CONTRACT DOCUMENTS

FOR

ANNUAL ROADWAY LANDSCAPING CONTRACT

PALM BEACH COUNTY, FLORIDA

PROJECT NO. 2018050
October 12, 2018

PBC Engineering & Public Works
Roadway Production Division
2300 N. Jog Road Rm. 3W-33
West Palm Beach, FL 33411

Project: Annual Roadway Landscaping Contract
Project No.: 2018050
County: Palm Beach County

REF: COST BREAKOUT LETTER

Please be advised that Superior Landscaping & Lawn Service Inc. intends to meet the contract performance requirements per the below:

Superior Landscaping & Lawn Service, Inc. Prime Contractor 86%
Vincent & Sons Landscaping Inc. Subcontractor 14%

Sincerely,

[Signature]

Orlando Otero
President
PROJECT NAME: Annual Roadway Landscaping Contract

PROJECT NUMBER: 2018050

ADDENDUM NO. 1

DATE OF ISSUANCE: June 6, 2018

THE BID DUE DATE IS HEREBY POSTPONED TO JULY 10, 2018

SPECIFICATIONS:
Delete: B
Insert: B-A
Add: RFI-1

IT IS REQUIRED THAT THIS ADDENDUM NO. 1 BE ACKNOWLEDGED IN THE SPACE PROVIDED ON THE PROPOSAL FORM.

APPROVED BY: [Signature]
BOARD OF COUNTY COMMISSIONERS
PALM BEACH COUNTY, FLORIDA
ENGINEERING & PUBLIC WORKS
ROADWAY PRODUCTION DIVISION

PROJECT NAME: Annual Roadway Landscaping Contract
PROJECT NUMBER: 2018050

ADDENDUM NO. 2
DATE OF ISSUANCE: July 5, 2018

SPECIFICATIONS: Add: RFI-2

IT IS REQUIRED THAT THIS ADDENDUM NO. 2 BE ACKNOWLEDGED IN THE SPACE PROVIDED ON THE PROPOSAL FORM.

APPROVED BY: [Signature]

[Signature]
NOTICE TO BIDDERS

A PRE-BID MEETING WILL BE HELD ON

THURSDAY MAY 31, 2018 AT 10:00 A.M.

AT THE ENGINEERING & PUBLIC WORKS DEPARTMENT

IN THE THIRD FLOOR MAIN CONFERENCE ROOM (3W-12)

LOCATED AT 2300 NORTH JOG ROAD

WEST PALM BEACH, FLORIDA, 33411-2745

IF THERE ARE ANY QUESTIONS

CONCERNING THIS MEETING,

PLEASE CONTACT THE OFFICE OF

ROADWAY PRODUCTION

AT 561-684-4150
NOTICE TO CONTRACTORS

Sealed Bids will be received by the Board of County Commissioners, Palm Beach County, Florida, in the Office of Palm Beach County Engineering & Public Works Department, Roadway Production Division, located at 2300 North Jog Road, Third Floor Room 3W-33, West Palm Beach, Florida, 33411-2745, up to 2:00 P.M., local time, and opened in the Third Floor Conference Room (3W-12) on May 31, 2018, for furnishing all materials, labor, equipment and supplies necessary for the

ANNUAL ROADWAY LANDSCAPING CONTRACT
PALM BEACH COUNTY PROJECT NO. 2018050

To better manage document disbursement for the bid process, Palm Beach County Engineering (Roadway Production) will make bid documents available utilizing “Electronic Bid Documents”. Bid documents are posted on the following Palm Beach County web site:

https://pbcvssp.co.palm-beach.fl.us/webapp/vssp/AltSelfService

To review the bid documents for this project, go to the above URL and click on the project hyperlink. Contractors may then download and print the bid documents (plans, specifications, Excel proposal forms, check list “with required forms” and any other related documents).

It is recommended that all bidders download and submit a disclosure form for each project of interest. This information is used to notify bidders via email of project information updates (Addendums, bid date changes, etc.). The disclosure form download is also available on the website listed above.

Hard copy documents will be available at the Department for a non-refundable service fee of $25. The Contractor shall contact Palm Beach County Roadway Production Division at (561) 684-4150 in advance to arrange for hard copies.

On October 1, 2002, the Board of County Commissioners adopted Ordinance No. 2002-064 (Small Business Enterprise Program) which provides for the establishment of Small Business Enterprise (SBE) goals. The minimum SBE participation for all County solicitations, inclusive of all alternates and change orders is set at an annual goal of 15%. The goal is a minimum, and no rounding will be accepted.

All bids shall be submitted in accordance with General Provision Section 2 and accompanied by the documentation referenced therein, at a minimum.

The Pre-Bid Conference will be held on Thursday, May 31, 2018 at 10:00 A.M. in the Third Floor Main Conference Room (3W-12) in the Palm Beach County Building at 2300 North Jog Road, West Palm Beach, Florida.

The Contractor shall perform, with his own organization, not less than 40% of the total contract amount.

Bids requested shall be set forth in the Proposal and the Proposal Form attached to and forming a part of the Specifications.

The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, gender identity or expression, or genetic information pursuant to Palm Beach County Resolution R2017-1770 as may be amended.

The Board of County Commissioners reserves the right to reject any or all bids. By order of the Board of County Commissioners, Palm Beach County, Florida.

ATTEST:
SHARON R. BOCK, CLERK & COMPTROLLER
DAVID RICKS, P.E., COUNTY ENGINEER

BOARD OF COUNTY COMMISSIONERS
PALM BEACH COUNTY, FLORIDA
BY: Melissa McKinlay, Mayor

PUBLISH: PALM BEACH POST

SUNDAY: MAY 20, 2018
SUNDAY: MAY 27, 2018
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SUBMITTALS REQUESTED WITH BID

SBE Schedules 1 & 2 (pages SBE-5, SBE-6)

All Proposal Pages (P Pages)

Signed Contractor's Certification (Last P Page)

Signed/Sealed Local Preference (Page LP-2)
with Copy of Bidder’s Palm Beach County Tax Receipt (If Eligible)

Signed/Sealed Living Wage (Pages LW-2, LW-3, LW-4)

Scrutinized Companies (Page SC-1)

Acknowledged/Sealed Bid Bond and Bid Bond forms pages BB-1 and BB-2

Certificate of Resolution (Page CC-1)

Copy of Firm’s Active License to Conduct Business in the State of Florida

“Documentation of Experience and Resources”, If Required

If Prime Contractors have not performed similar work with the Palm Beach County Engineering and Public Works Department within the past three years as a prime contractor, failure to submit the required “Documentation of Experience and Resources” with the bid will cause the bid to be considered Non-Responsive.

(See pages GP-2 and GP-3, Section 2-1 for full requirement text.)
INSTRUCTIONS TO BIDDERS

Prospective bidders are hereby advised that Division I of the current FDOT Standard Specifications for Road and Bridge Construction 2013 (and as amended herein) (see page SS-1) shall serve as instructions to bidders along with the following:

1. **LAWS AFFECTING PUBLIC WORK:** The attention of bidders is called to the necessity of being familiar with the various Federal, State and Local Laws affecting the prosecution of the work. As outlined in Section 2-11 of the Specifications, Palm Beach County Administrative Code Section 305.02 & 402.00, and the Purchasing Ordinance (Palm Beach County Code, Chapter 2, Article III, Division 2, Part A), the County is responsible to assure the qualifications of any or all prospective contractors.

2. **NONDISCRIMINATION:** The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, gender identity or expression, or genetic information pursuant to Palm Beach County Resolution R2017-1770 as may be amended.

3. **PALM BEACH COUNTY OFFICE OF THE INSPECTOR GENERAL:** Palm Beach County has established the Office of the Inspector General in Palm Beach County Code, Section 2-421 – 2-440, as may be amended. The Inspector General’s authority includes but is not limited to the power to review past, present and proposed County contracts, transactions, accounts and records, to require the production of records, and to audit, investigate, monitor, and inspect the activities of the CONTRACTOR, its officers, agents, employees, and lobbyists in order to ensure compliance with contract requirements and detect corruption and fraud.

Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be in violation of Palm Beach County Code, Section 2-421 – 2-440, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

4. **POWER OF ATTORNEY:** Attorneys-in-fact who sign bid bonds or contract bonds must file with such bond a certified copy of their power of attorney to sign said bonds.

5. **ADDENDA – CHANGES WHILE BIDDING:** No interpretation of the meaning of the Plans, Specifications or other Contract Documents will be made to any bidder orally. Every Request for Information (RFI) is preferred to be submitted to the Director, Palm Beach County Roadway Production Division via electronic mail (e-mail) utilizing the website “RFI” link for the said project. RFI’s may also be mailed or faxed to the Director at the following: 2300 N. Jog Road, Suite #3W-33, West Palm Beach, Florida, 33411-2745. Telephone: 561 / 684-4150; Fax: 561-684-4166. For the RFI to be given consideration, it must be submitted at least five (5) working days prior to the date and time fixed for the opening of bids.

Any and all such interpretations and any supplemental instructions will be in the form of written Addenda to the Contract Documents which, if issued, will be posted on the following URL: [http://discover.pbcgov.org/engineering/roadwayproduction/Pages/Bid-Documents.aspx](http://discover.pbcgov.org/engineering/roadwayproduction/Pages/Bid-Documents.aspx) up to seventy-two (72) hours prior to the date and time fixed for the opening of bids. The
INSTRUCTIONS TO BIDDERS

exceptions to this notification period shall be that of an Addenda whose content is limited to
the listing of additional approved manufacturers and substitutions, or one which contains minor
clarifications or changes, which shall be issued up to 24 hours prior to the date fixed for the
bid opening. The request for Bids may be withdrawn, or the date for receipt of Bids may be
postponed, at any time prior to the Bid Opening.

The Contractor shall acknowledge and certify receipt of all addenda by completing the
Proposal Form page. Copies of Addenda will also be made available for inspection at the
Department where Bidding Documents are on file for that purpose. Failure of any bidder to
receive any such Addenda of interpretation shall not relieve any bidder from any obligation
under his bid as submitted. All addenda so issued shall, ultimately, become part of the Contract
Documents.

6. POSTING OF BID TABULATIONS: Recommended award will be posted for review by
interested parties at the Engineering & Public Works Department located at 2300 N. Jog Rd.,
Suite #3W-33, West Palm Beach, Florida, 33411-2745, Florida, and will remain posted for a
period of at least seventy-two (72) hours prior to approval by the Board of County
Commissioners. Failure to file a protest to the Director of Purchasing Department within the
time prescribed in the County Purchasing Ordinance shall constitute a waiver of proceedings
under the referenced County Ordinance.

7. PUBLIC ENTITY CRIMES: In accordance with F.S. 287.133 (2) (a), persons and affiliates who
have been placed on the convicted vendor list may not submit bids, contract with, or perform
work (as a contractor, supplier, subcontractor or consultant) with any public entity (i.e. Palm
Beach County) in excess of Twenty five Thousand dollars (or such other amount as may be
hereafter established by the Florida Division of Purchasing in accordance with F.S. 287.017)
for a period of 36 months from the date of being placed on the convicted vendor list.

As provided in F.S. 287.132-133, by entering into this contract or performing any work in
furtherance hereof, the contractor certifies that it, its affiliates, suppliers, subcontractors and
consultants who will perform hereunder, have not been placed on the convicted vendor list
maintained by the State of Florida Department of Management Services within the 36 months
immediately preceding the date hereof. This notice is required by F.S. 287-133(3)(a).

“The CONTRACTOR shall comply with the provisions of Chapter 2, Article IX of the Palm
Beach County Code, the Criminal History Records Check Section, if CONTRACTORS
employees or subcontractors are required under this contract to enter a critical facility as
identified in Resolution R-2003-1274. The CONTRACTOR acknowledges and agrees that all
employees and subcontractors who are to enter a critical facility will be subject to a fingerprint
based criminal history records check. Although

COUNTY agrees to pay for all applicable FDLE/FBI fees required for criminal history record
checks, the CONTRACTOR shall be solely responsible for the financial, schedule, and staffing
implications associated in complying with this section of the Palm Beach County Code.”

ITB-2
8. **SBE PARTICIPATION AND SOLICITATION DOCUMENTATION**

   **Note:** See also SBE pages. If there is any discrepancy between the following language and that on the SBE pages, the SBE pages shall prevail. Bidders are required to submit with their bid the appropriate SBE schedules in order to be deemed responsive to the SBE requirements. SBE documentation to be submitted is as follows:

   **Schedule 1 — List of Proposed SBE Subcontractors**
   The list shall contain the names of all SBE subcontractors intended to be used in performance of the contract if awarded. The type of work to be performed by each subcontractor and the dollar value shall also be specified.

   **Schedule(s) 2 — Letter(s) of Intent to Perform as a SBE Subcontractor**
   One schedule 2 for each SBE Subcontractor listed on Schedule 1 shall be completed and executed by the proposed SBE Subcontractor. Additional copies may be made as needed. Failure to submit a complete and accurate Schedule 2 may result in the bid being deemed non-responsive to the SBE requirements.

   The Contractor shall be responsible for monitoring the SBE subcontractors to ensure that they complete the items of work identified on their Schedule 2.

   **NOTE:** A prime bidder certified by Palm Beach County as a SBE should complete Schedules 1 and 2 if they propose to use any SBE subcontractors. SBE bidders are not exempt from meeting categorical goals. Failure to submit the necessary SBE documentation to establish that the goals have been met may result in the SBE bidder being deemed non-responsive to the SBE requirements.

9. **INCENTIVES**

   **Apprentice Incentive**

   Palm Beach County offers an Apprentice Incentive payment to a contractor who actually expends a minimum of $25,000 (including subcontractors) in payroll costs on apprentice wages. For purposes of this section, “apprentice” means any person who is participating in a Florida Department of Education registered apprenticeship program. The Living Wage provisions of this contract shall not be diminished by paying an apprentice less than the Living Wage.

   Upon completion of the contract, Contractor may apply for the payment which will be added to the contract by change order. If the County determines that the Contractor complied with the requirements of this section, it will reimburse the contractor 20% of its apprentice wages.
INSTRUCTIONS TO BIDDERS

(including payroll taxes, costs, and benefits) up to a maximum reimbursement of $100,000. The request must be submitted no later than 45 days after Substantial Completion of the project.

For projects with construction costs of $20,000,000 or greater, the threshold amount of expenditures for apprentices which must be paid to qualify for the incentive shall increase to $50,000 and the maximum reimbursement payment to $200,000.

To be eligible for the Apprenticeship Incentive payment, the apprentice employer (through the Contractor) must provide the following documentation: apprentice name(s), contact information, the apprentice Registered Apprenticeship Partners Information Data System (RAPIDS) Registration number, certification from the apprentice program that the employee was in good standing during the time on the project, registered trade, and certified payroll for the apprentice hours worked on the project.

The Contractor is required to forward all documentation, assembled and submitted by the apprentice employer in accordance with the above paragraph, to the County for review and disposition. Any incentive that the County approves shall be provided to the apprentice employer in full.

Glades Resident Incentive

Palm Beach County offers an incentive Payment to any contractor (and subcontractors) who hires a new employee that is a resident of the Glades area for work on County contracts ("Glades Employee"). For purposes of this section, “resident of the Glades area” means any person whose legal residence is located in the Glades area as defined in the Palm Beach County Local Preference Ordinance.

To be eligible for the Incentive Payment, the employee must be a full-time employee of the Contractor for a minimum of 3 weeks on this project and cannot have worked for the Contractor claiming the Glades Employee as a new hire for 90 days prior to this project. Within 5 days of the Contractor hiring and the Glades Employee reporting to work at the project site, Contractor must provide the following documentation ("Hiring Certification"): Glades Employee name, contact information including legal residence, copy of driver’s license or other proof of residence, hire date, start date at project site, and trade. Both the Glades Employee and employer must sign the Hiring Certification with signatures notarized.

The County has the right, but not the obligation, to conduct unannounced field interviews with the Glades Employee to ensure compliance with the requirements of this Section.

Upon completion of the contract, Contractor may apply for the Incentive Payment which will be added to the contract by change order. The documentation ("Incentive Certification") required includes resubmitting of the Hiring Certification along with the employment end date or last day on the job site (whichever is earlier), a certified payroll for the hours worked on the project, and employee wages and benefits paid. The Incentive Certification must be signed by both the Glades Employee and employer with both signatures notarized. No markup will be allowed either by the General Contractor or a subcontractor.
INSTRUCTIONS TO BIDDERS

If the County determines that the Contractor complied with the requirements of this section, it will reimburse the contractor 30% of the new employee(s) wages (including payroll taxes, costs, and benefits) up to a maximum reimbursement of $100,000. The request must be submitted no later than 45 days after Substantial Completion of the project.

A Contractor can only claim the Incentive Payment once for each Glades Employee within a rolling twelve (12) month period, but the incentive can be claimed across multiple County contracts.

It is a Contract requirement of the Contractor that any reimbursement requested by a subcontractor under this Section be processed by the Contractor to the County for review.

10. ANNUAL CONSTRUCTION CONTRACT ON A TASK WORK ORDER BASIS

See Special Provisions for Method of Ordering Work (SP-10) and Annual construction Contract intent and spending limits (pages SP-11, C-1).

THIS SPACE LEFT BLANK INTENTIONALLY
SPECIAL PROVISIONS

CHAPTER 119, F.S. PUBLIC RECORDS

Notwithstanding anything contained herein, as provided under Section 119.070 I, F.S., if the Contractor: (i) provides a service; and (ii) acts on behalf of the County as provided under Section 119.011(2) F.S., the Contractor shall comply with the requirements of Section 119.0701, Florida Statutes, as it may be amended from time to time. The Contractor is specifically required to:

1. Keep and maintain public records required by the County to perform services as provided under this Contract.

2. Upon request from the County’s Custodian of Public Records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. The Consultant further agrees that all fees, charges and expenses shall be determined in accordance with Palm Beach County PPM CW-F-002, Fees Associated with Public Records Requests, as it may be amended or replaced from time to time.

3. Ensure that public records that are exempt, or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the Contract, if the Consultant does not transfer the records to the public agency.

4. Upon completion of the Contract the Consultant shall transfer, at no cost to the County, all public records in possession of the Consultant unless notified by County’s representative/liaison, on behalf of the County’s Custodian of Public Records, to keep and maintain public records required by the County to perform the service. If the Consultant transfers all public records to the County upon completion of the Contract, the Consultant shall destroy any duplicate public records that are exempt, or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of the Contract, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically by the Consultant must be provided to County, upon request of the County’s Custodian of Public Records, in a format that is compatible with the information technology systems of County, at no cost to County.

Failure of the Consultant to comply with the requirements of this article shall be a material breach of this Contract. County shall have the right to exercise any and all remedies available to it, including but not limited to, the right to terminate for cause. Consultant acknowledges that it has familiarized itself with the requirements of Chapter 119, F.S., and other requirements of state law applicable to public records not specifically set forth herein.
SPECIAL PROVISIONS

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR’S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, PLEASE CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

Records Request, Palm Beach County Public Affairs Dept.
301 N. Olive Avenue
West Palm Beach, FL 33401
By email at: RECORDSREQUEST@PBCGOV.ORG
Or by Telephone at: 561-355-6680

SUBLETTING OR ASSIGNING CONTRACTS: All awards will be made with the understanding that the work awarded will be performed by the Contractor to whom the award is made, with the assistance of workmen, under his immediate superintendent, and the Contract shall not be sublet or assigned to another Contractor except with the consent of the County Engineer. In no event will the Contractor be released from responsibility.

THE USE OF PATENTED PROCESSES, ETC.: The basis on which a contract will be awarded will be the bid prices. Prices shall include all charges for the use of patent processes, materials or methods, and for all other similar incidental charges not expressly provided for in these Contract Documents.

NON-COLLUSION: Bidder certifies that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same materials, services, supplies, or equipment and is in all respects fair and without collusion or fraud. Conviction for the Commission of any fraud or act of collusion in connection with any sale, bid, quotation, proposal or other act incident to doing business with Palm Beach County may result in permanent debarment.

No premiums, rebates or gratuities permitted; either with, prior to or after any delivery of material or provision of services. Any such violation may result in award cancellation, return of materials, discontinuation of services, removal from the vendor bid list(s), and/or debarment or suspension from doing business with Palm Beach County.

CONFLICT OF INTEREST: The award is subject to the provisions of the applicable Federal laws, rules and regulations, the Florida Statutes and the County’s ordinances and resolutions. All bidders must disclose with their bid the name of any officer, director, or agent of their firm who is also an employee of Palm Beach County.

Further, all bidders must disclose the name of any County employee who owns, directly or indirectly, an interest of ten percent or more in the bidder’s firm or any of its branches.
SPECIAL PROVISIONS

REGULATED SUBSTANCE USE REQUIREMENTS

"Best Management Practices" for the Construction Industry

The Contractor shall be responsible for assuring that each contractor or subcontractor evaluates each site before construction is initiated to determine if any site conditions may pose particular problems for the handling of any Regulated Substances. For instance, handling Regulated Substances in the proximity of water bodies or wetlands may be improper.

If any regulated substances are stored on the construction site during the construction process, they shall be stored in a location and manner which will minimize any possible risk of release to the environment. Any Regulated Substances shall have constructed below it an impervious containment system constructed of materials of sufficient thickness, density and composition that will prevent the discharge to the land, groundwaters, or surface waters, or any pollutant which may emanate from said storage container or containers. Each containment system shall be able to contain 150% of the contents of all storage containers above the containment system.

Each contractor shall familiarize themselves with the manufacturer's safety data sheet supplied with each material containing a Regulated Substance and shall be familiar with procedures required to contain and clean up any releases of the Regulated Substance. Any tools or equipment necessary to accomplish same shall be available in case of a release.

Upon completion of construction, all unused and waste Regulated Substance and containment systems shall be removed from the construction site by the responsible contractor and shall be disposed of in a proper manner as prescribed by law.

UNIT PRICES: The Contractor is advised that the contract is a unit price contract. As such, the intent of the contract is to include all labor, materials, transportation, equipment, fuel, and all other items necessary to complete the item of work, in the unit price for the item. All items incidental to or necessary for the completion of the bid item shall be included in the unit price for the item.

The Contractor's attention is also directed to Section 9-3.1 for additional conditions to be considered in relation to unit prices.

CONTINGENT ITEMS: The Contractor is advised that contingent items shall not be used to meet the SBE goal participation for the contract. The SBE participation goals established for the contract, as specified on page SBE-1, shall include all pay items for the project less the contingency items. The use of contingent pay items shall only serve to increase the SBE participation of the contract, over and above the required goals achieved by use of regular pay items.

DAILY REPORTS: The Contractor shall keep daily reports of all personnel and equipment on the project for review by the County for the entire length of the project.
SPECIAL PROVISIONS

UTILITIES CONTACTS: Potential utility conflicts may vary with each work site. Prior to commencing work, the Contractor shall visit the work site and ascertain all site conditions, including utilities. It shall be the Contractor's responsibility to avoid conflicts with existing underground and overhead utilities and structures.

The Contractor shall notify all utilities servicing the work area at least 48-hours prior to any excavation so that underground utilities may be located. The Contractor has the responsibility to contact Sunshine State One-Call of Florida, Inc. at 1-800-432-4770 to schedule marking locations of the utilities which subscribe to their service. The Contractor shall also call (561) 641-3429 for Palm Beach County Water Utility locations and call (561) 233-3900 for Palm Beach County Traffic Control Utility locations.

The Contractor shall properly maintain and protect all utilities. The Contractor shall be responsible for the cost to repair all damages to utilities caused by his operations.

Finally, the Contractor shall fully cooperate at all times with the Owners of Utility Companies in order to maintain the operation of the existing utilities with the least amount of interference and interruption possible.

When utility installation/adjustments are included as part of the bid proposal, all utility companies (including Palm Beach County Water Utilities Dept.) reserve the right to accept or reject bid items on their part of work and perform their work by their forces or other contracted forces.

MAINTENANCE OF TRAFFIC: If the Contractor and/or his subcontractors do not perform the Maintenance of Traffic (MOT) and do not install and maintain those items covered under MOT according to the requirements of the standards, then Palm Beach County reserves the right to reduce each payment draw request up to $1,000.00 per day.

MAINTENANCE OF TRAFFIC (CONTINUED): The Contractor shall assure compliance with FDOT Index 600 of the current Roadway and Traffic Design Standards. All references to "determinations by engineer" will be the responsibility of the Contractor, and shall be brought to the attention of the Engineer prior to implementation. The cost of complying with the stated standards shall be incidental to, and shall be included in, the unit prices for the pay items. The contractor shall note that at no time will traffic (temporary or otherwise) be permitted over installed exfiltration trenches.

All projects that impact pedestrian traffic of any type shall include "Pedestrian M.O.T." in accordance with the General Provisions, the cost of which will be incidental to, and shall be included in, the unit prices for the pay items.

For any lane closures that extend into the peak hour(s) or any other lane closure time restriction presented in the contract documents, the Contractor may be charged up to $1,000.00 per lane per ½ hour.

SCHOOL ZONE: During the first and last weeks of the school year, no work may occur within a school zone.
SPECIAL PROVISIONS

LIMITS OF CONSTRUCTION: The Contractor shall confine the construction of the roadway within the limits of the right of way unless the right of entry to adjacent properties has been acquired by Palm Beach County at the time of construction.

RESTORATION AGREEMENTS: Contractor is hereby notified that any construction performed within Restoration Agreement (RA) areas shall be restored to a condition similar or equal to that existing before such construction occurred, at no expense to the Department. Prior to disturbing the Restoration Agreement area, the Contractor shall stake the RA limits, locate/document all improvements within the area, and submit this information to Palm Beach County, Construction Coordination Division, prior to starting construction. Upon completion of the construction, the Engineer, together with the Contractor, shall conduct an inspection of the area to confirm that all improvements have been appropriately restored. Payment for all work to complete the item shall be incidental to the cost of the Project.

IRRIGATION SYSTEM WITHIN RESTORATION AGREEMENT AREAS: The Contractor, prior to start of construction, shall obtain as-built information of the irrigation system(s) within restoration agreement areas, and catalogue related component information (manufacturer/part number/etc.) required to ensure appropriate replacement of the system and components. The as-built information shall be submitted to Palm Beach County, Construction Coordination Division, and upon completion of the construction, the Contractor shall restore the irrigation system and components to its original or better condition. Payment for all work to complete the item shall be incidental to the cost of the Project.

ADDITIONAL INSURED PARTIES: The Contractor performing the construction for Palm Beach County (COUNTY) shall be required to carry and furnish insurance coverage, in accordance with General Provision Section 7-13, “Insurance Required”, naming COUNTY as additional insured on the Certificate of Insurance Form(s), which shall reference the Project Limits and the Project Number, and shall read: “Palm Beach County Board of County Commissioners, a Political Subdivision of the State of Florida, its Officers, Employees and Agents.”

Where the limits of work for this County project impact the rights-of-way of other agencies (e.g., Florida Department of Transportation (FDOT); South Florida Water Management District (SFWMD); Lake Worth Drainage District (LWDD); and other agencies as applicable), said parties shall also be named as “ADDITIONAL INSURED”, either on the same form or on separate forms.

The Contractor shall coordinate all work within the rights-of-way and air rights-of-way, as they apply, through the Engineer. Also, the Contractor shall notify the County and the agencies, as required in the contract documents or within a reasonable time frame prior to the start of any work within said right-of-way, to allow for appropriate accommodations by the agencies.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S) COMPLIANCE: This contract requires compliance with the N.P.D.E.S. General Permit. The "Florida Department of Environmental Protection Generic Permit For Stormwater Discharge from
SPECIAL PROVISIONS

Large and Small Construction Activities", dated May 2003, which contains the description and requirements of the permit, is available at the following URL:

http://www.dep.state.fl.us/water/stormwater/npdes/docs/cgp.pdf

The MSWORD format of the Stormwater Pollution Prevention Plan (SWPPP) template is available at the following URL:

http://www.dep.state.fl.us/water/stormwater/npdes/SWPPP.htm

Notice of Intent and Notice of Termination forms are available on DEP’s URL:

http://dep.state.fl.us/water/stormwater/npdes/permits_forms.htm

The Contractor shall complete and submit the NOI and payment to DEP. If a SWPPP is not included in the contract plans, or the Contractor chooses to prepare his own SWPPP, the SWPPP template shall be utilized by the Contractor for developing the SWPPP for the project. Any SWPPP prepared by the Contractor shall be submitted to the County at the Pre-Construction meeting for the project for approval by the Engineer.

Failure to sign any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements may be considered a violation of the DEP Generic Permit.

All costs associated with obtaining and complying with the provisions of this permit and to all federal, state and local storm water pollution prevention permits, rules, laws or ordinances, including the implementation of the S.W.P.P.P. for the project during construction are incidental to the Contract. Also included is the cost of all construction erosion and pollution control measures not covered under other specific pay items, the cost of performing and executing the joint inspection & maintenance reports (as shown in the SWPPP “Template”), and the execution of the Contractor Certification form of the proposal pages. The Contractor Certification form must be signed and submitted with the bid proposal.

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SPECIAL PROVISIONS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S) COMPLIANCE (CONTINUED):

SITE DESCRIPTION

Project Name and Location: Annual Roadway Landscaping Contract (Countywide)
Palm Beach County, Florida

Palm Beach County Project No.: 2018050

Owner Name and Address: Board of County Commissioners,
Palm Beach County
Roadway Production Division
2300 N. Jog Road
West Palm Beach, FL 33411

Work Description: TBD

Runoff Coefficient: TBD

Site Area: TBD

Site Map: TBD

Sequence of Major Soil Disturbing Activities: N/A

Name of Receiving bodies: TBD

CONSTRUCTION IMPACTS TO BUS OPERATIONS: Public Works and private development construction activities often impact Palm Tran bus operations and bus stops. Timely communication and coordination with Palm Tran and other affected transit agencies during preliminary project.

Planning is essential in order to prevent potential conflicts. Contractors should make every effort to schedule their work to minimize impacts and the duration of impacts to transit operations and riders.

Contractors should provide Palm Tran with the name and telephone contact of their construction managers prior to the commencement of all construction projects affecting bus stops or impacting bus routes.

- Contact Palm Tran for coordination and review requirements (561) 841-4246, (561) 841-4223, or (561) 841-4224.
- Maintenance of rider access to and from bus stops during construction is desirable. This issue should be discussed at the Pre-Construction Meeting.
- All work shall conform to the requirements of the Americans with Disabilities Act (ADA),
SPECIAL PROVISIONS

including provisions for temporary access to and from bus stops.

- If necessary, the contractor shall work with Palm Tran to establish an approved temporary bus stop location.

- Contractor shall notify Palm Tran through Palm Beach County Construction Coordination Division at least 10 working days (2 weeks) in advance of the start of construction, modification of construction effort with transit impacts, and construction completion, so that Palm Tran can advise its riders.

- Contractor may not remove any bus stop signs, transit shelters, transit benches, or other related transit infrastructure without prior Palm Tran authorization. Contractor may be asked to remove existing bus stop signage or install temporary and permanent bus stop signage. Typically, Palm Tran will make arrangements to remove all other transit infrastructure. If Palm Tran does not remove their facilities in a timely manner, these facilities may become part of the clearing and grubbing.

- Contractor is responsible for construction of an approved ADA accessible access to and from bus stop boarding and alighting areas, when called for in the plans.

- The cost for the above is incidental to the project.

LOCAL GOVERNMENT PROMPT PAYMENT ACT: In accordance with the Local Government Prompt Payment Act (F.S. 218.70, et seq), the Contractor is hereby notified of the following:

1. The Contractor will be notified at the Pre Construction Meeting the manner in which pay requests are to be prepared and directed to the County. For a pay request to be deemed acceptable, the Contractor must provide the following:

   Pay Request No. 1
   - SBE-M/WBE Activity Form/Schedule 3.
   - Certification of Compliance with the Living Wage Ordinance.

   Pay Request No. 2 and all others following, but not including the Final
   - SBE-M/WBE Activity Form/Schedule 3.
   - SBE-M/WBE Payment Certification/Schedule 4.
   - Disbursement of Previous Periodic Payments to Subcontractors.
   - Certification of Compliance with the Living Wage Ordinance.

Final Pay Request
   - SBE-M/WBE Activity Form/Schedule 3.
   - SBE-M/WBE Payment Certification/Schedule 4.
   - Disbursement of Previous Periodic Payments to Subcontractors.
   - Disbursement of Final Payment to Subcontractors.
   - Form 1.
   - Form 2 including Bonding Affidavit.
   - Record of Construction Materials Affidavit.
SPECIAL PROVISIONS

- Certification of Compliance with the Living Wage Ordinance.
- Small Business Enterprise (SBE) Final Participation Form.
- Release and Concurrence of Final Payment Amount

2. A single list of items (Punch List) required to render the work complete, satisfactory, and acceptable will be prepared by the County. The Punch List shall be developed via a joint inspection of the work (conducted within 30 calendar days after reaching substantial completion) by the prime contractor's superintendent, together with the Construction Coordinator and an engineer from Engineering & Public Works, with all unsatisfactory work listed on the Punch List. The Punch List shall be provided to the Contractor within 5 days of the inspection.

3. In the event any dispute with respect to any payment or pay request cannot be resolved between the Contractor and County's project staff, Contractor may, in accordance with the alternative dispute resolution requirements of Florida Statute section 218.76, demand in writing a meeting with and review by the County Engineer. In the absence of the County Engineer, the Deputy County Engineer may conduct the meeting and review. Such meeting and review shall occur within ten (10) business days of receipt by County of Contractor's written demand. The County Engineer, or Deputy County Engineer, shall issue a written decision on the dispute within ten (10) business days of such meeting. This decision shall be deemed the County's final decision for the purposes of the Local Government Prompt Payment Act.

BASIS OF PAYMENT: Payment will be based on field measured quantities. No additional payment will be made for any work which exceeds that called for in the contract documents.

ALTERNATIVES/APPROVED EQUAL/DEVIATIONS: Unless otherwise specified, the mention of the particular manufacturer's brand name or number in the specifications does not imply that this particular product is the only one that will be considered for purchase. This reference is intended solely to designate the type or quality of merchandise that will be acceptable. Alternate offers will be considered and must include descriptive literature and/or specifications. Failure to provide descriptive literature and/or specifications with alternate offers will be cause for disqualification of the bid.

The determination as to whether any alternate product or service is or is not equal shall be made by Palm Beach County and such determination shall be final and binding upon all bidders.

Although the Board of County Commissioners provides for the consideration of alternate bids, it reserves the right to make an award in the best interest of the County. Such award may not necessarily be given to the lowest bid offered.

The bidder shall be responsible for reading very carefully, and understanding completely, the requirements and the specifications of the items bid upon. Any deviation from specifications listed herein must be clearly indicated, otherwise it will be considered that items offered are in strict compliance with these specifications, and the successful bidder will be held responsible therefore; deviations must be explained in detail on an attached sheet(s) and itemized by number. Any item or items that do not meet established specifications upon delivery will not be accepted.

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SPECIAL PROVISIONS

**METHOD OF ORDERING (WORK ORDERS):** The department(s) will issue work orders on an "as needed" basis. All terms and conditions of the bid are applicable. The individual orders will specify the work to be performed, its location, a not-to-exceed cost (based on the contract unit prices), and a schedule for performance. The contractor must sign and return the unexecuted work order within five (5) working days of issuance. Then each work order will be executed (signed) by the authorized County representative and notice to commence will be sent to the Contractor. The Contractor’s failure or refusal to sign a work order within five (5) working days does not prevent execution of the work order (which is solely by signature of the authorized County representative), and all work orders must be performed upon notice to commence.

Upon completion of the work order task, the contractor will submit an individual invoice, a copy of the original work order, the appropriately completed SBE-M/WBE participation forms referenced in Item 7 of the SBE-M/WBE Program section of this contract, a contractor’s affidavit, and consent of surety.

Contractor shall comply will all requirements in the contract documents for obtaining final payment. Final payment of a work order does not terminate the contract or extinguish the surety’s obligations under the contract.

The Contractor will receive progress payments based on submitted invoices. The payment amount will be based on the work done and accepted. No retainage is withheld.

**PROSECUTION OF THE WORK:** The Contractor will be required to maintain within Palm Beach County, at all times while this contract is in effect, the equipment necessary to properly carry out the provisions of these specifications. After receiving notice to commence with the work for a particular project the Contractor shall commence promptly within five (5) working days and shall efficiently prosecute the work with adequate personnel and equipment until completion, within 30 calendar days, or as designated by the County Engineer or his duly appointed representative. Failure to comply with either time requirement shall result in Liquidated Damages, assessed on a work order basis and in the amounts shown in Section 8-10.2 of the Standard Specifications.

**EXTENSION:** This contract period is for twelve (12) months from the date of BCC approval. The contract period may be extended for a defined period of time, not to exceed thirty-six months total contract time, upon approval by the Board of County Commissioners. Option for extension and other contract deviations will only be exercised upon mutual written agreement through a Board approved Contract Amendment, while adhering to all other original terms, conditions and unit prices of the contract.

For the purpose of re-bidding, this contract may be extended upon mutual written agreement through a change order for up to an additional six (6) months, upon the approval of the Contract Review Committee. Total contract time shall not exceed forty-two (42) months.

**AWARD:** As the best interest of the Board of County Commissioners may require, the right is reserved to make award(s) on an item-by-item basis, lot-by-lot basis, all-or-none or any combination thereof.
SPECIAL PROVISIONS

PRICE/DELIVERY/ACCEPTANCE: Price quoted must be the price for new merchandise and free from defects. Any bids containing modifying or "escalator" clauses will not be considered unless specifically requested in the bid specifications.

Deliveries of all items shall be made as soon as possible. Deliveries resulting from this bid are to be made during the normal working hours of the County. Time is of the essence and the bidder's delivery date must be specified and adhered to. Should the bidder, to whom the order or contract is awarded, fail to deliver on or before his/her stated date, the County reserves the right to CANCEL the order or contract and make the purchase elsewhere. The successful bidder(s) shall be responsible for making any and all claims against carriers for missing or damaged items.

PRICE/DELIVERY/ACCEPTANCE (CONTINUED): Delivered items will not be considered "accepted" until authorized agent for Palm Beach County has, by inspection or test of such items, determined that they fully comply with specifications.

The Board of County Commissioners may return, for full credit, any item(s) received which fail to meet the County's performance standards.

E-VERIFY: The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

ANNUAL CONSTRUCTION CONTRACT ON A TASK WORK ORDER BASIS: The intent of this contract is to award a contract to a contractor(s) to perform work on a work task order basis. Work Task Orders shall be issued on an "as needed" basis. See Special Provisions for Method of Ordering Work. The line items in the Proposal pages are intended to set unit prices for the task work orders. No tasks are guaranteed as part of this contract. The total value of work orders issued under this Contract shall not exceed the amount listed on page C-1 of this document, however, this may be increased by mutual agreement between the Contractor and Palm Beach County via a contract Amendment.

ADDITIONAL REPORTING
Owner requires Contractor to track during tasks funded with the infrastructure sales tax, and report at the end of the Project, on the county of residence of Contractor's employees and its subcontractors' employees. Contractor agrees to prepare and provide the required report with its request for final payment.

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SPECIAL PROVISIONS

PALM BEACH COUNTY
CONTRACTOR'S FINAL REPORT
COUNTY OF RESIDENCE FOR EMPLOYEES
(to be submitted with Contractor's Application for Final Payment for tasks funded with the infrastructure sales tax)

To: Palm Beach County Project Manager
From: Contractor Superintendent
Date:
Project Name: Annual Roadway Landscaping Contract
Project Number: 2018050

In accordance with the special provisions of the Contract, Contractor reports the following:

Total number of employees of Contractor and subcontractors who worked for more than one day on the Project: _____

Number of employees of Contractor and subcontractors who reported their county of residence as Palm Beach County: _____

Signed
SPECIAL PROVISIONS

DETAIL FOR INSTALLATION OF MEDIANS MIGATION SLEEVES FOR THOROUGHFARE ROADS

AS-BUILT CERTIFICATION FORM

OFFSETS FROM % OF CONSTRUCTION FOR ENDS OF 6" SLEEVES

SUB-TOTAL

TOTAL PROJECT #

GENERAL NOTES

1. ALL SLEEVES (LEFT & RIGHT) SHALL BE INSTALLED AT SAME % STATION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

2. ALL SLEEVE ENDS ARE TO BE CAPPED.

3. ALL SLEEVE ENDS ARE TO BE MARKED AT THE TIME OF INSTALLATION WITH A 2" x 4" WOODEN BOARD STANDING VERTICALLY FROM SLEEVE END TO 1' ABOVE FINISHED GRADE. EXPOSED SLEEVE MARKER IS TO BE PAINTED WHITE FOR FUTURE LOCATION PURPOSES.

4. SLEEVES ARE TO BE 6" P.V.C. SCHEDULE 80 PIPE BASED UPON F.D.O.T. SPECIFICATION SECTION 6401, OR 6" BLACK BOX-OPPED GALVANIZED STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 0.030" BASED UPON A.S.T.M. STANDARD A53-84A.

5. BACKFILLING ABOVE SLEEVES SHALL BE PERFORMED ACCORDING TO F.D.O.T. SPECIFICATION SECTION 123-6.3 (BACKFILLING REQUIREMENTS FOR PIPE CULVERTS AND STORM SEWERS).

6. ALL STATIONS ARE APPROXIMATE. CONTRACTOR MUST CONTACT COUNTY ENGINEER PRIOR TO INSTALLATION TO DETERMINE EXACT LOCATION IN THE FIELD.

7. EACH SLEEVE END IS TO BE MARKED AT THE TIME OF INSTALLATION WITH A 3M ELECTRONIC MARKER (MODEL 1252) AND GPS STATE PLAN COORDINATE SHALL BE RECORDED.

Palm Beach County - Engineering and Public Works - Roadway Production

Revised January 2008

SP-13
# SPECIAL PROVISIONS

## PALM BEACH COUNTY ENGINEERING & PUBLIC WORKS DEPARTMENT
### PALM BEACH COUNTY, FLORIDA
#### LIQUID ASPHALT CALCULATIONS

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Task</th>
<th>Formula</th>
<th>Weight of L.A.</th>
<th>% of L.A.</th>
<th>Weight of L.A.</th>
<th>L.A. %</th>
<th>Monthly Index of Bid Index</th>
<th>Difference in Total</th>
<th>Change in Cost</th>
<th>Quantity</th>
<th>Cost Total</th>
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**LIQUID ASPHALT:**

All bids for materials covered by the proposal are to include required liquid bituminous materials at task costs. No additional payment will be made for the liquid bituminous materials in the prime and task costs. The Department will adjust the bid unit price for bituminous material, excluding cutback and modified asphalt, to reflect increases or decreases in the Asphalt Price Index (API) of bituminous materials from that in effect during the month in which bids were received.

A price adjustment may be made upon request by either party, when escalation or de-escalation of the cost of the liquid bituminous materials used in the Asphalt Concrete Mixes included in this proposal exceed 2%. (See General Provision Section 5-2.1.2 "Bituminous Material").

*NOTE:
The L.A. % to be applied for Friction Course is 6.5%.
For all other asphalt mixes the L.A. % shall be 6.25%.
This form shall be submitted to the Engineer on a monthly basis.

Rev 1/2008

SP-14
REQUEST FOR INFORMATION

RESPONSE TO CONTRACTOR RFIs:

Superior Landscaping & Lawn Service
2200 NW 23 Ave, Miami, FL 33142
jotero@superiorlandscaping.com
6/5/18 8:59am

QUESTIONS AND OR COMMENTS:

1. Please provide the previous bid tabulation for this project.

RESPONSES:

1. Bid tabulations for current Engineering Department Annual contracts are posted to the following website:

   http://discover.pbcgov.org/engineering/roadwayproduction/Pages/CCNA.aspx
REQUEST FOR INFORMATION

RESPONSE TO CONTRACTOR RFT'S:

QUESTIONS AND OR COMMENTS:

Date: 6/20/18 8:46 a.m.
Company Name: Arazoza Brothers Corp
Contact: Jasmine Hernandez (j.hernandez@arazoza.brothers.com)
Phone: 305-246-3223

QUESTION:
Can we provide a price for complete station (of pumps) without itemized fittings.

RESPONSE:
See items #219 through 235 for complete pump items. Itemized fittings are needed for maintenance and repair.

RFI-2
TECHNICAL SPECIAL PROVISIONS

LANDSCAPE INSTALLATION SPECIFICATIONS

SECTION - LI

LI - PART I - GENERAL

LI - 1.01 Scope Of Work:

Provide all labor, materials, equipment and incidentals required to prepare site to final grade, install landscape trees, plants, sod and irrigation systems in accordance with the plans and as specified. These specifications are inclusive of a required guarantee, replacements, clean-up, maintenance services, and maintenance of traffic, all of which shall be included in the unit bid price for each tree. These specifications apply to all projects (work orders) throughout Palm Beach County assigned to the Contractor under the County’s Annual Roadway Landscaping Contract.

LI - 1.02 Related Work Specified Elsewhere:

Section SM - Site Maintenance: these provisions shall apply to all work in SECTION LI - LANDSCAPE INSTALLATION as appropriate.

LI - 1.03 General Requirements:

A. Refer to the Florida Dept. of Transportation Standard Specifications for Road and Bridge Construction, 2000, as the general operating specification document, however Section 580 Landscaping is deleted and replaced with these specifications for LANDSCAPE INSTALLATION (SECTION LI) and the SITE MAINTENANCE (SECTION SM). Maintenance of traffic requirements are described in the Contract Documents.

B. Comply with all applicable federal, state, county and local codes, ordinances and regulations governing this work.

C. The work shall be coordinated with other trades to prevent conflicts.

D. All planting shall be performed by personnel familiar with planting and maintenance of traffic procedures and under the supervision of a qualified landscape foreman, who shall be on-site at all times during the work.
E. Finish Grade: The Contractor shall verify with the County that final grade has been achieved and shall perform fine grading if so directed by the County. The Contractor is responsible for any trees or palms that are planted prior to achieving final grade.

F. Prior to commencing work, the Contractor shall visit the site and ascertain all site conditions, including utilities, structures, slopes, access and available work space to preclude any misunderstandings and to ensure a trouble-free installation. It shall be the Contractor’s responsibility to avoid conflicts with existing underground and overhead utilities and structures. The Contractor shall examine available utility plans and notify the County of any conflicts and needed adjustments. The Contractor shall notify all utilities servicing the work area at least 48-hours prior to any excavation so that underground utilities may be located. The Contractor has the responsibility to contact Sunshine State One-Call of Florida, Inc. at 1-800-432-770 to schedule marking locations of the utilities which subscribe to their service. The Contractor shall also call (561) 641-3429 for Palm Beach County Water Utility Locations and call (561) 233-3900 for Palm Beach County Traffic Control Utility Locations. In general, the location of trees will be adjusted rather than adjusting the location of utilities or structures. Refer to ITEM LI - 3.02 for related requirements.

G. Prior to the preparation of planting holes, the Contractor shall ascertain the on-site location of, and take necessary precautions to avoid damage to, all above-ground and underground utilities, underdrain trenches, electrical cables, conduits, utility lines, oil tanks, supply lines, pavement, curbing, traffic control devices, pedestrian signals, building structures, or waterproofing. The Contractor shall properly maintain and protect all such improvements. The Contractor shall be responsible for the cost to repair all damages to such improvements caused by his operations.

H. The use of mechanical equipment within five (5’) feet of any building or structure to move plants or materials shall be approved by the County prior to its use.

LI - 1.04 Applicable Documents:

A. Plant nomenclature shall conform to the names given in “The New Royal Horticultural Society Dictionary of Gardening”, which is the source cited by the current February, 1998 edition of Florida Grades and Standards for Nursery Plants, by the Florida Dept. of Agriculture and Consumer Services, Division of Plant Industry (henceforth called Florida Grades and Standards).
TECHNICAL SPECIAL PROVISIONS

1. Names of varieties not included therein shall conform generally with names accepted in the nursery trade.

2. Substitutions will be permitted only upon submission of proof that any specified plant is not obtainable or suitable for the location as specified on the plan and upon written authorization of the County.

B. The Contractor is obligated to be familiar with and understand the following documents in order to comply with the requirements therein to properly perform the work contemplated in this contract:

1. All plans and documents within the bid package set.


LI - 1.05 Quality Control:

A. Substitution of materials and products specified herein, including those meeting "or accepted equal" clauses, shall not be permitted without written authorization from the County.
B. Plants shall have a habit of growth that is normal for the species and shall be sound, healthy, vigorous and free from insect pests, fungi plant diseases and injuries. No sod with obvious chinch bug or mole cricket damage will be accepted. Any sod roots that appear to be diseased or the detected presence of grubs or other insects within the soil base will result in the sod being rejected.

C. Trees (other than palms) shall be heavily branched and shall have a dominant leader and no crossing branches.

D. All single-trunked palms shall have straight vertical trunks, not re-curved trunks, unless otherwise specifically directed in writing by the County.

E. Turf grasses to be used are St. Augustine “Floratam” and/or Bahia “Argentine”. The sod must be obtained from a sod farm that has been inspected and certified by the Florida Dept. of Agricultural and Consumer Services, Division of Plant Industry, as free of burrowing nematodes and Tropical Soda Apple. The sod must exhibit a dark green color and be free of weeds and foreign matter. It must have a leaf blade density of at least 90% and be free of any diseased or insect-damaged leaf tissue. The soil base of the sod must be a minimum of 3/4” thick and a maximum of 2” thick and contain a healthy root system as indicated by turgid feeder roots that are white in color.

F. Plant material shall be Florida Grade No. 1 or better as outlined under the current edition of Florida Grades and Standards.

1. All plants not listed in Florida Grades and Standards, shall conform to a Florida Grade No. 1 as to: (1) health and vitality; (2) condition of foliage; (3) root system; (4) freedom from pest or mechanical damage; (5) heavily branched and densely foliated according to the accepted normal shape of the species.

2. Undersizing plant materials or substituting one species or cultivar for another are contract violations, but have no bearing on plant grading. Undersizing or substituting species or cultivars may be permitted only if authorized by the County in writing.

3. Verification of specified grades are to be determined at the time of delivery (even for trees inspected, accepted, and tagged by the Contractor with the County at respective nurseries). Grades determined at the time of delivery inspection or during the course of conducting a regrading inspection shall
TECHNICAL SPECIAL PROVISIONS

be based on the growth characteristics and condition of the plant at the time of grading. The grade shall not be based on any future or predicted growth potential of the plant. Each tree shall be maintained by the Contractor to Florida Grade No. 1 standards until the date of written Final Acceptance by the County for that tree. The County is the final authority to determine if a tree does or does not meet Florida Grade No. 1 standards, including health and vigor of the tree.

4. If at any time during plant installations, the County believes that any trees are not of the specified grade, the County may, at their discretion, request a regrading inspection by the Division of Plant Industry. Upon the findings provided thereby, the County may seek further remedy by requesting replacement of plant materials or other corrective actions, including, but not limited to, legal redress.

G. The County shall have the right, at any stage of the operations, to reject any and all work and materials, which, in the County's opinion, do not meet the requirements of these specifications or aesthetically do not comply with design intent. Trees that are scarred or damaged during delivery or off-loading will be rejected.

H. Plant materials, as proposed by the Contractor, are required to be inspected, accepted and tagged at the respective nurseries by the Contractor with the County prior to any delivery to the project site, unless waived by the County in writing. If such waiver is granted, the County will inspect and approve representative plant material samples at the project site or at the respective nurseries prior to delivery to the project site. Waivers will only apply to the specific projects (work orders) and species designated by the County. Certificates of Nursery Origin may be required for plant materials not tagged by the Contractor with the County.

LI - 1.06 Certificate of Inspection:

A. All shipments of plant material shall originate from state registered nurseries which have undergone regular inspections by the authorized State Agencies prior to delivery to the project site.

B. State inspection certificates certifying respective plant nurseries of origin shall accompany the bill of lading or invoices. Any certificates of inspection required by the state for specific species also will be provided additionally. Any required transportation documents are to be submitted with invoices as back-up.
TECHNICAL SPECIAL PROVISIONS

C. Contractor shall furnish the County with copies of manufacturer's literature, labels, samples, certifications, Material Safety Data Sheets, and laboratory analytical data for fertilizers, mulch, planting soil backfill mix, chemicals, staking/guying materials and other products as appropriate, prior to use or application on any project.

LI - 1.07 Measurements:

A. The minimum acceptable size of all plants measured after pruning, with branches in normal positions, shall conform to the measurements as shown on landscape plans and conform to the Florida Grades and Standards. Deviations from these measurements must be approved in writing by the County.

B. The caliper (diameter) of tree trunks is measured six (6”) inches above ground level for trees with calipers up to and including four (4”) inches in caliper, and twelve (12”) inches above the ground for larger trees.

C. The caliper (diameter) of palm tree trunks is to be taken at the widest portion of trunk measured between 1’ and 3’ above the soil line.

LI - 1.08 Shipment and Delivery:

A. Contractor shall notify the County, a minimum of 48-hours in advance (excluding weekends and holidays), of all plant material deliveries. Contractor shall be responsible for delivery, storage, and security of all materials specified.

B. Plant materials shall be protected from sun-scalding and weather and adequately packed to prevent breakage and drying during transit and storage.

C. The County will exercise its option to inspect, select and assist the Contractor with the tagging of plant materials at the nursery proposed by the Contractor unless waived as in ITEM LI - 1.05 H.

D. Tamper-resistant identification tags supplied by the Contractor and placed on all trees and palms selected for installation, shall show no evidence of tampering upon inspection for Initial Acceptance (of installation). These tags shall be removed following the County's Initial Acceptance (of installation).

E. Plants which do not meet specifications for quality or size herein stated, or plants that show improper handling, or arrive on-site in an unsatisfactory condition (as...
TECHNICAL SPECIAL PROVISIONS

described in Florida Grades and Standards, will be rejected. Rejected plants shall immediately be removed, disposed of, and replaced with accepted nursery stock of like variety, size, and age. These plants shall be replaced without additional cost to the County.

F. Initial acceptance of plant material for initial payment will be given only after material is planted and after meeting requirements prescribed herein.

G. Plant materials may be reserved in advance by the County from nursery sources provided by the Contractor for predetermined amounts of time prior to shipment and delivery. The reserve period will be designated by the County department issuing the work order and will begin upon the issue date of the work order. Designated time periods will be 1-90 days, 1-180 days, and 1-270 days. The County will compensate the Contractor a percent of the unit price for each unit of plant material reserved in advance of shipment and delivery. This percentage amount is as follows:

<table>
<thead>
<tr>
<th>Reserve Period</th>
<th>Percent of Unit Price Paid for Reservation of Plant Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 90 Days</td>
<td>10%</td>
</tr>
<tr>
<td>1 - 180 Days</td>
<td>25%</td>
</tr>
<tr>
<td>1 - 270 Days</td>
<td>50%</td>
</tr>
</tbody>
</table>

All advance payments shall be applied to the balance owed to the Contractor by the County upon the completion of any applicable warranty periods. All post-installation guarantees, as specified in ITEM SM - 1.11, shall apply to all plants held in reserve by the Contractor with no period of reserve time serving as a replacement for any warranty periods specified within the current contract. The Contractor shall select and maintain all plant materials reserved by the County in a manner and condition designated in ITEM LI - 1.05. Reserved plant materials shall conform to the type and quality specification listed in ITEM LI - 2.02. The County may, at its discretion, reserve plant materials that are less than the caliper, height, spread, clear trunk or root ball size, as designated in the Bid Item description for each unit listed. However, all plant materials must meet the stated specifications prior to shipment and delivery by the Contractor, unless given a written waiver by the County. The Contractor shall not accept reserve payment for any plant materials that it knowingly cannot provide at the end of the designated reserve period. The Contractor shall notify designated County representatives within 24 hours if plant materials reserved for any designated period become unavailable.
TECHNICAL SPECIAL PROVISIONS

The Contractor shall make available to the County like species of acceptable specifications if any reserved plant materials are sold to other parties or otherwise rendered substandard during the designated reserve period. In the event that like species of similar quality are not made available by the end of the designated reserve period, the Contractor shall issue a credit or refund any reserve payments for that quantity of plant materials, at the discretion of the County. The County shall forfeit any reserve payments made to the Contractor if the County elects to delay the scheduled shipment and delivery beyond the reserve period contracted for. The Contractor shall grant the County a reserve time extension, based on additional payment issued within ten (10) days of the end of the contracted reserve period, unless the Contractor can show that any reserved plant materials would exceed the specifications as listed in the Bid Item description for each unit of plant material during the extension of the reserve period.

Tree Transplanting:

A. The Contractor shall provide tree transplanting services as requested by the County. This service is to be performed by the Contractor within a 30 day period of receipt of a work order. Trees transplanted within 90 days of original installation by the Contractor shall carry the balance of the warranty as specified in ITEM SM - 1.11. No warranties shall apply to trees installed more than 90 days prior to transplantation or trees installed by other parties.

B. Transplanted trees shall be watered for the balance of the warranty period or for a period of 30 days for non-warrantied trees. Watering procedures must adhere to the specifications designated in ITEM LI - 2.06 and SECTION SM - SITE MAINTENANCE.

C. Palm tree transplanting procedures include digging, loading, transporting, replanting with approved backfill material and restaking. The original planting hole must be backfilled and sodded.

