

CONTRACT DOCUMENTS and SPECIFICATIONS

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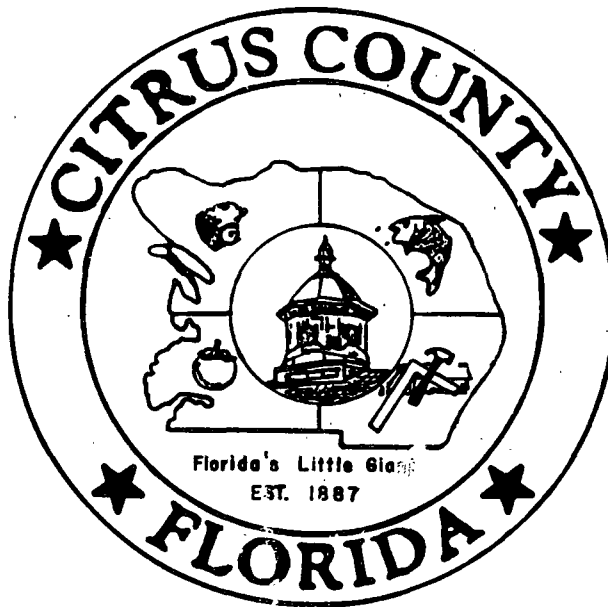
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**CITRUS COUNTY
60 ACRE SANITARY LANDFILL
CLOSURE PLAN**

PHASE I

Approx. 25 Acres

PROJECT No. 89-64



**Department of Technical Services
Engineering Division**

JANUARY 1989

BIDDER _____

DATE _____

CONTRACT DOCUMENTS AND SPECIFICATIONS

for

CITRUS COUNTY 60-ACRE SANITARY
LANDFILL CLOSURE PLAN, PHASE 1
APPROX. 25 ACRES
PROJECT NUMBER 89-64

CITRUS COUNTY, FLORIDA

COMMISSIONERS

William J. "Skip" Hudson, Chairman
Wilbur H. Langley, Sr., First Vice Chairman
Wayne Weaver, Second Vice Chairman
Hank Cohen, Commissioner
Nick Bryant, Commissioner

COUNTY ADMINISTRATOR

Christopher W. Chinault

COUNTY ATTORNEY

Larry M. Haag

COUNTY ENGINEER

James W. Pinkerton, P.E.

BY

DEPARTMENT OF TECHNICAL SERVICES

P.O. BOX 440
LECANTO, FLORIDA 32661
(904) 746-2694

JANUARY 1989



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ADVERTISEMENT FOR BIDS

OWNER: Citrus County, Florida
110 North Apopka Avenue
Inverness, Florida 32650

Separate sealed BIDS for the construction of:

CITRUS COUNTY 60-ACRE SANITARY
LANDFILL CLOSURE PLAN, PHASE I
APPROX. 25 ACRES
PROJECT NUMBER 89-64

BIDS will be received until 2 p.m. E.S.T., Wednesday, FEBRUARY 8, 1989. Bids will be opened and read at the following meeting of the County Bid Committee.

The project shall consist of performing all work and furnishing all equipment, labor and material for the closure of an approximate 25 acre portion of the Citrus County Central Landfill. The closure includes construction of a "cap" consisting of the installation of a synthetic liner and placement of fill material.

ALL BIDDERS must be qualified for the type of work for which the BID is submitted. BIDS must be enclosed in an opaque envelope and marked:

"BID for CITRUS COUNTY 60-ACRE SANITARY LANDFILL
CLOSURE PLAN, PHASE I, APPROXIMATELY 25 ACRES
PROJECT NUMBER 89-64, AND THE NAME OF BIDDER
AND HIS ADDRESS.

The CONTRACT DOCUMENTS, consisting of ADVERTISEMENT FOR BIDS, INFORMATION FOR BIDDERS, BID, BID BOND, AGREEMENT, GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS (if applicable), PAYMENT BOND, PERFORMANCE BOND, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS (if applicable), SPECIAL CONDITIONS AND ADDENDA, may be examined at the following locations:

F.W. DODGE CORPORATION, TAMPA, FLORIDA

F.W. DODGE CORPORATION, ORLANDO, FLORIDA

DEPARTMENT OF TECHNICAL SERVICES,
(Lecanto Government Complex)
Lecanto, Florida

ADVERTISEMENT FOR BIDS -2

Copies of the CONTRACT DOCUMENTS may be obtained at the office of:

Citrus County Engineer
Lecanto Government Complex
1300 So. Lecanto Highway
Lecanto, Florida 32661

Payment for plans & specifications is a nonrefundable fee of \$25.00.

BIDS may be accompanied by a Certified Check or BID BOND of a reputable bonding company authorized to do business in Florida in the amount of five percent of the total amount of the BID to guarantee that the Contractor will enter into a Contract in the form prescribed and will provide the required bond.

