flow from nozzles shall act positively so as to provide a uniform unbroken spread of bituminous material on the surface. The distributor shall be equipped with devices and charts to provide for accurate and rapid determination and control of the amount of bituminous material being applied and with a bitumeter of the auxiliary wheel type registering speed in feet per minute, and trip and total distance in feet.

## B. Additional equipment:

Additional equipment will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. The availability of quality assurance devices shall be the responsibility of the Contractor.

#### IV. Construction

#### A. Layout

The Contractor will be responsible for the layout of the roadway and project planning and sequencing to meet traffic control requirements prior to beginning.

## B. Weather and Seasonal limitations:

The fog seal shall not be applied to a wet surface or when rain is occurring, or the threat of rain is present immediately before placement. The surface treatment shall not be applied when the temperature is less than 50 degrees Fahrenheit in the shade. When applying emulsions, the temperature of the surface shall be a minimum of 59°F, and no more than 140°F.

If unexpected rain occurs prior to the emulsion breaking, the area shall be refogged at no cost to the County. Further, the Contractor's traffic control and project monitoring shall continue until the surface is either free of emulsion or the emulsion applied has broken, and the resultant surface is not slippery or dangerous to vehicular travel.

## C. Preparation of Surface:

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment. The Contractor will be responsible for blowing or sweeping the road immediately ahead of the operation to make sure the road is free of loose aggregate and other debris, as well as sweeping and cleaning the streets after treatment. If, in the opinion of the Engineer, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All manhole and valve cover, inlets and other service entrances, etc., shall be protected from bituminous material by placing reinforced waterproof, all-purpose paper or other suitable material, approved by the Engineer.

Thermoplastic striping and pavement markings, raised pavement markers, and raised pavement marker adhesive shall be removed.

#### D. Resident Notification

In Residential areas, the Contractor shall distribute by hand a typed notice to all residences and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The Contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

## E. Application of bituminous material:

The emulsion shall be diluted no more than 24 hours before its intended use to avoid settlement of the diluted emulsion. Water shall be introduced into the emulsion. Introducing emulsion into water is not permitted. The emulsion shall be circulated using a centrifugal or other suitable pump to ensure uniformity as needed.

Properly calibrated distributor trucks with 4 to 5 mm (1/8" to 3/16") opening spray nozzles shall be used to apply the emulsion. The emulsion may be heated to 122°F maximum or may be applied at ambient temperatures conforming to the requirements of this technical provision. The emulsion shall be sprayed at a rate as directed in the field by the county. Application will be determined dependent upon the surface conditions.

- Tight Surface (low absorbance and relatively smooth) .09-.14 gal/sy
- Open Surface (relatively porous and absorbent with open voids) .18-.22 gal/sy

## F. Exceptions:

When fog seal is required as a subsequent treatment to chip seal, OGCM, or other method described in this contract, materials, equipment, and application shall be as described in this technical provision and as amended in the technical provision appropriate to the work the fog seal is subsequent to. If discrepancies occur, the County shall determine the appropriate specification.

#### G. Traffic Control

The Contractor shall furnish all necessary traffic control, barricades, signs, and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic shall not travel on fresh fog seal until material is sufficiently broken such that tire pickup does not occur. The Contractor shall submit an M.O.T plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

#### V. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Fog Seal, and not specifically listed in another item in the Bid Form, shall be included in this item.

## VI. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Fog Seal, including all items of work described herein.

No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

Payment will be made under:

| Pay Item                                 | Pay Unit    |
|--|-------------|
| Fog Seal "Tight Surfaces" (.0914 gal/sy) | Square Yard |
| Fog Seal "Open Surfaces" (.1822 gal/sy)  | Square Yard |

# **END OF SECTION**

# **ASPHALT REJUVENATOR**

#### CC-005 ASPHALT REJUVENATOR

**Note** in this specification, the term "rejuvenation product" will carry the same connotation as the term "rejuvenator" or "rejuvenator/sealer." The term "rejuvenation product" will be used throughout this specification for the purpose of recognizing rejuvenation performance for each class of rejuvenation products.

## I. Description

This item governs all work, labor, material, and equipment necessary for the application of an asphalt pavement rejuvenation product to a previously placed hot mix asphalt (HMA) surface. The purpose of this product is the rejuvenation of the upper 3/8 inch (9 mm) of oxidized or otherwise aged asphalt binder without causing an unacceptable reduction in the friction characteristics (skid resistance) of the pavement section.

Additionally, the rejuvenation product should not introduce unacceptable pavement distresses such as raveling, high temperature deformation (rutting), and loss of strength. The rejuvenation product should not contribute to accelerated deterioration of the pavement.

#### II. Material

## A. Rejuvenator Agent:

The asphalt rejuvenating agent shall be an emulsion composed of a petroleum resin oil base uniformly emulsified with water. Each bidder should submit with their bid a certified statement from the asphalt rejuvenator manufacturer showing that the asphalt rejuvenating emulsion conforms to the required physical and chemical requirements.

|  |         | TEST METHOD   |            | REQUIREMENTS   |      |
|--|---------|---------------|------------|----------------|------|
| TESTS  |         | ASTM          | AASHTO     | MIN.           | MAX. |
| Tests on Emulsion:                                 |         |               |            |                |      |
| Viscosity # 25°C, SFS                              |         | D-244         | T-59       | 15             | 40   |
| Residue, % W <sup>1</sup>                          |         | D-244 (mod)   | T-59 (mod) | 60             | 65   |
| Miscibility Test <sup>2</sup>                      |         | D-244 (mod)   | T-59 (mod) | No Coagulation |      |
| Sieve Test, %W <sup>3</sup>                        |         | D-244 (mod)   | T-59 (mod) |                | 0.1  |
| Particle Charge Test                               |         | D-244         | T-59       | Positive       |      |
| Percentage   | Light   | GB            | GB         |                | 30   |
| Transmittance <sup>4</sup>                         |         |               |            |                |      |
| Tests on Residue                                   | from    |               |            |                |      |
| Distillation: Flash Point, COC, °C Vis @ 60°C, cst | scosity | D-92<br>D-445 | T-48<br>   | 196<br>100     | 200  |

| Asphaltenes, %w                        | D-2006-70 | <br>    | 1.00 |
|--|-----------|---------|------|
| Maltene Dist. Ratio                    | D-2006-70 | <br>0.3 | 0.60 |
| 1 PPPP + AA <sup>5</sup>               |           |         |      |
| $\overline{SS + AA_2}$                 |           |         |      |
| PC/S Ratio <sup>5</sup>                | D-2006-70 | <br>0.5 |      |
| Saturated Hydrocarbons, S <sup>5</sup> | D-2006-70 | <br>21  | 28   |

ASTM D-244 Modified Evaporation Test for percent of residue is made by heating 50 gram sample to 149 C (300 F) until foaming ceases, then cool immediately and calculate results.

A2 = Second Acidaffins

S= Saturated Hydrocarbons

#### B. Material Performance

The rejuvenating agent shall have a record of at least five years of satisfactory service as an asphalt rejuvenating agent and in-depth sealer. The asphalt rejuvenating agent shall have the capability to penetrate the asphalt pavement surface. The asphalt rejuvenating agent shall be absorbed and incorporated into the asphalt binder. Verification that said incorporation of the asphalt rejuvenating agent into the asphalt binder has been affected shall be by analysis of the chemical properties of said asphalt binder i.e. viscosity shall be improved to the following extent. The viscosity shall be reduced by a minimum of forty, (40%) percent as determined by dynamic shear rheometer (DSR) method for asphalt testing in accord with AASHTO T315-05. This analysis shall apply to extracted asphalt binder, taken from cores extracted fifteen to thirty days following application, in the upper 3/8" of pavement. In addition, the treated areas shall be sealed in-depth to the intrusion of air and water.

The rejuvenating agent shall have a record of at least five years of satisfactory service as an asphalt rejuvenating agent and in-depth sealer. Satisfactory service shall be based on the capability of the material to decrease the viscosity of the asphalt binder and provide an in-depth seal.

The bidder should submit with their bid the manufacturer's certification that the material proposed for use is in compliance with the specification requirements.

<sup>&</sup>lt;sup>2</sup> Test procedure identical with ASTM D-244-60 except that 0.02 Normal Calcium Chloride solution shall be used in place of distilled water.

<sup>&</sup>lt;sup>3</sup> Test procedure identical with ASTM D-244 except that distilled water shall be used in place of two percent sodium oleate solution.

<sup>&</sup>lt;sup>4</sup> Test procedure is attached.

<sup>&</sup>lt;sup>5</sup> Chemical composition by ASTM Method D-2006-70: PC = Polar Compounds A1 = First Acidaffins

The bidder should submit with their bid, previous use documentation and test data conclusively demonstrating that; the rejuvenating agent has been used successfully for a period of five years by government agencies such as cities, counties, etc.; and that the asphalt rejuvenating agent has been proven to perform, as heretofore required, through field testing by government agencies as to the required change in the asphalt binder viscosity and penetration number.

Testing data shall be submitted indicating such product performance on a sufficient number of projects, each being tested for a minimum period of three years to insure reasonable longevity of the treatment, as well as product consistency. In addition, testing data shall be submitted to indicate said product performance over a testing period of three years to ensure reasonable life expectancy.

## III. Equipment

Any equipment which is not maintained in full working order, or is proven inadequate to obtain the results prescribed, shall be repaired, or replaced at the direction of the Engineer.

#### A. Distributer Tank:

The distributor for spreading the emulsion shall be self-propelled and shall have pneumatic tires. The distributor shall be designed and equipped to distribute the asphalt rejuvenating agent uniformly on variable widths of surface at readily determined and controlled rates from 0.05 to 0.5 gallons per square yard of surface, and with an allowable variation from any specified rate not to exceed 5 percent of the specified rate.

Distributor equipment shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for application of the emulsion manually to cover areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the emulsion within the tank.

A check of distributor equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the Engineer.

The truck used for sanding shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply 1/2 pound to 3 pounds of sand per square yard in a single pass. The spreader shall be adjustable so as not to broadcast sand onto driveways or lawns.

#### B. Sand Truck:

Sand blotters may be used to allow early opening to traffic, if so, determined by the Engineer. The truck used for sanding shall be equipped with a spreader that

allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply 1/2 pound to 3 pounds of sand per square yard in a single pass. The spreader shall be adjustable so as not to broadcast sand onto driveways or lawns.

The sand to be used shall be free flowing, without any leaves, dirt stones, etc. Any wet sand shall be rejected from the job site.

# C. Additional equipment:

Additional equipment will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 15' straight edge) shall be the responsibility of the Contractor.

#### IV. Construction

# A. Layout

The Contractor will be responsible for the layout of the roadway and project planning and sequencing to meet traffic control requirements prior to beginning.

#### B. Weather

The rejuvenation product should be applied only when the existing surface is dry, and the weather forecast is in accordance with the manufacturer's recommendations for application and curing. The rejuvenation product shall be applied only when the existing surface is thoroughly dry. Additionally, application of the asphalt rejuvenating agent shall be prohibited when weather forecasts indicate a chance of a rain event in the work area, which would produce in excess of 0.10 inches of rain within four hours of the application of the asphalt rejuvenating agent. If weather conditions interfere with application and/or curing, the Inspector may at his discretion suspend the job or require remedial action as deemed necessary.

#### C. Resident Notification

The Contractor shall distribute by hand, a typed notice to all residents and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The Contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

#### D. Preparation of Surface

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of

organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment. The Contractor will be responsible for blowing or sweeping the road immediately ahead of the operation to make sure the road is free of loose aggregate and other debris, as well as sweeping and cleaning the streets after treatment. If, in the opinion of the Engineer, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All manhole and valve cover, inlets and other service entrances, etc., shall be protected from bituminous material by placing reinforced waterproof, all-purpose paper or other suitable material, approved by the Engineer.

#### E. Traffic Control

The Contractor shall schedule his operations and carry out the work in a manner to cause the least disturbance and/or interference with the normal flow of traffic over the areas to be treated. Treated portions of the pavement surfaces shall be kept closed and free from traffic until, in the opinion of the Inspector, the rejuvenator has sufficiently penetrated the surface and the area is suitable for traffic.

When, in the opinion of the Inspector, traffic should be maintained at all times on a particular street, then the Contractor shall apply asphalt rejuvenating agent to one lane at a time. Traffic shall be maintained in the untreated lane until traffic may be switched to the completed lane.

The Contractor shall be responsible for all traffic control and signing required to ensure safe travel. The Contractor shall notify the police and fire departments as to the streets that are to be treated each day. If, in the opinion of the Engineer, proper signing is not being used, the Contractor shall stop all operations until safe signing and barricading is achieved.

# F. Application of the Rejuvenation Product

The asphalt rejuvenating agent shall be applied by a distributor truck at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The emulsion shall be applied so that uniform distribution is obtained at all points of the areas to be treated. Distribution shall be commenced with a running start to ensure full rate of spread over the entire area to be treated. Areas inadvertently missing shall receive additional treatment as may be required by hand sprayer application.

Application of asphalt rejuvenating agent shall be on one-half width of the pavement at a time. When the second half of the surface is treated, the distributor nozzle nearest the center of the road shall overlap the previous application by at least one-half the width of the nozzle spray. In any event the

centerline construction joint of the pavement shall be treated in both application passes of the distributor truck.

Before spreading, the asphalt rejuvenating agent shall be blended with water at the rate of two (2) parts rejuvenating agent to one (1) part water, by volume or as specified by the manufacturer. The combined mixture of asphalt rejuvenating agent and water shall be spread at the rate of 0.05 to 0.10 gallons per square yard, or as approved by the Engineer.

Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application has been completed and approval is granted for additional applications by the Inspector.

Grades or super elevations of surfaces that may cause excessive runoff, in the opinion of the Inspector, shall have the required amounts applied in two or more applications as directed. After the street has been treated, the area within one foot of the curb line on both sides of the road shall receive additional treatment of the asphalt rejuvenating emulsion. Said treatment shall be uniformly applied by a method acceptable by the Inspector. After the rejuvenating agent has penetrated, a coating of dry sand or approved blotting agent shall be applied to the surface in sufficient amount to protect the traveling public as required by the Inspector.

All blotting agents used during the treatment should be removed no later than 48 hours after treatment of the street, either by hand or mechanical means. All turnouts, cul-de-sacs, etc. should be cleaned of any material to the satisfaction of the Inspector. Post- construction street cleaning will be included in the price bid per square yard for asphalt rejuvenating agent.

If, after the blotting agent is swept and in the opinion of the Engineer, a hazardous condition exists on the roadway, the Contractor should apply additional blotting agent and sweep same no later than 24 hours following reapplication. No additional compensation will be allowed for reapplications and removal of sand.

# G. Quality Assurance and Testing

1. **Deliverables:** Upon project completion, the Contractor shall furnish a quality inspection report showing the source, manufacturer, and the date shipped, for each load of asphalt rejuvenating agent. The report shall also indicate the actual area treated per road and serve as supporting documentation for invoicing. When directed by the Engineer, the Contractor shall take representative samples of material for testing.

The County, at their option, may require testing to be performed on extracted asphalt cement from a pavement to a depth of three eight inch (3/8"). The testing protocol shall be extraction and recovery of the top 3/8" layer from a 4- inch or 6-inch core by ASTM D2172 and ASTM D1856. The recovered binder can be tested for complex viscosity @ 60°C, Pas, using the Dynamic Shear Rheometer

(DSR) by AASHTO T315, or viscosity @ 60°C, Poises, using the Absolute viscosity @ 60°C, Poises, by ASTM D2171. Costs associated with testing shall be included in bid price.

# V. Method of Measurement

Asphalt rejuvenating agent will be measured by the square yard as provided for in the Contract Documents. The accepted quantities, measured as provided for above, will be paid for at the contract unit price for asphalt rejuvenating agent.

# VI. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which are included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit prices include all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Asphalt Rejuvenating Agent, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications.

Payment will be made under:

| Pay Item                   | Pay Unit |             |
|----------------------------|----------|-------------|
| Asphalt Rejuvenating Agent |          | Square Yard |

**END OF SECTION** 

# SCRUB SEAL

#### CC-006 SCRUB SEAL SPECIFICATION

# I. Description

Scrub Seal shall consist of the application of a slow setting, anionic or cationic asphalt emulsion or specialty emulsions developed specifically for scrub sealing, followed by a cover aggregate. The emulsion may be polymer modified.

#### II. Materials

## A. Asphalt Emulsions

The asphalt emulsions employed for Scrub Seals shall be slow to medium setting anionic or cationic SS-1, SS-1H, CSS-1H; ASTM specifications for anionic (SS) emulsions are listed in D977 and for cationic (CSS) emulsion in D2397.

Suppliers of other specialty emulsions for Scrub Sealing should supply specifications for these emulsions. Asphalt emulsions may be modified with a polymer additive.

# B. Cover Aggregates

Mineral Aggregates for scrub seal shall conform to **Table 1**.

| Table 1: Scrub Seal Aggregate Gradation Limits |                 |           |
|--|-----------------|-----------|
| Sieve Size                                     | Percent Passing | Tolerance |
| 3/8 inch (9.5mm)                               | 100             | 0         |
| No. 4 (4.75mm)                                 | 96              | +3        |
| No. 10 (2.0mm)                                 | 60              | ±20       |
| No. 50 (300µm)                                 | 18              | ±12       |
| No. 100 (150µm)                                | 5               | ±5        |
| No. 200 (74µm)                                 | 5               | ±3        |

Where washed aggregates are used, they should be 'surface dry' at the time of application. Moisture content shall not exceed 1.5% by weight of aggregate.

Sampling and testing of the aggregate shall be the responsibility of the Contractor. Copies of test results from the aggregate supplier shall be furnished to the owner prior to the start of the surface treatment.

# C. Compatibility of Emulsion and Aggregate

Compatibility or affinity between the asphalt emulsion and the aggregate can be variable. The Contractor shall verify with the emulsion supplier whether an anionic, cationic, or non-ionic emulsion is preferable for a given cover aggregate.

# D. Material Samples

The County will require the Contractor to sample and test each load of emulsion prior to delivery. The Contractor will also provide a sample of the emulsion, on site, prior to commencing work. The County will require the Contractor to provide sample containers and a local independent testing laboratory for the analyzing of emulsion. The Contractor will be responsible for the cost of the testing. The County reserves the right to test any shipment of emulsion that is believed to be of substandard. All samples shall be shipped and stored in clean airtight sealed wide mouth jars or bottles made of plastic.

# III. Equipment

# A. Emulsion Distributor

The liquid bituminous material shall be applied with a truck mounted, pressure distributor that has been calibrated within the previous twelve (12) months, for transverse and longitudinal application rate. The distributor shall be equipped, maintained, and operated so that the bituminous material can be applied at controlled temperatures and rates from .035 to 1.5 gallons per square yard. The distributor shall be capable of applying bituminous material of variable widths up to sixteen (16) feet. The distributor shall uniformly apply the bituminous material to the specified rate with a maximum allowed variation of 0.015 gallons per square yard. Distributor equipment shall include a tachometer, accurate volume measuring device, a calibrated tank and a thermometer for measuring the temperature of the tank's contents. Distributors shall be equipped with a heating device, asphalt pump and full circulating spray bars adjustable laterally and vertically. Distributors and transport trailers shall be equipped with a sampling valve. Distributor trucks shall be of the pressure type with insulated tanks. The use of gravity distributors will not be permitted. The valves shall be operated by levers so that one or all valves may be quickly opened or closed in one operation. The valves which control the flow from nozzles shall act positively so as to provide a uniform unbroken spread of bituminous material on the surface. The distributor shall be equipped with devices and charts to provide for accurate and rapid determination and control of the amount of bituminous material being applied and with a bitumeter of the auxiliary wheel type registering speed in feet per minute, and trip and total distance in feet.

## B. Emulsion Scrub Broom

Furnish an emulsion scrub broom assembly of similar design to Figures 1 or 2, or as approved by the Engineer, and having the following characteristics:

- Rigid frame construction
- Attached to, and pulled by, the Emulsion Distributor
- Of such weight that it does not squeegee the emulsion off the road surface
- Leading and trailing broom heads angled at 10 to 15 degrees of the centerline of the supporting member.

- Stiff bristles with a minimum height of five inches
- Hinged wing assemblies or other means of adjusting the total broom width.
- Be attached to and pulled by the distributor truck.
- Have a means to mechanically lift the scrub broom off the roadway surface at intermediate points of completion and remain elevated during transit.

# C. Aggregate Spreader

The aggregate spreader shall be a self-propelled unit capable of uniformly spreading the aggregate at the required rate on a minimum width of six (6") inches wider than the width of the lane to be treated. The spreader shall be calibrated within the previous twelve (12) months for transverse and longitudinal application. The spreader shall be equipped with a computer-controlled aggregate/chip spreader in order to ensure the appropriate aggregate coverage at varying speeds, unless approved otherwise by Engineer.

#### D. Pneumatic Tire Rollers

The Contractor shall use eight (8) to twelve (12) ton self-propelled pneumatic tire rollers with oscillating wheels and low pressure, smooth tires. Maintain the inflation of the tires such that in no two tires the air pressure varies more than 5 psi. The rollers will be equipped with an operating water system and coco pads. A sufficient number of rollers and a sufficient number of passes shall be used to ensure the cover aggregate is properly rolled.

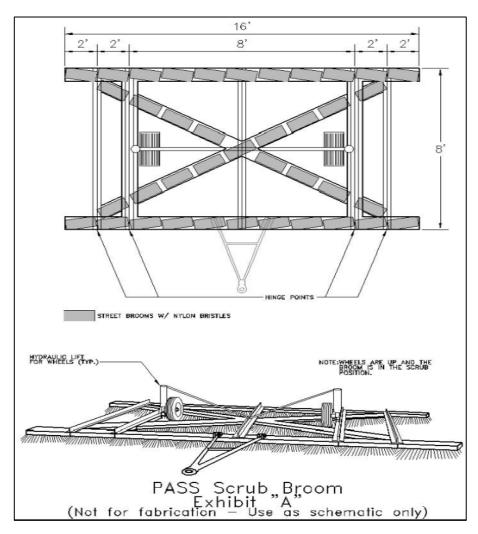


Figure 1: Typical Emulsion Scrub Broom Assembly

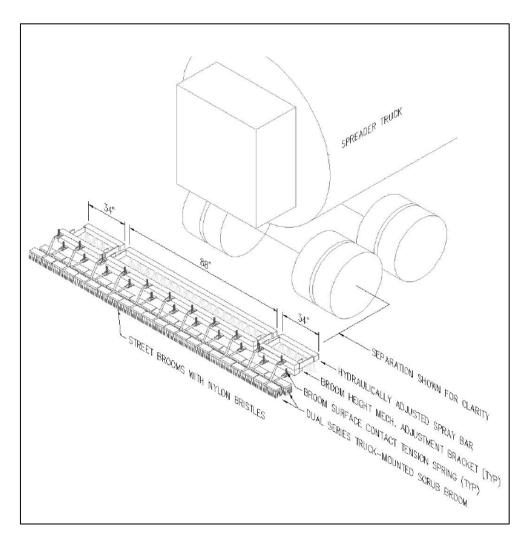


Figure 2: Truck Mounted Emulsion Scrub Broom Assembly

# E. Self-Propelled Rotary Power Broom

The self-propelled rotary broom shall be designed, equipped, maintained, and operated so the pavement surface can be swept clean. The broom shall have an adjustment to control the downward pressure. Brooming is required before and after the chip seal operation.

# F. Additional equipment

Additional equipment will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 15' straight edge) shall be the responsibility of the Contractor.

#### IV. Construction

#### A. Weather

The surface treatment shall not be applied to a wet surface or when rain is occurring, or the threat of rain is present immediately before placement. The surface treatment shall not be applied when the temperature is less than 50 degrees Fahrenheit in the shade, and humidity should be 50% or lower. When applying emulsions, the temperature of the surface shall be a minimum of 55°F, and no more than 140°F.

Additionally, application of the asphalt rejuvenating agent shall be prohibited when weather forecasts indicate a chance of a rain event in the work area, which would produce in excess of 0.10 inches of rain within four hours of the application of the asphalt rejuvenating agent.

#### B. Resident Notification

In Residential areas, the Contractor shall distribute by hand a typed notice to all residences and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The Contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

# C. Site Preparation

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment. The Contractor will be responsible for blowing or sweeping the road immediately ahead of the operation to make sure the road is free of loose aggregate and other debris, as well as sweeping and cleaning the streets after treatment. If, in the opinion of the Engineer, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All manhole and valve cover, inlets and other service entrances, etc., shall be protected from bituminous material by placing reinforced waterproof, all-purpose paper or other suitable material, approved by the Engineer.

Thermoplastic striping and pavement markings, raised pavement markers, and raised pavement marker adhesive shall be removed.

#### D. Traffic

The Contractor shall furnish all necessary traffic control, barricades, signs, and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic shall not travel on fresh mix until rolling and blotting has been completed. The Contractor shall submit an M.O.T plan indicating all facets of traffic control

for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

Traffic shall not be allowed on the roadway after placement of the aggregate cover for a minimum of two hours. During and after placement of the chip seal, pilot cars should escort traffic at a speed of 20 mph (30 kph) over the chip sealed surface for two to 24 hours. Once all the loose aggregate is removed from the new chip seal surface, pilot cars are no longer needed.

# E. Application of Asphalt Emulsion:

Asphalt emulsion shall be applied by means of a pressure type distributor in a uniform, continuous spread over the section to be treated. The distributor shall be moving forward at the proper speed when the liquid is discharged onto the pavement to provide an even and consistent application at the rate prescribed. If any areas are deficient the operation shall be stopped and corrected immediately. The liquid shall not be applied more than two hundred (200') feet in advance of the aggregate spreader when the ambient air temperature is above 75 degrees or one hundred (100') feet if the air temperature is below 75 degrees.

# F. Scrubbing

Immediately following application, the asphalt emulsion shall be scrubbed into the existing pavement surface with a scrub broom conforming to Section III-B. Scrubbing shall fill cracks and voids, force the emulsion into the existing pavement surface, and distribute the emulsion uniformly over the roadway cross section.

#### G. Termination

Application of the emulsion shall be terminated on building paper or other similar material approved by the Engineer, spread over the entire application width.

Building paper shall also be placed over the treated surface for a sufficient length at the beginning of a spread to avoid spraying existing pavement or previously placed screenings, and so that the nozzles are spreading properly when the uncovered surface is reached. The building paper shall then be removed and disposed of in a manner satisfactory to the Engineer.

# H. Application of cover Aggregate:

Screenings shall be uniformly spread by the aggregate spreader immediately following the scrubbing. The spreading rate shall be from 18 to 30 pounds per

square yard. The initial rate of spreading shall be 24 pounds per square yard. The Contractor may propose a different initial rate. The Contractor shall spread screenings on a 100-foot test strip as requested by the Engineer to verify and determine the initial rate of spreading. The spreading rate shall be adjusted up or down so that no bleeding occurs during rolling. The initial rate of spreading, and any adjustments thereto during spreading, shall be subject to approval by the Engineer.

The joint between adjacent applications of screenings shall coincide with the line between designated traffic lanes.

Operating the chip spreader at speeds which causes the chips to roll after striking the emulsion covered surface will not be permitted.

The transverse termination of screenings shall be complete, and any excess screenings shall be removed from the surface prior to resuming operations.

Stockpiling of screenings prior to placing will be permitted where space allows, however, any contamination resulting during storage or from reloading operations will be cause for rejection.

Screenings shall be surface damp at the time of application, but excess water on the aggregate surface will not be permitted. Screenings shall be re-dampened in the haul trucks prior to delivery to the chip spreader when so directed by the Engineer.

The scrubbed pavement surface shall be covered with screenings before setting or "breaking" of the emulsion occurs.

After the screenings have been spread, piles, ridges, or uneven distribution shall be carefully removed to ensure against permanent ridges, bumps, or depressions in the completed surface. Additional screenings shall be spread in whatever quantities may be required to prevent being picked up by the rollers or traffic.

# I. Rolling:

Initial rolling shall begin immediately behind the chip spreader and shall consist of one pass completely covering the screenings applied. Asphalt emulsion and screenings shall not be spread more than 2,500 feet ahead of completion of initial rolling operations.

Secondary rolling shall begin immediately after completion of the initial rolling. The amount of secondary rolling shall be that necessary to seat the screenings and in no case shall be less than 2 passes.

## J. Sweeping:

After rolling of the application of cover aggregate, lightly broom the loose aggregate in a manner not to dislodge the aggregate embedded in the liquid. Sweep loose material from roadbed.

# K. Finishing:

#### 1. Flush Coat

Flush Coat shall consist of an application of a fog seal coat followed by a sand cover to the surface of the scrub seal coat.

A flush coat shall be applied at the discretion of the Engineer, immediately after initial sweeping and removal of excess screenings and prior to opening the lane to uncontrolled (not controlled with pilot cars) traffic.

# 2. Fog Seal

Fog seal coat shall not be applied when the atmospheric temperature is below 40°F.

When surface treatment has set, a fog seal is to be applied at a rate of 0.03 to 0.06 gallons per square yard to the entire surface treatment. The liquid for fog seal shall be a cationic mixing type of emulsion diluted forty (40%) percent with water.

#### 3. Sand Cover

Sand cover shall be applied immediately following application of the fog seal coat. Sand shall be spread by a chip spreader at a rate of 1 to 2 pounds per square yard. The exact rate will be determined by the Engineer. Spreading shall not vary more than 5 percent from the exact application rate.

#### L. Maintenance

Scrub seal coated surfaces shall be maintained, including the traffic control required for maintenance operations, for a period of 4 consecutive calendar days, beginning on the day screenings are applied to the asphalt emulsion.

Maintenance shall include sweeping and distribution of screenings over the surface to absorb any free emulsion, to cover any area deficient in cover material and to prevent formation of corrugations. Clean sand may be used in lieu of screenings to cover any excess emulsion which comes to the surface. The use of roadside material for this purpose will not be permitted.

The surface shall be swept as often as necessary during the 4-day maintenance period to maintain the surface free of loose screenings. At the end of the fourth day, any excess screenings shall be removed from the paved area.

#### V. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Scrub Seal, and not specifically listed in another item in the Bid Form, shall be included in this item. Should the Contractor be directed to place Fog Seal as a secondary application to the Scrub Seal, it shall be measured separately as listed in the Technical Specification for Fog Seal

# VI. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Scrub Seal, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the county, Fog Seal shall be applied and paid separately as listed in the Technical Specification for Fog Seal.

Payment will be made under:

| Pay Item |                      | Pay Unit   |            |      |  |
|----------|----------------------|------------|------------|------|--|
| Scrub    | Seal                 | (emulsion) | Square     | Yard |  |
| Cover A  | Aggrega <sup>.</sup> | te         | Square Yar | rd   |  |

**END OF SECTION** 

# **FULL DEPTH RECLAMATION W/CEMENT**

#### CC-007 FULL DEPTH RECLAMATION WITH PORTLAND CEMENT SPECIFICATION

# I. Description

This work shall consist of the preparation of a stabilized base course composed of a mixture of the existing bituminous concrete pavement, existing base course material, Portland cement and other additives. The manufacturing of the stabilized base course shall be done by in-place pulverizing and blending of the existing pavement and base materials, the introduction of cement additives, and other additives (if called for in the Mix Design). The process which results in a stabilized base course, shall be accomplished in accordance with these specifications and conform to the lines and grades established by the engineer.

Existing asphalt pavement shall be pulverized by a method that does not damage the material below the plan depth as shown on the appropriate roadway section.

#### II. Material

#### A. RAP

Materials should meet all requirements specified in the current Florida Department of Transportation Standard Specifications for Road and Bridge Construction 283-2, except that 98% of all material is required to pass through a 50 mm (2 inch) sieve.

#### B. Additional Base Materials

Additional base materials may be needed for adjusting grade elevations as directed by the engineer, or for widening. When such additional material is required, it shall be among those bases listed in FDOT Design Standards as General Use Optional Base Materials and meet applicable FDOT requirements for such.

#### C. Portland Cement

Portland Cement shall be type I or II and conform to the latest standard requirements of ASTM C150 and AASHTO M85, for the type specified.

# D. Water

The water for the base course shall be clean and free from sewage, oil, acid, strong alkalies, or vegetable matter and it shall be in sufficient supply for mixing and curing. Water of questionable quality shall be tested in accordance with the requirements of AASHTO T 26. The Contractor shall be responsible for identifying the water source prior to beginning.

#### E. Soil

The soil base to be reclaimed shall be evaluated by a professional geotechnical engineering laboratory to determine suitability in the stabilization process. The soil shall be free of roots, sod, weeds, and shall not contain gravel or stone retained on a 1-inch (25 mm) sieve, or more than 45% retained on a No. 4 (4.75 mm) sieve, as determined by ASTM C 136.

## III. Equipment:

### A. Road Reclaimer

Shall be originally designed for pavement reclaiming, capable of pulverizing and mixing pavement, base materials, and subgrade soil to a minimum of 12 inches in a single pass. The reclaimer shall have automatic forward speed control that responds to the on-board load sensing mechanisms and have a minimum cutting drum width of 8 feet.

It shall have the capability of introducing and metering additives uniformly and accurately and that positive displacement pumps accurately meter the planned amount of additives into the mixture. The reclaiming machine shall mix the cement additive thoroughly with the RAP and soil materials. The pump shall be mechanically or electronically interlocked with the ground speed of the machine. The metering system and water metering system shall be capable of continuously monitoring (GPM) flow and totaling the quantity of water applied into the mixing chamber. Additives shall be uniformly distributed and mixed with the pulverized material; any existing underlying material as specified.

#### B. Motor Grader

Shall be of sufficient size and horsepower to adequately rough grade the pulverized base and rough and finish grade the mixed and compacted base. The equipment shall be in good working order, free from leaks and capable of maintaining an accurate grade and cross-slope.

#### C. Rollers

Shall be in good working order free from leaks and capable of compacting the mix to the requirements of this specification: Vibratory rollers shall be a minimum of 10 tons and capable of rolling in either vibratory or static mode. Three-wheel static rollers shall be a minimum of 11 tons. Pneumatic tire rollers shall have a minimum of 9 oscillating wheels with smooth, low-pressure tires (pressure shall be equally matched in all tires within 5 PSI) and weigh at least 28 tons. Initial compaction shall be accomplished by either single or dual drum vibratory or three-wheel roller static rollers.

# D. Cement Delivery Equipment

Cement may be placed on grade in dry powder form using a bulk spreader with a calibrated screw-type distributor and curtain to accurately place the amount of cement required by the mix design onto the roadbed for mixing.

An integrated binder spreader system, capable of spreading in various widths by opening or closing panels and micro processer-controlled metering cells for precise metering of the cement may also be used. The spreader shall be mounted on the Road Reclaimer, have digital and automated controls and be dust free.

For either method, the Contractor should take steps to minimize the amount of airborne cement dust to the satisfaction of the Engineer and in accordance with OSHA regulations.

# E. Additional equipment

Additional equipment such as water trucks, haul trucks, etc., will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 10' straight edge) shall be the responsibility of the Contractor.

## IV. Construction

## A. Layout

The Contractor will be responsible for the string lining and lay out of the roadway prior to paving. Elevations of the existing road should be referenced at sufficient intervals to ensure the roadway elevation is not changed in any location after the final surface is placed. Method for layout and line and elevation reference should be approved by the engineer prior to beginning work. It is imperative that roadway elevations remain unchanged except cross slope correction or as approved by the engineer.

### B. Weather and Seasonal limitations

The soil-cement base shall not be mixed or placed while the atmospheric temperature is below 35 F (2 C) or when conditions indicate that the temperature may fall below 35 F (2 C) within 24 hours, or when the weather is foggy or rainy, or when the soil or sub grade is frozen.

# C. Site Preparation

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment.

The Contractor shall be responsible for calling utility locates prior to beginning and providing the Inspector with the ticket information upon request. All manhole and valve cover, inlets and other service entrances, etc., protected. Should utility adjustment be required, the Contractor is responsible for coordinating with the utility owner, prior to beginning work.

#### D. Traffic Control

The Contractor shall furnish all necessary traffic control, barricades, signs, and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. MOT and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

The Contractor shall submit an MOT plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. If prolonged lane or road closure is required to complete the work, the Contractor shall complete and submit the appropriate Closure Request Form for approval together with the MOT plans.

# E. Mix Design

Prior to base course construction, a minimum of one (1) core sample should be taken for every 5,000 square yards of the roadway. Representative samples of the RAP material, underlying base material and virgin materials, where applicable, shall be supplied to a nationally accredited laboratory for preliminary testing to determine the optimum moisture content and proportions of cement needed to produce a finished base course with a mix design target of 300 PSI and a final in place base compressive strength of 200 to 400 PSI. Laboratory tests of material to be reclaimed and virgin materials for use as base shall be performed to determine compliance with 3-day and 7-day minimum compressive strength requirements of the mixture and the quantity of cement required in the mix. Test specimens containing various amounts of cement are to be compacted in accordance with ASTM D558, and the optimum moisture for each amount of cement is to be determined. Actual application quantities for the Portland cement will be derived from the mix design. The minimum compressive strength requirements of the mixture shall be determined by the engineer of record. The mix design and laboratory testing shall be performed by a geotechnical engineering laboratory and all reports sealed by a professional engineer.

## F. Widening

When the existing base is to be widened, the Contractor shall excavate the shoulder from the edge of the existing pavement to at least 6 inches beyond the planned new width of the base prior to pulverization. All costs involved in collecting, hauling, and disposing of these materials shall be borne by the Contractor.

The bottom of the trench shall be kept free of loose soil and vegetation. Approved base material (those bases listed in FDOT Design Standards as General Use Optional Base Materials) shall be placed in the excavation uniformly and without loss or contamination. The Contractor shall correct all areas of irregular grade or deficient thickness and shall remove and replace material contaminated with soil, organic material, or debris. After the final pass of the reclaimer, soil shall be drawn up against the widening material to close the excavation, and the shoulder shall be graded and compacted to produce a firm, even surface.