D. Hardwood tree transplanting procedures include root pruning of established trees, digging, loading, transporting, replanting with approved backfill material and restaking. The original planting hole must be backfilled and sodded.

LI - PART II - PRODUCTS

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TECHNICAL SPECIAL PROVISIONS

LI - 2.01 Planting Soil Backfill Mix:

A. All planting areas shall be backfilled with a mixture of prepared plant soil mix as shown below to be accepted by the County prior to use on each project site. Terrasorb AG (super-absorbent water retainer as manufactured by Industrial Services International, Inc.), or similar product accepted in writing by the County, shall be added to all non-irrigated planting soil backfill mixes at the rate specified by the manufacturer.

B. This work shall consist of removing surface debris and then excavating a planting hole and blending compost with the excavated soil to improve soil quality and plant growth. The Planting Soil Backfill Mix shall be created on the project site by uniformly mixing compost with the excavated soil of the planting hole at a 1:3 ratio (25% compost: 75% excavated soil). Backfill and firm the soil blend around the rootball within the planting hole, as described under Part III - Execution. This specification applies to all types of containerized and balled and burlapped plant material.

C. Compost shall be a stabilized mixture derived from organic wastes such as food and agricultural residues, animal manure, mixed solid waste and biosolids (treated sewage sludge) that meet all State Environmental Agency requirements. The product shall be well composted (mature compost, not green compost), free of viable weed seeds and nematodes and contain material of a generally humus nature capable of sustaining growth of vegetation, with no materials toxic to plant growth.

Compost shall have the following properties:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>5.5 - 8.0</td>
</tr>
<tr>
<td>Moisture content</td>
<td>35% - 55%</td>
</tr>
<tr>
<td>C:N ratio</td>
<td>15 - 30:1</td>
</tr>
<tr>
<td>Organic matter</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>Particle size</td>
<td>&lt; 1 inch</td>
</tr>
<tr>
<td>Soluble salts</td>
<td>&lt; 4.0 mmhos (dS)</td>
</tr>
<tr>
<td>Bulk density</td>
<td>&lt; 1000 lbs/cuyd</td>
</tr>
<tr>
<td>Foreign matter</td>
<td>&lt; 1% by weight</td>
</tr>
</tbody>
</table>

D. This specification covers the properties of AllGro™ as distributed by: AllGro™, 4 Liberty Lane West, Hampton, NH 03842, telephone (800) 662-2440. The
Contractor shall utilize AllGro™ compost, or County-accepted equal, as directed above.

LI - 2.02  **Plant Material:**

A. The words “Plant Materials” or “Plants” or “Trees” refer to and include trees and palms. “Plant Materials” shall also refer to accent plants, ground covers and woody ornamentals. When the words “palms” or “palm trees” are utilized, no reference to other tree types is intended. When the words “trees (excluding palms)” are utilized, no other reference to palm trees is intended.

B. Plant species shall conform to those species and cultivars indicated on the plans and in the specifications.

C. Plants shall be sound, healthy, vigorous, free from plant diseases, insect pests or their eggs and shall have healthy normal growth and root systems. Tree trunks shall have the specified caliper, straight with no fresh cuts, fissures, scrapes, or scars, and shall have the specified clear trunk height, overall height, spread, and root ball size, as applicable. Container grown plant materials shall be “Florida Fancy” as described in Florida Grades and Standards, Shrubs, Groundcovers and Vines.

D. The species and varieties furnished by the Contractor shall include those listed below and/or substitutions mutually agreed upon by the Contractor and the County. The basis to be used for comparison of plants to be substituted in the respective categories shall be plant descriptions and wholesale prices as described in Betrock Information Systems' PlantFinder.

E. Trees are required to be one of the following:

1. Container Grown:
   
   a. Plastic containers: Trees grown in plastic or other rigid containers shall be well established and in the container for at least 60 days, and not root-bound. Minimum container size guidelines will follow those established by Florida Grades and Standards.

   b. Fabric containers: Minimum root ball size will follow the guidelines established in Florida Grades and Standards. Trees grown in fabric
TECHNICAL SPECIAL PROVISIONS

bags should be properly root-pruned and hardened-off in the nursery following harvesting for 45-90 days.

c. All slash pines and wax myrtles are required to be container-grown for entire lives before planting on project sites.

2. Field Grown: Shall have the appropriate root ball size based on the tree's trunk diameter (caliper) and/or height as established by the Florida Grades and Standards. Root ball depth on balled and burlapped (B&B) stock (excluding palms) shall be at least 2/3 of the rootball diameter shown. Field grown trees should be properly root-pruned and hardened-off in the nursery for a period of 45-90 days, and will be inspected by the County for new root growth.

a. Field grown balled and burlapped (B&B) trees are usually specified on the unit bid price plant list, however upon County approval, well established non-root bound container plants may be substituted for B&B material, when all other requirements, specifications, and unit bid prices of B&B trees are adhered to.

b. Natural fabric burlap is to be utilized. Synthetic woven plastic fabrics and wire baskets are prohibited unless the County provides written approval.

F. Collected plants shall not be used unless specifically called for in the specifications or accepted in writing by the County. The type, size, and availability of specific species will be the basis of selection of any collected plants.

G. All plants for this project are to be secured from state registered nurseries within the south and central Florida areas (as defined by Betrock Information Systems' PlantFinder geographic regions) unless authorized in writing by the County.

H. Accent plants, ground covers and woody ornamentals are required to be one of the following:

ACCENT PLANTS (1 gal. containers)

Including these species, or comparable:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Iris</td>
<td><em>Moraea iridiodes</em></td>
</tr>
</tbody>
</table>
### TECHNICAL SPECIAL PROVISIONS

**ACCENT PLANTS (3 gal. containers)**

Including these species, or comparable:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird-of-Paradise</td>
<td><em>Strelitzia reginae</em></td>
</tr>
<tr>
<td>Coontie</td>
<td><em>Zamia pumila</em></td>
</tr>
<tr>
<td>Cardboard Palm</td>
<td><em>Zamia maritima</em></td>
</tr>
<tr>
<td>Saw Palmetto</td>
<td><em>Serenoa repens</em></td>
</tr>
<tr>
<td>Crinum lily</td>
<td><em>Crinum american</em></td>
</tr>
<tr>
<td>Dwarf Powderpuff</td>
<td><em>Calliandra haematocephala</em></td>
</tr>
<tr>
<td>Dwarf Florida Gardenia</td>
<td><em>Tabernaeomontana sp.</em></td>
</tr>
</tbody>
</table>

**GROUNDCOVERS (1 gal. containers)**

Including these species, or comparable:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Daze</td>
<td><em>Evolvulus glomerata</em></td>
</tr>
<tr>
<td>Crown of Thorns (includes dwarf varieties)</td>
<td><em>Euphorbia milii</em></td>
</tr>
<tr>
<td>Dune Sunflower</td>
<td><em>Helianthus debilis</em></td>
</tr>
<tr>
<td>Flax Lily</td>
<td><em>Dianella tasmanica</em></td>
</tr>
<tr>
<td></td>
<td>'Variegata'</td>
</tr>
<tr>
<td>Lantana (includes dwarf varieties)</td>
<td><em>Lantana sp.</em></td>
</tr>
<tr>
<td>Oyster Plant</td>
<td><em>Tradescantia spathacea</em></td>
</tr>
<tr>
<td>Purple Queen</td>
<td><em>Tradescantia pallida</em></td>
</tr>
<tr>
<td>Limpe (2+ bibs)</td>
<td><em>Liriope muscari</em></td>
</tr>
<tr>
<td>Kalanchoe</td>
<td><em>Kalanchoe sp.</em></td>
</tr>
<tr>
<td>Mexican Heather</td>
<td><em>Cuphea kyssopefolia</em></td>
</tr>
<tr>
<td>Ruellia (includes dwarf varieties)</td>
<td><em>Ruellia sp.</em></td>
</tr>
<tr>
<td>Periwinkle (includes hybrid varieties)</td>
<td><em>Vinca sp.</em></td>
</tr>
</tbody>
</table>
## TECHNICAL SPECIAL PROVISIONS

Sea Oxeye Daisy  
*Macheco Fern*  
*Borrichia arborescens*  
*Nephrolepis biserrata*

### WOODY ORNAMENTALS (3 gal. and 7 gal. containers)

Including these species, or comparable:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bougainvillea Hybrid (includes dwarf varieties)</td>
<td>Bougainvillea sp.</td>
</tr>
<tr>
<td>Cocoplum (includes dwarf varieties)</td>
<td><em>Chrysobalanus icaco</em></td>
</tr>
<tr>
<td>Carissa (includes dwarf varieties)</td>
<td><em>Carissa</em> sps</td>
</tr>
<tr>
<td>Eugenia</td>
<td><em>Eugenia</em> sp.</td>
</tr>
<tr>
<td>Dwarf Oleander</td>
<td><em>Neirum oleander</em></td>
</tr>
<tr>
<td>Dwarf Schefflera (includes various varieties)</td>
<td><em>Schefflera arboricola</em></td>
</tr>
<tr>
<td>Dwarf Yaupon Holly (Schillings Dwarf)</td>
<td><em>Ilex vomitoria</em></td>
</tr>
<tr>
<td>Firebush (includes dwarf varieties)</td>
<td><em>Citharexylum fruticosum</em></td>
</tr>
<tr>
<td>Green Island Ficus (includes various varieties)</td>
<td><em>Hamelia patens</em></td>
</tr>
<tr>
<td>Jatropha (includes dwarf varieties)</td>
<td><em>Ficus microcarpa</em></td>
</tr>
<tr>
<td>Juniper</td>
<td><em>Jatropha hastata</em></td>
</tr>
<tr>
<td>Ornamental Grasses</td>
<td><em>Juniperus</em> sp.</td>
</tr>
<tr>
<td>Philodendron ‘Xanadu’</td>
<td><em>Philodendron</em> sp.</td>
</tr>
<tr>
<td>Parlor Oak</td>
<td><em>Nicodemia diversifolia</em></td>
</tr>
<tr>
<td>Pittosporum (includes various varieties)</td>
<td><em>Pittosporum</em> sp.</td>
</tr>
<tr>
<td>Sea Grape</td>
<td><em>Coccoloba uvifera</em></td>
</tr>
<tr>
<td>Silver Buttonwood</td>
<td><em>Conocarpus erectus</em></td>
</tr>
<tr>
<td>Stopper</td>
<td><em>Myrcianthes fragrans</em></td>
</tr>
<tr>
<td>Viburnum (includes ‘Awabuki’)</td>
<td><em>Viburnum</em> sp.</td>
</tr>
<tr>
<td>Wax Myrtle</td>
<td><em>Myrica cerifera</em></td>
</tr>
<tr>
<td>Yellow Thryallis</td>
<td><em>Galphemia gracilis</em></td>
</tr>
</tbody>
</table>

**LI - 2.03 Quantities:**

A. The quantities shown in the leader call-outs in the plans govern the required installed quantities. The Plant List summarizing quantities is provided as a reference only. The Contractor is responsible for his own take-off. Discrepancies must be brought to the County’s attention, in writing, at the time of ordering plant materials.
TECHNICAL SPECIAL PROVISIONS

B. The County reserves the right to adjust the number and locations of the designated types and species of plants to be used at any of the locations shown. The County shall make payment based on the actual quantities installed as approved in writing by the County.

LI - 2.04 Fertilizer for Plantings:

A. Provide commercial grade granular fertilizer uniform in composition, dry and in a free-flowing condition for application by suitable equipment, delivered in unopened bags or containers, each fully labeled and complying with Florida State fertilizer laws.

B. Provide a complete fertilizer with proper ratio of nitrogen (N), phosphorus (P), and potassium (K) for the specie, including micronutrient trace elements of iron, manganese, zinc, copper, and boron. Provide acid-based, slow-release (sulfur coated) formulas with at least 50% slow-release of nitrogen and potassium.

C. For non-flowering trees, use 10-0-12 high sulfur, iron, and potash; and for flowering trees, use 15-0-11 high sulfur, iron, potash, magnesium, and manganese – both to be acid based, slow-release nitrogen (sulfur coated) to include minor elements (or accepted equal).

D. For palm trees use a ‘palm special type’ 8-0-10 to include minor elements, very high sulfur, manganese, magnesium, and iron; 50% slow-release nitrogen and potassium; and acid-based (sulfur coated) or accepted equal.

E. For non-flowering trees, use 10-0-12 high sulfur, iron, and potash; and for flowering trees, use 15-0-11 high sulfur, iron, potash, magnesium, and manganese – both to be acid based, slow-release nitrogen (sulfur coated) to include minor elements (or accepted equal). For accent plants, ground covers and woody ornamentals, use 16-0-8 that includes micro nutrients, 25% sulfur coated area, 50% slow release nitrogen, or accepted equal.

LI - 2.05 Top Mulch:

A. Mulch shall be recycled, not harvested wood, and made entirely from the wood and bark of the Melaleuca quinquenervia tree, eucalyptus tree, cypress tree milling by-product, or mixed hardwoods. The mulch shall be shredded, cleaned, sized, and aged (heated) to destroy weed seeds, pathogens, and insects. It shall not contain more than 10% (by volume) bark. Shredded pieces of mulch shall not be larger
TECHNICAL SPECIAL PROVISIONS

than ¾” diameter and 1-1/2” in length. Mulch shall be free of weeds, seeds (including Melaleuca spp. seeds), soil, and any other organic or inorganic material.

B. Prior to its delivery, mulch shall have been inspected and certified by the Florida Dept. of Agriculture and Consumer Services, Division of Plant Industry, as free of burrowing nematodes. All proof of delivery shall bear official State of Florida stamp of inspection and certification (Grade A or B). Deliver in bags or bulk by the cubic yard.

C. All material specified shall be processed specifically for use as mulch around trees and plant beds. The use of construction wood or wooden pallets (which do not decompose and/or may harbor pests), the use of fresh-wood mulch (which deprives surrounding plants of nitrogen), or the use of color dyed mulches, is prohibited unless requested by the County Engineer in writing for a special case by case situation.

LI - 2.06 Water:

Contractor shall provide water, labor, and equipment (including a self-canceling nozzle with a diffuser) necessary to distribute water as required for all installed materials using hand-watering methods. Existing or proposed irrigation systems will not be relied on to provide water for newly planted materials. Use water free of elements toxic to plant and/or animal life. Refer to SECTION SM - SITE MAINTENANCE for detailed watering specifications.

LI - 2.07 Guying and Staking Material:

A. Support stakes, braces, battens, and anchor stakes pads shall be structurally sound, #2 grade, yellow pine, or #2 cedar; free of knot holes, splinters, checks, or cracks, and sized and arranged as per details on plan.

1. Minimum nominal size of vertical stakes: 2”x4” with the length adjusted as appropriate for proper staking relative to tree height or as per specifications/details.

2. Minimum nominal size of angled braces: 2”x4” with the length adjusted as appropriate for proper staking relative to tree height as per specifications/details.

3. Anchor stake pads for braces to be 2”x4” and a minimum of 12” long.
4. Battens for braces to be 2”x4” and a minimum of 12” long.

B. Banding at brace battens for heavy trunked palms and specified trees shall be minimum 1” steel manufactured specifically for banding — minimum two (2) bands per palm. Wrap palm trunks (excluding Washington palms) with minimum of five (5) layers of heavy nursery grade, burlap cloth before installing battens.

C. For small trees using vertical support stakes, trunks shall be secured to such stakes with guying material that is wide, smooth, sturdy and flexible plastic or rubber such as Wellington tape or accepted equal. Guying tape to connect trunk to support stake at 90°. This flexible tape shall replace the traditional guy wire and hose method in order to avoid damage to trunk and branches.

D. Unless the appropriate painting bid item is included in the applicable work order, then all vertical stakes, angled braces, anchor stake pads, and/or battens shall be provided and installed as natural, unpainted wood. When the appropriate painting bid item number is included in the applicable work order, then the wood for all vertical stakes, angled braces, anchor stake pads, and/or battens shall be painted Forest Green using Behr exterior grade flat latex paint, or accepted equal, such that there is complete coverage of all surfaces. This painting shall be done prior to delivery of the wood staking and bracing material to the planting site. The only painting allowed at the planting site will be minor touch-up by brush only for saw cuts, abrasions, nicks, etc. There shall be no spray painting at the planting site. Care shall be exercised to avoid wet paint coming into contact with the tree/palm, Wellington tape, banding, or burlap. To the extent that painted vertical stakes, angled braces, anchor stake pads, and/or battens are proposed by the contractor for re-use, then in addition to meeting other specification requirements, they shall receive a fresh, complete coat of the above specified paint. This complete paint coverage shall be maintained in good condition until staking and bracing materials are removed from the planting site. The County reserves the right, at its discretion, for the County to paint staking and bracing material.

LI - 2.08 Root Barrier Material:

The Contractor shall provide and install rigid root barrier, DeepRoot UB 48-2 by Urban Landscape Products, or flexible fabric root barrier, Typar Biobarrier Root Control System as manufactured by Reemay, Inc., or accepted equal, as directed by
TECHNICAL SPECIAL PROVISIONS

the County or as indicated in the plans or as required by the permitting agencies. All safety precautions and installation procedures prescribed by the manufacturer shall be adhered to.

LI - PART III - EXECUTION

LI - 3.01 General:

A. The Contractor's work shall conform to accepted horticultural practices as used in the trade, unless specifically directed to the contrary by the contract documents or otherwise by the County.

B. Plants shall be protected upon arrival at the site by being thoroughly watered and properly maintained until planted. If a balled and burlapped (B&B) tree is not planted within 12-hours of delivery then the root ball shall be kept covered with a moist material to prevent drying of root growth tips until planting. Plants shall not remain unplanted on-site for a period exceeding 24-hours. All sod must be installed within 72 hours of harvest from the source farm. Any sod which is not planted within 24 hours after cutting shall be stacked in an accepted manner and maintained in a properly moistened condition. Any sod left on the work site for more than 48 hours before installation will be rejected. All sod delivered to the work site will be contained on 48" X 48" wooden pallets and individual pieces be no smaller than 12" X 24".

C. The Contractor shall install and maintain all plants (through final acceptance) in accordance with the requirements of the project plans, bid documents/specifications, and applicable standards as listed under ITEM LI - 1.04 B.

LI - 3.02 Layout of Planting Holes:

A. The approximate location of some existing above-ground and underground utilities, structures, and other improvements are shown on the landscape plans for general information purposes only, and are not to be relied upon nor regarded as relieving the Contractor of responsibility for verifying exact field locations. All such improvements shall be investigated and verified in the field before starting work. Refer to ITEM LI - 1.03 F for other applicable requirements.

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TECHNICAL SPECIAL PROVISIONS

B. Should the Contractor encounter overhead or underground obstructions, median modifications, or other conditions which interfere with the specified locations for plantings, then the Contractor shall immediately notify the County and alternate planting locations or plan modifications will be selected and approved by the County. Trees which cannot be adjusted to accommodate such conditions and still adhere to clear sight spacing and clear zone requirements, will be eliminated.

C. Before digging of planting holes, the location and arrangement of the planting shall be marked by the Contractor. The Contractor shall notify the County a minimum of 48-hours in advance (excluding weekends and/or holidays). The County shall reserve the right to approve or reject all marked tree locations which shall conform to the requirements of the specifications, plans, and details unless otherwise addressed above.

LI - 3.03 Tree and Palm Installation:

A. All planting holes shall be excavated to size and depth specified herein and in accordance with the plans and details, and backfilled with the prepared Planting Soil Backfill Mix as specified. The general planting procedures for all trees and palms, whether B&B or container grown, are similar except as noted below.

1. Container-grown trees and palms:

a) Any container-grown (CG) plants which have become pot-bound or for which the top system is too large for the size of the container, shall be rejected.

b) CG plants shall not be removed from the container until immediately before planting, and with all due care to prevent damage to the root system. At such time, all containers shall be cut and opened fully, in a manner that will not damage the root system.

c) Trees in containers shall be carefully removed from the pots, cans, boxes, or other containers in a manner not to damage the roots or the root ball of soil formed by the container. Scraping the root ball on the sides and bottom to stimulate new root growth outside of the existing root ball should be performed prior to placement into the hole.
TECHNICAL SPECIAL PROVISIONS

2. Balled and Burlapped Trees and Palms: Always move B&B plants (except heavy trunked palms) by the root ball only. Never use the trunk as a handle to pick up or move these plants. Care should be taken not to disturb the root ball, as this would severely damage the root system. Removal of all the burlap before planting is not necessary (if it is biodegradable fabric), although the top one-third (1/3) of the burlap shall be pulled back and cut off.

If accepted for use under ITEM LI - 2.02 E.2.b, synthetic fabrics and wire baskets require special attention. Remove woven plastic fabrics and nylon twine completely after setting the plant in the hole since such nondegradable materials can girdle stems and roots as they expand through the material. However, this practice may not be feasible when moving large trees that have been sleeved in woven plastic materials before being placed in wire baskets. Slice the material through the wire basket and remove as much as possible to facilitate healthy root growth into the landscape soil. Once the tree is set in the planting hole, cut off all of the wire basket (that is not under the root ball) before backfilling.

3. Palms: Generally, procedures for planting balled and burlapped trees are suitable for palms. Palms shall be harvested with a root ball appropriate for the size and species of palm per the current Florida Grades and Standards. Foliage of all palm species except Sabal palmetto shall have the leaves tied with a biodegradable twine or burlap in a bundle around the bud. Fronds shall be untied by the time of the first quarterly inspection, unless the Contractor deems this to be detrimental to the palm. Complete leaf removal at the time of digging is required when planting Sabal palmetto, however, protection is required for heart frond and bud.

B. Circular planting holes with vertical sides shall be excavated for all trees. The diameter of planting holes for all trees shall be a minimum of 1.5 times larger than the rootball, per planting details, unless prevented by site obstructions or otherwise authorized in writing by the County. The depth of each planting hole shall be not less than 6" deeper than the height of the root ball or container as applicable and as per planting details.

C. Trees shall be set in planting holes on the specified prepared planting soil mix backfilled and brought to a height to permit the top of the rootball to be 2" above the surrounding finish grade at the completion of tree installation. This allows for some settling such that the final planting will be at the same depth the plants grew.

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in the nursery. All trees shall be planted in a vertical position (plumb). All trees shall be handled by a padded nylon strap around the rootball for lifting purposes. Heavy-trunked palms may be lifted by the trunk provided the lifting strap is padded.

D. After placing the tree in the hole, the planting soil specified herein shall be slowly watered into place in layers and then firmly tamped to eliminate voids and air pockets and to ensure the backfill mixture is surrounding the rootball. Do not overly compact the soil to the point that it would be detrimental to the tree's health. All tamping shall be such that no trees will settle below their original growing height and the surrounding finish grade. Do not mound any soil over the roots.

E. For water retention, a minimum 6" high circular earthen berm (water ring) shall be formed around each tree such that the inside edge is located at the perimeter of the 6' wide planting hole.

F. All trees shall be thoroughly watered at the time of planting and kept adequately watered to ensure healthy Florida Grade No. 1 trees until time of final acceptance. No allowances will be made for tree or palm losses due to lack of adequate or proper watering. Following initial acceptance the watering requirements of ITEM SM-3.01C shall be complied with.

G. Pruning shall be done on-site after planting (with due regard to the natural form and growth characteristics of each specie) to remove damaged limbs, to remove branches falling within the required clear site window, or as directed to improve overall plant appearance. Do not remove more than 15% of branches unless otherwise approved by the County in writing. Pruning methods shall follow standard horticultural practices using appropriate tools. Lopping, shearing, or topping of plant material will be grounds for rejection. Damaged, scarred, frayed, split, or skinned branches, limbs, or roots shall be pruned back to live wood, unless such damage, once so corrected, causes the tree to not meet the Florida Grade No. 1 standard, thus requiring tree replacement at no additional expense to the County. The central leader or bud shall be left intact unless severely damaged, in which case the tree will be replaced at no additional expense to the County. Remove any tree leader dowels and fasteners at the time of planting.

H. During the course of planting, excess and waste materials shall be removed by the end of each day's operations. When planting in an area has been completed, all debris from planting operations shall be removed and the area maintained in this finished state until final acceptance.
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LI - 3.04  Fertilizing:

After planting, and prior to mulching the saucer, apply the recommended types and quantities of fertilizer appropriate for tree type according to the manufacturer's recommended rate specifications for new plantings. Apply fertilizer to the soil surface within the saucer area such that the granular fertilizer is mixed into the top 6" of soil around the edge of the root zone to the perimeter of the saucer berm and then watered in. Never allow fertilizer to touch the trunk of the tree to avoid burning by soluble salts. The use of tablet-type fertilizers such as “Agri-Form” or equal, to be placed in the planting hole prior to backfilling is also acceptable.

LI - 3.05  Mulching:

A. Prior to mulching the saucer area around each tree, remove all weeds, debris, and rocks (over 1" diameter), and then level the soil inside the saucer area surrounded by the circular berm without covering the top of the rootball.

B. A 3" layer of the specified biodegradable mulch shall be placed around all newly planted trees within earth berms surrounding saucers as defined in ITEM LI - 3.03 E and as shown on drawings and as specified. For individual plants, the mulch shall be spread to entirely cover the saucer area within the circular earth berm. Mulch shall be installed and maintained a minimum of 3" away from the trunks of all trees. Once in place, the mulch is to be watered until saturated.

C. This 3" mulch layer shall be maintained around each tree by the Contractor until its final acceptance in order to buffer soil temperature, reduce weed competition, conserve moisture, and increase soil nutrient availability.

D. No Cypress Mulch shall be used on State Roads.

LI - 3.06  Guying and Staking:

A. Guy and stake plant materials as specified and detailed to assure upright form, and in accordance with the following:

1. All trees with calipers smaller than 2-1/2" shall be staked with three (3) vertical stakes 120° apart. All trees with calipers between 2-1/2" and 4-1/2"
inclusive shall use four (4) vertical stakes 90° apart. All stakes shall be 2" x 4" (with length sized relative to tree height such that stakes reach the height of major branching), set vertically at least two (2’) feet into the ground, and at least 12" deep into undisturbed soil, and also set against the planting hole wall. The tree shall be centered within the stakes and held firmly in place by Wellington Tape (or accepted equal), and tied to the stake and the tree to prevent slippage. Tighten guying tape as necessary to ensure tree is secured in upright position.

2. Heavy-trunked palm trees and trees with calipers over 4-1/2” shall be braced with a minimum of four (4) 2” x 4” wood braces (with length sized relative to tree height), toe-nailed to 2” x 4” x 12” minimum battens which are tightly secured at two points to the tree (with 1” steel banding), at a point at least 1/3 the clear trunk height. Provide one (1) batten per brace minimum with additional battens as needed to prevent banding from touching trunk. The braces shall be set at an angle between 45° and 60° to the ground. The trunk shall be padded with five (5) layers of burlap under the battens (except for Washington palms). Braces shall be approximately 90° apart and secured underground by 2” x 4” x 12” minimum anchor stake pads hammered such that the deepest point is at least ten (10”) inches below finish grade. Anchor stake pads shall not be exposed more than 2” above finished grade and be located no farther from the trunk than 6” from the outside toe of the earth berm around the saucer. The tree shall be centered within the braces.

B. All trees and palms shall be staked/braced on the same day as installed, and at no time shall any newly planted tree or palm remain without stakes for more than 24-hours after installation. The County may prohibit completion of any further work until all plant material has been appropriately staked.

C. The Contractor’s guying and staking shall prevent trees from falling or being blown over (including by high winds). The Contractor shall re-straighten, replant, and restake all trees which lean or fall, and remove all trees which are damaged due to lack of proper guying and staking within two (2) working days of notification by the County. The County will determine if the fallen tree is damaged and is to be replaced. Such decision shall not be cause for additional expense to the County. Damaged trees shall be replaced and guyed or staked at no additional cost to the County within 30 calendar days of notification occurring at quarterly inspections.

D. All guys and stakes found to be too loose or damaged shall be repaired, tightened, and/or replaced within two (2) calendar days of notification by the County at no
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cost to the County. Guys and stakes shall be fully maintained to provide adequate structural support for the plant providing a neat, orderly and clean appearance. In cases of stake or brace damage caused by circumstances beyond those covered in the contract, such as vehicular accidents, the Contractor shall replace damaged stakes as specified by the County at bid price.

E. At the Contractor’s discretion, all guying and staking material should be removed between the sixth (6th) and twelfth (12th) months following planting. At the Contractor’s option, the anchor stake pads shall be either completely removed or driven into the ground such that the top of the stake is a minimum depth of 4” below grade. The Contractor shall notify the County fifteen (15) calendar days prior to removing guying and staking material. Removal of guying and staking materials shall not relieve the Contractor of any responsibilities of any warranted materials that may be in place.

LI - 3.07 Maintenance Prior to Initial Acceptance (at installation):

The Contractor’s maintenance shall commence after each plant is planted and shall continue until Initial Acceptance (at installation), after which the formal minimum twelve (12) month maintenance/guarantee period shall commence. All maintenance operations before and after Initial Acceptance (at installation), shall be conducted consistent with Specification SECTION SM - SITE MAINTENANCE, which includes the guarantee and replacement requirements.

The Contractor shall maintain Florida Grade No. 1 quality until final acceptance. This plant maintenance shall include watering, pruning, weeding, cultivating, mulching, fertilizing, repairing or replacing stakes and guys, replacement of sick or dead plants, resetting plants to proper grades or upright position, restoration of the circular earth berm around the saucer, protection from insects and diseases, and all other care required for proper growth and health of the plants. Proper protection of grassed areas shall be provided and any damages resulting from planting or maintenance operations shall be repaired promptly. If determined to be necessary by the County, disturbed areas shall be re-sodded to match existing turf at no additional cost to the County.

LI - 3.08 Sod/Seed Installation And Maintenance Prior To Initial Acceptance

A. Elimination of Existing Turf Cover: Existing vegetation cover is to be sprayed with a non-selective herbicide such as Glyphosate (Roundup) or equivalent. Herbicide is to be applied at a rate of active ingredient per gallon as specified on the product
TECHNICAL SPECIAL PROVISIONS

label. All spraying must be done with a low volume / low pressure sprayer and applied in a manner that will minimize drift and contact with adjacent plant materials or vehicular traffic. No spraying will be allowed under inclement weather conditions or wind in excess of 10 miles per hour. If an indicator dye is used in the spray mixture, it must not come into contact with the curb, gutter, traffic separator, or other concrete surfaces. The contractor is responsible for the removal of any stains caused by indicator dyes to these surfaces. The resulting dead vegetation is to be raked and removed.

B. Site Preparation: The site is to be prepared for sodding/seeding by the removal of debris such as sticks, rocks, roots and litter and the establishment of final grade. The location of any existing irrigation systems are to be noted and all sprinkler heads flagged prior to the beginning of site preparation work. All holes and depressions are to be filled with backfill material that consist of 50% sand and 50% organic soil. Existing high spots in the median surface are to be leveled with the resulting grade facilitating the sheet-flow of water to the curb line. The soil perimeter at the inside curb line is to be excavated to a depth of 3/4" to 2" to allow the top of the base of the installed sod to be flush with the top of the curb. Any soil that is spilled outside of the median must be removed immediately.

C. Sod Installation: The sod is to be placed onto the prepared site in a pattern with staggered seams. All sodding must be done in contiguous areas with no large gaps between planting sites. Each piece of sod must be abutted against the one adjacent to it. All gaps between pieces of sod will be filled with partial sod pieces or topsoil. No gaps greater than ½" in the seams between the individual pieces of sod will be accepted. All parts of the sod must be must be in firm contact with the soil surface and any corners or edges that overlap other pieces of sod must be trimmed. The sod must be kept 2 feet away from the trunks of any existing trees with a symmetrical circle of bare ground being established around each tree. All sod shall be topdressed with screened soil mixture of 75% organic soil and 25% sand that is free of rocks sticks or other debris. After the topdressing operation is completed the sod is to be compacted with a 1,000 lbs. roller.

D. Site Cleanup: All wooden pallets, partial sod pieces, piles of backfill material, equipment and debris must be removed from the job site prior to the approval of substantial completion.

E. Irrigation: As soon as the area covered by a single zone of irrigation is sodded, the system should be activated and 0.10" to 0.25" of water applied to the sod. The newly planted sod is to be irrigated twice a day between the hours of 10:00 a.m.
and 2:00 p.m., unless watering restrictions are in effect, for a period of 10 days or until a root system has been established as evidenced by substantial resistance when the sod is pulled away from the soil base.

F. Mowing: The contractor is responsible for an initial mowing of the sod with St. Augustine “Floratam” mowed at 3” and Bahia “Argentine” at 3.5” with a rotary type mower. If the mower is equipped with a side-delivery chute a deflection device should be used to eliminate the discharge of grass clippings into roadway lanes.

LI - 3.09 Installation of Accent Plants, Ground Covers and Woody Ornamentals

A. Elimination of Existing Vegetative Cover: shall conform to the specifications contained within ITEM LI - 3.08 A.

B. Site Preparation of Planting Beds: The site is to be prepared for planting by the removal of debris such as sticks, rocks, roots and litter. The area to be planted shall be excavated to a depth of 18” and backfilled to a level of final grade with a soil mix comprised of 50% sand and 50% screened organic material such as screened muck or compost, guaranteed as weed free. All excavated material is to be removed from the planting site.

C. Installation of Plant Materials: Plant Materials shall be removed from containers prior to planting. Any rootballs containing regions of compacted or encircling roots shall be loosened by making vertical cuts to the root mass. Plant Materials shall be placed in holes that are slightly larger than the diameter of the rootball with the top of the rootball to be at or slightly above finished grade. “Terrasorb AG”, or accepted equal, is to be added to the planting hole at a rate of ¼ oz. (1 tsp.) per gallon of rootball being installed, prior to backfilling. Backfilling shall be made with the specified soil mixture and shall be firmly compacted and watered-in, so that no air pockets remain.

D. Pre-emergent Herbicide Application and Mulching: The planted bed shall receive a pre-emergent granular herbicide application using “Ronstar G”, or accepted equal, applied using methods and rates as specified on the manufacturer’s label prior to the application of mulch. Mulch products used in bed plantings shall conform to the specifications as listed in ITEM LI - 2.05.

END OF SECTION
SITE MAINTENANCE SPECIFICATIONS

SECTION - SM

SM - PART I - GENERAL

SM - 1.01 Work Included:

A. The maintenance work consists of providing all labor, materials, equipment, permits, maintenance of traffic, and incidentals necessary to perform all required landscape maintenance commencing after each tree is planted and continuing until final acceptance at the end of the maintenance/guarantee period. These specifications apply to all projects (work orders) throughout Palm Beach County assigned to the Contractor under the County's Annual Roadway Landscaping Contract.

B. Grassed areas beyond the perimeter of the earth berm/watering saucers will be maintained by others.

SM - 1.02 Related Work Specified Elsewhere:

Section LI - Landscape Installation: These provisions shall apply to all work in Section SM - Site Maintenance as appropriate.

SM - 1.03 General Operating Specification:

Refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, (2004 edition), as the general operating specification document, however Section 580, Landscaping is deleted and replaced with the specifications for LANDSCAPE INSTALLATION (SECTION LI) and the SITE MAINTENANCE (SECTION SM) herein. Maintenance of traffic requirements are described in the Contract Documents.

SM - 1.04 Protection:

Protect all plants, wildlife, site furniture, paved surfaces, and buildings during maintenance procedures and the application of chemicals. When using equipment
and chemicals, use according to manufacturer’s directions and specifications. Repair or replace any items damaged through improper use of equipment or application of chemicals at no cost to the County. Contractor shall submit a copy of the applicable pest control licenses to the County and Material Safety Data Sheets for all products to be used for this work. Apply all chemicals after 48-hour’s notice to the County and at a time and in such a manner that the public will not be in contact with nor have any real or imagined harm done to them by the application including, but not limited to, herbicides, insecticides, and fungicides.

SM - 1.05 Coordination of Maintenance Schedule:

Coordinate and schedule all work through the County. The Contractor shall submit a detailed maintenance schedule for the minimum twelve (12) month maintenance/guarantee period (divided into anticipated quarterly work plans) to the County for review within fifteen (15) calendar days of receipt of work order and before Initial Acceptance (of installation).

SM - 1.06 Quality of Operation:

Provide the maintenance services in a professional manner and keep all areas in a clean, orderly, and safe condition, satisfactory to the County at all times. Abide by all applicable federal, state, and local laws, ordinances, and regulations.

SM - 1.07 Personnel:

A. During all maintenance work hours, provide a qualified, English speaking and competent person in the work area who is authorized to supervise the maintenance operations and to represent and act for the Contractor.

B. All personnel shall be required to wear proper attire which, as a minimum, includes a standard shirt carrying company name and/or logo, present a good appearance and maintain a professional code of conduct.

C. All personnel shall take lunch breaks and use restroom facilities in appropriate areas off site.

SM - 1.08 Equipment:

A. All vehicles shall be maintained in good working order, affixed with a company name/logo, painted, with no visible rust and shall be parked on pavement in public
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areas only. Provide protection of paving from loading ramps. Use tarps/plywood to protect from oil.

B. Refueling mowers, edgers, etc. shall be completed prior to unloading equipment. Refueling, addition of oil, etc. shall be done with care and preferably over concrete. Any damage to asphalt or sod/planted areas from gas, oil or chemical spills shall be fully corrected by Contractor.

C. No storage or provision for storage shall be made on site for maintenance equipment or materials. Contractor shall be responsible for transporting equipment and materials to the site and off site in sealed or secured containers and vehicles as required, unless specifically allowed by written agreement.

SM - 1.09 Monthly Reports:

On or before the tenth day of each month, submit for approval a written report describing in detail all work performed by the Contractor under this contract during the past month (including replacement, mulching, fertilizing, pruning, and chemical application activities). The report shall also include: dates of site inspection(s) by qualified personnel as described in ITEM SM - 1.07; observations of the general health and vitality of all plantings; the locations and severity of any pests encountered; detailed descriptions of all chemical treatments applied; the general condition of areas maintained; descriptions of damage and vandalism; repair or maintenance recommendations; and the proposed general and landscape maintenance program to be performed by the Contractor during the next month. County shall approve format of monthly reports, and require revised formats as necessary.

SM - 1.10 Routine Quarterly Inspections:

During the minimum twelve (12) month maintenance period, the Contractor will be required to make maintenance inspections with the County on a quarterly basis for weeks number 13, 26, and 39 from the date of Initial Acceptance (at installation) at a time scheduled by the County. Problems identified during these inspections and corrective actions to be taken (with time frames) will be listed by the Contractor and be incorporated into an amended version of the upcoming quarter’s work plan, unless otherwise indicated by the County.

SM - 1.11 Guarantee, Replacement, and Final Inspections:

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A. Guarantee: All work shall be guaranteed during the minimum twelve (12) month maintenance/guarantee period during which all plants are to be maintained to meet Florida Grade No. 1 as per Florida Grades and Standards for Nursery Plants, by the Florida Dept. of Agriculture and Consumer Services (henceforth referred to as Florida Grades and Standards). All trees shall be alive, healthy, and in satisfactory growth throughout the guarantee period.

B. Replacements: The County will be the authority to determine which “Replacement Category” described below applies to each tree and what, if any, action is to be taken.

1. If, at any time during the minimum twelve (12) month maintenance/guarantee period, the County identifies plant material that are substandard, unhealthy, dead, damaged or otherwise in unsatisfactory condition, then such plant material shall be removed and replaced/staked by the Contractor as per the following at no additional cost to the County.
   
   a. Remove such plant material within fifteen (15) calendar days of written notification by the County, and fill planting holes immediately with soil to finish grade level. This notification may occur at any time in addition to quarterly inspections.
   
   b. Replace such plant material within thirty (30) calendar days after the written notification occurring at quarterly inspections.
   
   c. The County reserves the right to remove any unhealthy, substandard, damaged, or dead plant material with prior notification to the Contractor; however, the Contractor shall replace such trees as per these specifications.

2. Fallen or leaning trees shall be removed (if damaged or otherwise substandard) or uprighted/re-staked (if apparently healthy and meeting Florida Grade No. 1).
   
   a. Those trees requiring removal shall be removed within two (2) working days of written notification by the County. Planting holes of removed trees shall be immediately filled with soil to finish grade level.
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b. The County, without prior notification to the Contractor, reserves the right to remove, reposition, any fallen or leaning tree encroaching into a vehicular travel lane or creating any other situation affecting public health, safety, welfare.

3. Plant material showing clear evidence of being damaged or knocked down by vehicular accidents will be removed by the County and replaced by the Contractor on a unit cost basis within thirty (30) calendar days after the written notification occurring at quarterly inspections.

4. The Contractor shall notify the County by written fax of each successfully completed plant material removal and/or replacement and each shall be identified by station number location shown on the planting plans.

5. All replacement plant material shall become guaranteed for a minimum of twelve (12) months from the date of their initial acceptance for replacement installation, and follow the same maintenance/guarantee period requirements specified herein for originally planted trees.

C. Final Acceptance:

1. The Contractor shall notify the County in writing fifteen (15) calendar days prior to presumptive completion of maintenance/guarantee period in order for the County to schedule a semi-final inspection. Said maintenance/guarantee period shall be continued until the final inspection is complete and the final acceptance of the project is granted by the County.

2. Within seven (7) calendar days of the notice in ITEM SM - 1.11 C.1, a semi-final inspection will be scheduled by the County with the Contractor. Following the semi-final inspection, the County will provide the Contractor with a list of deficiencies including necessary replacements and required time frames for completion. Replacements, including those in ITEM SM - 1.10 B, shall occur prior to final inspection and before final acceptance is granted. When the work specified by the contract is found to be completed to the County’s satisfaction, the semi-final inspection shall constitute a final inspection.

3. Upon satisfactory replacement of material and performance of required work by the Contractor, another semi-final inspection shall be made. If the
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required material is found to have been replaced and the work completed satisfactorily, then this shall constitute the final inspection.

4. When, upon completion of the final inspection, the work is found to be completed satisfactorily, the County shall give the Contractor written notice of final acceptance.

5. Notwithstanding the above, the County reserves the right to accelerate the date of any final acceptance (thereby ending the maintenance/guarantee period) when the County deems such action is in the County’s best interest.

6. Earth berm rings utilized to retain water within the saucer area of each tree (located at the perimeter of the 6’-wide planting hole) must be maintained throughout the entire guarantee period, but are to be knocked down to level grade just before the semi-final inspection for each tree. To accommodate mowing patterns, the previously circular mulched area for each tree shall be reshaped by the Contractor into an oblong eye-shaped area running lengthwise down the median 8’ wide x 16’ long as per project details. The grassed areas affected by the reshaped mulched areas shall be treated with an herbicide as per manufacturer’s specifications for weed-removal before applying mulch. A 3” layer of mulch shall be applied by the Contractor to the entire eye-shaped area before final acceptance. The mulch area of trees that are clustered in tight groupings may be merged to form one mulch bed if approved in writing by the County.

SM - PART II - PRODUCTS

SM - 2.01 Landscape Maintenance Materials:

A. Water: Use water free of elements toxic to plant and/or animal life. Contractor shall provide (within the unit cost for each tree) labor and equipment necessary to distribute water as required for all installed materials using hand-watering methods. Existing or proposed irrigation systems should not be relied on to provide water for newly planted materials.

B. Replacement Trees: Conform to the type, species, grade, standard, size and method of installation as originally specified unless otherwise directed in writing by the County. For replacement trees which differ from the original plants, the Contractor
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must obtain prior written approval by the County, and submit a credit/debit statement, as appropriate.

C. Planting Soil Backfill Mix: As specified in SECTION LI - LANDSCAPE INSTALLATION.

D. Fertilizer: As specified in SECTION LI - LANDSCAPE INSTALLATION.

E. Top Mulch: As specified in SECTION LI - LANDSCAPE INSTALLATION.

F. Herbicides: Use herbicides recommended for the control of the types of weeds encountered as recommended by the University of Florida Cooperative Extension Service.

G. Insecticides: Use insecticides recommended for the control of the types of insect pests encountered. Insecticides shall be EPA approved.

H. Fungicides: Use fungicides recommended for the control of the types of fungi encountered. Fungicides shall be EPA approved.

SM - PART III - EXECUTION

SM - 3.01 Landscape Maintenance:

A. General: Maintain all plantings in a healthy, vigorous and attractive condition so as to maintain the required Florida Grade No. 1 for all plantings as per Florida Grades and Standards, commencing after each tree is planted and continuing until final acceptance at the end of the maintenance/guarantee period.

B. Maintenance:

1. Pruning and Trimming:

   a. Trees (excluding palms): Prune all trees to remove dead, broken, or infected branches, suckers, vines and dead or decaying stumps and all other undesirable growth. Perform pruning to maintain Florida Grade No. 1 growth habit. To enhance the appearance of specific trees, the County may request additional pruning. Perform all pruning in accordance with American Association of Arborists.
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standards and recommendations and also those of Florida Grades and Standards. Do not remove more than 15% of branches unless otherwise approved in writing by the County. Buckhoming (also called 'hat-racking') of any tree is not permitted.

b. Palms: Prune all palms to remove dead or substantially brown fronds only.

c. Woody Ornamentals: Prune all Woody Ornamentals to remove dead or substantially brown branches, maintain Florida Grade No. 1 growth habit, maintain County prescribed shape and maintain compliance with sight datum windows and maintain limits of clear sight.

d. Debris Removal: Remove and properly dispose of off-site all clippings, leaves, branches, sticks, and twigs after each pruning.

2. Fertilization: Apply specified complete fertilizers that are accepted by the County at manufacturer’s recommended rates. Notify the County 48-hours in advance of applications. Consistent with Contractor’s submitted detailed maintenance schedule in ITEM SM - 1.05, fertilize all trees two (2) times per year between March and October (no closer than four (4) months apart). Broadcast fertilizer inside saucer area around the edge of the root zone. Fertilizer must not be allowed to touch the trunk.

3. Mulching:

a. Maintain a three (3”) inch layer of mulch in all plant beds around all trees. Replenish to specified depth prior to each quarterly inspection during the minimum 12-month maintenance/guarantee period. Maintain mulch at 3” clear from all tree trunks. Apply mulch after fertilizing, never before.

b. The Contractor shall be responsible for re-mulching activities (including re-establishment of earth berm of saucer) necessitated by washouts, foot traffic, automobile damage or unforeseen circumstances.

4. Weed Control: On a monthly basis, remove weeds mechanically or by spot treatment with accepted herbicide in all plant beds (including the mulched
TECHNICAL SPECIAL PROVISIONS

saucer area and the surrounding earth berm. All herbicides, including pre-emergents, are to be used according to label specifications during the maintenance period. All planting areas/mulched areas shall be weed-free for the final inspection.

5. Sucker Removal: Remove sucker growth monthly from all areas of the trunk, its base, and root zone.

6. Insect Control: Control insect pests which infest plant materials, and control ant mounds which may occur in landscape areas. Record insecticides and other remedies on the monthly work report.

7. Plant Replacement: Refer to ITEM SM - 1.11 B.

C. Watering for Plant Establishment:

1. All installed trees shall be hand-watered over the entire root zone with a slow soaking at 4-gallons per minute for deep root penetration and protection of surface roots, mulch, and earth berm around saucer. Contractor shall be responsible for adequate watering of all installed trees from the time of planting until final acceptance at the completion of the minimum twelve (12) month maintenance/guarantee period.

2. The following water guidelines have been established for Contractor's information only and shall be considered only as an estimate of water need. Depending on climate, rainfall, soil, and plant conditions, the Contractor shall adjust the water schedule and amount per application to meet optimum plant growth conditions. The Contractor shall be responsible for monitoring climate and plant soil moisture conditions, and determining if watering beyond or less than the watering guideline described below shall be applied. Water shall not be paid for separately, but shall be included in the unit cost per tree.

WATER USE GUIDELINES

Amount of Water Applied:
Trees and Palm Trees: Apply a minimum of 15-gallons water per tree at each application. Water applied should be a slow soaking at 4-gallons per minute maximum.
Minimum Frequency Guidelines for Hand-Watering:

<table>
<thead>
<tr>
<th>Material</th>
<th>Day</th>
<th>Frequency</th>
<th>No. Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Material</td>
<td>1-30</td>
<td>Daily</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>31-180</td>
<td>Every 3rd Day</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>181-325</td>
<td>Every 7th Day</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>326-361</td>
<td>Every 12th Day</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Frequency and number of applications may vary due to climate, rainfall, soil, and plant conditions. Less water may be used during wet, cool periods whereas more water may be needed during hot, dry periods. Contractor shall adjust as needed for optimum plant health. The minimal frequencies suggested above shall not limit the Contractor's responsibility for providing adequate watering and acclimation for the proper establishment of all trees.

4. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by the Contractor by filling with topsoil, reshaping earth berm and saucer, tamping to re-stabilize slopes, and replacing lost fertilizer and mulch at no additional cost to the County.

5. Contractor to use a self-canceling nozzle with a spray diffuser on the end of the hose to ensure water is applied gently so as not to displace mulch or expose root systems.

6. Proof of watering, in the form of receipts, meter readings or other written documentation, shall be presented with the Contractor's monthly reports.

D. Monthly Reports:

Complete monthly reports as described in ITEM SM - 1.09.

E. Payment Schedule:

The Contractor shall submit invoices for each unit bid price item by the percentages below:

1. Following written Initial Acceptance (at installation): 70% payment will be made with 30% retainage.
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2. After the second quarterly inspection, at the County's discretion: Up to 10% payment using the retainage may be made.

3. Following written Final Acceptance of work at the end of the minimum 12-month Maintenance/Guarantee Period: Final payment (ranging from 20 to 30%) based on above using the retainage balance will be made.

F. All cost associated with the performance of work under this contract including but not limited to all materials, labor, and equipment shall be included in the unit bid item price for each plant material.

END OF SECTION

IRRIGATION SYSTEM CONSTRUCTION SPECIFICATIONS

SECTION - ISC

ISC - PART I - GENERAL

ISC - 1.01 Scope Of Work:

A. Irrigation systems shall be constructed using sprinklers, valves, piping, fittings, controllers, wiring, etc. of sizes and types as shown on the drawings and as called for in these specifications. The system shall be constructed to grades and conform to areas and locations as shown on the drawings.

Sprinkler lines, valves, piping, wiring, etc. are essentially diagrammatic. Minor adjustments in location to suit field conditions are anticipated. Major relocations shall have prior approval of the County.

Unless otherwise specified or indicated on the drawings, construction of the irrigation system shall include furnishing, installing and testing of all mains, laterals and fittings, furnishing and installing of sprinkler heads, gate valves, control valves, controllers, and control wires, etc.; all necessary specialties and accessories such as backflow preventers, pump stations, excavation and backfill, and all other work in accordance with the plans and specifications as required for a complete system.
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B. The Contractor shall obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Inspections required by local ordinances shall be arranged as required. Upon completion of the work, satisfactory evidence that all work has been installed in accordance with the ordinances and code requirements shall be furnished to the County.

C. While working on medians or on the roadside, proper traffic control shall be used to protect workers and the public. Traffic control operations for installation and for future maintenance shall be in accordance with the Palm Beach County Streetscape Standards Manual, dated October 29, 2003, and as stated in the Maintenance of Traffic Section in these Contract Documents. All work shall be done in accordance with all local and state codes and standards. All above ground apparatus and structures that are installed shall be kept a minimum of 6' from the adjacent travel lane.

ISC - PART II - PRODUCTS

ISC - 2.01 General:

All materials to be incorporated in this system shall be new and without flaws or defects and of the quality and performance as specified and meeting the requirements of this section. All material to be incorporated into an irrigation system that utilizes re-use water shall have the appropriate labels and bear the proper color (lavender) as required by the service provider. All material overages at the completion of the installation are the property of the Contractor and are to be removed from the site.

ISC - 2.02 Pipe And Fittings:

Pipe sizes shall conform to those shown on drawings. No substitutions of smaller pipe sizes will be permitted but substitutions of larger sizes may be approved. All pipe damaged or rejected because of defects shall be removed from the site at the time of said rejection.

A. Polyvinyl Chloride (PVC):

1. All plastic pipe shall be continuously and permanently marked with the following information:

   a. manufacturer’s name
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b. pipe size
c. schedule number, class or SDR number
d. type of material
e. code number

2. Unless otherwise noted on the drawings, all plastic pipe fittings shall be Schedule 80 polyvinyl chloride free from manufacturing defects.

3. Solvents used for joining must comply with the requirements of ASTM-D-2466 and be recommended by the manufacturer of the plastic pipe used.

4. All PVC main lines 2 ¼" or larger shall have provision for expansion and contraction provided in the joints. All joints shall be designed for push-on connection. A push-on joint with a coupling manufactured as an integral part of the pipe barrel consisting of a thickened section with an expanded bell with a groove to retain a rubber sealing ring of uniform cross section similar and equal to Johns-Manville Ring-Tite and Ethyl Bell Ring or made with a separate twin gasket coupling similar and equal to Certainteed Fluid-Tite are acceptable. Circular gaskets shall conform to the requirements of ASTM designation F477. All O-ring pipe shall be Class 200.

5. All tees and elbows connecting to the o-ring mainline shall be ductile iron manufactured for use with PVC O-ring pipe, Harco or accepted equal.

6. Underground detectable marking tape shall be Line Guard or accepted equal.

7. When directional bore is chosen as the method by which to install sleeves, the main line pipe shall be Schedule 40 Flexible PVC Hose with appropriate fittings for connection to Rigid PVC O-ring main line. Manufacturer shall be KAF-FLEX, (800) 451-7646 or accepted equal.

8. Main line, 2" or smaller, shall be Schedule 40 PVC with Schedule 80 PVC fittings.

9. All lateral lines shall be Schedule 40 PVC.
B. Galvanized Steel:

Galvanized steel pipe shall conform to the requirements of ASTM Designation A 120, Schedule 40. At threaded joints between PVC and metal pipes, the metal shall contain the socket end and the PVC side, the spigot. A metal spigot shall not, under any circumstances, be screwed into a PVC socket.

ISC - 2.03 Risers:

A. All sprinklers shall have a flexible riser assembled by the use of flexible polyethylene pipe. The inside diameter of the polyethylene pipe shall be the same diameter as the sprinkler head inlet.

B. Swing joints used with rotor and spray bodies shall be by Lasco or accepted equal.

ISC - 2.04 Valves:

A. Backflow Preventer (used only for potable water supply):

The backflow preventer shall be a Reduced Pressure Zone (RPZ) type, as accepted by Palm Beach County Water Utilities Department, capable of having a flow rate that is greater than or equal to that which comes from the meter.

The backflow preventer body shall be constructed of bronze and the internal parts of stainless steel. A backflow preventer is not required for reclaimed water (gray water), but a check valve of the same size as the delivery line is required.

B. Manual Valves:

All zone shut-off valves of sizes 2" or smaller shall be all bronze double disc wedge type with integral taper seats and non-rising stem. Those in-ground shall be installed in a separate valve box. Gate valves shall be NIBCO, T-133-K or equal American made, conforming to MSS SP-80 @ 200psi/13.8 Bar.

C. Automatic Control Valves:
TECHNICAL SPECIAL PROVISIONS

Shall be Irritrol 100P-1.5 FC with omni-reg pressure regulator, Toro P-220-27-0-6 (pressure-regulated angle type), or accepted equal. All control valves shall be provided with an equal sized gate valve installed upstream and included in the same valve box.

D. Pressure Relief Valves:

The pressure relief valve shall maintain constant upstream pressure by passing or relieving excess pressure, and shall maintain close pressure limits without causing surges. The pressure relief valve shall be a fast opening, slow closing, 125 class flanged globe type valve. See plans for size (1” minimum) and opening pressure.

E. Air/Vacuum Relief Valves:

The air/vacuum relief valve shall be a 2" AR Series Combination Air and Vacuum Release Valve by BERMAD, or accepted equal. Install a 1½” gate valve to allow isolation of relief valve for periodic cleaning and maintenance. The relief valve shall be installed in an approved valve box on a 1 ½” ‘swing joint’ riser affixed to a saddle tap at the top of the mainline at the highest location in the system, in both directions from the source, or as directed by the engineer. Install in a traffic rated valve box per section 590-2.05.

ISC - 2.05 Valve Box:

To be polymer concrete with fiberglass reinforcement with a traffic rated cover, embossed with the word “Irrigation”, as certified by the manufacturer. Recommended manufacturers are CDR systems Corp., Ormond Beach Florida and Quazite, Lenoir City, Tennessee, or accepted equal. Size to be 11” X 18” with plain cover (no metal). The appropriate valve zone numbers shall be stenciled on the underside of the lids.

ISC - 2.06 Sprinkler Heads:

A. Quick Coupler Valves:

Quick coupler valves shall be two-piece heavy duty brass with locking vinyl cover. Rainbird Model #33 DL RC or accepted equal to be used where specified on the
TECHNICAL SPECIAL PROVISIONS

drawings. Provide (2) Model 2049 cover keys with (2) swivel hose ell adapters, Model SH-O or those suitable for use with equal manufacturer. Any quick-couples used with reclaimed water or surface water must be permanently labeled “Do Not Drink” in English and in Spanish.

B. Sprinkler Heads:

Toro 570Z-6P-PRX, 570Z-6P-ZXF, or accepted equal shall be provided where specified on the drawings. Rotor heads shall be Hunter PGP with stainless steel risers, K-Rain Pro-Plus, Toro EZ Adjust, or accepted equal. All heads located on slopes shall be equipped with a Check Valve Seal.