The successful BIDDER (s) must provide an acceptable contract PERFORMANCE BOND in the amount of one hundred (100%) percent of the Contract Price, and PAYMENT BOND in the amount of one hundred (100%) percent of the Contract Price.

No BIDS may be withdrawn for a period of thirty (30) days after closing time scheduled for receipt of BIDS.

The OWNER reserves the right to reject any and all BIDS and waive all informalities.

CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS

WILLIAM 'SKIP' HUDSON, CHAIRMAN

DATE

Information for Bidders

INFORMATION FOR BIDDERS

BIDS will be received by OWNER: Citrus County, Florida until 2 p.m., E.S.T., Wednesday, February 8, 1989 at the office of the Clerk of the Circuit Court of Citrus County, Attn: Ms. Cathy Taylor, 110 North Apopka Avenue, Inverness, Florida. BIDS will be opened at the next regularly scheduled meeting of the Citrus County Bid Committee and read aloud.

Each BID must be submitted in a sealed opaque envelope, addressed to:

CITRUS COUNTY BOARD OF COMMISSIONERS
ATTN: Ms. Cathy Taylor
110 North Apopka Avenue
Inverness, Florida 32650

Each sealed envelope containing a BID must be plainly marked on the outside as:

"BID for CITRUS COUNTY 60-ACRE SANITARY
LANDFILL CLOSURE PLAN, PHASE I
APPROX. 25 ACRES, PROJECT NUMBER 89-64,
and the name of BIDDER and his ADDRESS."

OTHERWISE THE BID SHALL NOT BE OPENED.

If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at:

CITRUS COUNTY BOARD OF COUNTY COMMISSIONERS
Attn: Ms. Cathy Taylor
110 North Apopka Avenue
Inverness, Florida 32650

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. Only one copy of BID form is required.

INFORMATION FOR BIDDERS

The OWNER may waive any informalities or minor defects or reject any and all BIDS with proper justification. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. No BIDDER may withdraw a BID within thirty (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 BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the Bid Schedule by examination of the site (s) and a review of the Drawings and Specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the WORK to be done.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. 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 CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID BOND payable to the OWNER for five (5%) percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the bonds of all except the three lowest responsible BIDDERS. When the Agreement is executed the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID bond of the successful BIDDER will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID bond.

A performance bond and a payment bond, each in the amount of one hundred (100%) percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

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.

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.

INFORMATION FOR BIDDERS

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance bond and payment bond within ten calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and bond forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default, in which cause the BID bond accompanying the proposal shall become the property of the OWNER.

The OWNER within ten days of receipt of acceptable performance bond, payment bond and Agreement signed by the party to whom the Agreement has awarded shall sign the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by written notice withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED has not been issued within the ten days period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER 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 the BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site(s) and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. 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 his BID.

INFORMATION FOR BIDDERS

Further, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of equal opportunity. The low BIDDER must supply the names and addresses of major material suppliers and subcontractors when requested to do so by the ENGINEER as well as a categorical cost breakdown of various portions of the total BID price.

The ENGINEER is:

COUNTY ENGINEER
CITRUS COUNTY, FLORIDA
1300 SOUTH LECANTO HIGHWAY
POST OFFICE BOX 440
LECANTO, FLORIDA 32661

Bid Schedule -1

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENT for the listed unit prices shown in the BID SCHEDULE:

BID SCHEDULE

**CITRUS COUNTY 60-ACRE SANITARY
LANDFILL CLOSURE PLAN, PHASE I
APPROXIMATELY 25 ACRES
PROJECT NUMBER 89-64**

ITEM NO.	DESCRIPTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
1.	MOBILIZATION	L.S.	1	\$ _____/LS	\$ _____
2.	CLEAR & GRUB (24 AC including approx. .5AC trees)	L.S.	1	\$ _____/LS	\$ _____
3.	EARTHWORK (Approx. 93,000 c.y. cut approx. 126,000 c.y. fill.off-site borrow 33,000 c.y.)	L.S.	1	\$ _____/LS	\$ _____
4.	SOLID WASTE RELOCATION (Approx. 34,000 c.y. cut Approx. 18,000 c.y. fill on exist. mound 16,000 c.y. fill to be placed in designated area. Approx. 40,000 c.y. fill required for cover (NOT INCLUDED IN ITEM 3). L.S.	L.S.	1	\$ _____/LS	\$ _____
5.	30 MIL PVC LINER (Complete)	S.Y.	112,800	\$ _____/SY	\$ _____
6.	GAS VENTS (4"PVC wells-complete)	EA.	24	\$ _____/EA	\$ _____
7.	PISTOL RANGE (Remove & Replace-Complete)	L.S.	1	\$ _____/LS	\$ _____
8.	SOD	S.Y.	49,500	\$ _____/SY	\$ _____
9.	SEED & MULCH (All disturbed areas - approx. 25 AC)	L.S.	1	\$ _____/LS	\$ _____
10.	ASPHALT ROADWAY	TON	295	\$ _____/TN	\$ _____

BID SCHEDULE
#89-64

11. LIMEROCK @ 6" DEPTH
INCLUDE PRIME. S.Y. 5000 \$_____/SY \$_____
TOTAL
AMOUNT \$_____

NOTE: ANY ITEMS THAT ARE SPECIFIED ON THE PLANS AND/OR CONTRACT DOCUMENTS AND ARE NOT LISTED IN THE BID SCHEDULE ARE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE MADE.

