BID DOCUMENTS AND TECHNICAL SPECIFICATIONS

FOR

MULTIUSE TRAIL EAST GAYLE'S TRAILS

CITY OF PANAMA CITY BEACH, FLORIDA



100% SUBMITTAL

Mark Sheldon, Mayor
Paul Casto, Vice Mayor
Michael Jarman, Councilman
Mary Coburn, Councilwoman
Phil Chester, Councilman
Drew Whitman, City Manager
Kelly Jenkins, P.E., City Engineer, Public Works Director
Kathy Younce, E.I., City Engineering, Project Manager



3005 Lynn Haven Parkway Lynn Haven, FL 32444

PANHANDLE ENGINEERING, INC. PE FILE NO. 12046

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SECTION 00010

ADVERTISEMENT FOR BIDS

PCB22-82 ITB MULTIUSE TRAIL EAST – GAYLE'S TRAILS

The City of Panama City Beach is requesting sealed Bids for the construction of a new 12' asphalt multiuse trail from east of the Colony Club Subdivision to the Breakfast Point Subdivision. The trail includes asphalt, lime-rock base, sod, drainage, concrete retaining wall, minor concrete work, wood boardwalk, and signage. The Contractor shall provide all materials, equipment, and labor to complete the project. All Bidders shall be Florida Department of Transportation prequalified and must provide proof of prequalification prior to Notice of Award. The bid must conform to Section 287.133(3) Florida Statutes, with respect to Public Entity Crimes.

A mandatory Pre-Bid meeting will be held **January 27, 2023 at 1:00 PM CDT**, in the Panama City beach Council Chambers, 17007 Panama City Beach Parkway, Panama City Beach, Florida 32413. Virtual participation will not be offered.

BIDS will be received by City of Panama City Beach (herein called the "OWNER"), at City of Panama City Beach, City Hall 17007 Panama City Beach Parkway, Panama City Beach, FL. 32413 until 11:00 AM CDT, February 10, 2023 then opened and read publicly promptly thereafter.

- Electronic Bids will only be accepted when submitted through the DemandStar's Bid portal. Emailed submissions will not be accepted.
- Alternatively, one original and one copy along with an electronic copy (USB flash drive preferred) may be delivered to the City Hall Office at the address below. Any sealed Bid submitted on paper must identify and clearly mark the Bid # PCB23-82 ITB MULTIUSE TRAIL EAST GAYLE'S TRAILS on the package. Receipt of a Bid by any Panama City Beach Office, receptionist, or personnel other than the City Hall's front desk does not constitute "receipt" as required by this solicitation. The time received at City Hall shall be conclusive as to the timeliness of receipt.

All paper Bids shall be sealed and delivered or mailed to:

City of Panama City Beach City Hall ATTN: Purchasing Manager 17007 Panama City Beach Parkway Panama City Beach, FL 32413

A Bid Bond in the amount of 5% of the total amount of the Bid shall accompany the Bid. The City of Panama City Beach ("City") reserves the right to reject any and all Bids. All Bids shall be firm (including all labor and material prices) for a period of 30 days after opening.

All bidders shall be Florida Department of Transportation Pre-Qualified and must provide proof of pre-qualification prior to Notice of Award. Each bidder must comply with all applicable state and local laws concerning licensing, registration, and regulations of contractors doing business in Florida. All bidders shall be certified in the following FDOT work classes:

- 1. Asphalt
- 2. Concrete
- 3. Drainage
- 4. Grading
- 5. Grassing, Seeding, Sodding
- 6. Pavement Marking (Can be in subcontractor)
- 7. Roadway Signs (Can be a subcontractor)

Each bidder must comply with all applicable state and local laws concerning licensing, registration, and regulations of contractors doing business in Florida.

All work shall be in conformance with the latest edition of the FDOT Roads and Bridges Manual.

BIDDERS must submit all questions, if any, in writing at least seven (7) days prior to the BID date. If necessary, questions will be answered as ADDENDA and will be issued to the Contract Documents and posted on the City's website. It is the sole responsibility of the bidder to determine if any addenda have been issued. The due date for questions will be by the close of business on February 3, 2023.

Any and all questions regarding the Bidding documents shall be directed to City of Panama City Beach Purchasing Manager: **Carrie Jagers**, **via email at:** <u>Purchasing@pcbfl.gov.</u> Contact with any other City official or City employees for the purpose of inquiries regarding this bid or the meaning or interpretation of these specifications shall be grounds for disqualification.

The City shall award the Contract to the lowest responsive and responsible bidder; provided, however, the City reserves the right to award the Contract to a Bidder who is not the lowest responsive and responsible bidder if the City determines in its reasonable discretion that another Bid offers the City a better value based upon the reliability, quality of service, or product of such other Bidder.

Advertisement Dates: January 18th and January 25th, 2023

Notice to Publisher – Please forward the original "Proof of Publication" and the invoice to: City of Panama City Beach
116 South Arnold Road
Panama City Beach, Florida 32413

SECTION 00020

INFORMATION FOR BIDDERS

A mandatory Pre-Bid meeting will be held **January 27, 2023 at 1:00 PM CDT**, in the Panama City beach Council Chambers, 17007 Panama City Beach Parkway, Panama City Beach, Florida 32413. Virtual participation will not be offered.

Point of Contact for questions will be via email to the Purchasing Manager, City of Panama City Beach; 17007 Panama City Beach Parkway, Panama City Beach, Florida, 32413. The email address is purchasing@pcbfl.gov. Official questions must be submitted in writing no later than 4:00 PM CDT on February 3, 2023. Contact with any other City official or City employees for the purpose of inquiries regarding this bid or the meaning or interpretation of these specifications shall be grounds for disqualification.

BIDS will be received by City of Panama City Beach (herein called the "OWNER"), at City of Panama City Beach, City Hall 17007 Panama City Beach Parkway, Panama City Beach, FL. 32413 until 11:00 AM CDT, February 10, 2023 then opened and read publicly promptly thereafter.

Each BID must be submitted electronically through DemandStar, mailed or hand-delivered to City hall in a sealed envelope addressed to City of Panama City Beach, 17007 Panama City Beach Parkway, Panama City Beach, Florida 32413. Each sealed envelope containing a BID must be plainly marked on the outside as "SEALED BID **PCB23-28 ITB MULTIUSE TRAIL EAST – GAYLE'S TRAILS** and the envelope should bear on the outside the BIDDER'S name, address, and license number if applicable, and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER - City of Panama City Beach, at 17007 Panama City Beach Parkway, Panama City Beach, Florida 32413.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. **Two original BID forms are required**.

A complete BID response shall consist of:

- 1. An executed Bid Proposal Form Section 00030
- 2. The required Bid Bond Section 00040
- 3. Drug Free Workplace Section 00095
- 4. Trench Safety Act Section 00096
- 5. Public Entity Crimes Section 00097
- 6. Contractor E-Verify Affidavit Section 00098
- 7. Additional Required Forms Conflict of Interest Statement & Non-Collusion Affidavit
- 8. Certificates of Insurance Section 00099
- 9. Copies of all Addenda signed by Bidder evidencing receipt.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn by the BIDDER prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered, no exceptions. No BIDDER may withdraw a BID within 30 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within

the specified period the time may be extended by mutual agreement between the OWNER and the apparent successful BIDDER.

This is a Lump Sum Contract. BIDDERS must satisfy themselves of the accuracy of any estimated quantities in the BID Schedules or Contract Documents by examination of the site and a review of the drawings and specifications including any ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done. The CONTRACTOR shall visit the entire site before submitting a BID.

The OWNER shall provide to BIDDERS prior to BIDDING, information which is pertinent to, and delineates and describes, the land upon which the WORK is to be performed, including its ownership and rights-of-way acquired or to be acquired.

If necessary, ADDENDA will be issued to the Contract Documents. The BIDDERS must submit all questions, if any, in writing at least seven (7) days prior to the BID date.

The CONTRACT DOCUMENTS contain the provisions required for construction of the WORK. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the successful BIDDER or relieve the successful BIDDER from fulfilling all of their obligations under the contract.

No Bid shall be considered or accepted unless at the time the Bid is submitted to OWNER the same shall be accompanied by a cashier's check, a cash bond posted with the City Clerk, a certified check payable to Owner on some bank or trust company located in the State of Florida insured by the Federal Deposit Insurance Corporation, or Bid Bond, in an amount not less than 5% of **the bidder's maximum possible award (base bid plus all add alternates)** (collectively referred to herein as the "Bid Deposit"). The Bid Deposit shall be retained by Owner as liquidated damages if the successful Bidder fails to execute and deliver to Owner the unaltered Agreement or fails to deliver the required Performance and Payment Bonds or Certificates of Insurance, all within ten (10) calendar days after receipt of the Notice of Award. Bid Bonds shall be executed by a corporate surety licensed under the laws of the State of Florida to execute such bonds, with conditions that the surety will, upon demand, forthwith make payment to Owner upon said bond.

As soon as the BID prices have been compared, the OWNER will return the BID DEPOSITS (if requested) of all except the three lowest responsive and responsible (or best value as hereafter provided) BIDDERS. When the required Agreement has been executed by the successful BIDDER and delivered to OWNER, together with the required Certificate(s) of Insurance, Performance Bond and Payment Bond, the BID DEPOSITS of the successful BIDDER and two remaining unsuccessful BIDDERS will be returned (if requested).

A PERFORMANCE BOND and a PAYMENT BOND each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or PAYMENT BONDS and PERFORMANCE BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to obtain the required insurance, PAYMENT BOND and PERFORMANCE BOND, execute the AGREEMENT and deliver to

OWNER said executed AGREEMENT together with the required Certificate of Insurance and the PERFORMANCE BOND and PAYMENT BOND, within ten (10) calendar days after the date the NOTICE OF AWARD is delivered to the BIDDER; the required forms for such AGREEMENT being set forth in Section 00050, the required form for the PERFORMANCE BOND being set forth in Section 00060, the required form for the PAYMENT BOND being set forth in Section 00070 and the required form for the Certificate of Insurance being set forth in Section 00099. In case of failure of the successful BIDDER to execute and deliver to OWNER, within said ten (10) day period the required AGREEMENT, together with the required Certificates of Insurance, PERFORMANCE BOND and PAYMENT BOND, the OWNER may consider the BIDDER in default, in which case the entire amount of the BID DEPOSIT accompanying the BID shall be paid to the OWNER.

If the OWNER intends to accept the successful BIDDER'S BID and enter into the contract with them, the OWNER, within thirty (30) days)] (or such longer period of time the OWNER and successful BIDDER may mutually agree to in writing) of receipt of an acceptable PERFORMANCE BOND, PAYMENT BOND, Certificate(s) of Insurance, and AGREEMENT signed by the successful BIDDER to whom the AGREEMENT was awarded, shall sign the AGREEMENT and return to such party an executed duplicate of the AGREEMENT. BIDDER acknowledges and agrees that unless and until the OWNER executes the AGREEMENT and returns the executed copy to the BIDDER, no contract or agreement between the OWNER and BIDDER shall exist. Should the OWNER not execute the AGREEMENT within such period, the BIDDER shall provide OWNER an additional seven days written notice of BIDDER'S intent to withdraw its signed copy of the AGREEMENT. If OWNER fails to execute the AGREEMENT within such seven days, the AGREEMENT shall be deemed withdrawn and BIDDER shall be released from its BID as of the date of the written notice.

The OWNER or its agents may make such investigations as deemed necessary to determine the ability of each BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER and its agents all such information and data for this purpose as the OWNER, or its agents may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the AGREEMENT and to complete the WORK contemplated therein.

A conditional or qualified BID may be rejected by OWNER.

The OWNER shall award the Contract to the lowest responsive and responsible BIDDER as determined by OWNER; provided, however, OWNER reserves the right to award the Contract to a BIDDER who is not the lowest responsive and responsible BIDDER if OWNER determines in its reasonable discretion that another BID offers OWNER a better value based upon the reliability, quality of service, or product of such other BIDDER. In the event OWNER awards the Contract to a BIDDER other than the lowest responsive and responsible BIDDER, OWNER shall state the basis upon which the award is being made.

Each BIDDER may attach to its BID any information or documentation it believes is relevant to addressing the factors of reliability, quality of service and product, as such factors pertain to the WORK to be provided under the AGREEMENT to be awarded pursuant to this Information for Bidders. Any such information or documentation is to consist of no more than 20 pages, single sided, each page no larger than 8" x 11". OWNER reserves the right, either before or after BID opening, but prior to contract award, to request from any BIDDER such information or documentation addressing the factors of reliability, quality of service or product, as OWNER may determine is reasonably necessary to assist it in deciding which bid offers OWNER the better

value. Further, each BIDDER by submitting its BID is deemed to have authorized OWNER to conduct such investigations as OWNER may determine are reasonably necessary to assist it in deciding which BID offers OWNER the better value. OWNER in making any decision as to which BID offers OWNER the better value may rely upon any such information or documentation provided by a BIDDER, and by submitting any such information or documentation, upon request from OWNER, the BIDDER will be deemed to have certified and warranted to OWNER the accuracy and correctness of any such information and documentation. Further, in making any decision as to which BID offers OWNER the better value, OWNER also may rely upon its own investigations or its own records and knowledge concerning the BIDDER, including the BIDDER's personnel, work product and prior work history. All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the WORK shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the AGREEMENT, PLANS, SPECIFICATIONS, and other CONTRACT DOCUMENTS, prior to submitting their BID. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

Further, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of the equal opportunity clause set forth in the GENERAL CONDITIONS or any Supplemental Conditions.

The successful BIDDER of each contract shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

SECTION 00030 BID PROPOSAL FORM

This proposal of	_ (hereinafter called "BIDDER"),
organized and existing under the laws of the State of _	
(a corporation, a	a partnership or an individual),
whose Florida contractor's license number is	
CITY OF PANAMA CITY BEACH (hereinafter called "OWN	IER").
In compliance with the requirements of the Advertis	ement for Bids, BIDDER hereby
proposes to perform all WORK for the PCB22-82 ITB Multi	use Trail East – Gayle's Trails
in strict accordance with the CONTRACT DOCUMENTS,	within the time set forth therein,
and at the prices stated below.	
By submission of this BID, each BIDDER certifies,	and in the case of a joint BID,
each party thereto certifies as to its own organization, th	at this BID has been arrived at
independently, without consultation, communication, or agr	eement as to any matter relating
to this BID with any other BIDDER or with any competitor.	
BIDDER hereby agrees to commence WORK under	the CONTRACT DOCUMENTS
on or before a date specified in the NOTICE TO PROCEE	D and to substantially complete
the project within $\underline{60}$ consecutive calendar days thereafter,	and to fully complete the project
within 30 consecutive calendar days thereafter.	
BIDDER further agrees to pay as liquidated damage	es, the sum of \$ <u>1,584.00</u> for
each consecutive calendar day that expires after the Contr	act Time until Substantial
Completion of the WORK is achieved as provided in Section	on 15 of the General Conditions.
BIDDER acknowledges receipt of the following ADDENDU	M:
Addendum No.	
Addendum No	
Addendum NoAddendum NoAddendum No	

BID SCHEDULE A. GENERAL:

ITEM	DESCRIPTION	QUANTITY	UNIT	EXTENSION
1.	Mobilization	1	LS	\$
2.	Layout / As Built by FL Registered Surveyor	1	LS	\$
3.	Testing	1	LS	\$
4.	Bonds / Insurance	1	LS	\$
5.	Maintenance of Traffic	1	LS	\$
6.	Erosion Control / Silt Fence / Hay Bales	1	LS	\$
7.	NPDES Permit / Monitoring	1	LS	\$
		GENERAL SU	JBTOTAL	\$

B. CONSTRUCTION:

ITEM	DESCRIPTION	QUANTITY	UNIT	EXTENSION
1.	Demolition	1	LS	\$
2.	Clearing/Grubbing	1	LS	\$
3.	Boardwalk	1	LS	\$
4.	Import Fill	1	LS	\$
5.	Excavation / Earthwork/Compaction	1	LS	\$
6.	Detectable Warning Devices	1	LS	\$
7.	Sod	1	LS	\$
8.	Limerock Base	1	LS	\$
9.	Asphalt Paving of Trail	1	LS	\$
10.	Stormwater Pipe	1	LS	\$
11.	Stormwater Structures	1	LS	\$
12.	FDOT Guiderail	1	LS	\$
13.	Grassing/Seeding/Mulching	1	LS	\$
14.	Signage	1	LS	\$
15.	Striping (thermoplastic)	1	LS	\$
16.	Concrete Retaining Walls (FDOT Gravity	1	LS	\$
	Walls)			
17.	Landscaping (Trees and Grow in Irrigation)	1	LS	\$
18.	Detectable Warning Mats	1	LS	\$
19.	Fencing	1	LS	\$
20.	Other miscellaneous Items not included above	1	LS	\$
	CONSTR	UCTION SUB	TOTAL	\$

WORK described in the CONTRACT DOCUMENTS for the following Lump Sum Bid price (A + B): DEDUCTIVE ALTERNATE Price deduction to provide wood decking and railing in lieu of composite trex, wear deck or moisture shield. The lump sum price includes General items and Construction items above. BIDDER agrees to perform all the WORK described in the CONTRACT DOCUMENTS for the following lump sum: The BIDDER proposes and agrees, if this Proposal is accepted, to contract with the OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid: WORK Performed & Company Name	MULTIUSE TRAIL EAST - GAYLE'S TRAIL PROJECT - BIDDER agrees to perform all the
DEDUCTIVE ALTERNATE Price deduction to provide wood decking and railing in lieu of composite trex, wear deck or moisture shield. \$	WORK described in the CONTRACT DOCUMENTS for the following Lump Sum Bid price (A + B)
Price deduction to provide wood decking and railing in lieu of composite trex, wear deck or moisture shield. \$	\$ <u>.</u>
Price deduction to provide wood decking and railing in lieu of composite trex, wear deck or moisture shield. \$	
The lump sum price includes General items and Construction items above. BIDDER agrees to perform all the WORK described in the CONTRACT DOCUMENTS for the following lump sum: The BIDDER proposes and agrees, if this Proposal is accepted, to contract with the OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid:	DEDUCTIVE ALTERNATE
The lump sum price includes General items and Construction items above. BIDDER agrees to perform all the WORK described in the CONTRACT DOCUMENTS for the following lump sum: The BIDDER proposes and agrees, if this Proposal is accepted, to contract with the OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid:	Price deduction to provide wood decking and railing in lieu of composite trex, wear deck or
BIDDER agrees to perform all the WORK described in the CONTRACT DOCUMENTS for the following lump sum: The BIDDER proposes and agrees, if this Proposal is accepted, to contract with the OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid:	moisture shield. \$
The BIDDER proposes and agrees, if this Proposal is accepted, to contract with the OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid:	The lump sum price includes General items and Construction items above.
The BIDDER proposes and agrees, if this Proposal is accepted, to contract with the OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid:	BIDDER agrees to perform all the WORK described in the CONTRACT
OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted, described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in these CONTRACT DOCUMENTS must be included in the Total Lump Sum Bid above. Below, specify the names of the subcontractors, if any, to be used as part of your Bid:	DOCUMENTS for the following lump sum:
	OWNER in the required form of the Agreement, Section 00050, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the WORK in full and in accordance with the shown, noted described and reasonably intended requirements of the CONTRACT DOCUMENTS. If a bid item is not shown above, it shall be the contractor's responsibility to ensure the cost is covered in the Lump Sum Bid Price. By submitting this Bid, the CONTRACTOR understands that all items specified in
WORK Performed & Company Name	Below, specify the names of the subcontractors, if any, to be used as part of your Bid:
	WORK Performed & Company Name
1	
2	
3	ა

NOTE:

BIDS shall include sales tax and all other applicable taxes and fees. The OWNER
may elect to utilize the Sales Tax Exemption (Section 00098) for material at its sole

discretion.

- 2. BIDS shall be on the basis of a lump sum price, as noted above, and shall be the total compensation to be paid by OWNER for the complete WORK.
- 3. Bid unit prices and quantities, shall be applicable for any revisions to the WORK (either additions or omissions). In addition, these unit prices and quantities shall be reflected in the Schedule of Values as specified in the General Conditions. All unit prices are understood to include all associated charges for layout, insurance, taxes, field office and supervision, overhead and profit, bonds, and miscellaneous items.
- 4. The OWNER reserves the right to reject any and all bids received.
- 5. Failure to insert a bid amount for any item in the Bid Schedule will be considered grounds for the OWNER to determine the BID is non-responsive.
- 6. By submitting this BID, the BIDDER, and the BID BOND surety, are deemed to have stipulated and agreed that any and all claims, demands, actions or suits whatsoever, arising under this BID and/or BID BONDS, shall be subjected to the sole and exclusive jurisdiction and venue of the Circuit Court of Bay County, Florida. The BIDDER and BID BOND surety do agree, by submittal of this BID, that the sole and exclusive jurisdiction and venue in said forum is proper and appropriate since performance of the underlying contract to be awarded is to be accomplished within Bay County, Florida.

BIDDER'S CERTIFICATION

BIDDER certifies that it has thoroughly familiarized itself with and inspected the site and has read and is thoroughly familiar with the CONTRACT DOCUMENTS. Additional site investigation, if deemed necessary by the BIDDER, shall be performed prior to BID submittal at the BIDDER's sole expense. Bidder certifies that the BID submitted is complete and is sufficient for the Bidder to provide a fully operational and working system in accordance with the CONTRACT DOCUMENTS. Furthermore, BIDDER certifies its understanding that neither the OWNER, PROJECT REPRESENTATIVE, nor

ENGINEER shall provide any labor, equipment, or materials of any kind, which may be required for the performance of the WORK, unless otherwise specifically directed by OWNER. Likewise, BIDDER certifies that it shall provide all equipment, materials, labor, and services necessary to complete the WORK in accordance with the CONTRACT DOCUMENTS whether or not such equipment, material, labor, or service is expressly identified. Such occurrences are deemed subsidiary obligations of the contract for which complete compensation is made under the Lump Sum. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

As required, the following documents are submitted with this Bid Proposal:

- 1. Bid Bond Section 00040
- Executed Statement Under Section 287.087, Florida Statutes, On Preference To Businesses With Drug-Free Workplace Programs – Section 0095
- 3. Executed Public Entity Crimes Statement Section 00097
- 4. Trench Safety Act Section 00096
- 5. Contractor E-Verify Affidavit Section 00098
- Certificates of Insurance Section 00099
- 7. All Required Forms under the Forms Section E-Verify, Conflict of Interest, Non-Collusion
- 8. All acknowledged Addenda

CONTRACTOR:	
Address	
Phone Number	
Date	

[END OF SECTION 00030]

SECTION 00040

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned,
, as Principal, and, as
Surety, are hereby held and firmly bound unto the City of Panama City Beach, as OWNER
in the penal sum of
for the payment of which, will and truly be made, we hereby jointly and severally bind
ourselves, successors and assigns. Signed this day of, 2023. The
Condition of the above obligation is such that whereas the principal has submitted to the
OWNER a certain BID, attached hereto and hereby made a part hereof to enter into a
contract in writing, for the construction of PCB23-28 ITB Multiuse Trail East – Gayle's
<u>Trails.</u>
NOW THEREFORE.

- (a) If said BID shall be rejected, or
 - (b) If said BID shall be accepted and the Principal shall execute and deliver the Agreement in the form of contract as set forth in Section 00050 (properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform its obligations created by OWNER's acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.
 - (c) NOW, THEREFORE, if the OWNER shall accept the BID of the Principal and the Principal shall execute and deliver to OWNER the required Agreement and within ten days after the date of a written Notice of Award in accordance with the terms of such BID, and within said ten days deliver to OWNER the required Certificates(s) of Insurance, together with the required Performance and Payment Bonds in an amount of 100% the total Contract Amount as specified in the Bidding Documents or Contract Documents with good and sufficient

surety for the faithful performance of the Agreement and for the prompt payment of labor, materials and supplies furnished in the prosecution thereof or, in the event of the failure of the Principal to execute and deliver to OWNER such Agreement or to give such bond or bonds, and deliver to OWNER the required certificates of insurance, if the Principal shall pay to OWNER the fixed penal sum of \$\square\$ noted above as liquidated damages, and not as a penalty, as provided in the Instructions for Bidders, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety, for value received, hereby stipulates, and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may have to accept said BID; and Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal		
Surety		
Bv:		

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Florida.

[END OF SECTION 00040

SECTION 00050

AGREEMENT

	THIS AGREEMENT	is made this	day of	, 2	.023, by	and
betwee	n <u>THE CITY OF PANAMA</u>	CITY BEACH, FLO	<u>DRDIA</u> , (herein calle	ed "OWNER	") and	
		, doing business	as		(an	
individu	al), or (a partnership), or (a	a corporation), hav	ing a business addı	ress of		
		,	hereinafter called	"CONTRAC	TOR" for	the
perform	ance of the Work (as that	terms is defined l	below) in connectio	n with the c	onstruction	on of
"Multiu	se Trail East – Gayle's Tr	ails", to be located	at Panama City Be	ach, Florida	in accord	ance
with the	Drawings and Specification	ons prepared by C	ITY OF PANAMA C	ITY BEACH	, the Engi	neer
of Reco	rd (hereinafter called "Eng	ineer") and all othe	er Contract Docume	nts hereafte	r specifie	d.
(OWNER and CONTRACT	OR, for the cons	ideration herein se	t forth, agre	ee as follo	ows:

- 1. The CONTRACTOR shall furnish, at its sole expense, all supervision, labor, equipment, tools, material, and supplies to properly and efficiently perform all of the work required under the Contract Documents and shall be solely responsible for the payment of all taxes, permits and license fees, labor fringe benefits, insurance and bond premiums, and all other expenses and costs required to complete such work in accordance with this Agreement (collectively the "Work"). CONTRACTOR'S employees and personnel shall be qualified and experienced to perform the portions of the Work to which they have been assigned. In performing the Work hereunder, CONTRACTOR shall be an independent contractor, maintaining control over and having sole responsibility for CONTRACTOR'S employees and other personnel. Neither CONTRACTOR, nor any of CONTRACTOR'S sub Contractors or subsubcontractors, if any, nor any of their respective employees or personnel, shall be deemed servants, employees, or agents of OWNER.
- 2. The CONTRACTOR will commence the Work required by the Contract Documents within ten (10) calendar days after the date of the NOTICE TO PROCEED to be issued by OWNER in writing within sixty (60) calendar days from the date of this Agreement and will achieve Substantial Completion of the Work within thirty (30)consecutive calendar days of the required commencement date, except to the extent the period for

Substantial Completion is extended pursuant to the terms of the Contract Documents ("Contract Time"). Final Completion of the Work shall be achieved by CONTRACTOR within the time period set forth in Section 15.2 of Section

- 3. The CONTRACTOR agrees to pay the OWNER, as liquidated damages, the sum of \$1,584.00/day for each calendar day that expires after the Contract Time for Substantial Completion as more fully set forth in Section 15 of the General Conditions.
- 4. The CONTRACTOR agrees to perform all of the Work described in the Contract Documents and comply with the terms therein for **Multiuse Trail East Gayle's Trails** the sum of \$\square\$ as shown in the BID SCHEDULE, included within the Bid Proposal Form, as said amount may be hereafter adjusted pursuant to the terms of the Contract Documents ("Contract Price").
- 5. The term "Contract Documents" means and includes the following documents, all of which are incorporated into this Agreement by this reference:

Section 00010 ADVERTISEMENT FOR BIDS

Section 00020 INFORMATION FOR BIDDERS

Section 00030 BID PROPOSAL FORM

Section 00040 BID BOND

Section 00050 AGREEMENT

Section 00060 PERFORMANCE BOND

Section 00070 PAYMENT BOND

Section 00080 NOTICE OF AWARD

Section 00090 NOTICE TO PROCEED

Section 00095 STATEMENT UNDER SECTION 287-087, FLORIDA STATUES ON PREFERENCE TO BUSINESSES WITH DRUG-FREE WORKPLACE PROGRAMS

Section 00096 TRENCH SAFETY ACT CERTIFICATE OF COMPLIANCE

Section 00097 PUBLIC ENTITY CRIMES STATEMENT

Section 00097 PUBLIC ENTITY CRIMES STATEMENT

Section 00097 PUBLIC ENTITY CRIMES STATEMENT

Section 00098 CONTRACTOR E-VERIFY AFFIDAVIT

Section 00100 GENERAL CONDITIONS

Section 00800 SUPPLEMENTAL CONDITIONS

Section 00802 PREVENTION, CONTROL AND ABATEMENT

Section 00808 SALES TAX EXEMPTION

Section 01110 ENVIRONMENTAL PROTECTION

Section 01505 MOBILIZATION/DEMOBILIZATION

Section 01705 CONTRACT CLOSEOUT

Section 02110 SITE CLEARING

Section 02200 EARTHWORK

Section 02210 GRASSING

Section 02211 SODDING

Section 02222 TRENCHING, BACKFILLING AND COMPACTING

Section 02960 RESTORATION

Section 03310 CONCRETE WORK

Section 02500 PAVING QUALITY CONTROL SYSTEM

Section 02505 PAVING CONSTRUCTION DETAILS AND MATERIALS

Section 02510 GENERAL CONSTRUCTION REQUIREMENTS FOR

ASPHALT PAVEMENT

Section 02512 STABILIZING

Section 02516 LIMEROCK BASE COURSE

Section 02518 PAINTING TRAFFIC STRIPES

Section 02520 ASPHALT TESTING

Section 02530 PAVEMENT MARKINGS AND ROAD SIGNS

REQUIRED FORMS – E-Verify, Conflict of Interest, Non-Collusion Affidavit

APPENDICES A. CHANGE ORDER FORM

- **B. PAY REQUEST FORM**
- C. CERTIFICATE OF SUBSTANTIAL COMPLETION
- D. PROJECT SIGN
- E. GEOTECHNCIAL REPORT

DRAWINGS prepared by <u>Panhandle Engineering</u>, <u>Inc</u>.

Attachments:

2022 SPECIFICATIONS prepared by Panhandle Engineering, Inc.

CONSTRUCTION PLANS prepared or issued by Panhandle Engineering, Inc., dated October 2022.

ADDENDA:

No	, dated	, 2023
No	, dated	, 2023
No	, dated	, 2023
No.	. dated	. 2023

The Contract Documents also includes any written amendments to any of the above signed by the party to be bound by such amendment. The Contract Documents are sometimes referred to herein as the "Agreement."

6. The OWNER will pay the Contract Price to the CONTRACTOR in the manner

and at such times as set forth in Contract Documents.

- 7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.
- 8. This Agreement shall be governed by the laws of the State of Florida.
- 9. All notices required or made pursuant to this Agreement shall be in writing and, unless otherwise required by the express terms of this Agreement, may be given either (i) by mailing same by United States mail with proper postage affixed thereto, certified, return receipt requested, or (ii) by sending same by Federal Express, Express Mail, Airborne, Emery, Purolator or other expedited mail or package delivery, or (iii) by hand delivery to the appropriate address as herein provided. Notices to OWNER required hereunder shall be directed to the following address:

If to Owner:

	City of Panama City Beach
	17007 Panama City Beach Parkway
	Panama City Beach, FL 32413
ATTENTION:	Drew Whitman, City Manager
Fax No.:	(850) 233-5108
If to Contractor:	
-	
ATTENTION: Fax	
No.:	

Either party may change its above noted address by giving written notice to the other party in accordance with the requirements of this Section.

10. CONTRACTOR recognizes that OWNER is exempt from sales tax and may wish to generate sales tax savings for the Project. Accordingly, to the extent directed by and without additional charge to OWNER, CONTRACTOR shall comply with and

fully implement the sales tax savings program as more fully described in the Sales Tax Exemption Addendum. If required by OWNER, the Sales Tax Exemption Addendum shall be made a part of the Contract Documents.

- 11. The failure of OWNER to enforce at any time or for any period of time any one or more of the provisions of the Agreement shall not be construed to be and shall not be a continuing waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.
- 12. Each of the parties hereto agrees and represents that the Agreement comprises the full and entire agreement between the parties affecting the Work contemplated, and no other agreement or understanding of any nature concerning the same has been entered into or will be recognized, and that all negotiations, acts, work performed, or payments made prior to the execution hereof shall be deemed merged in, integrated and superseded by this Agreement.
- 13. Should any provision of the Agreement be determined by a court with jurisdiction to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.
- 14. Unless the context of this Agreement otherwise clearly requires, references to the plural include the singular, references to the singular include the plural. The term "including" is not limiting, and the terms "hereof", "herein," "hereunder," and similar terms in this Agreement refer to this Agreement as a whole and not to any particular provision of this Agreement, unless stated otherwise. Additionally, the parties hereto acknowledge that they have carefully reviewed this Agreement and have been advised by counsel of their choosing with respect thereto, and that they understand its contents and agree that this Agreement shall not be construed more strongly against any party hereto, regardless of who is responsible for its preparation.

- 15. For this Project, OWNER has designated a Project Representative to assist OWNER with respect to the administration of this Agreement. The Project Representative to be utilized by OWNER for this Project shall be Kathy Younce, Assistant Public Works Director.
- 16. CONTRACTOR acknowledges and agrees that no interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatever, including those for which the OWNER, PROJECT REPRESENTATIVE, or ENGINEER may be responsible, in whole or in part, shall relieve CONTRACTOR of its duty to perform or give rise to any right to damages or additional compensation from OWNER. CONTRACTOR expressly acknowledges and agrees that it shall receive no damages for delay. CONTRACTOR's sole remedy, if any, against OWNER will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damage For Delay" provision. This section shall expressly apply to claims for early completion, as well as to claims based on late completion. Notwithstanding the foregoing, if the Work is delayed due to the fault or neglect of OWNER or anyone for whom OWNER is liable, and such delays have a cumulative total of more than 90 calendar days, CONTRACTOR may make a claim for its actual and direct delay damages accruing after said 90 calendar days. Except as expressly set forth in this section, in no event shall OWNER be liable to CONTRACTOR whether in contract, warranty, tort (including negligence or strict liability) or otherwise for any acceleration, soft costs, lost profits, special, indirect, incidental, or consequential damages of any kind or nature whatsoever.

17. INSURANCE - BASIC COVERAGES REQUIRED

The CONTRACTOR shall at its expense maintain in force during the Term the insurance on policies and insurers acceptable to the City as required by the City's Insurance Requirements attached hereto as Exhibit "A."

Within thirty days of the date of the Award, and thereafter upon the written request of the City, Bidder shall furnish to the City such certificates of coverage and certified copies of policies pursuant to the City's Insurance Requirements In order to satisfy this provision, the documentation required by this part must be sent to the following address: Attn: Lori Philput, Risk Manager, 17007 Panama City Beach Parkway, Panama City Beach, FL 32413.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement in two (2) copies each of which shall be deemed an original on the date first written above.

(SEAL)	OWNER:
	CITY OF PANAMA CITY BEACH, FLORIDA
ATTEST:	BY:
City Clerk	NAME: <u>Drew Whitman</u> (Please type)
	TITLE: City Manager
City Attorney (as to form only)	CONTRACTOR
	CONTRACTOR:
ATTEST:	BY:
	NAME:
NAME(Please Type)	(Please Type) ADDRESS:

[END OF SECTION 00050]

SECTION 00060

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that	
(Name of Contractor)	
(Address of Contractor)	
a	_, hereinafter called Principal and
(Corporation, Partnership, or Individual)	_
(Name of Surety)	
(Address of Surety)	
hereinafter called Surety, are held and firmly bound unto:	
City of Panama City Beach	
(Name of Owner)	
17007 Panama City Beach Parkway, Panama C	ity Beach, FL 32413
(Address of Owner)	
hereinafter called OWNER in the total aggregate penal supplies (\$) in lawful money of the United	d States, for payment of which,
we bind ourselves, our heirs, personal representatives, essuccessors, and assigns, jointly and severally, firmly by the	· · · · · · · · · · · · · · · · · · ·
THE CONDITION OF THIS OBLIGATION is such that if t all the undertakings, covenants, terms, and conditions o the Principal and the OWNER, dated the day copy of which is hereto attached and made a part hereof	f that certain Contract between of, 2023, a
MULTIUSE TRAIL EAST – GAYLE	'S TRAILS
(Project Name)	

during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the guaranty period and if the

PERFORMANCE BOND 00060-1

PRINCIPAL shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the Contract Price more than twenty percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND, or the CONTRACT DOCUMENTS, shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the PRINCIPAL shall abridge the rights of OWNER hereunder. The OWNER is the only beneficiary hereunder.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]

IN WITNESS WHEREOF, this instrument is each one of which shall be deemed an origin	executed in _ al. this the	three (3)	counterparts,
20		,	·'
			Principal
(Principal) Secretary			
(SEAL)	BY		
			(Address)
Witness as to Principal			
(Address)			
			(Surety)
ATTEST:			
	BY		
Witness to Surety			Attorney-In-Fact
(Address)			(Address)

NOTE: Date of BOND must not be prior to date of Contract.

Contractor's Surety shall use this form along with their personal documentation.

If CONTRACTOR is partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

[END OF SECTION 00060]

PERFORMANCE BOND 00060-3

SECTION 00070

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that	
(Name of Contractor)	
(Address of Contractor)	
a, he (Corporation, Partnership, or Individual)	reinafter called Principal and
(Name of Surety)	
(Address of Surety)	
hereinafter called Surety, are held, and firmly bound unto:	
City of Panama City Beach	
(Name of Owner)	
17007 Panama City Beach Parkway, Panama City Bea	ach, Florida 32413
(Address of Owner)	
hereinafter called OWNER, and unto all persons, firms and comay furnish labor, or who furnish materials to perform as descand to their successors and assigns in the total aggregate pendangler bendangler bendan	ribed under the Contract hal sum of y of the United States, for representatives,
THE CONDITION OF THIS OBLIGATION is such that if the Playment to all claimants, as defined in Section 255.05(1), Flor	
MULTIUSE TRAIL EAST – GAYLE'S TR	RAILS

PAYMENT BOND 00070-1

(Project Name)
Principal with labor, materials or supplies, used directly or indirectly by the Principal in the prosecution of the WORK provided for under that certain contract between the Principal

and the OWNER, dated the	day of	, 2023, a copy of w	/hich is
hereto attached and made a	part hereof for the constru	uction of:	

and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, fuel, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and for all labor cost incurred in such WORK including that by a SUBCONTRACTOR or SUPPLIER of any tier, and to any construction lien holder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to WORK to be performed thereunder or SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, every suit instituted upon the BOND shall be brought in a court of competent jurisdiction for the county or circuit in which the Contract was to be performed. Owner shall not be joined as a party in any such suit. The notice and time limits of Section 255.05, Florida Statutes, are incorporated herein.

PROVIDED, FURTHER, that it is expressly agreed that this BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the Contract Price more than twenty percent so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the Contract as so amended. The term "Amendment", wherever used in this BOND and whether referring to this BOND, or the CONTRACT DOCUMENTS shall include any change, alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the rights of the OWNER hereunder.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]

WITNESS WHEREOF, this instrument is e one of which shall be deemed an origina 20	executed in _ al, this the _	three (3) day of	counterparts, each
			Principal
(Principal) Secretary			
(SEAL)	BY		
			(Address)
Witness as to Principal			
(Address)			
ATTEOT			(Surety)
ATTEST:	BY		
Witness as to Surety			Attorney-In-Fact
(Address)			(Address)

NOTE: Date of BOND must not be prior to date of Contract.

