

INVITATION TO BID PCB24-05 ALF COLEMAN ROAD EASTSIDE SIDEWALK

CITY OF PANAMA CITY BEACH 17007 PANAMA CITY BEACH PARKWAY PANAMA CITY BEACH, FLORIDA 32413

Date of Issue: September 29, 2023

Responses Due: October 30, 2023



CITY OF PANAMA CITY BEACH Alf Coleman Road Eastside Sidewalk

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EXHIBITS

Exhibit A – Insurance Requirements – See Section 00099

Exhibit B – Construction Plans

SECTION 00010

ADVERTISEMENT FOR BIDS

PANAMA CITY BEACH - ALF COLEMAN ROAD EASTSIDE SIDEWALK

This project includes the construction of the Alf Coleman Road Eastside Sidewalk. The project begins at the Panama City Beach Parkway right of way and continues north to Dr. Haley Drive, approximately 0.55 miles. The project also includes the installation of double 24" drainage pipes under the three entrances to Arnold High School. The Contractor shall provide all materials, equipment, and labor to complete the project.

A mandatory Pre-Bid meeting will be held **October 10, 2023 at 1:00 PM CDT**, in the Panama City Beach Council Chambers, 17007 Panama City Beach Parkway, Panama City Beach, Florida 32413). A virtual participation option will not be offered.

BIDS must 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 no later than **2:00 PM CDT**, **October 30th**, **2023**, then opened and read publicly promptly thereafter.

Bid Documents may be downloaded online at www.demandstar.com and on the City's website at https://www.pcbfl.gov/about-us/rfp-posts-list starting on Friday, September 29, 2023.

- Electronic Bids will only be accepted when submitted through the DemandStar's Bid portal. Emailed submissions will not be accepted.
- Alternately, one original and one copy along with a flash drive 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 # PCB24-05 ITB ALF COLEMAN ROAD EASTSIDE SIDEWALK 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

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 PCB24-05 ALF COLEMAN ROAD EASTSIDE SIDEWALK

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

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

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 October 23rd, 2023 at 4:00 PM CDT.

Any and all questions regarding the Bidding documents shall be directed to City of Panama City Beach Purchasing Manager: **Carrie Jagers, via email: Purchasing@pcbfl.gov.** 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.

[END OF SECTION 00010]

SECTION 00020

INFORMATION FOR BIDDERS

BIDS will be received by City of Panama City Beach City Hall (herein called the "OWNER"), at 17007 Panama City Beach, Panama City Beach, Florida 32413 until **2:00 PM CDT, October 30th, 2023** then opened and read publicly promptly thereafter.

Each BID must be submitted electronically through DemandStar, or 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_PCB24-05 ALF COLEMAN ROAD EASTSIDE SIDEWALK" 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. One original BID form, one copy, and an electronic version on a USB drive are required for paper responses.

A complete BID response shall consist of:

- 1. An executed Bid Proposal Form Section 00030
- 2. The required Bid Bond Section 00040
- 3. An executed copy of the Conflict of Interest Statement Section 00093
- 4. An executed copy of the Contractor E-Verify Form Section 00094
- 5. An executed copy of the Statement Under Section 287.087, Florida Statutes, On Preference to Businesses with Drug-Free Workplace Programs Section 00095
- 6. An executed copy of the Trench Safety Act Compliance Document Section 00096
- 7. An executed copy of the Public Entity Crimes Statement Section 00097
- 8. An executed copy of the Non-Collusion Affidavit Section 00098
- 9. FDOT Pre-Qualification Letter
- 10. Copies of all Addenda signed by Bidder evidencing receipt
- 11. Completed W-9

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. 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 Certificate(s) of Insurance, all within ten (10) calendar days after receipt of the Notice of Award.

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 seven days, the AGREEMENT shall be deemed withdrawn and BIDDER shall be released from its BID as of the date of the written notice.

All Bidders shall be Florida Department of Transportation prequalified and must include with their bid proposal a copy of their Certification of Current Capacity (Form 375-020-22) and Status of Contracts on Hand (Form 375-020-21).

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.

Each BIDDER shall provide a separate line item in their BID identifying the cost of compliance with the applicable trench safety standards set forth in the Trench Safety Act.

[END OF SECTION 00020]

SECTION 00030

BID PROPOSAL FORM

This proposal of	(hereinafter called "BIDDER")
	of the State of, doing business as
(a corporation, a partnership or an individual), whose
Florida contractor's license number is	is hereby submitted to the CITY OF
PANAMA CITY BEACH (hereinafter called	"OWNER").
In compliance with the requireme	nts of the Advertisement for Bids, BIDDER hereby
proposes to perform all WORK for the Alf C	oleman Road Eastside Sidewalk in strict accordance
with the CONTRACT DOCUMENTS, with	n the time set forth therein, and at the prices stated
below.	
By submission of this BID, each B	IDDER certifies, and in the case of a joint BID, each
party thereto certifies as to its own organiza	ation, that this BID has been arrived at independently
without consultation, communication, or ag	reement as to any matter relating to this BID with any
other BIDDER or with any competitor.	
BIDDER hereby agrees to comme	ence WORK under the CONTRACT DOCUMENTS
within ten (10) calendar days after the NO	TICE TO PROCEED to be issued by Owner in writing
and achieve Substantial Completion of	the WORK within 120 consecutive calendar days
thereafter. Final Completion of the WORK	shall be achieved by BIDDER within the calendar days
specified in the General Conditions after th	e date of Substantial Completion.
BIDDER further agrees to pay as lice	quidated damages, the sum of <u>\$1,699.00</u> for each
consecutive calendar day that expires after	the Contract Time until Substantial Completion of
the WORK is achieved as provided in Sect	ion 15 of the General Conditions.
BIDDER acknowledges receipt of the follow	ving ADDENDUM:
Addendum No	
Addendum No	
Addendum No.	

BASE BID

BIDDER agrees to p	erform all the WORK described in the	CONTRACT DOCUMENTS fo
the following total price of:		

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 according to the following schedule:

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A. PROJECT ROADWAY - BID SCHEDULE

	ITEM	DESCRIPTION	PLAN QUANTI TY	UNIT	ITEM COST	TOTAL
ROA	DWAY (INCLUI	DING, BUT NOT LIMITED TO):				
1	0101-1	MOBILIZATION	1	LS	\$	\$
2	0102-1	MAINTENANCE OF TRAFFIC	1	LS	\$	\$
3	0104-10-3	SEDIMENT BARRIER	2469	LF	\$	\$
4	0104-18	INLET PROTECTION SYSTEM	9	EA	\$	\$
5	0110-1-1	CLEARING AND GRUBBING	1.47	AC	\$	\$
7	0110-4-10	REMOVAL OF EXISTING CONCRETE	13.1	SY	\$	\$
8	0120-1	REGULAR EXCAVATION	645	CY	\$	\$
9	0120-6	EMBANKMENT	1284	CY	\$	\$
10	0160-4	TYPE B STABILIZATION	227	SY	\$	\$
11	0285-704	OPTIONAL BASE, BASE GROUP 04	227	SY	\$	\$
12	0327-70-1	MILLING EXISTING ASPHALT PAVEMENT	43	SY	\$	\$
13	0334-1-53	SUPERPAVE ASPHALTIC CONCRETE, SP-9.5 TYPE C, 28.4 TN \$ PG 76-22		\$	\$	
14	0425-1-910	INLETS, CLOSED FLUME	4	EA	\$	\$
15	0430-174- 124	PIPE CULVERT, ROUND, 24" SD	660	LF	\$	\$
16	0430-984- 129	MITERED END SECTION, ROUND, 24" SD	12	EA	\$	\$
17	0515-1-2	PIPE HANDRAIL - GUIDERAIL, ALUMINUM	72	LF	\$	\$
18	0522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	1644	SY	\$	\$
19	0527-2	DETECTABLE WARNINGS	156	SF	\$	\$
20	0530-3-4	RIPRAP, RUBBLE, F&I, DITCH LINING	26.8	TN	\$	\$
21	0530-74	BEDDING STONE	19.3	TN	\$	\$
22	0570-1-2	PERFORMANCE TURF, SOD	5210	SY	\$	\$
23	0700-1-11	SINGLE POST SIGN, F&I, GROUND MOUNT, UP TO 12 SF	1	AS	\$	\$
24	0700-1-50	SINGLE POST SIGN, RELOCATE	2	AS	\$	\$

25	0710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	1	LS	\$ \$
26	0711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK	252	LF	\$ \$
27	0711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	48	LF	\$ \$
28	0711-11-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS, SURFACE TO REMAIN	48	SF	\$ \$
29	1080-22-400	UTILITY FIXTURE – BACKFLOW ASSEMBLY, RELOCATE	1	EA	\$ \$
30	1644-800	FIRE HYDRANT, RELOCATE	1	EA	\$ \$
31	MISC. 2	SIGN & PAVEMENT MARKINGS	1	LS	\$ \$
32	MISC. 3	BID BOND	1	EA	\$ \$
		BASE TOTA		\$ \$	

NOTE:

- 1. BIDS shall include sales tax and all other applicable taxes and fees. The OWNER may elect to utilize the Sales Tax Exemption Addendum (Section 00098) for material at its sole discretion.
- 2. BIDS shall be on the basis of a Unit 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. Bid unit prices shall be consistent when the same pay item is included in the base bid and add alternate quantities.
- 5. Add alternate prices will not be included in determining the winning BIDDER.
- 6. The OWNER reserves the right to reject any and all bids received.
- 7. 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.
- 8. 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 Unit Price. 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. An executed Bid Proposal Form Section 00030
- 2. The required Bid Bond Section 00040
- 3. An executed copy of the Conflict of Interest Statement Section 00093
- 4. An executed copy of the Contractor E-Verify Form Section 00094
- 5. An executed copy of the Statement Under Section 287.087, Florida Statutes, On Preference to Businesses with Drug-Free Workplace Programs Section 00095
- 6. An executed copy of the Trench Safety Act Compliance Docu ment-Section 00096
- 7. An executed copy of the Public Entity Crimes Statement Section 00097
- 8. An executed copy of the Non-Collusion Affidavit Section 00098
- 9. Copies of all Addenda signed by Bidder evidencing receipt
- 10. Completed W-9

CONTRACTOR:	
Address	

CONTRACTOR.

Email Address		
Authorized Signature		
Phone Number		
Date		

[END OF SECTION 00030]

SECTION 00040

BID BOND

KNOW	ALL	PERSONS	S BY	THESE	PRESENTS,	that	we,	the	undersigned,
			,	as Prin	cipal, and _				, as
Surety,	are here	eby held an	d firmly	bound unt	to the City of P	anama	City Be	each, a	s OWNER, in
the	penal	sum	of						
for the p	ayment	of which, w	vill and tr	uly be mad	de, we hereby j	ointly ar	nd seve	erally b	oind ourselves,
success	ors and	assigns. S	igned thi	is da	y of	,	20	The C	ondition of the
above o	bligation	is such tha	at where	as the prin	cipal has subm	nitted to	the OV	VNER	a certain BID,
attached	l hereto	and herel	oy made	a part h	ereof to enter	into a	contra	ct in w	vriting, for the
construc	tion of t	he <u>Alf Cole</u>	man Ro	ad Eastsi	de Sidewalk.				
NOW TH	HEREFO	DRE,							

- (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 \$ 1,699.00 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 thisday of,
20 by and between THE CITY OF PANAMA CITY BEACH, FLORIDA, (hereinafter
called "OWNER" or the "City") and, doing business
as a(an individual), or (a partnership), or (a corporation), having a
business address of (hereinafter called
"CONTRACTOR"), for the performance of the Work (as that terms is defined below) in
connection with the construction of <u>Alf Coleman Road Eastside Sidewalk</u> ("Project"), to
be located at Panama City Beach, Florida, in accordance with the Drawings and
Specifications prepared by Gortemoller Engineering, Inc. the Engineer of Record
(hereinafter called "Engineer") and all other Contract Documents hereafter specified.
OWNER and CONTRACTOR, for the consideration herein set forth, agree as

follows:

over

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

and having sole responsibility for CONTRACTOR'S employees and other personnel. Neither CONTRACTOR, nor any of CONTRACTOR'S subcontractors or sub-subcontractors, 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 thirty (30) calendar days from the date of this Agreement and will achieve Substantial Completion of the Work within 90 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 00100, General Conditions.
- The CONTRACTOR agrees to pay the OWNER, as liquidated damages, the sum of \$4,866 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 the sum of \$______ 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
	STATUTES, ON PREFERENCE TO BUSINESSES WITH
	DRUG-FREE WORKPLACE PROGRAMS
Section 00096	TRENCH SAFETY ACT CERTIFICATE OF
	COMPLIANCE
Section 00097	PUBLIC ENTITY CRIMES STATEMENT
Section 00098	NON-COLLUSION AFFIDAVIT
Section 00099	CERTIFICATE OF INSURANCE
Section 00100	GENERAL CONDITIONS
Section 00800	SUPPLEMENTAL CONDITIONS
Section 00801	SUBMISSION OF WORK SCHEDULE
Section 00808	SALES TAX EXEMPTION ADDENDUM
Section 01046	SPECIAL PROVISIONS
Section 01065	PERMITS AND FEES
Section 01100	SPECIAL PROJECT PROCEDURES
Section 01110	ENVIRONMENTAL PROTECTION
Section 01300	SUBMITTALS
Section 01380	CONSTRUCTION PHOTOGRAPHS
Section 01505	MOBILIZATION/DEMOBILIZATION
Section 01705	PROJECT CLOSEOUT
Section 02110	SITE CLEARING
Section 02200	EARTHWORK
Section 02210	GRASSING
Section 02211	SODDING
Section 02222	TRENCHING, BACKFILLING, AND COMPACTING
Section 02500	PAVING QUALITY CONTROL SYSTEM
Section 02505	UNDERGROUND UTILITY PROTECTION
Section 02510	GENERAL CONSTRUCTION REQUIREMENTS FOR
	ASPHALT PAVEMENT

AGREEMENT

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Section 02512	STABILIZATION
Section 02516	LIMEROCK BASE COURSE
Section 02520	ASPHALT TESTING
Section 02960	RESTORATION
Section 03310	CONCRETE WORK
Section 05520	HANDRAILS AND RAILINGS
Section 05600	MISCELLANEOUS METALS
Section 20000	MINIMUM TECHNICAL STANDARDS CHECKLIST
Appendix A	CONTRACT CHANGE ORDER FORM
Appendix B	PAY REQUEST FORM
Appendix C	GEOTECHNICAL ENGINEERING REPORT
Appendix D	ADDENDA (NOT INCLUDED UNTIL CONFORMED SET
	IS ISSUED AFTER PROJECT IS AWARDED)
Exhibit A	INSURANCE REQUIREMENTS
Exhibit B	CONSTRUCTION PLANS

DRAWINGS prepared by <u>Gortemoller Engineering</u>, <u>Inc.</u> Contract Plans and subcomponent sets and dated <u>September 2023</u>.

SPECIFICATIONS prepared or issued by <u>Gortemoller Engineering</u>, <u>Inc.</u> including the above DRAWINGS date <u>September 2023</u>.

ADDENDA No. ____, dated ______, 20___ No. ____, dated ______, 20___ No. ____, dated ______, 20___ No. ____, dated ______, 20___

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, the form of which is set forth in Section 00808.

- 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

AGREEMENT 00050-6

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 Gortemoller Engineering, Inc., Blake Furbee, P.E., Project Manager.
- 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 as provided in Section 00805 Supplemental Conditions, Contract Claims and Changes. 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 procure and maintain the following described insurance on policies and with insurers acceptable to OWNER. Current Insurance Service Office (ISO) policies, forms, and endorsements or equivalents, or broader, shall be used where applicable.

These insurance requirements shall not limit the liability of the CONTRACTOR. The insurance coverages and limits required of CONTRACTOR under this Agreement are designed to meet the minimum requirements of OWNER and the OWNER does not represent these types or amounts of insurance to be sufficient or adequate to protect the CONTRACTOR'S interests or liabilities. CONTRACTOR alone shall be responsible to the sufficiency of its own insurance program.

The CONTRACTOR and the CONTRACTOR'S subcontractors and subsubcontractors shall be solely responsible for all of their property, including but not limited to any materials, temporary facilities, equipment and vehicles, and for obtaining adequate and appropriate insurance covering any damage or loss to such property. The CONTRACTOR and the CONTRACTOR'S subcontractors and sub-subcontractors expressly waive any claim against OWNER arising out of or relating to any damage or loss of such property, even if such damage or loss is due to the fault or neglect of the OWNER or anyone for whom the OWNER is responsible. The CONTRACTOR is obligated to include, or cause to be included, provisions similar to this paragraph in all of the CONTRACTOR'S subcontracts and its subcontractors' contracts with their subsubcontractors.

The CONTRACTOR'S deductibles/self-insured retention's shall be disclosed to OWNER and are subject to OWNER'S approval. They may be reduced or eliminated at the option of OWNER. The CONTRACTOR is responsible for the

amount of any deductible or self-insured retention. Any deductible or retention applicable to any claim or loss shall be the responsibility of CONTRACTOR and shall not be greater than \$25,000, unless otherwise agreed to, in writing, by OWNER.

Insurance required of the CONTRACTOR or any other insurance of the CONTRACTOR shall be considered primary, and insurance of OWNER shall be considered excess, as may be applicable to claims or losses which arise out of the Hold Harmless, Payment on Behalf of OWNER, Insurance, Certificates of Insurance and any Additional Insurance provisions of this agreement, contract or lease.

WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE COVERAGE

The CONTRACTOR shall purchase and maintain workers' compensation and employers' liability insurance for all employees engaged in the Work, in accordance with the laws of the State of Florida, and, if applicable to the Work, shall purchase and maintain Federal Longshoremen's and Harbor Workers' Compensation Act Coverage. Limits of coverage shall not be less tan:

\$1,000,000	Limit Each Accident
\$1,000,000	Limit Disease Aggregate
\$1,000,000	Limit Disease Each Employee

The CONTRACTOR shall also purchase any other coverage required by law for the benefit of employees.

The CONTRACTOR shall provide to OWNER an Affidavit stating that it meets all the requirements of Florida Statute 440.02 (15) (d).

COMMERCIAL GENERAL LIABILITY COVERAGE

CONTRACTOR shall purchase and maintain Commercial General Liability Insurance on a full occurrence form. Coverage shall include, but not be limited to, Premises and Operations, Personal Injury, Contractual for this Agreement, Independent Contractors, Broad Form Property Damage, Products and Completed Operation Liability Coverages and shall not exclude coverage for the "X" (Explosion), "C" (Collapse) and "U" (Underground) Property Damage Liability exposures. Limits of coverage shall not be less than:

Bodily	Injury,	Property	\$1,000,000	Combined Single Limit Each
Damage & Personal Injury		Occurrence, and		
Liability			\$2,000,000	Aggregate Limit

The General Aggregate Limit shall be specifically applicable to this Project. The Completed Operations Liability Coverages must be maintained for a period of not less than three (3) years following OWNER'S final acceptance of the project.

The CONTRACTOR shall add OWNER as an additional insured through the use of Insurance Service Office Endorsements No. CG 20.10.10.01 and No. CG 20.37.10.01 wording or equivalent, or broader, an executed copy of which shall be attached to or incorporated by reference on the Certificate of Insurance to be provided by CONTRACTOR pursuant to the requirements of the Contract Documents.

BUSINESS AUTOMOBILE LIABILITY COVERAGE

The CONTRACTOR shall purchase and maintain Business Automobile Liability Insurance as to ownership, maintenance, use, loading and unloading of all of

CONTRACTOR'S owned, non-owned, leased, rented or hired vehicles with limits not less than:

Bodily	Injury	&	Property	\$1,000,000	Combined	Single	Limit	Each
Damage	е			Accident				

EXCESS OR UMBRELLA LIABILITY COVERAGE

CONTRACTOR shall purchase and maintain Excess Umbrella Liability Insurance or Excess Liability Insurance on a full occurrence form providing the same continuous coverages as required for the underlying Commercial General, Business Automobile and Employers' Liability Coverages with no gaps in continuity of coverages or limits with OWNER added by endorsement to the policy as an additional insured in the same manner as is required under the primary policies, and shall not be less than \$10,000,000,each occurrence and aggregate as required by OWNER.

18. PUBLIC RECORDS:

The City is a public agency subject to the Florida Public Records Law expressed in Chapter 119, Florida Statutes. Accordingly, to the extent that it is determined that Contractor is acting on behalf of City as provided under Section 119.011(2), Contractor agrees to also comply with that law, specifically including to:

- A. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
- B. Upon request of the City, provide the public with access to public records on the same terms and conditions that the City would provide the records and at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law, or provide the City with a copy of the requested records.
- C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to the City.
- D. Meet all requirements for retaining public records and transfer, at no cost, to the City all public records in possession of the contractor upon termination of the

contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the City in a format that is compatible with the information technology systems of the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, IT IS THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, AND TO CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 850-233-5100, LFASONE@PCBFL.GOV, 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
BY:
NAME:(Please type)
TITLE:
CONTRACTOR:
BY:
NAME:(Please Type)
ADDRESS:

[END OF SECTION 00050]

AGREEMENT

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 City Beach, FL 32413
(Address of Owner)
hereinafter called OWNER in the total aggregate penal sum of Dollars (\$) in lawful money of the United States, for payment of which, we bind ourselves, our heirs, personal representatives, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.
THE CONDITION OF THIS OBLIGATION is such that if the Principal performs its duties all the undertakings, covenants, terms, and conditions of that certain Contract between the Principal and the OWNER, dated the day of, 20, a copy of which is hereto attached and made a part hereof for the construction of ALF COLEMAN EASTSIDE SIDEWALK
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

obligation shall be void, otherwise to remain in full force and effect.

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

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 instrume each one of which shall be deemed and 20	ent is executed in _ original, this the	three (3) day of	counterparts, ,
			Principal
(Principal) Secretary	-		
(SEAL)	BY:		
			(Address)
Witness as to Principal	-		
(Address)	-		
	-		
			(Surety)
ATTEST:			
Witness to Surety	BY:		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]

SECTION 00070

PAYMENT 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 City Beach, FL 32413
(Address of Owner)
hereinafter called OWNER, and unto all persons, firms and corporations who or which may furnish labor, or who furnish materials to perform as described under the Contract and to their successors and assigns in the total aggregate penal sum of
Dollars (\$) in lawful money of the United States, for the payment of which, we bind ourselves, our heirs, personal representatives, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.
THE CONDITION OF THIS OBLIGATION is such that if the PRINCIPAL properly makes payment to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying 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, 20, a copy of which is hereto attached and made a part hereof for the construction of:

ALF COLEMAN ROAD EASTSIDE SIDEWALK

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 one of which shall be deemed an origi 20	s executed in _ inal, this the _.	three (3) day of	counterparts, each
			Principal
(Principal) Secretary			
(SEAL)	BY		
			(Address)
Witness as to Principal			
(Address)			
ATTEST:			(Surety)
	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
TO:
PROJECT DESCRIPTION:
ALF COLEMAN ROAD EASTSIDE SIDEWALK
The City of Panama City Beach ("City") has considered the BID submitted by you for the above described Project in response to its Advertisement for Bids dated, 20, and associated Information for Bidders.
You are hereby notified that your Bid in the amount of \$ has been accepted by the City. Provided, however, nothing in this Notice or your delivery to the City of the Agreement executed by you (with the required Bonds and Certificates of Insurance) shall in any manner or way be deemed to create any contract between you and the City. No such contract shall be created unless and until the City signs the Agreement.
You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance Bond, Payment Bond, and Certificates of Insurance within ten (10) calendar days from the date of this Notice.
If you fail to execute said Agreement, together with the required Certificates of Insurance and Bonds, within ten (10) calendar days from the date of this Notice, City will be entitled to consider all your rights arising out of City's acceptance of your BID as abandoned and as a forfeiture of your Bid Deposit. The City will be entitled to all other rights and remedies as may be available to it at law.
You must return an acknowledged copy of this Notice of Award to the City, with the executed Agreement and required Certificates of Insurance and Bonds, within the above noted ten (10) calendar day period.
Dated thisday of, 20
[REMIAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]

CITY OF PANAMA CITY BEACH Owner By ______ Name: _____ Drew Whitman Title ____ City Manager ACCEPTANCE OF NOTICE Receipt of the above Notice of Award is hereby acknowledged By ______ This the _____ day of _____, 20___. Name

[END OF SECTION 00080]

SECTION 00090

NOTICE TO PROCEED

NOTICE TO I	NOOLLD
TO:	
PROJECT DESCRIPTION:	A CTOIDE CIDEWALK
ALF COLEMAN ROAD E	ASTSIDE SIDEWALK
You are hereby notified to commence WORK, 20 on or before complete the WORK within consecut Substantial Completion is therefore Completion within 30 days of achieving Substantial completion of this Notice to Proceed to receipt of this Notice.	, 20, and you are to substantially tive calendar days thereafter. The date of, 20 You are to achieve Final stantial Completion. You must return and
	CITY OF PANAMA CITY BEACH
<u>.</u>	7
By:	
	Name: Drew Whitman
ACCEPTANCE OF NOTICE Receipt of the above Notice to Proceed is hereby a	Title: <u>City Manager</u>
By: (Company Name)	
This the day of, 20	
	(Signature)
	(Type or Print Name)
	(Title)

[END OF SECTION 00090]

SECTION 00091

CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT:
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:
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 substantially complete in accordance with the Contract Documents on

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:

Date of Substantial Completion

RESPONSIBILITIES:	
OWNER: CITY OF PANAMA CITY BEACH	
CONTRACTOR:	
The following documents are attached to and made a part of this	s Certificate:
(For items to be attached see definition of Substantial Completion as supplem noted conditions precedent for achieving Substantial Completion as required by	
Executed by ENGINEER on	
Date	Engineer
	Ву:
	Authorized Signature
CONTRACTOR accepts this Certificate of Substantial Comple	tion on
	Contractor
By:	Authorized
	Signature
OWNER accepts this Certificate of Substantial Completion on	
	Date
	Owner
By:	Authorized Signature
	, latironizod Orginataro

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

[END OF SECTION 00091]

SECTION 00092

CONTRACTOR/SUB-CONTRACTOR/VENDOR WARRANTY FORM

PROJECT:		
OWNER:		
GENERAL CONTRACTOR:		
We,, CONTRACTOR	/SUB-CONTRACTOR/VENDOF	२ for
as specifications Section(s)_do herby wa performed in conjunction with the above re Documents and authorized modifications t materials and workmanship for a period of commences on_	eferenced project are in accord whereto and will be free from defe ONE YEAR from Date of Accept	with the Contract ects due to defective otance. This warranty
Should any defect develop during the warn or arrangement, the same shall, upon writt undersigned at no expense to the OWNEF work which has been abused or neglected	ten notice by the OWNER, be m R. Nothing in the above shall be	ade good by the
Authorized Signature		
Printed Named		
Title		
Name of Entity/Corporation		
Sworn to and subscribed before me this	day of	, 20
	Notary Public	
My Commission Expires:		
NOTARY SEAL ABOVE	Printed Nam	 ne

[END OF SECTION 00092]

SECTION 00093

CONFLICT OF INTEREST STATEMENT

Check one:
[] To the best of our knowledge, the undersigned Respondent has no potential conflict of interest due to any other clients, contracts, or property interest for this project.
or
[] The undersigned Respondent, by attachment to this form, submits information which may be a potential conflict of interest due to other clients, contracts, or property interest for this project. This includes and requires disclosure of any officer, director, partner, proprietor, associate, or agent of the Respondent who is also an officer or employee of the City or of its boards or committees.
LITIGATION STATEMENT
Check One:
[] The undersigned Respondent has had no litigation and/or judgments entered against it by any local, state, or federal entity and has had no litigation and/or judgments entered against such entities during the past ten (10) years.
[] The undersigned Respondent, by attachment to this form, submits a summary and disposition of individual cases of litigation and/or judgments entered by or against any local, state, or federal entity, 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 judgments, may result in disqualification of your proposal.

[END OF SECTION 00093]

SECTION 00094

CONTRACTOR E-VERIFY FORM

PER FLORIDA STATUTE 448.095, CONTRACTORS AND SUBCONTRACTORS 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 and its Subcontractors are aware of the requirements of Florida Statute 448.095.
- 2. The Contractor 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 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 with an affidavit stating that the Subcontractor does not employ, contract with, or subcontract with unauthorized alien.
- 5. All employees hired by Contractor 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 Statutes 448.09(1) or 448.095(2)(c).
- 7. If this Contract is terminated pursuant to Florida Statute 448.095(2)(c), the Contractor may not be awarded a public contract for at least 1 year after the date on which this Contract was terminated.
- 8. The Contractor is liable for any additional cost incurred by the City because of the termination.

Authorized Signature		
Printed Named		
Title		
Name of Entity/Corporation		
Sworn to and subscribed before me this	day of	, 20
	Notary Public	
My Commission Expires:		
NOTARY SEAL ABOVE	Printed Nar	ne

[END OF SECTION 00094]

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	
	[END OF SECTION 00095

SECTION 00096

CERTIFICATE OF COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT

Bidder acknowledges sole responsibility for complying with the Florida Trench Safety Act (Act). Section 553.60, Florida Statutes. Bidder further acknowledges that included in the various items of its BID and in its Total Lump Sum Bid are costs for complying with the Florida Trench Safety Act. The Bidder further identifies the costs to be summarized below:

	Trench Safety Method (Description)	Units of Measure (LF, SY)	Qu	antity	Unit Cost	Extended Cost		Unit Extended
Α.								_
В.								_
C.								_
								_
						Total	\$	
	costs indicated	plete the above n I above are provi nal compensation	ded to com	nply with the ed for the E	e Act and s separate lin Bidder: By:	hall not constit	ute gro Bid For	unds m.
				Γ	Date:			_
				_	Autho	rized Signature		

CERTIFICATE OF COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT

[END OF SECTION 00096]

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	nd (if applicable) its Federal Employer Identification Number (FEIN) is the entity has no FEIN, include the Social Security Number of the individual signing this yorn statement):	i

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
 PUBLIC ENTITY CRIMES STATEMENT 00097-2

PCB24-05 ITB ALF COLEMAN ROAD EASTSIDE SIDEWALK 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.

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

[END OF SECTION 00097]

Section 00098

NON-COLLUSION AFFIDAVIT

STATE OF	_	
COUNTY OF	_	
	Bing, first duly s	sworn, deposes and says that
he/she is	0	of
Bid; that such Bid is genuine and not in or otherwise affiliated in a busine bidder has not colluded, conspired, person, to put in a sham bid or that any manner, directly or indirectly, conference, with any person, to fix overhead, profit or cost element of advantage against the City of Pana in the proposed contract, and that a further, that such bidder has not dir or divulged information or data relative	collusive or sham; that sa ess way with any other bid connived, or agreed, direct such other person shall sought by agreement of the bid price or affiant said bid price, or that of all statements contained in rectly or indirectly submitter	Ider on the same contract; that said ctly or indirectly, with any bidders or refrain from bidding, and has not in or collusion, or communication or or any other bidder, or to fix any any other bidder, or to secure any or any person or persons interested in said proposal or bid are true; and ed this bid, or the contents thereof,
	Affiant	
Sworn to and subscribed before me	this day of	, 20
Notary Public		

SECTION 00099 INSURANCE REQUIREMENTS

(Exhibit A - Attached)

Initial Page:	Owner	Contractor
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Setup Page:

(do not delete) (not for printing)

Completing the areas within Blue below will pre-fill throughout the agreement below.

Insert Type of Company:

Successful Bidder

Insert Your Company Name Here:

City of Panama City Beach

Insert Your Exhibit:

Exhibit A

The paragraph below can be placed on the AIA contract or equivalent to reference Exhibit A

INSURANCE REQUIREMENTS:

Successful Bidder agrees to have and maintain the policies outlined in "_Exhibit A " entitled "INSURANCE REQUIREMENTS," which are attached hereto and incorporated herein. All policies, endorsements, certificates, and binders shall be subject to City of Panama City Beach approval as to form and content. These requirements are subject to amendment or waiver only if approved in writing by City of Panama City Beach. A lapse in any required insurance coverage under this agreement shall be a breach of this agreement.

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.

Initial Page:	Owner	Contractor
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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: No

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:

- Choose limits when required Each Occurrence
- Choose limits when required 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's own Commercial General Liability and Umbrella policies), 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.

Initial Page:	Owner	Contractor
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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: Required: Yes

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.

Initial Page:	Owner	Contractor

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.

Initial Page:	Owner	Contractor
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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 Indemnified Parties 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
AddedInsured - 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 performed for that insured.
- B. With respect to the insurance afforded to these additional insureds, the following exclusion is 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 additional 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.

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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 hazard"

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

CG 24 04 05 09

POLICY NUMBER: Required

COMMERCIAL GENERAL LIABILITY

CG 24 04 05 0

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

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CG 20 01 04 13

COMMERCIAL GENERAL LIABILITY
CG 20 01 04 13

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

Initial Page:	Owner	Contractor
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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 Insured Required Insurance Company Countersigned by Endorsement No. Premium

Required

WC 00 03 13 (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 employer.

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

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 Effective Date Here is Required Policy No. Endorsement No.

Insured

Required Insurance Company

Required

Policy No. Endorsement No. Policy Number Required Premium \$

Countersigned by.

WC 00 03 01 A (Ed 2-89)

▼ 1984, 1988 National Council on Compensation Insurance

SECTION 00100

GENERAL CONDITIONS

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00	Payment as Release		
20.	Contract Security		
21.	Assignments		
22.	Indemnification		
23. 24.	Separate Contracts		
∠4 .	Subcontracting		

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 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 Loop Road
- 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 affect, or be interpreted to have the affect, 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 required by Owner, set forth in the Section 00800 series of documents.
- 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.
- 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.

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

- Whenever a material, article, or piece of equipment is identified on the Drawings 8.1 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 bench marks 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.
- 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.
- 11.4 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.
- 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

12.1 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 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.
- 14.2.3 For any construction equipment or special equipment including fuel and lubricants therefor, required for the economical 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 between 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 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.
 - 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 initial 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

- 16.1 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 directed, 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 10% of the approved amount to be paid to the 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 five percent (5%) 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 ten percent (10%).

- 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. 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 accordance with the requirements of the Contract Documents.

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 executed is to be accomplished within Bay County, Florida.

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 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.

- Contractor shall afford each utility owner and City's other contractors (or the City, 23.3 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.

- 24.1 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 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.
- 24.5 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 workmans' 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 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

The Contractor warrants to the City and Engineer that materials and equipment 27.1 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 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 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

No material, supplies or equipment for the Work shall be purchased by the 34.1 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 Civil 3D 2020. 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

Notwithstanding anything in the Contract Documents to the contrary, if conditions 41.1 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. 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 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.
- 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]

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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 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 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.

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C. Engineering/Inspection costs shall be calculated at the following rates:

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

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 OWNFR

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- 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.

END OF SECTION 00800

SECTION 00801 SUBMISSION OF WORK SCHEDULE

PART 1 – GENERAL

1.01 CONSTRUCTION SCHEDULE

- A. The Construction Schedule is to be submitted by the CONTRACTOR within the timeframe set forth in the Contract Documents.
- B. The Construction Schedule shall be developed using the Critical Path Method (CPM) schedule format.
 - 1. The schedule shall be developed in Precedence Diagram Method (PDM) format, consistent with Contract milestones, showing activities for each discrete Contract activity to be accomplished.
 - 2. It shall include activities for deliverables and reviews in the schedule.
 - 3. Sufficient liaison shall be conducted and information provided to indicate coordination with utility owners having facilities within the project limits.
 - 4. The Construction Schedule must reflect the utility requirements included in the Contract Documents, unless changed by mutual agreement of the utility company, the CONTRACTOR, the OWNER and the PROJECT REPRESENTATIVE. The Construction Schedule shall assign calendar day durations to each activity.
 - 5. Failure to include any element of work or any activity relating to utility relocation will not relieve the CONTRACTOR from completing all Work within the Contract Time at no additional contract time or cost, not withstanding prior acceptance of the schedule.
 - 6. The CONTRACTOR shall prepare a CPM Network Diagram in time-scale logic diagram, by week starting on Monday, grouped (banded) by work areas and sorted by early start days. The CONTRACTOR shall prominently identify the critical path activities, defined as the longest continuous path of work activities and submit the Network Diagram on D size, 22-inch by 34-inch [559 by 864 mm] or E size, 34-inch by 44-inch [864 by 1,118 mm] paper.

C. The CONTRACTOR shall submit one copy of schedule reports containing, as a minimum: identification, activity description, estimated total duration, estimated remaining duration, computed or specified early start date, computed or specified late finish date, and total float. Submit all reports on 8.5-inch by 11-inch [216 by 280 mm] paper, sorted as follows:

1. Activity Report:

- a. Include activities shown on the Contract.
- b. Schedule listed in order of ascending activity number.

D. Float Report:

- 1. Include activities shown on the Contract.
- 2. Schedule listed in order of the ascending total float values.

E. Early Start Report:

- 1. Include activities shown on the Contract.
- 2. Schedule in chronological order by early start date.

F. Predecessor/Successor Report:

- 1. Include activities shown on the Contract.
- 2. Schedule listed in order of ascending activity numbers with the associated predecessor and successor activity numbers.

G. Narrative:

- 1. Explain, in narrative form, how durations were determined and describe the proposed approach for meeting interim and final completion milestone dates specified in the Contract. Include assumptions made, restraints, critical path activities, means and methods, crews planned for each operation, equipment requirements, activities requiring overtime, additional shifts, permits, coordination requirements, long lead delivery items, or other significant requirements which would affect the ability to meet the interim and final milestone dates.
- 2. Failure to include in the schedule any element of work shall not excuse the Contractor from completing all Work required to achieve completion.

- H. The PROJECT REPRESENTATIVE will have 30 days to accept the Construction Schedule or to schedule a meeting with the CONTRACTOR to resolve any problems that prevent acceptance of the schedule.
- I. The CONTRACTOR shall attend the meeting scheduled by the PROJECT REPRESENTATIVE, and submit a corrected Construction Schedule to the PROJECT REPRESENTATIVE within 7 days after the meeting. The process will be continued until a Construction Schedule is accepted by the PROJECT REPRESENTATIVE.
- J. The Construction Schedule may indicate a completion date in advance of the Contract completion date. However, the OWNER will not be liable in any way for the CONTRACTOR's failure to complete the Project prior to the Contract completion date. Any additional costs, including extended overhead incurred between the CONTRACTOR's schedule completion date and the completion of Contract Time, shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall not be entitled to claim or recover any such cost from the OWNER.
- K. On each Monday prior to the monthly estimate cutoff date, The CONTRACTOR shall submit Contract Schedule, updated to reflect actual start dates, actual finish dates, added activities, changes in sequence and days remaining, to the Projective Representative for acceptance. Include an updated Network Diagram and computer-generated reports and a narrative as herein specified. In the narrative, address changes in duration of any activity and changes to logic of activities which were performed in a sequence different from those shown in the latest accepted Construction Schedule. Also, address activities to be added to the schedule, identification of supplemental agreements and change orders, and the incorporation of accepted schedule revisions.
- L. Any changes to the sequencing must be coordinated with the utility work shown in the plans. If the schedule provided indicates an actual or potential delay to the completion of the Contract include in the narrative a discussion of problems, causes, activities affected and describe the means and methods to be utilized to complete the project in the Attend meetings scheduled by the PROJECT authorized time. REPRESENTATIVE to resolve any problems that prevent acceptance of the updated Construction Schedule, and submit revised schedules as necessary for the PROJECT REPRESENTATIVE's acceptance. By acceptance of the Construction Schedule. the PROJECT REPRESENTATIVE does not endorse or otherwise certify the validity or accuracy of the activity durations or logic utilized.
- 1.02 The PROJECT REPRESENTATIVE will withhold monthly payments due for failure of the CONTRACTOR to meet the requirements for submittal and acceptance of the Construction Schedule, including the monthly updates.

WEEKLY MEETINGS

- A. Attend weekly meetings scheduled by the PROJECT REPRESENTATIVE to discuss Contract progress, near-term scheduled activities, including utility relocations, problems and their proposed solutions.
- B. Submit a 2-Week Planning Schedule at each weekly meeting, showing the items of work planned for the next 2 weeks.
- C. Develop the schedule in Bar Chart format, identifying current and planned activities and related Construction Schedule work activities, including subcontractor work. Designate all activities that are controlling Work items as determined by the currently accepted Construction Schedule.

1.03 FLOAT

- A. Float is not for the exclusive use or benefit of either the OWNER or the CONTRACTOR.
- B. The PROJECT REPRESENTATIVE will grant time extensions only to the extent that time adjustments to the affected activities exceed the total float along the affected paths of the currently accepted Construction Schedule at the time of delay.
- C. Submit a network diagram, total float report, and a narrative report to support any request for additional Contract Time.

1.04 PERFORMANCE OF WORK

- A. By submitting a schedule, the CONTRACTOR is making a positive assertion that the Project will be constructed in the order indicated on the Construction Schedule.
- B. The CONTRACTOR shall prosecute the Work in accordance with the latest accepted Construction Schedule. Any costs associated with meeting milestones and completing the Project within the authorized Contract Time will be borne solely by the CONTRACTOR.

1.05 AS-BUILT SCHEDULE

A. As a condition for the release of any retainage, submittals of as-built schedules which describes the actual order and start and stop times for all activities by the CONTRACTOR is required.

END OF SECTION OF 00801

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.

The "State of Florida Department of Environmental Protection (DEP) Generic Permit for Stormwater Discharge from Large and Small Construction Activities" applies to this Contract. Obtain a copy of the permit through the Department's website and comply with the requirements of the permit. The URL for obtaining a copy of the permit is

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

In accordance with the requirements of the DEP generic permit, accept responsibility for the following:

- 1. Preparation, execution and submission of DEP Generic Permit Notice of Intent (NOI) and payment of associated fee(s)
- 2. Preparation and submission of Erosion Control Plan as outlined in Section 104
- 3. Any Contractor initiated SWPPP modifications
- 4. Performing inspections using a qualified inspector
- 5. Completion of SWPPP construction inspection reports
- 6. Executing associated certification forms provided by the Engineer
- 7. Preparation, execution and submission of Notice of Termination (NOT) of the DEP Generic Permit coverage.

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.
- 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.

12 BALES

- A. The CONTRACTOR shall provide synthetic bales 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 synthetic bale 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 only use synthetic bales. No natural baled hay or straw shall be allowed. Synthetic 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.
- F. Synthetic bales that have had sediment deposits removed may be reinstalled on the Project as approved by the PROJECT REPRESENTATIVE.

1.3 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 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.

[END OF SECTION 00802]

SECTION 00803

CONTRACTOR QUALITY CONTROL

GENERAL REQUIREMENTS - PERSONNEL QUALIFICATIONS

PART 1 - GENERAL

1.1 Personnel Qualifications

General: Contractor shall provide qualified personnel for sampling, testing, and inspection of materials and construction activities. Contractor shall ensure that qualifications are maintained during the course of sampling, testing, and inspection.

Quality Control Manager: Contractor shall designate a Quality Control ("QC") Manager who has full authority to act as the Contractor's agent to institute any and all actions necessary for the successful implementation of the QC Plan required by FDOT specifications. The QC Manager must speak and understand English.

The QC Manager must be on-site at the project on a daily basis or always available upon four hours' notice from the Project Representative to administer the QC Plan. Successful implementation of the QC Plan includes, but is not limited to, administering, implementing, monitoring, and as necessary, adjusting the processes to ensure compliance with the Contract Documents. Contractor shall ensure that the QC Manager is qualified as such through the FDOT Construction Training/Qualification Program.

Under the direction of the QC Manager, and using FDOT standard forms, summarize the daily QC activities including testing and material sampling. Contractor shall make copies of the completed forms available daily for Project Representative review. Contractor shall maintain all Quality Control related reports and documentation for a period of three years from final acceptance of the project.

Worksite Traffic Supervisor: Contractor shall provide a Worksite Traffic Supervisor who is responsible for initiating, installing, and maintaining all traffic control devices as required in the Contract Documents. Contractor shall ensure that the Worksite Traffic Supervisor is certified in the advanced training category by an approved training Provider as posted on the FDOT's website at the following

URL address: www.dot.state.fl.us/rddesign/MOT/MOT.shtm
Contractor shall use approved alternate Worksite Traffic Supervisors when necessary.

Flagger: Contractor shall provide trained flaggers to direct traffic where one-way operation in a single lane is in effect and in other situations as required. The

Worksite Traffic Supervisor or others as approved by the Department will provide training for flaggers.

Signal Installation Inspector: Contractor shall provide an inspector, trained, and certified by the International Municipal Signal Association (IMSA) as a Traffic Signal Inspector, to perform all signal installation inspections. Contractor shall use only the FDOT approved signal inspection report forms during the signal inspection activities. Contractor shall ensure all equipment, materials, and hardware is in compliance with FDOT Specifications and verify that all equipment requiring certification is listed on the FDOT's Approved Product List (APL). Contractor shall provide the completed signal inspection report form(s), certified by the IMSA Traffic Signal Inspector to the Project Representative.

The FDOT's approved inspection report forms are available at the following URL: www.dot.state.fl.us/trafficoperations/.

[END OF SECTION 00803]

SECTION 00805

CONTRACT CLAIMS AND CHANGES

General Conditions, Section 14.0 "Changes in Contract Price" and Section 28.0, "Claims and Disputes" are hereby amended to incorporate the following FDOT Specifications:

FDOT Standard Specifications for Road and Bridge Construction, 2015 Sub article 4-0.2 is deleted and the following substituted:

4-3.2 Increase, Decrease or Alteration in the Work: The Owner reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. Such alteration shall not constitute a breach of Contract, shall not invalidate the Contract, or release the Surety.