# G. Milling

In the case of a curbed or closed section, where milling is necessary to remove excess material and maintain existing grades, the work shall be done under the appropriate line item for milling based on the average milled depth but shall not exceed two and a half (2.5") inches.

In the case of an open section, all existing asphalt shall be mixed in the pulverization process and any excess material shall be bladed out to the edges. If during blading/grading it becomes evident that material should be removed to achieve or maintain final grades, the excess material shall be removed as excavation and paid for under the appropriate line item for Excavation.

## H. Additional Material

When additional material is to be added to correct cross slope deficiencies or change elevation as directed by the engineer, approved base material (those bases listed in FDOT Design Standards as General Use Optional Base Materials) shall be placed on the roadway prior to final pass for pulverization and mixed uniformly with the existing material.

#### I. Pulverization

The existing pavement and base material shall be pulverized and blended to the depth required so the entire mass of material shall be uniformly graded to the following gradation:

| SIEVE SIZE | PERCENT PASSING |
|------------|-----------------|
| 2"         | 98 - 100        |
| 1-1/2"     | 95              |

Material gradation may vary due to local aggregates and conditions. Multiple passes of the reclaimer may be necessary to achieve the required gradation.

The cement and water shall be introduced into the mix through the reclaimer uniformly and accurately and metered such that areas are of equal consistency and moisture content. Alternately, the cement may be introduced by means of a spreader bar with curtain on the cement distributor. Cement shall not be introduced by means of a spreader bar or hose from the cement delivery tanker.

The reclaimed material, cement and water shall be combined in place to meet the requirements specified in such proportions that the reclaimed mixture is of acceptable composition and stability. Before the start and at the end of each day's work and at any time requested, the engineer should be permitted access to the mixing equipment in order to read the meter to verify the quantity of cement applied during the day's work. Field adjustments shall be made as necessary to the recommended mix design under the guidance of a knowledgeable and competent technician to obtain a satisfactory reclaimed mixture of consistent composition and stability throughout the Project.

After the material has been processed, it shall be compacted to the lines, grades, and depth required. Water may be applied to ensure optimum moisture content at the time of mixing and compaction.

# J. Compaction

Commence rolling with self-propelled rollers as required by this technical provision at the low side of the course, except leave 3 to 6 inches from any unsupported edge or edges unrolled initially to prevent distortion. Density readings shall be taken by Contractor's licensed nuclear gauge operator and witnessed by the Engineer/inspector. A control strip of not less than 500 feet shall be constructed to develop proper rolling/compaction patterns and methods to obtain desired density. Whenever there is a change in the reclaimed material or compaction method, equipment or unacceptable results occur, a new control strip shall be constructed, tested, and analyzed.

Rollers shall move at a uniform speed that shall not exceed 8 km/hour (5 miles/hour). For static rollers, the drive drum normally shall be in the forward position or nearest to the paver. Vibratory rollers shall be operated at the speed,

frequency and amplitude required to obtain the required density and prevent defects in the mat.

The number, weight and type of rollers furnished shall be sufficient to obtain the required compaction of the reclaimed material. The field density of the compacted mixture shall be at least 95 percent of the maximum density of laboratory specimens prepared from samples of the cement-treated base material taken from the material in place. The specimens shall be compacted in accordance with ASTM D 558. The in-place field density shall be determined in accordance with ASTM D 2922.

Any pavement shoving or other unacceptable displacement shall be corrected. The cause of the displacement shall be determined, and corrective action taken immediately and before continuing rolling. Care shall be exercised in rolling the edges of the reclaimed mixture, so the line and grade of the edge are maintained.

At the end of each day's production, a transverse construction joint shall be formed by a header or by cutting back into the compacted material to form a true vertical face free of loose material. The protection provided for construction joints shall permit the placing, spreading, and compacting of base material without injury to the work previously laid. Where it is necessary to operate or turn any equipment on the completed base course, sufficient protection and cover shall be provided to prevent damage to the finished surface. A supply of mats or wooden planks shall be maintained and used as approved and directed by the Engineer.

# K. Finishing

Finishing operations shall be completed and the base course shall conform to the required lines, grades, and cross section. If necessary, the surface shall be lightly scarified to eliminate any imprints made by the compacting or shaping equipment. The surface shall then be recompacted to the required density.

Correct all irregularities greater than ½" over ten feet to the satisfaction of the engineer.

Adjacent shoulders shall be redressed and sodded within the limits determined by the Inspector.

## L. Protection and Curing

After the base course has been finished as specified herein, it shall be protected against drying for a period of 2 to 3 days by the application of a prime coat as specified in FDOT Standard Specifications section 300 at a rate of not less than

0.15 gal/sy. The curing method shall begin as soon as possible, but no later than 24 hours after the completion of finishing operations. The finished base course shall be kept moist continuously until the curing material is placed.

At the time the prime coat is applied, the surface shall be dense, free of all loose and extraneous material, and shall contain sufficient moisture to prevent penetration of the bituminous material. Water shall be applied in sufficient quantity to fill the surface voids immediately before the bituminous curing material.

The curing material shall be maintained and re-applied as needed by the Contractor during the 2 to 3-day protection period so that all the soil-cement will be covered effectively during this period. Finished portions of soil-cement that are used by equipment in constructing an adjoining section shall be protected to prevent equipment from marring or damaging the completed work.

When the air temperature may be expected to reach the freezing point, sufficient protection from freezing shall be given the soil-cement for 2 to 3 days after its construction and until it has hardened.

#### M. Thickness

The average thickness of the base constructed for one day shall be within 1/2 inch (12 mm) of the thickness required, except that the thickness of any one point may be within 3/4 inch (19 mm) of that required. Where the average thickness shown by the measurements made in one day's construction is not within the tolerance given, the Engineer shall evaluate the area and determine if, in his/her opinion, it shall be reconstructed at the Contractor's expense, or the deficiency deducted from the total material in place.

| Control Testing for Full Depth Reclamation Field Sampling and Testing |                 |   |  |
|---|-----------------|---|--|
| Type of Test  | Method          | Frequency                                 | Size and Location                                |
| RAP and Soil<br>Cement Base<br>Gradation                              | ASTM D-136      | Each 3000 SY (not less than once per day) | 20 lb min sampled from hopper                    |
| Moisture Density Relationship of Soil Cement Mixtures                 |                 | Each 1000 SY (not less than once per day) | 33 lb min sampled from pulverized base           |
| Compressive Strength of Molded Soil Cement Cylinders                  | ASTM D-<br>1633 | Each 3000 SY (not less than once per day) | 33 lb min sampled from pulverized and mixed base |

| In-place Field<br>Density | ASTM D-<br>2922 | Each 250 SY (not less than once per day) | Random locations after spreading and compacting |
|---------------------------|-----------------|--|---|
|---------------------------|-----------------|--|---|

# N. Sampling and Testing

The depth of Reclaimed Bituminous Base Course shall be determined by measuring uncompacted reclaimed material immediately behind the screen in conjunction with measuring the milling depth prior to placement of reclaimed material. One depth measurement for each 250 square yards of completed base course shall be made. Any section deficient by 0.5 in (12 mm) or more from the specified depth shall be removed and satisfactorily replaced by the Contractor at no additional cost. At the county's option, cores may be taken by the engineer in the finished product to further ensure base thickness meets requirements.

All delivery tickets and notes regarding any materials brought to the project site to complete this Contract should be given to the Engineer/Inspector upon delivery to the project site

Additional sampling and testing may be required if major changes in RAP characteristics are observed, such as a much coarser or finer gradation or a noticeable difference in asphalt content, or when considerable variability is occurring in the field test results.

# V. Gopher Tortoise Removal/Relocation:

Only for Treatment Sections that include FDR, Milling, and or Asphalt placement, Contractor will inspect the Project area for the presence of gopher tortoises/burrows prior to bidding when issued a Work Order and again prior to work commencing. If necessary, it shall be the Contractors responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Contractor. Costs for inspection, permitting, protection, excavation of burrows, and any other associated work shall be incidental to the Contract/Work Order(s). Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County. Contractor must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order.

## VI. Warranty:

The Contractor shall provide the County upon final acceptance of the Full Depth Reclamation work, a warranty period of three years (36 months) which shall include all materials and workmanship.

#### VII. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Full Depth Reclamation with Cement, and not specifically listed in another item in the Bid Form, shall be included in the SY Price for Pulverization including but not limited to shaping, compacting, finish grading, prime coat, sanding prime coat, etc. Cost for introduction of cement into the mixture shall be included in the per TN cost for Cement. Cost for excavation for widening will be included in the CY Price for Excavation. Cost for additional materials needed for widening or adjustment of grade as directed by the engineer shall be included in the CY Price for General Use Optional Base Material.

# VIII. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Full Depth Reclamation with Portland Cement, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

Payment will be made under:

| Pay Item                               | Pay Unit        |
|--|-----------------|
| Full Depth Reclamation (Pulverization) | Per Square Yard |
| Portland Cement                        | Per Ton         |
| Excavation                             | Per Cubic Yard  |
| General Use Optional Base Material     | Per Cubic Yard  |

**END OF SECTION** 

# **FULL DEPTH RECLAMATION W/EMULSION & CEMENT**

# CC-008 FULL DEPTH RECLAMATION WITH ASPHALT EMULSION AND CEMENT BLEND SPECIFICATION

## I. Description

This work shall consist of the preparation of a stabilized base course composed of a mixture of the existing bituminous concrete pavement, existing base course material, emulsified asphalt, Portland cement and other additives per the mix design. The manufacturing of the stabilized base course shall be done by in-place pulverizing and blending of the existing pavement and base materials, and the introduction of asphalt emulsion, cement, and additives if called for in the Special Conditions or design mix formula. The process which results in a stabilized base course shall be accomplished in accordance with these specifications and conform to the lines and grades established by the engineer.

Existing asphalt pavement shall be pulverized by a method that does not damage the material below the plan depth as shown on the appropriate roadway section.

#### II. Materials:

## A. RAP

Materials should meet all requirements specified in the 2017 Florida Department of Transportation Standard Specifications for Road and Bridge Construction 283-2, except that 98% of all material is required to pass through a 50 mm (2 inch) sieve.

#### B. Additional Base Materials

Additional base materials may be needed for adjusting grade elevations as directed by the engineer, or for widening. When such additional material is required, it shall be among those bases listed in FDOT Design Standards as General Use Optional Base Materials and meet applicable FDOT requirements for such.

## C. Asphalt Emulsion:

When the mix design calls for stabilization with asphalt emulsion, utilize CSS-1h or CMS-2h, meeting the requirements of AASHTO M 208-01 (2009) and approved by the State Materials Office prior to use.

#### D. Portland Cement

When a blend of asphalt emulsion and Portland cement is specified the Portland cement shall be type I or II and conform to the latest standard requirements of ASTM C150 and AASHTO M85. When cement is added with the emulsion no more than 2.5% shall be used on the project, unless approved by the Engineer.

#### E. Water:

The water for the base course compaction and foaming additive shall be clean and free from sewage, oil, acid, strong alkalies, or vegetable matter and it shall

be in sufficient supply for mixing and curing. Water of questionable quality shall be tested in accordance with the requirements of AASHTO T 26. The Contractor shall be responsible for identifying a suitable water source prior to beginning.

#### F. Soil:

The soil base to be reclaimed shall be evaluated by a professional geotechnical engineering laboratory to determine suitability in the stabilization process. The soil shall be free of roots, sod, weeds, and shall not contain gravel or stone retained on a 1-inch (25 mm) sieve, or more than 45% retained on a No. 4 (4.75 mm) sieve, as determined by ASTM C 136.

# III. Equipment:

#### A. Road Reclaimer

Shall be originally designed for pavement reclaiming, capable of pulverizing and mixing pavement, base materials, and subgrade soil to a minimum of 12 inches in a single pass. The reclaimer shall have automatic forward speed control that responds to the on-board load sensing mechanisms and have a minimum cutting drum width of 8 feet.

It shall have the capability of introducing and metering additives uniformly and accurately and that positive displacement pumps accurately meter the planned amount of additives into the mixture. The reclaiming machine shall mix the cement additive thoroughly with the RAP and soil materials. The pump shall be mechanically or electronically interlocked with the ground speed of the machine. The metering system and water metering system shall be capable of continuously monitoring (GPM) flow and totaling the quantity of water applied into the mixing chamber. Additives shall be uniformly distributed and mixed with the pulverized material; any existing underlying material as specified.

## B. Motor Grader

Shall be of sufficient size and horsepower to adequately rough grade the pulverized base and rough and finish grade the mixed and compacted base. The equipment shall be in good working order free from leaks and capable of maintaining an accurate grade and cross-slope.

#### C. Rollers

Shall be in good working order free from leaks and capable of compacting the mix to the requirements of this specification: Vibratory rollers shall be a minimum of 10 tons and capable of rolling in either vibratory or static mode. Three-wheel static rollers shall be a minimum of 11 tons. Pneumatic tire rollers shall have a minimum of 9 oscillating wheels with smooth, low-pressure tires (pressure shall be equally matched in all tires within 5 PSI) and weigh at least 28 tons. Initial compaction shall be accomplished by either single or dual drum vibratory or three-wheel roller static rollers.

# D. Cement Delivery Equipment

Cement may be placed on grade in dry powder form using a bulk spreader with a calibrated screw-type distributor and curtain to accurately place the amount of cement required by the mix design onto the roadbed for mixing.

An integrated binder spreader system, capable of spreading in various widths by opening or closing panels and micro processer-controlled metering cells for precise metering of the cement may also be used. The spreader shall be mounted on the Road Reclaimer, have digital and automated controls and be dust free.

For either method, the Contractor should take steps to minimize the amount of airborne cement dust to the satisfaction of the Engineer and in accordance with OSHA regulations.

## E. Additional equipment

Additional equipment such as water trucks, haul trucks, etc., will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 10' straight edge) shall be the responsibility of the Contractor.

#### IV. Construction:

# A. Layout

The Contractor will be responsible for the string lining and lay out of the roadway prior to paving. Elevations of the existing road should be referenced at sufficient intervals to ensure the roadway elevation is not changed in any location after final surface is placed. Method for layout and line and elevation reference should be approved by the engineer prior to beginning work. It is imperative that roadway elevations remain unchanged except cross slope correction or as approved by the engineer.

#### B. Weather and Seasonal limitations

The base shall not be mixed or placed while the atmospheric temperature is below 35 F (2 C) or when conditions indicate that the temperature may fall below 35 F (2 C) within 24 hours, or when the weather is foggy or rainy, or when the soil or sub grade is frozen.

## C. Site Preparation

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment.

The Contractor shall be responsible for calling utility locates prior to beginning. All manhole and valve cover, inlets and other service entrances, etc., shall be protected and when necessary, coordinating with Utility Owners for any adjustments needed before construction begins.

#### D. Traffic Control

The Contractor shall furnish all necessary traffic control, barricades, signs and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. MOT and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

The Contractor shall submit an MOT plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. If prolonged lane or road closure is required to complete the work, the Contractor shall complete and submit the appropriate Closure Request Form for approval together with the MOT plans.

# E. Mix Design

Prior to construction, obtain an adequate number of core samples to develop the mix design(s). Representative samples of the asphalt pavement material, underlying base material, and virgin materials, where applicable, shall be supplied to a nationally accredited laboratory with no affiliation to the emulsion supplier, for testing to determine the proportions of asphalt emulsion and cement needed to produce a mix design meeting the requirements of **Table 1**. The optimum binder content shall be the binder content that results in the highest wet tensile strength while also having 70% retained tensile strength compared to the dry strength and additionally has a minimum 2500 pounds Marshall stability.

Cement shall be used at a minimum dosage rate of 1% and at a maximum dosage rate of 2.5% by dry weight of reclaimed material. Cement amounts greater than 2.5% will only be allowed if approved by the engineer. The mixed design shall be signed and sealed by a professional engineer and submitted to the Engineer prior to use for approval.

| Table 1: Mix Design Criteria   |                                       |   |  |
|--|---------------------------------------|---|--|
| Test   | Test Method Number                    | Criteria                                    |  |
| Gradation of reclaimed material  | AASHTO T 27-11                        | Report                                      |  |
| Determination of optimum binder content  |                                       |   |  |
| Compaction effort at optimum fluids content.<br>Marshall Compactor; 50 blows/side or   | Asphalt Institute  MS 14, Appendix F. |   |  |
| Superpave Gyratory Compactor, 100 mm diameter specimens, 30 gyrations.   | ASTM D6926-10                         | Report                                      |  |
| Density determination.   | AASHTO T 312-12                       |   |  |
|  | FM 1-T 166                            |   |  |
| Marshall stability  Cure at 60°C to constant weight. Test at  40°C.  | ASTM D6927-06                         | 2500 lbs.<br>minimum<br>stability           |  |
| Resistance of compacted bituminous mixture to moisture induced damage. 55 to 75% vacuum saturation, water bath at 25°C for 23 hours, last hour in water bath at 40°C | AASHTO T 283-07 (2011)                | 70% minimum<br>retained tensile<br>strength |  |

## F. Widening

When the existing base is to be widened, the Contractor shall excavate the shoulder from the edge of the existing pavement to at least 6 inches beyond the planned new width of the base prior to pulverization. All costs involved in collecting, hauling, and disposing of these materials shall be borne by the Contractor.

The bottom of the trench shall be kept free of loose soil and vegetation. Approved base material (those bases listed in FDOT Design Standards as General Use Optional Base Materials) shall be placed in the excavation uniformly and without loss or contamination. The Contractor shall correct all areas of irregular grade or deficient thickness and shall remove and replace material contaminated with soil, organic material, or debris.

After the final pass of the reclaimer, soil shall be drawn up against the widening material to close the excavation, and the shoulder shall be graded and compacted to produce a firm, even surface.

#### G. Additional Material

When additional material is to be added to correct cross slope deficiencies or change elevation as directed by the engineer, approved base material (those bases listed in FDOT Design Standards as General Use Optional Base Materials) shall be placed on the roadway prior to final pass for pulverization and mixed uniformly with the existing material.

# H. Milling

In the case of a curbed or closed section, where milling is necessary to remove excess material and maintain existing grades, the work shall be done under the appropriate line item for milling based on the average milled depth but shall not exceed two and a half (2.5") inches.

In the case of an open section, all existing asphalt shall be mixed in the pulverization process and any excess material shall be bladed out to the edges. If during blading/grading it becomes evident that material should be removed to achieve or maintain final grades, the excess material shall be removed as excavation and paid for under the appropriate line item for Excavation.

#### I. Pulverization

The existing pavement and base material shall be pulverized and blended to the depth required so the entire mass of material shall be uniformly graded to the following gradation:

| Table 2 – Pulverization Gradation |                    |  |
|-----------------------------------|--------------------|--|
| SIEVE SIZE                        | PERCENT<br>PASSING |  |
| 2"                                | 98 - 100           |  |
| 1-1/2"                            | 95                 |  |

Material gradation may vary due to local aggregates and conditions. Multiple passes of the reclaimer may be necessary to achieve the required gradation.

The asphalt emulsion or asphalt and water (to produce a foamed asphalt) shall be introduced into the mix through the reclaimer uniformly and accurately and metered such that areas are of equal consistency and moisture content. The reclaimed material and additives shall be combined in place to meet the requirements specified in such proportions that the reclaimed mixture is of acceptable composition and stability. Before the start and at the end of each day's work and at any time requested, the engineer should be permitted access to the mixing equipment in order to read the meter to verify the quantity of

asphalt emulsion applied during the day's work. Field adjustments shall be made as necessary to the recommended mix design under the guidance of a knowledgeable and competent technician or superintendent to obtain a satisfactory reclaimed mixture of consistent composition and stability throughout the Project.

After the material has been processed, it shall be compacted to the lines, grades, and depth required. Water may be applied to ensure optimum moisture content at the time of mixing and compaction.

# J. Compaction

Commence rolling with self-propelled rollers as required by this technical provision at the low side of the course, except leave 3 to 6 inches from any unsupported edge or edges unrolled initially to prevent distortion. Density readings shall be taken by Contractor's licensed nuclear gauge operator and witnessed by the Engineer/inspector.

Rollers shall move at a uniform speed that shall not exceed 8 km/hour (5 miles/hour). For static rollers, the drive drum normally shall be in the forward position or nearest to the paver. Vibratory rollers shall be operated at the speed, frequency and amplitude required to obtain the required density and prevent defects in the mat.

The number, weight and type of rollers furnished shall be sufficient to obtain the required compaction of the reclaimed material. The field density of the compacted mixture shall be at least 94 percent of the maximum density of laboratory specimens prepared from samples of the base material taken from the material in place. The specimens shall be compacted in accordance with AASHTO T-180. The in-place field density shall be determined in accordance with ASTM D 2922.

Any pavement shoving or other unacceptable displacement shall be corrected. The cause of the displacement shall be determined, and corrective action taken immediately and before continuing rolling. Care shall be exercised in rolling the edges of the reclaimed mixture, so the line and grade of the edge are maintained.

At the end of each day's production, a transverse construction joint shall be formed by a header or by cutting back into the compacted material to form a true vertical face free of loose material. The protection provided for construction joints shall permit the placing, spreading, and compacting of base material without injury to the work previously laid. Where it is necessary to operate or turn any equipment on the completed base course, sufficient protection and cover shall be provided to prevent damage to the finished surface. A supply of mats or wooden planks shall be maintained and used as approved and directed by the Engineer.

# K. Finishing

Finishing operations shall be completed and the base course shall conform to the required lines, grades, and cross section. If necessary, the surface shall be lightly scarified to eliminate any imprints made by the compacting or shaping equipment. The surface shall then be recompacted to the required density.

Correct all irregularities greater than ½" over ten feet to the satisfaction of the engineer.

# L. Protection and Curing

After the base course has been finished as specified herein, it shall be protected against drying for a period of 2 to 3 days by the application of a prime coat as specified in FDOT Standard Specifications section 300 at a rate of not less than

0.15 gal/sy. The curing method shall begin as soon as possible, but no later than 24 hours after the completion of finishing operations. The finished base course shall be kept moist continuously until the curing material is placed.

At the time the prime coat is applied, the surface shall be dense, free of all loose and extraneous material, and shall contain sufficient moisture to prevent penetration of the bituminous material. Water shall be applied in sufficient quantity to fill the surface voids immediately before the bituminous curing material is applied.

To prevent equipment from marring or damaging the completed work, protect finished portions of base used by equipment.

Do not allow traffic on the reclaimed base until it is assured the reclaimed base surface will not distort, shove, or ravel under the anticipated vehicular loading.

### M. Thickness

The average thickness of the base constructed for one day shall be within 1/2 inch (12 mm) of the thickness required, except that the thickness of any one point may be within 3/4 inch (19 mm) of that required. Where the average thickness shown by the measurements made in one day's construction is not within the tolerance given, the Engineer shall evaluate the area and determine if, in his/her opinion, it shall be reconstructed at the Contractor's expense, or the deficiency deducted from the total material in place.

# N. Quality Control and Sampling and Testing

Perform the following quality control tests at the prescribed frequency. Randomly determine sample locations in accordance with ASTM D 3665-12 or equivalent. Correct all deficiencies unless otherwise approved by the Engineer. Reclaimed material gradation: Determine the percent passing the following sieve sizes: 3 inches, 2 inches, No. 4, and No. 200. Obtain a sample at a frequency of one sample per 5,000 SY. Meet the requirements of **Table 2**. If the requirements of

**Table 2** are not met, adjust the pulverization operation so that the resultant material will meet specification requirements or to the satisfaction of the Engineer.

Moisture/density relationship of reclaimed base: Establish a wet/dry density relationship for density specification compliance by obtaining a sample at a frequency of once per 5000 square yards for Modified Proctor (AASHTO T-180) determination. Determine the moisture content in accordance with AASHTO T 110-03 (2011), AASHTO T 265-12, or ASTM D 4643-08.

In-place field density: Perform one nuclear density test per 1000 square yards. The dry field density (i.e. corrected gauge wet density) of the compacted mixture shall be at least 96.0 percent of the maximum laboratory dry density as determined by modified proctor. No individual density test shall be lower than

94.0 percent of the maximum laboratory dry density. If one density test is below 94.0 percent or two consecutive density tests are below 96.0 percent of the maximum laboratory dry density, cease production and resolve the issue to the satisfaction of the Engineer before resuming production.

### O. Marshall stability

Perform Marshall stability testing twice per day or once per day if less than 1500 square yards is reclaimed. Meet the requirements of **Table 1**. If the Marshall stability does not meet the requirements of **Table 1**, cease production, and resolve the issue to the satisfaction of the Engineer before resuming production. Retained tensile strength: Perform retained tensile strength testing twice per day or once per day if less than 1500 square yards is reclaimed. Meet the requirements of **Table 1**. If the retained tensile strength does not meet the requirements of **Table 1**, cease production and resolve the issue to the satisfaction of the Engineer before resuming production.

### P. Depth of mixing

Determine the depth of mixing at least once per 250 square yards. Meet the requirements of **Section V.M.** 

Cross slope measurement: Meet the requirements of the current FDOT Specification **Table 330-4**.

Additional sampling and testing may be required if significant changes in the characteristics of the reclaimed material are observed, such as a much coarser or finer gradation or a noticeable difference in asphalt content, or when there is considerable variability in the field test results.

All delivery tickets and notes regarding any materials brought to the project site to complete this Contract should be given to the Engineer/Inspector upon delivery to the project site.

### V. Gopher Tortoise Removal/Relocation:

Only for Treatment Sections that include FDR, Milling, and or Asphalt placement, Contractor will inspect the Project area for the presence of gopher tortoises/burrows prior to bidding when issued a Work Order and again prior to work commencing. If necessary, it shall be the Contractors responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Contractor. Costs for inspection, permitting, protection, excavation of burrows, and any other associated work shall be incidental to the Contract/Work Order(s). Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County. Contractor must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order.

## VI. Warranty:

The Contractor shall provide the County upon final acceptance of the Full Depth Reclamation work, a warranty period of three years (36 months) which shall include all materials and workmanship.

### VII. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Full Depth Reclamation with Asphalt Emulsion, and not specifically listed in another item in the Bid Form, shall be included in the SY Price for Pulverization including but not limited to shaping, compacting, finish grading, prime coat, sanding prime coat, etc. The cost for introduction of asphaltic cement into the mixture shall be included in the per GL cost for Asphalt Emulsion. Cost for excavation for widening will be included in the CY Price for Excavation. Cost for additional materials needed for widening or adjustment of grade as directed by the engineer shall be included in the per TON Price for General Use Optional Base Material.

### VIII. Basis of Payment:

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Full Depth Reclamation with Asphalt Emulsion and Cement Blend, including all items of work described herein. No additional payment will be provided for any item necessary

for the completion of this contract as detailed in the specifications, except that at the direction of the County.

## Payment will be made under:

| Pay Item                               | Pay Unit        |
|--|-----------------|
| Full Depth Reclamation (Pulverization) | Per Square Yard |
| Asphalt Emulsion                       | Per Gallon      |
| Portland Cement                        | Per Ton         |
| Excavation                             | Per Cubic Yard  |
| General Use Optional Base Material     | Per Cubic Yard  |

## **END OF SECTION**

|  | RECYCLING |
|--|-----------|
|--|-----------|

### CC-009 COLD IN-PLACE RECYCLED BITUMINOUS MATERIAL SPECIFICATIONS

## I. Description

The work specified in this Technical Provision consists of the in-place construction of a Cold Recycled Bituminous Base Course, using either reclaimed asphalt pavement (RAP) material and/or reclaimed aggregate material (RAM), combined with virgin aggregates and/or bituminous material. It is the intent of this contract to recycle 100% of the existing asphalt pavement and a predetermined portion of the base, as necessary to ensure that the completed recycled base course will be of a consistent material and thickness throughout, including, but not limited to, all existing asphalt pavement and base adjacent to all concrete curbing, storm sewer inlets, manholes, sanitary sewer manholes, and all utility valve boxes. The existing asphalt pavement and base in the above-described locations should be included in the recycling process in order to construct a bituminous base course with a uniform thickness throughout 100% of the proposed area. The intent of this contract is to utilize the specified process which is clearly defined within this specification. Therefore, Full Depth Reclamation or any variation of Full Depth Reclamation will not be accepted.

### II. Materials

### A. Asphalt Emulsion

When the mix design calls for stabilization with asphalt emulsion, utilize CSS-1h or CMS-2h, meeting the requirements of AASHTO M 208-01 (2009) and approved by the State Materials Office prior to use.

### B. Portland Cement

When a blend of asphalt emulsion and Portland cement is specified the Portland cement shall be type I or II and conform to the latest standard requirements of ASTM C150 and AASHTO M85. If cement is added with emulsion no more than 2.5% shall be used on the project unless approved by the Engineer.

### C. Cold Pulverized Material

The cold pulverized recycled asphalt pavement (hereinafter referred to as RAP) material shall meet the following gradation requirement prior to the addition of the asphalt emulsion.

| STANDARD   |          | METRIC     |          |
|------------|----------|------------|----------|
| Sieve Size | %Passing | Sieve Size | %Passing |
| 2"         | 95       | 51 mm      | 95       |

### D. Mixture Design

A mix design(s) conducted by an independent, accredited laboratory with no affiliation to the emulsion supplier, using materials obtained directly from the project site and conforming to the requirements of this Technical Specification shall be submitted to the County at the Pre-Construction Conference. Based on

RAP consistency throughout project limits, more than one mixed design may be required. A traffic control plan may be required in accordance with FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition for collecting materials. Mix design formulations shall be conducted in accordance with the following guidelines:

## E. Mix Design Procedures for CIR (Cold In-place Recycling) Material

### 1. Sampling and Processing

Prior to materials sampling in the roadway, obtain approval from the County. A traffic control plan may be required in accordance with FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition for collecting materials. Obtain 6" minimum inside diameter cores from the areas to be recycled. If cores show significant differences in various areas, such as different type or thickness of layers between cores, then separate mix designs shall be performed for each of these pavement segments. It is recommended that a minimum of one location be sampled for each 1000" in each lane. Additionally, samples should be taken where visual differences in the pavement are noticed. Immediately patch all core holes neatly with asphalt cold patch. Cores shall be cut in the laboratory to the depth specified for the CIR project. Cores shall be crushed in the laboratory.

The mix design shall be performed on this crushed sample. Gradation of the sample after crushing shall be determined by ASTM C117 and C136 (dried at no greater than 40°C). Samples shall be prepared with a sample splitter. An alternative method is to dry, screen and recombine the sample in the laboratory to target gradation.

### 2. Mixing

Calculate the amount of RAP required to produce a 61.0 mm to 66.0 mm (2.4 to 2.6 inch) tall specimen by determining the maximum specific gravity of the RAP in accordance with ASTM D2041.

Number of specimens: 4 per emulsion content for a total of 4 for long-term stability and 4 for moisture testing for the 3 emulsion contents. Two specimens are required for Rice specific gravity; test at the highest emulsion content in the design and back calculate for the lower emulsion contents.

Recommended emulsion contents: 2.0%, 2.5%, 3.0%, 3.5%. Choose three emulsion contents that bracket the estimated recommended emulsion content.

Add moisture that is expected to be added at the milling head, typically 1.5 to 2.5 percent.

If any additives are in the mixture, introduce the additives in a similar manner that they will be added during field production.

Mixing of test specimens shall be performed with a mechanical bucket mixer. Mix the CIR RAP millings thoroughly with water first, then mix with emulsion. Mixing shall occur at ambient temperature. One specimen shall be mixed at a time. Mixing time with emulsion should not exceed 60 seconds.

## 3. Compaction

Specimens shall be compacted immediately after mixing. Place paper disks on the top and bottom of the specimen before compacting.

Specimens shall be compacted with a Superpave gyratory compactor (SGC) in a 100 mm mold at 1.25° angle, 600 kPa ram pressure, and 30 gyrations. The mold shall not be heated.

### 4. Curing after compaction

Extrude specimens from molds immediately after compaction. Carefully remove paper disks.

Place specimens in 60°C forced draft oven with ventilation on sides and top. Place each specimen in a small container to account for material loss from the specimens. Care should be taken not to over-dry the specimens. Cure compacted specimens to constant weight but no more than 48 hours and no less than 16 hours. Constant weight is defined here as 0.05% change in weight in 2 hours. After curing, cool specimens at ambient temperature a minimum of 12 hours and a maximum of 24 hours.

### 5. Measurements

Determine bulk specific gravity (density) of each compacted (cured and cooled) specimen according to ASTM D2726. Determine specimen heights according to ASTM D3549 or equivalent. Alternatively, the height can be obtained from the SGC readout. Determine Rice (maximum theoretical) specific gravity, ASTM D2041, except as noted in Item 4 of this procedure, and do not break any agglomerates which will not easily reduce with a flexible spatula. Perform the supplemental dry-back procedure to adjust for uncoated particles. Determine percent air voids in accordance with ASTM D3203 for each design emulsion content.

Determine corrected Marshall Stability by ASTM D1559 at 40°C after 2-hour temperature conditioning in a forced draft oven.

### 6. Moisture Susceptibility

Perform the same conditioning and volumetric measurements on moisture- conditioned specimens as on other specimens. Vacuums saturate to 55 to 75 percent, soak in a 25°C water bath for 23 hours, followed by a one hour soak at 40°C. Determine corrected Marshall Stability. The average moisture conditioned specimen strength divided by the average dry specimen strength is referred to as retained stability.

### 7. Emulsion Content Selection

The properties of the specimens at design emulsion content shall meet the properties in **Table 1**.

### 8. Report

The report shall contain the following minimum information: Gradation of RAP; amount and gradation of virgin aggregate or additional RAP, if any; recommended water content range as a percentage of dry RAP; optimum emulsion content as a percentage of dry RAP and corresponding density; air void percentage; absorbed water percentage; Marshall Stability and Retained Stability at design moisture and emulsion contents; Raveling percentage; and Thermal Cracking initiation temperature. Include the mix design emulsion designation, supplier name, plant location, and emulsion testing results detailed in **Table 4**.

The mix design(s) shall meet the Mix Design Performance Criteria of **Table 1** and be approved by the County prior to construction.

| Table 1 – Mix Design Performance Criteria   |                                    |                         |  |
|---|------------------------------------|-------------------------|--|
| 100 mm specimens shall be prepared in a Superpave Gyratory compactor. The mixture |                                    |                         |  |
| should meet the following criteria at the selected de                             | sign asphalt em                    | ulsion content:         |  |
| Property  | Criteria                           | Purpose                 |  |
| Compaction effort, Superpave Gyratory Compactor AASHTO T312                       | 1.25° angle,<br>600 kPa<br>stress, | Density Indicator       |  |
|   | 30 gyrations                       |                         |  |
| Density, ASTM D2726 or equivalent   | Report                             | Compaction<br>Indicator |  |
| Gradation for Design Millings, ASTM C117  | Report                             |                         |  |

| *Marshall stability, ASTM D6926-10, D6927-06, 40°C   | 2500<br>lbs.<br>minimu<br>m<br>stability | Stability Indicator                  |
|--|--|--------------------------------------|
| **Resistance of Compacted Bituminous Mixture to<br>Moisture Induced Damage AASHTO T283-07<br>Retained stability based on cured stability | 70 % min.                                | Ability to withstand moisture damage |
| * Cured stability tested on compacted specimens weight.  | after 60°C (140                          | °F) curing to constant               |
| **Vacuum saturation of 55 to 75 percent, water bath  | 25°C 23 hours, I                         | ast hour at 40°C water               |

### F. Other Additives

bath

If necessary, additives may be used to meet the requirements in **Table 1**. In the case that an additive is used, the type and allowable usage percentage should be described in the submitted design recommendation.

## G. Addition of Imported Crushed Reclaimed Asphalt Pavement (RAP) material.

If available, imported RAP material may be added at the discretion of the County Engineer if the RAP material meets the requirements in **Table 2**. The crushed RAP shall be free from vegetation and all other deleterious materials, including silt and clay balls. It shall meet the requirements for Deleterious Materials given in **Table 2**. The crushed RAP shall not exceed the maximum size requirement in this Technical Specification and when blended with the design millings, shall produce a product which meets the specifications given in **Table 1**.

| Table 2 - Imported Crushed RAP Criteria                                 |                              |                         |  |
|---|------------------------------|-------------------------|--|
| Property  | Method                       | Limit                   |  |
| Deleterious Materials: Clay Lumps and Friable Particles in Aggregate, % | ASTM C 142 or<br>AASHTO T112 | 0.2% maximum            |  |
| Maximum size and Distribution   | ASTM C 136 or<br>AASHTO T 27 | 5% retained on 2" seive |  |

### H. Additional Aggregate

Based on the results of mixed design testing or other requirements, the CIR Contractor shall determine if additional aggregate is required to comply with mix design performance criteria specified in **Table 1**. Any additional aggregate shall meet the criteria specified in **Table 3**, and it shall be graded to produce a pavement layer which meets the mix design performance criteria specified in **Table 1**.

| Table 3 - Additional Aggregate Criteria |                                 |                 |  |
|---|---------------------------------|-----------------|--|
| Property                                | Method                          | Limit           |  |
| Los Angeles abrasion value, % loss      | AASHTO T96                      | 40% maximum     |  |
| Sand Equivalent,%                       | ASTM D2419                      | 60% minimum     |  |
| Maximum size and Distribution           | ASTM C 136<br>or<br>AASHTO T 27 | Section 334-2.2 |  |
| Water absorption %                      | AASHTO T 85                     | 5%_ max.        |  |

## III. Equipment

### A. Milling Machine

A 10 foot and a 12-foot mill, self-propelled, bi-directional, down-cutting, lateral/horizontal mixing, cold milling machine capable of pulverizing the existing asphalt (and base material as needed) in a single pass to the depth shown on the plans will be required. The machine shall have automatic depth controls to maintain the cutting depth to within ¼ in (6 mm) of that shown on the plans and shall have a positive means for controlling cross slope elevations. A 30-foot noncontact average beam should be used on the mill. The use of a heating device to soften the pavement will not be permitted. Up-cutting machines shall not be permitted. Machines that only provide vertical mixing will not be permitted.