If CONTRACTOR is partnership, all partners should execute BOND. Contractor's Surety shall use this form along with their personal documentation.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

[END OF SECTION 00070]

SECTION 00080

NOTICE OF AWARD

	NOTICE	OI AWARD
TO:		
PROJECT DESCRIPTI	ON:	
PCB23-28		CITY BEACH RAIL EAST – GAYLE'S TRAILS
	t in response to its A	s considered the BID submitted by you for the Advertisement for Bids dated, rs.
accepted by the City. P of the Agreement execu shall in any manner or w	rovided, however, nouted by you (with the vay be deemed to cre	the amount of \$has been othing in this Notice or your delivery to the Cite required Bonds and Certificates of Insurance eate any contract between you and the City. Notil the City signs the Agreement.
	ormance Bond, Payn	execute the Agreement and furnish the require ment Bond, and Certificates of Insurance with Notice.
and Bonds, within ten (1 consider all your rights a	0) calendar days fro arising out of City's a eposit. The City will	ther with the required Certificates of Insurance om the date of this Notice, City will be entitled acceptance of your BID as abandoned and as be entitled to all other rights and remedies a
	d Certificates of Insu	nis Notice of Award to the City, with the execute urance and Bonds, within the above noted to
Dated this	day of	<u>,2023</u> .
[REMIAIND	ER OF THIS PAGE	E INTENTIONALLY LEFT BLANK.]

NOTICE OF AWARD 00080-1

	CITY OF PANAMA CITY BEACH Owner
	Ву
	Name: <u>Drew Whitman</u>
	Title: <u>City Manager</u>
ACCEPTANCE OF NOTICE	
Receipt of the above Notice of Award is hereb	y acknowledged
Зу	_
This theday of, 2	20
Name	_
Fitle	_

[END OF SECTION 00080]

SECTION 00090

NOTICE TO PROCEED

TO:	
	
PROJECT DESCRIPTION:	
MULTIUSE TRAIL EAST	– GAYLE'S TRAILS
You are hereby notified to commence WORK	e, 2023, and you are
to substantially complete the WORK within 60 date of Substantial Completion is thereforeachieve Final Completion within 30 days of acknowledge and return a copy of this Notice days of your receipt of this Notice.	, 2023. You are to chieving Substantial Completion. You must
	CITY OF PANAMA CITY BEACH
Ву: _	
	Name: <u>Drew Whitman</u>
ACCEPTANCE OF NOTICE Receipt of the above Notice to Proceed is here	Title: <u>City Manager</u> eby acknowledged
By (Company Name)	
This the day of, 2023	
	(Signature)
	(Type or Print Name)
[END OF SECT	(Title)

NOTICE TO PROCEED 00090-1

SECTION 00095 STATEMENT UNDER SECTION 287.087 FLORIDA STATUTES, ON PREFERENCE TO BUSINESSES WITH DRUG-FREE WORKPLACE PROGRAMS

IDENTICAL TIE BIDS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more BIDS which are equal with respect to price, quality and service are received by the OWNER for this PROJECT, a bid received from a BIDDER that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. In order to have a drug-free workplace program, a business shall:

- 1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2. Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3. Give each employee engaged in providing the commodities or contractual services that are under BID a copy of the statement specified in paragraph (1).
- 4. In the statement specified in paragraph (1), notify the employees that, as a condition of working on the commodities or contractual services that are under BID, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace not later than five (5) days after such conviction.
- 5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program is such is available in the employee's community, by an employee who is so convicted.
- 6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this Section.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

BIDDER SIGNATURE

SECTION 00096 CERTIFICATE OF COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT

Bidder acknowledges sole responsibility for complying with the Florida Trench Safety Act (Act) under Section 653.60, Florida Statutes and Occupational Safety and Health Administration's excavation safety standard 29 CFR 1926.650 (Subpart P as amended). Bidder further acknowledges that included in the various items of the proposal and in the Total Lump Sum Bid are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The bidder further identifies the costs to be summarized below:

	Trench Safety Method (Description)	Units of Measure (LF, SY)	Unit (Quantity)	Extended Cost	Unit Extended Cost
A.				_	
В.					
C.				_	
D.				_	
				Total: \$_	
indi	ure to complete the above cated above are provide itional compensation to th	d to comply with the	e Act and shall arate line items	I not constitut of the Bid For	e grounds for any m.
			•		
			Bidder		
			Date		
			Authorized S	Signature	

SECTION 00097

SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS AND SUBMITTED WITH THE BID

1.	This sworn statement is submitted to	
	by	_
	For	
	Whose business address is	
		-
(if	d (if applicable) its Federal Employer Identification Number (FEIN) is the entity has no FEIN, include the Social Security Number of the individual signing this orn statement):	_

2. I understand that a "public entity crime" as defined in Section 287.133 (1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

I understand that "convicted" or "conviction" as defined in Section 287.133 (1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

- 3. I understand that "affiliate" as defined in Section 2871.33 (1)(a), Florida Statutes, means:
 - (a.) A predecessor or successor of a person convicted of a public entity crime, or
 - (b.) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

- 4. I understand that a "person" as defined in Section 287.133 (1)(e), Florida Statute, means any natural person or any entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
- 5. Based on information and belief, the statement which I have marked below is true in relation to the person submitting this sworn statement. [indicate which statement applies.]

Neither the person submitting this sworn statement, nor any affiliate of the person has been charged with and convicted of a public entity crime causing such person or affiliate to be placed on the convicted vendor list within the last thirty-six (36) months.

The person submitting this sworn statement, or an affiliate of the person has been charged with and convicted of a public entity crime causing such person or affiliate to be placed on the convicted vendor list within the last thirty-six (36) months.

The person submitting this sworn statement, or an affiliate of the person has been charged with and convicted of a public entity crime causing such person or affiliate to be placed on the convicted vendor list within the last thirty-six (36) months. However, it has been determined, pursuant to Section 287.133, Florida Statutes, that it was not in the public interest to place the person submitting this sworn statement or its affiliate on the convicted vender list. [Attach a copy of the final order].

6. I understand by my execution of this document, I acknowledge that the person submitting this sworn statement has been informed by the City of Panama City Beach, of the terms of Section 287.133(2)(a) of the Florida Statutes which read as follows:

"A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list."

7. I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING
OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR
THE PUBLIC ENTITY ONLY AND THAT THIS FORM IS VALID THROUGH DECEMBER 31

OF THE CALENDAR YEAR WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY IMMEDIATELY OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]

Ву:	
Prin	nt name:
Its:	
Sworn to and subscribed before me this	day of, 20
Personally known	OR Produced identification
Notary Public- State of	
	My commission expires
	[printed, typed, or stamped Commissioned

[END OF SECTION 00097]

SECTION 00100

GENERAL CONDITIONS

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1.0 DEFINITIONS

- 1.1 Unless otherwise expressly noted, wherever used in the Contract Documents the following terms shall have the meanings indicated and shall be applicable to both the singular and plural thereof:
- 1.2 ADDENDA Written or graphic instruments, issued by Owner or Engineer prior to the execution of the Agreement, which modify or interpret any of the Contract Documents by additions, deletions, clarifications, or corrections.
- 1.3 BID The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
- 1.4 BIDDER Any person, firm, or corporation submitting a Bid for the Work.
- 1.5 BONDS Bid, Performance, and Payment Bonds and other instruments or surety, furnished by the Contractor and the Contractor's surety in accordance with the Contract Documents.
- 1.6 CHANGE ORDER A written order to the Contractor issued in accordance with the procedures set forth in the Contract Documents, authorizing an addition, deletion, or revision in the Work within the general scope of the Contract Documents, or authorizing an adjustment in the Contract Price or Contract Time.
- 1.7 CONSTRUCTION CHANGE DIRECTIVE A Construction Change Directive is a written order prepared by the Engineer and signed by the Owner, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Price or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Agreement, order changes in the Work within the general scope of the Agreement consisting of additions, deletions or other revisions, the Contract Price and Contract Time being adjusted accordingly.
- 1.8 CONTRACT DOCUMENTS Collectively the Agreement, Proposal Form, Payment Bond, Performance Bond, General Conditions, Supplemental Conditions, if any, Notice of Award, Notice to Proceed, Drug Free Workplace Program Statement, Trench Safety Act Certificate of Compliance, Public Entity Crimes Statement, Certificate of Insurance, Release and Affidavit from Contractor, Release and Affidavit from Subcontractor, Application and Certificate for Payment, Certificate of Substantial Completion, Contract Change Order(s), Construction Change Directives, Field Orders, Drawings, Specifications and Addenda. The Contract Documents are sometimes referred to herein as the

PCB23-28 ITB MULTIUSE TRAIL EAST – GAYLE'S TRAILS Agreement.

- 1.9 CONTRACT PRICE The total compensation payable by Owner to Contractor under the terms and conditions of the Contract Documents.
- 1.10 CONTRACT TIME The total period of time beginning with the date of commencement of the Work as authorized by the City and ending on the required date for Substantial Completion of the Work. The Contract Time is set forth with more specificity in Section 2 of the Agreement.
- 1.11 CONTRACTOR The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" means the Contractor or the Contractor's authorized representative.
- 1.12 CITY or OWNER The City of Panama City Beach, Florida, acting through its City Council and Charter Officers.
- 1.13 DRAWINGS The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
- 1.14 ENGINEER The person, firm or corporation named as such in the Agreement.
- 1.15 FIELD ORDER A written order effecting a clarification or change in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by Engineer or Owner to Contractor during construction.
- 1.16 NOTICE OF AWARD The written notice of the acceptance of the Bid from the City to the successful Bidder.
- 1.17 NOTICE TO PROCEED Written communication issued by the City to the Contractor authorizing it to proceed with the Work and establishing the date for commencement of the Work.
- 1.18 OWNER Same as CITY; same as City of Panama City Beach, Florida.
- 1.19 PROJECT The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the City or by separate contractors and is formally known as the Panama City Beach "Street Resurfacing Project 2010."

- 1.20 PROJECT ADMINISTRATION MANUAL (sometimes referred to herein as the "MANUAL") The City's manual of forms and standard administrative procedures regarding project administration. Contractor acknowledges and agrees it has received a copy of the current Manual and shall incorporate any modifications or updates issued by the City into its copy of the Manual to ensure the Manual is kept up to date.
- 1.21 PROJECT REPRESENTATIVE -The Project Representative shall be the City's representative with respect to the Project and may be a City employee or an outside consultant. The Project Representative shall have authority to transmit instructions, receive information, and interpret and define the City's policies and decisions with respect to the Work. However, except as may be otherwise expressly authorized in writing by the City, the Project Representative is not authorized on behalf of the City to issue any verbal or written orders or instructions to Contractor that would have the effect, or be interpreted to have the effect, of amending or modifying the terms or conditions of the Contract Documents or modifying or amending in any way whatever the: (1) scope or quality of Work to be performed and provided by Contractor as set forth in the Contract Document; (2) the time within which Contractor is obligated to complete the Work; or (3) the amount of compensation the City is obligated or committed to pay Contractor as set forth in the Contract Documents.
- 1.22 SHOP DRAWINGS All drawings, diagrams, illustrations, brochures, schedules, and other data which are prepared by the Contractor, a Subcontractor, manufacturer, supplier, or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.
- 1.23 SPECIFICATIONS The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.
- 1.24 SUBCONTRACTOR An individual, firm, or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the site.
- 1.25 SUBSTANTIAL COMPLETION That date certified by the Engineer when the Work or an Owner specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Work or the Owner specified part thereof can be utilized by Owner for the purposes for which it is intended.
- 1.26 SUPPLEMENTAL CONDITIONS Modifications to the General Conditions

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- 1.27 SUPPLIER Any person or organization who supplies materials or equipment for the Work for or on behalf of Contractor, including those fabricated to a special design, but who does not perform labor at the site.
- 1.28 WORK The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.
- 2.0 ADDITIONAL INSTRUCTION AND DETAIL DRAWINGS
- 2.1 From time to time, Contractor may be furnished additional instructions and detail drawings by the Engineer as necessary to permit Contractor to carry out the Work required by the Contract Documents.
- 2.2 Any such additional drawings and instructions supplied to Contractor shall be issued as a Field Order. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.
- 3.0 SCHEDULES, REPORTS AND RECORDS
- 3.1 The Contractor shall submit to the City such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data where applicable as are required by the Contract Documents for the Work to be performed.
- 3.2 Contractor shall prepare and provide its construction progress schedule ("Construction Schedule") prior to submitting is first Application for Payment, showing the order in which the Contractor proposes to carry on the Work, including dates at which the various parts of the Work will be started, estimated date of completion of each part and, as applicable, the dates at which special drawings will be required and dates for submission of Shop Drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment. Further, the Construction Schedule shall not only include the overall progress schedule for the Work to be provided by Contractor hereunder, but also shall include reasonable time periods for Engineer's performance, as accepted by Engineer. The Construction Schedule and any other schedules required by the City hereunder shall be updated monthly. The Construction Schedule and all updates to it shall not exceed the time periods established in

the Contract Documents and shall be subject to the City's and Engineer's review and comment. Contractor's submittal of a satisfactory Construction Schedule and updates thereto and the City's acceptance of same shall be a condition precedent to the City's obligation to pay Contractor; provided, however, the acceptance of any such schedule or update by Owner shall not be deemed an admission by Owner that such schedule or update is reasonable, accurate or correct.

- 3.3 The Contractor shall also submit a schedule of payments, for Owner's review and approval that the Contractor anticipates will be earned during the course of the Work.
- 4.0 INTENT OF THE CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS
- 4.1 It is the intent of the Contract Documents to describe a functionally complete Project (or portion thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for in the Contract Documents. If the Contract Documents include words or terms that have a generally accepted technical or industry meaning, then such words or terms shall be interpreted to have such standard meaning unless otherwise expressly noted in the Contract Documents. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in affect at the time the Work is performed, except as may be otherwise specifically stated herein. Provided, however, in the event the standard specification, manual, code, law or regulation is changed after the Agreement has been executed by the parties, a Change Order shall be issued equitably adjusting the Contract Price and/or Contract Time to the extent such change materially impacts the Contract Time and/or Contract Price
- 4.2 Contractor shall perform the Work consistent with the intent of the Drawings, Specifications, and other Contract Documents, and Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental items necessary to complete the Work in an acceptable manner, ready for use, occupancy or operation by the City.

- 4.3 Drawings are intended to show general arrangements, design and extent of Work and are not intended to serve as shop drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts, or extent of any part of the Work. In the event of a discrepancy between or among the Drawings, Specifications or other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon Contractor, as determined by the City.
- 4.4 If during the performance of the Work Contractor discovers a conflict, error, or discrepancy in the Contract Documents, including the Drawings and Specifications, Contractor immediately shall report same to Engineer and Owner in writing, and before proceeding with the Work affected thereby, shall obtain a written interpretation or clarification from Engineer. Work done by the Contractor after discovery of such conflict, error, or discrepancy without such written interpretation or clarification from Engineer, shall be done at the Contractor's risk. Prior to commencing the Work, Contractor shall first take all necessary field measurements and verify the applicable field conditions. After taking such measurements and verifying such conditions, Contractor shall carefully compare such measurements and conditions with the requirements of the Contract Documents, taking into consideration all other relevant information known to Contractor, for the purpose of identifying and bringing to Engineer's and City's attention all conflicts or discrepancies with the Contract Documents. Contractor is solely responsible for verifying all field measurements and conditions.
- 4.5 Contractor shall comply with the City's standard forms and procedures as set forth in the City's Project Administration Manual relating to Project administration. To the extent there is no form or procedure for a particular matter, then Contractor shall comply with the form or procedure reasonably required by the City. Once a standard form has been executed by Contractor and Owner as necessary, the executed copy shall become part of the Contract Documents.

5.0 SHOP DRAWINGS

5.1 The Contractor shall provide shop drawings as may be necessary for the prosecution of the Work as required by the Contract Documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawing shall not release the Contractor from responsibility for deviations from the Contract Documents. Any shop drawing which deviates from the requirements of the Contract Documents must be first authorized by a Change Order.

- When submitted for the Engineer's review, shop drawings shall bear the Contractor's certification that it has reviewed, checked, and approved the shop drawings and that they are in conformance with the requirements of the Contract Documents.
- Portions of the Work requiring a shop drawing or sample submission shall not begin until the shop drawing or submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.
- 6.0 MATERIALS, SERVICES AND FACILITIES
- 6.1 It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete and deliver the Work within the Contract Time.
- 6.2 Materials and equipment shall be stored by Contractor to ensure the preservation of their quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection.
- 6.3 Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used cleaned and conditioned as directed by the manufacturer.
- 6.4 Materials, supplies, and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.
- 6.5 Materials, supplies and equipment to be incorporated into the Work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest or lien is retained by the seller.

7.0 INSPECTION AND TESTING

7.1 All materials and equipment used in the construction of the Project shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the Contract Documents or required by applicable governmental law, rule or regulation.

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- 7.2 The City, Engineer, their respective representatives, agents and employees and governmental agencies with jurisdiction over the Project shall have access at all times to the Work whether the Work is being performed on or off of the Project site, for their observation, inspection, and testing. Contractor shall provide proper and safe conditions for such access, and also for any inspection or testing thereof. Contractor shall provide the City and Engineer with timely prior written notice (at least 48 hours) of the readiness of the Work for all required inspections, tests, or approvals. In addition, authorized representatives, and agents of any participating Federal or State agency shall be permitted to inspect all Work, materials, payrolls, personnel records, material invoices, and other relevant data and records.
- 7.3 The Contractor shall provide at the Contractor's expense all testing and inspection services required by the Contract Documents or any applicable governmental law, rule, or regulation. Re-inspection and re-testing fees and costs of all testing failures shall be at the Contractor's expense.
- 7.4 If the Contract Documents or any applicable governmental law, rule, or regulation requires any portion of the Work to specifically be inspected, tested, or approved, Contractor shall assume full responsibility therefore, pay all costs in connection therewith and furnish the Engineer the required certificates of inspection, testing, or approval. All inspections, tests or approvals shall be performed in a manner and by organizations acceptable to the City and Engineer.
- 7.5 Neither observations by Engineer or the City, nor inspections, tests or approvals by the Engineer or others shall relieve the Contractor from the obligations to perform the Work in accordance with the requirements of the Contract Documents.
- 7.6 If any Work is covered contrary to the written instruction of the Engineer, it must, if requested by the Engineer, be uncovered for the Engineer's observation, and replaced at the Contractor's expense.
- 7.7 If any Work that is to be inspected, tested or approved pursuant to the Contract Documents or any applicable governmental law, rule or regulation is covered without such inspection, testing or approval having been satisfactorily obtained by Contractor and without obtaining the written concurrence from Engineer, Contractor shall uncover, expose or otherwise make available the Work for such observation, inspection or testing as directed by Engineer, and Contractor shall be responsible for all such costs of uncovering, exposing, observation, inspection, testing, and reconstruction.

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7.8 If the Engineer considers it necessary or advisable that covered Work be inspected or tested by others that was not otherwise required to be tested or inspected by the terms of the Contract Documents or any applicable governmental law, rule or regulation, the Contractor, at the Engineer 's request, will uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the Work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such Work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction. If, however, such Work is not found to be defective, the Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate Change Order shall be issued.

8.0 SUBSTITUTIONS

- 8.1 Whenever a material, article, or piece of equipment is identified on the Drawings or Specifications by reference to brand name or catalogue numbers, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function may be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance, quality, and function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance, quality and function to that specified, the Engineer may allow its substitution and use by the Contractor. If the Contractor based its bid on "or equal" products and the City and/or Engineer determine that one or more of the Contractor's proposed "or equal" products included in its bid fails to meet the requirements of the Contract Documents, Contractor may be required, at City's sole discretion, to provide products conforming with the requirements of the Contract Documents at no additional cost to the City per the City's direction.
- 8.2 If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall certify that the proposed substitute shall perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. Contractor shall also certify that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of Substantial Completion of the Work within the Contract Time, whether or not acceptance of

the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for the Project) to adapt the design to the proposed substitute and whether or not incorporation or use by the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance. repair and replacement service shall be indicated. Contractor shall also provide an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs for redesign and claims of other contractors affected by the resulting change, all of which shall be considered by Engineer in evaluating the proposed substitute. Engineer or Owner may require Contractor to furnish at Contractor's expense additional data about the proposed substitute. Further, Contractor shall reimburse Owner for the changes of Engineer and Engineer's consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the Work while the substitute was undergoing review.

9.0 PATENTS

9.1 The Contractor shall pay all applicable royalties and license fees and shall defend all suits or claims for infringement of any patent rights and save the City harmless from loss on account thereof, except that the City shall be responsible for any such loss when a particular process, design, or product of a particular manufacturer or manufacturers is specified. Provided, however, if the Contractor has reason to believe that the design, process, or product specified is an infringement of a patent, the Contractor shall be responsible for such loss or claim unless the Contractor promptly gives such information in writing to the Engineer and City.

10.0 SURVEYS, PERMITS, REGULATIONS, AND PROJECT LAYOUT

- 10.1 The City shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the Work together with a suitable number of benchmarks adjacent to the Work as shown in the Contract Documents. From the information provided by the City, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detail surveys needed for construction such as slope stakes, batten boards, stakes for pipe locations and other working points, lines, elevations and cut sheets.
- 10.2 The Contractor shall carefully preserve benchmarks, reference points and stakes. Contractor is solely responsible for maintaining all benchmarks, reference points, and stakes, and is solely responsible for any mistake that may be caused by their

loss or disturbance. The Contractor shall be held responsible for all mistakes that may be caused by the loss or disturbance of any such benchmarks, reference points or stakes.

- 10.3 The Contractor shall engage for the performance of Project layout and control, a Professional Land Surveyor registered in the State of Florida to practice land surveying. Said surveyor must carry Professional Liability Insurance in the amount of at least one million dollars (\$1,000,000) per occurrence. The land surveyor employed for this Project must comply with the Minimum Technical Standards for Surveying and Mapping pursuant to Florida Statute 472.027.
- 10.4 Should the Contractor in the course of its Work find that the points, grades and levels which are shown upon the Drawings are not conformable to the physical conditions of the locality at the proposed work or structure, it shall immediately inform the Engineer of the discrepancy between actual physical conditions of the locality of the proposed work, and the points, grades and levels which are shown on the drawings. No claim shall be made by the Contractor against the City for compensation or damage by reasons of failure of the Engineer to represent upon the Drawings points, grades, and levels conformable to the actual physical conditions of the locality of the proposed work.
- 10.5 All permits and licenses necessary for the prosecution of the Work shall be secured and paid for by the Contractor unless otherwise expressly noted in the Contract Documents. These shall include all building permits, burn permits, debris disposal permits, etc. All licenses, easements and variances for permanent structures or permanent changes in existing facilities shall be secured and paid for by the City, unless otherwise specified in the Contract Documents. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and governmental permits and approvals bearing on the conduct of the Work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, the Contractor shall promptly notify the Engineer and City in writing, and any necessary changes shall be adjusted as provided in Section 13 below.

11.0 PROTECTION OF WORK, PROPERTY, AND PERSONS

11.1 The Contractor is responsible for the safety and protection of all persons and property on or about the Project site during the progress of the Work, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction. Further, it is Contractor's responsibility to protect from damage or loss all material and equipment to be incorporated into the Work whether in storage on or off the

Project site. Contractor shall initiate, maintain, and supervise all safety precautions and programs in connection with the Work and shall develop and implement, in accordance with the requirements of the Contract Documents, a safety plan for the Work. Contractor's safety plan shall include a hurricane protection plan. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as the Work is completed and final acceptance of same by the City has occurred.

- 11.2 The Contractor will comply with all applicable codes, laws, ordinances, rules, regulations and orders of the City and any public body having jurisdiction over the Work, including the Occupational Safety and Health Administration (OSHA) and any State Safety and Health agency requirements and all of their safety codes, laws, ordinances, rules, and regulations. The Contractor will erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection. Contractor shall notify owners of adjacent property and of any underground structures or improvements and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, or replacement of their property. The Contractor will remedy all damage, injury or loss to any property caused by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone of whose acts any of them be liable.
- 11.3 Barricades, Guards and Safety Provisions: To protect persons from injury and to avoid property damage, adequate barricades, construction signs, torches, red lanterns, and guards shall be placed and maintained during progress of construction work and until it is safe for both pedestrians and vehicular traffic. Rules and regulations of local authorities regarding safety provisions shall be observed.
- In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instructions or authorization from the Engineer or City, shall act to prevent threatened damage, injury, or loss. The Contractor will give the Engineer prompt written notice of any such emergency and to the extent the emergency was not caused by the fault or neglect of Contractor or anyone for whom Contractor is responsible, a Change Order shall be issued covering the necessary and reasonable changes and deviations involved.
- 11.5 At all times during the performance of the Work at the Project site, Contractor shall have designated, and located on a full-time basis at the Project site, a qualified individual whose responsibility shall be to monitor and enforce Contractor's safety program at the Project site; such individual shall be deemed

to be the Contractor's Project Superintendent. However, Contractor may designate by written notice to the City another individual, reasonably acceptable to the City, who shall be Contractor's safety representative at the Project site.

Alcohol, drugs, and all illegal substances are strictly prohibited on the Project site and any City property. All employees of Contractor, as well as those of all Subcontractors and those of any other person or entity for whom Contractor is legally liable (collectively referred to herein as "Employees"), shall not possess or be under the influence of any such substances while on the Project site or any City property. Further, employees shall not bring on to the Project site or any City property any gun, rifle or other firearm, or explosives of any kind. Provided, however, to the extent explosives are reasonably required with respect to the performance of the Work, Contractor shall strictly comply with the Contract Documents and any and all rules and regulations of Owner or of any applicable governmental agency as it relates to the storage, handling, and use of such explosives.

12.0 SUPERVISION BY CONTRACTOR

The Contractor will supervise and direct the Work. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor will employ and maintain on the Project site on a full-time basis a qualified superintendent acceptable to the City. The superintendent and his or her designees shall have full authority to act on behalf of the Contractor and all communications given to the superintendent or his or her designee shall be as binding as if given to the Contractor. The superintendent or his or her designee shall be present on the site at all times when any portion of the Work is being performed to ensure adequate supervision and coordination of the Work.

13.0 CHANGES IN THE WORK

13.1 The City may at any time during the progress of the Work, as the need arises and in its sole discretion, order changes within the general scope of the Work without invalidating the Agreement. Promptly after being notified of a change, but in no event more than fourteen (14) days after its receipt of such notification (unless the City has agreed in writing to a longer period of time), Contractor shall submit an itemized estimate of any cost or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, no addition or changes to the Work shall be made except upon a properly issued Change Order, Construction Change Directive or Field Order. No officer, employee or agent of the City is authorized to direct any extra or changed work

without a properly issued Change Order, Construction Change Directive, or Field Order.

- 13.2 All changes to the Work must be authorized by means of a written Change Order that is mutually agreed to by the City and Contractor or a Construction Change Directive issued by the City, or a Field Order issued by the City or Engineer. If the change is to be accomplished through a Change Order, the Change Order, in the form set forth in the City's Project Administration Manual, shall be prepared by Contractor, reviewed by Engineer and the City, and executed promptly by the parties after an agreement is reached between Contractor and the City concerning the requested changes. Contractor shall promptly perform changes authorized by duly executed Change Orders. The Contract Price and Contract Time shall be adjusted in the Change Order in the manner as the City and Contractor shall mutually agree. The Change Order shall identify the changed work. Also, where the Contract Price is based upon unit prices, a Change Order may be used for work for which quantities have been altered from those shown in the bidding schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bidding schedule because of final measurements. All changes must be recorded on an executed Change Order before they can be included in a monthly Application for Payment.
- 13.3 To the extent the Contract Price is based on unit prices, the City reserves the right to increase or decrease a unit price quantity as may be deemed reasonable or necessary in order to complete the Work contemplated by this Agreement.
- 13.4 If the City and Contractor are unable to agree on a Change Order for the requested change, Contractor shall, nevertheless, promptly perform the change as directed by the City in a written Construction Change Directive. In that event, the Contract Price and Contract Time shall be adjusted in the Construction Change Directive as determined by the City. If Contractor disagrees with the City's adjustment determination, Contractor must make a claim strictly in accordance with the terms of the Contract Documents or else be deemed to have waived any claim it might otherwise have had on that matter.
- The City shall have the right to conduct an audit of Contractor's books and records, as well as those of its Subcontractors and Suppliers, to verify the accuracy of Contractor's estimates or claims with respect to Contractor's cost and time impacts associated with any Change Order or Construction Change Directive.
- 13.8 The Engineer or City at any time may direct Contractor to make changes to the Work by issuing a Field Order, so long as such changes do not require or result in any adjustment to the Contract Price or Contract Time and are generally within GENERAL CONDITIONS 00100-15

the scope of the Work. Contractor shall proceed with the performance of any changes in the Work so ordered by the Engineer or City unless the Contractor believes that such Field Order entitles the Contractor to a change in the Contract Price or Contract Time, or both. In the event Contractor believes the Field Order requires a change to the Contract Price or Contract Time, it must provide written notice to the Engineer and City within five (5) business days of receipt of the Field Order and before starting with any changed Work. Failure to provide such notice waives Contractor's right to claim such work requires a change in the Contract Price or Contract Time. Once Contractor has provided timely written notice, it shall proceed as directed by City in writing, and thereafter shall file a claim in accordance with the procedures required herein.

14.0 CHANGES IN CONTRACT PRICE

- 14.1 The Contract Price may be changed only by a Change Order or Construction Change Directive issued in accordance with the terms of the Contract Documents. If the Change Order or Construction Change Directive provides for an adjustment to the Contract Price, the adjustment shall be based on one of the following methods: mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation; or unit prices stated in the Contract Documents or subsequently agreed upon; or cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or on a time and material basis.
- 14.2 In the event the Owner elects to proceed with changed work on a time and material basis, the following provisions shall apply:
 - 14.2.1 For all labor, including a foreman in direct charge of the specified operations, the Contractor shall receive a sum equal to the current standard local rate of wages actually paid for every hour that the labor is actually engaged in such changed work, plus the actual cost of social security taxes, unemployment insurance, and workmen's compensation insurance based on the actual wages paid for such labor, to which cost shall be added an amount equal to ten percent (10%) thereof for all overhead and profit (including all general supervision and for furnishing and repairing small tools and ordinary equipment used in doing the changed work).
 - 14.2.2 For all materials used, the Contractor shall receive the actual cost of such materials, including freight charges as shown by original receipted bills, to which cost shall be added an amount equal to ten percent (10%) thereof for all overhead and profit.

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- 14.2.3 For any construction equipment or special equipment including fuel and lubricants therefor, required for the economic performance of the changed work, the Engineer shall allow the Contractor a rental price, to be agreed upon in writing before such work is begun, for every hour that such construction equipment or special equipment is actually operated on the work, which rental price shall include all overhead and profit. Such hourly rental price shall not exceed 1/176 part of the monthly rate stated for such equipment in the latest edition of the "Compilation of Rental Rates for Construction Equipment" by Associated Equipment Distributors.
- 14.2.4 Subcontractors are subject to the above and the Contractor mark-up for overhead and profit shall not exceed five percent (5%) of the amount due to the Subcontractor.
- 14.2.5 The Contractor shall keep and present, in such form as the Engineer may prescribe, an itemized accounting of all time and material costs, together with appropriate supporting data.

15.0 TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 Time is of the essence in the performance of the Work under this Agreement. The date of beginning and the time for completion of the Work are essential conditions of the Contract Documents. The required date of commencement of the Work shall be established in the Notice to Proceed to be issued by the City. As noted in the Agreement, Contractor shall commence the Work within ten (10) calendar days after the required date of commencement. Any Work performed by Contractor prior to the required date of commencement shall be at the sole risk of Contractor. The Notice to Proceed shall be issued within thirty (30) days of the execution of the Agreement by the City. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement of the City and Contractor. If the Notice to Proceed has not been issued within the thirty (30) day period or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party by providing the City written notice of such termination, in which event such termination shall be deemed a termination for convenience of the City as set forth in Section 17.5 below. Provided, however, notwithstanding anything in the Contract Documents to the contrary, in the event of such termination pursuant to this Section 15.1, Contractor acknowledges and agrees that no payments will be due to the Contractor, nor shall the City make any payments to Contractor for any Work that would have

been authorized under the Agreement once executed by both parties.

- 15.2 The Contractor will proceed with the Work at such rate of progress to ensure Substantial Completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the City, that the Contract Time for Substantial Completion of the Work is a reasonable period of time. The Construction Schedule shall include the date the Work must be substantially completed by Contractor and all interim milestones required by the City. Substantial Completion of the Work shall be achieved when the Work has been completed to the point where the City can occupy or utilize the Work for its intended purpose. The Engineer shall certify the date Substantial Completion of the Work is achieved. If the City has designated portions of the Work to be turned over to the City prior to Substantial Completion of the entire Work as provided in Section 15.3 below, the Engineer shall certify the date as to when Substantial Completion of such designated portions of the Work have been achieved. The entire Work shall be fully completed and ready for final acceptance by the City within (30) calendar days after Substantial Completion of the Work or thirty (30) days after Contractor's receipt of the punch list, whichever date occurs last.
 - 15.2.1 Once the Contractor believes it has achieved Substantial Completion of the Work, it shall notify the City and Engineer in writing and request a substantial completion inspection. Concurrent with its delivery of such written notice, Contractor shall submit its initial punch list for the City's and Engineer's review. Any Work remaining to be completed or any defective work to be remedied shall be listed on the punch list. Once the substantial completion inspection has been made, Owner and Engineer shall modify the Contractor's initial punch list to include all items to be completed or repaired by Contractor in order to achieve final acceptance of the Work. Thereafter, the Engineer shall provide Contractor a copy of the final punch list. Such final punch list shall be in compliance with the Contract Documents and all applicable laws, including Section 218.735 of the Florida Statutes. Accordingly, if the Contract Price is less than \$10 million, Engineer shall provide the final punch list to Contractor within (30) calendar days after Contractor has achieved Substantial Completion. If the Contract Price is \$10 million or more, Engineer shall provide the final punch list to Contractor within (60) calendar days after Contractor has achieved Substantial Completion. Contractor acknowledges and agrees that the failure to include any corrective work or pending items not yet completed on the punch list does not alter the responsibility of Contractor to complete all the Work required under this Contract.
- The City may take early occupancy of all or any portions of the Work, at the City's election, by designating in writing to Contractor the specific portions of the Work

to be occupied and the date such occupancy shall commence. If any such specific early occupancy was not expressly identified in the bidding documents issued with respect to this Agreement (as they may have been modified by any applicable Addenda) and such early occupancy adversely impacts Contractor's cost or time of performance, Contractor shall be entitled to an equitable adjustment to the Contract Price and the Contract Time, all in accordance with the other terms and conditions of the Contract Documents.

- 15.4 The City and Contractor recognize that, since time is of the essence for this Agreement, the City will suffer financial loss if the Work is not substantially completed within the Contract Time, as said time may be adjusted as provided for herein. In such event, the total amount of the City's damages, will be difficult, if not impossible, to definitely ascertain and quantify, because this is a public construction project that will, when completed, benefit the public. It is hereby agreed that it is appropriate and fair that the City receive liquidated damages from Contractor if Contractor fails to achieve Substantial Completion of the Work within the required Contract Time. Should Contractor fail to substantially complete the Work within the Contract Time, the City shall be entitled to assess, as liquidated damages, but not as a penalty, the amount for liquidated damages as specified in the Agreement for each calendar day thereafter until Substantial Completion is achieved. Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of the City's actual damages at the time of contracting if Contractor fails to achieve Substantial Completion of the Work within the Contract Time.
- 15.4.1 In the event the Work is not fully completed within (30) days from the date of Substantial Completion, the City reserves the right to assess against Contractor its actual damages incurred as a result of such delay by Contractor.

16.0 CORRECTION OF DEFECTIVE WORK

Work not conforming to the requirements of the Contract Documents shall be deemed defective Work. If required by the City or Engineer, the Contractor shall as direct, either correct all defective Work, whether or not fabricated, installed or completed, or, if the defective Work has been rejected by the City or Engineer, remove it from the site and replace it with non-defective Work in accordance with the Contract Documents and without additional expense to the City. Further, Contractor shall bear the expense of making good all work of other contractors performing work on the Project destroyed or damaged by such removal or replacement. Contractor shall bear all direct, indirect, and consequential costs of such correction or removal (including, but not limited to fees and charges of

engineers, architects, attorneys, and other professionals) made necessary thereby, and shall hold the City and Engineer harmless for same. Notwithstanding anything herein to the contrary, the City may determine, at its sole discretion, to accept defective Work. If such determination is rendered prior to final payment, a Change Order or Construction Change Directive shall be executed evidencing such acceptance of such defective Work, incorporating the necessary revisions in the Contract Documents, and reflecting an appropriate decrease in the Contract Price. If the City accepts such defective Work after final payment, Contractor shall promptly pay the City an appropriate amount determined by the City to adequately compensate the City for its acceptance of the defective Work.

16.2 If the Contractor does not take action to correct defective Work or to remove and replace rejected defective Work or if Contractor fails to comply with any of the provisions of the Contract Documents within ten (10) days after receipt of written notice from the City or Engineer, the City may correct and remedy any such deficiency at the expense of the Contractor. To the extent necessary to complete corrective and remedial action, the City may exclude Contractor from any or all of the Project site, take possession of all or any part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Project site and incorporate in the Work all materials and equipment stored at the Project site or for which the City has paid Contractor but which are stored elsewhere. Contractor shall allow the City, Engineer and their respective representatives, agents, and employees such access to the Project site as may be necessary to enable the City to exercise the rights and remedies under this Section. All direct, indirect, and consequential costs of the City in exercising such rights and remedies shall be at Contractor's expense, and a Change Order or a Construction Change Directive shall be issued, incorporating the necessary revisions to the Contract Documents, including an appropriate decrease to the Contract Price. Such direct, indirect, and consequential costs shall include, but not be limited to, fees and charges of engineers, architects, attorneys and other professionals, and all costs of repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of the City's rights and remedies hereunder.

17.0 SUSPENSION OF WORK, TERMINATION, AND DELAY

17.1 The City shall have the right to suspend the Work or any portion thereof for a period of not more than ninety (90) days or such additional time as agreed upon

by the Contractor, upon giving Contractor written notice of such suspension to the Contractor. The City or Engineer shall fix the date on which Work shall be resumed. The Contractor will resume that Work on the date so fixed unless otherwise directed by the City. Provided Contractor strictly complies with the Change Order and Claims procedures set forth in the Contract Documents, Contractor will be entitled to a Change Order adjusting the Contract Price and Contract Time, as provided in the Contract Documents, to the extent attributable to any such suspension, unless said suspension is due to the fault or neglect of Contractor or anyone for whom Contractor is responsible.

- 17.2 If, through no act or fault of the Contractor, the Work is suspended for a period of more than ninety (90) days by the City or under an order of court or other public authority, or the Engineer fails to act on any request for payment within thirty (30) days after it is submitted, or the City fails to pay the Contractor any undisputed amounts within thirty (30) days of its approval, then the Contractor may after ten (10) days from delivery of a written notice to the City and the Engineer and the City's failure to cure such default (or a maximum of sixty (60) days in the event the default cannot reasonably be cured within ten (10) days provided that the City commences to cure within ten (10) days and thereafter diligently and continuously pursues said cure) terminate the Agreement and recover from the City payment for all Work properly executed and reasonable termination expenses sustained. In addition, and in lieu of terminating the Agreement, if the Engineer has failed to act on a request for payment or if the City has failed to make any payment within the aforesaid thirty (30) day periods, the Contractor may upon ten (10) days written notice to the City and the Engineer stop the Work until paid all amounts then due, in which event and upon resumption of the Work, a Change Order shall be issued adjusting the Contract Price and Contract Time as provided in the Contract Documents.
- 17.3 Contractor shall be considered in material default of the Agreement and such default shall be considered cause for the City to terminate the Contractor's right to continue to perform under the Agreement, in whole or in part, as further set forth in this Section, if Contractor: (1) fails to begin the Work under the Contract Documents within the time specified herein; or (2) fails to properly and timely perform the Work as directed by the City or Engineer or as provided for in the approved Construction Schedule; or (3) performs the Work unsuitably or neglects or refuses to remove materials or to correct or replace such Work as may be rejected as unacceptable or unsuitable; or (4) discontinues the prosecution of the Work contrary to the requirements of the Agreement; or (5) fails to resume Work which has been suspended within a reasonable time after being notified to do so; or (6) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy; or (7) allows any final judgment to stand against it unsatisfied for

more than ten (10) days; or (8) makes an assignment for the benefit of creditors; or (9) fails to comply with any applicable codes, laws, ordinances, rules or regulations with respect to the Work; or (10) fails to supply sufficient skilled workmen or suitable materials or equipment; or (11) fails to promptly pay its Subcontractors and Suppliers; or (12) disregards the authority of the City or Engineer; or (12) materially breaches any other provision of the Contract Documents. In rendering its decision as to whether one of the causes under Section 17.3 exist which would permit the City to terminate the Agreement, the City shall be entitled to rely upon the determination of the Engineer concerning such matter.