Notwithstanding that the Contractor shall have no formal right whatsoever to any extra compensation or time extension deemed due by the Contractor for any cause unless and until the Contractor follows the procedures set forth in 5-12.2 for preservation, presentation and resolution of the claim, the Contractor may at any time, after having otherwise timely provided a notice of intent to claim or preliminary time extension request pursuant to 5-12.2 and 8-7.3.2, and having satisfied all other requirements of the Contract Documents, submit to the Project Representative a request for equitable adjustment of compensation or time or other dispute resolution proposal. The Contractor shall in any request for equitable adjustment of compensation, time, or other dispute resolution proposal certify under oath and in writing, in accordance with the formalities required by Florida law, that the request is made in good faith, that any supportive data provided are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the request accurately reflects what the Contractor in good faith believes to be the Owner's responsibility pursuant to the terms of the Contract Documents. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Any such certified statements of entitlement and costs shall be subject to the audit provisions set forth in 5-12.14. While the submittal or review of a duly certified request for equitable adjustment shall neither create, modify, nor activate any legal rights or obligations as to the Contractor or the Owner, the Owner will review the content of any duly certified request for equitable adjustment or other dispute resolution proposal, with any further action or inaction by the Owner thereafter being in its sole discretion. Any request for equitable adjustment that fails to fully comply with the certification requirements will not be reviewed by the Owner.

The monetary compensation provided for below constitutes full and complete payment for such additional work and the Contractor shall have no right to any

additional monetary compensation for any direct or indirect costs or profit for any such

additional work beyond that expressly provided below. The Contractor shall be entitled to a time extension only to the extent that the performance of any portion of the additional work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. All time-related costs for actual performance of such additional work are included in the compensation already provided below and any time extension entitlement hereunder will be without additional monetary compensation. The Contractor shall have no right to any monetary compensation or damages whatsoever for any direct or indirect delay to a controlling work item arising out of or in any way related to the circumstances leading up to or resulting from additional work (but not relating to the actual performance of the additional work, which is paid for as otherwise provided herein), except only as provided for under 5-12.6.2.1.

- **4-3.2.1 Allowable Costs for Extra Work:** The Owner may direct in writing that extra work be done, and, at the Owner's sole discretion, the Contractor will be paid pursuant to an agreed contract change order or in the following manner:
 - (a) Labor and Burden: The Contractor will receive payment for actual costs of direct labor and burden for the additional or unforeseen work. Labor includes supervisors actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item, and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager's position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own more than 1 % of the Company, be considered as project supervisory personnel, direct labor, or supervisors hereunder.

Payment for burden shall be limited solely to the following:

CONTINUED ON NEXT PAGE

Table 4-3.2.1

Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual

Holidays, Sick & Vacation	Actual	
benefits		
Retirement benefits	Actual	
Workers Compensation	Rates based on the National Council on Compensation	
	Insurance basic rate tables adjusted by Contractor's actual experience modification factor in effect at the time of the	
	additional work or unforeseen work	
Per Diem	Actual but not to exceed State of Florida's rate	
Insurance*	Actual	

^{*}Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).

At the Pre-construction conference, certify to the Owner the following:

- A listing of on-site clerical staff, supervisory personnel and their prorated time assigned to the contract,
- (2) Actual Rate for items listed in Table 4-3.2.1,
- (3) Existence of employee benefit plan for Holiday, Sick and Vacation benefits, and a Retirement Plan, and,
- (4) Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute, and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Owner as part of the cost proposal or seven calendar days in advance of performing such extra work.

- (b) Materials and Supplies: For materials accepted by the Owner and used on the project, the Contractor will receive the actual cost of such materials incorporated into the work, including Contractor paid transportation charges (exclusive of equipment as hereinafter set forth). For supplies reasonably needed for performing the work, the Contractor will receive the actual cost of such supplies.
- (c) Equipment: For any machinery or special equipment (other than small tools), including fuel and lubricant, the Contractor will receive 100% of the "Rental Rate Blue Book" for the actual time that such equipment is in operation on the work, and 50% of the "Rental Rate Blue Book" for the time the equipment is directed to standby and remain on the project site, to be calculated as indicated below. The equipment rates will be based on the latest edition (as of the date the work to be performed begins) of the "Rental Rate Blue Book for Construction Equipment" or the "Rental Rate Blue Book for Older Construction Equipment,"

whichever is applicable, as published by Machinery Information Division of PRIMEDIA Information, Inc. (version current at the time of bid), using all instructions and adjustments contained therein and as modified below. On all projects, the Owner will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the Blue Book.

Allowable Equipment Rates will be established as set out below:

- (1) Allowable Hourly Equipment Rate = Monthly Rate/176 x Adjustment Factors x 100%.
- (2) Allowable Hourly Operating Cost = Hourly Operating Cost x 100%.
- (3) Allowable Rate per Hour = Allowable Hourly Equipment Rate + Allowable Hourly Operating Cost.
- (4) Standby Rate = Allowable Hourly Equipment Rate x 50%.

The Monthly Rate is The Basic Machine Rate Plus Any Attachments. Standby rates will apply when equipment is not in operation and is directed by the Owner to standby at the project site when needed again to complete work and the cost of moving the equipment will exceed the accumulated standby cost. Standby rates will not apply on any day the equipment operates for eight or more hours. Standby payment will be limited to only that number of hours which, when added to the operating time for that day, equals eight hours. Standby payment will not be made on days that are not normally considered workdays on the project.

Cost will be allowed for transporting the equipment to and from the location at which it will be used. If the equipment requires assembly or disassembly for transport, time to perform this work will be allowed at the rate for standby equipment.

Equipment may include vehicles utilized only by Labor, as defined above.

- (d) Indirect Costs, Expenses, and Profit: Compensation for all indirect costs, expenses, and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise, is expressly limited to the greater of either (1) or (2) below:
 - (1) Solely a mark-up of 17.5% on the payments in (a) through (c), above.
 - (i) Bond: The Contractor will receive compensation for any premium for acquiring a bond for such additional or unforeseen

work: provided, however, that such payment for additional bond will only be paid upon presentment of clear and convincing proof that the Contractor has actually provided and paid for separate bond premiums for such additional or unforeseen work in such amount.

- (ii) The Contractor will be allowed a markup of 10% on the first \$50,000 and a markup of 5% on any amount over \$50,000 on any subcontract directly related to the additional or unforeseen work. Any such subcontractor mark-up will be allowed only by the prime Contractor and a first-tier subcontractor, and the Contractor must elect the markup for any eligible first tier subcontractor to do so.
- (2) Solely the payments in (a) through (c) above, plus the formula set forth below and as applied solely as to such number of calendar days of entitlement that are in excess of ten cumulative calendar days as defined below

$$D = \frac{A \times C}{B}$$

Where A = Original Contract Amount

B = Original Contract Time

C = 8%

D = Average Overhead Per Day

Cumulative Calendar Days is defined as the cumulative total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Owner is, or the cumulative total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Owner is otherwise ultimately determined in favor of the Contractor to be.

Further, in the event there are concurrent delays to one or more controlling work items, one or more being caused by the Owner and one or more being caused by the Contractor, the Contractor shall be entitled to a time extension for each day that a controlling work item is delayed by the Owner but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay. No compensation, whatsoever, will be paid to the Contractor for any jobsite overhead and other indirect impacts when the total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Owner is, or the total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Owner is otherwise ultimately determined in favor of the

Contractor to be, equal to or less than ten calendar days and the Contractor also fully assumes all monetary risk of any and all partial or single calendar day delay periods, due to delay of a controlling work item caused solely by the Owner, that when cumulatively totaled together are equal to or less than ten calendar days and regardless of whether monetary compensation is otherwise provided for hereunder for one or more calendar days of time extension entitlement for each calendar day exceeding ten calendar days. All calculations under this provision shall exclude weather days, and days granted for performing additional work

4-3.2.2 Subcontracted Work: For work performed by a subcontractor, compensation for the additional or unforeseen work shall be solely limited to as provided for in 4-3.2.1(d)(1), with the exception of, in the instance of subcontractor performed work only, the subcontractor may receive compensation for any premium for acquiring a bond for the additional or unforeseen work; provided, however, that such payment for additional subcontractor bond will only be paid upon presentment to the Owner through the Project Representative of clear and convincing proof that the subcontractor has actually provided and paid for separate bond premiums for such additional or unforeseen work in such amount.

The Contractor shall require the subcontractor to provide a certification, in accordance with 4-3.2.1(a), as part of the cost proposal and provide such to the Project Representative. Such certification must be made by an officer or director of the subcontractor with authority to bind the subcontractor. Timely certification is a condition precedent to any right of the Contractor to recover compensation for such subcontractor costs, and failure to timely submit the certification will constitute a full, complete, absolute, and irrevocable waiver by the Contractor of any right to recover such subcontractor costs.

FDOT Standard Specifications for Road and Bridge Construction, 2015 Sub article 5-12.6 is deleted and the following substituted:

5-12.6 Compensation for Extra Work or Delay:

- **5-12.6.1 Compensation for Extra Work:** Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond that provided for in 4-3.2.
- **5-12.6.2 Compensation for Delay:** Notwithstanding anything to the contrary contained in the Contract Documents, the additional compensation set forth in 5-12.6.2.1 shall be the Contractor's sole monetary remedy for any delay other than to perform extra work due to the fault or neglect of the Owner or anyone for whom Owner is liable and then only where such acts continue after Contractor's written notice to the Owner and Project

Representative of such interference. The parties anticipate that delays may be caused by or arise from any number of events during the term of the Contract, including, but not limited to, work performed, work deleted, change orders, supplemental agreements, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of -way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, suspensions of work by the Owner, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, special events, suspension of Contract time, or other events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on the performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not be deemed to constitute fault or neglect on the part of the Owner.

5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay: For any delay claim, the Contractor shall only be entitled to monetary compensation for the actual idle labor and equipment, and indirect costs, expenses, and profit thereon, as provided for in 4-3.2(d) and solely for costs incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

[END OF SECTION 00805]

SECTION 000808

SALES TAX EXEMPTION ADDENDUM

1.	Contractor and Owner entered into a contract dated
	, (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 Owner desire to enter into an arrangement whereby certain purchases under the Contract can be made through the Owner as a means of taking advantage of the Owner's status of being exempt from sales and use taxes.
- 3. The Owner 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 Owner 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 Owner 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 Owner 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 Owner, 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 Owner reserves the right to delete or add

items from this Addendum when it is in the Owner's best interest.

- 3. The Owner 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 Owner to be made under this Addendum, the Contractor shall furnish the Owner in writing information sufficient for the Owner to issue to the supplier its Owner purchase order for the requested building materials or equipment which shall include as an attachment the Owner's Certificate of Exemption. Suppliers and vendors will render statements for materials purchased to the Owner 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 Owner's duly authorized representative for approval, processing and delivery to the Owner for payment. The Owner will process the invoices and issue payment directly to the supplier or vendor. Contractor will keep and furnish to the Owner 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 Owner may reasonably require.
- 6. The Contract provides that Contractor will perform the work under the Contract for the Contract Price in the amount of \$[_____], as may be amended from time to time as provided in the Contract. Said amount, as amended, due Contractor under the Contract shall be reduced by the sum of all amounts paid by the Owner for materials and equipment purchased under this Addendum, including any shipping, handling, insurance or other, similar charges paid by the Owner, and all of the savings of sales and use tax on the purchase of such items.
- 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 effected during the performance of the Contract.
- 8. Contractor shall immediately notify all subcontractors and material and equipment suppliers of the Owner'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 Contract Price 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 Owner.

- 10. All sales and use tax savings on the purchase of building materials and equipment shall be credited to the Owner 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 Owner 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 Owner 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 Owner or its authorized agent during normal business hours of Contractor.
- 15. The Owner will take both legal and equitable title of 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 Owner 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 Owner 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 Owner and Contractor shall provide Owner certificates thereof requiring each insurer to provide the Owner ten (10) days written notice in advance of cancellation or modification of coverage. Pursuant to the terms of the Contract Documents, the Owner 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 Owner's purchase order, and forward the invoice to the Owner 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 Owner 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 Owner 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 Owner by being incorporated into the Work.
- 18. The Owner 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 Owner, provide all assistance, records and testimony necessary or convenient for the Owner to resolve the supplier's claim for payment.

20.		the authority granted to at any time upon verbal or			•
	its	offices	located		at
			,	during	normal
	business hours.		-	J	

[END OF SECTION 00808]

SECTION 01046

SPECIAL PROVISIONS

PART 1 - GENERAL

1.01 CONSTRUCTION AREAS

The CONTRACTOR shall:

- A. Limit use of the construction areas for Work and for storage to allow for:
 - 1. Work by other contractors.
 - 2. Utilities use.
 - OWNER use.
 - 4. Public use.
- B. Coordinate use of Work site under direction of the PROJECT REPRESENTATIVE.
- C. Assume full responsibility for the protection and safekeeping of materials and products under this Contract, stored on- or off-site.
- D. Move any stored products, under CONTRACTOR's control, which interfere with operations of the OWNER, utilities, or any separate contractor.
- E. Obtain and pay for the use of additional lay down areas needed for operations.

1.02 SPECIFICATIONS

All Work called for in the Specifications applicable to this Contract, but not shown on the plans in its present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the plans or the Specifications, but involved in carrying out intent or in the complete and proper execution of the work is required and shall be performed by the CONTRACTOR as though it were specifically delineated or described.

The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any Work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made on

that basis. The inclusion of the General Requirements (or work specified elsewhere) in the General part of the Specifications is only for the convenience of the CONTRACTOR, and shall not be interpreted as a complete list of related Specification sections.

1.03 WORK PROGRESS

- A. The CONTRACTOR shall construct the Work as shown on the Drawings and provide equipment which will be efficient, appropriate, and large enough to secure a satisfactory quality of Work and a rate of progress which will ensure the completion of the Work within the Contract Time.
- B. If at any time, Project execution appears to be inefficient, inappropriate, or insufficient for securing the quality of Work required or for producing the necessary rate of progress, the PROJECT REPRESENTATIVE may request the CONTRACTOR to increase the efficiency, change the character or increase the project equipment and the CONTRACTOR shall conform to such request. Failure of the PROJECT REPRESENTATIVE to give such request shall in no way relieve the CONTRACTOR of his/her obligations to secure the quality of the Work and rate of progress required.

1.04 PRIVATE LAND

The CONTRACTOR shall not enter or occupy private land outside of the construction site or easements, except by written permission of the landowner.

1.05 WORK LOCATIONS

Structures, pipelines, and equipment shall be substantially located as indicated on the Drawings, but the ENGINEER through the PROJECT REPRESENTATIVE reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.06 OPEN EXCAVATIONS

A. All open excavations shall be adequately safeguarded by the CONTRACTOR by providing temporary barricades, caution signs, lights, and other appropriate means to prevent accidents to persons and damage to property. The CONTRACTOR shall, at his/her own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workers. Bridges provided for access during construction shall be removed when no longer required. The length or size of excavation will be controlled by the particular surrounding conditions. The PROJECT REPRESENTATIVE may require special construction procedures such as limiting the length of the open trench, prohibiting stacking excavated material in the street, or requiring that the trench shall not remain open overnight.

- B. The CONTRACTOR shall take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be properly signed, appropriately barricaded, and well lit at all times.
- C. The CONTRACTOR shall adhere to the requirements of Chapter 553 Part II of the Florida Statutes entitled Trench Safety Act, and O.S.H.A. Excavation Safety Standards 29 CFRs 1926.650 Subpart P.

1.07 TEST PITS

- A. Test pits for the purpose of locating all known and unknown underground pipelines, utilities, or structures in advance of the construction shall be excavated and backfilled by the CONTRACTOR at the direction of the PROJECT REPRESENTATIVE.
- B. Test pits shall be immediately backfilled after its purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the PROJECT REPRESENTATIVE.
- C. No separate payment will be made for such test pit obligations.

1.08 CARE AND PROTECTION OF PROPERTY

- A. The CONTRACTOR shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work on the part of the CONTRACTOR, such property shall be restored by the CONTRACTOR, at his/her expense, to a condition similar or equal to that existing before the damage was done, or make good the damage in other manner acceptable to the OWNER and PROJECT REPRESENTATIVE.
- B. All sidewalks, mailboxes, and driveways which are disturbed by the CONTRACTOR's operations shall be restored to its original construction or better and in accordance with best practice and the requirements of the Contract Documents.
- C. All fences, walks, bushes, trees, shrubbery, and other physical features along the location of this Work shall be protected and restored in a thoroughly workmanlike manner. Fences and other features removed by the CONTRACTOR shall be replaced in the location and by the date indicated by the PROJECT REPRESENTATIVE.

All grass areas beyond the limits of construction which have been damaged by the CONTRACTOR shall be re-graded, sodded, and re- established as before damage. All sod shall match the same type of grass in front of each private "yard" within the right of way.

- D. Trees close to the Work shall be boxed or otherwise protected against injury. The CONTRACTOR shall trim all branches that are liable to be damaged because of construction operations, but in no case shall any tree be cut or removed without prior notification or written approval of the PROJECT REPRESENTATIVE. All injuries to bark, trunk, limbs, and roots of trees shall be repaired by dressing, cutting, and painting according to appropriate methods, using only appropriate tools and materials. All landscaping to be removed shall be documented and replaced with like kind or better and re-established as before removal. All palm trees shown on plans shall be spaded out, protected, temporarily stored, and replaced to its same location(s).
- E. The protection, removal, and replacement of existing physical features along the line of Work shall be a part of the Work under the Contract, and all costs in connection therewith shall be included in the lump sum prices.

1.09 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The CONTRACTOR shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, storm drains, as well as electric and telephone cables, whether or not they are shown on the Drawings. The CONTRACTOR shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the CONTRACTOR's, or any of its subcontractors, operations shall be repaired at his/her expense.
- B. The CONTRACTOR shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines, and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by the CONTRACTOR.
- C. Protection and temporary removal and replacement of existing utilities and structures shall be a part of the Work under the Contract and all costs in connection therewith shall be included in the lump sum price.
- D. The CONTRACTOR shall be responsible to maintain water, telephone, power, cable TV, sewer, gas, and other related utilities throughout construction at no additional cost to the OWNER.

E. The CONTRACTOR shall fully cooperate with all private and public utilities during the installation of new facilities, or relocation of existing facilities. The CONTRACTOR shall accordingly coordinate his/her work and shall have no claim except for time extension for delays associated with the proposed utility improvements.

1.10 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

- A. During the course of the Work, the CONTRACTOR shall keep the construction site in a reasonably clean and neat condition. The CONTRACTOR shall dispose of all residues resulting from the construction work and, at the conclusion of the work, shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures, and any other refuse remaining from the construction operations as well as leave the entire site of the Work in a neat, orderly, and restored condition.
- B. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the CONTRACTOR and his/her subcontractors shall comply with all applicable federal, state, and local laws and regulations concerning waste material disposal, as well as any other specific requirements stated elsewhere in the Specifications or the Contract Documents.

1.11 MAINTENANCE OF ACCESS

Portions of the Work are located in developed areas requiring access for fire, police, emergency, and other city, state, or federal agencies to be provided and at least one free lane must be available at all times for all traffic. The CONTRACTOR shall arrange operations in these areas to meet these requirements and secure approval or operating procedures from the City of Southport, Bay County, or Florida Department of Transportation (FDOT) as the case may be.

1.12 MAINTENANCE OF TRAFFIC

A. Open pits, trenches, unpaved streets, debris, or other obstructions due to construction that will prevent the normal flow of traffic during an extended construction stoppage, for any reason, shall be minimized. In the event an extended construction stoppage is found to be necessary, the CONTRACTOR shall, at his/her own expense, maintain normal traffic flow during extended construction stoppage.

- C. All excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If construction operations cause traffic hazards, the CONTRACTOR shall repair the road surface, provide temporary roadways, erect wheel guards or fences, or take other satisfactory measures for safety, subject to approval by the PROJECT REPRESENTATIVE.
- C. Detours around construction areas will be subject to the approval of the PROJECT REPRESENTATIVE. Where detours are permitted, the CONTRACTOR shall provide all necessary barricades and signs as required by the PROJECT REPRESENTATIVE to divert the flow of traffic.

While traffic is detoured, the CONTRACTOR shall expedite construction operations and the PROJECT REPRESENTATIVE will strictly control periods when traffic is being detoured.

1.13 CONNECTION TO WORK BY OTHERS

If construction by others occurs at the same time and in the same areas as Work being done under this Contract, the CONTRACTOR shall conduct operations as follows:

Force Mains and Water Mains:

- A. If shown on the Drawings, pipelines constructed under this Contract may be connected to pipelines to be built by others.
- B. Pipelines built under this Contract will be connected to pipelines constructed by others by removing the plugs at both ends of the pipeline segment and making the connection.
- C. If the pipelines have not been constructed by others, the pipeline under this Contract shall be laid to the required line and grade, terminated with a plugged connection, precisely at the location of the connection indicated on the Drawings, and then backfilled and marked with a stake and the connection made later as specified in (B) above.

1.14 PROTECTION OF CONSTRUCTION AND EQUIPMENT

A. All newly constructed work shall be carefully protected from any injury or damage. The CONTRACTOR shall not allow any wheeling or walking or placing of heavy loads on any newly constructed Work and all portions injured or damaged shall be reconstructed by the CONTRACTOR at his/her own expense.

- B. All structures shall be protected in a manner approved by the PROJECT REPRESENTATIVE. If, in the final inspection of the work, any defects, faults or omissions are found, the CONTRACTOR shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation by the OWNER for the materials and labor required. Further, the CONTRACTOR shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for at least the guarantee period described in the Contract.
- C. The CONTRACTOR shall take all necessary precautions to prevent damage to any structure due to water pressure during and after construction and until such structure is accepted and taken over by the OWNER.
- D. The CONTRACTOR shall maintain the Work during construction and until the Project is accepted. Such maintenance shall constitute continuous and effective Work prosecuted on a daily basis, with adequate equipment and forces in order that the roads or structures are kept in satisfactory condition at all times. In the case of a contract for the placing of a previously constructed course or subgrade, the CONTRACTOR shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the Project is accepted shall be included in the Contract Price and the CONTRACTOR will not be paid an additional amount for such Work.

1.15 APPENDICES

The CONTRACTOR shall follow all permit conditions in the Appendices which are part of the Contract Documents.

PART 2 - PRODUCTS (Not

Applicable)

PART 3 – EXECUTION (Not

Applicable)

[END OF SECTION 01046]

SECTION 01065 PERMITS AND FEES

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

The CONTRACTOR shall:

- A. Obtain and pay for any and all permits and licenses as specified in the General Conditions (Section 00100), except as otherwise provided herein, and in effect at the time of bidding.
- B. Schedule all inspections and obtain all written approvals of the agencies required by the permits and licenses.
- C. Comply with all construction related conditions specified in each permit and license.

A copy of the permits obtained by the OWNER will be furnished to the CONTRACTOR.

1.02 PERMITS BY OWNER

The OWNER will acquire the following permits (when applicable):

- A. Florida Department of Environmental Protection (FDEP)
 Notification/Application for Constructing a Domestic Wastewater
 Collection/Transmission System
- B. Florida Department of Environmental Protection (FDEP) EMA ERP
- United States Army Corps of Engineers (USACE) RGP SAJ-86

1.03 CONSTRUCTION PERMIT

- A. The CONTRACTOR shall be responsible for acquiring all construction permits including local building permits and any permits necessary to comply with the Northwest Florida Water Management District (NWFWMD) dewatering plan and the National Pollutant Discharge Elimination System (NPDES) stormwater discharge from construction site.
- B. The dewatering plan shall include sequence of excavation, discharge locations, sediment sump, turbidity control, erosion control, and turbidity monitoring points.

- 1.04 NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION SITE
 - A. The CONTRACTOR shall comply with stormwater discharge regulations and Amendments to the Clean Water Act (33 U.S.C. 1251 et seq.).
 - On September 17, 1992, the State of Florida certified the general permit for stormwater discharges from construction sites for use in Florida. This project is governed by regulations under this general permit and the CONTRACTOR shall comply with all such regulations.
 - B. Under these regulations, construction projects that disturb more than 5 acres must have and comply with a stormwater pollution prevention plan (SWPPP). The CONTRACTOR shall complete and sign a SWPPP prior to initiation of any construction activities on the site.
 - C. The CONTRACTOR shall ensure that all employees and subcontractors implement the specified erosion control practices to properly manage stormwater.

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01100 SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.01 HURRICANE PREPAREDNESS PLAN

- A. Within 20 days of the date of Notice to Proceed, the CONTRACTOR shall submit to the PROJECT REPRESENTATIVE a Hurricane Preparedness Plan. The plan shall outline the necessary measures which the CONTRACTOR proposes to perform at no additional cost to the OWNER in case of a hurricane warning. Such measures shall be in accordance with local and state requirements.
- B. In the event of inclement weather, the CONTRACTOR will, and will cause Subcontractors to, protect carefully the Work and materials against damage or injury from the weather. If, in the opinion of PROJECT REPRESENTATIVE, any portion of Work or materials are damaged or injured by reason of failure on the part of the CONTRACTOR or Subcontractors to so protect the Work, such Work and materials shall be removed and replaced at the expense of CONTRACTOR.

1.02 CONSTRUCTION CONDITIONS AND SUBSURFACE INVESTIGATION

- A. The CONTRACTOR shall strictly adhere to the specific requirements of the government unit(s) or agency(ies) having jurisdiction over the Work. Wherever there is a difference in the requirements of a jurisdictional body and these Specifications, the more stringent shall apply.
- B. The CONTRACTOR shall be responsible for having determined, prior to bid submission, the nature and location of the Work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater conditions, the character of equipment and facilities needed preliminary to and during the prosecution of the Work, the general and local conditions and all other matters which can in any way affect the Work under this Contract. The prices established for the Work to be done will reflect all costs pertaining to the Work. Any claims for extras based on substrata, groundwater table, and other such conditions will not be allowed.

1.03 PUBLIC NUISANCE

- A. The CONTRACTOR shall not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, excessive noise, or odor.
- B. No extra charge may be made for time lost due to work stoppage resulting from the CONTRACTOR's creation of a public nuisance.

1.04 RELOCATIONS

The CONTRACTOR shall be responsible for the relocation of structures, including, but not limited to, light poles, signs, sign poles, fences, piping, conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the Contract Price.

1.05 PUMPING

- A. The CONTRACTOR shall accomplish all pumping necessary to prevent flotation of any part of any structures, or pipe/conduit during construction operations.
- B. The CONTRACTOR shall, for the duration of the contract pump out water and wastewater which may seep or leak into the excavations or structures. Galleries and other operating areas shall be kept dry at all times. Discharges shall be in conformance with applicable regulations and permits.

1.06 WORK ON PRIVATE PROPERTY

- A. The CONTRACTOR shall maintain construction operations within the presently existing road right-of-way and established easements throughout the Project. In the event that it becomes necessary or advisable to operate beyond the limits of the existing right-of-way, established easements and Right of Entry Agreements, the CONTRACTOR shall be responsible for securing written agreements with the property owners. Immediately after contract award, the CONTRACTOR shall submit to the PROJECT REPRESENTATIVE a listing of those areas in which it is deemed necessary to work outside of the road right-of-way, easements, or agreements. The listing shall be subject to the approval of the PROJECT REPRESENTATIVE and as construction areas are secured, copies of all written agreements shall be placed on file with the PROJECT REPRESENTATIVE.
- B. The CONTRACTOR shall be responsible for any encroachments on rights-of-way or property of the public or adjoining property owners caused by its operations and shall indemnify, defend and hold the OWNER, ENGINEER and PROJECT REPRESENTATIVE harmless because of any encroachments. In this regard, the CONTRACTOR shall, without extra cost to the OWNER, move any Work or that portion of any Work that encroaches on the property of others, or that is built beyond legal building or setback limits, and the CONTRACTOR shall rebuild the affected Work or portion of Work at the proper location and in full compliance with the Contract Documents.
- C. Before final payment will be authorized, the CONTRACTOR will be required to furnish the OWNER with written releases from property owners or public agencies where side agreements or special easements have been made by

- the CONTRACTOR or when the CONTRACTOR'S operations, for any reason, have not been kept within the construction right-of-way, easements or Right of Entry Agreements by the OWNER.
- D. In the event written releases required in the above paragraph cannot be secured. the CONTRACTOR shall inform the PROJECT REPRESENTATIVE of the reasons for failure to do so. The PROJECT REPRESENTATIVE in conjunction with the OWNER, will then examine the Site and direct the CONTRACTOR to complete any Work that may be necessary to satisfy the terms of the permit or easement. Should the CONTRACTOR refuse to do the Work, the OWNER reserves the right to have the Work done by separate contract and deduct the cost of same from moneys due the CONTRACTOR, or require the CONTRACTOR to furnish a bond in a sum satisfactory to the OWNER to cover any legal claims for damages. When the PROJECT REPRESENTATIVE is satisfied that the Work has been completed in accordance with the Contract Documents. permits and/or agreements, the OWNER reserves the right to waive the requirement of obtaining the statement if the CONTRACTOR'S failure to obtain such statement is due to the grantor's refusal to sign and this refusal is not based upon any legitimate claims that the CONTRACTOR has failed to fulfill any contract permit or agreement requirements, or if the CONTRACTOR is unable to contact, or has undue hardship in contacting, the grantors.

1.07 DAILY REPORTS

- A. The CONTRACTOR shall submit daily reports of construction activities, including any activities that may occur on non-work days. The report shall include:
 - 1. Weather conditions.
 - 2. Manpower, number of men by craft.
 - 3. Equipment on the project.
 - 4. Major deliveries.
 - 5. Activities work with reference to the CPM schedule activity numbers.
 - 6. New problems.
 - 7. Other pertinent information.
- B. A similar report shall be submitted for/by each Subcontractor.
- C. The reports shall be submitted to the PROJECT REPRESENTATIVE within 2 days of the respective report date. Each report shall be signed by the

- CONTRACTOR'S Superintendent or Project Manager.
- D. Information provided on the daily report shall not constitute notice of delay or any other notice required by the CONTRACT DOCUMENTS. Notice shall be as required therein.

1.08 EMERGENCIES

- Α. The CONTRACTOR shall at all times after regular working hours, including weekend and holidays, maintain a telephone where the CONTRACTOR's representative can be reached on an emergency basis. CONTRACTOR or CONTRACTOR's representative shall be prepared to act to correct conditions on the Site deemed to constitute an emergency by either the OWNER, the PROJECT REPRESENTATIVE, or local authorities and is obligated to act to prevent threatened damage, injury or loss without special instructions from the OWNER, PROJECT REPRESENTATIVE, or CONTRACTOR ENGINEER. The shall give the **PROJECT** REPRESENTATIVE prompt written notice of all significant changes in the Work or deviations from the Contract Documents caused thereby. If a condition on the Site requires attention after working hours, either the OWNER, PROJECT REPRESENTATIVE, or local authority shall call the CONTRACTOR or representative at the emergency telephone number, identify themselves and describe the emergency condition. The CONTRACTOR is expected to dispatch personnel and equipment to adequately institute corrective measures within 2 hours. If for some reason the CONTRACTOR or representative cannot be reached at the emergency number within two hours, the OWNER shall have the right to immediately initiate corrective measures, and the cost shall be borne by the CONTRACTOR.
- B. In the event that the CONTRACTOR fails to maintain safe job conditions and traffic conditions, including, but not limited to, trench settlement and hazardous storage of backfill or construction materials, the OWNER, after failure of the CONTRACTOR to commence substantial steps at the job site to rectify the situation within 2 hours of the time the CONTRACTOR has been notified of the unsafe condition, may hire guards, take such precautions, make such repairs and take any other steps which the OWNER or the PROJECT REPRESENTATIVE, in their sole discretion, consider necessary to protect the property, persons, or the OWNER. The cost of any of these precautions, guards, or steps shall be deducted from the payments due the CONTRACTOR, and the costs for such services, work and material shall be calculated at prevailing market rates.

1.09 PROPERTY DAMAGES

In the event of any indirect or direct damage to public or private property caused in whole or in part by an act, omission or negligence on the part of the

CONTRACTOR, any of its Subcontractors, any of its Sub-subcontractors or anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable, the CONTRACTOR shall at no additional cost to OWNER promptly remedy and restore such property to a condition equal to or better than that existing before such damage was done. The CONTRACTOR shall perform such restoration by "underpinning", repairing, rebuilding, replanting, or otherwise restoring as may be required by the PROJECT REPRESENTATIVE, or shall correct such damage in a satisfactory and acceptable manner to the OWNER or the PROJECT EPRESENTATIVE. In case of failure on the part of the CONTRACTOR to promptly restore such property or correct such damage, the OWNER may, upon 5 calendar days written notice, proceed to repair, rebuild or otherwise restore such property as may be necessary and the cost thereof, or a sum sufficient in the judgment of the OWNER to reimburse the owners of the property so damaged, will be deducted from any monies due or to become due the CONTRACTOR under the Contract.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01110 ENVIRONMENTAL PROTECTION

1.01 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 Walton County/City of DeFuniak Springs for any construction dewatering activities associated with this project.

1.02 APPLICABLE REGULATIONS

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

1.03 NOTIFICATIONS

The OWNER through the PROJECT REPRESENTATIVE 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 PROJECT REPRESENTATIVE 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 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.

1.04 IMPLEMENTATION

- A. Prior to commencement of the Work, the CONTRACTOR shall meet with the PROJECT REPRESENTATIVE 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 PROJECT REPRESENTATIVE, and incorporate permanent control features into the Project at the earliest practicable time, consistent with the approved construction schedule.

1.05 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.

1.06 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 PROJECT REPRESENTATIVE. 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 PROJECT REPRESENTATIVE 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 PROJECT REPRESENTATIVE. 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 PROJECT REPRESENTATIVE.
- 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 PROJECT REPRESENTATIVE 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 PROJECT REPRESENTATIVE.

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 PROJECT REPRESENTATIVE. 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.

1.07 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.

1.08 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

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.

1.09 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 PROJECT REPRESENTATIVE 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 01300 SUBMITTALS

1.01 REQUIREMENTS INCLUDED

- A. The CONTRACTOR shall submit to the ENGINEER for review such working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this Section called "Data"), and material samples (hereinafter in this Section called "Samples") as are required for the proper control of work, including but not limited to those working drawings, shop drawings, Data and Samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. The CONTRACTOR shall note that there are specific submittal requirements in other sections of these Specifications.
- C. The CONTRACTOR is to maintain an accurate updated submittal log and shall bring this log to each scheduled progress meeting with the PROJECT REPRESENTATIVE and the ENGINEER. This log shall be organized using the 10 character numbering system in Subparagraph 1.6 F. This log should include the following items:
 - 1. Submittal: Description and File Number assigned.
 - 2. Date to ENGINEER.
 - 3. Date returned to CONTRACTOR (from ENGINEER).
 - 4. Status of Submittal
 - a. Approved
 - b. Approved As Noted
 - c. Approved As Noted/Confirm
 - d. Not Approved/Resubmit
 - e. Not Approved
 - 5. Date of Resubmittal and Return (as applicable).
 - 6. Date material released (for fabrication).
 - 7. Projected date of fabrication.
 - 8. Projected date of delivery to site.
 - 9. Status of O&M submittal.

1.02 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "shop drawings" shall be considered to mean CONTRACTOR's plans for material and equipment which become an integral part of the Project. These drawings shall be complete and detailed. Shop drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawings, bills of material, wiring and control diagrams, and inspection and test reports including performance curves and certifications as applicable to the Work.
- B. All details on shop drawings submitted for approval shall show clearly the elevations of the various parts to the main members and lines of the structure and/or equipment, and where correct fabrication of the Work depends upon field measurements, such measurements shall be made and noted on the shop drawings before being submitted for approval.
- C. See Shop Drawing Schedule requirements in Subparagraph 1.7 CONTRACTOR'S RESPONSIBILITY.

1.03 PRODUCT DATA

Product data as specified in individual sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, MANUFACTURER'S printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing storage instructions, and printed product warranties, as applicable to the Work.

1.4 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the CONTRACTOR's plans for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and false work; for underpinning; and for such other work as may be required for construction but does not become an integral part of the Project.
- B. Working drawings shall be signed and sealed by a registered Professional Engineer, currently licensed to practice in the State and shall convey, or be accompanied by, calculations or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use.

C. Prior to commencing such Work, working drawings must have been reviewed without specific exceptions by the ENGINEER. Such review will be for general conformance and will not relieve the CONTRACTOR in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the CONTRACTOR; the OWNER and ENGINEER shall have no responsibility therefore.

1.05 SAMPLES

- A. The CONTRACTOR shall furnish, for the approval of the ENGINEER, samples required by the Contract Documents or requested by the ENGINEER. Samples shall be delivered to the ENGINEER as specified or requested and in quantities and sizes as specified. A minimum of two samples of each item shall be submitted unless otherwise specified. The CONTRACTOR shall pre-pay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in the Work until approved by the ENGINEER.
- B. Samples specified in individual sections, include, but are not necessarily limited to, physical examples of the Work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and units of Work to be used by the ENGINEER or PROJECT REPRESENTATIVE for independent inspection and testing, as applicable to the Work.
- C. The CONTRACTOR shall prepare a transmittal letter in triplicate for each shipment of samples to the ENGINEER. The CONTRACTOR shall enclose a copy of this letter with the shipment and send a copy of this letter to the PROJECT REPRESENTATIVE. Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify any Contract requirements.
- D. Approved samples not destroyed in testing shall be sent to the ENGINEER or stored at the site of the Work. Materials and equipment incorporated in the Work shall match the approved samples. Samples which fail testing or are not approved will be returned to the CONTRACTOR at their expense, if so requested at time of submission.

1.06 SUBMITTAL REQUIREMENTS

A. The CONTRACTOR shall review, approve, and submit, with reasonable promptness and in such sequence as shown on the Shop Drawing Submittal Schedule so as to cause no delay in the Contract Work or in the Work of the OWNER or any separate contractor, all shop drawings, product data, working drawings and samples required by the Contract Documents.

- B. The CONTRACTOR shall submit 10 copies of all shop drawings for the ENGINEER to review, of which the ENGINEER will retain eight sets.
- C. All submittals shall be directly transmitted to the ENGINEER's office. Submittals to the PROJECT REPRESENTATIVE will not be accepted.
- D. Shop drawings, product data, working drawings and Samples shall be furnished with the following information:
 - 1. Number and title of the drawing.
 - 2. Date of drawing or revision.
 - 3. Name of project building or facility.
 - 4. Name of contractor, subcontractor, and manufacturer submitting drawing.
 - 5. Clear identification of contents, location of the work, and the sheet numbers where the product is found in the contract drawings.
 - 6. CONTRACTOR Certification Statement.
 - 7. Submittal Identification Number.
 - 8. Contract Drawing Number Reference.
 - 9. A certification by the CONTRACTOR that states the following: I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is in compliance with the Contract Drawings and Specifications, can be installed in the allocated space, will be stored in accordance with the manufacturers recommendations and the Specifications, and is submitted for approval.
- E. In accordance with Subparagraph 1.7 A, each shop drawing, working drawing, Sample, and catalog data submitted by the CONTRACTOR shall have affixed to it the following Certification Statement, signed by the CONTRACTOR: "Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers, and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all contractor requirements."
- F. The CONTRACTOR shall utilize a 10-character submittal identification numbering system in the following manner:
 - 1. The first character shall be a D, S, P, M, or R, which represents Shop/Working Drawing and other Product Data (D), Sample (S),

Preliminary Submittal (P), Operating/Maintenance Manual (M), or Request for Information (R).

- 2. The next five digits shall be the applicable Specification Section Number.
- 3. The next three digits shall be the numbers 001-999 to sequentially number each item or drawing submitted under each specific Section number.
- 4. The last character shall be a number 1-10, indicating the submission, or resubmission of the same Drawing, i.e., 1=1st submission, 2=2nd submission, 3=3rd submission, etc. A typical submittal number would be as follows:

D-03300-008.2

D = Shop Drawing
03300 = Specification Section for Concrete
008 = The eighth submittal under this specification section
2 = The second submission (first resubmission) of that particular shop drawing.

- G. The CONTRACTOR shall submit a copy of each submittal transmittal sheet (for shop drawings, product data, working drawings and Samples) to the PROJECT REPRESENTATIVE simultaneously with the CONTRACTOR's submission of said drawings, Data, Samples or manual packages to the ENGINEER.
- H. All items specified are not necessarily intended to be a manufacturer's standard product. Variations from specified items will be considered on an "or equal" basis. If submittals show variations from Contract requirements because of standard shop practice or for other reasons, the CONTRACTOR shall describe such variations in the letter of transmittal and on the shop drawings along with notification of intent to seek contract adjustment. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the CONTRACTOR fails to describe such variations, responsibility will not be waived for executing the Work in accordance with the Contract, even though such drawings have been reviewed. Variations submitted but not described may be cause for rejection. Any variations initiated by the CONTRACTOR will not be considered as an addition to the scope of work unless specifically noted and then approved as such in writing by the ENGINEER.
- I. Data on materials and equipment shall include materials and equipment lists giving, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, material, size, finish, and all

other pertinent data.

- J. For all mechanical and electrical equipment furnished, the CONTRACTOR shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and Service Company so that service and/or spare parts can be readily obtained. In addition, a maintenance and lubrication schedule for each piece of equipment shall be submitted.
- K. The CONTRACTOR shall use the color "green" to make his remarks on the Submittals. Only the ENGINEER will utilize the color "red" in marking submittals.
- L. Facsimiles or copies of facsimiles will not be accepted for review.

1.07 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the CONTRACTOR to check, and coordinate with the work of all trades, all drawings, Data, schedules and Samples before submitting them to the ENGINEER for review. Each and every copy of any drawing or data sheet larger than 11"x17" shall bear CONTRACTOR's stamp showing that they have been so checked and approved. Drawings or data sheets 11"x17" and smaller shall be bound together in an orderly fashion and bear the CONTRACTOR's stamp on the cover sheet. The cover sheet shall fully describe the packaged data and include a list of all sheet numbers within the package. Shop drawings submitted to the ENGINEER without the CONTRACTOR's stamp will be returned to the CONTRACTOR, without review at the ENGINEER's option, for conformance with this requirement.
- B. The CONTRACTOR shall review shop drawings, product data, and Samples prior to submission to determine and verify the following:
 - Field measurements.
 - 2. Field construction criteria.
 - 3. Manufacturer's catalog numbers and similar data.
 - 4. Conformance with Specifications.
- C. Shop drawings shall indicate any deviations in the submittal from the requirements of the Contract Documents.
- D. At a time decided upon at the preconstruction meeting the CONTRACTOR shall furnish the PROJECT REPRESENTATIVE and ENGINEER a Shop Drawing schedule fixing the respective dates for the initial submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall be

provided as a separate entity and indicate those submittals that are critical to the progress schedule. The CONTRACTOR shall prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities. No extension of time will be authorized because of the CONTRACTOR's failure to transmit complete and acceptable submittals sufficiently in advance of the Work.

- E. The CONTRACTOR shall not begin any Work affected by a submittal returned not approved. Before starting this Work, all revisions must be corrected by the CONTRACTOR. After resubmittal they will be reviewed and returned by the ENGINEER. If approved or approved as noted, then the CONTRACTOR may begin this Work. Any corrections made to the shop drawings are to be followed without exception.
- F. The CONTRACTOR shall submit to the ENGINEER all shop drawings and data sufficiently in advance of construction requirements to provide no less than **21** calendar days for review from the time the ENGINEER receives them. No less than **30** calendar days will be required for major equipment that requires review by more than one engineering discipline.
- G. The CONTRACTOR shall be responsible for and bear all cost of damages which may result from the ordering of any material or from proceeding with any part of Work prior to the review and approval by ENGINEER of the necessary shop drawings.
- H. All shop drawings, product data, working drawings and Samples submitted by subcontractors for approval shall be sent directly to the CONTRACTOR for checking. The CONTRACTOR shall be responsible for their submission according to the approved shop drawing schedule so as to prevent delays in delivery of materials and project completion.
- I. The CONTRACTOR shall check all subcontractors' shop drawings, product data, working drawings and Samples regarding measurements, size of members, materials, and details to satisfy himself that they are in conformance to the Contract Documents. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission to the ENGINEER.
- J. Requests for Information (RFI) shall be submitted on a standard form through the PROJECT REPRESENTATIVE. RFIs shall indicate their importance to the timely completion of the project. RFIs will be processed as a shop drawing unless there is an urgent need for immediate response.

- 1.08 ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES
 - A. The ENGINEER's review is for general conformance with the design concept and contract drawings. Markings or comments shall not be construed as relieving the CONTRACTOR from compliance with the contract plans and specifications or from departures therefrom. The CONTRACTOR remains responsible for details and accuracy, for coordinating the Work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
 - B. The review of shop drawings, Data, and Samples will be general. They shall not be construed:
 - 1. as permitting any departure from the Contract requirements;
 - 2. as relieving the CONTRACTOR of responsibility for any errors, including details, dimensions, and materials;
 - 3. as approving departures from details furnished by the ENGINEER, except as otherwise provided herein.
 - C. If the shop drawings, Data or Samples as submitted describe variations per Subparagraph (1.6H), and show a departure from the Contract requirements which ENGINEER finds to be in the interest of the OWNER and to be so minor as not to involve a change in Contract Price or Contract Time for performance, the ENGINEER may return the reviewed drawings without noting an exception.
 - D. Submittals will be returned to the CONTRACTOR under one of the following codes:
 - Code 1 "APPROVED" is assigned when there are no notations or comments on the submittal. When returned under this code the CONTRACTOR may release the equipment and/or material for manufacture.
 - Code 2 "APPROVED AS NOTED" is assigned when notations or comments have been made on the submittal pointing out minor discrepancies as compared with the Contract Documents. Resubmittal or confirmation is not necessary prior to release for manufacturing.
 - Code 3 "APPROVED AS NOTED/CONFIRM" This combination of codes is assigned when a confirmation of the notations and comments is required by the CONTRACTOR. The CONTRACTOR may release the equipment or material for manufacture; however, all

notations and comments must be incorporated into the final product. This confirmation is to address the omissions and/or nonconforming items that were noted. Only the items to be "confirmed" need to be resubmitted.