C. Bubbler Heads:

Bubbler heads shall be adjustable with a full circle delivery pattern. Rainbird 1300 A-F, Toro 514-20, Irritrol 533 or accepted equal, shall be provided where specified on the drawings.

ISC - 2.07 Electrical Control Wiring:

All electrical control wiring shall be UF which has been approved for direct underground burial.

A. Ground wire shall be American wire gauge size 12.

B. Control wire shall be American wire gauge size 12, or as specified on the drawings.

ISC - 2.08 Pump Station:

A. Pump shall be as specified on the drawings.

1. Submersible pump requires the following:

   a. A steel cased well of appropriate size (minimum 6") and depth as specified on the drawings to accept the specified pump and motor (see well specifications).
b. A submersible pump and motor as specified in the drawings ranging from 2 HP to 10 HP. Pump shall be Goulds, Sta-Rite, Aerometer or accepted equal to be installed with a pressure relief valve. Submit performance curves prior to installation.

c. One 6" thick concrete, below-ground vault, Model #PB4848-48 by Oldcastle Precast, Inc., or accepted equal. Required inside dimensions shall 48" x 48" x 48" deep. Vault shall have a concrete bottom containing drain hole(s) and an Aluminum 48" x 48" cover. 300 PSF load rating, Model #ADP300 by U.S.F. Fabrication, Inc., or accepted equal. The vault shall be core drilled as necessary to connect tanks to discharge pipe (see Item d below).

d. One rust control tank and one fertigation tank. Tanks shall be 55 gallon capacity, 20" dia. x 38" deep seamless molded plastic, minimum 1/8" thick, Model #TC20381A by Chem Tainer Inc., or accepted equal. Tanks shall have piped connections to two injector pumps then to the discharge side of the pump. Injector pumps shall be wired to pump control and be capable of delivering between 10 and 100 parts per million. Pumps shall be a solenoid driven metering pump by, LMI Unidose, Model # UO42-281, or accepted equal.

e. Electrical equipment shall be mounted on an aluminum, unistrut rack (3" x 1'4" U-Channel uprights with 2" x ¼" L-Channel cross braces). The rack shall contain the irrigation controller and motor control/starter in a NEMA 4x enclosure, injector pumps (see Item d above) and a NEMA 4x circuit breaker panel with manual shut-off. A rain sensor, Hunter Industries 'Mini Click' "C", or accepted equal shall be required. Connection from the irrigation controller to the rain switch shall be via a conduit adapter mounted on a pole, per code, or through the integration of a wireless rain cut-off. All electrical work must be performed by a licensed electrician. Electrical service meter shall be mounted 36" above grade on its own unistrut rack at the base of the pole where the riser has been installed and provided with a 2P3W Fused NEMA 4X rated stainless steel Manual Disconnect with UL Class RK-5 Fuses, all sized per applicable codes for the pump being installed.

f. For pumps 5 HP and larger, a Jayco, or accepted equal, 1 ¼" pressure relief valve and an Ames Cla Valve, or accepted equal
TECHNICAL SPECIAL PROVISIONS

pressure regulating and pressure sustaining valve, pressure gauge followed by a gate valve, both of the same size as the main line.

g. A Coast Guard shack cage fabricated from expanded metal, or accepted equal, to enclose the well head and both valves, mounted on a concrete pad as per the manufacturer’s specifications.

h. Concrete vaults shall contain sump pumps wired to the power panel. Pumps shall be ¼ hp, Myers, Model # 525VI, 115 V, or accepted equal. Install PVC discharge pipe, with appropriate check valve of the same size of the discharge line, just below grade for a minimum distance of ten feet with a 4” PVC pop-up discharge blow off cover by NDS or accepted equal located above a 2’x2’x2’ Gravel Sump.

2. Centrifugal pump station requires the following:

a. A steel cased well of appropriate size (minimum 6”) and depth as specified in the drawings (see well specifications).

b. A centrifugal pump and motor as specified in the drawings ranging from 2 HP to 10 HP. Pump shall be Flint & Walling with brass impeller (for all 3hp or smaller pumps), Goulds, Sta-Rite, Sullivan Electric or accepted equal, to be installed with a pressure relief valve and Hot Stop or similar emergency shut-off device. Submit performance curves prior to installation.

c. Concrete vault as described in Item 2.08-A1c above.

d. Rust control and fertigation tanks as described in Item 2.08-A1d above.

e. Electrical equipment and mounting as described in Item 2.08-A1c above.

f. Pressure regulating valve with a pressure gauge as described in Item 2.08-A1f above.

g. A pump enclosure, Canal Screens, Inc., or accepted equal, sized to house the pump and the pressure regulating valve and gate valve if
TECHNICAL SPECIAL PROVISIONS

applicable, set on an aluminum skid and anchored to a concrete pad of the size recommended by the enclosure manufacturer.

h. A check valve, by STRATAFLO PRODUCTS, INC, on the intake side of the pump of the same size as the intake pipe installed either inside or outside of the pump enclosure.

3. Potable, reuse or surface water supplies require the following:
   a. Plans shall be submitted to the appropriate water utility for review. Contractor shall pay any plan review fees. Palm Beach County will arrange for water service and tap, and will pay any service initiation fees.
   b. An RPZ backflow preventer, as accepted by Palm Beach County Water Utilities Department, Ames Cla Valve or accepted equal, pressure regulating and pressure sustaining valve, pressure gauge followed by gate valve installed by a licensed plumber beyond the water meter.

4. When reclaimed water is used, the requirements are the same as those for potable water, except that a check valve shall be installed instead of the RPZ backflow preventer.

5. When the water source is surface water such as a lake or canal, the requirements are the same as those for a centrifugal pump station except for the well. In addition, the suction pipe shall be fitted with a Plum Creek, Aqua Queen or accepted equal, self-cleaning intake screen installed as per manufacturer’s specifications.

B. Pipes, valves, fittings, etc., shall be galvanized steel in sizes and locations as shown on the plans. No PVC shall be used above ground.

ISC - 2.09 Controller:

Shall be Sentinel Field Satellite as manufactured by Toro, or accepted equal, in stainless steel pedestal mounted cabinet, mounted adjacent to the aluminum unistrut (see Item 2.08-A1e above). Provide an additional 120V, 15 AMP electrical outlet for auxiliary power and a Data Industrial Model IR-PR flow sensor (size
determined by size of mainline). Flow sensor shall be located as indicated in details within a 11" x 11" x 18" polymer concrete box with fiberglass reinforcement and fitted with a locking traffic rated cover. Provide each satellite controller with a hand held radio and radio port, one surge protection board, antenna or 56K phone modem D-Series by DATA Comm for Business, U.L. approved ground rod/plate protection (separate grounding protection is required from the pump station) and pump start. Contractor shall be responsible for hook up and verification of positive connection to Central Controller. Pump controls shall be mounted on aluminum unistrut with fused shut-off, meter and rain sensor. Electrical service shall be U.L. approved, installed by a licensed electrician and provided with a molded breakaway plug and connector installed in a traffic rated approved in ground pull box.

For information and prices, contact Hector Turf at (954)429-3200.

**ISC - 2.10 Communication Tower:**

Shall be a freestanding tripod G-25 by ROHN, or accepted equal, with 12" spacing. Antenna shall be installed per manufacturer’s directions in the location indicated in the plans or as directed by County personnel. The number of sections required to provide positive communications shall be determined at the time of installation.

**ISC - PART III - EXECUTION**

**ISC - 3.01 Surface Conditions:**

A. Inspection:

1. Prior to all irrigation work, the Contractor shall carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

2. The Contractor shall coordinate work with electrical and paving contractors, as needed.

3. The Contractor shall verify that irrigation system may be installed in strict accordance with all pertinent codes and regulations, the original designs, the referenced standards, and the manufacturers' recommendations.
TECHNICAL SPECIAL PROVISIONS

4. The Contractor shall call Sunshine State One-Call of Florida, Inc. at 1-800-432-770 to verify utility locations at least 48 hours prior to digging. The Contractor shall be responsible for contacting or locating other utilities. The Palm Beach Water Utilities Department also must be contacted at (561) 641-3429, or the appropriate water utility having jurisdiction over the project area, to verify locations and depths of underground utilities.

5. If the irrigation system is damaged as a result of improper construction or coordination on the part of the Contractor, the damage shall be repaired by the Contractor at no expense to the County.

B. Discrepancies:

1. In the event of a discrepancy, the Contractor shall immediately notify the County. 100% coverage and 100% overlap is required regardless of any site changes.

2. The Contractor shall not proceed with the installation in areas of discrepancy until such discrepancies have been fully resolved in writing by the County.

ISC - 3.02 Field Measurements:

The Contractor shall make all necessary measurements in the field to insure precise fit of items in accordance with the specifications found in the drawings. The final layout of the project must be approved by the County before any work commences.

ISC - 3.03 Trenching And Backfilling:

A. Trenching for plastic pipe shall be excavated to sufficient depth and width to permit proper handling and installation of pipe and fittings. The backfill shall be thoroughly compacted and leveled off to adjacent soil level. The backfill shall contain no lumps or rocks larger than 3 inches. The top six inches of backfill shall be free of rocks larger than 1", subsoil or trash. Pipe trench shall be sodded if placed in an existing sodded area and shall not settle after backfilling.

B. Minimum Depth of Cover:
1. The minimum depth of cover for main lines shall be 24" with a layer of Line Guard installed at a depth of 6".

2. For lateral lines on the discharge side of the E.R.C.V., minimum depth of cover shall be 18".

3. For Line Guard (main lines only), minimum depth of cover shall be 6".

4. On State Roads the requirements of the FDOT Utility Accommodation Manual and Utility Permit Conditions shall take precedence over the above.

ISC - 3.04 Installation Of Piping:

A. Inspection of pipe and fittings:

   The Contractor shall carefully inspect all pipe and fittings before installation, removing all dirt, scale, and burrs, and reaming as required. Install all pipe with all markings up for visual inspection and verification.

B. The Contractor shall coordinate work with Site Contractor to locate sleeves of size and location as shown on the drawings.

C. Plastic Pipe:

   1. The Contractor shall exercise care in handling, loading, unloading, and storing plastic pipe and fittings; store plastic pipe and fittings under cover until ready to install; transport plastic pipe only on a vehicle with a bed long enough to allow the pipe to lay flat to avoid bending and concentrated external load.

   2. The Contractor shall repair all dented and damaged pipe by cutting out the dented or damaged section and rejoining with a coupling.

   3. In joining, use only the specified solvent and make all joints in strict accordance with the manufacturer's recommended methods. Give solvent welds at least 15 minutes set up time before moving or handling and 24 hours curing time before filling with water.
TECHNICAL SPECIAL PROVISIONS

4. For plastic-to-steel connections, work the steel connection first; use a non-hardening pipe dope on all threaded plastic-to-steel connections and use only light wrench pressure.

D. Galvanized Pipe:

1. Make all cuts to galvanized pipe square with all cuts thoroughly reamed and all rough edges or burns removed.

2. Make all pipe threads sound, clean-cut, and well fitting.

3. Use pipe dope on male fittings only.

4. Make all screwed joints tight with all the necessary wrenches, but without handle extensions.

E. Pavement Crossings:

1. Sleeves under decorative paving or sidewalks are to be schedule 40 PVC and installed at depth of 24".

2. Sleeves under vehicular paving are to be Schedule 80 PVC or hot-dipped galvanized steel with a minimum wall thickness of .237" and installed at a depth of 36".

3. Installation under existing pavement is to be by jack and bore or directional bore. Any pavement, curb, sidewalk, or other surface damaged during boring shall be replaced to Palm Beach County and F.D.O.T. specifications.

ISC - 3.05 Installation Of Equipment:

A. Manual control valves and electric remote control valves:

The Contractor shall install manual and electric remote control valves in control boxes where indicated on the drawings, a minimum of 18" from back of curb, in accordance with the manufacturer's recommendations.

B. Motor, pump, pressure control valves, check valves and main shut-off gate valves:
TECHNICAL SPECIAL PROVISIONS

Install where indicated in the drawings, in accordance with drawings and with manufacturer's recommendations.

C. Air Relief Valves:

Install where indicated on the drawings at highest elevation, in accordance with manufacturer's recommendations.

D. Pressure Relief Valves:

Install where indicated in the drawings, in accordance with drawings and with manufacturer's recommendations.

E. Sprinkler Heads:

Installation of Irrigation Heads: Heads shall be placed to finished grades. Locate sprinkler heads a minimum of 12" from back of curb. Upon installation heads shall be flagged by colored markers for positive identification in field. Prior to operation of heads, the Contractor will lay an area 2' x 2' of sod around each head. Sod shall be laid so that it is even with the finished grade. Heads must be firmly set so as to withstand being driven over with soft tire equipment without damage. Rotor heads require swing joint assemblies.

F. Thrust Blocking:

1. In general, thrust blocks are required on the main line at the following locations:

   a. Where the pipe changes direction of the water (i.e., ties, elbows, crosses, wyes and tees).

   b. Where the pipe size changes (i.e., ties, elbows, crosses, wyes and tees)

   c. At the end of the pipeline (i.e., caps and plugs).

   d. Where there is an in-line valve.

2. Blocks shall be concrete, having a calculated compressive strength of 3,000 psi. Install as shown on details.
G. Controllers:

The Contractor shall install controllers at locations as shown on plans according to manufacturer’s recommendations.

H. Lightning Arrestor:

The Contractor shall install an arrestor at each controller location shown on the plans to provide lightning protection on both primary and secondary sides of all controllers. Proof of effectiveness of lightning arrestor shall be in accordance with manufacturer’s guidelines. A maximum of 15 ohms of resistance is allowable.

I. Backflow Preventer:

RPZ Backflow Preventer shall be installed by licensed plumber in a location approved by the appropriate water utility department.

ISC - 3.06 Electrical Control Wiring:

A. Installation of electrical control cable shall be of the size specified and shall be taped to the bottom of the main line. Expansion joints in the wire to be provided at 200-feet intervals by making 5 to 6 turns of the wire around a piece of ½” pipe. Where it is necessary to run wire in a separate trench, the wire shall be within a PVC sleeve and have a minimum cover of twelve (12) inches.

B. All wire connections at remote control valves, within valve boxes, and at all wire splices, shall be left with a 6’ minimum “slack” so that in case of repair, the valve bonnet or splice may be brought to the surface without disconnecting the wires. Waterproof splice to be Rainbird or equal.

C. All pump station wiring shall be done by a licensed electrician.

ISC - 3.07 Testing And Inspection:

A. Closing in Uninspected Work:
TECHNICAL SPECIAL PROVISIONS

The Contractor shall not allow or cause any of the irrigation work to be covered or enclosed until it has been inspected, tested, and approved by the County. Any work which has been covered shall be exposed for inspection.

B. Flushing:

Before backfilling the main line, and with all control valves in place before lateral pipes are connected, completely flush and test the main line and repair all leaks; flush out each section of lateral pipe before sprinkler heads are attached.

C. Testing:

1. Make all necessary provisions for thoroughly bleeding the line of air and debris.

2. Before testing, fill the line with water for a period of at least 24 hours.

3. After valves have been installed, test all main lines for leaks at a pressure of 100 psi for a period of 4 hours with all couplings exposed and with all pipe sections center-loaded. No more than 5 psi loss will be acceptable.

4. Furnish all necessary testing equipment and personnel.

5. Correct all leaks and re-test until accepted by the Owner.

D. Final Inspection:

1. The Contractor shall thoroughly clean, adjust and balance all systems.

2. The Contractor shall demonstrate the entire system to the County, proving that all remote control valves are properly balanced, that all heads are properly adjusted for radius arc of coverage and overspray, and that the installed system is workable, clean, and efficient. No irrigation water shall enter the roadway.

ISC - 3.08 Instructions:

A. Remote Control Legend: Attach a typewritten legend inside each controller door that states the areas covered by each remote control valve.
B. Maintenance Personnel: After the system has been completed, inspected and approved, the Contractor shall instruct the Owner's maintenance personnel in the operation and maintenance of the irrigation system.

C. Provide all manuals, product literature, Warranty Certificates, keys, etc. to the County - Streetscape Section.

ISC - 3.09 Plans:

Substantial deviations from piping layout (2' or more) shall be recorded as work progresses and an as-built plan of the sprinkler system shall be furnished to the Owner as a condition of completion of work. Forward all bore logs and profiles, test results and permit copies to the County - Streetscape Section.

ISC - 3.10 Guarantee:

All equipment, material, and labor shall be guaranteed by the Contractor for a period of one (1) year after substantial completion of the project. Any defects found, either in materials or workmanship, during the period shall be immediately corrected at the contractor's expense.

END OF SECTION

IRRIGATION OPEN END WELL CONSTRUCTION SPECIFICATIONS

SECTION - IWC

IWC - PART I - GENERAL

IWC - 1.01 Related Documents And General Conditions:

Drawings and General Provision of Contract, including General Supplementary Conditions apply to work of this Section. The Contractor shall keep a copy of all Contract Documents on-site at all times including drawings, all Specifications and Codes mentioned above, and copies of all logs, and correspondence. All work shall be done in accordance with all applicable ordinances, laws, codes and regulations. Any changes required by these ordinances, laws, codes and regulations shall be made at no additional expense to the Owner.

IWC - 1.02 Scope Of Work:
TECHNICAL SPECIAL PROVISIONS

The work covered by this Section of the Specifications shall include, but not be limited to, the following:

A. All labor, equipment, material, and operations necessary for construction, development, and testing of the proposed well (see SECTION - ISC IRRIGATION SYSTEM CONSTRUCTION SPECIFICATIONS).

B. All labor and materials necessary to connect well to a specified pump (see SECTION - ISC IRRIGATION SYSTEM CONSTRUCTION SPECIFICATIONS).

C. Drill well to a depth as necessary to achieve the required water flow and water quality.

D. The Contractor shall apply for and pay for all permits and licenses required for execution of the work. Any required signatures by County officials will be provided. The Contractor shall arrange for, and be present during, all required inspections. Any required additional work or materials resulting from inspections under the above permits shall be provided at no cost to the Owner.

IWC - 1.03 Quality Assurance:

A. The Contractor shall inspect the site to determine conditions to be encountered during construction noting all existing and/or proposed utilities (see SECTION - ISC IRRIGATION SYSTEM CONSTRUCTION SPECIFICATIONS for underground utility location procedures).

B. The Contractor shall be responsible for any damage that occurs as a result of the construction. This shall include, but not be limited to, the Owner's property, underground utilities, and vehicular traffic. The Contractor shall keep the work area neat and orderly, continually removing rubbish, waste material and temporary structures.

C. Protecting Water Quality:

Take precautions to prevent contaminated water or water having undesirable physical or chemical characteristics from entering the stratum from which well is to draw its supply. Prevent contaminated water, gasoline, etc., from entering well, either through the opening or by seepage through ground surfaces.
TECHNICAL SPECIAL PROVISIONS

If well becomes contaminated or water having undesirable physical or chemical characteristics enters the well due to neglect, provide casings, seals, sterilizing agents or other materials to eliminate contamination or shut off undesirable water. Provide remedial work at no cost to the Owner.

Exercise care in performance of work to prevent breakdown or caving-in of strata overlaying that from which water is to be drawn. Develop, pump or bail well until water pumped from the well is substantially free from sand.

Protect work to prevent either tampering with the well or entrance of foreign matter during well development. Upon completion, provide a temporary well cap.

D. Driller's Requirements: An experienced foreman or driller who has authority to take orders from the County is to be constantly in control of the well site. Upon request, the driller shall furnish well drilling information desired by the County.

E. The Contractor shall guarantee the water well for one (1) year from the date of initial acceptance by the County. This shall include all material, workmanship, and well performance.

IWC - 1.04 Abandonment Of Drilling:

A. If it becomes necessary to abandon drilling operations before completion of a water producing well, the Contractor shall follow all regulations for abandonment of the well as required by local authorities having jurisdiction.

B. Should abandonment of drilling be necessary due to poor workmanship or negligence on the part of the Contractor, no compensation will be allowed.

C. Should abandonment of drilling be necessary due to inadequate water supply or for another reason that is deemed to be no fault of the Contractor by the County, payment for the work shall be based upon the actual vertical footage completed and shall be paid at the Contract Unit Price for Additional Well Depth In Excess Of Base Depth, or as agreed upon.

IWC - 1.05 Submittals:

A. Prior to starting construction of the well, the Contractor shall submit to the County for approval an estimated schedule of the work to be accomplished and a
description of the methods and equipment to be used during construction. The description shall include methods he will use to drill, develop and test the well.

B. The Contractor shall keep accurate logs of the irrigation well and samples of materials drilled through. Take samples of substrata formation at ten foot intervals and/or changes in formation throughout the entire depth of the well.

Provide the following information to the County for record purposes:

1. Casings: Diameter, thickness, weight per foot of length, depth below grade.

2. Pumping Test: Static water level, maximum safe yield, drawdown at a maximum yield.

3. Drilling Log: Log indicating strata encountered.

4. Alignment: Certification that the well is aligned and plumb within specified tolerances.

The Contractor shall keep an accurate record of the order, number, size and length of the individual pieces of pipe as assembled in the well. The records shall be delivered to the County upon completion of the work.

C. The Contractor shall provide to the County a physical and chemical analysis of water from the finished well. Make the analysis, certified by an approved testing laboratory, in accordance with local requirements, to include the following: total dissolved solids, silica, iron, pH, sulfur, chloride, and salt content.

IWC - PART II - PRODUCTS

IWC - 2.01 Materials:

A. Casings:

The irrigation well casing shall be new black steel pipe, Schedule 40. The joints may be welded or threaded coupling.

B. Grout:
TECHNICAL SPECIAL PROVISIONS

Grout shall be ANSI/ASTM C150, type shall suit project conditions.

IWC - PART III - EXECUTION

IWC - 3.01 Well Construction:

A. Annular space shall be continuously filled with grout, with process being completed in a single operation. Subsequent work in the well, such as drilling or other operations, shall be suspended for 72 hours after grouting of casing. The only exception shall be when quick-setting cement is used, when work may proceed after 24 hours.

B. Install permanent casing with a temporary well cap. Installation of the well cap shall be coordinated with the pump system installer.

C. The well shall be of sufficient size to produce a continuous supply of water at an acceptable quality and specified capacity.

IWC - 3.02 Well Development:

A. The well shall be developed by such methods that will effectively extract, from a water bearing formation, the maximum practical quantity of sand, drilling mud and other fine materials in order to bring the well to maximum yield per foot of drawdown and to a sand-free condition. This work shall be performed in a manner that does not cause any undue settlement or disturbance of the strata above the water bearing formation, nor disturb the seal around the well casing, thereby reducing the sanitary protection otherwise afforded by the seal.

B. Development of the well shall continue until water pumped from the well, at a maximum test pumping rate, is clear and free from sand and other debris that is larger than 0.030" in diameter. The water shall be considered sand-free when no samples taken during the test pumping contain more than 2 parts per million of suspended solids per weight. The Contractor shall submit to the County certification from an approved testing laboratory that indicates the results of the "Non-Filterable Residual" (total suspended solids) test, as specified in the EPA Manual, Section 160.2. A sufficient amount of water to insure a detection limit of less than 2 PPM (mg/L) must be filtered.

IWC - 3.03 Testing Of Well For Plumbness And Alignment:
TECHNICAL SPECIAL PROVISIONS

A. Set casing plumb and true to line. At a minimum, tests for plumbness and alignment shall be made after construction of the well and before its acceptance. Additional tests may be required during the performance of the work.

B. Test alignment of the well by lowering a pipe approximately 40 feet in length to a depth of 90 feet. The pipe used for the alignment test shall be not more than ½" smaller in diameter than the portion of casing or hole being tested at the time. The pipe must pass freely through the casing or hole.

C. The well casing shall not be out of plumb more than 1/8 of the diameter of the casing per 100' of length. If the well does not pass this test, the Contractor shall be responsible for repair or replacement of the well.

IWC - 3.04 Testing Well For Yield And Drawdown:

A. Final pumping tests shall be conducted only after the well has been fully constructed, cleaned out and depth of well accurately measured.

B. A variable capacity test pump shall be provided that has a minimum capacity of the maximum expected yield at total head equal to drawdown in the well, plus the head loss in the pump column and discharge piping.

C. The Contractor shall provide enough discharge piping for pumping unit to conduct water to a point of disposal that will avoid a nuisance or endangerment to adjacent property. Provide and maintain any equipment needed for measuring flow of water such as a weir box, orifice or water meter. The elevation of the water level in the well will then be measured.

D. All labor, power and other necessary materials, equipment and supplies required to operate the pumping unit shall be supplied by the Contractor. The final testing for each well shall consist of four (4) hours of continuous pumping after maximum drawdown has been reached. After completion of the final test, foreign matter such as sand, stones or other debris shall be removed from the well by bailing, sand pumping or other approved methods.

E. After the test pump and auxiliary equipment have been installed, the County shall be notified a minimum of 3 days prior to the start of any test pumping. Conduct test pumping as follows:

1. Record initial water elevations in the well.
2. Start test pump and make adjustments to bring pump to required pumping rate.

3. Record readings of water level in the well and pumping rate at 30 minute intervals.

4. Water samples shall be taken for analysis at the beginning and at the end of the pump test.

F. Upon completion of the pumping test, record the returning levels in the well at 15 minute intervals until 95% of the well capacity is reached. Prepare notations so that a curve of the recovery rate may be plotted.

G. Provide all test results and other required submittals to the County.

IWC - 3.04 Disinfection Of Well:

A. Use disinfection procedures as required by local government agencies. The well must be cleaned of foreign substances after all development work has been completed and it has been satisfactorily tested. Casings should be swabbed, using alkalis if necessary, to remove foreign substances.

B. The well shall be disinfected with a chlorine solution of sufficient strength to provide a minimum chlorine to water ratio of 100 parts per million within the well. The chlorine solution shall be introduced into the well using gravity, pump or drop feeder. A contact period of 24 hours shall be attained; then the well shall be pumped until the chlorine residual is less than 0.2 parts per million.

END OF SECTION
It is the intent of these Specifications that the Florida Department of Transportation "Standard Specifications for Road & Bridge Construction", dated 2013, be used as the basis for the work. FDOT refers to the State of Florida and its Department of Transportation and Personnel. DEPARTMENT is intended to be that wording which would provide proper terminology, making such Standard Specifications and General Provisions as though they were those Standard Specifications and General Provisions of Palm Beach County in conjunction with Palm Beach County's retained engineer(s).

In addition to these Standard Specifications and General Provisions, there will be those General Provisions included which would pertain to the pertinent items of construction.

The Standard Specifications for Road and Bridge Construction, 2013 Edition, amended as follows, but not otherwise changed, shall govern.
1-3 Definitions

The following terms, when used in the Contract Documents, have the meaning described as follows:

Department THE FOLLOWING IS SUBSTITUTED:

The Palm Beach County Engineering & Public Works Department or The State of Florida Department of Transportation, as appropriate.

Engineer THE FOLLOWING IS SUBSTITUTED:

Palm Beach County’s Engineering & Public Works Department’s County Engineer, acting directly or through duly authorized representatives; such representatives acting within the scope of the duties and authority assigned to them.

Note: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where “acceptable, accepted, approval, approved, authorized, condemned, considered necessary, contemplated, deemed necessary, designated, determined, directed, disapproved, established, given, indicated, insufficient, ordered, permitted, rejected, required, reserved, satisfactory, specified, sufficient, suitable, suspended, unacceptable, or unsatisfactory,” it shall be understood as if the expression were followed by the words “by the Engineer”, “to the Engineer”, or “of the Engineer”.

ADD THE FOLLOWING DEFINITION:

Lot - The definition varies throughout the specification. The Engineer reserves the right to define the testing limits.

ADD THE FOLLOWING DEFINITION:

Qualified Products List (QPL) - Refers to FDOT’s Qualified Products List

END OF SECTION
GENERAL PROVISIONS

SECTION 2
PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 Prequalification of Bidders DELETE AND INSERT THE FOLLOWING

Palm Beach County Engineering & Public Works Department (Department) does not certify contractors. Although FDOT certification is not a requirement, the Department reserves the right to utilize FDOT's listing of pre-qualified contractors in determining contractor's eligibility to perform the work required for this project. Refer to URL http://www.fdot.gov/contracts/prequal_info/prequalified.shtml for access to pre-qualified FDOT contractors for construction contracts exceeding $250,000 in amount. All contractors bidding on any contract may be required to submit a copy of their FDOT Certification of Current Capacity and Status of Contracts On Hand (Form 525-010-46).

Prime Contractors who have not performed similar work with the Department within the past three (3) years as a prime contractor shall provide with the bid a report listing all "similar" projects performed and completed by the firm in a separate binder entitled "Documentation of Experience and Resources". The Department reserves the right to request additional information, which shall be submitted within three (3) business days of the Department's request.

- Failure to submit the "Documentation of Experience and Resources" with the bid will cause the bid to be considered non-responsive.
- Failure to submit additional requested information within three (3) business days of the Department's request will cause the bid to be considered non-responsive.

The "Documentation of Experience and Resources" shall include at a minimum:

- Listing of Similar Projects Completed by the Firm:
  - project title
  - project number
  - brief summary of the scope performed
  - the entity for whom the work was performed
  - two (2) entity contacts (one administrative / one construction) with direct telephone numbers
  - the construction budget of the project
  - the resulting budget (over / under)

- Detailed Information with Respect to:
  - financial resources
  - equipment
  - past record on projects
  - key personnel resumes with a statement of their work category experience

- A list stating the types of work in which the firm can provide backup to show experience, expertise, and competence.
- The aggregate amount of work that they currently have under contract
- Any other pertinent information to assist us in this qualification review

The Department will review the submitted documentation to determine if the Contractor is approved to perform the work required for this project.
GENERAL PROVISIONS

If Prime Contractors have not performed similar work with the Department within the past three years as a prime contractor, failure to submit the required “Documentation of Experience and Resources” with the bid will cause the bid to be considered non-responsive.

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit the following:

(a) A bid on a contract to provide any goods or services to a public entity.

(b) A bid on a contract with a public entity for the construction or repair of a public building or public work.

(c) Bids on leases of real property to a public entity.

A person or affiliate who has been placed on the convicted vendor list following a conviction for 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 Section 287.017 F.S., for Category Two. All restrictions apply for a period of 36 months from the date of placement on the convicted vendor list.

2-2 Proposals

2-2.1 Obtaining Proposals DELETE AND INSERT THE FOLLOWING:

Obtain a proposal under the conditions stipulated in the Notice to Contractor. The proposal states the location and description of the work to be performed; the estimate of the various quantities (if applicable); the items of work to be performed (if applicable); the Contract Time; the amount of proposal guaranty; and the date, time, and place of the opening of proposals. The proposal form will also include any special provisions or other requirements which vary from or are not contained in the Standard Specifications.

The plans, Specifications and other documents designated in the proposal are part of the proposal, whether attached or not. Do not detach any papers bound with or attached to the proposal.

ADD THE FOLLOWING SUB-ARTICLE:

2-2.1.1 Filling out Proposals (Pay Item Forms)

In filling out proposal forms, bidders shall be governed by the following provisions:

(a) Proposals can be made on the blank proposal form provided (Excel file). The blank spaces in the proposal form must be filled in, regardless of whether quantities are shown, and no change shall be made either in the phraseology of, or in the items listed in the proposal form. It is the bidder’s responsibility to check and verify the accuracy of excel file formulas/extension.
GENERAL PROVISIONS

Bidders are reminded that this is a unit price contract, and bid totals will be based on actual unit prices provided (see Section “e” below) regardless of extensions and totals shown.

(b) Each proposal form shall specify a unit price, for each of the separate items, as called for.

(c) Any proposal which does not contain prices set opposite each of the items for which there is a blank space, or any proposal which shall in any manner fail to conform to the conditions of the published notice will be cause for rejection.

(d) Proposals must be signed in ink by an authorized officer of the firm with the signature in full.

John Doe Contracting Company
By: John Doe, President

(e) In the event of mathematical errors in the extension of units and unit prices, the unit price shall prevail. The “Total Bid” as indicated on the proposal forms shall be the summation of the extension of units and unit prices only. Should the proposal include “Alternate(s)”, the total amount that will be considered for the “Alternate(s)” shall also be the summation of the extension of units and unit prices only, with the unit price prevailing.

When “Alternate(s)” are included, the County reserves the right to award the contract based on the “Total Bid” with or without the “Alternate(s)”, with no recourse to the Contractor.

(f) When a corporation is a bidder, the person signing shall state under the law of what state the corporation was chartered, and the name and title of the officer having authority under the by-laws to sign Contracts.

(g) Anyone signing the proposal as agent must file it with legal evidence of his authority to do so. Post Office address, County and State, must be given after the signature.

(h) Proposals that contain any omission, erasure, alteration, addition or item not called for in the Engineer’s estimate, or that show irregularities of any kind, will be considered as informal or irregular. This will be cause for the rejection of the bid.

DELETE AND INSERT THE FOLLOWING:

2-2.2 Department Modifications to Contract Documents
Modifications to any Contract Documents will be posted at the following URL address:
https://pbcvssp.co.palm-beach.fl.us/webapp/vssp/AltSelfService

The bidder shall take responsibility for checking and downloading the revised data from the Department’s website. If the Department’s website cannot be accessed, contact the Palm Beach County Purchasing Division at (561) 616-6800 or email PBCVendor@pbcgov.org.

2-2.3 Internet Bid Submittals DELETE IN ITS ENTIRETY:

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GENERAL PROVISIONS

2-2.4 Hard Copy Bid Submittals DELETE AND INSERT THE FOLLOWING:

Unless otherwise indicated in the Notice to Contractors, the Contractor shall prepare and submit the bid as a hard copy submittal to the Department in accordance with the instructions listed below and the requirements of 2-5 and 2-8.

Print and submit bid documents generated from the web site on letter size paper. Ensure that all computer generated sheets are legible. The Department prefers 12 point font size and recommends a minimum of 20 pound paper.

The Department will not be held responsible if the bidder submits a bid that is incomplete. Failure to follow proper procedures may cause the bid to be declared non-responsive, or irregular.

2-5 Preparation of Proposals DELETE AND INSERT THE FOLLOWING:

2-5.1 General

Submit proposals on the form described in 2-2. Any pay item that will be provided free or at no cost to the Department shall be indicated as “free” or “$00.00”. If the pay item is left blank or N/A is used, the bid may be declared irregular. Show the total of the bid where called for on the proposal forms.

2-5.2 Internet Bid Submittals DELETE IN ITS ENTIRETY:

2-5.3 Hard Copy Bid Submittal DELETE AND INSERT THE FOLLOWING:

If the proposal is made by an individual, either in the bidder’s own proper person or under a trade or firm name, the bidder shall execute the proposal under the bidder’s signature and enter the firm’s bidding office street address.

If made by a partnership, execute the proposal by setting out in full the names of the partners, the firm name of the partnership, if any, have two or more of the general partners sign the proposal and enter the firm’s bidding office street address.

If made by a corporation, execute the proposal by setting out in full the corporate name and have the president or other legally authorized corporate officer or agent sign the proposal, affix the corporate seal and enter the corporation’s bidding office street address. If made by a limited liability company, execute the proposal by setting out the company name, have the manager or authorized member sign the proposal and enter the company’s bidding office address.

If made by a joint venture, execute the proposal by setting out the joint venture name, have the authorized parties sign the proposal and enter the bidding office’s street address.

2-6 Rejection of Irregular Proposals DELETE AND INSERT THE FOLLOWING:

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GENERAL PROVISIONS

A proposal is irregular and the Department may reject it if it shows omissions, alterations of form, additions not specified or required, conditional or unauthorized alternate bids, or irregularities of any kind; or if the unit prices are obviously unbalanced, or if the cost is in excess of or below the reasonable cost analysis values.

ADD THE FOLLOWING SUB ARTICLE AFTER 2-6

2-6.1 Unbalanced Bid Items

Bid items in which the unit prices are not in line with the industry standards or averages for the items may be considered to be unbalanced.

For a bid to be balanced, each item must carry its proportionate share of direct cost, overhead and profit. Unbalanced items which are installed and billed at the beginning of a project also result in "front-end loading".

As a minimum, the following process shall apply to the bidding and awarding of all County construction contracts:

"Bid which are determined by the Department to be unbalanced bids or which contain unbalanced line item pricing when compared to competitor's bid's for the same item and standard industry prices, and which significantly deviate from the Department's determination of acceptable line item pricing, may be rejected by the Department".

2-7 Guaranty to Accompany Proposals (Bid Bond) ADD THE FOLLOWING AT THE END OF THIS ARTICLE:

The bond may be a Certified Check or a Cashier's Check made payable to the Board of County Commissioners, Palm Beach County, Florida, in the amount of 5% (Five Percent) of the total gross amount of the bid as a guarantee that the bidder, if given a letter of intent to award, will within fourteen (14) consecutive working days after the date of written notice being given of such intent, enter into a written contract with the Board of County Commissioners in accordance with the accepted bid. Certified checks shall be signed by the party whose bid it accompanies.

2-8 Delivery of Proposals

2-8.1 Internet Bid Submittals DELETE IN ITS ENTIRETY
GENERAL PROVISIONS

2-8.2 Hard Copy Bid Submittals DELETE AND INSERT THE FOLLOWING:

Submit all bids in sealed envelopes bearing on the outside the name of the bidder, the bidder’s address and date of opening written in large letters the words:

CONSTRUCTION OF: ANNUAL ROADWAY LANDSCAPING CONTRACT

for which the bidder submitted the bid.

For proposals that are submitted by mail, enclose the proposal in a sealed envelope, marked as directed above. Enclose the sealed envelope in a second outer envelope addressed to the Department, at the place designated in the Notice to Contractors. For a proposal that is not submitted by mail, deliver it to the Department, or to the place as designated in the Notice to Contractors. The Department will return proposals received after the time set for opening bids to the bidder unopened.

A bidder may withdraw his proposal at any time prior to that fixed for opening bids without prejudice to him/herself.

2-9 Withdrawal or Revision of Proposals

2-9.1 Internet Bid Submittals DELETE IN ITS ENTIRETY.

2-9.2 Hard Copy Bid Submittals DELETE AND INSERT THE FOLLOWING:

A bidder may withdraw or revise a proposal after submitting it, provided the Department receives a written request to withdraw or revise the proposal prior to the time set for opening of bids. The resubmission of any proposal withdrawn under this provision is subject to the provisions of 2-8.

If a Bidder wishes to change unit prices they must be made prior to the deadline listed in the Notice to Contractors and they shall strike the unit price and add the changes in the appropriate space. Changes shall be initialed by the person submitting the bid. Any changes or alteration of unit prices in the proposal must be initialed. Failure to initial these changes or illegible entries of corrections or unit prices will be cause for the rejection of the bid as informal or irregular. The Bidder shall include both the unit price and the extension for all lump sum bid items.

2-10 Opening of Proposals DELETE AND INSERT THE FOLLOWING:

The Department will open and publicly read proposals at the time and place indicated in the Notice to Contractors, or as soon thereafter as possible. The Department invites bidders, their authorized agents, and other interested parties to attend.

Proposals received after the time set for the opening will be returned to the bidder “unopened”.

END OF SECTION
GENERAL PROVISIONS

SECTION 3
AWARD AND EXECUTION OF CONTRACT

3-1 Consideration of Bids DELETE AND INSERT THE FOLLOWING:

For the purpose of award, after opening and reading the proposals, the Department will consider as the bid the correct summation of each unit bid price multiplied by estimated quantities shown in the proposal. On this basis, the Department will compare the amounts of each bid and make the results of such comparison available to the public. Until the actual award of the Contract, however, the Department reserves the right to reject any or all proposals and to waive technical errors that the Department may deem best for the interest of the County.

Submit bid unit prices for all bid items. Bids submitted without bid unit prices for all bid items will be rejected as irregular.

3-2 Award of Contract

3-2.1 General DELETE AND INSERT THE FOLLOWING:

If the Department decides to award the Contract, the Department will award the Contract to the lowest responsible, responsive bidder whose proposal complies with all the Contract Document requirements. If awarded, the Department will award the Contract within one hundred eighty (180) days after the opening of the proposals, unless the Special Provisions change this time limit or the bidder and the Department extend the time period by mutual consent.

The “Notice to Proceed” (sec 8.3.3) shall be issued within one hundred twenty (120) calendar days of the award of contract, unless otherwise mutually agreed by the Contractor and the Engineer.

For the purpose of award, the low bid shall be the lowest amount bid for the “Total Bid”, and if any alternates are considered, it shall be the “Total Bid” plus the addition for the alternate or alternates which the Owner may select. In no case will any award be made until all necessary investigations are made into the responsibility of the low bidder.

Prior to award of the Contract by the Department, a contractor must provide proof of authorization to do business in the State of Florida.

Project Award

The Board of County Commissioners (Board) reserves the right to make multiple awards for this contract. In the event the Board exercises this right, award will be made to the two (2) lowest, responsive, responsible bidders. Work will be issued to the bidders at the County’s discretion.

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GENERAL PROVISIONS

3-5 Contract Bond Required

3-5.1 General Requirements of the Bond DELETE AND INSERT THE FOLLOWING:

3-5.1.1 General Requirements for All Bonds

To insure the faithful performance of each and every condition, stipulation and requirement of the Contract Documents and to indemnify and save harmless the Department from any and all damages, either directly or indirectly, arising out of any failure to perform same, upon award, furnish to the Department, and maintain in effect throughout the life of the Contract, an acceptable Public Construction Bond (Surety Bond) for approval by the Board of County Commissioners, as provided below. Obtain a Surety Bond that has a resident agent in the State of Florida, meets all of the requirements of the laws of Florida and the regulations of the Department, including having a currently valid certificate of authority issued by the United States Department of the Treasury under § 31 U.S.C. 9304-9308, and has the Department’s approval. Ensure that the Surety Bond’s resident agent’s name, address, and telephone number is clearly stated on the face of the Surety Bond. The Surety Bond shall be furnished on forms attached hereto. The Contractor shall verify at the time of execution of the Contract, the acceptability of the surety provided thereunder. Contractor shall not commence any work prior to furnishing to the Department an acceptable Surety Bond.

3-5.1.2 Work Order For Less Than $200,000

For each work order in an amount less than $200,000, furnish to the Department and maintain in effect throughout the duration of the work order, a Surety Bond in the amount of $50,000, as security for faithful performance of work order(s) and for the payment of all persons performing labor and furnishing materials in connection therewith. In the event that the amount of a proposed work exceeds the amount of the Surety Bond, furnish additional Surety Bond, in increments of $50,000, so that the total amount of the Surety Bond(s) exceeds the amount of all work orders.

3-5.1.3 Work Order For $200,000 or More

For each work order in the amount of $200,000 or more, furnish to the Department and maintain in effect throughout the duration of the work order, an acceptable Surety Bond in an amount at least equal to the amount of the total work order, as security for faithful performance and for the payment of all persons performing labor, and furnishing materials in connection therewith.

ADD THE FOLLOWING SUB-ARTICLE:

3-5.6 Recording of Contract Bond

Before commencing the work, Contractor shall provide to County a certified copy of the recorded bond(s). County may not make any payment to Contractor until Contractor has complied with this requirement.

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3-6 Execution of Contract and Bond DELETE AND INSERT THE FOLLOWING:

The Contractor shall sign (execute) the Contract and provide satisfactory bond and evidence of meeting all insurance requirements per 7-13 (Insurance) with the Contract documents. Executed documents shall be furnished to the Department within fourteen (14) working days after the date of the “Letter of Intent to Award”.

Contractor shall perform not less than 40% of the total contract with his own organization. Therefore, Contractor must submit with the Contract documents a detailed breakdown (in dollars and percentage) of how the total contract amount is proposed to be distributed. The breakdown shall show all relative information for the Prime and all sub-contractors.

3-7 Failure by Contractor to Execute Contract and Furnish Bond - DELETE AND INSERT THE FOLLOWING:

In the event that the bidder fails to execute the Contract and to provide an acceptable bond, as prescribed in 3-5 and 3-6, within 14 days of issuance of the Notice of Intent to Award letter, the Department may cause the bidder to forfeit the proposal guaranty to the Department; not as a penalty but in liquidation of damages sustained. The Department may then award the Contract to the next lowest responsive, responsible bidder, re-advertise, or accomplish the work using day labor.

END OF SECTION

SECTION 4
SCOPE OF THE WORK

4-1 Intent of Contract - ADD THE FOLLOWING AT THE END OF THIS ARTICLE:

The roadway plans for Palm Beach County Project No. 2018050, consist of all work necessary to construct/widen* , Palm Beach County, Florida. The work includes mobilization, clearing and grubbing, ditch work and signalization, maintenance of traffic, maintenance of pedestrian traffic, asphalt pavement, earthwork, drainage, signalization, NPDES compliance, and other work, as directed by the Engineer.

All of the work involved in this project shall conform to the construction plans and specifications and shall be completed in a workmanlike manner. All debris is to be removed within the time specified in the contract.

4-3 Alteration of Plans or of Character of Work

4-3.1 General DELETE AND INSERT THE FOLLOWING:

The Engineer reserves the right to make, at any time prior to or during the progress of the work, such increases or decreases in quantities and such alterations in the details of construction as may be found necessary or desirable by the Engineer. Such increases, decreases or alterations shall not
GENERAL PROVISIONS

constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the work, as altered, the same as if it had been a part of the original Contract.

4-3.9 Cost Savings Initiative Proposal DELETE IN ITS ENTIRETY.

4-4 Unforeseeable Work DELETE AND INSERT THE FOLLOWING:

When the Department requires work that is not covered by a price in the Contract, and the Department finds that such work is essential to the satisfactory completion of the Contract within its intended scope, the Department will make an adjustment to the Contract. The Engineer will determine the basis of payment for such an adjustment in a fair and equitable amount.

END OF SECTION

SECTION 5
CONTROL OF THE WORK

5-1 Plans and Working Drawings

5-1.1 Contract Documents DELETE AND INSERT THE FOLLOWING:

The Contractor will be furnished five (5) copies of the plans and specifications for this project at the Pre-Construction Conference. Additional copies may be purchased from the Palm Beach County Engineering Department, at a total cost of $25.00 per set of plans and contract documents.

The Contractor shall have available on the job site at all times, one copy each of the plans, contract documents and general provisions.

5-1.2 Department’s Plans DELETE IN ITS ENTIRETY.

5-1.4.4 Style, Numbering, and Material of Submittals

5-1.4.4.1 Drawings DELETE AND INSERT THE FOLLOWING:

Furnish six (6) clearly legible photographic or xerographic copies of all shop drawings that are necessary to complete the structure in compliance with the design shown on the plans. Prepare all shop drawings using the same units of measure as those used in the Department’s plans. Use sheets no larger than 11 by 17 inches. Consecutively number each sheet in the submittal series, and indicate the total number in the series (i.e., 1 of 12, 2 of 12, ... , 12 of 12).

Include on each sheet the following items as a minimum requirement: the complete Project Number, Bridge Number(s), drawing title and number, a title block showing the names of the fabricator or producer and the Contractor for which the work is being done, the initials of the person(s) responsible for the drawing, the date on which the drawing was prepared, the location of the item(s) within the project, the Contractor’s approval stamp with date and initials, and, when...
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applicable, the documents shall be signed and sealed by the Specialty Engineer. A re-submittal will be requested when any of the required information is not included.

5-1.4.4.2 Other Documents DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

Provide four sets of original documents or clearly legible photographic or xerographic copies of documents other than drawings, such as trade literature, catalogue information, calculations, and manuals. Provide sheets no larger than 11 by 17 inches. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12, . . . , 12 of 12). Provide an additional three sets of documentation for items involved with precast prestressed components. Provide an additional two sets of documentation for items involving structural steel components.

Prepare all documents using the same units of measure as those used in the Department's plans. Bind and submit all documents with a Table of Contents cover sheet. List on the cover sheet the total number of pages and appendices, and include the complete Project Number, a title referencing the submittal item(s), the name of the firm and person(s) responsible for the preparation of the document, the Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record, as appropriate.

Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the complete Project Number and the initials of the person(s) responsible for preparing and checking the document.

Clearly label trade literature and catalogue information on the front cover with the title, Project Number, date and name of the firm and person(s) responsible for that document.

5-1.4.5 Submittal Paths and Copies

5-1.4.5.1 General DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

All submittals shall be made to the Engineer.

5-1.4.5.2 Building Structures DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

Submit working, shop and erection drawings, and all correspondence related to building structures, such as Rest Area Pavilions, Office Buildings, and Maintenance Warehouses, to the Architect of Record for review and approval. Send a copy of the transmittal to the Engineer.

5-1.4.5.3 Contractor-Originated Design DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

Submit shop drawings and applicable calculations to the Engineer for review. Ensure that each sheet of the shop drawings and the cover sheet of the calculations are signed and sealed by the

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Specialty Engineer or the Contractor’s Engineer of Record. Transmit the submittal and copies of the transmittal letters in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-1.4.5.4 Temporary Works DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

For Construction Affecting Public Safety, submit to the Engineer shop drawings and the applicable calculations for the design of special erection equipment, falsework, scaffolding, etc. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer. Transmit the submittal in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-1.4.5.8 Other Miscellaneous Design and Structural Details Furnished by the Contractor in Compliance with the Contract DELETE AND INSERT THE FOLLOWING:

Submit to the Engineer shop drawings and the applicable calculations. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer. Transmit the submittal in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-5 Authority of the Engineer DELETE AND INSERT THE FOLLOWING:

Perform all work to the satisfaction of the Engineer. The Engineer will decide all questions, difficulties, and disputes, of whatever nature, that may arise, relative to the interpretation of the plans, construction, prosecution, and fulfillment of the Contract, and as to the character, quality, amount, and value of any work done, and materials furnished, under or by reason of the Contract.

5-6 Authority and Duties of Engineer’s Assistants DELETE AND INSERT THE FOLLOWING:

The Engineer may appoint such assistants and representatives as he desires. These assistants and representatives are authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work and to the manufacture, preparation, or fabrication of the materials to be used. Such assistants and representatives are not authorized to revoke, alter, or waive any requirement of these Specifications. Rather, they are authorized to call to the attention of the Contractor any failure of the work or materials to meet the Contract Documents, and have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by the Engineer. The Engineer will immediately notify the Contractor in writing of any such suspension of the work, stating in detail the reasons for the suspension. The presence of the inspector or other assistant in no way lessens the responsibility of the Contractor.
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5-7 Engineering and Layout

5-7.1 Control Points Furnished by the Department DELETE AND INSERT THE FOLLOWING:

The Engineer will provide centerline control points and bench marks to facilitate the proper layout of the work. Normally, the Engineer will furnish only one bench mark for water crossings. Preserve all reference points and bench marks that the Department furnishes.

Should reference points or benchmarks fall within construction limits, the Contractor shall notify the Engineer for survey coordination, and establish new reference points or benchmarks in locations that will not be affected by the construction and preserved upon completion of construction.

The Contractor's surveyor shall verify the accuracy of the design survey data prior to proceeding with work.

5-7.3 Layout of Work DELETE AND INSERT THE FOLLOWING:

Utilizing the control points furnished by the Department in accordance with 5-7.1, the Contractor's surveyor shall verify the accuracy of the design survey data prior to proceeding with work, and establish all horizontal and vertical controls necessary to construct the work in conformity to the Contract Documents. Perform all calculations required, and set all stakes needed such as grade stakes, offset stakes, reference point stakes, slope stakes, and other reference marks or points necessary to provide lines and grades for construction of all roadway, bridge, and miscellaneous items.

When performing utility construction as part of the project, establish all horizontal and vertical controls necessary to carry out such work.

5-7.5 Personnel, Equipment, and Record Requirements DELETE AND INSERT THE FOLLOWING:

Employ only competent personnel and use only suitable equipment in performing layout work. Do not engage the services of any person or persons in the employ of the Department for performance of layout work.

Keep adequate field notes and records while performing as layout work. Make these field notes and records available for the Engineer's review as the work progresses.

5-10-Inspections

5-10.2 Inspection for Acceptance DELETE AND INSERT THE FOLLOWING:

Upon notification that all Contract Work, or all Contract Work on the portion of the Contract scheduled for acceptance, has been completed, the Engineer will make an inspection for acceptance. The inspection will be made within seven days of the notification. If the Engineer
GENERAL PROVISIONS

finds that all work has been satisfactorily completed, the Department will consider such inspection as the final inspection. If any or all of the Work is found to be unsatisfactory, the Engineer will detail the remedial work required to achieve acceptance. The Contract Time shall be suspended to allow the Contractor time to complete the remedial work in accordance with the following schedule:

<table>
<thead>
<tr>
<th>Contract Amount</th>
<th>Contract Time Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤$5,000,000</td>
<td>30 Days</td>
</tr>
<tr>
<td>&gt;$5,000,000 ≤$10,000,000</td>
<td>45 Days</td>
</tr>
<tr>
<td>&gt;$10,000,000</td>
<td>60 Days</td>
</tr>
</tbody>
</table>

If all Work is not completed by the Contractor and accepted by the Engineer during the Contract Time Suspension, the Contract Time shall resume and, after any remaining contract time is expended, Liquidated Damages shall be assessed until all Work is accepted by the Engineer.

Upon satisfactory completion of the Work, the Department will provide written notice of acceptance, either partial or final, to the Contractor.

Until final acceptance in accordance with 5-11, replace or repair any damage to the accepted Work at no additional cost to the Department and as provided in 7-14.

5-12 Claims by Contractor

5-12.1 General ADD THE FOLLOWING AT THE END OF THIS ARTICLE:

5-12.1.1 Additional or Unforeseen Work and/or Claims for Extra Compensation

Payment for Additional or Unforeseen Work and/or Claims for Extra Compensation Additional or unforeseen work of the type already provided by the contract for which there is a contract price will be paid for at such contract price in accordance with 4-3.2.1.

Additional or unforeseen work having no quantity or price provided in the contract will be paid at a negotiated price in accordance with 4-3 and 4-4. Where the cost is negotiated, the Contractor shall submit an estimate to the Department in terms of labor, materials, equipment, overhead (an amount equal to a maximum of ten [10] percent) and other expenses incurred solely as a result of the additional or unforeseen work.

When the price for additional or unforeseen work or claims for compensation cannot be mutually agreed upon, such costs shall be recorded on a force account basis. The Contractor shall furnish to the Engineer itemized daily reports of the costs of all force account work which must be mutually agreed upon. The reports shall be summarized and furnished each week and shall include certified copies of the weekly payroll and original receipted bills for the materials used and the freight charges paid on same. The bills shall show credits for any discounts offered by suppliers and only the net amount of the bill shall be charged to the force account work. Where materials used are not specifically purchased for use on additional or unforeseen work but are taken from

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GENERAL PROVISIONS

the Contractor's stock, the Contractor shall submit a certification of the quantity, price and freight on such materials in lieu of original bills and invoices.

From the daily and weekly reports received from the Contractor, the Engineer will prepare on regulation forms, itemized statements containing the following detailed information:

1. Name, class, dates, number of hours worked each day, total hours computed to nearest half hour, rate and extension for each worker and foreman engaged in said work.

2. Designation, number of hours computed to nearest half hour worked each day, total hours, rental rate, and extension for each unit of equipment engaged.

3. Quantities of materials, prices, and extensions.

4. Freight on materials.

5-12.1.2 Payment

1. For all labor and foremen engaged in the specific work, the Contractor will be paid the actual rate of wages and the number of hours paid said labor and foremen in accordance with approved labor agreements, computed to nearest half hour, plus 20 percent (20%) of this sum. General Foremen will be classified as Superintendents and their compensation will not be included in the payment provided herein.

2. For materials, the Contractor will receive the actual cost delivered on the work including freight charges, as shown by original receipted bills, plus 15 percent (15%) of the sum thereof. For small hand and power tools including chain saws, circular saws and wrenches, no payment will be allowed.

3. The portion of the cost for equipment shall be based on the Rental Rate Blue Book for Construction Equipment, published by Dataquest (version current at time of work) in accordance with the following:

   (a) Costs shall be provided on an hourly basis. Hourly rates, for equipment being operated or on standby, shall be established by dividing the Blue Book monthly rates by 176. The columns, itemizing rates, labeled “Weekly”, “Daily”, and “Hourly” shall not be used.

   (b) On all projects, the costs shall be adjusted by regional adjustments and by Rate Adjustment Tables according to the instruction in the Blue Book.

   (c) Reimbursement for the equipment being operated shall be at a rate of 75 percent [75%] of the Blue Book ownership cost plus 100 percent [100%] of the Blue Book operating costs.

   (d) Reimbursement for equipment required to be idled and on standby, shall be at 50 percent [50%] of the Blue Book ownership cost, only. No more than eight hours of standby will be paid on a single day.
GENERAL PROVISIONS

(e) No additional overhead will be allowed on equipment costs. No operating cost will be allowed for idle equipment. No payment will be made for any type of repairs to equipment. Transportation costs for the moving of such equipment to and from the specific force account operation will be paid. The cost shall be supported by invoice showing actual cost to Contractor. Transportation costs will be paid from the nearest reasonable source of available equipment. If the equipment is not returned to the contractor's nearest equipment storage lot, but is moved to other work, then only the lesser cost of transportation will be paid. The movement to and from the specified force account operation will be as directed by the Engineer.