The milling machine should be equipped with a liquid metering device capable of adjusting the flow of asphalt emulsion to compensate for any variation in the speed of the machine. The metering device shall deliver the amount of asphalt emulsion to within  $\Box$  0.2 percent of the required design amount by weight of pulverized bituminous material (for example, if the design requires 3.0 percent, the metering device shall maintain the emulsion amount between 2.8 percent and

3.2 percent). The asphalt emulsion pump should be of sufficient capacity to allow emulsion contents up to 3.5% by weight of pulverized bituminous material. Also, automatic digital readings will be displayed for both the flow rate and total amount of pulverized bituminous material and asphalt emulsion in appropriate units of weight and time.

### B. Bituminous Paver

A self-propelled high density paver having tamper bar compaction, electronic grade and cross slope control for the speed shall be utilized. The equipment shall be of sufficient size and power to spread and lay the mixture in one smooth

continuous pass to the specified section and according to the plans. A 30-foot non-contact averaging beam should be used on the bituminous paver. To reduce material segregation, the bituminous paver should utilize a hopper insert.

### C. Rollers

All rollers shall be self-propelled. The number, weight and types of rollers shall be necessary to obtain the required compaction. At least one pneumatic-tired roller shall have a minimum gross operating weight of not less than 50,000 lbs. (22,600 kg). Pneumatic rollers should have properly working scrapers and water spraying systems. At least one double drum vibratory steel-wheeled roller shall have a gross operating weight of not less than 20,000 lbs. (9,000 kg) and a width of 78 inches (1980 mm). Double drum vibratory rollers should have properly working scrapers and water spraying systems.

### D. Cement Delivery Equipment

Cement may be placed on grade in dry powder form using a bulk spreader with a calibrated screw-type distributor and curtain to accurately place the amount of cement required by the mix design onto the roadbed for mixing.

An integrated binder spreader system, capable of spreading in various widths by opening or closing panels and micro processer-controlled metering cells for precise metering of the cement may also be used. The spreader shall be mounted on the Road Reclaimer, have digital and automated controls and be dust free.

For either method, the Contractor should take steps to minimize the amount of airborne cement dust to the satisfaction of the Engineer and in accordance with OSHA regulations.

### IV. Construction

### A. Layout

The Contractor will be responsible for the string lining and lay out of the roadway prior to paving. Elevations of the existing road should be referenced at sufficient intervals to ensure the roadway elevation is not changed in any location after final surface is placed. Method for layout and line and elevation reference should be approved by the engineer prior to beginning work. It is imperative that roadway elevations remain unchanged except cross slope correction or as approved by the engineer.

### B. Weather Limitations

Cold In-Place recycling operations shall be completed when the atmospheric temperature measured in the shade and away from artificial heat is  $40^{\circ}$  F ( $10^{\circ}$ C) and rising. Also, the weather shall not be foggy or rainy. The weather forecast

shall not call for freezing temperature within 48 hours after placement of any portion of the project.

### C. Site Preparation

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment.

The Contractor shall be responsible for calling utility locates prior to beginning. All manhole and valve cover, inlets and other service entrances, etc., shall be protected and when necessary, coordinating with Utility Owners for any adjustments needed before construction begins.

### D. Traffic Control

The Contractor shall furnish all necessary traffic control, barricades, signs, and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section 102, most current edition. MOT and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

The Contractor shall submit an MOT plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. If prolonged lane or road closure is required to complete the work, the Contractor shall complete and submit the appropriate Closure Request Form for approval together with the MOT plans.

### E. Pre-Milling

In the case of a curbed or closed section, where milling is necessary to remove excess material and maintain existing grades, the work shall be done under the appropriate line item for milling based on the average milled depth but shall not exceed two and a half (2.5") inches.

The existing pavement shall be milled to the required depth and width as indicated on the plans. Recycling shall be in a manner that does not disturb the underlying subbase material in the existing roadway. The milling operation shall be conducted so that the number of fines occurring along the vertical faces of the cut will not prevent bonding of the cold recycled materials. Use a small milling machine, if necessary, to mill longitudinally to the required depth as indicated on the plans along all curbs and gutters, radius returns, utilities, inlets, around all manholes and any other structures not accessible or practical to be

milled by the milling/mixing machine utilities. The millings produced by the small mill will be the same as the large mill and of equal gradation to produce a uniform recycled pavement layer. Inlets/Catch Basins should be covered during the milling and recycling operation to prevent milled material from entering the catch basin area where it could contaminate and/or block the storm water system.

### F. Processing

When a paving fabric is encountered during the CIR operation, the Contractor shall make the necessary adjustments in equipment or operations so that at least ninety percent (90%) of the shredded fabric in the recycled material is no more than 5 in<sup>2</sup> (3200 mm<sup>2</sup>). Additionally, no fabric piece shall have any dimension exceeding a length of 4 inches (100 mm). These changes may include, but not be limited to, adjusting the milling rate and adding or removing screens in order to obtain a specification for recycled material. The Contractor shall be required to waste material containing over-sized pieces of paving fabric as directed by the Engineer.

## G. Spreading

The material shall be spread using a self-propelled paver meeting the requirements under the current FDOT Standard Specifications for Road and Bridge Construction, Section 330-5. Heating of the paver screed will not be permitted. The recycled material shall be spread in one continuous pass, without segregation and to the lines and grades established by the Engineer.

## H. Compaction

Compaction of the recycled mix shall be completed using rollers meeting the requirements of the current FDOT Standard Specifications for Road and Bridge Construction Section 330-7. During initial construction, rolling patterns and sequences shall be established through the construction of a control strip produced with the CIR equipment and within the pavement section, to determine the target wet density, using a nuclear moisture-density gauge in accordance with ASTM D2950, backscatter measurement mode. In all cases, the longitudinal joint should first be rolled followed by the rolling pattern established by the test strip. The initial pass for the rolling pattern established by the test strip should begin on the low side and progress to the high side by overlapping of longitudinal passes parallel to the pavement centerline. Initial rolling should not begin until the emulsion has started to break. Rollers shall be operated at speeds appropriate for the type of roller and necessary to obtain the required degree of compaction and prevent defects in the mat. Rolling shall be continued until no displacement is occurring or until the pneumatic roller(s) is (are) walking out of the mixture. Final rolling to eliminate pneumatic tire marks and to achieve density shall be done by double drum steel roller(s), either operating in a static

or vibratory mode. Vibratory mode should only be operated at a speed, frequency and amplitude shown not to damage the pavement. The selected rolling pattern shall be followed unless changes in the recycled mix or placement conditions occur, and the established rolling pattern is causing damage to the mat or the required degree of compaction is unachievable. These circumstances require the establishment of new rolling patterns and sequences through the construction of a control strip produced with the CIR equipment and within the pavement section. Rolling shall start no more than 30 minutes behind the paver. Finish rolling shall be completed no more than one hour after milling is completed. When possible, rolling shall not be started or stopped on uncompacted material but with rolling patterns established so that they begin or end on previously compacted material or the existing pavement.

### I. Return of Traffic

After the completion of compaction of the recycled pavement layer, no traffic shall be permitted on the completed recycled material for at least one (1) hour. After one hour, traffic may be permitted on the recycled material. This time may be adjusted by the Contractor to allow establishment of sufficient cure so traffic will not initiate raveling. After opening to traffic, the surface of the recycled pavement layer shall be maintained in a condition suitable for the safe movement of traffic.

## J. Protection and Damage

Protect the recycled pavement layer in accordance with the *current FDOT Standard Specifications for Road and Bridge Construction, Section 330-10.* After the base course has been finished as specified herein, it shall be protected against drying for a period of 2 to 3 days by the application of a prime coat as specified in FDOT Standard Specifications section 300 at a rate of not less than 0.15 gal/sy. The curing method shall begin as soon as possible, but no later than 24 hours after the completion of finishing operations. The finished base course shall be kept moist continuously until the curing material is placed. Any damage to the completed Cold In Place Recycled bituminous material shall be repaired by the Contractor prior to the placement of the hot mix asphalt concrete surface course, or other applicable surface treatment, and as directed by the Engineer

## K. Finished Recycled Pavement Layer Smoothness

The completed cold recycled pavement layer surface shall not vary more than  $\frac{1}{2}$  in (12 mm) from the lower edge of a 10-foot (3-meter) straight edge placed on the surface parallel and transversely to the centerline at locations selected by the County. Irregularities exceeding the specified limit shall be corrected at the expense of the Contractor by grinding/cold milling or leveling with cold or hot mix asphalt. The corrected areas shall be retested to determine compliance with smoothness.

### L. Quality Control

## 1. Contractor Responsibility

The Contractor shall be responsible for providing field and laboratory quality control testing of materials during construction. The County or its subconsultant may conduct sampling and testing whenever or as often as desired for verification purposes. The Contractor shall acquire an adequate amount of material for each sample to be tested in the laboratory so that an ample amount of material is left over in case of the need for resolution testing. Resolution testing will be required and provided at the expense of the Contractor if similar laboratory samples tested by the Contractor and the County do not coincide within reasonable values as determined by the County. The resolution laboratory will be selected by the County and the testing results provided by this lab will be used for materials acceptance purposes. All materials testing laboratories shall be accredited by the AASHTO Materials Reference Laboratory (AMRL) or Construction Materials Engineering Council (CMEC). The Contractor shall submit all documentation of field inspection and laboratory testing results required herein to the County Engineer prior to payment and upon request. Copies of all delivery tickets and notes regarding any materials brought to the project site shall be given to the County upon delivery to the project site. These tickets shall be signed by an approved representative of the Contractor at the time of delivery.

## 2. Crushed RAP Material Sizing

A sample shall be obtained from the receiving hopper of the paver each ½ mile or as specified by engineer (0.8 km) and screened using a 2 in. (51mm) sieve (or smaller sieve if required) to determine maximum particle size requirement compliance. The resulting gradations shall be compared to the mix design gradations to determine any necessary changes to emulsion content. Gradation results shall be shared with the County by the end of the following day. Sampling procedures shall be in accordance with ASTM D979 or AASHTO T168.

## 3. Asphalt Emulsion

The asphalt emulsion shall be received on the job site within the temperature ranges specified by the emulsion supplier. The emulsion supplier shall provide testing results for each shipment indicating the emulsion is in compliance with the criteria specified in **Table 4.** The County Engineer may require the Contractor to obtain emulsion samples from each shipping trailer prior to unloading into the Contractor's storage units for quality control testing if desired. The testing shall meet the following requirements:

| Table 4 – Emulsion <i>Criteria</i> |           |                |
|------------------------------------|-----------|----------------|
| Property                           | Method    | Limit          |
| *Residue from distillation, %      | ASTM D244 | 64.0 to 66.0 % |
| *Oil distillate by distillation, % | ASTM D244 | 0.5% maximum   |
| Sieve Test, %                      | ASTM D244 | 0.1% maximum   |
| **Residue Penetration, 25°C, dmm   | ASTM D5   | -25 to +25%    |

<sup>\*</sup>Modified ASTM D244 procedure – distillation temperature of 177°C with 20 minute hold.

\*To be determined during CIR design phase prior to emulsion formulation and manufacture for project. Penetration value range will be determined and submitted to the County Engineer for approval prior to project start

## 4. Asphalt Emulsion Content and Yield

Total emulsion quantity and yield shall be monitored and recorded daily and for each segment in which the target emulsion percentage is adjusted. This information shall be gathered from the calibrated emulsion metering device. Emulsion content adjustments shall be made appropriately when multiple and specific mix designs for different road segments of varying composition exist.

### 5. Water Content and Yield

Total water quantity and yield shall be monitored and recorded daily and for each segment in which the target water percentage is adjusted. This information shall be gathered from the water metering device. Water content adjustments shall be made appropriately when multiple and specific mix designs for different road segments of varying composition exist. Water content adjustments shall also be made based on mixture consistency, coating, and dispersion of the recycled materials.

### 6. Mixture Testing

At the discretion of the County Engineer and if the recycled pavement layer quality and workmanship seem suspect, the Contractor may be required to sample, in accordance with ASTM D3665 and D979, the recycled mixture for determining compliance with design criteria specified in **Table 1**. If samples of the recycled asphalt pavement mixture are taken after the addition of additives and e emulsion, the specimens should be compacted within 15 minutes of sampling and tested as required in **Table 1**. If the recycled mixture is sampled prior to the addition of additives and emulsion, the sample should immediately be transferred to an air-tight plastic container to prohibit loss of moisture. Samples should be mixed in the laboratory with the field additives and emulsion within 24 hours and tested as required in **Table 1**.

### 7. Depth of Pulverization (Milling)

The depth shall be checked and recorded daily every 1/8 mile (0.2 km). on both outside vertical faces of the cut. Measure depth by placing a rigid measuring device perpendicular to the bottom of the milled surface and near the vertical faces of the cut.

## 8. Compacted Density

Degree of compaction of the recycled pavement layer shall be monitored for compliance with target wet density established during the initial control strip construction. Wet density shall be determined every 1/4 mile (0.4 km) using a nuclear moisture-density gauge in accordance with ASTM D2950, backscatter measurement mode. Ensure that all nuclear gauges are operated by licensed individuals and have been calibrated within the last 12 months. The acceptable degree of compaction shall be 96 to 98 percent of target wet density. Care shall be taken not to over-roll the mat based on visual observations of check cracking or shoving. A new control strip and target density shall be established if the consistency of the material being recycled changes. The County shall be notified prior to the construction of a new control strip.

## 9. Cross-Slope and Smoothness

The recycled pavement layer cross slope shall be checked regularly during spreading. A minimum of 2 % Cross-Slope shall be maintained through the length of the project. The recycled pavement layer shall be checked for smoothness regularly behind the paver and after rolling. The smoothness shall not vary more than ½ in (12 mm) from the lower edge of a 10-foot (3-meter) straight edge placed on the surface parallel and transversely to the centerline after rolling is completed. The edge of the mat should be rolled first and progress to the center or high side to prevent

| Property  | Method                      | Limit   |  |
|---|-----------------------------|---|--|
| RAP Maximum Particle Size   |                             | Section 334-2.2                                 |  |
| RAP Particle Size Distribution  | ASTM C 136 or<br>AASHTO T27 | Determined by Mix<br>Design(s)                  |  |
| Emulsion and Water Yield  | Calibrated Metering Device  | Determined by Mix Design(s)                     |  |
| *Mixture Testing  | Table 1                     | Table 1   |  |
| **Depth of Milling  | Section 334-5.7             | Determined by Mix Design(s)                     |  |
| Compacted Density   | ASTM D2950                  | 96 to 98% of target                             |  |
|   | AASHTO T-180                | density   |  |
| Cross-Slope   | FM 5-509                    | Minimum 2%                                      |  |
| Smoothness  | FM 5-509                    | Maximum 0.5 in (12 mm) deviation from planeness |  |
| *Mixture Testing frequency shall be at the County Engineer's discretion                 |                             |   |  |
| **Depth of Milling may need to be adjusted for localized unexpected pavement conditions |                             |   |  |

## 10. Documentation

Delivery Tickets - All delivery tickets and notes regarding any materials brought to the project site to complete this item shall be given to the County upon delivery. Tickets shall be signed by an approved representative of the Contractor at the time of delivery.

## V. Gopher Tortoise Removal/Relocation:

Only for Treatment Sections that include FDR, Milling, and or Asphalt placement, Contractor will inspect the Project area for the presence of gopher tortoises/burrows prior to bidding when issued a Work Order and again prior to work commencing. If necessary, it shall be the Contractors responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Contractor. Costs for inspection, permitting, protection, excavation of burrows, and any other associated work shall be incidental to the Contract/Work Order(s). Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County. Contractor must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order.

## VI. Warranty:

The Contractor shall provide the County upon final acceptance of the Cold-In-Place work, a warranty period of three years (36 months) which shall include all materials and workmanship.

### VII. Method of Measurement:

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Cold-In-Place Recycled Bituminous Paving, and not specifically listed in another item in the Bid Form, shall be included in this item, including but not limited to Maintenance of Traffic as specified in FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition.

## VIII. Basis of Payment:

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Full Depth Reclamation with Asphalt Emulsion and Cement Blend, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

## Payment will be made under:

| Pay Item                                  | Pay Unit        |
|---|-----------------|
| Cold-In-Place Recycling Bituminous Paving | Per Square yard |
| Asphalt Emulsion                          | Per Gallon      |
| Portland Cement                           | Per Ton         |
| Excavation                                | Per Cubic Yard  |
| Added RAP                                 | Per Ton         |
| Added Aggregate for mixing                | Per Ton         |

## **END OF SECTION**

# CAPE SEAL

### CC-010 CAPE SEAL SPECIFICATION

### I. Description

The work specified in this section consists of furnishing and applying multiple bituminous surface treatments composed of an asphalt emulsion chip seal followed by the application of asphalt emulsion microsurface on a paved roadway or on a prepared road base, compacted to the lines, grades, and thickness established by the County and in substantial conformance with the limits established by the owner.

### II. Materials:

### A. Cover Aggregate for the Chip Seal:

Cover aggregate for the chip seal shall conform to FDOT specifications section 901, table 1 for #89, #78 or #67 gradation for coarse aggregates except as modified under the Chip Seal Specification in this bid package. The aggregate shall be washed granite obtained from a source approved by the owner.

Sampling and testing of the aggregate shall be the responsibility of the Contractor. Copies of test results from the aggregate supplier shall be furnished to the owner prior to the start of the surface treatment.

## B. Liquid bituminous material for surface treatment:

CRS-2P liquid bituminous material conforming to AASHTO M 316-99, and the Chip Seal Specification in this bid package. When CRS-2P is specified apply the following modifications:

- 1. Distill the CRS-2P at 400°F for 20 minutes.
- Provide Polymer-Modified Cationic Emulsified Asphalt, CRS-2P produced by using polymer modified base asphalt only. The emulsion shall be pumpable and suitable for application through a distributor truck.

## C. Aggregate for Microsurface

Use an aggregate consisting of 100% crushed stone. The aggregate shall be a crushed stone such as granite, slag, limestone, chat, or other high-quality aggregate, or a combination thereof, and conform to the Microsurfacing Specification in this bid package.

### D. Microsurface Emulsion

Provide a quick-traffic, polymer-modified emulsified asphalt conforming to the requirements specified in AASHTO M 208 for CSS-1h as listed in **Table 1 of the** Microsurface Specification in this bid package.

### E. Mineral Filler:

If mineral filler is utilized in the microsurface mix design, use non-airentrained Portland cement or hydrated lime that is free from lumps, consistent with the requirements of the Microsurface Specification in this bid package.

### F. Water:

Utilize water that is potable and free of harmful soluble salts, reactive chemicals, or any other contaminants.

### G. Additives:

Additives may be added to the mixture or any of the component materials to provide control of quick-trafficking properties. The additives to be used should be indicated on the mix design and be compatible with the other components of the mix.

### H. Crack Filler:

When required for the project, utilize a crack filler meeting the material requirements of the CC-003 Crack Filling/Sealing Specification. Crack filling should be completed a minimum of one (1) month prior to microsurfacing.

### I. Material Samples:

The County will require the Contractor to sample and test each load of emulsion prior to delivery. The Contractor will also provide a sample of the emulsion, on site, prior to commencing work. The County will require the Contractor to provide sample containers and a local independent testing laboratory with no affiliation to the emulsion supplier for the analyzing of emulsion. The Contractor will be responsible for the cost of the testing. The County reserves the right to test any shipment of emulsion that is believed to be of substandard. All samples shall be shipped and stored in clean airtight sealed wide mouth jars or bottles made of plastic.

## III. Equipment:

## A. Asphalt Emulsion Distributor:

The liquid bituminous material shall be applied with a truck mounted, pressure distributor that has been calibrated within the previous twelve (12) months, for transverse and longitudinal application rate. The distributor shall be equipped, maintained and operated so that the bituminous material can be applied at controlled temperatures and rates

from .035 to 1.5 gallons per square yard. The distributor shall be capable of applying bituminous material of variable widths up to sixteen (16) feet. The distributor shall uniformly apply the bituminous material to the specified rate with a maximum allowed variation of 0.015 gallons per square yard. Distributor equipment shall include a tachometer, accurate volume measuring device, a calibrated tank and a thermometer for measuring the temperature of the tank's contents. Distributors shall be equipped with a heating device, asphalt pump and full circulating spray bars adjustable laterally and vertically. Distributors and transport trailers shall be equipped with a sampling valve. Distributor trucks shall be of the pressure type with insulated tanks. The use of gravity distributors will not be permitted. The valves shall be operated by levers so that one or all valves may be quickly opened or closed in one operation. The valves which control the flow from nozzles shall act positively so as to provide a uniform unbroken spread of bituminous material on the surface. The distributor shall be equipped with devices and charts to provide for accurate and rapid determination and control of the amount of bituminous material being applied and with a bitumeter of the auxiliary wheel type registering speed in feet per minute, and trip and total distance in feet. Two distributor trucks will be required on all projects.

## B. Aggregate Spreader:

The aggregate spreader shall be a self-propelled unit capable of uniformly spreading the aggregate at the required rate on a minimum width of six (6") inches wider than the width of the lane to be treated. The spreader shall be calibrated within the previous twelve (12) months for transverse and longitudinal application. The spreader shall be capable of extending to a width of 22 feet. The spreader shall be equipped with a computer-controlled aggregate/chip spreader in order to ensure the appropriate aggregate coverage at varying speeds, unless approved otherwise by Engineer.

### C. Rollers:

The Contractor shall use one, ten (10) ton steel wheeled roller and two, eight (8) to twelve (12) ton self-propelled pneumatic tire rollers with oscillating wheels and low pressure, smooth tires. Maintain the inflation of the tires such that in no two tires the air pressure varies more than 5 psi. The rollers will be equipped with an operating water system and coco pads. A sufficient number of rollers and a sufficient number of passes shall be used to ensure the cover aggregate is properly rolled. The final passes of the rolling process shall be performed by a static steel wheel roller, which shall be operated without the vibrating function.

### D. Self-Propelled Rotary Power Broom:

The self-propelled rotary broom shall be designed, equipped, maintained, and operated so the pavement surface can be swept clean. The broom shall have an adjustment to control the downward pressure.

### E. Mixing Equipment:

Use a machine specifically designed and manufactured to place micro surfacing consistent with the requirements of the Microsurfacing Specification of this bid package. Truck mounted and self-loading continuous machines are acceptable.

## F. Spreading Equipment:

The spreading equipment should be a mechanical squeegee type equipped with flexible material in contact with the surface to prevent loss of the microsurfacing slurry from the distributing box. There should be a flexible rear strike-off which is adjustable in width and capable of producing a uniform surface its full width. For detailed requirements, refer to the Microsurfacing Specification of this bid package.

### G. Additional equipment:

Additional equipment will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 10' straight edge) shall be the responsibility of the Contractor.

### H. Construction:

#### a. Lavout:

The Contractor will be responsible for the string lining and lay out of the roadway prior to paving.

### b. Weather and Seasonal limitations:

The surface treatment shall not be applied to a wet surface or when rain is occurring, or the threat of rain is present immediately before placement. The surface treatment shall not be applied when the surface or/and air temperature is less than 50 degrees Fahrenheit in the shade. If Relative humidity is between 75% and 80%, additional time may be required to allow the emulsion to set before the lane can be opened to traffic. Operations may not continue if the relative humidity is above 80%. When applying emulsions, the temperature of the surface shall be a minimum of 55°F, and no more than 140°F.

If an unexpected rainstorm ensues, sufficient aggregate should be spread to cover all of the applied binder. If possible, the road or lane should be closed to traffic and, if not, traffic should be kept to a minimum speed during this period by use of pilot vehicles. The amount of rolling should be reduced, if not completely ceased, while the aggregate is wet, to avoid binder emerging from the voids and be picked up on the wheels of the roller.

## c. Preparation of Surface:

The chip seal material shall be placed on a firm unyielding prepared roadway. Any patching or crack sealing that the Contractor is also authorized to perform for the project should be done a minimum of one (1) month prior to the chip seal application.

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a preemergent herbicide before and after treatment. The Contractor will be responsible for blowing or sweeping the road immediately ahead of the chip seal operation to make sure the road is free of loose aggregate and other debris, as well as sweeping and cleaning the streets after treatment. If, in the opinion of the Engineer, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All manhole and valve cover, inlets and other service entrances, etc., shall be protected from bituminous material by placing reinforced waterproof, all-purpose paper or other suitable material, approved by the Engineer.

Thermoplastic striping and pavement markings, raised pavement markers, and raised pavement marker adhesive shall be removed.

Microsurfacing may be used as rut fill if so, contracted for the specific project to level bumps, waves and corrugations.

### d. Resident Notification

In Residential areas, the Contractor shall distribute by hand a typed notice to all residences and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local

phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The Contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

### e. Traffic Control:

The Contractor shall furnish all necessary traffic control, barricades, signs and flagmen, to ensure the safety of the traveling public and to all working personnel. Traffic shall not travel on fresh mix until rolling and blotting has been completed. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

The Contractor shall submit an M.O.T plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work.

Traffic shall not be allowed on the roadway after placement of the chip seal for a minimum of two hours. During and after placement of the chip seal, pilot cars should escort traffic at a speed of 20 mph (30 kph) over the chip sealed surface for two to 24 hours. For Collector Roads, pilot cars will be required unless otherwise instructed by Inspection. Once all the loose aggregate is removed from the new chip seal surface, pilot cars are no longer needed.

### f. Chip Seal

Normal good practices shall be followed for the chip seal construction as outlined in the Chip Seal Specification of this bid package.

Some of the more important construction procedures required are:

i.Calibration of the asphalt emulsion distributor with the use of proper nozzle size and single and spray bar height above the surface. Immediately after the asphalt

- emulsion has been applied, it shall be covered with chips.
- ii. Rolling should begin as soon as possible after the cover aggregate has been applied with pneumatic tired units preferred. The rolling should consist of a minimum of 3 coverages. After the initial rolling has been completed with pneumatic tired units, further rolling may be carried out with a 5-to-8-ton steel wheeled unit (optional). To avoid excessive chip crushing, only one complete coverage should be made.

The surface should be clean with the surface broomed prior to the application of any tack coat or microsurfacing to remove excess chips, dirt, and other objectionable matter.

### g. Microsurfacing

Once the chip seal application has been allowed a minimum of seven days to settle, the Contractor shall apply a double microsurface 30-34 lbs/sy in one lift. Normal good practices shall be followed for the chip seal construction as outlined in the Microsurfacing Specification of this bid package.

Some of the more important or unique construction procedures required are:

- Each microsurfacing unit to be used should be previously calibrated.
- ii. Immediately prior to the placement of the microsurfacing seal, the surface shall be cleaned by power brooming.
- iii. Microsurface may be used as rut fill to level dips in the pavement.
- Not less than seven days, nor more than four weeks after the chip application, the microsurface shall be applied.
- v. The Cape Seal should not be opened to traffic until the microsurface seal has cured sufficiently so as to not exhibit pickup by the tires of regular traffic.

### h. Pavement Striping and Markings

As part of the Maintenance of Traffic, the Contractor shall provide the necessary temporary striping and pavement markings during the different construction phases and maintained for a minimum of two (2) weeks following the completion of the chip seal operation.

Permanent striping and pavement markings, including the installation of reflective pavement markers shall be performed after the two (2) week period. Prior to applying the permanent striping and markings, the Contractor shall broom the roadway. The Contractor shall be responsible for maintaining the permanent striping and markings for a minimum of two (2) weeks after installation.

### i. Deliverables:

Upon completion of the project, the Contractor shall provide Inspection with logs showing the daily and running totals of aggregate and bituminous material during the chip seal stage, as well as the daily production logs for the microsurfacing stage. These logs shall become backup documentation for invoicing.

### j. Warranty:

The Contractor shall provide the County upon final acceptance of the Cape Seal work, a warranty period of three (3) years which shall include all labor, materials, hauling, traffic control and striping to repair the defective areas. Defective areas shall include debonding/delamination, bleeding, excessive raveling, and aggregate loss. The Contractor shall perform all warranty work at no cost to the County.

### k. General Performance:

Provide completed pavement which performs to the satisfaction of the engineer without bleeding, rutting, shoving, raveling, stripping, or showing other types of pavement distress or unsatisfactory performance.

### I. Method of Measurement:

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Cape Seal, and not specifically listed in another item in the Bid Form, shall be included in this item.

## m Basis of Payment:

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Cape Seal, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

Payment will be made under:

|   | Pay Item  | Pay Unit       |
|---|---|----------------|
|   | Cape Seal (Single Chip w/Double<br>Micro application) | Square<br>Yard |
|   | Cape Seal (Double Chip w/Double<br>Micro application) | Square<br>Yard |
| ( | Crack Filling/Sealing                                 | Per<br>gallon  |

### **END OF SECTION**

## **OPEN GRADE**

### CC-011 OPEN GRADE CRACK RELIEF ASPHALT

### **Description**

The work specified in this section consists of furnishing and applying open grade crack relief asphalt on a paved roadway or on a prepared road base, compacted to the lines, grades, and thickness established by the County and in substantial conformance with the limits established by the owner.

**Ingredients.** This material shall consist of a hot bituminous plant mix formulated to contain approximately 20 to 25 percent interconnecting air voids. Coarse aggregate ingredients for this mix shall meet the requirements of the FDOT Specifications, Section 901-1.

**Formulation of Open Grade Hot Mix**. The Contractor shall propose a Job Mix Formula within the following limits for gradation and asphalt content:

| Type Material:        |                       |              |
|-----------------------|-----------------------|--------------|
| Crushed RAP (15% Max) |                       |              |
| #67 Stone             |                       |              |
| PG 76-22              |                       |              |
|                       |                       |              |
| PERCENTAGE BY WEIGH   | T TOTAL AGGREGATE PAS | SSING SIEVES |
|                       |                       |              |
|                       |                       |              |
|                       | Min                   | Max          |
| 1" (25 mm)            | 00                    |              |
| 3/4" (19 mm)          | 95                    |              |
| ½" (12.5 mm)          | 60                    | 75           |
| 3/8"(9.5 mm)          | 27                    | 45           |
| No. 4 (4.75 mm)       | 10                    | 16           |
| No. 10 (2.0 mm)       | 7.0                   | 12           |
| No. 40 (0.425 mm)     | 5.0                   | 10           |
| No. 200 (0.075 mm)    | 3.5                   | 6.5          |

Asphalt cement content: (target) 5.20 percent by weight of mix.

## **Quality Control of Mixture**

During production the Contractor shall continually monitor the mix temperature and shall routinely collect samples of the mixture at the production facility and have the samples tested for asphalt content and gradation according to FM5-544 and FM5-545 or FM5-563 and FM1-T030.

As a minimum, such quality control tests shall be performed once daily, in the first hour after the start of production. After two successive days' production in which the mix has remained within the limits specified in the Acceptance Plan below, tests shall be performed on each 1000 tons or on each day's production, whichever is greater.

Up-to-date records of all such tests shall be maintained at the mixing facility and shall be available for inspection by the Public Works Department. Copies of all test results obtained during production on a particular County project shall be delivered to the Public Works Department upon request.

### **Quality Assurance of Mixture Ingredients**

### **Acceptance Plan**

- 1. Basis of Acceptance. The mixture shall be accepted on the basis of:
  - 1. Composition ingredients, proportions, and properties
  - 2. Temperature On delivery and prior to compacting
  - 3. Visual Inspection Absence of visible defects
  - 4. Thickness average and spot thickness
  - 5. Workmanship
  - 6. Compaction

7

2. Rejected work – Extent. When the mixture is found to be defective in composition and an adjustment in price or rejection of the mixture is appropriate, as provided below, such adjustment or rejection shall apply to the entire lot (as defined below). Rejection of the material on the basis of temperature or visible defect shall apply only to the individual truckload or mass of material which was actually inspected. When the area of the work is found to be deficient in thickness or compacted density, the extent and limits of the defective work shall be determined by the Public Works Department by means of further testing.

### **Acceptance of Mix Composition**

- a. Basis of acceptance of mixtures. The composition of a quantity of asphalt mixture shall be accepted when the mixture has been produced according to a Job Mix Formula approved by the Public Works Department, when it is composed of the ingredients identified in the FDOT approved mixed design, including anti-stripping additives and specified modifiers, and when the ingredient proportions and gradation are within the specified tolerances, as determined on the basis of standard tests ordered by the Public Works Department.
- b. Rejection of faulty materials or process. Upon finding indications of defective or contaminated ingredients or a malfunction of the production process, the Public Works Department will instruct the Contractor to cease operations until, in the judgment of the Public Works Department, appropriate measures have been taken to correct the materials or the production process. The Contractor shall then immediately cease work until notified by the Public Works Department that the matter is resolved. Such deficiencies include but are not limited to: Particle segregation, faulty control of mix temperature or ingredient proportions, incomplete coating of particles, an excess of particles finer than the 0.075 mm sieve, incomplete mixing, contamination with burner fuel or defective or unapproved ingredients. Contamination of stockpiles, including Reclaimed Asphalt Pavement (RAP) stockpiles, by addition of

materials from other sources shall be cause for rejecting the mixture and for rejecting the mix design and Job Mix Formula.

- c. Sampling and testing for composition. All tests shall be performed according to the standard methods established in the Manual of Florida Sampling and Testing Methods. Testing shall be performed by a materials testing technician certified by the FDOT, and all test results shall be certified by a licensed engineer.
- d. **Expense of testing.** Refer to Scope of Work, Section 8, Testing and Inspections.
- e. **Lots.** For purposes of mixture acceptance testing, the work shall be divided into lots. Each day's production, regardless of the amount delivered, shall constitute one lot.
- f. **Mixture acceptance tests.** Samples to be tested for mixture composition shall be tested for asphalt cement (bitumen) content and gradation according to (a) FM5-544 and FM5-545, or (b) FM5-563 and FM1-T 030. In addition, samples may be tested according to FM1-T 166 to verify laboratory density.
- g. **Mixture acceptance parameters and sampling procedure.** Acceptance parameters for mixture composition shall be the bitumen content and the percentages passing the #4 (4.75 mm), #40 (0.425 mm), and #200 (0.075 mm) sieves. Samples shall be collected and tested in sets of at least three per lot, each taken from a different truckload or from areas placed from different truckloads.

Acceptability of mixture composition shall be based on the average deviation from the Job Mix Formula of all valid test results of all samples for a given lot. Deviations shall be averaged without algebraic signs, as if all were positive. If the average deviation of one or more acceptance parameters falls outside the limits given in the July 2021 FDOT Standard Specifications Table 334-5, the Public Works Department may, at its discretion, either reject the entire lot or accept it at a reduced price.

- h. Average asphalt cement content. The Contractor shall ensure that the asphalt cement content of the mixture is maintained at the value specified in the Job Mix Formula.
- i. Composition of Open Grade Hot Mix. This mix type shall be sampled and tested in the manner prescribed above. Special mixture acceptance tolerances apply for this material as follows. Note that the maximum and minimum tolerances for bitumen content and the 0.075 mm sieve are unequal:

| MIXTURE PARAMETER               | TOLERANCE, PERCENT BY WEIGHT             |
|---------------------------------|--|
| Bitumen Content                 | 0.30 below or 0.70 above Job Mix Formula |
| Fraction Passing 4.75 mm sieve  | 7.0 above or below Job Mix Formula       |
| Fraction Passing 0.425 mm sieve | 5.0 above or below Job Mix Formula       |
| Fraction Passing 0.075 mm sieve | 2.0 below or 4.0 above Job Mix Formula   |

If the average deviation falls outside the above tolerances, the Public Works Department may, at its discretion, reject the entire lot or accept it at a reduced price.

### **Acceptance of Mix Temperature**

No mix shall be discharged into the paving machine which has a mix temperature higher than 320 degrees F. (160 degrees C.) or lower than 239 degrees F (115 degrees C.). As a further requirement, the temperature of the mix shall be within 18 degrees F. (10 degrees C.) of the temperature specified in the Job Mix Formula but in no case exceeding 320 degrees F. (160 degrees C.). When the mixed temperature upon delivery to the site is found to be outside this range, the Contractor will be notified, and all non-conforming loads produced in that lot subsequent to such notification shall be rejected. If the temperature of the mix in the hopper of the paving machine or the mix ahead of the screed falls below 230 degrees F. (110 degrees C.), or if cold lumps are visible, the Contractor shall immediately cease the lay down operations, form a joint, and empty and remove the entire contents of the paving machine. No mix shall be placed after its temperature has fallen below 230 degrees F.

## **Acceptance on Visual Inspection**

The mix shall be accepted on the basis of visual inspection when it is free of visible defects. It shall be rejected when, in the judgement of the Public Works Department: if the mix is contaminated with fuel, lumps of fines, soft or friable aggregate particles, or other deleterious substances liable to adversely affect the performance of the pavement;

If there are visible signs of a deficiency, excess, or non-uniform distribution of the asphalt cement, or the large particles are not fully coated with asphalt cement; segregation of particle sizes has occurred, as evidenced by pockets of coarse particles; if the exposed portions of the mix in the truck bed or the hopper of the paving machine have cooled to the point that lumps have formed, regardless of the temperature within the mass.

### **Disposition of Mixture Rejected Prior to Placement**

The Contractor shall promptly remove from the site any mixture which has been rejected prior to placement. Mix which the Contractor has placed after it has been rejected shall be removed and replaced with acceptable material at the Contractor's expense.

## Acceptance of Thickness

Thickness shall be controlled to meet a specified thickness dimension or a specified average rate of spread, whichever the Public Works Department may require for the project. In addition, a minimum spot thickness, as specified below, shall be maintained throughout the work.

- a. **Minimum Rate of Spread.** When a rate of spread is specified, the rate of spread shall be +/- 5 percent of the rate specified.
- b. **Minimum Average Thickness.** When a thickness dimension is specified, the average thickness shall be at least 95 percent of the specified thickness.