- Code 4 "NOT APPROVED/RESUBMIT" This combination of codes is assigned when the submittal is in noncompliance with the Contract Documents and must be corrected and the entire package resubmitted. This code generally means that the equipment or material cannot be released for manufacture unless the CONTRACTOR takes full responsibility for providing the submitted items in accordance with Contract Documents.
- Code 5 "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents. The CONTRACTOR must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
- Code 6 "COMMENTS ATTACHED" is assigned where there are comments attached to the returned submittal which provide additional data to aid the CONTRACTOR.
- Code 7 "FOR YOUR INFORMATION" is assigned when the package provides information of a general nature that may or may not require a response.

Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data.

Code 7 is used as may be necessary.

- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the CONTRACTOR shall direct specific attention, in writing on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the ENGINEER on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the CONTRACTOR. The CONTRACTOR shall make corrections to any Work done because of this type revision that is not in accordance to the Contract Documents as may be required by the ENGINEER.
- F. The ENGINEER will review a submittal a maximum of two times, after which cost of review will be borne by the CONTRACTOR. The cost of engineering shall be equal to the ENGINEER's charges to the OWNER under the terms of the ENGINEER's agreement with the OWNER.
- G. When the shop drawings have been completed to the satisfaction of the

ENGINEER, the CONTRACTOR shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the ENGINEER.

H. Partial submittals may not be reviewed. The ENGINEER will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the CONTRACTOR, and will be considered "Not Approved" until resubmitted. The ENGINEER may, but is not required to, provide a list or mark the submittal directing the CONTRACTOR to the areas that are incomplete

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

[END OF SECTION 01300]

SECTION 01380 CONSTRUCTION PHOTOGRAPHS

1.01 REQUIREMENTS

The CONTRACTOR shall employ a competent photographer to take construction record photographs or perform videotaping, including providing all labor, materials, equipment and incidentals necessary to obtain specified photographs and/or video tapes.

1.02 QUALIFICATIONS

- A. All photography shall be accomplished by a competent camera operator who is fully experienced and qualified with the specified equipment.
- B. For the video tape recording, the audio portion should be accomplished by a person qualified and knowledgeable in the specifics of the Contract, who shall speak with clarity and diction so as to be easily understood.

1.03 PROJECT PHOTOGRAPHS

- A. Provide photographs of the entire work area prior to any construction for the purpose of records of conditions prior to construction. Photographs should be spaced at approximately 100-foot intervals. In addition, all special features shall be photographed prior to construction.
- B. Photographs shall be submitted each month with Request for Payment. A minimum of 10 photographs will be required each month for processing of Request of Payment.
- C. Provide three prints of each photograph to the PROJECT REPRESENTATIVE.

D. Negatives:

- 1. All negatives shall remain the property of photographer.
- 2. The CONTRACTOR shall require that photographer maintain negatives for a period of 2 years from date of Substantial Completion of the Project. Negatives shall be conveyed to OWNER, free of charge, at the end of the two-year period.
- 3. CONTRACTOR shall require Photographer to agree to furnish additional prints to OWNER and PROJECT REPRESENTATIVE at commercial rates applicable at the time of purchase. CONTRACTOR shall require Photographer to agree to participate in any litigation requiring, in the sole discretion of the OWNER, the photographer to appear as an expert witness.

- E. The CONTRACTOR shall pay all cost associated with the required photography and prints. Any parties requiring additional photography or prints will pay the photographer directly.
- F. All project photographs shall be a single weight, color image. All finishes shall be smooth surface and glossy, and all prints shall be 5 inches by 7 inches.
- G. Each print shall have clearly marked on the back the name of the project, the orientation of view, the date and time of exposure, name and address of photographer and the photographers numbered identification of exposure.
- H. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress or particular construction activities or problems. The CONTRACTOR shall consult with the PROJECT REPRESENTATIVE for instructions concerning views required.
- The CONTRACTOR shall provide photographs of the sites of the proposed ditch crossings and jack and bore crossings prior to the beginning of construction. Views shall be as required by the PROJECT REPRESENTATIVE.
- J. The CONTRACTOR shall deliver prints in conformance with the above requirements to the PROJECT REPRESENTATIVE. No construction shall start until pre-construction photographs are completed and submitted to the PROJECT REPRESENTATIVE.

1.04 VIDEO TAPE RECORDINGS

- A. Videotaping shall be accomplished along all routes that are scheduled for Construction in addition to required construction photographs. All videotaping shall be in full color. Videotaping shall include full taping of both sides of all streets on which construction is to be performed.
- B. The taping shall, when viewed, show the image, ¼ of the roadway fronting all property and ¾ of the image shall be of the property. The taping shall be accomplished so as to show the roadway and property in an oblique view (30 degrees).
- C. A complete view, in sufficient detail, of all existing facilities with audio description of the exact location shall be provided.
- D. The construction plans shall be used as a reference for stationing in the audio portion of the tapes for easy location identifications. If visible, house or business numbers shall be mentioned on the audio.

- E. Two complete sets of video tapes shall be delivered to the PROJECT REPRESENTATIVE for the permanent and exclusive use of the PROJECT REPRESENTATIVE prior to the start of any construction on the project.
- F. All video tapes shall contain the name of the project, the date and time of the videotaping, the name and address of the photographer and any other identifying information required.

1.05 DIGITAL PROJECT PHOTOGRAPHS

- A. Digital cameras and photographs may be used in lieu of conventional photography mentioned in Section 1.03 above. Provide photographs of the entire work area prior to any construction for the purpose of recording conditions prior to construction. Photographs should be spaced at approximately 100-foot intervals along improved areas. In addition, all special features shall be photographed prior to construction.
- B. CONTRACTOR shall provide 5-inch by 7-inch hard copies in color to the PROJECT REPRESENTATIVE for approval on clarity and quality of photographs prior to start of construction. Photographs shall be submitted each month with Request for Payment. A minimum of 10 photographs will be required each month for processing of Request of Payment. The CONTRACTOR shall also copy the photographs to a CD-ROM(s) and then submit the CD-ROM(s) to the PROJECT REPRESENTATIVE.
- C. Provide three prints of each photograph to the PROJECT REPRESENTATIVE.
- D. CD-ROM(s) will be used in lieu of negatives. Photographer shall agree to participate as required in any litigation requiring the photographer as an expert witness.
- E. The CONTRACTOR shall pay all cost associated with the required photography, CD-ROM(s) and prints. Any parties requiring additional photography or prints will pay the photographer directly.
- F. All project hard copy photographs shall be a single weight, color image. All finishes shall be smooth surface and glossy, and all prints shall be 5 inches x 7 inches.
- G. Each hard copy shall have clearly marked on the back or adjacent to, the name of the project, the orientation of view, the date and time of photograph, name and address of photographer and the photographers numbered identification of photograph. Each CD-ROM(s) shall be clearly marked with the name of the project, the date, name and address of the photographer and the number of photographs, along with a brief description of the area(s) taken, i.e., name of road and station locations.

- H. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress or particular construction activities or problems. The CONTRACTOR shall consult with the PROJECT REPRESENTATIVE for instructions concerning views required.
- I. The CONTRACTOR shall deliver hard copies of photographs and CD-ROM(s) in conformance with the above requirements to the PROJECT REPRESENTATIVE. No construction shall start until pre-construction photographs are completed and submitted to the PROJECT REPRESENTATIVE.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

[END OF SECTION 01380]

SECTION 01410

TESTING AND TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. CONTRACTOR shall employ and pay for the services of an Independent Testing Laboratory to perform testing specifically indicated in the Contract Documents and The Florida Department of Transportation "Standard Specifications for Road and Bridge Construction." These tests include soil compaction tests, concrete moisture and cylinder tests and asphalt density and materials tests.
 - 1. CONTRACTOR shall cooperate with the laboratory to facilitate the execution of its required services.
 - 2. Employment of the laboratory shall in no way relieve CONTRACTOR's Obligations to perform the Work of the Contract.
 - 3. The Testing Laboratory shall be acceptable to the PROJECT REPRESENTATIVE and approved by the ENGINEER.

1.2 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on Contract requirements.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the CONTRACTOR.

1.3 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory and testing personnel.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, asphalt and other materials mixes which require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The PROJECT REPRESENTATIVE may require the CONTRACTOR to provide statements or certificates from the manufacturers and fabricators that the materials and equipment

provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the CONTRACTOR, and no extra Contract charge shall be allowed for of such testing and certifications.

- E. Furnish incidental labor and facilities:
 - To provide access to work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - When tests or inspections cannot be performed after such notice, reimburse OWNER for laboratory personnel and travel expenses incurred.
- G. Employ and pay for the services of the same or a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required for the CONTRACTOR'S convenience and as approved by the PROJECT REPRESENTATIVE.
- H. Additional testing or retesting shall be undertaken at CONTRACTOR's expense if required by the PROJECT REPRESENTATIVE.
- I. All laboratory and testing expenses including retesting will be at the CONTRACTOR's expense with no separate Contract reimbursement.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

[END OF SECTION 01410]

SECTION 01505 MOBILIZATION/DEMOBILIZATION

PART 1 - GENERAL

1.01 DEFINITION AND SCOPE

As required for the proper performance and completion of the Work, mobilization shall include, but not be limited to, the following principal items:

- A. Move onto the site all CONTRACTOR's plant and equipment required for the first month's operation.
- B. Install temporary construction power, wiring, telephone, and lighting facilities.
- C. Establish a fire protection plan and safety program.
- D. Secure construction water supply.
- E. Provide field office trailers for CONTRACTOR and PROJECT REPRESENTATIVE.
- F. Provide on-site sanitary facilities and potable water facilities.
- G. Arrange for and erect CONTRACTOR'S laydown and storage yard and employee's parking facilities.
- H. Submit all required insurance certificates and bonds.
- I. Obtain all required permits.
- J. Post all OSHA, FDEP, Department of Labor, and all other required notices.
- K. Have CONTRACTOR'S project manager and/or superintendent at the job site full time.
- L. Submit a detailed construction schedule acceptable to the PROJECT REPRESENTATIVE.
- M. Submit a Schedule of Values of the Work in an approved format acceptable to the PROJECT REPRESENTATIVE.
- N. Submit a hurricane preparedness plan acceptable to the PROJECT REPRESENTATIVE.
- O. Erect all required Project signs.

1.02 PAYMENT FOR MOBILIZATION

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 5.0 percent of the total contract 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 01505]

SECTION 01585

UTILITY COORDINATION AND CONSTRUCTION

PART 1 – GENERAL

1.1 Utility Coordination and Construction:

The Contractor shall provide all material, labor, supervision, and coordination to relocate, replace, and/or install water and sewer utilities, all conduits, duct banks and boxes as shown on the plans. All cable will be installed by the utility companies. The first sheet of the Utility Coordination Plans has the names and telephone numbers of all of the points of contact for the utility companies.

The Contractor shall provide all materials, labor, and supervision to convert the electrical services shown on the Gulf Power drawings from overhead to underground. The Contractor shall modify or replace the service/meter panel with an underground type, install the conduit to below grade, install conduit from the meter location to the point of service for Gulf Power (directional bores are acceptable in lieu of trenching for conduit) repairing the ground or pavement as necessary, and remove the current overhead riser. The Contractor shall patch all mounting holes and the roof penetrations to match existing surfaces. The Contractor shall obtain all necessary building and electrical permits. The contractor shall closely coordinate with the owners and Gulf Power to minimize the outage to the owner.

Since all of the utilities will be placed underground, the Contractor will develop a detailed coordination plan to sequence operations for all of the underground facilities including drainage to ensure proper placement and avoid conflicts. The existing gas lines will be field adjusted by TECO to avoid new drainage structures and lines. Special attention is required in the initial placement of the underground pipes and conduits to allow for the placement of street light foundations in the correct location. Service shall be maintained to all customers during construction. The existing buried telephone facilities will continue to provide service and will be protected in place until they are cut over to the new conduit.

It is anticipated that the water and sewer construction will be one of the first activities started in each phase. The Contractor must perform all of the required testing and flushing of the water and sewer systems in accordance with the specifications and the permits. As-built drawings must be provided with the test results so that the permit certification documents can be properly completed, reviewed by the City of Panama City Beach, and submitted to FDEP requesting authorization to place the new facilities in service before the services can be transferred and the old facilities abandoned. The City of Panama City Beach will require fourteen (14) calendar days to review/execute the forms and FDEP has thirty (30) calendar days to act upon the request to place the new facilities in

service. This activity may be divided into several partial clearance requests as determined by the Contractor and/or engineer. Time for this activity must be considered in the schedule.

The existing overhead utilities will remain in place until the new underground conduits and duct banks are completed and the utilities have completed the conversion to underground facilities.

In order to properly place the various boxes for all of the utilities, the curb and sidewalk must be installed at the correct grade and location in the area of the boxes, or the Contractor will set a grade stake and provide fill for the proper placement of the box. Once all of the power and communications conduits and duct banks are complete there will be a sixty (60) calendar day period for relocation of Gulf Power facilities to the duct bank followed by a thirty (30) calendar day period to relocate communication facilities underground. The Contractor may continue other work on the project in close coordination with the utility contractors so as not to interfere with the utility companies' completion of the work in the specified time.

[END OF SECTION 01585]

SECTION 01705 PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Drawings and general provisions of Contract apply to work of this section.

1.02 DESCRIPTION OF REQUIREMENTS

Definitions:

- A. Closeout is hereby defined to include general requirements near the end of Contract Time, in preparation for final acceptance, final payment, normal termination of Contract, and similar actions evidencing completion of the Work. Specific requirements for individual units of work are specified elsewhere in these Specifications.
- B. Time of closeout is directly related to "Substantial Completion," and therefore; may be either a single time period for entire Work or a series of time periods for individual parts of the Work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

1.03 PREREQUISITES FOR SUBSTANTIAL COMPLETION

C. General:

Prior to requesting ENGINEER's inspection for certification of Substantial Completion (for either entire work or portions thereof), complete the following and list known exceptions in request:

- 1. In progress payment request, coincident with or first following date claimed, show either 100% completion for portion of Work claimed as "substantially complete" or list incomplete items, value of incompletion, and reasons for being incomplete.
- 2. Include supporting documentation for completion as indicated in these Contract Documents.
- 3. Submit statement showing accounting of changes to the Contract Sum.
- 4. Advise OWNER of pending insurance change-over requirements.

- 5. Submit special warranties, workmanship/maintenance bonds, maintenance agreements, final certifications, and similar documents.
- 6. Obtain and submit releases enabling OWNER's full and unrestricted use of the work and access to services and utilities, including (where required) operating certificate, and similar releases.
- 7. Submit record drawings, maintenance manuals, and similar final record information.
- 8. Deliver tools, spare parts, extra stocks of materials, and similar physical items to the OWNER.
- 9. Make final change-over of locks and transmit keys to OWNER, and advise OWNER's personnel to change-over in security provisions, applicable.
- 10. Complete start-up testing of systems, and instructions of OWNER's operating/maintenance personnel. Discontinue (or change over) and remove from Project site temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.
- 11. Complete final cleaning up requirements, including touch-up painting of marred surfaces.

D. Inspection Procedures:

Upon receipt of CONTRACTOR's request, the ENGINEER will either proceed with inspection or advise CONTRACTOR of prerequisites not fulfilled. Following initial inspection, the ENGINEER will either prepare certificate of Substantial Completion, or advice the CONTRACTOR of work which must be performed prior to issuance of certificate; and repeat inspection when requested and assured that work has been substantially completed. Results of completed inspection will form initial "punch-list" for final acceptance.

1.04 PREREQUISITES FOR FINAL ACCEPTANCE

A. General:

Prior to requesting ENGINEER's final inspection for certification of final acceptance and final payment, as required by General Conditions (Section 00100), complete the following and list known exceptions (if any) in request:

1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

- 2. Submit updated final statement, accounting for additional (final) changes to the Contract Sum.
- 3. Submit consent of surety.
- 4. Submit final liquidation damages settlement statement, acceptable to the OWNER.
- 5. Revise and submit evidence of final continuing insurance coverage complying with insurance requirements.

B. Reinspection Procedure:

Upon receipt of CONTRACTOR's notice that the work has been completed, including punch-list items resulting from earlier inspections, and excepting incomplete items delayed because of acceptable circumstances, the ENGINEER will reinspect the Work. Upon completion of reinspection, the ENGINEER will either prepare a certificate of final acceptance or advise the CONTRACTOR of Work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated.

1.05 RECORD DOCUMENT SUBMITTALS

A. General:

Specific requirements for record documents are indicated in individual sections of these specifications. Other requirements are indicated in General Conditions. General submittal requirements are indicated in Section 01300 (Submittals).

Do not use record documents for construction purposes; protect from deterioration and loss in a secure fire-resistive location; provide access to record documents for ENGINEER's reference during normal working hours.

B. Record Drawings:

- 1. Maintain a set of contract drawings and shop drawings in clean, undamaged condition, with mark-up of actual installations which very substantially from the work as originally shown.
- 2. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings.
- 3. Mark with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.

- 4. Mark-up new information which is recognized to be of importance to the OWNER, but was for some reason not shown on either the Drawings or Shop Drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date.
- 5. Note related Change Order numbers where applicable.

C. Record Specifications:

- Maintain one copy of specifications, including Addenda, Change Orders and similar modifications issued in printed form during construction, and mark-up variation (of substance) in actual work in comparison with text of Specifications and modifications as issued.
- 2. Give particular attention to substitutions, selection of options, and similar information on Work where it is concealed or cannot otherwise be readily discerned at a latter date by direct observation.
- Note related Record Drawing information and product data, where applicable. Upon completion of mark-up, submit to ENGINEER for OWNER's records.

D. Maintenance Manuals:

- Organize maintenance-and-operating manual information into suitable sets of manageable size, and bind into individual binders properly identified and indexed (thumb tabbed). Four sets will be required.
- 2. Include emergency instructions, spare parts listing, warranties' copies, wiring diagrams, recommended "turn-around" cycles, inspection procedures, shop drawings, product data, and similar applicable information.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 CLOSEOUT PROCEDURES

- A. General Operating/Maintenance Instructions:
 - Arrange for each installer of work requiring continuing maintenance or operating to meet with OWNER's personnel, at Project site, to provide basic instructions needed for proper operation and maintenance of entire Work.

- 2. Include instructions by manufacturer's representatives where installers are not expert in the required procedures.
- 3. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification systems, control sequences, hazards, cleaning, and similar procedures and facilities.
- 4. Demonstrate start-up, shut-down, emergency operations, noise and vibration adjustments, safety, economy/efficiency adjustments, energy effectiveness, and similar operations for operational equipment.
- 5. Review maintenance and operations in relation with applicable warranties, agreements to maintain, bonds, and similar continuing commitments

3.02 FINAL CLEANING

A. General:

Special cleaning for specific units of work is specified in other sections. The following are examples, but not by way of limitation, of cleaning levels required:

- 1. Remove labels which are not required as permanent labels.
- 2. Wipe surfaces of mechanical and electrical equipment clean and remove excess lubrication and other substances.
- 3. Clean Project site (yard and grounds), including landscape development areas, of litter and foreign substances.
- 4. Sweep paved areas to a broom-clean condition; remove stains, petro-chemical spills and other foreign deposits.
- 5. Rake grounds which are neither planted nor paved, to a smooth, even-textured surface.

B. Compliances:

- 1. Comply with safety standards and governing regulations for cleaning operations.
- Do not burn waste materials at site, or bury debris or excess materials on OWNER's property, or discharge volatile or other harmful or dangerous materials into drainage systems.
- 3. Remove waste materials from site and dispose of in a lawful manner.

4. Dispose of extra materials of value remaining after completion of the associated Work has become the OWNER's property, to OWNER' best advantage as directed.

END OF SECTION

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.
 - Topsoil stripping.
 - 4. Clearing and grubbing.
 - 5. Removing above-grade improvements.
 - 6. Removing below-grade improvements.

1.03 JOB CONDITIONS

A. Traffic:

- 1. 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.
- 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:

- 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.

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.
- 4. 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.

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 02110]

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:

 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.
- 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.
- 5. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off 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 prescribed in sections under "Sitework."

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:

- 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:

- 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.

- 3. 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 progresses.

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.
- 3. 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.
- 2. Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain.
- 3. 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.
- 2. 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.
- 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:

- 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.
- 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:
 - 1. 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.
 - 2. 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:
 - 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.
- 2. 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.
- Place backfill and fill materials evenly adjacent to structures, piping 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 crosssection, 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.

3.05 FIELD QUALITY CONTROL

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:
 - 1. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, 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 02200]

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.
 - Sprigs
 - Fertilizer
 - 4. Topsoil
 - 5. 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
Bermuda Grass, (Cynodon Dactylan)	80%	15%	.25%

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.

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. Hydrosee 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 02210]

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

SODDING 02211-1

B. Approved Sods:

- 1. Bermuda, (Cynodon Dactylon).
- 2. Argentine Bahia, (Paspalum Notatum Flugge)
- 3. St. Augustine (Stenotaphrum Secundatum)
- 4. Zoysia Grass

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 02211]

SODDING 02211-3

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 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:

- 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:

- 1. 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.
- 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:

1. 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.
- 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.
- Backfill shall be placed in horizontal layers not in excess of 9inches 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 02222]

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 02500]

SECTION 02505 UNDERGROUND UTILITY PROTECTION

PART 1 -SCOPE

- A. This section pertains to the protection of all existing underground utilities that exist within and adjacent to Work zones. "Paint Marks" or "Flags" as provided by Local One Call (811) or other utility locate services shall NOT be accepted as exact or definitive. It shall be the responsibility of the CONTRACTOR to physically verify all Paint Marks and/or Flags.
- B. It shall be the responsibility of the CONTRACTOR to physically locate any and all existing utilities within and adjacent to the work zone prior to initiating work

PART 2 - GENERAL

- A. All utilities within 5 feet of the planned work zone MUST be found and visually located prior to the start of any excavation operations.
- B. Potholing shall be performed to verify the location and depth of the existing utilities.
- C. Backhoes, trenches or other type of mechanical equipment shall not be used to find underground utilities within 5 feet of a planned installation.
- D. At no time shall picks, round pointed shovels, or any other type of sharp tool be used for locating utilities.
- E. Only square blunt non-sharp tools may be used for hand digging.
- F. Vacuum Excavation shall be allowed with the use of high pressure water (up to 4,000 psi) with an approved non-cutting nozzle. Zero degree nozzles are not allowed.
- G. Vacuum Excavation may also be allowed utilizing high pressure air (with dust containment system) or dry vacuum.

PART 3 - EXECUTION

- A. The CONTRACTOR shall contact One Call (811) utility locate service (in writing) at least 48 hours in advance to order locates within and adjacent to the work zone.
- B. The CONTRACTOR shall notify all other known utility companies (those not affiliated with One Call) at least 48 hours in advance to order locates within and adjacent to the work zone.

- C. All utility crossings are to be exposed (using methods described in Part 2 above) prior to any excavation.
- D. All existing utilities running parallel and within 10 feet of either side of the intended work shall be physically located.
- E. CONTRACTOR shall not assume that utilities found will continue on the same line and grade.
- F. Underground utility pothole spacing and frequency shall be as follows:
 - 1. Gas and electric lines within 25 feet of the work zone shall be potholed and marked every 25 feet to verify the line has not changed directions.
 - 2. Gas and electric lines greater than 25 feet from the work zone shall be potholed at least once on each end of the limits of excavation.
 - 3. Fiber-Optic lines shall be potholed every 25 feet within the work zone.
 - 4. Telephone and cable television lines shall be potholed every 50 feet within the work zone.
 - 5. Water, sewer, and reuse utilities (less than 8 inches in diameter) shall be potholed every 25 feet within the work zone.
 - 6. Water, sewer, and reuse utilities (8 inches through 24 inches in diameter) shall be potholed every 50 feet within the work zone.
 - 7. Water, sewer, and reuse utilities (greater than 24 inches in diameter) shall be potholed every 100 feet within the work zone.
 - 8. At least two potholes shall be obtained for each utility within the work zone regardless of the size of the work zone.
- G. Material returned to the inspection hole shall be compacted back in place.
- H. All inspection holes shall be returned to original surface condition.

PART 3 – PERMITTING AND SAFETY

- A. It shall be the responsibility of the CONTRACTOR to ensure that all applicable permits for underground work have been obtained prior to the commencement of work.
- B. All work shall be performed by licensed underground Contractors.
- C. The CONTRACTOR shall prepare and follow a written safety plan. This safety plan shall be provided to the permitting agency and shall be made available on-site.

- D. Safety plan shall include a site map and show all known existing utilities and shut-off valves.
- E. Shut-off valve handles (for all existing water, sewer, reuse, gas, and electric utilities) are to be in place through the duration of the work for immediate operation if needed.

[END OF SECTION 02505]

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:

- 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:

- 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:

- 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 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.

3.09 SCREENING UNIT:

A. 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.

B. 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.

C. 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 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.

2. 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:

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

Table 1 Temperature Tolerance From Job Mix Formula Any Single Measurement......"25EF Average of Any Five Consecutive Measurements......"15EF

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 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:

 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.

B. PATCHING AND LEVELING COURSES:

 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:

1. 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, corrective action by the contractor will be required.

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 hand.

8. Straight-edging and Back-patching:

 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 replaced with satisfactory material.
- 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:

- 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:

- 1. 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 vards 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 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 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 02510]

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 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:

1. **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.

2. **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.

3. **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.
- 4. **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.
- 5. 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.
- 6. **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.
- 7. **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.
- 8. **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:

1. **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.

2. **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:

1. **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 02512]

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.
- 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 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.

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.

Density Requirements:

- 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.
- 2. 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:

- 1. 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.

[END OF SECTION 02516]

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 \(^{1}\) 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 particular 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 02520]

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.
- 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.

[END OF SECTION 02960]

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:

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:

- 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

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.
 - Cold-drawn steel.

- C. Welded Wire Fabric:
 - 1. ASTM A 185.
 - 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.
 - 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:

- 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, a shorter mixing time than specified in ASTM C 94 may be required.

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:

- 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:

 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.

3.08 CONCRETE PLACEMENT

- 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:
 - 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.
 - 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.
- 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:

- 1. 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:

1. 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.

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.

Trowel Finish:

- a. Apply trowel finish to monolithic slab surfaces to be exposed-to-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.
- 3. 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:
 - 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 are removed.
 - 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.
- 3. 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:

- 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:

- 1. 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:

- 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 are made.
- 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:

 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:

- 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 03310]

SECTION 05520 HANDRAILS AND RAILINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

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

1.02 DESCRIPTION OF WORK:

- A. Extent of handrails and railings is indicated on drawings and includes miscellaneous handrails and railings not included in other sections of these specifications.
- B. Types of handrails and railings required include the following:
- C. Aluminum pipe handrails and railings, extruded from 6061-T6 alloy, 1-1/2-inch Schedule 40 pipe.

1.03 SYSTEM PERFORMANCES:

A. Structural Performances:

1. Provide railing and handrail assemblies which, when installed, comply with the following minimum requirements for structural performance, unless otherwise indicated.

B. Handrails and Toprails:

- 1. Capable of withstanding the following loads applied as indicated:
- 2. Concentrated load of 200 lbf applied at any point in any direction.
- 3. Uniform load of 50 lbf per linear foot applied simultaneously in both vertical and horizontal directions
- 4. Concentrated and uniform loads above need not be assumed to act concurrently.

1.04 QUALITY ASSURANCE:

A. Shop Assembly:

1. Preassemble items in shop to greatest extent possible to minimize field splicing and assembly.

2. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.

1.05 SUBMITTALS:

A. Product Data:

1. Submit manufacturer's product specifications and installation instructions for products and processes used in handrails and railings, including finished and grout.

B. Shop Drawings:

- 1. Submit shop drawings for fabrication and erection of handrails and railings.
- 2. Include plans, elevations and details of fittings, connections and anchorages to other work.
- 3. Provide templates for anchor and bolt installation by others.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

A Available Manufacturers:

1. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

B. Aluminum Pipe Railing Manufacturers:

- 1. Julius Blum & Co., Inc.
- 2. J. G. Braun Co.
- 3. Craneveyor Corp.
- 4. Hoover Universal, Inc., Aluminum division.
- 5. Lifeguard Corp.
- 6. R. Nelson Co., Inc.
- 7. Reynolds Metal Co.
- 8. Tri-tech Inc.
- 9. York Metal Fabricators, Inc.

2.02 MATERIALS:

A. Metals:

- 1. Comply with standards indicated for forms and types of metals indicated or required for handrail and railing components.
- 2. Aluminum.
- Alloy and Temper:
 - a) Provide alloy and temper recommended by aluminum producer or finisher for type of use and finish indicated, and with not less than the strength and durability properties of the alloy and temper, designated below for each aluminum form required.
 - 1) Extruded Bar and Shape: ASTM B 221, 6063-T6.
 - 2) Extruded Pipe and Tube: ASTM B 429, 6063-T6.
 - 3) Plate and Sheet: ASTM B 209, 6061-T6.
 - 4) Castings: ASTM B 26, 356-T6.
- 4. Welding Electrodes and Filler Metal:
 - a) Provide type and alloy of filler metal and electrodes as recommended by producer of metal to be welded, and as required for color match, strength and compatibility in fabricated items.

5. Fasteners:

- a) Use fasteners of same basic metal as the fastened metal, unless otherwise indicated
- b) Do not use metals which are corrosive or incompatible with materials joined.
- c) Provide concealed fasteners for interconnection of handrail and railing components and for their attachment to other work except where exposed fasteners are unavoidable or are the standard fastening method for handrail and railing system indicated.

6. Anchors and Inserts:

- a) Provide anchors of proper type, size, and material for type of loading and installation condition shown, as recommended by manufacturer, unless otherwise indicated.
- b) Use stainless steel anchors and inserts for exterior locations and elsewhere as required for corrosion resistance.
- c) Furnish inserts, as required, to be set into concrete or masonry work.

2.03 FABRICATION:

A. General:

- 1. Fabricate handrails and railings to design, dimensions and details shown.
- Provide handrail and railing members in sizes and profiles indicated, with supporting posts and brackets of size and spacing shown (maximum spacing shall be 5 feet), but not less than required to support the design loadings indicated.

B. Nonwelded Connections:

- Fabricate railings and handrails for interconnection of members by means of railing manufacturer's standard concealed mechanical fasteners and fittings unless otherwise indicated.
- 2. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
- 3. Fabricate splice joints for field connection using epoxy structural adhesive where this represents manufacturer's standard splicing method.

C. Welded Connections for Aluminum Pipe:

- Fabricate aluminum pipe handrails and railings for interconnection of members by concealed internal welds, which eliminate surface grinding, using manufacturer's standard system of sleeve and socket fittings.
- 2. Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain profile of member throughout entire bend without buckling,

- twisting or otherwise deforming exposed surfaces of handrail and railing components.
- For exterior handrails and railings and those exposed to moisture from condensation or other sources, provide weepholes or other means for evacuation of entrapped water in hollow sections of railing members.
- 4. Provide foam below weepholes in vertical sections of handrails to prevent accumulation of water.
- 5. Provide wall returns at ends of wall mounted handrails, except where otherwise indicated.
- 6. Close exposed ends of handrail and railing members by use of manufacturer's standard prefabricated end fittings.

D. Brackets, Flanges, Fittings and Anchors:

- 1. Provide manufacturer's standard wall brackets, flanges, miscellaneous fittings and anchors for interconnections of handrail and railing members to other work, unless otherwise indicated.
- 2. Furnish inserts and other anchorage devices for connecting handrails and railings to concrete or masonry work.
- 3. Fabricate and space anchorage devices as indicated and as required to provide adequate support.
- 4. Coordinate anchorage devices with supporting structure.

2.04 METAL FINISHES:

A. General:

1. Comply with NAAMM "Metal Finishes Manual" for recommendations and designations of finishes, except as otherwise indicated.

2.05 ALUMINUM FINISHES:

A. Class I Clear Anodized Finish: AA-M32C22A41 (Medium satin directional textured mechanical finish; chemical etch, medium matte; 0.7 mil min. thick clear anodic coating).

PART 3 - EXECUTION:

3.01 PREPARATION:

A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, such as sleeves, concrete inserts,

anchor bolts and miscellaneous items having integral anchors, which are to be embedded in concrete as masonry construction. Coordinate delivery of such items to project site.

B. Field Measurements:

- 1. Take field measurements prior to preparation of shop drawings and fabrication, where possible.
- 2. Do not delay job progress; allow for adjustments during installation where taking field measurements before fabrication might delay work.

3.02 INSTALLATION:

A. General:

- 1. Maximum spacing for handrail supports shall be 5 feet.
- 2. Fit exposed connections accurately together to form tight, hairline joints.
- B. Perform cutting, drilling and fitting required for installation of handrails and railings.
- C. Set work accurately in location, alignment and elevations, plumb, level, true and free of rack, measured from established lines and levels.
- D. Do not weld, cut or abrade surfaces of handrails and railing components which have been coated or finished after fabrication, and are intended for field connection by mechanical means without further cutting or fitting.
- E. All components shall be installed so that no drainage over them has previously been contaminated from copper, caustics or alkalies.

F. Field Welding:

- Comply with applicable AWS specification for procedures of manual shielded metal-arc welding, for appearance and quality, of welds made, and for methods used in correcting welding work.
- 2. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations.
- 3. Grind exposed joints smooth and touch-up shop paint coat.

G. Corrosion Protection:

- 1. Coat concealed surfaces of aluminum, which will be in contact with grout, concrete, masonry, wood or dissimilar metals, with a heavy coat of bituminous paint.
- 2. Adjust handrails and railings prior to anchoring to ensure matching alignment at abutting joints. Space posts at interval indicated, or of not indicated, as required by design loadings.

H. Railing Connections:

- 1. Permanently connect railing components together using manufacturer's standard mechanical joinery method and fittings, unless otherwise indicated.
- 2. Use wood blocks and padding to prevent damage to railing members and fittings.
- 3. Seal recessed holes of exposed locking screws using plastic filler cement colored to match finish of handrails and railings.
- 4. Permanently connect railing components by welding using manufacturer's standard fittings designed for this purpose, unless otherwise indicated.

I. Anchoring Railing Ends:

- 1. Anchor railing ends into concrete or masonry with manufacturer's standard fittings designed for this purpose, unless otherwise indicated.
- 2. Anchor railing ends to metal surfaces with manufacturer's standard fittings using concealed fasteners, unless otherwise indicated.
- 3. Anchor railing ends to metal surfaces by welding using manufacturer's standard fitting, unless otherwise indicated.

J. Attachment of Handrails to Walls:

General:

- a) Secure handrails to walls with manufacturer's standard wall brackets and end fittings, unless otherwise indicated.
- 2. For concrete and solid masonry, use drilled-in expansion shield and concealed hanger bolts, unless otherwise indicated.
- 3. For hollow masonry anchorage, use toggle bolts with square heads, unless otherwise indicated.

4. For stud partitions use lag bolts fastened to wood blocking between studs. Coordinate with spacing of studs for accurate location of blocking members.

3.03 ADJUST AND CLEAN:

- A. Protect finishes of railings and handrails from damage during construction period.
- B. Restore finishes damaged during installation and construction period so that no evidence remains or correction work. Return items, which cannot be refinished in the field, to the shop; make required alterations and refinish entire unit, or provide new units as required.

[END OF SECTION 05520]

SECTION 05600 MISCELLANEOUS METALS

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.

PART 2 - PRODUCTS

2.01 ALUMINUM PLATES, SHAPES AND EXTRUSIONS

- A. All aluminum plates, shapes and extrusions shall be of Type 6061-T6 alloy or better, except where otherwise noted herein, conforming to applicable requirements of American Society of Testing Materials (ASTM) Designation B 221-67 (Latest Revision).
- B. All surfaces in contact with concrete shall be coated with Bitumastic (Kopper's 50, Indurall Ruff Stuff 2100, or equal).

2.02 STAINLESS STEEL PLATES, SHEETS, SHAPES AND HARDWARE

A. All stainless steel plates, sheets, shapes, and hardware shall be Type 304 alloy conforming to applicable requirements of ASTM Designation A-182 (Latest Revision).

2.03 FASTENINGS

- A. Fasteners, insofar as practicable, shall be concealed. Where exposed and not indicated otherwise, fastenings shall be of the same material, color and finish as associated metal, and countersunk wherever possible.
- B. All fasteners coming into contact with aluminum and/or submerged shall be stainless steel.

2.04 EXPANSION ANCHORS

A. Anchors shall be stainless steel meeting the requirements of Federal Specification FF-S-325, Group II, Type 4, Class 1. The entire anchor (bolts, expansion clip, nut and washer) shall be manufactured from 300 stainless steel. Anchors shall be stainless steel Red Head wedge anchors by ITT, Phillips Drill, Michigan City, or equal.

- B. Expansion anchors shall be installed in holes drilled with carbide tipped drill bits conforming to American National Standards Institute (ANSI) Specification B94.12-77.
- C. Minimum installation depth and method of expansion shall be as recommended by the anchor manufacturer.
- D. Minimum center to center spacing and edge distance shall be as specified below:

Anchor <u>Diameter</u>	Min. Center to Center Spacing	Minimum Edge Distance	
1/4"	3"	1-1/2"	
3/8"	4-1/2"	2-1/4"	
1/2"	6"	3"	
5/8"	7-1/2"	3-3/4"	
3/4"	9"	4-1/2"	

2.05 ALUMINUM GRATING

- A. Aluminum grating shall be made of straight extruded bearing bars laced together by interlocking cross-bridges, securely fastened to the bearing bars.
- B. Grating shall be furnished in the sizes called for on the Drawings.
- C. All necessary openings for pipes, hatchways, etc., shall be provided.
- D. The ends of each grating and openings requiring removal of three or more bearing bars shall be banded with each banding bar.
- E. Grating shall be fastened to supporting members by Manufacturer's recommended standard clips where shown on the Drawings.
- F. Grating shall be of 6063-T6 aluminum alloy.
- G. No grating of the welded type will be acceptable.
- H. Aluminum grating shall be as manufactured by McNichols Co., Tampa, Florida, or equal.
- I. Grating sections shall weigh a maximum of 100 pounds.

PART 3 - EXECUTION (Not Applicable)

[END OF SECTION 05600]

SECTION 20000

MINIMUM TECHNICAL STANDARDS CHECKLIST FOR UTILITY AS-BUILTS

CITY OF PANAMA CITY BEACH DATED SEPTEMBER 2022

PART 1 - GENERAL

- 1.1 Surveyors and mappers must meet the following minimum standards of accuracy, completeness, and quality for the City of Panama City Beach to accept as-builts:
 - 1. Must identify the responsible surveyor and mapper.
 - 2. Shall state the type of survey it depicts and the purpose of the survey.
 - 3. Must bear the name, certificate of authorization number, and street and mailing address of the business entity issuing the as-built survey, along with the name and license number of the surveyor in responsible charge.
 - 4. Must reflect a survey date, which is the date of acquisition. When the graphics of the as-built survey are revised, but the survey date stays the same, the as-built survey must list dates for all revisions.
 - 5. Must be signed and sealed by the surveyor in responsible charge.
 - 6. A designated "north arrow" and either a stated scale or graphic scale shall be shown.
 - 7. Appropriate line types, line weights, and line widths shall be used on the asbuilt drawing to differentiate existing from proposed and water from sewer, reclaim, and storm. All physical items (i.e. Pipes, valves, etc.), surveyed boundaries, and easements should be clearly marked, and dimensioned, and identified by size and material.
 - 8. All utilities in the public right of way and within easements or to the end of the publicly owned portion of the utility (i.e. Meter and backflow preventer, cleanout, etc.) Shall be shown with associated sizes labeled. This includes, but is not limited to, stub-outs/laterals, meters, BFP's, water mains, force mains, gravity sewer mains, manholes, storm water piping and associated structures, valves, fire hydrants, lift stations, etc. All pipeline work must be connected within the site as well as the connection to existing utilities adjacent to the site (it is the surveyor's responsibility to coordinate with all

- contractors for locations and sizing). All utility connections to the buildings must be shown.
- 9. All proposed utility/ingress/egress easements must be shown on the drawing and must have the associated legal description written.
- 10. Edge of pavement, roads (asphalt shaded), curbs, driveway connections, buildings, parking lots, right-of-way, and street names must be shown in all applications. All items mentioned above must be field located.
- 11. If a lift station is to be dedicated to the city the plan must show a detail scaled at 1"=10' showing all improvements including: water and sewer services, manholes, inverts, rims, BFP's, yard hydrants, control panels, fencing, parcel boundary, legal description of parcel boundary, wet well, valve box, force main, flow meter (if applicable), driveway, gate.
- 12. Property boundary must be clearly labeled and dimensioned.
- 13. Inverts, grates, tops, rims must be shown for all storm water drainage structures. Inverts (pipes and cleanouts) and rims must be shown for all gravity sewer manholes. Slopes must be shown on each run of pipe for review and approval.
- 14. "as-built" profile of all directional bores and jack-and-bores indicating grade and pipe elevations at 10-foot intervals shall be provided on as-built plan sheets based on bore logs developed by boring contractor during installation. Profiles shall use horizontal stationing which ties to stationing on plans. Profiles shall also show existing surface elevations as well as any proposed surface elevations on the profile. Surface profiles must show any pavement, sidewalks, ditches, swales etc. Note that profiles locating pipe solely by "depth below existing ground" will not be accepted.
- 15. Coastal setback line or coastal construction control line should be designated.
- 16. Elevations and location of any flood zones along the flood hazard boundaries shall be delineated.
- 17. Nearby wetlands and other environmentally significant resources clearly labeled.
- 18. Storm water management system features including dimensions of : wet and dry swales, wet and dry ponds, conveyance systems, easements, along with all associated M.E.S. Structures and inverts, outfall structures and

inverts, skimmers, discharge structures and inverts and slot elevations, top of bank, slope of bank and bottom of all ponds, swales, closed and open conveyances. For FEMA LOMR submittals also provide: finished floor elevations, spot elevations and/or contours showing lowest lot elevations.

- 19. The engineer of record shall review and approve the as-built prior to submission to the city for final approval. Written approval by the engineer of record shall be noted on a transmittal with a statement of no exceptions to minimum standards provided herein.
- 20. Storm water requirements for the as-built surveys only apply to parcels within city limits. Contractor shall submit three (3) hard copies and one (1) digital (AutoCAD format & PDF) for review and approval.

[END OF SECTION 20000]



CITY OF PANAMA CITY BEACH PCB24-05 ITB ALF COLEMAN ROAD EASTSIDE SIDEWALK

APPENDIX A CONTRACT CHANGE ORDER FORM

CONTRACT CHANGE ORDER	ORDER NO.		
		DATE	
		BATE	
		STATE	
	FLORIDA		
CONTRACT FOR		COUNTY	
CITY OF PANAMA CITY BEACH – ALF COLEMAN ROAD EASTSIDE	SIDEWALK	BAY	
OWNER			
CITY OF PANAMA CITY BEACH			
То			
(Contractor)		1 '6 '6	
You are hereby requested to comply with the following changes	rom the contract plans a	nd specifications:	
Description of Changes	DECREASE	INCREASE	
(Supplemental Plans and Specifications Attached)	in Contract Price	in Contract Price	
TOTALS			
NET CHANGE IN CONTRACT PRICE	\$		
	\$	\$	
JUSTIFICATION: Additional days due to unforeseen conditions	and rain days.		
The amount of the Contract will be Increased/Decreased by th	e Sum of:		
	Dollars (\$).	
The Contract Total including this, and previous Change Orders	will be:	Dollars	
(\$).			
The Contract Period provided for Completion will be changed/u	ınchanged		
·	•		
This Document will become a supplement to the contract and a	Il provisions will apply here	eto.	
	Contractor)	(Date)	
Diaka Funhaa D.F.	 ,		
Blake Furbee, P.E. (Owner's Gortemoller Engineering, Inc	s Engineer)	(Date)	
Contonion Engineering, me			
Drew Whitman, City Manager ((Owner)	(Date)	
City of Panama City Beach	(= 9 . /	(Date)	



CITY OF PANAMA CITY BEACH PCB24-05 ITB ALF COLEMAN ROAD EASTSIDE SIDEWALK

APPENDIX B PAY REQUEST FORM

TO (OWNER):			DDO IECT: ALE CO	OLEMAN ROAD EASTSI	DE SIDEWALK APPLICATION NO:	•
CITY OF PANAMA	CITY BEACH		PROJECT NO.: PO		ATTENATION NO.	$\overline{}$
17007 PANAMA CI			VIA (ENGINEER):	GORTEMOLLER ENGINEERIN	IG, INC. PERIOD TO:	\blacksquare
	ACH, FLORIDA 32413			708 THOMAS DRIVE	APPLICATION DATE	
FROM (CONTRACTOR):			PANAMA CITY BEACH, FLORIDA 32408 APPLICATION DATE:		├	
				ATTN: BLAKE FURBEE, P.E.	CONTRACT DATE	
					CONTRACT DATE:	
CONTRACT	OR'S APPLICATION FOR	PAYMENT				
_				1.	ORIGINAL CONTRACT SUM	
CHANGE ORD	ER SUMMARY			2.	NET CHANGE BY CHANGE ORDERS	\$0.00
Change Orders	approved in	ADDITIONS	DEDUCTIONS	3.	CONTRACT SUM TO DATE (Line 1 + Line 2)	\$0.00
previous month	s by Owner			4.	EARNED TO DATE	
	TOTAL				a. Work Completed (See Attached)	
					b. Stored Materials Including Owner Issued POs (See Attached)	
Number	Date Approved	- ↓			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	
					c. Vendor Invoices Paid @ Contractors Request (To Date)	
					d. Vendor Retainages Unpaid @ Contractors Request (To Date)	#0.00
	I TOTALS	#0.00	\$0.00	6.	Total Tax Savings Agreement Deduction (Sum of Line 5a and 5b)	\$0.00
	TOTALS	\$0.00	\$0.00		TOTAL EARNED LESS TAX AGREEMENT DEDUCTIONS (Line 4 less Line 6 Total) RETAINAGE: (10% of Line 7)	\$0.00 \$0.00
The condension of Contractor and Section 46 at the best of the Contractor Institute information			'a knowladga inform		TOTAL EARNED LESS RETAINAGE (Line 7 less Line 8)	\$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			•		LESS PREVIOUS CERTIFICATES FOR PAYMENT	φυ.υυ
with the Contract Documents, that all amounts have been paid by the Contractor for Work for			(Line 9 from prior Certificate)			
for which previous Certificates for Payment were issued and payments received from the				11.	CURRENT PAYMENT DUE	\$0.00
Owner, and that the current payment shown herein is now due.				12.	BALANCE TO FINISH, PLUS RETAINAGE (Line 3 - Line 6 - Line 9)	\$0.00
				EN	OINIFEDIO OFFICIOATE FOR RAVMENT	
CONTRACTOR	R NY NAME HERE				GINEER'S CERTIFICATE FOR PAYMENT coordance with the Contract Documents, based on on-site observations and the data comprising the	e above application
THEODMIA	VI IVAIVIE I IEIKE				Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief	• • • • • • • • • • • • • • • • • • • •
By: Date:			ressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the			
TYPE NAME HERE					led to payment of the AMOUNT CERTIFIED.	
				_		
State of:	Florida	County of:	Bay			
Subscribed and	sworn to before me this	day of		ENG.	AINFER:	

AMOUNT CERTIFIED

Notary Public:

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.