(Seal, if bid is by a Corporation)

Respectfully Submitted,

Contractor's Name

Address

Attest: _____

by: Signature (Title)

Bid Schedule

Proposal of _____
(hereinafter called "Bidder), organized and existing under the laws of the State of Florida and doing business as

(insert "a corporation", "a partnership", or "an individual") as applicable.

To _____
(hereinafter called "OWNER")

In compliance with your Advertisement for bids, BIDDER hereby proposes to:

Perform all work and furnishing all equipment, labor and material for the closure of an approximate 25 acre portion of the Citrus County Central Landfill. The closure includes construction of a "cap" consisting of the installation of a synthetic liner and placement of fill material.

In strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated in the Bid Schedule.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence the work under this Contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within 240 consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$1000 for each consecutive calendar day thereafter as provided in Section 15 of the GENERAL CONDITIONS.

BIDDER acknowledges receipt of the following ADDENDUM.

Bid Schedule

LIST OF SUBCONTRACTORS AND EQUIPMENT MANUFACTURERS

In the space below, the Bidder shall list all proposed Sub-contractors and their addresses for approval by the Owner.

The Bidder shall also describe that portion of the work he proposes to sublet to each Subcontractor listed.

Equipment Manufacturers shall be listed for each item of major equipment herein. No changes shall be allowed after acceptance by the Owner. Any blanks shall be filled in by the Owner and provided by the Contractor at no additional cost.

Attach additional sheets as required.

<u>NAME</u>	<u>ADDRESS</u>	<u>DESCRIPTION OF WORK TO BE PERFORMED</u>
-------------	----------------	--

BID BOND

KNOWN ALL MEN BY THESE PRESENTS, that we, the undersigned

_____ as Principal,

_____ as Surety
are hereby held and firmly bound unto

_____ as Owner
in the penal sum of

_____ for the payment of jwhich, well, and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 19 _____.

The condition of the above obligation is such that whereas the Principal has submitted to

_____ a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his 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 the agreement created by the acceptance of said BID.

then this obligation shall be void, otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed thek penal amount of this obligation as herein stated.

Bid Bond-2

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 accept such BID; and said 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, and day and year first set forth above.

_____(L.S.)
Principal

Surety

By

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.

Agreement -1

AGREEMENT

THIS AGREEMENT, made this _____ day of _____ 19, ____, by
and between

CITRUS COUNTY, FLORIDA

HEREINAFTER CALLED "OWNER" and

doing business as (a Corporation, or a partnership, or an
individual hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and
agreements hereinafter mentioned:

1. The Contractor will furnish all equipment, labor and
and material for the closure of an approximate 25 acre
portion of the Citrus County Central Landfill. The
closure includes construction of a "cap" consisting of
the installation of a synthetic liner and placement of
fill material and all other work or materials required
for a total job, complete.
2. The CONTRACTOR hereby agrees to perform all work
described in the CONTRACT DOCUMENTS.
3. The CONTRACTOR will commence the work required by the
CONTRACT DOCUMENTS within 15 calendar days after the
date of the NOTICE TO PROCEED and will complete the same
within 240 consecutive calendar days after the date
of the NOTICE TO PROCEED, unless the period of completion
is extended otherwise by the CONTRACT DOCUMENTS.
4. The OWNER has determined and declared the above-named
CONTRACTOR to be the lowest responsible bidder on the
above referenced project, and has duly awarded this
CONTRACT to said CONTRACTOR, for the sum named in the
proposed, to-wit:

_____ Dollars (\$ _____)

Agreement

5. The OWNER shall pay the CONTRACTOR for the work performed as follows: Payment for unit price items shall be at the unit price bid for actual construction quantities measured in place and approved by the ENGINEER; Payment for lump sum price items shall be at the lump sum price bid.
6. The OWNER will pay the CONTRACTOR in the manner and at such times as set forth in the GENERAL CONDITIONS such amounts as required by the CONTRACT DOCUMENTS.
7. The term "CONTRACT DOCUMENTS" means and includes the following:
 - (a) Advertisement for Bids
 - (b) Information for Bidders
 - (c) Bid
 - (d) Bid Bond
 - (e) Agreement
 - (f) General Conditions
 - (g) Supplemental General Conditions (where applicable)
 - (h) Payment Bond
 - (i) Performance Bond
 - (j) Notice of Award
 - (k) Notice to Proceed
 - (l) Change Order
 - (m) Drawings prepared by CITRUS COUNTY
ENGINEER numbered 1 through 8.
 - (n) Specifications prepared by Citrus County Engineer dated January, 1989.
 - (o) Addenda:
No. _____ dated _____ 19 _____
No. _____ dated _____ 19 _____
7. This agreement shall be binding upon all parties hereto and respective heirs, executors, administrators, successors, and assigns.