### **Minimum Spot Thickness**

The minimum spot thickness (i.e., the thickness of the layer at any spot in the work) shall be 75 percent of the specified thickness or, if a rate of spread is specified, 75 percent of the thickness calculated on the basis of the specified rate of spread at laboratory density. When an area of deficient thickness is to be corrected by overlaying, the calculated average thickness shall be not less than 1.5 times the maximum particle size of the mixture.

### **Correcting Deficient Thickness**

When it is determined that an area is deficient in thickness, whether on the basis of the average rate of spread, average measured thickness, or spot thickness, the Contractor shall correct the deficient area within the limits determined by the Public Works Department by removing and repaving the deficient area or by overlaying it, whichever the Public Works Department may require. If removal of a deficient layer is required, the removed material shall not be counted for payment.

## **Acceptance of Workmanship**

Each paving course shall be accepted for workmanship when it is placed and compacted according to these specifications, true to line and grade, and free of defects and surface irregularities. Surface irregularities, as measured with a straightedge at least 15 ft long, shall not exceed ¼ in. in the finished surface. Areas of pavement which become damaged during the project and all non-conforming work, including material placed after rejection by the inspector, material placed upon an unacceptable tack coat, and work performed without inspection or without the approvals required under these specifications, shall be rejected for workmanship. Work rejected for workmanship shall be corrected at the Contractor's expense.

## **Acceptance of Compaction**

Acceptance of compaction shall be based on inspection or on standard density tests, as the Public Works Department may determine.

For compaction testing, materials of different mix types or mix designs and materials applied on different days or in different layers shall be evaluated separately.

The Public Works Department may have the laboratory density of the mixture verified by test method FM 5-511 (Marshall Procedure). If the density of the mixture as produced is found to exceed the laboratory density obtained in the design study, the

average Marshall density of the three production samples shall become the revised laboratory density for the purpose of compaction testing.

Tests for acceptance of compaction and Marshall densities to verify Laboratory density shall be performed by a licensed testing consultant engaged by the County. The Public Works Department will order and schedule these density tests. The Contractor shall bear the expense of all acceptance tests in which unacceptable results are obtained, and the Public Works Department shall bear the expense on all others.

#### **Correcting Areas Rejected for Compaction or Workmanship**

Areas rejected on the basis of compaction or workmanship shall be corrected at the expense of the Contractor by removal and replacement. The Public Works Department may, at its discretion, allow the Contractor to leave a rejected area in place and to overlay it. The entire paved width shall be corrected, and any disturbance of the layers below caused by removal shall be corrected. The area to be corrected shall be at least 100 feet in length. When removal is required, it shall be accomplished by milling. The new layer shall be placed using a paving machine and shall be subject to the acceptance requirements for the original work.

Additional asphalt mixture, traffic control services, tack coat, and mobilization required for replacing or correcting work rejected for compaction or workmanship shall not be counted for payment. The rejected work shall be accepted for payment when the area has been corrected and accepted. (Note: This provision does not apply to overlays to correct deficient thickness, as described above.)

#### Equipment

- a. Required items and configuration. Specific requirements for pressure distributors, paving machines, compacting equipment, and pavement wideners are set forth below. In addition, the Contractor shall provide a power broom.
- b. **Malfunctions.** The Contractor shall maintain all equipment in proper working order and shall promptly replace or repair any disabled machine which no longer meets the requirements of these specifications.
- c. **Paving machines.** The Contractor's paving equipment shall meet all requirements of Section 330-5 of the FDOT Standard Specifications for Road and Bridge Construction.
- d. Screed Width. The Contractor's equipment shall be capable of placing the mixture in a range of paving widths from not more than 8 feet to at least 15 feet in a single pass. The Contractor shall maintain the prescribed width of the paving pass except where the Public Works Department directs a change of width. Material placed outside the prescribed width shall not be counted for payment but shall be deducted from the pay quantity as waste.

The actual paving width, not the specified width, shall be used in calculating the rate of spread.

- e. Paver configuration, adjustments, and operation. The Contractor shall configure and adjust the screed, the length of the augers, and the augerconveyor (feed control) sensors to produce a plan cross-section and to obtain a uniform head of material and uniform density across the full width of the mat. The Contractor shall not continue to operate when the screed is producing a streaked surface or an incorrect crown.
- f. **Compacting equipment.** Before each day's work may begin, the Contractor shall have, as a minimum, one steel-wheeled roller and one pneumatic-tired roller at the work site.
- g. Compacting areas less than 4 feet wide. If needed for use in areas inaccessible to large rollers, a vibratory compactor or hand-guided roller shall be kept on hand during paving operations. Other methods and equipment may be used subject to the approval of the Public Works Department.
- h. **Pressure distributor.** Bituminous Tack Coat shall be applied by means of a pressure distributor equipped with metering devices capable of applying the material at a controlled, uniform rate for the full paving width.
- i. Equipment for use in widening. Asphalt used in widening shall be placed by means of a pavement widener equipped with a strike-off bar or screed. It shall be compacted with a trench roller or by a suitable pneumatic-tired equipment capable of operating in the widened area without bridging on or receiving support from the existing pavement. All equipment and methods for widening shall be subject to the approval of the Public Works Department.

#### Construction

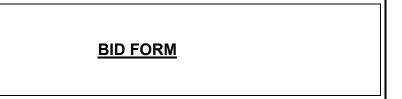
The mixture shall be placed and compacted in accordance with these specifications and, where no specification requirement applies, with the highest industry standards of good workmanship.

#### **Gopher Tortoise Removal/Relocation**

Only for Treatment Sections that include FDR, Milling, and or Asphalt placement, Contractor will inspect the Project area for the presence of gopher tortoises/burrows prior to bidding when issued a Work Order and again prior to work commencing. If necessary, it shall be the Contractors responsibility to obtain and comply with a Standard Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission, pursuant to Rules 68A-9.002, 68A-25.002 and 68A-27.004, F.A.C. Permitting, protection, and/or relocation shall be the responsibility of the Contractor. Costs for inspection, permitting, protection, excavation of burrows,

and any other associated work shall be incidental to the Contract/Work Order(s). Costs for removal and relocation of gopher tortoises shall be paid at the unit cost listed on the Work Order, if Gopher Tortoises are not removed/relocated, this amount will not be paid by County. Contractor must submit a Gopher Tortoise Inspection Report, performed by a certified inspector, to the County before starting work; the cost of this report is incidental to the Work Order.

**END OF SECTION** 



Contractor must Submit Page 1-3 Bid Form (signed and executed) and Pages 1-24 of the detail Bid Form (Write "N/A" on each page of any Treatment Section, if not Bidding.)



| Bidder's N | ame:  |
|------------|---|
|            | Print Company Name                                |
|            | our Bid is in compliance with all specifications. |

# SUBMIT A SINGLE <u>ELECTRONIC</u> FILE AND TITLE BID SUBMITTAL TO INDICATE "ITB 24-088" AND "YOUR COMPANY NAME"

Electronic Bids are to be submitted **on or before February 29, 2024, at 2:00 pm.** It is the sole responsibility of the Respondent to ensure that their Bid response is submitted through VendorLink no later than the time and date specified in the Solicitation or subsequent addenda.

#### **BIDDER'S DECLARATION AND UNDERSTANDING**

Bidder declares (1) that the only persons or parties interested in this Bid are those named herein, (2) that their Bid is, in all respects, fair and without fraud, (3) that their Bid is made without collusion with any official of the County, and (d) that their Bid is made without any connection of collusion with any person submitting another Bid for this Invitation to Bid.

Bidder understands and agrees that if an award is made, County may elect to award all schedules separately or in any combination that is in the best interest of County. Bidder further declares (1) that they have carefully examined the Bid Documents for the Services covered under this Invitation to Bid, (2) that they have personally inspected the site where the Services will be performed, if applicable and (3) that their Bid is made according to the provisions and the terms and conditions noted in the Invitation to Bid, which are hereby made a part of their Bid.

#### BIDDER'S REPRESENTATION AND CERTIFICATION FORM

Bidders acknowledge that they understand and have executed the Bidder's Representation and Certification Form and have included such with their Bid.

#### **BID SCHEDULE**

All blanks on the Bid Form must be completed. If anything is not applicable, Bidder shall indicate such with "N/A". If there is no charge for any specific item noted on the Bid Form, Bidders shall indicate such by entering "no charge".

Bid pricing shall include all materials, equipment, labor, and insurance costs (including MyCOI registration) associated with the Services required in this solicitation.

#### **CERTIFICATES OF INSURANCE**

If an award is made, the Successful Bidder agrees to obtain the minimum types and limits of insurance as specified in the Invitation to Bid and will provide County certificates of insurance evidencing such. Furthermore, should Bidder be required to procure additional insurance to meet County's minimum insurance requirements, Bidder has factored the cost for such additional insurance into their Bid Price.

#### **CONTRACT EXECUTION**

Bidder agrees that if their Bid is accepted for award the contents of their Bid shall become a contractual obligation and that they will furnish all supervision, labor, materials, equipment, supplies, machinery, tools, apparatus, insurance, bonds, and anything else required to provide the service as specified in the Bid Documents.

Citrus County, Florida ITB 24-088 Countywide Resurfacing and Preservation Projects



#### **DEFICIENCY NOTICES**

After Work on a project is commenced, Authorized County personnel may issue a Notice of Deficiency to note that the Contractor is performing work in violation of the Contract conditions and or Work Order. Liability for any damages arising from the items listed in the Notice of Deficiency will be the responsibility of the Contractor at no additional cost to the County. Causes for a Notice of Deficiency may include, but are not limited to, failure to submit a Project Schedule, failure to complete a Work Order within the scheduled time, failure to complete a Work Order, creating unsafe conditions for the traveling public, construction workers and County personnel, inadequate maintenance of traffic, substandard workmanship and/or materials, failure to adhere to approved work hours.

#### **Bid Submittal Format**

#### Bids MUST be submitted and fully completed in the order format noted below:

- ⇒ Bid Form
- ⇒ Certificate(s) of Insurance
- ⇒ Bidder's Representation and Certification Form
- ⇒ Addendum Acknowledgement Form
- ⇒ Bidder's Qualification Statement Form
- ⇒ List of Subcontractors
- ⇒Conflict of Interest Statement
- ⇒Drug-Free Workplace Certification
- ⇒Non-Collusion & Lobbying Certification
- ⇒Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions
- ⇒Certification of Subcontractor Participants Regarding Debarment, Suspension, and Other Ineligibility and Voluntary Exclusion
- ⇒Vendor Certification Regarding Scrutinized Companied List
- ⇒ Copies of Licenses and Certifications
  - Proof of license/certification to do Business in the State of Florida (i.e: Sunbiz registration/Florida Department of State.
  - o Maintenance of Traffic (MOT) Certification
  - o Copies of licenses and certifications as applicable to this Invitation to Bid.
  - If Claiming Local Preference on Bid Form, attach a copy of Business Tax Receipt from Citrus County.
- ⇒ Bidders should submit a list of three (3) projects per treatment bid, successfully completed within the last five (5) years, in which the Contractor's portion of the work exceeded \$50,000, with the exception of the Fog Seal, Asphalt Rejuvenation, and Crack Sealing, where the contractor's portion of work shall have exceeded \$30,000. The projects should have been for a federal, state, or local government agency. Three projects should be listed for each of the following treatments:
  - a) Chip seal
  - b) Micro-surfacing
  - c) Crack sealing/filing
  - d) Fog seal
  - e) Asphalt rejuvenation



- f) Scrub seal
- g) Full depth reclamation
- h) Cold in place recycling
- i) Cape seal
- j) Milling
- k) Asphalt

| $\Rightarrow$ | For each proje | ct identified, please include the following information: |
|---------------|----------------|--|
|               |                | Project Name   |
|               |                | Governmental Agency Name                                 |
|               |                | Contact Person   |
|               |                | Email Address  |
|               |                | Telephone Number   |
|               |                | Project Date   |
|               |                | Number of Square Yards Treated                           |
|               |                | Dollar Amount of the Contract                            |

#### **SIGNATURE**

By affixing their signature to the Bid Form, Bidder hereby states that they have read all bid specifications, terms and conditions outlined in the Invitation to Bid and agree to such.

Bidder declares that the individual signing this Bid Form has the legal capacity to sign on behalf of Bidder and to contractually obligate Bidder.

Furthermore, Bidder hereby agrees to provide the Services described in the Invitation to Bid for the unit or lump sum prices as noted above, which includes but not limited to, all supervision, labor, materials, equipment, supplies, machinery, tools, apparatus, permits, insurance, MYCOI, bonds, transportation, overhead, profit, applicable taxes and costs of all kinds necessary to complete the Services.

| Bidder's Name:     |  |
|--------------------|--|
|                    | Print Company Name   |
| Federal Employer   | dentification No.:   |
| Bidders Address: _ |  |
|                    | Address, City, State, Zip  |
| Ву:                |  |
|                    | Signature Authorized Representative                                      |
| Name:              |  |
|                    | Print Name Authorized Representative                                     |
| Title:             |  |
| Secreta            | ry/Assistant Secretary/President/Vice President/Assistant Vice President |
| Phone No.:         | Fax No.:   |
| E-Mail Address:    |  |
| Date:              |  |

| CHIP SEAL                |   |            |                |            |                           |  |
|--------------------------|---|------------|----------------|------------|---------------------------|--|
| Item No.                 | Description   | Unit       | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys) |  |
|                          | CHIP SEAL (SINGLE APPLICATION)  | -          | 11000          |            |                           |  |
| CC-001-1a<br>CC-001-1b   | 0 - 25,000<br>25,001 - 50,000   | SY<br>SY   | 11800<br>35000 |            |                           |  |
| CC-001-10<br>CC-001-1c   | 50.001 AND OVER   | SY         | 60000          |            |                           |  |
|                          | CHIP SEAL (DOUBLE APPLICATION)  |            |                |            |                           |  |
| CC-001-2a                | 0 - 25,000  | SY         | 11800          |            |                           |  |
| CC-001-2b                | 25,001 - 50,000   | SY         | 35000          |            |                           |  |
| CC-001-2c                | 50,001 AND OVER  CHIP SEAL (TRIPLE APPLICATION)   | SY         | 60000          |            |                           |  |
| CC-001-3a                | 0 - 25,000  | SY         | 11800          |            |                           |  |
| CC-001-3b                | 25,001 - 50,000   | SY         | 35000          |            |                           |  |
| CC-001-3c                | 50,001 AND OVER   | SY         | 60000          |            |                           |  |
| CC-001-3d                | Silica Sand   | SY         | 60000          |            |                           |  |
| 66.002.4                 | CRACK FILLING/SEALING   | 641        | 450            |            |                           |  |
| CC-003-1<br>CC-003-2     | 0 - 500<br>501 - 1,000  | GAL<br>GAL | 450<br>850     |            |                           |  |
| CC-003-2<br>CC-003-3     | 1,001 - 5,000   | GAL        | 2150           |            |                           |  |
| CC-003-4                 | 5,001 AND OVER  | GAL        | 6000           |            |                           |  |
|                          | ROUTING AND SEALING   |            |                |            |                           |  |
| CC-003-5                 | 0 - 500   | GAL        | 450            |            |                           |  |
| CC-003-6                 | 501 - 1,000   | GAL        | 850            |            | -                         |  |
| CC-003-7<br>CC-003-8     | 1,001 - 5,000<br>5,001 AND OVER   | GAL<br>GAL | 2150<br>6000   |            | +                         |  |
| CC-003-0                 | STRIPING AND PAVEMENT MARKING REMOVAL   | GAL        | 3000           |            |                           |  |
| 711-4a                   | REMOVAL BY WATER BLASTING   | SF         | 2640           |            |                           |  |
| 711-4b                   | REMOVAL BY GRINDING   | SF         | 2640           |            |                           |  |
|                          | REFLECTIVE PAVEMENT MARKERS   |            |                |            |                           |  |
| 706-1-3a                 | REFLECTIVE PAVEMENT MARKERS (REMOVE)  | EA         | 350            |            |                           |  |
| 706-1-3b<br>706-1-3c     | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)  FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R) | EA<br>EA   | 350<br>350     |            |                           |  |
| 706-1-3d                 | FURNISH/INSTALL BI-DIRECTIONAL - BLUE   | EA         | 5              |            |                           |  |
| 706-1-3e                 | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)  | EA         | 30             |            |                           |  |
|                          | PAINTED PAVEMENT MARKINGS   |            |                |            |                           |  |
| 710-11-111               | Standard, White, Solid 6"   | NM         | 1              |            |                           |  |
| 710-11-122               | Standard, White, Solid 8"   | LF         | 20             |            |                           |  |
| 710-11-123               | Standard, White, Solid 12"  | LF         | 50             |            |                           |  |
| 710-11-124<br>710-11-125 | Standard, White, Solid 18" Standard, White, Solid 24"   | LF<br>LF   | 30<br>100      |            |                           |  |
| 710-11-123               | Standard, White Skip 6"   | GM         | 1              |            |                           |  |
| 710-11-151               | Standard, White, Dotted/Guideline 6-10 Gap, 6"  | LF         | 30             |            |                           |  |
| 710-11-160               | Standard, White, Message  | EA         | 2              |            |                           |  |
| 710-11-170               | Standard, White, Arrows   | EA         | 2              |            |                           |  |
| 710-11-180               | Standard, White, Yield Line   | LF         | 10             |            |                           |  |
| 710-11-211<br>710-11-222 | Standard, Yellow, Solid 6" Standard, Yellow, Solid 8"   | NM<br>LF   | 20             |            |                           |  |
| 710-11-222               | Standard, Yellow, Solid 8 Standard, Yellow, Solid 12"   | LF         | 10             |            |                           |  |
| 710-11-224               | Standard, Yellow, Solid 18"   | LF         | 10             |            |                           |  |
| 710-11-225               | Standard, Yellow, Solid 24"   | LF         | 10             |            |                           |  |
| 710-11-231               | Standard, Yellow, Skip 6"   | GM         | 1              |            |                           |  |
| 710-11-251               | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF         | 30             |            |                           |  |
| 710 11 111               | DURABLE PAVEMENT MARKINGS   | NINA       | 0.5            |            |                           |  |
| 710-11-111<br>710-11-122 | Durable, White, Solid 6"  Durable, White, Solid 8"  | NM<br>LF   | 0.5<br>10      |            |                           |  |
| 710-11-122               | Durable, White, Solid 8  Durable, White, Solid 12"  | LF         | 30             |            |                           |  |
| 710-11-124               | Durable, White, Solid 18"   | LF         | 10             |            |                           |  |
| 710-11-125               | Durable, White, Solid 24"   | LF         | 80             |            |                           |  |
| 710-11-131               | Durable, White Skip 6"  | GM         | 0.5            |            |                           |  |
| 710-11-151               | Durable, White, Dotted/Guideline 6-10 Gap, 6"   | LF         | 10             |            |                           |  |
| 710-11-160               | Durable, White, Message Durable, White, Arrows  | EA         | 3              |            |                           |  |
| 710-11-170<br>710-11-180 | Durable, White, Arrows  Durable, White, Yield Line  | EA<br>LF   | 3<br>10        |            | +                         |  |
| 710-11-180               | Durable, Yellow, Solid 6"   | NM         | 0.5            |            |                           |  |
| 710-11-222               | Durable, Yellow, Solid 8"   | LF         | 10             |            |                           |  |
| 710-11-223               | Durable, Yellow, Solid 12"  | LF         | 10             |            |                           |  |
| 710-11-224               | Durable, Yellow, Solid 18"  | LF         | 10             |            |                           |  |
| 710-11-225               | Durable, Yellow, Solid 24"  | LF         | 20             |            | +                         |  |
| 710-11-231               | Durable, Yellow, Skip 6"  Durable, Yellow, Dotted/Guideline 6.10 Gap. 6"                                  | GM         | 0.5            |            | +                         |  |
| 710-11-251               | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"  SHOULDER AND ROADSIDE                                     | LF         | 30             |            |                           |  |
| 570-1-1                  | PERFORMANCE TURF - SEED AND MULCH   | SY         | 150            |            |                           |  |
| 570-1-2A                 | PERFORMANCE TURF - SOD (ST. AUGUSTINE)  | SY         | 150            |            |                           |  |
| 570-1-2B                 | PERFORMANCE TURF - SOD (BAHIA)  | SY         | 3500           |            |                           |  |
| 577-70                   | SHOULDER REWORK   | SY         | 3500           |            |                           |  |
| 104-10-3                 | SEDIMENT BARRIER  | LF         | 500            |            |                           |  |
| 110-7-1                  | MAILBOX (REMOVE AND REPLACE)  | EA         | 5              |            | İ                         |  |

|          | CHIP SEAL   |         |              |            |                           |
|----------|---|---------|--------------|------------|---------------------------|
| Item No. | Description   | Unit    | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |
|          | CONCRETE  |         |              |            |                           |
|          | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire) |         |              |            |                           |
| 522-1a   | 0-8 Cubic Yards   | SY      | 70           |            |                           |
| 522-1b   | 8.1 - 18 Cubic Yards  | SY      | 140          |            |                           |
| 522-1c   | OVER 18 Cubic Yards   | SY      | 210          |            |                           |
|          | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire) |         |              |            |                           |
| 522-2a   | 0-8 Cubic Yards   | SY      | 50           |            |                           |
| 522-2b   | 8.1 - 18 Cubic Yards  | SY      | 100          |            |                           |
| 522-2c   | OVER 18 Cubic Yards   | SY      | 150          |            |                           |
| 110-4-10 | Removal of Existing Concrete  | SY      | 100          |            |                           |
|          | MOBILIZATION  |         |              |            |                           |
| 101-1a   | Work Order Total \$0.00 - \$50,000  | LS      | 1            |            |                           |
| 101-1b   | Work Order Total \$50,001 - \$100,000   | LS      | 1            |            |                           |
| 101-1c   | Work Order Total \$100,001 - \$500,000  | LS      | 1            |            |                           |
| 101-1d   | Work Order Total Over \$500,000   | LS      | 1            |            |                           |
| •        | MAINTENANCE OF TRAFFIC (MOT)  |         |              |            |                           |
| 102-1    | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure                       | Per Day | 7            |            |                           |

| Item No.                 | Description   | Unit       | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys) |
|--------------------------|---|------------|----------------|------------|---------------------------|
|                          | SINGLE MICRO  |            |                |            |                           |
| CC-002-1a<br>CC-002-1b   | 0 - 25,000  | SY<br>SY   | 15000          |            |                           |
| CC-002-16<br>CC-002-1c   | 25,001 - 50,000<br>50,001 AND OVER  | SY         | 30000<br>60000 |            |                           |
| CC-002-1C                | DOUBLE MICRO  | 31         | 00000          |            |                           |
| CC-002-1d                | 0 - 25,000  | SY         | 15000          |            |                           |
| CC-002-1e                | 25,001 - 50,000   | SY         | 30000          |            |                           |
| CC-002-1f                | 50,001 AND OVER   | SY         | 60000          |            |                           |
| CC-002-1g                | RUT FILL  CRACK FILLING/SEALING   | TON        | 500            |            |                           |
| CC-003-1                 | 0 - 500   | GAL        | 450            |            |                           |
| CC-003-2                 | 501 - 1,000   | GAL        | 850            |            |                           |
| CC-003-3                 | 1,001 - 5,000   | GAL        | 2150           |            |                           |
| CC-003-4                 | 5,001 AND OVER  | GAL        | 6000           |            |                           |
|                          | ROUTING AND SEALING   |            |                |            |                           |
| CC-003-5                 | 0 - 500   | GAL        | 450            |            |                           |
| CC-003-6<br>CC-003-7     | 501 - 1,000<br>1,001 - 5,000  | GAL<br>GAL | 850<br>2150    |            |                           |
| CC-003-7<br>CC-003-8     | 5,001 AND OVER  | GAL        | 6000           |            |                           |
| CC 003 8                 | STRIPING AND PAVEMENT MARKING REMOVAL   | GAL        | 0000           |            |                           |
| 711-4a                   | REMOVAL BY WATER BLASTING   | SF         | 2640           |            |                           |
| 711-4b                   | REMOVAL BY GRINDING   | SF         | 2640           |            |                           |
|                          | REFLECTIVE PAVEMENT MARKERS   |            |                |            |                           |
| 706-1-3a                 | REFLECTIVE PAVEMENT MARKERS (REMOVE)  | EA         | 1200           |            |                           |
| 706-1-3b                 | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)  | EA         | 1200           |            |                           |
| 706-1-3c<br>706-1-3d     | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R) FURNISH/INSTALL BI-DIRECTIONAL - BLUE | EA<br>EA   | 30<br>5        |            |                           |
| 706-1-3u<br>706-1-3e     | FURNISH/INSTALL BIFDIRLETHONAL FILLOW MARKER (M/A)  | EA         | 30             |            |                           |
| 700 1 00                 | PAINTED PAVEMENT MARKINGS   | 2,1        | 1              |            |                           |
| 710-11-111               | Standard, White, Solid 6"   | NM         | 1              |            |                           |
| 710-11-122               | Standard, White, Solid 8"   | LF         | 30             |            |                           |
| 710-11-123               | Standard, White, Solid 12"  | LF         | 100            |            |                           |
| 710-11-124               | Standard, White, Solid 18"  | LF         | 30             |            |                           |
| 710-11-125               | Standard, White, Solid 24"  | LF         | 250<br>1       |            |                           |
| 710-11-131<br>710-11-151 | Standard, White Skip 6" Standard, White, Dotted/Guideline 6-10 Gap, 6"                      | GM<br>LF   | 30             |            |                           |
| 710-11-160               | Standard, White, Message  | EA         | 15             |            |                           |
| 710-11-170               | Standard, White, Arrows   | EA         | 10             |            |                           |
| 710-11-180               | Standard, White, Yield Line   | LF         | 20             |            |                           |
| 710-11-211               | Standard, Yellow, Solid 6"  | NM         | 1              |            |                           |
| 710-11-222               | Standard, Yellow, Solid 8"  | LF         | 30             |            |                           |
| 710-11-223               | Standard, Yellow, Solid 12"   | LF         | 30             |            |                           |
| 710-11-224<br>710-11-225 | Standard, Yellow, Solid 18" Standard, Yellow, Solid 24"                                     | LF<br>LF   | 30<br>40       |            |                           |
| 710-11-223               | Standard, Yellow, Skip 6"   | GM         | 1              |            |                           |
| 710-11-251               | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF         | 50             |            |                           |
|                          | DURABLE PAVEMENT MARKINGS   |            |                |            |                           |
| 710-11-111               | Durable, White, Solid 6"  | NM         | 3              |            |                           |
| 710-11-122               | Durable, White, Solid 8"  | LF         | 30             |            |                           |
| 710-11-123               | Durable, White, Solid 12"   | LF         | 100            |            |                           |
| 710-11-124<br>710-11-125 | Durable, White, Solid 18"  Durable, White, Solid 24"  | LF<br>LF   | 30<br>250      |            |                           |
| 710-11-125               | Durable, White Skip 6"  | GM         | 1              |            |                           |
| 710-11-151               | Durable, White, Dotted/Guideline 6-10 Gap, 6"   | LF         | 30             |            |                           |
| 710-11-160               | Durable, White, Message   | EA         | 15             |            |                           |
| 710-11-170               | Durable, White, Arrows  | EA         | 10             |            |                           |
| 710-11-180               | Durable, White, Yield Line  | LF         | 20             |            |                           |
| 710-11-211               | Durable, Yellow, Solid 6"   | NM         | 2              |            |                           |
| 710-11-222<br>710-11-223 | Durable, Yellow, Solid 8"  Durable, Yellow, Solid 12"                                       | LF<br>LF   | 30             |            |                           |
| 710-11-223               | Durable, Yellow, Solid 12  Durable, Yellow, Solid 18"                                       | LF<br>LF   | 30             |            |                           |
| 710-11-224               | Durable, Yellow, Solid 24"  | LF         | 40             |            |                           |
| 710-11-231               | Durable, Yellow, Skip 6"  | GM         | 1              |            |                           |
| 710-11-251               | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"  | LF         | 50             |            |                           |
|                          | THERMOPLASTIC PAVEMENT MARKINGS   |            |                |            |                           |
| 711-11-111               | Thermo, Standard, White, Solid 6"   | NM         | 2              |            |                           |
| 711-11-122               | Thermo, Standard, White, Solid 8"   | LF         | 30             |            |                           |
| 711-11-123<br>711-11-124 | Thermo, Standard, White, Solid 12" Thermo, Standard, White, Solid 18"                       | LF<br>LF   | 100<br>30      |            |                           |
| 711-11-124               | Thermo, Standard, White, Solid 18 Thermo, Standard, White, Solid 24"                        | LF<br>LF   | 100            |            |                           |
| 711-11-131               | Thermo, Standard, White Skip 6"   | GM         | 1              |            |                           |
| 711-11-151               | Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"                                      | LF         | 30             |            |                           |
| 711-11-160               | Thermo, Standard, White, Message  | EA         | 15             |            |                           |
| 711-11-170               | Thermo, Standard, White, Arrows   | EA         | 10             |            |                           |
| 711-11-180               | Thermo, Standard, White, Yield Line   | LF         | 20             |            | i                         |

| MICRO-SURFACING |   |         |              |            |                          |  |
|-----------------|---|---------|--------------|------------|--------------------------|--|
| Item No.        | Description   | Unit    | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys |  |
| 711-11-211      | Thermo, Standard, Yellow, Solid 6"  | NM      | 1            |            |                          |  |
| 711-11-222      | Thermo, Standard, Yellow, Solid 8"  | LF      | 30           |            |                          |  |
| 711-11-223      | Thermo, Standard, Yellow, Solid 12"   | LF      | 30           |            |                          |  |
| 711-11-224      | Thermo, Standard, Yellow, Solid 18"   | LF      | 30           |            |                          |  |
| 711-11-225      | Thermo, Standard, Yellow, Solid 24"   | LF      | 40           |            |                          |  |
| 711-11-231      | Thermo, Standard, Yellow, Skip 6"   | GM      | 1            |            |                          |  |
| 711-11-251      | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                       | LF      | 50           |            |                          |  |
|                 | SHOULDER AND ROADSIDE   |         |              |            |                          |  |
| 570-1-1         | PERFORMANCE TURF - SEED AND MULCH   | SY      | 150          |            |                          |  |
| 570-1-2A        | PERFORMANCE TURF - SOD (ST. AUGUSTINE)  | SY      | 150          |            |                          |  |
| 570-1-2B        | PERFORMANCE TURF - SOD (BAHIA)  | SY      | 3500         |            |                          |  |
| 577-70          | SHOULDER REWORK   | SY      | 3500         |            |                          |  |
| 104-10-3        | SEDIMENT BARRIER  | LF      | 500          |            |                          |  |
| 110-7-1         | MAILBOX (REMOVE AND REPLACE)  | EA      | 5            |            |                          |  |
|                 | CONCRETE  |         |              |            |                          |  |
|                 | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire) |         |              |            |                          |  |
| 522-1a          | 0-8 Cubic Yards   | SY      | 70           |            |                          |  |
| 522-1b          | 8.1 - 18 Cubic Yards  | SY      | 140          |            |                          |  |
| 522-1c          | OVER 18 Cubic Yards   | SY      | 210          |            |                          |  |
|                 | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire) |         |              |            |                          |  |
| 522-2a          | 0-8 Cubic Yards   | SY      | 50           |            |                          |  |
| 522-2b          | 8.1 - 18 Cubic Yards  | SY      | 100          |            |                          |  |
| 522-2c          | OVER 18 Cubic Yards   | SY      | 150          |            |                          |  |
| 110-4-10        | Removal of Existing Concrete  | SY      | 100          |            |                          |  |
|                 | MOBILIZATION  |         |              |            |                          |  |
| 101-1a          | Work Order Total \$0.00 - \$50,000  | LS      | 1            |            |                          |  |
| 101-1b          | Work Order Total \$50,001 - \$100,000   | LS      | 1            |            |                          |  |
| 101-1c          | Work Order Total \$100,001 - \$500,000  | LS      | 1            |            |                          |  |
| 101-1d          | Work Order Total Over \$500,000   | LS      | 1            |            |                          |  |
|                 | MAINTENANCE OF TRAFFIC (MOT)  |         |              |            |                          |  |
| 102-1           | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure                       | Per Day | 25           |            |                          |  |

|                          | FOG SEAL  |           |                |            |                           |
|--------------------------|---|-----------|----------------|------------|---------------------------|
| Item No.                 | Description   | Unit      | Est.           | Unit Price | Total (Unit Price X Qtys) |
|                          | FOG SEAL TIGHT SURFACE (0.09-0.14 gal/sy)   |           | Qtys           |            | Total (ome income gryo)   |
| CC-004-1a                | 0 - 25,000  | SY        | 11800          |            |                           |
| CC-004-1b                | 25,001 - 50,000   | SY        | 35000          |            |                           |
| CC-004-1c                | 50,001 AND OVER   | SY        | 60000          |            |                           |
|                          | FOG SEAL OPEN SURFACE (0.18-0.22 gal/sy)  |           |                |            |                           |
| CC-004-1d                | 0 - 25,000  | SY        | 11800          |            |                           |
| CC-004-1e<br>CC-004-1f   | 25,001 - 50,000<br>50,001 AND OVER  | SY<br>SY  | 35000<br>60000 |            |                           |
| CC-004-17                | Silica Sand   | SY        | 10000          |            |                           |
| 00 00 1 16               | STRIPING AND PAVEMENT MARKING REMOVAL   | <u> </u>  | 10000          |            |                           |
| 711-4a                   | REMOVAL BY WATER BLASTING   | SF        | 1320           |            |                           |
| 711-4b                   | REMOVAL BY GRINDING   | SF        | 1320           |            |                           |
|                          | REFLECTIVE PAVEMENT MARKERS   |           |                |            |                           |
| 706-1-3a                 | REFLECTIVE PAVEMENT MARKERS (REMOVE)  | EA        | 350            |            |                           |
| 706-1-3b<br>706-1-3c     | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)  FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R) | EA<br>EA  | 350<br>350     |            |                           |
| 706-1-3d                 | FURNISH/INSTALL BI-DIRECTIONAL - BLUE   | EA        | 5              |            |                           |
| 706-1-3e                 | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)  | EA        | 30             |            |                           |
|                          | PAINTED PAVEMENT MARKINGS   |           |                |            |                           |
| 710-11-111               | Standard, White, Solid 6"   | NM        | 1              |            |                           |
| 710-11-122               | Standard, White, Solid 8"   | LF        | 20             |            |                           |
| 710-11-123               | Standard, White, Solid 12"  | LF<br>LF  | 50<br>30       |            |                           |
| 710-11-124<br>710-11-125 | Standard, White, Solid 18" Standard, White, Solid 24"   | LF<br>LF  | 100            |            |                           |
| 710-11-123               | Standard, White Skip 6"   | GM        | 1              |            |                           |
| 710-11-151               | Standard, White, Dotted/Guideline 6-10 Gap, 6"  | LF        | 30             |            |                           |
| 710-11-160               | Standard, White, Message  | EA        | 2              |            |                           |
| 710-11-170               | Standard, White, Arrows   | EA        | 2              |            |                           |
| 710-11-180               | Standard, White, Yield Line   | LF        | 10             |            |                           |
| 710-11-211               | Standard, Yellow, Solid 6"  | NM        | 1              |            |                           |
| 710-11-222<br>710-11-223 | Standard, Yellow, Solid 8" Standard, Yellow, Solid 12"  | LF<br>LF  | 20<br>10       |            |                           |
| 710-11-224               | Standard, Yellow, Solid 12"   | LF        | 10             |            |                           |
| 710-11-225               | Standard, Yellow, Solid 24"   | LF        | 10             |            |                           |
| 710-11-231               | Standard, Yellow, Skip 6"   | GM        | 1              |            |                           |
| 710-11-251               | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF        | 30             |            |                           |
| 740 44 444               | DURABLE PAVEMENT MARKINGS   | 212.4     | 0.5            |            |                           |
| 710-11-111<br>710-11-122 | Durable, White, Solid 6"  Durable, White, Solid 8"  | NM<br>LF  | 0.5<br>10      |            |                           |
| 710-11-122               | Durable, White, Solid 8  Durable, White, Solid 12"  | LF        | 30             |            |                           |
| 710-11-124               | Durable, White, Solid 18"   | LF        | 10             |            |                           |
| 710-11-125               | Durable, White, Solid 24"   | LF        | 80             |            |                           |
| 710-11-131               | Durable, White Skip 6"  | GM        | 0.5            |            |                           |
| 710-11-151               | Durable, White, Dotted/Guideline 6-10 Gap, 6"   | LF        | 10             |            |                           |
| 710-11-160               | Durable, White, Message   | EA        | 3              |            |                           |
| 710-11-170<br>710-11-180 | Durable, White, Arrows  Durable, White, Yield Line  | EA<br>LF  | 3<br>10        |            |                           |
| 710-11-180               | Durable, Yellow, Solid 6"   | NM        | 0.5            |            |                           |
| 710-11-222               | Durable, Yellow, Solid 8"   | LF        | 10             |            |                           |
| 710-11-223               | Durable, Yellow, Solid 12"  | LF        | 10             |            |                           |
| 710-11-224               | Durable, Yellow, Solid 18"  | LF        | 10             |            |                           |
| 710-11-225               | Durable, Yellow, Solid 24"  | LF        | 20             |            |                           |
| 710-11-231<br>710-11-251 | Durable, Yellow, Skip 6"  Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"                                  | GM<br>LF  | 0.5<br>30      |            |                           |
| /10-11-251               | MOBILIZATION  | LF        | 30             |            |                           |
| 101-1a                   | Work Order Total \$0.00 - \$50,000  | LS        | 1              |            |                           |
| 101-1b                   | Work Order Total \$50,001 - \$100,000   | LS        | 1              |            |                           |
| 101-1c                   | Work Order Total \$100,001 - \$500,000  | LS        | 1              |            |                           |
| 101-1d                   | Work Order Total Over \$500,000   | LS        | 1              |            |                           |
|                          | MAINTENANCE OF TRAFFIC (MOT)  |           |                |            |                           |
| 102-1                    | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure  SECTION TOTAL (BASIS OF AWARD FOR                | Per Day   | 10             |            |                           |
|                          | SECTION TOTAL (BASIS OF AWARD FOR   | JECTION): |                |            |                           |
|                          | ADDITIONAL PRICING FOR INFORMATIONAL PURPOSE ONLY (NOT BASIS O  | F AWARD   |                |            |                           |
|                          | SHOULDER AND ROADSIDE   | Unit      | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys) |
| 570-1-1                  | PERFORMANCE TURF - SEED AND MULCH   | SY        | 150            |            |                           |
| 570-1-2A                 | PERFORMANCE TURF - SOD (ST. AUGUSTINE)  | SY        | 150            |            |                           |
| 570-1-2B                 | PERFORMANCE TURF - SOD (BAHIA)  | SY        | 3500           |            |                           |
| 577-70<br>104-10-3       | SHOULDER REWORK SEDIMENT BARRIER  | SY<br>LF  | 3500<br>500    |            |                           |
| 110-7-1                  | MAILBOX (REMOVE AND REPLACE)  | EA        | 5              |            |                           |
| , -                      |   |           |                |            | 1                         |