Date:

(Attach explanation if amount certified differs from the amount applied for.)



CITY OF PANAMA CITY BEACH PCB24-05 ITB ALF COLEMAN ROAD EASTSIDE SIDEWALK

APPENDIX C GEOTECHNICAL ENGINEERING REPORT

Chipley Office



632 5th Street Chipley, FL 32428

Tel: (904) 479-4706 www.anevayinc.com

January 14, 2023

Mr. Dexter M. Gortemoller, P.E. Gortemoller Engineering, Inc. 708 Thomas Drive Panama City Beach, FL 32408

Subject: Geotechnical Engineering Report

Alf Coleman Road Sidewalks
Panama City Beach, Florida
Anevay Project Number P2204

Dear Mr. Gortemoller:

Anevay, Inc. has completed the limited geotechnical services for the Alf Coleman Road Sidewalks in Panama City Beach, Florida. The authorized geotechnical services were performed in general accordance with Proposal Number 2204, dated November 7, 2022. This report presents the results of our field and laboratory testing and includes recommendations with regard to the design and construction of the concrete sidewalk.

FIELD TESTING PROCEDURES:

Prior to our field testing, boring locations were marked and underground utilities were located by contacting Sunshine State One Call of Florida. Test locations were established in the field by using a measuring wheel and estimating right angles with reference to the existing roadway; therefore, the locations of our borings should be considered approximate. For increased accuracy, it is recommended boring locations and elevations be obtained by a Professional Surveyor. See the attached Figure 1 and Figure 2 for the approximate locations of our borings.

On December 21, 2022, personnel with our firm traveled to the project site and completed the field testing for the above-referenced project. The field testing included fourteen (14) hand auger borings ranging in depth from approximately 3 feet to 4.5 feet below the existing ground surface. During our hand auger borings, soil samples were collected at each significant change in soil stratification and placed into air-tight containers. Upon the completion of our field testing, borings were filled with soil cuttings from the drilling process.

LABORATORY TESTING PROCEDURES:

Laboratory investigative work consisted of physical examination of the soil samples obtained during the boring operations. Once the soils were delivered to our laboratory, they were visually classified in general accordance with the United Soil Classification System (USCS). Additional laboratory testing was performed on selected samples to aid in their soil classification. The classification of soils and their in-place soil properties have been used to estimate the soil's characteristics and soil's behaviors.

Moisture Content: Eleven (11) samples were selected to determine their natural moisture content. The natural moisture content is defined as the ratio of the weight of water in a sample to the weight of solids. The laboratory testing was conducted in general accordance with ASTM D 2216.

Fines Content: Eleven (11) samples were selected to determine their percentage of materials passing the No. 200 sieve. The percentage of fines passing the No. 200 sieve is generally considered to represent the amount of silt and clay in the tested soil sample. The laboratory testing was conducted in general accordance with ASTM D 1140.

GENERAL SITE, SUBSURFACE SOIL, AND GROUNDWATER CONDITIONS:

North of U.S. Highway 98 (Back Beach Road), Alf Coleman Road is a 4-lane divided roadway and extends approximately 3,000 feet where it dead ends. Based upon observations made in the field, the roadway profile typically slopes downward from south to north with a relief of approximately 6 feet. The eastern side of the right-of-way, where the sidewalk will be constructed, typically consists of grass shoulder and swale with a back berm.

The attached Boring Logs illustrate the stratification and soil descriptions of samples obtained from the borings based on the USCS Classification. Borings performed for this project are representative of subsurface soil conditions at their respective locations/depths and for their respective vertical reaches. The boring logs only represent soil conditions at their respective locations and may not represent soil conditions at other locations and times. Variations of the subsurface materials and groundwater conditions are anticipated. The Boring Logs also provide general drilling information, estimated groundwater depths at the time of drilling, and laboratory testing that was performed to aid in the soil classification.

In general, the soils encountered within the depth of our borings were sands. The sands varied in color and texture which typically ranged from slightly silty (SP-SM) to silty (SM) sands. It should be noted that various amounts of organics were typically encountered throughout the depth of our borings. At test location HA-5, our hand auger boring could not be extended beyond a depth of 3 feet because organics (wood) was encountered. At test location HA-2, concrete rubble was encountered at a depth ranging from approximately 0.5 feet to 1 foot below the existing ground surface.

The Soil Survey indicates that Pamlico-Dorovan Soils may be encountered near Market Street West extending approximately 400 feet to the north along Alf Coleman Road. Based upon the results of hand auger borings HA-1 through HA-5, which were performed within this area and approximately 5 feet to 10 feet from the edge of roadway, it appears Alf Coleman Road was likely over-excavated during construction. This may have been performed to remove unsuitable soils such as organic soils (peat) or organic laden sands. The results of our hand auger borings indicate the over excavation depths ranged from approximately 1.5 feet to 2.5 feet below the existing ground surface.

On the date of our field testing, the groundwater level was measured at the depths shown on the attached boring logs which ranged from approximately 0.5 feet to 1.7 feet below the existing ground surface. Based upon our review of the National Weather Service Advanced Hydrologic Prediction Service, it appears the project area is below average for rainfall totals over the past 3-months. Therefore, we anticipate normal groundwater conditions to be higher than our borings indicate. We also recommend seasonal high groundwater levels be considered at or above the existing ground surface. Fluctuations in the water table will occur due to seasonal



precipitation/evapotranspiration differences, ditch influences, and pond influences; therefore, groundwater levels should be confirmed prior to construction.

SUMMARY OF PROJECT INFORMATION:

It is our understanding a 4-foot wide sidewalk will be constructed along the east side of Alf Coleman Road beginning at Market Street West extending approximately 2,600 feet to the northern entrance of Arnold High School. Starting at Market Street West, it is our understanding the sidewalk will be constructed with a utility strip approximately 5 feet from the edge of roadway and will extend approximately 1,400 feet to the first Arnold High School entrance. At this point, the sidewalk will be constructed on the back berm of the existing ditch and will extend approximately 800 feet to the third Arnold High School entrance. The remainder of the sidewalk will then be constructed with a utility strip approximately 5 feet from the edge of roadway. It is also our understanding minor filling and cutting will be required to achieve final grades.

RECOMMENDATIONS FOR SITE AND SOIL PREPARATIONS:

It is our understanding the concrete sidewalk will be designed and constructed in accordance with FDOT Standard Plans for Road Construction (FY 2023-24) and FDOT Standard Specifications for Road and Bridge Construction (FY 2023-24). For your reference and review, we have attached the FDOT Standard Plans, Section 522-001, and FDOT Specification Sections 110, 347, 520, and 522 to the Appendix of this report.

The FDOT Standard Plans, Section 522-001 Concrete Sidewalk, indicates a minimum concrete thickness of 6-inches for driveways and sidewalks/curb ramps located within the curb returns and 4-inch concrete sidewalks thicknesses outside of these areas. The 4-inch concrete sidewalk thickness should be considered adequate for pedestrian use only. In areas where vehicular or maintenance traffic is anticipated to travel across the sidewalks (i.e. Gulf Power Easement), we recommend a minimum concrete sidewalk thickness of 6-inches. In these areas and where the sidewalk is only separated by a utility strip, it may be advisable to use reinforced concrete to minimize damage from vehicles traveling across the sidewalks.

FDOT Specifications Sections 347, 520-2, and 522, indicate nonstructural portland cement concrete (Class NS) shall be used for all sidewalks and driveways including curb ramps, landings, transition slopes, sidewalk curbs, and edge beams. Nonstructural concrete shall have a minimum compressive strength of 2,500 psi at 28 days. We recommend field and laboratory testing be performed to verify the specified minimum compressive strength.

Prior to the addition of fill soils, we recommend clearing and grubbing be performed in accordance with the FDOT Specifications Section 110. Based upon the results of our borings, organic laden soils and concrete rubble was typically encountered within the top 12 inches of the existing ground surface. However, these soils may extend to greater depths than our borings indicate.

It should also be noted that Soil Survey indicates Pamlico-Dorovan Soils may be encountered near Market Street West extending approximately 400 feet to the north along Alf Coleman Road. Based on the result of our hand auger borings, it appears Alf Coleman Road may have been overexcavated during construction which was likely to remove unsuitable soils. However, the removal of these soils typically only extends a few feet beyond the edge of asphalt. Depending upon the final location of the sidewalk within this area, it is possible that unsuitable soils may be encountered. Once the final location of the sidewalk has been determined, we recommend



additional hand augers be performed to determine if additional removal of unsuitable soils is required within the sidewalk area.

Fill soils placed within excavated areas and to achieve final elevations shall be sands to slightly silty sands containing no more than 10%, by dry weight, finer than the U.S. No. 200 mesh sieve and shall be free of organics, rubble, clay balls, and other deleterious materials. Fill soils shall be placed in thin level lifts and compacted as indicated in FDOT Specification Section 522, Concrete Sidewalks and Driveways. Section 522-4, Foundation, indicates the following regarding the compaction of cut and fill areas:

Compact cut-and-fill areas within 1 foot beyond each side of the sidewalk or driveway, when the right-of-way conditions allow. Compact the foundation material below the bottom of the concrete for a minimum depth of 1 foot for cut areas, 1 foot for fill areas less than 1 foot, and 2 feet for all other fill areas to a density not less than 95% of the maximum density as determined by FM 1-T099. Compact the material in the remaining fill areas to match the adjacent area density.

In order to provide a 'dry' environment for construction and compaction as indicated above, we anticipate dewatering and rerouting of water in adjacent ditches and retention ponds will be required. We recommend the contractor have significant experience in dewatering. Surface water and groundwater seepage is expected in all excavated areas. Water quantities will depend on soil conditions, seasonal conditions, tidal influences, depths of excavations, rainfall events, depth of water in adjacent ditches and ponds, and the duration that excavations are left open. Groundwater and surface water will impact near surface construction especially during site preparations as indicated above and during the placement of concrete. Contractors should be prepared to utilize a well point dewatering system or sock drain during construction activities to lower the groundwater level a minimum of two (2) feet below excavated areas.

All additional materials and methods of placement shall be in accordance with applicable sections of the Florida Department of Transportation's "Standard Specifications for Road and Bridge Construction", (Latest Edition).

GENERAL COMMENTS AND REPORT LIMITATIONS:

Anevay prepared this limited geotechnical investigation report expressly for Gortemoller Engineering, Inc. for the Alf Coleman Road Sidewalks in Panama City Beach, Florida. The information contained in this report may not be suitable for further use without adaptation for the specific purpose intended. As such, any reuse of or reliance upon the information, recommendations, assessments, or conclusions in this report without adaptation shall be at the sole risk and liability of the party undertaking this reuse.

This report is intended for use with regard to the specific project discussed herein, and any substantial changes in the loads, locations, or reported grades shall be brought to our attention immediately so that we may determine how such changes may affect our conclusions and recommendations. After the plans and specifications are complete, the Geotechnical Engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. Our report does not address environmental issues which may be associated with the subject property.



The effectiveness of the subgrade will depend upon the proper preparation of soils as previously indicated. Therefore, Anevay recommends the owner employ a qualified Engineering Firm to perform quality assurance and quality control services. Anevay should be retained by the owner to review all earthwork testing to confirm the conditions anticipated in this geotechnical investigation actually exist and to finalize or amend the provided conclusions and recommendations. If Anevay is not employed by the owner for these services, then Anevay can not be responsible or liable for the conclusions and recommendations presented in this report.

The findings and recommendations of this report are in accordance with generally accepted professional engineering principles and practices in the State of Florida. No other warranties are expressed or implied. We based the findings and recommendations on the results of the field investigation, combined with an interpolation of soil and groundwater conditions encountered.

CLOSURE:

We appreciate the opportunity to perform this geotechnical investigation and look forward to continued participation during the design and construction phase of this project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,

ANEVAY, INC.

Brian Walter Bloomfield, P.E.

President

Florida Engineering Registration No. 65580

Attachments: Boring Location Plan, Boring Logs, Appendix

This item has been digitally signed and sealed by Brian W. Bloomfield, P.E., on 4/26/2023.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.







ANEVAY, INC 632 5th Street Chipley, FL 32428 Telephone: 904-479-4706

CLIENT NAME: Gortemoller Engineering, Inc.	PROJECT NAME: Alf Coleman Sidewalks						
ANEVAY PROJECT NO.: P2204	PROJECT LOCATION: Panama City Beach, Florida						
CONTRACTOR: Anevay, Inc.	GROUND ELEVATION (FT.)						
METHOD: Hand Auger	LATTITUDE:LONGITUDE:						
DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (▽) 1.7 ft (at time of hand augers)						
DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022	EST. SEASONAL HIGH GROUNDWATER LEVEL ():						

NOTES: __

CAND AUGER LOGS.GPJ OPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WE BE	PLASTICITY SA INDEX	FINES CONTENT (%)
EMAN ROAD SIDEWALKSIH	(SP-SM) Gray & Brown Slightly Silty Fine SAND with Gravel	AU S-1						
VO.COMPROJECTSALF COL	(SP-SM) Brown & Gray Slightly Silty Fine SAND	AU S-2						
1/14/23 08:37 - C.USERS/BRIAN BLOOMFIELD/ONEDRIVE - ANEVAYING, COMPROJECTS/ALF COLEMAN ROAD SIDEWALKS/HAND AUGER LOGS.GR.	(SM) Dark Gray Silty Fine SAND with Organics	AU S-3						
37 - C.USERSIBRIAN BLOOM	(SP-SM) Dark Brown & Dark Gray Slightly Silty Fine SAND	AU S-4		20				8
-19	(SP-SM) Brown & Gray Slightly Silty Fine SAND Bottom of borehole at 4.5 feet.	AU S-5						
GEOTECH BH COLUMNS - GINT STD US LAB	Bottom of Borenole at 4.0 leet.							

BORING NUMBER HA-2 PAGE 1 OF 1

ANEVAY, I	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706
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CLIENT NAME: _Gortemoller Engineering, Inc.	PROJECT NAME: Alf Coleman Sidewalks
ANEVAY PROJECT NO.: P2204	PROJECT LOCATION: Panama City Beach, Florida
CONTRACTOR: Anevay, Inc.	GROUND ELEVATION (FT.)
METHOD: Hand Auger	LATTITUDE:LONGITUDE:
DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (▽) 1.2 ft (at time of hand augers)
DATE STARTED: <u>12/21/2022</u> DATE COMPLETED: <u>12/21/2022</u>	EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES: __

NOTES		J.		4 (ii)	ш (%)	ATT L	ERBE	3	ENT
O DEPTH GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE		BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
SIDEWALKSW	(SP-SM) Gray & Brown Slighty Silty Fine SAND with Organics	A	.U i-1						
DLEMAN ROAF	Concrete Rubble	A	iU i-2						
RIVE - ANEVAYINC.COMPROJECTS/ALF CC	SP-SM) Brown & Gray Slighty Silty Fine SAND	AS	.U :-3		13				5
OMFIELD/ONED	(SP-SM) Dark Gray & Gray Slighty Silty Fine SAND	A	.U i-4						
8:37 - C:\USERS\BRIAN BLOC	(SM) Dark Brown & Dark Gray Silty Fine SAND	A	.U :-5						
4 7 7 7 9 8	Bottom of borehole at 4.0 feet.								
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:37 - C: USERSIBRIAN BLOOMFIELD!ONEDRIVE - ANEVAYINC. COMPROJECTSALF COLEMAN ROAD SIDEWALKSHAND AUGER LOGS. GPJ A DEPTH C (ft) C (RAPHIC C CRAPHIC C C C C C C C C C C C C C C C C C C									

PAGE 1 OF 1

CLIENT NAME: Gortemoller Engineering, Inc. PROJECT NAME: Alf Coleman Sidewalks ANEVAY PROJECT NO.: P2204 PROJECT LOCATION: Panama City Beach, Florida CONTRACTOR: Anevay, Inc. GROUND ELEVATION (FT.) LATTITUDE: _____LONGITUDE: ____ METHOD: Hand Auger DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL (1.0 ft (at time of hand augers) DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES:

GEOTECH BH COLUMNS - GINT STD US

				10120.								
O DEPTH (#)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC TIMIT LIMIT	PLASTICITY DAIN DEX	FINES CONTENT (%)			
LEMAN ROAD SIDEWALKSIY		(SP-SM) Dark Gray & Brown Slighty Silty Fine SAND with Gravel	AU S-1									
VINC.COM/PROJECTS/ALF CO		(SP-SM) Brown & Gray Slighty Silty Fine SAND	AU S-2									
OMFIELDIONEDRIVE - ANEVA		(SP-SM) Dark Gray Slightly Silty Fine SAND with Organics	AU S-3									
S LAB GDT - 1/14/23 08:37 - C: USERS/BRIAN BLOOMFIELD/ONEDRIVE - ANEVAYING, COMPROJECTS/ALF COLEMAN ROAD SIDEWALKS/HAND AUGER LOGS. GPJ A DEPTH C (#) (#)		(SM) Dark Gray & Dark Brown Silty Fine SAND	AU S-4									
LAB.G	<u> </u>	Bottom of borehole at 4.5 feet.										

BORING NUMBER HA-4 PAGE 1 OF 1

ANEVAY,	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706
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CLIENT NAME: Gortemoller Engineering, Inc.	PROJECT NAME: Alf Coleman Sidewalks
ANEVAY PROJECT NO.: P2204	PROJECT LOCATION: Panama City Beach, Florida
CONTRACTOR: Anevay, Inc.	GROUND ELEVATION (FT.)
METHOD: Hand Auger	LATTITUDE:LONGITUDE:
DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (☑) 1.2 ft (at time of hand augers)
DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022	EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES: __

O DEPTH GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC HIMIT	PLASTICITY SAINDEX	FINES CONTENT (%)
EMAN ROAD SIDEWALKSN-	(SP-SM) Brown & Gray Slighty Silty Fine SAND with Gravel	AU S-1						
NC.COMPROJECTS/ALF COL	(SP-SM) Brown & Gray Slighty Silty Fine SAND	AU S-2	<u> </u>	14				5
MFIELD/ONEDRIVE - ANEVAYII	(SP-SM) Dark Gray Slightly Silty Fine SAND with Organics	AU S-3	<u> </u>	20				9
8:37 - C:USERSIBRIAN BLOOM	(SP-SM) Brown & Gray Slighty Silty Fine SAND	AU S-4						
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:37 - C: USERSIBRIAN BLOOMFIELD!ONEDRIVE - ANEVAYINC.COM/PROJECTSALF COLEMAN ROAD SIDEWALKS!HAND AUGER LOGS.GPJ A DEPTH C	Bottom of borehole at 4.0 feet.			1	ı			
GEOTECH BH COLUMNS - GIN								

BORING NUMBER HA-5 PAGE 1 OF 1

ANEVAY, INC 632 5th Street Chipley, FL 32428 Telephone: 904-479-4706	
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	·- • ^ · ,	Telephone: 904-4	79-4706							
CLIENT N	NAME: Gortemoller Engir	neering, Inc.	PROJECT NAME: Alf Coleman Sidewalks							
ANEVAY	PROJECT NO.: P2204		PROJECT LOCATION: Panama City Beach, Florida							
CONTRA	CTOR: Anevay, Inc.		GROUND ELEVATION (F	Г.)						
METHOD	: Hand Auger		LATTITUDE: LONGITUDE:							
DRILLER	B. Bloomfield	CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (∑) 1.1 ft (at time of hand augers)							
DATE ST	ARTED: 12/21/2022	_ DATE COMPLETED:12/21/2022	EST. SEASONAL HIGH GROUNDWATER LEVEL (▼_):							
NOTES:										
DEPTH (ft) GRAPHIC LOG		MATERIAL DESCRIPTION		MPLE TYPE NUMBER	BLOW COUNTS N VALUE)	AOISTURE ONTENT (%) IQUID	TERBEI LIMITS -IWIT -IWIT	· 1 -		

AND AUGER LOGS.GPJ O DEPTH (ft) GRAPHIC			SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	L	PLASTIC HIMIT LIMIT	PLASTICITY BINDEX	FINES CONTENT (%)
OLEMAN ROAD SIDEWALKSW	(SP-SM) Brown & Gray Slighty Silty Fine SAND with Gravel		AU S-1						
PROJECTS/ALF C	☑ (SP-SM) Brown & Gray Slighty Silty Fine SAND (SP-SM) Dark Gray & Dark Brown Slighty Silty Fine SAND with	1	AU S-2						
MAFIELDVONEDRIVE - ANEVAVING COMM	Organics Organics		AU S-3						
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:37 - C:\USERS\BRIAN BLOOMFIELD\ONEDRIVE - ANEVAYINC.COM\PROJECTS\ALF COLEMAN ROAD SIDEWALKS\HAND AUGER LOGS.GPJ REPTH C C C C C C C C C C	WOOD Bottom of borehole at 3.0 feet.								

BORING NUMBER HA-6 PAGE 1 OF 1

ANEVAY, INC Chipley, FL 32428 Telephone: 904-479-470
--

CLIENT NAME: Gortemoller Engineering, Inc.	PROJECT NAME: Alf Coleman Sidewalks						
ANEVAY PROJECT NO.: P2204	PROJECT LOCATION: Panama City Beach, Florida						
CONTRACTOR: Anevay, Inc.	GROUND ELEVATION (FT.)						
METHOD: Hand Auger	LATTITUDE:LONGITUDE:						
DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (☑) 0.8 ft (at time of hand augers)						
DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022	EST. SEASONAL HIGH GROUNDWATER LEVEL ():						

NOTES: __

_	NOTES.		PE	.,		(%) (%)	ATT L	ERBE IMITS	RG	E N
ND AUGER LOG		MATERIAL DESCRIPTION	SAMPLE TYPE	NOMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
LKS/HAN 0		(SP-SM) Dark Gray Slightly Silty Fine SAND								
OJECTS/ALF COLEMAN ROAD SIDEWA		abla		NU 5-1		18				9
OM/PRO	-	(SP-SM) Dark Brown & Dark Gray Slightly Silty Fine SAND								
D'ONEDRIVE - ANEVAYINC.C	2			NU S-2						
OMFIEL 3	<u> </u>									
08:37 - C:\USERS\BRIAN BLC		(SP-SM) Dark Gray Slighty Silty Fine Sand	A	\U 3-3						
1/14/23 (<u> </u>	Bottom of borehole at 4.0 feet.								
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:37 - C:\USERS\BRIAN BLOOMFIELD\ONEDRIVE - ANEVAYINC.COM/PROJECTS\ALF COLEMAN ROAD SIDEWALKS\HAND AUGER LOGS.GFJ										

BORING NUMBER HA-7 PAGE 1 OF 1

ANEVAY,	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706
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CLIENT NAME: Gortemoller Engineering, Inc.	PROJECT NAME: Alf Coleman Sidewalks							
ANEVAY PROJECT NO.: P2204	PROJECT LOCATION: Panama City Beach, Florida							
CONTRACTOR: Anevay, Inc.	GROUND ELEVATION (FT.)							
METHOD: Hand Auger	LATTITUDE:LONGITUDE:							
DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (☑) 0.7 ft (at time of hand augers)							
DATE STARTED: <u>12/21/2022</u> DATE COMPLETED: <u>12/21/2022</u>	EST. SEASONAL HIGH GROUNDWATER LEVEL ():							

NOTES: __

AND AUGER LOGS, GPJ O DEPTH GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC HIMIT	PLASTICITY BUINDEX	FINES CONTENT (%)
EMAN ROAD SIDEWALKSYH	(SM) Dark Gray & Gray Silty Fine SAND with Organics	AU S-1						
JECTSALF COL	(SP-SM) Dark Gray & Gray Slighty Silty Fine SAND	AU S-2						
BLOOMFIELD/ONEDRIVE - ANEVAYING COMPRO-	(SP-SM) Dark Brown & Dark Gray Slightly Silty Fine SAND (SP-SM) Dark Brown & Brown Slighty Silty Fine SAND	AU S-3		26				10
08:37 - C:USERSIBRIAN		AU S-4						
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:37 - C: USERSIBRIAN BLOOMFIELD!ONEDRIVE - ANEVAYINC, COM/PROJECTSALF COLEMAN ROAD SIDEWALKS!HAND AUGER LOGS.GPJ A DEPTH C C C C C C C C C C	Bottom of borehole at 4.0 feet.							

BORING NUMBER HA-8 PAGE 1 OF 1

ANEVAY,	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706
•	Telephone: 904-479-4706

CLIENT NAME: Gortemoller Engineering, Inc.	PROJECT NAME: Alf Coleman Sidewalks							
ANEVAY PROJECT NO.: P2204	PROJECT LOCATION: Panama City Beach, Florida							
CONTRACTOR: _Anevay, Inc.	GROUND ELEVATION (FT.)							
METHOD: Hand Auger	LATTITUDE:LONGITUDE:							
DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield	GROUNDWATER LEVEL (▽) 0.5 ft (at time of hand augers)							
DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022	EST. SEASONAL HIGH GROUNDWATER LEVEL ():							

NOTES:

S.GPJ				Ļ	д П		(%)	ATT I	ERBE	RG	ENT
- ANEVAYINC.COMPROJECTS/ALF COLEMAN ROAD SIDEWALKS/HAND AUGER LOGS.GP.	O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	i i	SAMPLE IYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
SIDEWALKS\H			(SP-SM) Gray & Brown Slighty Silty Fine SAND with little Organics		AU S-1						
LEMAN ROAD		-	SP-SM) Dark Gray Slighty Silty Fine SAND with little Organics		AU S-2						
ECTS/ALF CO			(SP) Gray & Brown Fine SAND		AU S-3						
NC.COM\PRO.		-	(SM) Dark Brown & Dark Gray Silty Fine SAND								
IVE - ANEVAYI				1							
- C:\USERS\BRIAN BLOOMFIELD\ONEDRIVE				ł	AU S-4		18				17
BRIAN BLOOM	3 -										
:37 - C:\USERS											
1/14/23 08:37	4		Bottom of borehole at 4.0 feet.								
SINT STD US											
COLUMNS - G											
GEOTECH BH COLUMNS - GINT STD US LAB.GDT											

PAGE 1 OF 1

CLIENT NAME: Gortemoller Engineering, Inc. PROJECT NAME: Alf Coleman Sidewalks ANEVAY PROJECT NO.: P2204 PROJECT LOCATION: Panama City Beach, Florida CONTRACTOR: Anevay, Inc. GROUND ELEVATION (FT.) LATTITUDE: _____ LONGITUDE: ____ METHOD: Hand Auger DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL (♥) 0.5 ft (at time of hand augers) DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL (): ____

NOTES:

HAND AUGER LOGS.GPJ	O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	i i	SAMPLE IYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC HIMIT LIMIT	PLASTICITY SHIP	FINES CONTENT (%)
DEWALKS	-		(SP-SM) Gray & Brown Slighty Silty Fine SAND with Organics		AU S-1						
OJECTS/ALF COLEMAN ROAD SII	- - 1 -		SP-SM) Dark Gray Slighty Silty Fine SAND		AU S-2		17				5
ONEDRIVE - ANEVAYINC.COM/PR	2 -		(SP-SM) Dark Gray & Dark Brown Slighty Silty Fine SAND		S-2						
3 - C:\USERS\BRIAN BLOOMFIELD\	3 - -				AU S-3						
4/23 08:3	4		Bottom of borehole at 4.0 feet.								
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:38 - C:UJSERSIBRIAN BLOOMFIELDIONEDRIVE - ANEVAYINC. COMPROJECTSIALF COLEMAN ROAD SIDEWALKSIHAND AUGER LOGS.GPJ											

BORING NUMBER HA-10 PAGE 1 OF 1

ANEVAY, INC 632 5th Street Chipley, FL 32428 Telephone: 904-479-4706

CLIENT NAME: Gortemoller Engineering, Inc.

PROJECT NAME: Alf Coleman Sidewalks PROJECT LOCATION: Panama City Beach, Florida

GROUND ELEVATION (FT.)

LATTITUDE: _____ LONGITUDE: ___ METHOD: Hand Auger DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL (♥️) 0.5 ft (at time of hand augers)

DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES: ____

ANEVAY PROJECT NO.: P2204

CONTRACTOR: Anevay, Inc.

		L	д —		ы % ш	ATT	ERBE	}	ENT
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	1	SAMPLE 17PE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	(SM) Gray & Dark Grey Silty Fine SAND with Organics		AU S-1						
1 - 1	(SP-SM) Gray Slighty Silty Fine SAND with lenses of Clayey SAND		AU S-2						
	(SP-SM) Dark Gray Slighty Silty Fine SAND								
- - - 3			AU S-3						
(#) O DEPTH	Bottom of borehole at 3.5 feet.								

PAGE 1 OF 1

ANEVAY,	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706
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PROJECT NAME: Alf Coleman Sidewalks

CLIENT NAME: Gortemoller Engineering, Inc. ANEVAY PROJECT NO.: P2204 PROJECT LOCATION: Panama City Beach, Florida

CONTRACTOR: Anevay, Inc. GROUND ELEVATION (FT.)

LATTITUDE: _____LONGITUDE: ____ METHOD: Hand Auger DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL (□) 0.5 ft (at time of hand augers)

DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES: ____

AND AUGER LOGS.GPJ O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	L	PLASTIC HEALINIT PLIMIT	} -	FINES CONTENT (%)
LEMAN ROAD SIDEWALKSIY	(SM) Dark Gray Silty Fine SAND with little Organics		AU S-1						
OMFIELD/ONEDRIVE - ANEVAYINC, COMPROJECTS/ALF CO	(SP-SM) Dark Gray & Dark Brown Slightly Silty Fine SAND		AU S-2		22				7
08:38 - C.\USERS\BRIAN BLOO	(SM) Dark Gray Silty Fine SAND		AU S-3						
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:38 - C./USERS/BRIAN BLOOMFIELD/ONEDRIVE - ANEVAYINC.COM/PROJECTS/ALF COLEMAN ROAD SIDEWALKS/HAND AUGER LOGS.GPJ A DEPTH C (ft) GRAPHIC LOG	Bottom of borehole at 4.0 feet.				1			1	

PAGE 1 OF 1

NEVAY, INC Chipley, FL 32428 Chipley, FL 32428 Telephone: 904-479-4706
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CLIENT NAME: Gortemoller Engineering, Inc. PROJECT NAME: Alf Coleman Sidewalks ANEVAY PROJECT NO.: P2204 PROJECT LOCATION: Panama City Beach, Florida CONTRACTOR: Anevay, Inc. GROUND ELEVATION (FT.) LATTITUDE: _____LONGITUDE: ____ METHOD: Hand Auger DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL () 1.2 ft (at time of hand augers)

DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES: ____

		J. J.		(%) (%)	ATT	ERBE IMITS	3	ENT
O DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	(SM) Dark Gray & Dark Brown Silty Fine SAND with little Organics	AU S-1						
	(SP-SM) Gray & Brown Slighty Silty Fine SAND	AU S-2		16				8
HLd30 0 - 1 - 1 - 1 - 2 - 3 4	(SP-SM) Dark Gray & Gray Slightly Silty Fine SAND	AU S-3						
	Bottom of borehole at 4.0 feet.							

PAGE 1 OF 1

ANEVAY, INC	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706
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CLIENT NAME: Gortemoller Engineering, Inc. PROJECT NAME: Alf Coleman Sidewalks PROJECT LOCATION: Panama City Beach, Florida GROUND ELEVATION (FT.) LATTITUDE: _____ LONGITUDE: ____ DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL () 1.1 ft (at time of hand augers)

NOTES: ____

ANEVAY PROJECT NO.: P2204

METHOD: Hand Auger

CONTRACTOR: Anevay, Inc.

AND AUGER LOGS.GPJ O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	İ	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC PLASTIC LIMIT	S ≻	FINES CONTENT (%)
SIDEWALKS\H		(SM) Dark Gray & Brown Silty Fine SAND		AU S-1						
OMNPROJECTSYALF COLEMAN ROAD		(SP-SM) Gray Slightly Silty Fine SAND with lenses of Silty Fine SAND		AU S-2						
ANEVAYINC.O		(SP-SM) Dark Gray & Gray Slightly Silty Fine SAND	 							
AFIELD/ONEDRIVE				AU S-3						
C:USERS/BRIAN BLOOM		(SP-SM) Gray Slightly Silty Fine SAND		AU S-4						
- 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		Bottom of borehole at 4.0 feet.								
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 1/14/23 08:38 - C:\USERS\BRIAN BLOOMFIELD\ONEDRIVE - ANEVAYINC.COM\PROJECTS\ALF COLEMAN ROAD SIDEWALKS\HAND AUGER LOGS.GPJ A DEPTH										

DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL ():

BORING NUMBER HA-14 PAGE 1 OF 1

ANEVAY,	632 5th Street Chipley, FL 32428 Telephone: 904-479-4706	6
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CLIENT NAME: Gortemoller Engineering, Inc.

PROJECT NAME: Alf Coleman Sidewalks PROJECT LOCATION: Panama City Beach, Florida

GROUND ELEVATION (FT.)

LATTITUDE: _____LONGITUDE: ____ METHOD: Hand Auger DRILLER: B. Bloomfield CLASSIFIED BY: B. Bloomfield GROUNDWATER LEVEL () 1.0 ft (at time of hand augers)

DATE STARTED: 12/21/2022 DATE COMPLETED: 12/21/2022 EST. SEASONAL HIGH GROUNDWATER LEVEL ():

NOTES:

ANEVAY PROJECT NO.: P2204

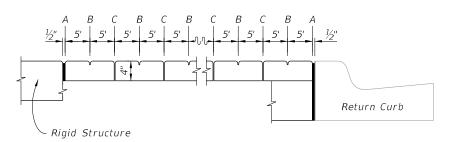
CONTRACTOR: Anevay, Inc.

		Ц	J 		(%) (%)	AT1	ERBE	3	ENT
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	YT 3 IdMAS	NUMBER	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	(SP-SM) Dark Gray & Brown Slightly Silty Fine SAND with little Organics		AU S-1		22				5
	(SP-SM) Dark Gray & Gray Slightly Silty Fine SAND with little Organics		AU S-2						
DEPTH O C(f) C(f) C(f) C(f) C(f) C(f) C(f) C(f)	(SM) Dark Gray Silty Fine SAND		AU S-3						
4	Bottom of borehole at 4.0 feet.								

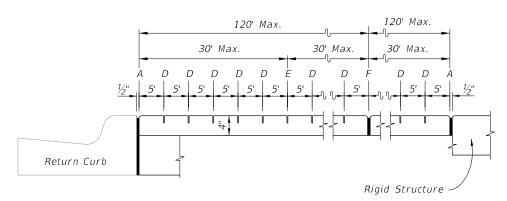
APPENDIX

GENERAL NOTES:

- 1. Construct sidewalks in accordance with Specification 522. Use 6" concrete for Sidewalks and Curb Ramps Located within Curb Returns (See Plan View). Install all other concrete with thickness as shown, unless otherwise detailed in the Plans.
- 2. Include detectable warnings on sidewalk curb ramps in accordance with Index 522-002.
- 3. For Driveways see Index 522-003.
- 4. Bond breaker material can be any impermeable coated or sheet membrane or preformed material having a thickness of not less than 6 mils and not more than $\frac{1}{2}$ ".
- 5. Construct sidewalks with Edge Beam through the limits of any surface mounted Pedestrian/Bicycle Railing or Pipe Guiderail shown in the plans. (See RAILING DETAIL)



OPEN JOINTS



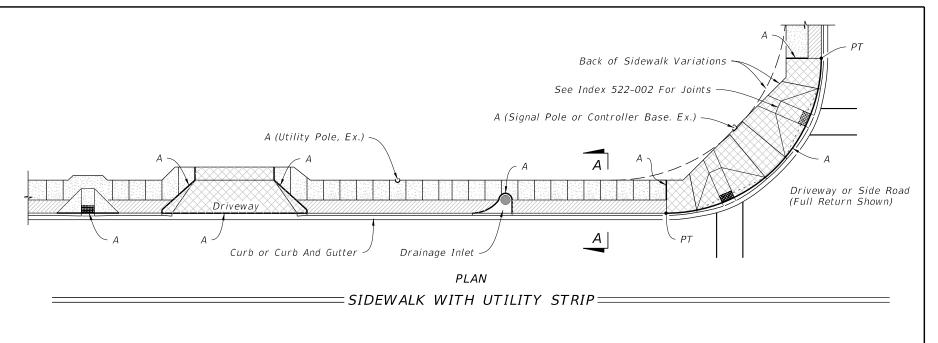
SAWED JOINTS

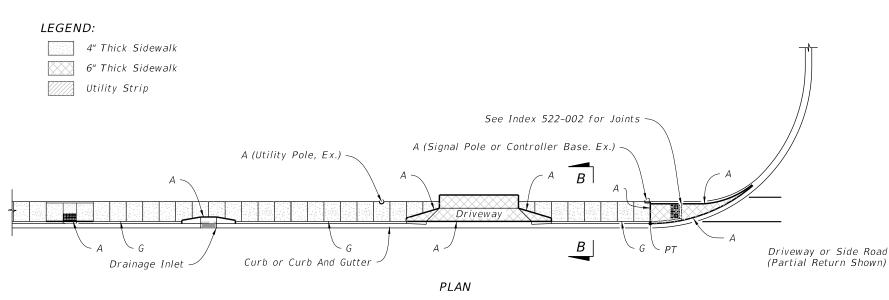
LONGITUDINAL SECTION

LEGEND:

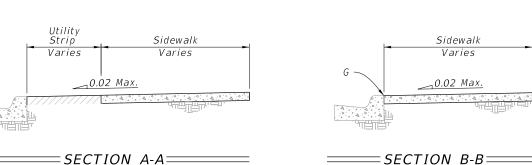
- A- $\frac{1}{2}$ " Expansion Joints (Preformed Joint Filler) between the sidewalk and; driveways, sidewalk-intersections, and all other fixed objects (e.g. drainage inlets and utility poles).
- B- 1/8" Dummy Joints, Tooled
- C- 1/8" Formed Open Joints
- D- $\frac{3}{16}$ " Saw Cut Joints, $1\frac{1}{2}$ " Deep (within 96 hours) Max. 5' Centers
- $E-\frac{3}{16}$ " Saw Cut Joints, $1\frac{1}{2}$ " Deep (within 12 hours) Max. 30' Centers Joint(s) Required When Length Exceeds 30'
- F- ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

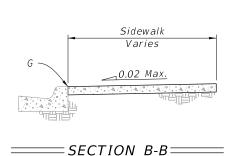


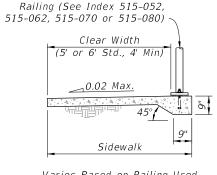




SIDEWALK WITHOUT UTILITY STRIP







Varies Based on Railing Used

=== RAILING DETAIL ====

GENERAL NOTES AND CONCRETE SIDEWALK ON CURBED ROADWAYS

FDOT

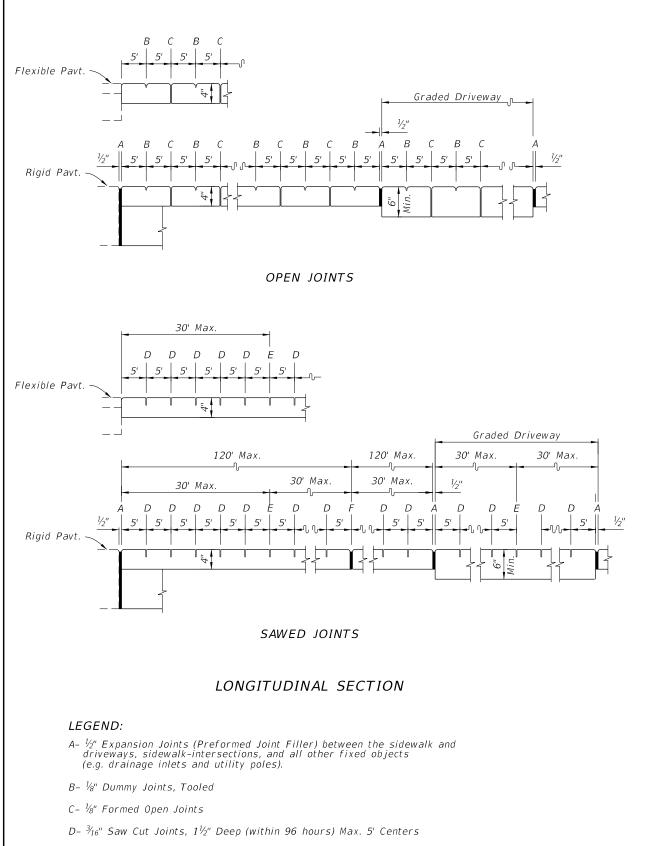
FY 2023-24 STANDARD PLANS

CONCRETE SIDEWALK

INDEX 522-001

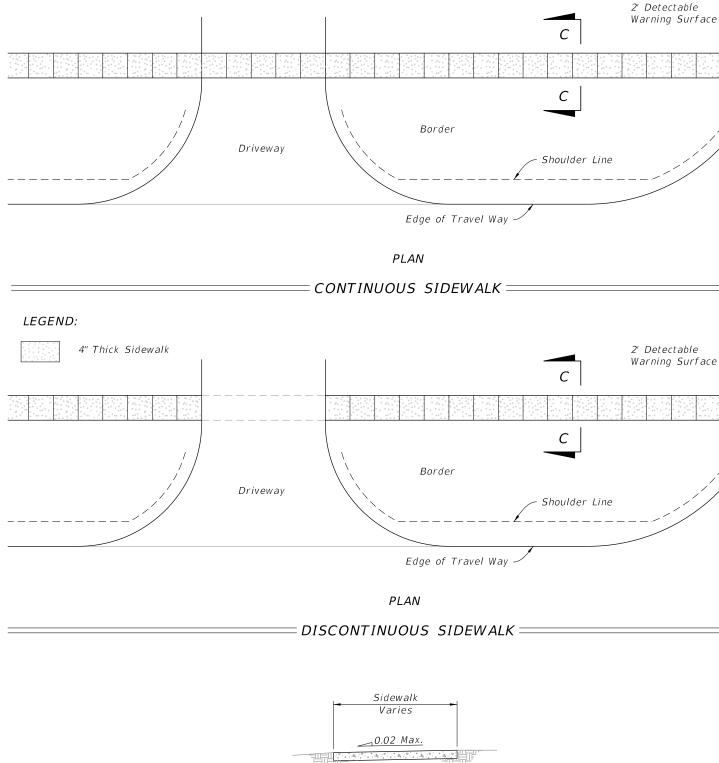
SHEET

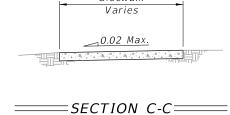
LAST REVISION 11/01/18



- E- $\frac{3}{16}$ " Saw Cut Joints, $1\frac{1}{2}$ " Deep (within 12 hours) Max. 30' Centers Joint(s) Required When Length Exceeds 30'
- F- ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

SIDEWALK JOINTS =





CONCRETE SIDEWALK ON FLUSH SHOULDER ROADWAYS

REVISION 11/01/18

DESCRIPTION:

FDOT

FY 2023-24 STANDARD PLANS

CONCRETE SIDEWALK

INDEX *522-001*

SHEET 2 of 2

Side Road

Side Road



CLEARING CONSTRUCTION SITE

SECTION 110 CLEARING AND GRUBBING

110-1 Description.

Clear and grub within the areas shown in the Plans. Remove and dispose of all trees, stumps, roots and other such protruding objects, buildings, structures, appurtenances, existing flexible asphalt pavement, and other facilities necessary to prepare the area for the proposed construction. Remove and dispose of all product and debris not required to be salvaged or not required to complete the construction.

Perform miscellaneous work necessary for the complete preparation of the overall project site as specified in 110-10.

110-2 Standard Clearing and Grubbing.

110-2.1 Work Included: Completely remove and dispose of all buildings, timber, brush, trees, stumps, roots, rubbish, debris, existing flexible pavement and base, drainage structures, culverts, and pipes. Remove all other obstructions resting on or protruding through the surface of the existing ground and the surface of excavated areas.