- 17.3.1 In such event, and after giving the Contractor and its surety a minimum of ten (10) days from delivery of a written notice to cure any such default (or a maximum of sixty (60) days in the event the default cannot reasonably be cured within ten (10) days provided that Contractor commences to cure within ten (10) days and thereafter diligently and continuously pursues said cure), the City may at its option, and without releasing or waiving its rights and remedies against Contractor's sureties and without prejudice to any other right or remedy, terminate Contractor's right to proceed under the Agreement in whole or in part, and take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, take assignments of any of Contractor's subcontracts and purchase orders that the City may designate, and finish the Work by whatever method the City in its sole discretion may deem expedient.
- 17.3.2 If Contractor's right to proceed under the Agreement is terminated, Contractor shall not be entitled to receive any further payment until the Work is finished. All monies expended and all of the costs, losses, damages, and extra expenses, including all management, administrative and other overhead and other direct and indirect expenses (including Engineer and attorneys' fees) or damages incurred by the City incident to such completion (collectively "Completion Costs"), shall be deducted from the unpaid balance of the Contract Price. Upon the City's completion, if the unpaid balance of the Contract Price exceeds the Completion Costs, such excess shall be paid to the Contractor. If the Completion Costs exceed the unpaid balance of the Contract Price, Contractor shall pay promptly to the City on demand the full amount of such excess and interest thereon at a rate of 6% per annum until paid.
- 17.3.3 The liability of Contractor hereunder for Completion Costs shall extend to and include the full amount of any and all sums paid, expenses and losses incurred, damages sustained, and obligations assumed by the City in good faith under the belief that such payments or assumptions were necessary or required, in

completing the Work and providing labor, materials, equipment, supplies, and other items therefor or re-letting the Work, and in settlement, discharge or compromise of any claims, demands, suits, and judgments pertaining to or arising out of the Work hereunder. Further, in the event the City has exercised its right to terminate due to Contractor's default, Contractor shall be prohibited from bidding or otherwise seeking additional work from the City in accordance with the City's then current debarment policy.

- 17.3.4 The City may deduct from any payment, any sum owed by the City to Contractor, either under this Agreement or any other agreement between the City and the Contractor. Further, a default by Contractor under any other agreement with the City shall be deemed a default under this Agreement and a default under this Agreement shall be deemed a default under any other agreement between the City and Contractor.
- 17.4 Where the Contractor's services have been so terminated by the City, said termination shall not affect any right of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the City due the Contractor will not release the Contractor from compliance with the Contract Documents. Further, if after notice of termination of Contractor's right to proceed pursuant to Section 17.3, it is determined for any reason that Contractor was not in default, or that its default was excusable, or that the City is not entitled to the remedies against Contractor provided herein, then such termination shall be deemed a termination for the City's convenience and Contractor's remedies against the City shall be the same as and limited to those afforded Contractor under Section 17.5 below.
- 17.5 The City shall have the right to terminate this Agreement without cause upon ten (10) days from delivery of a written notice to the Contractor. In the event of such termination for convenience, Contractor's sole and exclusive recovery against the City shall be limited to that portion of the Contract Price earned through the date of termination, together with any retainage withheld and reasonable termination expenses incurred, but Contractor shall not be entitled to any other or further recovery against the City, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.

18.0 PAYMENT TO CONTRACTOR

18.1 At least ten (10) days before submitting the first Application for Payment, the Contractor shall submit to the City and Engineer a schedule of values allocated to various portions of the Work, prepared in such form, and supported by such data to substantiate its accuracy as the City or Engineer may require. It is

anticipated the schedule of values substantially will be based upon the Contractor's completed Bid Proposal Form, attached as Section 00030. This schedule, unless objected to by the City or Engineer, shall be used as a basis for reviewing the Contractor's Applications for Payment. On or before the 25th of each month, the Contractor will submit to the Engineer an Application for Payment filled out and signed by the Contractor covering the Work performed since the previous month's Application for Payment. The Application for Payment may also include the cost of such materials and equipment which are suitably stored either at or off the site to the extent such payment is approved by City as provided in Section 18.1.1 below. Invoices received after the 25th day of each month shall be considered for payment as part of the next month's Application for Payment. Contractor's Application for Payment shall be in such form and contain such detail and backup as the City reasonably may require.

- 18.1.1 If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at or off the site, the Application for Payment shall also be accompanied by such supporting data, satisfactory to the City, as will establish the City's title to the material and equipment free and clear of all liens, charges, security interests and encumbrances, together with evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect City's interest therein, all of which shall be subject to City's satisfaction. City has the discretion whether or not to pay for such unincorporated materials.
- 18.1.2 The Engineer will, within ten (10) days after receipt of each Application for Payment, indicate in writing its recommendation as to that portion of the payment being requested by Contractor in the Application for Payment which Engineer believes is due and payable. The City shall pay Contractor that portion of the Application for Payment approved by Engineer and Owner within fifteen (15) days of the City's receipt of the Engineer's payment recommendation.
- 18.1.3 City shall retain an amount equal to 5% of the approved amount to be paid Contractor under each monthly Application for Payment. The retainage shall be accumulated and not released to Contractor until final payment is due. Provided, however, the City reserves the right, in its sole discretion, to reduce such retainage prior to final payment; but at no time shall the retainage be reduced to less than three percent (3%) prior to Contractor achieving Substantial Completion. Provided, further however, if at any time during this Agreement, and in the City's sole discretion, the City becomes dissatisfied with Contractor's performance or if Contractor is in default, the City shall have the right to reinstate the full amount of retainage at five percent (5%).

- 18.1.4 Monthly payments to Contractor shall in no way imply approval or acceptance of the Work.
- 18.1.5 Each Application for Payment shall be accompanied by a claim release and waiver in the form set forth in the City's Project Administration Manual from Contractor for all materials, labor, equipment, services, and other bills associated with that portion of the Work payment is being requested in that Application for Payment. Further, each Application for Payment shall be accompanied by a claim release and waiver in the form set forth in the City's Project Administration Manual from all Subcontractors and Suppliers evidencing their payment in full through the previous month's Application for Payment. Also, each Application for Payment shall be accompanied by an updated Construction Schedule, a list inventorying all stored materials, a monthly progress status report, and any other document reasonably requested by City. The City shall not be required to make payment until and unless such releases, documents and information are furnished by Contractor. Further, if Contractor is withholding any portion of a payment to any Subcontractor or Supplier for any labor, services, or materials for which the City has paid Contractor, Contractor agrees to refund such money to the City upon demand by the City.
- 18.1.6 Engineer shall review each Application for Payment submitted by Contractor and shall make recommendations to the City as to the proper amounts, if any, which may be owed Contractor thereunder. Both Engineer and the City shall have the right to refuse to approve payment amounts, or portions thereof, requested by Contractor in an Application for Payment, or rescind any amount previously approved, and the City may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the City and Contractor, to the extent it is reasonably necessary, to protect the City from any expense, cost or loss attributable to: (a) defective or deficient Work not properly remedied in accordance with the terms of the Contract Documents; (b) the filing or reasonable evidence indicating the probable filing of third party claims against the City attributable to the fault or neglect of Contractor; (c) Contractor's failure to make timely and proper payments to all Subcontractors and Suppliers; (d) reasonable evidence that the remaining Work cannot be completed for the unpaid Contract Price balance; (e) reasonable evidence indicating that the remaining Work cannot be completed within the remaining Contract Time; (f) Contractor's failure to satisfactorily prosecute the Work in accordance with the requirements of the Contract Documents; or (g) any other material breach of the requirements of the Contract Documents by Contractor. The City shall have the right, but not the obligation, to take any corrective action the City deems appropriate to cure any of the above noted items, at Contractor's expense, if such items are not cured by Contractor to the City's reasonable satisfaction within

three (3) days after Contractor's receipt of written notice from the City.

- 18.1.7 Engineer or City may reject an Application for Payment, in whole or in part, submitted by Contractor if such Application for Payment is not submitted in strict accordance with the requirements of this Article 18. In such event, Engineer or City shall notify Contractor in writing within twenty (20) business days after receipt of such Application for Payment that such Application for Payment, or portion thereof, has been rejected and the reasons for such rejection. If Contractor resubmits a corrected Application for Payment correcting, in Engineer's and Owner's sole determination, the deficiency specified in the rejection notice, then City shall pay Contractor the corrected portion of the Application for Payment within ten business days after the date the corrected Application for Payment is received by City.
- 18.2 Prior to Substantial Completion, the City, with the approval of the Engineer, may use any completed or substantially completed portions of the Work. Such use shall not constitute an acceptance of such portions of the Work.
- 18.3 The City shall have the right to enter the Project site for the purposes of doing work not covered by the Contract Documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the Work, or the restoration of any damaged Work except such as may be caused by agents or employees of the City.
- 18.4 Upon completion and acceptance of the Work, the Engineer shall issue a certificate attached to the final payment request that states the Work has been fully performed in accordance with the requirements of the Contract Documents and that Engineer recommends final payment in the amount reflected in the attached final payment request. The City shall make final payment to Contractor within thirty (30) days after the Work is finally accepted by the City, provided that Contractor first, and as an explicit condition precedent to the accrual of Contractor's right to final payment, shall have furnished the City with a properly executed and notarized final release in the form set forth in the City's Project Administration Manual, as well as, a duly executed copy of the surety's consent to final payment and such other documentation that may be required by the Contract Documents or the City.
- Late payments shall accrue interest from the date payment was due until payment is received at the rate of six percent (6%) per annum.
- 18.6 No error or oversight in the making of payment or completion certificates shall relieve the Contractor from its obligation to do and complete the Work in

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19.0 ACCEPTANCE OF FINAL PAYMENT AS RELEASE

19.1 The acceptance by the Contractor of final payment shall be and shall operate as a full release and waiver of any and all claims by Contractor against the City arising out of this Agreement or otherwise relating to the Project, except those identified in writing by Contractor as unsettled in its final Application for Payment. Any payment, however, final, or otherwise shall not release the Contractor or its sureties from any obligations under the Contract Documents or the Performance and Payment Bonds. Neither the acceptance of the Work nor payment by the City shall be deemed to be a waiver of the City's right to enforce any obligations of Contractor hereunder or to the recovery of damages for defective Work not discovered by the City or Engineer at the time of final inspection.

20.0 CONTRACT SECURITY

- 20.1 The Contractor shall within ten (10) days after the receipt of the Notice of Award and prior to the start of any Work furnish the City with a Performance Bond and a Payment Bond in penal sums equal to 100% of the amount of the Contract Price and in the forms attached as Sections 00060 and 00070. Such Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the State of Florida and named on the current lists of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570 and approved by the City. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on any such Bond is declared as bankrupt or loses its rights to do business in Florida or is removed from the list of Surety Companies accepted on Federal Bonds, Contractor shall within ten (10) days after notice from the City to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the City. The premiums on such replacement Bond shall be paid by the Contractor. No further payment shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the City.
- The Contractor and its Surety, for value received, hereby stipulate, and agree that any and all claims, demands, actions or suits whatsoever, arising under this Agreement and/or bonds, shall be subject to the sole and exclusive jurisdiction and venue of the appropriate state court in and for Bay County, Florida. The Contractor and its Surety do agree, by execution of these documents, that the sole and exclusive jurisdiction and venue in said forum is proper and appropriate since performance of the underlying contract for which these documents are

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21.0 ASSIGNMENTS

21.1 Contractor shall not assign this Agreement or any part thereof, without the prior consent in writing of the City, which consent shall be at City's' sole discretion. If Contractor does, with City's written approval, assign this Agreement or any part thereof, Contractor shall not be released from any of its obligations or responsibilities under this Agreement.

22.0 INDEMNIFICATION AND HOLD HARMLESS

- 22.1 To the maximum extent permitted by Florida law, Contractor shall indemnify and hold harmless the City and its officers and employees from any and all liabilities, claims, damages, penalties, demands, judgments, actions, proceedings, losses or costs, including, but not limited to, reasonable attorneys' fees and paralegals' fees, whether resulting from any claimed breach of this Agreement by Contractor or from personal injury, property damage, direct or consequential damages, or economic loss, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Contractor or anyone employed or utilized by the Contractor in the performance of this Agreement.
- 22.2 Contractor's obligation to indemnify and hold harmless under this Article 22 will survive the expiration or earlier termination of this Agreement until it is determined by final judgment that an action against the City or an indemnified party for the matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.
- 22.3 The obligation of the Contractor under this Article 22 shall not extend to the liability of the Engineer, its agents or employees arising out of the preparation of approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications.

23.0 SEPARATE CONTRACTS AND COOPERATION

23.1 The City reserves the right to perform other work related to the Project at the site by the City's own forces, have other work performed by utility owners or let other direct contracts for work to be constructed at the same time, and in connection with, the Work included in this Agreement. The Contractor shall cooperate with all other contractors in such a manner, and to such extent, as best to facilitate the completion of the entire Project in the shortest time possible, subject to, at all times, the approval of the Engineer and Owner. It shall be the duty of each contractor to

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work with the other contractors, render such assistance, and to arrange its work in such a manner that shall allow the entire Project to be delivered complete and in the best possible condition. The Contractor shall afford other contractors and utility owners' reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate the Work with theirs. If the proper execution or results of any part of the Contractor's Work depends upon the work of any other Contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.

- 23.2 If the performance of additional work by other contractors, utility owners, or the City is not noted in the Contract Documents prior to the execution of the Agreement, written notice thereof shall be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such undisclosed additional work by the City or others involves it in additional expense or entitles it to an extension of the Contract Time, the Contractor shall send written notice of that fact to the City and Engineer within seven (7) calendar days of being notified of the other work and the Contractor may make a claim thereof as provided in Sections 13 and 14. If Contractor fails to send the above required seven (7) calendar days' notice, Contractor will be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Price.
- 23.3 Contractor shall afford each utility owner and City's other contractors (or the City if the City is performing the additional work with the City's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall be responsible for all damage to the work of others caused by the performance of its Work. Further, Contractor shall not in any way cut or alter the work of others without first receiving the written consent of that other person and Engineer. If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or the City), Contractor shall inspect and promptly report to Engineer in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Such report must be made within three (3) business days of the time Contractor first became aware of the delay, defect, or deficiency. Contractor's failure to report within the allotted time will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work, except for latent defects not discovered by Contractor.

- 23.4 The Contractor shall keep itself fully informed at all times regarding all details of the work of other contractors working at the site, and it shall be responsible for all delays that may result from its failure to install the Work in the proper manner and at the proper time.
- 23.5 The Contractor shall be responsible for coordinating the relocation of existing utilities (with the respective utility companies) as needed to construct the Project. Attention is called to the fact that Contractor is responsible for contacting all utility companies to obtain locations of all existing utilities or obstructions which it may encounter during construction. After location of utilities by the appropriate utility company, it is the Contractor's liability to protect all such utility lines, including service lines and appurtenances, and to replace at its own expense any which may be damaged by the Contractor's equipment or forces during construction of the Project. The City will pay fees charged by the utility company for relocating these utilities.

24.0 SUBCONTRACTING

- 24.1 Contractor shall review the design and shall determine how it desires to divide the sequence of construction activities. Contractor will determine the breakdown and composition of bid packages for award of subcontracts, based on the current Construction Schedule, and shall supply a copy of that breakdown and composition to the City and Engineer for their review and approval. The Contractor may utilize the services of specialty Subcontractors on those parts of the Work which, under normal contracting practices, are performed by specialty Subcontractors. Contractor shall be solely responsible for and have control over the Subcontractors.
- 24.2 Prior to submitting its first Application for Payment, Contractor shall submit to the City a list of the names, addresses, licensing information and phone numbers of the Subcontractors Contractor intends to use for each portion of the Work, as well as identifying in writing those portions of the Work it intends to perform with its own employees. The Contractor shall not use a Subcontractor or Supplier against whom the Owner has a reasonable objection. The list identifying each Subcontractor cannot be modified, changed, or amended without prior written approval from the City. Contractor shall continuously update that list, so that it remains current and accurate throughout the entire performance of the Work. Any and all work to be self-performed by Contractor must be approved in writing by the City in its sole discretion prior to commencement of such Work. The Contractor shall not award work to Subcontractor(s) in excess of fifty percent (50%) of the Contract Price, without prior written approval of the City.
- 24.3 The Contractor shall be fully responsible for and have control over the acts and GENERAL CONDITIONS 00100-30

omissions of its Subcontractors, and of persons either directly or indirectly employed by them, as the Contractor is for the acts and omissions of persons directly employed by it.

- 24.4 The Contractor shall cause appropriate provisions to be inserted in all Subcontracts relative to the work to bind Subcontractors to the Contractor by the terms of the Contract Documents insofar as applicable to the work of Subcontractors and give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the Contract Documents. Further, each subcontract shall require that any claims by a Subcontractor for delay or additional cost must be submitted to Contractor within the time and in the manner in which Contractor must submit such claims to the City, and that failure to comply with such conditions for giving notice and submitting claims shall result in the waiver of such claims.
- All subcontracts between Contractor and its Subcontractors shall be in writing and are subject to the City's approval. Further, all subcontracts shall (1) require each Subcontractor to be bound to Contractor to the same extent Contractor is bound to the City by the terms of the Contract Documents, as those terms may apply to the portion of the Work to be performed by the Subcontractor, (2) provide for the assignment of the subcontracts from Contractor to the City at the election of the City upon termination of Contractor, (3) provide that the City will be an additional indemnified party of the subcontract, (4) provide that the City will be an additional insured on all insurance policies required to be provided by the Subcontractor except workman's compensation, (5) assign all warranties directly to the City, and (6) identify the City as an intended third-party beneficiary of the subcontract.
- 24.6 Nothing contained in this Agreement shall create any contractual relation between any Subcontractor or Supplier and the City. All subcontracts and purchase orders entered into by Contractor must be in writing, and upon demand from City, Contractor shall deliver to City a full and complete copy of any or all such subcontracts and purchase orders.
- 24.7 Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract, copies of the Contract Documents to which the Subcontractor will be bound. Each Subcontractor shall similarly make copies of such documents available to its sub-subcontractors.
- 24.8 The Contractor shall not use a Subcontractor or Supplier against whom the City has a reasonable objection and Contractor shall not be required to contract with anyone it reasonably objects to.
- 24.8 The City and Engineer are under no duty or obligation whatsoever to any GENERAL CONDITIONS 00100-31

Subcontractor, Supplier, laborer, or other party to ensure that payments due and owing by the Contractor to any of them will be made. Such parties shall rely only on the Contractor's surety bonds for remedy of nonpayment by the Contractor.

25.0 ENGINEER'S AUTHORITY

- 25.1 The Engineer shall act as the City's representative during the construction period, shall decide questions which may arise as to quality and acceptability of materials furnished and Work performed, and shall interpret the intent of the Contract Documents in a fair and reasonable manner. The Engineer will make visits to the site and determine if the Work is proceeding in accordance with the Contract Documents.
- 25.2 The Contractor will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship, and execution of the Work. Inspections may be at the factory or fabrication plant of the source of material supply.
- 25.3 The Engineer and the City will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.
- 25.4 The Engineer shall promptly make decisions relative to interpretation of the Contract Documents.

26.0 LAND AND RIGHT-OF-WAYS

- 26.1 Prior to the issuance of the NOTICE TO PROCEED, the City shall obtain all land and rights-of-way necessary for carrying out and for the completion of the Work to be performed pursuant to the Contract Documents, unless otherwise noted in the Contract Documents.
- 26.2 The City shall provide to the Contractor information which delineates and describes the lands owned and rights-of-way acquired.
- 26.3 The Contractor shall provide at its own expense and without liability to the City any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

27.0 GUARANTEE

27.1 The Contractor warrants to the City and Engineer that materials and equipment furnished under the Agreement will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from

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defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Contractor further warrants to the City that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, suppliers, or processors except as otherwise provided for in the Contract Documents. Further, any special warranty to be provided will be in such form as is acceptable to the City and shall not include any exclusions, exceptions, or modifications except to the extent approved by the City in its sole discretion. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear from normal usage. If required by the Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

- 27.2 Contractor expressly warrants to the City that it shall promptly correct, upon receipt of written notice from the City, any portion of the Work which is found to be defective or otherwise not in conformance with the requirements of the Contract Documents. The City will give notice of observed defects with reasonable promptness. Provided, however, in the event that any defective or non-conforming Work is determined by the City in its sole discretion to present an immediate threat to safety or security, the City shall be entitled to correct or replace such defective or non-conforming portions of the Work, and Contractor shall reimburse the City for all costs and expenses incurred by the City in correcting or replacing such Work. In the event that the Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the City may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period. With respect to the correction or replacement of any defective or nonconforming Work, Contractor shall be liable for all damage to any part of the Work itself and to any adjacent property which is caused by such corrective or replacement work.
- 27.3 If, within one year after the date of final acceptance of the Work by the City, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the City to do so unless the City has previously given the Contractor an express written acceptance of such condition. The City shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within a reasonable period of time (not to exceed 10 days)

after receipt of notice from the City or Engineer, the Owner may correct or replace it in accordance with Section 27.2 above. This one-year correction period is in addition to all other rights and does not limit the time period the City can seek to have the defective Work corrected.

27.4 Contractor shall obtain and assign to the City all express warranties given to Contractor by any Subcontractors or by Suppliers.

28.0 CLAIMS AND DISPUTES

- 28.1 The term "Claim" as used herein shall mean any and all demands made by one party hereunder against the other party, whether such demand be for money, time, or the assertion of any right or obligation that arises out of the Contract Documents.
- 28.2 Initial notice of Claims by Contractor shall be made in writing to the City and Engineer within seven (7) calendar days after the first day of the event giving rise to such Claim or such other time period as may be expressly provided in the Contract Documents. If Contractor fails to give such written notice within the required time period, Contractor shall be deemed to have waived the Claim. Written data supporting Contractor's claim shall be submitted to the City and Engineer within thirty (30) calendar days after the occurrence of the event, or such other time period as may be expressly provided in the Contract Documents, unless the City grants additional time in writing, or else Contractor shall be deemed to have waived the Claim.
- 28.3 Contractor shall proceed diligently with its performance as directed by the City, regardless of any pending Claim, unless otherwise agreed to by the City in writing. The City shall continue to make payments of all undisputed amounts in accordance with the Contract Documents during the pendency of any Claim.
- 28.4 Prior to the initiation of any action or proceeding permitted by this Agreement to resolve disputes between the parties, the parties shall make a good faith effort to resolve any such disputes by negotiation between the President or Vice-President for the Contractor and the City Manager Failing resolution, and prior to the commencement of depositions in any litigation between the parties with respect to the Project, the parties shall attempt to resolve the dispute through mediation before an agreed-upon Circuit Court Mediator certified by the State of Florida. Should either party fail to submit to mediation as required hereunder, the other party may request a court of law to order mediation under Florida Statutes Section 44.102.

28.5 Any litigation between the City and Contractor (which term for the purposes of this Section shall include Contractor's surety), whether arising out of any Claim or arising out of the Agreement or any breach thereof, shall be brought, maintained, and pursued solely and exclusively in the appropriate State courts of the State of Florida as set forth in Section 20.2. The City and Contractor each hereby waive and renounce any and all rights and options which they, or either of them, have or might have to bring or maintain any such litigation or action in the Federal Court system of the United States or in any United States Federal District Court. Venue of any such litigation between the City and Contractor shall lie and be only in the appropriate State courts in and for Bay County, Florida. Contractor consents and submits to the exclusive jurisdiction of any such court and agrees to accept service of process from the State of Florida in any matter to be submitted to any such court.

29.0 TAXES

29.1 The Contractor will pay all applicable sales, consumer, use and other similar taxes required by the laws of the place where the Work is performed.

30.0 CONTRACT TIME, SCHEDULE OF WORK AND TIME EXTENSIONS

- 30.1 Contractor shall diligently pursue the completion of the Work and coordinate the Work being done on the Project by its Subcontractors and Suppliers, as well as coordinating its Work with all work of others at the Project site, so that its Work or the work of others shall not be delayed or impaired by any act or omission by Contractor or anyone for whom Contractor is liable. All Work under this Agreement shall be arranged and be carried out in such a manner as to complete the Work on or before the required date of Substantial Completion. The Contractor must notify the City at the time of bidding if the chronology of the Work as shown, or the subdivision of work will affect warranties or guarantees in any way. No such claims shall be allowed once the Work has begun.
- 30.2 Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of Contractor, and not due to its fault or neglect, including but not restricted to acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulation, strikes, lockouts, unusually severe weather conditions by comparison with the ten-year Bay County, Florida average not reasonably anticipatable (to the extent Contractor was unable to perform any portion of the Work that was on the critical path of the approved Construction Schedule during those inclement weather days), Contractor shall notify Owner and Engineer in writing within seven (7) calendar days after the commencement of such delay, stating the cause or GENERAL CONDITIONS 00100-35

causes thereof, or be deemed to have waived any right which Contractor may have had to request a time extension.

- 30.3 The Contractor is required to furnish adequate manpower at the Project to complete the Work within the Contract Time and in accordance with the Construction Schedule. Should payment of premium time, bonuses, or the like be necessary to attract sufficient manpower for the Project, such extra labor costs shall be borne by the Contractor without additional compensation from the City. Further, should the Contractor's Work, through no fault of the Engineer, the City, or City's other contractors, fail to progress in accordance with the Construction Schedule, and if, in the opinion of the Engineer, the Work cannot be substantially completed within the Contract Time, or if deemed necessary to protect this or adjoining work from damage, the Contractor shall work such additional time over the established hours of work, but excluding Holidays, as required to meet the schedule time without additional expense to the City. In such event, Contractor shall reimburse City for any additional costs incurred by the City associated with such overtime, including any additional costs of the Engineer.
- 30.4 When so ordered in writing by the Engineer or City, whether to advance the date of Substantial Completion, or for any other reason for the City's benefit, the Contractor shall work overtime and or additional shifts. If the order for such acceleration is not the result of Contractor being behind the approved Construction Schedule, Contractor shall be entitled to a Change Order increasing the Contract Price by its actual net premium costs of such overtime and or shifts so ordered and so worked, including insurance and taxes applicable thereto, (without other overhead or profit). Such costs and expenses shall be subject to audit by the City.
- 30.5 When any period of time is referenced by days herein, it shall be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day recognized by the City as a legal holiday, such day shall be omitted from the computation, and the last day shall become the next succeeding day which is not a Saturday, Sunday, or legal holiday. The term "business day" as used herein shall mean all days of the week excluding Saturdays, Sundays and all legal holidays observed by the City.

31.0 USE OF SITE

31.1 The Contractor shall confine its use of the site for storage of materials, erection of temporary facilities and parking of vehicles to areas within its Agreement limits as directed by the Engineer. The Contractor shall not unnecessarily encumber the site at any time.

- 31.2 Contractor acknowledges that areas of the site in which Work under this Agreement may be performed may be used by other contractors for storage of materials, erection of temporary facilities and parking of vehicles. Areas used by other contractors will be vacated, as directed by the Engineer to permit Work under this Agreement, provided reasonable notice is given requesting such, all in accordance with the approved Construction Schedule.
- 31.3 No signs or advertisements shall be displayed on the site or building except with the written consent of the City.

32.0 TEMPORARY FACILITIES

- 32.1 The Contractor shall provide electric power and water as it may require for its construction purposes and shall pay all costs incurred. At completion of the Work, all temporary facilities shall be removed from the site. Upon Substantial Completion of the Work, Contractor shall cause all permanent utilities to be utilized by the City that were in Contractor's name during construction of the Project to be transferred over to the City's name.
- 32.2 The Contractor shall provide sanitary facilities for its workmen at all times. Sanitary facilities shall be of an approved chemical type with regular servicing and appropriately screened from public view, as approved by the Engineer and all applicable health authorities.
- 33.0 CLEAN UP AND DISPOSAL OF WASTE MATERIALS AND HAZARDOUS MATERIALS
- 33.1 No burial of waste materials will be permitted on the site. The Contractor shall at all times keep the site free from accumulations of waste material or debris caused by its operations and shall immediately remove same when necessary or required by the Engineer or the City. If Contractor fails to keep the Project site clean, the City has the right, after providing a twenty-four (24) hour written notice, to perform any required clean up and to back charge Contractor for the costs of such clean up. At the completion of the Work, and before final inspection and acceptance of the Work, Contractor shall clean ditches, shape shoulders and restore all disturbed areas, including street crossings, grass plots, regressing if necessary, to as good condition as existed before Work started, and remove all debris, rubbish and waste materials from and about the Project site, as well as all of Contractor's (and its Subcontractors') tools, appliances, construction equipment and machinery and surface materials, and shall leave the Project site clean and ready for occupancy by the City. Any existing surface or subsurface improvements, including, but not limited to, pavements, curbs, sidewalks, pipes, utilities, footings, structures, trees,

and shrubbery, not indicated in the Contract Documents to be removed or altered, shall be protected by Contractor from damage during the prosecution of the Work. Any such improvements so damaged shall be restored by Contractor to condition at least equal to that existing at the time of Contractor's commencement of the Work

33.2 If Contractor encounters on the Project site any materials reasonably believed by Contractor to be petroleum or petroleum related products or other hazardous or toxic substances which have not been rendered harmless, Contractor immediately shall (i) stop Work in the area affected and (ii) report the condition to the City in writing. If the Work is so stopped and hazardous material is found, the Work in the affected area shall not thereafter be resumed except by Change Order. Any such Change Order shall include, but not be limited to, an equitable adjustment to the Contract Time and Contract Price as appropriate and in accordance with the terms of the Contract Documents. If no hazardous material is found after the Work is stopped, no Change Order is required to resume the Work in the affected area. Further, if the hazardous material was generated or caused by Contractor or anyone for whom Contractor is responsible, or if Contractor failed to stop Work or give the written notice required above, no Change Order will be required for an adjustment in the Contract Time or Contract Price and Contractor shall indemnify the City and hold the City harmless for any costs incurred by the City with respect to such hazardous material generated or caused by Contractor or anyone for whom it is responsible or any increased costs incurred by City as a result of Contractor's failure to stop Work or give the required written notice.

34.0 WARRANTY OF TITLE

34.1 No material, supplies or equipment for the Work shall be purchased by the Contractor subject to any chattel mortgage or under a conditional sale or other agreement by which a lien or an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants good title to all materials, supplies and equipment installed or incorporated in the Work and title to all such items shall pass to the City upon its incorporation into the Work or payment, whichever occurs first. Contractor shall, at all times, keep the site, together with all improvements and appurtenances constructed or placed thereon by it, free from any claims, liens or charges and further agrees that neither Contractor nor any person, firm, or corporation furnishing any material or labor for any Work covered by this Agreement shall have any right to a lien upon the Work, site or any improvements or appurtenances thereon. The Contractor shall not at any time suffer or permit any lien, attachment, or other encumbrances under the law of Florida or otherwise by any person or persons whomsoever to remain on file with the City against any money due or to become due for any work done or materials furnished under the

Agreement or by reason of any other claim or demand against the Contractor. Such lien, attachment, or other encumbrance, until it is removed, shall preclude any and all claims or demands for any payment to Contractor under virtue of this Agreement.

35.0 OWNERSHIP OF HIDDEN VALUABLE MATERIALS

35.1 All items having any apparent historical or archaeological interest or treasure, or valuable materials discovered during any construction activities shall be carefully preserved and reported immediately to the City for determination of appropriate actions to be taken. Any increases to Contractor's time or cost of performance due to historical or archaeological items discovered on the site shall entitle Contractor to a Change Order equitably adjusting the Contract Time and the Contract Price as appropriate and in accordance with the terms of the Contract Documents. Notwithstanding anything in the Contract Documents to the contrary, Contractor shall have no claim or entitlement to any such historical or archaeological interest or treasure, or other valuable materials discovered, and all such items shall remain the property of the City.

36.0 AS-BUILT PLANS and DOCUMENTS TO BE KEPT AT THE SITE

- 36.1 Before final inspection the Contractor shall turn over to the Engineer a set of drawings showing field changes and actual installed conditions. CONTRACTOR shall provide to the ENGINEER two (2) hard copies and one (1) electronic copy of the as-built plans in AutoCAD 2000. The plans shall be certified by a P.L.S. registered in the State of Florida.
- 36.2 Contractor shall maintain at the Project site or such other place as may be expressly approved in writing by Owner, originals or copies of, on a current basis, all Project files and records, including, but not limited to, the following administrative records: Subcontracts and Purchase Orders; Subcontractor Licenses; Shop Drawing Submittal/Approval Logs; Equipment Purchase/Delivery Logs; Contract Drawings and Specifications with Addenda; Warranties and Guarantees; Cost Accounting Records; Payment Request Records; Meeting Minutes; Insurance Certificates and Bonds; Contract Changes; Permits; Material Purchase Delivery Logs; Technical Standards; Design Handbooks; "As-Built" Marked Prints; Operating & Maintenance Instruction; Daily Progress Reports; Monthly Progress Reports; Correspondence Files; Transmittal Records; Inspection Reports: Bid/Award Information: Bid Analysis and Negotiations: Punch Lists; and a Construction Schedule (including all updates). The Project files and records shall be available at all times to the City and Engineer or their designees for reference, review or copying.

37.0 SILENCE OF SPECIFICATIONS

37.1 To the extent the Work involves road or bridge construction, the apparent silence of the Contract Documents as to any details or the omission from them of a detailed description concerning any point shall be regarded as meaning that such portion of the Work shall be performed in accordance with the latest edition of the Florida DOT Standard Specifications for Road and Bridge Construction.

38.0 GRATUITIES

- 38.1 If the City finds after a notice and hearing that the Contractor, or any of the Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts or otherwise) to any official, employee, or agent of the City, the State, or other officials in an attempt to secure this Agreement or favorable treatment in awarding, amending, or making any determinations related to the performance of this Agreement, the City may, by written notice to the Contractor, terminate this Agreement for Contractor default. The City may also pursue other rights and remedies that the law or this Agreement provides.
- 38.2 In the event this Agreement is terminated as provided in Section 38.1, the City may pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Agreement by the Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, the City may pursue exemplary damages in an amount (as determined by the City) which shall be not less than three nor more than ten times the costs the Contractor incurs in providing any such gratuities to any such official, agent or employee of the City.

39.0 AUDIT AND ACCESS TO RECORDS

39.1 Contractor shall keep all records and supporting documentation which concern or relate to the Work hereunder for a minimum of three (3) years from the date of termination of this Agreement or the date the Project is completed, whichever is later or such longer period of time as may be required by law. Contractor shall require all of its Subcontractors to likewise retain all of their Project records and supporting documentation. The City, and any duly authorized agents or representatives of the City, shall be provided access to all such records and supporting documentation at any and all times during normal business hours upon request by the City. Contractor shall make all such Project records and supporting documentation available in Bay County, Florida. Further, the City, and any duly authorized agents or representatives of the City, shall have the right to audit, inspect and copy all of Contractor's and any Subcontractor's Project records and documentation as often as they deem necessary and Contractor shall cooperate

in any audit, inspection, or copying of the documents. These access, inspection, copying and auditing rights shall survive the termination of this Agreement.

40.0 EQUAL OPPORTUNITY REQUIREMENTS

- 40.1 For all contracts in excess of \$10,000, the Contractor shall comply with Executive Order 11246, entitled "Equal Employment Opportunity", as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR Part 60).
- 40.2 The Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographic area where the Agreement is to be performed.

41.0 CHANGED CONDITIONS

41.1 Notwithstanding anything in the Contract Documents to the contrary, if conditions are encountered at the Project site which are (i) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (ii) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, and which reasonably should not have been discovered by Contractor as part of its scope of site investigative services required pursuant to the terms of the Contract Documents, then Contractor shall provide the City with prompt written notice thereof before conditions are disturbed and in no event later than seven (7) calendar days after first observance of such conditions. the City and Engineer shall promptly investigate such conditions and, if they differ materially and cause an increase or decrease in Contractor's cost of, or time required for, performance of any part of the Work, the City will acknowledge and agree to an equitable adjustment to the Contract Price or Contract Time, or both, for such Work. If the City determines that the conditions at the site are not materially different from those indicated in the Contract Documents or not of an unusual nature or should have been discovered by Contractor as part of its investigative services, and that no change in the terms of the Agreement is justified, the City shall so notify Contractor in writing, stating its reasons. Claims by Contractor in opposition to such determination by the City must be made within seven (7) calendar days after Contractor's receipt of the City's written determination notice. If the City and Contractor cannot agree on an adjustment to the Contract Price or Contract Time,

the dispute resolution procedure set forth in the Contract Documents shall be complied with by the parties.

42.0 COMPLIANCE WITH LAWS

42.1 Contractor agrees to comply, at its own expense, with all federal, state, and local laws, codes, statutes, ordinances, rules, administrative orders, regulations, and requirements applicable to the Project, including but not limited to those dealing with safety (including, but not limited to, the Trench Safety Act, Chapter 553, Florida Statutes). An executed copy of Contractor's Trench Safety Act Certificate of Compliance (the form of which is attached hereto as Section 00096) has been delivered to City with the Contractor's Bid Proposal Form. If Contractor observes that the Contract Documents are at variance therewith, it shall promptly notify the City and Engineer in writing. Contractor has provided a separate line item in its Bid identifying the cost of compliance with the applicable trench safety standards set forth in the Trench Safety Act.

43.0 PUBLIC ENTITY CRIMES

43.1 By its execution of the Agreement and the Contractor's Public Entities Crime Statement, in the form set forth in Section 00097). Contractor acknowledges that it has been informed by the City of and warrants that it is in compliance with the terms of Section 287.133(2)(a) of the Florida Statutes which reads as follows:

"A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list."

44.0 INSURANCE

44.1 During the term of this Agreement, Contractor shall provide, pay for, and maintain, with companies satisfactory to the City, the types and limits of insurance required by the Contract Documents – reference Exhibit A. All insurance shall be from responsible companies eligible to do business in the State of Florida. Simultaneously with the execution and delivery of this Agreement by Contractor, Contractor shall deliver to the City the properly completed and executed Certificate GENERAL CONDITIONS 00100-42

of Insurance, in the form set forth in Section 00099 along with any other properly completed and executed Certificates of Insurance that may be necessary, evidencing the fact that Contractor has acquired and put in place the insurance coverages and limits required herein. In addition, certified, true, and exact copies of all insurance policies required shall be provided to the City, on a timely basis, if requested by the City. These Certificates and policies shall contain provisions that at least thirty (30) calendar days advanced written notice by registered or certified mail shall be given the City of any cancellation, intent not to renew, or any policy change that would result in a reduction in the policies' coverages, except in the application of the Aggregate Limits Provisions. The renewal of any insurance required to be maintained by Contractor hereunder shall be by a renewal Certificate of Insurance in the same form as was required for the original Certificate of Insurance, which renewal Certificate of Insurance shall be delivered to City at least ten (10) calendar days prior to expiration of current coverages so that there shall be no interruption in the Work due to lack of proof of insurance coverages required of Contractor under this Agreement.