1. The necessary and required equipment will be inspected and start its rental time on the project in good condition. All equipment must be in good operating condition to qualify for rental payment. For a piece of machinery or equipment which must be brought to the site of the force account work from a source other than another location on the project, rental time shall begin when the unit arrives and it is first used on the force account work. For a piece of machinery or equipment which is already on the project, rental time shall begin when it is first used on the force account work. The rental rate for the Foreman's Transportation unit will be based on the Blue Book for Construction Equipment, published by Datáquest (version current at time of work).

Upon completion of the need for a piece of machinery or equipment, rental time shall cease unless the Engineer has directed, on the basis of a previously agreed schedule, that it be kept at the site of the force account work for economic performance of future force account work.

2. When force account work or any extra work is accomplished by an approved subcontractor, the Contractor shall receive, as compensation for administration costs, an amount equal to a maximum of ten percent of the total amount paid for subcontracted work.

The compensation as herein provided shall be accepted by the Contractor as payment in full for extra work and claims done on a force account basis. The Contractor's representative and the Inspector shall daily compare records of extra work done on a force account basis at the end of each day. Copies of these records shall be made in duplicate, upon a form provided for this purpose, by the Inspector, and signed by both the Inspector and the Contractor's representative; one copy being forwarded to the Engineer or his authorized representative, and one copy to the Contractor.

All claims for extra work done on a force account basis shall be submitted by the Contractor upon certified statements, to which shall be attached original receipted bills covering the costs of the transportation charges on all materials used in such work. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his stock, that the quantity claimed was actually used, and that the price and transportation claimed represent actual cost to the Contractor.
GENERAL PROVISIONS

5-12.2 Notice of Claim

5-12.2.1 Claims for Extra Work

5-12.2.2 Claims for Delay

5-12.3 Content of Written Claim

5-12.4 Action on Claim

The Engineer will respond within 90 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3. Failure by the Engineer to respond to a claim within 90 days after receipt of a complete claim in compliance with 5-12.3 constitutes a denial of the claim by the Engineer. If the Engineer finds the claim or any part thereof to be valid, such partial or whole claim will be allowed and paid for to the extent deemed valid and any time extension granted, if applicable, as provided in the Contract. No circuit court or arbitration proceedings on any claim, or a part thereof, may be filed until after final acceptance per 5-11 of all Contract work by the Department or denial hereunder, whichever occurs last.

5-12.5 Pre-Settlement and Pre-Judgment Interest

5-12.6 Compensation for Extra Work or Delay

5-12.12 Settlement Discussions

The content of any discussions or meetings held between the Department and the Contractor to settle or resolve any claims submitted by the Contractor against the Department shall be inadmissible in any legal, equitable, arbitration or administrative proceedings brought by the Contractor against the Department for payment of such claim.

5-12.13 Personal Liability of Public Officials

In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Engineer or any of their respective employees or agents, there shall be no liability on behalf of any employee, officer or official of the Department for which such individual is responsible, either personally or as officials or representatives of the Department. It is understood that in all such matters such individuals act solely as agents and representatives of the Department.

END OF SECTION
GENERAL PROVISIONS

SECTION 6
CONTROL OF MATERIALS

6-1 Acceptance Criteria

6 -1.1 General ADD THE FOLLOWING AT THE END OF THIS ARTICLE:

All materials/products/certifications incorporated into the work shall be from F.D.O.T. certified and approved sources unless otherwise set forth herein.

6-1.2 Sampling and Testing DELETE AND INSERT THE FOLLOWING:

Restore immediately any site from which material has been removed for sampling purposes to the pre-sampled condition with materials and construction methods used in the initial construction, at no additional cost to the Department.

Ensure when a material is delivered to the location as described in the Contract, there is enough material delivered to take samples, at no expense to the Department.

ADD THE FOLLOWING SUB ARTICLE:

6-1.2.5

All materials that are subjected to tests by samples or otherwise, shall be compensated for as follows:

(a) All tests made that indicate failures to meet the design criteria shall be paid for by the Contractor.

(b) All tests made that indicate passing of the design criteria and approved as such by the Engineer, shall be paid for by the Owner or Palm Beach County.

6-6 Warranty INSERT NEW SUB-ARTICLE 6-6 “WARRANTY” AT THE END OF SECTION 6:

The Contractor warrants to the Owner and Engineer that all materials and equipment furnished under this Contract will be new unless otherwise specified and that all work will be of good quality, free from faults and defects and in conformance with Contract Documents. All work not so conforming to these requirements may be considered defective. If required by the Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. All work shall be warranted and guaranteed unconditionally for a period of one (1) year after the letter of final acceptance.

END OF SECTION
GENERAL PROVISIONS

SECTION 7
LEGAL REQUIREMENTS
AND RESPONSIBILITY TO THE PUBLIC

7-1.9 Florida Minority Business Loan Mobilization Program DELETE IN ITS ENTIRETY.

7-2 Permits and Licenses

7-2.1 General DELETE AND INSERT THE FOLLOWING:

Except for permits procured by the Department, if any, procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

It shall be the Contractor’s responsibility to become familiar with all local governmental codes, ordinances, and laws governing, associated with, or pertaining to the prosecution and completion of the work and to obtain and procure all applicable permits and licenses associated or incidental thereto. Additionally, the contractor shall be responsible for giving all notices necessary or incidental to the prosecution and completion of the work. Any costs involved in procuring permits and licenses, complying with local codes, ordinances or laws, or giving notices shall be incidental to the project and paid by the contractor.

Any permits required by municipality or public agency, including but not limited to tree removal and dewatering, shall become the responsibility of the Contractor. The permitting time shall be included in the bid proposal and work progress schedule. The Contractor shall also be responsible for completing appropriate certifications by a Professional Engineer, certified in the State of Florida, as outlined on PER-1.

The Department will also acquire any modifications or revisions to an original permit when the Contractor requires such modifications or revisions to complete the construction operations specified in the plans or Special Provisions and within the right-of-way limits.

Acquire all permits for work performed outside the right-of-way or easements for the project.

In carrying out the work in the Contract, when under the jurisdiction of any environmental regulatory agency, comply with all regulations issued by such agencies and with all general, special, and particular conditions relating to construction activities of all permits issued to the Department as though such conditions were issued to the Contractor. Post all permit placards in a protected location at the worksite.

In case of a discrepancy between any permit condition and other Contract Documents, the more stringent condition shall prevail.

7-11.3 Contractors’ Use of Streets and Roads

7-11.3.2 On the State Highway System DELETE IN ITS ENTIRETY

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GENERAL PROVISIONS

7-11.4 Traffic Signs, Signal Equipment, Highway Lighting and Guardrail

DELETE THE LAST PARAGRAPH AND INSERT THE FOLLOWING:

Payment for repairs will be incidental to the cost of Maintenance of Traffic (MOT), L.S.

7-11.6 Utilities

7-11.6.1 General

ADD THE FOLLOWING AT THE BEGINNING OF THIS SUB-ARTICLE:

Unless otherwise specified, all references to utility work, coordination, adjustments, permits, utility pay items, etc. shall be considered separate and distinct from Roadway and Bridge items and shall pertain to all utilities including Palm Beach County Water Utilities Department (PBCWUD) and Palm Beach County Traffic Division. The Contractor shall be responsible to be familiar with and assure that all utility related work be performed in accordance with each respective utility department’s minimum engineering and construction standards.

Sufficient time has been allotted in the contract “time of completion” for the Contractor to coordinate the installation and relocation of all utilities. It is the responsibility of the Contractor to assure that this coordination is implemented and included in the work schedule.

Utility adjustments shall be the responsibility of the respective utility company, unless otherwise indicated on the plans or in the specifications.

The Contractor shall be responsible to ascertain the exact location of all utilities prior to construction regardless of information which may be indicated on the drawings. Utilities shall be located and marked in the field. The Contractor shall take reasonable steps to protect the utilities from damage.

In addition, the Contractor shall be responsible to verify if “other” utilities (not shown in the plans) exist within the area of construction. Should there be utility conflicts, the Contractor shall inform the Engineer and notify the respective utility owners to resolve utility conflicts and utility adjustments, as required.

The Contractor shall plan his work and conduct his construction operations in cooperation with the various Utility Companies. The Contractor shall use extreme caution where construction is performed in proximity to utilities, and the Engineer and the respective utility owner shall be notified when any work may conflict with the utilities.

The Contractor shall make all necessary arrangements with the Utility Companies concerned for the maintenance of their lines during the construction period. In the event that complete relocation of utilities has not been accomplished prior to the effective date of the “Notice to Proceed”, the Contractor nevertheless shall commence to work under this contract and schedule his work to avoid interference with the utility relocation work. The County will not be liable for any delay or added expense to the Contractor due to the activities of the Utility Companies, nor shall the County be held responsible for any damage to any utilities due to any action by the Contractor.
GENERAL PROVISIONS

7-12 Responsibility For Damages, Claims, etc.

7-12.1 Contractor to Provide Indemnification DELETE AND INSERT THE FOLLOWING:

The Contractor shall indemnify, defend, save, and hold harmless Palm Beach County and all of its officers, agents or employees from all suits, actions, claims, demands, liability of any nature whatsoever arising out of, because of, or due to any negligent act or occurrence of omission or commission of the contractor, its officers, agents, or employees. In the performance of the construction Contract, neither the contractor/consultant, nor any of its officers, agents, or employees 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 the County or any of its officers, agents, or employees.

It is binding to the Contractor that the above language be included in any and all agreements with subcontracts executed in connection with this contract.

Unless otherwise noted herein, no provision of this Contract is intended to, or shall be construed to, create any third party beneficiary or to provide any rights to any person or entity not a party to this Contract, including but not limited to any citizen or employees of the Contractor.

THIS SPACE LEFT INTENTIONALLY BLANK.
7-13 Insurance DELETE AND INSERT THE FOLLOWING:

7-13.1 General

Unless otherwise specified in this Contract, or approved by County's Risk Management Department, the Contractor shall, at its sole expense, maintain in full force and effect at all times during the life of this contract or the performance of work hereunder (including the warranty period), insurance coverage with limits, including endorsements, not less than those set forth in the Insurance Coverage & Limit Table below and with insurers and under forms of policies acceptable to the County. Contractor shall deliver to the Department Certificate(s) of insurance evidencing that such policies are in full force and effect, not later than fourteen (14) calendar days after receipt of Notification of Intent to Award, but in any event, prior to execution of the Contract by the County and prior to commencement of work on the project. Such certificate(s) shall adhere in every respect to the conditions set forth herein.

The requirements contained herein as to types and limits, as well as County's approval of insurance coverage to be maintained by Contractor, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under the Contract.

7-13.1.1 Commercial General Liability

Contractor shall agree to maintain a standard Insurance Service Office (ISO) version Commercial General Liability policy form, or its equivalent providing coverage for, but not be limited to, Bodily Injury and Property Damage, Premises/Operations, Personal Injury, Products/Completed Operations, Independent Contractors, Contractual Liability, Broad Form Property Damage, X-C-U (X = Explosion; C = Collapse; U = Underground) Coverages (if applicable), Severability of Interest including Cross Liability, and be in accordance with all of the limits, terms and conditions set forth herein. Contractor agrees this coverage shall be provided on a primary basis.

7-13.1.2 Business Automobile Liability

Contractor shall agree to maintain a standard Insurance Service Office (ISO) version Business Automobile Liability coverage form, or its equivalent, providing coverage for all owned, non-owned and hired automobiles, and in accordance with all of the limits, terms and conditions set forth herein. Contractor agrees this coverage shall be provided on a primary basis. Notwithstanding the foregoing, should the Contractor not own any automobiles, the business automobile liability requirement shall be amended to allow the Contractor to agree to maintain only Hired & Non-Owned Auto Liability. This amended coverage requirement may be satisfied by way of endorsement to the Commercial General Liability, or separate Business Auto Coverage form.

7-13.1.3 Workers' Compensation and Employer's Liability

Contractor shall agree to maintain Workers' Compensation Insurance & Employers Liability, including Federal Act endorsement for U.S. Longshoremen's and Harbor Workers Act when any work is on or contiguous to navigable bodies of U.S. waterways and ways adjoining, covering all of its employees on the work site. This coverage shall be accordance with all of the limits, terms
and conditions set forth herein. Exemptions for a Contractor in or doing work in the Construction Industry, or proof of Workers' Compensation coverage provided by an employee leasing arrangement shall not satisfy this requirement.

If any work is sublet Contractor shall require all subcontractors to similarly comply with this requirement unless such subcontractors' employees are covered by Contractor's Workers' Compensation insurance policy. Contractor agrees this coverage shall be provided on a primary basis. Contractor shall defend, indemnify and save the County and the Engineer harmless from any damages resulting to them for failure of Contractor to take out or maintain such insurance.

7-13.1.4 Additional Required Insurance When Work Involves

The Contractor shall agree to maintain the following additional required insurance coverages with respect to any work involving property, operations, or type of equipment for which each insurance coverage described below has been designed specifically to provide coverage for.

7-13.1.4.1 Railroad Protective Liability

With respect to any of the work involving construction of a railroad grade crossing, overpass or underpass structure, or a railroad crossing signal installation, or any other work or operations by the Contractor within the limits of the railroad right of way including any encroachments thereon from work or operations within the vicinity of the railroad right of way the Contractor shall furnish to the County for transmittal to the railroad company, an original insurance policy which, with respect to the operations he or any of his subcontractors perform, will provide for and in behalf of the railroad company, Railroad Protective Liability. Coverage shall be in accordance with all of the limits, terms and conditions set forth herein and conform with the requirements of the U.S. Department of Transportation, Federal Highway Administration, Federal-Aid Program Manual, Volume 6, Chapter 6, Section 2, Subsection 2, Transmittal 350, dated October 1, 1982, and any supplements or revisions. Contractor agrees this coverage shall be provided on a primary basis.

7-13.1.4.2 Watercraft Liability

With respect to any of the work hereunder involving watercraft owned, hired, or borrowed, the Contractor shall agree to maintain Protection and Indemnity, or similar Watercraft Liability. Coverage shall be included either way of endorsement under the Commercial General Liability or by separate watercraft liability insurance and be in accordance with all of the limits, terms and conditions set forth herein. Contractor agrees this coverage shall be provided on a primary basis.

7-13.1.4.3 Aircraft Liability

With respect to any of the work involving (fixed wing or helicopter) aircraft owned, hired, or borrowed, the Contractor shall agree to maintain Aircraft Liability. Passenger Liability shall be included when persons other than the pilot and crew are occupying the aircraft. Coverage shall be in accordance with all of the limits, terms and conditions set forth herein. Contractor agrees this coverage shall be provided on a primary basis.
GENERAL PROVISIONS

7-13.2 Utility Owners Protective Liability

When the work under the Contract involves the installation of attachments to joint-use utility poles, the Contractor shall furnish evidence to the County that, with respect to the operations he performs, his Commercial General Liability is endorsed with a Broad Form Contractual Endorsement covering the below indemnification or the County and Utility Company are to be an Additional Named Insured on the policy.

The Contractor hereby agrees to indemnify, defend, save and hold harmless the County and any owner of equipment attached to or supported by a jointly used pole from all claims, liabilities and suits whether or not due to or caused by negligence of the County or joint pole equipment owners for bodily injury or death to person(s) or damage to property resulting in connection with the performance of the described work by Contractor, its subcontractors, agents or employees.

7-13.3 Satisfying Limits Under an Umbrella Policy

If necessary, the Contractor may satisfy the minimum limits required above for either Commercial General Liability, Business Auto Liability, and Employer’s Liability coverage under an Umbrella or Excess Liability. The underlying limits may be set at the minimum amounts required by the Umbrella or Excess Liability provided the combined limits meet at least the minimum limit for each required policy. The Umbrella or Excess Liability shall have an Annual Aggregate at a limit not less than two (2) times the highest per occurrence minimum limit required above for any of the required coverages. The County and any other applicable entities shall be specifically endorsed as an “Additional Insured” on the Umbrella or Excess Liability, unless the Umbrella or Excess Liability provides continuous coverage to the underlying policies on a complete Follow-Form basis without exceptions and stated as such on the Certificate of Insurance.

7-13.4 Additional Insured

The Contractor agrees to endorse the County and any other required entity as an Additional Insured on each insurance policy required to be maintained by the Contractor, except for Workers’ Compensation and Business Auto Liability. The CG 2026 Additional Insured - Designated Person or Organization endorsement, or its equivalent, shall be endorsed to the Commercial General Liability. Other policies, when required, such as for watercraft, aircraft, and utility owners protective, shall provide a standard Additional Insured endorsement offered by the insurer providing coverage with respect to liability arising out of the operations of the Contractor. The endorsement shall read “Palm Beach County Board of County Commissioners”. The Contractor shall agree the Additional Insured endorsements provide coverage on a primary basis. Endorsement shall be in accordance with all of the limits, terms and conditions set forth herein.
GENERAL PROVISIONS

7-13.5 Additional Requirements

7-13.5.1 Waiver of Subrogation

The Contractor shall agree, by entering into this Contract, to a Waiver of Subrogation for each required policy providing coverage during the life of this Contract. When required by the insurer or should a policy condition not permit an Insured to enter into an pre-loss agreement to waive subrogation without an endorsement, then the Contractor shall agree to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which a condition to the policy specifically prohibits such an endorsement, or voids coverage should the insured enter into such an agreement on a pre-loss basis. The Waiver of Subrogation shall be in accordance with all of the limits, terms and conditions set forth herein.

7-13.5.2 Right to Review and Adjust

The Contractor shall agree, notwithstanding the foregoing, the County, by and through its Risk Management Department, in cooperation with the Department, reserves the right to periodically review, reject or accept all required policies of insurance, including limits, coverages, or endorsements, hereunder from time to time throughout the life of this Contract. Furthermore, the County reserves the right to review and reject any insurer providing coverage because of poor financial condition or because it is not operating legally. In such event, County shall provide Contractor written notice of such adjusted limits and Contractor shall agree to comply within thirty (30) days of receipt thereof and to be responsible for any premium revisions as a result of any such reasonable adjustment.

7-13.5.3 No Representation of Coverage Adequacy

The coverages and limits identified in the table have been determined to protect primarily interests of the County only, and the Contractor agrees in no way should the coverages and limits in the table be relied upon when assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposures, whether as a result of the construction project or otherwise.

7-13.5.4 Certificate of Insurance

Certificates of Insurance must provide clear evidence that Contractor's Insurance Policies contain the minimum limits of coverage, cancellation notice, and terms and conditions set forth herein.

In the event the County is notified that a required insurance coverage will cancel or non-renewed during the period of this Contract, the Contractor shall agree to furnish prior to the expiration of such insurance, an additional certificate of insurance as proof that equal and like coverage for the balance of the period of the Contract and any extension thereof is in effect. Contractor shall agree not continue to work pursuant to this Contract unless all required insurance remains in effect. The County shall have the right, but not the obligation, of prohibiting Contractor or any subcontractor from entering the project site until such certificates or other evidence that insurance
GENERAL PROVISIONS

has been placed in complete compliance with these requirements is received and accepted by the County.

The County Reserves The Right To Withhold Payment, But Not The Obligation, To Contractor Until Coverage Is Reinstated. If The Contractor Fails To Maintain The Insurance As Set Forth Herein, The County Shall Have The Right, But Not The Obligation, To Purchase Said Insurance At Contractor's Expense.

7-13.5.4.1 Additional Requirements for Certificates of Insurance

1. Shall clearly identify Palm Beach County, a political subdivision of the State of Florida, its officers, agents and employees as Additional Insured for all required insurance coverages, except Workers' Compensation and Business Auto Liability.

2. Shall clearly indicate project name and project number to which it applies.

3. Shall clearly indicate a notification requirement in the event of cancellation or non-renewal of coverage.

4. Evidence of renewal coverage or reinstatement of cancelled coverage must be provided in advance of any policy that may expire during the term of this Contract. Failure to provide such certificate shall result in automatic stoppage of the work until such time as the renewal certificate is supplied.

5. Contractor shall deliver original Certificate(s) of Insurance to the following Certificate Holder address:

   Palm Beach County
   c/o Insurance Tracking Services, Inc.
   P.O. Box 20270
   Long Beach, CA 90801

6. The Certificates of Insurance must be completed in the original and signed and returned to the County along with Contracts and Sureties.

7-13.5.5 Deductibles, Coinsurance Penalties, & Self-Insured Retention

The CONTRACTOR shall agree to be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, coinsurance penalty, or self-insured retention.
GENERAL PROVISIONS

7-13.5.6 Subcontractor's Insurance

The CONTRACTOR shall agree to cause each subcontractor employed by CONTRACTOR to purchase and maintain insurance of the type specified herein, unless the CONTRACTOR'S insurance provides coverage on behalf of the subcontractor. When requested by the COUNTY, the CONTRACTOR shall agree to obtain and furnish copies of certificates of insurance evidencing coverage for each subcontractor.

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**GENERAL PROVISIONS**

7-13.5.7 Insurance Coverage and Table

The CONTRACTOR shall agree to maintain the coverage, endorsements, and limits of liability in accordance with and set forth by the Insurance Coverage & Table below:

<table>
<thead>
<tr>
<th>INSURANCE COVERAGE &amp; LIMIT TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TYPE OF COVERAGE</strong></td>
</tr>
<tr>
<td><strong>CONTRACTS LESS THAN $500,000</strong></td>
</tr>
<tr>
<td><strong>CONTRACTS $500,000 OR MORE</strong></td>
</tr>
<tr>
<td><strong>COMMERCIAL GENERAL LIABILITY:</strong></td>
</tr>
<tr>
<td>Limit of Liability not less than:</td>
</tr>
<tr>
<td>$500,000 per occurrence</td>
</tr>
<tr>
<td>$1,000,000 per occurrence</td>
</tr>
<tr>
<td>Additional Insured endorsement required:</td>
</tr>
<tr>
<td>General Aggregate Limit must apply Per Project</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td><strong>COMPREHENSIVE AUTO LIABILITY:</strong></td>
</tr>
<tr>
<td>Limit of Liability not less than:</td>
</tr>
<tr>
<td>$500,000 per occurrence</td>
</tr>
<tr>
<td>$1,000,000 per occurrence</td>
</tr>
<tr>
<td><strong>WORKERS' COMPENSATION &amp; EMPLOYER'S LIABILITY:</strong></td>
</tr>
<tr>
<td>Coverage not less than:</td>
</tr>
<tr>
<td>Statutory</td>
</tr>
<tr>
<td>Employer's Liability Limits not less than:</td>
</tr>
<tr>
<td>$100,000/500,000/100,000</td>
</tr>
<tr>
<td><strong>WATERCRAFT LIABILITY:</strong></td>
</tr>
<tr>
<td>Limit of Liability not less than:</td>
</tr>
<tr>
<td>$1,000,000 per occurrence</td>
</tr>
<tr>
<td>Additional Insured endorsement required:</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td><strong>AIRCRAFT LIABILITY:</strong></td>
</tr>
<tr>
<td>Limit of Liability not less than:</td>
</tr>
<tr>
<td>$5,000,000 per occurrence</td>
</tr>
<tr>
<td>$1,000,000 per passenger</td>
</tr>
<tr>
<td>Additional Insured endorsement required:</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td><strong>RAILROAD PROTECTIVE LIABILITY:</strong></td>
</tr>
<tr>
<td>Limit of Liability not less than:</td>
</tr>
<tr>
<td>$2,000,000 per occurrence</td>
</tr>
<tr>
<td>$6,000,000 aggregate</td>
</tr>
<tr>
<td>Additional Insured endorsement required:</td>
</tr>
<tr>
<td>General Aggregate Limit must apply Per Project</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td><strong>UTILITY OWNERS PROTECTIVE LIABILITY:</strong></td>
</tr>
<tr>
<td>Limit of Liability not less than:</td>
</tr>
<tr>
<td>$1,000,000 per occurrence</td>
</tr>
<tr>
<td>Additional Insured endorsement required:</td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>
GENERAL PROVISIONS

7-14 Contractor's Responsibility for Work - ADD THE FOLLOWING AT THE END OF THIS ARTICLE:

In addition to the above, the Contractor will not be held responsible for damage to any landscape items caused by an officially declared hurricane which occurs after the final acceptance of the entire work (as specified in 580), but during any remaining portion of the 90-day establishment period.

7-16 Wage Rates for Federal-Aid Projects. - DELETE AND INSERT THE FOLLOWING:

For all projects that include Federal-aid participation, the Contract documents contain requirements with regard to payment of predetermined minimum wages. Predetermined Wage Rate Decisions (U.S. Department of Labor provided Wage Rate Tables) exist for Heavy, Highway, and Building Construction Projects.

7-23 Contractor's Motor Vehicle Registration - DELETE AND INSERT THE FOLLOWING:

Upon request by the Department, the Contractor shall provide the Department with proof that all motor vehicles operated, or caused to be operated by such Contractor, are registered in compliance with Chapter 320 of the Florida Statutes. Submit such proof of registration in the form of a notarized affidavit to the Department.

The Department will not make payment to the Contractor until the required proof of registration is on file with the Department.

If the Contractor fails to register any motor vehicle that he operates in Florida, pursuant to Chapter 320 of the Florida Statutes, the Department may disqualify the Contractor from bidding, or the Department may suspend and revoke the Contractor’s certificates of qualification.

END OF SECTION

SECTION 8
PROSECUTION AND PROGRESS

8-3 Prosecution of Work

8-3.2 Submission of Working Schedule DELETE AND INSERT THE FOLLOWING:

Provide a schedule that shows the various activities of work in sufficient detail to demonstrate a reasonable and workable plan to complete the project within the Contract Time. Show the order and interdependence of activities and the sequence for accomplishing the work. Describe all activities in sufficient detail so that the Engineer can readily identify the work and measure the progress on each activity. Show each activity with a beginning work date, a duration, and a monetary value. Include activities for procurement fabrication, and deliver of materials, plant, and

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equipment, and review time for shop drawings and submittals. Include milestone activities when milestones are required by the Contract Documents. In a project with more than one phase, adequately identify each phase and its completion date, and do not allow activities to span more than one phase.

The Engineer will return inadequate schedules to the Contractor for corrections. Resubmit a corrected schedule within 15 calendar days from the date of the Engineer’s return transmittal.

Submit an updated Work Progress Schedule, for Engineer’s acceptance, if there is a significant change in the planned order or duration of an activity. The Engineer will review the corrected schedule and respond within 7 calendar days of receipt.

By acceptance of the schedule, the Engineer does not endorse or otherwise certify the validity or accuracy of the activity durations or sequencing of activities. The Engineer will use the accepted schedule as the baseline against which to measure the progress.

If the Contractor fails to finalize either the initial or a revised schedule in the time specified, the Engineer will withhold all Contract payments until the Engineer accepts the schedule.

8-3.3 Beginning Work DELETE AND INSERT THE FOLLOWING:

For contracts bearing a specified number of calendar days to complete, as stated in the bid form, effective date for starting the work shall be established during the Pre-Construction Conference and shall be so stated in writing by the “Notice to Proceed” issued by the County Engineer. The effective date of beginning of work stipulated in the “Notice to Proceed” shall be set at a date not later than one hundred twenty (120) calendar days after the date of execution of the Contract Documents by the Board of County Commissioners, unless otherwise mutually agreed by the Contractor and the County Engineer.

8-3.5 Preconstruction Conference DELETE AND INSERT THE FOLLOWING:

After the award of contract and prior to issuance of the “Notice to Proceed” a Pre-Construction Conference will be held between the Contractor, representative of the County Engineer’s Office, representative of other municipalities concerned, utility companies, other contractors affected by the work and any other persons designated by the County Engineer’s Office to have a material interest in the work. The time and place of this conference will be set by the County Engineer’s Office. The Contractor shall bring with him to this conference a copy of his proposed work schedule for the job.
GENERAL PROVISIONS

8-6 Temporary Suspension of Contractor’s Operations

8-6.1 Authority to Suspend Contractor’s Operations ADD THE FOLLOWING TO THE END OF THIS ARTICLE:

In particular, the Engineer reserves the right to suspend work on the project from December 15th to January 1st. The Engineer will give a minimum of thirty (30) calendar days’ notice of suspension. Prior to carrying out any work on the project during the period of directed suspension, the Contractor shall obtain written approval from the Engineer.

8-6.1.1 State of Emergency DELETE AND INSERT THE FOLLOWING:

The Engineer has the authority to suspend the Contractor’s operations, wholly or in part, pursuant to a Governor’s Declaration of a State of Emergency. The Engineer will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor’s operations. The Department, at its sole discretion, may grant an extension of Contract Time and reimburse the Contractor for specific costs associated with such suspension.

8-6.4 Suspension of Contractor’s Operations-Holidays DELETE AND INSERT THE FOLLOWING:

Unless the Contractor submits a written request to work on a holiday at least ten days in advance of the requested date and receives written approval from the Engineer, the Contractor shall not work on the following days: Martin Luther King, Jr. Day; Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Labor Day; the Friday, Saturday, and Sunday immediately preceding Labor Day; Veterans Day; Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; and December 24 through January 2, inclusive.

Contract Time will be charged during these holiday periods regardless of whether or not the Contractor’s operations have been suspended. Contract time will be adjusted in accordance with 8-7.3.2. The Contractor is not entitled to any additional compensation beyond any allowed contract time adjustment for suspension of operations during such holiday periods.

The Contractor will be allowed additional contract time for each working day included in the Engineer directed suspension of work between December 15th and December 23rd. During such suspensions, remove all equipment and materials from the clear zone, except those required for the safety of the traveling public and retain sufficient personnel at the job site to properly meet the requirements of Sections 102 and 104. The Contractor is not entitled to any additional compensation for removal of equipment from clear zones or for compliance with Section 102 and Section 104 during such holiday periods.
GENERAL PROVISIONS

8-7 Computation of Contract Time

8-7.2 Date of Beginning of Contract Time DELETE AND INSERT THE FOLLOWING:

The date on which Contract Time begins is noted on each work order.

8-8 Failure of Contractor to Maintain Satisfactory Progress

8-8.1 General: Pursue the Work to Completion ADD THE FOLLOWING TO THE END OF THIS ARTICLE:

Satisfactory progress is an essential element of the contract and, as delay in the prosecution of the work will inconvenience the public, obstruct traffic, and interfere with business, it is important that the work be pressed vigorously to completion. Moreover, the cost to the Department for the administration of the contract, including engineering, inspection, and supervision, will be increased as the construction period is lengthened.

8-8.2 Regulations Governing Suspension for Delinquency DELETE AND INSERT THE FOLLOWING:

(a) A Contractor may be declared delinquent because of unsatisfactory progress on a contract with the County, when the contract time allowed has not been entirely consumed, but the Contractor’s progress at any check period does not meet at least one of the following two tests:

(1) The percentage of dollar value of completed work with respect to the total amount of the Contract is within ten percentage points of the percentage of contract time elapsed.

(2) The percentage of dollar value of completed work is within ten percentage points of the dollar value which should have been performed according to the Contractor’s own progress schedule previously approved by the Engineer.

In lieu of the “ten percentage points” stipulated in the two preceding paragraphs, “twenty” (20) percentage points may be allowed for a Contractor who, in the opinion of the County Engineer, has adequate organization, equipment, and financial resources to undertake other contract or subcontract work without conflict or delay in prosecuting work under existing contracts let by the County.

(b) A Contractor will be declared delinquent because of unsatisfactory progress on the contract with the County, under either of the following circumstances:

(1) The contract time allowed has been consumed and the work has not been completed.

(2) The contract time allowed has not been entirely consumed the Contractor’s progress at any check period does not meet either of the two tests described under the paragraphs headed (a) above (c).
GENERAL PROVISIONS

A Contractor declared delinquent under the provisions of 8-8 will be disqualified from further bidding and also will not be approved as a subcontractor so long as the delinquent status exists. Also, any individual, firm, partnership or corporation, affiliated with a delinquent Contractor for either personnel, equipment or finances, shall likewise be disqualified.

(c) The Contractor may appeal to the County Engineer for relief from his disqualification status. The County Engineer will act upon any appeal within thirty (30) calendar days after the filing thereof, and will promptly notify the appellant of the action taken.

(d) A Contractor disqualified under the requirements of this Article will be removed from such status upon receipt of evidence from the Construction Coordination Division that his progress is no longer delinquent, provided the contract time has not elapsed.

(e) The principal progress check period will occur monthly, upon receipt in Construction Coordination Division of the Contractor’s monthly estimates. Postings will generally be completed by the first week of each month, and preliminary notices of delinquency will be sent to the Contractor by telegram immediately thereafter, and confirmed by certified mail.

(f) No Contractor given such a preliminary notice of delinquency will be finally declared delinquent until a period of ten calendar days after the preliminary notice has elapsed. During this ten-day period the affected Contractor may request any extensions of time, or other considerations which would affect his delinquency, which he feels he is entitled to.

(g) Final notification of delinquency will be made by telegram and certified mail after the expiration of this ten-day period, provided no extensions of time or other considerations are deemed proper by the County Engineer, and provided the delinquency status has not been corrected.

(h) The County Engineer may grant extensions of time during the prosecution of the work, as allowed under the Standard Specifications and General Provisions for the work, regardless of the Contractor’s delinquency status.

8-9 Default and Termination of Contract

8-9.2 Termination of Contract for Convenience DELETE AND INSERT THE FOLLOWING:

Owner may, at its option, terminate the Contract, in whole or in part at any time by written notice thereof to Contractor, whether or not Contractor is in default. Upon any such termination, Contractor hereby waives any claims for damages from the optional termination, including loss of anticipated profits, on account thereof, but as the sole right and remedy of Contractor, Owner shall pay Contractor in accordance with Subparagraphs below, provided, however, that those provisions of the Contract which by their very nature survive final acceptance under the Contract shall remain in full force and effect after such termination.

A. Upon receipt of any such notice, Contractor and its Surety shall, unless the notice requires otherwise:
GENERAL PROVISIONS

1. Immediately discontinue work on the date and to the extent specified in the notice;

2. Place no further orders or subcontracts for materials, services, or facilities, other than may be necessary or required for completion of such portion of work under the Contract that is not terminated;

3. Promptly make every reasonable effort to obtain cancellation upon terms satisfactory to Owner of all orders and subcontracts to the extent they relate to the performance of work terminated or assign to Owner those orders and subcontracts and revoke agreements specified in such notice;

4. The Contractor agrees to assign all Subcontracts required for performance of this Contract to the Owner;

5. The Contractor shall include in all Subcontracts, equipment leases and purchase order, a provision requiring the subcontractor, equipment lessor or supplier, to consent to the assignment of their Subcontract to the Owner;

6. Assist Owner, as specifically requested in writing, in the maintenance, protection and disposition of property acquired by Owner under the Contract; and

7. Complete performance of any work which is not terminated.

B. Upon any such termination, Owner will pay to Contractor an amount determined in accordance with the following (without duplication of any item):

1. All amounts due and not previously paid to Contractor for work completed in accordance with the Contract prior to such notice, and for work thereafter completed as specified in such notice.

2. The reasonable cost of settling and paying claims arising out of the termination of work under subcontracts or orders as provided in Subparagraph A.3. above.

3. The verifiable costs incurred pursuant to Subparagraph A.5. above.

4. Any other reasonable costs which can be verified to be incidental to such termination of work.

The foregoing amounts will include a reasonable sum, under all of the circumstances, as profit for all work satisfactorily performed by Contractor.

Contractor shall submit within 30 days after receipt of notice of termination, a proposal for an adjustment to the contract price including all incurred costs described herein. Owner shall review, analyze, and verify such proposal, and negotiate an equitable adjustment, and the Contract shall be amended in writing accordingly.
GENERAL PROVISIONS

8-10 Liquidated Damages for Failure to Complete the Work

8-10.2 Amount of Liquidated Damages

Applicable liquidated damages are the amounts established in the following schedule:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
<th>Daily Charge Per Calendar Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50,000 and under</td>
<td>$278</td>
</tr>
<tr>
<td>Over $50,000 but less than $250,000</td>
<td>$388</td>
</tr>
<tr>
<td>$250,000 but less than $500,000</td>
<td>$566</td>
</tr>
<tr>
<td>$500,000 but less than $2,500,000</td>
<td>$1,148</td>
</tr>
<tr>
<td>$2,500,000 but less than $5,000,000</td>
<td>$1,914</td>
</tr>
<tr>
<td>$5,000,000 but less than $10,000,000</td>
<td>$2,514</td>
</tr>
<tr>
<td>$10,000,000 but less than $15,000,000</td>
<td>$3,300</td>
</tr>
<tr>
<td>$15,000,000 but less than $20,000,000</td>
<td>$3,782</td>
</tr>
<tr>
<td>$20,000,000 and over</td>
<td>$5,684 plus 0.00005 of any amount over $20 million</td>
</tr>
</tbody>
</table>

8-10.2.1 Amounts Reasonable/No Penalty ADD THE FOLLOWING SUB-ARTICLE:

The Contractor hereby agrees and affirms that the amounts specified in this section reflect a fair compensable value for damages suffered by County as a result of Contractor's delay, and that said amounts are not a penalty nor will ever be contested as reflecting the imposition of a penalty against Contractor.

END OF SECTION

SECTION 9
MEASUREMENT AND PAYMENT

9-2 Scope of Payments

9-2.1.1 Fuels DELETE AND INSERT THE FOLLOWING:

The Department will make no price adjustments for fuels.

9-2.1.2 Bituminous Material DELETE AND INSERT THE FOLLOWING:

Department will adjust the bid unit price for bituminous material, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received.

Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%.

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GENERAL PROVISIONS

The Department will determine the API for each month by averaging quotations in effect on the first day of the month at all terminals that could reasonably be expected to furnish bituminous material to projects in the State of Florida.

The API will be available on the Construction Office website before the 15th of each month at the following URL: http://www.dot.state.fl.us/construction/fuel&bit/Fuel&Bit.shtm

Refer to the "Liquid Asphalt Calculation" table provided in the Special Provisions of these documents.

9-3 Compensation for Altered Quantities

9-3.1 General ADD THE FOLLOWING TO THE END OF THIS ARTICLE:

The Contractor is advised that all items may be increased, decreased or deleted from the contract, as directed by the Engineer. Whenever change or combination of changes in the plans results in total elimination or substitution of any item included in the original contract quantities, no allowance will be made for any loss of anticipated profits because of these changes, decreases or deletions of items.

The Contractor’s attention is called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. The unit prices for the items of work shall include the cost of all labor, materials, equipment, transportation, fuel and all other items incidental to or necessary for the completion of the item of work.

Should the Contractor feel that the cost for any item of work has not been established by the Bid Form or Basis of Payment, he shall include the cost for that work in some other applicable bid item, so that his proposal for the project does reflect his total price for completing the work in its entirety.

9-5 Partial Payments

9-5.1 General DELETE AND INSERT THE FOLLOWING:

The Contractor will receive partial payments on monthly estimates, based on the amount of work done or completed (including delivery of certain materials, as specified herein below). The monthly payments shall be approximate only, and all partial estimates and payments shall be subject to correction in the subsequent estimates and the final estimate and payment.

The amount of such payments shall be the total value of the work done to the date of the estimate, based on the quantities and the unit prices for all work performed, less an amount retained and less payments previously made. The amount retained shall be 5% of the value of work completed. This retainerage may be reduced to 2 1/2% of contract amount at the discretion of the County Engineer when said project exceeds 90% of the contract amount.

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GENERAL PROVISIONS

The amount retained on water and sewer construction and adjustments included in the contract shall be 10% of the monthly estimates until the work is approved by the permitting agency. The retainage after approval/acceptance by the agency shall be in accordance with 9-5.1.

As an exception to the percentages for the amount to be retained on partial or monthly estimates as specified above, for contracts in which landscaping items constitute 50 per cent or more of the original contract amount, 10 per cent of the value of work completed shall be retained until the end of the 90-day establishment period for landscaping items or until final acceptance of the entire contract work; whichever of such is the later date.

Contract amount is defined as the original contract amount as adjusted by approved Supplemental Agreements.

9-5.5 Partial Payments for Delivery of Certain Materials

9-5.5.1 General ADD THE FOLLOWING TO THE END OF THIS ARTICLE:

(7) Common Carrier Freight Rates. No adjustments shall be made for change in common carrier rates.

9-5.5.2 Partial Payment Amounts DELETE AND INSERT THE FOLLOWING:

The Contractor will receive progress payments on a monthly basis. The amount will be based on the work done or completed (including delivery of certain materials per 9-6). The progress payments shall be approximate only, and shall be subject to correction in the subsequent monthly estimates and the final estimate and payment.

The amount of such payments shall be the total value of the work done to the date of the estimate, based on the quantities and the unit prices for all work performed, less an amount retained and less payments previously made. The amount retained shall be 5% of the value of work completed. This retainage may be reduced to 2-1/2% of contract amount at the discretion of the County Engineer when said project exceeds 90% of the contract amount.

On water and sewer construction, the amount retained and adjustments included in the contract shall be 10% of the progress payments, up to 50% completion. After 50% completion, the retainage shall be reduced to 5% until the work is approved by the permitting agency.

As an exception to the percentages for the amount to be retained on progress payments as specified above, for contracts in which landscaping items constitute 50 per cent or more of the original contract amount, 10 per cent of the value of work completed shall be retained up to 50% completion. After 50% completion, the retainage shall be reduced to 5% until the end of the 90-day establishment period for landscaping items or until final acceptance of the entire contract work; whichever of such is the later date.

Contract amount is defined as the original contract amount as adjusted by approved Supplemental Agreements.
GENERAL PROVISIONS

The following partial payment restrictions apply:

(1) Partial payments for structural steel and precast prestressed items will not exceed 85% of the bid price for the item. Partial payments for all other items will not exceed 75% of the bid price of the item in which the material is to be used.

(2) Partial payments will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the Department requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.

9-9 Interest Due on Delayed Payments DELETE IN ITS ENTIRETY

9-11 Change Order Approvals ADD THE FOLLOWING ARTICLE:

Change Orders shall be approved in accordance with existing Department policy per Resolution #R89-633 dated April 4, 1989 and the current PPM #CWF-050.

Department reserves the right to increase or decrease any of the unit quantities as necessary to complete the work contracted. Such increases or decreases may be authorized by the Department's Engineer at the unit price(s) as bid.

END OF SECTION

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GENERAL PROVISIONS

SECTION 102
MAINTENANCE OF TRAFFIC

102-1 Description ADD THE FOLLOWING AT THE END OF THIS ARTICLE:

All existing signs are the property of Palm Beach County. The Contractor shall stockpile the above
mentioned signs and contact Traffic Operations (sign supervisor) at 233-3900 for pick-up. Signs
must be kept in good condition or be responsible for reimbursement to P.B.C. Traffic Division.

102-1.1 Standards

This section shall be governed by the following standards:

1. Florida Department of Transportation “Standard Specifications for Road and Bridge
   Construction”


3. Florida Department of Transportation “Design Standards”

4. Florida Department of Transportation “Plans Preparation Manual”

   and Highways”

In addition to the above specifications, the following shall also apply:

Barricades, Lights and Cones

1. All barricades shall be maintained daily.

2. All Type III barricades shall have one Type “A” flashing light on each barricade. When
   extremely hazardous conditions exist, two Type “B” flashing lights shall be used. Extremely
   hazardous conditions shall be determined by Palm Beach County Engineering Traffic Division.

Flag Person and Vests

1. The flagger shall be trained in the proper manner as set forth in the MUTCD and certified as
   per Section 102 F.D.O.T. Specifications for Road and Bridge Construction. Each flagger shall
   have a certification card with them when flagging. Certification cards shall have the flagger’s
   name, date of certification and expiration date.

   • If the person flagging traffic does not have the Certification, or the name is not on the list
     of approved flaggers, the flagger shall be replaced immediately with a certified flagger.
     There will be no lane closure until that time.
GENERAL PROVISIONS

- At the pre-construction meeting, the contractor may submit a list of certified flaggers. This list must include the same information as the flagger(s)' certification card(s).

1. All construction personnel shall wear a retro-reflective orange or strong yellow/green vest/garment during daytime or nighttime operations when working within the right-of-way (Class 2 or 3 per MUTCD).

   A. Ensure that these vest/garments be worn whenever workers are within the right-of-way. Workers operating machinery or equipment in which loose clothing could become entangled during operation are exempt from this requirement. Such exempt workers will be required to wear orange shirts or jackets.

   B. Require Contractor personnel to wear retro-reflective orange or strong yellow/green vest/garment during daytime or nighttime operations.

   C. Replace faded vest/garments, as determined by the Inspector.

Flashing Arrow Boards

1. Flashing arrow boards shall be used on any four (4) lane or larger roadway where traffic is being channelized or diverted, or as directed by the Palm Beach County Traffic Engineering Department. Flashing arrow boards shall conform with Section 6E-56 M.U.T.C.D. /Type “B” or “C” only. Solar arrow boards shall be used.

Traffic Signals

1. A minimum of seventy-two hours notice must be given to Traffic Division (684-4030) prior to work requiring the realigning of traffic signals.

2. Palm Beach County will charge for traffic signals to be realigned to accommodate MOT.

3. No material shall be disturbed within 6’ of a traffic pole or within the specified distance of a guy wire and anchor to a depth greater than 2’ as shown in Figure 1 in the General Provisions unless approved by and coordinated with Palm Beach County Traffic Operations. Contact Traffic Operations at (561) 233-3900, 24 hours in advance of any excavation. Failure to comply with the above shall result in the prime contractor incurring all costs incurred as a result of damage to the traffic signal installation. These costs shall be paid 30 days from date of invoice or the following pay estimate will be withheld until payment is made or the cost may be deducted from the pay estimate.

4. Line locates will be given. However, a twenty-four hours’ notice must be given.

5. If new traffic poles are to be installed it shall be the contractor’s responsibility to provide final stabilized grade within 4”-6” along with right-of-way locations at the intersection. The contractor shall have a 2-hour window for their change-over that is 1 hour before and one hour before

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GENERAL PROVISIONS

after the scheduled change-over time. After that the contractor shall be responsible for all cost incurred for the delay.

102-1.2 General

1. Contractor shall keep sufficient cold patch asphalt on the job site to fill pot-holes and to perform other minor pavement maintenance as needed.

2. All highway equipment shall have a Slow Moving Vehicle sign with either a flasher or a beacon operating when the equipment is operating.

3. During peak hours 7:00 A.M. to 9:00 A.M. and 3:00 P.M. to 6:00 P.M. left turn and through lanes shall not be blocked without permission from the Traffic Engineer.

4. Any manholes/valves in the travel way shall have 50” width of asphalt extending from the edge for every 1” inch of height.

Pedestrians

1. When pedestrian movement through or around a worksite is necessary, the Contractor shall provide a separate, safe footpath without abrupt changes in grade or terrain.

   • If one (1) or two (2) pedestrian ways are provided (exist) prior to the start of a project, only one (1) has to be maintained.

2. Places where pedestrians are judged especially vulnerable to impact by vehicles, all foot traffic should be separated and protected by longitudinal positive barrier systems.

102-3.2 Worksite Traffic Supervisor

Certification must be through American Traffic Safety Services Association (A.T.S.S.A.).

102-4 Temporary Traffic Control Plan. (T.T.C.P.) DELETE IN ITS ENTIRETY AND INSERT THE FOLLOWING:

The Temporary Traffic Control Plan (T.T.C.P.) for traffic control around or through work sites should be developed with safety receiving a high priority. The T.T.C.P. should include protection at work sites when work is in progress and when operations have been halted (such as during the night) or from the time work is completed until the final. Provisions for the protection of work crews, traffic control personnel, pedestrians, and motorists shall be included.
GENERAL PROVISIONS

The temporary traffic control plan shall include the following:

1. T.T.C.P. to be prepared and signed by the Work Site Traffic Supervisor as certified by the American Traffic Safety Services Association (A.T.S.S.A.).

2. A copy of the signer's certification, contractor's name, and 24 hour phone number of the work site traffic supervisor.

3. The T.T.C.P. shall include: North arrow; drawn by; lane usage; type and location of all signs, lights, barricades, striping, barriers, traffic signals; all side-streets; change-overs; sidewalks; R.P.M.'s; pavement markings; school zones; crosswalks; Palm Tran bus stop and RXR crossings.

4. Plans may be drawn to scale; however, dimensions shall be shown.

5. Variable Message Sign (V.M.S.) and the messages.

6. Location and geometry for transitions, detours, and diversions.

7. No change-overs are allowed on Monday or Friday, the day before a holiday or during A.M. or P.M. peak traffic, and are discouraged at signalized intersections.

8. All plans shall be submitted through the Construction Coordination Division.

The T.T.C.P. Plan approval is as follows:

A. 1 to 7 days for most plans

B. 7 days when a signal or flasher is involved

C. 10 days for a traffic switch or for road closures

Time may vary based on the complexity of the T.T.C.P. Consideration should be given to these time frames when scheduling the work.

P.B.C. Traffic Engineering Division will handle all news releases, notifying police, fire, etc.

The T.T.C.P. Plan is good for 60 days. If the T.T.C.P. has not been implemented by then, a new approval will be required.

T.T.C.P. must have dates and times of operation requested.

In no case may the contractor begin work until the T.T.C.P. has been approved in writing by the Palm Beach County Traffic Engineering Division. Field modifications may be made with the approval of a representative of the Palm Beach County Traffic Engineering or Construction Coordination Divisions. Failure to comply with the above may result in permanent reduction of

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GENERAL PROVISIONS

the pay item of "Maintenance of Traffic" on a prorated basis or $1,000.00 per day, whichever is higher.

Cost for "Temporary Traffic Control Plans" shall be made on a "Lump Sum" basis, and shall include all the above requirements.

Cost for Temporary Traffic Control Plans shall be included in "Maintenance of Traffic" and shall include all of the above requirements.

102-5.4 Crossings and Intersections DELETE AND INSERT THE FOLLOWING:

Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any road or street crossing the project unless approved by the Engineer. Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the Contract. (See 102-7.1)

102-5.7 Flagger DELETE AND INSERT THE FOLLOWING:

Provide trained flaggers in accordance with FDOT and MUTCD requirements.

102-6.2 Construction DELETE AND INSERT THE FOLLOWING:

Plan, construct, and maintain detours for the safe passage of traffic in all conditions of weather. Provide the detour, to the Department, with all facilities necessary to meet this requirement.

102-6.6 Operation of Existing Movable Bridges DELETE IN ITS ENTIRETY:

102-7 Traffic Control Officer:

Provide uniformed law enforcement officers, including marked law enforcement vehicles, to assist in controlling and directing traffic in the work zone, when the following types of work are necessary on projects:

1. Traffic control in a signalized intersection when signals are overridden.

2. When Standard Index No. 619 is used on Interstate at nighttime and required by the plans.

3. When pacing/rolling blockade specification is used.

4. During the night time milling or paving, if the lane adjacent to the work area is open to traffic, the Traffic Control Officer shall be present with flashing lights, operating on their vehicle.

5. As required by the Engineer.
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ADD THE FOLLOWING SUBARTICLE:

102-7.1 Traffic Control Officer (NON-MOT)

Provide uniformed laws enforcement officers, including marked law enforcement vehicles, to assist in controlling and directing traffic through the work zone, when authorized and/or directed by the Engineer, and for purposes not covered under the requirements of the Temporary Traffic Control Plans.

The Contractor shall make a request for the use of this item in writing to Construction Coordination Division. The request will be reviewed and responded to in writing.

The Contractor shall supply a breakdown of police activity for every 4 hour period.

102-9.9.1 Portable Changeable (Variable) Message Sign (PCMS) (NON-MOT)

Furnish changeable (variable) message sign in accordance with 102-9.9, when authorized and/or directed by the Engineer, and for purposes not covered under the requirements of the Temporary Traffic Control Plans.

102-9.12 Temporary Traffic Control Signals DELETE IN ITS ENTIRETY

102-9.14 Temporary Traffic Control Signals DELETE IN ITS ENTIRETY

102-9.15 Temporary Traffic Detection Technology DELETE IN ITS ENTIRETY

102-9.16 Automated Flagger Assistance Devices DELETE IN ITS ENTIRETY

102-10 Work Zone Pavement Marking – See 102-10.1.1

102-10.1 Description DELETE THE LAST PARAGRAPH IN ITS ENTIRETY

102-10.1.1 Temporary Pavement Markings

1. All temporary pavement markings shall be done in a professional manner without weaves and/or bows. No over-painting shall be allowed.

2. Temporary R.P.M.'s shall be installed at an 1 inch offset to lane lines, skips, gore or crosshatched area within the work zone. The spacing shall be 40 feet on tangent section and 20 feet on transitions and curves (including edge lines). Damaged or missing R.P.M.'s shall be replaced on a daily basis. The R.P.M.'s shall have a maximum width of 5 inches and a maximum height of 0.75 inch. The minimum area of each reflective face shall be 3.50 square inches. R.P.M.'s shall be bonded to the pavement or concrete with epoxy, alkyd thermoplastic or bituminous adhesive.

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3. Temporary pavement markings shall be applied to the intermediate asphalt course, and shall consist of foil-backed tape, paper tape or paint meeting both State and County specifications.

4. Temporary pavement markings shall also be applied to the final asphalt course unless otherwise directed by the Palm Beach County Traffic Engineering Department. All final course pavement markings shall consist of foil-backed tape. The temporary pavement markings shall be installed in accordance with the typicals in the General Provisions.

5. All temporary tape skip-line pavement markings shall be at least four (4) feet in length with a maximum gap of thirty-six (36) feet. A two (2) foot stripe with a maximum gap of eighteen (18) feet may be used for roadways with severe curvature, or as directed by the Palm Beach County Traffic Engineering Department.

6. All painted lines shall conform to size and color requirements of the M.U.T.C.D., Part III. The thickness shall not be less than fifteen (15) mils with six (6) to six and one quarter (6 ¼) pounds of beads per gallon of paint. Both shall be applied uniformly. All painted lines shall be refurbished if at any time the reflectivity falls below 150 mini-candles. A normal width line is 6” paint or tape.

7. Black-out shall not be used to obliterate pavement markings. Existing pavement markings that conflict with temporary work zone delineation shall be removed by any method approved by the Engineer.

8. If a school zone exists, it must be maintained including crosswalks, school messages and signs.

9. It shall be the contractor’s responsibility to adjust existing signing, add new signing, and remove or add pavement marking on approaches to the project.

102-10.2 Removable Tape DELETE IN ITS ENTIRETY

102-10.2.1 General DELETE IN ITS ENTIRETY

102-10.3.1 Application DELETE IN ITS ENTIRETY

102-10.3.3 Retro-reflectivity DELETE IN ITS ENTIRETY

102-10.3.4 Removability DELETE IN ITS ENTIRETY

102-10.4 Work Zone Raised Pavement Markers (WZRPM’s)

Apply all markers in accordance with Palm Beach County Typical T-P-13, or as otherwise revised.

102-10.4 Paint and Glass Beads

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102-11 Method of Measurement

102-11.1 General

Devices installed/used on the project on any calendar day or portion thereof, within the allowable Contract Time, including time extensions which may be granted, will be paid for at the Contract unit price MOT, Lump Sum and shall include all items required to implement the approved Temporary Traffic Control Plan (T.T.C.P.).

Unless otherwise specified, all devices / items specified in 102-11 shall be incidental to the pay item: M.O.T., on a Lump Sum basis.

102-11.2.1 Traffic Control Officers (Non-MOT) The quantity to be paid for will be at a unit price per hour (4-hour minimum) for the actual number of officers certified to be on the project site, including any law enforcement vehicle(s).

Payment will be made only for those traffic control officers not incidental to the T.T.C. plan requirements and when authorized by the Engineer under the pay item: Traffic Control Officers (NON-MOT) – per hour.

102-11.3 Special Detours DELETE IN ITS ENTIRETY

102-11.15.1 Changeable (Variable) Message Sign (NON-MOT): The quantity to be paid for will be the number of changeable (variable) message signs certified as installed/used on the project when directed by the Engineer and not a requirement of the T.T.C.P.

Payment will be made for each Changeable (Variable) message sign that is used during the Contract period under the pay item Changeable (Variable) Message Sign (NON-MOT) per each per day.

102-11.20 Temporary Traffic Control Signals DELETE IN ITS ENTIRETY

102-11.21 Temporary Traffic Detection Technology DELETE IN ITS ENTIRETY

102-11.22 Work Zone Pavement Markings DELETE AND INSERT THE FOLLOWING:

The quantities, furnished and installed shall be those that are required for the project and shall be incidental to M.O.T., Lump Sum.

102-12.1 Submittal Instructions DELETE IN ITS ENTIRETY

102-12.2 Contractor’s Certification of Quantities DELETE AND INSERT THE FOLLOWING:

When requested by the Department, Contractor shall submit a certification of the material used.
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Ensure that the certification consists of the following: Project Number, Certification Number, Certification Date and the period that the certification represents.

102-13 Basis of Payment

102-13.1 Maintenance of Traffic (General Work) DELETE AND INSERT THE FOLLOWING:

When an item of work is included in the proposal, price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items. Maintenance of Traffic (General Work) shall also include all items required to implement the approved Temporary Traffic Control Plans (T.T.C.P).

Unless otherwise specified, all devices / items specified in 102-13 shall be incidental to the pay item: M.O.T., on a Lump Sum basis.