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

Agreement

Name: Walt Connors, Clerk
Title: Clerk of Court

CITRUS COUNTY
Owner

BY: _____

Name: William J. "Skip" Hudson

Title: Chairman

CONTRACTOR

By: _____

NOTICE OF AWARD

TO: _____

PROJECT DESCRIPTION: _____

The owner has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated _____, 19_____, and Information for Bidders.

You are hereby notified that your BID has been accepted in the amount of \$_____.

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 to you.

If you fail to execute said agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____ 19_____

CITRUS COUNTY

Owner _____

By _____

Name James W. Pinkerton, P.E.

Title County Engineer

Acceptance of Notice

Receipt of the above Notice of Award is hereby acknowledged by:

this the _____ day of _____ 19_____

By: _____

Title: _____

NOTICE TO PROCEED

TO: _____ DATE: _____

PROJECT: _____

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK IN ACCORDANCE WITH THE
AGREEMENT DATED: _____ 19 _____, ON OR BEFORE
_____ 19 _____ AND YOU ARE TO COMPLETE THE WORK
WITHIN _____ CONSECUTIVE CALENDAR DAYS THEREAFTER. THE
DATE OF COMPLETION OF ALL WORK IS THEREFORE _____.

CITRUS COUNTY
Owner

BY: _____

NAME: James W. Pinkerton, P.E.

TITLE: COUNTY ENGINEER

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged
by: _____

this the _____ day of _____ 19 _____

by: _____

Title: _____

CHANGE ORDER

Date _____ Job No. _____ Order No. _____

Project _____ Agreement Date _____

Contractor _____ Owner _____

Item No.	Description (and Justification)	Add	Deduct
----------	---------------------------------	-----	--------

Net Addition or Deduction \$ _____

Original Contract Amount \$ _____

Previously approved change orders \$ _____

CONTRACT AMOUNT INCLUDING THIS CHANGE ORDER AND
PREVIOUSLY APPROVED CHANGE ORDER \$ _____

The CONTRACT TIME will be (Increased) (Decreased) by _____ calendar days.

The Date for completion of all work will be _____

APPROVED BY OWNER:

ACCEPTED BY CONTRACTOR

BY _____

BY _____

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corp. Partnership, Individual)

(Name of Surety)

(Address of Owner)

hereinafter called OWNER, total aggregate penal sum of _____
_____ Dollar (\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

The CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____ 19____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract 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 one year guaranty period and if the PRINCIPAL shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

Performance Bond -2-

PROVIDED, FURTHER, that the said security, for value received hereby stipulates and agrees that no change, extension of time, alteration or additon 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 it does hereby waive notice of any such change, extension of time, alteration or additiion to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the 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 20 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, the Contract or the Loan 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 right of the other beneficiary herunder, whose claim may be satisfied. The OWNER is the only beneficiary hereunder.

IN WITNESS WHEREOF, this instrument is executed in _____
Number

one of which shall be deemed an original, this the _____ day
of _____.

ATTEST:

Principal

(Principal) Secretary

By _____ (s)

(Seal)

(Witness as to Principal)

(address)

(address)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS; that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called PRINCIPAL
(Corp., Partnership or individual)

(Name of Surety)

hereinafter called SURETY, are held and firmly bound unto _____

(Name of Owner)

(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 sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the _____ day of _____, 19____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment of all persons, firms, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extensions or modifications thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, 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, and to any mechanic or materialman lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to

Payment Bond -2-

remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the SUBCONTRACTORS, and persons, firms, and corporation having a direct contract with the PRINCIPAL to its SUBCONTRACTORS.

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 the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BONDS, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this contract or to the WORK or to the SPECIFICATIONS.

PROVIDE, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) Unless claimant, other than one having a direct contract with the PRINCIPAL, shall have given written notice to any two of the following: the PRINCIPAL, the OWNER, or the SURETY above named within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notices shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction of business, or server in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer. (b) After the expiration of one (1) year following the date of which PRINCIPAL ceased work on said CONTRACT, is being understood, however, that if any limitation embodied in the BOND is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that this BOND shall be deemed amended automatically and immediately, without formal and spearate amendments hereto, upon amendement to the Contract not increasing the contract price more than 20 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, the contract or the load Documents shall include any alteration, addition, extension or modification of any character whatsoever.

Payment Bond -3-

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

WITNESS WHEREOF, this instrument is executed in _____ counterparts, each of which shall be deemed an original, this the _____ day of _____.