44.2 Contractor shall also notify the City, in the same manner required in Section 44.1 above, within two (2) calendar days after Contractor's receipt, of any notices of expiration, cancellation, non-renewal or material change in coverages or limits received by Contractor from its insurer, and nothing contained herein shall relieve Contractor of this requirement to provide notice. In the event of a reduction in the aggregate limit of any policy to be provided by it hereunder, Contractor shall immediately take steps to have the aggregate limit reinstated to the full extent permitted under such policy. If, at any time, City requests a written statement from an insurance company as to any impairment to any aggregate limit of any policy to be provided by it hereunder, Contractor shall promptly authorize and cause to be delivered such statement to City. All insurance coverages of Contractor shall be primary to any insurance or self-insurance program carried by the City applicable to this Agreement. Any such self-insurance programs or coverages shall not be contributory with any insurance required of the Contractor under the terms of this Agreement. All insurance policies, other than the Workers Compensation policy and the Surveyor's Professional Liability policy, provided by Contractor to meet the requirements of this Agreement shall name the City as an additional insured through the use of ISO Endorsement No. CG 20.10.10.01 and No. CG 20.37.10.01 wording, as to the operations of Contractor under the Contract Documents and shall also provide the Severability of Interest provision (also referred to as the Separation of Insureds provision). Companies issuing the insurance policy or policies shall have no recourse against the City for payment of premiums or assessments for any deductibles which all are at the sole responsibility and risk of Contractor.

- 44.3 All insurance policies to be provided by Contractor pursuant to the terms hereof shall be performable in Bay County, Florida and must expressly state that the insurance company will accept service of process in Bay County, Florida and that the exclusive venue and exclusive jurisdiction for any action concerning any matter under those policies shall be in the appropriate state court situated in Bay County, Florida.
- 44.4 The acceptance by the City of any Certificate of Insurance pursuant to the terms of this Agreement evidencing the insurance coverages and limits required hereunder does not constitute approval or agreement by the City that the insurance requirements have been met or that the insurance policies shown on the Certificates of Insurance are in compliance with the requirements of this Agreement.
- 44.5 Before starting and until completion of all Work required hereunder, Contractor shall procure and maintain insurance of the types and to the limits specified in the Contract Documents. Contractor shall require each of its Subcontractors to procure and maintain, until the completion of that Subcontractor's work or services, insurance of the types and to the limits specified in the Contract Documents, unless such insurance requirement for the Subcontractor is expressly waived or modified in writing by the City. Contractor shall not enter or otherwise occupy the Project site or commence any Work to be performed under this Agreement at the Site or any other property of the City until all insurance required hereunder has been obtained by Contractor and such proof of insurance, as the same is required under this Agreement, has been delivered to City. Contractor shall require all property insurance policies related to the Work and secured and maintained by Contractor and its Subcontractors to include provisions providing that each of their insurance companies shall waive all rights of recovery, under subrogation or otherwise, against the City and any of its separate contractors and the agents, employees, and subcontractors of any of them.
- 44.6 Should at any time Contractor or any of its Subcontractors not maintain the insurance coverages required in this Agreement, the City may terminate this Agreement for Contractor default or at its sole discretion shall be authorized to purchase such coverages and charge Contractor for such coverages purchased, to include a fifteen percent (15%) administrative fee. If Contractor fails to reimburse the City for such costs within thirty (30) calendar days after demand, the City has the right to offset those costs from any amount due Contractor under this Agreement. The City shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverages purchased or the insurance company/companies used. The decision of the City to purchase such insurance

coverages shall in no way be construed to be a waiver of any of its rights under this Agreement. If the City exercises its option to purchase such required coverages, the coverages shall not be cancelled by Contractor and shall stay in force until the normal expiration date according to the terms and conditions of the insurance policy.

44.7 As may be required by City from time to time, the status of any insurance aggregate limits are to be confirmed in writing by the respective insurance companies. The amounts and types of insurance Contractor shall comply with all of the requirements of this Section 44 unless otherwise agreed to, in writing, by City.

[END OF SECTION 00100]

SECTION 00800

SUPPLEMENTARY CONDITIONS

PART 1 - GENERAL

1.1 CLAIM PERIOD

A. No claim by the CONTRACTOR for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Contract.

1.2 REGULAR WORKING HOURS

- Regular working hours are defined as up to forty hours per week with a maximum Α. of 10 hours per day, Monday through Friday, beginning no earlier than 7:00 a.m. and ending no later than 5:00 p.m., excluding holidays. Any work beyond ten hours per day or 40 hours per week shall be considered overtime. The CONTRACTOR shall not work on City designated holidays. The Contract Time shall not be extended due to holidays falling within the Contract Time. Whenever the CONTRACTOR is performing any part of the Work, with the exception of equipment maintenance and cleanup, inspection by OWNER's representative will be required. Requests to perform the Work at times other than during regular working hours must be submitted in writing to the Project Representative, at least 48 hours prior to any proposed weekend work or scheduled extended workweeks, to give the OWNER ample time to arrange for representation and/or inspection during those periods. Periodic unscheduled overtime on weekdays will be permitted provided that two hours notice is provided to and acknowledged in writing by the Project Representative prior to the end of the regular working day. Maintenance of the CONTRACTOR's equipment and cleanup may be performed during hours other than regular working hours.
- B. CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours. At OWNER's option, overtime costs may either be deducted from the CONTRACTOR's monthly payment request or deducted from the CONTRACTOR's retention prior to release of final payment.
- C. ENGINEERING/Inspection costs shall be calculated at the following rates:

Field Representative \$95/hour
 ENGINEER \$165/hour
 Project Manager \$210/hour

SUPPLEMENTARY CONDITIONS 00800-1

1.3 DEFECTIVE WORK

A. The CONTRACTOR shall not be entitled to an extension of the Contract Time or increase in the Contract Price for correcting or removing defective work.

1.4 CORRECTIVE WORK

A. Where defective or nonconforming Work (including damage to other work resulting therefrom) has been corrected, removed or replaced pursuant to the CONTRACTOR's obligations under the Contract Documents including Articles 16.0 and 27.0 of the General Conditions, the correction period set forth in Article 27.0 of the General Conditions with respect to such work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed and accepted by the OWNER.

1.5 STORED EQUIPMENT AND MATERIALS

A. The CONTRACTOR shall furnish evidence that payment received on the basis of materials and equipment, not incorporated and suitably stored, has in fact been paid to the respective supplier(s) within 60 days of the Application of Payment on which the material/equipment first appeared. Failure to procure said evidence of payment shall result in the withdrawal of previous approval(s) and removal of the related equipment and materials from the Application of Payment.

1.6 SUBSTANTIAL COMPLETION

- A. In addition to the other terms and conditions set forth in the Contract Documents, the Work will not be considered substantially complete unless and until CONTRACTOR has completed each of the following to the satisfaction of the OWNER:
 - a. All components of the Work have been installed, tested and approved.
 - b. All repair and coating systems have been properly cured.
 - c. All data specified in the Contract Documents have been delivered to the OWNER.
 - d. All instructions have been provided to the Project Representative in accordance with the Contract Documents.
 - e. All training to be provided by CONTRACTOR pursuant to the terms of the Contract Documents has been completed.

SECTION 00802

PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

PART 1 - GENERAL

1.1 PRECONSTRUCTION REQUIREMENTS

At the Preconstruction Conference, the CONTRACTOR shall provide to the PROJECT REPRESENTATIVE an Erosion Control Plan meeting the requirements or special conditions of all permits authorizing project construction and the Contract requirements.

When a Florida Department of Environmental Protection (FDEP) generic permit is issued, the CONTRACTOR's Erosion Control Plan shall be prepared to accompany the Stormwater Pollution Prevention Plan (SWPPP). The CONTRACTOR shall ensure the Erosion Control Plan includes procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-stormwater discharges, such as contaminated groundwater or accidental spills. The CONTRACTOR shall not begin any soil disturbing activities until receipt of PROJECT REPRESENTATIVE's written approval of the CONTRACTOR's Erosion Control Plan, including required signed certification statements.

The CONTRACTOR's failure to sign any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed by the CONTRACTOR or any of its subcontractors without the required signed documents or certification statements may be considered a violation of the FDEP Generic Permit.

When the SWPPP is required, the CONTRACTOR shall prepare the Erosion Control Plan in accordance with the planned sequence of operations and present the Erosion Control Plan in a format acceptable to the PROJECT REPRESENTATIVE. The Erosion Control Plan shall include, but not be limited to, descriptions of the following items or activities:

- A. For each phase of construction operations or activities, supply the following information:
 - 1. Locations of all erosion control devices.
 - 2. Types of all erosion control devices.
 - 3. Estimated time erosion control devices will be in operation.
 - 4. Monitoring schedules for maintenance of erosion control devices.
 - 5. Methods of maintaining erosion control devices.
 - 6. Containment or removal methods for pollutants or hazardous wastes.

PREVENTION, CONTROL, AND ABATEMENT 00802-1

- B. The name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.
- C. The Erosion Control Plan submitted to the PROJECT REPRESENTATIVE for the ENGINEER's approval.

The CONTRACTOR shall not begin construction activities until the Erosion Control Plan receives written approval from the ENGINEER. The CONTRACTOR shall comply with the approved Erosion Control Plan.

1.2 BALES

- A. The CONTRACTOR shall provide baled hay or straw having minimum dimensions of 14 inches by 18 inches by 36 inches [350 by 450 by 900 mm] at the time of placement.
- B. The CONTRACTOR shall construct baled hay or straw dams according to details shown in the plans or as directed by the PROJECT REPRESENTATIVE to protect against downstream accumulations of sediment.
- C. The CONTRACTOR shall use natural baled hay or straw or synthetic hay bales as an alternative to natural baled hay or straw. Synthetic hay bales should be interlocking, have pre-made stake holes, made of synthetic fibers (polypropylene, nylon, polyester) that meet the Environmental Protection Agency's (EPA's) Toxicity Characteristic Leaching Procedure (TCLP) standards, and be produced into a filter medium with needle-punches fibers.
- D. The CONTRACTOR shall wash out and remove sediment deposits when the deposits reach ½ the height of the reusable synthetic hay bale or as directed by the PROJECT REPRESENTATIVE.
- E. The CONTRACTOR shall dispose of the washout in an area approved by the PROJECT REPRESENTATIVE.
- 1.3 Synthetic hay bales that have had sediment deposits removed may be reinstalled on the Project as approved by the PROJECT REPRESENTATIVE.ARTIFICIAL COVERINGS

A. General:

The CONTRACTOR shall install artificial coverings in locations where temporary protection from erosion is needed. Two situations occur that require artificial coverings. The two situations have differing material requirements, which are described below.

 During temporary pauses in construction caused by inclement weather or other circumstances, use artificial coverings composed of natural or synthetic fiber mats, plastic sheeting, or netting as protection against

PREVENTION, CONTROL, AND ABATEMENT 00802-2

erosion, when directed by the PROJECT REPRESENTATIVE. Remove the material when construction resumes.

2. While permanent grassing is being established, use artificial coverings as erosion control blankets, at locations shown in the plans, to facilitate plant growth, in accordance with the Florida Department of Transportation (FDOT) specification 104-6.4.13.

1.4 MAINTENANCE AND INSPECTION

- A. The CONTRACTOR shall provide routine maintenance of permanent and temporary erosion control features, at no additional Contract expense, until the project is complete and accepted.
- B. If reconstruction of such erosion control features is necessary due to the CONTRACTOR's negligence or carelessness or, in the case of temporary erosion control features, failure by the CONTRACTOR to install permanent erosion control features as scheduled, the CONTRACTOR shall replace such erosion control features at no additional Contract expense.
- C. The CONTRACTOR shall inspect all erosion control features at least once every 7 calendar days and within 24 hours of the end of a storm of 0.50 inches [12 mm] or greater.
- D. The CONTRACTOR shall maintain all erosion control features as required in the SWPPP, CONTRACTOR's Erosion Control Plan and as specified in the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

1.5 MOWING

- A. The PROJECT REPRESENTATIVE may require mowing by the CONTRACTOR of areas within the limits of the Project as deemed necessary by the Project Manager.
- B. The CONTRACTOR shall mow these designated areas within 7 days of receiving such order from the PROJECT REPRESENTATIVE.
- C. The CONTRACTOR shall remove and properly dispose of all litter and debris prior to the mowing operation.
- D. The CONTRACTOR shall use conventional and specialized equipment along with hand labor to mow the entire area including slopes, wet areas, intersections, and around all appurtenances.
- E. The CONTRACTOR shall mow all areas to obtain a uniform height of 6 inches [150 mm], unless otherwise directed by the PROJECT REPRESENTATIVE.

PREVENTION, CONTROL, AND ABATEMENT 00802-3

SALES TAX EXEMPTION

1.	Contractor and City entered into a contract dated	,2023,			
	(the "Contract") for the performance of the WORK described therein, to	which an			
	executed copy of this Sales Tax Exemption Addendum ("Addendum") shall be			
	attached thereto and incorporated therein.	-			

- 2. Contractor and City desire to enter into an arrangement whereby certain purchases under the Contract can be made through the City as a means of taking advantage of the City's status of being exempt from sales and use taxes.
- 3. The City is exempt from sales and use taxes. As such it is exempt from the payment of sales and use tax on purchases of building materials or equipment necessary for the performance of work under construction contracts, provided the City determines it is to its best interest to do so, and provided the purchase of such building materials and equipment are handled in the manner hereinafter described.
- 4. The City has determined it is in its best interest to provide the opportunity to eliminate the payments of sales tax for building materials or equipment to be used in the construction of this project, and notifies the Contractor of its intent to do so.

TERMS AND CONDITIONS

- 1. The parties intend by this Addendum to comply with the procedures and elements described in Florida Department of Revenue Technical Assistance Advisements 01A-003 (January 8, 2001) and 00A-083 (December 21, 2000), and any conflict or ambiguity in this Addendum shall be resolved in favor of meeting the elements necessary to make tax exempt the purchases contemplated by this Addendum.
- 2. The City shall, at its sole discretion, have the option to purchase directly from the supplier or vendor, any building materials or equipment included in the Contractor's bid for the Contract. Contractor shall, from time to time submit, update, and keep current, for consideration by the City, a list of all building materials and equipment to be purchased, organized by supplier or vendor. Such list shall include a brief description of the building materials and equipment and the name and address of the supplier or vendor. Suppliers or vendors reasonably anticipated to furnish building materials and equipment with an aggregate purchase value of less than \$10,000 need not be listed. Contractor's initial list is attached hereto and incorporated herein. Building materials and equipment not required for the performance of the Contract shall not be purchased under this Addendum. The

SALES TAX EXEMPTION 00808-1

City reserves the right to delete or add items from this Addendum when it is in the City's best interest.

- 3. The City will be liable for the payment of all purchases properly made hereunder.
- 4. Contractor shall notify all suppliers or vendors not to make sales to the Contractor under this Addendum.
- 5. For each purchase approved by the City to be made under this Addendum, the Contractor shall furnish the City in writing information sufficient for the City to issue to the supplier its City purchase order for the requested building materials or equipment which shall include as an attachment the City's Certificate of Exemption. Suppliers and vendors will render statements for materials purchased to the City in care of the Contractor. After receiving and inspecting the materials when they arrive at the job site, verifying that all necessary documentation accompanies the delivery and conforms with the purchase order, Contractor will forward the invoices to the City's duly authorized representative for approval, processing, and delivery to the City for payment. The City will process the invoices and issue payment directly to the supplier or vendor. Contractor will keep and furnish to the City all such records, summaries, reports of purchase orders and invoices, and reports of the status and use of goods handled under this Addendum, as the City may reasonably require.
- 7. The Contractor shall submit his proposal for base bid and proposals for each Alternate with the inclusion of all required taxes including applicable sales and use tax, the same as if tax were to be paid in the normal manner. Any sales and use tax savings will be affected during the performance of the Contract.
- 8. Contractor shall immediately notify all subcontractors and material and equipment suppliers of the City's intent to reduce the construction cost of the Project by the purchase of building materials and equipment in the manner herein described and the Contractor shall not withhold his consent to the arrangement.
- 9. Administrative costs incurred by the Contractor with this Addendum shall be

considered to be included in the Total Lump Sum Bid amount for the Work. No addition shall be added to the Contract Price because of the service provided by the Contractor in the purchase of building materials and equipment by the City.

- 10. All sales and use tax savings on the purchase of building materials and equipment shall be credited to the City and the amount of the Contract Price shall be reduced by the full amount of savings which result from the omission of payment of sales and use tax.
- 11. By virtue of its payment of material and equipment invoices, the City further intends to benefit from any discounts offered for timely payment to the extent of one-half of the discount offered, the remaining one-half to accrue to the Contractor as an incentive for the Contractor to process invoices well within the discount period. The Contractor shall pay any late penalties caused by its failure to facilitate the processing of invoices within the allotted time.
- 12. The Contractor, notwithstanding the terms and conditions of this Addendum, shall select, describe, obtain approvals, submit samples, coordinate, process, prepare shop drawings, pursue, receive, inspect, store, protect and guarantee the same as would have been the case if the tax saving procedures were not implemented.
- 13. The Contractor as bailee shall have the obligation of receiving, inspecting, storing and safekeeping all goods and materials purchased on behalf of the City pursuant to this Addendum. Further, the Contractor shall be responsible for the cost of replacing or repairing any goods or materials lost, stolen, damaged or destroyed while in the Contractor's possession or control as bailee, as well as processing all warranty claims for defective goods and materials to the same extent as if such goods had been Contractor-supplied or purchased in the name of the Contractor.
- 14. Contractor shall maintain separate accounting records for all transactions carried out under the authority granted to it under this Addendum. Such records shall be open to the City or its authorized agent during normal business hours of Contractor.
- 15. The City will take both legal and equitable title to the building materials and equipment received from the vendor when delivery is made by the vendor at the Project site. Without waiving or releasing Contractor from its obligations under paragraph 13 above, as equitable and legal owner of the materials and equipment purchased under this Addendum, the City shall bear the risk of loss thereto and shall have the insurable interest therein. Therefore, unless already provided for under the terms of the Contract Documents, Contractor shall cause the City to be insured or named as an additional insured as its interest may appear against any

loss or damage to such goods to the extent of their full insurable value. All such insurance shall be in such form and through such companies as may be reasonably acceptable to City and Contractor shall provide City certificates thereof requiring each insurer to provide the City ten (10) days written notice in advance of cancellation or modification of coverage. Pursuant to the terms of the Contract Documents, the City will reimburse the Contractor for any additional premium amounts paid solely for such insurances against loss or damage.

- 16. Contractor shall be fully responsible for all matters relating to the procurement of materials and equipment covered by this Addendum, including but not limited to, overseeing that the correct materials and the correct amounts are received timely with appropriate warranties; for inspecting and receiving the goods; and for unloading, handling and storing the materials until installed. Contractor shall inspect the materials when they arrive at the Project site, verify that all necessary documentation accompanies the delivery and conforms with the City's purchase order, and forward the invoice to the City for payment if the goods are conforming and acceptable. Contractor shall verify that the materials conform to Drawings and Specifications and determine before installation that such materials are not defective. Contractor shall manage and enforce the warranties on all materials and equipment covered by this Addendum. Contractor shall be responsible to the City for its failure to fully and timely perform its obligations under this paragraph, and this Addendum generally.
- 17. When title to the materials and equipment covered by this Addendum passes to the City prior to being incorporated into the Work, the Contractor's possession of the goods is a bailment until such time as each of such goods is returned to the City by being incorporated into the Work.
- 18. The City shall not be liable for delays in the Work caused by delays in delivery of or defects in the goods covered by this Addendum, nor shall such delays or defects excuse Contractor in whole or in part from its obligation to timely perform the Contract.
- 19. In the event Contractor objects to the payment of any invoice for goods covered by this Addendum, Contractor shall at no additional cost to the City, provide all assistance, records, and testimony necessary or convenient for the City to resolve the supplier's claim for payment.

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SALES TAX EXEMPTION 00808-4

SECTION 01110 ENVIRONMENTAL PROTECTION

1.1 SCOPE OF WORK

- A. The Work covered by this Section consists of furnishing all labor, materials and equipment and performing all Work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operations under this Contract. For the purpose of this Specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorable alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes; or violate any applicable environmental laws, rules, codes or regulations.
- B. The control of environmental pollution requires consideration of air, water and land, and involves management of noise, odor, and solid waste, as well as other pollutants.
- C. These Specifications are intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and surroundings. These are general guidelines. It is the CONTRACTOR'S responsibility to determine the specific construction techniques to meet these guidelines.
- D. The CONTRACTOR shall secure, if required, at its own cost, a surface water management permit from the Northwest Florida Water Management District and approvals from Bay County and/or Panama City Beach for any construction dewatering activities associated with this project.

1.2 APPLICABLE REGULATIONS

A. The CONTRACTOR shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

1.3 NOTIFICATIONS

A. The OWNER will notify the CONTRACTOR in writing immediately following identification of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and any required corrective action to be taken by CONTRACTOR. State or local agencies responsible for verification of certain aspects of the environmental protection requirements may notify the CONTRACTOR of any non-compliance with State or local requirements. The CONTRACTOR shall, after receipt of such notice from the regulatory agency shall immediately notify the OWNER in writing and immediately take correction action. If the CONTRACTOR fails or refuses to comply promptly, the OWNER may issue an order stopping all or part of the Work

ENVIRONMENTAL PROTECTION 01110-1

until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the CONTRACTOR unless it is later determined that the CONTRACTOR was in compliance and subject to the other terms of the Contract Documents.

1.4 IMPLEMENTATION

- A. Prior to commencement of the Work, the CONTRACTOR shall meet with the OWNER to develop mutual understandings relative to compliance with this specification and administration of the environmental pollution control program.
- B. The CONTRACTOR shall remove temporary environmental control features, when approved by the OWNER, and incorporate permanent control features into the Project at the earliest practicable time, consistent with the approved construction schedule.

1.5 EROSION CONTROL

A. The CONTRACTOR shall ensure sufficient precautions are taken during construction to minimize the run-off of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other polluting materials harmful to humans, fish, or other life, into the supplies and surface waters of the State. Control measures must be adequate to assure that turbidity in the receiving water will not be increased more than 10 nephelometric turbidity units (NTU), or as otherwise required by the State or other controlling body, in water used for public water supply or fish unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 NTU unless otherwise permitted. Special precautions shall be taken in the use of construction equipment to prevent operations which promote erosion.

Erosion evident within the limits of construction shall be the responsibility of the CONTRACTOR during the full term of the Contract and for the full (1) year guarantee period. Areas subject to erosion during this time shall be fully restored to original or design conditions (as applicable) within 10 days of notice to the CONTRACTOR.

B. The CONTRACTOR shall provide positive means of erosion control such as shallow ditches around construction to carry off surface water. Erosion control measures, such as siltation basins, hay check dams, mulching, jute netting and other equivalent techniques, shall be used as appropriate. Flow of surface water into excavated areas shall be prevented. Ditches around construction area shall be used to carry away water resulting from dewatering of excavated areas. At the completion of the Work, ditches shall be backfilled and the ground surface restored to original condition.

C. The CONTRACTOR shall schedule and conduct all Work in a manner that will minimize the erosion of soils in the area of the Work. Erosion control measures shall be provided such as diversion channels, sedimentation or filtration systems, berms, staked hay bales, seeding, mulching or other special surface treatments as are required by regulatory authorities to prevent silting and muddying of streams, rivers, canals, impoundments, lakes, etc. All erosion control measures shall be in place prior to any construction activity in any area of the Work.

1.6 PROTECTION OF LAND RESOURCES

- A. Land resources within the Project boundaries and outside the limits of permanent Work shall be restored by CONTRACTOR to a condition, after completion of construction that will appear to be natural and not detract from the appearance of the project.
- B. Outside of areas requiring earthwork for the construction of the new facilities, the CONTRACTOR shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the OWNER. Where such special emergency use is permitted, first wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The CONTRACTOR shall in any event be responsible for any damage resulting from such use.
- C. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by the CONTRACTOR'S equipment, dumping or other operations, CONTRACTOR shall protect such trees by placing board, planks, or poles around them. Monuments and markers shall be similarly protected by CONTRACTOR before beginning operations near them.
- D. Any trees or other landscape feature scarred or damaged by the CONTRACTOR'S equipment or operations shall be restored as nearly as possible to its original condition. The OWNER will decide what method of restoration shall be used and whether damaged trees shall be treated and healed or removed and disposed of.

All scars made on trees by CONTRACTOR's equipment, construction operations, or by the removal of limbs by CONTRACTOR larger than 1 inch in diameter shall be coated as soon as possible with an approve tree wound dressing. All trimming or pruning by CONTRACTOR shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.

Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the CONTRACTOR and are beyond saving in the opinion of a certified nurseryman, shall be immediately removed and replace in kind and maintained until growth is assured.

- E. The locations of the CONTRACTOR's lay down area, storage and other construction buildings, required temporarily in the performance of the Work, shall require written concurrence of the OWNER. The preservation of the landscape and public perception shall be an imperative consideration in the selection of the lay down area and in the provision of any buildings. Drawings showing the lay down area and any buildings shall be submitted by CONTRACTOR for approval of the OWNER.
- F. If temporary roads or embankments and excavations for plant and/or work areas are proposed, the CONTRACTOR, shall submit the following for approval by the OWNER at least ten days prior to scheduled start of such temporary work.
 - 1. A layout of all temporary roads, excavations and embankments to be constructed within the work area.
 - 2. Details of temporary road construction.
 - 3. Drawings and cross sections of proposed embankments and their foundations, including a description of proposed materials.
 - 4. A landscaping drawing showing the proposed restoration of the area. Removal of any trees and shrubs outside the limits of existing clearing area shall be indicated. The drawing shall also indicate location of required guard posts or barriers required to control vehicular traffic passing close to trees and shrubs to be maintained undamaged. The drawing shall provide for the obliteration of construction scars as such and shall provide for a natural appearing final condition of the area. Modification of the CONTRACTOR'S approved drawings shall be made only with the written concurrence of the ONWER. No unauthorized road construction, excavation or embankment construction including disposal areas will be permitted.
- G. The CONTRACTOR shall remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess materials, or any other vestiges of construction as requested by the OWNER. Any construction disturbed area shall be restored to near natural conditions.
- H. All debris and excess material will be disposed of by CONTRACTOR outside wetland or floodplain areas in an environmentally sound and lawful manner.

1.7 PROTECTION OF AIR QUALITY

- A. The use of burning for the disposal of refuse and debris will not be permitted.
- B. The CONTRACTOR shall maintain all excavations, embankment, stockpiles, access roads, plant sites, waste areas, borrow areas, and all other work areas within or without the project boundaries free from dust which could cause the standards for air pollution to be exceeded, and which would cause a hazard or nuisance to others.

- C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products is prohibited. The use of chlorides may be permitted with concurrence from the appropriate regulatory authority.
- D. Sprinkling must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the CONTRACTOR must have sufficient competent equipment on the job to accomplish needed sprinkling. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

1.8 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

A. During the life of this Contract, CONTRACTOR shall maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. All pollution control devices shall be inspected regularly to ensure they are operating correctly.

1.9 NOISE CONTROL

- A. The CONTRACTOR shall make every effort to minimize noises caused by operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with State and Federal Regulations.
- B. Sound levels measured by the OWNER shall not exceed 55 dBA from 8:00 PM to 7:00 AM or 65 dBA from 7:00 AM to 8:00 PM. This sound level to be measured at the OWNER'S property line. Sound levels of equipment shall not exceed 95 dBA at any time. Sound levels in excess of these values are sufficient cause to have the Work halted until equipment can be quieted to acceptable levels. Work stoppage for excessive noise shall not relieve the CONTRACTOR of the other portions of this specification including, but not limited to Contract Time and Contract Price.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01505

MOBILIZATION/DEMOBILIZATION

PART 1 - GENERAL

1.1 DEFINITION AND SCOPE

- A. As required for the proper performance and completion of the Work, mobilization shall include, but not be limited to, the following principal items:
 - 1. Move onto the site all CONTRACTOR'S plant and equipment required for the first month's operation.
 - 2. Install temporary construction power, wiring, telephone, and lighting facilities.
 - Establish a fire protection plan and safety program.
 - 4. Secure construction water supply.
 - 5. Provide field office trailers for CONTRACTOR and PROJECT REPRESENTATIVE.
 - 6. Provide on-site sanitary facilities and potable water facilities.
 - 7. Arrange for and erect CONTRACTOR'S lay down and storage yard and employee's parking facilities.
 - 8. Submit all required insurance certificates and bonds.
 - 9. Obtain all required permits.
 - 10. Post all OSHA, FDEP, Department of Labor, and all other required notices.
 - 11. Have CONTRACTOR'S project manager and/or superintendent at the job site full time.
 - 12. Submit a detailed construction schedule acceptable to the PROJECT REPRESENTATIVE.
 - 13. Submit a Schedule of Values of the Work in an approved format acceptable to the PROJECT REPRESENTATIVE.
 - 14. Submit a hurricane preparedness plan acceptable to the PROJECT REPRESENTATIVE.
 - 15. Erect all required Project signs.

1.2 PAYMENT FOR MOBILIZATION

A. Payment for all mobilization/demobilization work will be made at the lump sum price bid for mobilization and demobilization of all labor, equipment, materials and appurtenances necessary for construction of the project. Mobilization shall include all items listed in the above paragraph. Also included, but not limited to, as part of this bid item is the cost for project performance indemnification's, shop drawings, working drawings, schedules, record drawings and documents, coordination, and phasing and other miscellaneous items associated with the work. Measurement and payment for this bid item will be lump sum. The lump sum price for mobilization/demobilization will be limited to 1.5 percent of the total contract

MOBILIZATION/DEMOBILIZATION 01505-1

amount. Eighty percent (80%) of the lump sum amount will be payable upon mobilization. The remaining 20% will be payable upon demobilization.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01705 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

A. The CONTRACTOR shall comply with all closeout requirements specified in the General Conditions and this Specification.

1.2 SUBSTANTIAL COMPLETION

- A. When CONTRACTOR considers the Work is substantially complete the following shall be submitted by CONTRACTOR to the OWNER:
 - 1. A written notice that the Work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the OWNER will make an inspection to determine the status of completion.
- C. Should the OWNER determine that the Work is not substantially complete:
 - 1. The OWNER will promptly notify the CONTRACTOR in writing, giving the reasons therefore.
 - 2. CONTRACTOR shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the OWNER.
 - 3. The OWNER will re-inspect the Work.
- D. When the OWNER finds that the Work is substantially complete:
 - 1. The OWNER will prepare and deliver to CONTRACTOR a tentative Certificate of Substantial Completion, with a tentative list of items to be completed or corrected before final payment.
 - After consideration of any objections made by the OWNER as provided in Conditions of the Contract, and when the OWNER considers the Work substantially complete, a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected will be executed and delivered to the CONTRACTOR by the OWNER.

1.3 FINAL INSPECTION

A. When CONTRACTOR considers the Work complete, the CONTRACTOR shall

CONTRACT CLOSEOUT 01705-1

PCB23-28 ITB MULTIUSE TRAIL EAST – GAYLE'S TRAILS certify in writing to the OWNER:

- 1. Contract Documents have been reviewed.
- 2. Work has been inspected for compliance with Contract Documents.
- 3. Work has been completed in accordance with Contract Documents.
- 4. Equipment and systems have been tested in presence of the OWNER and are operational.
- 5. Work is completed and ready for final inspection.
- B. The OWNER will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should the OWNER consider that the Work is incomplete or defective:
 - 1. The OWNER will promptly notify the CONTRACTOR in writing, listing the incomplete or defective work.
 - 2. CONTRACTOR shall take immediate steps to remedy the stated deficiencies, and send a second written certification to OWNER that the work is complete.
 - 3. The OWNER will re-inspect the Work.
- D. When the OWNER finds that the Work is acceptable under the Contract Documents, the CONTRACTOR shall be requested to make closeout submittals.

1.4 REINSPECTION FEES

A. Should the OWNER perform re-inspections due to failure of the Work to comply with the claims of status of completion made by the CONTRACTOR, OWNER will deduct the amount of any additional compensation it paid for such re-inspections, from the final payment to the CONTRACTOR.

1.5 CONTRACTOR'S CLOSEOUT SUBMITTALS TO OWNER

- A. Evidence of compliance with requirements of governing authorities.
- B. Project Record Documents & Digital video on DVD.
- C. Operating and Maintenance Data.
- D. Warranties and Bonds.
- E. Keys and Keying Schedule.
- F. Spare Parts and Maintenance Materials.
- G. Evidence of Payment and Releases of Liens.

CONTRACT CLOSEOUT 01705-2

1.6 FINAL ADJUSTMENTS OF ACCOUNTS

- A. The CONTRACTOR shall submit a final statement of accounting to the OWNER.
- B. Statement shall reflect all adjustments to the original Contract amount:
 - 1. The original Contract amount.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Unit Prices.
 - c. Deductions for uncorrected Work.
 - d. Penalties and Bonuses.
 - e. Deductions for liquidated damages.
 - f. Deductions for reinspection payments.
 - g. Other adjustments.
 - h. Inspection overtime.
 - i. Excessive shop drawing review cost by the ENGINEER.
 - 3. Total Contract amount, as adjusted.
 - 4. Previous Payments.
 - 5. Amount remaining due.
- C. OWNER will prepare a final Change Order, reflecting approved adjustments to the Contract amount which were not previously made by Change Orders.

1.7 FINAL APPLICATION FOR PAYMENT

A. CONTRACTOR shall submit the Final Application for Payment in accordance with procedures and requirements stated in the General Conditions.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

SECTION 02110 SITE CLEARING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Special Conditions, apply to work of this section.

1.02 DESCRIPTION OF WORK

- A. Extent of site clearing is shown on drawings.
- B. Site clearing work includes, but is not limited to:
 - 1. Protection of existing trees.
 - 2. Removal of trees and other vegetation.
 - 3. Topsoil stripping.
 - 4. Clearing and grubbing.
 - 5. Removing above-grade improvements.
 - 6. Removing below-grade improvements.

1.03 JOB CONDITIONS

A. Traffic:

- Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
- 2. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.

B. Protection of Existing Improvements:

1. Provide protection necessary to prevent damage to existing improvements indicated to remain in place.

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- 2. Protection improvements on adjoining properties and on OWNER's property.
- 3. Restore damaged improvements to their original condition, as acceptable to parties having jurisdiction.

C. Protection of Existing Trees and Vegetation:

- 1. Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.
- 2. Provide temporary guards to protect trees and vegetation to be left standing.

D. Salvable Improvements:

1. Carefully remove items indicated to be salvaged, and store on OWNER's premises where indicated or directed.

PART 2 - PRODUCTS

Not applicable to work of this section.

PART 3 - EXECUTION

3.01 SITE CLEARING

A. General:

- 1. Remove trees, shrubs, grass and other vegetation, improvements, or obstructions interfering with installation of new construction.
- 2. Remove such items elsewhere on the site or premises as specifically indicated. Removal includes digging out stumps and roots.
- Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction.

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B. Topsoil:

- 1. Topsoil is defined as friable clay loam surface soil found in a depth of not less than 4 inches.
- 2. Satisfactory topsoil is reasonably free of topsoil, clay lumps, stones, and other objects over 2 inches in diameter, and without weeds, roots, and other objectionable material.
- 3. Remove heavy growths of grass from areas before stripping.
- 4. Stop topsoil stripping a sufficient distance, where trees are indicated to be left standing, to prevent damage to main root system.
- 5. Stockpile topsoil in storage piles in areas shown, or where directed. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent wind-blown dust.
- 6. Dispose of unsuitable or excess topsoil same as waste material, herein specified.

C. Clearing and Grubbing:

- 1. Clear site of trees, shrubs and other vegetation, except for those indicated to be left standing.
- 2. Completely remove stumps, roots, and other debris protruding through the ground surface.
- 3. Use only hand methods for grubbing inside drip line of trees indicated to be left standing.
- Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.
- 5. Place fill material in horizontal layers not exceeding 6-inch loose depth, and thoroughly compact to a density equal to adjacent original ground.

D. Removal of Improvements:

1. Remove existing above-grade and below-grade improvements necessary to permit construction, and other work as indicated.

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PCB23-28 ITB MULTIUSE TRAIL EAST – GAYLE'S TRAILS 3.02 DISPOSAL OF WASTE MATERIALS

- A. Burning on OWNER's Property: Burning is not permitted on OWNER's property unless OWNER's approval is obtained and proper authorities are notified.
- B. Removal from OWNER's Property: Remove waste materials and unsuitable materials from OWNER's property and dispose of off site in legal manner.

END OF SECTION

SECTION 02200 EARTHWORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Special Conditions, apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Definition: "Excavation" consists of removal of material encountered to subgrade elevations indicated and subsequent disposal of materials removed.

1.03 QUALITY ASSURANCE

- A. Codes and Standards:
 - 1. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.
- B. Testing and Inspection Service:
 - 1. Employ, at CONTRACTOR's expense, a testing laboratory subject to approval by the ENGINEER to perform soil testing and inspection service for quality control during earthwork operations.

1.04 SUBMITTALS

- A. Test Reports-Excavating: Submit following reports directly to ENGINEER from the testing services; with copy to CONTRACTOR:
 - 1. Test reports on fill material. (Modified Proctor Tests)
 - 2. Field density test reports. (Modified Proctor Tests)
 - 3. Report of actual unconfined compressive strength and/or results of bearing tests of each stratum tested.

1.05 JOB CONDITIONS

A. Existing Utilities:

- 1. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations.
- Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with OWNER and utility companies in keeping respective services and facilities in operation. CONTRACTOR shall bear all costs of repairing damaged utilities to the satisfaction of utility owner.
- 3. Do not interrupt existing utilities serving facilities occupied and used by OWNER or others, during occupied hours, except when permitted in writing by ENGINEER and then only after acceptable temporary utility services have been provided.
- 4. Provide minimum of 48-hour notice to engineer, and receive notice to proceed before interrupting any utility.
- Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shutoff of services if lines are active.

B. Use of explosives:

- 1. The use of explosives is not permitted.
- C. Protection of Persons and Property:
 - 1. Barricade open excavations occurring as part of this work and post with warning lights.
 - 2. Operate warning lights as recommended by authorities having jurisdiction.
 - 3. Protect structures, utilities, sidewalks, pavements, and other facilities from damages caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
 - 4. Perform excavation within drip-line of large trees to remain by hand, and protect the root system from damage or dryout in the manner

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PART 2 - PRODUCTS

2.01 SOILS MATERIALS

A. Subbase Material:

1. Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, crushed slag, natural or crushed sand.

B. Backfill and Fill Materials:

- 1. Satisfactory soil materials free of clay, rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation and other deleterious matter. The fill material should be sand containing little fines.
- 2. Prior to placing the fill material, the existing material shall be stripped of all soils containing a significant percentage of organics and all loose soils which cannot be readily compacted.
- 3. If existing materials do not meet these requirements, it may be necessary to backfill with select materials other than those on the job site.

PART 3 - EXECUTION

3.01 EXCAVATION

A. Excavation:

- 1. Excavation is Unclassified, and includes excavation to subgrade elevations indicated, regardless of character of materials and obstructions encountered.
- Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of ENGINEER. Unauthorized excavation, as well as remedial work directed by ENGINEER, shall be at CONTRACTOR's expense.
- 3. Under footings, foundation bases, or retaining walls, fill unauthorized excavation by extending indicated bottom of elevation of footing or

base to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position, when acceptable to ENGINEER.

4. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classifications, unless otherwise directed by engineer.

B. Additional Excavation:

- 1. When excavation has reached required subgrade elevations, notify ENGINEER who will make an inspection of conditions.
- 2. If unsuitable bearing materials are encountered at required subgrade elevations, notify ENGINEER who will make an inspection of conditions.
- If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed by the ENGINEER.
- 4. Removal of unsuitable material and its replacement as directed will be paid on basis of contract conditions relative to changes in work.