102-13.2.1 Traffic Control Officers (NON-MOT) DELETE AND INSERT THE FOLLOWING:

Price and payment will be full compensation for the services of the traffic control officers for instances when directed by the Engineer and not a requirement of the T.T.C.P.

102-13.3 Special Detours DELETE IN ITS ENTIRETY

INSERT THE FOLLOWING SUBARTICLE:

102-13.15.1 Changeable (Variable) Message Sign (NON-MOT)

Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing changeable message signs when directed by the Engineer and not a requirement of the T.T.C.P.

102-13.19 Safety Warning Transmitter DELETE IN ITS ENTIRETY

102-13.20 Temporary Traffic Control Signals DELETE IN ITS ENTIRETY

102-13.21 Temporary Traffic Detection Technology DELETE IN ITS ENTIRETY

102-13.22 Temporary Lane Separator: DELETE IN ITS ENTIRETY

102-13.23 Payment Items: DELETE AND INSERT THE FOLLOWING:

Payment will be made under:
Item No. 102-1 Maintenance of Traffic - lump sum.
Item No. 102-14-1 Traffic Control Officers (NON-MOT) - per hour.
Item No. 102-99-1 Changeable (Variable) Message Sign (NON-MOT) - per each per day.

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5 LANES

3 LANES

4 OR 6 LANE DIVIDED

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PAVEMENT ARROW

SINGLE LEFT / DROP RIGHT

PAVEMENT MESSAGES
GENERAL PROVISIONS

Signing For Long Term Stationary Projects

1.) If a separate is to be signed it shall be a min. of 6' wide. The signs shall be erected in such a way that they also conform with the 7' min. clearance.

2.) Other types of operation may be able to use the standard tripod mount as long as there is a min of 1' from the bottom of the sign to the ground.

DUAL LEFTS

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RESTRICTED EXCAVATION AREAS
AROUND TRAFFIC SIGNAL POLES

LEGEND

- MATERIAL NOT TO BE DISTURBED

END OF SECTION

FIGURE 1
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SECTION 300
PRIME AND TACK COATS FOR BASE COURSES

300-2.3 Tack Coat DELETE AND SUBSTITUTE THE FOLLOWING:

Unless the Contract Documents call for a specific type or grade of tack coat, use RA-500 meeting the requirements of 916-2, heated to a temperature of 250 to 300°F or undiluted Emulsified Asphalt Grades RS-1h, RS-2, CRS-1h, or NTSS-1hm meeting the requirements of 916-4. Heat RS-1h, RS-2, CRS-1h and NTSS-1hm to a temperature of 150 to 180°F. The Contractor may use RS-1h modified to include up to 3% naphtha to improve handling of the material during the winter months or at any other time, as approved by the Engineer.

For night paving, use RA-500 tack coat. The Engineer may approve RS-1h, RS-2, CRS-1h, or NTSS-1hm for night paving if the Contractor demonstrates, at the time of use, that the emulsion will break to allow paving in a timely manner and not affect the progress of the paving operation.

300-9 Method of Measurement DELETE AND SUBSTITUTE THE FOLLOWING:

No separate measurement shall be made for prime coat and tack coat material.

300-10 Basis of Payment DELETE AND SUBSTITUTE THE FOLLOWING:

No separate payment will be made for prime coat and tack coat material but the cost of same, including heating, hauling and applying (including sand or screening covering where required), shall be included in the contract unit price per square yard for base or pavement courses, respectfully.

There is no direct payment for the work specified in this Section, it is incidental to, and is to be included in the other items of related work.

END OF SECTION

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SECTION 330A
HOT BITUMINOUS MIXTURES - GENERAL CONSTRUCTION REQUIREMENTS

SECTION 330A IS ADDED TO THIS SPECIFICATION

330A-1 Description

This Section specifies the general construction requirements for all plant-mixed hot bituminous pavements and bases. (More specific requirements pertaining to hot bituminous base and base widening construction are contained in Section 280.) This Section also includes the method of determination of the thickness of pavement to be paid for, when payment is on a square yard basis.

330A-2 Substitution of Types of Hot Bituminous Mixtures

Except for Asphaltic Concrete Friction Courses and other wearing surfaces, the Contractor will be allowed the option of substituting certain types of hot bituminous mixtures as follows:

(1) Type S-I Asphaltic Concrete may be substituted for any other type of mixture where the rate of application is specified to be not less than 75 lbs. per square yard.

(2) Type III Asphaltic Concrete may be substituted for Type I Asphaltic Concrete or Sand-Asphalt Hot Mix and Type II Asphaltic Concrete may be substituted for Sand-Asphalt Hot Mix.

In each case, the stability of the substituted mixture shall be at least as high as that of the mixture specified, and any substitution made shall be at no additional cost to the Department over that which would have accrued had the specified mixture been used.

330A-3 Limitations of Operations

330A-3.1 Weather Limitations

Plant operations shall not begin unless all weather conditions are suitable for the laying operations.

330A-3.2 Limitations of Laying Operations

330A-3.2.1 General

The mixture shall be spread only when the surface, upon which it is to be laid, has been previously prepared, is intact, firm and properly cured, and is dry. Unless otherwise approved by the Engineer, no mixture shall be spread that cannot be finished and compacted during daylight hours. Friction course shall not be placed until the adjacent shoulder area has been dressed and grassed.

330A-3.2.2 Temperature

The mixture shall be spread only when the air temperature (the temperature in the shade away from artificial heat) is 40°F and above for layers greater than one inch (100 lbs. per square yard) in
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thickness and 45°F and above for layers one inch (100 lbs. per square yard) or less in thickness (this includes leveling courses). No mixture shall be placed when there is evidence that the base is frozen.

330A-3.2.3 Wind

The mixture shall not be spread when the wind is blowing to such an extent that proper and adequate compaction cannot be maintained or when sand, dust, etc., are being deposited on the surface being paved, to the extent that the bond between layers will be diminished.

330A-4 Preparation of Asphalt Cement

The asphalt cement shall be delivered to the asphalt plant at a temperature not to exceed 350 degrees F and the transport tanks shall be equipped with sampling and temperature sensing devices meeting the requirements of 300-3.2 and 300-3.3, respectively. The asphalt cement in storage shall be maintained within a range of 230 degrees F to 350 degrees F in advance of mixing operations. Heating within these limits shall be constant and wide fluctuations of temperature during a day's production will not be permitted.

330A-5 Preparation of Aggregates

330A-5.1 Stockpiles

Each aggregate component shall be placed in an individual stockpile, which shall be separated from the adjacent stockpiles, either by space or by a system of bulkheads. The intermingling of different materials in stockpiles shall be prevented at all times. Each stockpile, including RAP, shall be identified as shown on the Department Mix Designs.

330A-5.2 Prevention of Segregation

Stockpiles shall be formed and maintained in a manner that will prevent segregation. If a stockpile is determined to have excessive segregation, the Engineer will disapprove the material for use on the project until the appropriate action has been taken to correct the problem.

330A-5.3 Blending of Aggregates

Blending or proportioning from railroad cars will not be permitted. All aggregates shall be stockpiled prior to blending or placing in the cold hoppers. All aggregates to be blended or proportioned shall be placed in separate bins at the cold hopper and proportioned by means of securely positioned calibrated gates or other approved devices.
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330A-5.4 Cold Bins

330A-5.4.1 Adequacy of Bins

The separate bin compartments of the cold aggregate feeder shall be so constructed as to prevent any spilling or leakage of aggregate from one bin to another. Each bin compartment shall be of such capacity and design as to permit a uniform flow of aggregates. All the bin compartments shall be mounted over a feeder of uniform speed, which shall deliver the specified proportions of the separate aggregates to the drier at all times. If necessary, the bins shall be equipped with vibrators to insure a uniform flow of the aggregates at all times.

330A-5.4.2 Gates

Each bin compartment shall be provided with a gate which is adjustable in a vertical direction. The gate shall be so designed that it can be held securely at any specified vertical opening. The gates shall be equipped with a measuring device for measuring the vertical opening of the gates from a horizontal plane level with the bottom of the feeder.

330A-5.5 Mineral Filler

If mineral filler is required in the mix, it shall be fed or weighed-in separately from the other aggregates.

330A-5.6 Heating and Drying

The aggregates shall be heated and dried before screening. The temperature of the aggregates shall be so controlled that the temperature of the completed mixture at the plant will fall within the permissible range allowed by these specifications.

330A-5.7 Screening Unit

330A-5.7.1 Oversize Aggregate

Any oversized pieces of aggregate shall be removed by the use of a scalping screen. This oversized material shall not be returned to the stockpile for reuse unless it has been crushed and reprocessed into sizes that will pass the scalping screen.

330A-5.7.2 Screening

Unless otherwise permitted by the Engineer, the quantity of aggregates being discharged onto the screens shall not be in excess of the capacity of the screens to actually separate the aggregates into the required sizes. A maximum of ten percent plus-ten material will be permitted in the minus-ten bin. The maximum amount of minus-ten material allowed in the plus-ten bins will be determined by the Engineer, in accordance with its effect on the uniformity of the mix.
GENERAL PROVISIONS

330A-5.8 Mixing Different Materials

Unless written permission is obtained, coarse aggregates of different types shall not be mixed; nor shall coarse aggregates of different types be used alternately in sections less than one mile in length.

330A-6 Preparation of the Mixture

330A-6.1 Batch Mixing

330A-6.1.1 Aggregates

The dried aggregates and mineral filler (if required), prepared in the manner previously described, and combined in batches to meet the job mix formula by weighing each separate bin size, shall be conveyed to the empty mixer.

330A-6.1.2 Bitumen

The hot asphalt cement, accurately measured, shall be introduced into the mixer simultaneously with, or after, the hot aggregates. Mixing shall continue until the mixture is thoroughly uniform, with all particles fully coated.

330A-6.1.3 Mixing Time

The mixing time shall begin when the measuring devices for both the asphalt and the aggregates indicate that all the material is in the mixer, and shall continue until the material begins to leave the mixing unit. The mixing time will vary in relation to the nature of the aggregates and the capacity of the mixer and shall be as designated by the Engineer but in no case shall it be less than 35 seconds.

330A-6.2 Continuous Mixing

The dried aggregates and mineral filler (if required), prepared as specified and proportioned to meet the job mix formula by volumetric measurements, shall be introduced into the mixer in synchronization with the accurate feeding of the hot asphalt cement. The rate of flow of material to the pugmill shall be such that the maintained depth of the mix will not exceed the tips of the paddles when in the upright position. Mixing shall be sufficient to produce a thoroughly and uniformly coated mixture.

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330A-6.3 Mixing Temperature

The ingredients of the mix shall be heated and combined in such a manner as to produce a mixture, which shall be at a temperature, when discharged from the pugmill or surge bin, within the range of 230°F to 310°F and within the tolerance shown in Table 330AA-1.

Table 330A-1
Temperature Tolerance From Job Mix Formula

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Temperature Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Single Measurement</td>
<td>+/- 25°F</td>
</tr>
<tr>
<td>Average of Any Five Consecutive Measurements</td>
<td>+/- 15°F</td>
</tr>
</tbody>
</table>

Any load or portion of a load of asphalt mix at the plant or on the road with mix temperature exceeding 335°F shall be rejected for use on the project.

Temperature of the completed mixture shall be determined by a quick-reading thermometer through a hole in the side of the loaded truck immediately after loading. The hole shall be located within the middle third of the length of the body, and at a distance of from six to ten inches above the surfaces supporting the mixture. If a truck body already has a hole located in the general vicinity of the above specified location, this will be acceptable. At the Department’s discretion, the temperature of the load may be taken over the top of the truck in lieu of using the hole in the side of the truck.

The mix temperature will be taken at the plant and the roadway for each day for each design mix on the first five loads and an average of once every five loads thereafter. The temperature measurements at the plant shall be taken and recorded by the Contractor's personnel for review by the Department. The temperature measurements at the roadway will be taken by the Department’s Paving Inspector and be recorded on the backside of the delivery ticket. If the temperature exceeds the specified tolerance, the Contractor will be required to take immediate corrective action.

330A-6.4 Maximum Period of Storage: The maximum time that any mix may be kept in a hot storage or surge bin is 72 hours.

330A-6.5 Contractor's Responsibility for Mixture Requirements: The responsibility for producing a homogeneous mixture, free from moisture and with no segregated materials, and meeting all requirements of the specifications for the mixture, including compliance with the design limits, shall lie entirely with the Contractor. These requirements shall apply also to all mixes produced by the drum mixer process and all mixes processed through a hot storage or surge bin, both before and after storage.

330A-7 Transportation of the Mixture:
The mixture shall be transported in tight vehicles previously cleaned of all foreign material. The inside surface of the truck bodies after cleaning shall be thinly coated with soapy water or an approved emulsion containing not over five percent oil. The coating shall be applied prior to the first loading each day and repeated as necessary throughout the day’s operations. After the truck
bodies are coated and before any mixture is placed therein, they shall be raised to drain out all excess liquids. Each load shall be covered during cool and cloudy weather and at any time there is a probability of rain.

330A-8 Preparation of Application Surfaces

330A-8.1 Cleaning

Prior to the laying of the mixture, the surface of the base or pavement to be covered shall be cleaned of all loose and deleterious material by the use of power brooms or blowers, supplemented by hand brooming, where necessary.

330A-8.2 Patching and Leveling Courses

Where a surface course is constructed on an existing pavement or old base which is irregular, and wherever so indicated in the plans, the existing surface shall be brought to proper grade and cross section by the application of patching or leveling courses.

330A-8.3 Application over Surface Treatment

Where a surface course is to be placed over a newly constructed surface treatment, all loose material shall be swept from the paving area and disposed of by the Contractor.

330A-8.4 Coating Surfaces of Contacting Structures

All structures which will be in actual contact with the asphalt mixture, with the exception of the vertical faces of existing pavements and curbs or curb and gutter, shall be painted with a uniform coating of asphalt cement to provide a closely bonded, watertight joint.

330A-8.5 Tack Coat

330A-8.5.1 Tack Coat Required

A tack coat, as specified in Section 300, will be required on existing pavements that are to be overlaid with an asphalt mix and between successive layers of all asphalt mixes.

330A-8.5.2 Tack Coat at Engineer's Option

A tack coat will be required on the following surfaces, only when so directed by the Engineer:

(1) Freshly primed bases.

(2) Surface treatment.
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330A-9 Placing Mixture

330A-9.1 Requirements Applicable to All Types

330A-9.1.1 Alignment of Edges

All asphaltic concrete mixtures (including leveling courses), other than adjacent to curb and gutter or other true edges, shall be laid by the stringline method, to assure the obtaining of an accurate, uniform alignment of the pavement edge.

330A-9.1.2 Temperature of Spreading

The temperature of the mix at the time of spreading shall be within +/−25°F of the established mix temperature selected by the Contractor. The minimum frequency for taking mix temperatures on the road will be an average of one per five trucks. If the temperature fails to fall within the specified tolerance range, corrective action by the Contractor will be required.

330A-9.1.3 Rain, and Surface Conditions

Transportation of asphalt mixtures shall immediately cease from the plant when rain begins at the roadway. Asphalt mixtures shall not be placed while rain is falling, or when there is water on the surface to be covered. As an exception, mixture caught in transit may be placed at the Contractor’s risk if the only option is to waste this mixture, and provided the surface has been tacked (as required) prior to the rain and the surface broomed in front of the spreading operation. Such mixture will be evaluated separately and if it should prove unsatisfactory in any way, in the opinion of the Engineer, it shall be removed and replaced with satisfactory mixture at the Contractor’s expense.

330A-9.1.4 Speed of Spreader

The forward speed of the asphalt spreader shall be as established by the Engineer.

330A-9.1.5 Number of Crews Required

For each paving machine operated, the Contractor will be required to use a separate crew, each crew operating as a full unit. The Contractor’s Certified Paving Technician in charge of the paving operations may be responsible for more than one crew but must be physically accessible to Project personnel at all times when mix is being placed.

330A-9.1.6 Checking Depth of Layer

The depth of each layer shall be checked at frequent intervals and adjustments shall be made when the thickness exceeds the allowable tolerance. When an adjustment is made, the paving machine shall be allowed to travel a minimum distance of 32 feet to stabilize before the second check is made to determine the effects of the adjustment.

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330A-9.1.7 Hand Spreading

In limited areas where the use of the spreader is impossible or impracticable, the mixture may be spread and finished by hand.

330A-9.1.8 Straightedging and Back-patching

Straightedging and back-patching shall be done after initial compaction has been obtained and while the material is still hot.

330AA-9.2 Requirements Applicable to Courses Other Than Leveling

330A-9.2.1 Spreading and Finishing

Upon arrival, the mixture shall be dumped in the approved mechanical spreader and immediately spread and struck-off to the full width required and to such loose depth for each course that, when the work is completed, the required weight of mixture per square yard, or the specified thickness, will be secured. An excess amount of mixture shall be carried ahead of the screed at all times. Hand raking shall be done behind the machine as required.

330A-9.2.2 Thickness of Layers

Unless otherwise noted in the plans each course shall be constructed in layers of the thickness shown on Standard FDOT Index No. 513. Type S-III Asphaltic Concrete shall be constructed in layers of the thickness of not less than 3/4 inch nor greater than 1 1/4 inches.

330A-9.2.3 Laying Width

If necessary due to the traffic requirements, the mixture shall be laid in strips in such a manner as to provide for the passage of traffic. Where the road is closed to traffic, the mixture may be laid to the full width, by machines traveling in echelon.

330A-9.2.4 Correcting Defects

Before any rolling is started the surface shall be checked, any irregularities adjusted, and all drippings, fat sandy accumulations from the screed, and fat spots from any source shall be removed and replaced with satisfactory material. No skin patching shall be done. When a depression is to be corrected while the mixture is hot, the surface shall be well scarified before the addition of fresh mixture.
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330A-9.3 Requirements Applicable Only to Leveling Courses

330A-9.3.1 Patching Depressions

Before any leveling course is spread, all depressions in the existing surface more than one-inch deep shall be filled by spot patching with leveling course mixture and then thoroughly compacted.

330A-9.3.2 Spreading Leveling Courses

All courses of leveling shall be placed by the use of two motor graders - one of which is equipped with a spreader box - unless otherwise shown in the plans. Other types of leveling devices may be used after they have been approved by the Engineer.

330A-9.3.3 Rate of Application

When the total asphalt mix provided for leveling exceeds 50 pounds per square yard, the mix shall be placed in two or more layers, with the average spread of any layer not to exceed 50 pounds per square yard. When Type S-III Asphal tic Concrete is used for leveling, the average spread of a layer shall not be less than 50 pounds per square yard nor more than 75 pounds per square yard. The quantity of mix for leveling shown in the plans represents the average for the entire project; however, the rate of application may vary throughout the project as directed by the Engineer. When leveling in connection with base widening, the Engineer may require that all the leveling mix be placed prior to the widening operation.

330A-9.3.4 Placing Leveling Course over Existing Pavement

When a leveling course is specified to be placed over cracked concrete pavement (including existing concrete pavement covered with an asphaltic surface), the first layer of leveling shall be placed as soon as possible but no later than 48 hours after cracking the concrete. The remainder of the leveling course shall be placed in the normal sequence of operations.

330A-9.3.5 Removal of Excess Joint Material

Where a leveling course is to be placed over existing concrete pavement or bridge decks, the excess joint filler in the cracks and joints shall be trimmed flush with the surface prior to placing the first layer of the leveling course.

330A-10 Compacting Mixture

330A-10.1 Provisions Applicable to All Types

330A-10.1.1 Equipment and Sequence

For each paving or leveling train in operation, the Contractor shall furnish a separate set of rollers, with their operators.
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The following equipment, sequence and coverage are suggested for use based on past successful performance; however, when density is required, the Contractor may select his own equipment, sequence and coverage of rolling to meet the minimum density requirement specified. Regardless of the rolling procedure used, the final rolling must be completed before the internal pavement temperature has dropped below 175°F.

(1) Seal rolling, using tandem steel rollers (either vibratory or static) weighing 5 to 12 tons, following as close behind the spreader as is possible without pickup, undue displacement or blistering of the material. Vibratory rollers shall be used in the static mode for layers of one inch or less in thickness.

(2) Rolling with self-propelled pneumatic-tired rollers, following as close behind the seal rolling as the mix will permit. The roller shall cover every portion of the surface with at least five passes.

(3) Final rolling with the 8 to 12-ton tandem steel roller, to be done after the seal rolling and pneumatic-tired rolling have been completed, but before the internal pavement temperature has dropped below 175°F.

Once the Contractor has selected the equipment and established the rolling procedures and these have been used for the control strip density determination, then the Contractor must continue to use the same equipment and rolling procedures for all asphalt mix represented by the control strip. Changes in equipment or procedures will require a new control strip density determination. The Engineer must be notified prior to changing the rolling process.

When density is not required, as for all patching courses, leveling and intermediate courses less than one-inch thick, overbuild course; of variable thicknesses (when the minimum thickness is less than one-inch) and open-graded friction courses, the compaction will be applied in accordance with the standard specifications. The specified rolling procedures must be followed when density determinations will not be made.

When density is not required on those courses indicated in the foregoing paragraph, but the Contractor wants to use other rollers, patterns or sequences than those specified, they may request approval from the Department. Approval may be granted for leveling and intermediate courses 1/2-inch and thicker and overbuild courses when these courses are placed with a paving machine. Density requirements will be in accordance with the provisions of the first paragraph of 330AA-10.3 (Density Control- Nuclear Method). Table 330AA-2 and Table 330AA-3. Approval for a change on patching courses, variable thickness leveling courses placed with motor graders and open-graded friction courses will not be granted.

330AA-10.1.2 Compaction at Crossovers, Intersections, etc.

When a separate paving machine is being used to pave the crossovers, the compaction of the crossovers may be done by one 8- to 10-ton tandem steel roller. If crossovers, intersections and acceleration and deceleration lanes are placed with the main run of paving, a traffic roller shall also be used in the compaction of these areas.
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330A-10.1.3 Rolling Procedures

The initial rolling shall be longitudinal. Where the lane being placed is adjacent to a previously placed lane, the center joint shall be pinched or rolled, prior to the rolling of the rest of the lane.

Rolling shall proceed across the mat, overlapping the adjacent pass by at least six inches. The motion of the roller shall be slow enough to avoid displacement of the mixture, and any displacement shall be corrected at once by the use of rakes, and the addition of fresh mixture if required. Final rolling shall be continued until all roller marks are eliminated.

330A-10.1.4 Speed of Rolling

Rolling with the self-propelled, pneumatic-tired rollers shall proceed at a speed of 6 to 10 miles per hour, and the area covered by each roller shall not be more than 4,000 square yards per hour, except that for Type S Asphaltic Concrete, this maximum rate of coverage shall be 3,000 square yards per hour.

330A-10.1.5 Number of Pneumatic-tired Rollers Required

A sufficient number of self-propelled pneumatic-tired rollers shall be used to assure that the rolling of the surface for the required number of passes will not delay any other phase of the laying operation nor result in excessive cooling of the mixture before the rolling is complete. In the event that the rolling falls behind, the laying operation shall be discontinued until the rolling operations are sufficiently caught up.

330A-10.1.6 Compaction of Areas Inaccessible to Rollers

Areas which are inaccessible to a roller (such as areas adjacent to curbs, headers, gutters, bridges; manholes, etc.) shall be compacted by the use of hand tamps or other satisfactory means.

330A-10.1.7 Rolling Patching and Leveling Courses

Self-propelled pneumatic-tired rollers shall be used for the rolling of all patching and leveling courses. Where the initial leveling course is placed over broken concrete pavement, the pneumatic-tired roller shall weigh at least 15 tons. For Type S-III Asphaltic Concrete leveling courses, the use of a steel-wheeled roller, to supplement the traffic rollers, will be required. On other leveling courses, the use of a steel-wheeled roller will be required on all passes after the first.

330A-10.1.8 Correcting Defects

The rollers shall not be allowed to deposit gasoline, oil or grease onto the pavement, and any areas damaged by such deposits shall be removed and replaced as directed by the Engineer. While rolling is in progress, the surface shall be tested continuously and all discrepancies corrected to comply with the surface requirements. All drippings, fat or lean areas and defective construction of any description shall be removed and replaced. Depressions which develop before the completion of the rolling shall be remedied by loosening the mixture and adding new mixture to bring the
depressions to a true surface. Should any depression remain after the final compaction has been obtained, the full depth of the mixture shall be removed and replaced with sufficient new mixture to form a true and even surface. All high spots, high joints and honeycomb shall be corrected as directed by the Engineer. Any mixture remaining unbonded after rolling shall be removed and replaced. Any mixture which becomes loose or broken, mixed or coated with dirt or in any way defective, prior to laying the wearing course shall be removed and replaced with fresh mixture which shall be immediately compacted to conform with the surrounding area.

330A-10.1.9 Use of Traffic Roller on First Overbuild Course

A self-propelled pneumatic-tired roller shall be used on the first overbuild course. Coverage shall be a minimum of five passes.

330A-10.1.10 Use of Traffic Roller on First Structural Layer Placed on a Milled Surface

A self-propelled pneumatic-tired roller shall be used on the first structural layer placed on a milled surface. Coverage shall be a minimum of three passes.

330A-10.2 Provisions Applicable to Shoulder Pavement Only

Shoulder pavements wider than three feet shall be compacted by the use of equipment of the type required for other asphaltic concrete pavements. Density determinations will be required on shoulder pavements wider than three feet when the thickness is one-inch or greater. These density determinations (including the control strip) will be separate from the pavement lane even when the pavement lane and shoulder are placed in the same pass.

Density determinations will not be required on asphaltic concrete or sand-asphalt hot mix shoulders three feet or less in width. The compactive effort shall be done by the use of tandem steel rollers not exceeding 12 tons in weight. In restricted areas other equipment that will effectively exert a compactive effort may be approved by the Engineer. The Contractor shall state what equipment and compactive effort (coverage) is proposed to be used. This must be approved by the Engineer before the Contractor starts the operation. Where sand-asphalt hot mix shoulders are constructed within the limits of curb and gutter, compaction shall be done by light weight rolling equipment, approved by the Engineer, which will not displace the previously constructed curb and gutter.

330A-10.3 Density Control

330A-10.3.1 Density Control Nuclear Method

The in-place density of each course of asphalt mix construction, with the exceptions of patching courses, leveling and intermediate courses less than one-inch thick or a specified spread rate less than 100 pounds per square yard, overbuild courses where the minimum thickness is less than one-inch, and open-graded friction courses, shall be determined by the use of the Nuclear Density Backscatter Method as specified by FM 1-T238 (Method B). The required density of a completed course shall be at least 98 percent of the average density of the control strip.
330A-10.3.2 Control Strips

One or more control strips shall be constructed for the purpose of determining the control strip density. A control strip shall be constructed at the beginning of asphalt construction and one thereafter for each successive course. Any change in the composition of the mix will require the construction of a new control strip. The Engineer may require an additional control strip when he deems it necessary to establish a new control strip density or confirm the validity of the control strip density being used at that time. The Contractor may request a confirmation of the control strip density also. The control strip must be constructed as a part of a normal day's run. The Contractor will not be permitted to construct the control strip separately.

The length of the control strip shall be 300 feet, regardless of the width of the course being laid. When the control strip is to be constructed for the first day of asphalt construction or at the beginning of a new course, it shall be started between 500 and 1,000 feet from the beginning of the paving operation. The thickness of the control strip shall be the same as that specified for the course of which it is a part. The control strip will be constructed using the same mix, the same paving and rolling equipment and the same procedures as those used in laying the asphalt course of which the control strip is to become a part. Every control strip will remain in place and become a portion of the completed roadway.

When the compaction of the control strip has been completed, ten density determinations will be made at random locations within the control strip. No determinations will be made within one foot of any unsupported edge. The average of these ten determinations will be the Control Strip Density. For purposes of determining the percent of laboratory density, as required in Table 330AA-2, a correction factor will be developed from cores or by direct transmission nuclear determination where applicable.

(a) The lab density shall be calculated to the nearest 0.01 percent and rounded to the nearest 0.1 percent.

In the event that a control strip meeting the requirements of Table 330AA-2 is not obtained, and this particular mix, layer, etc., is completed on the project, density shall be evaluated in accordance with FM 5-543 (Determining Density of Asphalt Pavement Layers When a Valid Control strip is not obtained).

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Table 330AA-2
Roadway Requirements for Bituminous Concrete Mixes

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>Density*</th>
<th>Minimum Control Strip Density (%)</th>
<th>Surface* Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-I</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>S-II</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>S-III</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>Type II</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>Type III</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>SAHM</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>**</td>
</tr>
<tr>
<td>ABC-1</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>**</td>
</tr>
<tr>
<td>ABC-2</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>**</td>
</tr>
<tr>
<td>ABC-3</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>**</td>
</tr>
<tr>
<td>FC-1</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>FC-2</td>
<td>No Density Required</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
<tr>
<td>FC-4</td>
<td>X</td>
<td>96 Lab. Dens.</td>
<td>X</td>
</tr>
</tbody>
</table>

* - Denotes that test is required.
** - Shall meet the straightedge requirements of 200-7.

330A-10.3.3 LOTs

For the purpose of acceptance and partial payment, each day's production will be divided into LOTs. The standard size of a LOT shall consist of 5,000 lineal feet of any pass made by the paving train regardless of the width of the pass or the thickness of the course. Pavers traveling in echelon will be considered as two separate passes. When at the end of a day's production or the completion of a given course or at the completion of the project, a partial LOT occurs, then the LOT size will be redefined as follows: If the partial LOT contains one or two sublots with their appropriate test results, then the previous full-size LOT will be redefined to include this partial LOT and the evaluation of the LOT will be based on either six or seven sublot determinations. If the partial LOT contains three or four sublots with their appropriate test results, this partial LOT will be redefined to be a whole LOT and the evaluation of it will be based on the three or four sublot determinations.

For the standard size LOT (5,000 lineal feet), five density determinations - one for each sublot - will be made at random locations within the LOT, but not to be taken within one foot of any unsupported edge. The random locations will be determined by the use of statically derived random number tables furnished by the Department. These will also be used for partial LOTs. For the Contractor to receive full payment for density, the average density of a LOT will be a minimum of 98.0 percent of the control strip density. Once the average density of a LOT has been determined the Contractor will not be permitted to provide additional compaction to raise the average.
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330A-10.3.4 Acceptance: The completed pavement will be accepted with respect to density on a LOT basis. Partial payment will be made for those LOT's that have an average density less than 98.0 percent of the Control Strip Density based on the following schedule:

Table 330AA-3
Payment Schedule for Density

<table>
<thead>
<tr>
<th>Percent of Control Strip Density*</th>
<th>Percent of Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>98.0 and above</td>
<td>100</td>
</tr>
<tr>
<td>97.0 to less than 98.0</td>
<td>95</td>
</tr>
<tr>
<td>96.0 to less than 97.0</td>
<td>90</td>
</tr>
<tr>
<td><strong>Less than 96.0</strong></td>
<td>75</td>
</tr>
</tbody>
</table>

*In calculating the percent of control strip density, do not round off the final percentage.

**If approved by the Engineer based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay, otherwise the Department will require removal and replacement at no cost. The Contractor has the option to remove and replace at no cost to the Department at any time.

330A-10.3.5 Density Requirements for Small Projects

For projects less than 1,000 linear feet in length and bridge projects with approaches less than 1,000 linear feet each side, the requirements for control strips and nuclear density determination will not apply. The Contractor will use the standard rolling procedures as specified in 330A-10. The provisions for partial payment do not apply to these small projects.

330A-11 Joints

330A-11.1 Transverse Joints

Placing of the mixture shall be as continuous as possible and the roller shall not pass over the unprotected end of the freshly laid mixture except when the laying operation is to be discontinued long enough to permit the mixture to become chilled. When the laying operation is thus interrupted, a transverse joint shall be constructed by cutting back on the previous run to expose the full depth of the mat.

330A-11.2 Longitudinal Joints

For all layers of pavement except the leveling course, placing of each layer shall be accomplished to cause longitudinal construction joints to be offset 6 to 12 inches laterally between successive layers. The Engineer may waive this requirement where offsetting is not feasible due to the sequence of construction.
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330A-11.3 General: When fresh mixture is laid against the opposite edges of joints (trimmed or formed as provided above), it shall be placed in close contact with the exposed edge so that an even, well-compacted joint will be produced after rolling.

330A-12 Surface Requirements

330A-12.1 Contractor Responsibility

The Contractor shall be responsible for obtaining a smooth surface on all pavement courses placed and therefore should straightedge all intermediate and final courses with a 15-foot rolling straightedge. A 15-foot manual straightedge shall be furnished by the Contractor and shall be available at the job site at all times during the paving operation for checking joints and surface irregularities.

330A-12.2 Texture of the Finished Surface of Paving Layers

The finished surface shall be of uniform texture and compaction. The surface shall have no pulled, torn, or loosened portions and shall be free of segregation, sand streaks, sand spots, or ripples. Any area of the surface which does not meet the foregoing requirements shall be corrected in accordance with 330A-12.4.

Unless written permission is obtained, asphalt concrete mixtures containing aggregates which will cause a different color appearance shall not be used in the final wearing surface in sections less than one mile in length.

330A-12.3 Acceptance Testing for Surface Tolerance

330A-12.3.1 General

Acceptance testing for surface tolerance will be applicable to pavement lanes and ramps, where the width is constant, and shall include all construction joints.

Intersections, tapers, crossovers, transitions at beginning and end of project, and similar areas will not be tested for surface tolerance with the rolling straightedge as provided below. However, any individual surface irregularity in these areas in excess of 3/8 inch as determined by a 15-foot straightedge, and deemed by the Department to be objectionable, shall be corrected in accordance with 330A-12.4.

When the Department is ready to perform acceptance testing for surface tolerance, the Contractor shall provide the required traffic control in accordance with standard maintenance of traffic requirements specified in the contract. The cost of this traffic control shall be included in the contract bid prices for the asphalt items.

The Contractor shall also provide a representative to be present during the entire operation of straightedging for acceptance purposes.

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330A-12.3.2 Test Method

Acceptance testing shall consist of one pass of a standard 15-foot rolling straightedge operated along the centerline of each lane tested. This does not preclude acceptance testing at other locations within the lane being tested.

330A-12.3.3 Acceptance Criteria for Last Layer Prior to Friction Course

The Contractor shall furnish and operate an acceptable 15-foot rolling straightedge for testing of the last layer prior to the friction course as directed by the Engineer and supervised by project personnel. All deficiencies in excess of 3/16-inch shall be corrected in accordance with 330A-12.4 and retested as necessary prior to placement of the friction course. Where the final surface is not a friction course, acceptance criteria shall be in accordance with 330A-12.3.4.

330A-12.3.4 Acceptance Criteria for Final Surface or Friction Course

Upon completion of the final surface or friction course, district materials personnel will test the finished surface with a 15-foot rolling straightedge. All deficiencies in excess of 3/16th inch shall be corrected in accordance with 330A-12.4, except that correction by overlaying will not be permitted when the final surface is a friction course.

The Engineer may waive corrections specified above if an engineering determination indicates that the deficiencies are sufficiently separated so as not to significantly affect the ride quality of the pavement and corrective action would unnecessarily mar the appearance of the finished pavement.

Where the Engineer elects to waive correction and the finished pavement surface is a friction course, the pay quantity for Asphalitic Concrete Friction Course will be reduced by the amount of friction course which would have been removed and replaced if the correction had been made (100 ft. X lane width).

Where the Engineer elects to waive a correction and the finished pavement surface is other than a friction course, the appropriate pay quantity for Asphalitic Concrete shall be reduced by the equivalent quantity of materials which would have been removed and replaced if the correction had been made.

(a) Where the pay quantity is in square yard, the reduction is based on the area which would have been removed (100 feet X lane width) multiplied by the ratio of the layer thickness to the total thickness of the type of mix specified.

(b) Where the pay quantity is in tons, the reduction is based on the volume which would have been removed (100 feet X lane width X layer thickness) multiplied by the laboratory density for the mix.
330A-12.4 Correcting Unacceptable Pavement

The Contractor has the option of selecting one of the following methods unless overlaying is prohibited in accordance with 330A-12.3.4:

(a) Removing and Replacing: If correction is made by removing and replacing the pavement, the removal must be for the full depth of the course and extend at least 50 feet on either side of the defective area, for the full width of the paving lane.

(b) Overlaying: If correction is made by overlaying, the overlay shall cover the length of the defective area and taper uniformly to a featheredge thickness at a minimum distance of 50 feet on either side of the defective area. The overlay shall extend full width of the roadway. Care shall be taken to maintain the specified cross slope. The mix used for the overlay may be adjusted as necessary for this purpose by the District Bituminous Engineer.

(c) Other Methods: For courses which will not be the final pavement surface, correction of minor straightedge deficiencies by methods other than specified above shall be approved by the District Bituminous Engineer.

The cost of all corrective work, either by removing and replacing or by overlaying, shall be borne by the Contractor.

330A-13 Protection or Finished Surface

Sections of newly compacted asphaltic concrete which are to be covered by additional courses shall be kept clean until the successive course is laid.

No dumping of embankment or base material directly on the pavement will be permitted. Dressing of shoulders shall be completed before placement of the friction course on adjacent pavement.

Blade graders operating adjacent to the pavement during shoulder construction shall have a two-inch by eight-inch (or larger) board (or other attachment providing essentially the same results) attached to their blades in such manner that it extends below the blade edge, in order to protect the pavement surface from damage by the grader blade.

To prevent rutting or other distortion, sections of newly finished dense-graded friction course and the last structural layer prior to the friction course shall be protected from traffic until the surface temperature has cooled below 160°F.

The Contractor may use artificial methods to cool the pavement to expedite paving operations. The Department may direct the Contractor to use artificial cooling methods when, in the opinion of the Engineer, maintenance of traffic requires opening the pavement to traffic at the earliest possible time.
330A-14 Correcting Deficient Thickness

330A-14.1 Allowable Deficiencies

When the pavement is to be paid for on a square yard basis, the thickness shall be determined from the length of the co-borings, as specified in 330A-15.1. The maximum allowable deficiency from the specified thickness shall be as follows:

(1) For pavement of a specified thickness of 2 1/2 inches or more: 1/2 inch,

(2) For pavement of a specified thickness of less than 2 1/2 inches: 1/4 inch.

330A-14.2 Pavement Exceeding Allowable Deficiency in Thickness

330A-14.2.1 When Deficiency is Seriously in Excess

Where the deficiency in thickness is: (1) in excess of 3/8 inch, for pavement of less than 2 1/2 inches in specified thickness, or, (2) in excess of 3/4 inch, for pavement of specified thickness of 2 1/2 inches or more, the Contractor shall correct the deficiency either by replacing the full thickness for a length extending at least 50 feet from each end of the deficient area, or (when permitted by the Engineer) by overlaying as specified in 330A-14.2.3.

As an exception to the above, pavement outside the main roadway area (acceleration and deceleration lanes and crossovers) may be left in place, without compensation when so permitted by the Engineer, even though the thickness deficiency exceeds the tolerance specified above.

The Contractor will receive no compensation for any pavement removed, nor for the work of removing such pavement.

330A-14.2.2 When Deficiency is Not Seriously In Excess

When the deficiency in the thickness of the pavement is over 1/4 inch but not more than 3/8 inch, for pavement of specified thickness less than 2 1/2 inches; or when the deficiency in thickness is over 1/2 inch but not more than 3/4 inch, for pavement of specified thickness of 2 1/2 inches or greater; the Contractor will be allowed to leave such pavement in place, but without compensation. The areas of such pavement for which no square yard payment will be made shall be the product of the total distance between acceptable cores, multiplied by the width of the lane which was laid at the particular pass in which deficient thickness was indicated. All costs of the overlaying and compacting shall be borne by the Contractor.

330A-14.2.3 Correcting Deficiency by Adding New Surface Material

For any case of excess deficiency of the pavement, the Contractor will be permitted, if approved by the Engineer for each particular location, to correct the deficient thickness by adding new surface material and compacting to the same density as the adjacent surface. The area to be corrected and the thickness of new material added shall be as specified in 330A-12.3.
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All costs of the overlaying and compacting shall be borne by the Contractor.

330A-15 Calculations for Thickness of Pavement to be Paid for (Applicable Only Where the Pavement is to be Paid for by the Square Yard)

330A-15.1 Core Borings

When the Department is ready to core the finished asphalt construction for thickness as required for acceptance testing, the Contractor shall provide the required traffic control in accordance with standard maintenance of traffic requirements specified in the contract. The cost of this traffic control shall be included in the contract bid prices for the asphalt items.

The Contractor shall provide a representative to be present during the entire coring operations for acceptance purposes.

The thickness of the pavement shall be determined from the length of cores, at least two inches in diameter, taken at random points on the cross section and along the roadway. Each core shall represent a section of roadway no longer than 200 feet regardless of the number of lanes. Thickness determinations for paved shoulders and widening shall be separate from the mainline roadway and shall represent a section no longer than 400 feet for each shoulder or widening. The average thickness shall be determined from the measured thicknesses, and in accordance with the procedure and criteria specified herein.

If the Contractor believes that the number of cores taken by the Department is insufficient to properly indicate the thickness of the pavement, he may request the Department to make additional borings at locations designated by him. The cost of these additional borings shall be deducted from any sums due the Contractor unless such borings indicate that the pavement within the questioned area is of specified thickness.

330A-15.2 Criteria for Calculations

DELETE AND SUBSTITUTE THE FOLLOWING:

The calculation for asphaltic concrete pavement to be paid for under this section shall be the area in square yards completed and accepted with the length to be used in the calculation being the actual length measured along the surface and the width as shown on the plans. The thickness to be paid shall be as shown on the Typical Section in the Plans.

Areas of deficient thickness - pavement which is left in place with no compensation (as specified in 330A-14.2), shall not be taken into account in the calculation.

Where areas of defective surface or deficient thickness are corrected by overlaying with additional material, the thickness used in the calculations shall be the thickness specified on the Typical Section for such areas.

END OF SECTION
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SECTION 331
TYPE S ASPHALTIC CONCRETE

SECTION 331 IS ADDED TO THIS SPECIFICATION

331-1 Description

This Section specifies the materials, the composition, and physical test properties for Type S Asphaltic Concrete (Type S-I, Type S-II or Type S-III as specified by the contract or when offered as alternates. The composition, and physical test properties for all mixes, including Type S Asphaltic Concrete (S-I, S-II and S-III) are shown in the following Table 331-1 and Table 331-2.

Where Type S Asphaltic Concrete is specified in the contract, if approved by the Engineer, the Contractor may also select Type S-III Asphaltic Concrete as an alternate for the final surface (no friction course specified) and as the final layer of structural course only, prior to the friction course. Type S-II Asphaltic Concrete will not be permitted as the final layer prior to the friction course. Requirements for plant and equipment shall be as specified in Section 320. General construction requirements shall be as specified in Section 330A.

Table 331-1
Percent By Weight Total Aggregate Passing Sieves*

<table>
<thead>
<tr>
<th>Type</th>
<th>3/4</th>
<th>1/2</th>
<th>3/8</th>
<th>No.4</th>
<th>No.10</th>
<th>No.40</th>
<th>No.80</th>
<th>No.200</th>
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</thead>
<tbody>
<tr>
<td>S-I</td>
<td>100</td>
<td>88-100</td>
<td>75-93</td>
<td>47-75</td>
<td>31-53</td>
<td>19-35</td>
<td>7-21</td>
<td>2-6</td>
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<tr>
<td>S-II**</td>
<td>83-98</td>
<td>71-87</td>
<td>62-78</td>
<td>47-63</td>
<td>33-49</td>
<td>19-35</td>
<td>9-18</td>
<td>2-6</td>
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<tr>
<td>S-III</td>
<td>100</td>
<td>88-100</td>
<td>60-90</td>
<td>40-70</td>
<td>20-45</td>
<td>10-30</td>
<td>2-12</td>
<td></td>
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<tr>
<td>Type II</td>
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<td>65-100</td>
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<td>20-45</td>
<td>10-30</td>
<td>0-12</td>
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<tr>
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<td>ABC-3***</td>
<td>70-100</td>
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<td>85-100</td>
<td>10-40</td>
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<td></td>
<td></td>
<td>75-90</td>
<td></td>
<td></td>
<td>2-6</td>
</tr>
</tbody>
</table>

*In inches, except where otherwise indicated. Number sieves are U.S. Standard sieve series.
**100% passing 1 1/4-inch sieve and 94-100% passing 1-inch sieve.
***100% passing 1 1/2-inch sieve.
****The design range for the No. 10 sieve may be increased for lightweight aggregates.
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Table 331-2
Marshall Design Properties for
Bituminous Concrete Mixes

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>Minimum Marshall Stability (lbs.)</th>
<th>Flow* (0.01 in.)</th>
<th>Minimum VMA (%)</th>
<th>Air Voids (%)</th>
<th>Minimum Effective Asphalt Content (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-I</td>
<td>1500</td>
<td>8-14</td>
<td>14</td>
<td>3-5</td>
<td>5.0</td>
</tr>
<tr>
<td>S-II</td>
<td>1500</td>
<td>8-14</td>
<td>13</td>
<td>3-5</td>
<td>5.0</td>
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<tr>
<td>S-III</td>
<td>1500</td>
<td>8-14</td>
<td>15</td>
<td>3-7</td>
<td>5.5</td>
</tr>
<tr>
<td>Type II</td>
<td>500-750</td>
<td>7-16</td>
<td>18</td>
<td>5-16</td>
<td>6.0</td>
</tr>
<tr>
<td>Type III</td>
<td>750-1000</td>
<td>7-16</td>
<td>15</td>
<td>5-12</td>
<td>5.5</td>
</tr>
<tr>
<td>SAHM</td>
<td>300-500</td>
<td>7-16</td>
<td>15</td>
<td>5-16</td>
<td>6.0</td>
</tr>
<tr>
<td>ABC-I</td>
<td>500</td>
<td>7-16</td>
<td>15</td>
<td>5-16</td>
<td>6.0</td>
</tr>
<tr>
<td>ABC-2</td>
<td>750</td>
<td>7-16</td>
<td>15</td>
<td>5-14</td>
<td>5.5</td>
</tr>
<tr>
<td>ABC-3</td>
<td>1000</td>
<td>8-14</td>
<td>14</td>
<td>3-7</td>
<td>5.0</td>
</tr>
<tr>
<td>FC-1</td>
<td>500</td>
<td>7-14</td>
<td>15</td>
<td>8-14</td>
<td>5.5</td>
</tr>
<tr>
<td>FC-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FC-4</td>
<td>500</td>
<td>7-14</td>
<td>15</td>
<td>12-16</td>
<td>5.0</td>
</tr>
</tbody>
</table>

The maximum Flow for the mix design shall be one point less than shown in the Table. The maximum Flow values shown apply only during production.

Work will be accepted on a LOT to LOT basis in accordance with the applicable requirements of Sections 5, 6, and 9. The size of the LOT will be as specified in 331-5 for the bituminous mixture produced at the plant and as stipulated in 330A-10 and 330A-12 for the material placed on the roadway.

331-2 Materials

331-2.1 General Specifications

The materials used shall conform with the requirements specified in Division III. Specific references are as follows:

(1) Asphalt Cement Viscosity Grade AC-30 916-1
(2) Mineral Filler 917-1 and 917-2
(3) Coarse Aggregate, Stone, Slag or Crushed Gravel Section 901*
(4) Fine Aggregate Section 902

Gravel for use in asphalt concrete mixtures shall be crushed. In addition, the asphalt concrete mixtures containing crushed gravel as the coarse aggregate component must show no potential for stripping during laboratory testing, before approval of the mix design.

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

All materials shipped to the asphalt plant will be sampled at their destination.

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331-2.2 Specific Requirements

331-2.2.1 Condition of Aggregate

The aggregate shall be clean and shall contain no deleterious substances. Coarse or fine aggregate containing any appreciable amount of phosphate shall not be used.

331-2.2.2 Fine Aggregate and Mineral Filler

In laboratory tests, and for the purpose of proportioning the paving mixture, all material passing the No. 10 sieve and retained on the No. 200 sieve, shall be considered as fine aggregate, and the material passing the No. 200 sieve shall be considered as mineral filler.

331-2.2.3 Screenings

Any screenings used in the combination of aggregates shall contain not more than 15 percent of material passing the No. 200 sieve. When two screenings are blended to produce the screening component of the aggregate, one of such screenings may contain up to 18 percent of material passing the No. 200 sieve, as long as the combination of the two does not contain over 15 percent material passing the No. 200 sieve. Screenings may be washed to meet these requirements.

331-2.2.4 Use of Reclaimed Asphalt Pavement

Reclaimed asphalt pavement may be used as a component material of the bituminous mixture subject to the following:

1. The Contractor shall be responsible for the design of asphalt mixes which incorporate reclaimed asphalt pavement as a component part.

2. Reclaimed asphalt pavement shall not exceed 60 percent by weight of total aggregates for Asphalt Base Courses nor more than 35 percent by weight of total aggregates for Structural and Leveling Courses, Reclaimed asphalt pavement shall not be used in Friction Courses.

3. A 3 ½" grizzly shall be mounted over the reclaimed asphalt pavement cold bin. If oversize material shows up in the mix, the size of openings shall be reduced.

4. The reclaimed asphalt pavement material as stockpiled shall be reasonably uniform in characteristics and shall not contain aggregate particles which are soft or conglomerates of fines.

331-2.2.5 Recycling Agents

When reclaimed asphalt pavement is approved for use as a component material, a recycling agent meeting the requirements specified in 916A-2 shall be used in the mix.

331-3 Permissible Variation for the Coarse Aggregate

The aggregate or aggregates shipped to the job shall be sized and uniformly graded or combined
GENERAL PROVISIONS

in such proportions that the resulting mixture meets the grading requirements of the mix design.

331-4 General Composition of Mixture

331-4.1 General

The bituminous mixture shall be composed of a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and bituminous material. Not more than 20 percent by weight of the total aggregate used shall be silica sand or local materials as defined in Section 902. The silica sand and local materials contained in any reclaimed asphalt pavement material, if used in the mix, shall be considered in this limitation. The several aggregate fractions shall be sized, uniformly graded and combined in such proportions that the resulting mixture will meet the grading and physical properties of the approved mix design.

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

331-4.2 Grading Requirements

In all cases, the job mix formula shall be within the design ranges specified in Table 331-1.

331-4.3 Mix Design

331-4.3.1 General

Prior to the production of any asphaltic paving mixture, the Contractor shall submit a mix design to the Engineer at least two weeks before the scheduled start of production. The following information shall be furnished:

1. The specific project on which the mixture will be used.

2. The source and description of the materials to be used.

3. The gradation and approximate proportions of the raw materials as intended to be combined in the paving mixture.

4. A single percentage of the combined mineral aggregate passing each specified sieve.

5. A single percentage of asphalt by weight of total mix intended to be incorporated in the completed mixture.

6. A single temperature at which the mixture is intended to be discharged from the plant.

7. The laboratory density of the asphalt mixture, for all mixes except Open-Graded Friction Courses.

8. Evidence that the completed mixture will conform to all specified physical requirements.
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9. The name of the individual responsible for the Quality Control of the mixture during production.

In lieu of the above, when reclaimed asphalt pavement is approved for use as a component material, the Contractor shall submit to the Engineer at least two weeks before the scheduled start of production in writing a proposed mix design and samples of all material components. The following information shall be furnished with the proposed mix design for mixes containing reclaimed asphalt pavement:

1. The specific project on which the mixture will be used.
2. The source and description of the materials to be used.
3. The gradation and approximate proportions of the raw materials as intended to be combined in the paving mixture.
4. A single percentage of the combined mineral aggregate passing each specified sieve.
5. A single temperature at which the mixture is intended to be discharged from the plant.
6. The name of the individual responsible for the Quality Control of the mixture during production.

331-4.3.2 Revision of Mix Design

The approved mix design shall remain in effect until a change is authorized by the Engineer. A new design will be required for any change in source of aggregate.

331-4.3.3 Resistance to Plastic Flow

The submitted mix design shall include test data showing that the material as produced will meet the requirements specified in Table 331-2 when tested in accordance with FM 1-T245. Further, the bulk specific gravity of the laboratory compacted bituminous mixture shall be determined in accordance with FM T-T166.

The percent of unfilled voids and the percent of aggregate voids filled with asphalt shall be based on the maximum specific gravity of the bituminous mixture and on the asphalt content of each group of specimens prepared from the same sample. Maximum specific gravity of the bituminous mixture shall be determined by FM 1-T-209.

331-4.4 Contractor's Quality Control

331-4.4.1 Personnel DELETE IN ITS ENTIRETY

331-4.4.2 Extraction Gradation Analysis

The bituminous mixture will be sampled at the plant in accordance with FM 1-T168. The percent bitumen content of the mixture will be determined in accordance with FM 5-544. The percent
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passing the standard sieves will be determined in accordance with FM 5-545. All test results will be shown to the nearest 0.01. All calculations will be carried to the 0.001 and rounded to the nearest 0.01, in accordance with the Department's rules of rounding.

The Contractor will run a minimum of one extraction gradation analysis of the mixture for each day's or part of a day's production and immediately following any change in the production process. The quality control sample of mixture for the extraction gradation analysis will be taken each day as soon as the plant operations have stabilized and the results will be obtained in a timely manner so that adjustments can be made if necessary.

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

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

If the percentage of bitumen deviates from the optimum asphalt content by more than 0.55 percent, or the percentage passing any sieve falls outside the limits shown in Table 331-3, the Contractor will make the necessary correction. If the results for two consecutive tests deviate from the optimum asphalt content by more than 0.55 percent, or exceeds the limits as shown in Table 331-3 for any sieve, the plant operation shall be stopped until the problem has been corrected.

The Contractor will maintain control charts showing the results of the extraction gradation analysis (bitumen content and sieve analysis).

Table 331-3
Tolerances for Quality Control Tests
(Extraction Gradation Analysis)

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>7.0</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>7.0</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>7.0</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>7.0</td>
</tr>
<tr>
<td>No. 4</td>
<td>7.0</td>
</tr>
<tr>
<td>No. 10</td>
<td>5.5</td>
</tr>
<tr>
<td>No. 40*</td>
<td>4.5</td>
</tr>
<tr>
<td>No. 80*</td>
<td>3.0</td>
</tr>
<tr>
<td>No. 200</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Does not apply to SAHM, ABC-1 or Type II.

331-4.4.3 Plant Calibration

At or before the start of mix production, a set of hot bin samples for batch or continuous mix plants or belt cut for drum mix plants will be wash graded to verify calibration of the plant. When approved by the Engineer, extraction gradation analysis of the mix may be used to verify

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calibration of the plant. This extraction gradation analysis may also be used to fulfill the quality control requirements for the first days’ production.

331-4.4.4 Viscosity of Asphalt in Mixes Containing Reclaimed Asphalt Pavement

When reclaimed asphalt pavement is a component material, the viscosity of the asphalt material in the bituminous mixture, determined in accordance with FM 1-T202, shall be 6000 +/- 2000 poises. This determination shall be made on samples obtained by the Department on a random basis at a frequency of approximately one per 2000 tons of mix.

If the viscosity is determined to be out of the specified tolerance, the Contractor shall adjust the recycling agent formulation or blend of reclaimed asphalt material used in the mixture to bring the viscosity within tolerance.

331-5 Acceptance of The Mixture

(For This Article, the Term “LOT” Applies to Department Projects)

331-5.1 General

The bituminous mixture will be accepted at the plant, with respect to gradation and asphalt content, on a LOT to LOT basis. The material will be tested for acceptance in accordance with the provisions of 6-4 and the following requirements. However, any load or loads of mixture which, in the opinion of the opinion of the Engineer, are unacceptable for reason of being excessively segregated, aggregates improperly coated, or of excessively high or low temperature shall be rejected for use in the work.

A standard size LOT at the asphalt plant shall consist of 4000 tons with four equal sublots of 1000 tons each.

A partial LOT may occur due to the following:

(1) The completion of a given mix type on a project.

(2) an approved LOT termination by the Engineer due to a change in process, extended delay in production, or change in mix design.

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

When the total quantity of any mix is less than 3000 tons, the partial LOT will be evaluated for the appropriate number of sublots from n = 1 to n = 3. When the total quantity of any mix type is less than 500 tons, the Department will accept the mix on the basis of visual inspection. The Department may run extraction and gradation analysis for information purposes; however, the provisions for partial payment will not apply.

On multiple project contracts, the LOT(s) at the asphalt plant will carry over from project to project.
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331-5.2 Acceptance Procedures

The Contractor shall control all operations in the handling, preparation, and mixing of the asphalt mix so that the percent bitumen and percent passing the No. 4, 10, 40 and 200 sieves will meet the approved job mix formula within the tolerance shown in Table 331-5.

Table 331-5
Tolerances for Acceptance Tests

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Tolerance*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Content (Extraction)</td>
<td>+/-0.55%</td>
</tr>
<tr>
<td>Asphalt Content (Printout)</td>
<td>+/-0.15%</td>
</tr>
<tr>
<td>Passing No. 4 Sieve</td>
<td>+/-7.00%</td>
</tr>
<tr>
<td>Passing No. 10 Sieve</td>
<td>+/-5.50%</td>
</tr>
<tr>
<td>Passing No. 40 Sieve**</td>
<td>+/-4.50%</td>
</tr>
<tr>
<td>Passing No. 200 Sieve</td>
<td>+/-2.00%</td>
</tr>
</tbody>
</table>

*Tolerances for sample size of n = 1. See Table 331-6 for other sample sizes n=2 through n=6.