ATTEST:

Principal

(Principal Security) By _____ (s)

(seal) _____

Witness as to Principal

address

Surety

ATTEST:

Witness as to Surety By _____
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.
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.

General Conditions-1

GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in Contract Price
15. Time for Completion and Liquidated Damages
16. Correction of Work
17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
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General Conditions-2

1. Definitions

Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular to plural thereof.

(a) ADDENDA

Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by addition, deletions, clarifications or corrections; a change made prior to bid opening.

(b) BID

The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.

(c) BIDDER

Any person, firm, or corporation submitting a BID for the WORK.

(d) BONDS

Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.

(e) CHANGE ORDER

A written order to the CONTRACTOR 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.

(f) CONTRACT DOCUMENTS

The contract, including Advertisement for Bids, Information for Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.

(g) CONTRACT PRICE

The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

(h) CONTRACT TIME

The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

(i) CONTRACTOR

The person, firm, or corporation with whom the OWNER has executed the Agreement.

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- (j) **DRAWINGS**
The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.
- (k) **ENGINEER**
CITRUS COUNTY ENGINEER, or his designated representative.
- (m) **FIELD ORDER**
A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- (n) **NOTICE TO PROCEED**
Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.
- (o) **OWNER**
BOARD OF COUNTY COMMISSIONERS, Citrus County, Florida.
- (p) **PROJECT**
The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- (q) **RESIDENT PROJECT REPRESENTATIVE**
The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.
- (r) **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.
- (s) **SPECIFICATIONS**
A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards, and workmanship.
- (t) **SUBCONTRACTORS**
An individual, firm, or corporation having a direct contact with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.

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- (u) **SUBSTANTIAL COMPLETION**
That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT of specified part can be utilized for the purposes for which it is intended.
 - (v) **SUPPLEMENTAL GENERAL CONDITIONS**
Modifications to General Conditions required by a Federal Agency for participation in the PROJECT and approved by the Agency in writing prior to inclusion in the CONTRACT DOCUMENTS.
 - (w) **SUPPLIERS**
Any person, supplier or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.
 - (x) **WORK**
All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the project.
 - (y) **WRITTEN NOTICE**
Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.
2. **Additional Instruction and Detail Drawings**
The Contractor may be furnished additional instruction and detail drawings by the Engineer, as necessary to carry out the Work required by the Contract Documents.
- The additional drawings and instruction thus supplied will become a part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.
3. **Schedules, Reports, and Records**
The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning Work performed or to be performed.

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Prior to the first partial payment estimate the CONTRACTOR shall submit schedules showing the order in which he proposes to carry on the Work, including dates of which he will start the various parts of the work, estimated date of completion of each part, and as applicable; the dates at which special detail drawings will be required; and respective dates for submission of Shop Drawings, the beginning of manufacture; the testing and the installation of materials, supplies, and equipment.

The Contractor shall also submit a schedule of payments that he anticipates he will earn during the course of the work. The schedule shall consist of a detailed breakdown of the contract price, giving the quantities of various kinds of work and the unit prices for materials and labor and total prices thereof.

4. Drawings and Specifications

Unless otherwise specifically stated herein, the 1986 edition of Standard Specifications for Road and Bridge Construction, as prepared by the Florida Department of Transportation, in its entirety, shall govern this project.

The intent of the Drawings and Specifications is that the Contractor shall furnish all labor, materials, (not furnished by the Owner), tools, equipment, and transportation necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental work necessary to complete the Project in an acceptable manner, ready for use, occupancy or operation by the Owner.

In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general drawings.

Any discrepancies found between the Drawings and Specifications and site conditions or any inconsistencies or ambiguities in the Drawings and Specifications shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk.

5. Shop Drawings

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 Drawings shall not release the Contractor from responsibility for

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deviations from the Contract Documents. The approval of the Shop Drawings which substantially deviates from the requirement of the Contract Documents shall be evidenced by a Change Order.

When submitted for the Engineer's review, Shop Drawings shall bear the Contractor's certification that he has reviewed, checked, and approved the Shop Drawings and that they are in conformance with the requirements of the Contract Documents. Eight copies of each shop drawing will be required for submission.

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. Materials, Services, and Facilities

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 specified time.

Materials and equipment shall be so stored as to insure 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.

Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as inspected by the manufacturer.

Materials, supplies, or equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.

Materials, supplies, or 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 is retained by the seller.

7. Inspection and Testing

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.

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The Contractor shall provide, at his expense, the necessary testing and inspection services required by the Contract Documents, unless otherwise provided.

The Owner shall provide all other inspection and testing services not required by the Contract Documents.

If the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any work to specifically be inspected, tested, or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness. The Contractor will then furnish the Engineer the required certificates of inspection, testing, or approval.

Neither observations by the Engineer nor inspections, tests, or approval by persons other than the Contractor shall relieve the Contractor from his obligations to perform the Work in accordance with the requirements of the Contract Documents.