C. Stability of Excavations:

- Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
- 2. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

3.04 SHORING AND BRACING

- A. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross-braces, in good serviceable condition.
- B. Establish requirements for trench shoring and bracing to comply with local codes and authorities having jurisdiction.
- C. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation

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D. Dewatering:

- Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding area. The cost of all dewatering operations including well pointing and "sock pipe" shall be the responsibility of the CONTRACTOR. The ENGINEER may direct the CONTRACTOR to provide dewatering if deemed necessary.
- 2. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.
- Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.

E. Material Storage:

- Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade, and shape stockpiles for proper drainage. Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain.
- 2. Dispose of excess soil material and waste materials as herein specified.

F. Excavation for Structures:

- 1. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10', and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of service, other construction, and for inspection.
- In excavating for footings and foundations, take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is places. Trim bottoms to required lines and grades to leave solid base to receive other work.

G. Excavation for Trenches:

- 1. Dig trenches to the uniform width required for particular item to be installed, sufficiently wide to provide ample working room. Provide 6" to 9" clearance on both sides of pipe or conduit and a maximum of 30" total width.
- 2. Excavate trenches to depth indicated or required. Carry depth of trenches for piping to establish indicated flow lines and invert elevations. Beyond building perimeter, keep bottoms of trenches sufficiently below finish grade to avoid freeze-ups.
- 3. Where rock is encountered, carry excavation 6" below required elevation and backfill with a 6" layer of crushed stone or gravel prior to installation of pipe.
- 4. For pipes or conduit 5" or less in nominal size and for flat-bottomed multiple-duct conduit units, do not excavate beyond indicated depths. Hand excavate bottom cuts to accurate elevations and support pipe or conduit on undisturbed soil.
- 5. For pipes or conduit 6" or larger in nominal size, tanks and other mechanical/electrical work indicated to receive subbase, excavate to subbase depth indicated, or, if not otherwise indicated, to 6" below bottom of work to be supported.
- 6. Except as otherwise indicated, excavate for waterbearing piping so top of piping is not less that 3'-0" below finished pavement grade, but no less that 2'-6" below finish grade.
- 7. Grade bottoms of trenches as indicated, notching under pipe bells to provide solid bearing for entire body of pipe.
- 8. Backfill trenches with concrete where trench excavations pass within 18" of column or wall footings and which are carried below bottom of such footings, or which pass under wall footings. Place concrete to level of bottom of adjacent footing.
- 9. Use care in backfilling to avoid damage or displacement of pipe systems.

3.02 COMPACTION

A. General:

- Control soil compaction during construction, providing minimum percentage of density specified for each area classification indicated below.
- 2. All compaction requirements for this section are specified on the construction plans.

B. Moisture Control:

- 1. Where subgrade of layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during subsequent to compaction operations.
- 2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
- 3. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by dicing, harrowing or pulverizing, until moisture content is reduced to a satisfactory value.

3.03 BACKFILL AND FILL

- A. General: Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below:
 - 1. In excavations, use satisfactory excavated or borrow material.
 - 2. Under grassed areas, use satisfactory excavated or borrow material.
 - 3. Under walks and pavements, use subbase material, or satisfactory excavated or borrow material, or combination of both.
 - 4. Under piping and conduit, use subbase material where subbase is indicated under piping or conduit; shape to fit bottom 90 degrees of cylinder.
- B. Backfill excavation as promptly as work permits, but not until completion of the following;
 - 1. Acceptance of construction below finish grade.

- 2. Inspection, testing, approval, and recording locations of underground utilities.
- 3. Removal of concrete formwork.
- 4. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.
- 5. Removal of trash and debris.
- 6. Permanent or temporary horizontal bracing is in place on horizontally supported walls.

C. Ground Surface Preparation:

- Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, or break-up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.
- When existing ground surface has a density less than that specified under "Compaction" for particular area classification, break-up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.

D. Placement and Compaction:

- 1. The lower portion of backfill, to a compacted level of one foot above the top of the pipe, shall be hand placed in layers of lifts not to exceed six inches of compacted depth and each layer compacted individually by means of hand tampers. Above that level, place lifts in layers not to exceed twelve inches of compacted depth and machine filling and tamping may be used.
- Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each lift to required percentage of minimum soil density for each area classification as designated herein. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
- 3. Place backfill and fill materials evenly adjacent to structures, piping EARTHWORK 02200-8

or conduit to required elevations. Take care to prevent wedging action of backfill against structures or displacement of piping or conduit by carrying material uniformly around structure, piping or conduit to approximately same elevation in each lift.

3.04 GRADING

A. General:

- 1. Uniformly grade areas within limits of grading under this section, including adjacent transition areas.
- 2. Smooth finished surfaces within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated, or between such points and existing grades.
- B. Grading Outside Building Lines:
 - 1. Grade areas adjacent to building lines to drain away from structures and to prevent ponding.
- C. Finish surfaces free from irregular surface changes, and as follows:
 - 1. Lawn or Unpaved Ares: Finish areas to receive topsoil to within not more than 0.10' above or below required subgrade elevations.
 - 2. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more that 0.10' above or below required subgrade elevation.
 - 3. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1/2" above or below requires subgrade elevations.
- D. Grading Surface of Fill Under Building Slabs:
 - 1. Grade smooth and even, free from voids, compacted as specified, and to required elevation.
 - 2. Provide final grades within a tolerance of 1/2" when tested with a 10' straightedge.
 - 3. Compaction: After grading, compact subgrade surfaces to the depth and indicated percentage for each area classification.

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A. Quality Control Testing During Construction:

1. Provide testing service by a qualified soil testing firm, subject to ENGINEER's approval, to inspect and approve subgrades and fill layers before further construction work is performed.

B. Paved Areas:

1. Make at least one field density test of subgrade for every 2000 square feet of paved area but in no case less than 3 tests, nor less than 1 per driveway or crossing. In each compacted fill layer, make one field density test for every 2,000 square feet of paved area but in no case less than 3 tests, nor less than 1 per driveway or crossing.

C. Non-Paved Areas:

- 1. Perform at least 1 field density test per 3,000 square feet of fill per every vertical foot of height, and perform at least 1 field density test per 1,000 feet of pipe installed per every 2 feet of vertical trench depth.
- D. If in opinion of ENGINEER, based on testing service reports and inspection, subgrade or fills which have been placed below are specified density, provide additional compaction and testing at no additional expense.

3.06 MAINTENANCE

A. Protection of Graded Areas:

- 1. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

C. Reconditioning Compacted Areas:

 Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.

D. Grassed Areas:

1. See Section 02210, "Grassing" for requirements of grassed areas.

3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Disposal of all spoil material resulting from construction shall be the responsibility of the CONTRACTOR.

END OF SECTION

SECTION 02210 GRASSING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Special Conditions, apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Extent of grassing work is as specified or shown on the construction plans. All other areas disturbed during construction operations shall be seeded.

1.03 QUALITY ASSURANCE

A. All seed used shall be labeled in accordance with U. S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of invitation for bids. All seed shall be furnished in sealed standard containers, unless exception is granted in writing by Owner. Seed which has become wet, moldy, or otherwise damaged in transit or in storage shall not be used. Fertilizer shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, shall not be used. Seed, fertilizer and other grassing materials shall be stored under cover and protected from damage which would make them unacceptable for use.

1.04 SUBMITTALS

- A. Approvals, except those required for field installations, field applications, and field tests shall be obtained before delivery of materials or equipment to the project. The results of laboratory tests performed on the topsoil material shall be submitted. The reports shall include the pH level, the amount of organic matter, and available phosphoric acid and potash of the soil intended for use in the work. Certificate of conformance will be required for the following:
 - Grass seed shall be certified by registered, certified seed association or a registered testing laboratory not more than ten months prior to seeding.

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- Sprigs
- Fertilizer
- 4. Topsoil
- Lime
- 6. Mulching

PART 2 - PRODUCTS

2.01 TOPSOIL

A. If the quantity of existing stored or excavated topsoil is inadequate for planting, sufficient additional topsoil shall be furnished. Topsoil furnished shall be a natural, fertile, friable soil, possessing characteristics of representative productive soils in the vicinity. It shall be obtained from naturally well-drained areas. Topsoil shall be without admixture of subsoil and free from johnson grass (Sorghum halepense), nut grass (Cyperus rotundus) and objectionable weeds and toxic substances.

2.02 SOIL AMENDMENTS

- A. <u>Lime</u>: Ground Limestone (Dolomite) containing not less than 85 percent of total carbonates, and shall be ground to such a fineness that 50 percent will pass a 100-mesh sieve and 90 percent will pass a 20-mesh sieve.
- B. <u>Fertilizer</u>: 16-16-16 formulation of which 60 percent of the nitrogen is in the urea-formaldehyde form and shall conform to the applicable State Fertilizer laws. It shall be granulated so that 80 percent is held on a 16-mesh screen, uniform in composition, dry and free-flowing.
- C. <u>Mulch</u>: Clean hay or fresh straw.

2.03 GRASS MATERIALS

A. Grass Seed: Federal Specifications JJJ-S-181 and shall satisfy the following requirements:

Seed	Min. % Pure Seed	Min.% Germinatio n and Hard Seed	Max.% Weed Seed
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Bermuda Grass, (Cynodon Dactylan)	30%	15%	.25%
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B. Seed failing to meet the purity or germination requirements by no more than twenty-five percent may be used, but the quantity shall be increased to yield the required rate of pure live seed. Seed failing to meet the weed seed requirements shall not be used.

PART 3 - EXECUTION

3.01 GRADING

A. Areas to be grassed shall be graded to remove depressions, undulations, and irregularities in the surface before grassing.

3.02 PLACING TOPSOIL

A. Areas to be grassed shall have a minimum topsoil cover of two inches. Topsoil shall not be placed when the subgrade is excessively wet, extremely dry or in a condition otherwise detrimental to the proposed planting or proper grading.

3.03 TILLAGE

A. The area to be grassed shall be thoroughly tilled to a depth of four inches using a plow and disc harrow or rotary tilling machinery until a suitable bed has been prepared and no clods or clumps remain larger than 1-1/2 inches in diameter.

3.04 APPLICATION OF LIME

A. The pH of the soil shall be determined. If the pH is below 5.0, sufficient lime shall be added to provide a pH between 5.5 and 6.5. The lime shall be thoroughly incorporated into the top three to four inches of the soil. Lime and fertilizer may be applied in one operation.

3.05 APPLICATION OF FERTILIZER

A. Fertilizer shall be applied at the rate of 6 pounds per 1,000 square feet and shall be thoroughly incorporated into the top three to four inches of soil.

GRASSING 02210-3

3.06 PLANTING SOIL

- A. All areas disturbed during construction shall be seeded as specified herein. Immediately before seeds are sown and after fertilizer and lime are applied, the ground shall be scarified as necessary and shall be raked until the surface is smooth, friable, and of uniformly fine texture. Areas to be grassed shall be seeded evenly with a mechanical spreader, raked lightly, rolled with a 200-pound roller, and watered with a fine spray.
 - 1. Seed shall be applied at the following rate:

Seed	Rate of Application
Bermuda Grass,	6 lbs./1000 sq. ft.
(Cynodon Dactylan)	260 lbs./acre

2. Seeded areas shall be mulched at the rate of not less than 1-1/2" loose measurement over all seeded areas. Spread by hand, blower, or other suitable equipment. Mulch shall be cut into the soil with equipment capable of cutting the mulch uniformly into the soil. Mulching shall be done within 24 hours of the time seeding is completed. All seeded areas shall be mulched, no exceptions. Hydro-see must also be mulched.

3.07 ROLLING

A. After seeding and mulching, a cultipacker, traffic roller, or other suitable equipment shall be used for rolling the grassed areas. Areas shall then be watered with a fine spray.

3.08 WINTER COVER

A. All areas to be grassed shall be protected against erosion at all times. For protection during winter months (November 1st through March 31st) Italian rye grass shall be planted at the rate of four pounds per 1,000 square feet on all areas which are not protected by permanent grass. This does not alleviate the contractor from the required seeding.

3.09 CLEAN-UP

A. All excess soil, excess grass materials, stones, and other waste shall be removed from the site daily and not allowed to accumulate.

3.10 MAINTENANCE

A. Maintenance shall begin immediately following the last operation of grassing and continue until final acceptance. Maintenance shall include watering, mowing, replanting, and all other work necessary to produce a uniform stand of grass. Grassing will be considered for final acceptance when the permanent grass is healthy and growing on 97 percent of the area with no bare areas wider than 12 inches.

3.11 ACCEPTANCE

A. The Contractor shall submit to the Owner two copies of a written request for final acceptance of the grassing work. The request shall be submitted at least ten days prior to the anticipated date of acceptance. The condition of the grass will be noted, the Contractor will be notified if maintenance is to continue.

END OF SECTION

SECTION 02211 SODDING

PART 1 - GENERAL

- 1.01 WORK INCLUDED
 - A. Sod Installation
- 1.02 REFERENCES
 - A. ASPA American Sod Producers Association Guideline Specifications to Sodding.
 - B. FS O-F-241 Fertilizers, Mixed, Commercial.

1.03 DEFINITIONS

A. Weeds: Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Hill, Bindweed, Bent Grass, Wild Garlic, Perrenial Sorrel, and Brome Grass.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver sod on pallets. Protect exposed roots from dehydration.
- B. Do not deliver more sod that can be laid within 24 hours.

PART 2 - PRODUCTS

2.01 ACCEPTABLE SOD GROWERS

A. Nurseries and Sod Growers in the surrounding area who have a five year record are acceptable.

2.02 MATERIALS

A. Sod:

1. ASPA approved, field grown grade; cultivated grass sod; for low maintenance and traffic durability, with strong fibrous root system, SODDING 02211-1

free of stone, burned or bare spots; containing no more than 5 weeds per 1000 square feet.

B. Approved Sods:

1. Bermuda, (Cynodon Dactylon).

2.03 HARVESTING SOD

- A. Machine cut sod and load on pallets in accordance with ASPA guidelines.
- B. Cut sod in area not exceeding one square yard, with minimum 1/2 inch and maximum one inch topsoil base.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify that prepared soil base is ready to receive the work of this Section.
- B. Beginning of installation means acceptance of existing site conditions.

3.02 PREPARATION OF SUBSOIL

- A. Prepare subsoil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials and undesirable plants and their roots. Do not bury foreign material beneath areas to be sodded. Remove contaminated subsoil.

3.03 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod immediately on delivery to site and within 24 hours after harvesting to prevent deterioration.
- C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12-inches overlapping; minimum. Do not stretch or overlap sod pieces.
- D. Lay smooth. Align with adjoining grass areas. Place top elevation of sod 1/2 inch below adjoining paving or curbs.

SODDING 02211-2

- E. On slopes 6 inches per foot and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. Drive pegs flush with soil portion of sod.
- F. Prior to placing sod, on slopes exceeding 8 inches per foot or where indicated, place wire mesh over topsoil. Securely anchor in place with wood pegs sunk firmly into the ground.
- G. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil.
- H. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities.
- I. Sod shall be laid in all ditch areas and slopes that are equal to or steeper than 1 vertical to 3 horizontal or in areas determined by the Engineer to "erosion problem" areas. Sod shall be pinned down for stabilization in these areas.

END OF SECTION

SECTION 02222 TRENCHING, BACKFILLING AND COMPACTING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. The extent of trenching, backfilling and compacting is shown on the drawings.
- B. This section includes furnishing equipment, labor and materials, and performing all operations necessary and incidental to perform the required work.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.01 CLEARING THE SITE

A. The site of the work shall be cleared of all trees, shrubs, paving and objectionable material which interfere with the prosecution of the proposed work. Trees and shrubs which will not interfere with construction shall be protected from damage. Clearing shall be considered as an incidental item of excavation.

3.02 EXCAVATION

A. General:

- 1. Perform excavation described of whatever substance encountered to the dimensions and depths specified or shown on the drawings.
- 2. Undercutting will not be permitted, except when ordered by the ENGINEER. Material suitable for backfill shall be stockpiled near the site.
- 3. Rock or other material undesirable for backfill shall be spoiled outside the area in a neat manner, as directed by the ENGINEER.
- 4. Where it is necessary to cut roots projecting into an excavation or where TRENCHING, BACKFILLING, AND COMPACTING 02222-1

it is necessary to trim branches for equipment clearance, all severed root ends or cuts to branches over 1/2-inch diameter shall be treated with an asphalt base pruning paint.

5. Backfill over exposed roots as soon as possible.

B Rock

- 1. Where encountered in the trench bed, rock shall be excavated to a depth of 1/4 of the pipe diameter below the bottom of the pipe but in no case less than 4-inches.
- 2. All undercut trench excavation shall be backfilled and tamped with materials as specified in the following paragraphs under Unstable Subgrade.

C. Unstable Subgrade:

- In the event that unsuitable material is encountered at or below the excavation depth specified or shown on the drawings, the ENGINEER shall be notified.
- 2. Such material shall be removed and replaced with suitable material. Methods and materials used for replacement shall be one of the following as directed by the ENGINEER in writing.
 - a. Suitable earth or sand, compacted in the trench. Materials shall be furnished as a part of the Bid Proposal item covering excavation and backfill.
 - b. Gravel or crushed limerock, compacted in the trench and paid for under the appropriate item.
 - Existing materials, stabilized after removal and then replaced and compacted in the trench at no additional cost to the OWNER.
- 2. The Engineer shall determine the methods and materials to be used, based upon the condition of the excavation, the pipe structure to be supported, and the availability and character of stabilizing materials.

D. Trenches:

- Keep pipe laying operation as close to the excavation operation as possible during the prosecution of the work. The ENGINEER reserves the right to stop the excavation at any time when, in his opinion, the excavation is opened too far in advance of the pipe laying.
- 2. Pipe trenches shall be excavated to a depth that will insure a minimum of 36-inches of cover for ductile iron and PVC pipe and 54-inches of cover for polyethylene pipe, except service laterals.
 - a. Trenches shall be only of sufficient width to provide a free working space on each side of the pipe.
 - b. To prevent excess pressure on the pipe, the maximum width of trench at the top of the pipe and at the bottom of the trench shall not be greater than 2-feet more than the greatest exterior diameter of the pipe.
 - c. If this maximum width is exceeded, it shall be the CONTRACTOR's responsibility to provide, at no additional cost to the OWNER, such additional bedding or select backfill materials as the ENGINEER may require.
 - d. The excavation below the spring line shall be made to conform as near as possible to the shape of the lower third of the pipe.
 - e. To protect the pipe lines from unusual stresses, all work shall be done in open trenches.
 - f. Excavation shall be made for bells of all pipes and of sufficient depth to permit access to the joint for construction and inspections. In no case will the bells be used to support the body of the pipe.
- 3. In order to avoid existing utilities, at times it may be necessary for the pipe to be laid deeper than the minimum cover specified in the preceding paragraph. At such time the CONTRACTOR will not be allowed extra compensation for additional excavation involved.
- 4. In case excavation has been made deeper than necessary, a layer of concrete, fine gravel or other material satisfactory to the ENGINEER shall be placed, at no extra cost, to secure a firm

foundation for the lower third of each pipe.

- a. Where possible, excavated material shall be placed so as not to interfere with public travel.
- b. Bridging shall be provided to afford necessary access to public or private premises.
- c. Bridging shall be considered as part of the excavation operation and shall be supplied at no additional cost to the OWNER.
- E. Structural: (For inlets, manholes, valve pits and similar structures)
 - 1. Remove sufficient material to allow proper space for erecting and removing forms. The elevations of the bottoms of footings, if shown on the drawings, shall be considered as approximate only, and the ENGINEER may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary to secure a satisfactory foundation. Excavation for structures shall be sufficient to leave at least 12-inches in the clear between their outer surfaces and the embankment of timber that may be used to protect them. Backfill of earth under structures will not be permitted. Excess excavation for structures shall be filled with thoroughly compacted sand, gravel, or concrete at the expense of the CONTRACTOR.
 - 2. After excavation for a structure is completed, the CONTRACTOR shall notify the ENGINEER to that effect. No concrete or reinforcing steel shall be placed until the ENGINEER has approved the depth of the excavation and the character of the foundation material.

F. Sheeting and Shoring:

The CONTRACTOR shall provide all trench and structural bracing, sheeting or shoring necessary to construct and protect the excavation, existing utilities, structures and private property of all types and as required for the safety of the employees. Sheeting shall be removed or cut off by the CONTRACTOR during backfilling operations as directed by the ENGINEER. Sheeting which is left in place by order of the ENGINEER will be paid for under the item, Lumber left in Place. Removal of shoring for structures shall be done in such a manner as not to disturb or mar finished masonry or concrete surfaces.

3.03 DRAINAGE

- A. Grading shall be controlled in the vicinity of excavations so that the surface of the ground will be properly sloped to prevent water from running into trenches or other excavated areas. Any water which accumulates in the excavations shall be removed promptly by well point or by other means satisfactory to the ENGINEER in such a manner as to not create a nuisance to adjacent property or public thoroughfare. Trenches shall be kept dry while pipe is being laid. Bridging of dewatering pipe shall be provided where necessary. Pumps and engines for well point systems shall be operated with mufflers, and at a minimum noise level suitable to a residential area. The CONTRACTOR will not be allowed to discharge water into the OWNER's storm drainage system without the written approval of the ENGINEER. Approval will be subject to the condition that the storm sewer be returned to its original condition.
- B. The CONTRACTOR is responsible for carrying the water to the nearest ditch or body of water and for obtaining the necessary permission to use same. The CONTRACTOR shall be financially responsible for any nuisance created due to carrying off water from his drainage system.

3.04 BACKFILL

A. Trenches:

- 1. Trenches shall be backfilled immediately after the pipe is laid unless other protection for the pipeline is provided. Clean earth, sand, crushed limerock or other material approved by the ENGINEER shall be used for backfill. Backfill material shall be selected, deposited and compacted (simultaneously on both sides of the pipe) so as to eliminate the possibility of lateral displacement of the pipe. Backfill material shall solidly tamped around the pipes in layers to a level at least 1-foot above the top of the pipe. Each layer shall be compacted to a maximum thickness of 6-inches.
- 2. In unpaved areas, the remainder of the backfill shall be deposited and then compacted by puddling, water flooding or mechanical tampers. Mechanical tamping of layers in unpaved areas shall be to a maximum thickness of 12-inches. In areas to be paved or repaved, the entire depth of backfill shall be deposited in layers and compacted by hand or mechanical tampers to a maximum thickness

of 6-inches. Compaction shall be carried out to achieve a density of at least 98% of the maximum density as determined by AASHTO, Method T-180. Under areas to be paved, puddling may be used for backfill consolidation after tamping to 1-foot over the pipe, as specified, provided the method is first approved by the ENGINEER and the density requirements are met.

In areas to be paved, density tests for determination of the specified compaction shall be made by a testing laboratory and spaced one in every 300-feet of trench cut. It is the intent of this specification to secure a condition where no further settlement of trenches will occur. When backfilling is completed, the roadway base for pavement replacement may be placed immediately. It will be the responsibility of the CONTRACTOR to restore the surface to the original grade wherever settlement occurs.

B. Wet Trenches (CONTRACTOR's Option):

1. Backfill for the pipe bed in wet trenches shall be crushed, graded limerock, compacted in the trench. After the pipe is laid, a graded limerock backfill shall be placed and worked in around the haunches to a point 6-inches above the pipe. The width of the limerock material around the pipe shall not be less than the outside diameter of the pipe plus 6-inches on each side of the pipe. Material shall be carefully distributed along the pipe so as to provide full and uniform support under and around the pipe. Six inches above the top of the pipe and up to the water level, material from the excavations with no rock or earth exceeding 4-inches in any one dimension shall then be lifted to the trench and released at the water level. Material shall be uniformly distributed for the full width of the trench. Backfill and compaction above the eater level in the trench shall be as specified above. All costs for graded limerock placed in wet trenches shall be included in the cost of stage excavation and backfill for the various sizes of pipe.

C. Bedding and Backfill - Flexible Pipe:

1. For polyvinyl chloride pipe, the bedding and backfill materials shall be such as to limit the vertical ring deflection to 5% of the inside pipe diameter. A deflection greater than 5% of the inside diameter shall be cause for rejection of the pipe.

- 2. Class IV or Class V materials as defined in ASTM D2321-74 shall not be used for bedding, haunching or initial backfill for flexible pipes.
- 3. For polyvinyl chloride plastic pipe, bedding shall be in accordance with ASTM D2321-74, using Class I, II or III materials, except under wet conditions. In any area where the pipe will be installed below existing or future groundwater levels or where the trench could be subject to inundation, Class I material shall be placed to the springline of the pipe.
- 4. A minimum of effort is needed to compact the material. However, in the initial stage of placing this type of material, take care to ensure that sufficient material has been worked under the haunch of the pipe to provide adequate side support. Take precautions to prevent movement of the pipe during placing of the material under the pipe haunch. Except for the protection of the pipe from large particles of backfill material, little care need be taken and no compaction is necessary in placing backfill material in the balance of the initial backfill area above the pipe. Where unstable trench wall exist because of migratory materials, such as water-bearing silts or fine sand, take care to prevent the loss of side support through the migratory action.
- All bedding requirements for flexible pipe specified in the preceding paragraphs shall be included in the price bid for the applicable pipe material and no additional compensation for bedding material will be allowed.

D. Structural:

- After completion of foundation footings and walls and other construction below the elevation of the final grades, and prior to backfilling, forms shall be removed and the excavation shall be cleared of all trash and debris.
- 2. Material for backfilling shall consist of the excavation, borrow sand or other approved materials, and shall be free of trash, lumber or other debris.
- 3. Backfill shall be placed in horizontal layers not in excess of 9-inches in thickness, and have a moisture content such that a density may be obtained to prevent excessive settlement or shrinkage.

- 4. Each layer shall be compacted by hand or approved machine tampers with extreme care being exerted not to damage pipe or structures.
- 5. Backfill shall be placed and compacted evenly against the exposed surfaces to prevent undue stress on any surface.

3.05 RESTORATION OF SURFACE IMPROVEMENTS

- A. Roadways, including shoulders, alleys and driveways of shell, limerock, stabilized soil or gravel, grass plots, sod, shrubbery, ornamental trees, signs, fences, or other surface improvements on public or private property which have been damaged or removed in excavation, shall be restored to conditions equal to or better than conditions existing prior to beginning work.
 - 1. Restoration of shoulders shall consist of seeding and mulching or stabilizing with limerock as selected by the ENGINEER.
 - 2. The cost of doing this work shall be included in the cost of the various applicable items.
 - 3. General Quality Control will be used as an aid in determining conditions prior to construction.
- B. Materials for unpaved roadways, road shoulders, alleys, or driveways, shall be compacted as described in the plans. The cost of this work and furnishing new materials shall be included in the cost of the applicable items of work as no separate payment will be made, unless a separate bid item is provided.

3.06 FINE GRADING

A. Finished areas around structures shall be graded smooth and hand raked and shall meet the elevations and contours shown on the drawings. Lumber, earth clods, rocks and other undesirable materials shall be removed from the site.

3.07 DISPOSAL OF MATERIALS

A. Such portions of the excavated materials as needed and as suitable, shall be used for backfilling and grading about the completed work to the elevations as shown of the drawings or as directed. Excavated material in excess of the quantity required for this purpose shall be disposed of by the

CONTRACTOR in those areas designated by the OWNER and as shown on the drawings. The CONTRACTOR shall leave the earth over the trenches or other excavations in a neat and uniform condition acceptable to the OWNER.

3.08 PAVEMENT REPLACEMENT

- A. Asphalt pavement shall be removed by saw cutting on a straight line with edges as vertical as possible. Concrete pavement or asphalt surfaced concrete shall be removed by cutting with a concrete saw in as straight a line and vertically as possible. Materials to replace State Highway paving shall conform to the specifications required by the Florida Department of Transportation Specifications for Type S-I asphaltic concrete surface course, or as specifically shown in the plans.
- B. Prior to replacing concrete or asphalt pavement replacement, a limerock base shall be laid. The base for concrete pavement shall be 6-inches of compacted thickness, and that for asphalt pavement shall be 8-inches of compacted thickness. The base course for each shall be compacted to a minimum of 98% of the maximum density as determined by AASHTO, Method T-180. The OWNER will have tests made by an independent testing laboratory to verify compaction results. One test will be made for each block of continuous trench cut.
- C. Non-asphalt pavement replacement shall be replaced of like material and thickness. Asphalt or built-up asphalt pavement shall be replaced with like material or concrete as directed by the ENGINEER. Where asphalt or built-up asphalt pavement is replaced by concrete, the concrete shall have a minimum of 6-inches in thickness and be reinforced with 6 by 6 no. 6 gage welded wire fabric. Concrete for paving shall be 3,000 psi design strength. Where the pavement replacement is of like material, it shall be replaced in thickness equal to or better than that existing at the time of removal.
- D. Unless the base is sealed or other temporary paving applied over areas to be repaved, pavement shall be replaced not later than 3-weeks after completion of backfill.

3.09 TESTS

A. The CONTRACTOR shall furnish facilities for making all density tests and make such restorations as may be necessary due to test operations. All density tests on backfill or base replacement will be made by a commercial

testing laboratory employed by the CONTRACTOR and at such locations as may be recommended by the ENGINEER. If the densities as determined by the specified tests fall below the required minimums, the CONTRACTOR shall pay for all retests.

3.10 SIDEWALK, CURB AND GUTTER REMOVAL AND REPLACEMENT

A. Sidewalk, curb and gutter removal and replacement required in the construction of this work shall be done by the CONTRACTOR. Reasonable care shall be exercised in removing sidewalk and curb and gutter, and the CONTRACTOR shall either stockpile or dispose of this material as directed by the ENGINEER. Brick, concrete or built-up asphalt sidewalk replacement and curb and gutter replacement shall be replaced of like material in a manner and condition equal to or better than that existing at the time of removal. Materials and methods of replacing State Highway sidewalks or curbs shall conform to the Department of Transportation specifications.

END OF SECTION

SECTION 02960 RESTORATION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. The work includes the restoration of driveways, lawn areas, trees and plants, roadways, sprinkler systems, walks and any other existing improvement affected by the proposed work.
- B. This section includes furnishing equipment, labor and materials, and performing all necessary and incidental operations to perform the required work.

PART 2 - PRODUCTS

2.01 SOD

- A. Any slope equal to or steeper than 1 vertical to 3 horizontal shall be sodded and the sod shall be pinned down for stabilization.
- B. The CONTRACTOR shall, at his expense, maintain the sodded areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include watering, re-staking sod, filling, leveling and repairing of any washed or eroded areas, as may be necessary.

2.02 PLANTS AND TREES

- A. Existing damaged plants and tress shall be replaced by plants and trees of equal type, quality and size whenever possible. All new plants and trees shall be sound, healthy, vigorous and free from defects, decay, disfiguring, bark abrasions, plant diseases, insect pests, their eggs or larvae. The new plants shall be approved by the ENGINEER before placing.
- B. Existing plants may be removed, preserved, and replaced at the CONTRACTORs option. Plants shall be handled by an approved nursery.
- C. Plants shall be watered and cared for until new growth appears. Dead and dying plants shall be immediately replaced. Plants used shall be in accordance with the standards for Florida No. 1 or better as given in Grades and Standards for Nursery Plants Part 1.

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- D. Plants shall conform to the sizes indicated by the OWNER.
- E. Trees shall be guaranteed for one year. If the replaced tree dies within one year of project completion it shall be replaced by the CONTRACTOR at no expense to the City.

2.03 MULCH

A. Match existing mulch.

2.04 WATER

A. The water used in the performance of this Contract shall be of drinking water quality, clean and free from injurious amounts of oil, acid, alkali, or organic matter. The CONTRACTOR shall purchase all testing water from the County.

2.05 PLANTING MIXTURE:

A. The 18 inch planting mixture, when required, shall consist of a thorough mixture of 40% peat and 60% sand. The peat shall be Florihome peat or equivalent and the sand shall be clean and free from debris of any kind.

2.06 FERTILIZER

A. Fertilizer shall be pelletized 13-13-13, or approved equal.

PART 3 - EXECUTION

3.01 LANDSCAPING RESTORATION

- A. Lawn Areas: Any lawn area affected by the required work shall be restored to a condition equal or better than the conditions existing before the commencement of work.
- B. Balled Plants: Plants where required shall be adequately balled with firm natural balls of soil, sized as set forth in "Horticultural Standards." Balls shall be firmly wrapped with burlap or equally approved strong cloth. No balled plant will be planted if the ball is cracked or broken before or during the process of planting.
- C. Preparation of Plant Pits: All plant pits shall be circular in outline and have vertical sides. Tree pits shall be two feet wider than the width of the ball and one foot deeper than the depth of the ball. Shrubs that are either B&B

or 3 gallons + shall have pits that are 2 feet wider than the width of the plant ball and 6 inches deeper than the depth of the ball. Smaller shrubs shall have pits that are at least one foot wider than the width of the plant ball and 6 inches deeper than the ball depth.

- D. Setting Plants: All plants except as otherwise specified, shall be centered in pits. Deep planting shall be avoided and unless otherwise specified, plants shall be set at such a level that after settlement they will bear the same relation to the required grade as they have to the natural grade before being transplanted.
- E. Balled and burlapped plants and palm trees shall be placed on 6 inch to 12 inch of tamped planting mixture and adjusted so as to be at the proper level. The rope and burlap shall be cut away and the burlap folded down to the bottom of the pit. Very large B&B plants shall remain wrapped until fully backfilled and then just the upper portion of the burlap shall be removed. Backfill of planting mix shall be placed halfway up the pit and then water tamped. After this water has drained away, backfill around the ball to grade and water tamp again. Finally, form a ridge of soil around the edge of the pit to form a saucer and full area three times with water.
- F. Water: Water to be used initially during plant installation shall be furnished by the CONTRACTOR. The existing irrigation system, where damaged, shall be promptly repaired after the installation of the plants.
- G. Options as to Methods: Any plant may be furnished container grown instead of balled if all other requirements are met.
- H. Immediately before sod is placed, 8-8-8 fertilizer shall be applied at the rate of approximately 500 pounds per acre, by broadcasting and raking into the planting area.
- I. Sod shall be firmly embedded by light tamping. Wherever necessary to prevent an erosion condition caused by vertical edges at the outer limits of the sodded area, the sod shall be tamped so as to produce a featheredge at the outer limits. The sod shall be kept in a moist condition after it is planted. Water shall not be applied between the hours of 8 A.M., and 4 P.M., or when there is danger of freezing.
- J. The CONTRACTOR shall, at his expense, maintain the planted areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include watering, filling, leveling and repairing of any washed or eroded areas, as may be necessary.

3.02 PAVEMENT REPLACEMENT

- A. Asphalt pavement shall be removed by saw cutting on a straight line with edges as vertical as possible. Concrete pavement or asphalt surfaced concrete shall be removed by cutting with a concrete saw in as straight a line and vertically as possible.
- B. Non-asphalt pavement replacement shall be replaced of like material and thickness. Asphalt or built-up asphalt pavement replacement shall be replaced with like material or concrete as directed by the ENGINEER.
 - 1. Where asphalt or built-up asphalt pavement is replaced by concrete, the concrete shall have a minimum of 6 inches in thickness and be reinforced with 6 by 6 No. 6 gage welded wire fabric. Where the pavement replacement is of like material, it shall be replaced in thickness equal to or better than that existing at the time of removal.
- C. Road cuts across City or County roads shall not be cut.
- D. Unless the base is sealed or other temporary paving applied over driveway areas to be repaved, pavement shall be replaced not later than three weeks after completion of backfill.

3.03 CURB REMOVAL AND REPLACEMENT

A. Curb removal and replacement required in the construction of this work shall be done by the CONTRACTOR. Reasonable care shall be exercised in removing the curb, and the CONTRACTOR shall either stockpile or dispose of this material as directed by the ENGINEER. Curb shall be replaced of like material in a manner and condition equal to or better than that existing at the time of removal. Materials and methods of replacing State Highway sidewalks or curbs shall conform to the Department of Transportation specifications.

3.04 TESTS

A. The CONTRACTOR shall furnish facilities for making all density tests and make such restorations as may be necessary due to test operations. All density tests on backfill or base replacement will be made by a commercial testing laboratory employed by the CONTRACTOR at such locations as may be recommended by the ENGINEER. If the densities as determined by the specified tests fall below the required minimums, the CONTRACTOR shall pay for all retests.

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SECTION 03310 CONCRETE WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Special Conditions, apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Extent of concrete work is shown on Drawings.

1.03 SUBMITTALS

A. Product Data:

1. Submit data proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, waterstops, joint systems, curing compounds, dry-shake finish materials, and others as requested by ENGINEER.

B. Shop Drawings, Reinforcement:

- 1. Submit original shop drawings for fabrication, bending, and placement of concrete reinforcement.
- 2. Comply with American Concrete Institute (ACI) 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures" showing bar schedules, stirrup spacing, diagrams of bent bars, and arrangement of concrete reinforcement.
- 3. Include special reinforcement required for openings through concrete structures.
- C. The ENGINEER's review is for general engineering applications and features only. Design of formwork for structural stability and efficiency is the CONTRACTOR's responsibility.
- D. Laboratory Test Reports:

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1. Submit laboratory test reports for concrete materials and mix design test.

1.04 QUALITY ASSURANCE

A. Codes and Standards:

- Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:
 - a) ACI 301 "Specifications for Structural Concrete for Buildings."
 - b) ACI 318 "Building Code Requirements for Reinforced Concrete."
 - c) Concrete Reinforcing Steel Institute (CRSI) "Manual of Standard Practice."

B. Concrete Testing Services:

- 1. A testing laboratory shall be engaged that is acceptable to the ENGINEER to perform material evaluation tests and to design concrete mixes.
- 2. Materials and installed work may require testing and retesting at anytime during progress of work.
- 3. Tests, including retesting of rejected materials for installed work, shall be done at the CONTRACTOR's expense.

1.05 PROJECT CONDITIONS

- A. Protect Footings Against Freezing:
 - 1. Cover completed work at footing level with sufficient temporary or permanent cover as required to protect footings and adjacent subgrade against the possibility of freezing.
 - 2. Maintain cover for time period as necessary.
- B. Protect adjacent finish materials against spatter during concrete placement.

PART 2 - PRODUCTS

CONCRETE WORK 03310-2

2.01 FORM MATERIALS

- A. Forms for Exposed Finish Concrete:
 - 1. Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces.
 - 2. Furnish in largest practicable sizes to minimize number of joints.
- B. Use plywood complying with U. S. Product Standard PS-1 "B-B (Concrete Form) Plywood," Class I, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark.
- C. Forms for Unexposed Finish Concrete:
 - 1. Plywood, lumber, metal, or other acceptable material.
 - 2. Provide lumber dressed on at least two edges and one side for tight fit.

D. Form Coatings:

1. Provide commercial formulation form-coating compounds that will not bond with, stain, nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.

E. Form Ties:

- 1. Factory-fabricated, adjustable-length, removable or snap-off metal form ties, designed to prevent form deflection and to prevent spalling concrete upon removal.
- 2. Provide units which will leave no metal closer than 1 ½ inches to surface.
- 3. Provide ties which, when removed, will leave holes not larger than 1 inch in diameter in concrete surface.

2.02 REINFORCING MATERIALS

A. Reinforcing Bars:

1. American Society of Testing and Materials (ASTM) A 615

- 2. Grade 60.
- Deformed.
- B. Steel Wire:
 - 1. ASTM A 82
 - 2. Plain.
 - 3. Cold-drawn steel.
- C. Welded Wire Fabric:
 - 1. ASTM A 185.
 - 2. Welded steel wire fabric.
- D. Welded Deformed Steel Wire Fabric:
 - 1. ASTM A 497.
- E. Supports for Reinforcement:
 - Use bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place.
 - 2. Use wire bar type supports complying with CRSI specifications.
- F. For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.