**Applies only to Type S-I, S-II, S-III, FC-1 and FC-4.

Acceptance of the mixture shall be on the basis of test results on consecutive random samples from each LOT. One random sample shall be taken from each sublot. The bituminous mixture will be sampled at the plant in accordance with FM i-T 168. The percent bitumen content of the mixture will be determined in accordance with FM 5-544. The percent passing the No. 4, No. 10, No. 40 and No. 200 sieves will be determined in accordance with FM 5-545.

Calculations for the acceptance test results for bitumen content and gradation (percent passing No. 4, No. 10, No. 40 and No. 200) shall be shown to the nearest 0.01. Calculations for arithmetic averages shall be carried to the 0.001 and rounded to the nearest 0.01 in accordance with the Department’s rules of rounding.

When the Contractor or Producer chooses to use a storage bin for mix storage overnight or longer, the material processed in this manner will be handled as follows:

The samples of mix taken for acceptance tests on asphalt content must be taken before the mix is placed into the storage bin. Samples of mix for acceptance tests on gradation shall be taken after the mix has been removed from the storage bin.

Payment will be made on the basis of Table 331-6 Acceptance Schedule of Payment. The process will be considered out of control when any individual test result from a LOT exceeds the 90 percent pay factor limit for the values in the “one test” column of Table 331-6. When this happens, the LOT will be automatically terminated and the percent of payment will be determined from Table 331-6.
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### Table 331-6

**Acceptance Schedule of Payment - (Asphalt Plant Mix Characteristics)**

*Average of Accumulated Deviations of the Acceptance Tests from the Mix Design*

<table>
<thead>
<tr>
<th>Pay Factor</th>
<th>1-Test</th>
<th>2-Tests</th>
<th>3-Tests</th>
<th>4-Tests</th>
<th>5-Tests</th>
<th>6-Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asphalt Cement Content (Extraction)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>0.00-0.55</td>
<td>0.00-0.43</td>
<td>0.00-0.38</td>
<td>0.00-0.35</td>
<td>0.00-0.33</td>
<td>0.00-0.31</td>
</tr>
<tr>
<td>0.95</td>
<td>0.56-0.65</td>
<td>0.44-0.50</td>
<td>0.39-0.44</td>
<td>0.36-0.40</td>
<td>0.34-0.37</td>
<td>0.32-0.36</td>
</tr>
<tr>
<td>0.90</td>
<td>0.66-0.75</td>
<td>0.51-0.57</td>
<td>0.45-0.50</td>
<td>0.41-0.45</td>
<td>0.38-0.42</td>
<td>0.36-0.39</td>
</tr>
<tr>
<td>0.80*</td>
<td>Over 0.75</td>
<td>Over 0.57</td>
<td>Over 0.50</td>
<td>Over 0.45</td>
<td>Over 0.42</td>
<td>Over 0.39</td>
</tr>
<tr>
<td><strong>Asphalt Cement Content (Printout)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>0.00-0.15</td>
<td>0.00-0.15</td>
<td>0.00-0.15</td>
<td>0.00-0.15</td>
<td>0.00-0.15</td>
<td>0.00-0.15</td>
</tr>
<tr>
<td>0.95</td>
<td>0.16-0.25</td>
<td>0.16-0.25</td>
<td>0.16-0.25</td>
<td>0.16-0.25</td>
<td>0.16-0.25</td>
<td>0.16-0.25</td>
</tr>
<tr>
<td>0.90</td>
<td>0.26-0.35</td>
<td>0.26-0.35</td>
<td>0.26-0.35</td>
<td>0.26-0.35</td>
<td>0.26-0.35</td>
<td>0.26-0.35</td>
</tr>
<tr>
<td>0.80*</td>
<td>Over 0.35</td>
<td>Over 0.35</td>
<td>Over 0.35</td>
<td>Over 0.35</td>
<td>Over 0.35</td>
<td>Over 0.35</td>
</tr>
</tbody>
</table>

| No. 4 Sieve ** | | | | | | |
| 1.00       | 0.00-7.00 | 0.00-5.24 | 0.00-4.46 | 0.00-4.00 | 0.00-3.68 | 0.00-3.45 |
| 0.98       | 7.01-8.00 | 5.25-5.95 | 4.47-5.04 | 4.01-4.50 | 3.69-4.13 | 3.46-3.86 |
| 0.95       | 8.01-9.00 | 5.96-6.66 | 5.05-5.62 | 4.51-5.00 | 4.14-4.58 | 3.87-4.27 |
| 0.90       | 9.01-10.00 | 6.67-7.36 | 5.63-6.20 | 5.01-5.50 | 4.59-5.02 | 4.28-4.67 |
| 0.80*      | Over 10.00 | Over 7.36 | Over 6.20 | Over 5.50 | Over 5.02 | Over 4.67 |

| No. 10 Sieve ** | | | | | | |
| 1.00       | 0.00-5.50 | 0.00-4.33 | 0.00-3.81 | 0.00-3.50 | 0.00-3.29 | 0.00-3.13 |
| 0.98       | 5.51-6.50 | 4.34-5.04 | 3.82-4.39 | 3.51-4.00 | 3.30-3.74 | 3.14-3.54 |
| 0.95       | 6.51-7.50 | 5.05-5.74 | 4.40-4.96 | 4.01-4.50 | 3.75-4.18 | 3.55-3.95 |
| 0.90       | 7.51-8.50 | 5.75-6.45 | 4.97-5.54 | 4.51-5.00 | 4.19-4.63 | 3.96-4.36 |
| 0.80*      | Over 8.50 | Over 6.45 | Over 5.54 | Over 5.00 | Over 4.63 | Over 4.36 |

| No. 40 Sieve ** | | | | | | |
| 1.00       | 0.00-4.50 | 0.00-3.91 | 0.00-3.65 | 0.00-3.50 | 0.00-3.39 | 0.00-3.22 |
| 0.98       | 4.51-5.50 | 3.92-4.62 | 3.64-4.23 | 3.51-4.00 | 3.40-3.84 | 3.33-3.72 |
| 0.95       | 5.51-6.50 | 4.63-5.33 | 4.24-4.81 | 4.01-4.50 | 3.85-4.29 | 3.73-4.13 |
| 0.90       | 6.51-7.50 | 5.34-6.04 | 4.82-5.53 | 4.51-5.00 | 4.30-4.74 | 4.14-4.54 |
| 0.80*      | Over 7.50 | Over 6.04 | Over 5.39 | Over 5.00 | Over 4.74 | Over 4.54 |

| No. 200 Sieve ** | | | | | | |
| 1.00       | 0.00-2.00 | 0.00-1.71 | 0.00-1.58 | 0.00-1.50 | 0.00-1.45 | 0.00-1.41 |
| 0.95       | 2.01-2.40 | 1.72-1.99 | 1.59-1.81 | 1.51-1.70 | 1.46-1.63 | 1.42-1.57 |
| 0.90       | 2.41-2.80 | 2.00-2.27 | 1.82-2.04 | 1.71-1.90 | 1.64-1.80 | 1.58-1.73 |
| 0.80*      | Over 2.80 | Over 2.27 | Over 2.04 | Over 1.90 | Over 1.80 | Over 1.73 |

*If approved by the Engineer based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay. Otherwise, the Department will require removal and replacement at no cost. The Contractor has the option to remove and replace at no cost to the Department at any time.

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

Notes:
1. The No. 40 Sieve applies only to Type S-1, S-II, S-III, FC-1 and FC-4.
2. Deviations are absolute values with no plus or minus signs.

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331-5.3 Automatic Batch Plant with Printout

Acceptance determinations for mixtures produced by automatic batch plants with printout will be based on the calculated bitumen content using the printout of the weights of asphalt actually used. Acceptance determinations for gradations (No.4, No. 10, No. 40 and No. 2(0)) will be based on the actual test results from extraction gradation analyses. Payment will be made based on the provisions of Table 331-6.

331-5.4 Acceptance on the Roadway

The bituminous mixture will be accepted on the roadway with respect to compacted density and surface tolerance in accordance with the applicable requirements of 330A-10 and 330A-12.

331-5.5 Additional Tests

The Department reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control. The Department will determine the Marshall properties, a minimum of one set per LOT, to determine whether or not the Contractor is meeting the specification requirements. Specimens will be prepared at the plant and transported to the District or Central Lab where they will be tested in accordance with FM 5-511 for Marshall stability and flow, FM 1-T 209 for maximum specific gravity, and FM 1-T166 for density. When the average value of the specimens fails to meet specification requirements for stability or flow, or the air void content is below 3.0 percent (for structural mixes only), the Contractor's plant operations may be stopped until all specification requirements can be met or until another mix design has been approved (any revisions to a mix design shall be made in accordance with 331-4.3.2). When it is determined necessary to cease operations while the problem is being resolved, the approval of the Engineer will be required before resuming production of the mix. At this time the Marshall properties must be verified.

331-6 Compensation

331-6.1 Items for Which Payment Will Be Made

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330A), payment will be made for the area of the pavement, in square yards (after adjustment to the equivalent area of specified-thickness pavement), or, when so shown, the weight of the mixture, in tons.

331-6.2 Area of Pavement for Which Payment Will Be Made

When the pavement is to be paid for on an area basis, the area to be paid for shall be field measured quantity, omitting any areas not allowed for payment under the provisions of 9-3.2, omitting any areas not allowed for payment under 330A-14.2.

The thickness to be paid for under this section is the thickness shown on the typical section in the plans.
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331-6.3 Payment by Weight of Mixture

Where the pavement is to be paid for by weight, the weight shall be determined as provided in 320-2 (including the provisions for the automatic recordation system).

331-6.4 Bituminous Material DELETE IN ITS ENTIRETY

331-6.5 Work Included in Payment Items

The contract unit price per ton or per square yard, as applicable, shall be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330A).

Payment shall be made under:

Item No. 331-2 – Type S Asphaltic Concrete – per ton.
Item No. 331-72 – Type S Asphaltic Concrete – per square yard.

END OF SECTION

SECTION 333
TYPE III ASPHALTIC CONCRETE

ADD SECTION 333 TO THIS SPECIFICATION

333-1 Description

The work specified in this Section consists of the construction of an asphaltic concrete pavement course, composed of a mixture of stone or slag screenings with silica sand and asphalt cement, and mineral filler if needed.

All requirements of Section 320 for plant and equipment and of Section 330A for general construction requirements shall apply to this work.

Work will be accepted on a LOT to LOT basis in accordance with the applicable requirements of Sections 5, 6, and 9. The size of the LOT will be as specified in 331-5 for the bituminous mixture accepted at the plant and as stipulated in 330A-10 and 330A-12 for the material accepted on the roadway.

333-2 Materials

333-2.1 Bituminous Material

The bituminous material shall be Asphalt Cement, Viscosity Grade AC-20 or AC-30, meeting the requirements called for in 916-1.
GENERAL PROVISIONS

333-2.2 Aggregate

The aggregate shall consist of stone or slag screening or a combination of stone or slag screenings with silica sand, and shall meet the gradation requirements and provide the required stability of the mix, as specified below. Screenings shall be produced from stone or slag conforming with the requirements of Section 901. The sand shall meet the requirements of 332-2.2.3. Aggregate containing any appreciable amount of phosphate shall not be used.

333-2.3 Mineral Filler

Mineral filler, if needed, shall conform with the requirements of Section 917.

333-3 General Composition of Mixture

333-3.1 General

The bituminous mixture shall be composed of a combination of aggregate (coarse, fine, or mixtures thereof), mineral filler if required, and bituminous material. The several aggregate fractions shall be sized, uniformly graded, and combined in such proportions that the resulting mixture will meet the grading and physical properties of the approved job mix formula.

Reclaimed asphalt pavement meeting the requirements of 331-2.2.4 may be approved as a substitution for a portion of the combination of aggregates subject to all applicable specification requirements being met. If use of reclaimed asphalt pavement is approved a recycling agent meeting the requirements of 331-2.2.5 may be used in the mix in lieu of asphalt cement.

333-3.2 Grading Requirements

The job mix formula, as established by the Contractor and approved by the Department, shall be within the design range specified in Table 331-1.

333-3.3 Proportions of Sand and Screenings

Not more than 25 percent by weight of the total aggregate used shall be local sand. In addition to the local sand, a portion not to exceed 15 percent by weight of the total aggregate may be commercial washed sand. The commercial washed sand shall be supplied by an approved source having a FDOT sand mine number and conform with the requirements of Section 902 except those in 902-2.2.

The sand portion of any reclaimed asphalt pavement material if used in the mixture shall be considered as local sand.

333-3.4 Stability

The constituents of the mixture shall be combined in such proportions as to produce a mixture having Marshall properties within the limits shown in Table 331-2.
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333-3.5 Screening

When tested at the cold elevator in the combination to be used, the aggregate shall contain no more than 10 percent, by weight, of material passing the No. 200 sieve. Any screenings used in the combination of aggregate shall not contain more than 15 percent of material passing the No. 200 sieve. When two screenings are blended to produce the screenings component of the aggregate, any component of such screenings may contain up to 18 percent of material passing the No. 200 sieve. Screenings may be washed to meet these requirements and shall be free from lumps and foreign matter.

333-4 Formula for Job Mix

The job mix formula shall conform to the requirements of 331-4.3. In addition to these requirements, the job mix formula shall include test data showing that the material as produced will meet the requirements of Table 331-2.

333-5 Contractor’s Quality Control

The Contractor shall provide the necessary control of the bituminous mixture and construction in accordance with the applicable provisions of 6-8.4 and 331-4.4. After the job mix formula is approved, the Contractor shall furnish the material not only within the limits of the design range, but in addition, shall meet the approved Job mix formula within the acceptance ranges shown in the approved design mix. The extraction gradation analysis shall comply with provisions of 331-4.4.2 and Table 331-3. Plant calibration shall comply with the provisions of 331-4.4.3 and Table 331-3.

333-6 Acceptance of Mixture

333-6.1 Acceptance at the Plant

The bituminous mixture will be accepted at the plant with respect to gradation and asphalt content in accordance with the requirements of 331-5.

333-6.2 Acceptance on the Roadway

The bituminous mixture will be accepted on the roadway with respect to compacted density and surface tolerance in accordance with the applicable provisions of 330A-10 and 330A-12.

333-6.3 Additional Tests

The provisions of 331-5.5 apply to Type III Asphaltic Concrete.
GENERAL PROVISIONS

333-7 Measurement and Payment

The work specified in this Section shall be measured and paid for as specified for Type S-I Asphaltic Concrete under the applicable provisions of 331-6.

Payment will be made under:

Item No. 333-1 – Type III Asphaltic Concrete – per square yard.
Item No. 333-2 – Type III Asphaltic Concrete – per ton.

END OF SECTION

SECTION 334
SUPERPAVE ASPHALT FOR LAP (OFF-SYSTEM)

334-1 Description

334-1.1 General

Construct a Superpave asphalt pavement (consisting of either Hot Mix Asphalt (HMA) or Warm Mix Asphalt (WMA)) based on the type of work specified in the Contract and the Asphalt Work Categories as defined below. Meet the applicable requirements for plants, equipment, and construction requirements as defined below. Use an asphalt mix, either HMA or WMA, which meets the requirements of this specification.

334-1.2 Asphalt Work Mix Categories

Construction of asphalt pavement will fall into one of the following work categories:

334-1.2.1 Asphalt Work Category 1

Includes the construction of shared use paths and miscellaneous asphalt.

334-1.2.2 Asphalt Work Category 2

Includes the construction of new asphalt turn lanes, paved shoulders and other non-mainline pavement locations.

334-1.2.3 Asphalt Work Category 3

Includes the construction of new mainline asphalt pavement lanes, milling and resurfacing.

334-1.3 Mix Types

Use the appropriate asphalt mix as shown in Table 334-1.
GENERAL PROVISIONS

Table 334-1 Asphalt Mix Types

<table>
<thead>
<tr>
<th>Asphalt Work Category</th>
<th>Mix Types</th>
<th>Traffic Level</th>
<th>ESALs (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Type SP-9.5</td>
<td>A</td>
<td>&lt;0.3</td>
</tr>
<tr>
<td>2</td>
<td>Structural Mixes: Types SP-9.5 or SP-12.5 Friction Mixes: Types FC-9.5 or FC-12.5</td>
<td>B</td>
<td>0.3 to &lt;3</td>
</tr>
<tr>
<td>3</td>
<td>Structural Mixes: Types SP-9.5 or SP-12.5 Friction Mixes: Types FC-9.5 or FC-12.5</td>
<td>C</td>
<td>≥3</td>
</tr>
</tbody>
</table>

A Type SP or FC mix one traffic level higher than the traffic level specified in the Contract may be substituted, at no additional cost (i.e. Traffic Level B may be substituted for Traffic Level A, etc.). Traffic levels are as defined in Section 334 of the Florida Department of Transportation’s (FDOT’s) Specifications.

334-1.4 Gradation Classification

The Superpave mixes are classified as fine and are defined in 334-3.2.2. The equivalent AASHTO nominal maximum aggregate size Superpave mixes are as follows:

Type SP-9.5, FC-9.5
Type SP-12.5, FC-12.5

9.5 mm
12.5 mm

334-1.5 Thickness

The total pavement thickness of the asphalt pavement will be based on a specified spread rate or plan thickness as shown in the Contract Documents. Before paving, propose a spread rate or thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan spread rate or thickness. When the total pavement thickness is specified as plan thickness, the plan thickness and individual layer thickness will be converted to spread rate using the following equation:

Spread rate (lbs/yard²) = t x Gmm x 43.3

Where:  
\[ t = \text{Thickness (in.) (Plan thickness or individual layer thickness)} \]
\[ G_{mm} = \text{Maximum specific gravity from the mix design} \]

For target purposes only, spread rate calculations shall be rounded to the nearest whole number.

334-1.5.1 Layer Thicknesses

Unless otherwise called for in the Contract Documents, the allowable layer thicknesses for asphalt mixtures are as follows:

Type SP-9.5, FC-9.5
Type SP-12.5, FC-12.5

3/4 to 1 1/2 inches
1 1/2 to 2 1/2 inches

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334-1.5.2 Additional Requirements

The following requirements also apply to asphalt mixtures:

1. When construction includes the paving of adjacent shoulders (less than or equal to 5 feet wide), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless otherwise called for in the Contract Documents.

2. For overbuild layers, use the minimum and maximum layer thicknesses as above unless called for differently in the Contract Documents. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by 1/2 inch, and the maximum allowable thickness will be as specified below, unless called for differently in the Contract Documents.

<table>
<thead>
<tr>
<th>Type</th>
<th>Minimum Thickness</th>
<th>Maximum Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP-9.5</td>
<td>3/8 to 2 inches</td>
<td>3/8 to 2 inches</td>
</tr>
<tr>
<td>SP-12.5</td>
<td>1/2 to 3 inches</td>
<td>1/2 to 3 inches</td>
</tr>
</tbody>
</table>

3. Variable thickness overbuild layers may be tapered to zero thickness provided the contract documents require a minimum of 1-1/2 inches of mix placed over the variable thickness overbuild layer.

334-1.6 Weight of Mixture

The weight of the mixture shall be determined as provided in 320-3.2 of the FDOT Specifications.

334-2 Materials

334-2.1 Superpave Asphalt Binder

Unless specified elsewhere in the Contract or in 334-2.3.3, use a PG 67-22 asphalt binder from the FDOT's Approved Products List (APL). If the Contract calls for an alternative asphalt binder, meet the requirements of FDOT Specifications Section 336 or 916, as appropriate.

334-2.2 Aggregate

Use aggregate capable of producing a quality pavement. For Type FC mixes, use an aggregate blend that consists of crushed granite, crushed Oolitic limestone, other crushed materials (as approved by FDOT for friction courses per Rule 14-103.005, Florida Administrative Code), or a combination of the above. Crushed limestone from the Oolitic formation may be used if it contains a minimum of 12% silica material as determined by FDOT Test Method FM 5-510 and FDOT grants approval of the source prior to its use. As an exception, mixes that contain a minimum of 60% crushed granite may either contain:

1. Up to 40% fine aggregate from other sources; or,

2. A combination of up to 20% RAP and the remaining fine aggregate from other.
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A list of aggregates approved for use in friction courses may be available on the FDOT's State Materials Office website. The URL for obtaining this information, if available, is: ftp://ftp.dot.state.fl.us/fdot/smo/website/sources/frictioncourse.pdf.

334-2.3 Reclaimed Asphalt Pavement (RAP) Material

334-2.3.1 General Requirements

RAP may be used as a component of the asphalt mixture, provided the RAP meets the following requirements:

1. When using a PG 76-22 (PMA), or PG 76-22 (ARB) asphalt binder, limit the amount of RAP material used in the mix to a maximum of 20% by weight of total aggregate. As an exception, amounts greater than 20% RAP by weight of total aggregate can be used if no more than 20% by weight of total asphalt binder comes from the RAP material.

2. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.

3. Provide RAP material having a minimum average asphalt binder content of 4.0% by weight of RAP. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpile to verify that this requirement is met.

4. Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycle mixture. If oversized RAP material appears in the completed recycle mix, take the appropriate corrective action immediately. If the appropriate corrective actions are not immediately taken, stop plant operations.

334-2.3.2 Material Characterization

Assume responsibility for establishing the asphalt binder content, gradation, and bulk specific gravity (Gsb) of the RAP material based on a representative sampling of the material.

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GENERAL PROVISIONS

334-2.3.3 Asphalt Binder for Mixes with RAP

Select the appropriate asphalt binder grade based on Table 334-2. The Engineer reserves the right to change the asphalt binder type and grade during production based on characteristics of the RAP asphalt binder.

<table>
<thead>
<tr>
<th>Table 334-2 Asphalt Binder Grade for Mixes Containing RAP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent RAP</strong></td>
</tr>
<tr>
<td>0 - 15</td>
</tr>
<tr>
<td>16 - 30</td>
</tr>
<tr>
<td>&gt; 30</td>
</tr>
</tbody>
</table>

334-3 Composition of Mixture

334-3.1 General

Compose the asphalt mixture using a combination of aggregates, mineral filler, if required; and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

334-3.2 Mix Design

334-3.2.1 General

Design the asphalt mixture in accordance with AASHTO R 35-12, except as noted herein. Submit the proposed mix design with supporting test data indicating compliance with all mix design criteria to the Engineer. Prior to the production of any asphalt mixture, obtain the Engineer’s conditional approval of the mix design. If required by the Engineer, send representative samples of all component materials, including asphalt binder to a laboratory designated by the Engineer for verification. As an exception to these requirements, use a currently approved FDOT Mix Design.

Warm mix technologies (additives, foaming techniques, etc.) listed on the Department’s website may be used in the production of the mix. The URL for obtaining this information, is: http://www.dot.state.fl.us/statematerialsoffice/quality/programs/warmmixasphalt/index.shtml.

The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and at his discretion, the Engineer may no longer allow the use of the mix design.

334-3.2.2 Mixture Gradation Requirements

Combine the aggregates in proportions that will produce an asphalt mixture meeting all of the requirements defined in this specification and conform to the gradation requirements at design as defined in AASHTO M 323-12, Table 3. Aggregates from various sources may be combined.

334-3.2.2.1 Mixture Gradation Classification
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Plot the combined mixture gradation on an FHWA 0.45 Power Gradation Chart. Include the Control Points from AASHTO M323-12, Table-3, as well as the Primary Control Sieve (PCS) Control Point from AASHTO M323-12, Table 4. Fine mixes are defined as having a gradation that passes above or through the primary control sieve control point.

334-3.2.3 Gyratory Compaction

Compact the design mixture in accordance with AASHTO T312-12, with the following exceptions: use the number of gyrations at \( N_{\text{design}} \) as designed in Table 334-3.

<table>
<thead>
<tr>
<th>Traffic Level</th>
<th>( N_{\text{design}} ) Number of Gyrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>50</td>
</tr>
<tr>
<td>B</td>
<td>65</td>
</tr>
<tr>
<td>C</td>
<td>75</td>
</tr>
</tbody>
</table>

334-3.2.4 Design Criteria

Meet the requirements for nominal maximum aggregate size as defined in AASHTO M323-12, as well as for relative density, VMA, VFA, and dust-to-binder ratio as specified in AASHTO M323-12, Table 6. \( N_{\text{initial}} \) and \( N_{\text{maximum}} \) requirements are not applicable.

334-3.2.5 Moisture Susceptibility: Test 4 inch specimens in accordance with FDOT Test Method FM 1-T 283. Provide a mixture having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (unconditioned) of 100 pounds per square inch. If necessary, add a liquid anti-stripping agent from the FDOT’s APL or hydrated lime in order to meet these criteria.

In lieu of moisture susceptibility testing, add a liquid anti-stripping agent from the FDOT’s APL. Add 0.5% liquid anti-stripping agent by weight of asphalt binder.

334-3.2.6 Additional Information

In addition to the requirements listed above, provide the following information on each mix design:

1. The design traffic level and the design number of gyrations \( N_{\text{design}} \).

2. The source and description of the materials to be used.

3. The FDOT source number and the FDOT product code of the aggregate components furnished from an FDOT approved source (if required).

4. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at
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the time of use. Compensate for any change in aggregate gradation caused by handling and processing as necessary.

5. A single percentage of the combined mineral aggregate passing each specified. Degradation of the aggregate due to processing (particularly material passing the No. 200 sieve) should be accounted for and identified.

6. The bulk specific gravity (Gsb) value for each individual aggregate and RAP component.

7. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.

8. A target temperature for the mixture at the plant (mixing temperature) and a target temperature for the mixture at the roadway (compaction temperature). Do not exceed a target temperature of 330°F for PG 76-22 (PMA) and PG 76-22 (ARB) asphalt binders, and 315°F for unmodified asphalt binders.

9. Provide the physical properties achieved at four different asphalt binder contents. One shall be at the optimum asphalt content, and must conform to all specified physical requirements.

10. The name of the mix designer.

11. The ignition oven calibration factor.

12. The warm mix technology, if used.

334-4 Process Control

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway to control the process.

334-5 General Construction Requirements

334-5.1 Weather Limitations

Do not transport asphalt mix from the plant to the roadway unless all weather conditions are suitable for the paving operations.

334-5.2 Limitations of Paving Operations

334-5.2.1 General

Spread the mixture only when the surface upon which it is to be placed has been previously prepared, is intact, firm, dry, clean, and the tack, with acceptable spread rate, is properly broken. Ensure all granular base materials are properly primed and all asphalt base materials are properly tacked, prior to paving.
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334-5.2.2 Air Temperature

Place the mixture only when the air temperature in the shade and away from the artificial heat meets the requirements of Table 334-4. The minimum ambient temperature requirement may be reduced by 5°F when using a warm mix technology, if mutually agreed to by both the Engineer and the Contractor.

<table>
<thead>
<tr>
<th>Layer Thickness or Asphalt Binder Type</th>
<th>Number of Gyrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤1 inch</td>
<td>50</td>
</tr>
<tr>
<td>Any mixture &gt; 1 inch containing a PG asphalt binder with a high temperature designation ≥ 76°C</td>
<td>45</td>
</tr>
<tr>
<td>Any mixture &gt; 1 inch containing a PG asphalt binder with a high temperature designation &lt; 76°C</td>
<td>40</td>
</tr>
</tbody>
</table>

334-5.3 Mix Temperature

Heat and combine the ingredients of the mix in such a manner as to produce a mixture with a temperature at the plant and at the roadway, within a range of plus or minus 30°F from the target temperature as shown on the mix design. Reject all loads outside of this range. For warm mix asphalt, the Contractor may produce the first five loads of the production day and at other times when approved by the Engineer, at a hot mix asphalt temperature not to exceed 330°F for purposes of heating the asphalt paver. For these situations, the upper tolerance of +30°F does not apply.

334-5.4 Transportation of the Mixture

Transport the mix in trucks of tight construction, which prevents the loss of material and the excessive loss of heat and previously cleaned of all foreign material. After cleaning, thinly coat the inside surface of the truck bodies with soapy water or an asphalt release agent as needed to prevent the mixture from adhering to the beds. Do not allow excess liquid to pond in the truck body. Do not use a release agent that will contaminate, degrade, or alter the characteristics of the asphalt mix or is hazardous or detrimental to the environment. Petroleum derivatives (such as diesel fuel), solvents, and any product that dissolves asphalt are prohibited. Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so it can be tied down. Cover each load during cool and cloudy weather and at any time it appears rain is likely during transit with a tarpaulin or waterproof cover. Cover and tie down all loads of friction course mixtures.
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334-5.5 Preparation of Surfaces Prior to Paving

334-5.5.1 Cleaning

Clean the surface of all loose and deleterious material by the use of power brooms or blowers, supplemented by hand brooming where necessary.

334-5.5.2 Patching and Leveling Courses

As shown in the plans, bring the existing surface to proper grade and cross-section by the application of patching or leveling courses.

334-5.5.3 Application Over Surface Treatment

Where an asphalt mix is to be placed over a surface treatment, sweep and dispose of all loose material from the paving area.

334-5.5.4 Tack Coat

Use a rate of application as defined in Table 334-5. Control the rate of application to be within plus or minus 0.01 gallon per square yard of the target application rate. The target application rate may be adjusted by the Engineer to meet specific field conditions. Determine the rate of application as needed to control the operation. When using PG 52-28, multiply the target rate of application by 0.6.

<table>
<thead>
<tr>
<th>Table 334-5 Tack Coat Application Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Mixture Type</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Base Course, Structural Course</td>
</tr>
<tr>
<td>Dense Graded Friction Course</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

334-5.6 Placing Mixture

334-5.6.1 Alignment of Edges

With the exception of pavements placed adjacent to curb and gutter or other true edges, place all pavements by the stringline method to obtain an accurate, uniform alignment of the pavement edge. Control the unsupported pavement edge to ensure that it will not deviate more than plus or minus 1.5 inches from the stringline.

334-5.6.2 Rain and Surface Conditions

Immediately cease transportation of asphalt mixtures from the plant when rain begins at the roadway. Do not place asphalt mixtures while rain is falling, or when there is water on the surface to be covered. Once the rain has stopped and water has been removed from the tacked surface to
the satisfaction of the Engineer and the temperature of the mixture caught in transit still meets the requirements as specified in 334-5.3, the Contractor may then place the mixture caught in transit.

334-5.6.3 Checking Depth of Layer

Check the depth of each layer at frequent intervals to ensure a uniform spread rate that will meet the requirements of the Contract.

334-5.6.4 Hand Work

In limited areas where the use of the spreader is impossible or impracticable, spread and finish the mixture by hand.

334-5.6.5 Spreading and Finishing

Upon arrival, dump the mixture in the approved paver, and immediately spread and strike-off the mixture to the full width required, and to such loose depth for each course that, when the work is completed, the required weight of mixture per square yard, or the specified thickness, is secured. Carry a uniform amount of mixture ahead of the screed at all times.

334-5.6.6 Thickness Control

Ensure the spread rate is within 10% of the target spread rate, as indicated in the Contract. When calculating the spread rate, use, at a minimum, an average of five truckloads of mix. When the average spread rate is beyond plus or minus 10% of the target spread rate, monitor the thickness of the pavement layer closely and adjust the construction operations.

If the Contractor fails to maintain an average spread rate within plus or minus 10% of the target spread rate for two consecutive days, the Engineer may elect to stop the construction operation at any time until the issue is resolved.

When the average spread rate for the total structural or friction course pavement thickness exceeds the target spread rate by plus or minus 50 pounds per square yard for layers greater than or equal to 2.5 inches or exceeds the target spread rate by plus or minus 25 pounds per square yard for layers less than 2.5 inches, address the unacceptable pavement in accordance with 334-5.10.4, unless an alternative approach is agreed upon by the Engineer.

334-5.7 Leveling Courses

334-5.7.1 Patching Depressions

Before spreading any leveling course, fill all depressions in the existing surface as shown in the plans.
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334-5.7.2 Spreading Leveling Courses

Place all courses of leveling with an asphalt paver or by the use of two motor graders, one being equipped with a spreader box. Other types of leveling devices may be used upon approval by the Engineer.

334-5.7.3 Rate of Application

When using Type SP-9.5 for leveling, do not allow the average spread of a layer to be less than 50 pounds per square yard or more than 75 pounds per square yard. The quantity of mix for leveling shown in the plans represents the average for the entire project; however, the Contractor may vary the rate of application throughout the project as directed by the Engineer. When leveling in connection with base widening, the Engineer may require placing all the leveling mix prior to the widening operation.

334-5.8 Compaction

For each paving or leveling train in operation, furnish a separate set of rollers, with their operators.

When density testing for acceptance is required, select equipment, sequence, and coverage of rolling to meet the specified density requirement. Regardless of the rolling procedure used, complete the final rolling before the surface temperature of the pavement drops to the extent that effective compaction may not be achieved or the rollers begin to damage the pavement.

When density testing for acceptance is not required, use a rolling pattern approved by the Engineer.

Use hand tampers or other satisfactory means to compact areas which are inaccessible to a roller, such as areas adjacent to curbs, headers, gutters, bridges, manholes, etc.

334-5.9 Joints

334-5.9.1 Transverse Joints

Construct smooth transverse joints, which are within 3/16 inch of a true longitudinal profile when measured with a 15 foot manual straightedge meeting the requirements of FDOT Test Method FM 5-509. These requirements are waived for transverse joints at the beginning and end of the project and at the beginning and end of bridge structures, if the deficiencies are caused by factors beyond the control of the Contractor such as no milling requirement, as determined by the Engineer. When smoothness requirements are waived, construct a reasonably smooth transitional joint.
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334-5.9.2 Longitudinal Joints

For all layers of pavement except the leveling course, place each layer so that longitudinal construction joints are offset 6 to 12 inches laterally between successive layers. Do not construct longitudinal joints in the wheel paths. The Engineer may waive these requirements where offsetting is not feasible due to the sequence of construction.

334-5.10 Surface Requirements

Construct a smooth pavement with good surface texture and the proper cross slope.

334-5.10.1 Texture of the Finished Surface of Paving Layers

Produce a finished surface of uniform texture and compaction with no pulled, torn, raveled, crushed or loosened portions and free of segregation, bleeding, flushing, sand streaks, sand spots, or ripples. Correct any area of the surface that does not meet the foregoing requirements in accordance with 334-5.10.4.

In areas not defined to be a density testing exception per 334-6.4.1, obtain for the Engineer, three 6-inch diameter roadway cores at locations visually identified by the Engineer to be segregated. The Engineer will determine the density of each core in accordance with FDOT Test Method FM 1-T 166 and calculate the percent Gmm of the segregated area using the average Gmb of the roadway cores and the representative PC Gmm for the questionable material. If the average percent Gmm is less than 90.0, address the segregated area in accordance with 334-5.10.4.

334-5.10.2 Cross Slope

Construct a pavement surface with cross slopes in compliance with the requirements of the Contract Documents.

334-5.10.3 Pavement Smoothness

Construct a smooth pavement meeting the requirements of this Specification. Furnish a 15-foot manual and a 15-foot rolling straightedge meeting the requirements of FDOT Test Method FM 5-509.

334-5.10.3.1 Straightedge Testing

334-5.10.3.1.1 Acceptance Testing

Perform straightedge testing in the outside wheel path of each lane for the final (top) layer of the pavement. Test all pavement lanes where the width is constant using a rolling straightedge and document all deficiencies on a form approved by the Engineer. Notify the Engineer of the location and time of all straightedge testing a minimum of 48 hours before beginning testing.

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334-5.10.3.1.2 Final (Top) Pavement Layer

At the completion of all paving operations, straightedge the final (top) layer either behind the final roller of the paving train or as a separate operation. Address all deficiencies in excess of 3/16 inch in accordance with 334-5.10.4, unless waived by the Engineer. Retest all corrected areas.

334-5.10.3.1.3 Straightedge Exceptions

Straightedge testing will not be required in the following areas: shoulders, intersections, tapers, crossovers, sidewalks, shared use paths, parking lots and similar areas, or in the following areas when they are less than 250 feet in length: turn lanes, acceleration/deceleration lanes and side streets. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. In the event the Engineer identifies a surface irregularity in the above areas that is determined to be objectionable, straightedge and address all deficiencies in excess of 3/8 inch in accordance with 334-5.10.4.

334-5.10.4 Correcting Unacceptable Pavement

Correct deficiencies in the pavement layer by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides (where possible) of the defective area for the full width of the paving lane, at no additional cost.

334-6 Acceptance of the Mixture

334-6.1 General

The asphalt mixture will be accepted based on the Asphalt Work Category as defined below:

1. Asphalt Work Category 1 – Certification by the Contractor as defined in 334-6.2.

2. Asphalt Work Category 2 – Certification and process control testing by the Contractor as defined in 334-6.3.

3. Asphalt Work Category 3 – Process control testing by the Contractor and acceptance testing by the Engineer as defined in 334-6.4.

334-6.2 Certification by the Contractor

On Asphalt Work Category 1 construction, the Engineer will accept the mix on the basis of visual inspection. Submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer stating that all material produced and placed on the project meets the requirements of the Specifications. The Engineer may run independent tests to determine the acceptability of the material.

GP-100
GENERAL PROVISIONS

334-6.3 Certification and Process Control Testing by the Contractor

On Asphalt Work Category 2 construction, submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer stating that all material produced and placed on the project meets the requirements of the Specifications, along with supporting test data documenting all process control testing as described in 334-6.3.1. If required by the Contract, utilize an Independent Laboratory as approved by the Engineer for the process control testing. The mix will also require visual acceptance by the Engineer. In addition, the Engineer may run independent tests to determine the acceptability of the material. Material failing to meet these acceptance criteria will be addressed as directed by the Engineer such as but not limited to acceptance at reduced pay, delineation testing to determine the limits of the questionable material, removal and replacement at no cost to the agency, or performing an Engineering analysis to determine the final disposition of the material.

334-6.3.1 Process Control Sampling and Testing Requirements

Perform process control testing at a frequency of once per day. Obtain the samples in accordance with FDOT Method FM 1-T-168. Test the mixture at the plant for gradation (P_95 and P_200) and asphalt binder content (P_b). Measure the roadway density with 6 inch diameter roadway cores at a minimum frequency of once per 1,500 feet of pavement with a minimum of three cores per day.

Determine the asphalt binder content of the mixture in accordance with FDOT Method FM 5-563. Determine the gradation of the recovered aggregate in accordance with FDOT Method FM 1-T-030. Determine the roadway density in accordance with FDOT Method FM 1-T-166. The minimum roadway density will be based on the percent of the maximum specific gravity (G_{max}) from the approved mix design. If the Contractor or Engineer suspects that the mix design G_{max} is no longer representative of the asphalt mixture being produced, then a new G_{max} value will be determined from plant-produced mix, in accordance with FDOT Method FM 1-T-209, with the approval of the Engineer. Roadway density testing will not be required in certain situations as described in 334-6.4.1. Assure that the asphalt binder content, gradation and density test results meet the criteria in Table 334-4.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Binder Content (percent)</td>
<td>Target ± 0.55</td>
</tr>
<tr>
<td>Passing No. 8 Sieve (percent)</td>
<td>Target ± 6.00</td>
</tr>
<tr>
<td>Passing No. 200 Sieve (percent)</td>
<td>Target ± 2.00</td>
</tr>
<tr>
<td>Roadway Density (daily average)</td>
<td>Minimum 90.0% of G_{max}</td>
</tr>
</tbody>
</table>

334-6.4 Process Control Testing by the Contractor and Acceptance Testing by the Engineer

On Asphalt Work Category 3, perform process control testing as described in 334-6.3.1. In addition, the Engineer will accept the mixture at the plant with respect to gradation (P_95 and P_200) and asphalt binder content (P_b). The mixture will be accepted on the roadway with respect to density. The Engineer will sample and test the material as described in 334-6.3.1. The Engineer will randomly obtain at least one set of samples per day. Assure that the asphalt content, gradation
and density test results meet the criteria in Table 334-4. Material failing to meet these acceptance criteria will be addressed as directed by the Engineer such as but not limited to acceptance at reduced pay, delineation testing to determine the limits of the questionable material, removal and replacement at no cost to the agency, or performing an Engineering analysis to determine the final disposition of the material.

334-6.4.1 Acceptance Testing Exceptions

When the total quantity of any mix type in the project is less than 500 tons, the Engineer will accept the mix on the basis of visual inspection. The Engineer may run independent tests to determine the acceptability of the material.

Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, variable thickness overbuild courses, leveling courses, any asphalt layer placed on subgrade (regardless of type), miscellaneous asphalt pavement, shared use paths, crossovers, or any course with a specified thickness less than 1 inch or a specified spread rate less than 100 pounds per square yard. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only. In addition, density testing for acceptance will not be performed on the following areas when they are less than 1,000 feet continuous in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes, or ramps. Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. Compact these courses in accordance with a standard rolling procedure approved by the Engineer. In the event that the rolling procedure deviates from the approved procedure, placement of the mix will be stopped.

334-7 Method of Measurement

For the work specified under this Section, the quantity to be paid for will be the weight of the mixture, in tons.

The bid price for the asphalt mix will include the cost of the liquid asphalt and the tack coat application as specified in 334-5.5.4. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix.

334-8 Basis of Payment

334-8.1 General

Price and payment will be full compensation for all the work specified under this Section.

END OF SECTION
GENERAL PROVISIONS

SECTION 800
SPECIAL CONDITIONS – ASBESTOS –
PROCEDURES FOR DEMOLITION OF STRUCTURES –
ASBESTOS MATERIAL REMOVAL

SECTION 800 IS ADDED TO THIS SPECIFICATION

General

This Section is included for the removal and disposal requirements of asbestos material encountered during construction, whether or not it is indicated on the plans. The following are special conditions and procedures for the Demolition of Structures and handling and disposal of asbestos cement pipe.

SECTION 1 OF 3: ASBESTOS NOTIFICATION

Federal and state asbestos regulations require, prior to demolition of any structure:

1. An inspection for asbestos-containing materials (ACM)

2. Removal of specified ACM, and

3. An asbestos notification of demolition received at least ten (10) business days prior to demolition.

To meet requirements #1 and #2 above, the County has surveyed the structure(s) in this bid/work order for the presence of ACM and every effort has been made to remove Regulated Asbestos-Containing Material (RACM) and Category II Non-Friable ACM (e.g., asbestos-cement board and shingles) before releasing this project to the Contractor. Verification of this work is attached to this bid/work order. If not attached, it is the Contractor's responsibility to contact the Project Manager of the County department overseeing this bid/work order, or the County’s Risk Management/Loss Control section to obtain:

1. A copy of the pre-demolition asbestos inspection report; and

2. A copy of Risk Management/Loss Control's memo of approval to proceed to next phase addressed to the County department overseeing the project.

To meet requirement #3 above, the Contractor is responsible for submitting a complete and accurate asbestos notification of demolition form, titled "Notice of Asbestos Removal Project" (i.e., NESHAP notification, 40 CFR Part 61.145(b)), for each separate address to be demolished to the below listed agencies at least 10 business days prior to demolition. The forms are available from the Florida Department of Environmental Protection (DEP) and Loss Control.
SEND ORGINAL TO:
Asbestos Coordinator
Florida Dept. of Environmental Protection
400 N. Congress Avenue
West Palm Beach, FL 33401

SEND COPY TO:
PBC Risk Management/Loss Control
160 Australian Avenue, Suite 401
West Palm Beach, FL 33416-1229
Fax: 561-233-5440

The Contractor must immediately notify the Project Manager of the County department overseeing the project and Loss Control [phone 561-233-5430] if the demolition Start Date changes. No demolition may begin before the Start Date on the NESHAP notification, and no demolition may occur without a notice to proceed from the County department. It is the responsibility of the Contractor to call and submit revised NESHAP notifications to the above listed agencies, adhering to required NESHAP timeframes.

The Contractor is responsible for physically checking the structure(s) before submitting the NESHAP notification to ensure that all RACM and Category II ACM, as identified in the pre-demolition asbestos inspection report, have been removed. If RACM or Category II ACM is discovered, or is in poor condition (i.e. not intact), immediately contact the County's Project Manager or Loss Control.

SECTION 2 OF 3: WORK PRACTICES

Compliance with the following regulations is the demolition contractor's responsibility:


4. Asbestos NESHAP “Adequately Wet Guidance”, December 1990; and

5. OSHA Standard Interpretation, dated August 13, 1999, “Requirements for demolition operations involving materials containing <1% asbestos”.

The above regulations include utilizing wet demolition methods and prohibition of recycling the substructure with presumed or confirmed Category I ACM. Written permission from Palm Beach County to the Contractor is needed for said recycling.

SECTION 3 OF 3: COMPETENT PERSON

The Contractor must have a competent person on-site who: (1) is capable of identifying existing asbestos hazards in the workplace, (2) is capable of selecting the appropriate control strategy for asbestos exposure, and (3) has the authority to take prompt corrective action to eliminate them. This person must be trained in accordance with OSHA and EPA.

END OF SECTION

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GENERAL PROVISIONS

FLEXIBLE-PAVEMENT MATERIALS
(INCLUDING MATERIALS FOR STABILIZING)

SECTION 911A
BASEROCK MATERIAL FOR BASE COURSES

ADD SECTION 911A TO THE 2010 SPECIFICATION

911A-1 General

This Section governs baserock materials to be used on construction of base courses.

911A-2 Furnishing of Material

Except as might be specifically shown otherwise, all baserock material and the sources thereof shall be furnished by the Contractor. Approval of mineral aggregate sources shall be in accordance with 6-3.3. Any baserock material occurring in State furnished borrow areas shall not be used by the Contractor in constructing the base, unless permitted by the plans or the other contract documents.

911A-3 Composition

Baserock materials to be used for base courses and stabilized bases shall be crushed from naturally occurring sedimentary deposits of calcareous rocks. The maximum percentage of water-sensitive clay mineral shall be 3.

911A-4 Liquid Limit and Plasticity Requirements

The liquid limit shall not exceed 35 and the material shall be non-plastic.

911A-5 Mechanical Requirements

Baserock material shall meet the following requirements:

911A-5.1 Deleterious Material

Baserock material shall not contain cherty or other extremely hard pieces, or lumps, balls, or pockets of sand or clay size material in sufficient quantity as to be detrimental to the proper bonding of the bituminous prime coat with the base, finishing, or strength of the base, or cause distortion of the base under construction traffic.

911A-5.2 Gradation

<table>
<thead>
<tr>
<th>Gradation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing 3 ½ inch sieve</td>
<td>97% (max. size 6 inches)</td>
</tr>
<tr>
<td>Passing No. 4 sieve</td>
<td>70% maximum</td>
</tr>
<tr>
<td>Passing No. 200 sieve</td>
<td>20% (by washing)</td>
</tr>
</tbody>
</table>

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GENERAL PROVISIONS

All crushing or breaking-up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.

The Structural Layer Coefficient for Baserosk Material accepted under this provision shall be 0.18 as determined by FDOT. If the material does not have a record of past performance, the coefficient shall be determined in accordance with FDOT’s procedure “Structural Layer Coefficients for Flexible Pavement Materials” (Topic No. 675-000-004-a). The producer shall arrange and be responsible for any costs associated with construction of the full-scaled test road.

911A-6 Limerock Bearing Ratio (LBR) Requirements

Baserock material use in construction of base courses shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

911A-7 Method of Measurement

911A-7.1 General

The Calculation for Baserock to be paid for under this Section shall be the area in square yards of Baserock, completed and accepted with the length to be used in the calculation being the actual length measured along the surface of the base and the width of the wearing surface as called for on the plans even though the base shall extend beyond the limits of the wearing surface, as specified on the Plans. The thickness to be paid shall be as shown on the Typical Section in the plans.

911A-8 Basis of Payment

The quantity of Baserock, determined as provided above, shall be paid for at the contract unit price per square yard for Baserock, completed and accepted which price and payment shall be full compensation for furnishing, hauling and placing all materials, and for correcting all defective surface and deficient thickness.

Note: Baserock in this specification denotes any material previously classified by the County as limerock, cemented coquina, or shell rock.

END OF SECTION

THIS SPACE LEFT BLANK INTENTIONALLY
DRIVEWAY CONSTRUCTION RELEASE

The contractor shall have the included "Right of Entry and Release Agreement for Road and Driveway Construction" form executed by each property owner where driveway construction is required.

The contractor shall be responsible for all coordination with the property owners for this construction. The contractor shall provide the County with copies of these executed agreements.

These driveways shall be constructed in accordance with the plans and the specifications or as directed by the Engineer. The quantities are included in the 6" concrete sidewalk (driveways) item, 6" base item and asphaltic concrete item for the construction of these driveways.

SPECIAL DRIVEWAY NOTES AND SPECIFICATIONS

1. Contractor shall work in conjunction with the engineer in contacting and coordinating with property owners of parcels bordering this roadway, as directed by the Engineer.

2. Contractor shall obtain written permission from property owners for driveway construction and for approval of driveway staking.

3. Property owners shall have the option of selecting a circular driveway, a "T" type driveway or other modification as approved by the engineer. The selection is subject to existing site conditions and compatibility to existing driveways.

4. The driveway construction shall consist of 6" concrete on a compacted subgrade or Type S-1 asphaltic concrete surface course on a 6" base, as directed by the engineer, to match the existing driveway.

5. If the asphaltic concrete option is required, the entire driveway may be resurfaced.

6. During driveway construction, temporary access and parking may be provided.

7. Items incidental to driveway construction shall be included in the square yard price for the items listed above. Such items include clearing and grubbing, excavation earthwork, grading, restoration of sodding, landscaping, sprinkler systems and all other work that may be required to complete driveway construction.
RIGHT OF ENTRY AND RELEASE AGREEMENT
FOR ROAD AND DRIVEWAY CONSTRUCTION

PROJECT NAME: ANNUAL ROADWAY LANDSCAPING CONTRACT
PROJECT NO.: 2018050
PROPERTY ADDRESS: 
PROPERTY OWNER: 
CONTRACTOR: 

THIS AGREEMENT entered into this __________ day of __________, 20__, by and between Palm Beach COUNTY (hereinafter referred to as COUNTY), its contractor and 

WHEREAS, the COUNTY is desirous of completing the construction and widening of 

driveway and/or driveway modifications on OWNER’S land to aid in OWNER’S ingress and egress; and 

WHEREAS, in order to construct said driveways it is necessary for the COUNTY to enter upon the above described property of OWNER and to perform various excavating and constructing tasks thereon; 

WHEREAS, the COUNTY agrees to construct the driveway and/or driveway modification for the benefit of the OWNER, the COUNTY wishes the OWNER to assume full responsibility for design, location, maintenance, and liability for driveway improvements and/or modifications upon completion of the construction.

NOW, THEREFORE, in witness of the above, and in consideration of the COUNTY agreeing to construct said driveway improvements, and for other good and valuable consideration in hand received, OWNER hereby grants unto COUNTY, their Employees, Agents, Contractors, Sub-contractors, and/or Assigns the license and right to enter upon said land of OWNER for the purpose of constructing circular driveway and/or driveway modifications for the undersigned OWNER.

IT IS FURTHER AGREED that the previously referenced considerations, OWNER, hereby releases and holds the COUNTY harmless from any damages that result or might result to OWNER’S property as a result of the COUNTY, the Employees, Agents, Contractors, Sub-contractors and/or Assigns coming upon said land for the purposes previously stated.

IT IS FURTHER AGREED that the license and rights granted herein shall cease upon completion and finalization of the contract upon which said construction is performed.

IT IS FURTHER UNDERSTOOD AND AGREED that upon completion of construction, OWNER assumes ownership and responsibility for driveway location, maintenance and liability regarding said driveway improvements and agrees to indemnify, and hold the COUNTY harmless from all claims and liabilities that may arise out of the design, existence, location, or maintenance of said driveway.

WITNESS (signature) 
OWNER/AGENT (signature) 

WITNESS (printed name) 
OWNER/AGENT (printed name)
PERMITS

THE CONTRACTOR IS ADVISED THAT THE FOLLOWING PAGES ARE COPIES OF THE APPLICABLE PERMITS FOR THIS PROJECT.

ALL GENERAL AND SPECIAL CONDITIONS REQUIRED BY SPECIFIC PERMIT(S) SHALL BE EXECUTED ACCORDINGLY AND IT IS THE CONTRACTOR’S RESPONSIBILITY TO ENSURE COMPLIANCE WITH SAID CONDITIONS.

ANY PERMITS REQUIRING “AS-BUILT” INFORMATION AND/OR CERTIFICATION SHALL BE PREPARED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THE COMPLETION OF APPROPRIATE CONSTRUCTION CERTIFICATIONS, AND SUBMITTAL OF THE CONSTRUCTION COMPLETION CERTIFICATIONS TO PERMITTING AGENCIES AS REQUIRED BY EACH PERMIT INCLUDED IN THE PER SECTION OF THESE DOCUMENTS.

ALL COSTS ASSOCIATED WITH MEETING SAID REQUIREMENTS, IF NOT INCLUDED IN A BID ITEM, SHALL BE INCIDENTAL TO THE PROJECT AND NO COMPENSATION, EITHER MONETARY OR TIME, SHALL BE CONSIDERED.
Item 1 – Policy

It is the policy of the Board of County Commissioners of Palm Beach County, Florida, that SBE(s) have the maximum practical opportunity to participate in the competitive process of supplying goods, services and construction to the County. To that end, the Board of County Commissioners adopted a Small Business Ordinance which is codified in Sections 2-80.21 through 2-80.34 (as amended) of the Palm Beach County Code, which sets forth the County’s requirements for the SBE program, and is incorporated in this solicitation. Compliance with the requirements contained in this section shall result in a bidder being deemed responsive to SBE requirements. The provisions of this Ordinance are applicable to this solicitation, and shall have precedence over the provisions of this solicitation in the event of a conflict.

Although preferences will not be extended to certified M/WBEs, unless otherwise provided by law, businesses eligible for certification as an M/WBE are encouraged to maintain their certification in order to assist in the tracking of M/WBE availability and awards of contracts to M/WBEs. This information is vital to determining whether race and gender neutral programs assist M/WBE firms or whether race and gender preferences are necessary in order to address any continued discrimination in the market.

Item 2 – SBE Goals

The County has established a minimum goal of 15% SBE participation for all County solicitations, inclusive of all alternates and change orders. This goal is a minimum, and no rounding will be accepted.

Item 3 – Ranking of Responsive Bidders

Bidders who meet the SBE goal will be deemed to be responsive to the SBE requirement.

a. In evaluating competitive bids or quotes between one-thousand dollars ($1,000) and one million dollars ($1,000,000) where the low bidder is non-responsive to the SBE requirement, the contract shall be awarded to the low bidder responsive to the SBE requirement as long as the bid does not exceed the low bid amount by 10%; or

b. In the event there are no bidders responsive to the SBE goal, the contract shall be awarded to the bidder with the greatest SBE participation in excess of seven percent (7%) participation, provided that such bid does not exceed the lowest responsive bid by more than ten percent (10%).

c. In evaluating bids in excess of one million dollars ($1,000,000), the contract shall be awarded to the low bidder responsive to the SBE requirements provided that such bid does not exceed the lowest responsive bid by more than one hundred thousand dollars ($100,000) plus three percent (3%) of the total bid in excess of one million dollars ($1,000,000);
In the event there are no bidders responsive to the SBE goal, the contract shall be awarded to the bidder with the greatest SBE participation in excess of seven percent (7%) participation, provided that such bid does not exceed the lowest responsive bid by more than one hundred thousand dollars ($100,000) plus three percent (3%) of the total bid in excess of one million dollars ($1,000,000).

This section applies only when price is the determining factor.

Item 4 – Bid Submission Documentation

SBE bidders, bidding as prime contractors, are advised that they must complete Schedule 1 listing the work to be performed by their own workforce as well as the work to be performed by any SBE or M/WBE subcontractor. Failure to include this information on Schedule 1 will result in the participation by the SBE prime bidder’s own workforce NOT being counted towards meeting the SBE goal. This requirement applies even if the SBE contractor intends to perform 100% of the work with their own workforce.

Bidders are required to submit with their bid the appropriate SBE-M/WBE schedules in order to be deemed responsive to the SBE requirements. SBE-M/WBE documentation to be submitted is as follows:

Schedule 1 – List of Proposed SBE and M/WBE Participation

This list shall contain the names of all SBE and M/WBE prime and subcontractors intended to be used in performance of the contract, if awarded. This schedule shall also be used if an SBE prime bidder is utilizing ANY subcontractors. (Only Job Order Contracting (JOC) contracts, Task Authorizations, and Work Orders for annual contracts may be excluded from this requirement.)

Schedule(s) 2 – Letter(s) of Intent to Perform as an SBE or M/WBE Subcontractor

A Schedule 2 for each SBE and/or M/WBE Subcontractor listed on Schedule 1 shall be completed and signed by the proposed SBE and/or M/WBE Subcontractor. Subcontractors shall specify the type of work to be performed, the cost or percentage shall also be specified. Additional sheets may be used as needed.