The Engineer and his representative will at all times have access to the Work. In addition, authorized representatives and agents of any participating Federal and State agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the Work and also for any inspection, or testing thereof.

If any Work is covered contrary to the written request of the Engineer, it must, if required by the Engineer, be uncovered for his observation and replaced at the Contractor's expense.

If any Work has been covered which the Engineer has not specifically requested to observe prior to its being covered, or if the Engineer considers it necessary or advisable that covered Work be inspected or tested by others, 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 expense 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,

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observation, inspection, testing, and reconstruction and an appropriate Change Order will be issued.

8. Substitutions

Whenever shown or specified in the Contract Documents, the brands make of materials, devices or equipment shall be regarded as the design standard. If the Contractor wishes to submit alternate brands, make of materials, devices or equipment he shall submit to the Engineer supportive data, from the manufacturer with his bid. The alternate items are to be of equal quality, workmanship, durability, performance and economy of operation.

The Contractor shall be, in the event that the alternates are approved by the Engineer, responsible for any and all changes in construction at no additional cost to the owner.

Alternate items which require major design or construction alternations shall not be approved by the Engineer.

In all cases, new materials shall be used unless this provision is waived by written notice from the Owner or Engineer.

9. Patents

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

10. Surveys, Permits, Regulations

The Owner shall furnish all land 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 Owner, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pipe locations and other working points, lines, elevations, and cut sheets.

The Contractor shall carefully preserve bench marks, reference points, and stakes and, in case of willful or careless destruction, he shall be charged with the resulting

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expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

Permits and licenses of a temporary nature necessary for the prosecution of the Work shall be secured and paid for by the Contractor. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the Work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided in Section 13, Changes in Work.

11. Protection of Work, Property, and Persons

The Contractor will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor will be exclusively responsible for safety. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawn, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the Work may affect them. The Contractor will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them is liable, except damage or loss attributable to the fault of the Contract Documents or to the acts or omissions of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.

In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor,

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without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury, or loss. He will give the Engineer prompt Written Notice of any significant changes in the Work or deviations from the Contract Documents caused thereby, and a Change Order shall thereupon be issued covering the changes and deviations involved.

12. Supervision by Contractor

The Contractor will supervise and direct the Work. He will be solely responsible for the means, methods, techniques, sequences, and safety of construction. The Contractor will employ and maintain on the Work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

13. Changes in the Work

The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment shall be authorized by Change Order.

The Engineer, also, may at any time, by issuing a Field Order, make changes in the details of the Work. The Contractor shall proceed with the performance of any changes in the Work so ordered by the Engineer unless the Contractor believes that such Field Order entitles him to a change in Contract Price or Time, or both, in which event he shall give the Engineer Written Notice thereof within fifteen (15) days after the receipt of the ordered change, and the Contractor shall not execute such changes pending the receipt of an executed Change Order or further instruction from the Owner.

14. Changes in Contract Price

The Contract Price may be changed only by a Change Order. The value of any Work covered by a Change Order or of any claim for increase or decrease in the Contract Price shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit Prices previously approved.
- (b) An agreed lump sum.

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- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed fifteen percent (15%) of the actual cost of the Work to cover the cost of general overhead and profit.

15. Time for Completion and Liquidated Damages

The date of beginning and the time for completion of the Work are essential conditions of the Contract Documents and the Work embraced shall be commenced on a date specified in the Notice to Proceed.

The Contractor will proceed with the Work at such rate of progress to insure full completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time for the completion of the Work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the Work.

If the Contractor shall fail to complete the Work within the Contract Time, or extension of time granted by the Owner, then the Contractor will pay to the Owner the amount for liquidated damages as specified in the Bid for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Documents.

The Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the Work is due to the following, and the Contractor has promptly given Written Notice of such delay to the Owner or Engineer:

- (a) To any preference, priority or allocation order duly issued by the Owner.
- (b) To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and abnormal and unforeseeable weather; and
- (c) To any delays of Subcontractor occasioned by any of the causes specified in paragraphs (a) and (b) of this article.

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16. Correction of Work

The Contractor shall promptly remove from the premises all Work rejected by the Engineer for failure to comply with the Contract Documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the Work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all Work of other Contractors destroyed or damaged by such removal or replacement.

All removal and replacement Work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected Work within ten (10) days after receipt of Written Notice, the owner may remove such Work and store the materials at the expense of the Contractor.

17. Subsurface Conditions

The Contractor shall promptly, and before such conditions are disturbed, except in the event of any emergency, notify the Owner by Written Notice of:

- (a) Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
- (b) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.

The Owner shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the Work, an equitable adjustment shall be made and the Contract Documents shall be modified by a Change Order. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given the required Written Notice; provided that the Owner may, if he determines the facts so justify, consider and adjust such claims asserted before the date of final payment.