Perform standard clearing and grubbing within the following areas:

- 1. All areas where excavation is to be done, including borrow pits, lateral ditches, right-of-way ditches, etc.
- 2. If constructing over an existing road, remove existing asphalt pavement. If shown in the Contract Documents, remove existing pavement base.
 - 3. All areas where roadway embankments will be constructed.
- 4. All areas where structures will be constructed, including pipe culverts and other pipe lines.

110-2.2 Depths of Removal of Roots, Stumps, and Other Debris: In all areas where excavation is to be performed, or roadway embankments are to be constructed, remove roots and other debris to a depth of 12 inches below the ground surface. Remove roots and other debris from all excavated material to be used in the construction of roadway embankment or roadway base. Plow the surface to a depth of at least 6 inches, and remove all roots thereby exposed to a depth of at least 12 inches. Completely remove and dispose of all stumps within the roadway right-of-way.

Remove all roots, etc., protruding through or appearing on the surface of the completed excavation within the roadway area and for structures, to a depth of at least 12 inches below the finished excavation surface.

Remove or cut off all stumps, roots, etc., below the surface of the completed excavation in borrow pits, material pits, and lateral ditches.

In borrow and material pits, do not perform any clearing or grubbing within 3 feet inside the right-of-way line.

Within all other areas where standard clearing and grubbing is to be performed, remove roots and other debris projecting through or appearing on the surface of the original ground to a depth of 12 inches below the surface, but do not plow or harrow these areas.

110-2.3 Boulders: Remove any boulders encountered in the roadway excavation (other than as permitted under the provisions of 120-7.2) or found on the surface of the ground. When approved by the Engineer place boulders in neat piles inside the right of way. The Contractor



may stockpile boulders encountered in Department-furnished borrow areas, which are not suitable for use in the embankment construction, within the borrow area.

110-2.4 Asbestos Containing Materials (ACM) Not Identified Prior to the Work: When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer, in accordance with 110-6.5.

110-3 Selective Clearing and Grubbing.

110-3.1 General: Remove and dispose of vegetation, obstructions, etc., as shown in the Plans. Provide acceptable fill material, and grade and compact holes or voids created by the removal of the stumps. Perform all selective clearing and grubbing in accordance with ANSI A300.

No staging, storing, stockpiling, parking or dumping will be allowed in selective clearing and grubbing areas. Only mechanical equipment related to selective clearing and grubbing activities will be allowed in selective clearing and grubbing areas. Protect trees to remain from trunk, branch and root damage.

- 110-3.2 Protection of Plant Preservation Areas: Areas to remain natural may be designated in the Plans. No clearing and grubbing, staging, storage, stockpiling, parking or dumping is allowed in these areas. Do not bring equipment into these areas.
- 110-3.3 Tree Protection Barrier: Construct a tree protection barrier in accordance with Standard Plans Index 110-100 and the Plans. Maintain barrier for duration of the Contract.
- 110-3.4 Tree Root and Branch Pruning: When pruning cuts or root pruning to existing trees are shown in the Plans, work is to be supervised on site by an International Society of Arboriculture (ISA) Certified Arborist and performed in accordance with ANSI A300.
 - 110-3.5 Tree Removal: Remove trees as shown in the Plans.

110-4 Protection of Property Remaining in Place.

Protect property to remain in place in accordance with 7-11.

110-5 Removal of Buildings.

110-5.1 Parts to be Removed: Completely remove all parts of the buildings, including utilities, plumbing, foundations, floors, basements, steps, connecting concrete sidewalks or other pavement, septic tanks, and any other appurtenances, by any practical manner which is not detrimental to other property and improvements.

Remove utilities to the point of connection to the utility authority's cut-in. After removing the sewer connections to the point of cut-in, construct a concrete plug at the cut-in point, as directed by the Engineer, except where the utility owners may elect to perform their own plugging. Contact the appropriate utility companies prior to removal of any part of the building to ensure disconnection of services.

Submit demolition schedule 15 working days before beginning any demolition or renovation of a building.

110-5.2 Removal by Others: Where buildings within the area to be cleared and grubbed are so specified to be removed by others, remove and dispose of any foundations, curtain walls, concrete floors, basements or other foundation parts which might be left in place after such removal of buildings by others.

110-6 Removal of Existing Bridges.

110-6.1 General: The work under this Article includes bridges, as defined in 1-3. Remove and dispose of the materials from existing bridges. Remove



- 1. those bridges and approach slabs, or portions of bridges, shown in the Plans to be removed.
- 2. those bridges and approach slabs, or portions of bridges, found within the limits of the area to be cleared and grubbed, and directed by the Engineer to be removed,
- 3. those bridges and approach slabs, or portion of bridges, which are necessary to be removed in order to complete the work, and
- 4. other appurtenances or obstructions which may be designated in the Contract Documents to be included as an item of payment for the work under this Article.

 Submit schedule information and demolition plan for approval 15 working days before beginning any demolition or renovation of any structures.

110-6.2 Method of Removal:

110-6.2.1 General: Remove the structures in such a way so as to leave no obstructions to any proposed new bridge or to any waterways. Pull, cut off, or break off pilings to the requirements of the permit or other Contract Documents, or if not specified, not less than 2 feet below the finished graded surface. In the event that the Plans indicate channel excavation to be done by others, consider the finished graded surface as the limits of such excavation. For materials which are to remain the property of the Department or are to be salvaged for use in temporary bridges, avoid damage to such materials, and entirely remove all bolts, nails, etc. from timbers to be so salvaged. Mark structural steel members for identification as directed.

110-6.2.2 Removal of Steel Members with Hazardous Coatings: Submit to the Engineer for approval the "Contractor's Lead in Construction Compliance Program", QP2 certification from the Society for Protective Coatings (SSPC) from the firm actually removing and disposing of these steel members before any members are disturbed.

Vacuum power tool clean any coated steel member to bare metal as defined by SSPC-SP11 a minimum of 4 inches either side of any area to be heated (e.g. torch cutting, sawing, grinding, etc.) in accordance with 29 CFR 1926.354. Abrasive blasting is prohibited.

110-6.3 Partial Removal of Bridges: On concrete bridges to be partially removed and widened, remove concrete by manually or mechanically operated pavement breakers, by concrete saws, by chipping hammers, or by hydro-demolition methods. Do not use explosives. Where concrete is to be removed to neat lines, use concrete saws or hydro-demolition methods capable of providing a reasonably uniform cleavage face. If the equipment used will not provide a uniform cut without surface spalling, first score the outlines of the work with small trenches or grooves. For all demolition methods, submit for review and approval of the Engineer, a demolition plan that describes the method of removal, equipment to be used, types of rebar splices or couplers, and method of straightening or cutting rebar. In addition, for hydrodemolition, describe the method for control of water or slurry runoff and measures for safe containment of concrete fragments that are thrown out by the hydro-demolition machine.

110-6.4 Authority of U.S. Coast Guard: For bridges in navigable waters, when constructing the project under authority of a U.S. Coast Guard permit, the U.S. Coast Guard may inspect and approve the work to remove any existing bridges involved therein, prior to acceptance by the Department.

110-6.5 Asbestos Containing Materials (ACM) Not Identified Prior to the Work: When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer.

Make every effort to minimize the disturbance of the ACM. Immediately provide provisions for the health and safety of all jobsite personnel and the public that may be exposed to



any ACM. Provisions shall meet all applicable Federal, State, and Local Rules and Regulations regarding potentially hazardous conditions due to ACM.

The Engineer will notify the District Contamination Impact Coordinator (DCIC) who will engage the services of the Department's Contamination Assessment/Remediation Contractor (CAR). Provide access to the potential contamination area. Preliminary investigation by the CAR Contractor will determine the course of action necessary for site security and the steps necessary to resolve the contamination issue.

The CAR Contractor will perform an asbestos survey to delineate the asbestos areas, and identify any staging or holding areas that will be needed for assessment or abatement of the asbestos material.

The CAR Contractor will maintain jurisdiction over activities within areas contaminated with ACM including staging and holding areas. The CAR Contractor will be responsible for the health and safety of workers within these delineated areas. Provide continuous access to these areas for the CAR Contractor and representatives of regulatory or enforcement agencies having jurisdiction.

Coordinate with the CAR Contractor and Engineer to develop a work plan with projected completion dates for the final resolution of the contamination, in coordination with any regulatory agencies as appropriate. Use the work plan and schedule as a basis for planning the completion of all work efforts. The Engineer may grant Contract Time extensions according to the provisions of 8-7.3.2.

Cooperate with the CAR Contractor to expedite integration of the CAR Contractor's operations into the construction project. Adjustments to quantities or to Contract unit prices will be made according to work additions or reductions on the part of the Prime Contractor in accordance with 4-3.

The Engineer will inform the Prime Contractor when operations may resume in the affected area.

110-7 Removal of Existing Concrete.

Remove and dispose of existing Portland cement concrete pavement, sidewalk, slope pavement, ditch pavement, curb, and curb and gutter, etc., where shown in the Plans.

Remove all gravity walls, noise/sound walls, retaining walls, MSE walls, perimeter walls, and roadway concrete barriers, where shown in the Plans. All ancillary elements of these concrete features being removed including, but not limited to, base, leveling pads, copings, reinforcing steel or straps, footings, edgedrains, etc, are incidental and included in the cost of the removal.

110-8 Ownership of Materials.

Except as may be otherwise specified in the Contract Documents, take ownership of all buildings, structures, appurtenances, and other materials removed and dispose of them in accordance with 110-9.

110-9 Disposal of Materials.

110-9.1 General: Either stack materials designated to remain the property of the Department in neat piles within the right-of-way, load onto the Department's vehicles, or deliver to location designated in the Plans.



Dispose of timber, stumps, brush, roots, rubbish, and other material resulting from clearing and grubbing in areas and by methods meeting the applicable requirements of all Federal, State and Local Rules and Regulations. Do not block waterways by the disposal of debris.

With the approval of the Engineer, wood chips may be evenly distributed to a depth of no more than one inch in designated areas in the Department's right-of-way.

- 110-9.2 Burning Debris: Where burning of such materials is permitted, perform all such burning in accordance with the applicable Federal, State and Local rules and regulations. Perform all burning at locations where trees and shrubs adjacent to the cleared area will not be harmed.
- 110-9.3 Timber and Crops: The Contractor may sell any merchantable timber, fruit trees, and crops that are cleared under the operations of clearing and grubbing for his own benefit, subject to the provisions of 7-1.2, which may require that the timber, fruit trees, or crops be burned at or near the site of their removal, as directed by the Engineer. The Contractor is liable for any claims which may arise pursuant to the provisions of this Subarticle.
- 110-9.4 Disposal of Treated Wood: Treated wood must be handled and disposed of properly during removal. Treated wood should not be cut or otherwise mechanically altered in a manner that would generate dust or particles without proper respiratory and dermal protection. The treated wood must be disposed of in at least a lined solid waste facility or through recycling/reuse. Treated wood shall not be disposed by burning or placement in a construction and demolition (C&D) debris landfill.
- 110-9.5 Hazardous Materials/Waste: Handle, transport, and dispose of hazardous materials/waste in accordance with all Federal, State, and Local Rules and Regulations including, but not limited to, the following:
 - 1. SSPC Guide 7
 - 2. Federal Water Pollution Control Act, and
 - 3. Resource Conservation and Recover Act (RCRA).

Accept responsibility for the collection, sampling, classification, packaging, labeling, accumulation time, storage, manifesting, transportation, treatment and disposal of hazardous materials/waste, both solid and liquid. Separate all solid and liquid waste and collect all liquids used at hygiene stations and handle as hazardous materials/waste. Obtain written approval from the Engineer for all hazardous materials/waste stabilization methods before implementation.

Obtain an EPA/FDEP Hazardous Waste Identification Number (EPA/FDEP ID Number) before transporting and/or disposal of any hazardous materials/waste.

List the Department as the generator for hazardous materials/waste resulting from removal or demolition of Department materials.

Submit the following for the Engineers' approval before transporting, treatment or disposal of any hazardous materials/waste:

- 1. Name, address and qualifications of the transporter,
- 2. Name, address and qualifications of the treatment facility,
- 3. Proposed treatment and/or disposal of all Hazardous Materials/Waste.
- 4. EPA/FDEP Hazardous Waste Identification Number Application Form.
- 5. Manifest forms.

Transport all hazardous materials/waste in accordance with applicable Federal, State, and Local Rules and Regulations including, but not limited to, the 40 CFR 263 Standards.



Submit all final Hazardous Materials/Waste manifest/bills of lading and certificates of disposal to the Engineer within 21 days of each shipment.

110-9.5.1 Steel Members with Hazardous Coating: Dispose of steel members with hazardous coating in one of the following manners:

- 1. Deliver the steel members and other hazardous waste to a licensed recycling or treatment facility capable of processing steel members with hazardous coating.
- 2. Deliver the steel members with hazardous coating to a site designated by the Engineer for use as an offshore artificial reef. Deliver any other hazardous materials/waste to a licensed hazardous materials/waste recycling treatment facility.

Dismantle and/or cut steel members to meet the required dimensions of the recycling facility, treatment facility or offshore artificial reef agency.

All compensation for the cost of removal and disposal of hazardous materials/waste will be included in the Cost of Removal of Existing Structures.

110-9.5.2 Certification of Compliance: Submit certification of Compliance from the firm actually removing and disposing of the hazardous materials/waste stipulating, the hazardous materials/waste has been handled, transported and disposed of in accordance with this Specification. The Certification of Compliance shall be attested to by a person having legal authority to bind the company.

Maintain all records required by this Specification and ensure these records are available to the Department upon request.

110-10 Miscellaneous Operations.

110-10.1 Water Wells Required to be Plugged: Fill or plug all water wells within the right-of-way, including areas of borrow pits and lateral ditches, that are not to remain in service, in accordance with applicable Federal, State, and Local Rules and Regulations.

Cut off the casing of cased wells at least 12 inches below the existing surface or 12 inches below the elevation of the finished graded surface, whichever is lower. Water wells, as referred to herein, are defined either as artesian or non-artesian, as follows:

- 1. An artesian well is an artificial hole in the ground from which water supplies may be obtained and which penetrates any water-bearing rock, the water in which is raised to the surface by natural flow or which rises to an elevation above the top of the water-bearing bed. Artesian wells are further defined to include all holes drilled as a source of water that penetrate any water-bearing beds that are a part of the artesian water system of Florida, as determined by representatives of the applicable Water Management District.
- 2. A non-artesian (water-table) well is a well in which the source of water is an unconfined aquifer. The water in a non-artesian well does not rise above the source bed.
- 110-10.2 Leveling Terrain: Within the areas between the limits of construction and the outer limits of clearing and grubbing, fill all holes and other depressions, and cut down all mounds and ridges. Make the area of a sufficient uniform contour so that the Department's subsequent mowing and cutting operations are not hindered by irregularity of terrain. Perform this work regardless of whether the irregularities were the result of construction operations or existed originally.

110-10.3 Mailboxes: When the Contract Documents require furnishing and installing mailboxes, permit each owner to remove the existing mailbox. Work with the Local Postmaster to develop a method of temporary mail service for the period between removal and installation of the new mailboxes. Install the mailboxes in accordance with the Standard Plans.



110-11 Method of Measurement.

110-11.1 Clearing and Grubbing: The quantity to be paid for will be the lump sum quantity.

110-11.2 Selective Clearing and Grubbing: The quantity to be paid will be the plan quantity area in acres designated for Selective Clearing and Grubbing. The quantity to be paid for Tree Protection Barrier will be the linear foot measurement as shown in the Plans. Tree Root, Branch Pruning, and Tree Removal will be paid per each tree. Tree Removal per each will not be used where Clearing and Grubbing or Selective Clearing and Grubbing per acre is used.

110-11.3 Removal of Existing Bridges: The quantity to be paid for will be the lump sum quantity or quantities for the specific structures, or portions of structures to be removed.

110-11.4 Removal of Existing Concrete:

The quantity to be paid for will be the number of square yards of existing concrete elements, acceptably removed and disposed of, as specified. The quantity will be determined by actual measurement along the surface of the element before its removal. Measurements for appurtenances which have irregular surface configurations, such as curb and gutter, steps, and ditch pavement, will be the area as projected to an approximate horizontal plane. Where the removal of pavement areas is necessary only for the construction of box culverts, pipe culverts, storm sewers, inlets, manholes, etc., these areas will not be included in the measurements.

Area measurements for walls will be based on exposed vertical face measurements times the horizontal length of the wall.

- 110-11.5 Plugging Water Wells: The quantity to be paid for will be the number of water wells plugged, for each type of well (artesian or non-artesian).
- **110-11.6 Mailboxes:** The quantity to be paid for will be the number of mailboxes acceptably furnished and installed.
- 110-11.7 Delivery of Salvageable Material to the Department The quantity to be paid for will be the Lump Sum quantity for delivery of salvageable materials to the Department, as indicated in the Plans.
- 110-11.8 General: In each case, except as provided below, where no item of separate payment for such work is included in the proposal, all costs of such work will be included in the various scheduled items in the Contract, or under specific items as specified herein below or elsewhere in the Contract.

110-12 Basis of Payment.

110-12.1 Clearing and Grubbing:

110-12.1.1 Lump Sum Payment: Price and payment will be full compensation for all clearing and grubbing required for the roadway right-of-way and for lateral ditches, channel changes, or other outfall areas, and any other clearing and grubbing indicated, or required for the construction of the entire project, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc.

Where construction easements are specified in the Plans and the limits of clearing and grubbing for such easements are dependent upon the final construction requirements, no adjustment will be made in the lump sum price and payment, either over or under, for variations from the limits of the easement defined in the Plans.

110-12.1.2 When No Direct Payment is Provided: When no item for clearing and grubbing is included in the proposal, the Contractor shall include the cost of any work of clearing and grubbing which is necessary for the proper construction of the project in the



Contract price for the structure or other item of work for which such clearing and grubbing is required. The Contractor shall include the cost of all clearing and grubbing which might be necessary in pits or areas from which base material is obtained in the Contract price for the base in which such material is used. The clearing and grubbing of areas for obtaining stabilizing materials, where required only for the purpose of obtaining materials for stabilizing, will not be paid for separately.

110-12.2 Selective Clearing and Grubbing: Price and payment will be full compensation for all selective clearing and grubbing, including all necessary hauling, furnishing equipment, Certified Arborist, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain, root pruning and tree protection.

110-12.3 Removal of Existing Bridges: Price and payment will be full compensation for all work of removal and disposal of the designated bridges.

When direct payment for the removal of existing bridges is not provided in the proposal, the Contractor shall include the cost of removing all bridges in the Contract price for clearing and grubbing or, if no item of clearing and grubbing is included, in the compensation for the other items covering the new bridge being constructed.

110-12.4 Removal of Existing Concrete: Price and payment will be full compensation for performing and completing all the work of removal and satisfactory disposal.

When no separate item for this work is included, the Contractor shall include the costs of this work in the Contract price for the item of clearing and grubbing or for the pipe or other structure for which the concrete removal is required.

110-12.5 Plugging Water Wells: Price and payment will be full compensation for each type of well acceptably plugged.

If a water well requiring plugging is encountered and the Contract contains no price for plugging wells of that specific type, the plugging of such well will be paid for as unforeseeable work.

110-12.6 Mailboxes: Price and payment will be full compensation for all work and materials required, including supports and numbers.

110-12.7 Delivery of Salvageable Material to the Department: Price and payment will be full compensation for all work required for delivery of the materials to the Department.

110-12.8 Payment Items: Payment will be made under:

Item No. 110- 1-	Clearing and Grubbing - lump sum.
Item No. 110- 2-	Selective Clearing and Grubbing Area - acre.
Item No. 110- 3-	Removal of Existing Bridges - lump sum.
Item No. 110- 4-	Removal of Existing Concrete - per square yard.
Item No. 110- 5-	Plugging Water Wells (Artesian) - each.
Item No. 110- 6-	Plugging Water Wells (Non-Artesian) - each.
Item No. 110- 7-	Mailbox (Furnish and Install) - each.
Item No. 110-21	Tree Protection Barrier - per linear foot.
Item No. 110-22	Tree Root and Branch Pruning - per each tree.
Item No. 110-23	Tree Removal - per each tree.
Item No. 110-86-	Delivery of Salvageable Material to FDOT - lump sum.



SECTION 347 PORTLAND CEMENT CONCRETE - CLASS NS

347-1 Description.

The requirements of this Section are applicable to concrete designated as nonstructural portland cement concrete, (Class NS) hereinafter referred to as concrete. Use concrete composed of a mixture of portland cement, aggregates, water; and where specified chemical admixtures, or supplementary cementitious materials. Deliver concrete to placement site in a freshly mixed, unhardened state. Ensure the concrete is placed and cured in a manner to ensure that the strength and durability of the concrete is maintained.

347-2 Materials.

347-2.1 General: Certify that all materials used in concrete are from Department approved sources, and free from detrimental matter.

Meet the following requirements:

Portland Cement	Section 921
Coarse Aggregate*	Section 901
Fine Aggregate*	
Water	Section 923
Chemical Admixtures	Section 924
Supplementary Cementitious	MaterialsSection 929

^{*} Recycled Asphalt Pavement (RAP) may replace up to 20% of the total aggregate in the design mix. Use RAP from a Department approved stockpile.

347-3 Production, Mixing and Delivery.

347-3.1 Concrete Production Requirements: Obtain concrete from a plant that is currently on the Department's Nonstructural Concrete Production Facility Listing. Producers seeking inclusion on the list must contact the local District Materials Office for approval.

When Volumetric Mixers are used, deliver concrete in accordance with the Volumetric Mixer Standards of the Volumetric Mixer Manufacturers Bureau (VMMB) VMMB 100-01.

Substitution of structural concrete in lieu of non-structural concrete may be used if approved by the Engineer. If structural concrete is used in lieu of non-structural concrete, obtain the concrete from a production facility meeting the requirements of Section 346. Acceptance is based on the requirements of Section 347.

The Engineer may disqualify any concrete production facility for non-compliance with Specification requirements.

- **347-3.2 Delivery:** The maximum allowable mixing, agitation, and placement time of concrete is 120 minutes.
- **347-3.3 Small Quantities of Concrete:** With approval of the Engineer, small quantities of concrete, less than 3 cubic yards placed in one day and less than 0.5 cubic yards placed in a single placement may be accepted using a pre-bagged mixture.

347-4 Certification and Acceptance.

347-4.1 General: Furnish a delivery ticket with each batch of concrete before discharging concrete at the placement site. Ensure the delivery ticket includes material quantities



incorporated into the batch, sources of materials, batch adjustments, batch size, time loaded, time discharged, and the allowable jobsite water addition.

Ensure the batcher responsible for producing the concrete signs the delivery ticket, certifying that the batch was produced in accordance with the Contract Documents.

Record water added at the jobsite. Sign the delivery ticket certifying that the concrete was placed in accordance with the Contract Documents.

Acceptance by the Department will be by certification on the delivery ticket signed by the batcher and the Contractor. Certify that the concrete meets a minimum compressive strength of 2,500 psi at 28 days. The Engineer may verify the strength of the concrete.

- **347-4.2 Remedial Action:** Delineate, remove to the full depth and width, and replace, at no cost to the Department, concrete that has:
 - 1. Any cracking greater than 1/4 inch in vertical displacement.
- 2. Any spalling or flaking off of the surface layer that exposes the rough, pitted aggregate surface in excess of 10 square inches.
- 3.Any intersecting cracks visible in the hardened concrete (regardless of size) in sidewalk, ditch pavement, slope pavement, traffic separator, or curb and gutter.
- 4. Any uncontrolled cracks that appear during the life of the Contract unacceptable to the Engineer.



SECTION 520 CONCRETE GUTTER, CURB ELEMENTS, AND TRAFFIC SEPARATOR

520-1 Description.

Construct portland cement concrete curb. Curb will include concrete curb and gutter, concrete traffic separator, valley gutter, special concrete gutter, curb for sidewalk curb ramps and driveways, and any other types of concrete curb not specified in other Sections.

520-2 Materials.

- **520-2.1 Concrete:** Use concrete meeting the requirements of Section 347.
- **520-2.2 Reinforcement:** For all steel reinforcement required by the Plans, meet the requirements of Section 415.
 - **520-2.3 Joint Materials:** Meet the requirements of Section 932.
- **520-2.4 Toll Header Curb Concrete:** Use concrete meeting the requirements of Section 346, Class II.

520-3 Forms.

- **520-3.1 Form Materials:** Construct forms for this work of either wood or metal. Provide forms that are straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without deviation from line and grade. For all items constructed on a radius, use flexible forms.
- **520-3.2 Depth of Forms:** Ensure that forms have a depth equal to the plan dimensions for the depth of concrete being deposited against them.
- **520-3.3 Machine Placement:** The Contractor may place these items by machine methods with the approval of the Engineer provided that the Contractor consistently produces an acceptable finished product, true to line, grade, and cross section.

520-4 Excavation.

Excavate to the required depth, and compact the foundation material upon which these items are to be placed as specified in 120-9.

520-5 Placing Concrete.

Place the concrete in the forms, and tamp and spade it to prevent honeycombing, and until the top of the structure can be floated smooth and the edges rounded to the radius shown in the Plans.

520-6 Joints.

520-6.1 Contraction Joints: Except for machine placed items, the Contractor may form joints by using dummy joints (either formed or sawed) or by using sheet metal templates. If using sheet metal templates, ensure that they are of the dimensions, and are set to the lines, shown in the Plans. Hold templates firmly while placing the concrete. Leave templates in place until the concrete has set sufficiently to hold its shape, but remove them while the forms are still in place.

Saw contraction joints, for machine placed items, unless the Engineer approves an alternate method. Saw the joints as soon as the concrete has hardened to the degree that excessive raveling will not occur and before uncontrolled shrinkage cracking begins.



Space contraction joints at intervals of 10 feet except where closure requires a lesser interval, but do not allow any section to be less than 4 feet in length.

520-6.2 Expansion Joints: Construct expansion joints at all inlets, at all radius points, and at other locations indicated in the Plans. Locate them at intervals of 500 feet between other expansion joints or ends of a run. Ensure that the joint is 1/2 inch in width.

520-7 Finishing.

520-7.1 Repair of Minor Defects: Remove the forms within 24 hours after placing the concrete, and then fill minor defects with mortar composed of one part portland cement and two parts fine aggregate. The Engineer will not allow plastering on the face of the curb. Remove and replace any rejected curb, curb and gutter, or valley gutter without additional compensation.

520-7.2 Final Finish: Finish all exposed surfaces while the concrete is still green. In general, the Engineer will only require a brush finish. For any surface areas, however, which are too rough or where other surface defects make additional finishing necessary, the Engineer may require the Contractor to rub the curb to a smooth surface with a soft brick or wood block, using water liberally. Also, if necessary to provide a suitable surface, the Engineer may require the Contractor to rub further, using thin grout or mortar.

520-7.3 Imprinted Concrete: Install imprinted concrete as shown in the Plans.

520-8 Curing.

520-8.1 General: Continuously cure the concrete for a period of at least 72 hours. Commence curing after completely finishing and as soon as the concrete has hardened sufficiently to permit application of the curing material without marring the surface. Immediately replace any curing material removed or damaged during the 72 hour period.

After removing the forms, cure the surfaces exposed by placing a berm of moist earth against them or by any of the methods described below, for the remainder of the 72 hour curing period.

520-8.2 Wet Burlap Method: Place burlap, as specified in 925-1, over the entire exposed surface of the concrete, with sufficient extension beyond each side to ensure complete coverage. Overlap adjacent strips a minimum of 6 inches. Hold the burlap securely in place such that it will be in continuous contact with the concrete at all times, and do not allow any earth between the burlap surfaces at laps or between the burlap and the concrete. Saturate the burlap with water before placing it, and keep it thoroughly wet throughout the curing period.

520-8.3 Membrane Curing Compound Method: Apply clear membrane curing compound or white pigmented curing compound, as specified in 925-2, by a hand sprayer meeting the requirements of 350-3.10, in a single coat continuous film at a uniform coverage of at least one gallon per 200 square feet. Immediately recoat any cracks, checks, or other defects appearing in the coating. Thoroughly agitate the curing compound in the drum prior to application, and during application as necessary to prevent settlement of the pigment.

520-8.4 Polyethylene Sheeting Method: Place polyethylene sheeting, as specified in 925-3, over the entire exposed surface of the concrete, with sufficient extension beyond each side to ensure complete coverage. Overlap adjacent strips a minimum of 6 inches. Hold the sheeting securely in place and in continuous contact with the concrete at all times.



520-9 Backfilling and Compaction.

After the concrete has set sufficiently, but not later than three days after pouring, refill the spaces in front and back of the curb to the required elevation with suitable material. Place and thoroughly compact the material in layers not thicker than 6 inches.

520-10 Surface Requirements.

520-10.1 Straightedge: Test the gutter section of curb and gutter with a 10 foot straightedge laid parallel to the centerline of the roadway and while the concrete is still plastic. Perform straightedging along the edge of the gutter adjacent to the pavement or along other lines on the gutter cross-section, as directed by the Engineer. Immediately correct irregularities in excess of 1/4 inch.

520-10.2 Elevation and Cross Slope: Place curb and gutter so the calculated actual roadway or shoulder cross slope to be placed within the curb and gutter is within +/- 0.2% of the calculated design cross slope for that location. Once per 500 feet, check the elevation of lip of curb and gutter and calculate actual cross slope between curb and gutter on each side of a lane or set of adjacent lanes. Perform these checks prior to placement of the curb and gutter and adjust to ensure cross slope tolerance is met. After placement and curing of curb and gutter, perform the above checks again. Correct any curb and gutter found to be outside the cross slope tolerance described above.

520-11 Method of Measurement.

For curb or curb and gutter, the quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb or curb and gutter. Curb for sidewalk curb ramps or driveways will be paid at the Contract unit price for the adjacent curb type.

For valley gutter or shoulder gutter, the quantity to be paid will be the plan quantity, in feet, measured along the gutter line of the completed and accepted valley gutter or shoulder gutter.

For concrete traffic separator of constant width, meeting the requirements of Standard Plans, Index 520-020, the quantity to be paid will be the plan quantity, in feet, measured along the center of its width, completed and accepted, including the length of the nose.

For concrete traffic separator of nonstandard or varying width, the quantity to be paid will be the plan quantity, in square yards, completed and accepted.

For curb of any type next to concrete pavement, the curb-pavement joint quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb.

520-12 Basis of Payment.

520-12.1 Concrete Gutter, Curb Elements, and Traffic Separator: Price and payment will be full compensation for all work specified in this Section, including reinforcement steel, dowels, asphalt payement and base under traffic separator, joint materials and asphalt curb pad.

520-12.2 Excavation: Excavation for new installations will be paid for as roadway excavation in accordance with 120-13.2.

520-12.3 Payment Items: Payment will be made under:

Item No. 520- 1- Concrete Curb and Gutter - per foot.

Item No. 520- 2- Concrete Curb - per foot.

Item No. 520- 3- Concrete Valley Gutter - per foot.



Item No. 520- 4-Curb-Concrete Pavement Joint - per foot.Item No. 520- 5-Concrete Traffic Separator - per foot.Item No. 520- 6-Concrete Shoulder Gutter - per foot.Item No. 520- 70-Concrete Traffic Separator - per square yard.



SECTION 522 CONCRETE SIDEWALKS AND DRIVEWAYS

522-1 Description.

Construct concrete sidewalks and driveways in accordance with the Plans and the Standard Plans. Sidewalk will include curb ramps, landings, transition slopes, sidewalk curb, and edge beams.

522-2 Materials.

Meet the requirements specified in 520-2 and the embankment utilization requirements of Standard Plans Index 120-001.

522-3 Forms.

Provide forms as specified in 520-3.

522-4 Foundation.

Shape and compact the foundation materials with suitable equipment to a firm, even surface, true to grade and cross-slope. Meet the testing frequency and maximum lift thickness requirements of Section 120. Record density test results in the Earthwork Records System (ERS) section of the Department's database. Compact cut-and-fill areas within 1 foot beyond each side of the sidewalk or driveway, when right-of-way conditions allow. Compact the foundation material below the bottom of concrete for a minimum depth of 1 foot for cut areas, 1 foot for fill areas less than 1 foot, and 2 feet for all other fill areas to a density not less than 95% of the maximum density as determined by FM 1-T099. Compact the material in the remaining fill areas to match the adjacent area density.

522-5 Joints.

Install expansion and contraction joints in accordance with the Plans and the Standard Plans.

522-6 Placing Concrete.

Place the concrete as specified in 520-5.

522-7 Finishing.

522-7.1 Screeding: Strike-off the concrete by means of a wood or metal screed, used perpendicular to the forms, to obtain the required grade and remove surplus water and laitance.

522-7.2 Surface Requirements: Imprint concrete as detailed in the Plans, otherwise provide a broom finish. Ensure that the surface variations are not more than 1/4 inch under a 10-foot straightedge or more than 1/8 inch on a 5-foot transverse section. Finish the outer edges of the concrete with an edging tool having a radius of 1/2 inch.

522-7.3 Sidewalk Cross Slope Requirements: Construct sidewalk with cross slope as shown in the Plans and Standard Plans. Sidewalks must have some cross slope, but no more than 2.0%, in either the positive or negative direction after construction.

522-8 Curing.

Cure the concrete as specified in 520-8.



522-9 Opening Sidewalk to Pedestrian Traffic.

Install detectable warnings, when shown in the Plans, in accordance with Section 527 on completed sections of sidewalk before opening to pedestrian traffic.

522-10 Method of Measurement.

The quantity to be paid will be plan quantity, in square yards, completed and accepted.

522-11 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section. Excavation for new installations will be paid for under the items for the grading work on the project.

Payment will be made under:

Item No. 522-

Concrete Sidewalks and Driveways - per square yard.



CITY OF PANAMA CITY BEACH PCB24-05 ITB ALF COLEMAN ROAD EASTSIDE SIDEWALK

APPENDIX D

ADDENDA

COMPONENTS OF CONTRACT PLANS SET

ROADWAY PLANS

INDEX OF ROADWAY PLANS

SHEET NO. DESCRIPTION KEY SHEET SUMMARY OF PAY ITEMS 3 - 5 TYPICAL SECTION PROJECT LAYOUT GENERAL NOTES PLAN & PROFILE 8 - 12 CROSS SECTIONS 13 - 30 TEMPORARY TRAFFIC CONTROL NOTES 31 TEMPORARY TRAFFIC CONTROL PLAN 32 SQ-1 - SQ-4 SUMMARY OF QUANTITIES TABULATION OF QUANTITIES S-1 5-2 - 5-4 SIGNING & PAVEMENT MARKING PLAN

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2023-24 Standard Plans for Road and Bridge Construction and applicable Standard Plan Interim Revisions

Standard Plans for Road Construction and associated Irs are available at the following website:

http://www.fdot.gov/design/Standardplans.shtm

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY 2023-24 Standard Specifications for Road and Bridge Construction at the following website:

http://www.fdot.gov/programmanagement/Implemented/SpecBooks

GOVERNING DESIGN STANDARDS:

Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (commonly referred to as the "Florida" Green Book" can be found at the following website:

http://www.fdot.gov/roadway/FloridaGreenbook/FGB.shtm

Florida Department of Transportation Design Manual 2023 can be found at the following website:

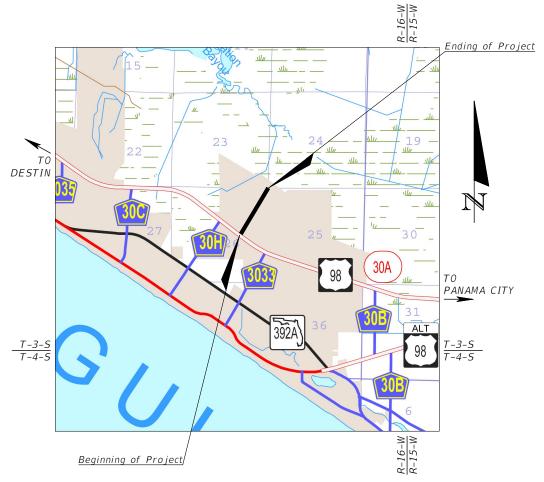
http://www.fdot.gov/programmanagement/Implemented/SpecBooks

CITY OF PANAMA CITY BEACH

CONTRACT PLANS

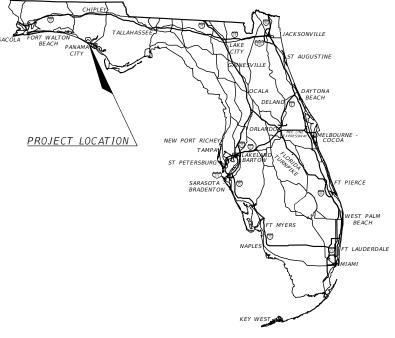
PROJECT NUMBER 22-022 CITY OF PANAMA CITY BEACH

ALF COLEMAN ROAD EASTSIDE SIDEWALK FROM NORTH OF PANAMA CITY BEACH PARKWAY TO DR. HALEY DRIVE



PROJECT LENGTH IS BASED ON Q SURVEY

LENGTH OF PROJECT					
LINEAR FEET MILES					
ROADWAY	2,649.20	0.50			
BRIDGES	0	0			
NET LENGTH OF PROJECT	2,649.20	0.50			
EXCEPT I ONS	0	0			
GROSS LENGTH OF PROJECT	2,649.20	0.50			



CITY MAYOR

MARK SHELDON

CITY MANAGER

DREW WHITMAN

CITY COUNCIL

WARD 1 - PAUL CASTO

WARD 2 - PHIL CHESTER

WARD 3 - MARY COBURN

WARD 4 - MICHAEL JARMAN

ROADWAY PLANS ENGINEER OF RECORD:

BLAKE R. FURBEE P.E. NO.: 88505 GORTEMOLLER ENGINEERING, INC. 708 THOMAS DRIVE PANAMA CITY BEACH, FL 32408 (850) 249-2425 REGISTRY NUMBER: 09505

CITY PROJECT MANAGER KATHRYN YOUNCE, E.I.

PROJECT NO.	SHEET NO.
22-022	1

	REVIS	5 I O N S		BLAKE R. FURBEE, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC 708 THOMAS DRIVE PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505

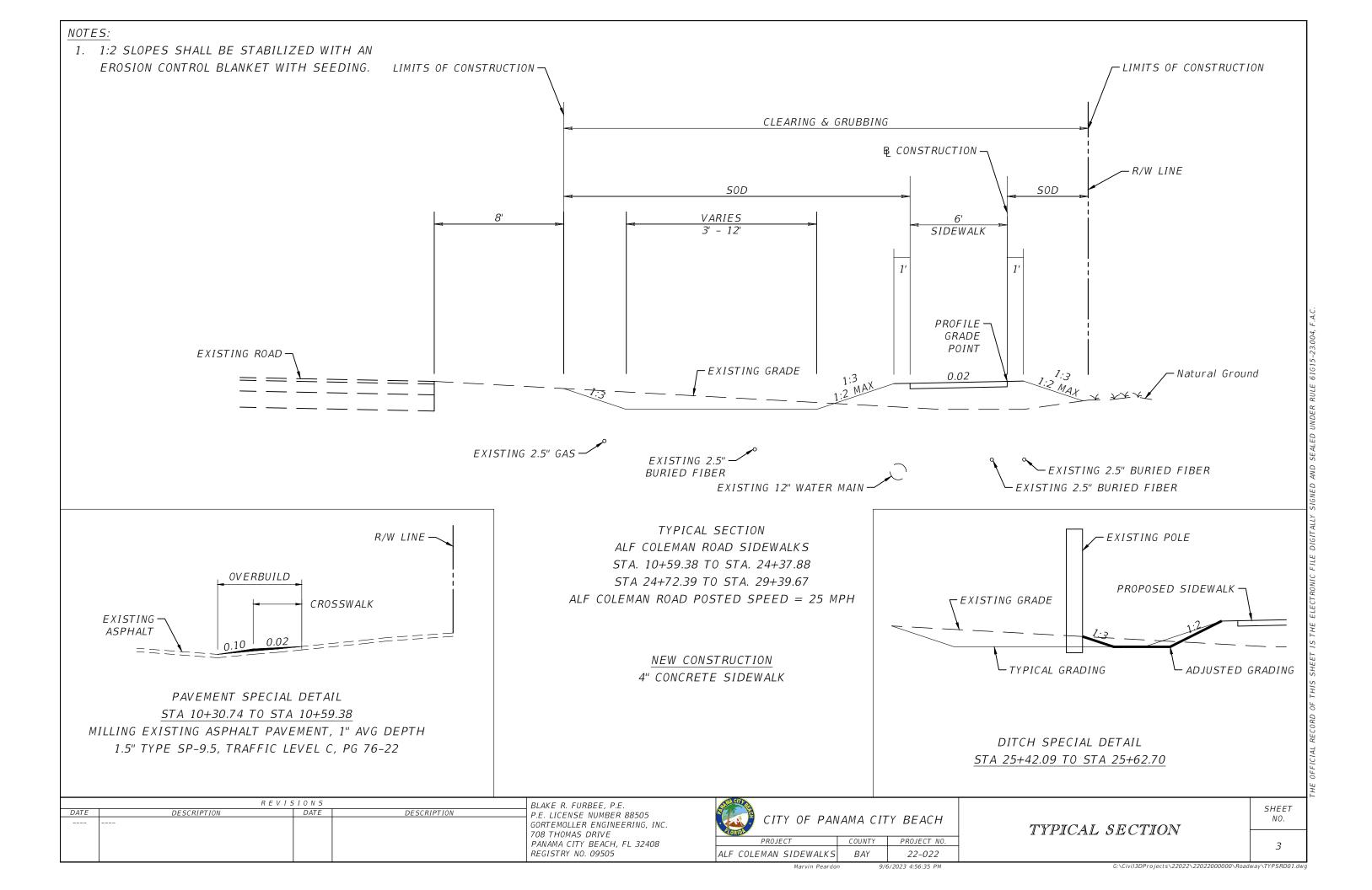
CITY OF PAI	NAMA CIT	Y BEACH
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

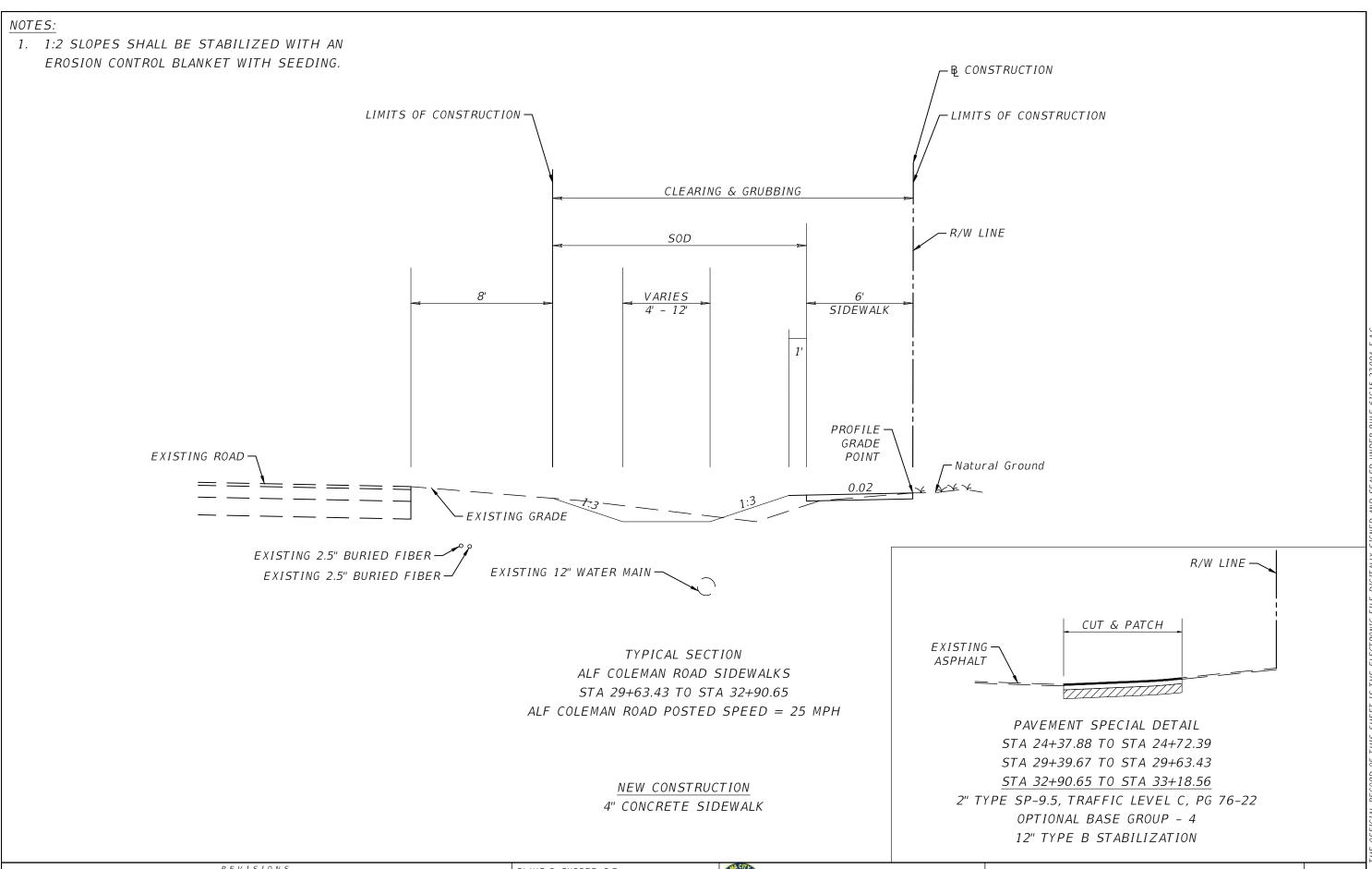
Marvin Peardon

SUMMARY OF PAY ITEMS

SHEET NO.