Item 5 – SBE Certification

Only those firms certified by Palm Beach County at the time of bid opening shall be counted toward the established SBE goals. Upon receipt of a complete application, IT TAKES UP TO NINETY (90) BUSINESS DAYS TO BECOME CERTIFIED AS AN SBE WITH PALM BEACH COUNTY. It is the responsibility of the bidder to confirm the certification of any proposed SBE; therefore, it is recommended that bidders visit the on-line Vendor Directory at www.pbcgov.org/osba to verify SBE certification status.
SBE BID DOCUMENT LANGUAGE

Item 6 – Counting SBE Participation and M/WBE Participation for Tracking Purposes

a. Once a firm is determined to be an eligible SBE according to the Palm Beach County certification procedures, the Prime may count toward its SBE goals only that portion of the total dollar value of a contract performed by the SBE. Prior to issue, total dollar value of a contract will be determined by the PBC user department by defining factors to be considered as value. Total dollar value of retail contracts shall be determined by Gross Receipts.

The Prime may count toward its SBE goal a portion of the total dollar value of a contract with a joint venture, eligible under the standards for certification, equal to the percentage of the ownership and control of the SBE partner in the joint venture.

b. The Prime may count toward its SBE goal the entire expenditures for materials and equipment purchased by an SBE subcontractor, provided that the SBE subcontractor has the responsibility for the installation of the purchased materials and equipment.

c. The Prime may count the entire expenditure to an SBE manufacturer (i.e., a supplier/distributor that produces goods from raw materials or substantially alters the goods before resale).

d. The Prime may count sixty percent (60%) of its expenditure to SBE suppliers/distributors that are not manufacturers.

e. The Prime may count toward its SBE goal second and third tiered SBE subcontractors; provided that the Prime submits a completed Schedule 2 form for each SBE subcontractor.

f. The Prime may only count towards its SBE goal the goods and services in which the SBE is certified.

Item 7 – Responsibilities After Contract Award

Schedule 1 - List of Proposed SBE and M/WBE Participation and Schedule(s) 2 – Letter(s) of Intent to Perform as an SBE or M/WBE Subcontractor

Both Schedules 1 and 2 shall be submitted with each task authorization.

Schedule 3 – SBE-M/WBE Activity Form

This form shall be submitted by the Prime contractor with each invoice, or payment application when SBE and/or M/WBE subcontractors are utilized in the performance of the contract. This form shall contain the names of all SBE and M/WBE subcontractors specify the subcontracted dollar amount for each subcontractor, approved change orders; revised SBE contract amount; amount drawn this period; amount drawn to date; and payments to date issued to SBE subcontractors with their starting date. This form is intended to be utilized on all non-professional services contracts.
SBE BID DOCUMENT LANGUAGE

Schedule 3(A) – Professional Services Activity Report

This form shall be submitted by the Prime consultants with each invoice, or payment application when SBE and/or M/WBE sub-consultants are utilized in the performance of the contract. This form shall contain the names of all SBE and M/WBE sub-consultants, specify the subcontracted dollar amount for each sub consultant and show amount drawn and payments to date issued to sub-consultants. This form is intended to be utilized on all professional services contracts.

Schedule 4 – SBE-M/WBE Payment Certification

A schedule 4 for each SBE and/or M/WBE sub shall be completed and signed by the proposed SBE and/or M/WBEs after receipt of payment from the prime. When applicable, the prime shall submit this form with each application submitted to the county for payment to document payment issued to a sub in the performance of the contract.

All contractors hereby assure that they will meet the SBE participation percentages submitted in their respective bids with the subcontractors contained on Schedules 1 and 2 and at the dollar value and/or percentage specified. Contractors agree to provide any additional information requested by the County to substantiate participation.

The successful contractor shall submit an SBE-M/WBE Activity Form (Schedule 3) and SBE-M/WBE Payment Certification Forms (Schedule 4) with each payment application. Failure to provide these forms may result in a delay in processing payment or disapproval of the invoice until they are submitted. The SBE M/WBE Activity Form is to be filled out by the Prime Contractor and the SBE-M/WBE Payment Certification Forms are to be executed by the SBE or M/WBE firm to verify receipt of payment.

Item 8 – SBE Substitutions or Modifications

After contract award, the Prime will only be permitted to replace a certified SBE subcontractor who is unwilling or unable to perform. Such substitution must be done with other certified SBE’s in order to maintain the SBE percentages submitted with the bid. Requests for substitutions must be submitted to the user Department and OSBA for approval. Upon receiving approval of substitution for the SBE subcontractor, the Prime must submit a completed and signed Schedule 2 by the proposed SBE subcontractor. Subcontractors shall specify the type of work to be performed, the cost or percentage shall also be specified.

If the County’s issuance of an alternate or change orders on a project results in changes in the scope of work to be performed by SBE’s subcontractor listed at bid opening, the Prime must submit a modified completed and signed Schedule 2 that specifies the revised scope of work to be performed by the SBE, along with the price and/or percentage.
### SCHEDULE I

**LIST OF PROPOSED SBE-M/WBE PRIME AND/OR SUBCONTRACTOR PARTICIPATION**

**PROJECT NAME OR BID NAME:** Annual Roadway Landscaping Contract

**PROJECT NO. OR BID NO.:** 2018050

**NAME OF PRIME BIDDER:** Superior Landscaping & Lawn Service, Inc.

**ADDRESS:** 2200 NW 23 Avenue Miami, FL 33142

**CONTACT PERSON:** Jesenia Otaro

**PHONE NO.:** 305-634-0717

**FAX NO.:** 305-634-0744

**BID OPENING DATE:** 7/10/2018

**USER DEPARTMENT:** Engineering

---

This document is to be completed by the prime contractor and submitted with bid packet. Please list the name, contact information, and dollar amount or percentage of work to be completed by all SBE-M/WBE subcontractors on this project. If the prime is an SBE-M/WBE, please also list the name, contact information, and dollar amount or percentage of work to be completed by the prime on this project. The prime affirms that it will monitor the SBEs listed to ensure the SBEs perform the work with its own forces.

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<table>
<thead>
<tr>
<th>Name, Address and Phone Number</th>
<th>(Check one or both Categories)</th>
<th>DOLLAR AMOUNT OR PERCENTAGE OF WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M/WBE</td>
<td>SBE</td>
</tr>
<tr>
<td>1. Vincent and Sons Landscaping</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>4420 Mango Blvd</td>
<td>West Palm Beach, Florida 33416</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>[ ]</td>
<td>[ ]</td>
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<tr>
<td>3.</td>
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<tr>
<td>3.</td>
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<td>[ ]</td>
</tr>
</tbody>
</table>

(Please use additional sheets, if necessary)

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**Total Bid Price:** $2,643,702.00

**Total SBE-M/WBE Participation Dollar Amount or Percentage of Work:** 368,920.00 / 14%

I hereby certify that the above information accurate to the best of my knowledge:

**Signature:**

**Title:** Estimator

---

**Notes:**
1. The amount listed on this form for a subcontractor must be supported by price or percentage listed on the signed Schedule 2 or signed proposal in order to be counted toward goal attainment.
2. Firms may be certified by Palm Beach County as an SBE and/or M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount or percentage under the appropriate category.
3. M/WBE information is being collected for tracking purposes only.

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**SBE-5**

Revised 9/7/2011
OSBA SCHEDULE 2
LETTER OF INTENT TO PERFORM AS AN SBE-M/WBE SUBCONTRACTOR

This document must be completed by the SBE-M/WBE Subcontractor and submitted with bid packet. Specify in detail the particular work items to be performed and the dollar amount and/or percentage for each work item. SBE credit will only be given for items which the SBE-M/WBE Subcontractor is SBE certified to perform. Failure to properly complete Schedule 2 may result in your SBE participation not being counted.

PROJECT NUMBER: 2018250 PROJECT NAME: Annual Roadway Landscaping Contract
TO: Superior Landscaping & Lawn Service, Inc. (Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a (check one or more, as applicable):

- Small Business Enterprise X
- Minority Business Enterprise
- Black
- Hispanic
- Women
- Causasian
- Other (Please Specify)

Date of Palm Beach County Certification: November 6, 2017

The undersigned is prepared to perform the following described work in connection with the above project (additional sheets may be used as necessary):

<table>
<thead>
<tr>
<th>Line Item</th>
<th>Qty/Units</th>
<th>Unit Price</th>
<th>Total Price</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item #130, 140, 141, 142, 143, 148</td>
<td>All</td>
<td>368,920.00</td>
<td>14%</td>
<td></td>
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<tr>
<td>Item #149, 150, 151, 152, 153, 154, 157, 158</td>
<td>All</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item #159, 162, 163, 164, 165, 166, 167, 168</td>
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<td></td>
<td></td>
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<tr>
<td>Item #174, 175, 176, 177, 178, 179</td>
<td>All</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

at the following price or percentages: 14%

(Subcontractor’s Quote)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to subcontract any portion of this job to a certified SBE or a non-SBE subcontractor, please list the name of the subcontractor and the amount below.

Price and/or Percentage: 368,920.00 / 14% / Vincent and Sons Landscaping

(Name of Subcontractor)

The Prime affirms that it will monitor the SBE’s listed to ensure the SBE’s perform the work with its own forces. The undersigned subcontractor affirms that it has the resources necessary to perform the work listed without subcontracting to non-certified SBE or any other certified SBE subcontractors except as noted above.

The undersigned subcontractor understands that the provision of this form to Prime Bidder does not prevent Subcontractor from providing quotations to other bidders.

Superior Landscaping & Lawn Service, Inc.

By: Jastenia Otero, Estimator
Print Name/Title of Person Executing on Behalf of Prime Contractor

Vincent and Sons Landscaping

By:  
Print Name/Title of Person Executing on Behalf of SBE-M/WBE Subcontractor

Date: 10/11/2017

SBE-6
DATE: August 9, 2018

TO: Holly B. Knight, P.E., Contracts Section Manager

THROUGH: Allen Gray, Manager
Office of Small Business Assistance

FROM: Angela D. Smith, Small Business Development Specialist
Office of Small Business Assistance

SUBJECT: Compliance Review on Project No. 2018050
Annual Landscaping Contract

The following is a Compliance Review of the 15% SBE goal established on the above-mentioned project, which opened on July 10, 2018. SBE participation was calculated on the bid amounts listed on the Bid Tabulation sheets.

**Sole Bidder:** Superior Landscaping & Lawn Service, Inc.
2200 NW 23 Avenue
Miami, FL 33142

Phone: 305-634-0717
Bid Amount: $2,643,702.00
Goal: 15% Overall
Goal Achieved: 13.9%

**SBE Participation:**
(SB) VINCENT AND SONS LANDSCAPING $368,920.00 13.9%

**EVALUATION:**

The sole bidder, Superior Landscaping & Lawn Service, Inc has not met the SBE goal for this project.
<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>QTY</th>
<th>UNITS</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agave (Agave Americana) 3' X 3', 15 Gal. Container</td>
<td>7</td>
<td>EA</td>
<td>$180.00</td>
<td>$1,260.00</td>
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<td>Agave (Agave Americana) 5' X 5', 25 Gal. Container</td>
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<td>Agave (Agave Americana) 6' X 6', 30 Gal. Container</td>
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<td>EA</td>
<td>$375.00</td>
<td>$2,625.00</td>
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<td>4</td>
<td>Alexander Palm (Ptychosperma Elegans) 4' Cal. Max., 14' OA, Single Trunk, Dense Canopy, (B&amp;B, 8' W, 12' D)</td>
<td>50</td>
<td>EA</td>
<td>$450.00</td>
<td>$22,500.00</td>
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<td>Alexander Palm (Ptychosperma Elegans) 4' Cal. Max., 14' OA, Double Trunk, Dense Canopy, (B&amp;B, 8' W, 12' D)</td>
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<td>EA</td>
<td>$600.00</td>
<td>$21,000.00</td>
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<tr>
<td>6</td>
<td>Alexander Palm (Ptychosperma Elegans) 4' Cal. Max., 14' OA, Triple Trunk, Dense Canopy, (B&amp;B, 8' W, 12' D)</td>
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<td>$650.00</td>
<td>$16,250.00</td>
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<td>7</td>
<td>Areca Palm (Dypsis Lutescens) 6' OA, 5 Cane Min., 15 Gal. Container</td>
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<td>$175.00</td>
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<td>Areca Palm (Dypsis Lutescens) 9' OA, 7 Cane Min., 25 Gal. Container</td>
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<td>EA</td>
<td>$300.00</td>
<td>$6,000.00</td>
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<td>9</td>
<td>Apple Blossom Shower (Cassia Javanica) 3' Cal., 14' OA X 5' Spr., 7' C.T., 32' Dia. Rootball B&amp;B</td>
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<td>EA</td>
<td>$2,400.00</td>
<td>$9,600.00</td>
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<td>10</td>
<td>Bald Cypress (Taxodium Distichum) 2' Cal., 12' OA X 4' Spr., 5' C.T., 24' Dia. Rootball B&amp;B</td>
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<td>Bald Cypress (Taxodium Distichum) 2' Cal., 16' OA X 5' Spr., 8' C.T., 36' Dia. Rootball B&amp;B</td>
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<td>12</td>
<td>Beauty Leaf (Calophyllum Brasiliense) 2½' Cal., 14' OA X 4½' Spr., 8' C.T., 28' Dia Rootball B&amp;B</td>
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<td>Beauty Leaf (Calophyllum Brasiliense) 3' Cal., 16' OA X 5' Spr., 8' C.T., 32' Dia Rootball B&amp;B</td>
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<td>EA</td>
<td>$1,650.00</td>
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<td>14</td>
<td>Beauty Leaf (Calophyllum Brasiliense) 2½' Cal., 18' OA X 5½' Spr., 8' C.T., 36' Dia Rootball B&amp;B</td>
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<td>$2,400.00</td>
<td>$9,600.00</td>
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<td>15</td>
<td>Black Olive (Bucida Buceras) 3' Cal., 18' OA X 5' Spr., 8' C.T., 32' Dia. Rootball B&amp;B</td>
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<td>$1,800.00</td>
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<td>Black Olive (Bucida Buceras) 3½' Cal., 18' OA X 5½' Spr., 8½' C.T., 36' Dia. Rootball B&amp;B</td>
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<td>EA</td>
<td>$1,200.00</td>
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<td>17</td>
<td>Cabbage Palm (Sabal PalmETto) &gt;11' Cal., 10' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
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<td>$9,600.00</td>
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<td>18</td>
<td>Cabbage Palm (Sabal PalmETto) &gt;11' Cal., 13' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
<td>$320.00</td>
<td>$9,600.00</td>
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<td>19</td>
<td>Cabbage Palm (Sabal PalmETto) &gt;11' Cal., 16' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>Cabbage Palm (Sabal PalmETto) &gt;11' Cal., 18' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
<td>20</td>
<td>EA</td>
<td>$320.00</td>
<td>$6,400.00</td>
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<td>21</td>
<td>Cabbage Palm (Sabal PalmETto) 11' Cal. Max., 10' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
<td>$320.00</td>
<td>$9,600.00</td>
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<td>22</td>
<td>Cabbage Palm (Sabal PalmETto) 11' Cal. Max., 13' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
<td>$320.00</td>
<td>$9,600.00</td>
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<td>23</td>
<td>Cabbage Palm (Sabal PalmETto) 11' Cal. Max., 16' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
<td>$320.00</td>
<td>$6,000.00</td>
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<td>24</td>
<td>Cabbage Palm (Sabal PalmETto) 11' Cal. Max., 18' C.T., Dense Canopy Before Trim, No Boots (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
<td>$320.00</td>
<td>$6,400.00</td>
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<td>Chinese Fan Palm (Livistonia Chinesis) 17' Cal., 12' OA, Dense Canopy, (B&amp;B, 8' W, 12' D)</td>
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<td>Chinese Fan Palm (Livistonia Chinesis) 17' Cal., 14' OA, Dense Canopy, (B&amp;B, 8' W, 12' D)</td>
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<td>$3,900.00</td>
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<td>Chinese Fan Palm (Livistonia Chinesis) 17' Cal., 18' OA, Dense Canopy, (B&amp;B, 10' W, 18' D)</td>
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<td>Chinese Fan Palm (Livistonia Chinesis) 17' Cal., 16' OA, Dense Canopy, (B&amp;B, 10' W, 18' D)</td>
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<td>EA</td>
<td>$900.00</td>
<td>$5,400.00</td>
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<tr>
<td>ITEM #</td>
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<td>UNIT PRICE</td>
<td>AMOUNT</td>
</tr>
<tr>
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</tr>
<tr>
<td>29</td>
<td>Coconut Palm (Cocos Nucifera &quot;Maypan&quot;) 10&quot; Cal., 3' C.T., B&amp;B</td>
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<td>EA</td>
<td>$600.00</td>
<td>$3,600.00</td>
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<td>Coconut Palm (Cocos Nucifera &quot;Maypan&quot;) 12&quot; Cal., 5' C.T., B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$900.00</td>
<td>$4,500.00</td>
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<tr>
<td>31</td>
<td>Crape Myrtle (Lagerstroemia Indica) 2½&quot; Cal., 12' OA X 4' Spr., 6' C.T., 28&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>32</td>
<td>Crape Myrtle (Lagerstroemia Indica) 3&quot; Cal., 14' OA X 5' Spr., 8' C.T., 32&quot; Dia. Rootball &amp; B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$920.00</td>
<td>$4,600.00</td>
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<tr>
<td>33</td>
<td>Dahoon Holly (Ilex Cassine) 1½&quot; Cal., 10' OA X 2½' Spr., 4' C.T., 20&quot; Dia. Rootball &amp; B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$300.00</td>
<td>$1,800.00</td>
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<tr>
<td>34</td>
<td>Dahoon Holly (Ilex Cassine) 2½&quot; Cal., 12' OA X 3' Spr., 5' C.T., 28&quot; Dia. Rootball &amp; B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$675.00</td>
<td>$3,375.00</td>
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<td>35</td>
<td>Dahoon Holly (Ilex Cassine) 3&quot; Cal., 14' OA X 4' Spr., 7' C.T., 32&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>EA</td>
<td>$1,025.00</td>
<td>$5,125.00</td>
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<td>36</td>
<td>Drake Elm (Ulmus Parvifolia &quot;Drake&quot;) 3½&quot; Cal., 16' OA X 6' Spr., 8' C.T., 36&quot; Dia. Rootball &amp; B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$1,200.00</td>
<td>$4,800.00</td>
</tr>
<tr>
<td>37</td>
<td>Drake Elm (Ulmus Parvifolia &quot;Drake&quot;) 4½&quot; Cal., 18' OA X 8' Spr., 8½' C.T., 44&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>EA</td>
<td>$1,500.00</td>
<td>$6,000.00</td>
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<tr>
<td>38</td>
<td>Firebush (Hamelia Patens) Standard, 5' OA X 3' Spr, Dense Foliage, 15 Gal. Container</td>
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<td>EA</td>
<td>$300.00</td>
<td>$1,500.00</td>
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<tr>
<td>39</td>
<td>Foxtail Palm (Wodyetia bifurcata) 8&quot; Cal., Min., 12' OA, Dense Canopy, (B&amp;B 8&quot; W, 12&quot; D)</td>
<td>4</td>
<td>EA</td>
<td>$450.00</td>
<td>$1,800.00</td>
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<tr>
<td>40</td>
<td>Foxtail Palm (Wodyetia bifurcata) 10&quot; Cal., Min., 15' OA, Dense Canopy, (B&amp;B 8&quot; W, 12&quot; D)</td>
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<td>EA</td>
<td>$600.00</td>
<td>$2,400.00</td>
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<tr>
<td>41</td>
<td>Geiger (Cordia Sebestena) 1&quot; Cal., 8' OA X 1½' Spr., 16&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>EA</td>
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<td>$1,320.00</td>
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<td>Geiger (Cordia Sebestena) 1½&quot; Cal., 10' OA X 2½' Spr., 20&quot; Dia. Rootball &amp; B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$450.00</td>
<td>$1,800.00</td>
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<tr>
<td>43</td>
<td>Glaucoous Cassia (Senna Surattensis) 2½&quot; Cal., 12' OA X 6' Spr., 5' C.T., 28&quot; Dia. Rootball &amp; B&amp;B</td>
<td>15</td>
<td>EA</td>
<td>$655.00</td>
<td>$9,825.00</td>
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<td>44</td>
<td>Green Buttonwood (Conocarpus Erectus) 2&quot; Cal., 10' OA X 3½' Spr., 4' C.T., 24&quot; Dia. Rootball &amp; B&amp;B</td>
<td>15</td>
<td>EA</td>
<td>$300.00</td>
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<td>Green Buttonwood (Conocarpus Erectus) 2½&quot; Cal., 12' OA X 4' Spr., 5' C.T., 28&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>$675.00</td>
<td>$10,125.00</td>
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<td>Green Buttonwood (Conocarpus Erectus) 3&quot; Cal., 14' OA X 5' Spr., 7' C.T., 32&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>Green Buttonwood (Conocarpus Erectus) 3½&quot; Cal., 16' OA X 6' Spr., 8' C.T., 36&quot; Dia. Rootball &amp; B&amp;B</td>
<td>15</td>
<td>EA</td>
<td>$1,400.00</td>
<td>$21,000.00</td>
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<td>48</td>
<td>Green Buttonwood (Conocarpus Erectus) 4&quot; Cal., 20' OA X 8' Spr., 9' C.T., 40&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>EA</td>
<td>$2,400.00</td>
<td>$36,000.00</td>
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<td>49</td>
<td>Gumbo Limbo (Bursera simaruba) 2&quot; Cal., 12' OA X 4' Spr., 5' C.T., 24&quot; Dia. Rootball &amp; B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$875.00</td>
<td>$3,375.00</td>
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<td>Gumbo Limbo (Bursera simaruba) 3½&quot; Cal., 16' OA X 5½' Spr., 8½' C.T., 38&quot; Dia. Rootball &amp; B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$1,800.00</td>
<td>$9,000.00</td>
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<td>51</td>
<td>Japanese Blueberry (Elaeocarpus decipiens) 1&quot; Cal., 7' OA X 12&quot; Spr., 16&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>EA</td>
<td>$400.00</td>
<td>$1,600.00</td>
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<td>Japanese Blueberry (Elaeocarpus decipiens) 1½&quot; Cal., 10' OA X 22&quot; Spr., 20&quot; Dia. Rootball &amp; B&amp;B</td>
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<td>$700.00</td>
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<td>Jathropha Standard, 8' OA, B&amp;B</td>
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<td>EA</td>
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<td>$1,750.00</td>
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<td>54</td>
<td>Jathropha Standard, 10' OA, B&amp;B</td>
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<td>EA</td>
<td>$900.00</td>
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<td>Jathropha Multi-Stem, 15 Gal. Container</td>
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<td>EA</td>
<td>$400.00</td>
<td>$1,600.00</td>
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<tr>
<td>ITEM #</td>
<td>ITEM DESCRIPTION</td>
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<td>UNITS</td>
<td>UNIT PRICE</td>
<td>AMOUNT</td>
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<tr>
<td>57</td>
<td>Kopsia (Ochrosia Eliptica) 1&quot; Cal., 8' OA X 21&quot; Spr., 3' C.T., 16&quot; Dia. Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$520.00</td>
<td>$2,080.00</td>
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<tr>
<td>58</td>
<td>Laurel Oak (Quercus Laurifolia) 2½&quot; Cal., 14' OA X 4½' Spr., 6' C.T., 28&quot; Dia. Rootball B&amp;B</td>
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<td>EA</td>
<td>$650.00</td>
<td>$5,700.00</td>
</tr>
<tr>
<td>59</td>
<td>Laurel Oak (Quercus Laurifolia) 3&quot; Cal., 16' OA X 5' Spr., 8' C.T., 32&quot; Dia. Rootball B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$1,500.00</td>
<td>$6,000.00</td>
</tr>
<tr>
<td>60</td>
<td>Laurel Oak (Quercus Laurifolia) 3½&quot; Cal., 18' OA X 5½' Spr., 8½' C.T., 36&quot; Dia. Rootball B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$1,700.00</td>
<td>$10,200.00</td>
</tr>
<tr>
<td>61</td>
<td>Laurel Oak (Quercus Laurifolia) 4&quot; Cal., 20' OA X 6' Spr., 9' C.T., 40&quot; Dia. Rootball B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$2,750.00</td>
<td>$16,500.00</td>
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<tr>
<td>62</td>
<td>Ligustrum (Ligustrum Japonicum) 1½&quot; Cal., 8' OA X 25' Spr., 3' C.T., 18&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$1,075.00</td>
<td>$10,750.00</td>
</tr>
<tr>
<td>63</td>
<td>Ligustrum (Ligustrum Japonicum) 2½&quot; Cal., 12' OA X 4' Spr., 5' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$2,100.00</td>
<td>$21,000.00</td>
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<td>64</td>
<td>Live Oak (Quercus Virginiana) 2½&quot; Cal., 14' OA X 4½' Spr., 6' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$1,500.00</td>
<td>$7,500.00</td>
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<tr>
<td>65</td>
<td>Live Oak (Quercus Virginiana) 3&quot; Cal., 16' OA X 5' Spr., 8' C.T., 32&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$1,800.00</td>
<td>$9,000.00</td>
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<tr>
<td>66</td>
<td>Live Oak (Quercus Virginiana) 3½&quot; Cal., 18' OA X 5½' Spr., 8½' C.T., 36&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$2,100.00</td>
<td>$10,500.00</td>
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<tr>
<td>67</td>
<td>Live Oak (Quercus Virginiana) 4&quot; Cal., 20' OA X 6' Spr., 9' C.T., 40&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$2,700.00</td>
<td>$13,500.00</td>
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<td>68</td>
<td>Madagascar Olive (Noronhia Emarginata) 1½&quot; Cal., 8' OA X 21' Spr., 3' C.T., 16&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$325.00</td>
<td>$1,625.00</td>
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<tr>
<td>69</td>
<td>Madagascar Olive (Noronhia Emarginata) 1½&quot; Cal., 10' OA X 2½' Spr., 4' C.T., 20&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$450.00</td>
<td>$2,250.00</td>
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<tr>
<td>70</td>
<td>Madagascar Olive (Noronhia Emarginata) 2½&quot; Cal., 12' OA X 3' Spr., 5' C.T., 24&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$975.00</td>
<td>$4,875.00</td>
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<tr>
<td>71</td>
<td>Mahogany (Swietenia Mahogani) 3½&quot; Cal., 16' OA X 5' Spr., 8' C.T., 36&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$1,800.00</td>
<td>$9,000.00</td>
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<tr>
<td>72</td>
<td>Mahogany (Swietenia Mahogani) 4&quot; Cal., 18' OA X 6' Spr., 9' C.T., 40&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$2,400.00</td>
<td>$12,000.00</td>
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<tr>
<td>73</td>
<td>Montgomery Palm (Veitchia Montgomeryana) 10&quot; Cal. Min., 10' - 12' OA, B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$420.00</td>
<td>$2,100.00</td>
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<td>74</td>
<td>Montgomery Palm (Veitchia Montgomeryana) 12&quot; Cal. Min., 12' - 14' OA, B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$600.00</td>
<td>$3,000.00</td>
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<td>75</td>
<td>Oleander (Nerium Oleander) Standard, 1½&quot; Cal., 8' OA X 2½' Spr., 3' C.T., 18&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$275.00</td>
<td>$2,750.00</td>
</tr>
<tr>
<td>76</td>
<td>Oleander (Nerium Oleander) Standard, 2½&quot; Cal., 10' OA X 3½' Spr., 4' C.T., 24&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$525.00</td>
<td>$5,250.00</td>
</tr>
<tr>
<td>77</td>
<td>Oleander (Nerium Oleander) Standard, 2½&quot; Cal., 12' OA X 4' Spr., 5' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$900.00</td>
<td>$9,000.00</td>
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<tr>
<td>78</td>
<td>Orange Jasmine (Murraya Paniculata) Standard, ¾&quot; Cal., 5' OA X 18' Spr., 2' C.T., 14&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$800.00</td>
<td>$8,000.00</td>
</tr>
<tr>
<td>79</td>
<td>Orange Jasmine (Murraya Paniculata) Standard, 1&quot; Cal., 6' OA X 21' Spr., 3' C.T., 16&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$900.00</td>
<td>$9,000.00</td>
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<tr>
<td>80</td>
<td>Orchid Tree (Bauhinia Blakeana) 2½&quot; Cal., 14' OA X 4½' Spr., 6' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$620.00</td>
<td>$3,100.00</td>
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<tr>
<td>81</td>
<td>Pauafla Palm (Acocelmaphae Wrightii) 8' OA X 4' SPR, Min. 5 Main Trunks, Dense Canopy, (B&amp;B, 6&quot; W, 12&quot; D)</td>
<td>10</td>
<td>EA</td>
<td>$880.00</td>
<td>$8,800.00</td>
</tr>
<tr>
<td>82</td>
<td>Pauafla Palm (Acocelmaphae Wrightii) 12' OA X 5' SPR, Min. 7 Main Trunks, Dense Canopy, (B&amp;B, 8&quot; W, 12&quot; D)</td>
<td>10</td>
<td>EA</td>
<td>$1,200.00</td>
<td>$12,000.00</td>
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<tr>
<td>83</td>
<td>Pigeon Plum (Coccoloba Diversifolia) 2&quot; Cal., 10' OA X 3½' Spr., 4' C.T., 24&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$350.00</td>
<td>$3,500.00</td>
</tr>
<tr>
<td>84</td>
<td>Pigeon Plum (Coccoloba Diversifolia) 2½&quot; Cal., 12' OA X 4' Spr., 6' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$620.00</td>
<td>$6,200.00</td>
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<tr>
<td>ITEM #</td>
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<td>UNIT PRICE</td>
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<tr>
<td>85</td>
<td>Pitch Apple (Clusia Rosea) ¾&quot; Cal., 6' OA X 2½' Spr., 2' C.T., 14&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$300.00</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>86</td>
<td>Pitch Apple (Clusia Rosea) 1½&quot; Cal., 8' OA X 2½' Spr., 3' C.T., 16&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$440.00</td>
<td>$4,400.00</td>
</tr>
<tr>
<td>87</td>
<td>Pongam (Pongamia Pinnata) 2½&quot; Cal., 14' OA X 4½' Spr., 6' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$1,275.00</td>
<td>$6,375.00</td>
</tr>
<tr>
<td>88</td>
<td>Pongam (Pongamia Pinnata) 3½&quot; Cal., 18' OA X 5½' Spr., 8½' C.T., 32&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$2,250.00</td>
<td>$11,250.00</td>
</tr>
<tr>
<td>89</td>
<td>Pongam (Pongamia Pinnata) 3½&quot; Cal., 18' OA X 5½' Spr., 8½' C.T., 36&quot; Dia. Rootball B&amp;B</td>
<td>5</td>
<td>EA</td>
<td>$3,750.00</td>
<td>$18,750.00</td>
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<tr>
<td>90</td>
<td>Purple Golden Dewdrop (Duranta Repens, Purple) Standard, 5' OA X 3' SPR, Dense Foliage, 15 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$200.00</td>
<td>$1,000.00</td>
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<tr>
<td>91</td>
<td>Pygmy Date Palm (Phoenix Roebelenii) 4' OA, Std., 15 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$120.00</td>
<td>$600.00</td>
</tr>
<tr>
<td>92</td>
<td>Pygmy Date Palm (Phoenix Roebelenii) 8' OA, Std., 25 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$240.00</td>
<td>$1,200.00</td>
</tr>
<tr>
<td>93</td>
<td>Redbay (Persea Borbonia) 2&quot; Cal., 12' OA X 4' Spr., 5' C.T., 24&quot; Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$900.00</td>
<td>$9,000.00</td>
</tr>
<tr>
<td>94</td>
<td>Redbay (Persea Borbonia) 3½&quot; Cal., 16’ OA X 5½' Spr., 8½’ C.T., 36’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$2,400.00</td>
<td>$24,000.00</td>
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<tr>
<td>95</td>
<td>Red Maple (Acer Rubrum) 2½&quot; Cal., 14’ OA X 4½' Spr., 6’ C.T., 24’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$600.00</td>
<td>$6,000.00</td>
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<tr>
<td>96</td>
<td>Red Maple (Acer Rubrum) 3½&quot; Cal., 16’ OA X 5½' Spr., 8’ C.T., 32’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$950.00</td>
<td>$9,500.00</td>
</tr>
<tr>
<td>97</td>
<td>Red Maple (Acer Rubrum) 3½&quot; Cal., 18’ OA X 5½' Spr., 8’ C.T., 36’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$1,275.00</td>
<td>$12,750.00</td>
</tr>
<tr>
<td>98</td>
<td>Royal Palm (Roystonea Elata) 17’ Cal. Min., 10’ G.W., Dense Canopy, (B&amp;B, 10’ W, 18’ D)</td>
<td>4</td>
<td>EA</td>
<td>$2,100.00</td>
<td>$8,400.00</td>
</tr>
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<td>99</td>
<td>Royal Palm (Roystonea Elata) 17’ Cal. Min., 12’ G.W., Dense Canopy, (B&amp;B, 10’ W, 18’ D)</td>
<td>4</td>
<td>EA</td>
<td>$2,950.00</td>
<td>$11,800.00</td>
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<tr>
<td>100</td>
<td>Sea Grape (Coccoloba Uvifera) 1½’ Cal., 8’ OA , Std., 15 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$240.00</td>
<td>$1,200.00</td>
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<tr>
<td>101</td>
<td>Sea Grape (Coccoloba Uvifera) 2½’ Cal., 10’ OA , Std., 25 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$420.00</td>
<td>$2,100.00</td>
</tr>
<tr>
<td>102</td>
<td>Silver Buttonwood (Conocarpus Erectus Sericus) 2½’ Cal., 10’ OA X 3½’ Spr., 4’ C.T., 24’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$450.00</td>
<td>$4,500.00</td>
</tr>
<tr>
<td>103</td>
<td>Silver Buttonwood (Conocarpus Erectus Sericus) 2½’ Cal., 12’ OA X 4’ Spr., 6’ C.T., 28’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$700.00</td>
<td>$7,000.00</td>
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<tr>
<td>104</td>
<td>Silver Buttonwood (Conocarpus Erectus Sericus) 3½’ Cal., 14’ OA X 5’ Spr., 8’ C.T., 32’ Dia. Rootball B&amp;B</td>
<td>10</td>
<td>EA</td>
<td>$1,950.00</td>
<td>$19,500.00</td>
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<tr>
<td>105</td>
<td>Simpson’s Stopper (Myrcianthes Fragrans) 1½’ Cal., 6’ OA X 14’ Spr., 2’ C.T., 16’ Dia. Rootball B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$200.00</td>
<td>$1,200.00</td>
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<tr>
<td>106</td>
<td>Simpson’s Stopper (Myrcianthes Fragrans) 1¼’ Cal., 6’ OA X 22’ Spr., 3’ C.T., 20’ Dia. Rootball B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$400.00</td>
<td>$2,400.00</td>
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<tr>
<td>107</td>
<td>Simpson’s Stopper (Myrcianthes Fragrans) 2½’ Cal., 10’ OA X 34’ Spr., 4’ C.T., 28’ Dia. Rootball B&amp;B</td>
<td>6</td>
<td>EA</td>
<td>$750.00</td>
<td>$4,500.00</td>
</tr>
<tr>
<td>108</td>
<td>South Florida Slash Pine (Pinus Elliotti ‘Dense’) 1½’ Cal., 6’ OA X 20’ Spr., 2’ C.T., 7 Gal. Container</td>
<td>6</td>
<td>EA</td>
<td>$350.00</td>
<td>$2,100.00</td>
</tr>
<tr>
<td>109</td>
<td>South Florida Slash Pine (Pinus Elliotti ‘Dense’) 1¼’ Cal., 10’ OA X 2’ Spr., 3’ C.T., 15 Gal. Container</td>
<td>6</td>
<td>EA</td>
<td>$450.00</td>
<td>$2,700.00</td>
</tr>
<tr>
<td>110</td>
<td>South Florida Slash Pine (Pinus Elliotti ‘Dense’) 2½’ Cal., 12’ OA X 3’ Spr., 4’ C.T., 15 Gal. Container</td>
<td>6</td>
<td>EA</td>
<td>$600.00</td>
<td>$3,600.00</td>
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<tr>
<td>111</td>
<td>Spanish Stopper (Eugenia Foetida) 1½’ Cal., 6’ OA X 14’ Spr., 2’ C.T., 16’ Dia. Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$260.00</td>
<td>$1,000.00</td>
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<tr>
<td>112</td>
<td>Spanish Stopper (Eugenia Foetida) 1½’ Cal., 8’ OA X 22’ Spr., 3’ C.T., 20’ Dia. Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$350.00</td>
<td>$1,400.00</td>
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<tr>
<td>ITEM #</td>
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<td>UNIT PRICE</td>
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</tr>
<tr>
<td>113</td>
<td>Spanish Stopper  (Eugenia Foetida) 2½&quot; Cal., 10' OA X 34&quot; Spr., 4' C.T., 26&quot; Dia. Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$450.00</td>
<td>$1,800.00</td>
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<tr>
<td>114</td>
<td>Thatch Palm (THRinAX RADiaTA) 3&quot; Cal. Min., 14' OA, Dense Canopy, (B&amp;B 8&quot; W, 12&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$1,700.00</td>
<td>$10,200.00</td>
</tr>
<tr>
<td>115</td>
<td>Thatch Palm (THRinAX RADiaTA) 3&quot; Cal. Min., 16' OA, Dense Canopy, (B&amp;B 10&quot; W, 18&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$1,900.00</td>
<td>$11,400.00</td>
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<tr>
<td>116</td>
<td>Thatch Palm (THRinAX RADiaTA) 3&quot; Cal. Min., 18' OA, Dense Canopy, (B&amp;B 10&quot; W, 18&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$320.00</td>
<td>$1,920.00</td>
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<tr>
<td>117</td>
<td>Washington Palm (Washingtonia Robusta) 17&quot; Cal. Min., 14' OA, Dense Canopy, (B&amp;B 8&quot; W, 12&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$600.00</td>
<td>$3,600.00</td>
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<tr>
<td>118</td>
<td>Washington Palm (Washingtonia Robusta) 17&quot; Cal. Min., 16' OA, Dense Canopy, (B&amp;B 10&quot; W, 18&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$650.00</td>
<td>$3,900.00</td>
</tr>
<tr>
<td>119</td>
<td>Washington Palm (Washingtonia Robusta) 17&quot; Cal. Min., 18' OA, Dense Canopy, (B&amp;B 10&quot; W, 18&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$750.00</td>
<td>$4,500.00</td>
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<tr>
<td>120</td>
<td>Washington Palm (Washingtonia Robusta) 17&quot; Cal. Min., 20' OA, Dense Canopy, (B&amp;B 10&quot; W, 18&quot; D)</td>
<td>6</td>
<td>EA</td>
<td>$850.00</td>
<td>$5,100.00</td>
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<td>121</td>
<td>Wax Myrtle (Myrica Cerifera) 1½&quot; Cal., 8' OA X 2½&quot; Spr., 3' C.T., 7 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$55.00</td>
<td>$275.00</td>
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<tr>
<td>122</td>
<td>Wax Myrtle (Myrica Cerifera) 2&quot; Cal., 10' OA X 3½&quot; Spr., 4' C.T., 15 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$360.00</td>
<td>$1,800.00</td>
</tr>
<tr>
<td>123</td>
<td>Wax Myrtle (Myrica Cerifera) 2½&quot; Cal., 12' OA X 4&quot; Spr., 5' C.T., 25 Gal. Container</td>
<td>5</td>
<td>EA</td>
<td>$600.00</td>
<td>$3,000.00</td>
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<td>124</td>
<td>Weeping Fig (Ficus Benjamina) 5' H X 3' W, 15 Gal. Container</td>
<td>4</td>
<td>EA</td>
<td>$200.00</td>
<td>$800.00</td>
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<tr>
<td>125</td>
<td>Weeping Fig (Ficus Benjamina) 6&quot; H X 3.5' W, 25 Gal. Container</td>
<td>4</td>
<td>EA</td>
<td>$300.00</td>
<td>$1,200.00</td>
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<td>126</td>
<td>Weeping Fig (Ficus Benjamina) 10' H X 4½' W, Full to Base, Field Grown, B&amp;B Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$900.00</td>
<td>$3,600.00</td>
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<tr>
<td>127</td>
<td>White Stopper (Eugenia Axillaris) 1&quot; Cal., 6' OA X 14&quot; Spr., 2' C.T., 18&quot; Dia. Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$390.00</td>
<td>$1,560.00</td>
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<tr>
<td>128</td>
<td>White Stopper (Eugenia Axillaris) 1½&quot; Cal., 8' OA X 22&quot; Spr., 3' C.T., 20&quot; Dia. Rootball B&amp;B</td>
<td>4</td>
<td>EA</td>
<td>$480.00</td>
<td>$1,920.00</td>
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<td>129</td>
<td>White Stopper (Eugenia Axillaris) 2½&quot; Cal., 10' OA X 34&quot; Spr., 4' C.T., 28&quot; Dia. Rootball B&amp;B</td>
<td>4</td>
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<td>Wild Tamarind (Lysiloma Latisquata) 3&quot; Cal., 16' OA X 5 Spr., 8' C.T., 32&quot; Dia. Rootball B&amp;B</td>
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<td>Winin Palm (Veitchia Winin) 8&quot; Cal. Min., 12' OA, Dense Canopy, (B&amp;B 8&quot; W, 12&quot; D)</td>
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<td>Winin Palm (Veitchia Winin) 10&quot; Cal. Min., 15' OA, Dense Canopy, (B&amp;B 8&quot; W, 12&quot; D)</td>
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<td>Yellow Tabebuia (Tabebuia Cariba) 3½&quot; Cal., 16' OA X 5 Spr., 8&quot; C.T., 36&quot; Dia. Rootball B&amp;B</td>
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<td>Verawood (Guinies Arborea) 3&quot; Cal., 14' OA X 5 Spr., 7 C.T., 32&quot; Dia. Rootball B&amp;B</td>
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<td>Vines: Confederate Jasmine (Trachelocereum Jasminoides) 3' OA X 16&quot; Spr., on Trellis, 7 Gal. Container</td>
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<td>Vines: Mexican Flame (Sanneca Confusa) 3' OA X 16&quot; Spr., on Trellis, 7 Gal. Container</td>
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<td>Vines: Violet Trumpet (Clytostoma Callistegiodes) 3' OA X 16&quot; Spr., on Trellis, 7 Gal. Container</td>
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**Furnish and Install Sod:**

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<th>AMOUNT</th>
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<td>Site Preparation and Installation of St. Augustine &quot;Floratam&quot; Sod</td>
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<td>168</td>
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<td>169</td>
<td>Excavation (incl. Removal/Disposal)</td>
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<td>171</td>
<td>Planting and Staking Only (Tree Supplied by Others)</td>
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<td>172</td>
<td>Relocate Tree (90&quot; Tree Spade) - 5 Miles or Less</td>
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<td>Relocate Tree (90&quot; Tree Spade) - More Than 5 Miles</td>
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<td>$11,340.00</td>
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<td>174</td>
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<td>Re-Staking of Three (3) Vertical Stake System (per Stake)</td>
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<td>Watering (as Specified)</td>
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<td>HR</td>
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**Turf Maintenance**

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<th>ITEM DESCRIPTION</th>
<th>QTY</th>
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<th>UNIT PRICE</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>181</td>
<td>Small Machine Turf Maintenance, Including Mowing, Edging, Trimming, Litter Collection and Disposal</td>
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<th>ITEM DESCRIPTION</th>
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<tbody>
<tr>
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<td>Large Machine Turf Maintenance, Including Mowing, Edging, Trimming, Litter Collection and Disposal</td>
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**County Wide Irrigation Products and Services : See notes Below**

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_Furnish and install Schedule 40 "Purple" Re-Use Irrigation Lines (Complete):_
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<td>Provide Connection to Existing Potable Water Line.</td>
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<td>218</td>
<td>Provide Connection to Existing Re-Use Water Line.</td>
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<td>219</td>
<td>Furnish &amp; Install 2 HP Centrifugal Pump and Complete Pump Station For Obtaining Water from an Adjacent Water Body</td>
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<td>220</td>
<td>Furnish &amp; Install 3 HP Centrifugal Pump and Complete Pump Station For Obtaining Water from an Adjacent Water Body</td>
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<tr>
<td>221</td>
<td>Furnish &amp; Install 5 HP Centrifugal Pump and Complete Pump Station For Obtaining Water from an Adjacent Water Body</td>
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<tr>
<td>222</td>
<td>Furnish &amp; Install 7 1/2 HP Centrifugal Pump and Complete Pump Station For Obtaining Water from an Adjacent Water Body</td>
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<td>223</td>
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<td>224</td>
<td>Furnish &amp; Install 2 HP Centrifugal Pump and Complete Pump Station For Obtaining Water from Well</td>
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<td>226</td>
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<td>228</td>
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<td>229</td>
<td>Furnish &amp; Install 2 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well</td>
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<tr>
<td>230</td>
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<td>231</td>
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<td>232</td>
<td>Furnish &amp; Install 7 1/2 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well</td>
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<td>UNIT PRICE</td>
<td>AMOUNT</td>
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<tr>
<td>233</td>
<td>Furnish &amp; Install 10 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well</td>
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<tr>
<td>234</td>
<td>Furnish &amp; Install 15 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well</td>
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<td>$66,000.00</td>
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<tr>
<td>236</td>
<td>Furnish and Install 2 HP Centrifugal Pump Into an Existing Pump Station - Complete</td>
<td>2</td>
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<td>$4,900.00</td>
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<tr>
<td>237</td>
<td>Furnish and Install 3 HP Centrifugal Pump Into an Existing Pump Station - Complete</td>
<td>1</td>
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<td>$6,900.00</td>
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<tr>
<td>238</td>
<td>Furnish and Install 5 HP Centrifugal Pump Into an Existing Pump Station - Complete</td>
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<td>239</td>
<td>Furnish and Install 7½ HP Centrifugal Pump Into an Existing Pump Station - Complete</td>
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<tr>
<td>240</td>
<td>Furnish and Install 10 HP Centrifugal Pump Into an Existing Pump Station - Complete</td>
<td>1</td>
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<td>$11,000.00</td>
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<tr>
<td>241</td>
<td>Furnish and Install 2 HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
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<td>$5,000.00</td>
<td>$10,000.00</td>
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<tr>
<td>242</td>
<td>Furnish and Install 3 HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
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<td>$16,900.00</td>
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<td>243</td>
<td>Furnish and Install 5 HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
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<td>$18,500.00</td>
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<tr>
<td>244</td>
<td>Furnish and Install 7½ HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
<td>1</td>
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<td>$18,800.00</td>
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<tr>
<td>245</td>
<td>Furnish and Install 10 HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
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<td>$39,900.00</td>
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<tr>
<td>246</td>
<td>Furnish and Install 15 HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
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<td>247</td>
<td>Furnish and Install 20 HP Submersible Pump Into an Existing Pump Station and Well - Complete</td>
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<tr>
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<td>Furnish Only - Pump (Delivered as Directed)</td>
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<td>248</td>
<td>Furnish Only - 2 HP Centrifugal Pump (Delivered as Directed) - Complete</td>
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<td>249</td>
<td>Furnish Only - 3 HP Centrifugal Pump (Delivered as Directed) - Complete</td>
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<td>$6,200.00</td>
<td>$6,200.00</td>
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<tr>
<td>250</td>
<td>Furnish Only - 5 HP Centrifugal Pump (Delivered as Directed) - Complete</td>
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<td>$8,800.00</td>
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<td>251</td>
<td>Furnish Only - 7½ HP Centrifugal Pump (Delivered as Directed) - Complete</td>
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<td>$8,800.00</td>
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<tr>
<td>252</td>
<td>Furnish Only - 10 HP Centrifugal Pump (Delivered as Directed) - Complete</td>
<td>1</td>
<td>EA</td>
<td>$9,800.00</td>
<td>$9,800.00</td>
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</tbody>
</table>

**ITEM DESCRIPTION**

- Furnish & Install 10 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well
- Furnish & Install 15 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well
- Furnish & Install 20 HP Submersible Pump and Complete Pump Station For Obtaining Water from Well
- Furnish and Install 2 HP Centrifugal Pump Into an Existing Pump Station - Complete
- Furnish and Install 3 HP Centrifugal Pump Into an Existing Pump Station - Complete
- Furnish and Install 5 HP Centrifugal Pump Into an Existing Pump Station - Complete
- Furnish and Install 7½ HP Centrifugal Pump Into an Existing Pump Station - Complete
- Furnish and Install 10 HP Centrifugal Pump Into an Existing Pump Station - Complete
- Furnish and Install 2 HP Submersible Pump Into an Existing Pump Station and Well - Complete
- Furnish and Install 3 HP Submersible Pump Into an Existing Pump Station and Well - Complete
- Furnish and Install 5 HP Submersible Pump Into an Existing Pump Station and Well - Complete
- Furnish and Install 7½ HP Submersible Pump Into an Existing Pump Station and Well - Complete
- Furnish and Install 10 HP Submersible Pump Into an Existing Pump Station and Well - Complete
- Furnish Only - Pump (Delivered as Directed)
- Furnish Only - 2 HP Centrifugal Pump (Delivered as Directed) - Complete
- Furnish Only - 3 HP Centrifugal Pump (Delivered as Directed) - Complete
- Furnish Only - 5 HP Centrifugal Pump (Delivered as Directed) - Complete
- Furnish Only - 7½ HP Centrifugal Pump (Delivered as Directed) - Complete
- Furnish Only - 10 HP Centrifugal Pump (Delivered as Directed) - Complete
<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>QTY</th>
<th>UNITS</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
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<tr>
<td>253</td>
<td>Concrete Vault, 48&quot; X 48&quot; X 36&quot;, with Drainage</td>
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<td>Aluminum Vault Lid</td>
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<td>Plastic Tank, 55 Gal.</td>
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<td>256</td>
<td>1/4 HP Sump Pump with Discharge Piping and Pop-up Discharge Blow Off</td>
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<td>$2,200.00</td>
<td>$4,400.00</td>
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<td>257</td>
<td>Injector Pump</td>
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<td>Fused Main Disconnect, with Meter - 2 HP Pump Station</td>
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<td>259</td>
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<td>Fused Main Disconnect, with Meter - 5HP Pump Station</td>
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<td>261</td>
<td>Fused Main Disconnect, with Meter - 7¼ HP Pump Station</td>
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<td>262</td>
<td>Fused Main Disconnect, with Meter - 10 HP Pump Station</td>
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<td>1&quot; Grey PVC Sch 40 - in Addition to 200' Base Length (Installed in Trench)</td>
<td>75</td>
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<tr>
<td>264</td>
<td>1&quot; Grey PVC Sch 80 - in Addition to 200' Base Length (Installed Above Ground or Under Pavement)</td>
<td>70</td>
<td>LF</td>
<td>$7.00</td>
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<tr>
<td>265</td>
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<td>70</td>
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<td>$5.20</td>
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<td>266</td>
<td>1½&quot; Grey PVC Sch 80 - in Addition to 200' Base Length (Installed Above Ground or Under Pavement)</td>
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<td>$6.60</td>
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<td>268</td>
<td>2&quot; Grey PVC Sch 80 - in Addition to 200' Base Length (Installed Above Ground or Under Pavement)</td>
<td>65</td>
<td>LF</td>
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<td>$520.00</td>
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<tr>
<td>269</td>
<td>#12 THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>$6.00</td>
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<td>#8 THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>LF</td>
<td>$7.00</td>
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<td>#6 THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>LF</td>
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<td>273</td>
<td>#4 THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>$12.00</td>
<td>$720.00</td>
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<td>274</td>
<td>#3 THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>$780.00</td>
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<td>$19.00</td>
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<td>276</td>
<td>#1 THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>$27.00</td>
<td>$1,620.00</td>
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<tr>
<td>277</td>
<td>#½ THWN Copper Wire Service (Installed in Conduit in Excess of 200' Base Length)</td>
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<td>278</td>
<td>4&quot; Open-End Well</td>
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<td>287</td>
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<td>12&quot; Pop-up Sprayhead Including Swing Joint</td>
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<td>289</td>
<td>12&quot; Pop-up Sprayhead with Side inlet Body Including Swing Joint</td>
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<td>Turf Rotor Including Swing Joint</td>
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<td>Flood Bubbler Including Flexible Pipe</td>
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<tr>
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<td>1¼&quot; Gate Valve in Traffic Rated Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$510.00</td>
<td>$1,020.00</td>
</tr>
<tr>
<td>295</td>
<td>1¼&quot; Gate Valve in Existing Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$498.00</td>
<td>$996.00</td>
</tr>
<tr>
<td>296</td>
<td>2&quot; Gate Valve in Traffic Rated Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$510.00</td>
<td>$1,020.00</td>
</tr>
<tr>
<td>297</td>
<td>2&quot; Gate Valve in Existing Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$460.00</td>
<td>$920.00</td>
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<tr>
<td>298</td>
<td>2 ½&quot; Gate Valve in Traffic Rated Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$600.00</td>
<td>$1,200.00</td>
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<tr>
<td>299</td>
<td>2 ½&quot; Gate Valve in Existing Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$500.00</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>300</td>
<td>Furnish and Install 2&quot; Air Relief Valve in Traffic Rated Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$420.00</td>
<td>$840.00</td>
</tr>
<tr>
<td>ITEM #</td>
<td>ITEM DESCRIPTION</td>
<td>QTY</td>
<td>UNITS</td>
<td>UNIT PRICE</td>
<td>AMOUNT</td>
</tr>
<tr>
<td>--------</td>
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</tr>
<tr>
<td>301</td>
<td>Furnish and Install 3/4&quot; Pressure Relief Valve</td>
<td>2</td>
<td>EA</td>
<td>$275.00</td>
<td>$550.00</td>
</tr>
<tr>
<td>302</td>
<td>Furnish and Install 1&quot; Pressure Relief Valve</td>
<td>2</td>
<td>EA</td>
<td>$275.00</td>
<td>$550.00</td>
</tr>
<tr>
<td></td>
<td><strong>Furnish and Install Flow Sensors:</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>303</td>
<td>1¼&quot; Sensor in Traffic Rated Valve Box</td>
<td>2</td>
<td>EA</td>
<td>$1,100.00</td>
<td>$2,200.00</td>
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<tr>
<td>304</td>
<td>1¼&quot; Sensor in Existing Valve Box</td>
<td>2</td>
<td>EA</td>
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<td>$2,240.00</td>
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<td>305</td>
<td>2&quot; Sensor in Traffic Rated Valve Box</td>
<td>2</td>
<td>EA</td>
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<td>$2,260.00</td>
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<td>306</td>
<td>2&quot; Sensor in Existing Valve Box</td>
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<td>$2,400.00</td>
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<td></td>
<td><strong>Furnish and Install Zone Valves:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>307</td>
<td>1&quot; Zone Valve with 1&quot; Gate Valve, Including Valve Box and Piping - Complete</td>
<td>2</td>
<td>EA</td>
<td>$335.00</td>
<td>$670.00</td>
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<tr>
<td>308</td>
<td>1½&quot; Zone Valve with 1½&quot; Gate Valve, Including Valve Box and Piping - Complete</td>
<td>2</td>
<td>EA</td>
<td>$400.00</td>
<td>$800.00</td>
</tr>
<tr>
<td>309</td>
<td>2&quot; Zone Valve with 2&quot; Gate Valve, Including Valve Box and Piping - Complete</td>
<td>2</td>
<td>EA</td>
<td>$500.00</td>
<td>$1,000.00</td>
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<tr>
<td>310</td>
<td>2½&quot; Zone Valve with 2½&quot; Gate Valve, Including Valve Box and Piping - Complete</td>
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<td>EA</td>
<td>$900.00</td>
<td>$1,800.00</td>
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<tr>
<td>311</td>
<td>Brass Hose Bib on Control Valve</td>
<td>2</td>
<td>EA</td>
<td>$357.00</td>
<td>$714.00</td>
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<td>312</td>
<td>Control Wire (Direct Burial) Installed w/Main Line</td>
<td>4,000</td>
<td>LF</td>
<td>$0.50</td>
<td>$2,000.00</td>
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<tr>
<td>313</td>
<td>Control Wire (Direct Burial) Buried in Its Own Conduit</td>
<td>2,500</td>
<td>LF</td>
<td>$3.35</td>
<td>$8,375.00</td>
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<td></td>
<td><strong>Furnish and Install Controller:</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>314</td>
<td>12 Station &quot;Sentinel Field Satellite&quot; Controller with Hydrometer</td>
<td>2</td>
<td>EA</td>
<td>$8,900.00</td>
<td>$17,800.00</td>
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<td>315</td>
<td>24 Station &quot;Sentinel Field Satellite&quot; Controller with Hydrometer</td>
<td>2</td>
<td>EA</td>
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<td>$21,000.00</td>
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<tr>
<td>316</td>
<td>36 Station &quot;Sentinel Field Satellite&quot; Controller with Hydrometer</td>
<td>1</td>
<td>EA</td>
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<td>$12,000.00</td>
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<tr>
<td>317</td>
<td>48 Station &quot;Sentinel Field Satellite&quot; Controller with Hydrometer</td>
<td>1</td>
<td>EA</td>
<td>$16,000.00</td>
<td>$16,000.00</td>
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<tr>
<td>318</td>
<td>12 Station Sentinel Controller Expansion Module</td>
<td>2</td>
<td>EA</td>
<td>$1,800.00</td>
<td>$3,600.00</td>
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<td>319</td>
<td>Phone Modem</td>
<td>2</td>
<td>EA</td>
<td>$1,900.00</td>
<td>$3,800.00</td>
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<td>320</td>
<td>Communication Tower</td>
<td>2</td>
<td>EA</td>
<td>$3,500.00</td>
<td>$7,000.00</td>
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<tr>
<td>321</td>
<td>4 Station Rainbird ESP</td>
<td>2</td>
<td>EA</td>
<td>$400.00</td>
<td>$800.00</td>
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<tr>
<td>322</td>
<td>6 Station Rainbird ESP</td>
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<td>EA</td>
<td>$500.00</td>
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<td>323</td>
<td>8 Station Rainbird ESP</td>
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<td>EA</td>
<td>$600.00</td>
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<tr>
<td>324</td>
<td>Surcharge For MDT in FDOT RAW</td>
<td>100</td>
<td>DAY</td>
<td>$690.00</td>
<td>$88,000.00</td>
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</table>

**TOTAL BID AMOUNT**: $2,643,782.00
THE COUNTY DOES NOT GUARANTEE THE ACCURACY OF THE FORMULAS AND EXTENSIONS USED IN THIS SPREADSHEET.
THE ITEMS AND QUANTITIES ABOVE, SHALL GOVERN OVER THE PLANS.
PAY ITEM FOOTNOTES IN CONSTRUCTION PLANS SHALL ALSO BE INCLUDED IN ITEM UNIT PRICE.