18. Suspension of Work, Termination, and Delay

The Owner may, at any time and without cause, suspend the Work on any portion thereof for a period of not more than ninety days or until such time as agreed upon by the Contractor, by written Notice to the Contractor and the Engineer which notice shall fix the date on which Work shall be resumed. The Contractor will resume that Work on the date so fixed. The Contractor will be allowed an increase

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in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension.

If the Contractor is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to Subcontractors for labor, regulations or orders of any public body having jurisdiction of the Work or if he disregards the authority of the Engineer, or if he otherwise violates any provision of the Contract Documents, then the Owner may, without prejudice to any other right or remedy and after giving the Contractor and his surety a minimum of ten (10) days from delivery of a Written Notice, terminate the services of the Contractor and take possession of the Project and of all materials, equipment, tools, construction equipment, and machinery therein owned by the Contractor, and finish the Work by whatever method he may deem expedient. In such the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor will pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a Change Order.

Where the Contractor's services have been so terminated by the Owner, said termination shall not affect any right of the Owner against the Contractor when existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from compliance with the Contract Documents.

After ten (10) days from delivery of a Written Notice to the Contractor, the Owner may, without cause and without prejudice to any other right or remedy, elect to abandon the Project and terminate the Contract. In such case, the Contractor shall be paid for all Work executed and any expense sustained plus reasonable profit.

If, through no act or fault of the Contractor, the Work is suspended for a period of more than ninety (90) days by the Owner 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 Owner

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fails to pay the Contractor substantially the sum approved by the Engineer or awarded by arbitrators within thirty (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a Written Notice to the Owner and the Engineer, terminate the Contract and recover from the Owner payment for all Work executed and all expenses sustained. In addition and in lieu of terminating the Contract, if the Engineer has failed to act on a request for payment or if the Owner has failed to make any payment as aforesaid, the Contractor may upon ten (10) days notice to the Owner and the Engineer stop the Work until he has been paid all amounts then due, in which event and upon resumption of the Work, Change Orders shall be issued for adjusting the Contract Price or extending the Contract Time or both to compensate for the costs and delays attributable to the stoppage of the Work.

If the performance of all or any portion of the Work is suspended, delayed or interrupted as a result of a failure of the Owner or Engineer to act within the time specified in the Contract Documents, or if no time is specified, within a reasonable time, an adjustment in the Contract Price or an extension of the Contract Time, or both, shall be made by Change Order to compensate the Contractor for the costs and delays necessarily caused by the failure of the Owner or Engineer.

19. Payment to Contractor

At least ten days before each progress payment falls due (but no more often than once a month), the Contractor will submit to the Engineer a partial payment estimated filled out and signed by the Contractor covering the Work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonable require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitable stored at or near the site, the partial estimate shall also be accompanied by such supporting data, satisfactory to the Owner, as will establish the Owner's title to the material and equipment and protect his interest herein, including applicable insurance. The Engineer will, within ten (10) days after receipt of each partial payment estimate either indicate in writing his approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate. The Owner will, within thirty (30) days of presentation to him of an approved partial payment estimate, pay the Contractor a progress payment on the basis of the approved partial payment estimate. The Owner shall

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retain ten percent (10%) of the amount of each payment until final completion and acceptance of all Work covered by the Contract Documents. The Owner at any time, however, after fifty percent (50%) of the Work has been completed may reduce retainage to five percent (5%) on the current and remaining estimates. The Owner may reinstate up to ten percent (10%) withholding if the Owner determines, at his discretion that the Contractor is not making satisfactory progress or there is other specific cause for such withholding. The Owner may accept securities negotiable without recourse, condition, or restriction, a release of retainage bond, or an irrevocable letter of credit provided by the Contractor in lieu of all or part of the cash retainage. On completion and acceptance of a part of the work on which the price is stated separately in the Contract Documents, payment may be made in full, including retained percentages, less authorized deductions.

The request for payment may also include an allowance for the cost of such major materials and equipment which are suitable stored either at or near the site.

All Work covered by partial payment made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the Work, or as a waiver of the right of the Owner to require the fulfillment of all terms of the Contract Documents.

Upon completion and acceptance of the Work, the Engineer shall issue a certificate attached to the final payment request that the Work has been accepted by him under the conditions of the Contract Documents. The entire balance found to be due the Contractor, including the retained percentages, but except such sums as may be lawfully retained by the Owner, shall be paid to the Contractor within thirty (30) days of completion and acceptance of the Work.

The Contractor will indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the Work. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money

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deemed reasonable sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his surety, or any third party. In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.

20. Acceptance of Final Payment as Release

The acceptance by the Contractor of final payment shall be and shall operate as release to the Owner of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the Owner and others relating to or arising out of this Work. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the Contract Documents or the Performance Bond and Payment Bonds.