2.03 CONCRETE MATERIALS

- A. Portland Concrete:
 - 1. ASTM C 150, Type I.
 - 2. Use one brand of cement throughout project, unless otherwise acceptable to the ENGINEER.
- B. Normal Weight Aggregates:
 - 1. ASTM C 33, and as herein specified.

- 2. Provide aggregates from a single source for exposed concrete.
- 3. For exterior exposed surfaces, do not use fine or coarse aggregates containing spalling-causing deleterious substances.

C. Water:

1. Drinkable.

2.04 RELATED MATERIALS

- A. Polyvinyl Chloride (PVC) Waterstops:
 - 1. Corps of Engineers CRD-C 572.
 - 2. Manufacturer: Subject to compliance with requirements, provide products of one of the following or equal:
 - a. AFCO Products.
 - b. The Burke Co.
 - c. Edoco Technical Products.
 - d. Greenstreet Plastic Products.
 - e. Harbour Town Products.
 - f. W. R. Meadows.
 - g. Progress Unlimited.
 - h. Schleigel Corp.
 - i. Vinylex Corp.

B. Granular Base:

1. Use evenly graded mixture of fine and coarse aggregates to provide, when compacted, a smooth and even surface below slabs on grade.

C. Vapor Retarder:

- 1. Provide vapor retarder cover over prepared base material where indicated below slabs on grade.
- 2. Use only materials which are resistant to decay when tested in accordance with ASTM E 154, as follows:

- a. Polyethylene sheet not less than 8 mils thick.
- b. Non-Shrink Grout: CRD-C 621, factory pre-mixed grout.
- 3. Products: Subject to compliance with requirements, provide one of the following or equal:
 - a. Metallic:
 - 1) "Vibrofoil," A. C. Horn, Inc.
 - 2) "Metallic Spec. Grout," The Burke Co.
 - 3) "Embeco 636," Master Builders.
 - 4) "Ferrolith GDS," Sonneborn-Rexnord.
 - 5) "Hi-Mod Grout," Euclid Chemical Co.
 - 6) "Kemox G," Sika Chemical Co.
 - 7) "Ferrogrout," L & M Const. Chemical Co.
 - 8) "Supreme Plus," Gifford-Hill/American Admixtures.
 - b. Non-Metallic:
 - 1) "Set Grout," Master Builders.
 - 2) "Sonogrout," Sonneborn-Rexnord.
 - 3) "Euco-NS," Euclid Chemical Co.
 - 4) "Supreme," Gifford-Hill/American Admixtures.
 - 5) "Crystex," L &M Const. Chemical Co.
 - 6) "Sure-Grip Grout," Dayton Superior Corp.
 - 7) "Horngrout," A. C. Horn, Inc.
 - 8) "Five Star Grout," U. S. Grout Corp.
- D. Liquid Membrane-Forming Curing Compound:
 - 1. Liquid type membrane-forming curing compound complying with ASTM C 309, Type I, Class A.
 - 2. Moisture loss not more than 0.055 grams per square centimeter (gr./sq. cm.) when applied at 200 square feet per gallon (sq. ft./gal).
 - 3. Products: Subject to compliance with requirements, provide one of the following or equal:
 - a. "Masterseal." Master Builders.
 - b. "A-H 3 Way Sealer," Anti-Hydro Waterproofing Co.

- c. "Ecocure," Euclid Chemical Co.
- d. "Clear Seal," A. C. Horn, Inc.
- e. "Sealco 309," Gifford-Hill/American Admixtures.
- f. "J-20 Acrylic Cure," Dayton Superior.
- g. "Spartan-Cote," The Burke Co.
- h. "Sealkure," Toch Div. Carboline.
- i. "Kure-N-Seal." Sonneborn-Rexnord.
- j. "Polyclear," Upco Chemical/USM Corp.
- k. "L & M Cure," L & M Construction Chemicals.
- I. "Klearseal," Setcon Industries.
- m. "LR-152," Protex Industries.
- n. "Hardtop," Gifford-Hill.

2.05 PROPORTIONING AND DESIGN OF MIXES

- A. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If a trial batch method is used, use an independent testing facility acceptable to the ENGINEER for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing.
- B. Submit written reports to Structural Engineer of each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed by the ENGINEER.
- C. Design mixes to provide normal weight concrete with the following properties, as indicated on drawings and schedules:
 - 1. 4,000 pounds per square inch (psi) 28-day compressive strength; W/C ratio, 0.44 maximum (non-air-entrained).
 - 2. 3,000 psi 28-day compressive strength; W/C ratio, 0.58 maximum (non-air-entrained).
 - 3. 2,500 psi 28-day compressive strength; W/C ratio, 0.67 maximum (non-air-entrained).
- D. Lightweight Concrete:

- 1. Proportion mix as herein specified.
- 2. Design mix to produce strength and modulus of elasticity as noted on Drawings, with a split-cylinder strength factor (Fct) of not less than 5.5 for 3,000 psi concrete and a dry weight of not less than 95 pounds (lbs) or more than 110 lbs. after 28 days.
- 3. Limit shrinkage to 0.03 percent at 28 days.

E. Adjustment to Concrete Mixes:

- 1. Mix design adjustments may be requested by the CONTRACTOR when characteristics of materials, job conditions, weather, test results, or other circumstances warrant; at no additional cost to the OWNER and as accepted by the ENGINEER.
- 2. Submit laboratory test data for revised mix design and strength results to the ENGINEER for acceptance before using in work.
- F. Use air-entraining admixture in exterior exposed concrete, unless otherwise indicated. Add air-entraining admixture at Manufacturer's prescribed rate to result in concrete at point of placement having total air content with a tolerance of plus-or-minus 1½ percent within the following limits:
- G. Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as follows:
 - 1. Ramps, slabs, and sloping surfaces: Not more than 3 inches.
 - 2. Reinforced foundation systems: Not less than 1 inch and not more than 3 inches.
 - 3. Concrete containing HRWR admixture (super-plasticizer): Not more than 8 inches after addition of HRWR to site-verified 2 to 3 inches slump concrete.
 - 4. Other concrete: Not less than 1 inch and not more than 4 inches.

2.06 CONCRETE MIXING

- A. Ready-Mix Concrete: Comply with requirements of ASTM C 94, and as herein specified.
- B. During hot weather, or under conditions contributing to rapid setting of CONCRETE WORK 03310-8

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PART 3 - EXECUTION

3.01 GENERAL

A. Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.

3.02 FORM

- A. Design, erect, support, brace, and maintain formwork to support vertical and lateral, static, and dynamic loads that might be applied until such loads can be supported by concrete structure.
- B. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position.
- C. Maintain formwork construction tolerances complying with ACI 347.
- D. Design formwork to be readily removable without impact, shock, or damage to cast-in-place concrete surfaces and adjacent materials.
- E. Construct forms to sizes, shapes, lines, and dimensions shown, and to obtain accurate alignment, location, grades, level, and plumb work in finished structures.
- F. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required for this Work.
- G. Use selected materials to obtain required finishes. Solidly butt joints and provide back-up at joints to prevent leakage of cement paste.
- H. Fabricate forms for easy removal without hammering or prying against concrete surfaces.
- I. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces.
- J. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only.

- K. Provide Kerf wood inserts for forming keyways, reglets, recesses, and the like, to prevent swelling and for easy removal.
- L. Provide temporary openings where interior area of formwork is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete.
 - 1. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar.
 - 2. Locate temporary openings on forms at inconspicuous locations.
- M. Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

N. Provisions for Other Trades:

- 1. Provide openings in concrete formwork to accommodate work of other trades.
- 2. Determine size and location of openings, recesses, and chases from trades providing such items.
- 3. Accurately place and securely support items built into forms.
- 4. Other trades shall provide location and size of openings. The forms for such openings shall be constructed and set in place under this section.

O. Cleaning and Tightening:

- 1. Thoroughly clean forms and adjacent surfaces to receive concrete.
- 2. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed.
- 3. Retighten forms and bracing after concrete placement is required to eliminate mortar leaks and maintain proper alignment.

3.03 VAPOR RETARDER INSTALLATION

- A. Place vapor retarder sheeting with longest dimension parallel with direction of pour following the completion of leveling and tamping of granular base for slabs on grade.
- B. Lap joints 6 inches and seal with appropriate tape.

3.04 PLACING REINFORCEMENT

- A. Comply with CRSI's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports, and as herein specified.
- B. Avoid cutting or puncturing vapor retarder during reinforcement placement and concreting operations.
- C. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.
- D. Accurately position, support, and secure reinforcement against displacement by formwork, construction, or concrete placement operations.
- E. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as required.
- F. Place reinforcement to obtain at least minimum coverages for concrete protection.
 - 1. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations.
 - 2. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.
- G. Install welded wire fabric in as long lengths as practicable.
 - 1. Lap adjoining pieces at least one full mesh and lace splices with wire.
 - 2. Offset end laps in adjacent widths to prevent continuous laps in either direction.

3.05 JOINTS

A. Construction Joints:

- 1. Locate and install construction joints as indicated or, if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to the ENGINEER.
- 2. Place construction joints perpendicular to main reinforcement.
- 3. Continue reinforcement across construction joints, except as otherwise indicated.

B. Waterstops:

- 1. Provide waterstops in construction joints as indicated.
- 2. Install waterstops to form continuous diaphragm in each joint.
- 3. Make provisions to support and protect exposed waterstops during progress of work.
- 4. Fabricate field joints in waterstops in accordance with Manufacturer's printed instructions.

C. Isolation Joints in Slabs-on-Ground:

1. Construct isolation joints in slabs-on-ground at points of contact between slabs-on-ground and vertical surfaces, such as column pedestals, foundation walls, grade beams, and elsewhere as indicated.

3.06 INSTALLATION OF EMBEDDED ITEMS

A. General:

- 1. Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete.
- 2. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached thereto.

3.07 PREPARATION OF FORM SURFACES

- A. Clean re-used forms of concrete matrix residue, repair and patch as required returning forms to acceptable surface condition.
- B. Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.
- C. Thin form-coating compounds only with thinning agent of type, amount, and under conditions of form-coating compound Manufacturer's directions.
- D. Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed.
- E. Apply in compliance with Manufacturer's instructions.

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A. Pre-Placement Inspection:

- 1. Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast-in.
- 2. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work.
- 3. Moisten wood forms immediately before placing concrete where form coatings are not used.
- 4. Apply temporary protective covering to lower 2 feet of finished walls adjacent to poured floor slabs and similar conditions, and guard against spattering during placement.

B. General:

- 1. Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," and as herein specified.
- 2. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has sufficiently hardened to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation.

3. Placing Concrete in Forms:

- a Deposit concrete in forms in horizontal layers not deeper than 24 inches and in a manner to avoid inclined construction joints.
- b Where placement consists of several layers, place each layer while the preceding layer is still plastic to avoid cold joints.
- c Consolidation of Concrete:
 - 1) Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping.

- 2) Use equipment and procedures for consolidation of concrete in accordance with ACI 309.
- 3) Do not use vibrators to transport concrete inside forms.
- 4) Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine.
- 5) Place vibrators to rapidly penetrate placed layer and at least 6 inches into preceding layer.
- 6) Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

4. Placing Concrete Slabs:

- a Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.
- b Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.
- c Bring slab surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth surface; free of humps or hollows.
- d Do not disturb slab surfaces prior to commencement of finishing operations.
- e Maintain reinforcing in proper position during concrete placement operations.

5. Cold Weather Placing:

a Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures, in compliance with ACI 306 and as herein specified.

- b When air temperature has fallen to or is expected to fall below 40 degrees Fahrenheit (F)/4 degrees Celcius (C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F (10 degrees C), and not more than 80 Degrees F (27 degrees C) at point of placement.
- c Do not use frozen materials or materials containing ice or snow.
- d Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
- e Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators, unless otherwise accepted in mix designs.

6. Hot Weather Placing:

- a When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.
- b Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F (32 degrees C).
- c Mixing water may be chilled or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing water.
- d Use of liquid nitrogen to cool concrete is the CONTRACTOR's option.
- e Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that the temperature of the steel does not exceed the ambient air temperature immediately before embedment in concrete.
- f Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.
- g Use water-reducing retarding admixture (Type D) when required by high temperatures, low humidity, or other adverse placing conditions.

3.09 FINISH OF FORMED SURFACES

A. Rough Form Finish:

- 1. For formed concrete surfaces not exposed-to-view in the finish work or by other construction, unless otherwise indicated.
- 2. This is the concrete surface having texture imparted by form facing material used, with tie holes and defective areas repaired and patched, and fins and other projections exceeding 1/4 inch in height rubbed down or chipped off.

B. Smooth Form Finish:

- For formed concrete surfaces exposed-to-view, or that are to be covered with a coating material directly applied to the concrete, or a covering material directly applied to the concrete, such as waterproofing, dampproofing, veneer plaster, painting, or other similar system.
- 2. This is as-cast concrete surface obtained with selected form facing material, arranged orderly and symmetrically with a minimum of seams.
- 3. Repair and patch defective areas with fins or other projections completely removed and smoothed.

C. Grout Cleaned Finish:

- 1. Provide grout cleaned finish to scheduled concrete surfaces which have received smooth form finish treatment.
- 2. Combine one part Portland cement to 1½ parts fine sand by volume, and mix with water to consistency of thick paint.
- 3. Use proprietary additives at the CONTRACTOR's option.
- 4. Blend standard Portland cement and white Portland cement (amounts determined by trial patches) so that final color of dry grout will match adjacent surfaces.
- 5. Thoroughly wet concrete surfaces and apply grout to coat surfaces and fill small holes.
- 6. Remove excess grout by scraping and rubbing with clean burlap.

7. Keep damp by fog spray for at least 36 hours after rubbing.

D. Related Unformed Surfaces:

- Strike-off smooth tops of walls, horizontal offsets, and similar unformed surfaces occurring adjacent to formed surfaces and finish with a texture matching adjacent formed surfaces.
- 2. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.10 MONOLITHIC SLAB FINISHES

A. ASTM E 1155, "Standard Test Method for Determining Floor Flatness and Levelness Using the "F Number System (inch-pound-units)," shall be used for these finishes as follows:

Scratch Finish:

- a. Apply scratch finish to monolithic slab surfaces that are to receive concrete floor topping or mortar setting beds for tile, Portland cement terrazzo, and other bonded applied cementitious finish flooring material, and as otherwise indicated.
- b. After placing slabs, plane surface to tolerances for floor flatness (FF) of 15 and floor levelness (FL) of 13.
- c. Slope surfaces uniformly to drain where required.
- d. After leveling, roughen surface before final set, with stiff brushes, brooms, or rakes.

2. Float Finish:

- a. Apply float finish to monolithic slab surface to receive trowel finish and other finishes as hereinafter specified, and slab surfaces which are to be covered with membrane or elastic waterproofing membrane or elastic roofing, or sand-bed terrazzo, and as otherwise indicated.
- b. After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating.

- c. Begin floating when surface water has disappeared or when concrete has sufficiently stiffened to permit operation of power-driven floats, or both.
- d. Consolidate surface with power-driven floats or by handfloating if area is small or inaccessible to power units.
- e. Check and level surface plane to tolerances of FF 18 FL 15.
- f. Cut down high spots and fill low spots.
- g. Uniformly slope surfaces to drains.
- h. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

3. Trowel Finish:

- a. Apply trowel finish to monolithic slab surfaces to be exposedto-view, and slab surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile, paint, or other thin film finish coating system.
- b. After floating, begin first trowel finish operation using a power-driven trowel.
- c. Begin final troweling when surface produces a ringing sound as trowel is moved over surface.
- d. Consolidate concrete surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance, and with surface leveled to tolerances of FF 20 FL 17.
- e. Grind smooth surface defects which would telegraph through applied floor covering system.

4. Trowel and Fine Broom Finish:

- a. Where ceramic or quarry tile is to be installed with thin-set mortar, apply trowel finish as specified, then immediately follow with slightly scarifying surface by fine brooming.
- 5. Non-Slip Broom Finish:

- a. Apply non-slip broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.
- b. Immediately after float finishing, slightly roughen concrete surface by brooming with fiber bristle broom perpendicular to main traffic route.
- c. Coordinate required final finish with the ENGINEER before application.

3.11 CONCRETE CURING AND PROTECTION

A. General:

- 1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- 2. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing.
- 3. Continuously keep concrete moist for not less than 7 days, weather permitting.
- 4. Begin final curing procedures immediately following initial curing and before concrete has dried.
- 5. Continue final curing for at least 7 days in accordance with ACI 301 procedures.
- 6. Avoid rapid drying at end of final curing period.

B. Curing Methods:

- 1. Perform curing of concrete by curing and sealing compound, by moist curing, by moisture-retaining cover curing, and by combinations thereof, as herein specified.
- 2. Provide moisture curing by the following methods:
 - a. Keep concrete surface continuously wet by covering with water.
 - b. Continuous water-fog spray.
 - c. Covering concrete surface with specified absorptive cover,

thoroughly saturating cover with water and continuously keeping wet.

- d. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4-inch lap over adjacent absorptive covers.
- Provide moisture-cover curing as follows:
 - a. Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 inches and sealed by waterproof tape of adhesive.
 - b. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
- 4. Provide curing slabs and sealing compounds to exposed interior slabs and to exterior slabs, walks, and curbs, as follows:
 - a. Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours).
 - b. Uniformly apply in continuous operation by power-spray or roller in accordance with Manufacturer's directions.
 - c. Recoat areas subjected to heavy rainfall within 3 hours after initial application.
 - d. Maintain continuity of coating and repair damage during curing period.
- 5. Do not use membrane curing compounds on surfaces that are to be covered with coating material applied directly to concrete, liquid floor hardener, waterproofing, dampproofing, membrane roofing, flooring (such as ceramic or quarry tile and glue-down carpet), painting, and other coatings and finish materials, unless otherwise acceptable to the ENGINEER.
- 6. Curing Formed Surfaces:
 - a. Cure formed concrete surfaces, including undersides of beams, supported slabs, and other similar surfaces by moist curing with forms in place for full curing period or until forms CONCRETE WORK 03310-20

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b. If forms are removed, continue curing by methods specified above, as applicable.

7. Curing Unformed Surfaces:

- a. Cure unformed surfaces, such as slabs, floor topping, and other flat surfaces by application of appropriate curing method.
- b. Final cure concrete surfaces to receive liquid floor hardener or finish flooring by use of moisture-retaining cover, unless otherwise directed.

8. Sealer and Dustproofer:

a. Apply a second coat of specified curing and sealing compound only to surfaces given a first coat.

3.12 SHORES AND SUPPORTS

- A. Remove shoring from ground to roof for structures four stories or less, unless otherwise permitted.
- B. Remove shores and re-shore in a planned sequence to avoid damage to partially cured concrete.
- C. Locate and provide adequate re-shoring to safely support work without excessive stress or deflection.
- D. Keep shores in place a minimum of 15 days after placing upper tier, and longer if required, until concrete has attained its required 28-day strength and heavy loads due to construction operations have been removed.

3.13 REMOVAL OF FORMS

A. Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at no less than 50 degrees F (10 degrees C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.

B. Form facing material may be removed 4 days after placement, only if shores and other vertical supports have been arranged to permit removal of form facing material without loosening or disturbing shores and supports.

3.14 RE-USE OF FORMS

- A. Clean and repair surfaces of forms to be re-used in work. Split, frayed, delaminated, or otherwise damaged form facing material will not be acceptable for exposed surfaces.
- B. Apply new form coating compound as specified for new formwork.
- C. Thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints when forms are extended for successive concrete placement.
- D. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to the ENGINEER.

3.15 MISCELLANEOUS CONCRETE ITEMS

A. Filling-In:

- 1. Fill-in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place.
- 2. Mix, place, and cure concrete as herein specified, to blend with inplace construction.
- 3. Provide other miscellaneous concrete filling shown or required to complete work.

B. Curbs:

1. Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations:

- 1. Provide machine and equipment bases and foundations, as shown on Drawings.
- 2. Set anchor bolts for machines and equipment to template at correct

elevations, complying with certified diagrams or templates of Manufacturer furnishing machines and equipment.

- Grout base plates and foundations as indicated, using specified nonshrink grout.
- 4. Use non-metallic grout for exposed conditions, unless otherwise indicated

D. Reinforced Masonry:

- 1. Provide concrete grout for reinforced masonry lintels and bond beams where indicated on Drawings and as scheduled, including filling of concrete modular unit cavities where called for on plans.
- 2. Maintain accurate location of reinforcing steel during concrete placement.

3.16 CONCRETE SURFACE REPAIRS

A. Patching Defective Areas:

- 1. Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to the ENGINEER.
- 2. Cut out honeycomb, rock pockets, voids over 1/4 inch in any dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1 inch.
- 3. Make edges of cuts perpendicular to the concrete surface.
- 4. Thoroughly clean, dampen with water, and brush-coat the area to be patched with specified bonding agent.
- 5. Place patching mortar after bonding compound has dried.

B. Repair of Formed Surfaces:

- Remove and replace concrete having defective surfaces if defects cannot be repaired to the satisfaction of the ENGINEER. Surface defects, as such, include:
 - a. Color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets.

- b. Fins and other projections on surface.
- c. Stains and other discolorations that cannot be removed by cleaning.
- 2. Flush out form tie holes, fill with dry pack mortar, or precast cement cone plugs secured in place with bonding agent.
- 3. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

C. Repair of Unformed Surfaces:

- 1. Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish.
- 2. Correct low and high areas as herein specified.
- 3. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness using a template having required slope.
- D. Repair finished unformed surfaces that contain defects which affect durability of concrete. Surface defects, as such, include crazing cracks in excess of 0.01 inch wide or which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, pop-outs, honeycomb, rock pockets, and other objectionable conditions.
 - 1. Correct high areas in unformed surfaces by grinding, after concrete has cured at least 14 days.
 - 2. Correct low areas in unformed surfaces during or immediately after completion of surface finishing operations by cutting out low areas and replacing with fresh concrete.
 - 3. Finish repaired areas to blend into adjacent concrete.
 - 4. Proprietary patching compounds may be used when acceptable to the ENGINEER.

E. Repair Defective Areas:

1. Cut out and replace with fresh concrete except random cracks and single holes not exceeding 1 inch in diameter.

- 2. Remove defective areas to sound concrete with clean, square cuts and expose reinforcing steel with at least ¾-inch clearance all around.
- 3. Dampen concrete surfaces in contact with patching concrete and apply bonding compound.
- 4. Mix patching concrete of same materials to provide concrete of same type or class as original concrete.
- 5. Place, compact, and finish to blend with adjacent finished concrete.
- 6. Cure in same manner as adjacent concrete.
- F. Perform structural repairs with prior approval of Structural Engineer for method and procedure, using specified epoxy adhesive and mortar.
- G. Use repair methods not specified above, subject to acceptance of the ENGINEER.

3.17 QUALITY CONTROL TESTING DURING CONSTRUCTION

- A. The OWNER will employ a testing laboratory to perform tests and to submit test reports.
- B. Sampling and testing for quality control during placement of concrete may include the following, as directed by the ENGINEER.
 - 1. Sampling Fresh Concrete:
 - a. ASTM C 172, except modified for slump to comply with ASTM C 94.

2. Slump:

- a. ASTM C 143, one test at point of discharge for each day's pour of each type of concrete and additional tests when concrete consistency seems to have changed.
- 3. Concrete Temperature:
 - a. Test hourly when air temperature is 40 degrees F (4 degrees C) and below, and when 80 degrees F (27 degrees C) and above, and each time a set of compression test specimens

- 4. Compression Test Specimen:
 - a. ASTM C 31, one set of four standard cylinders for each compressive strength test, unless otherwise directed.
 - b. Cylinders for laboratory cured test specimens shall be molded and stored except when field-cure test specimens are required.
- 5. Compressive Strength Tests:
 - a. ASTM C 39, one set for each day's pour exceeding 5 cubic yards plus additional sets for each 50 cubic yards over and above the first 25 cubic yards of each concrete class placed in any 1 day:
 - 1) One specimen tested at 7 days.
 - 2) Two specimens tested at 28 days.
 - 3) One specimen retained in reserve for later testing if required.
 - b. When frequency of testing will provide less than five strength tests for a given class of concrete, conduct testing from at least five randomly selected batches or form each batch if fewer than five are used.
- C. Test results will be reported in writing to Structural Engineer and the CONTRACTOR within 24 hours after tests.
- D. Reports of compressive strength tests shall contain:
 - 1. The project identification name and number.
 - 2. Date of concrete placement.
 - 3. Name of concrete testing service.
 - 4. Concrete type and class.
 - 5. Location of concrete batch in structure.
 - 6. Design compressive strength at 28 days.

- 7. Concrete mix proportions and materials.
- 8. Compressive breaking strength.
- 9. Type of break for both 7- and 28-day tests.

E. Nondestructive Testing:

1. Impact hammer, sonoscope, or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.

F. Additional Tests:

- 1. The testing service will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by the ENGINEER.
- 2. Testing service may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.
- 3. The CONTRACTOR shall pay for such tests when unacceptable concrete is verified.

END OF SECTION

SECTION 02500 PAVING QUALITY CONTROL SYSTEM

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The CONTRACTOR shall furnish and maintain a quality control system that will provide reasonable assurance that all materials and products submitted to the ENGINEER for acceptance conform to the contract requirements whether manufactured or processed by the CONTRACTOR or procured from suppliers or subcontractors.
- B. The CONTRACTOR shall perform or have performed the inspection and tests required to substantiate product conformance to contract requirements and shall also perform or have performed all inspections and tests otherwise required by the contract.
- C. The CONTRACTOR shall have a Quality Control Technician, who has been certified by FDOT as a Certified Asphalt Plant Technician; available at the asphalt plant at all times the CONTRACTOR is producing asphalt mix for the contract.
- D. The CONTRACTOR's quality control procedures, inspection, and tests shall be documented and that information is available for review by the ENGINEER throughout the life of the contract.
- E. The CONTRACTOR's person in responsible charge of the paving operations shall also be certified by the FDOT as an Asphalt Paving Technician and shall possess a valid certificate of qualification, and be present during all paving operations.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 ENGINEER'S INSPECTION:

- A. The ENGINEER reserves the right to inspect materials not manufactured within the CONTRACTOR's facility.
- B. The ENGINEER inspection shall not constitute acceptance nor shall it in any way replace the CONTRACTOR's inspection or otherwise relieve the CONTRACTOR of his responsibility to furnish an acceptable material or product.
- C. When inspection of the subcontractor's or supplier's product is performed by the ENGINEER, such inspection shall not be used by the CONTRACTOR as evidence of effective inspection of such subcontractor's or supplier's product.

END OF SECTION

PAVING QUALITY CONTROL SYSTEMS 02500-1

SECTION 02505

PAVING CONSTRUCTION DETAILS AND MATERIALS

PART 1 - GENERAL

Unless otherwise stated in the project plans or specifications, the Contractor will be required to follow all general requirements and covenants, construction methods and materials, to meet the specifications set forth in the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition, and any new or amended sections in effect prior to the date of bid opening. Testing procedures shall be as specified in Section 02520 of these specifications. Results of testing shall be as set forth by the Florida Department of Transportation for road construction.

There will be no asphalt or fuel escalators allowed under this contract.

END OF SECTION

SECTION 02510 GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT

PART 1 - GENERAL

1.01 DESCRIPTION:

A. This Section specifies the general construction requirements for all plantmixed hot bituminous pavements.

1.02 LIMITATIONS OF OPERATIONS:

A. Weather Limitations:

1. Plant Operations shall not begin unless all weather conditions are suitable for the laying operations.

1.03 LIMITATIONS OF LAYING OPERATIONS:

A. General:

- 1. 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.
- 2. Unless otherwise approved by the Engineer, no mixture shall be spread that cannot be finished and compacted during daylight hours.

B. Temperature:

- 1. The mixture shall be spread only when the air temperature (the temperature in the shade away from artificial heat) is 40E F and above for layers greater than one inch (100 pounds per square yard) in thickness and 45E F and above for layers one inch (100 pounds per square yard) or less in thickness.
- 2. No mixture shall be placed when there is evidence that the base is frozen.

C. Wind:

1. 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.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PREPARATION OF ASPHALT CEMENT:

- A. The asphalt cement shall be delivered to the asphalt plant at a temperature not to exceed 350EF and shall be maintained within a range of 230EF to 350EF in advance of mixing operations.
- B. Heating within these limits shall be constant and wide fluctuations of temperature during a day's production will not be permitted.

3.02 PREPARATION OF AGGREGATES:

A. Stockpiles:

- 1. Each aggregate component shall be placed in an individual stockpile, which shall be separated from the adjacent stockpiles, either by space or by system of bulkheads.
- 2. The intermingling of different materials in stockpiles shall be prevented at all times. Each stockpile, including RAP, shall be identified as shown on the Mix Designs.

3.03 PREVENTION OF SEGREGATION:

- A. In the event that the method used for stockpiling coarse aggregate results in segregation of the aggregate, the Engineer will require that the stockpiles be built up in layers not higher than four feet, with each layer completely in place before the next is started.
- B. Stockpiles shall not be formed by depositing material in one place or by coning.

3.04 BLENDING OF AGGREGATES:

- A. Blending or proportioning from railroad cars will not be permitted.
- B. All aggregates shall be stockpiled prior to blending or placing in the cold hoppers.

C. 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.

3.05 COLD BINS:

A. Adequacy of Bins:

- 1. 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.
- 2. Each bin compartment shall be of such capacity and design as to permit a uniform flow of aggregates.
- 3. All 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.
- 4. If necessary, the bins shall be equipped with vibrators to insure a uniform flow of the aggregates at all times.

3.06 GATES:

- A. Each bin compartment shall be provided with a gate that is adjustable in a vertical direction.
- B. The gate shall be so designed that it can be held securely at any specified vertical opening.
- C. 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.

3.07 MINERAL FILLER:

A. If mineral filler is required in the mix, it shall be fed or weighed-in separately from the other aggregates.

3.08 HEATING AND DRYING:

- A. The aggregates shall be heated and dried before screening.
- B. The temperature of the aggregates shall be heated and dried before GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT 02510-3

PCB23-28 ITB MULTIUSE TRAIL EAST – GAYLE'S TRAILS screening.

C. The temperature of the aggregates shall be co controlled that the temperature of the completed mixture at the plant will fall within the permissible range allowed by these specifications.

SCREENING UNIT:

D. OVERSIZE AGGREGATE:

- 1. Any oversized pieces of aggregate shall be removed by the use of a scalping screen.
- 2. 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.

E. SCREENING:

- 1. 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.
- 2. A minimum of ten percent plus-ten material will be permitted in the minus-ten bin.
- 3. 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.

F. MIXING DIFFERENT MATERIALS:

1. 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 on mile in length.

3.10 PREPARATION OF THE MIXTURE

A. BATCH MIXING:

1. Aggregates:

a) The dried aggregates and mineral filler (if required), prepared GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT 02510-4

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.

Bitumen:

- a) The hot asphalt cement, accurately measured, shall be introduced into the mixer simultaneously with, or after, the hot aggregates.
- b) Mixing shall continue until the mixture is thoroughly uniform, with all particles fully coated.

3. Mixing time:

- a) 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.
- b) The mixing time will vary in relation to the nature of the aggregates and the capacity of the mixer shall be as designated by the Engineer but in no case shall it be less than 35 seconds.

B. CONTINUOUS MIXING:

- 1. 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 hop asphalt cement.
- 2. The rate of flow of material to the pug mill shall be such that the maintained depth of the mix will not exceed the tips of the paddles when in the upright position.
- 3. Mixing shall be sufficient to produce a thoroughly and uniformly coated mixture.

C. MIXING TEMPERATURE:

 The ingredients of the mix shall be heated and combined in such a GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT 02510-5

manner as to produce a mixture, which shall be at a temperature, when discharged from the pug mill or surge bin, within the range of 230EF to 310EF and within the tolerance shown in Table 1.

- 2. Any load or portion of a load of asphalt mix at the plant or on the road with mix temperature exceeding 335EF shall be rejected for use on the project.
- 3. 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 surface 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 Engineer'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.
- 4. The mix temperature will be taken at the plant on the first five loads each day and on an average of once every five loads thereafter. If the temperature fails to fall within the specified tolerance range, the Contractor will be required to take corrective action.

3.11 MAXIMUM PERIOD OF STORAGE:

A. The maximum time that any mix may be kept in a hot storage or surge bin is 72 hours.

3.12 CONTRACTOR'S RESPONSIBILITY FOR MIXTURE REQUIREMENTS:

- A. 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.
- B. These requirements shall apply also to all mixes produced by the drum GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT 02510-6

mixer process and all mixes processed through a hot storage or surge bin, both before and after storage.

3.13 TRANSPORTATION OF THE MIXTURE

- A. The mixture shall be transported in tight vehicles previously cleaned of all foreign material.
- B. 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.
- C. The coasting shall be applied prior to the first loading each day and repeated as necessary throughout the day's operations.
- D. After the truck bodies are coated before any mixture is placed therein, they shall be raised to drain out all excess liquids.
- E. Each load shall be covered during cool and cloudy weather and at any time there is a probability of rain.

3.14 PREPARATION OF APPLICATION SURFACES

A. CLEANING:

1. 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.

2.

B. PATCHING AND LEVELING COURSES:

1. Where a surface course is constructed on an existing pavement of 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.

C. APPLICATION OVER SURFACE TREATMENT:

1. 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.

D. 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.

3.15 TACK COAT

A. TACK COAT REQUIRED:

 A tack coat will be required on existing pavements that are to be overlaid with an asphalt mix and between successive layers of all asphalt mixes.

B. TACK COAT AT ENGINEER'S OPTION:

- 1. A tack coat will be required on the following surfaces only when so directed by the Engineer:
- 2. Freshly primed bases
- 3. Surface Treatment

3.16 PLACING MIXTURE

- A. Requirements Applicable To All Types:
 - 1. Alignment of Edges:
 - a) All asphaltic concrete mixtures other than adjacent to curb and gutter or other true edges, shall be laid by the string line method, to assure the obtaining of an accurate, uniform alignment of the pavement edge.
 - 2. Temperature of Spreading:
 - a) The temperature of the mix at the time of spreading shall be within "25E F of the established mix temperature selected by the Contractor.
 - b) 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,

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Rain and Surface Conditions:

- a) Transportation of asphalt mixtures shall immediately cease from the plant when rain begins at the roadway.
- b) Asphalt mixtures shall not be placed while rain is falling, or when there is water on the surface to be covered.
- c) 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.
- d) 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.

4. Speed of Spreading:

a) The forward speed of the asphalt spreader shall be as established by the Engineer.

5. Number of Crews Required:

a) For each paving machine being operated, the Contractor will be required to use a separate crew; each crew operating as a full unit.

6. Checking Depth of Layer:

- a) The depth of each layer shall be checked at frequent intervals, not to exceed 25 feet.
- b) Any deviation from the required thickness, in excess of the allowable tolerance, shall be immediately corrected.

7. Hand Spreading:

a) In limited areas where the use of the spreader is impossible or impracticable, the mixture may be spread and finished by

- 8. Straight-edging and Back-patching:
 - a) Straight-edging and back-patching shall be done after initial compaction has been obtained and while the material is still hot.

3.17 REQUIREMENTS APPLICABLE TO COURSES OTHER THAN LEVELING:

- A. Spreading and Finishing:
 - 1. 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.
 - 2. An excess amount of mixture shall be carried ahead of the screed at all times.
 - 3. Hand raking shall be done behind the machine as required.

B. Thickness of Layers:

- 1. Unless otherwise noted in the plans each course shall be constructed in layers of the thickness shown on FDOT Standard Index No. 513.
- 2. Type S-III Asphaltic Concrete shall be constructed in layers of thickness of not less than: inch nor greater than 13 inches.

C. Laying Width:

- 1. 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.
- 2. Where the road is closed to traffic, the mixture may be laid to the full width, by machines traveling in echelon.

D. 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

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- 2. No skin patching shall be done.
- 3. When a depression is to be corrected while the mixture is hot, the surface shall be well scarified before the addition of fresh mixture.

3.18 REQUIREMENTS APPLICABLE ONLY TO LEVELING COURSES:

A. Patching Depressions:

1. 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.

B. Spreading Leveling Courses:

- 1. 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.
- 2. Other types of leveling devices may be used after the Engineer has approved them.

C. Rate of Application:

- 1. 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.
- 2. When Type S-III Asphaltic 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.
- 3. 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.
- 4. When leveling in connection with base widening, the Engineer may require that all the leveling mix be placed prior to the widening operation.
- D. 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.
- 2. The remainder of the leveling course shall be placed in the normal sequence of operations.

E. Removal of Excess Joint Material:

1. 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.

3.19 COMPACTING MIXTURE:

- A. Provisions Applicable To All Types:
 - 1. Equipment and Sequence:
 - a) For each paving or leveling train in operation, the Contractor shall furnish a separate set of rollers, with their operators.
 - b) 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 175E F.
 - c) 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.
 - d) Rolling with self-propelled pneumatic-tired rollers, following up 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.

- e) 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 175E F.
- f) Once the Contractor has selected the equipment and established the rolling procedures to achieve required density, then the Contractor must continue to use the same equipment and rolling procedure for the entire project. The Engineer must be notified prior to changing the rolling process.
- g) Compaction at Crossovers, Intersections, etc: when a separate paving machine is being used to pave the crossovers, one 8- to 10-ton tandem steel roller may do the compaction of the crossovers. If crossovers and intersections are placed with the main run of paving, a traffic roller shall also be used in the compaction of these areas.

2. Rolling Procedures:

- a) 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.
- b) 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 is required. Final rolling shall be continued until all roller marks are eliminated.

3. Speed of Rolling:

a) 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 3,000 square yards per hour.

4. Number of Pneumatic-tired Rollers Required:

a) 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 GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT 02510-13

the laying operation nor result in excessive cooling of the mixture before the rolling is complete.

- b) In the event that the rolling falls behind, the laying operation shall be discontinued until the rolling operations are sufficiently caught up.
- 5. Compaction of Areas Inaccessible to Roller:
 - a) 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.

6. Correcting Defects:

- a) 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.
- b) While rolling is in progress, the surface shall be tested continuously and all discrepancies corrected to comply with the surface requirements.
- c) All drippings, fat or lean areas and defective construction of any description shall be removed and replaced.
- d) Depressions that 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.
- e) 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.
- f) All high spots, high joints and honeycomb shall be corrected as directed by the Engineer.
- g) Any mixture remaining unbonded after rolling shall be removed and replaced.
- h) Any mixture that becomes loose or broken, mixed or coated GENERAL CONSTRUCTION REQUIREMENTS FOR ASPHALT PAVEMENT 02510-14

with dirt or in any way defective, prior to laying the wearing course shall be removed and replaced with fresh mixture that shall be immediately compacted to conform with the surrounding area.

3.20 JOINTS:

A. Transverse Joints:

- 1. 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.
- 2. 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.

B. Longitudinal Joints:

- 1. 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.
- 2. The Engineer may waive this requirement where offsetting is not feasible due to the sequence of construction.

3.21 SURFACE REQUIREMENTS:

A. Contractor Responsibility:

- 1. 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.
- 2. 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.

B. Texture of the Finished Surface of Paving Layers:

- 1. The finished surface shall be of uniform texture and compaction.
- 2. The surface shall have no pulled, torn, or loosened portions and shall be free of segregation, sand streaks, sand spots, or ripples.

- 3. Any area of the surface that does not meet the foregoing requirements shall be corrected.
- 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.

END OF SECTION

SECTION 02512 STABILIZING

DESCRIPTION:

The work specified in this Section consists of the stabilizing of designated portions of the roadbed to provide a firm and unyielding subgrade, having the required bearing value specified in the plans. When so called for in the plans this work shall also include the additional strengthening of the subbase, by additional stabilizing of the upper portion of the previously stabilized subgrade, within the limits called for. The work shall be constructed in accordance with these specifications and the lines, grades, thicknesses, and notes shown in the plans.