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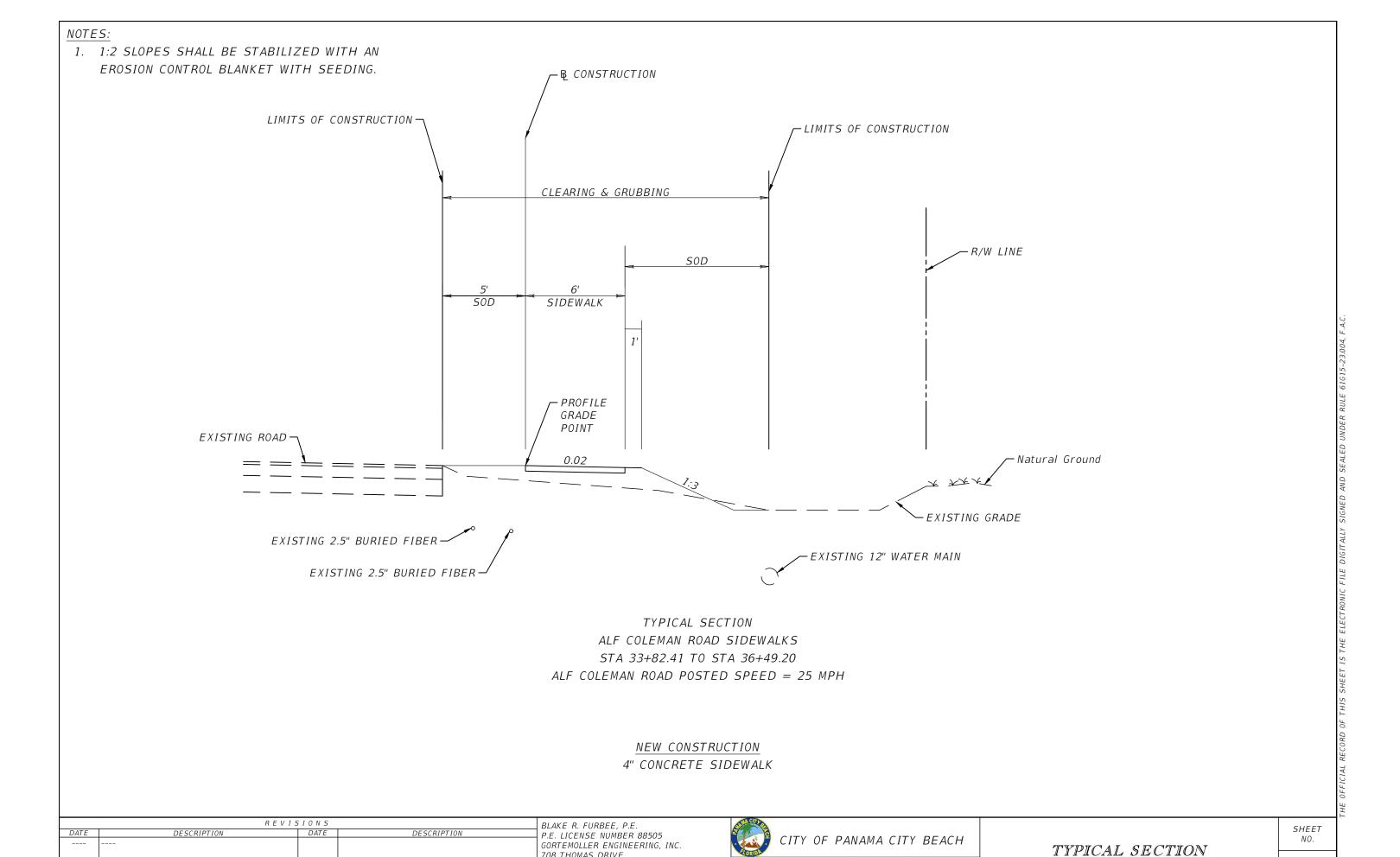
	REVIS	5 I O N S		BLAKE R. FURBEE. P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC 708 THOMAS DRIVE PANAMA CITY BEACH, FL 32408
				REGISTRY NO. 09505

CITY OF PAN	IAMA CIT	Y BEACH
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

TYPICAL SECTION

SHEET NO.

Marvin Peardon 9/6/2023 4:56:36 PM



708 THOMAS DRIVE

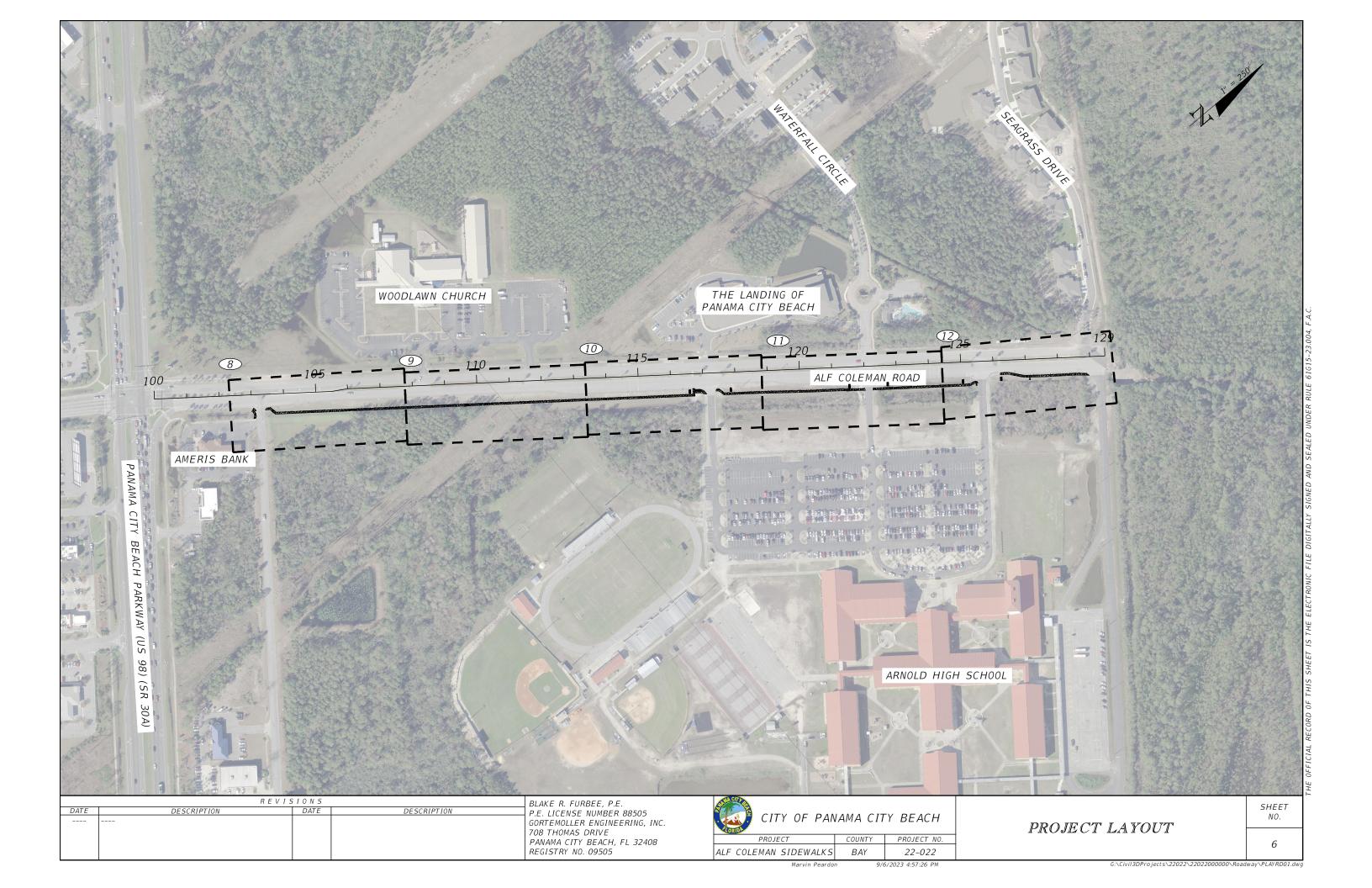
PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505

ALF COLEMAN SIDEWALKS BAY22-022

COUNTY PROJECT NO.

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5



GENERAL NOTES:

- 1. THE CONTRACTOR SHALL HAVE ALL REQUIRED PERMITS IN-HAND PRIOR TO BEGINNING CONSTRUCTION, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS OBTAINED BY THE NECESSARY REGULATORY AGENCIES AND THOSE PERMITS OBTAINED BY THE CONTRACTOR.
- AT LEAST THREE (3) CALENDAR DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT A TENTATIVE BASE CONSTRUCTION SCHEDULE AND A PRE-CONSTRUCTION SURVEY TO THE CITY FOR APPROVAL. NO WORK WILL BEGIN PRIOR TO APPROVAL OF THE CONSTRUCTION SCHEDULE AND THE PRE-CONSTRUCTION SURVEY.
- THE CONSTRUCTION SCHEDULE SHALL DESCRIBE IN DETAIL HOW THE CONSTRUCTION IS TO BE PHASED, ESTABLISH START AND FINISH DATES FOR ALL SIGNIFICANT CONSTRUCTION ACTIVITIES, AND IDENTIFY ALL CONTROLLING ITEMS OF WORK. THE SCHEDULE IS TO BE APPROVED BY THE CITY AND SHALL BE UPDATED ON A MONTHLY BASIS TO REFLECT ACTUAL WORK PROGRESS. THE UPDATED TO THE CITY NO LATER THAN THREE DAYS PRIOR TO EACH SCHEDULED MONTHLY PROGRESS MEETING. PAYMENT FOR PREPARING, UPDATING, AND SUBMITTING THE SCHEDULE WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.
- THE PRE-CONSTRUCTION SURVEY SHALL VERIFY THE CONTROL POINTS AND BENCHMARK ELEVATIONS, DESCRIPTIONS, DESCRIPTIONS, AND THE LOCATION OF ALL ADDITIONAL REFERENCE POINTS AND THE LOCATIONS, DESCRIPTIONS, AND ELEVATIONS OF ALL ADDITIONAL BENCHMARKS TO BE USED IN CONSTRUCTING THE PROJECT. THE SURVEY SHALL BE SIGNED AND SEALED BY A PROFESSIONAL SURVEYOR AND MAPPER REGISTERED IN THE STATE OF FLORIDA. SIGNIFICANT INCONSISTENCIES BETWEEN THE FIELD NOTES AND THE CONTROL POINTS AND BENCHMARK ELEVATIONS PROVIDED BY THE ENGINEER SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO ISSUANCE OF THE NOTICE TO PROCEED. PAYMENT WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING ALL PROPERTY CORNERS AND MONUMENTS SHOWN ON THE DRAWINGS OR FOUND DURING CONSTRUCTION. IF A PROPERTY CORNER OR MONUMENT IS DESTROYED OR DISTURBED, THE CONTRACTOR SHALL HAVE IT REPLACED AND CERTIFIED BY A PROFESSIONAL SURVEYOR AND MAPPER REGISTERED IN THE STATE OF FLORIDA, ALL COSTS FOR PRESERVING, REPLACING, AND CERTIFYING PROPERTY CORNERS AND MONUMENTS WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON INFORMATION PROVIDED BY THE UTILITY OWNERS, AVAILABLE RECORDS, AND SURVEYED FIELD INFORMATION, THE INFORMATION MAY NOT REFLECT ACTUAL CONDITIONS, INCLUDE ALL UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED, OR SHOW THE UTILITIES IN THE CORRECT HORIZONTAL OR VERTICAL LOCATIONS. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS NECESSARY TO ESTABLISH THEIR LOCATIONS AND AVOID DAMAGE. THE FOLLOWING UTILITIES SHOULD BE CONTACTED FOR INFORMATION CONCERNING TYPE AND LOCATION OF THEIR FACILITIES, THE LIST MAY NOT INCLUDE ALL UTILITIES IN THE AREA.

UTILITY OWNERS:

COMPANIES	PHONE NUMBERS	CONTACT PERSON
AT&T DISTRIBUTION	(850) 463-5176	TOM MANNING
AT&T	(850) 257-6595	MICHAEL TODD
BAY COUNTY TRAFFIC ENGINEERING	(850) 248-8759	BOB EDMUNDS
CITY OF PANAMA CITY BEACH	(850) 233-5100	MARCIE DOUGLAS
COMCAST COMMUNICATIONS	(850) 815-7797	ROB ADAMS
FLORIDA POWER & LIGHT	(850) 689-4629	JEREMY COON
TECO PEOPLES GAS	(850) 258-5036	TIMOTHY IVEY
UNITY FIBER LLC	(850) 544-1400	JAMES HILL

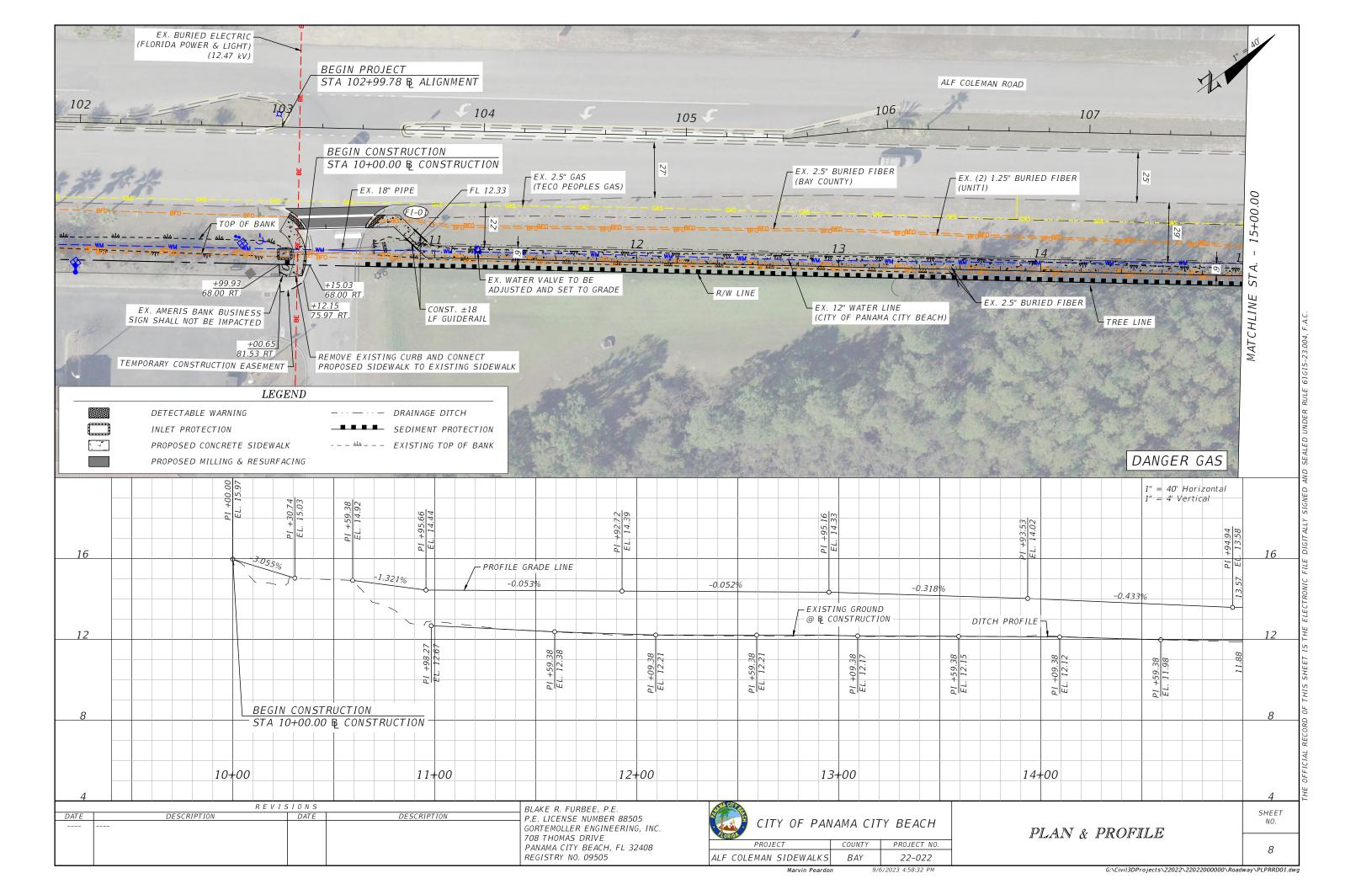
- 7. PRIOR TO ANY SCHEDULED INTERRUPTION OF UTILITY SERVICE. THE CONTRACTOR SHALL COORDINATE SUCH INTERRUPTION WITH THE UTILITY PROVIDE A MINIMUM 24-HOUR NOTICE TO ALL AFFECTED PARTIES. IN THE CASE OF A WATER MAIN SHUT DOWN, A MINIMUM 24-HOUR NOTICE SHALL ALSO BE PROVIDED TO THE LOCAL FIRE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ELECTRIC UTILITY PROVIDER A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES.
- LIMITS OF CONSTRUCTION ARE DEFINED AS ROADWAY RIGHT-OF-WAY, CITY PROPERTIES, DRAINAGE RIGHT-OF-WAY, EASEMENTS, AND PERMANENT DRAINAGE EASEMENTS.
- EXISTING CONCRETE AND ASPHALTIC CONCRETE DRIVEWAYS AND SIDEWALKS SHALL BE SAW-CUT AS REQUIRED FOR CONSTRUCTION.
- 10. ALL SIDEWALKS AND CURB RAMPS CONSTRUCTED SHALL MEET CURRENT ADA STANDARDS.
- 11. ALL EROSION CONTROL ITEMS SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE CITY.
- 12. BEFORE FINAL INSPECTION, THE CONTRACTOR SHALL TURN OVER TO THE CITY A SET OF DRAWINGS SHOWING FIELD CHANGES AND ACTUAL INSTALLED CONDITIONS. THE CONTRACTOR SHALL PROVIDE TO THE CITY WITH THREE (3) HARD COPIES AND ONE (1) DIGITAL COPY OF THE AS-BUILT PLANS IN AUTOCAD FORMAT. THE PLANS SHALL BE CERTIFIED BY A P.S.M. REGISTERED IN THE STATE OF FLORIDA.
- 13. AS-BUILT DRAWINGS ARE TO BE BASED ON THE CONSTRUCTION DRAWINGS PERMITTED BY THE ARMY CORE OF ENGINEERS AND FDEP, AND REVISED AS NECESSARY TO REFLECT ANY CHANGES MADE DURING CONSTRUCTION. BOTH THE ORIGINAL DESIGN AND CONSTRUCTED CONDITION MUST BE CLEARLY SHOWN. THE PLANS NEED TO BE CLEARLY LABELED AS "AS-BUILT" OR "RECORD" DRAWINGS, ALL SURVEYED DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED AND SIGNED. DATED. AND SEALED BY A REGISTERED PROFESSIONAL.
- 14. THE CONTRACTOR SHALL NOTIFY THE GAS UTILITY PROVIDER A MINIMUM OF TWO WORKING DAYS PRIOR TO ANY EXCAVATION IN THE VICINITY OF GAS MAINS. AS REQUIRED BY CHAPTER 77-153 OF THE FLORIDA STATUTES, A TECO-PEOPLES GAS INSPECTOR SHALL BE ON SITE WHEN WORK ACTIVITIES TAKE PLACE NEAR GAS MAINS. A MINIMUM OF 72 HOURS NOTICE SHALL BE PROVIDED FOR ANY REQUEST FOR GAS MAIN EXPOSURE OR ADJUSTMENT.
- 15. WHERE A TRAFFIC SIGN IN CONFLICT WITH CONSTRUCTION IS REMOVED. THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW TRAFFIC SIGN AND SHALL MAINTAIN THE TRAFFIC SIGN THROUGHOUT THE CONTRACT PERIOD.
- 16. DETECTIBLE WARNING SURFACES SHALL BE YELLOW IN COLOR.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGES TO EXISTING ROADWAY PAVEMENT OCCURRING DURING CONSTRUCTION ACTIVITIES.
- 18. UPON COMPLETION OF CONSTRUCTION ALL TERRAIN SHALL BE RESTORED TO ITS ORIGINAL STATUS AND WILL BE SODDED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- 19. ALL WORK ASSOCIATED WITH WATER AND SEWER LINES SHALL BE COORDINATED WITH THE CITY OF PANAMA CITY BEACH UTILITIES DEPARTMENT.
- 20. ALL WORK ASSOCIATED WITH GAS LINES SHALL BE COORDINATED WITH TECO PEOPLES GAS.

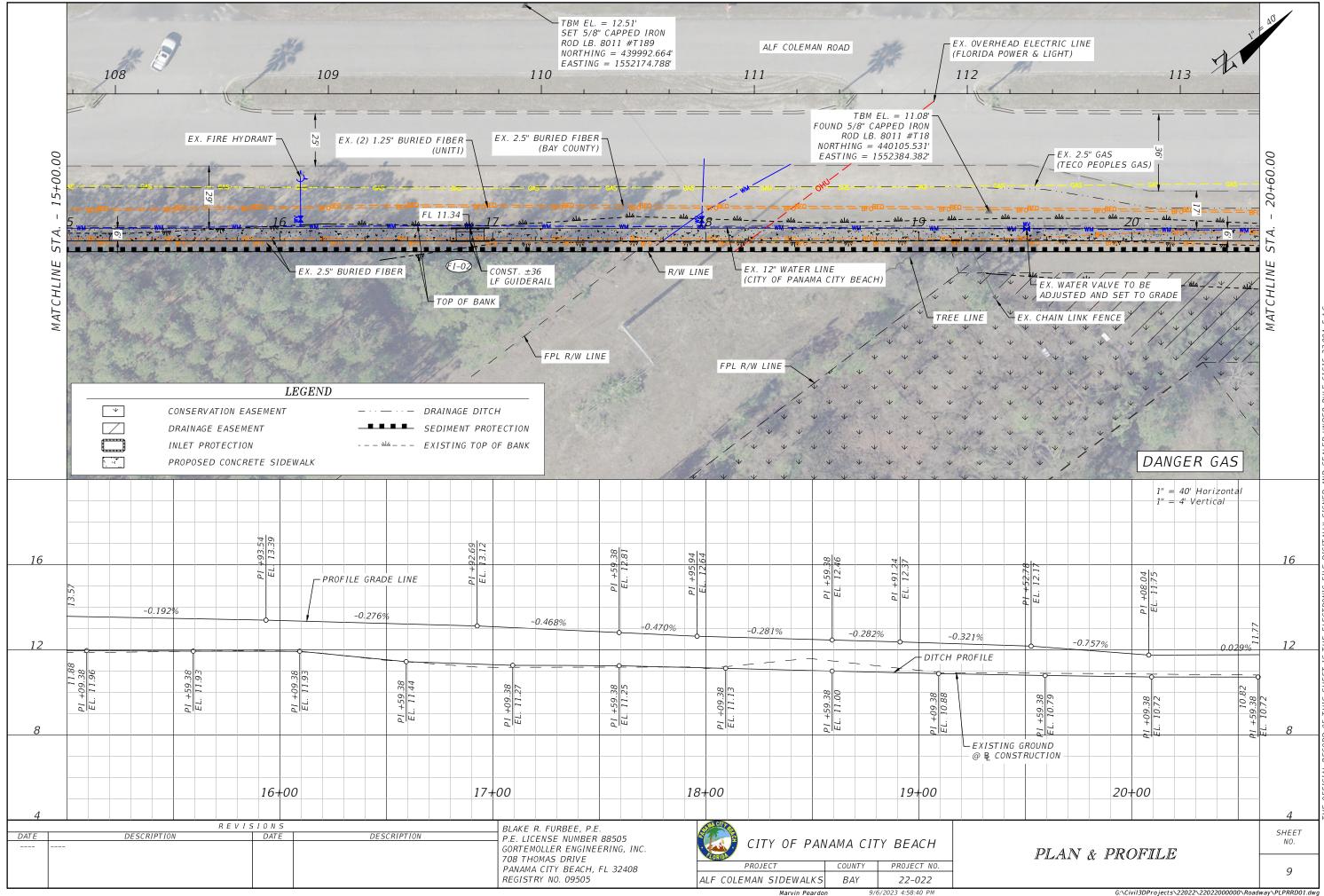
	R E	VISIONS		BLAKE R. FURBEE, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC 708 THOMAS DRIVE
				PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505

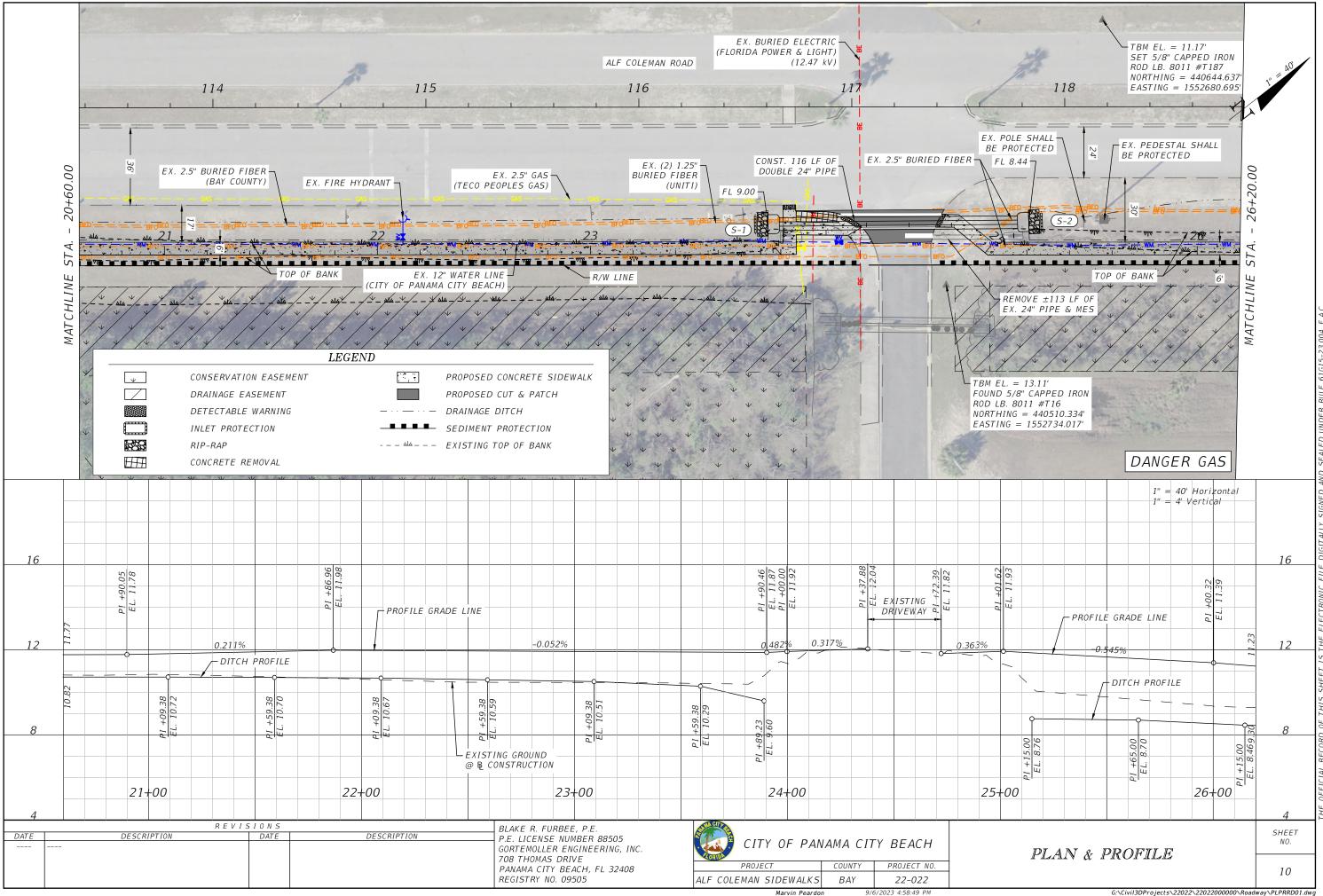
CITY	OF PAN	IAMA CIT	Y BEACH	
PROJECT	Τ	COUNTY	PROJECT NO.	
ALF COLEMAN S	IDEWALKS	BAY	22-022]

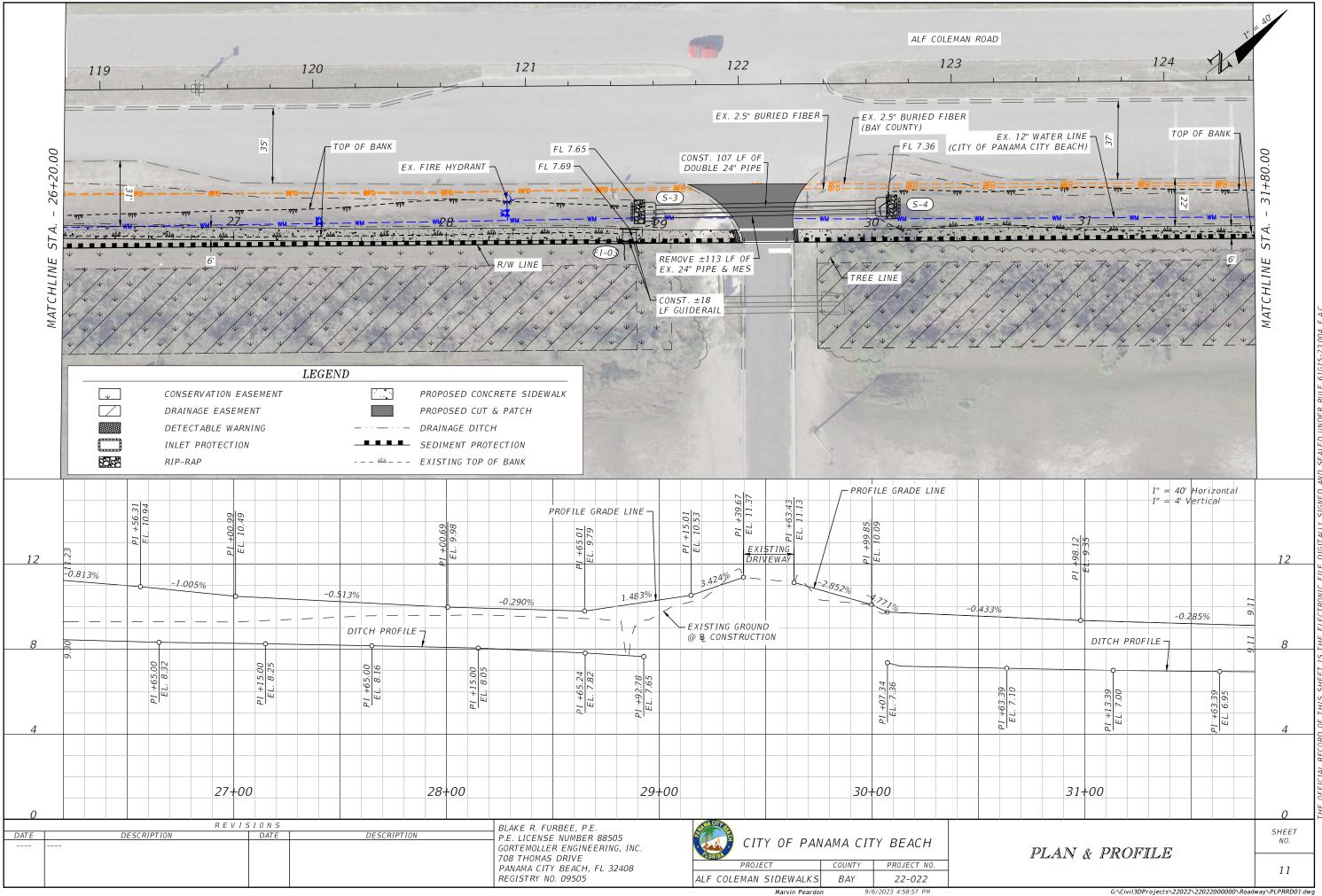
GENERAL NOTES

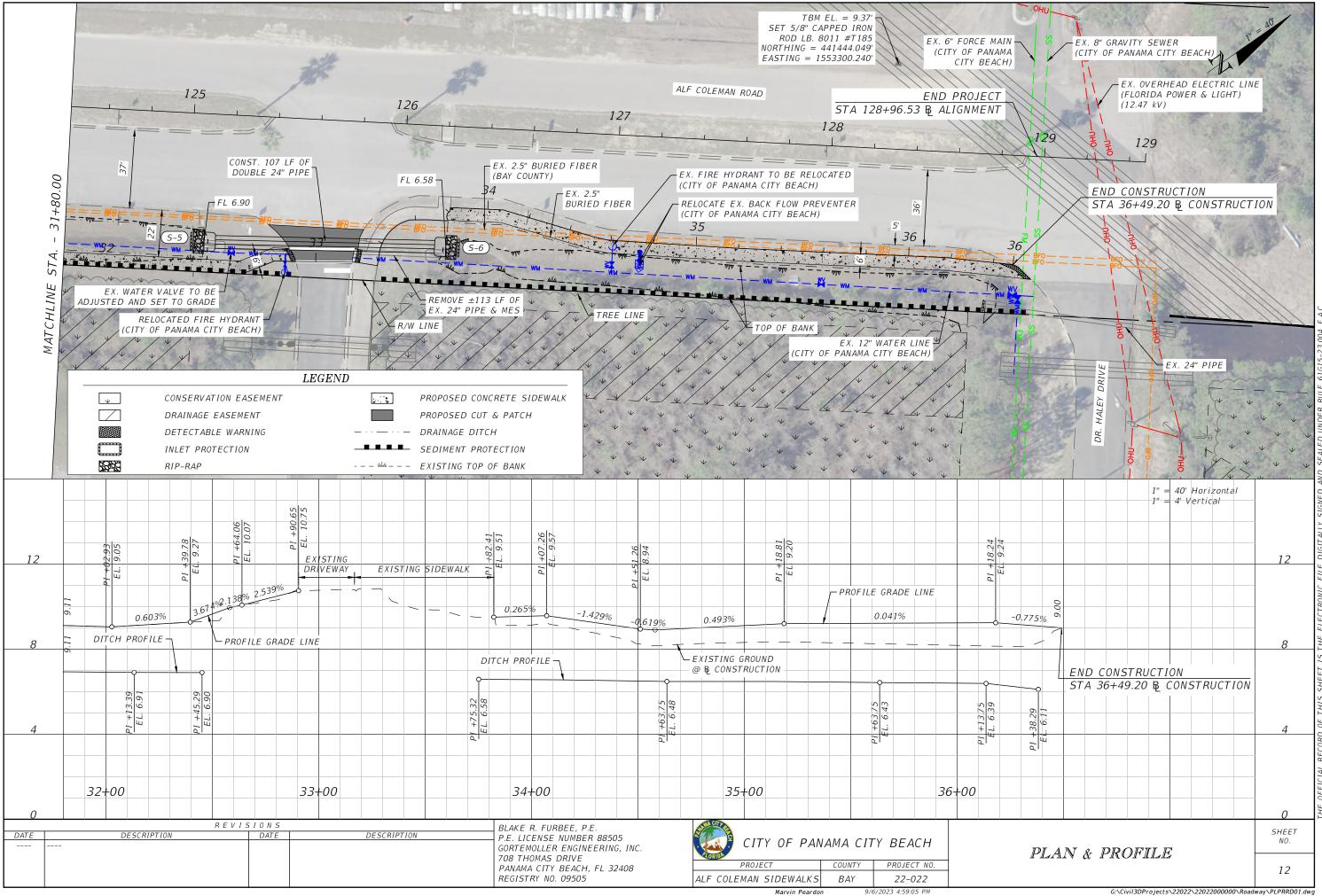
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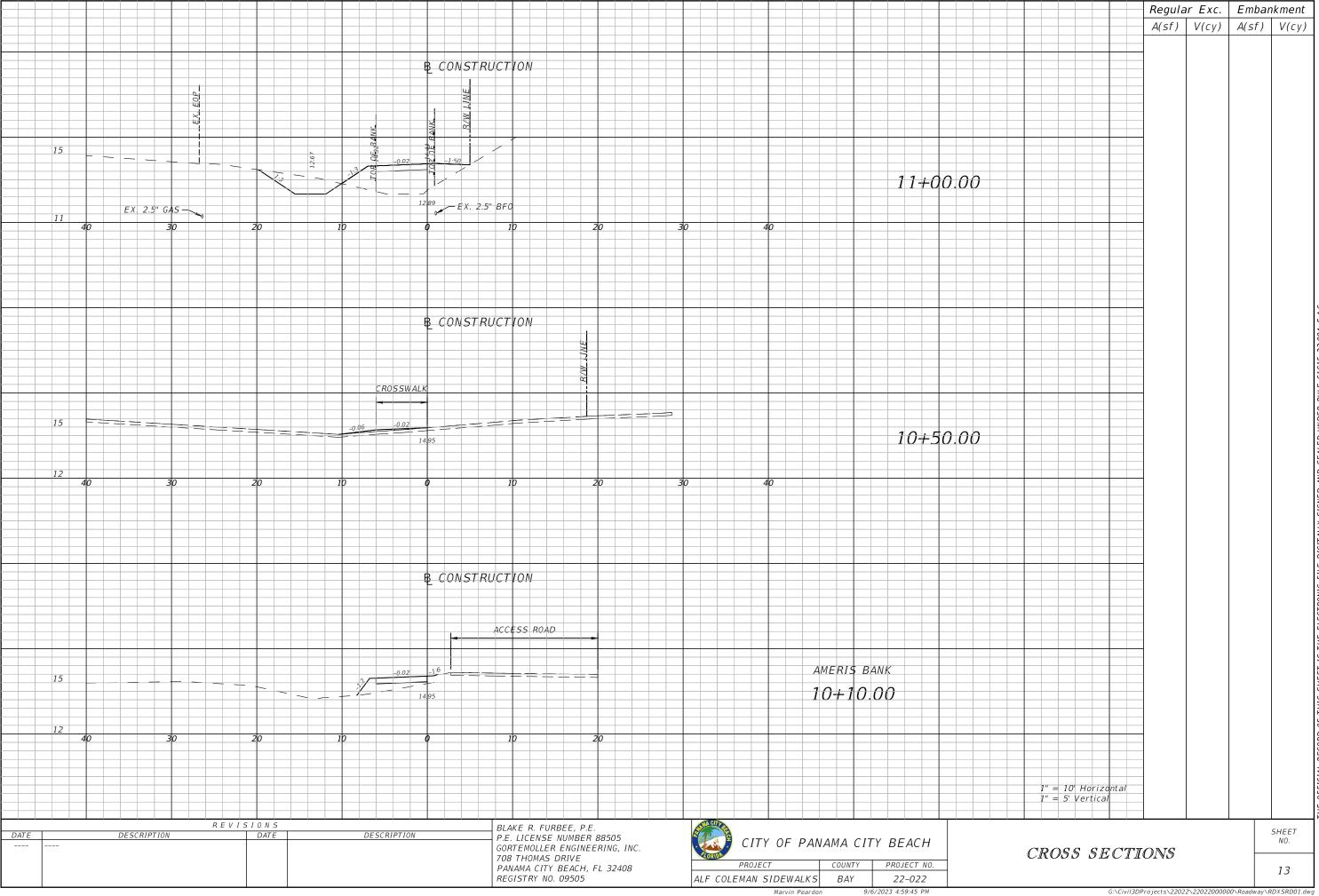