|          | ASPHALT REJUVENATOR                                     |           |           |            |                           |  |  |  |
|----------|---|-----------|-----------|------------|---------------------------|--|--|--|
| Item No. | Description   | Unit      | Est. Qtys | Unit Price | Total (Unit Price X Qtys) |  |  |  |
|          | ASPHALT REJUVENATOR                                     |           |           |            |                           |  |  |  |
| CC-005   | ASPHALT REJUVENATOR PER SPECIFICATION                   | SY        | 500,000   |            |                           |  |  |  |
|          | MOBILIZATION  |           |           |            |                           |  |  |  |
| 101-1a   | Work Order Total \$0.00 - \$50,000                      | LS        | 1         |            |                           |  |  |  |
| 101-1b   | Work Order Total \$50,001 - \$100,000                   | LS        | 1         |            |                           |  |  |  |
| 101-1c   | Work Order Total \$100,001 - \$500,000                  | LS        | 1         |            |                           |  |  |  |
| 101-1d   | Work Order Total Over \$500,000                         | LS        | 1         |            |                           |  |  |  |
| •        | MAINTENANCE OF TRAFFIC (MOT)                            |           |           |            |                           |  |  |  |
| 102-1    | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure | Per Day   | 30        |            |                           |  |  |  |
|          | SECTION TOTAL (BASIS OF AWARD FOR                       | SECTION): |           |            |                           |  |  |  |

|                          | SCRUB SEAL   |           |                |            |                           |
|--------------------------|--|-----------|----------------|------------|---------------------------|
| Item No.                 | Description  | Unit      | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys) |
|                          | SCRUB SEAL (EMULSION)  |           |                |            |                           |
| CC-006a<br>CC-006b       | 0 - 25,000<br>25,001 - 50,000  | SY<br>SY  | 10000<br>25500 |            |                           |
| CC-006b                  | 50,001 AND OVER  | SY        | 55000          |            |                           |
|                          | AGGREGATE COVER  |           |                |            |                           |
| CC-006d                  | 0 - 25,000   | SY        | 10000          |            |                           |
| CC-006e                  | 25,001 - 50,000  | SY        | 2550           |            |                           |
| CC-006f                  | 50,001 AND OVER FOG SEAL TIGHT SURFACE (0.09-0.14 gal/sy)  | SY        | 55000          |            |                           |
| CC-004-1a                | 0 - 25,000   | SY        | 10000          |            |                           |
| CC-004-1b                | 25,001 - 50,000  | SY        | 25500          |            |                           |
| CC-004-1c                | 50,001 AND OVER  | SY        | 55000          |            |                           |
|                          | FOG SEAL OPEN SURFACE (0.18-0.22 gal/sy)   |           |                |            |                           |
| CC-004-1d                | 0 - 25,000   | SY        | 10000          |            |                           |
| CC-004-1e<br>CC-004-1f   | 25,001 - 50,000<br>50,001 AND OVER   | SY<br>SY  | 25500<br>55000 |            |                           |
| CC-004-11<br>CC-004-1g   | Silica Sand  | SY        | 10000          |            |                           |
| 00 00 1 16               | STRIPING AND PAVEMENT MARKING REMOVAL  | <u> </u>  | 10000          |            |                           |
| 711-4a                   | REMOVAL BY WATER BLASTING  | SF        | 2640           |            |                           |
| 711-4b                   | REMOVAL BY GRINDING  | SF        | 2640           |            |                           |
| 706.4.2                  | REFLECTIVE PAVEMENT MARKERS  |           | 350            |            |                           |
| 706-1-3a<br>706-1-3b     | REFLECTIVE PAVEMENT MARKERS (REMOVE)  FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)                     | EA<br>EA  | 350<br>350     |            |                           |
| 706-1-30<br>706-1-3c     | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (A/A)  FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R) | EA        | 350            |            |                           |
| 706-1-3d                 | FURNISH/INSTALL BI-DIRECTIONAL - BLUE  | EA        | 5              |            |                           |
| 706-1-3e                 | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)   | EA        | 30             |            |                           |
|                          | PAINTED PAVEMENT MARKINGS  |           |                |            |                           |
| 710-11-111               | Standard, White, Solid 6"  | NM        | 1              |            |                           |
| 710-11-122<br>710-11-123 | Standard, White, Solid 8" Standard, White, Solid 12"   | LF<br>LF  | 20<br>50       |            |                           |
| 710-11-124               | Standard, White, Solid 12"   | LF        | 30             |            |                           |
| 710-11-125               | Standard, White, Solid 24"   | LF        | 100            |            |                           |
| 710-11-131               | Standard, White Skip 6"  | GM        | 1              |            |                           |
| 710-11-151               | Standard, White, Dotted/Guideline 6-10 Gap, 6"   | LF        | 30             |            |                           |
| 710-11-160<br>710-11-170 | Standard, White, Message Standard, White, Arrows   | EA<br>EA  | 2 2            |            |                           |
| 710-11-170               | Standard, White, Arrows Standard, White, Yield Line  | LF        | 10             |            |                           |
| 710-11-211               | Standard, Yellow, Solid 6"   | NM        | 1              |            |                           |
| 710-11-222               | Standard, Yellow, Solid 8"   | LF        | 20             |            |                           |
| 710-11-223               | Standard, Yellow, Solid 12"  | LF        | 10             |            |                           |
| 710-11-224               | Standard, Yellow, Solid 18"  | LF        | 10             |            |                           |
| 710-11-225               | Standard, Yellow, Solid 24"  | LF        | 10             |            |                           |
| 710-11-231<br>710-11-251 | Standard, Yellow, Skip 6" Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                                    | GM<br>LF  | 30             |            |                           |
| 710 11 231               | DURABLE PAVEMENT MARKINGS  | Li        | 30             |            |                           |
| 710-11-111               | Durable, White, Solid 6"   | NM        | 0.5            |            |                           |
| 710-11-122               | Durable, White, Solid 8"   | LF        | 10             |            |                           |
| 710-11-123               | Durable, White, Solid 12"  | LF        | 30             |            |                           |
| 710-11-124<br>710-11-125 | Durable, White, Solid 18"  Durable, White, Solid 24"   | LF<br>LF  | 10<br>80       |            |                           |
| 710-11-125               | Durable, White Skip 6"   | GM        | 0.5            |            |                           |
| 710-11-151               | Durable, White, Dotted/Guideline 6-10 Gap, 6"  | LF        | 10             |            |                           |
| 710-11-160               | Durable, White, Message  | EA        | 3              |            |                           |
| 710-11-170               | Durable, White, Arrows   | EA        | 3              |            |                           |
| 710-11-180               | Durable, White, Yield Line   | LF<br>NA4 | 10             |            |                           |
| 710-11-211<br>710-11-222 | Durable, Yellow, Solid 6"  Durable, Yellow, Solid 8"   | NM<br>LF  | 0.5<br>10      |            |                           |
| 710-11-222               | Durable, Yellow, Solid 8  Durable, Yellow, Solid 12"   | LF<br>LF  | 10             |            |                           |
| 710-11-223               | Durable, Yellow, Solid 12"   | LF        | 10             |            |                           |
| 710-11-225               | Durable, Yellow, Solid 24"   | LF        | 20             |            |                           |
| 710-11-231               | Durable, Yellow, Skip 6"   | GM        | 0.5            |            |                           |
| 710-11-251               | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF        | 30             |            |                           |
| 711-11-111               | THERMOPLASTIC PAVEMENT MARKINGS  Thermo Standard White Solid 6"  | NIN 4     | 2              |            |                           |
| 711-11-111               | Thermo, Standard, White, Solid 6" Thermo, Standard, White, Solid 8"  | NM<br>LF  | 30             |            |                           |
| 711-11-122               | Thermo, Standard, White, Solid 8  Thermo, Standard, White, Solid 12"   | LF        | 100            |            |                           |
| 711-11-124               | Thermo, Standard, White, Solid 18"   | LF        | 30             |            |                           |
| 711-11-125               | Thermo, Standard, White, Solid 24"   | LF        | 100            |            |                           |
| 711-11-131               | Thermo, Standard, White Skip 6"  | GM        | 1              |            |                           |
| 711-11-151               | Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"   | LF        | 30             |            |                           |
| 711-11-160<br>711-11-170 | Thermo, Standard, White, Message Thermo, Standard, White, Arrows   | EΑ        | 15<br>10       |            |                           |
| 711-11-170               | Thermo, Standard, White, Arrows Thermo, Standard, White, Yield Line  | EA<br>LF  | 10<br>20       |            |                           |
| 711-11-180               | Thermo, Standard, White, Held Line Thermo, Standard, Yellow, Solid 6"  | NM        | 1              |            |                           |
| 711-11-222               | Thermo, Standard, Yellow, Solid 8"   | LF        | 30             |            |                           |
|                          |  | •         |                |            |                           |

|            | SCRUB SEAL  |              |              |            |                           |
|------------|---|--------------|--------------|------------|---------------------------|
| Item No.   | Description   | Unit         | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |
| 711-11-223 | Thermo, Standard, Yellow, Solid 12"   | LF           | 30           |            |                           |
| 711-11-224 | Thermo, Standard, Yellow, Solid 18"   | LF           | 30           |            |                           |
| 711-11-225 | Thermo, Standard, Yellow, Solid 24"   | LF           | 40           |            |                           |
| 711-11-231 | Thermo, Standard, Yellow, Skip 6"   | GM           | 1            |            |                           |
| 711-11-251 | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                       | LF           | 50           |            |                           |
|            | SHOULDER AND ROADSIDE   |              |              |            |                           |
| 570-1-1    | PERFORMANCE TURF - SEED AND MULCH   | SY           | 150          |            |                           |
| 570-1-2A   | PERFORMANCE TURF - SOD (ST. AUGUSTINE)  | SY           | 150          |            |                           |
| 570-1-2B   | PERFORMANCE TURF - SOD (BAHIA)  | SY           | 3500         |            |                           |
| 577-70     | SHOULDER REWORK   | SY           | 3500         |            |                           |
| 104-10-3   | SEDIMENT BARRIER  | LF           | 500          |            |                           |
| 110-7-1    | MAILBOX (REMOVE AND REPLACE)  | EA           | 5            |            |                           |
|            | CONCRETE  |              |              |            |                           |
|            | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire) |              |              |            |                           |
| 522-1a     | 0-8 Cubic Yards   | SY           | 70           |            |                           |
| 522-1b     | 8.1 - 18 Cubic Yards  | SY           | 140          |            |                           |
| 522-1c     | OVER 18 Cubic Yards   | SY           | 210          |            |                           |
|            | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire) |              |              |            |                           |
| 522-2a     | 0-8 Cubic Yards   | SY           | 50           |            |                           |
| 522-2b     | 8.1 - 18 Cubic Yards  | SY           | 100          |            |                           |
| 522-2c     | OVER 18 Cubic Yards   | SY           | 150          |            |                           |
| 110-4-10   | Removal of Existing Concrete  | SY           | 100          |            |                           |
|            | MOBILIZATION  |              |              |            |                           |
| 101-1a     | Work Order Total \$0.00 - \$50,000  | LS           | 1            |            |                           |
| 101-1b     | Work Order Total \$50,001 - \$100,000   | LS           | 1            |            |                           |
| 101-1c     | Work Order Total \$100,001 - \$500,000  | LS           | 1            |            |                           |
| 101-1d     | Work Order Total Over \$500,000   | LS           | 1            |            |                           |
|            | MAINTENANCE OF TRAFFIC (MOT)  |              |              |            |                           |
| 102-1      | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure                       | Per Day      | 10           |            |                           |
|            | SECTION TOTAL (BASIS OF AWARD FO  | OR SECTION): |              |            |                           |

|                        | FULL DEPTH RECLAMATION (FDR) WITH CEMENT  |              |              |            |                          |  |  |
|------------------------|---|--------------|--------------|------------|--------------------------|--|--|
| Item No.               | Description   | Unit         | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys |  |  |
|                        | EXCAVATION,EMBANKMENT & ROADWAY   |              |              |            |                          |  |  |
| 120-1                  | Excavation Regular  | CY           | 1,500        |            |                          |  |  |
| 120-2-2                | Borrow Excavation (Truck Measure)   | CY           | 2,500        |            |                          |  |  |
| 205 704-               | Optional Base Group 01  | CV           | 250          |            |                          |  |  |
| 285-701a<br>285-701b   | 0 - 250 Square Yards  | SY<br>SY     | 250<br>1000  |            |                          |  |  |
| 285-701b<br>285-701c   | 251 - 1000 square yards Over 1000 square yards  | SY           | 3000         |            |                          |  |  |
| 203-7010               | Optional Base Group 04  | 31           | 3000         |            |                          |  |  |
| 285-704a               | 0 - 250 Square Yards  | SY           | 250          |            |                          |  |  |
| 285-704a               | 251 - 1000 square yards   | SY           | 1000         |            |                          |  |  |
| 285-704c               | Over 1000 square yards  | SY           | 3000         |            |                          |  |  |
| 203 7040               | Optional Base Group 06  | 3.           | 3000         |            |                          |  |  |
| 285-706a               | 0 - 250 Square Yards  | SY           | 250          |            |                          |  |  |
| 285-706b               | 251 - 1000 square yards   | SY           | 1000         |            |                          |  |  |
| 285-706c               | Over 1000 square yards  | SY           | 3000         |            |                          |  |  |
|                        | Milling from 0 to 1,000 Square Yards  |              |              |            |                          |  |  |
| 327-70-1a              | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY           | 1000         |            |                          |  |  |
| 327-70-6a              | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY           | 1000         |            |                          |  |  |
| 327-70-5a              | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY           | 1000         |            |                          |  |  |
| 327-70-6a              | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY           | 1000         |            |                          |  |  |
| 327-70-4a              | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY           | 1000         |            |                          |  |  |
| 327-70-7a              | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY           | 1000         |            |                          |  |  |
|                        | Milling from 1,001 to 5,000 Square Yards  |              |              |            |                          |  |  |
| 327-70-1b              | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY           | 5000         |            |                          |  |  |
| 327-70-6b              | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY           | 5000         |            |                          |  |  |
| 327-70-5b              | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY           | 5000         |            |                          |  |  |
| 327-70-6b              | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY           | 5000         |            |                          |  |  |
| 327-70-4b              | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY           | 5000         |            |                          |  |  |
| 327-70-7b              | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY           | 5000         |            |                          |  |  |
|                        | Milling from 5,001 to 25,000 Square Yards   |              |              |            |                          |  |  |
| 327-70-1c              | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY           | 15000        |            |                          |  |  |
| 327-70-6c              | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY           | 15000        |            |                          |  |  |
| 327-70-5c              | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY           | 15000        |            |                          |  |  |
| 327-70-6c              | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY           | 15000        |            |                          |  |  |
| 327-70-4c              | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY           | 15000        |            |                          |  |  |
| 327-70-7c              | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY           | 15000        |            |                          |  |  |
|                        | Milling over 25,000 Square Yards  |              |              |            |                          |  |  |
| 327-70-1d              | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY           | 56000        |            |                          |  |  |
| 327-70-6d              | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY           | 56000        |            |                          |  |  |
| 327-70-5d              | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY           | 56000        |            |                          |  |  |
| 327-70-6d              | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY           | 56000        |            |                          |  |  |
| 327-70-4d              | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY           | 56000        |            |                          |  |  |
| 327-70-7d              | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY           | 56000        |            |                          |  |  |
|                        | Asphalt Types from 0 to 100 Tons  |              |              |            |                          |  |  |
| 334-1-53a              | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton          | 100          |            |                          |  |  |
| 334-1-53b              | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton          | 100          |            |                          |  |  |
| 334-1-13a              | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton          | 100          |            |                          |  |  |
| 334-1-13b              | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton          | 100          |            |                          |  |  |
|                        | Asphalt Types from 101 to 1,000 Tons  |              |              |            |                          |  |  |
| 334-1-53c              | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton          | 1000         |            |                          |  |  |
| 334-1-53d              | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton          | 1000         |            |                          |  |  |
| 334-1-13c              | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton          | 1000         |            |                          |  |  |
| 334-1-13d              | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton          | 1000         |            |                          |  |  |
| 224 4 52               | Asphalt Types over 1,001 Tons   | _            | F000         |            |                          |  |  |
| 334-1-53e              | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton          | 5000         |            |                          |  |  |
| 334-1-53f              | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton          | 5000         |            |                          |  |  |
| 334-1-13e              | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton          | 5000         |            |                          |  |  |
| 334-1-13f              | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton          | 5000         |            |                          |  |  |
| 227 7 02-              | Asphalt Types from 0 to 100 Tons  | -            | 100          |            |                          |  |  |
| 337-7-82a<br>337-7-83a | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)                                       | Ton          | 100          |            |                          |  |  |
| oo/-/-838              | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)                                      | Ton          | 100          |            |                          |  |  |
| 337-7-82b              | Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22) | T            | 1000         |            |                          |  |  |
| 337-7-82b<br>337-7-83b |   | Ton          |              |            |                          |  |  |
| J3/-/-83D              | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)                                      | Ton          | 1000         |            |                          |  |  |
| 227.7.024              | Asphalt Types over 1,001 Tons   | Ton          | 5000         |            |                          |  |  |
| 337-7-82c              | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)                                       | Ton          | 5000         |            |                          |  |  |
| 337-7-83c              | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)                                      | Ton          | 5000         |            |                          |  |  |
| CC 000 1               | Full Depth Reclamation (FDR)  | CV           | 1200         |            |                          |  |  |
| CC-008-1               | Excavation for Widening or Unsuitable Material  | CY           | 1200         |            |                          |  |  |
| CC-008-2               | Added RAP or Aggregate  Full Depth Reclamation (FDR) from 0 to 25,000 Square Yards                    | Ton          | 500          |            |                          |  |  |
| CC-008-3               |   | 5~ Vd        | 10500        |            |                          |  |  |
| しし-ひひる-3               | Pulverization Portland Cement   | Sq Yd<br>Ton | 10500        |            |                          |  |  |
|                        |   | ı ion        | 150          |            | I                        |  |  |
| CC-008-4               |   |              |              |            |                          |  |  |
|                        | Full Depth Reclamation (FDR) from 25,001 to 50,000 Square Yards Pulverization                         | Sq Yd        | 30000        |            |                          |  |  |

|                          | FULL DEPTH RECLAMATION (FDR) WITH CEMENT   |              |              |            |                           |  |  |
|--------------------------|--|--------------|--------------|------------|---------------------------|--|--|
| Item No.                 | Description  | Unit         | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |  |  |
| CC-008-8                 | Portland Cement  | Ton          | 350          |            |                           |  |  |
| CC-008-11                | Full Depth Reclamation (FDR) over 50,000 Square Yards                                  | C~ Vd        | 56000        |            |                           |  |  |
| CC-008-11<br>CC-008-12   | Pulverization Portland Cement  | Sq Yd<br>Ton | 700          |            |                           |  |  |
| CC-008-12                | SHOULDER AND ROADSIDE  | 1011         | 700          |            |                           |  |  |
| 570-1-1                  | PERFORMANCE TURF - SEED AND MULCH  | SY           | 300          |            |                           |  |  |
| 570-1-2A                 | PERFORMANCE TURF - SOD (ST. AUGUSTINE)   | SY           | 300          |            |                           |  |  |
| 570-1-2B                 | PERFORMANCE TURF - SOD (BAHIA)   | SY           | 7040         |            |                           |  |  |
| 577-70                   | SHOULDER REWORK  | SY           | 7040         |            |                           |  |  |
| 104-10-3                 | SEDIMENT BARRIER   | LF           | 1000         |            |                           |  |  |
| 110-7-1                  | MAILBOX (REMOVE AND REPLACE)   | EA           | 30           |            |                           |  |  |
|                          | CONCRETE   |              |              |            |                           |  |  |
|                          | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire)          |              |              |            |                           |  |  |
| 522-1a                   | 0-8 Cubic Yards  | SY           | 70           |            |                           |  |  |
| 522-1b                   | 8.1 - 18 Cubic Yards   | SY           | 140          |            |                           |  |  |
| 522-1c                   | OVER 18 Cubic Yards  | SY           | 210          |            |                           |  |  |
| F22.20                   | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire)          | CV           |              |            |                           |  |  |
| 522-2a<br>522-2b         | 0-8 Cubic Yards  | SY           | 50           |            |                           |  |  |
|                          | 8.1 - 18 Cubic Yards  OVER 18 Cubic Yards  | SY           | 100<br>150   |            |                           |  |  |
| 522-2c<br>110-4-10       | Removal of Existing Concrete   | SY<br>SY     | 100          |            |                           |  |  |
| 110-4-10                 | REFLECTIVE PAVEMENT MARKERS  | 31           | 100          |            |                           |  |  |
| 706-1-3a                 | REFLECTIVE PAVEMENT MARKERS  (REMOVE)  | EA           | 350          |            |                           |  |  |
| 706-1-3b                 | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)                                     | EA           | 350          |            |                           |  |  |
| 706-1-3c                 | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R)                                  | EA           | 350          |            |                           |  |  |
| 706-1-3d                 | FURNISH/INSTALL BI-DIRECTIONAL - BLUE  | EA           | 5            |            |                           |  |  |
| 706-1-3e                 | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)                                   | EA           | 30           |            |                           |  |  |
|                          | PAINTED PAVEMENT MARKINGS  |              |              |            |                           |  |  |
| 710-11-111               | Standard, White, Solid 6"  | NM           | 1            |            |                           |  |  |
| 710-11-122               | Standard, White, Solid 8"  | LF           | 30           |            |                           |  |  |
| 710-11-123               | Standard, White, Solid 12"   | LF           | 100          |            |                           |  |  |
| 710-11-124               | Standard, White, Solid 18"   | LF           | 30           |            |                           |  |  |
| 710-11-125               | Standard, White, Solid 24"   | LF           | 250          |            |                           |  |  |
| 710-11-131               | Standard, White Skip 6"  | GM           | 1            |            |                           |  |  |
| 710-11-151               | Standard, White, Dotted/Guideline 6-10 Gap, 6"   | LF           | 30           |            |                           |  |  |
| 710-11-160               | Standard, White, Message   | EA           | 15           |            |                           |  |  |
| 710-11-170               | Standard, White, Arrows  | EA           | 10           |            |                           |  |  |
| 710-11-180               | Standard, White, Yield Line  | LF           | 20           |            |                           |  |  |
| 710-11-211               | Standard, Yellow, Solid 6"   | NM           | 1            |            |                           |  |  |
| 710-11-222               | Standard, Yellow, Solid 8"   | LF           | 30           |            |                           |  |  |
| 710-11-223               | Standard, Yellow, Solid 12"  | LF           | 30           |            |                           |  |  |
| 710-11-224<br>710-11-225 | Standard, Yellow, Solid 18" Standard, Yellow, Solid 24"                                | LF<br>LF     | 30<br>40     |            |                           |  |  |
| 710-11-223               | Standard, Yellow, Solid 24 Standard, Yellow, Skip 6"                                   | GM           | 1            |            |                           |  |  |
| 710-11-251               | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"  | LF           | 50           |            |                           |  |  |
| 710 11 231               | DURABLE PAVEMENT MARKINGS  |              | 30           |            |                           |  |  |
| 710-11-111               | Durable, White, Solid 6"   | NM           | 3            |            |                           |  |  |
| 710-11-122               | Durable, White, Solid 8"   | LF           | 30           |            |                           |  |  |
| 710-11-123               | Durable, White, Solid 12"  | LF           | 100          |            |                           |  |  |
| 710-11-124               | Durable, White, Solid 18"  | LF           | 30           |            |                           |  |  |
| 710-11-125               | Durable, White, Solid 24"  | LF           | 250          |            |                           |  |  |
| 710-11-131               | Durable, White Skip 6"   | GM           | 1            |            |                           |  |  |
| 710-11-151               | Durable, White, Dotted/Guideline 6-10 Gap, 6"  | LF           | 30           |            |                           |  |  |
| 710-11-160               | Durable, White, Message  | EA           | 15           |            |                           |  |  |
| 710-11-170               | Durable, White, Arrows   | EA           | 10           |            |                           |  |  |
| 710-11-180               | Durable, White, Yield Line   | LF           | 20           |            |                           |  |  |
| 710-11-211               | Durable, Yellow, Solid 6"  | NM           | 2            |            |                           |  |  |
| 710-11-222               | Durable, Yellow, Solid 8"  | LF           | 30           |            |                           |  |  |
| 710-11-223               | Durable, Yellow, Solid 12"   | LF           | 30           |            |                           |  |  |
| 710-11-224               | Durable, Yellow, Solid 18"   | LF           | 30           |            |                           |  |  |
| 710-11-225               | Durable, Yellow, Solid 24"   | LF           | 40           |            |                           |  |  |
| 710-11-231               | Durable, Yellow, Skip 6"   | GM           | 1 50         |            |                           |  |  |
| 710-11-251               | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF           | 50           |            |                           |  |  |
| 711 11 111               | THERMOPLASTIC PAVEMENT MARKINGS (711)  Thermo Standard White Solid C"                  | NIN A        | 1            |            |                           |  |  |
| 711-11-111<br>711-11-122 | Thermo, Standard, White, Solid 6" Thermo, Standard, White, Solid 8"                    | NM<br>LF     | 30           |            |                           |  |  |
| 711-11-122               | Thermo, Standard, White, Solid 8  Thermo, Standard, White, Solid 12"                   | LF           | 100          |            |                           |  |  |
| 711-11-123               | Thermo, Standard, White, Solid 12  Thermo, Standard, White, Solid 18"                  | LF           | 30           |            |                           |  |  |
| 711-11-124               | Thermo, Standard, White, Solid 18  Thermo, Standard, White, Solid 24"                  | LF           | 100          |            |                           |  |  |
| 711-11-123               | Thermo, Standard, White, Solid 24  Thermo, Standard, White Skip 6"                     | GM           | 1            |            |                           |  |  |
| 711-11-151               | Thermo, Standard, White Skip o  Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6" | LF           | 30           |            |                           |  |  |
| 711-11-160               | Thermo, Standard, White, Message   | EA           | 15           |            |                           |  |  |
| 711-11-170               | Thermo, Standard, White, Arrows  | EA           | 10           |            |                           |  |  |
| 711-11-180               | Thermo, Standard, White, Yield Line  | LF           | 20           |            |                           |  |  |
|                          | Thermo, Standard, Yellow, Solid 6"   | NM           | 1            |            | +                         |  |  |

|            | FULL DEPTH RECLAMATION (FDR) WITH CEMENT                |               |              |            |                           |  |  |  |  |
|------------|---|---------------|--------------|------------|---------------------------|--|--|--|--|
| Item No.   | Description   | Unit          | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |  |  |  |  |
| 711-11-222 | Thermo, Standard, Yellow, Solid 8"                      | LF            | 30           |            |                           |  |  |  |  |
| 711-11-223 | Thermo, Standard, Yellow, Solid 12"                     | LF            | 30           |            |                           |  |  |  |  |
| 711-11-224 | Thermo, Standard, Yellow, Solid 18"                     | LF            | 30           |            |                           |  |  |  |  |
| 711-11-225 | Thermo, Standard, Yellow, Solid 24"                     | LF            | 40           |            |                           |  |  |  |  |
| 711-11-231 | Thermo, Standard, Yellow, Skip 6"                       | GM            | 1            |            |                           |  |  |  |  |
| 711-11-251 | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6" | LF            | 50           |            |                           |  |  |  |  |
|            | MOBILIZATION  |               |              |            |                           |  |  |  |  |
| 101-1a     | Work Order Total \$0.00 - \$50,000                      | LS            | 1            |            |                           |  |  |  |  |
| 101-1b     | Work Order Total \$50,001 - \$100,000                   | LS            | 1            |            |                           |  |  |  |  |
| 101-1c     | Work Order Total \$100,001 - \$500,000                  | LS            | 1            |            |                           |  |  |  |  |
| 101-1d     | Work Order Total Over \$500,000                         | LS            | 1            |            |                           |  |  |  |  |
|            | GOPHER TORTOISE REMOVAL/RELOCATION                      |               |              |            |                           |  |  |  |  |
| 900-1      | Gopher Tortoise Removal/Relocation                      | EA            | 1            |            |                           |  |  |  |  |
|            | MAINTENANCE OF TRAFFIC (MOT)                            |               |              |            |                           |  |  |  |  |
| 102-1      | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure | Per Day       | 30           |            |                           |  |  |  |  |
| 102-99-1   | Portable Changeable Message Sign                        | EA/day        | 30           |            |                           |  |  |  |  |
|            | SECTION TOTAL (BASIS OF AWARD                           | FOR SECTION): |              |            |                           |  |  |  |  |

|   | FULL DEPTH RECLAMATION (FDR) WITH ASPHALT EMULSION AND CEMENT   |   |  |            |                          |  |
|---|---|---|--|------------|--------------------------|--|
| Item No.  | Description   | Unit                                    | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys |  |
|   | EXCAVATION,EMBANKMENT & ROADWAY   |   |  |            |                          |  |
| 120-1   | Excavation Regular  | CY                                      | 1,500  |            |                          |  |
| 120-2-2   | Borrow Excavation (Truck Measure)   | CY                                      | 2,500  |            |                          |  |
| 205 7010  | Optional Base Group 01  | SY                                      | 250  |            |                          |  |
| 285-701a<br>285-701b  | 0 - 250 Square Yards<br>251 - 1000 square yards   | SY                                      | 250<br>1000  |            |                          |  |
| 285-7010<br>285-701c  | Over 1000 square yards  | SY                                      | 3000   |            |                          |  |
| 285-7010  | Optional Base Group 04  | 31                                      | 3000   |            |                          |  |
| 285-704a  | 0 - 250 Square Yards  | SY                                      | 250  |            |                          |  |
| 285-704a  | 251 - 1000 square yards   | SY                                      | 1000   |            |                          |  |
| 285-704b  | Over 1000 square yards  | SY                                      | 3000   |            |                          |  |
| 203-7040  | Optional Base Group 06  | 31                                      | 3000   |            |                          |  |
| 285-706a  | 0 - 250 Square Yards  | SY                                      | 250  |            |                          |  |
| 285-706b  | 251 - 1000 square yards   | SY                                      | 1000   |            |                          |  |
| 285-706c  | Over 1000 square yards  | SY                                      | 3000   |            |                          |  |
| 283-7000  | Milling from 0 to 1,000 Square Yards  | 31                                      | 3000   |            |                          |  |
| 327-70-1a   | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY                                      | 1000   |            |                          |  |
| 327-70-1a   | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY                                      | 1000   |            |                          |  |
| 327-70-0a<br>327-70-5a  | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY                                      | 1000   |            |                          |  |
| 327-70-5a<br>327-70-6a  | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY                                      | 1000   |            | 1                        |  |
| 327-70-6a<br>327-70-4a  | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY                                      | 1000   |            | 1                        |  |
| 327-70-4a<br>327-70-7a  | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY                                      | 1000   |            | 1                        |  |
| ,_, /∪-/d   | Milling from 1,001 to 5,000 Square Yards  | 31                                      | 1000   |            |                          |  |
| 327-70-1b   | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY                                      | 5000   |            |                          |  |
| 327-70-1b<br>327-70-6b  | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY                                      | 5000   |            | 1                        |  |
| 327-70-6b<br>327-70-5b  | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY                                      | 5000   |            | 1                        |  |
| 327-70-5b<br>327-70-6b  | Milling Existing Asphalt Pavement, 2. Avg Depth  Milling Existing Asphalt Pavement, 2.5" Avg Depth  | SY                                      | 5000   |            | +                        |  |
| 327-70-6b<br>327-70-4b  | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY                                      | 5000   |            |                          |  |
| 327-70-4b<br>327-70-7b  | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY                                      | 5000   |            |                          |  |
| 327-70-70   | Milling from 5,001 to 25,000 Square Yards   | 31                                      | 3000   |            |                          |  |
| 327-70-1c   | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY                                      | 15000  |            |                          |  |
| 327-70-1c<br>327-70-6c  | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY                                      | 15000  |            |                          |  |
| 327-70-6c<br>327-70-5c  | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY                                      | 15000  |            |                          |  |
| 327-70-50<br>327-70-6c  | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY                                      | 15000  |            |                          |  |
|   |   |   | 15000  |            |                          |  |
| 327-70-4c<br>327-70-7c  | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY<br>SY                                | 15000  |            |                          |  |
| 327-70-70   | Milling Existing Asphalt Pavement, 4" Avg Depth   | 31                                      | 15000  |            |                          |  |
| 327-70-1d   | Milling over 25,000 Square Yards  Milling Existing Asphalt Pavement, 1" Avg Depth   | SY                                      | 56000  |            |                          |  |
| 327-70-10<br>327-70-6d  |   | SY                                      | 56000  |            |                          |  |
|   | Milling Existing Asphalt Pavement, 1.5" Avg Depth   |   |  |            |                          |  |
| 327-70-5d<br>327-70-6d  | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY                                      | 56000  |            |                          |  |
|   | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY                                      | 56000  |            |                          |  |
| 327-70-4d<br>327-70-7d  | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY                                      | 56000  |            |                          |  |
| 327-70-70   | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY                                      | 56000  |            |                          |  |
| 224 4 52-   | Asphalt Types from 0 to 100 Tons  | T                                       | 100  |            |                          |  |
| 334-1-53a   | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton                                     | 100  |            |                          |  |
| 334-1-53b   | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton                                     | 100  |            |                          |  |
| 334-1-13a   | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton                                     | 100  |            |                          |  |
| 334-1-13b   | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton                                     | 100  |            |                          |  |
| 224 4 52  | Asphalt Types from 101 to 1,000 Tons  |   | 1000   |            |                          |  |
| 334-1-53c   | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton                                     | 1000   |            | +                        |  |
| 334-1-53d<br>334-1-13c  | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton                                     | 1000   |            | 1                        |  |
| 44/I_I_I 3C   | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton                                     | 1000   |            | 1                        |  |
|   |   |   | 1000   |            |                          |  |
|   | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton                                     |  |            |                          |  |
| 334-1-13d   | Asphalt Types over 1,001 Tons   |   | 5000   |            |                          |  |
| 334-1-13d<br>334-1-53e  | Asphalt Types over 1,001 Tons Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton                                     | 5000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f   | Asphalt Types over 1,001 Tons Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22) Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton<br>Ton                              | 5000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton<br>Ton<br>Ton                       | 5000<br>5000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton<br>Ton                              | 5000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons   | Ton<br>Ton<br>Ton<br>Ton                | 5000<br>5000<br>5000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton Ton Ton Ton Ton                     | 5000<br>5000<br>5000<br>100  |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  | Ton<br>Ton<br>Ton<br>Ton                | 5000<br>5000<br>5000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons   | Ton Ton Ton Ton Ton Ton Ton             | 5000<br>5000<br>5000<br>100<br>100   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton Ton Ton Ton Ton Ton Ton Ton Ton     | 5000<br>5000<br>5000<br>100<br>100   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton Ton Ton Ton Ton Ton Ton             | 5000<br>5000<br>5000<br>100<br>100   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-83b  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons   | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-82b<br>337-7-83b   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000<br>5000                                 |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-82b<br>337-7-83b   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000   |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-82b<br>337-7-83b   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000<br>5000                                 |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-83b<br>337-7-83b   | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000<br>5000                                 |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-83b<br>337-7-83b<br>337-7-83c<br>CC-008-1  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Full Depth Reclamation (FDR)  | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000<br>5000<br>5000                         |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-83b<br>337-7-83b<br>337-7-83c<br>CC-008-1  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Full Depth Reclamation (FDR)  Excavation for Widening or Unsuitable Material  | Ton | 5000<br>5000<br>5000<br>100<br>1000<br>1000<br>1000<br>5000<br>5000<br>3500                |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-83b<br>337-7-83b<br>337-7-82c<br>337-7-83c<br>CC-008-1<br>CC-008-2                                     | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Full Depth Reclamation (FDR)  Excavation for Widening or Unsuitable Material  Added RAP or Aggregate  | Ton | 5000<br>5000<br>5000<br>100<br>1000<br>1000<br>1000<br>5000<br>5000<br>3500                |            |                          |  |
| 334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-82b<br>337-7-83b<br>337-7-83b<br>337-7-83c<br>CC-008-1<br>CC-008-2  | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Full Depth Reclamation (FDR)  Excavation for Widening or Unsuitable Material  Added RAP or Aggregate  Full Depth Reclamation (FDR) from 0 to 25,000 Square Yards   | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000<br>5000<br>5000<br>5000<br>5000         |            |                          |  |
| 334-1-13d<br>334-1-13d<br>334-1-53e<br>334-1-53f<br>334-1-13e<br>334-1-13f<br>337-7-82a<br>337-7-83a<br>337-7-83b<br>337-7-83b<br>337-7-83c<br>CC-008-1<br>CC-008-2<br>CC-008-3<br>CC-008-4<br>CC-008-5 | Asphalt Types over 1,001 Tons  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  Superpave Asphaltic Concrete (Traffic C, SP 12.5)  Asphalt Types from 0 to 100 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types from 101 to 1,000 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Types over 1,001 Tons  Asphalt Types over 1,001 Tons  Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  Full Depth Reclamation (FDR)  Excavation for Widening or Unsuitable Material  Added RAP or Aggregate  Full Depth Reclamation (FDR) from 0 to 25,000 Square Yards  Pulverization | Ton | 5000<br>5000<br>5000<br>100<br>100<br>1000<br>1000<br>5000<br>5000<br>5000<br>5000<br>7000 |            |                          |  |