STABILIZED SUBGRADE:

For stabilized subgrade the type of materials, Commercial or Local, is at the Contractor's option. The stabilizing is designated as Type B, compliance with the bearing value requirements will be determined by the Limerock Bearing Ratio Method.

It is the Contractor's responsibility that the finished roadbed section meets the bearing value requirements, regardless of the quantity of stabilizing materials necessary to be added. Also, full payment will be made for any areas where the existing subgrade materials meet the design bearing value requirements without the addition of stabilizing additives, as well as areas where the Contractor may elect to place select high-bearing materials from other sources, within the limits of the stabilizing.

After the roadbed grading operations have been substantially completed, the Contractor shall make his own determination as to the quantity (if any) of stabilizing material, of the type selected by him, necessary for compliance with the bearing value requirements. The Contractor shall notify the Engineer of the approximate quantity to be added, and the spreading and mixing-in of such quantity of materials shall meet the approval of the Engineer as to uniformity and effectiveness.

MATERIALS:

- Commercial and Local Materials: The particular type of stabilizing material to be used shall meet the requirements of Section 914 of FDOT Standard Specifications for Road and Bridge Construction.
- 2. **Use of Materials from Existing Base**: When the utilization of materials from an existing base is called for, (as all, or a portion, of the stabilizing additives) the

STABILIZING 02512-1

Engineer will direct the locations, placing and distribution of such materials, and this work shall be done prior to the spreading of any additional commercial or local materials. Removal of any section of existing base will not be required until the need for it in maintaining traffic is fulfilled. No materials from an existing base will be eligible for payment as Commercial Materials.

The utilization of materials from an existing base may be called for in combination with either of the designated types of stabilizing.

CONSTRUCTION METHOD:

3. **General:** Prior to the beginning of stabilizing operations, the area to be stabilized shall have been constructed to an elevation such that upon completion of stabilizing operations the completed stabilized subgrade will conform to the lines, grades and cross section shown in the plans. Prior to the spreading of any additive stabilizing material, the surface of the roadbed shall be brought to a plane approximately parallel to the plane of the proposed finished surface.

The subgrade to be stabilized may be processed in one course, unless the equipment and methods being used do not provide the required uniformity, particle size limitation, compaction and other desired results, in which case, the Engineer will direct that the processing be done in more than one course.

4. **Application of Stabilizing Material:** When additive stabilizing materials are required, the designated quantity shall be spread uniformly over the area to be stabilized.

When materials from an existing base are to be utilized in the stabilizing at a particular location, all of such materials shall be placed and spread prior to the addition of other stabilizing additives.

Commercial stabilizing material shall be spread by the use of mechanical material spreaders except that where use of such equipment is not practicable other means of spreading may be used, but only upon written approval of the proposed alternate method.

5. **Mixing:** The mixing shall be done with rotary tillers, or other equipment meeting the approval of the Engineer. At the Contractor's election, the mixing of the materials may be accomplished in a plant of an approved type suitable for this work. The area to be stabilized shall be thoroughly mixed throughout the entire depth and width of the stabilizing limits.

The mixing operations, as specified, (either in place or in a plant) will be required regardless of whether the existing soil, or any select soils placed within the limits of the stabilized sections, have the required bearing value without the addition of stabilizing materials.

As an exception to the above mixing requirements, where the subgrade is of rock, the Engineer may direct that the mixing operations (and the work of stabilizing) be waived and no payment for stabilization will be made for such sections of the roadway.

- 6. **Maximum Particle Size of Mixed Materials:** At the completion of mixing, all particles of material within the limits of the area to be stabilized shall pass a 3 ½ inch ring. Any particles not meeting this requirement shall be removed from the stabilized area or shall be broken down so as to meet this requirement.
- 7. **Compaction:** Except where a stabilized subbase is also to be constructed after the mixing operations have been completed and requirements for bearing value, uniformity and particle size have been satisfied, the stabilized are shall be compacted, in accordance with Density Requirements of this section. The materials shall be compacted at a moisture content permitting the specified compaction. If the moisture content of the material is improper for attaining the specified density, either water shall be added or the material shall be permitted to dry until the proper moisture content for the specified compaction is reached.
- 8. **Finish Grading:** The completed stabilized subgrade shall be shaped to conform with the finished lines, grades and cross section indicated in the plans. The subgrade shall be checked by the use of elevation stakes, or other means approved by the Engineer.
- 9. **Requirements for Condition of Completed Subgrade:** After the stabilizing and compacting operations have been completed the subgrade shall be firm and substantially unyielding, to the extent that it will support construction equipment and will have the bearing value required by the plans.

All soft and yielding material, and any other portions of the subgrade which will not compact readily, shall be removed and replaced with suitable material and the whole subgrade brought to line and grade, with proper allowance for subsequent compaction.

10. **Maintenance of Completed Subgrade:** After the subgrade has been completed as specified above, the Contractor shall maintain it free from ruts, depressions and any damage resulting from the hauling or handling of materials, equipment, tools, etc. It shall be the Contractor's responsibility to maintain the required density until the subsequent

base or pavement is in place. Such responsibility shall include nay repairs, replacement, etc., of curb and gutter, sidewalk, etc., which might become necessary in order to recompact the subgrade in the event of underwash or other damage occurring to the previously compacted subgrade. Any such work required for recompaction shall be at the Contractor's expense. Ditches and drains shall be constructed and maintained along the completed subgrade section.

BEARING VALUE REQUIREMENTS:

11. **General:** Bearing value samples will be obtained and tested at completion of satisfactory mixing of the stabilized area. For any area where the bearing value obtained is deficient from the value indicated in the plans, in excess of the tolerances established herein, additional stabilizing material shall be spread and mixed. This reprocessing shall be done for the full width of the roadway being stabilized and longitudinally for a distance of 50 feet beyond the limits of the area in which the bearing value is deficient.

The Contractor shall make his own determination of the quantity of additional stabilizing material to be used in reprocessing.

12. **Tolerances in Bearing Value Requirements:** The following undertolerances from the specified bearing value, will be allowed as based on tests performed on samples obtained after mixing operations have been completed:

Specified Bearing Value

	Undertolerance
LBR 40	5.0
LBR 35	4.0
LBR 30 (and under)	2.5
All Florida Bearing Values	5.0

DENSITY REQUIREMENTS:

General: Within the entire limits of the width and depth of the areas to be stabilized, the minimum density acceptable at any location will be 98 percent of the maximum density as determined by AASHTO T 180.

END OF SECTION

STABILIZING 02512-4

SECTION 02516 LIMEROCK BASE COURSE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. Drawings and general provisions of contract apply to the work of this section.

1.02 DESCRIPTION OF WORK:

- A. This item shall consist of a base course composed of limerock constructed on a subgrade prepared in accordance with the specifications and in conformity with the line, grades and typical cross-section as shown on the drawings.
- B. The construction methods shall conform to the requirements of Section 200 of the Department of Transportation (DOT) Standards Specifications.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. All material shall be secured from sources approved by the ENGINEER, and shall be furnished by the CONTRACTOR.
- B. Limerock material shall conform to Section 911 of the Standard Specifications.

2.02 EQUIPMENT:

- A. The rock shall be spread by mechanical rock spreaders, equipped with a device which strikes off the rock uniformly to laying thickness, and capable of producing an even distribution of the rock.
- B. For crossovers, intersections and ramp areas; for roadway widths of 20 feet or less; for the main roadway area when forms are used and for any other areas where the use of a mechanical spreader is not practicable; spreading may be done by bulldozers or blade graders.

PART 3 - EXECUTION

3.01 TRANSPORTING LIMEROCK:

- A. The limerock shall be transported to the point where it is to be used, over rock previously placed if practicable, and dumped on the end of the preceding spread.
- B. Hauling over the subgrade and dumping on the subgrade will be permitted when, in the ENGINEER's opinion, these operations will not be detrimental to the base.

3.02 SPREADING LIMEROCK:

- A. Method of Spreading:
 - 1. The limerock shall be spread uniformly.
 - 2. All segregated areas of fine or coarse rock shall be removed and replaced with properly graded rock.

B. Number of Courses:

- 1. When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two courses.
- 2. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional to bear the weight of the construction equipment without disturbing the subgrade.

3.03 COMPACTING AND FINISHING BASE:

A. General:

- 1. Single-Course Base:
 - a) For single-course base, after the spreading is completed the entire surface shall be scarified and then shaped so as to produce the required grade and cross section after compaction.

Double-Course Base:

a) For double-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross

LIMEROCK 02516-2

section approximately parallel to that of the finished base.

- b) Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made and shall be determined, by the engineer, that the required compaction has been obtained.
- c) After the spreading of the material for the second course is completed, its surface shall be finished and shaped so as to produce the required grade and cross section after compaction, and be free of scabs and laminations.

3. Moisture Content:

- a) When the material does not have the proper moisture content to insure the required density, wetting or drying will be required.
- b) When water is added, it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted.
- c) Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course that is being compacted.

4. Density Requirements:

- a) As soon as proper conditions of moisture are attained, the material shall be compacted to a density of not less than 98 percent of maximum density as determined by AASHTO T-180.
- b) The minimum density which will be acceptable at any location outside the traveled roadway (such as intersections, crossovers, turnouts, etc.) shall be 95 percent of such maximum.

3.04 TESTING SURFACE, PROTECTION, AND MAINTENANCE:

A. Density Tests:

1. Density Testing shall be performed at a rate of 1 test per 100 Lineal Feet per lift.

 During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.

B. Correction of Defects/Contamination of Base Material:

 If, at any time, the subgrade material should become mixed with the base course materials, the CONTRACTOR shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace materials removed with clean base material, which shall be shaped and compacted as specified above.

C. Cracks and Checks:

 If cracks or checks appear in the base, either before or after priming, which, in the opinion of the ENGINEER, would impair the structural efficiency of the base, the CONTRACTOR shall remove the cracks or checks by rescarifying, reshaping, adding base material where necessary, and recompacting.

D. Compaction of Widening Strips:

- 1. Where base construction consists of widening strips and the trench width is not sufficient to permit use of standard base compaction equipment, compaction shall be accomplished by use of vibratory compactors, trench rollers or other special equipment which will achieve the density requirements specified herein.
- 2. When multiple-course base construction is required by the plans or specifications, the required compaction shall be achieved in each course prior to spreading material for the overlaying course.

E. Testing Surface:

- 1. The finished surface of the base course shall be checked with a template cut to the required crown and with a 15-foot straightedge laid parallel to the centerline of the road.
- 2. Scarifying and removing or adding base material as required, after which the entire area shall be recompacted as specified hereinbefore, shall correct all irregularities greater than 1/4 inch.

3. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.

3.05 PRIMING AND MAINTAINING:

A. Priming:

- 1. The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90 percent of the optimum moisture of the base material.
- 2. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur.

B. Maintaining:

1. The CONTRACTOR will be responsible for assuring that the true crown and template are maintained, with no rutting or other distortion, and that the base meets all the requirements, at the time the surface course is applied.

3.06 THICKNESS REQUIREMENTS:

A. Measurements:

- 1. Thickness of the base shall be measured at intervals of not more than 200 feet.
- 2. Measurements shall be taken at various points on the cross section, through holes not less than three inches in diameter.

B. Areas Requiring Correction:

- Where the compacted base is deficient by more than 1/2 inch from the thickness called for in the plans, the CONTRACTOR shall correct such areas by scarifying and adding rock.
- 2. The base shall be scarified and rock added for a distance of 100 feet in each direction from the edge of the deficient area.
- 3. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross section.

LIMEROCK 02516-5

SECTION 02518

PAINTING TRAFFIC STRIPES

DESCRIPTION

The work under this Section consists of painting reflectorized traffic stripes, including edge stripes and traffic guide.

MATERIALS

Traffic Paint: The paint used shall be reflective, fast dry traffic paint as specified in 971-13 of F.D.O.T. Standard Specifications for Road and Bridge Construction, latest edition.

Glass Spheres (for Reflective Traffic Paint): Glass spheres shall conform with the requirements of 971-14 of F.D.O.T. Standard Specifications for Road and Bridge Construction, latest edition.

EQUIPMENT

General: All equipment shall be of a type and design which will readily obtain the required uniformity of application of the stripes, both as to thickness of coating and as to alignment.

Traveling Unit: The traveling unit shall be capable of traveling at a uniform, predetermined rate of speed, both uphill and downhill, in order to produce a uniform application of paint.

Paint Sprayer and Tank: The paint machine shall be of the spray type and shall be capable of spraying the paint to the required spread without thinning of the paint. The paint tank shall be equipped with a mechanical agitator. The nozzles shall have cut-off valves which will apply broken or skip lines automatically. The nozzles shall be equipped with a mechanical bead dispenser that will operate simultaneously with the spray nozzle and distribute the beads in a uniform pattern at the rate specified. Each nozzle shall also be provided with suitable line guides, either metallic shrouds or air blasts.

Corrective Devices: Misalignment, defective surfaces, etc. shall be corrected by sand blasting or by any other type of mechanical device which, in the opinion of the Engineer, will effectively remove the paint without damage to the pavement surface.

ALIGNMENT FOR STRIPES

PAINTING TRAFFIC STRIPES 02518-1

Tack points will be established at appropriate intervals for use in aligning stripes, and if found to be necessary to achieve accuracy a stringline will be set from such points.

TOLERANCES IN DIMENSIONS AND IN ALIGNMENT

Dimensions:

Longitudinal Lines: No stripe shall be less than the specified width. No stripe shall exceed the specified width by more than $\frac{1}{2}$ inch. The length of the ten-foot painted segment for skip stripe, and the 30-foot gap between segments, may each vary plus or minus one foot, except that over-tolerance and under-tolerance lengths shall approximately compensate.

Transverse Markings, Gore Markings, Arrows, and Messages: When the specified width of the markings cannot be made with a single pass and multiple passes are required, the width of the line may vary by plus or minus one inch.

Alignment:

On tangents, and on curves up to one degree, the alignment of the painted strip shall not deviate from the stringline by more than one inch. On curves exceeding one degree the maximum permissible deviation will be two inches. In addition, the outer edge of the edge stripe shall fall uniformly at not less than two nor more than four inches from the edge of the pavement, and shall have no noticeable breaks or deviations in alignment or width.

Correction Rates: Any corrections of variations in the width or in the alignment of the stripes shall not be made abruptly but the stripes shall be returned to the design width at the rate of at least ten feet for each $\frac{1}{2}$ inch of correction, and returned to the stringline at the rate of at least 25 lineal feet per inch of correction.

APPLICATION OF PAINT AND SPHERES

Time of Application: Painting shall be done only during daylight hours and, as far as practicable, shall be terminated in time to permit sufficient drying by sunset.

Placing of permanent pavement markings on all final asphaltic concrete surfaces shall not be accomplished prior to 30 calendar days after placement of the final surfaces. Temporary pavement striping will be required during the 30-day period if the road is open to traffic.

Weather Limitations: No paint shall be applied when any moisture is present on the surface to be painted or when the air temperature is below 40□F. Painting shall not be done when winds are sufficient to cause spray dust.

Preparation of Surface to be Painted: The surface which is to be painted shall be cleaned, by compressed air or other effective means, immediately before the start of painting, and shall be clean and dry when the paint is applied. Any vegetation or loose soil shall be removed from the pavement before edge striping is begun.

Mixing Paint: The paint shall be thoroughly mixed before it is poured into the painting machine and no thinning of the paint in the machine will be allowed at any time. Before the start of each day's work the paint container, the connections, and the spray nozzles on the machine shall be thoroughly cleaned with paint thinner or other suitable cleaner.

Paint Application: The traffic stripe shall be of the specified width, with clean, true edges and without sharp breaks in the alignment. A uniform coating of paint shall be obtained and the finished stripe shall contain no light spots or paint skips. Any stripes which do not have a uniform, satisfactory appearance, both day and night, shall be corrected.

Broken Stripes: Broken (skip) stripes shall consist of a succession of solid white stripes, 10 feet in length, separated by unpainted spaces 30 feet in length.

NOTE: All pavement markings other than standard pavement markings, such as parking stripes, shall be as specified in plans.

Rate of Paint Application: The minimum rate of application for paint shall be as follows:

Four-inch solid traffic stripe: 16.5 gallons per mile.

Four-inch skip traffic stripe: 4.12 gallons per gross mile.

Any other width stripe: a direct proportion of the above.

Required Film Thickness: The minimum wet film thickness for all painted areas shall be 15 mils.

Alignment of Stripes: Where a stripe deviates from the correct alignment, as indicated by the stringline, by more than one inch in any 50-foot length, it shall be obliterated and the stripe corrected as specified in 710-3.4 of F.D.O.T. Standard Specifications.

Application of Spheres: The glass spheres shall be applied uniformly and at not less than six pound nor more than $6\frac{1}{4}$ pounds of spheres to each gallon of paint. The spheres shall be applied immediately following the paint application.

PROTECTION OF NEWLY PAINTED STRIPED AND OF TRAFFIC

PAINTING TRAFFIC STRIPES 02518-3

Protection of Stripes: All newly painted stripes, including edge stripes, shall be protected until the paint is sufficiently dry to permit vehicles to cross the stripe without damage from the tires. While the center line stripes are being painted all traffic shall be routed to the right side of the painting operations and the new painted stripe. When necessary, a pilot car shall be used to protect the painting operations from traffic interference. Protection of Traffic: Warning signs shall be set up before the beginning of each operation and extra signs shall be kept well ahead of the painting equipment. The painting equipment shall be so operated that traffic may pass on the right side safely. Warning signs are to be placed only where operations are in progress and are to be relocated as often as is necessary.

Protective Devices: The Contractor shall erect adequate warning signs, provide a sufficient number of flagmen, and take all necessary precautions for the protection of the wet paint number of flagmen, and take all necessary precautions for the protection of the wet paint and the safety of the public. Cones, rubber "Z" guards or similar protective devices shall be placed along the newly painted stripe to prevent traffic from crossing the wet paint. Any such devices used shall be of a type that will not cause damage to vehicular traffic in the event that these objects are accidentally passed over. All protective devices shall be removed not later than sunset to allow free movement of traffic at night.

If the Contractor elects to use fast dry traffic paint no protective devices will be required provided that the Contractor utilizes a trailing vehicle (behind striping machine) equipped with warning sign and flashing beacon and that he operates such vehicle in a manner consistent with the paint drying time.

Repair of Damaged Areas: Any portions of the stripes damaged by passing traffic or from any other cause shall be repainted at the Contractor's expense.

CORRECTIVE MEASURES

All painted stripes which fail to meet the specifications, including the permissible tolerances and the appearance requirements, or are marred or damaged by traffic or from other causes, shall be corrected at the Contractor's expense. All drip and spattered paint shall be removed to the satisfaction of the Engineer. Whenever it is necessary to remove paint it shall be done by means, as approved by the Engineer, which will not damage the underlying surface of the pavement. When necessary to correct a deviation which exceeds the permissible tolerance in alignment, that portion of the stripe affected shall be removed and repainted in accordance with these specifications.

ACCEPTANCE OF THE WORK

When the work under this Section has been completed to the satisfaction of the Engineer, including any corrections or repairs ordered by the Engineer, acceptance of the work painting will be made, independently of the remaining work under the Contract, and the contractor will be relieved of all maintenance of the painting except for damage due to his operations.

END OF SECTION

SECTION 02520 ASPHALT TESTING

Test results for testing asphalt densities, thickness and mix design shall be as specified by the Florida Department of Transportation Handbook for Road and Bridge Construction (latest edition).

PART 1 - GENERAL

1.01 TESTING AND ACCEPTANCE:

- A. All roads over 1,000 feet will require coring for in-place density and asphalt thickness.
- B. The cores will be cut at 1,000-foot intervals.
- C. All expenses for these tests are to be paid by the CONTRACTOR.
- D. All test results are to be turned in to ENGINEER before final 25% payment for road will be made.
- E. Payment will be based on the following table, with target density being 96% of mix design lab density.

PAYMENT SCHEDULE FOR DENSITY CORES (Based on Average Density for Each Road)		
PERCENT OF TARGET DENSITY PERCENT OF PAY		
98.0 and above	100	
97.0 to less than 98.0	95	
96.0 to less than 97.0	90	
Less than 96.0*	75	

F. If ENGINEER deems asphalt is acceptable to remain in place, otherwise ENGINEER may require removal and replacement of asphalt.

1.02 THICKNESS:

- A. Allowable Deficiencies:
 - 1. The thickness shall be determined from the length of the core borings.
 - 2. The maximum allowable deficiency from the specified thickness shall be $\frac{1}{4}$ inch.
- B. Pavement Exceeding Allowable Deficiency in Thickness:
 - 1. When Deficiency is Seriously in Excess:
 - a. Where the deficiency in thickness is in excess of _ inch, for pavement of less than 2½ inches in specified thickness 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 directed by the ENGINEER.
 - b. The CONTRACTOR will receive no compensation for any pavement removed, or for the work of removing such pavement.
 - 2. When Deficiency is Not Seriously in Excess:
 - a. When the deficiency in the thickness of the pavement is over ½ inch but not more than _ inch, for pavement of specified thickness less than 2½ inches the CONTRACTOR will be allowed to leave such pavement in place, but without compensation.
 - b. 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.

- c. All costs of the overlaying and compacting shall be borne by the CONTRACTOR.
- 3. Correcting Deficiency by Adding New Surface Material:
 - a. For any case of excess deficiency of the pavement, the CONTRACTOR will be permitted, if approved by the ENGINEER for each location, to correct the deficient thickness by adding new surface material and compacting to the same density as the adjacent surface.
 - b. The area to be corrected and the thickness of new material added shall be as specified by ENGINEER.
 - c. All costs of the overlaying and compacting shall be borne by the CONTRACTOR.

1.03 MIX DESIGN:

A. An FDOT approved mix design will be provided to the ENGINEER or representative prior to beginning construction, and will not change without written consent of the ENGINEER prior to any change.

1.04 TRUCK TICKETS:

A. The CONTRACTOR will provide truck tickets to the ENGINEER or representative on a regular basis or as requested by the ENGINEER.

1.05 DAILY ASPHALT PLANT TESTING:

A. A minimum of one extraction, gradation to be done daily, as well as test performed for stability and flow to be done on each day's production of 100 tons or more. The results of these tests are to be provided to the engineer on a weekly basis.

STRICT COMPLIANCE OF THIS SECTION WILL BE ADHERED TO

END OF SECTION

ASPHALT TESTING 02520-3

PAVEMENT MARKINGS AND ROAD SIGNS

PART 1 - GENERAL

- 1.1 WORK COVERED: This work shall consist of furnishing and installing roadway centerline striping, stop bars and stop messages as indicated.
- 1.2 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.
- 1.3 Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition and Manual of Uniform Traffic Control Devices, Latest Edition.
- 1.4 SUBMITTALS: Materials for use.
- 1.5 DELIVERY AND STORAGE: Deliver paints and paint material in original sealed containers that plainly show the designated name, specification number, batch number, color, date of manufacture, manufacturer's directions, and name of the manufacturer. Provide storage facilities at the job site for maintaining materials at temperatures recommended by the manufacturer.
- 1.6 WEATHER LIMITATIONS: Apply paint to clean, dry surfaces, and unless otherwise approved, only when air and pavement temperatures are above 40 degrees F for oil-based materials, 50 degrees F for water-based materials, and less than 95 degrees F. Maintain paint temperature within these same limits.

PART 2 - PRODUCTS

- 2.1 MATERIALS: Provide materials conforming to the requirements specified herein.
 - A. Thermoplastic markings, FDOT Section 711.
 - B. Paints for Roads and Streets, FDOT Spec. 971.12.
 - C. Signs: FDOT Spec. 700.
- 2.2 EQUIPMENT: Machines, tools, and equipment used in the performance of the work shall be approved by the Contracting Officer and maintained in satisfactory operating condition.
- 2.3 PAINT APPLICATOR: Provide self-propelled or mobile-drawn pneumatic spraying machine with suitable arrangements of atomizing nozzles and controls to obtain the specified results. Provide machine having a speed during application capable of applying the stripe widths indicated at the paint coverage rate specified herein

and of even uniform thickness with clean-cut edges. Provide paint applicator with paint reservoirs or tanks of sufficient capacity and suitable gages to apply paint in accordance with requirements specified. Equipment tanks with suitable air-driven mechanical agitators. Equipment spray mechanism with quick-action valves conveniently located and include necessary pressure regulators and gages in full view and reach of the operator. Install paint strainers in paint supply lines to ensure freedom from residue and foreign matter that may cause malfunction of the spray guns. Provide pneumatic spray guns for hand application of paint in areas where the mobile paint applicator cannot be used.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION: Allow new pavement surfaces to cure for a period of not less than 30 days before application of marking materials. Thoroughly clean surfaces to be marked before application of the paint. Remove dust, dirt, and other glandular surface deposits by sweeping, blowing with compressed air, rinsing with water, or a combination of these methods as required. Remove rubber deposits, existing paint markings, and other coatings adhering to the pavement by waterblasting. Scrub affected areas, where oil or grease is present on old pavements to be marked, with several applications of trisodium phosphate solution or other approved detergent or degreaser and rinse thoroughly after each application. After cleaning oil-soaked areas, seal with shellac or primer recommended by the manufacturer to prevent bleeding through the new paint. Do not commence painting in any area until pavement surfaces are dry and clean and have been inspected and approved by the Contracting Officer.

3.2 APPLICATION:

A. <u>Painting:</u> Apply paint pneumatically with approved equipment at rate of 24.75 gallons per net mile at a 6" solid stripe. Provide guidelines and templates as necessary to control paint application. Take special precautions in marking numbers, letters, and symbols. Sharply outline all the edges of markings. The maximum drying time requirements of the paint specifications will be strictly enforced, to prevent undue softening of bitumen, and pickup, displacement, or discoloration by tires of traffic. Discontinue painting operations if there is a deficiency in drying of the markings until cause of the slow drying is determined and corrected.

3.3 FIELD TESTING AND INSPECTION:

- A. <u>Inspection</u>: Examine material at the job site to determine that it is the material referenced in the report of test results or certificate of compliance. A certificate of compliance shall be accompanied by the test results substantiating conformance to the specified requirements.
- B. Surface preparations and application procedures will be examined by the Contracting Officer to determine conformance with the requirements specified. Approve each separate operation prior to initiation of subsequent operations.

3.4 TRAFFIC CONTROL AND PROTECTION: Place warning signs near the beginning of the work site and well ahead of the work site for alerting approaching traffic from both directions. Place small markers along newly painted lines to control traffic and prevent damage to newly painted surfaces. Mark painting equipment with large warning signs indicating slow-moving painting equipment in operation.

END OF SECTION 02530

CONTRACTOR/VENDOR E-VERIFY FORM

PER FLORIDA STATUTE 448.95, CONTRACTORS/VENDORS AND SUB-CONTRACTORS MUST REGISTER WITH AND USE THE E-VERIFY SYSTEM TO VERIFY THE WORK AUTHORIZATION STATUS OF ALL NEWLY HIRED EMPLOYEES.

THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID/PROPOSAL. FAILURE TO SUBMIT THIS FORM AS REQUIRED MAY DEEM YOUR SUBMITTAL NONRESPONSIVE.

The affiant, by virtue of the signature below, certifies that:

- 1. The Contractor/Vendor and its Subcontractors are aware of the requirements of Florida Statue 448.095.
- 2. The Contractor/Vendor and its Subcontractors are registered with and using the E-Verify system to verify the work authorization status of newly hired employees.
- 3. The Contractor/Vendor will not enter into a contract with any Subcontractor unless each party to the contract registers with and uses the E-Verify system.
- 4. The Subcontractor will provide the Contractor/Vendor with an affidavit stating that the Subcontractor does not employ, contract with, or subcontract with unauthorized aliens.
- 5. All employees hired by Contractor/Vendor on or after January 1, 2021, have had their work authorization status verified through the E-Verify system.
- 6. The City may terminate this contract on the good faith belief that the Contract or its Subcontractors knowingly violated Florida Statues 448.09(1) or 448.095(2)(c).
- 7. If this Contract is terminated pursuant to Florida Statute 448.095(2)(c), the Contractor/Vendor may not be awarded a public contract for at least one year after the date on which this Contract was terminated.
- 8. The Contractor/Vendor is liable for any additional cost incurred by the City as a result of the termination of this Contract.

		Authorized S	Signature	
		Printed Nam	е	
STATE OFCOUNTY OF		Title	Title	
		Name of Ent	ity/Corpor	ation
The forgoing instrument was acknown online notarization on, this	day of	, 20, by		
	. ,	n whose signature is		•
entity/corporation), personally kno as identification, and who did/did r	w, or produced		(type	of identification)
		Notary Publi	С	
My Commission Expires:				
NOTARY SEAL ABOVE		Printed Nam	<u> </u>	

CONFLICT OF INTEREST STATEMENT

Check one:	
[] To the best of our knowledge, the undersigned Respondent has no potential coldue to any other clients, contracts, or property interest for this project.	nflict of interest
or	
[] The undersigned Respondent, by attachment to this form, submits information a potential conflict of interest due to other clients, contracts, or property interest for This includes and requires disclosure of any officer, director, partner, proprietor agent of the Respondent who is also an officer or employee of the City or of committees.	for this project. , associate, or
LITIGATION STATEMENT	
Check one:	
[] The undersigned Respondent has had no litigation and/or judgements entered any local, state, or federal entity and has had no litigation and/or judgements entered entities during the past ten (10) years.	
or	
[] The undersigned Respondent, by attachment to this form, submits a summary of individual cases of litigation and/or judgements entered by or against any local, sentity, by any state or federal court, during the past ten (10) years.	
COMPANY:	
SIGNATURE:	
NAME:	
TITLE:	
DATE:	

Failure to check the appropriate blocks above may result in disqualification of your proposal. Likewise, failure to provide documentation of a possible conflict of interest, or a summary of past litigation and/or judgements, may result in disqualification of your proposal.

NON-COLLUSION AFFIDAVIT

STATE OF F	LORIDA
COUNTY OF	

	being, first duly sworn, deposes
and says that he is of	
party making the foregoing Proposal or Bid; that s	such Bid is genuine and not collusive
or sham: that said bidder is not financially interest	ested in or otherwise affiliated in a
business way with any other bidder on the same	e contract; that said bidder has not
colluded, conspired, connived, or agreed, directly	y or indirectly, with any bidders or
person, to put in a sham bid or that such other pe	erson shall refrain from bidding, and
has not in any manner, directly or indirectly, so	ught by agreement or collusion, or
communication or conference, with any person, to f	ix the bid price or affiant or any other
bidder, or to fix any overhead, profit or cost element	of said bid price, or that of any other
bidder, or to secure any advantage against the Cit	y of Panama City Beach, Florida, or
any person or persons interested in the propose	ed contract; and that all statements
contained in said proposal or bid are true; and furth	ner, that such bidder has not directly
or indirectly submitted this bid, or the contents the	reof, or divulged information or data
relative thereto to any association or to any member	er or agent thereof.
	iant
AIII	anı
Sworn to and subscribed before me thisda	y of, 2022.
	Notary Public
	Printed Name

Initial Page:Owner	Contractor
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Exhibit A

INSURANCE REQUIREMENTS

SECTION 1: DEFINITIONS

"Location" means the location subject of the Subcontract/Purchase Order.

"Project" means the project subject of the Subcontract/Purchase Order.

"Scope" means the scope of work to be provided by the Subcontractor under the Contract or the Goods and Services to be supplied and performed by Seller under the Purchase Order, as applicable.

"State" means a state of the United States or the District of Columbia or the Commonwealth of Puerto Rico, as applicable

"Alternate/ Leased Employer Endorsement" is an endorsement added to a workers compensation policy that provides an entity scheduled as an alternate employer with primary workers compensation and employers liability coverage as if it were an insured under the policy. This endorsement is commonly used when a temporary help agency (the insured) is required by its customer (the alternate employer) to protect the alternate employer from claims brought by the insured's employees.

SECTION 2: STANDARD INSURANCE COVERAGES

Successful Bidder shall comply with the following:

- 1. Unless higher limits or additional coverages are required by the Contract/Purchase Order or Owner Contract, the Successful Bidder shall secure and maintain the minimum from the earlier commencement of work or the effective date of the Contract/Purchase Order insurance coverages and limits required by this Exhibit A.
- 2. Failure of the Contractor/Buyer to identify deficiencies in any insurance provided by Successful Bidder shall not relieve Successful Bidder from any insurance obligations. Required coverages are as follows:

2.1. Commercial General Liability Insurance Coverages:

Commercial General Liability insurance using ISO's CG 00 01 or its substantial equivalent with **City of Panama City Beach** as an additional insured using <u>ISO's CG 20 10</u> or its substantial equivalent for <u>ongoing operations</u> and ISO's CG 20 37 or its substantial equivalent for <u>completed operations</u> with the following minimum limits:

- \$1,000,000 Each Occurrence
- \$1,000,000 Personal and Advertising Injury
- \$2,000,000 General Aggregate
- \$2,000,000 Products-Completed Operations Limit
- \$500,000 Damage to Rented Premises

Per Project using ISO's CG 25 04 or its substantial equivalent

Initial Page:	Owner	Contractor
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The Successful Bidder must disclose to **City of Panama City Beach** any endorsements that limit or exclude coverage customarily provided by ISO's CG 00 01.

The Successful Bidder's Commercial General Liability policy shall not contain an exclusion or restriction of coverage for the following:

- 1. Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
- 2. Claims for property damage to the Successful Bidder's Work arising out of the products-completed operations hazard where a Subcontractor performed the damaged Work or the Work out of which the damage occurs.
- 3. Claims for bodily injury other than to employees of the insured.
- 4. Claims for indemnity arising out of injury to employees of the insured.
- 5. Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
- 6. Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
- 7. Claims related to residential, multi-family, or other habitational projects if the work is to be performed on such a project.
- 8. Claims related to roofing, if the work involves roofing.
- 9. Claims related to exterior insulation finish systems (EIFS), synthetic stucco, or similar exterior coatings or surfaces if the work involves such coatings or surfaces.
- 10. Claims related to earth subsidence or movement, where the work involves such hazards.
- 11. Claims related to explosion, collapse, and underground hazards, where the work involves such hazards.

The Successful Bidders Commercial General Liability insurance will remain in force with annual policy periods for the period of the statute of repose applicable to this project. *Alternatively, suppose a "project-specific" General Liability policy is used to satisfy these requirements. In that case, it must be endorsed to provide extended completed operations for the period of the statute of repose applicable to this project.*

2.2. Workers Compensation

Worker's Compensation Insurance and Employer's Liability Insurance (including occupational disease) to cover statutory benefits and limits under the Worker's Compensation laws of any applicable jurisdiction in which the Scope is to be performed and minimum limits.

- Bodily Injury by Accident \$100,000 Each Accident
- Bodily Injury by Disease \$500,000 Policy Limit
- Bodily Injury by Disease \$100,000 Each Employee

Policy coverage terms and conditions to include:

- USL&H where applicable.
- Jones Act where applicable.
- All State's endorsement where applicable.
- Employers Liability/Stop Gap Liability if work is performed in Washington, Wyoming, Ohio, North Dakota, or the Commonwealth of Puerto Rico.

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- For the attainment of Workers Compensation in monopolistic states and Puerto Rico, coverage must be secured through the state fund of that State.
- The certificate must identify that coverage applies in the State where the Project is located.

2.3. Automobile Liability

Commercial Automobile Liability insurance covers all owned, leased, and non-owned vehicles used in connection with the Scope. Business Auto Coverage Form using ISO's CA 00 01 or its substantial equivalent including liability coverage for all autos owned (Symbol 1), rented, hired, or borrowed by the contractors, as well as liability coverage for mobile equipment subject to compulsory insurance or financial responsibility laws or other motor vehicle insurance laws with the following minimum limit:

■ \$1,000,000 — Any One Accident — Combined Single Limit

Suppose the Contractor/Sub-Contractor/Vendor is responsible for removing any pollutants from a site. In that case, the Successful Bidder will need to cover its automobile exposure for transporting the pollutants from the site to an approved disposal site. Therefore, auto liability coverage should be endorsed to include the required auto pollution endorsements and Motor Carrier Act Endorsement, MCS 90, and the ISO Form CA 9948 (Pollution Liability Broadened Coverage for Business Automobile).

2.4. Umbrella or Excess Liability Required: Yes

Also, the Successful Bidder shall provide an umbrella or excess liability insurance providing in excess of the underlying Commercial General Liability, Business Automobile Liability, Pollution Liability (if required), and Employers' Liability insurance above, with the following minimum limits:

- \$2,000,000 Each Occurrence
- \$2,000,000 Annual Aggregate (where applicable in the underlying)

Such umbrella or excess liability policy shall provide substantially the same coverage as the underlying Commercial General Liability (including City of Panama City Beach as additional insured), Business Automobile Liability, Pollution Liability, and Employers' Liability insurance. In addition, it shall expressly provide that the umbrella or excess policy will drop down over the underlying insurance's reduced or exhausted aggregate limit. The umbrella or excess policy shall also be primary insurance to City of Panama City Beach (including primary insurance to City of Panama City Beach), and Successful Bidder s umbrella insurer agrees not to seek contribution from City of Panama City Beach insurance.

2.5. Professional Liability Required: No

Professional Liability Insurance is required to cover liability for claims that arise from the errors, omissions, or acts of the Successful Bidder or any entity the Successful Bidder is legally responsible in the provision of professional services. The policy shall be primary and non-contributory, with the insuring agreement to read: "to pay on behalf of" and shall be effective (retroactively, if applicable) from the commencement date of all professional activities in connection with the Scope. The coverage shall be maintained for three years following the final acceptance of the Project.

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Minimum limits are:

- Prime Design Professional: Choose limits when required per claim/annual aggregate;
- Sub-Design Professional: Choose limits when required per claim/annual aggregate.

Upon request, a copy of the policy shall be provided to **City of Panama City Beach**. Coverages shall not include any exclusions or other limitations related to the scope of the services, delays in project completion, or cost overruns.

For Professional Liability Insurance, the term "Prime Design Professional" means the architect and/or engineer providing architectural, engineering, and/or other professional services under a contract directly with our company. The term "Sub-Design Professional" means any architect and/or engineer providing architectural, engineering, and/or other professional services directly or indirectly to a Prime Design Professional in connection with the project. A Prime Design Professional is also a Contractor/Subcontractor, and a Sub-Design Professional is also a Sub-subcontractor.

2.6 Riggers Liability Required: No

If marked as required, the Scope involves the rigging, hoisting, lowering, raising, or moving of property or equipment belonging to others. Riggers Liability Insurance is required to insure against physical loss or damage to the property or equipment.

2.8 Aircraft/Watercraft: Required: No

If marked as required, the Scope involves using any owned, leased, chartered, or hired aircraft or watercraft of any type. As applicable, Aircraft Liability Insurance or Watercraft Liability Insurances required in an amount of not less than **Choose limits when required** per occurrence, including Passenger Liability for bodily injury and property damage.

2.9 Property Insurance:

Property Insurance coverage for tools and equipment owned, leased, or used by the Subcontractor/Seller in the performance of the Scope. The Property Insurance shall extend to equipment, materials, and supplies stored off the Project site or in transit to the Project site to be furnished as part of the Scope and incorporated into the Project.

2.9.1 Pollution Liability Insurance: Required: **No**

Successful Bidder shall secure and maintain the minimum Pollution Liability Insurance coverage and limits required by this Exhibit A from the effective date of the Contract/Purchase Order until the end of the applicable warranty period. The policy shall be submitted to the Contractor/Buyer for review and approval before commencement of the Scope. Failure of the Contractor/Buyer to identify deficiencies in the Pollution Liability Insurance provided by Subcontractor/Vendor shall not relieve Subcontractor/Vendor from any obligations.

Minimum limits are: Including Cleanup Cost

- Choose limits when required per occurrence or claim
- Choose limits when required policy aggregate.