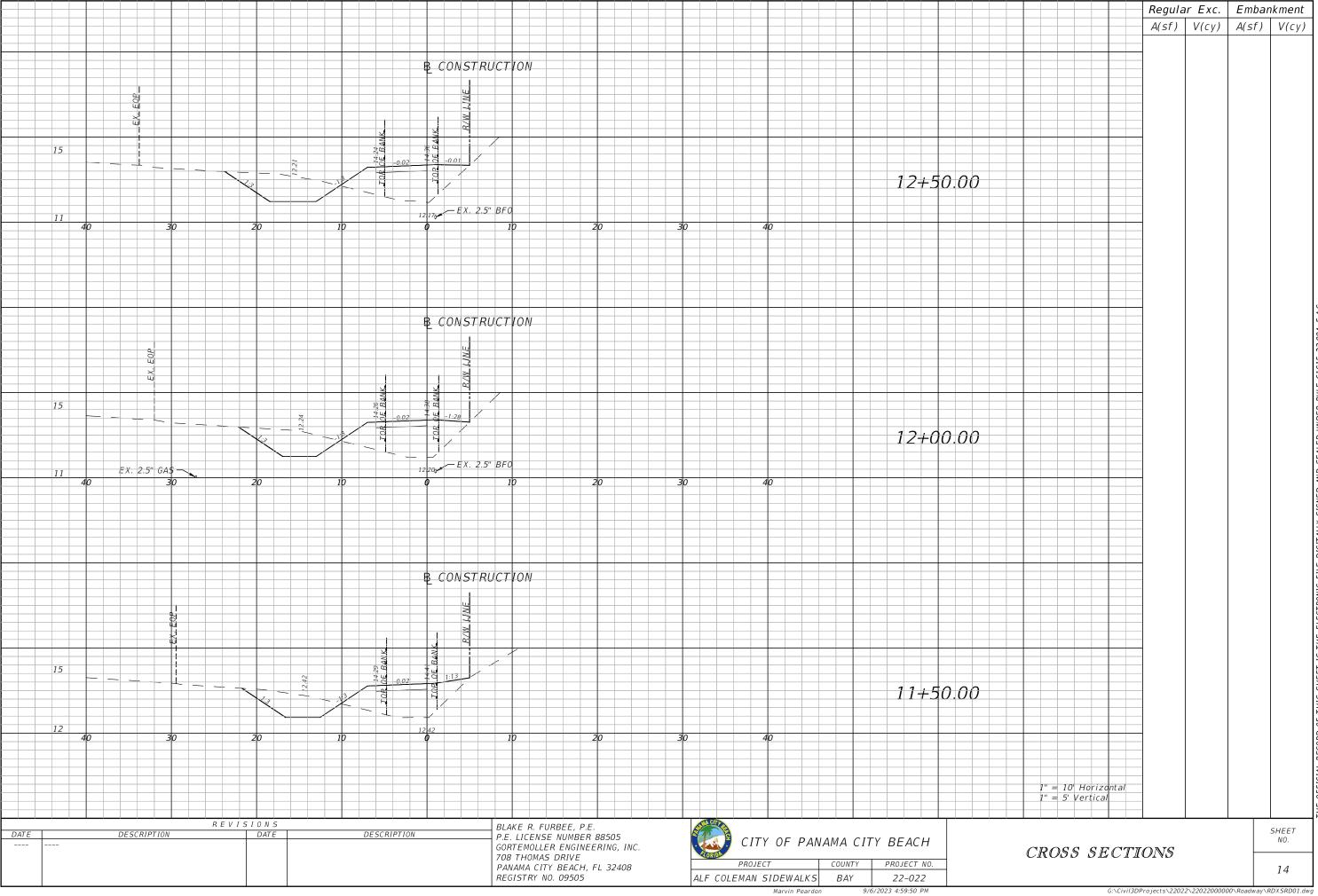


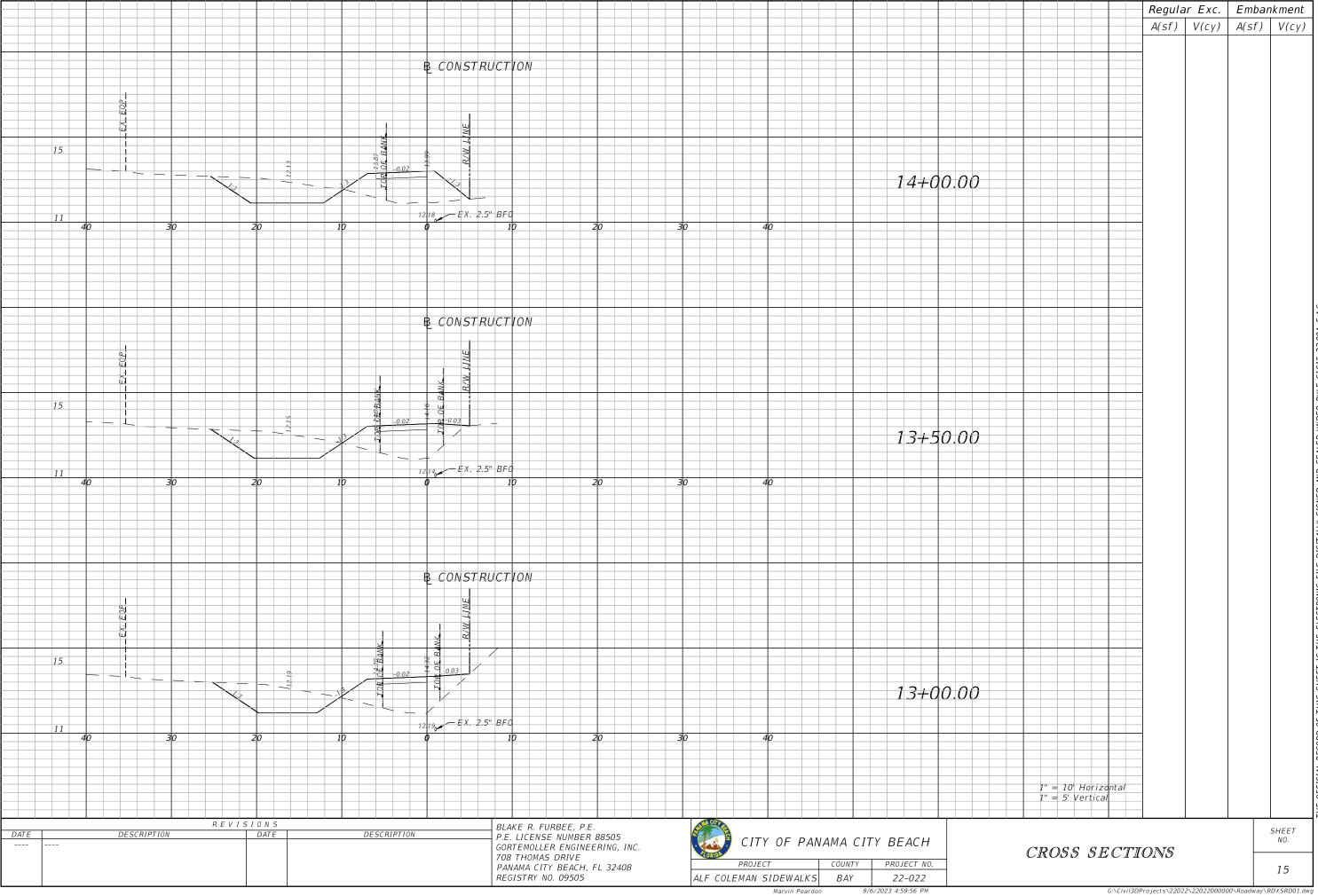


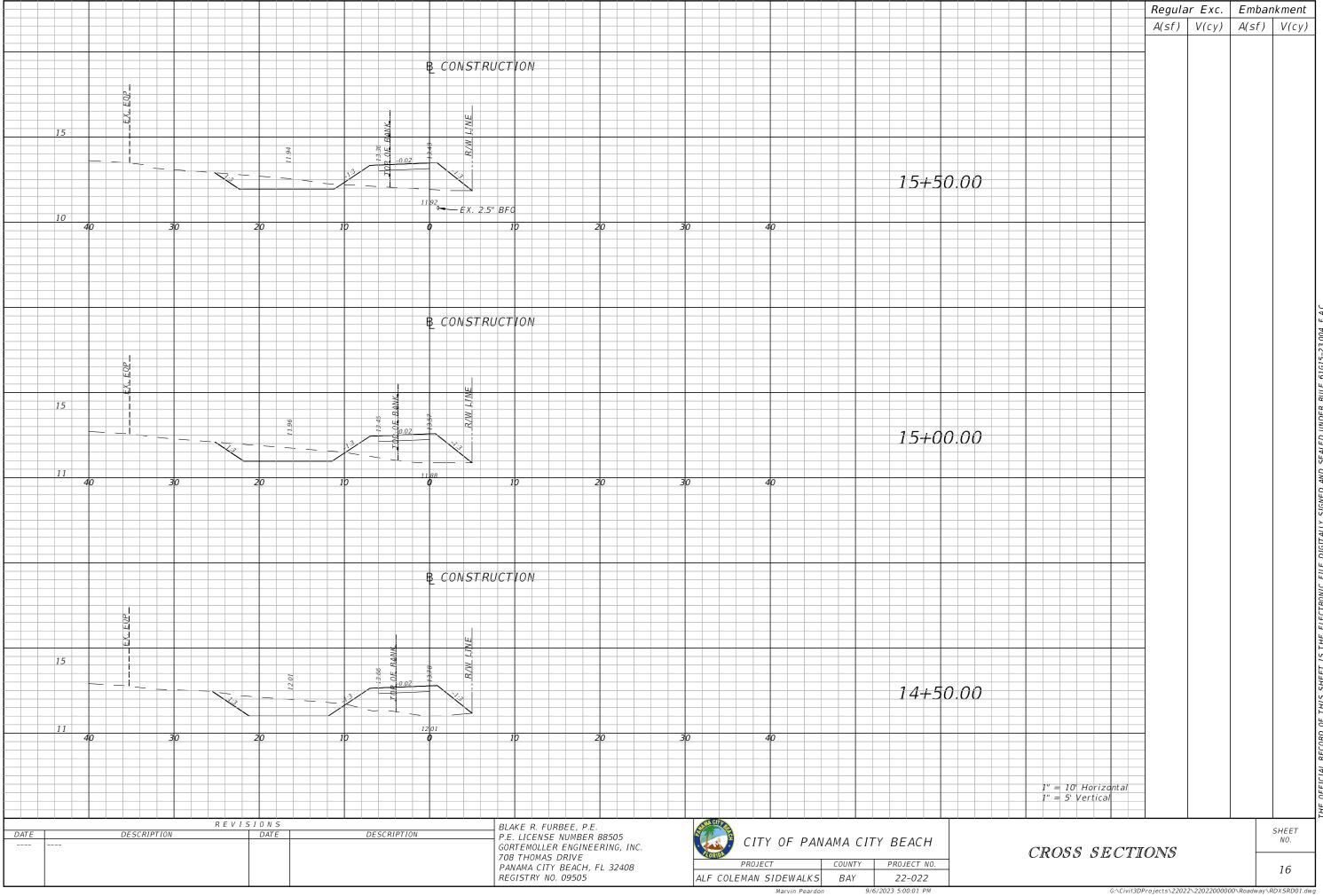


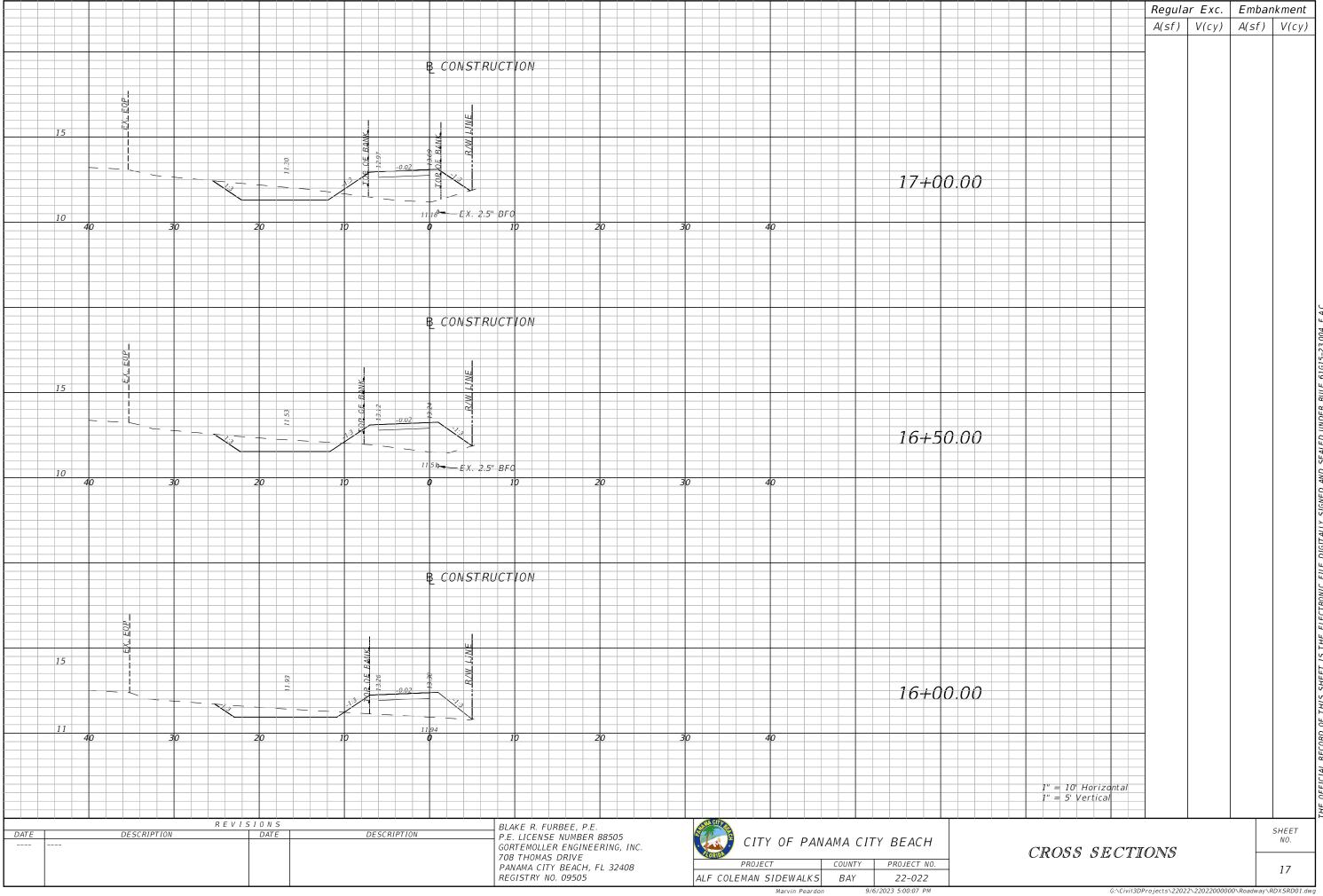


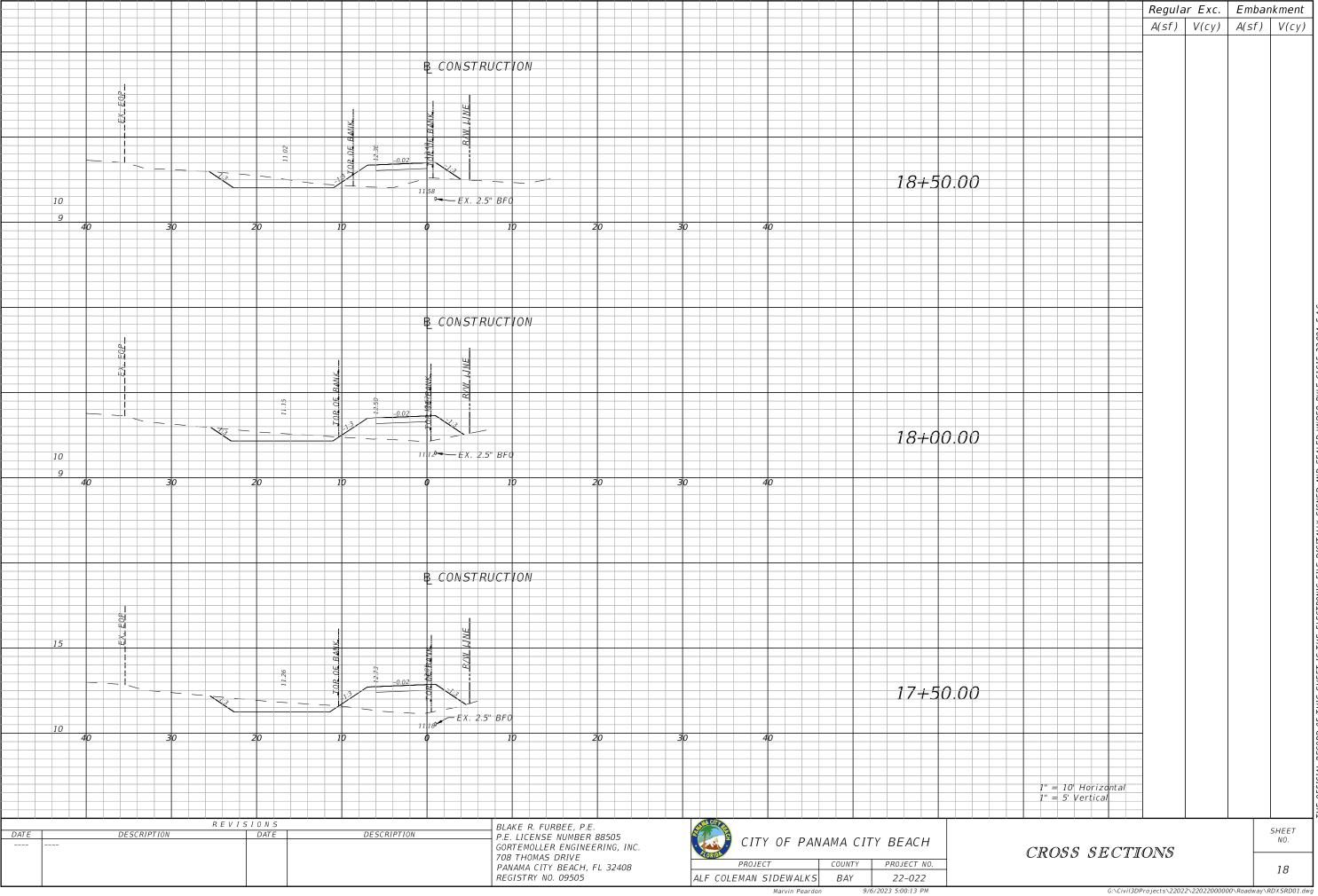


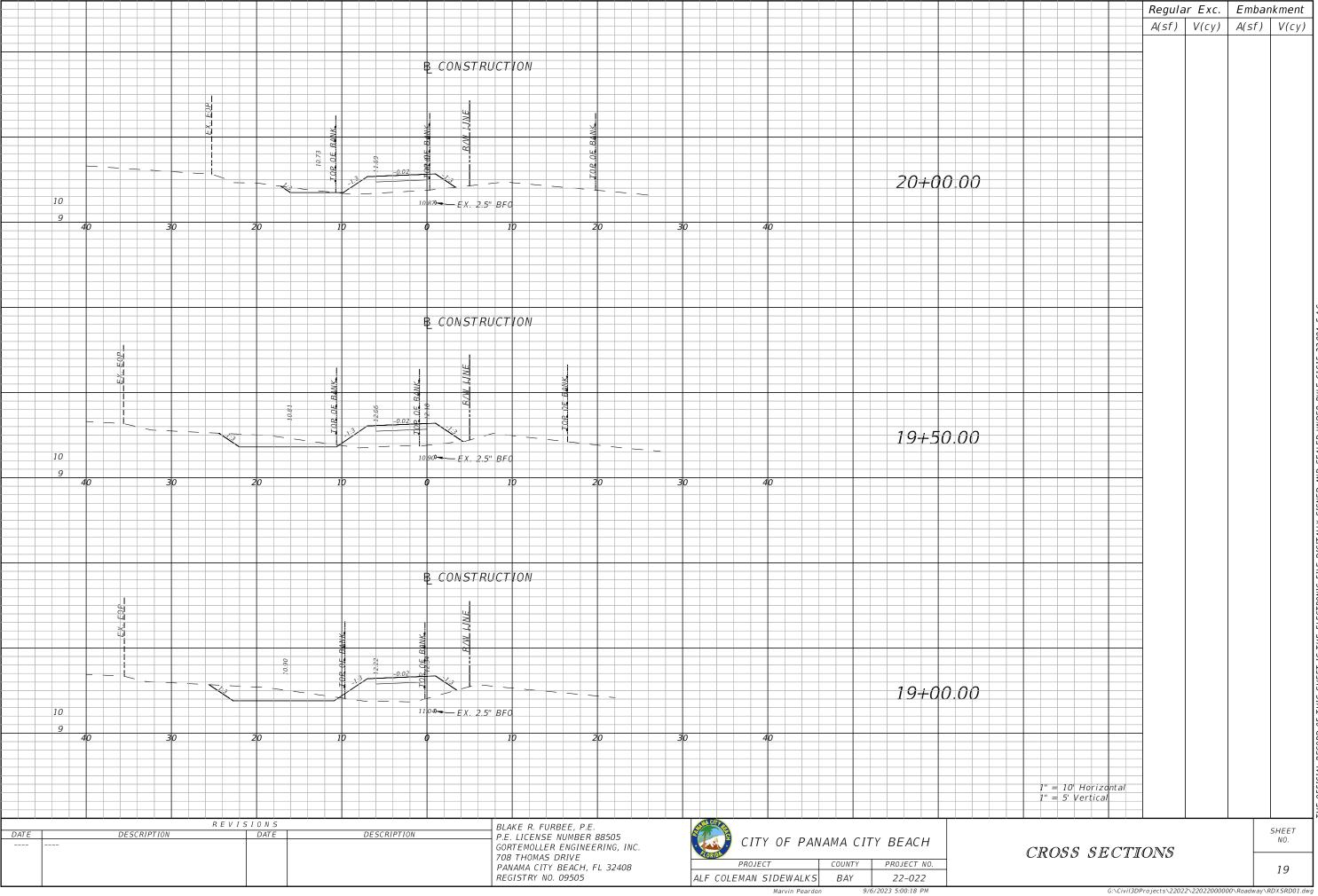


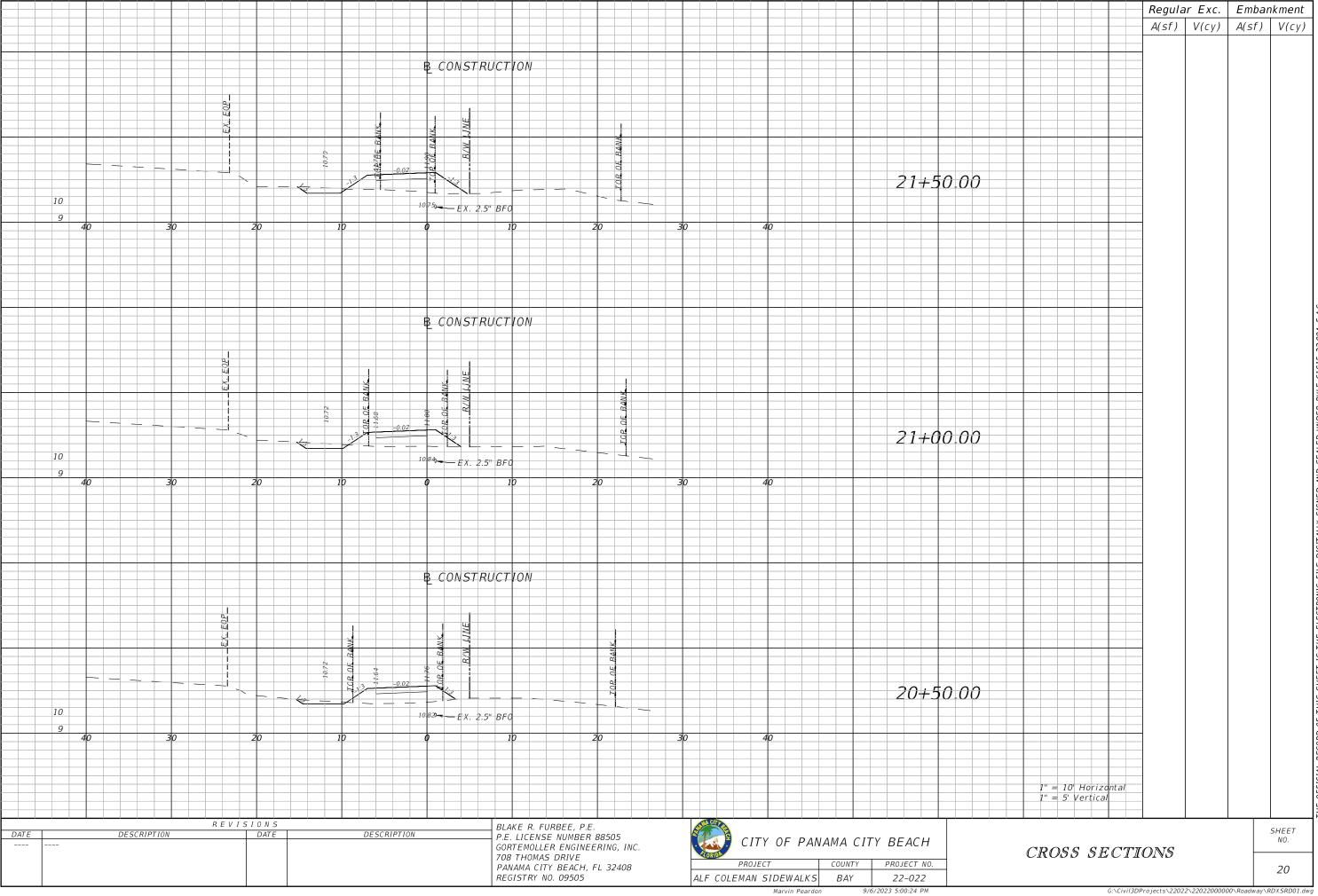


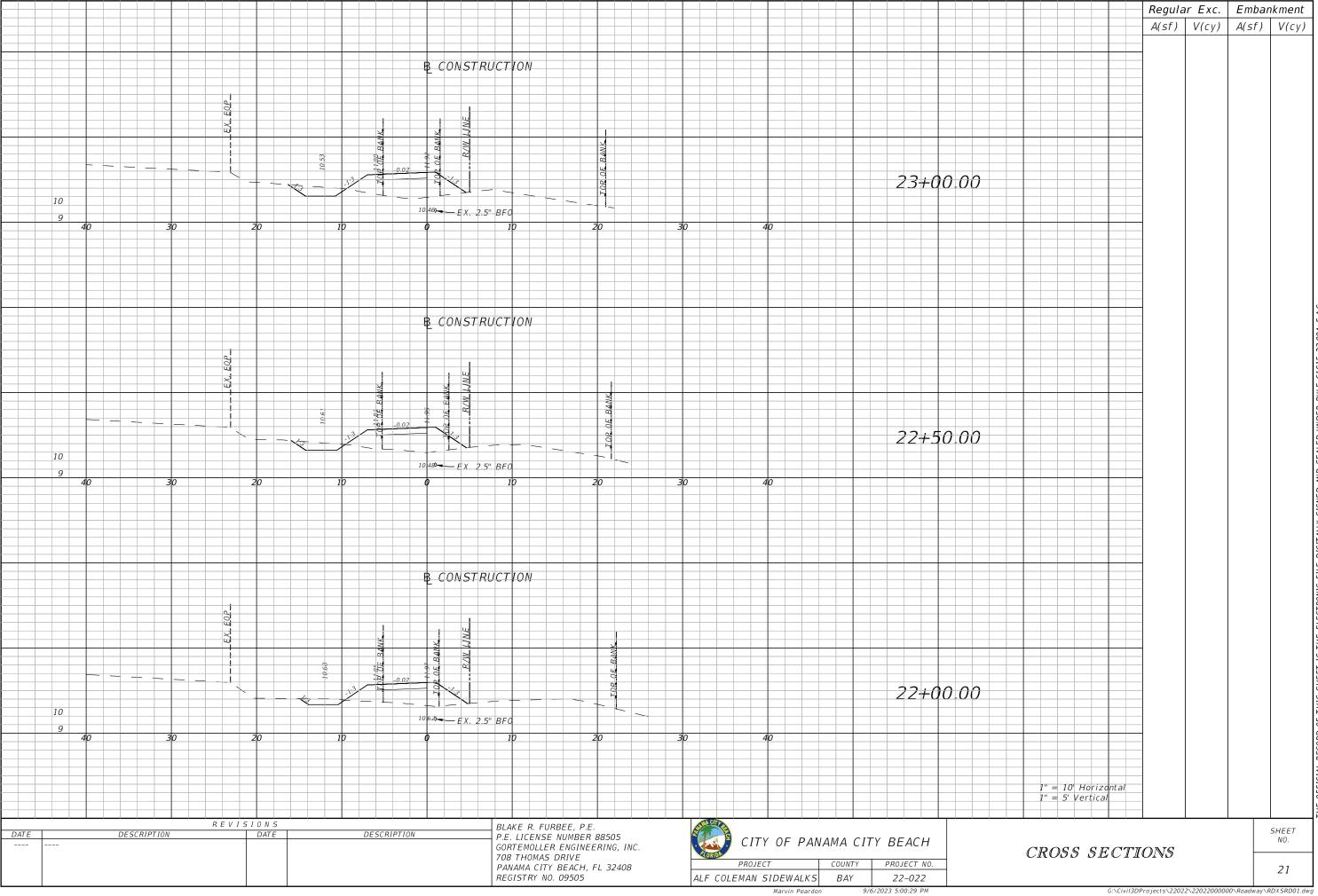


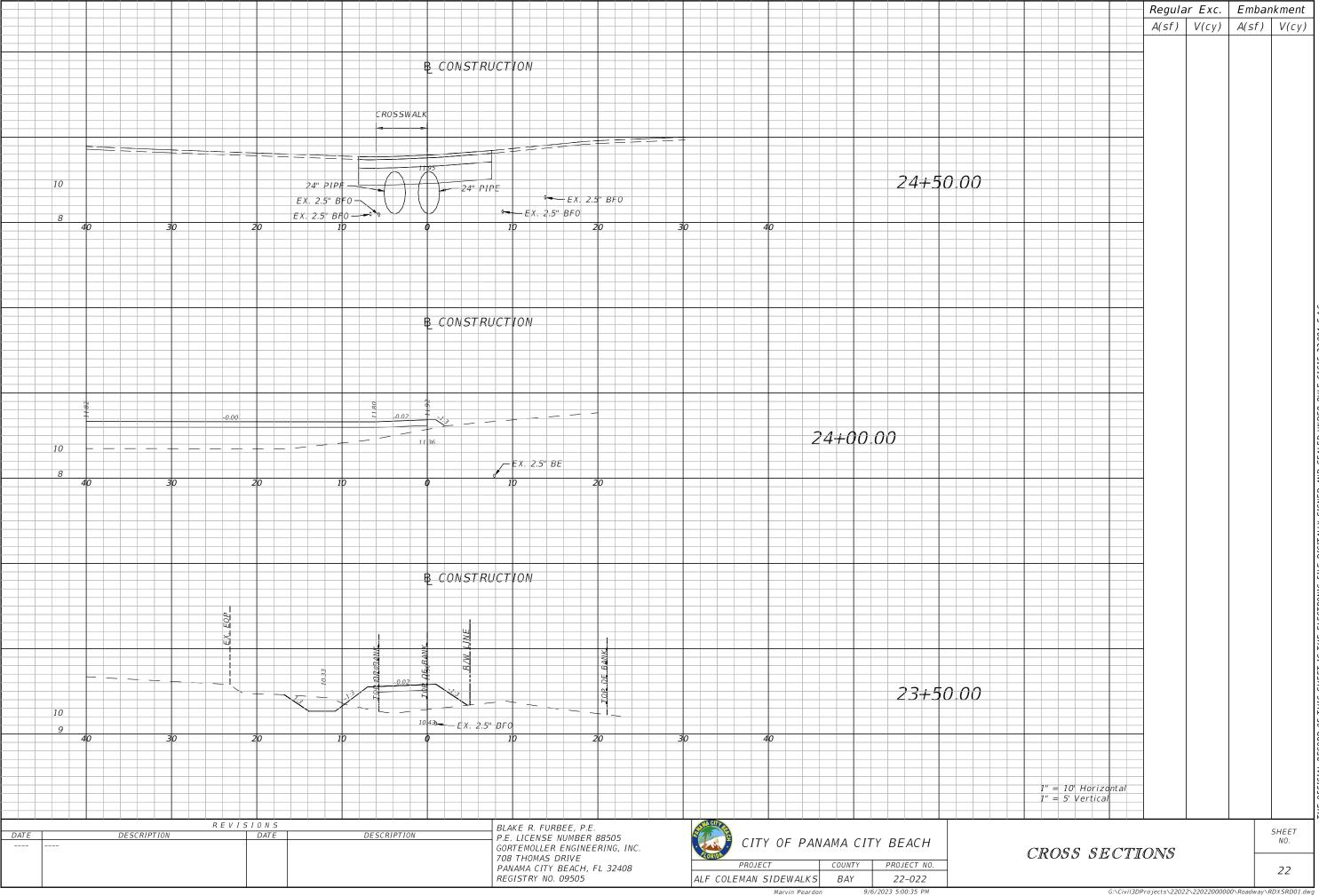


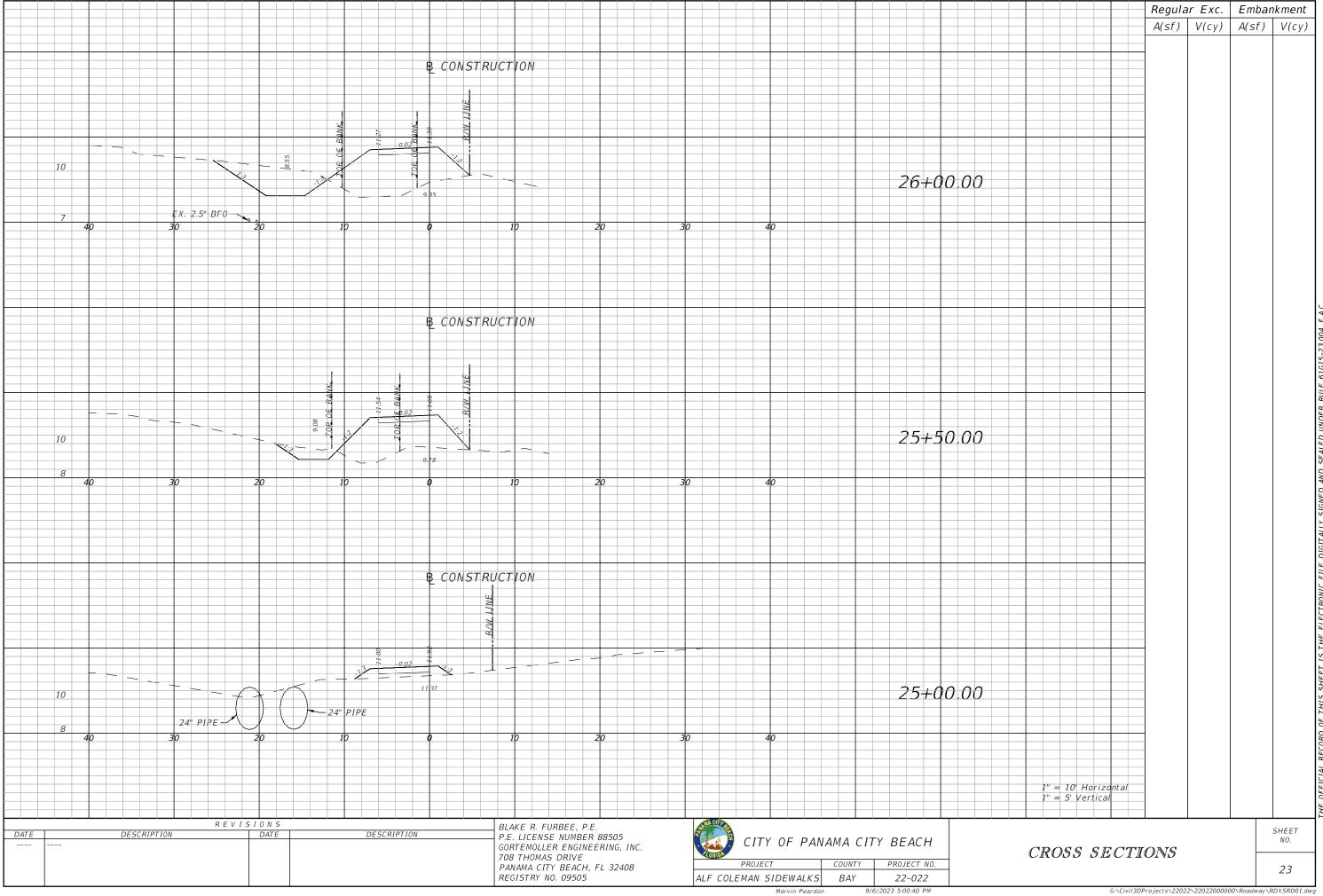


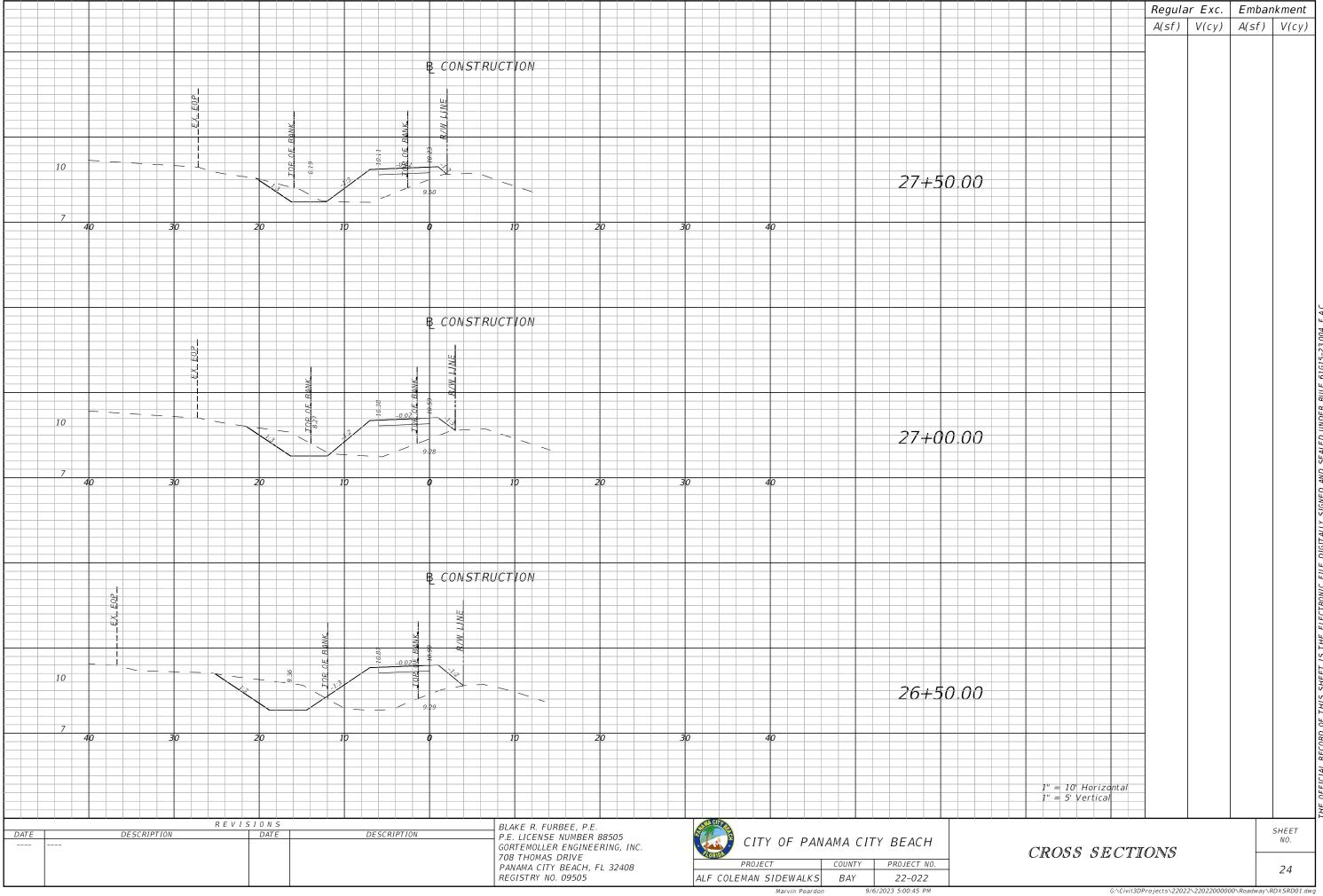


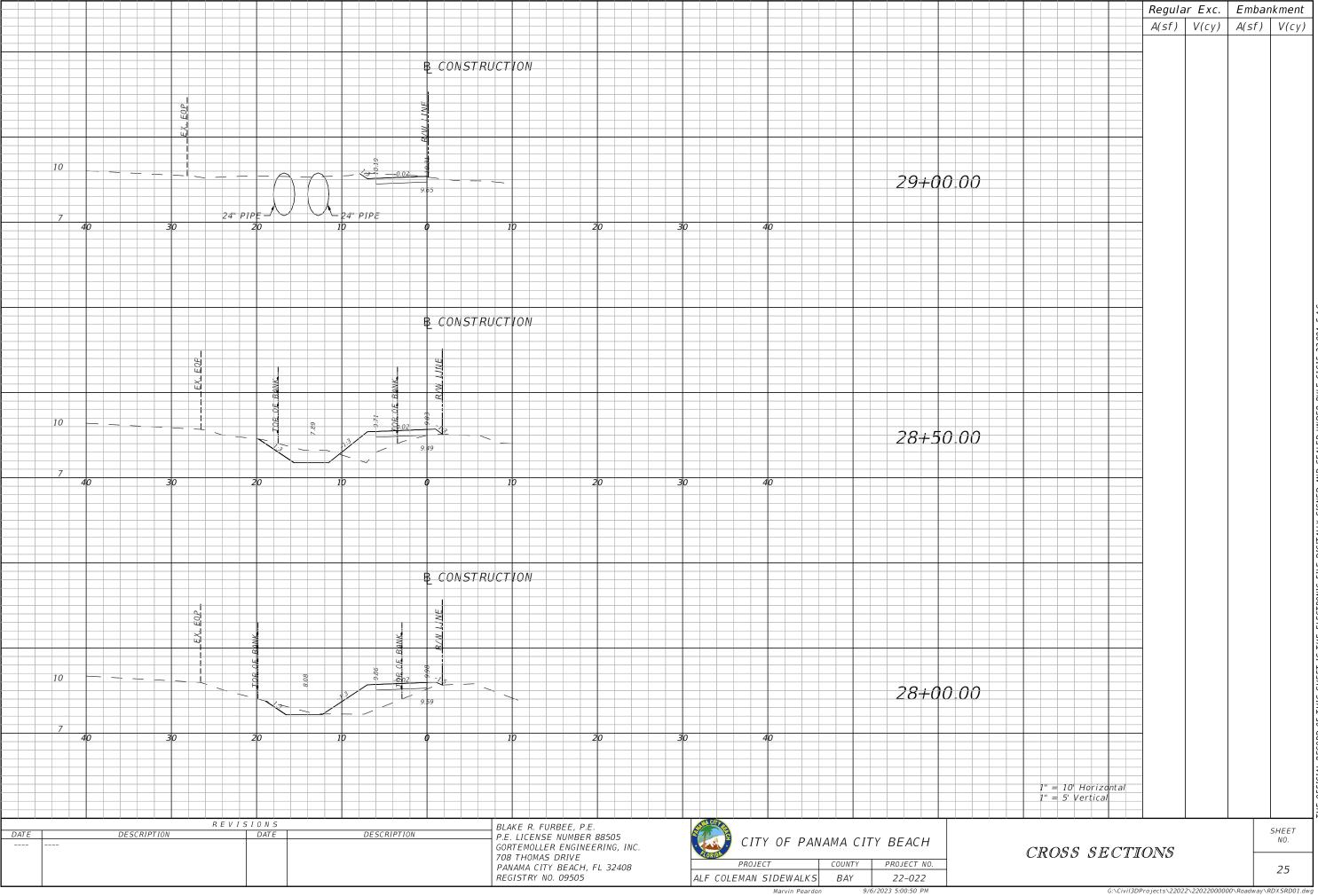


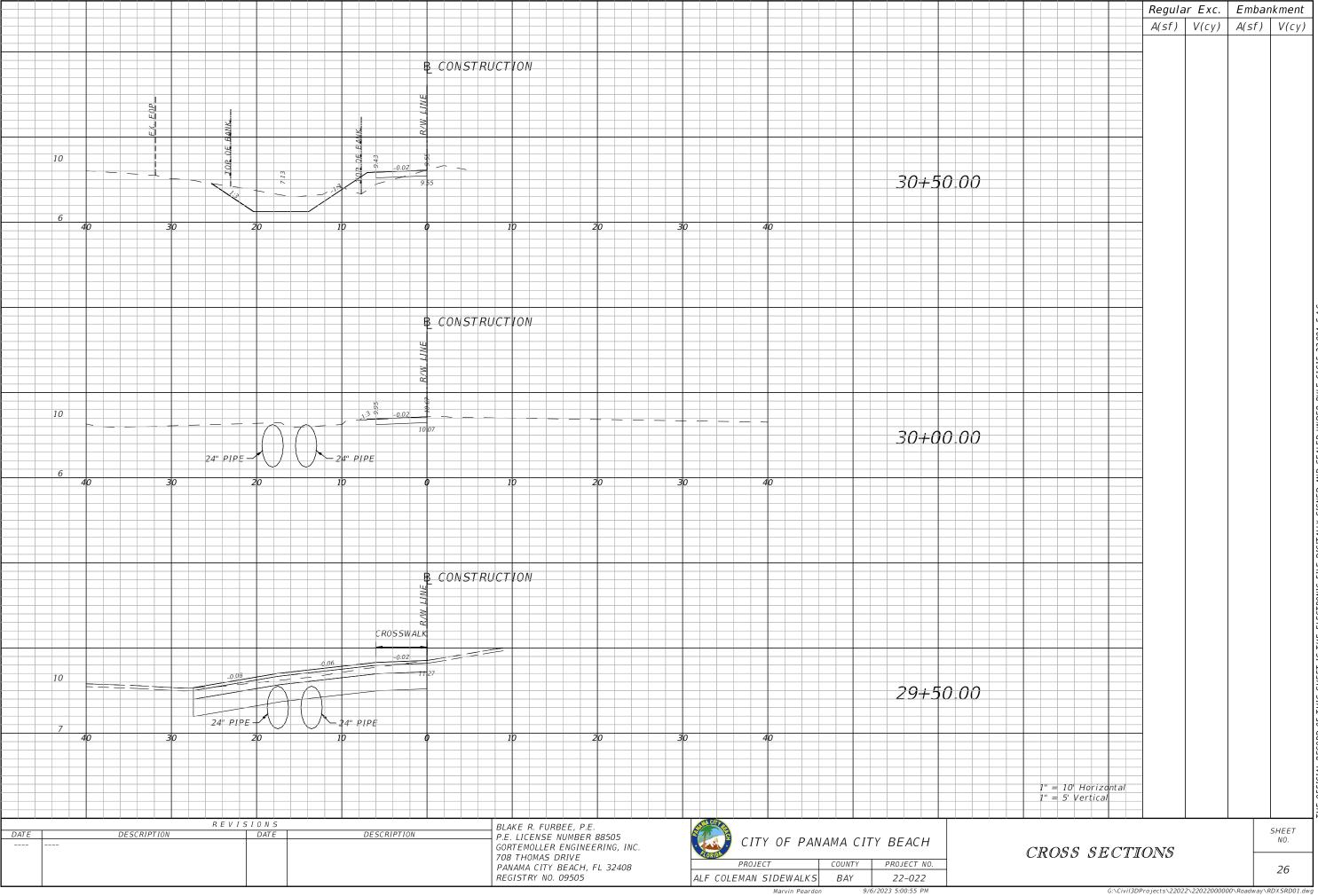


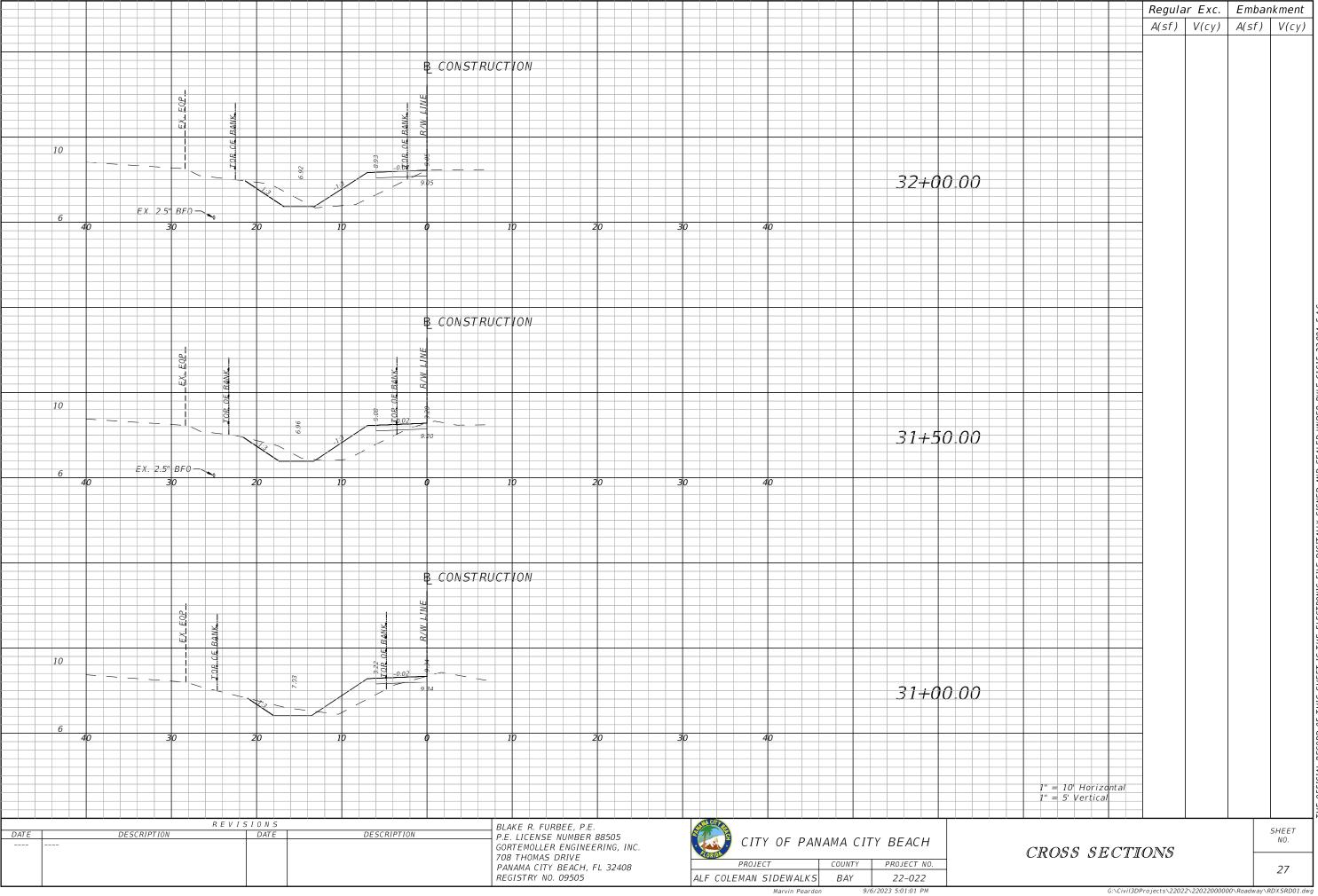


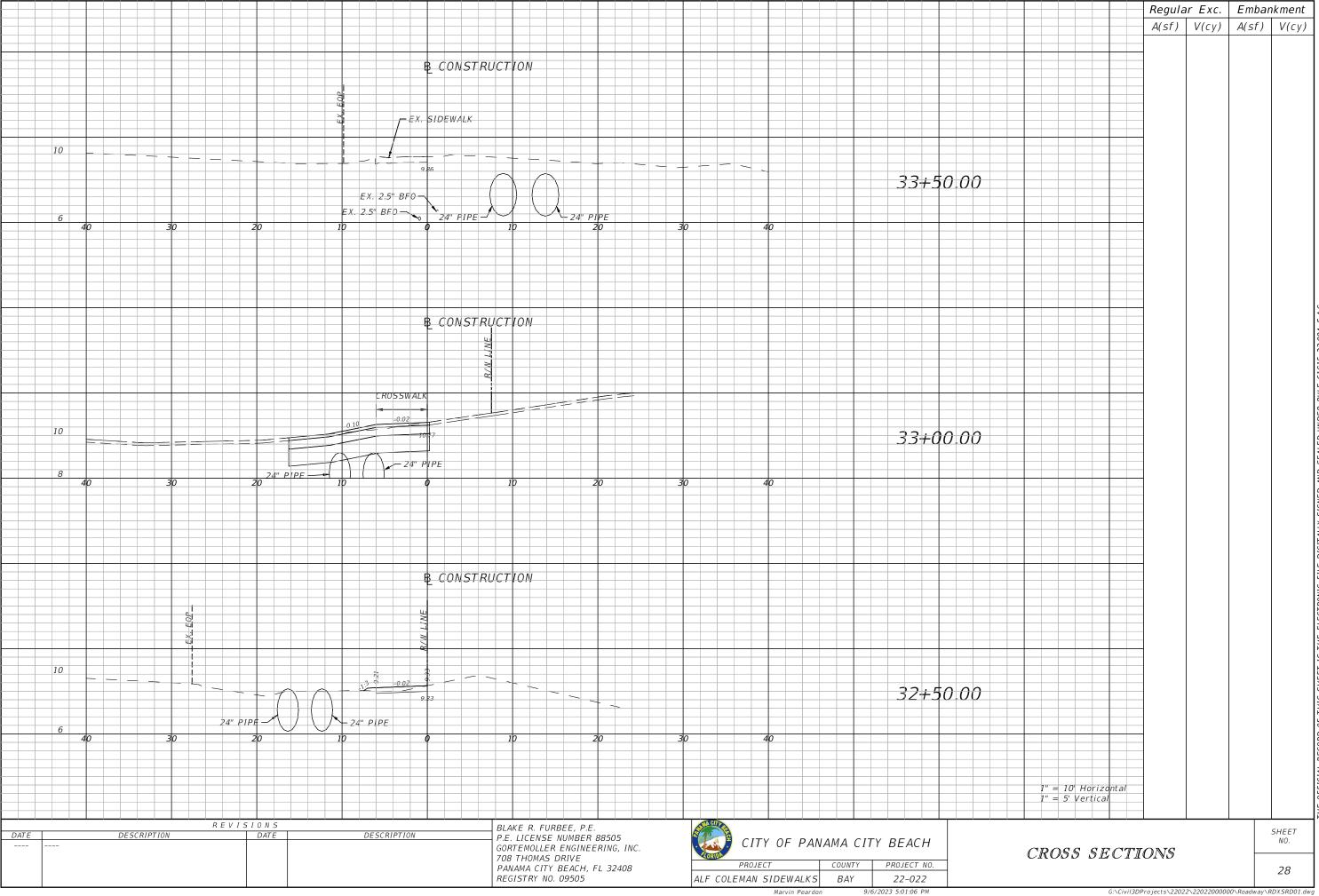


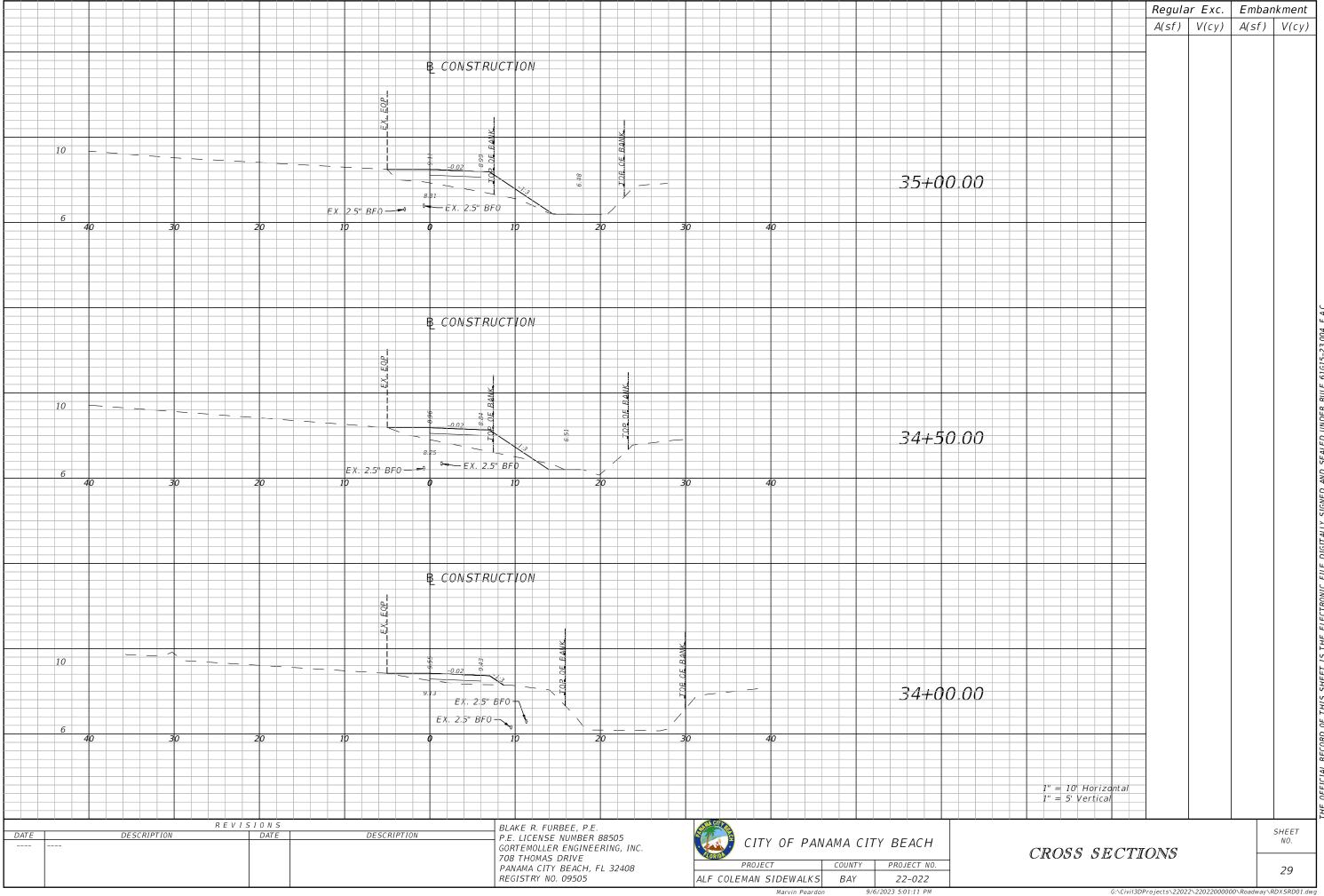


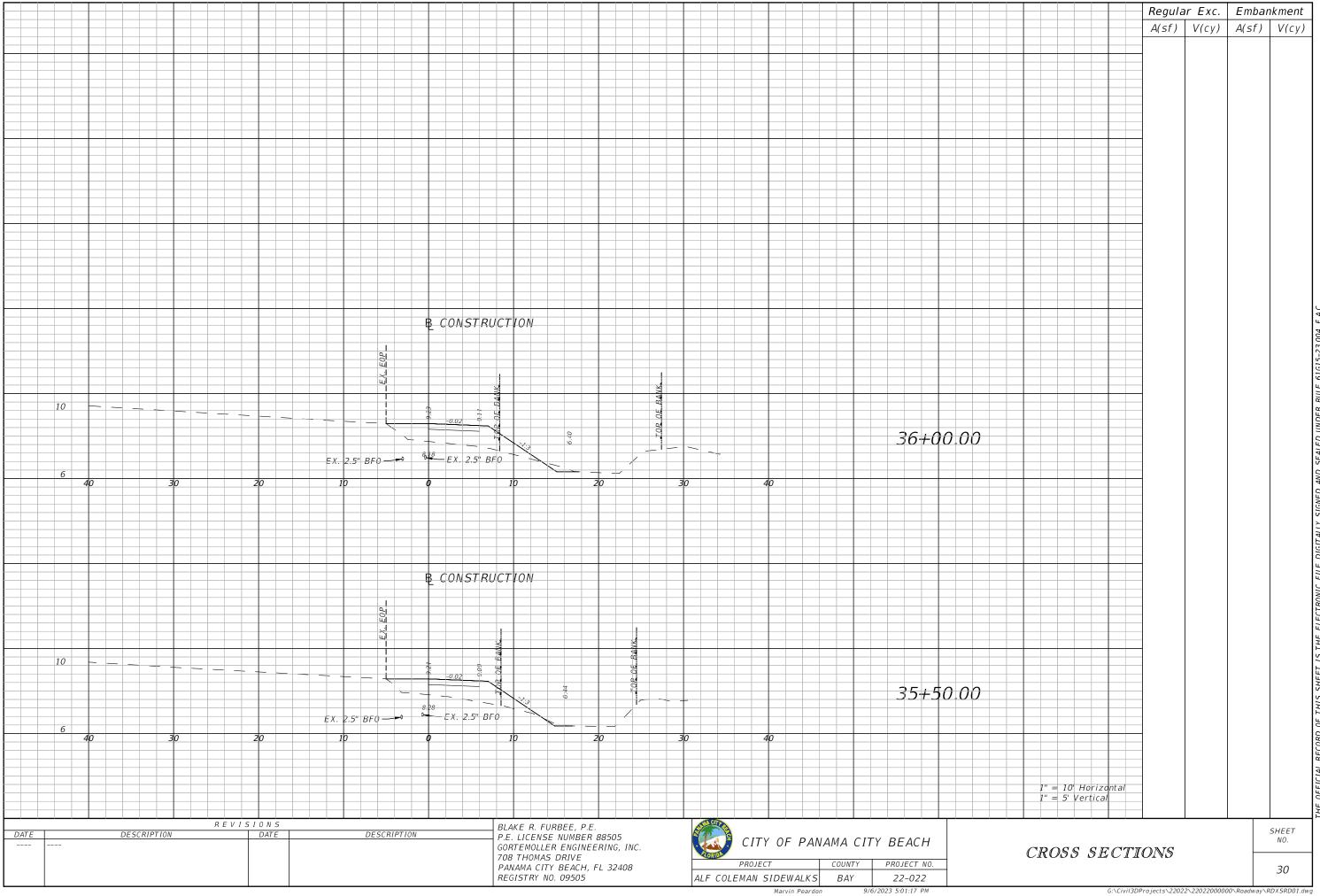












TEMPORARY TRAFFIC CONTROL GENERAL NOTES:

- 1. THE CONTRACTOR SHALL HAVE MOT SIGNAGE IN PLACE PRIOR TO BEGINNING ANY CONSTRUCTION.
- 2. ALL MAINTENANCE OF TRAFFIC IS TO BE PERFORMED IN ACCORDANCE WITH FDOT STANDARD PLANS 102 SERIES.
- 3. LANE CLOSURE RESTRICTIONS: FROM 6:00 A.M. TO 8:00 A.M. AND 2:00 P.M. TO 6:30 P.M. NO LANE CLOSURE. NO LANE CLOSURES WILL BE ALLOWED DURING THE MONTH OF APRIL. AT THE DISCRETION OF THE CITY ENGINEER, IF LANE CLOSURE CAUSES EXTENDED CONGESTION, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME AS THE TRAFFIC FLOW HAS RETURNED TO NORMAL. ALL EXISTING LANES MUST BE REOPNED TO NORMAL TRAFFIC WITHIN 12 HOURS DURING AN EVACUATION NOTICE OF A HURRICANE OR ANY OTHER CATASTROPHIC EVENT AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE ENGINEER.
- 4. THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE SHALL GIVE RESIDENTS AND BUSINESSES LOCATED ON THE PROJECT RIGHT-OF-WAY 48 HOURS NOTICE OF START OF CONSTRUCTION AND HAVE MAINTENANCE OF TRAFFIC SIGNAGE IN PLACE PRIOR TO BEGINNING ANY CONSTRUCTION. THE CITY WILL PROVIDE DOOR HANGER TYPE NOTICES TO THE CONTRACTOR. CONTRACTOR PERSONNEL SHALL DISTRIBUTE TO EACH BUSINESS AND RESIDENT 24 HOURS PRIOR TO STARTING ANY OPERATIONS THAT COULD PREVENT ACCESS TO ANY RESIDENCE OR BUSINESS. THE CONTRACTOR SHOULD INCLUDE THE COST OF THESE NOTIFICATIONS IN THEIR MAINTENANCE OF TRAFFIC (MOT) COSTS.
- 5. ALL ROAD CLOSURES REQUIRE LAW ENFORCEMENT, EMERGENCY SERVICES AND BAY DISTRICT SCHOOLS TO BE NOTIFIED IN ADVANCE OF THE CLOSURE, ANY ROAD CLOSURES WILL REQUIRE A MINIMUM OF TEN (10) WORKING DAYS NOTICE AND CITY ENGINEER APPROVAL PRIOR TO CLOSURE.
- 6. IN THE EVENT THAT LAW ENFORCEMENT IS REQUIRED FOR MAINTENANCE OF TRAFFIC, THE CONTRACTOR SHALL INCLUDE THE COST UNDER THE MAINTENANCE OF TRAFFIC LUMP SUM PAY ITEM.
- 7. THE CONTRACTOR SHALL HAVE A WORK SITE TRAFFIC SUPERVISOR QUALIFIED PER FDOT STANDARD SPECIFICATIONS SECTION 105 WHO SHALL EXECUTE THE DUTIES DESCRIBED IN FDOT STANDARD SPECIFICATIONS 102.
- 8. IF WORK IS REQUIRED AFTER SUNSET. ALL ELEMENTS OF THE NIGHT REQUIREMENTS FOR TRAFFIC CONTROL THROUGH WORK ZONES ARE SPECIFIED IN THE FDOT STANDARD PLANS SHALL BE IN PLACE PRIOR TO BEGINNING WORK.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A WORK SCHEDULE SO THAT ANY LOCATION UNDER CONSTRUCTION WILL NOT BE LEFT IN A HAZARDOUS CONDITION AT THE END OF ANY WORK PERIOD.
- 10. THE CONTRACTOR SHALL REMOVE OR COVER ANY EXISTING OR PROPOSED SIGNS OR PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS, WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS OR PAVEMENT MARKINGS TO THEIR ORIGINAL POSITION.
- 11. THE CONTRACTOR SHALL MAINTAIN THE POSTED SPEED LIMIT. SIGNS SHALL BE PROPERLY PLACED IN ACCORDANCE WITH FDOT DESIGN STANDARDS AND SPECIFICATIONS.
- 12. IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO MAINTAIN ADEQUATE TRAFFIC CONTROL AND TO PROVIDE DETOURS AROUND CONSTRUCTION ACTIVITIES.
- 13. THE CONTRACTOR SHALL COOPERATE WITH LOCAL RESIDENTS IN GAINING ACCESS TO THEIR HOMES AND BUSINESSES DURING WORKING HOURS AND SHALL ASSIST AT ALL TIMES WHEN VEHICLES EXPERIENCE TROUBLE DUE TO CONSTRUCTION ACTIVITIES.
- 14. THE CONTRACTOR SHALL PUT FORTH EVERY REASONABLE EFFORT TO MINIMIZE DISRUPTION AND DISTURBANCE OF ADJACENT PROPERTIES. ACCESS BY PROPERTY OWNERS TO THEIR PROPERTY SHALL BE MAINTAINED AT ALL TIMES, AND ANY BARRICADING OF ACCESS MUST BE COORDINATED WITH THE AFFECTED PROPERTY OWNERS.
- 15. SEE SPECIAL PROVISIONS, SECTION 102 (MAINTENANCE OF TRAFFIC) FOR ANY ADDITIONAL REQUIREMENTS.
- 16. THE CONTRACTOR SHALL USE ANY APPLICABLE INDEXES FROM FDOT STANDARDS, 2023 (INDEX 600 SERIES) PERTAINING TO TRAFFIC CONTROL THROUGH WORK ZONES.
- 17. WORK REQUIRING CLOSURE OF ARNOLD HIGH SCHOOL ACCESS CONNECTIONS SHALL FOLLOW THE LANE CLOSURE RESTRICTIONS AND SHALL NOT BE PERFORMED DURING SCHOOL HOURS. CLOSURE OF THESE ACCESSES SHALL BE COORDINATED WITH ARNOLD HIGH SCHOOL.

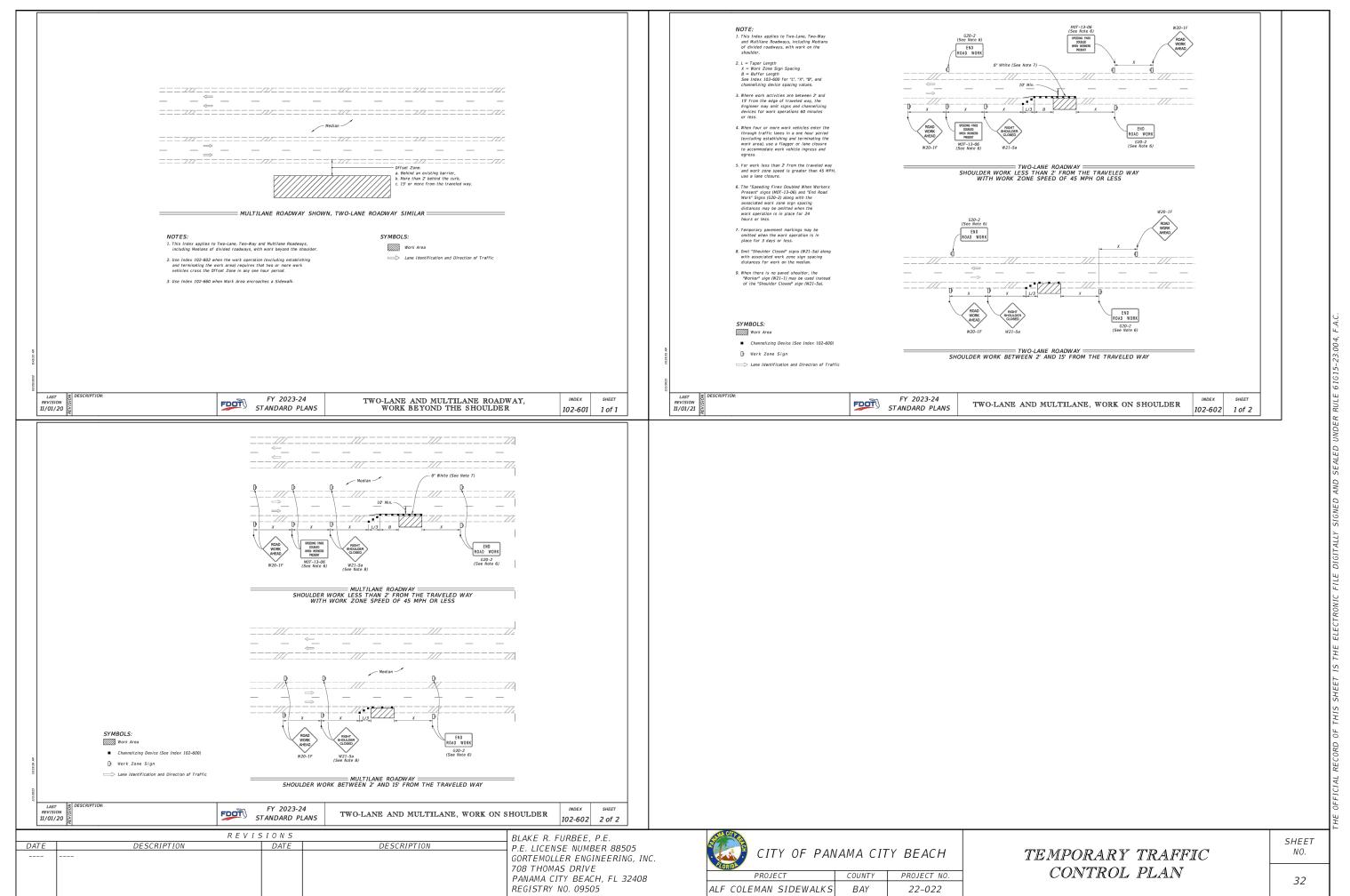
	REVIS	SIONS		BLAKE R. FURBEE, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, IN
				708 THOMAS DRIVE
				PANAMA CITY BEACH, FL 32408
				REGISTRY NO 09505

CITY OF PAN	IAMA CIT	Y BEACH
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

TEMPORARY TRAFFIC CONTROL NOTES

SHEET

31



Summary of Lump Sum Items								
Pay Item	Pay Item Description	Unit of	Unit of Quantity Total Qu		uantity	Design Notes	Construction	
Number	Tay Item Description	Measure	Р	F	P	F	Design Notes	Remarks
0101-1	Mobilization	LS	1		1			

	Summary of Temporary Traffic Control Plan Items												
Pay Item	Pay Item Description	Unit of	Quai	ntity	Total C	Duantity	Design Notes	Construction					
Number	Tay Item Description	Measure	P	F	Р	F	Design Notes	Remarks					
0102-1	Maintenance of Traffic	LS	1		1								

			Summ	ary of E	rosion C	ontroi ar	na Searment	Control Device	es			
Pay Item	Pay Item Description	Unit of	Qua	ntity	Total C	Quantity		Locatio	on		Design Notes	Construction
Number	ray Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	Remarks
0104-10-3	Sediment Barrier	LF	6.9		2469		₽ Alignment	102+99.78	103+06.72	RT		
			437.6				₽ Alignment	103+39.22	107+77.17	RT		
			560.0				₽ Alignment	107+77.17	113+37.17	RT		
			367.0				₽ Alignment	113+37.17	117+04.17	RT		
			150.2				₽ Alignment	117+37.45	118+87.69	RT		
			312.6				₽ Alignment	118+87.69	122+00.28	RT		
			222.2				₽ Alignment	122+25.52	124+47.71	RT		
			104.9				₽ Alignment	124+47.71	125+52.59	RT		
			307.8				₽ Alignment	125+88.78	128+96.53	RT		
0104-18	Inlet Protection System	EA	1.0		9		₽ Alignment	103+02.51	103+02.51	RT		
			1.0				₽ Alignment	103+52.26	103+52.26	RT		
			1.0				₽ Alignment	116+54.64	116+54.64	RT		
			1.0				₽ Alignment	117+89.06	117+89.06	RT		
			1.0				₽ Alignment	121+49.52	121+49.52	RT		
			1.0				₽ Alignment	122+75.13	122+75.13	RT		
			1.0				段 Alignment	125+01.63	125+01.63	RT		
			1.0				段 Alignment	126+27.19	126+27.19	RT		
			1.0				₽ Alignment	128+74.80	128+74.80	RT		

	F	BLAKE R. FURBEE, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.F. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC 708 THOMAS DRIVE
				PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505

CITY OF PAN	IAMA CIT	Ү ВЕАСН
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

SUMMARY OF QUANTITIES

SHEET NO.

SQ-1

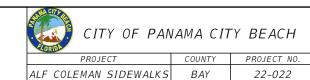
Marvin Peardon

	Summary of Earthwork													
Pay Item Number	Pay Item Description	Unit of	Quantity		Total Quantity			Locatio	Danisa Nata	Construction				
		Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	Remarks		
0120-1	Regular Excavation	CY	690.0		690.0		₽ Alignment	102+97.05	128+96.53	RT				
0120-6	Embankment	CY	1237.0		1237.0		₽ Alignment	102+97.05	128+96.53	RT				

				Su	mmary of	Paveme	ent					
Pay Item	Day Itam Description	Unit of	Qua	ntity	Total Qu	antit y		Locatio	on		Design Notes	Construction
Number	Pay Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	Remarks
0160-4	Type B Stabilization	SY	64.4		227		₽ Alignment	116+73.64	117+43.49	RT		
			100.4				₽ Alignment	121+76.12	122+31.73	RT		
			61.7				₽ Alignment	125+37.46	125+82.29	RT		
0285-704	Optional Base, Base Group 04	SY	64.4		227		₽ Alignment	116+73.64	117+43.49	RT		
			100.4				₽ Alignment	121+76.12	122+31.73	RT		
			61.7				₽ Alignment	125+37.46	125+82.29	RT		
0327-70-1	Milling Existing Asphalt Pavement, 1" Avg Depth	SY	42.7		43		₽ Alignment	103+02.57	103+53.39	RT		
0334-1-53	Superpave Asphaltic Concrete, SP-9.5, Traffic C, PG76-22	TN	3.52		28.4		₽ Alignment	103+02.57	103+53.39	RT		