|  | FULL DEPTH RECLAMATION (FDR) WITH ASPHALT EMULSION AND CEMENT                 |               |              |            |                          |  |
|--|---|---------------|--------------|------------|--------------------------|--|
| Item No.   | Description   | Unit          | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys |  |
| 66,000.7   | Full Depth Reclamation (FDR) from 25,001 to 50,000 Square Yards               | 6 1/ 1        | 20000        |            |                          |  |
| CC-008-7<br>CC-008-8   | Pulverization   | Sq Yd         | 30000<br>350 |            |                          |  |
| CC-008-9   | Portland Cement  Asphaltic Cement - Foamed Asphalt Base                       | Ton<br>Gallon | 40000        |            |                          |  |
| CC-008-10  | Asphaltic Centent - Foamed Asphalt base  Asphaltic Emulsion                   | Gallon        | 55000        |            |                          |  |
| CC 000 10  | Full Depth Reclamation (FDR) over 50,000 Square Yards                         | Gallott       | 33000        |            |                          |  |
| CC-008-11  | Pulverization   | Sq Yd         | 56000        |            |                          |  |
| CC-008-12  | Cement - Cement Treatment   | Ton           | 700          |            |                          |  |
| CC-008-13  | Asphaltic Cement - Foamed Asphalt Base  | Gallon        | 100000       |            |                          |  |
| CC-008-14  | Asphaltic Emulsion - Emulsion Treated Base                                    | Gallon        | 110000       |            |                          |  |
|  | SHOULDER AND ROADSIDE   |               |              |            |                          |  |
| 570-1-1  | PERFORMANCE TURF - SEED AND MULCH   | SY            | 500          |            |                          |  |
| 570-1-2A   | PERFORMANCE TURF - SOD (ST. AUGUSTINE)  | SY            | 300          |            |                          |  |
| 570-1-2B   | PERFORMANCE TURF - SOD (BAHIA)  | SY            | 6000         |            |                          |  |
| 577-70   | SHOULDER REWORK   | SY            | 6000         |            |                          |  |
| 104-10-3   | SEDIMENT BARRIER  | LF            | 500          |            |                          |  |
| 110-7-1  | MAILBOX (REMOVE AND REPLACE)  | EA            | 50           |            |                          |  |
|  | CONCRETE  |               |              |            |                          |  |
|  | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire) |               |              |            |                          |  |
| 522-1a   | 0-8 Cubic Yards   | SY            | 70           |            |                          |  |
| 522-1b   | 8.1 - 18 Cubic Yards  | SY            | 140          |            |                          |  |
| 522-1c   | OVER 18 Cubic Yards   | SY            | 210          |            |                          |  |
| F22.2:   | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire) | C'            |              |            |                          |  |
| 522-2a   | 0-8 Cubic Yards   | SY            | 50           |            |                          |  |
| 522-2b   | 8.1 - 18 Cubic Yards  | SY            | 100          |            | +                        |  |
| 522-2c<br>110-4-10   | OVER 18 Cubic Yards  Removal of Existing Concrete                             | SY<br>SY      | 150<br>100   |            | +                        |  |
| 706  |   | 31            | 100          |            |                          |  |
| 706-1-3a   | REFLECTIVE PAVEMENT MARKERS  REFLECTIVE PAVEMENT MARKERS (REMOVE)             | EA            | 350          |            |                          |  |
| 706-1-3a<br>706-1-3b   | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)                            | EA            | 350          |            |                          |  |
| 706-1-3c   | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R)                         | EA            | 350          |            |                          |  |
| 706-1-3d   | FURNISH/INSTALL BI-DIRECTIONAL - BLUE   | EA            | 5            |            |                          |  |
| 706-1-3e   | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)                          | EA            | 30           |            |                          |  |
| 700 1 30   | PAINTED PAVEMENT MARKINGS   |               | 30           |            |                          |  |
| 710-11-111   | Standard, White, Solid 6"   | NM            | 1            |            |                          |  |
| 710-11-122   | Standard, White, Solid 8"   | LF            | 30           |            |                          |  |
| 710-11-123   | Standard, White, Solid 12"  | LF            | 100          |            |                          |  |
| 710-11-124   | Standard, White, Solid 18"  | LF            | 30           |            |                          |  |
| 710-11-125   | Standard, White, Solid 24"  | LF            | 250          |            |                          |  |
| 710-11-131   | Standard, White Skip 6"   | GM            | 1            |            |                          |  |
| 710-11-151   | Standard, White, Dotted/Guideline 6-10 Gap, 6"                                | LF            | 30           |            |                          |  |
| 710-11-160   | Standard, White, Message  | EA            | 15           |            |                          |  |
| 710-11-170   | Standard, White, Arrows   | EA            | 10           |            |                          |  |
| 710-11-180   | Standard, White, Yield Line   | LF            | 20           |            |                          |  |
| 710-11-211   | Standard, Yellow, Solid 6"  | NM            | 1            |            |                          |  |
| 710-11-222   | Standard, Yellow, Solid 8"  | LF            | 30           |            |                          |  |
| 710-11-223   | Standard, Yellow, Solid 12"   | LF            | 30           |            |                          |  |
| 710-11-224   | Standard, Yellow, Solid 18"   | LF            | 30           |            |                          |  |
| 710-11-225   | Standard, Yellow, Solid 24"   | LF            | 40           |            |                          |  |
| 710-11-231   | Standard, Yellow, Skip 6"   | GM            | 1            |            |                          |  |
| 710-11-251   | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                               | LF            | 50           |            |                          |  |
|  | DURABLE PAVEMENT MARKINGS   |               |              |            |                          |  |
| 710-11-111   | Durable, White, Solid 6"  | NM            | 3            |            | -                        |  |
| 710-11-122   | Durable, White, Solid 8"  | LF            | 30           |            |                          |  |
| 710-11-123   | Durable, White, Solid 12"   | LF            | 100          |            |                          |  |
| 710-11-124   | Durable, White, Solid 18"   | LF            | 30           |            |                          |  |
| 710-11-125   | Durable, White, Solid 24"  Durable, White Skip 6"                             | LF            | 250          |            | +                        |  |
| 710-11-131<br>710-11-151   | Durable, White, Dotted/Guideline 6-10 Gap, 6"                                 | GM<br>LF      | 30           |            |                          |  |
| 710-11-151   | Durable, White, Dotted/Guideline 6-10 Gap, 6  Durable, White, Message         | EA            | 15           |            | +                        |  |
| 710-11-160   | Durable, White, Message  Durable, White, Arrows                               | EA            | 10           |            |                          |  |
| 710-11-170   | Durable, White, Yield Line  | LF            | 20           |            |                          |  |
| 710-11-180   | Durable, Yellow, Solid 6"   | NM            | 2            |            | +                        |  |
| 710-11-222   | Durable, Yellow, Solid 8"   | LF            | 30           |            |                          |  |
| 710-11-223   | Durable, Yellow, Solid 12"  | LF            | 30           |            | 1                        |  |
| 710-11-223   | Durable, Yellow, Solid 12"  Durable, Yellow, Solid 18"                        | LF            | 30           |            | 1                        |  |
| 710-11-225   | Durable, Yellow, Solid 18  Durable, Yellow, Solid 24"                         | LF            | 40           |            |                          |  |
| 710-11-223   | Durable, Yellow, Skip 6"  | GM            | 1            |            | 1                        |  |
|  | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"                                | LF            | 50           |            | 1                        |  |
| 710-11-251   | THERMOPLASTIC PAVEMENT MARKINGS (711)   |               |              |            |                          |  |
| 710-11-251   |   |               |              |            |                          |  |
|  |   | NM            | 2            |            |                          |  |
| 711-11-111   | Thermo, Standard, White, Solid 6" Thermo, Standard, White, Solid 8"           | NM<br>LF      | 30           |            |                          |  |
| 7 <u>11-11-111</u><br>7 <u>11-11-122</u>                           | Thermo, Standard, White, Solid 6"   |               |              |            |                          |  |
| 710-11-251<br>711-11-111<br>711-11-122<br>711-11-123<br>711-11-124 | Thermo, Standard, White, Solid 6"<br>Thermo, Standard, White, Solid 8"        | LF            | 30           |            |                          |  |

|            | FULL DEPTH RECLAMATION (FDR) WITH ASPHALT EMULSION AND CEMENT |                    |              |            |                           |  |  |  |
|------------|---|--------------------|--------------|------------|---------------------------|--|--|--|
| Item No.   | Description   | Unit               | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |  |  |  |
| 711-11-131 | Thermo, Standard, White Skip 6"                               | GM                 | 1            |            |                           |  |  |  |
| 711-11-151 | Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"        | LF                 | 30           |            |                           |  |  |  |
| 711-11-160 | Thermo, Standard, White, Message                              | EA                 | 15           |            |                           |  |  |  |
| 711-11-170 | Thermo, Standard, White, Arrows                               | EA                 | 10           |            |                           |  |  |  |
| 711-11-180 | Thermo, Standard, White, Yield Line                           | LF                 | 20           |            |                           |  |  |  |
| 711-11-211 | Thermo, Standard, Yellow, Solid 6"                            | NM                 | 1            |            |                           |  |  |  |
| 711-11-222 | Thermo, Standard, Yellow, Solid 8"                            | LF                 | 30           |            |                           |  |  |  |
| 711-11-223 | Thermo, Standard, Yellow, Solid 12"                           | LF                 | 30           |            |                           |  |  |  |
| 711-11-224 | Thermo, Standard, Yellow, Solid 18"                           | LF                 | 30           |            |                           |  |  |  |
| 711-11-225 | Thermo, Standard, Yellow, Solid 24"                           | LF                 | 40           |            |                           |  |  |  |
| 711-11-231 | Thermo, Standard, Yellow, Skip 6"                             | GM                 | 1            |            |                           |  |  |  |
| 711-11-251 | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"       | LF                 | 50           |            |                           |  |  |  |
|            | MOBILIZATION  |                    |              |            |                           |  |  |  |
| 101-1a     | Work Order Total \$0.00 - \$50,000                            | LS                 | 1            |            |                           |  |  |  |
| 101-1b     | Work Order Total \$50,001 - \$100,000                         | LS                 | 1            |            |                           |  |  |  |
| 101-1c     | Work Order Total \$100,001 - \$500,000                        | LS                 | 1            |            |                           |  |  |  |
| 101-1d     | Work Order Total Over \$500,000                               | LS                 | 1            |            |                           |  |  |  |
|            | GOPHER TORTOISE REMOVAL/RELOCATION                            |                    |              |            |                           |  |  |  |
| 900-1      | Gopher Tortoise Removal/Relocation                            | EA                 | 1            |            |                           |  |  |  |
|            | MAINTENANCE OF TRAFFIC (MOT)                                  |                    |              |            |                           |  |  |  |
| 102-1      | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure       | Per Day            | 30           |            |                           |  |  |  |
| 102-99-1   | Portable Changeable Message Sign                              | EA/day             | 30           |            |                           |  |  |  |
| i          | SECTION TOTAL (BASIS OF AW                                    | /ARD FOR SECTION): |              |            |                           |  |  |  |

| COLD-IN-PLACE RECYCLING (CIP)    |  |                     |              |            |                          |  |  |
|----------------------------------|--|---------------------|--------------|------------|--------------------------|--|--|
| Item No.                         | Description  | Unit                | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys |  |  |
|                                  | EXCAVATION,EMBANKMENT & ROADWAY  |                     |              |            |                          |  |  |
| 120-1                            | Excavation Regular   | CY                  | 1,500        |            |                          |  |  |
| 120-2-2                          | Borrow Excavation (Truck Measure)  | CY                  | 2,500        |            |                          |  |  |
| 285-701a                         | Optional Base Group 01 0 - 250 Square Yards  | SY                  | 250          |            |                          |  |  |
| 285-701a<br>285-701b             | 251 - 1000 square yards  | SY                  | 1000         |            |                          |  |  |
| 285-701b<br>285-701c             | Over 1000 square yards   | SY                  | 3000         |            |                          |  |  |
| 285-7010                         | Optional Base Group 04   | 31                  | 3000         |            |                          |  |  |
| 285-704a                         | 0 - 250 Square Yards   | SY                  | 250          |            |                          |  |  |
| 285-704a<br>285-704b             | 251 - 1000 square yards  | SY                  | 1000         |            |                          |  |  |
| 285-704b                         | Over 1000 square yards   | SY                  | 3000         |            |                          |  |  |
| 203-7040                         | Optional Base Group 06   | 31                  | 3000         |            |                          |  |  |
| 285-706a                         | 0 - 250 Square Yards   | SY                  | 250          |            |                          |  |  |
| 285-706b                         | 251 - 1000 square yards  | SY                  | 1000         |            |                          |  |  |
| 285-706c                         | Over 1000 square yards   | SY                  | 3000         |            |                          |  |  |
| 283-7000                         | Milling from 0 to 1,000 Square Yards   | 31                  | 3000         |            |                          |  |  |
| 327-70-1a                        | Milling Existing Asphalt Pavement, 1" Avg Depth  | SY                  | 1000         |            |                          |  |  |
| 327-70-1a<br>327-70-6a           | Milling Existing Asphalt Pavement, 1.5" Avg Depth  | SY                  | 1000         |            |                          |  |  |
| 327-70-6a<br>327-70-5a           |  | SY                  | 1000         |            |                          |  |  |
| 327-70-5a<br>327-70-6a           | Milling Existing Asphalt Pavement, 2" Avg Depth Milling Existing Asphalt Pavement, 2.5" Avg Depth                                  | SY                  | 1000         |            | 1                        |  |  |
| 327-70-6a<br>327-70-4a           | , , , ,  | SY                  | 1000         |            |                          |  |  |
| 327-70-4a<br>327-70-7a           | Milling Existing Asphalt Pavement, 3" Avg Depth  Milling Existing Asphalt Pavement, 4" Avg Depth                                   | SY                  | 1000         |            |                          |  |  |
| 521-1U-/a                        | Milling Existing Asphalt Pavement, 4" Avg Depth  | SY                  | 1000         |            |                          |  |  |
| 227.70.15                        | Milling from 1,001 to 5,000 Square Yards  Milling Existing Asphalt Payament, 1" Avg Donth  | CV                  | 5000         |            |                          |  |  |
| 327-70-1b<br>327-70-6b           | Milling Existing Asphalt Pavement, 1" Avg Depth Milling Existing Asphalt Pavement, 1.5" Avg Depth                                  | SY                  | 5000<br>5000 |            | -                        |  |  |
|                                  | 0 0 1  | SY                  |              |            | +                        |  |  |
| 327-70-5b                        | Milling Existing Asphalt Payament, 2" Avg Depth  | SY<br>SY            | 5000<br>5000 |            |                          |  |  |
| 327-70-6b                        | Milling Existing Asphalt Pavement, 2.5" Avg Depth  |                     |              |            |                          |  |  |
| 327-70-4b                        | Milling Existing Asphalt Pavement, 3" Avg Depth  | SY                  | 5000         |            |                          |  |  |
| 327-70-7b                        | Milling Existing Asphalt Pavement, 4" Avg Depth  | SY                  | 5000         |            |                          |  |  |
|                                  | Milling from 5,001 to 25,000 Square Yards  |                     |              |            |                          |  |  |
| 327-70-1c                        | Milling Existing Asphalt Pavement, 1" Avg Depth  | SY                  | 15000        |            |                          |  |  |
| 327-70-6c                        | Milling Existing Asphalt Pavement, 1.5" Avg Depth  | SY                  | 15000        |            |                          |  |  |
| 327-70-5c                        | Milling Existing Asphalt Pavement, 2" Avg Depth  | SY                  | 15000        |            |                          |  |  |
| 327-70-6c                        | Milling Existing Asphalt Pavement, 2.5" Avg Depth  | SY                  | 15000        |            |                          |  |  |
| 327-70-4c                        | Milling Existing Asphalt Pavement, 3" Avg Depth  | SY                  | 15000        |            |                          |  |  |
| 327-70-7c                        | Milling Existing Asphalt Pavement, 4" Avg Depth  | SY                  | 15000        |            |                          |  |  |
|                                  | Milling over 25,000 Square Yards   |                     |              |            |                          |  |  |
| 327-70-1d                        | Milling Existing Asphalt Pavement, 1" Avg Depth  | SY                  | 56000        |            |                          |  |  |
| 327-70-6d                        | Milling Existing Asphalt Pavement, 1.5" Avg Depth  | SY                  | 56000        |            |                          |  |  |
| 327-70-5d                        | Milling Existing Asphalt Pavement, 2" Avg Depth  | SY                  | 56000        |            |                          |  |  |
| 327-70-6d                        | Milling Existing Asphalt Pavement, 2.5" Avg Depth  | SY                  | 56000        |            |                          |  |  |
| 327-70-4d                        | Milling Existing Asphalt Pavement, 3" Avg Depth  | SY                  | 56000        |            |                          |  |  |
| 327-70-7d                        | Milling Existing Asphalt Pavement, 4" Avg Depth  | SY                  | 56000        |            |                          |  |  |
|                                  | Asphalt Types from 0 to 100 Tons   |                     |              |            |                          |  |  |
| 334-1-53a                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  | Ton                 | 100          |            |                          |  |  |
| 334-1-53b                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)   | Ton                 | 100          |            |                          |  |  |
| 334-1-13a                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5)   | Ton                 | 100          |            |                          |  |  |
| 334-1-13b                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5)  | Ton                 | 100          |            |                          |  |  |
|                                  | Asphalt Types from 101 to 1,000 Tons   |                     |              |            |                          |  |  |
| 334-1-53c                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  | Ton                 | 1000         |            |                          |  |  |
| 334-1-53d                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)   | Ton                 | 1000         |            |                          |  |  |
| 334-1-13c                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5)   | Ton                 | 1000         |            |                          |  |  |
| 334-1-13d                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5)  | Ton                 | 1000         |            |                          |  |  |
|                                  | Asphalt Types over 1,001 Tons  |                     |              |            |                          |  |  |
| 334-1-53e                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)  | Ton                 | 5000         |            |                          |  |  |
| 334-1-53f                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)   | Ton                 | 5000         |            |                          |  |  |
| 334-1-13e                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5)   | Ton                 | 5000         |            | 1                        |  |  |
| 334-1-13f                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5)  | Ton                 | 5000         |            |                          |  |  |
|                                  | Asphalt Types from 0 to 100 Tons   |                     |              |            |                          |  |  |
| 337-7-82a                        | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton                 | 100          |            |                          |  |  |
| 337-7-83a                        | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)   | Ton                 | 100          |            | 1                        |  |  |
|                                  | Asphalt Types from 101 to 1,000 Tons   | 1011                |              |            |                          |  |  |
| 337-7-82b                        | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton                 | 1000         |            |                          |  |  |
| 337-7-83b                        | Asphalt Concrete Friction Course (Traffic C, SP 13.5) (FG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (FG 76-22) | Ton                 | 1000         |            | <u> </u>                 |  |  |
|                                  | Asphalt Types over 1,001 Tons  | 1011                | 1000         |            |                          |  |  |
| 337-7-82c                        | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  | Ton                 | 5000         |            |                          |  |  |
| 337-7-82c<br>337-7-83c           | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  |                     | 5000         |            |                          |  |  |
| JJ/-/-83C                        |  | Ton                 | 3000         |            |                          |  |  |
| CC 000 1                         | Cold-in-Place Recycling (CIP)  | ~                   | 1200         |            |                          |  |  |
| CC-009-1                         | Excavation for Widening or Unsuitable Material   | CY                  | 1200         |            | 1                        |  |  |
| CC-009-2                         | Added RAP  | Ton                 | 500          |            |                          |  |  |
| CC-009-3                         | Added Aggregate  | Ton                 | 500          |            |                          |  |  |
|                                  | CIP from 0 to 25,000 Square Yards  |                     | 105          |            |                          |  |  |
|                                  |  |                     |              |            | i .                      |  |  |
|                                  | Cold-in-Place Recycling (CIP)Bituminous Paving   | Sq Yd               | 10500        |            |                          |  |  |
| CC-009-4<br>CC-009-5<br>CC-009-6 | Cold-in-Place Recycling (CIP)Bituminous Paving Asphalt Emulsion Portland Cement  | Sq Yd<br>Gal<br>Ton | 21000<br>150 |            |                          |  |  |

| COLD-IN-PLACE RECYCLING (CIP) |  |          |              |            |                          |  |  |
|-------------------------------|--|----------|--------------|------------|--------------------------|--|--|
| Item No.                      | Description  | Unit     | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys |  |  |
| CC-009-7                      | CIP from 25,001 to 50,000 Square Yards  Cold-in-Place Recycling (CIP)Bituminous Paving | Sq Yd    | 30000        |            |                          |  |  |
| CC-009-8                      | Asphalt Emulsion   | Gal      | 56000        |            |                          |  |  |
| CC-009-9                      | Portland Cement  | Ton      | 350          |            |                          |  |  |
|                               | CIP over 50,000 Square Yards   |          |              |            |                          |  |  |
| CC-009-10                     | Cold-in-Place Recycling (CIP)Bituminous Paving   | Sq Yd    | 56000        |            |                          |  |  |
| CC-009-11                     | Asphalt Emulsion   | Gal      | 110000       |            |                          |  |  |
| CC-009-12                     | Portland Cement  | Ton      | 750          |            |                          |  |  |
| 570.1.1                       | SHOULDER AND ROADSIDE  | 6)4      | 450          |            |                          |  |  |
| 570-1-1<br>570-1-2A           | PERFORMANCE TURF - SEED AND MULCH PERFORMANCE TURF - SOD (ST. AUGUSTINE)               | SY<br>SY | 150<br>150   |            |                          |  |  |
| 570-1-2A<br>570-1-2B          | PERFORMANCE TURF - SOD (BAHIA)   | SY       | 3500         |            |                          |  |  |
| 577-70                        | SHOULDER REWORK  | SY       | 3500         |            |                          |  |  |
| 104-10-3                      | SEDIMENT BARRIER   | LF       | 500          |            |                          |  |  |
| 110-7-1                       | MAILBOX (REMOVE AND REPLACE)   | EA       | 5            |            |                          |  |  |
|                               | CONCRETE   |          |              |            |                          |  |  |
|                               | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire)          |          |              |            |                          |  |  |
| 522-1a                        | 0-8 Cubic Yards  | SY       | 70           |            |                          |  |  |
| 522-1b                        | 8.1 - 18 Cubic Yards   | SY       | 140          |            |                          |  |  |
| 522-1c                        | OVER 18 Cubic Yards  | SY       | 210          |            |                          |  |  |
| E22.2-                        | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire)          | CV       |              |            |                          |  |  |
| 522-2a<br>522-2b              | 0-8 Cubic Yards<br>8.1 - 18 Cubic Yards  | SY<br>SY | 50<br>100    |            |                          |  |  |
| 522-20<br>522-2c              | OVER 18 Cubic Yards  | SY       | 150          |            |                          |  |  |
| 110-4-10                      | Removal of Existing Concrete   | SY       | 100          |            |                          |  |  |
| 110 110                       | REFLECTIVE PAVEMENT MARKERS  | <u> </u> | 100          |            |                          |  |  |
| 706-1-3a                      | REFLECTIVE PAVEMENT MARKERS (REMOVE)   | EA       | 350          |            |                          |  |  |
| 706-1-3b                      | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)                                     | EA       | 350          |            |                          |  |  |
| 706-1-3c                      | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R)                                  | EA       | 350          |            |                          |  |  |
| 706-1-3d                      | FURNISH/INSTALL BI-DIRECTIONAL - BLUE  | EA       | 5            |            |                          |  |  |
| 706-1-3e                      | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)                                   | EA       | 30           |            |                          |  |  |
| 740 44 444                    | PAINTED PAVEMENT MARKINGS  |          |              |            |                          |  |  |
| 710-11-111<br>710-11-122      | Standard, White, Solid 6" Standard, White, Solid 8"                                    | NM<br>LF | 30           |            |                          |  |  |
| 710-11-122                    | Standard, Write, Solid 8 Standard, White, Solid 12"                                    | LF       | 100          |            |                          |  |  |
| 710-11-123                    | Standard, White, Solid 12" Standard, White, Solid 18"                                  | LF       | 30           |            |                          |  |  |
| 710-11-125                    | Standard, White, Solid 24"   | LF       | 250          |            |                          |  |  |
| 710-11-131                    | Standard, White Skip 6"  | GM       | 1            |            |                          |  |  |
| 710-11-151                    | Standard, White, Dotted/Guideline 6-10 Gap, 6"   | LF       | 30           |            |                          |  |  |
| 710-11-160                    | Standard, White, Message   | EA       | 15           |            |                          |  |  |
| 710-11-170                    | Standard, White, Arrows  | EA       | 10           |            |                          |  |  |
| 710-11-180                    | Standard, White, Yield Line  | LF       | 20           |            |                          |  |  |
| 710-11-211                    | Standard, Yellow, Solid 6"   | NM       | 1            |            |                          |  |  |
| 710-11-222                    | Standard, Yellow, Solid 8"   | LF       | 30           |            |                          |  |  |
| 710-11-223                    | Standard, Yellow, Solid 12" Standard, Yellow, Solid 18"                                | LF<br>LF | 30<br>30     |            |                          |  |  |
| 710-11-224<br>710-11-225      | Standard, Yellow, Solid 18 Standard, Yellow, Solid 24"                                 | LF       | 40           |            |                          |  |  |
| 710-11-231                    | Standard, Yellow, Skip 6"  | GM       | 1            |            |                          |  |  |
| 710-11-251                    | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"  | LF       | 50           |            |                          |  |  |
|                               | Durable Pavement Markings  | _        |              |            |                          |  |  |
| 710-11-111                    | Durable, White, Solid 6"   | NM       | 3            |            |                          |  |  |
| 710-11-122                    | Durable, White, Solid 8"   | LF       | 30           | -          |                          |  |  |
| 710-11-123                    | Durable, White, Solid 12"  | LF       | 100          |            |                          |  |  |
| 710-11-124                    | Durable, White, Solid 18"  | LF       | 30           |            |                          |  |  |
| 710-11-125                    | Durable, White, Solid 24"  | LF       | 250          |            |                          |  |  |
| 710-11-131                    | Durable, White Skip 6"   | GM       | 1 20         |            |                          |  |  |
| 710-11-151<br>710-11-160      | Durable, White, Dotted/Guideline 6-10 Gap, 6"  Durable, White, Message                 | LF<br>EA | 30<br>15     |            |                          |  |  |
| 710-11-160                    | Durable, White, Arrows   | EA       | 10           |            |                          |  |  |
| 710-11-170                    | Durable, White, Yield Line   | LF       | 20           |            |                          |  |  |
| 710-11-211                    | Durable, Yellow, Solid 6"  | NM       | 2            |            |                          |  |  |
| 710-11-222                    | Durable, Yellow, Solid 8"  | LF       | 30           |            |                          |  |  |
| 710-11-223                    | Durable, Yellow, Solid 12"   | LF       | 30           |            |                          |  |  |
| 710-11-224                    | Durable, Yellow, Solid 18"   | LF       | 30           |            |                          |  |  |
| 710-11-225                    | Durable, Yellow, Solid 24"   | LF       | 40           |            |                          |  |  |
| 710-11-231                    | Durable, Yellow, Skip 6"   | GM       | 1            |            |                          |  |  |
| 710-11-251                    | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF       | 50           |            |                          |  |  |
|                               | Thermoplastic Pavement Markings (711)  |          |              |            |                          |  |  |
| 711-11-111                    | Thermo, Standard, White, Solid 6"  | NM       | 2            |            |                          |  |  |
| 711-11-122                    | Thermo, Standard, White, Solid 13"   | LF<br>LF | 30           |            | +                        |  |  |
| 711-11-123<br>711-11-124      | Thermo, Standard, White, Solid 12" Thermo, Standard, White, Solid 18"                  | LF       | 100<br>30    |            |                          |  |  |
| 711-11-124                    | Thermo, Standard, White, Solid 18  Thermo, Standard, White, Solid 24"                  | LF       | 100          |            | <del> </del>             |  |  |
| 711-11-123                    | Thermo, Standard, White, Solid 24  Thermo, Standard, White Skip 6"                     | GM       | 1            |            |                          |  |  |
|                               | Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"                                 | LF       | 30           |            | 1                        |  |  |

|            | COLD-IN-PLACE RECYCLING (CIP)                           |                 |              |            |                           |  |  |  |  |
|------------|---|-----------------|--------------|------------|---------------------------|--|--|--|--|
| Item No.   | Description   | Unit            | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |  |  |  |  |
| 711-11-160 | Thermo, Standard, White, Message                        | EA              | 15           |            |                           |  |  |  |  |
| 711-11-170 | Thermo, Standard, White, Arrows                         | EA              | 10           |            |                           |  |  |  |  |
| 711-11-180 | Thermo, Standard, White, Yield Line                     | LF              | 20           |            |                           |  |  |  |  |
| 711-11-211 | Thermo, Standard, Yellow, Solid 6"                      | NM              | 1            |            |                           |  |  |  |  |
| 711-11-222 | Thermo, Standard, Yellow, Solid 8"                      | LF              | 30           |            |                           |  |  |  |  |
| 711-11-223 | Thermo, Standard, Yellow, Solid 12"                     | LF              | 30           |            |                           |  |  |  |  |
| 711-11-224 | Thermo, Standard, Yellow, Solid 18"                     | LF              | 30           |            |                           |  |  |  |  |
| 711-11-225 | Thermo, Standard, Yellow, Solid 24"                     | LF              | 40           |            |                           |  |  |  |  |
| 711-11-231 | Thermo, Standard, Yellow, Skip 6"                       | GM              | 1            |            |                           |  |  |  |  |
| 711-11-251 | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6" | LF              | 50           |            |                           |  |  |  |  |
|            | MOBILIZATION  |                 |              |            |                           |  |  |  |  |
| 101-1a     | Work Order Total \$0.00 - \$50,000                      | LS              | 1            |            |                           |  |  |  |  |
| 101-1b     | Work Order Total \$50,001 - \$100,000                   | LS              | 1            |            |                           |  |  |  |  |
| 101-1c     | Work Order Total \$100,001 - \$500,000                  | LS              | 1            |            |                           |  |  |  |  |
| 101-1d     | Work Order Total Over \$500,000                         | LS              | 1            |            |                           |  |  |  |  |
|            | GOPHER TORTOISE REMOVAL/RELOCATION                      |                 |              |            |                           |  |  |  |  |
| 900-1      | Gopher Tortoise Removal/Relocation                      | EA              | 1            |            |                           |  |  |  |  |
| _          | Maintenance of Traffice (MOT)                           | _               |              | _          |                           |  |  |  |  |
| 102-1      | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure | Per Day         | 30           |            |                           |  |  |  |  |
| 102-99-1   | Portable Changeable Message Sign                        | EA/day          | 30           |            |                           |  |  |  |  |
|            | SECTION TOTAL (BASIS OF AWAR                            | D FOR SECTION): |              |            |                           |  |  |  |  |

| CAPE SEAL                |   |          |                |            |                           |  |  |
|--------------------------|---|----------|----------------|------------|---------------------------|--|--|
| Item No.                 | Description   | Unit     | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys) |  |  |
| CC 004 4-                | CHIP SEAL (SINGLE APPLICATION)  | CV.      | 11000          |            |                           |  |  |
| CC-001-1a<br>CC-001-1b   | 0 - 25,000<br>25,001 - 50,000   | SY<br>SY | 11800<br>35000 |            |                           |  |  |
| CC-001-1c                | 50,001 AND OVER   | SY       | 60000          |            |                           |  |  |
|                          | CHIP SEAL (DOUBLE APPLICATION)  |          |                |            |                           |  |  |
| CC-001-2a                | 0 - 25,000  | SY       | 11800          |            |                           |  |  |
| CC-001-2b                | 25,001 - 50,000   | SY       | 35000          |            |                           |  |  |
| CC-001-2c                | 50,001 AND OVER DOUBLE MICRO  | SY       | 60000          |            |                           |  |  |
| CC-002-1d                | 0 - 25,000  | SY       | 15000          |            |                           |  |  |
| CC-002-1e                | 25,001 - 50,000   | SY       | 30000          |            |                           |  |  |
| CC-002-1f                | 50,001 AND OVER   | SY       | 60000          |            |                           |  |  |
| CC-002-1g                | RUT FILL  | TON      | 500            |            |                           |  |  |
|                          | Silica Sand   | SY       | 60000          |            |                           |  |  |
| CC-003-1                 | CRACK FILLING/SEALING 0 - 500   | GAL      | 450            |            |                           |  |  |
| CC-003-2                 | 501 - 1,000   | GAL      | 850            |            |                           |  |  |
| CC-003-3                 | 1,001 - 5,000   | GAL      | 2150           |            |                           |  |  |
| CC-003-4                 | 5,001 AND OVER  | GAL      | 6000           |            |                           |  |  |
|                          | STRIPING AND PAVEMENT MARKING REMOVAL   |          |                |            |                           |  |  |
| 711-4a                   | REMOVAL BY WATER BLASTING   | SF       | 2640           |            |                           |  |  |
| 711-4b                   | REMOVAL BY GRINDING REFLECTIVE PAVEMENT MARKERS   | SF       | 2640           |            |                           |  |  |
| 706-1-3a                 | REFLECTIVE PAVEMENT MARKERS  REFLECTIVE PAVEMENT MARKERS (REMOVE)                       | EA       | 1200           |            |                           |  |  |
| 706-1-3a<br>706-1-3b     | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)                                      | EA       | 1200           |            |                           |  |  |
| 706-1-3c                 | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R)                                   | EA       | 30             |            |                           |  |  |
| 706-1-3d                 | FURNISH/INSTALL BI-DIRECTIONAL - BLUE   | EA       | 5              |            |                           |  |  |
| 706-1-3e                 | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)                                    | EA       | 30             |            |                           |  |  |
| 740.44.444               | PAINTED PAVEMENT MARKINGS   | 2124     |                |            |                           |  |  |
| 710-11-111<br>710-11-122 | Standard, White, Solid 6" Standard, White, Solid 8"                                     | NM<br>LF | 30             |            |                           |  |  |
| 710-11-122               | Standard, White, Solid 8 Standard, White, Solid 12"                                     | LF       | 100            |            |                           |  |  |
| 710-11-124               | Standard, White, Solid 18"  | LF       | 30             |            |                           |  |  |
| 710-11-125               | Standard, White, Solid 24"  | LF       | 250            |            |                           |  |  |
| 710-11-131               | Standard, White Skip 6"   | GM       | 1              |            |                           |  |  |
| 710-11-151               | Standard, White, Dotted/Guideline 6-10 Gap, 6"  | LF       | 30             |            |                           |  |  |
| 710-11-160               | Standard, White, Message  | EA       | 15             |            |                           |  |  |
| 710-11-170<br>710-11-180 | Standard, White, Arrows Standard, White, Yield Line                                     | EA<br>LF | 10<br>20       |            |                           |  |  |
| 710-11-180               | Standard, Vellow, Solid 6"  | NM       | 1              |            |                           |  |  |
| 710-11-222               | Standard, Yellow, Solid 8"  | LF       | 30             |            |                           |  |  |
| 710-11-223               | Standard, Yellow, Solid 12"   | LF       | 30             |            |                           |  |  |
| 710-11-224               | Standard, Yellow, Solid 18"   | LF       | 30             |            |                           |  |  |
| 710-11-225               | Standard, Yellow, Solid 24"   | LF       | 40             |            |                           |  |  |
| 710-11-231               | Standard, Yellow, Skip 6"   | GM       | 1 50           |            |                           |  |  |
| 710-11-251               | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"  DURABLE PAVEMENT MARKINGS              | LF       | 50             |            |                           |  |  |
| 710-11-111               | Durable, White, Solid 6"  | NM       | 3              |            |                           |  |  |
| 710-11-122               | Durable, White, Solid 8"  | LF       | 30             |            |                           |  |  |
| 710-11-123               | Durable, White, Solid 12"   | LF       | 100            |            |                           |  |  |
| 710-11-124               | Durable, White, Solid 18"   | LF       | 30             |            |                           |  |  |
| 710-11-125               | Durable, White, Solid 24"   | LF       | 250            |            |                           |  |  |
| 710-11-131<br>710-11-151 | Durable, White Skip 6"  Durable, White, Dotted/Guideline 6-10 Gap, 6"                   | GM<br>LF | 30             |            |                           |  |  |
| 710-11-151               | Durable, White, Dotted/Guideline 6-10 Gap, 6  Durable, White, Message                   | EA       | 15             |            |                           |  |  |
| 710-11-170               | Durable, White, Arrows  | EA       | 10             |            |                           |  |  |
| 710-11-180               | Durable, White, Yield Line  | LF       | 20             |            |                           |  |  |
| 710-11-211               | Durable, Yellow, Solid 6"   | NM       | 2              |            |                           |  |  |
| 710-11-222               | Durable, Yellow, Solid 8"   | LF       | 30             | ·          |                           |  |  |
| 710-11-223               | Durable, Yellow, Solid 12"  | LF       | 30             |            |                           |  |  |
| 710-11-224<br>710-11-225 | Durable, Yellow, Solid 18"  Durable, Yellow, Solid 24"                                  | LF<br>LF | 30<br>40       |            |                           |  |  |
| 710-11-225               | Durable, Yellow, Solid 24  Durable, Yellow, Skip 6"                                     | GM       | 1              |            |                           |  |  |
| 710-11-251               | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"  | LF       | 50             |            |                           |  |  |
|                          | THERMOPLASTIC PAVEMENT MARKINGS   |          |                |            |                           |  |  |
| 711-11-111               | Thermo, Standard, White, Solid 6"   | NM       | 2              |            |                           |  |  |
| 711-11-122               | Thermo, Standard, White, Solid 8"   | LF       | 30             |            |                           |  |  |
| 711-11-123               | Thermo, Standard, White, Solid 12"  | LF       | 100            |            |                           |  |  |
| 711-11-124               | Thermo, Standard, White, Solid 18"  | LF       | 30             |            |                           |  |  |
| 711-11-125<br>711-11-131 | Thermo, Standard, White, Solid 24" Thermo, Standard, White Skip 6"                      | LF<br>GM | 100            |            |                           |  |  |
| 711-11-131               | Thermo, Standard, White Skip 6" Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"  | LF       | 30             |            |                           |  |  |
| 711-11-151               | Thermo, Standard, White, Docted/Guideline 6-10 Gap, 6  Thermo, Standard, White, Message | EA       | 15             |            |                           |  |  |
| 711-11-170               | Thermo, Standard, White, Arrows   | EA       | 10             |            |                           |  |  |
| 711-11-180               | Thermo, Standard, White, Yield Line   | LF       | 20             |            |                           |  |  |
|                          |   |          |                |            |                           |  |  |