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The coverage shall be as follows: Subcontractor shall provide Pollution Liability Insurance covering all asbestos, lead, and any other pollution operations. If the policy contains a general aggregate, this aggregate must apply on a per-project basis and shall be evidenced on Subcontractor's/Vendors Certificate of Insurance. The limits shall not be subject to reduction as to the Contractor/Buyer or Owner because of any claim asserted against the Subcontractor/Vendor other than in connection with the Scope. Instead of indemnifying, the policy must read "to pay on behalf of." In addition, the following coverages must be included: (1) Completed Operations (five (5) year continuation beyond completion of the Scope); (2) Broad Form Contractual and Independent Contractors (including coverage for third party over claims); (3) On-Site, Off-Site and In-Transit exposures; and (4) Loading and Unloading. Exclusions or restrictions pertaining to mold and EIFS are not permitted. The coverage may be written on an "occurrence" or "claims made" basis. If written on a "claims made" basis, the retroactive date must be included to coincide with the effective date of the Subcontract/Purchase Order, and an extended reporting period (three (3) years minimum) must be included.

The coverage may be written on an "occurrence" or "claims made" basis. If written on a "claims made" basis, the retroactive date must be included to coincide with the effective date of the Subcontract/Purchase Order, and an extended reporting period (three (3) years minimum) must be included.

Deductibles/Denial of Claims:

Contractor/Vendor shall be responsible, at no additional cost to Contractor/Buyer, for the payment of any deductibles or self-insured retention in connection with the insurance coverages required by this Exhibit A both for itself and all Additional Insureds. Any self-insured retention or deductible in excess of \$25,000 must be declared when Subcontractor/Seller submits its bid and must be approved explicitly by Contractor/Buyer before executing the Subcontract/Purchase Order. Subcontractor/Seller shall be responsible for any loss arising from coverage denial by its insurance carrier.

Leased Successful Bidder Employee Liability

If the leases one or more employees through the use of a payroll, employee management, or other company, the Successful Bidder must directly procure workers compensation/employer's liability insurance. The insurance shall be written on a "Minimum Premium" or "If Any" policy form.

In addition, the worker's compensation/employer's liability coverage provided to and for the leased employees by the payroll, employee management, or other company must be evidenced and include an <u>Alternate / Leased</u> <u>Employer Endorsement</u> or its substantial equivalent WC endorsement for that State, naming Successful Bidder as the alternate employer.

Insurer Requirements

Each insurer providing insurance coverage as required by this contract shall be a licensed admitted insurer authorized to issue such coverages in each State in which any part of the Scope is performed. The insurer shall be acceptable to **City of Panama City Beach** and have an AM Best rating of "A-" or better.

Before accepting the Contractor/Sub-Contractor/Vendor's bid, City of Panama City Beach reserves the right to require more significant limits based on the nature of the operations performed by the Successful Bidder.

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Certificate of Insurance

Before commencing its performance and throughout the warranty period under the Contract /Purchase Order, the Successful Bidder shall provide **City of Panama City Beach** a current certificate of insurance evidencing the coverages required by this contract (a sample Certificate of Insurance is attached for reference purposes).

Sub-subcontractor/Sub-Vendor

Before permitting any lower tier Sub-subcontractor/Sub-vendor to perform Scope under the Contract/Purchase Order, the Successful Bidder shall require its sub-subcontractor/Sub-vendor to maintain insurance in like form and amounts to that required herein. Successful Bidder shall be responsible for ensuring that it's sub-subcontractor/Sub-vendor maintains insurance in like form and amounts and shall provide evidence of same to City of Panama City Beach if requested.

Any subcontractors engaged by the Contractor shall comply with the above requirements. Consideration for specific trades can be made with prior approval.

Notice of Cancellation

All insurance coverages required by this contract shall contain a provision that the coverage afforded hereunder cannot be canceled, non-renewed, allowed to lapse, or have any restricted modifications added unless at least thirty 45) days prior written notice has been given to **City of Panama City Beach**

Additional Insureds

All insurance required by this contract (excluding only Workers Compensation Insurance and Professional Liability Insurance) shall name the City of Panama City Beach and its officials, employees, and volunteers as Additional Insureds and any other parties as required by the Owner Contract, and shall be primary and non-contributory to any insurance maintained by Indemnified Parties and Additional Insureds and any other parties as required by Owner Contract, all of which shall be stated on the Certificate of Insurance provided by the Successful Bidder.

The General Liability Additional Insured Endorsement shall use ISO's or CG 2010 or its substantial equivalent for ongoing operations and ISO's CG 20 37 or its substantial equivalent for completed operations. By endorsement or policy language, evidence of Additional Insured and Primary and Non-Contributory coverage must be provided with the certificate of insurance for General Liability. The Successful Bidder's insurers will provide insurance to City of Panama City Beach, on a primary basis and agree not to seek contribution from insurance by using ISO's CG 20 01 or its substantial equivalent. Successful Bidders insurers also agree to waive rights of subrogation against City of Panama City Beach using ISO's CG 24 04 or its substantial equivalent.

Waiver of Subrogation

All insurance coverages maintained by Successful Bidder shall include a waiver of any right of subrogation of the insurers thereunder against Indemnified Parties and Additional Insureds and all of their respective assigns, subsidiaries, affiliates, employees, insurers, and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any person insured under any such policy (Workers Compensation – where permitted).

The Successful Bidder further waives all claims and all rights of subrogation against Indemnified Parties' and Additional Insureds' other contractors and all of their respective assigns, subsidiaries, affiliates, employees, insurers, and underwriters for loss of, or damage to, contractors Scope, tools, machinery, equipment, material, supplies, or any other losses within the scope of any insurance maintained by **City of Panama City Beach**. If any of the Indemnified Parties and Additional Insureds are partially or wholly self-insured, then the waiver of subrogation shall apply as if their insurance covered them.

Initial Page:	Owner	Contractor
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Insurance Policy Review/Exclusions/Copies

City of Panama City Beach, can receive copies of all insurance policies upon request. Policies shall not contain any exclusions that are unacceptable to City of Panama City Beach. If requested by City of Panama City Beach, all insurance carriers must certify all policies as accurate and complete. At their sole discretion, policies shall not contain any unacceptable exclusions to City of Panama City Beach. City of Panama City Beach 's right to review and approve all insurance policies will not constitute a waiver of any rights created by or provisions contained in this contract should they differ from those contained in such policies.

Claims-Made Policies

Except for Professional Liability Insurance, claims-made policies are not acceptable.

Effect of Specified Coverages

The Insurance obligations under this agreement shall be 1—all the Insurance coverage and/or limits carried by or available to the Contractor; or 2—the minimum Insurance coverage requirements and/or limits shown in this agreement, whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which apply to a given loss, shall be available to **City of Panama City Beach**. No representation is made that this agreement's minimum insurance requirements are sufficient to cover the Contractor's obligations under this agreement.

Breach of Insurance Requirements

Successful Bidder's failure to obtain and maintain insurance coverages as required by this Exhibit A or any other Exhibit or attachment shall constitute a material breach of the Contract/Purchase Order. In such event, in addition to any other rights and remedies contained in the Contract/Purchase Order, (i) City of Panama City Beach may, at its option, terminate the contract for default; (ii) City of Panama City Beach may, at its option, purchase such coverage and back charge the premium and associated costs to Successful Bidder; and/or (iii) any of the Indemnified Parties, or Additional Insureds can require, that contractor and/or its subcontractors to pay for all attorney's fees, expenses, and liability as a result of any claim or lawsuit for which coverage would have been provided to the Indemnified Parties or Additional Insureds under contractors insurance program but for a breach by Contractor or any of its subcontractors.

Furthermore, to the extent of their respective interests, the Insurers of those entities that were to be included as Additional Insureds are deemed third-party beneficiaries of the insurance procurement obligation and have the same rights against the breaching party as the Indemnified Parties or Additional Insureds.

If any of the preceding insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final application for payment as required. If the insurer does not furnish any information concerning the reduction of coverage, it shall be furnished by the contract with reasonable promptness according to the Successful Bidder 's information and belief. Suppose Successful Bidder fails to maintain insurance. City of Panama City Beach may (at its sole option) terminate the Successful Bidder or place such insurance and deduct any cost, fees, and related expenses from Successful Bidder pay request.

Any Successful Bidder engaged by the Contractor shall comply with the above requirements. Consideration for specific trades can be made with prior approval.

Initial Page:	Owner	Contractor
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City of Panama City Beach

Endorsements to be attached:

General Liability	Endorsement #	Edition Dates	Carrier	Policy #'s to be listed
Added Insured - Ongoing Operations	CG 20 10	All	ISO Standard or Equal	Yes
Added Insured – Completed Operations	CG 20 37	All	ISO Standard	Yes
Waiver of Subrogation	CG 24 04		ISO Standard	
Primary & Non-Contributory	CG 20 01		ISO Standard	
Automobile Liability				
No Endorsements Required				
Umbrella or Excess Liability				
List all lines this policy applies.				
Workers Compensation				
Waivers of Subrogation	WC 00 03 13		ISO Standard	Yes
Alternate Employer Endorsement	WC 00 03 01 A		ISO Standard	Yes

^{*} State Waiver of Subrogation Provisions Overview: Kansas, Kentucky, Missouri, New Hampshire, and New Jersey disallow waivers of subrogation by statute. However, only Kansas and Missouri bar waivers of subrogation in the construction industry. (Note that Kansas does not prohibit the use of waivers of subrogation for consolidated or wrap-up insurance programs.) The monopolistic states either disallow waivers of subrogation or allow the state fund to make that decision. The remaining states allow for waivers of subrogation through judicial interpretation or administrative rules.

We accept endorsements that are equal to those requested. Most insurance company forms are manuscript; therefore, they might not be compliant (most are not). We review all forms during the review process. Forms that are compliant today may not be compliant tomorrow. Our decisions are based on case law and claim history. Additional Insured or Organization Name to be listed on all endorsements along with policy numbers as applicable. Blank endorsements will not be excepted. Sample Endorsements Attached

Blanket Certificates of Insurance

For ease of paperwork, subcontractors may submit insurance documentation on a blanket basis to work on multiple projects under just one insurance certificate. (View sample certificate above or in compliance database)

Subcontractor performing work on multiple projects in the same State

Each of our projects requires a project-specific certificate of insurance (COI) for EACH project they work on; however, a lot of our Subcontractors are doing multiple projects in one State, which creates an opportunity to reduce paperwork by providing a blanket certificate of insurance and allowing the Subcontractor to work on all projects (Non-OCIP or CCIP) under one COI. If providing a blanket certificate, the following guidelines will be in addition:

- 1. On the COI, instead of stating an individual project name, replace with the following verbiage in the Description of Operations section of the certificate: "All projects performed for City of Panama City Beach
- 2. When stating the additional insureds, state the following along with the other required Description of Operations wording: "All insurance (excluding Workers Compensation and Professional Liability) include Owner, City of Panama City Beach, Indemnified Parties, any other parties as required by Owner Contract and their respective directors, officers, employees, and affiliates as Additional Insureds, and shall be primary and non-contributory to any insurance maintained by Additional Insureds."
- 3. All endorsements and waivers must be blanket-based, either per form or blanket wording. For example, a contract requires endorsements/waivers in such schedules instead of listing each entity.

^{*}Stop Gap endorsement required in monopolistic states such as ND, OH, WA WY, or Puerto Rico

^{*}Coverage must apply in the State where the work is being performed if the vendor is from a state other than the one where the project is located.

Initial Page:	Owner	Contractor

Commercial General Liability

CG 20 10 10 01

POLICY NUMBER: Required

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:

Certificate Holders Name

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

- A. Section II Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations per-formed for that insured.
- B. With respect to the insurance afforded to these additional insureds, the following exclusion added:
 - 2. Exclusions

CG 20 10 10 01

This insurance does not apply to "bodily injury" or "property damage" occurring after

- (1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the addi-tional insured(s) at the site of the covered operations has been completed; or
- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

Page 1 of 1 © ISO Properties, Inc., 2000

CG 20 37 10 01

POLICY NUMBER: Required

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:

Certificate Holders Name

Location And Description of Completed Operations:

All locations required by contract

Additional Premium:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

Section II - Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" at the location designated and described in the schedule of this endorsement performed for that insured and included in the "products-completed operations haz-

CG 20 3710 01 © ISO Properties, Inc., 2000 Page 1 of 1

CG 24 04 05 09

POLICY NUMBER: Required

COMMERCIAL GENERAL LIABILITY

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY **AGAINST OTHERS TO US**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

Certificate Holders Name

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. Transfer Of Rights Of Recovery Against Others To Us of Section IV - Conditions:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above

CG 24 04 05 09 © Insurance Services Office, Inc., 2008 Page 1 of 1

CG 20 01 04 13

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY -OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that

(1) The additional insured is a Named Insured under such other insurance; and

(2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured

CG 20 01 04 13 © Insurance Services Office, Inc., 2012 Page 1 of 1

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Workers Compensation

WC 00 03 13

WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY

WC 00 03 13

(Ed. 4-84)

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule

Schedule

In Favor of:

Certificate Holders Name and Project Owner

Work Performed by:

Client (Our Subcontractor)

Client Address

On the Following Project or Location

All Projects or Locations as Required by Contract

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective Policy No. Required Endorsement No. Insured Required Insurance Company Countersigned by_

Required

(Ed. 4-84)

▼ 1983 National Council on Compensation Insurance.

WC 00 03 01 A

WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY

WC 00 03 01 A

(Ed. 2-89)

ALTERNATE EMPLOYER ENDORSEMENT

This endorsement applies only with respect to bodily injury to your employees while in the course of special or temporary employment by the alternate employer in the state named in Item 2 of the Schedule. Part One (Workers Compensation Insurance) and Part Two (Employers Liability Insurance) will apply as though the alternate employer is insured. If an entry is shown in Item 3 of the Schedule the insurance afforded by this endorsement applies only to work you perform under the contract or at the project named in the Schedule.

Under Part One (Workers Compensation Insurance) we will reimburse the alternate employer for the benefits required by the workers compensation law if we are not permitted to pay the benefits directly to the persons entitled to them.

The insurance afforded by this endorsement is not intended to satisfy the alternate employer's duty to secure its obligations under the workers compensation law. We will not file evidence of this insurance on behalf of the alternate employer with any government agency.

We will not ask any other insurer of the alternate employer to share with us a loss covered by this endorsement.

Premium will be charged for your employees while in the course of special or temporary employment by the alternate

The policy may be canceled according to its terms without sending notice to the alternate employer

Part Four (Your Duties If Injury Occurs) applies to you and the alternate employer. The alternate employer will recognize our right to defend under Parts One and Two and our right to inspect under Part Six.

Schedule

1. Alternate Employer

Our Subcontractor - Not the PEO

Address Our Subcontractors Address

- 2. State of Special or Temporary Employment
- 3. Contract or Project All Locations or Projects Required by Contract

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement No. Premium \$ Endorsement Effective Date Here is Required Policy No. Policy Number Required

Insured Required Insurance Company

Required

Countersigned by_

WC 00 03 01 A (Ed 2-89)

▼ 1984, 1988 National Council on Compensation Insurance

CONTRACT CHANGE ORDER ORDER NO.

		DATE
		STATE
		Florida
CONTRACT FOR		COUNTY
CITY OF PANAMA CITY BEACH		Bay
MULTIUSE TRAIL EAST – GAYLE'S TRAILS PROJE	CT CT	Day
OWNER CITY OF PANAMA CITY BEACH		
То		
You are hereby requested to comply with the following cha specifications:	nges from the contract p	lans and
Description of Changes	DECREASE	INCREASE
(Supplemental Plans and Specifications Attached)	in Contract Price	in Contract Price
TOTALS	\$	\$
NET CHANGE IN CONTRACT PRICE	\$ 0	\$
JUSTIFICATION: Additional days due to unforeseen cond	itions and rain days.	
The amount of the Contract will be Increased/Decreased by the	Sum of:D	ollars (\$ <u>0.00</u>).
The Contract Total including this and previous Change Orders w		
The Contract Period provided for Completion will be changed/u		<i>y</i> entare (\$
The Contract Period provided for Completion will be changed/u	nchangeu.	
This Document will become a supplement to the contract and all	provisions will apply here	to.
(Cor	ntractor)	(Date)
(Owner's Engineer) Chris Forehand, P.E., VP, Panhandle Engineering, In	c.	(Date)
(Owner) Mr. Drew Whitman, City Manager, City of Panama City Beach		(Date)



APPLICATION AND CERTIFICATE FOR PAYMENT

TO (OWNER): PROJECT: MULTIUSE TRAIL EAST - GAYLE'S TRAILS APPLICATION NO: CITY OF PANAMA CITY BEACH

ATTN: DREW WHITMAN, CITY MANAGER VIA (ENGINEER): PANHANDLE ENGINEERING, INC PERIOD TO:

FROM (CONTRACTOR):

LYNN HAVEN, FLORIDA 32444

APPLICATION DATE:

ATTN: CHRIS FOREHAND, P.E., ENGINEER

CONTRACT DATE:

CONTRACTOR'S APPLICATION FOR PAYMENT

CHANGE ORDER S	SUMMARY		
Change Orders app	roved in	ADDITIONS	DEDUCTIONS
previous months by	Owner		
	TOTAL		
Number	Date Approved		
1			
2			-
	TOTALS	\$0.00	\$0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information, and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for for which previous Certificates for Payment were issued and payments received from the Owner, and that the current payment shown herein is now due.

CONTRACTOR

TYPE COMPANY NAME HERE

By:			Date:	
TYPE NAME HERE				
State of:	Florida	County of:	Bay	
Subscribed and sworn to before me this		day of		
Notary Public:				

1.	ORIGINAL CONTRACT SUM	
2.	NET CHANGE BY CHANGE ORDERS	\$0.00
3.	CONTRACT SUM TO DATE (Line 1 + Line 2)	\$0.00
4.	EARNED TO DATE	·
	a. Work Completed (See Attached)	
	b. Stored Materials Including Owner Issued POs (See Attached)	
	TOTAL COMPLETED & STORED TO DATE	\$0.00
5.	TAX SAVINGS AGREEMENT: (Through Summary No.)	
	a. Total Purchase Orders Issued by Owner (To Date)	
	b. Anticipated Tax Savings on Owner Issued POs	<u> </u>
	c. Vendor Invoices Paid @ Contractors Request (To Date)	<u> </u>
	d. Vendor Retainages Unpaid @ Contractors Request (To Date)	
6.	Total Tax Savings Agreement Deduction (Sum of Line 5a and 5b)	\$0.00
7.	TOTAL EARNED LESS TAX AGREEMENT DEDUCTIONS (Line 4 less Line 6 Total)	\$0.00
8.	RETAINAGE: (10% of Line 7)	\$0.00
9.	TOTAL EARNED LESS RETAINAGE (Line 7 less Line 8)	\$0.00
10.	LESS PREVIOUS CERTIFICATES FOR PAYMENT	
	(Line 9 from prior Certificate)	
11.	CURRENT PAYMENT DUE	\$0.00
12.	BALANCE TO FINISH, PLUS RETAINAGE (Line 3 - Line 6 - Line 9)	\$0.00

ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application, the Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

ENGINEER:		
AMOUNT CERTIFIED		
(Attach explanation if amount certified differs from the amount applied for.)		
By:	Date:	

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein.

Issuance, payment, and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

Pay Request Form Appendix C

CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT: MULTIUSE TRAIL EAST – GAYLE'S TRAILS
DATE OF ISSUANCE
OWNER
OWNER'S ACCOUNT NO
CONTRACTORENGINEER
This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following parts thereof:
TO: CITY OF PANAMA CITY BEACH Owner And TO: Contractor
The Work to which this Certificate applies has been inspected by authorized representatives of OWNER CONTRACTOR and ENGINEER and that the Work is hereby declared to be

OWNER, CONTRACTOR, and ENGINEER, and that the Work is hereby declared to be substantially complete in accordance with the Contract Documents on

Date of Substantial Completion

A tentative list of items to be completed or corrected is to be developed within one week. This may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of the CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within 30 days of the above date of Substantial Completion.

From the date of Substantial Completion the responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees shall be as follows:

RESPONSIBILITIES:	
OWNER: CITY OF PANAMA CITY BEACH	
CONTRACTOR:	
The following documents are attached to and made a part of this	is Certificate:
(For items to be attached see definition of Substantial Completion as supplemented a precedent for achieving Substantial Completion as required by Contract Document.)	nd other specifically noted conditions
Executed by ENGINEER on	nand, P.E., Panhandle Engineering, Inc. Engineer
	By:
CONTRACTOR accepts this Certificate of Substantial Completi	on on
	Date
	Contractor
	By:
OWNER accepts this Certificate of Substantial Completion on	
	Mr. Drew Whitman, City Manager
	Owner By:

Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associate General Contractors of America.

MULTIUSE TRAIL EAST - GAYLE'S TRAILS

CITY OF PANAMA CITY BEACH 110 SOUTH ARNOLD ROAD PANAMA CITY BEACH, FLORIDA 32413

Mark Sheldon, Mayor
Paul Casto, Vice Mayor
Michael Jarman, Councilman
Mary Coburn, Councilwoman
Phil Chester, Councilman
Drew Whitman, City Manager
Kelly Jenkins, P.E, Public Works Director
Kathy Younce, E.I., Project Manager



PANHANDLE ENGINEERING, INC 3005 LYNN HAVEN PARKWAY LYNN HAVEN, FLORIDA 32444 (850) 763-5200

CEI ENGINEER CONTRACTOR:

DEWBERRY 203 ABERDEEN PARKWAY PANAMA CITY, FLORIDA 32405 (850) 522-0644







SIGN DIMENSIONS: 1200mm X 2400mm X 19mm (approx. 4' x 8' x ¾")

PLYWOOD (APA RATED A-B GRADE – EXTERIOR)

MOUNT ON 4" X 4" X 12' PRESSURE TREATED POSTS

SIGN DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO ORDERING

CONTRACTOR MAY SUBMIT SHOP DRAWINGS FOR AN ALTERNATE SIGN MATERIAL FOR ENGINEER APPROVAL

THE SIGN SHALL BE PLACED ON THE SITE AT A LOCATION DESIGNATED BY THE ENGINEER.



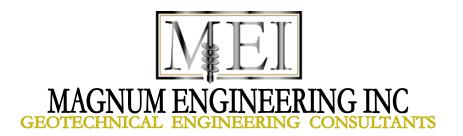
GEOTECHNICAL ENGINEERING REPORT

GAYLE'S TRAILS MULTI USE PATH PANAMA CITY BEACH, FLORIDA

PREPARED FOR:

Mr. Chris Forehand, P.E. Panhandle Engineering, Inc. 3005 South Highway 77 Lynn Haven, FL 32444

1026 PIERSON DRIVE LYNN HAVEN, FLORIDA 32444 TELEPHONE (850) 258.0994



July 8, 2017

Mr. Chris Forehand, P.E. Panhandle Engineering, Inc. 3005 South Highway 77 Lynn Haven, FL 32444

SUBJECT: Gayle's Trails Multi Use Path – Geotechnical Services

Panama City Beach, Florida MEI Project No. M117-107-116

Panhandle Engineering Job# 12046

Dear Mr. Forehand:

This letter forwards the results of our Geotechnical exploration performed on June 23, 2017 for the subject site. Our exploration consisted of Twelve (12) 2-feet to 4-feet deep Hand Auger Borings. The subsurface exploration was conducted to provide soil and groundwater information needed to aid in the design of an effective pavement section for the referenced development.

Project Information

The proposed multi-use path will extend approximately 7,400 linear feet from Breakfast Point Subdivision, behind Arnold High School, and continuing along a Gulf Power Transmission Main in Panama City Beach, Florida. At the time of our exploration, the path of the proposed multi-use trail was undeveloped and wooded with the exception of a few jeep trails for access and the Gulf Power Transmission Main which was clear with the exception of light undergrowth.

Figure #1 shows the boring location plan which was provided to us and included LAT/LONG coordinates of the twelve (12) boring locations and Figure #2 shows the Logs of Borings designated as HA-1 thru HA-12. The subsurface conditions encountered in the test boring will be discussed in general terms below.

Subsurface Conditions

The hand auger borings generally encountered brown, tan, and gray slightly silty fine sands from the ground surface to the bottom of the 2-feet to 4-feet deep hand auger borings.

The above subsurface descriptions are of a generalized nature, provided to highlight the major soil strata encountered. The Logs of Boring should be reviewed for specific subsurface conditions at each boring location. The stratifications shown on the Logs of Boring represent the subsurface conditions at the actual boring locations only, and variations in the subsurface conditions can and may occur between boring locations and should therefore be expected. The stratifications represent the approximate boundary between subsurface materials, and the transitions between strata may be gradual.

Gayle's Trails Multi Use Path – Geotechnical Services Panama City Beach, Florida Page 2 of 4

Please refer to the attached Logs of Borings presented as Figure #2 for a detailed description of the subsurface conditions encountered.

Groundwater Conditions

Groundwater was encountered ranging between the surface and 2.7 feet below existing grade at the time of drilling (June 23, 2017), which was during a period of above normal seasonal rainfall. By definition, the normal seasonal high groundwater table elevation is the highest level of the saturated zone in the soil during a year with normal rainfall. The procedure used in estimating the seasonal high groundwater table is based on adjusting the existing groundwater table encountered upward or downward and taking into consideration factors such as antecedent rainfall, redoximorphic features (identifying soil mottling) and vegetative indicators. Based on the resources and methodology provided, we have estimated the seasonal high groundwater table at each boring location. Please see the below Table #1 showing the groundwater and estimated seasonal high groundwater level at each boring location. Groundwater levels will fluctuate with rainfall and could vary several feet during typical seasonal fluctuations. Larger fluctuations are possible under severe weather conditions.

Table #1

1450 // 1											
Location	Groundwater level below existing grade	Estimated Seasonal High Groundwater Level below Existing grade									
HA-1	2.7	2.7									
HA-2	0.8	0.8									
HA-3	0.0	0.0									
HA-4	1.0	1.0									
HA-5	0.3	0.3									
HA-6	0.5	0.5									
HA-7	0.4	0.4									
HA-8	0.3	0.3									
HA-9	0.0	0.0									
HA-10	0.7	0.7									
HA-11	0.5	0.5									
HA-12	0.4	0.4									

Pavement Recommendations

Initially, the pavement areas should be cleared, grubbed, and stripped of topsoil and other deleterious material.

Gayle's Trails Multi Use Path – Geotechnical Services Panama City Beach, Florida Page 3 of 4

Prior to placing fill soils, where applicable, the top of the ground surface should be compacted to a minimum soil density of 95% of the Modified Proctor Test (ASTM D1557). Structural fill soils should be placed in maximum 12 inch lifts and compacted to a minimum soil density of 95% of the Modified Proctor Test (ASTM D1557). The top 12 inches of subgrade should be compacted to a minimum soil density of 98% of the Modified Proctor Test (ASTM D1557). The top 12 inches of subgrade should have a minimum LBR value of 40. We recommend that structural fill soils, where planned, have a minimum LBR of 40.

Based on the subsurface conditions encountered in the test borings, we recommend using a graded aggregate base (i.e. limerock or crushed concrete). The base course should be compacted to a minimum soil density of 98% of the Modified Proctor Test (ASTM D1557) and have a LBR value of 100 or greater.

Without benefit of traffic loads, volumes, and serviceability parameters, a pavement section cannot be designed. However, typical residential pavement sections in the local area generally consist of a minimum of 1½ inches of FDOT Superpave Mix SP-12.5 or SP-9.5 asphaltic concrete and a minimum of 6 inches of base. Moderate duty traffic areas (e.g. main entrance areas) typically have a minimum pavement section consisting of 2 inches of FDOT Superpave Mix SP-12.5 asphaltic concrete and 8 inches of base. The above sections represent minimum thicknesses representative of typical, local construction practices, and as such periodic maintenance should be anticipated. All pavement materials and construction procedures should conform to FDOT and/or appropriate city or county requirements

While specific traffic loads and volumes for the project have not been provided, we are providing recommended light-duty and medium-duty pavement sections, which have been successfully utilized for this type of development in the Northwest Florida area with similar traffic loadings.

Light Duty (Typical roadway section)

- 1 ½ inches Asphaltic Concrete (FDOT Superpave Mix SP-12.5 or SP-9.5)
- 6 inches Crushed Limerock or Graded Aggregate Base (minimum LBR 100)
- 12 inches stabilized subgrade (minimum LBR 40)

Medium Duty (Entrance Lanes)

- 2 inches Asphaltic Concrete (FDOT Superpave Mix SP-12.5)
- 8 inches Crushed Limerock or Graded Aggregate Base (minimum LBR 100)
- 12 inches Stabilized Subgrade (minimum LBR 40)

Warranty and Limitations of Study

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied. Magnum Engineering, Inc. is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

Soil conditions at other locations may differ from those encountered in the test borings, and the passage of time may cause the soils conditions to change from those described in this report.

This report is intended for use by the designers of this project. While we have no objections to it being provided for review by parties to this project, it is not a specification document and is not to be used as a part of the specifications. If desired, we can assist in the development of specifications for this project based upon our exploration.

Gayle's Trails Multi Use Path – Geotechnical Services Panama City Beach, Florida Page 4 of 4

The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the geotechnical engineer or his representative is therefore considered necessary to verify the subsurface conditions and to check that the soils connected construction phases are properly carried out. If significant variations or changes are in evidence, it may be necessary to reevaluate the recommendations in this report.

Furthermore, if the project characteristics are altered significantly from those discussed in this report, or if the project information contained in this report is incorrect and additional information becomes available, a review must be made by this office to determine if any modifications in the recommendations will be necessary.

We hope this letter provides sufficient information for the present. If you have any questions or comments, please feel free to call.

No. 56813

Man

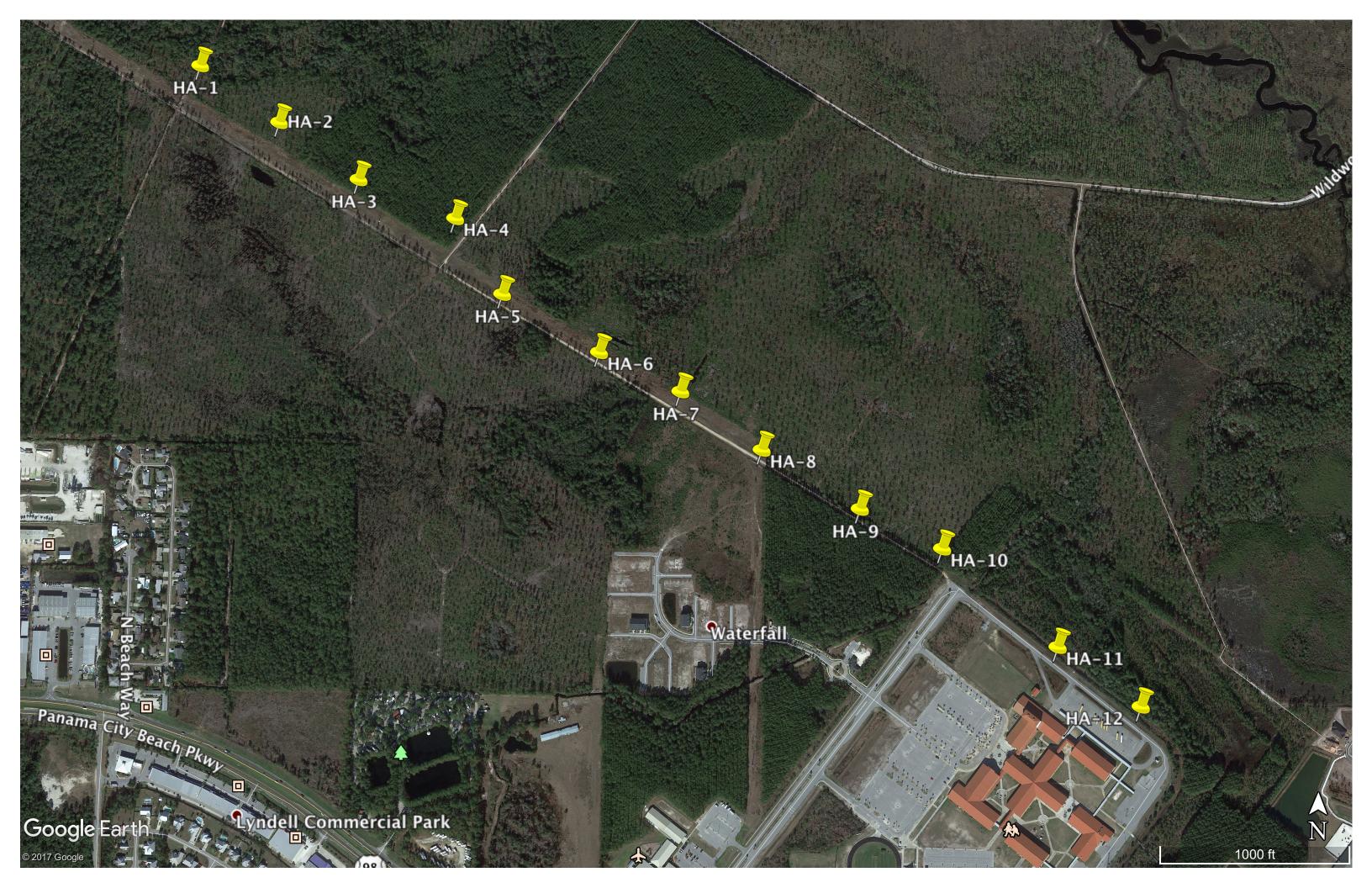
MAGNUM ENGINEERING, INC

JAMES T. VICKERS, P.E. Sr. Geotechnical Engineer Florida Reg. #56813

Attachments:

Sincerely,

Figure #1 – Boring Location Plan Figure #2 – Logs of Borings



BORING NUMBER HA-1 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE DRILLING CONTRACTOR **GROUND WATER LEVELS:** DRILLING METHOD Hand Auger Boring $\sqrt{2}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING 2.7 ft LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) SAMPLE TYPE NUMBER MOISTURE CONTENT (%) LIMITS GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Brown Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU Boring Termination Depth at 4.0 feet.

GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17

BORING NUMBER HA-10 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 PAGE 1 OF 1 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE GROUND WATER LEVELS: DRILLING CONTRACTOR DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING <u>0.7 ft</u> LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Brown Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU Gray/Brown Slightly Silty Fine SAND (SP-SM) GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17 Boring Termination Depth at 4.0 feet.

BORING NUMBER HA-11 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 PAGE 1 OF 1 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE GROUND WATER LEVELS: DRILLING CONTRACTOR DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING <u>0.5 ft</u> LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Brown Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU Gray/Brown Slightly Silty Fine SAND (SP-SM) Boring Termination Depth at 4.0 feet.

GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17

BORING NUMBER HA-12 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 PAGE 1 OF 1 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE GROUND WATER LEVELS: DRILLING CONTRACTOR DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING <u>0.4 ft</u> LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) SAMPLE TYPE NUMBER MOISTURE CONTENT (%) LIMITS GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Brown Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU Gray/Brown Slightly Silty Fine SAND (SP-SM) GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17

Boring Termination Depth at 4.0 feet.

BORING NUMBER HA-2 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE DRILLING CONTRACTOR **GROUND WATER LEVELS:** DRILLING METHOD Hand Auger Boring $\sqrt{2}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING $0.8 \, \mathrm{ft}$ LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) SAMPLE TYPE NUMBER MOISTURE CONTENT (%) LIMITS GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Gray/Tan Slightly Silty Fine SAND (SP-SM) Tan Fine SAND (SP) ΑU GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17 Boring Termination Depth at 3.0 feet.

Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444

GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17

BORING NUMBER HA-3 PAGE 1 OF 1

CLIENT Pa	CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails											
· · · · · · · · · · · · · · · · · · ·	IUMBER <u>M117-107-116</u>	PROJECT LOCATION										
		GROUND ELEVATION HOLE SIZE										
DRILLING C	CONTRACTOR											
DRILLING N	METHOD Hand Auger Boring	DEPTH TO GROUNDWATER AT TIME OF DRILLING										
LOGGED B	Y J. Vickers CHECKED BY J. Vickers											
NOTES AFTER DRILLING												
GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WE SERVE		FINES CONTENT (%)	
0	Gray/Dark Gray Slightly Silty Fine SAND (SP-SM) Boring Termination Depth at 2.0 feet.	AU										

BORING NUMBER HA-4 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE GROUND WATER LEVELS: DRILLING CONTRACTOR DRILLING METHOD Hand Auger Boring ☐ DEPTH TO GROUNDWATER AT TIME OF DRILLING 1.0 ft LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Gray/Tan Slightly Silty Fine SAND (SP-SM) Brown Slightly Silty Fine SAND (SP-SM) Tan Slightly Silty Fine SAND (SP-SM) ΑU GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17 Gray Slightly Silty Fine SAND (SP-SM)

Boring Termination Depth at 4.0 feet.

BORING NUMBER HA-5 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE DRILLING CONTRACTOR **GROUND WATER LEVELS:** DRILLING METHOD Hand Auger Boring $\sqrt{2}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING <u>0.3 ft</u> LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) SAMPLE TYPE NUMBER MOISTURE CONTENT (%) LIMITS GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Tan/Gray Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17 Boring Termination Depth at 4.0 feet.

BORING NUMBER HA-6 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE DRILLING CONTRACTOR **GROUND WATER LEVELS:** DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING $0.5 \, \mathrm{ft}$ LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Tan/Gray Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU Brown Slightly Silty Fine SAND (SP-SM) GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17 Boring Termination Depth at 4.0 feet.

BORING NUMBER HA-7 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE DRILLING CONTRACTOR **GROUND WATER LEVELS:** DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING <u>0.4 ft</u> LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Brown/Orange Slightly Clayey Fine SAND (SP-SC) Gray/Dark Gray Slightly Silty Fine SAND (SP-SM) Tan/Gray Slightly Silty Fine SAND (SP-SM) ΑU Tan Slightly Silty Fine SAND (SP-SM) Boring Termination Depth at 4.0 feet.

GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17

BORING NUMBER HA-8 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE GROUND WATER LEVELS: DRILLING CONTRACTOR DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING 0.3 ft LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID MATERIAL DESCRIPTION Brown/Orange Slightly Clayey Fine SAND (SP-SC) Dark Gray/Dark Brown Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) ΑU Tan Slightly Silty Fine SAND (SP-SM) GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17 Gray Slightly Silty Fine SAND (SP-SM)

Boring Termination Depth at 4.0 feet.

BORING NUMBER HA-9 Magnum Engineering, Inc. 1026 Pierson Drive Lynn Haven, FL 32444 CLIENT Panhandle Engineering, Inc. PROJECT NAME Gail's Trails PROJECT NUMBER M117-107-116 PROJECT LOCATION DATE STARTED 6/23/17 COMPLETED 6/23/17 GROUND ELEVATION HOLE SIZE DRILLING CONTRACTOR **GROUND WATER LEVELS:** DRILLING METHOD Hand Auger Boring $\sqrt{}$ DEPTH TO GROUNDWATER AT TIME OF DRILLING $0.0 \, \mathrm{ft}$ LOGGED BY J. Vickers CHECKED BY J. Vickers ESTIMATED SEASONAL HIGH GWT _---**NOTES** AFTER DRILLING _---FINES CONTENT (%) POCKET PEN. (tsf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIMITS SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) BLOW COUNTS (N VALUE) PLASTICITY INDEX PLASTIC LIMIT LIQUID LIMIT MATERIAL DESCRIPTION Gray/Brown Slightly Silty Fine SAND (SP-SM) Gray Slightly Silty Fine SAND (SP-SM) Brown Slightly Silty Fine SAND (SP-SM) ΑU Tan Fine SAND (SP) Boring Termination Depth at 4.0 feet.

GEOTECH BH COLUMNS GAIL'S TRAILS.GPJ GINT STD US LAB.GDT 7/3/17