### Notes On Landscaping:

**Trunk caliper (diameter)** is measured 6 inches from the ground on trees up to and including 4 inches in caliper, and 12 inches above the ground for larger trees. The caliper (diameter) of a palm tree is taken at the widest portion, measured between 1 and 3 feet from the soil line.

All B&B to be natural burlap; not synthetic fabric, as per specifications.

C.T. (Clear Trunk) heights specify required minimum height of bottom of tree foliage (excluding palms) for clear sight & maintenance purposes, not the minimum height of first major branch (as per Florida Grades & Standards definition). As per this alternate definition of C.T., some branches without foliage may be allowed within the required 8.0' or 8.5' clear sight window as specified. No leaf foliage, including palm fronds, may encroach into a required clear sight window.

All trees & palms shall meet or exceed minimum requirements of "Florida Grade No. 1" as per the current Grades & Standards for Nursery Plants by the Florida Department of Agriculture & Consumer Services.

Minimum depth of B&B rootballs is to be at least 2/3 of specified minimum rootball diameter shown, except for palms, which have designated widths (W) & depths (D) above.

No more than 2" of soil shall be above the top root of a rootball.

The above plant counts are estimated quantities before the actual design of various pending road projects is completed. Previous typical projects have ranged from 10 to 350 trees.

All costs associated with the performance of work under this contract including but not limited to all materials, labor, & equipment shall be included in the unit bid item cost for each tree.

**Tree and Palm Trimming Items** - Trim to Florida Grades and Standards and ANSI A300 Standards by or under the supervision of an Arborist certified by the International Society of Arboriculture. Shall include MOT and disposal.

**Tree, Palm, and Stump Removal Items** - Includes stump extraction, disposal and filling of hole to finish grade with suitable fill.

**Relocation Items** - Include filling of holes to finish grade with suitable fill.

The work for tree and palm removal shall include all costs associated with tree removal including MOT (if required), reduction of canopy, felling of trunk, stump removal, debris disposal and backfilling of hole with suitable material to provide a uniform grade.

### Notes On Irrigation:

**Items 183 through 185** - Contractor shall provide all boring logs, boring profiles and permits to the County.

**Items 191 through 193 and 202 through 204** - When 2", 3" or 4" PVC is used as main line, Schedule 80 fittings shall be used.

**Items 194 through 196 and 205 through 207** - Include all ductile iron fittings, thrust blocking, line guard tape and testing.

**Items 216 through 218** - Include all costs associated with plumbing code compliance and installation of owner provided meter/hydrant as applicable.

**Items 219 through 223** - Include all costs associated with electrical connection (200' base length), furnish and install primary (with meter) and secondary (with station) fused disconnects, enclosure, intake screen, Hot Stop, pressure/air relief valve in approved valve box, flow meter in approved valve box, Ames Cla-Valve (if applicable), all permits and all items specified in item ISC 2.08 Pump Station. Base suction line shall be 200'. Note that the South Florida Water Management District General Water Use Permit will be provided to the Contractor. Irrigation Controller is not included.
<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>QTY</th>
<th>UNITS</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items 224 through 236</td>
<td>Include all costs associated with electrical connection (200' base length), furnish and install primary (with meter) and secondary (with station) fused disconnects, 6&quot; Steel Cased well construction (100' base depth), enclosure, Hot Stop, pressure/air relief valve in approved valve box or strut mounted (as directed by the Engineer), Ames Cla-Valve, if applicable, flow meter in approved valve box, Ames Cla-Valve (if applicable), all permits and all items specified in Item ISC.2.08 Pump Station and all permits. Note that the South Florida Water Management District General Water Use Permit will be provided to the Contractor. Irrigation Controller is not included.</td>
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</tr>
<tr>
<td>Items 248 through 252</td>
<td>Furnish Only - Pump (Delivered) - Each complete unit shall be delivered to: Streetscape Field Operations Office 2655 Vista Parkway West Palm Beach, FL 33411 Phone: 561-233-3990 Contractor will contact Streetscape Field Operations prior to delivery to coordinate delivery times and to confirm that staff will be available to receive the item(s).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items 263 through 268</td>
<td>Grey PVC Conduit (Sch 40 and 80) is for conduit Only. Conductors are to be paid under THWN Copper Service.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items 269 through 277</td>
<td>THWN Copper Wire Service (installed in conduit in excess of 200' base length) is for four (4) conductors. Price does not include cost of the conduit. Conduit to be paid under Grey PVC Conduit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items 286</td>
<td>The work for Well Refurbishment/Restoration shall include removal of concrete around the well head, removal of the pump station from the work area, removal of well liner pipe, installation of seat drive shoe with drill rig or installation of additional casing as required. Upon determination of satisfactory performance as specified in the Special Provisions (Section MVC - Irrigation Open End Well Construction Specifications), completion of the task shall include replacement of pump station, priming pump, patching concrete, flushing mainline and demonstrating satisfactory operation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items 307 through 310</td>
<td>Shall include installation of a gate valve for maintenance isolation, sized to match the zone control valve, placed upstream at the time of installation of the zone valve in the same single valve box.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

All electrical service, fuses, motor feeder wire, conduit, etc., required for providing power to the pump station shall comply with the current editions of the National Electric Code, the Florida Building Code and the Palm Beach County Building Code, with all current addenda. Contractor shall be required to acquire all electrical permits and provide all required permit drawings.

Notes On Pumps - both Furnish and Install and Furnish Only.
Items 225 through 252 - All pumps shall include the following hardware:

- 2 - 2" galv. unions
- 2 - 2" 90° galv. elbows
- 1 - 2" galv. tee
- 1 - 3/4" galv. tee
- 1 - 3/4"x2" galv. nipple
- 2 - 2"x3" galv. nipple
- 2 - 2"x6" galv. nipple
- 1 - 2"x3/4" galv. Bushing
- 2 - 2"x1½" galv. Bushing
- 1 - 3/4" hose bib
- 1 - hot stop
- 1 - liquid filled pressure gauge, min. 150 psi rated
- 1 - 2" strataflow check valve

Maintenance of Traffic (MOT) is considered incidental to each and every Item in the Contract. Surcharge (Item 324) is only for additional MOT costs incurred while working in FDOT Rights of Way when compliance with FDOT requirements exceeds the County's MOT standards.
The undersigned acknowledges that Addenda 1 thru 2 have been received and that related costs are reflected in the submitted bid. The undersigned further agrees to perform all necessary force account work, as provided for in the General Provisions, and to execute the Contract and return to the County along with a Contract Bond and Certificate of Insurance within fourteen (14) working days after the date of the "Letter of Intent to Award" and to begin work with an adequate work force and equipment within fourteen (14) calendar days from the date set forth in the "Notice to Proceed" and to fully complete all necessary work under the same.

The purpose of this contract is to obtain an additional contractor to accomplish the required tasks. Consequently, this contract will not be awarded to an organization which is already under contract with the County to perform this work, unless that contract is due to expire within the next six (6) months.

THE TIMELY COMPLETION OF THIS ROADWAY PROJECT IS CRITICAL TO THE HEALTH, SAFETY AND WELFARE OF THE TRAVELING PUBLIC. It is the desire of Palm Beach County to expedite the construction and opening to traffic of the project. The Contractor shall be required to work such hours, weekends and/or holidays to meet the required contract schedules.

The contractor shall complete in full all necessary work under this contract in accordance with the Special Provisions. It is further agreed that should the contractor fail to complete all necessary work under this contract within the above referenced time; then, due to the criticalness of the timely completion of this project, liquidated damages for failure to meet these provisions shall be in accordance with Section 8-10.2 of the Standard Specifications.

The undersigned further agrees to furnish a sufficient and satisfactory bond, on the form herein provided, in accordance with Section 3-5.1 of the General Provisions.

The undersigned further agrees to bear the full cost of maintaining all work until the final acceptance, as provided in the Contract Documents.

Accompanying this Proposal is a Proposal Guaranty made payable to Palm Beach County, a Political Subdivision of the State of Florida, in the sum of 5% of amount bid which is to be forfeited as liquidated damage if, in case this Proposal is accepted, the undersigned should fail to execute the attached Contract under the conditions of this proposal; otherwise, said guaranty is to be returned to the undersigned upon the delivery of a satisfactory bond.

Superior Landscaping
Company Name: & Lawn Service, Inc. Authorized Officer: Jesenia Otero
Address: 2200 NW 23 Avenue Signature: Jesenia Otero
Miami, FL 33142 (Print)
CONTRACTOR CERTIFICATION

PALM BEACH COUNTY

ENGINEERING AND PUBLIC WORKS DEPARTMENT

NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES

FROM

ROADWAY CONSTRUCTION SITES

ANNUAL ROADWAY LANDSCAPING CONTRACT

PALM BEACH COUNTY PROJECT NO. 2018050

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification."

Name of Contracting Firm: Superior Landscaping & Lawn Service, Inc.

By: Jesenia Otero

Date: 7/9/2018

Name and Title: Jesenia Otero

Address or P.O. Box: 2200 NW 23 Avenue

City: Miami

State: Florida

Zip Code: 33142

Telephone: 305-634-0717

Area Code: 305

Number: 634-0717
PALM BEACH COUNTY LOCAL PREFERENCE ORDINANCE

In accordance with the Palm Beach County Local Preference Ordinance, a preference will be given to (1) bidders having a permanent place of business in Palm Beach County; (2) bidders having a permanent place of business in the Glades that are able to provide the goods or services within the Glades.

1. **Local Preference** means that if the lowest responsive, responsible bidder is a non-local business, then all bids received from responsive, responsible local bidders are decreased by 5%. The original bid amount is not changed; the 5% decrease is calculated only for the purposes of determining local preference.

2. **Glades Local Preference** means that if the lowest responsive, responsible bidder is a non-Glades business, then all bids received from responsive, responsible Glades bidders are decreased by 5%. The original bid amount is not changed; the 5% decrease is calculated only for the purposes of determining local preference. A bidder who is a local business but not a Glades business and who utilizes Glades subcontractor(s) for a minimum of 15% of the total bid price, may receive a local preference of three (3) percent, solely for the purpose of determining bid award. If the Local business utilizes Glades subcontractor(s) for a minimum of 30% of the total bid price, he may receive a local preference of four (4) percent for the purposes of ranking bidders.

To receive either a Local Preference or a Glades Local Preference, a bidder must have a permanent place of business in existence prior to the County’s issuance of this Invitation for Bid. A Business Tax Receipt issued by the Palm Beach County Tax Collector is required, unless specifically exempted by law, and will be used to verify the bidders’ permanent place of business. A permanent place of business means that the bidder’s headquarters is located in Palm Beach County or in the Glades, as applicable; or the bidder has a permanent office or other site in Palm Beach County or in the Glades, as applicable; where the bidder will produce a substantial portion of the goods or services to be purchased. The bidder must submit the attached Certification of Business Location at the time of bid submission. Failure to submit this information will cause the bidder to not receive a local preference. Palm Beach County may require a bidder to provide additional information for clarification purposes at any time prior to the award of the contract.

In procurements where price is the only factor for selection, the above provisions shall not be applied where the application would result in an award which exceeds the otherwise lowest, responsive bidder by one hundred thousand dollars ($100,000).

The local bidder may not receive more than one preference. The Glades Local Preference prevails over the Local Preference and the SBE Preference prevails over both the Local and Glades Local Preferences.

LP-1
CERTIFICATION OF BUSINESS LOCATION

In accordance with the Palm Beach County Local Preference Ordinance, as amended, a preference will be given to: (1) those bidders having a permanent place of business in Palm Beach County (County); and (2) those bidders having a permanent place of business in the Glades providing goods or services to be utilized in the Glades. To receive a local preference, an interested bidder must have a permanent place of business in the County or in the Glades, as applicable, prior to the County’s issuance of an invitation for bid. A Business Tax Receipt issued by the Palm Beach County Tax Collector is required, unless specifically exempted by law, and will be used to verify the bidders’ permanent place of business. The bidder must submit this Certification of Business Location at the time of bid submission. This Certification of Business Location is the sole determinant of local preference eligibility. Errors in the completion of this Certification or failure to submit this completed Certification will cause the bidder to not receive a local preference. Please note that in order to receive a local preference, the name and address on the Business Tax Receipt must be the same name and address that is included in the bid or proposal submitted by the bidder to the County.

1) Bidder is a:

___ Local Business (A local business has a permanent place of business in Palm Beach County)

(Please indicate):

___ Headquarters located in Palm Beach County.

___ Permanent office or other site located in Palm Beach County from which a vendor will produce a substantial portion of the goods or services to be purchased.

___ Glades Business (a Glades business has a permanent place of business in the Glades)

(Please indicate):

___ Headquarters located in the Glades.

___ Permanent office or other site located in the Glades from which a vendor will produce a substantial portion of the goods or services to be purchased.

___ Regional Business (A regional business is one that has a permanent place of business in Martin, Broward, or Miami Dade County.)

A post office box or location at a postal service center is not acceptable.

2) The attached copy of the bidder’s Palm Beach County Business Tax Receipt verifies the bidder’s permanent place of business.

THIS CERTIFICATION is submitted by Jesenia Otero (Name of Individual)

Estimator , of Superior Landscaping & Lawn Service, Inc. (Title/Position) (Firm Name of Bidder/Proposer)

who hereby certifies that the information stated above is true and correct, and that the bidder has a permanent place of business in Palm Beach County. Further it is hereby acknowledged that any misrepresentation by the bidder on this Certification will be considered an unethical business practice and be grounds for sanctions against future County business with the bidder.

Signature 7/9/2018 Date
<table>
<thead>
<tr>
<th>TYPE OF BUSINESS</th>
<th>OWNER</th>
<th>CERTIFICATION #</th>
<th>RECEIPT UPDATE PAID</th>
<th>AMT PAID</th>
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<td>517-555050-02/27/17</td>
<td>599.00</td>
<td>PBC002017</td>
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</table>

This document is valid only when receipted by the Tax Collector's Office.

SUPERIOR LANDSCAPING AND LAWN SERVICE INC
PO BOX 350095
MIAMI, FL 33013-0095

STATE OF FLORIDA
PALM BEACH COUNTY
2017/2018 LOCAL BUSINESS TAX RECEIPT

LBTR Number: 200218368
EXPIRES: SEPTEMBER 30, 2018

This receipt grants the privilege of engaging in or managing any business profession or occupation within its jurisdiction and MUST be conspicuously displayed at the place of business and in such a manner as to be open to the view of the public.
PALM BEACH COUNTY
LIVING WAGE ORDINANCE

(PBC Ordinance No. 2003-004, as amended by PBC Ordinance No. 2004-002) (a.k.a., Palm Beach County Living Wage Ordinance, hereinafter Ordinance)

Implementation
This information shall serve to notify the Contractor of the Ordinance's implementation requirements as referenced in Section 4 of the Ordinance, as stated below and on the LW pages of this specification. A copy of the Ordinance is available for pickup at the Engineering & Public Works Department (Roadway Production Division).

The costs for implementing these requirements shall be incidental to the cost of the project.

Procurement Specifications
The Ordinance states that the living wage requirement shall be included in the procurement specifications for all county construction contracts that have a total contract value exceeding $100,000, and that is not subject to the Davis-Bacon Act or any related act or acts, as amended, that require the payment of Davis-Bacon Act wage rates.

The Ordinance also requires that the prospective non-county employer agree to produce, upon the request of the Construction Coordination Division, or as otherwise provided by the County Administrator through countywide policy, all documents and payroll records required under this Ordinance.

Maintenance of Payroll Records
Each non-county employer shall maintain payroll records and basic records relating thereto for each employee, and shall preserve them for a period of three (3) years. The records shall contain:

(1) Each employee's name and address;
(2) Each employee's job title and classification;
(3) The number of hours worked each day by each employee;
(4) The gross wages and deductions made for each employee; and
(5) Annual wages paid to each employee.

Reporting Payroll
Every six (6) months the non-county employer shall certify and file with the Construction Coordination Division if the non-county employer is a general contractor, or with the general contractor if the non-county employer is a subcontractor, certification that all non-county employees who worked on each construction contract during the preceding six (6) month period were paid the living wage in compliance with this Ordinance. Upon the County's request, the non-county employer shall produce for inspection and copying the payroll records for any or all of its employees for the prior three (3) year period.
LIVING WAGE CERTIFICATION

Project: Annual Roadway Landscaping Contract

Contractor Name: Superior Landscaping & Lawn Service, Inc.

Contractor Address: 2200 NW 23 Avenue, Miami, FL 33142

Contractor Phone: 305-634-0717

Amount of Contract: 2,643,702.00

Please include the following with the bid submission:

1. Brief description of the service provided under the construction contract.

2. A statement of wage levels for prospective non-county employees.

3. A commitment to pay each non-county employee the living wage, as adjusted, in accordance with the Palm Beach County Living Wage Ordinance. According to Section 3(B)(2), of the Palm Beach County Living Wage Ordinance, the living wage must be adjusted annually for inflation, and this adjustment must take effect each October 1st. (See Palm Beach County Code Section 2-149(b)(2).)

   The living wage for October 1, 2017, through September 30, 2018, is $12.05/hour.

The contractor/subcontractor(s) shall post a copy of the following Notice to Employees (LW-3) at the work site in a prominent place where it can easily be seen by the employees, or provide a copy with the employee’s first paycheck and at least every six (6) months thereafter.

The undersigned hereby certifies that the above and attached information is true and correct.

IN WITNESS THEREOF, the undersigned has set his hand and affixed the Corporate Seal this 9 day of July, 2018.

Authorized Signature

(Corporate Seal)

Jesenia Otero, Estimator

(Print Name and Title)
Notice and Posting
Non-county employers shall post a copy of the following statement at the work site in a prominent place where it can easily be seen by the employees: “NOTICE TO EMPLOYEES: If you are employed to provide certain services to Palm Beach County, your employer may be required by Palm Beach County law to pay you at least $11.93 per hour. If you are not paid this hourly rate, contact your supervisor or a lawyer.” The following statement shall be printed in English, Spanish, and Creole, and shall be printed with black lettering on letter-size, white paper using a Times New Roman 14-point font, Courier New 14-point font, or Arial 14-point font. Posting requirement will not be required if the non-county employer attaches a copy of the following statement to the employee’s first paycheck, and to subsequent paychecks at least every six (6) months thereafter. Non-county employers shall supply a copy of the following statement to any employee upon request within a reasonable time. Non-county employers shall forward a copy of the requirements of this ordinance to any person or business submitting a bid for a subcontract on any contract covered by this ordinance.

This notice is provided pursuant to the Palm Beach County Living Wage Ordinance, Section 3 (E), (as amended through January 2004), and reflects the adjusted living wage effective October 1, 2017, through September 30, 2018.

NOTICE TO EMPLOYEES (ENGLISH)
If you are employed to provide certain services to Palm Beach County, your employer may be required by Palm Beach County law to pay you at least $12.05 per hour. If you are not paid this hourly rate, contact your supervisor or Palm Beach County.

NOTIFICACIÓN A PATRONES (ESPAÑOL)
Si usted tiene un empleo por el cual provee ciertos servicios al Condado de Palm Beach, el Condado de Palm Beach puede requerir de su patron que le pague a usted por lo menos $12.05 por hora. Si a usted no se le paga esta cantidad por hora, póngase en contacto con su supervisor o el Condado de Palm Beach.

AVI POU ENPLWAYE-YO (CREOLE)
Si ke ou enplwaye pou bay kek sévis pou Komin-n Palm Beach-la, Dapré la Lwa, Bos travay-la sipoza peye-w o pw 12.05 pa lé. Si yo pa peye-w valé sa-a, se pou-w kontakte sipévize-w la o byen Komin-n Palm Beach-la.

Authorized Signature
Jesenia Otero, Estimator
(Print Name and Title)
CERTIFICATION OF COMPLIANCE WITH THE LIVING WAGE ORDINANCE

The Ordinance states: "Every six (6) months the non-county employer shall certify and file with the Construction Coordination Division if the non-county employer is a general contractor, or with the general contractor if the non-county employer is a subcontractor, certification that all non-county employees who worked on each construction contract during the preceding six (6) month period were paid the living wage in compliance with this Ordinance. Upon the County’s request, the non-county employer shall produce for inspection and copying the payroll records for any or all of its employees for the prior three (3) year period."

The County now further requires that the Contractor submit this certification statement with each pay application, including the final, on company letterhead.

The undersigned authorized person hereby certifies that the above requirements are adhered to and that payroll records are being maintained in accordance with the requirements of LW-1 "Maintenance of Payroll Records".

July 9, 2018
Date

Superior Landscaping & Lawn Service, Inc.
Company Name (Print)

Jesenia Otero, Estimator
Authorized Officer: Name/Title (Print)

Signature
SCRUTINIZED COMPANIES

As provided in F.S. 287.135, by entering into this Contract or performing any work in furtherance hereof, the CONTRACTOR certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies that boycott Israel List, or is engaged in a boycott of Israel, pursuant to F.S. 215.4725.

When contract value is greater than $1 million: As provided in F.S. 287.135, by entering into this Contract or performing any work in furtherance hereof, the CONTRACTOR certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies With Activities in Sudan List or Scrutinized Companies With Activities in The Iran Petroleum Energy Sector List created pursuant to F.S. 215.473 or is engaged in business operations in Cuba or Syria.

If the County determines, using credible information available to the public, that a false certification has been submitted by CONTRACTOR, this Contract may be terminated and a civil penalty equal to the greater of $2 million or twice the amount of this Contract shall be imposed, pursuant to F.S. 287.135. Said certification must also be submitted at the time of Contract renewal, if applicable.

The undersigned authorized person hereby has read and certifies that the above is adhered to.

__________________________
Date

Superior Landscaping & Lawn Service, Inc.

Company Name (Print)

Orlando Otero, President

Authorized Officer: Name/Title (Print)

__________________________
Signature

SC-1
BID BOND

STATE OF FLORIDA

) ss.

COUNTY OF PALM BEACH )

KNOW ALL MEN BY THESE PRESENTS: That we, Superior Landscaping & Lawn Service, Inc., hereinafter called "Principal", and Philadelphia Indemnity Insurance Company, hereinafter called "Surety", are held and firmly bound unto Palm Beach County, a Political Subdivision of the State of Florida, in the amount of Five (5%) percent of bid, lawful money of, the United States of America, for the payment of which sum will and truly to be made; we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents;

WHEREAS, the "Principal" contemplates submitting or has submitted a bid to the Board of County Commissioners, Palm Beach County, Florida, for furnishing and paying for all necessary labor materials, equipment, machinery, tools, apparatus, services, all state Workers' Compensation and unemployment compensation taxes incurred in the performance of the Contract, means of transportation for and complete Construction of:

ANNUAL ROADWAY LANDSCAPING CONTRACT, PROJECT NO. 2018050, in the County of Palm Beach, State of Florida; and

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check or bid bond in the amount of five percent (5%) of the total bid be submitted with said bid as a guarantee that the bidder would, if given a letter of Intent to Award the Contract, enter into a written contract with the County, and furnish a Public Construction Bond in an amount equal to one hundred per cent (100%) of the total contract, within fourteen (14) consecutive working days after written notice having been given of the Intent to Award Contract.

BB-1
NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if
the bid of the "Principal" herein be accepted and said "Principal", within fourteen (14) consecutive
working days after the date of the "Letter of Intent to Award", the letter being written notice of
such acceptance, enter into a written contract with Palm Beach County, a Political Subdivision of
the State of Florida, and furnish a Certificate of Insurance, and a Public Construction Bond in the
form included in the Bid Documents and in an amount equal to One Hundred Per Cent (100%) of
the total contract amount satisfactory, to Palm Beach County, a Political Subdivision of the State
of Florida, then this obligation shall be void, otherwise the sum herein stated shall be due and
payable to the "County", and the "Surety" herein agrees to pay said sum immediately upon demand
of said "County", in good and lawful money of the United States of America, as liquidated
damages for failure thereof said "Principal".

IN WITNESS WHEREOF, the said Superior Landscaping & Lawn Service, Inc. as "Principal" herein, has
cause these presents to be signed in its name, by its __________________, and attested by its__________________________, under its corporate seal, and the said Philadelphia Indemnity Insurance Company, as "Surety" herein, has caused these
presents to be signed in its name, by its __________________, under its corporate seal, this 10th day of ___________ July ____________, A.D., 2018.

ATTEST: ________________________________

(Signature)

________________________

(Print Name)

________________________

(TITLE)

________________________

(Signature)

Susan Corral ________________________________

(Print Name)

Witness

________________________

(TITLE)

Superior Landscaping & Lawn Service, Inc.

(Seal)

By: ________________________________

(Principal)

Philadelphia Indemnity Insurance Company

(Seal)

By: ________________________________

(Brett Rosenhaus, Surety)

Attorney-in-Fact & FL Licensed Agent

BB-2
PHILADELPHIA INDEMNITY INSURANCE COMPANY
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That PHILADELPHIA INDEMNITY INSURANCE COMPANY (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint Brett Rosenhaus, Richard Zimmerman of Nicosia, Rosenhaus & Associates, its true and lawful Attorney-in-Fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed $25,000,000.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th day of November, 2016.

RESOLVED: That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto, and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And be it

FURTHER RESOLVED: That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY ITS AUTHORIZED OFFICE THIS 27th DAY OF OCTOBER, 2017.

(Seal)

Robert D. O’Leary Jr., President & CEO
Philadelphia Indemnity Insurance Company
On this 27th day of October, 2017, before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the therein described and authorized officer of the PHILADELPHIA INDEMNITY INSURANCE COMPANY; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.

(Seal) Notary Public: Morgan V. Mapp
residing at: Bala Cynwyd, PA
My commission expires: September 25, 2021

I, Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and this Power of Attorney issued pursuant thereto on this 27th day of October, 2017 are true and correct and are still in full force and effect. I do further certify that Robert D. O’Leary Jr., who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 13th day of July, 2018.

Edward Sayago, Corporate Secretary
PHILADELPHIA INDEMNITY INSURANCE COMPANY
CERTIFICATE OF RESOLUTION

The undersigned hereby certifies that the following are true and correct statements:

1. That the undersigned is the President of Superior Landscaping & Lawn Service, Inc. (insert business name) a Corporation, organized and existing in good standing under the laws of the State of Florida ("Firm"), and that the following Resolutions are true and correct Resolutions adopted by the President of the Firm on the 6th day of November 2018, in accordance with the laws of the State of Florida (where the Firm is organized) of the Firm, and governing documents of the Firm.

RESOLVED, that the Firm shall enter into that certain Agreement between Palm Beach County, a political subdivision of the State of Florida, and the Firm, a copy of which is attached hereto, and be it

FURTHER RESOLVED, that Otero, the Estimator of the Firm, is hereby authorized and instructed to execute such Agreement and such other instruments as may be necessary and appropriate for the Firm to fulfill its obligations under the Agreement.

2. That the foregoing Resolutions have not been modified, amended, rescinded, revoked or otherwise changed and remain in full force and effect as of the date hereof.

3. That the Firm is in good standing under the laws of the State of Florida or its state of formation, as provided above, and has qualified, if legally required, to do business in the State of Florida and has the full power and authority to enter into such Agreement.

IN WITNESS WHEREOF, the undersigned has set his/her hand and affixed the Seal of the Firm the 6th day of November, 2018.

(Signature)

(FIRM’S SEAL)

(Print Signatory’s Name and Title)

SWORN TO AND SUBSCRIBED before me this day of November, 2018, by the of the aforesaid Firm, who is (circle one): personally known to me, OR who produced as identification and who did take an oath.

(Print Notary’s Signature)

(Print Notary’s Name)

NOTARY PUBLIC
State of Florida affixed
My Commission Expires: 12/31/2020

CC-1
ANNUAL CONTRACT

STATE OF FLORIDA)

) ss. R 2018 1732

COUNTY OF PALM BEACH)

This Contract, made this ___ day of NOV 20 2018, A.D. 20____, by and between PALM
BEACH COUNTY, a Political Subdivision of the State of Florida, (hereinafter “County”), and
SUPERIOR LANDSCAPING & LAWN SERVICE, INC., Florida, and its heirs, executors,
administrators and assigns, (hereinafter “Contractor”):

WITNESSETH: The Contractor agrees with the County, for the consideration herein mentioned
at its own proper cost and expense to do all the work and furnish all necessary labor, materials,
equipment, machinery, tools, apparatus, services, state Worker’s Compensation and
unemployment compensation taxes incurred in the performance of the Contract, for the:

ANNUAL ROADWAY LANDSCAPING CONTRACT

IN THE AMOUNTS specified in work orders which may be issued by the County. The County
is not required to issue any work orders hereunder. The total value of work orders issued under
this Contract shall not exceed One Million Dollars ($1,000,000.00), except as may be increased
according to Section 9-11 of the Contract Specifications.

The Contractor further agrees for the consideration herein mentioned to commence the work with
adequate forces and equipment within five (5) working days of the work order being issued for a
specific project. After commencement of the work, the work order shall be properly dispatched
toward completion, to the satisfaction of the Engineer, and shall be fully complete within the time
limit specified in the work order. Should the time limit for completion of the work order exceed
the expiration date of the contract, the work order work will continue to completion and the
Contractor shall ensure that Bonding and Insurance coverage do not expire until all work orders
issued prior to the expiration of this Contract are complete and accepted. It is understood and
agreed that the time limit for completion of said work is the essence of the Contract. If Contractor
fails to complete the work within the time limit, it is agreed that for such calendar day that any
work provided for in these Contract Documents remain incomplete after the time limit has expired,
including any official extension of the time limit, the sum per day given in the contained schedules
shall be deducted from monies due the Contractor, not as a penalty, but as liquidated damages and
added expense for supervision.

The Contractor shall take into account all contingent work which has to be done by other parties
arising from any cause whatsoever, and shall not plead its want of knowledge of such contingent
work as an excuse for delay in a Contractor’s work, or for its non-performance.
ANNUAL CONTRACT

IN WITNESS WHEREOF, the Parties have caused this Annual Roadway Landscaping Contract to be executed and sealed the day and year first written above.

ATTEST:

SHARON R. BOCK,
Clerk & Comptroller

R 2018 1732 NOV 20 2018
Palm Beach County, Florida, a
Political Subdivision of the
State of Florida

BOARD OF COUNTY COMMISSIONERS

By: Mack Bernard
Mayor

APPROVED AS TO TERMS
AND CONDITIONS

Superior Landscaping & Lawn Service, Inc.
(Corporate Name)

By: Orlando Otero
(print signatory's name)

FLORIDA
(insert state of incorporation)

By: (signature)

Its President
(print title)

08/31/2018
(date)

(Corporate Seal)

C-2
# PUBLIC CONSTRUCTION BOND

| BOND NUMBER: | PB122709000076 |
| BOND AMOUNT: | $50,000.00 |
| CONTRACT AMOUNT: | $1,000,000.00 |

| CONTRACTOR'S NAME: | Superior Landscaping & Lawn Service, Inc. |
| CONTRACTOR'S ADDRESS: | 2200 NW 23 Avenue  
Miami, FL 33142 |
| CONTRACTOR'S PHONE: | 305-634-0717 |

| SURETY COMPANY: | Philadelphia Indemnity Insurance Company |
| SURETY ADDRESS: | One Bala Plaza East, Suite 100  
Bala Cynwyd, PA 19004 |
| SURETY PHONE: | 610-265-7836 |

| OWNER'S NAME: | Palm Beach County |
| OWNER'S ADDRESS: | 2300 North Jog Road, Suite 3W-33  
West Palm Beach, FL 33411-2745 |
| OWNER'S PHONE: | 561-684-4150 |

| PROJECT NO.: | 2018050 |
| DESCRIPTION OF WORK: | ROADWAY LANDSCAPING, IRRIGATION AND ASSOCIATED TASKS – COUNTY WIDE ON A WORK ORDER BASIS. |

| PROJECT LOCATION: | ANNUAL ROADWAY LANDSCAPING CONTRACT – COUNTY WIDE – PALM BEACH COUNTY, FLORIDA |
| LEGAL DESCRIPTION: | No legal description is available. The best description available is as indicated on the Project Location above. |
PUBLIC CONSTRUCTION BOND

This Bond is issued in favor of the County conditioned on the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS: that Contractor and Surety, are held and firmly bound unto:

Palm Beach County Board of County Commissioners
301 N. Olive Avenue
West Palm Beach, Florida 33401

As Obligee, herein called County, for the use and benefit of claimant as herein below defined, in the amount of: Fifty Thousand and 00/100 Dollars

$ 50,000.00

for the payment whereof Principal and Surety bind themselves, their heirs, personal representatives, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated __________, 20___, entered into a contract with the County for:

---

Project Name: Annual Roadway Landscaping Contract
Project No.: 2018050
Project Description: See Page PCB-1
Project Location: See Page PCB-1

---

in accordance with Design Criteria Drawings and Specifications prepared by:

Name of Engineering/Architectural Firm: TBD
Location of Firm: TBD
Phone: TBD
Fax: TBD

which contract is by reference made a part hereof in its entirety, and is hereinafter referred to as the Contract.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated __________ between Principal and County for the construction of the project as described above, the contract being made part of this bond by reference, at the times and in the manner prescribed in the contract; and

2. Promptly makes payments to all claimants, as defined in Section 255.05, Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or Indirectly by Principal in the prosecution of the work provided for in the contract; and

---

PCB-2
PUBLIC CONSTRUCTION BOND

3. Pays County all losses, damages (including liquidated damages), expenses, costs, and attorney's fees, including appellate proceedings, that County sustains because of a default by Principal under the contract; and

4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

5. Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond and Surety waives notice of such changes.

6. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of construction liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against the bond.

7. Principal and Surety expressly acknowledge that any and all provisions relating to consequential, delay and liquidated damages contained in the contract are expressly covered by and made a part of this Performance, Labor and Material Payment Bond. Principal and Surety acknowledge that any such provisions lie within their obligations and within the policy coverages and limitations of this instrument.

8. Section 255.05, Florida Statutes, as amended, together with all notice and time provisions contained therein, is incorporated herein, by reference, in its entirety. Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes. This instrument regardless of its form, shall be construed and deemed a statutory bond issued in accordance with Section 255.05, Florida Statutes.

9. Any action brought under this instrument shall be brought in the state court of competent jurisdiction in Palm Beach County and not elsewhere.

ATTEST:

(Signature)
Sandra Arroyo
(Print Name)
Contract Admin.

By:
Orlando Atoio
(Principal)
President

Philadelphia Indemnity Insurance Company
(Seal)

(Rita Lazarides)
(Print Name)
Witness

By:
(Breit Rosenhaus)
(Surety)
Attorney-In-Fact &
Florida Licensed Agent
<table>
<thead>
<tr>
<th><strong>PUBLIC CONSTRUCTION BOND</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROJECT NO.:</strong></td>
</tr>
<tr>
<td><strong>DESCRIPTION OF WORK:</strong></td>
</tr>
<tr>
<td><strong>PROJECT LOCATION:</strong></td>
</tr>
<tr>
<td><strong>SURETY COMPANY:</strong></td>
</tr>
</tbody>
</table>
| **SURETY ADDRESS:** | One Bala Plaza East, Suite 100  
Bala Cynwyd, PA 19004 |
| **SURETY PHONE:** | 610-206-7836 |
| **BOND NUMBER:** | PB12270800076 |
| **BOND AMOUNT:** | $50,000.00 |
| **CONTRACT AMOUNT:** | $1,000,000.00 |

As the Surety Company for Superior Landscaping & Lawn Service, Inc., we have executed the captioned bond. Because the contract date is unknown, we have left the bond(s) undated. As a duly authorized Attorney-in-Fact for the Surety, Philadelphia Indemnity Insurance Company, permission is hereby granted to Palm Beach County to fill in the contract date on the bond(s) and power of attorney when that date is known. Also, the “signed and sealed” date on the bond(s) should be completed.
PHILADELPHIA INDEMNITY INSURANCE COMPANY
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That PHILADELPHIA INDEMNITY INSURANCE COMPANY (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint Brett Bosenhaus, Richard Zimmerman of Nielsen, Rosenhaus & Associates, its true and lawful Attorney-in-fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed $25,000,000.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th of November, 2016.

RESOLVED: That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto; and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And, be it

FURTHER RESOLVED: That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY ITS AUTHORIZED OFFICER THIS 27TH DAY OF OCTOBER, 2017.

(Seal)

Robert D. O'Leary Jr., President & CEO
Philadelphia Indemnity Insurance Company

On this 27th day of October, 2017, before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the herein described and authorized officer of the PHILADELPHIA INDEMNITY INSURANCE COMPANY; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.

(Notary Seal)

Notary Public: Morgan Knepp
residing at: Bala Cynwyd, PA
My commission expires: September 25, 2021

Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and this Power of Attorney issued pursuant thereto on this 27th day of October, 2017 are true and correct and are still in full force and effect. I do further certify that Robert D. O'Leary Jr., who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this _____ day of ___, 20__.
September 14, 2018

Superior Landscaping & Lawn Service, Inc.
2200 NW 23 Avenue
Miami, FL 33142

RE: Palm Beach County Board of County Commissioners, as Obligee
Annual roadway landscaping contract, Project No. 2018050, as Project
Bond No. PB12270900043

Dear Ladies and Gentlemen:

Please supply us with the following information for the above captioned final bond:

Executed Contract with Date: X ______________________________

This letter is also giving Superior Landscaping & Lawn Service, Inc., as Principal and/or
the Palm Beach County Board of County Commissioners, as Obligee, the authority to
complete these bonds by dating the bonds with the contract date, execution and Power of
Attorney dates. The contract date MAY BE THE SAME date as the execution of the
bond or PRIOR to the execution date of the bonds.

We will forward this information onto your surety company upon our receipt. Please return
as soon as possible.

Thank you for your cooperation.

Sincerely,

[Signature]

Brett Rosenhaus
Attorney-in-Fact
OSBA SCHEDULE 3
SBE-M/WBE ACTIVITY FORM

SBE-M/WBE ACTIVITY FOR MONTH ENDING: ____________________ PROJECT#: ____________________

PRIME CONTRACTOR NAME: ____________________
PROJECT SUPERVISOR: ____________________

Schedule 3 is used to show the monthly payment activity for work performed by each SBE-M/WBE Subcontractor on the project, and in conformity with the SBE-M/WBE's submitted on Schedule 1. It also shows approved change orders as they impact the SBE-M/WBE Subcontractors. Schedule 3 is to be submitted by the Prime with each payment request to Palm Beach County. To the SBE-M/WBE Subcontracting Information section, list the name(s) of each SBE-M/WBE Subcontractor on the project, and the total contracted amount for each SBE-M/WBE Subcontractor on the project. As the project proceeds, please complete each column under the SBE-M/WBE Subcontracting Information section accordingly. In the SBE-M/WBE Category, please check the appropriate category that represents each SBE-M/WBE Subcontractor.

<table>
<thead>
<tr>
<th>SBE-M/WBE SUBCONTRACTING INFORMATION</th>
<th>SBE-M/WBE Category (check all applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of SBE-M/WBE Subcontractor</td>
<td>Minority Business (✓) Minority Business (✓) Black Hispanic Woman Caucasian Other (Please Specify)</td>
</tr>
<tr>
<td>SBE-M/WBE Total Contract Amount</td>
<td>Amount Drawn for SBE-M/WBE Subcontractor</td>
</tr>
<tr>
<td>Change Orders</td>
<td>Amount Paid to Date for SBE-M/WBE Subcontractor</td>
</tr>
<tr>
<td>Revised SBE-M/WBE Contract Amount</td>
<td>Actual Shipment Date</td>
</tr>
<tr>
<td>Amount Drawn for SBE-M/WBE Subcontractor</td>
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<tr>
<td>Amount Drawn for SBE-M/WBE Subcontractor</td>
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</tr>
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<td>Amount Paid to Date for SBE-M/WBE Subcontractor</td>
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</tr>
<tr>
<td>Actual Shipment Date</td>
<td></td>
</tr>
</tbody>
</table>

I hereby certify that the above information is true to the best of my knowledge: ____________________

(Signature and Title)

Return to: Palm Beach County

Additional Sheets May Be Used As Necessary

NOTE: Firms may be certified as an SBE and/or an M/WBE. If firms are certified as both an SBE and M/WBE, the dollar amount will not be counted twice.

Revised 9/7/2011

PC-1
SCHEDULE 4 - SBE-M/WBE PAYMENT CERTIFICATION

The Prime Contractor is to submit Schedule 4 with its Monthly Payment Request to Palm Beach County to reflect actual payments made to the SBE-M/WBE Subcontractor unless it has made a payment to the SBE-M/WBE Subcontractor. The SBE-M/WBE Subcontractor is not to complete and sign this form unless it has received a payment from the Prime Contractor. A separate Schedule 4 is required for each SBE-M/WBE Subcontractor payment.

This is to certify that _______________________________ received (SBE or M/WBE Subcontractor Name)

(Monthly) or (Final) payment of $ ________________

On __________ (Month) __________ (Day) ________ (Year) (Prime Contractor Name)

For labor and/or materials used on ____________________________________________ (Project Name) ____________________________ (Work Order)

DEPT.: __________ PROJECT NO.: ______________

PRIME CONTRACTOR VENDOR CODE: __________

SBE OR M/WBE SUBCONTRACTOR VENDOR CODE: __________

If the SBE Subcontractor intends to disburse any funds associated with this payment to any non-SBE Subcontractor for labor provided on this project, please provide the following information:

Non-SBE Subcontractor Name: __________________________ Amount to be paid: __________________________

By: __________________________

(Signature of Subcontractor)

State of Florida

COUNTY OF __________________________

Sworn to and subscribed before me this ______ day of __________________________, 20 ______

By: __________________________

Notary Public, State of Florida

Print, Type or Stamp Commissioned Name of Notary

Personally Known ______ or Produced Identification ______ Type of Identification __________________________

Rev. 2 Last Updated: 12/6/2010

PC-2
### CERTIFICATE OF LIABILITY INSURANCE

**PRODUCER**

Brown & Brown of Florida Inc  
14900 NW 79th Court Suite 200  
Miami Lakes, FL 33016-5669  
Eric Woodling

**INSURED**

Superior Landscaping & Lawn Services Inc  
2200 NW 23rd Ave.  
Miami, FL 33142

**CONTACT**

Name: Broderick Ureel  
Phone: 305-714-4400  
Fax: 305-714-4401

**CERTIFICATE NUMBER:**

INSURER B: Bridgefield Casualty Ins Co

**COVERAGES**

<table>
<thead>
<tr>
<th>INSURER</th>
<th>TYPE OF INSURANCE</th>
<th>LIMITS</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>COMMERCIAL GENERAL LIABILITY</td>
<td>EACH OCCURRENCE: $1,000,000</td>
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<tr>
<td></td>
<td>CLAIMS-MADE</td>
<td>CAMEO TO RENTED PREMISES (Per occurrence): $300,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MED EXP (Any one person): $10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PERSONAL &amp; ADJ INJURY: $1,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GENERAL AGGREGATE: $2,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PRODUCTS-COMP/OP AGG: $2,000,000</td>
</tr>
<tr>
<td>A</td>
<td>UMBRELLA Liabilities</td>
<td>EACH OCCURRENCE: $1,000,000</td>
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<tr>
<td></td>
<td>EXCESS Liabilities</td>
<td>AGGREGATE: $1,000,000</td>
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**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES**

Landscaping & Lawn Services
Palm Beach County is an additional insured with respect to General Liability when required by written contract.

<table>
<thead>
<tr>
<th>Y/N</th>
<th>BINDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Binder</td>
</tr>
</tbody>
</table>

**CERTIFICATE HOLDER**

Palm Beach County  
c/o Insurance Tracking  
Landscaping & Lawn Services, Inc. (ITS)  
P.O. Box 20270  
Long Beach, FL 90801

**CANCELLATION**

Palm Beach County  
c/o Insurance Tracking  
Landscaping & Lawn Services, Inc. (ITS)  
P.O. Box 20270  
Long Beach, FL 90801

**AUTHORIZED REPRESENTATIVE**

Brown and Brown of Florida, Inc.
CERTIFICATE OF LIABILITY INSURANCE

SUPERL1
OP ID: C7

11/30/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERNS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER:
BROWN & BROWN OF FLORIDA INC
14900 NW 78th Court Suite#200
Miami Lakes, FL 33016-5889
Eric Woodling

CONTACT:
Broderick Ureel
PHONE: 305-714-4400
FAX: 305-714-4401

INSURED:
Superior Landscaping & Lawn Services Inc
2200 NW 23rd Ave.
Miami, FL 33142

CERTIFICATE NUMBER: DONOTR
REVISION NUMBER: 

COVERSAGES

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<tr>
<th>TYPE OF INSURANCE</th>
<th>ADDRESS</th>
<th>POLICY NUMBER</th>
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<th>POLICY EXP</th>
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<td>PREMISES (Ed occurrence) $300,000</td>
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<td>MED EXP (Any one person) $10,000</td>
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<td>PRODUCTS - COMProd AGG $2,000,000</td>
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<td>OTHER</td>
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<td>12/01/2018</td>
<td>12/01/2019</td>
<td>COMBINED SINGLE LIMIT $1,000,000</td>
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<td>HIRED AUTOS</td>
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<td>BODILY INJURY (Per person) $</td>
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<td>SCHEDULED AUTOS</td>
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<td>BODILY INJURY (Per accident) $</td>
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<td>NON-OWNED AUTOS</td>
<td></td>
<td></td>
<td></td>
<td>PROPERTY DAMAGE (Per accident) $</td>
</tr>
<tr>
<td>A X UMBRELLA LIAB</td>
<td>OCCUR</td>
<td>5238094155</td>
<td>12/01/2018</td>
<td>12/01/2019</td>
<td>EACH OCCURRENCE $1,000,000</td>
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<td>CLAIMS-MADE</td>
<td></td>
<td></td>
<td></td>
<td>AGGREGATE $1,000,000</td>
</tr>
</tbody>
</table>

BINDER
YIN: N/A
12/01/2018

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Landscaping & Lawn Services

CERTIFICATE HOLDER
Palm Beach County
C/o Insurance Tracking Services, Inc. (ITS)
P.O. Box 20270
Long Beach, FL 33460

PALMBEA

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Brown and Brown of Florida, Inc.
THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CONTRACTOR'S SCHEDULED AND BLANKET ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<table>
<thead>
<tr>
<th>Name of Additional Persons or Organizations</th>
<th>Designated Projects or Locations</th>
</tr>
</thead>
</table>

A. Section II – Who is An Insured is amended to include as an additional insured:

1. Any person or organization whom you are required by "written contract" to add as an additional insured on this policy; or

2. The particular person or organization, if any, scheduled above.

B. The insurance provided to the additional insured is limited as follows:

1. The person or organization is an additional insured only with respect to:

   a. Liability for "bodily injury", "property damage" or "personal and advertising injury" caused in whole or in part by your acts or omissions or the acts or omissions of those acting on your behalf in the performance of your ongoing operations for the additional insured as specified in the "written contract"; or

   b. "Bodily injury" or "property damage" included within the "products-completed operations hazard" and caused in whole or in part by your work specified in the "written contract", but only if:

      (1) The "written contract" requires you to provide the additional insured such coverage;

      (2) This policy provides such coverage; and

      (3) The loss occurs within the period of time required by the "written contract" and prior to the expiration date of the policy.

2. This policy will not provide the additional insured with any broader coverage or any higher limit of insurance than the lesser of:

   a. Coverage afforded under this policy; or
b. Coverage required by the "written contract".

3. Coverage provided by this endorsement to an additional insured shall be excess over any other valid and collectible insurance available to the additional insured, whether on a primary, excess, contingent or any other basis, unless the "written contract" requires that this insurance apply on a primary and non-contributory basis.

4. The insurance provided to the additional insured does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of:

a. An architect's, engineer's or surveyor's rendering of, or the failure to render any professional services, including:

   (1) The preparing, approving, or failure to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and

   (2) Supervision or inspection performed as part of any related architectural or engineering activities; or

b. Any premises or work for which the additional insured is specifically listed as an additional insured on another endorsement attached to this policy.

C. Section IV - Commercial General Liability Conditions is amended as follows:

1. The Duties In The Event Of Occurrence, Offense, Claim Or Suit condition is amended to add the following:

   An additional insured under this endorsement will as soon as practicable:

   (1) Give us prompt written notice of any "occurrence" or offense which may result in a claim or "suit" under this insurance, and of any actual claim or "suit";

   (2) Except as provided in Paragraph B.3. of this endorsement, agree to make available any other insurance the additional insured has for a loss we cover under this policy;

   (3) Immediately forward all legal papers to us, cooperate with us in the investigation, defense, or settlement of the claim or "suit", and otherwise comply with the policy conditions; and

   (4) Tender the defense and indemnity of any claim or "suit" to any other insurer whose policy may provide coverage for a loss covered under this endorsement including, but not limited to, any insurer that has issued a policy under which the additional insured qualifies as an insured; however, if the "written contract" requires this insurance to be primary and non-contributory, this provision does not apply to insurance on which the additional insured is a Named Insured.

We have no duty to defend or indemnify an additional insured under this endorsement until we receive written notice of a claim or "suit" from the additional insured.
D. Only for the purpose of the insurance provided by this endorsement, Section V - Definitions is amended to add the following definition:

"Written contract" means a written contract or written agreement that requires you to make a person or organization an additional insured under this policy, provided the contract or agreement:

a. is currently in effect or becomes effective during the term of this policy; and

b. was signed and executed prior to the "bodily injury" or "property damage" or "personal and advertising injury" for which coverage under this policy is sought by the additional insured.

All other terms and conditions remain unchanged.
RELEASE AND CONCURRENCE OF FINAL PAYMENT AMOUNT

PROJECT: ________________________________
PROJECT NO.: ____________________________

THIS IS TO CERTIFY THAT, ON BEHALF OF ________________________________,
I HAVE REVIEWED THE FINAL FIGURES PRESENTED BY THE COUNTY ON THIS CONTRACT, HAVE VERIFIED AND HEREBY CONCUR WITH THE ACCOUNTING AND AMOUNTS PRESENTLY STATED AS DUE, AND BY SIGNING HEREOF, AND UPON RECEIPT OF PAYMENT IN THE AMOUNT OF $ ____________________________
DO HEREBY RELEASE THE COUNTY FROM ANY FURTHER CLAIMS OF PAYMENT FOR WORK DONE, WHETHER OR NOT THE ABOVE-STATED AMOUNT MAY LATER BE DISCOVERED OR DETERMINED INCORRECT.

CONTRACTOR: ________________________________
BY: ________________________________
DATE: ________________________________

CONST-1
SMALL BUSINESS ENTERPRISE (SBE)
FINAL PARTICIPATION FORM

PROJECT: ____________________________

__________________________________

PROJECT NO.: _______________________

The Contractor's proposed Small Business Enterprise (SBE) goal for this project was ____________ %.

The Contractor achieved a Small Business Enterprise (SBE) participation of ____________ % at the end of this project.

CONTRACTOR: ____________________________

BY: ____________________________

DATE: ____________________________
The total amount of this request, per the attached documentation, is not to exceed $_________.

The Small Business Enterprise (SBE) goal for this contract is _____%. The estimated SBE participation for this request is _____%. The cumulative SBE participation to date for this Contract including this request is _____%.

Palm Beach County Engineering and Public Works Contact:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Telephone Number</th>
</tr>
</thead>
</table>

**CONTRACTOR/CONSULTANT/VENDOR APPROVALS**

Please indicate your receipt of this Work Order by signing and returning a duplicate copy.

Signature Date

Title

Please sign below and submit with invoice at the completion of the project. Project completed in compliance with Contract and Project Specifications.

Signature Date

Title

**PALM BEACH COUNTY APPROVALS**

BOARD APPROVAL? Date:________
FORM OF GUARANTEE

GUARANTEE FOR (Contractor and Surety Name) ____________________

We the undersigned hereby guarantee that the ____________________________
_____________ (Project), Project Number ___________ __, Palm Beach
County, Florida, which we have constructed and bonded, has been done in accordance with the plans and specifications;
that the work constructed will fulfill the requirements of the guaranties included in the Contract Documents. We agree
to repair or replace any or all of our work, together with any work of others which may be damaged in so doing, that
may prove to be defective in the workmanship or materials within the warranty period of one year from the date of Final
Completion of all the above named work by the County of Palm Beach, State of Florida, without any expense
whatsoever to said County of Palm Beach, ordinary wear and tear and unusual abuse or neglect excepted by the County.
When correction work is started, it shall be carried through to completion.

In the even of our failure to acknowledge notice, and commence corrections of defective work within five (5) calendar
days after being notified in writing by the Board of County Commissioners, Palm Beach County, Florida, we,
collectively or separately, do hereby authorize Palm Beach County to proceed to have said defects repaired and made
good at our expense and we will honor and pay the costs and charges therefore upon demand.

County and (contractor, engineer, architect as applicable) agree that the provisions of Florida Statute Chapter 558 shall
not apply to this contract.

Dated _________________
(notice of completion filing date)

SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY

(Contractor)

By: ________________________________  (Printed Name and Title)

(Signature)  (Seal)

(Surety)

By: ________________________________  (Printed Name and Title)

(Signature)  (Seal)

CONST-4
CONSENT OF SURETY FOR FINAL PAYMENT

BOND NUMBER: ____________________________________________________________

PROJECT NAME: __________________________________________________________

PROJECT LOCATION: _______________________________________________________

PROJECT NUMBER: ___________________________ CONTRACT NUMBER: __________

CONTRACT AMOUNT: $________________________ CONTRACT DATE: _______________

ENGINEER: ______________________________________________________________

In accordance with the provisions of the above named Contract between the County and the Contractor, the following named Surety:

_____________________________________________________

On the PUBLIC CONSTRUCTION BOND of the following named Contractor:

_____________________________________________________

Hereby approves of final payment by County to the Contractor, and further agrees that said final payment to the Contractor shall not relieve the Surety Company named herein of any of its obligations to the Palm Beach County, as set forth in said Surety Company’s bond:

_____________________________________________________

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this __________ day of ________, 20______

_____________________________________________________

(Attest) Witness Signature ________________________________ (Name of Surety Company)

_____________________________________________________

(Witness Printed Name) ________________________________ (Signature of Surety’s Authorized Representative)

_____________________________________________________

(Printed Name and Title)

(Seal)
FINAL WAIVER AND RELEASE OF CLAIM

KNOW ALL BY THESE PRESENTS, that the undersigned, to induce the final payment in the sum of $__________, and other valuable considerations and benefits to the undersigned accruing does upon receipt of payment waive, release and quit claim all claims or demands of every kind whatsoever against the project, commonly known as "Project", and Palm Beach County, Florida, on account of work and labor performed, and/or materials furnished in connection with the above described Project, or any part thereof.

It being understood that this is a Final Waiver and Release of Claim, and the undersigned warrants that no assignment of said claim, nor the right to perfect a claim against any real estate by virtue of the accrual of said payment, has or will be made, and the undersigned has the right to execute this Final Waiver and Release, and that all laborers employed by the undersigned in connection with the Project, to the extent of the payment herein referred to, have been fully-paid and all materials, supplies and personally are free and clear of conditional bill of sale and/or retain title contracts.

IN WITNESS WHEREOF, I have hereunto set my and seal and I hereby acknowledge that the foregoing statements are true and correct this _____ day of ____________, 20 ___.

WITNESS:

________________________
Signature

________________________
Print Name

CONTRACTOR

________________________
Company Name

________________________
BY ______________________
Signature

________________________
Print Name

________________________
Title

The foregoing instrument was acknowledged before me this _____ day of ____________, 20 ___ by ____________________ who is (circle one) personally known to me or who has produced ________________ as identification and who did (did not) take an oath.

________________________
NOTARY PUBLIC IN AND FOR THE COUNTY OF

__________, STATE OF

CONST-6
Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxes to barbecue restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto www.myfloridahomeowner.com. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!
STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD
THE PLUMBING CONTRACTOR LICENSE IS ISSUED UNDER THE
PROVISIONS OF THE FLORIDA STATUTES

LESLIE BERNARD

LICENSE NUMBER: CN 10523582
EXPIRATION DATE: AUGUST 31, 2020
Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.