|            | CAPE SEAL   |         |              |            |                           |
|------------|---|---------|--------------|------------|---------------------------|
| Item No.   | Description   | Unit    | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |
| 711-11-211 | Thermo, Standard, Yellow, Solid 6"  | NM      | 1            |            |                           |
| 711-11-222 | Thermo, Standard, Yellow, Solid 8"  | LF      | 30           |            |                           |
| 711-11-223 | Thermo, Standard, Yellow, Solid 12"   | LF      | 30           |            |                           |
| 711-11-224 | Thermo, Standard, Yellow, Solid 18"   | LF      | 30           |            |                           |
| 711-11-225 | Thermo, Standard, Yellow, Solid 24"   | LF      | 40           |            |                           |
| 711-11-231 | Thermo, Standard, Yellow, Skip 6"   | GM      | 1            |            |                           |
| 711-11-251 | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                       | LF      | 50           |            |                           |
|            | SHOULDER AND ROADSIDE   |         |              |            |                           |
| 570-1-1    | PERFORMANCE TURF - SEED AND MULCH   | SY      | 150          |            |                           |
| 570-1-2A   | PERFORMANCE TURF - SOD (ST. AUGUSTINE)  | SY      | 150          |            |                           |
| 570-1-2B   | PERFORMANCE TURF - SOD (BAHIA)  | SY      | 3500         |            |                           |
| 577-70     | SHOULDER REWORK   | SY      | 3500         |            |                           |
| 104-10-3   | SEDIMENT BARRIER  | LF      | 500          |            |                           |
| 110-7-1    | MAILBOX (REMOVE AND REPLACE)  | EA      | 5            |            |                           |
|            | CONCRETE  |         |              |            |                           |
|            | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire) |         |              |            |                           |
| 522-1a     | 0-8 Cubic Yards   | SY      | 70           |            |                           |
| 522-1b     | 8.1 - 18 Cubic Yards  | SY      | 140          |            |                           |
| 522-1c     | OVER 18 Cubic Yards   | SY      | 210          |            |                           |
|            | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire) |         |              |            |                           |
| 522-2a     | 0-8 Cubic Yards   | SY      | 50           |            |                           |
| 522-2b     | 8.1 - 18 Cubic Yards  | SY      | 100          |            |                           |
| 522-2c     | OVER 18 Cubic Yards   | SY      | 150          |            |                           |
| 110-4-10   | Removal of Existing Concrete  | SY      | 100          |            |                           |
|            | MOBILIZATION  |         |              |            |                           |
| 101-1a     | Work Order Total \$0.00 - \$50,000  | LS      | 1            |            |                           |
| 101-1b     | Work Order Total \$50,001 - \$100,000   | LS      | 1            |            |                           |
| 101-1c     | Work Order Total \$100,001 - \$500,000  | LS      | 1            |            |                           |
| 101-1d     | Work Order Total Over \$500,000   | LS      | 1            |            |                           |
|            | MAINTENANCE OF TRAFFIC (MOT)  |         |              |            |                           |
| 102-1      | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure                       | Per Day | 30           |            |                           |
| 102-99-1   | Portable Changeable Message Sign  | EA/day  | 30           |            |                           |
|            | SECTION TOTAL (BASIS OF AWARD F   |         |              |            |                           |

|                          | OPEN GRADE  |            |                |            |                           |  |  |
|--------------------------|---|------------|----------------|------------|---------------------------|--|--|
| Item No.                 | Description   | Unit       | Est.<br>Qtys   | Unit Price | Total (Unit Price X Qtys) |  |  |
|                          | OPEN GRADE (PG76-22)  |            |                |            |                           |  |  |
| CC-011-1                 | Open Grade (PG 76-22) from 0 to 100 Tons  | Ton        | 100            |            |                           |  |  |
| CC-011-2<br>CC-011-3     | Open Grade (PG 76-22) from 101 to 1,000 Tons  Open Grade (PG 76-22) over 1,001 Tons                       | Ton        | 1000<br>2500   |            |                           |  |  |
| CC-011-3                 | Milling from 0 to 1,000 Square Yards  | Ton        | 2500           |            |                           |  |  |
| 327-70-1a                | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY         | 1000           |            |                           |  |  |
| 327-70-6a                | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY         | 1000           |            |                           |  |  |
| 327-70-5a                | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 1000           |            |                           |  |  |
| 327-70-6a                | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY         | 1000           |            |                           |  |  |
| 327-70-4a                | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY         | 1000           |            |                           |  |  |
| 327-70-7a                | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY         | 1000           |            |                           |  |  |
| 227.70.45                | Milling from 1,001 to 5,000 Square Yards  | CV.        | 5000           |            |                           |  |  |
| 327-70-1b<br>327-70-6b   | Milling Existing Asphalt Pavement, 1" Avg Depth Milling Existing Asphalt Pavement, 1.5" Avg Depth         | SY<br>SY   | 5000<br>5000   |            |                           |  |  |
| 327-70-0b                | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 5000           |            |                           |  |  |
| 327-70-6b                | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY         | 5000           |            |                           |  |  |
| 327-70-4b                | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY         | 5000           |            |                           |  |  |
| 327-70-7b                | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY         | 5000           |            |                           |  |  |
|                          | Milling from 5,001 to 25,000 Square Yards   |            |                |            |                           |  |  |
| 327-70-1c                | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY         | 15000          |            |                           |  |  |
| 327-70-6c                | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY         | 15000          |            |                           |  |  |
| 327-70-5c                | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 15000          |            |                           |  |  |
| 327-70-6c                | Milling Existing Asphalt Pavement, 2.5" Avg Depth Milling Existing Asphalt Pavement, 3" Avg Depth         | SY         | 15000          |            |                           |  |  |
| 327-70-4c<br>327-70-7c   | 0 0 1 7 0 1   | SY<br>SY   | 15000<br>15000 |            |                           |  |  |
| 327-70-70                | Milling Existing Asphalt Pavement, 4" Avg Depth  Milling over 25,000 Square Yards                         | 31         | 15000          |            |                           |  |  |
| 327-70-1d                | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY         | 56000          |            |                           |  |  |
| 327-70-6d                | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY         | 56000          |            |                           |  |  |
| 327-70-5d                | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 56000          |            |                           |  |  |
| 327-70-6d                | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY         | 56000          |            |                           |  |  |
| 327-70-4d                | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY         | 56000          |            |                           |  |  |
| 327-70-7d                | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY         | 56000          |            |                           |  |  |
|                          | Asphalt Types from 0 to 100 Tons  |            |                |            |                           |  |  |
| 334-1-53a                | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 100            |            |                           |  |  |
| 334-1-53b<br>334-1-13a   | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 100            |            |                           |  |  |
| 334-1-13a<br>334-1-13b   | Superpave Asphaltic Concrete (Traffic C, SP 9.5) Superpave Asphaltic Concrete (Traffic C, SP 12.5)        | Ton<br>Ton | 100            |            |                           |  |  |
| 334-1-130                | Asphalt Types from 101 to 1,000 Tons  | 1011       | 100            |            |                           |  |  |
| 334-1-53c                | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 1000           |            |                           |  |  |
| 334-1-53d                | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 1000           |            |                           |  |  |
| 334-1-13c                | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton        | 1000           |            |                           |  |  |
| 334-1-13d                | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton        | 1000           |            |                           |  |  |
|                          | Asphalt Types over 1,001 Tons   |            |                |            |                           |  |  |
| 334-1-53e                | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 5000           |            |                           |  |  |
| 334-1-53f                | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 5000           |            |                           |  |  |
| 334-1-13e<br>334-1-13f   | Superpave Asphaltic Concrete (Traffic C, SP 9.5) Superpave Asphaltic Concrete (Traffic C, SP 12.5)        | Ton        | 5000<br>5000   |            |                           |  |  |
| 334-1-131                | Asphalt Types from 0 to 100 Tons  | Ton        | 3000           |            |                           |  |  |
| 337-7-82a                | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 100            |            |                           |  |  |
| 337-7-83a                | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 100            |            |                           |  |  |
|                          | Asphalt Types from 101 to 1,000 Tons  | 1,511      |                |            |                           |  |  |
| 337-7-82b                | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 1000           |            |                           |  |  |
| 337-7-83b                | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 1000           |            |                           |  |  |
|                          | Asphalt Types over 1,001 Tons   |            |                |            |                           |  |  |
| 337-7-82c                | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 5000           |            |                           |  |  |
| 337-7-83c                | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 5000           |            |                           |  |  |
| 706 1 25                 | REFLECTIVE PAVEMENT MARKERS  DELI ECTIVE DAVEMENT MARKERS (DEMOVE)  | F.A.       | 250            |            |                           |  |  |
| 706-1-3a<br>706-1-3b     | REFLECTIVE PAVEMENT MARKERS (REMOVE) FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)                   | EA<br>EA   | 350<br>350     |            | +                         |  |  |
| 706-1-3b<br>706-1-3c     | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)  FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R) | EA         | 350            |            |                           |  |  |
| 706-1-3d                 | FURNISH/INSTALL BI-DIRECTIONAL - BLUE   | EA         | 5              |            |                           |  |  |
| 706-1-3e                 | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)  | EA         | 30             |            |                           |  |  |
|                          | PAINTED PAVEMENT MARKINGS   |            |                |            |                           |  |  |
| 710-11-111               | Standard, White, Solid 6"   | NM         | 1              |            |                           |  |  |
| 710-11-122               | Standard, White, Solid 8"   | LF         | 30             |            |                           |  |  |
| 710-11-123               | Standard, White, Solid 12"  | LF         | 100            |            |                           |  |  |
| 710-11-124               | Standard, White, Solid 18"  | LF         | 30             |            |                           |  |  |
| 710-11-125               | Standard, White, Solid 24"  | LF         | 250            |            | -                         |  |  |
| 710-11-131               | Standard, White Skip 6" Standard, White Detted/Guideline 6.10 Gap. 6"                                     | GM         | 20             |            |                           |  |  |
| 710-11-151<br>710-11-160 | Standard, White, Dotted/Guideline 6-10 Gap, 6" Standard, White, Message                                   | LF<br>EA   | 30<br>15       |            |                           |  |  |
| 710-11-160               | Standard, White, Message Standard, White, Arrows  | EA         | 10             |            |                           |  |  |
| 710-11-170               | Standard, White, Arrows Standard, White, Yield Line   | LF         | 20             |            | <u> </u>                  |  |  |
| 710-11-211               | Standard, Yellow, Solid 6"  | NM         | 1              |            |                           |  |  |
|                          | Standard, Yellow, Solid 8"  | LF         | 30             |            | 1                         |  |  |

| OPEN GRADE         |   |          |              |            |                           |  |
|--------------------|---|----------|--------------|------------|---------------------------|--|
| Item No.           | Description   | Unit     | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |  |
| 710-11-223         | Standard, Yellow, Solid 12"   | LF       | 30           |            |                           |  |
| 710-11-224         | Standard, Yellow, Solid 18"   | LF       | 30           |            |                           |  |
| 710-11-225         | Standard, Yellow, Solid 24"   | LF       | 40           |            |                           |  |
| 710-11-231         | Standard, Yellow, Skip 6"   | GM       | 1            |            |                           |  |
| 710-11-251         | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                                 | LF       | 50           |            |                           |  |
| 710-11-111         | DURABLE PAVEMENT MARKINGS  Durable, White, Solid 6"                             | NM       | 3            |            |                           |  |
| 710-11-111         | Durable, White, Solid 8"  | LF       | 30           |            |                           |  |
| 710-11-123         | Durable, White, Solid 12"   | LF       | 100          |            |                           |  |
| 710-11-124         | Durable, White, Solid 18"   | LF       | 30           |            |                           |  |
| 710-11-125         | Durable, White, Solid 24"   | LF       | 250          |            |                           |  |
| 710-11-131         | Durable, White Skip 6"  | GM       | 1            |            |                           |  |
| 710-11-151         | Durable, White, Dotted/Guideline 6-10 Gap, 6"                                   | LF       | 30           |            |                           |  |
| 710-11-160         | Durable, White, Message   | EA       | 15           |            |                           |  |
| 710-11-170         | Durable, White, Arrows  | EA       | 10           |            |                           |  |
| 710-11-180         | Durable, White, Yield Line  | LF       | 20           |            |                           |  |
| 710-11-211         | Durable, Yellow, Solid 6"   | NM       | 2            |            |                           |  |
| 710-11-222         | Durable, Yellow, Solid 8"   | LF       | 30           |            |                           |  |
| 710-11-223         | Durable, Yellow, Solid 12"  | LF       | 30           |            |                           |  |
| 710-11-224         | Durable, Yellow, Solid 18"  | LF       | 30           |            |                           |  |
| 710-11-225         | Durable, Yellow, Solid 24"  | LF       | 40           |            |                           |  |
| 710-11-231         | Durable, Yellow, Skip 6"  | GM       | 1            |            |                           |  |
| 710-11-251         | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"  THERMOPLASTIC PAVEMENT MARKINGS | LF       | 50           |            |                           |  |
| 711-11-111         | Thermo, Standard, White, Solid 6"   | NM       | 2            |            |                           |  |
| 711-11-111         | Thermo, Standard, Write, Solid 8"   | LF       | 30           |            |                           |  |
| 711-11-122         | Thermo, Standard, White, Solid 8  Thermo, Standard, White, Solid 12"            | LF       | 100          |            |                           |  |
| 711-11-124         | Thermo, Standard, White, Solid 12"  | LF       | 30           |            |                           |  |
| 711-11-125         | Thermo, Standard, White, Solid 24"  | LF       | 100          |            |                           |  |
| 711-11-131         | Thermo, Standard, White Skip 6"   | GM       | 1            |            |                           |  |
| 711-11-151         | Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"                          | LF       | 30           |            |                           |  |
| 711-11-160         | Thermo, Standard, White, Message  | EA       | 15           |            |                           |  |
| 711-11-170         | Thermo, Standard, White, Arrows   | EA       | 10           |            |                           |  |
| 711-11-180         | Thermo, Standard, White, Yield Line   | LF       | 20           |            |                           |  |
| 711-11-211         | Thermo, Standard, Yellow, Solid 6"  | NM       | 1            |            |                           |  |
| 711-11-222         | Thermo, Standard, Yellow, Solid 8"  | LF       | 30           |            |                           |  |
| 711-11-223         | Thermo, Standard, Yellow, Solid 12"   | LF       | 30           |            |                           |  |
| 711-11-224         | Thermo, Standard, Yellow, Solid 18"   | LF       | 30           |            |                           |  |
| 711-11-225         | Thermo, Standard, Yellow, Solid 24"   | LF       | 40           |            |                           |  |
| 711-11-231         | Thermo, Standard, Yellow, Skip 6"   | GM       | 1            |            |                           |  |
| 711-11-251         | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"                         | LF       | 50           |            |                           |  |
|                    | SHOULDER AND ROADSIDE   |          |              |            |                           |  |
| 570-1-1            | PERFORMANCE TURF - SEED AND MULCH   | SY       | 300          |            |                           |  |
| 570-1-2A           | PERFORMANCE TURE - SOD (ST. AUGUSTINE)  | SY       | 300          |            |                           |  |
| 570-1-2B           | PERFORMANCE TURF - SOD (BAHIA)  | SY       | 7040         |            |                           |  |
| 577-70<br>104-10-3 | SHOULDER REWORK SEDIMENT BARRIER  | SY<br>LF | 7040<br>1000 |            |                           |  |
| 110-7-1            | MAILBOX (REMOVE AND REPLACE)  | EA       | 20           |            |                           |  |
| 110 / 1            | CONCRETE  | LA       | 20           |            |                           |  |
|                    | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire)   |          |              |            |                           |  |
| 522-1a             | 0-8 Cubic Yards   | SY       | 70           |            |                           |  |
| 522-1b             | 8.1 - 18 Cubic Yards  | SY       | 140          |            |                           |  |
| 522-1c             | OVER 18 Cubic Yards   | SY       | 210          |            |                           |  |
|                    | Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire)   |          |              |            |                           |  |
| 522-2a             | 0-8 Cubic Yards   | SY       | 50           |            |                           |  |
| 522-2b             | 8.1 - 18 Cubic Yards  | SY       | 100          |            |                           |  |
| 522-2c             | OVER 18 Cubic Yards   | SY       | 150          |            |                           |  |
| 110-4-10           | Removal of Existing Concrete  | SY       | 100          |            |                           |  |
|                    | MOBILIZATION  |          |              |            |                           |  |
| 101-1a             | Work Order Total \$0.00 - \$50,000  | LS       | 1            |            |                           |  |
| 101-1b             | Work Order Total \$50,001 - \$100,000   | LS       | 1            |            |                           |  |
| 101-1c             | Work Order Total \$100,001 - \$500,000  | LS       | 1            |            | 1                         |  |
| 101-1d             | Work Order Total Over \$500,000   | LS       | 1            |            |                           |  |
| 200 -              | GOPHER TORTOISE REMOVAL/RELOCATION  |          |              |            |                           |  |
| 900-1              | Gopher Tortoise Removal/Relocation  | EA       | 1            |            |                           |  |
| 102.4              | MAINTENANCE OF TRAFFIC (MOT)  | De: D-   | 35           |            |                           |  |
| 102-1              | Standard Index 600 Series MOT for 2-Lane, 2-Way Closure                         | Per Day  | 25           |            | -                         |  |
| 102-99-1           | Portable Changeable Message Sign  | EA/day   | 30           |            | 1                         |  |

| MILLING/RESURFACING AND OVERLAYS |   |            |              |              |                         |
|----------------------------------|---|------------|--------------|--------------|-------------------------|
| Item No.                         | Description   | Unit       | Est.<br>Qtys | Unit Price   | Total (Unit Price X Qty |
| 227.70.10                        | Milling from 0 to 1,000 Square Yards  | EV.        | 1000         |              |                         |
| 327-70-1a<br>327-70-6a           | Milling Existing Asphalt Pavement, 1" Avg Depth Milling Existing Asphalt Pavement, 1.5" Avg Depth                                 | SY<br>SY   | 1000         |              |                         |
| 327-70-5a                        | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 1000         |              |                         |
| 327-70-6a                        | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY         | 1000         |              |                         |
| 327-70-4a                        | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY         | 1000         |              |                         |
| 327-70-7a                        | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY         | 1000         |              |                         |
|                                  | Milling from 1,001 to 5,000 Square Yards  |            |              |              |                         |
| 327-70-1b                        | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY         | 5000         |              |                         |
| 327-70-6b                        | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY         | 5000         |              |                         |
| 327-70-5b                        | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 5000         |              |                         |
| 327-70-6b                        | Milling Existing Asphalt Payament, 2.5" Avg Depth   | SY<br>SY   | 5000         |              |                         |
| 327-70-4b<br>327-70-7b           | Milling Existing Asphalt Pavement, 3" Avg Depth Milling Existing Asphalt Pavement, 4" Avg Depth                                   | SY         | 5000<br>5000 |              |                         |
| 327-70-70                        | Milling from 5,001 to 25,000 Square Yards   | 31         | 3000         |              |                         |
| 327-70-1c                        | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY         | 15000        |              |                         |
| 327-70-6c                        | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY         | 15000        |              |                         |
| 327-70-5c                        | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 15000        |              |                         |
| 327-70-6c                        | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY         | 15000        |              |                         |
| 327-70-4c                        | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY         | 15000        |              |                         |
| 327-70-7c                        | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY         | 15000        |              |                         |
|                                  | Milling over 25,000 Square Yards  |            |              |              |                         |
| 327-70-1d                        | Milling Existing Asphalt Pavement, 1" Avg Depth   | SY         | 56000        |              |                         |
| 327-70-6d                        | Milling Existing Asphalt Pavement, 1.5" Avg Depth   | SY         | 56000        |              |                         |
| 327-70-5d                        | Milling Existing Asphalt Pavement, 2" Avg Depth   | SY         | 56000        |              | 1                       |
| 327-70-6d                        | Milling Existing Asphalt Pavement, 2.5" Avg Depth   | SY         | 56000        |              |                         |
| 327-70-4d                        | Milling Existing Asphalt Pavement, 3" Avg Depth   | SY         | 56000        |              |                         |
| 327-70-7d                        | Milling Existing Asphalt Pavement, 4" Avg Depth   | SY         | 56000        |              |                         |
| 334-1-53a                        | Asphalt Types from 0 to 100 Tons  | Ton        | 100          |              |                         |
| 334-1-53b                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22) Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)          | Ton        | 100          |              |                         |
| 334-1-33b                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton        | 100          |              |                         |
| 334-1-13b                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton        | 100          |              |                         |
| 30.1155                          | Asphalt Types from 101 to 1,000 Tons  | 1011       | 100          |              |                         |
| 334-1-53c                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 1000         |              |                         |
| 334-1-53d                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 1000         |              |                         |
| 334-1-13c                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton        | 1000         |              |                         |
| 334-1-13d                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton        | 1000         |              |                         |
|                                  | Asphalt Types over 1,001 Tons   |            |              |              |                         |
| 334-1-53e                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 5000         |              |                         |
| 334-1-53f                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 5000         |              |                         |
| 334-1-13e                        | Superpave Asphaltic Concrete (Traffic C, SP 9.5)  | Ton        | 5000         |              |                         |
| 334-1-13f                        | Superpave Asphaltic Concrete (Traffic C, SP 12.5)   | Ton        | 5000         |              |                         |
| 227 7 02-                        | Asphalt Types from 0 to 100 Tons  | T          | 100          |              |                         |
| 337-7-82a<br>337-7-83a           | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)  Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22) | Ton<br>Ton | 100          |              |                         |
| 33/-/-83d                        | Asphalt Types from 101 to 1,000 Tons  | TON        | 100          |              |                         |
| 337-7-82b                        | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 1000         |              |                         |
| 337-7-83b                        | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 1000         |              |                         |
|                                  | Asphalt Types over 1,001 Tons   | 1011       | 1000         |              |                         |
| 337-7-82c                        | Asphalt Concrete Friction Course (Traffic C, SP 9.5) (PG 76-22)   | Ton        | 5000         |              |                         |
| 337-7-83c                        | Asphalt Concrete Friction Course (Traffic C, SP 12.5) (PG 76-22)  | Ton        | 5000         |              |                         |
| 706                              | REFLECTIVE PAVEMENT MARKERS   |            |              |              |                         |
| 706-1-3a                         | REFLECTIVE PAVEMENT MARKERS (REMOVE)  | EA         | 350          |              |                         |
| 706-1-3b                         | FURNISH/INSTALL BI-DIRECTIONAL YELLOW MARKER (A/A)  | EA         | 350          |              |                         |
| 706-1-3c                         | FURNISH/INSTALL BI-DIRECTIONAL WHITE/RED MARKER (C/R)   | EA         | 350          |              |                         |
| 706-1-3d                         | FURNISH/INSTALL BI-DIRECTIONAL - BLUE   | EA         | 5            |              |                         |
| 706-1-3e                         | FURNISH/INSTALL MONO-DIRECTIONAL YELLOW MARKER (M/A)  | EA         | 30           |              |                         |
| 10-11-111                        | PAINTED PAVEMENT MARKINGS  Standard, White, Solid 6"  | NIN A      | 2            |              |                         |
| 10-11-111                        | Standard, White, Solid 6" Standard, White, Solid 8"   | NM<br>LF   | 30           |              |                         |
| 10-11-122                        | Standard, White, Solid 8 Standard, White, Solid 12"   | LF         | 30           |              |                         |
| 10-11-123                        | Standard, Write, Solid 12 Standard, White, Solid 18"  | LF         | 100          |              |                         |
| 10-11-125                        | Standard, White, Solid 19 Standard, White, Solid 24"  | LF         | 60           |              |                         |
| 10-11-131                        | Standard, White Skip 6"   | GM         | 0.22         |              |                         |
| 10-11-151                        | Standard, White, Dotted/Guideline 6-10 Gap, 6"  | LF         | 30           |              |                         |
| 10-11-160                        | Standard, White, Message  | EA         | 15           |              |                         |
| 10-11-170                        | Standard, White, Arrows   | EA         | 10           |              |                         |
| 10-11-180                        | Standard, White, Yield Line   | LF         | 30           |              |                         |
| 10-11-211                        | Standard, Yellow, Solid 6"  | NM         | 3            |              |                         |
| 10-11-222                        | Standard, Yellow, Solid 8"  | LF         | 30           |              |                         |
| 10-11-223                        | Standard, Yellow, Solid 12"   | LF         | 30           | - <u>-</u> - |                         |
| 10-11-224                        | Standard, Yellow, Solid 18"   | LF         | 30           |              |                         |
|                                  | Standard, Yellow, Solid 24"   | LF         | 40           |              |                         |
| 10-11-231                        | Standard, Yellow, Skip 6"   | GM         | 0.25         |              |                         |
| 710-11-225<br>710-11-231         |   |            |              |              |                         |

| MILLING/RESURFACING AND OVERLAYS |  |          |              |            |                           |
|----------------------------------|--|----------|--------------|------------|---------------------------|
| Item No.                         | Description  | Unit     | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys) |
| 710-11-251                       | Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"  | LF       | 30           |            |                           |
|                                  | DURABLE PAVEMENT MARKINGS  |          |              |            |                           |
| 710-11-111                       | Durable, White, Solid 6"   | NM       | 3            |            |                           |
| 710-11-122                       | Durable, White, Solid 8"   | LF       | 30           |            |                           |
| 710-11-123                       | Durable, White, Solid 12"  | LF       | 100          |            |                           |
| 710-11-124                       | Durable, White, Solid 18"  | LF       | 30           |            |                           |
| 710-11-125                       | Durable, White, Solid 24"  | LF       | 250          |            |                           |
| 710-11-131                       | Durable, White Skip 6"   | GM       | 1            |            |                           |
| 710-11-151<br>710-11-160         | Durable, White, Dotted/Guideline 6-10 Gap, 6"  Durable, White, Message                             | LF<br>EA | 30<br>15     |            |                           |
| 710-11-160                       | Durable, White, Message  Durable, White, Arrows  | EA       | 10           |            |                           |
| 710-11-170                       | Durable, White, Yield Line   | LF       | 20           |            |                           |
| 710-11-211                       | Durable, Yellow, Solid 6"  | NM       | 2            |            |                           |
| 710-11-222                       | Durable, Yellow, Solid 8"  | LF       | 30           |            |                           |
| 710-11-223                       | Durable, Yellow, Solid 12"   | LF       | 30           |            |                           |
| 710-11-224                       | Durable, Yellow, Solid 18"   | LF       | 30           |            |                           |
| 710-11-225                       | Durable, Yellow, Solid 24"   | LF       | 40           |            |                           |
| 710-11-231                       | Durable, Yellow, Skip 6"   | GM       | 1            |            |                           |
| 710-11-251                       | Durable, Yellow, Dotted/Guideline 6-10 Gap, 6"   | LF       | 50           |            |                           |
|                                  | THERMOPLASTIC PAVEMENT MARKINGS (711)  |          |              |            |                           |
| 711-11-111                       | Thermo, Standard, White, Solid 6"  | NM       | 3            |            |                           |
| 711-11-122                       | Thermo, Standard, White, Solid 8"  | LF       | 30           |            |                           |
| 711-11-123                       | Thermo, Standard, White, Solid 12"   | LF       | 30           |            |                           |
| 711-11-124                       | Thermo, Standard, White, Solid 18"   | LF       | 100          |            |                           |
| 711-11-125                       | Thermo, Standard, White, Solid 24"   | LF       | 60           |            |                           |
| 711-11-131                       | Thermo, Standard, White Skip 6"  | GM       | 0.22         |            |                           |
| 711-11-151                       | Thermo, Standard, White, Dotted/Guideline 6-10 Gap, 6"   | LF       | 30           |            |                           |
| 711-11-160                       | Thermo, Standard, White, Message   | EA       | 15           |            |                           |
| 711-11-170                       | Thermo, Standard, White, Violed Line   | EA<br>LF | 10<br>30     |            |                           |
| 711-11-180<br>711-11-211         | Thermo, Standard, White, Yield Line Thermo, Standard, Yellow, Solid 6"                             | NM       | 30           |            |                           |
| 711-11-211                       | Thermo, Standard, Yellow, Solid 8"   | LF       | 30           |            |                           |
| 711-11-222                       | Thermo, Standard, Tenow, Solid 8  Thermo, Standard, Yellow, Solid 12"                              | LF       | 30           |            |                           |
| 711-11-224                       | Thermo, Standard, Yellow, Solid 18"  | LF       | 30           |            |                           |
| 711-11-225                       | Thermo, Standard, Yellow, Solid 24"  | LF       | 40           |            |                           |
| 711-11-231                       | Thermo, Standard, Yellow, Skip 6"  | GM       | 0.25         |            |                           |
| 711-11-251                       | Thermo, Standard, Yellow, Dotted/Guideline 6-10 Gap, 6"  | LF       | 30           |            |                           |
|                                  | SHOULDER AND ROADSIDE  |          |              |            |                           |
| 570-1-1                          | PERFORMANCE TURF - SEED AND MULCH  | SY       | 300          |            |                           |
| 570-1-2A                         | PERFORMANCE TURF - SOD (ST. AUGUSTINE)   | SY       | 300          |            |                           |
| 570-1-2B                         | PERFORMANCE TURF - SOD (BAHIA)   | SY       | 7040         |            |                           |
| 577-70                           | SHOULDER REWORK  | SY       | 7040         |            |                           |
| 104-10-3                         | SEDIMENT BARRIER   | LF       | 1000         |            |                           |
| 110-7-1                          | MAILBOX (REMOVE AND REPLACE)   | EA       | 20           |            |                           |
|                                  | CONCRETE   |          |              |            |                           |
| 522 :                            | Concrete Sidewalk and Driveways, 4" Thick (Includes Fill and 6x6 welded wire)                      |          |              |            | 1                         |
| 522-1a                           | 0-8 Cubic Yards  | SY       | 70           |            |                           |
| 522-1b                           | 8.1 - 18 Cubic Yards   | SY<br>SY | 140          |            | +                         |
| 522-1c                           | OVER 18 Cubic Yards  Concrete Sidewalk and Driveways, 6" Thick (Includes Fill and 6x6 welded wire) | 31       | 210          |            |                           |
| 522-2a                           | 0-8 Cubic Yards  | SY       | 50           |            |                           |
| 522-2a<br>522-2b                 | 8.1 - 18 Cubic Yards   | SY       | 100          |            |                           |
| 522-2c                           | OVER 18 Cubic Yards  | SY       | 150          |            | +                         |
| 110-4-10                         | Removal of Existing Concrete   | SY       | 100          |            |                           |
|                                  | MOBILIZATION   | -        |              |            |                           |
| 101-1a                           | Work Order Total \$0.00 - \$50,000   | LS       | 1            |            |                           |
| 101-1b                           | Work Order Total \$50,001 - \$100,000  | LS       | 1            |            |                           |
|                                  | Work Order Total \$100,001 - \$500,000   | LS       | 1            |            |                           |
| 101-1c                           | W 10 1 T 110 AF00 000  | LS       | 1            |            |                           |
| 101-1c<br>101-1d                 | Work Order Total Over \$500,000  |          |              |            |                           |
|                                  | GOPHER TORTOISE REMOVAL/RELOCATION   |          |              |            |                           |
|                                  |  | EA       | 1            |            |                           |
| 101-1d                           | GOPHER TORTOISE REMOVAL/RELOCATION   |          | 1 7          |            |                           |

|           | MISCELLANEOUS CO                                | NSTRUCTION ITEMS       |              |            |                          |
|-----------|---|------------------------|--------------|------------|--------------------------|
| Item No.  | Description                                     | Unit                   | Est.<br>Qtys | Unit Price | Total (Unit Price X Qtys |
|           | Optional Base Group 01                          |                        |              |            |                          |
| 285-701a  | 0 - 250 Square Yards                            | SY                     | 250          |            |                          |
| 285-701b  | 251 - 1000 square yards                         | SY                     | 1000         |            |                          |
| 285-701c  | Over 1000 square yards                          | SY                     | 3000         |            |                          |
|           | Optional Base Group 04                          |                        |              |            |                          |
| 285-704a  | 0 - 250 Square Yards                            | SY                     | 250          |            |                          |
| 285-704b  | 251 - 1000 square yards                         | SY                     | 1000         |            |                          |
| 285-704c  | Over 1000 square yards                          | SY                     | 3000         |            |                          |
|           | Optional Base Group 06                          |                        |              |            |                          |
| 285-706a  | 0 - 250 Square Yards                            | SY                     | 250          |            |                          |
| 285-706b  | 251 - 1000 square yards                         | SY                     | 1000         |            |                          |
| 285-706c  | Over 1000 square yards                          | SY                     | 3000         |            |                          |
|           | Type B Stabilization                            |                        |              |            |                          |
| 160-4a    | 0 - 250 Square Yards                            | SY                     | 250          |            |                          |
| 160-4b    | 251 - 1000 square yards                         | SY                     | 1000         |            |                          |
| 160-4c    | Over 1000 square yards                          | SY                     | 3000         |            |                          |
|           | Wheel Stops                                     |                        |              |            |                          |
| 542-70    | Bumper Guards, Concrete                         | EA                     | 20           |            |                          |
|           | Traffic Loops                                   |                        |              |            |                          |
| 660-2-101 | Loop Assembly - F&I, Type A                     | AS                     | 1            |            |                          |
| 660-2-102 | Loop Assembly - F&I, Type B                     | AS                     | 1            |            |                          |
| 660-2-106 | Loop Assembly - F&I, Type F                     | AS                     | 1            |            |                          |
| 660-2-107 | Loop Assembly - F&I, Type G                     | AS                     | 1            |            |                          |
|           | Miscellaneous Asphalt                           |                        |              |            |                          |
| 339-1     | Miscellaneous Asphalt                           | Ton                    | 150          |            |                          |
|           | Signs   |                        |              |            |                          |
| 700-1-11  | Single Post Sign, F&I Ground Mount, Up to 12 SF | AS                     | 1            |            |                          |
| 700-1-12  | Single Post Sign, F&I Ground Mount, 12-20 SF    | AS                     | 1            |            |                          |
|           | GOPHER TORTOISE REMOVAL/RELOCATION              | -                      |              |            |                          |
| 900-1     | Gopher Tortoise Removal/Relocation              | EA                     | 1            |            |                          |
|           | 1 '   | OF AWARD FOR SECTION): |              |            |                          |



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS

# DEPARTMENT OF MANAGEMENT & BUDGET PURCHASING SECTION

3600 W. Sovereign Path • Suite 266 • Lecanto, FL 34461 Telephone (352) 527-5457 • Facsimile (352) 527-5424

#### **ADDENDUM NO. 1**

May 2, 2024

ITB 24-088

### **Countywide Resurfacing and Preservation Projects**

BIDS DUE: 2:00 PM (local time) on May 29, 2024

The changes, additions, substitutions, and/or deletions and any other information contained in this Addendum are hereby made a part of the Contract Documents for this Invitation to Bid, fully and completely as if the same were fully set forth herein.

- Question 1 Is there a bid bond required for this project?
- Answer 1 If the Work Order is for \$500,000 or more, a new Public Construction Bond for the total amount of the PO must be delivered and approved by the Purchasing Section prior to the Project Manager issuing the Notice to Proceed.
- Question 2 We didn't see technical specifications for the Microsurfacing portion of the bid. Can the County please provide?
- Answer 2 See attached CC-002 Micro Surfacing Specification

End of Addendum No. 1

#### CC-002 MICRO SURFACING SPECIFICATION

#### I. Description

Construct a micro surfacing pavement with the type of mixture specified in the Contract Documents. Micro surfacing is a mixture of polymer-modified emulsified asphalt, mineral aggregate, mineral filler, water, and other additives, properly proportioned, mixed, and spread on a paved surface.

The mix shall be capable of being spread in variable thickness cross-sections (wedges, ruts, scratch courses and surfaces) which, after curing and initial traffic consolidation, resists compaction throughout the entire design tolerance range of asphalt binder content and variable thickness to be encountered. The end product shall maintain a skid-resistant surface in variable thick sections throughout the service life of the micro surfacing. The mix shall be a quick-traffic system that will be able to accept straight rolling traffic one hour after application.