			7.08				₽ Alignment	116+73.64	117+43.49	RT		
			11.04				₽ Alignment	121+76.12	122+31.73	RT		
			6.79				₽ Alignment	125+37.46	125+82.29	RT		

	Summary of Utility Adjustments													
Pay Item	Pay Itam Description	Unit of	Quai	ntity	Total Quantity			Locatio	on		Design Notes	Construction		
Number	Pay Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	Remarks		
1080-22-400	Utility Fixture - Backflow Assembly, Relocate	EA	1.0		1		₽ Alignment	127+12.45	127+12.45	RT				
1080-24-500	Utility Fixture, Valve Assembly, Adjust/Modify	EA	1.0		3		₽ Alignment	103+98.01	103+98.01	RT				
			1.0				₽ Alignment	112+27.85	112+27.85	RT				
			1.0				₽ Alignment	125+20.68	125+20.68	RT				
1644-800	Fire Hydrant, Relocate	EA	1.0		1		₽ Alignment	125+46.32	126+99.47	RT				

	REVI	SIONS		BLAKE R. FURBEE, P.E.			
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505			
				GORTEMOLLER ENGINEERING, INC.			
				708 THOMAS DRIVE			
				PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505			



SUMMARY OF QUANTITIES

SHEET

SQ-2

				Su	mmary	of Draina	ge						
Pay Item	1 - 1 - 1	Day Itam Description	Unit of	Qua	ntity	Total (Quantity		Locati	on		Dosign Notes	Construction
Number	Label	Pay Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	Remarks
0425-1-910	FI-01	Inlets, Closed Flume	EA	1.0		4		₽ Alignment	103+66.44	103+66.44	RT	FL 12.33	
	FI-02			2.0				₽ Alignment	109+66.54	109+66.54	RT	FL 11.34	
	FI-03			1.0				₽ Alignment	121+48.26	121+48.26	RT	FL 7.69	
0430-174-124		Pipe Culvert, Reinforced Concrete Pipe, Round, 24" SD	LF	232.0		660		₽ Alignment	116+64.08	117+79.62	RT		
				214.0				₽ Alignment	121+58.96	122+65.69	RT		
				214.0				₽ Alignment	125+11.08	126+17.75	RT		
0430-984-129	S-1	Mitered End Section, Round, 24" SD	EA	2.0		12		₽ Alignment	116+64.08	116+64.08	RT	FL 9.00	
	S-2			2.0				₽ Alignment	117+79.62	117+79.62	RT	FL 8.44	
	S-3			2.0				₽ Alignment	121+58.96	121+58.96	RT	FL 7.65	
	5-4			2.0				₽ Alignment	122+65.69	122+65.69	RT	FL 7.36	
	S-5			2.0				₽ Alignment	125+11.08	125+11.08	RT	FL 6.90	
	S-6			2.0				₽ Alignment	126+17.75	126+17.75	RT	FL 6.58	

				Sumn	nary of M	liscellane	eous Drainag	ie Items				
Pay Item	Pay Item Description	Unit of	Quai	ntity	Total C	Quantity		Locatio	on		Docian Notes	Construction
Number	Pay Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	Remarks
0530-3-4	Riprap, Rubble, F&I, Ditch Lining	TN	4.47		26.8		₽ Alignment	116+55.58	116+60.58	RT		
			4.47				₽ Alignment	117+82.89	117+88.23	RT		
			4.47				₽ Alignment	121+50.49	121+55.49	RT		
			4.47				₽ Alignment	122+69.11	122+74.15	RT		
			4.47				₽ Alignment	125+02.56	125+07.71	RT		
			4.47				₽ Alignment	126+21.17	126+26.21	RT		
0530-74	Bedding Stone	TN	3.21		19.3		₽ Alignment	116+55.58	116+60.58	RT		
			3.21				₽ Alignment	117+82.89	117+88.23	RT		
			3.21				₽ Alignment	121+50.49	121+55.49	RT		
			3.21				₽ Alignment	122+69.11	122+74.15	RT		
			3.21				₽ Alignment	125+02.56	125+07.71	RT		
			3.21				₽ Alignment	126+21.17	126+26.21	RT		

	Summary of Railing												
Pay Item	Pay Item Description	Unit of	Quai	ntity	Total C	Quantity		Locatio		Docian Notes	Construction		
Number	ray item bescription	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	- Design Notes	Remarks	
0515-1-2	Pipe Handrail - Guiderail, Aluminum	LF	9.0		72		₽ Alignment	103+61.99	103+68.64	RT			
			9.0				₽ Alignment	103+66.06	103+72.71	RT			
			18.0				₽ Alignment	109+57.53	109+75.53	RT			
			18.0				₽ Alignment	109+57.55	109+75.55	RT			
			9.0				₽ Alignment	121+43.57	121+52.56	RT			
			9.0				₽ Alignment	121+43.84	121+52.83	RT			

R E V I S I O N S DATE DESCRIPTION DATE DESCRIPTION GORTEMOLLER ENGINEERING, I	
DATE DESCRIPTION DATE DESCRIPTION P.E. LICENSE NUMBER 88505 GORTEMOLLER ENGINEERING, I	
708 THOMAS DRIVE PANAMA CITY BEACH, FL 3240 REGISTRY NO. 09505	

CITY OF PAN	IAMA CIT	Y BEACH
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

Marvin Peardon

SUMMARY OF QUANTITIES

SHEET NO.

SQ-3

G\Civil3DProjects\22022\22022000000\Roadway\SUM0RD01.dw

OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RUI

			Sun	nmary of	Sidewa	lk and D	etectable Wa	arnings				
Pay Item	Pay Item Description	Unit of	Quantity		Total Quantity		Location				Design Notes	Construction
Number	ray Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	- Design Notes	Remarks
0522-1	Concrete Sidewalk and Driveway, 4" Thick	SY	23.8		1662		₽ Alignment	102+99.78	103+13.31	RT		
		SY	292.5				₽ Alignment	103+41.92	107+77.18	RT		
		SY	373.3				₽ Alignment	107+77.18	113+37.18	RT		
		SY	263.6				₽ Alignment	113+37.18	117+09.91	RT		
		SY	97.6				₽ Alignment	117+39.20	118+82.27	RT		
		SY	212.6				₽ Alignment	118+82.27	122+01.76	RT		
		SY	144.5				₽ Alignment	122+25.25	124+42.08	RT		
		SY	72.8				₽ Alignment	124+42.08	125+51.21	RT		
		SY	181.7				₽ Alignment	126+20.94	128+96.53	RT		
0527-2	Detectable Warnings	SF	18.9		156		₽ Alignment	103+03.65	103+12.11	RT		
		SF	17.0				₽ Alignment	103+43.30	103+51.93	RT		
		SF	11.9				₽ Alignment	116+67.64	116+73.58	RT		
		SF	19.6				₽ Alignment	116+94.92	117+04.72	RT		
		SF	13.3				₽ Alignment	117+39.20	117+44.37	RT		
		SF	12.7				₽ Alignment	121+96.16	122+00.28	RT		
		SF	12.0				₽ Alignment	122+25.25	122+27.52	RT		
		SF	13.6				₽ Alignment	125+45.73	125+51.21	RT		
		SF	12.1				₽ Alignment	125+79.08	125+81.96	RT		
		SF	24.8				₽ Alignment	128+81.40	128+96.53	RT		

	Summary of Performance Turf											
Pay Item	Day Itam Description	Unit of	Quai	ntity	Total C	Duantity		Locatio	on		Danie Mater	Construction Remarks
Number	Pay Item Description	Measure	Р	F	Р	F	Alignment	Begin Station	End Station	Side	Design Notes	
0570-1-2	Performance Turf, Sod	SY	13.2		5256		₽ Alignment	102+97.05	103+14.76	RT		
			1079.6				₽ Alignment	103+41.92	107+77.18	RT		
			1426.7				₽ Alignment	107+77.18	113+37.18	RT		
			590.9				₽ Alignment	113+37.18	117+01.37	RT		
			303.2				₽ Alignment	117+37.40	118+82.66	RT		
			624.1				₽ Alignment	118+82.66	122+00.11	RT		
			437.3				₽ Alignment	122+25.15	124+42.09	RT		
			171.6				₽ Alignment	124+42.09	125+51.21	RT		
			609.4				₽ Alignment	125+89.62	128+96.53	RT		

	REVI	SIONS		BLAKE R. FURBEE, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC 708 THOMAS DRIVE PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505

A CITY OF THE PROPERTY OF THE	CITY OF PA	NAMA CIT	TY BEACH
	PROJECT	COUNTY	PROJECT NO.
ALF (COLEMAN SIDEWALK.	5 BAY	22-022

SUMMARY OF QUANTITIES

SHEET NO.

SQ-4

		TAB	ULAT	ION O	F QU	ANT I T	IES													
PAY	DESCRIPT ION		SHEET NUMBERS									TOTAL THIS		GRAND TOTAL						
ITEM NO.	DESCRIPTION	UNIT		- 2	S - 3		5 - 4							SHEET		, or AL				
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
0700 - 1 - 11	SINGLE POST SIGN, F&I, GROUND MOUNT, UP TO 12 SF	AS	1														1		1	
0700 - 1 - 50	SINGLE POST SIGN, RELOCATE	AS			1		1										2		2	
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 12"	LF	66		130		56										252		252	
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 24"	LF	13		23		12										48		48	
0710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS															1		1	
0711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK	LF	66		130		56										252		252	
0711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	13		23		12										48		48	
0711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS - SURFACE TO REMAIN	SF	13		23		12										48		48	

*THESE QUANTITIES PAID FOR UNDER PAINTED PAVEMENT MARKINGS (FINAL SURFACE), LUMP SUM - ITEM NO. 710-90. THE QUANTITIES SHOWN ARE FOR ONE APPLICATION: SEE SPECIFICATION 710 FOR THE NUMBER OF APPLICATIONS REQUIRED.

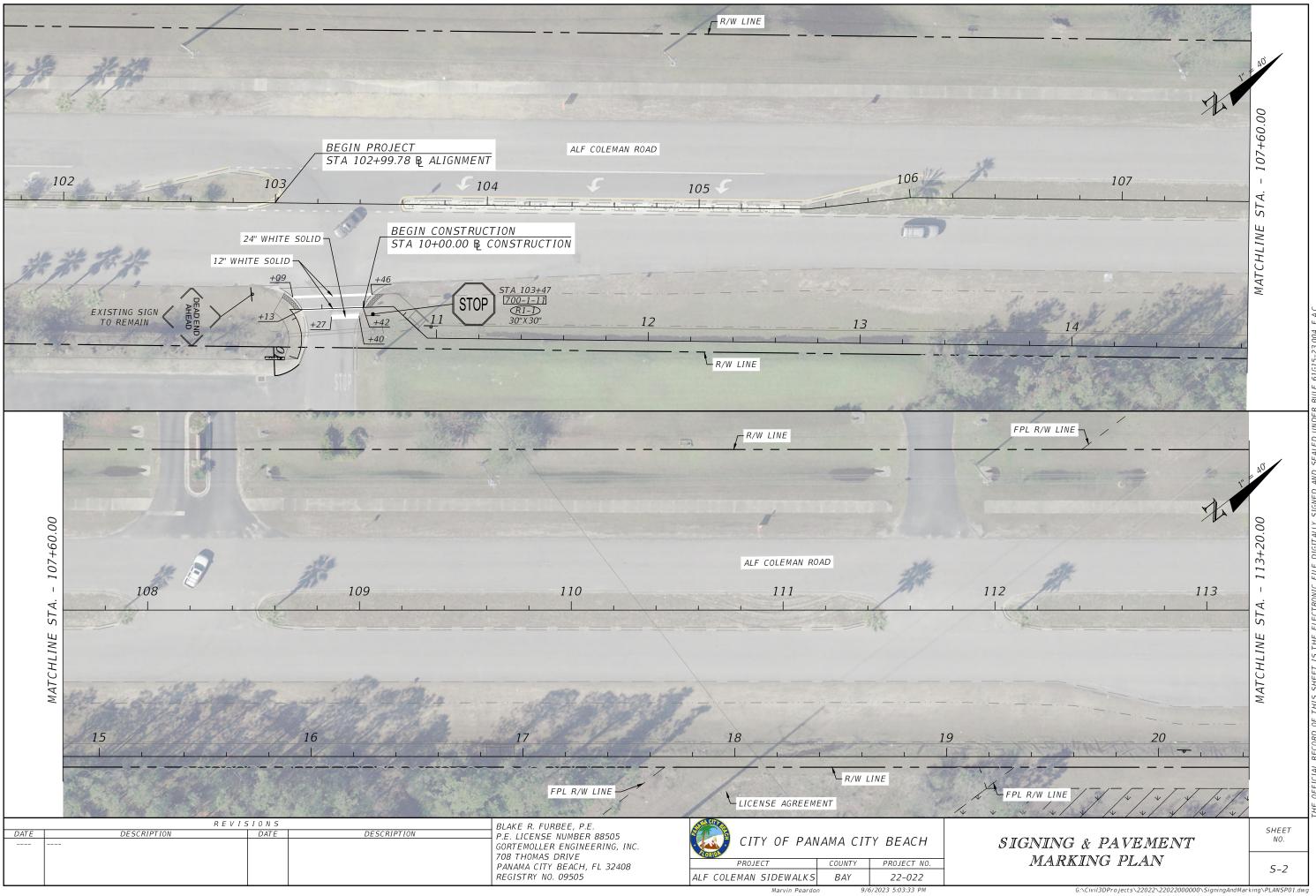
	REVI	S		BLAKE R. FURBEE, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC 708 THOMAS DRIVE PANAMA CITY BEACH, FL 32408 REGISTRY NO. 09505

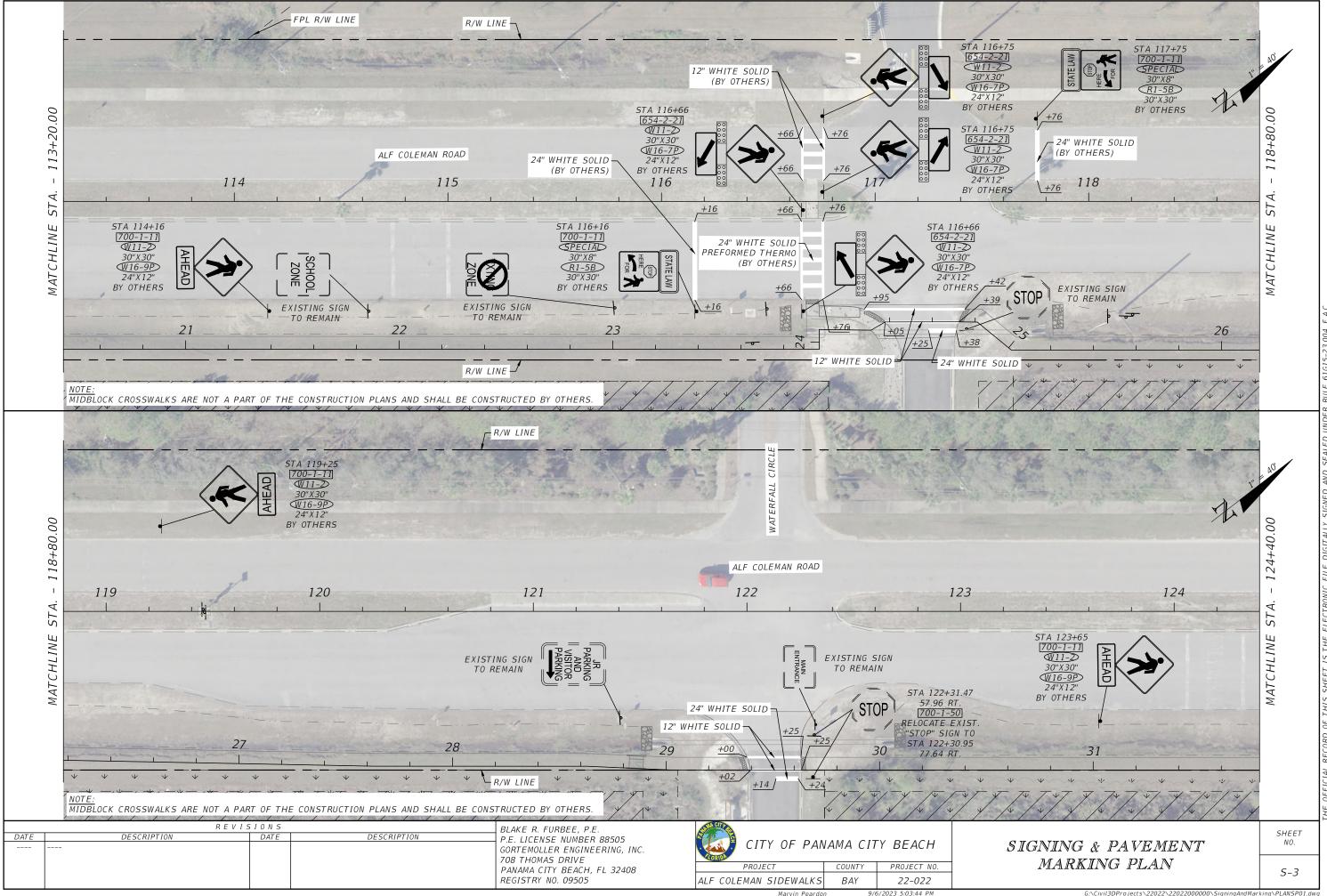
CITY OF PAN	IAMA CIT	Y BEACH
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

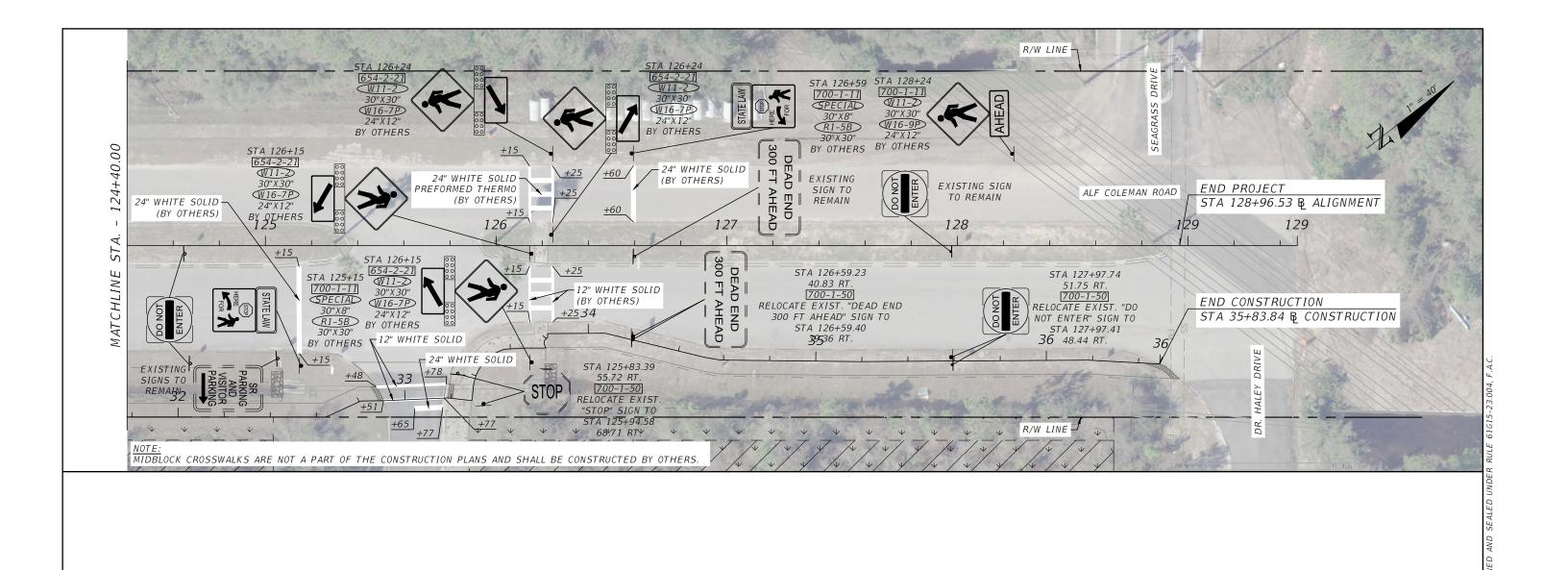
TABULATION OF QUANTITIES

SHEET NO.

5-1







	F	REVISIONS		BLAKE R. FURBEE, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 88505
				GORTEMOLLER ENGINEERING, INC.
				708 THOMAS DRIVE
				PANAMA CITY BEACH, FL 32408
				REGISTRY NO. 09505

CITY OF PAN	IAMA CIT	Y BEACH
PROJECT	COUNTY	PROJECT NO.
ALF COLEMAN SIDEWALKS	BAY	22-022

SIGNING & PAVEMENT MARKING PLAN SHEET NO.