#### II. Materials

#### A. Emulsified Asphalt:

#### 1. General Requirements:

Provide a quick-traffic, polymer-modified emulsified asphalt conforming to the requirements specified in AASHTO M 208 for CSS-1h as listed in **Table 1**. The cement mixing test shall be waived for this product.

The polymer material shall be co-milled into the asphalt or added to the emulsifier solution prior to the emulsification process. The amount of polymer modifier shall not be less than 3.0% polymer solids based on the asphalt content (by weight) and will be certified by the emulsified asphalt supplier.

The Engineer may waive the five-day settlement test, provided job-stored emulsified asphalt is used within 36 hours from the time of the shipment or the stored material has had additional emulsified asphalt blended into it prior to use.

### 2. Quality Tests:

The emulsified asphalt, and emulsified asphalt residue, shall meet the requirements of AASHTO M 208 for CSS-1h, with the following additions:

| Table 1: Quality Tests for Emulsified Asphalt                      |                                |                      |  |  |
|--|--------------------------------|----------------------|--|--|
| AASHTO Test No.  | Emulsified Asphalt             | Specification        |  |  |
|  | Property                       | Requirements         |  |  |
| AASHTO T 59  | Residue after Distillation (1) | 62% Minimum          |  |  |
| AASHTO T 59  | Cement Mixing                  | Not Required         |  |  |
| Quality Tests for Emulsified Asphalt Residue                       |                                |                      |  |  |
| AASHTO T 53  | Softening Point                | 135°F (57°C) Minimum |  |  |
| (1) Maintain the test temperature at 350°F (177°C) for 20 minutes. |                                |                      |  |  |

#### 3. Sampling, Certification, and Verification:

For the first load of emulsified asphalt produced for the project, the supplier shall submit a sample to the Engineer for testing before use. A pretest number will then be assigned by the Engineer, and the pretest number shall be furnished with all emulsified asphalt delivered to the project.

At any time during application, the Engineer may sample and test all subsequent loads of emulsified asphalt delivered to the project to verify and determine compliance with specification requirements. Where these tests identify material outside specification requirements, the Engineer may require the supplier to cease shipment of that pre-tested product. Further shipment of that pre-tested product to the owning agency's projects will remain suspended until the cause of the problem is evaluated and corrected by the supplier to the satisfaction of the Engineer.

### B. Aggregate:

#### 1. General:

Use an aggregate consisting of 100% crushed stone. The aggregate shall be a crushed stone such as granite, slag, limestone, chat, or other high-quality aggregate, or a combination thereof. To assure the material is 100 percent crushed, the parent aggregate will be larger than the largest stone in the gradation used. Use aggregate source(s) from the list of aggregates available on the Florida Department of Transportation's website and also meeting the requirements of this specification. The URL for obtaining the list of approved aggregate products for Friction Courses is: <a href="https://mac.fdot.gov/smoreports">https://mac.fdot.gov/smoreports</a>.

### 2. Aggregate Quality Tests:

In addition to the requirements of FDOT Standard Specification Sections 901 and 902, meet the minimum aggregate requirements of **Table 2**.

| Table 2: Quality Tests for Aggregate                             |                         |  |  |  |
|--|-------------------------|--|--|--|
| AASHTO Test No.  | Aggregate Property      | Specification Requirements   |  |  |
| AASHTO T 176   | Sand Equivalent         | 65 Minimum   |  |  |
| AASHTO T 104   | Soundness               | 15% Maximum using Na <sub>2</sub> SO <sub>4</sub> or 25% Maximum using MgSO <sub>4</sub> |  |  |
| AASHTO T 96  | Abrasion Resistance (1) | 30% Maximum  |  |  |
| (1) The abrasion test will be performed on the parent aggregate. |                         |  |  |  |

#### 3. Gradation Requirements:

When tested in accordance with FM 1-T 027 and FM 1-T 011, the target (mix design) aggregate gradation, including the mineral filler, shall be within the gradation range for a Type II mixture shown in **Table 3**, Column II.

| Table 3: Mix Design Gradation Requirements |  |  |  |  |
|--|--|--|--|--|
| Sieve Size                                 | Type II Mix Design<br>Range<br>Percent Passing | Stockpile Tolerance from Mix<br>Design Percent Passing |  |  |
| 3/8 inch                                   | 100  | N/A  |  |  |
| No. 4                                      | 90 – 100                                       | ± 5%   |  |  |
| No. 8                                      | 65 – 90  | ± 5%   |  |  |
| No. 16                                     | 45 – 70  | ± 5%   |  |  |
| No. 30                                     | 30 – 50  | ± 5%   |  |  |
| No. 50                                     | 18 – 30  | ± 4%   |  |  |
| No. 100                                    | 10 – 21  | ± 3%   |  |  |
| No. 200                                    | 5 – 15   | ± 2%   |  |  |

The aggregate will be accepted from the stockpile located at the project. The stockpile will be accepted based on five quality control gradation tests conducted in accordance with FM 1-T 002. If the average of the five gradation tests is within the stockpile tolerances shown in **Table 3**, Column III for all of the sieve sizes, then the stockpile is accepted. If the average of the five gradation tests is not within the stockpile tolerances shown in **Table 3**, Column III, for any sieve size, remove the stockpiled material and replace it with new aggregate or blend other aggregate sources with the stockpiled material. Aggregates used in blending should meet the quality tests shown in **Table 2** before blending and should be blended in a manner to produce a consistent gradation and sand equivalent value. If new aggregate is obtained or blending of aggregates is performed resulting in an aggregate that is not represented by the mix design, submit a new mix design to the Engineer for approval prior to production of the mix.

The Engineer may obtain stockpile samples at any time. If the average of five gradation tests conducted in accordance with FM 1-T 002 is not within the gradation tolerances shown in **Table 3**, Column III for any sieve size, cease production until the problem is corrected to the satisfaction of the Engineer. Screen all stockpiled aggregates at the stockpile area prior to delivery to the paving machine to remove oversize material and non-desirable particles.

#### C. Mineral Filler:

If mineral filler is utilized in the mix design, use non-air-entrained Portland cement or hydrated lime that is free from lumps. The Engineer will accept the mineral filler by visual inspection. The type and amount of mineral filler shall be determined by a laboratory mix design and will be considered as part of the aggregate gradation. An increase or decrease of less than one percent mineral filler may be permitted during production if it is found to result in better consistency or set times. Any changes to the percentage of mineral filler should

meet the requirements of Table 5.

#### D. Water:

Utilize water that is potable and free of harmful soluble salts, reactive chemicals, or any other contaminants.

#### E. Additives:

Additives may be added to the mixture or any of the component materials to provide control of quick-trafficking properties. The additives to be used should be indicated on the mix design and be compatible with the other components of the mix.

#### F. Crack Filler:

Utilize a crack filler meeting the material requirements of the CC-003 Crack Filling/Sealing Specification.

### G. Mix Design

Before work begins, the Contractor shall submit a mix design to the Engineer. The mix design should have an aggregate source used on five (5) similar projects and have been developed using the specific materials to be used on the project. The mix design shall be developed by an independent, accredited laboratory with no affiliation to the emulsion supplier and is endorsed by the International Slurry Surfacing Association (ISSA) and has experience in designing micro surfacing mixtures.

Submit the proposed mix design with supporting test data indicating compliance with all mix design criteria. Allow the Engineer a maximum of two weeks to either conditionally verify or reject the mix design.

Meet the requirements provided in **Table 4.** After the mix design has been approved, no substitutions to the mix design will be permitted, unless approved by the Engineer. The Engineer will consider inadequate field performance of a mix as sufficient evidence that the properties of the mix related to the mix design have changed, and the Engineer will no longer allow the use of the mix design. The project will be stopped until it is demonstrated that those properties, or issues, have been sufficiently addressed.

| Table 4: Mix Design Testing Requirements |                                |                               |  |  |  |
|--|--------------------------------|-------------------------------|--|--|--|
| ISSA <sup>(1)</sup> Test No.             | Property                       | Specification Requirements    |  |  |  |
|  | Wet Cohesion:                  |                               |  |  |  |
| ISSA TB-139 <sup>(2)</sup>               | @ 30 Minutes Minimum (Set)     | 12 kg-cm Minimum              |  |  |  |
|  | @ 60 Minutes Minimum (Traffic) | 20 kg-cm or Near Spin Minimum |  |  |  |
| ISSA TB-109                              | Excess Asphalt by Loaded Wheel | 50 g/ft <sup>2</sup> Maximum  |  |  |  |
|  | Tester (LWT) Sand Adhesion     |                               |  |  |  |
| ISSA TB-114                              | Wet Stripping                  | 90% Minimum                   |  |  |  |

| Table 4: Mix Design Testing Requirements |                                     |                              |  |
|--|-------------------------------------|------------------------------|--|
|  | Wet-track Abrasion Loss:            |                              |  |
| ISSA TB-100                              | One-hour Soak                       | 50 g/ft <sup>2</sup> Maximum |  |
|  | Six-day Soak                        | 75 g/ft <sup>2</sup> Maximum |  |
|  |                                     |                              |  |
|  | Lateral Displacement                | 5% Maximum                   |  |
| ISSA TB-147                              | ·                                   |                              |  |
|  | Specific Gravity after 1,000 Cycles | 2.10 Maximum                 |  |
|  | of 125 lb.                          |                              |  |
| ISSA TB-113 <sup>(2)</sup>               | Mix Time @ 77°F (25°C)              | Controllable to 120 Seconds  |  |
|  | ·                                   | Minimum                      |  |

<sup>(1)</sup> ISSA = International Slurry Surfacing Association

The mix design should clearly show the proportions of aggregate, emulsified asphalt, mineral filler, water, and additive usage based on the dry weight of the aggregate. Meet the mix design component material requirements provided in **Table 5**.

| Table 5: Mix Design Component Material Requirements |   |  |
|---|---|--|
| Component Materials                                 | Specification Requirements                      |  |
| Residual Asphalt                                    | 5.5 to 10.5% (by dry weight of aggregate)       |  |
| Mineral Filler                                      | 0.5 to 3.0% (by dry weight of aggregate)        |  |
| Polymer-based Modifier                              | Minimum of 3.0% (solids based on asphalt weight |  |
|   | content)  |  |
| Additives   | As needed                                       |  |
| Water   | As required to produce proper mix consistency   |  |

The materials (aggregates, emulsion, mineral filler, and additives) should be from the same source, grade and type used to develop the approved mix design. Any substitutions or alternate supplies should be preapproved by the Engineer. Changes in the aggregate source or emulsion source requires re-validating the mix design and the performance properties. Blending, co-mingling and otherwise combining materials from two or more sources, grades or types is strictly prohibited. Aggregate stockpiles and emulsion material should be located at or near the job site in sufficient quantity for the job or designated parts of the job.

## III. Equipment

#### A. General:

Maintain all equipment, tools, and machines used in the performance of this work in satisfactory working condition at all times to ensure a high-quality product.

## B. Mixing Equipment:

Use a machine specifically designed and manufactured to place micro surfacing.

<sup>(2)</sup> The Cohesion test and Mixing Time test should be checked and reported for the highest temperatures expected during construction.

Truck mounted and self-loading continuous machines are acceptable. The material shall be mixed by an automatic-sequenced, self-propelled Microsurfacing mixing machine, which shall be a continuous-flow mixing unit able to accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler, control setting additive, and water to a revolving multi-blade, double-shafted mixer and to discharge the mixed product on a continuous-flow basis.

The machine shall have sufficient storage capacity for aggregate, emulsified asphalt, mineral filler, control additive and water to maintain an adequate supply to the proportioning controls.

The machine shall be equipped to allow the operator to have full control, from the rear of the machine, of the forward and reverse speeds during applications of the Microsurfacing material and be equipped with opposite-side driver stations to assist in alignment. The self-loading device, opposite-side driver stations, and forward and reverse speed controls shall be original equipment manufacturer design.

In the case that Self-loading continuous machines are used, these shall be capable of loading materials while continuing to lay micro surfacing, thereby minimizing construction joints. Self-loading continuous machines shall be equipped to allow the operator to have full control of the forward and reverse speeds during applications of the micro surfacing material and shall be equipped with opposite-side driver stations to assist in alignment. The self-loading device, opposite-side driver stations, and forward and reverse speed controls shall be original equipment-manufacturer design.

## C. Proportioning Device:

Provide and properly mark individual volume or weight controls for proportioning each material to be added to the mix (i.e., aggregate, mineral filler, emulsified asphalt, additives, and water).

#### D. Spreading Equipment:

Agitate and spread the mixture uniformly in the spreader box by means of twinshafted paddles or spiral augers fixed in the spreader box. Provide a front seal to ensure no loss of the mixture at the road contact point. The rear seal shall act as a final strike-off and shall be adjustable. The spreader box and rear strike-off shall be so designed and operated that a uniform consistency is achieved and a free flow of material is provided to the rear strike-off. The spreader box shall have suitable means to hydraulically adjust the box width automatically while traveling behind the mixing unit, and be able to side shift the box to compensate for variations in the pavement geometry.

## 1. Secondary Strike-off:

Provide a secondary strike-off to improve surface texture. The secondary strike-off shall have the same adjustments as the spreader box. No burlap drags will be permitted on the final applications.

## 2. Rut-filling Equipment:

When required by the Contract Documents, micro surfacing material may be used to fill ruts, utility cuts, depressions in the existing surface, etc. When rutting or deformation is less than 1/2 inch, a full width scratch course may be applied with the spreader box using a metal or stiff rubber strike-off. Ruts of 1/2 inch or greater in depth shall be filled independently with a rut-filling box, either five or six feet in width. Ruts that are in excess of 1 1/2 inch in depth may require multiple applications with the rut-filling box to restore the cross-section.

When a rut box is used, emulsified asphalt content may be reduced by 0.5% of the mix design target. Any reduction of emulsified asphalt content should be within the tolerance of the job mix formulation listed in the mix design. Material placed with the rut-filling box shall have a 1/4 inch crown to allow for traffic consolidation. Before placing subsequent lifts, allow all rut-filling material to cure under traffic for at least 24 hours.

#### E. Calibration

Calibrate each mixing unit to be used in the performance of the work in the presence of the Engineer prior to the start of construction. Previous calibration documentation covering the exact materials to be used may be acceptable, provided that no more than 60 days have lapsed. Document the individual calibration of each material at various settings, which can be related to the machine metering devices. Do not utilize any mixing unit on the project until the calibration has been completed and approved by the Engineer. Any component replacement affecting material proportioning requires that the machine be recalibrated. No machine will be allowed to work on the project until the calibration has been completed and accepted.

## F. Auxiliary Equipment:

Provide suitable surface preparation equipment, traffic control equipment, hand tools, and any other support and safety equipment necessary to perform the work.

## IV. Construction

## A. Weather Limitations

Do not apply micro surfacing if either the pavement or air temperature is below 50°F. Do not apply micro surfacing when there is the possibility that the finished product will freeze within 24 hours. Do not apply micro surfacing in the rain or when there is standing water on the pavement. The mixture shall not be applied when weather conditions prevent opening to traffic within a reasonable amount of time, as determined by the Engineer.

#### B. Resident Notification

In Residential areas, the Contractor shall distribute by hand, a typed notice to all residences and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The Contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

#### C. Traffic Control

The Contractor shall furnish all necessary traffic control, barricades, signs and flagmen, to ensure the safety of the traveling public and to all working personnel. If requested by the County, the Contractor shall submit an M.O.T plan indicating all facets of traffic control for the project area. The MOT plan should be approved in writing by the County prior to commencing any work. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

#### D. Surface Preparation

The micro surface material shall be placed on a firm unyielding prepared roadway. Any patching or crack sealing that the Contractor is also authorized to perform for the project should be done a minimum of one (1) month prior to the microsurfacing application.

The Contractor shall be responsible for clipping back shoulders and removing overburden or any other vegetation or debris to ensure that the road is free of organic and deleterious material. The Contractor shall spray all cut back edges with a pre-emergent herbicide before and after treatment. The Contractor will be responsible for blowing or sweeping the road immediately ahead of the operation to make sure the road is free of loose aggregate and other debris. If water is used for cleaning, allow any unsealed cracks to dry thoroughly before applying micro surfacing. If, in the opinion of the Engineer, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All manhole and valve covers, inlets and other service entrances, etc., shall be protected from bituminous material by placing reinforced waterproof, all-purpose paper or other suitable material, approved by the Engineer. The Engineer will approve the surface preparation prior to micro surfacing. No loose aggregate,

either spilled from the lay-down machine or existing on the road, will be permitted.

Thermoplastic striping and pavement markings, raised pavement markers, and raised pavement marker adhesive shall be removed. Provide temporary striping as necessary to comply with Contract Documents.

Microsurfacing may be used as rut fill if so contracted for the specific project to level bumps, waves and corrugations.

#### E. Cracks:

Pre-treat any cracks in the surface of the pavement with a crack filler meeting the requirements of CC-003 Crack Filling/Sealing Specification prior to the application of the micro surfacing. Fill any cracks with a width greater than 1/4 inch. Do not overfill the cracks. Crack filling material should cure for a minimum of 30 days prior to application of the micro surfacing.

## F. Rumble Strips:

Where shoulders are not to be micro surfaced, prevent material from being applied to or entering any rumble strip depressions. If necessary, remove any material that enters the depressions. When rumble strips are to be micro surfaced, place a scratch course to fill the depressions prior to placing the final surface course.

#### G. Tack Coat:

Place a tack coat on all collector roads prior to constructing a micro surfacing course. A tack coat is not required on residential roads or between the leveling (scratch) course and the surface course provided the surface course is placed within 30 days of the leveling (scratch) course. If required, the tack coat should be type SS, type CSS, or the micro surfacing emulsified asphalt. It may consist of one part emulsified asphalt to three parts water and should be applied with a standard distributor. The distributor shall be capable of applying the tack evenly at a rate of 0.05-0.15 gal/yd².

### H. Application

Pre-wet the surface by fogging ahead of the spreader box with water. Adjust the rate of application of the fog spray to suit temperatures, surface texture, humidity, and dryness of the pavement.

The micro surfacing shall be of the desired consistency upon leaving the mixer. Carry a sufficient amount of material in all parts of the spreader box at all times so that complete coverage is obtained. Avoid overloading of the spreader box. Do not allow lumping, balling, or unmixed aggregate in the micro surfacing mixture.

Do not leave streaks, such as those caused by oversized aggregate, in the finished surface. If excess streaking develops, stop production until the situation has been corrected. Excessive streaking is defined as more than four drag marks greater than

1/2 inch wide and 4 inches long, or 1 inch wide and 3 inches long, in any 30 yd<sup>2</sup> area. Do not permit transverse ripples or longitudinal streaks of 1/4 inch in depth or greater, when measured by placing a 10-foot straight edge over the surface.

## I. Rate of Application

The average application rate shall be in accordance with **Table 6**, unless otherwise specified in the Contract Documents. Full width application rates should be maintained within  $\pm$  2 lbs/yd² of the specified rate. Application rates are based upon the weight of dry aggregate in the mixture. The maximum thickness of any single layer of micro surfacing at the edge of the pavement shall be 1/4 inch.

| Table 6: Application Rates   |   |   |   |
|--|---|---|---|
| AGGREGATE<br>TYPE  | LOCATION  | APPLICATION RATE <sup>(1)</sup>                             |   |
| Type II  | Collectors, Local<br>Roads, and<br>Airport Runways<br>Scratch or<br>Leveling Course | Single Application: 20-24 lbs/yd <sup>2</sup> As Required - | Double Application (two lifts):  Bottom: 14-18 lbs/yd²  Top: 16-20 lbs/yd²  Total: 30-34 lbs/yd²  12 lb/yd² (minimum) |
| Type III   | Wheel Rut Depth   | App   | olication Rate  |
|  | 0.5-0.75 inches   | 20-30 lbs/yd2   |   |
|  | 0.75-1.00 inches  | 25-35 lbs/yd2   |   |
|  | 1.00-1.25 inches  | 28-38 lbs/yd2   |   |
|  | 1.25-1.50 inches  | 32-40 lbs/yd2   |   |
| (1) Application rates are based upon the weight of dry aggregate in the mixture. |   |   |   |

#### J. Joints:

Prevent excessive buildup, uncovered areas, or unsightly appearance on longitudinal and transverse joints. Provide suitable-width spreading equipment to produce a minimum number of longitudinal joints throughout the project. Place longitudinal joints on lane lines, where possible. Use half passes and odd-width passes only when absolutely necessary. Do not apply a half pass as the last pass of any area. Do not overlap longitudinal lane line joints by more than three inches. Do not construct joints having more than a 1/4 inch difference in elevation when measured by placing a 10-foot straight edge over the joint and

measuring the elevation drop-off. Construct longitudinal joints so that water is not held at the joint. Construct transverse joints at the beginning and end project limits so that the elevation difference between the micro surfacing and the adjacent pavement does not exceed 1/4 inch.

## K. Mix Stability:

Produce a micro surfacing mixture that possesses sufficient stability so that premature breaking of the material in the spreader box does not occur. The mixture shall be homogeneous during and following mixing and spreading. The mixture shall be free of excess water or emulsified asphalt and free of segregation of the emulsified asphalt and aggregate fines from the coarser aggregate. Do not spray water directly into the spreader box while applying micro surfacing material under any circumstances.

#### L. Handwork:

Utilize hand squeegees to provide complete and uniform coverage of micro surfaced areas that cannot be reached with the mixing machine. Lightly dampen the area to be hand worked prior to mix placement, if necessary. Care shall be exercised to leave no unsightly appearance from handwork. When performing handwork, provide the same type of finish as that applied by the spreader box.

## M. Lines:

Construct straight lines along curbs and shoulders. Do not permit runoff on these areas. Keep lines at intersections straight to provide a good appearance. If necessary, utilize a suitable material to mask off the end of streets to provide straight lines. Edge lines shall not vary by more than 2 inches horizontally.

## N. Cleanup:

Remove micro surfacing mixture from all areas such as manholes, gutters, drainage structures, rumble strips, and as otherwise specified by the Engineer. On a daily basis, remove any debris resulting from the performance of the work.

### O. Post Sweeping:

If required by the Engineer, broom the surface of any loose material within 48 hours after the completion of the micro surfacing. If directed by the Engineer, perform this operation again approximately seven to ten days after completion of the micro surfacing as needed. Additionally, clean the surface, as necessary, prior to application of the final pavement markings.

## V. Quality Assurance

## A. Material Monitoring:

Provide a computerized material monitoring system with integrated material control devices that are readily accessible and positioned so the amount of each material used can be determined at any time. Ensure the computer system is functional at the beginning of work and during each calibration. Provide a back-up electronic materials counter that is capable of recording running count totals for each material being monitored. Equip the mixer with a radar ground

measuring device. The computer system shall have the capability to record, display and print the following information:

- a. Individual sensor counts for emulsion, aggregate, cement, water, and additive
- b. Aggregate, emulsion, and cement output in pounds per minute
- c. Ground travel distance
- d. Spread rate in pounds per square yard
- e. Percentages of emulsion, cement, water, and additive
- f. Cumulative totals of aggregate, emulsion, cement, water, and Additive
- g. Scale factor for all materials.

## B. Sampling and Testing:

The Engineer shall obtain one sample of micro-surfacing mixture each day of production. The Engineer shall test each sample in accordance with FM 5-563 and FM 1-T 030 to determine the residual asphalt content and the gradation of the sample. Evaporate all water from the sample prior to testing. Determine the deviation of the test results for each sample from the mix design target values. Compare the deviation from the mix design to the mixture control tolerances shown in **Table 7**.

| Table 7: Aggregate and Emulsified Asphalt - Acceptance Limits |   |  |
|---|---|--|
| Aggregate   | Tolerance from Mix Design Target Values |  |
| Percent Passing No. 4 Sieve                                   | ± 6 percent                             |  |
| Percent Passing No. 8 Sieve                                   | ± 7 percent                             |  |
| Percent Passing No. 50 Sieve                                  | ± 6 percent                             |  |
| Percent Passing No. 200 Sieve                                 | ± 3.0 percent                           |  |
| Emulsified Asphalt  |   |  |
| Residual Asphalt Content of Mixture                           | ± 0.6 percent                           |  |

## C. Application Rate:

Control the application rate for micro surfacing on a lot basis to within the "Total" range specified in **Table 6**. A lot will be considered as 0.10 lane miles. No additional compensation will be paid for micro surfacing application rates placed in excess of the "Total" specified range. The unit price for each deficient lot will be reduced by ten percent for each lb/yd² rate less than the "Total" specified range. For application rates outside the "Total" specified range, stop production of the mixture and make adjustments to correct the problem to the satisfaction of the Engineer prior to resuming production. Accept a pay reduction for deficient lot production or overlay the deficient area at full plan width and depth at no additional cost.

## VI. Warranty:

The Contractor shall provide the County upon final acceptance of the micro surfacing work, a warranty period of three (3) years which shall include all labor, materials, hauling, traffic control and striping to repair the defective areas. Defective areas shall include debonding/delamination, bleeding, excessive raveling and aggregate loss exposing the old roadway surface. The Contractor shall perform all warranty work at no cost to the County.

#### VII. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Microsurfacing, and not specifically listed in another item in the Bid Form, shall be included in this item.

## VIII. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Microsurfacing, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

Crack sealing, if required, shall be paid for under the appropriate pay item.

Payment will be made under:

| Pay Item                | Pay Unit    |
|-------------------------|-------------|
| Micro surfacing         | Square Yard |
| Rut fill/scratch course | Ton         |

#### CC-003 CRACK FILLING/SEALING SPECIFICATION

#### I. Description

The work consists of applying a hot-applied, single component polymer/rubber modified Type 3 sealant supplied in solid form, to seal or fill cracks or joints in asphalt concrete or Portland cement concrete pavements. Cracks or joints that will be sealed shall be a minimum of one quarter (1/4) inch and have a maximum width of one (1) inch.

#### II. Materials

A. Polymer/rubber Modified Asphalt Material: Materials shall be a premixed, single component mixture of asphalt cement, aromatic extender oils, polymers, and granulized rubber in a closely controlled manufacturing process. Materials shall conform to the following specifications when heated in accordance to ASTM D5078 to the manufacturer's maximum safe heating temperatures.

| Property  | Specification  |
|---|----------------|
| Cone Penetration, (ASTM D5329)                    | 20 – 40        |
| Resilience, (ASTM D5329)                          | 30 % min.      |
| Softening Point (ASTM D36)                        | 210°F min.     |
| Ductility, 77.0°F (ASTM D113)                     | 30 cm min.     |
| Flexibility, 1/8" specimen, 90° bend, 10 sec., 1" | Pass at 30°F   |
| mandrel (ASTM D3111 Modified)                     |                |
| Flow 140°F (60°C) (ASTM D5329)                    | 3mm max.       |
| Viscocity, 400°F (ASTM D2669)                     | 100 Poise max. |
| Asphalt Compatibility (ASTM D5329)                | Pass           |
| Bitumen Content (ASTM D4)                         | 60% min.       |
| Tensile Adhesion 1" thickness (ASTM D5329)        | 400% min.      |
| Maximum Heating Temperature                       | 400°F (204°C)  |
| Minimum Heating Temperature                       | 380°F (193°C)  |

**B. Blotting Material:** If required, the blotting material shall be an aggregate such as cement dust, specialized release or detacking agent, or other cover aggregate approved by the Project Manager.

## III. Equipment

A. Crack Sealant Application Equipment: Equipment used to install the sealant into the cracks shall be as specified by the manufacturer and shall have the ability to fill cracks with two wands at the same time and maintain the proper temperature of the sealant throughout the sealing process. This heating unit shall be a jacketed double boiler melter and shall be equipped with an agitation system. The applicator hose's shall have a recirculation system or be equipped with a temperature controlled heating system. Pouring pots or gravity-fed sealant applicators shall not be used for sealing cracks and joints.

- **B.** Compressor: The compressor shall be 75 C.F.M. capacity, or more, to ensure an adequate supply of air to effectively clean the joints. Any pneumatic tool lubricator should be bypassed and a filter installed on the discharge valve to keep water and oil out of the lines.
- **C. Hot Compressed Air Equipment:** A hot compressed air lance shall be used to clean, dry and pre-heat cracks prior to applying sealant. The air lance shall consist of a compressor propane system providing a high temperature, high velocity blast of air.
- **D.** Crack Cleaning Equipment: Cleaning of excess debris shall be done by means of power sweepers, hand brooms, or air brooms.

#### IV. Construction

### A. Submittals

At the beginning of this Contract, the Contractor shall submit to the Project Manager the specifications sheets along with the manufacturer's suggested installation procedures and equipment of the type of crack seal that is to be used for approval. Once approved, these documents shall be complementary documents to this specification.

If the Contractor intends to change to another product meeting this specification over the life of the Contract, they shall have to resubmit the above mentioned information for the new product for approval prior to its use.

During the crack seal operations, the Contractor shall maintain a log sheet, the original of which shall be supplied to the Inspector at the end of the project and become supporting documentation for invoicing purposes. A minimum of the following information shall be recorded:

- 1. Date, time and amount added to the melter. The lot number of each box added shall also be recorded.
- 2. Road name, date, time application process starts, amounts installed, time application process ends.
- 3. Weather conditions

The Contractor shall supply the Inspector with tickets and the corresponding actual lot numbers removed from the boxes, showing the amount of gallons used for each road.

A log of all herbicides, if any, shall be kept and a copy shall be supplied to the Inspector within one (1) week of spraying. This log shall include the type of material, mixture rate, application rate, location, date, and time of application.

**B.** Traffic Control: The Contractor shall furnish all necessary traffic control, barricades, signs and flagmen, to ensure the safety of the traveling public and to all working personnel. If requested by the County, the Contractor shall submit an M.O.T plan indicating all facets of traffic control for the project area. The MOT

plan should be approved in writing by the County prior to commencing any work. All traffic control shall be in accordance with the FDOT Roadway Design Standards, most current edition and FDOT Standard Specifications for Road and Bridge Construction, Section102, most current edition. M.O.T. and associated devices shall be checked daily and periodically throughout the project for compliance; and where adjustments or corrections are needed, prompt revisions shall be made.

- **C. Weather:** No sealant shall be installed unless the ambient and pavement temperature are 40°F and rising. There shall be no fog and no chance of rain. Any cracks that are not sealed the same day they are prepared shall be blown out with compressed air before the sealing operation continues. If rain or fog delays the sealing operation, the cracks shall be allowed to dry and shall have additional cleaning as required to remove any debris that may have been washed into the crack by rain. The cracks shall be completely dry before the seal treatment can resume. The Contractor may use the Hot Compressed Air Lance method of cleaning and drying the cracks with the approval of the Inspector. Care shall be taken to not overheat the existing asphaltic concrete surface if this method is used.
- **D.** Surface Preparation: Prior to starting any application process the Contractor shall be responsible for removing any deleterious materials, including dirt, old sealant, incompressibles and organic materials that is on the asphalt, and that the cracks and joints are sufficiently dry.
- E. Crack Cleaning: When vegetation exists in the cracks and joints, it shall be removed by either using propane torch or treated with an herbicide that sterilizes the soil. The method of removal is subject to the approval of the Project Manager. If an herbicide is used it shall be applied according to the manufacturer's specifications and shall be applied ahead of the operations so that the weed is totally browned. The applicator of the herbicide shall have the proper State of Florida Pesticide Applicators License. A copy of this license shall be supplied to the Project Manager upon request. A log of all herbicides shall be kept as specified in the Submittals section of this specification, and a copy shall be supplied to the Project Manager. All cracks are to be clean and are sufficiently dry before any crack sealing material is applied. All cracks shall be blown clean by high pressure air. All old material and other debris removed from the cracks shall be removed from the pavement surface immediately. Any cracks that are not sealed the same day they are prepared shall be blown out with compressed air before the sealing operation continues.
- **F. Sealant Heating:** The temperature of the sealant shall be heated and maintained using the manufacturer's recommended procedures. The sealant compound shall be melted slowly with constant agitation until it is in a lump-free, free-flowing state, within the temperature range recommended by the manufacturer for application. Care shall be taken to insure that the sealant is not heated above the manufacturer's recommended maximum temperature or for

longer than the recommended application life. The Project Manager shall have the right to reject the product if it is determined that this has occurred.

- **G. Sealant Application:** The sealant shall be applied in the crack or joint reservoir uniformly from the bottom to the top and shall be filled without formation of entrapped air or voids. The sealant shall be installed so that it is recessed approximately one eight (1/8) inch below the pavement surface to prevent tracking. Sealant shall be applied to slightly overfill the reservoir and then struck off using a "V" shaped squeegee. The remaining squeegee material shall be flush with the pavement surface. In no case shall the width of excess material on the pavement surface exceed (4) inches. At no time shall the sealant be in excess of one sixtieth (1/16) inch above the adjacent surface and shall extend no more than one and a half (1.5) inches from the crack edges. Each wand shall have removable heads so that variable width discs from two (2) to four (4) inches may be installed at the Inspector's request.
- **H. Blotting Application:** When traffic requires immediate use of the roadway, a blotting material shall be broadcast or sprayed over the fresh sealant to prevent it from being picked up and tracked. Any excessive or spilled sealer shall be removed by the Contractor using approved methods.

## V. Liability and Deficiencies:

During the period of construction and the warranty period the Contractor shall be responsible for processing any and all claims for property damage and or bodily injury caused by the failure of the Crack Sealing including but not limited to, motor vehicles or pedestrians. The Contractor shall be responsible for the payment of all property damage and bodily injury claims and agrees to save and hold harmless the COUNTY from all such claims. Claims not handled by the Contractor or their representative in the proper manner, will be settled by the COUNTY. The COUNTY shall recover all costs from the Contractor.

- 1. The Contractor shall be responsible for any claims of tracking as part of this specification. If there is a claim the Contractor shall be responsible for:
  - a) Applying more blotting material as necessary
  - b) Address the tracked material by either removing or repairing the object that was affected.
- 2. Where the sealant subsides in the crack by more than 1/8 inches below the adjacent pavement surface, except where the pavement will be immediately overlaid, the surface of the sealant shall be cleaned and topped up.

The sealant shall be removed, the routed crack rerouted at the Inspector's discretion, and resealed if any of the following occur:

- a) The sealant contains embedded foreign material other than dusting material.
- b) The sealant contains entrapped air bubbles.
- c) The sealant has de-bonded or pulled away from the crack
- d) The sealant has been excessively heated.

#### VI. Method of Measurement

If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form including all items of work described herein. Any item necessary for Crack Filling/Sealing, and not specifically listed in another item in the Bid Form, shall be included in this item.

The measurement shall be made in the amount of gallons of crack seal applied to the road, and shall be supported by the required submittals outlined in this specification. The amount of crack sealer shall be reported and invoiced for each road.

## VII. Basis of Payment

The accepted quantities, determined as provided above for each of the pay items listed below which is included in the contract, will be paid for at the contract unit price per unit of measurement. The Unit price includes all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Crack Filling/Sealing, including all items of work described herein. No additional payment will be provided for any item necessary for the completion of this contract as detailed in the specifications, except that at the direction of the County.

Payment will be made under:

| Pay Item              | Pay Unit   |
|-----------------------|------------|
| Crack Filling/Sealing | Per gallon |

**END OF SECTION** 



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS

## DEPARTMENT OF MANAGEMENT & BUDGET PURCHASING SECTION

3600 W. Sovereign Path • Suite 266 • Lecanto, FL 34461 Telephone (352) 527-5457 • Facsimile (352) 527-5424

#### **ADDENDUM NO. 2**

May 10, 2024

ITB 24-088

## **Countywide Resurfacing and Preservation Projects**

BIDS DUE: 2:00 PM (local time) on May 29, 2024

The changes, additions, substitutions, and/or deletions and any other information contained in this Addendum are hereby made a part of the Contract Documents for this Invitation to Bid, fully and completely as if the same were fully set forth herein.

#### Question 1

- Many of the bids are to be priced based upon various quantity brackets, for example 0-100 tons or Over 25000 sy, etc. When the work orders are issued will the "aggregate of quantities for the work order be the bracket of payment OR will each individual work order establish within itself the quantity for payment" Example 5 locations issued each are 50 tons, will the pricing be based on 5 locations at the 0-100 tons or will it be priced based on 5 locations at the 101-1000 tons pricing?
- Answer 1 The individual unit pricing will be based on the total quantities for each line item within the individual work order.
- Question 2 MOT specification state that any temporary striping will be considered as part of MOT. How is the contractor to pre determine what temporary striping may be necessary?
  - Answer 2 See "Scope of Work #23 Striping and Pavement Markings". If temporary striping is needed, apply temporary striping per FDOT Standard Specifications for Road and Bridge Construction, Section 711.

End of Addendum No. 2



# CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS

## DEPARTMENT OF MANAGEMENT & BUDGET PURCHASING SECTION

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#### **ADDENDUM NO. 3**

May 20, 2024

#### ITB 24-088

## **Countywide Resurfacing and Preservation Projects**

BIDS DUE: 2:00 PM (local time) on May 29, 2024

The changes, additions, substitutions, and/or deletions and any other information contained in this Addendum are hereby made a part of the Contract Documents for this Invitation to Bid, fully and completely as if the same were fully set forth herein.

- Question 1 Regarding item CC-005, Asphalt Rejuvenator, if the County opts to have cores extracted and analyzed in sets of two (one treated/one untreated), how many sets of cores would the County like pulled per 500,000 sq yds?
  - Answer 1 The County will not request coring for Asphalt Rejuvenation.
- Question 2 FDOT Section 577 covers a broad range of work under shoulder prep. Are we to be expected to add limerock or borrow? Will all shoulder prep be required to mix to a depth of 4"?
  - Answer 2 If additional material is needed, add and spread borrow material to conform to the desired shoulder configuration.
- Question 3 Will all shoulder prep be required to mix to a depth of 4"?
- Answer 3 No.

End of Addendum No. 3