21. Insurance

The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's execution of the Work, whether such execution be by himself or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- (a) Claims under workmen's compensation, disability benefit, and other similar employee benefit acts;
- (b) Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;
- (c) Claims for damages because of bodily injury, occupational sickness or disease, or death of any person other than his employees;
- (d) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and

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- (e) Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

Certificate of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least fifteen (15) days prior Written Notice be given to the Owner.

The Contractor shall procure and maintain, at his expense, during the Contract Time, liability insurance as hereinafter specified:

- (1) Contractor's General Public Liability and Property Damage Insurance including vehicle coverage issued to the Contractor and protecting him from all claims for destruction of or damage to property, arising out of or in connection with any operations under the Contract Documents, whether such operations be by any subcontractor under him, or anyone directly or indirectly employed by the Contractor or by a Subcontractor under him. Insurance shall be written with a limit of liability of not less than \$1,000,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$3,000,000 for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$1,000,000 for all property damage sustained by any one person in any one accident; and a limit of not less than \$1,000,000 for any such damage sustained by two or more persons in any one accident.

The Contractor must procure a contractual liability endorsement to the comprehensive general liability insurance policy to indemnify (hold harmless) the Owner and Engineer for claims arising out of the Contractor's negligence.

- (2) The Contractor shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the Project to the full insurable value thereof for the benefit of the Owner, the Contractor, and Subcontractors as their interest may appear. This provision shall in no way release the Contractor or Contractor's surety from obligations under the Contract Documents to fully

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complete the Project.

The Contractor shall procure and maintain, at his own expense, during the Contract Time, in accordance with the provisions of the laws of the state in which the work is performed, Workmens Compensation Insurance, including occupational disease provisions, for all his employees at the site of the Project and in case any work is sublet, the Contractor shall require such Subcontractor similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under Workmen's Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

The Contractor shall secure, if applicable, "All Risk" type Builder's Risk Insurance for Work to be performed. Unless specifically authorized by the Owner, the amount of such insurance shall not be less than the Contract Price totaled in the Bid. The policy shall cover not less than the losses due to fire, explosion, hail lightening, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the Contract Time, and until the Work is accepted by the Owner.

22. Contract Security

The Contractor shall within ten (10) days after the receipt of the Notice of Award furnish the Owner with a Performance Bond and a Payment Bond in penal sums equal to the amount of the Contract Price, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract to all persons supplying labor and materials in the prosecution of the Work provided by the Contract Documents. Such Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the Work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on such Bond is declared a bankrupt or loses its right to do business in the State in which the Work is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds, the Contractor shall within ten (10) days after notice from the Owner 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

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satisfactory to the Owner. The premiums on such Bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the Owner.

23. Assignments

Neither the Contractor nor the Owner shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

24. Indemnification

The Contractor will indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the Work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to loss to or destruction of tangible property, including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

In any and all claims against the Owner or the Engineer, or any of their agents or employees, by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workman's Compensation acts, disability benefit acts or other employee benefits acts.

The obligation of the Contractor under this paragraph shall not extend to the liability of the Engineer, his agents or employees arising out of the preparation or approval of maps, drawings, options, reports, surveys, Change Orders, designs, or Specifications.

25. Separate Contracts

The Owner reserves the right to let other contracts in connection with the Project. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their 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

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Contractor shall inspect and promptly report to the Engineer any defects in such Work that render it unsuitable for such proper execution and results.

The Owner may perform additional Work related to the Project by himself, or he may let other contracts containing provisions similar to these. The Contractor will afford the other Contractors who are parties to such Contracts (for the Owner, if he is performing the additional Work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of Work, and shall properly connect and coordinate his work with theirs.

If the performance of additional Work by other Contractors or the Owner is not noted in the Contract Documents prior to the execution of the Contract, 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 additional Work by the Owner or others involves him in additional expense or entitles him to an extension of the Contract Time, he may make a claim therefore as provided in Section 14 and 15.

26. Subcontracting

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.

The Contractor shall not award Work to Subcontractors, in excess of fifty percent (50%) of the Contract Price, without prior written approval of the Owner.

The Contractor shall be fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of person directly employed by him.

The Contractor shall cause appropriate provisions to be inserted in all Subcontracts relative to the Work to bind Subcontractors to the Contractors by the terms of the Contract Documents insofar as applicable to the Work of Subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

27. Engineers Authority

The Engineer shall act as the Owner's representative during this construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and Work performed. He shall interpret the intent

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of the Contract Documents in a fair and unbiased manner. The Engineer will make visits to the site and determine if the Work is proceeding in accordance with the Contract Documents.

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 made at the factory or fabrication plant of the source of material supply.

The Engineer and the Owner will not be responsible for the constructions means, controls, techniques, sequences, procedures, or construction safety.

28. Land and Right-of-Way

Prior to issuance of Notice to Proceed, the Owner shall obtain all land and rights-of-way necessary for carrying out and for the documents, unless otherwise mutually agreed.

The Owner shall provide to the Contractor information which delineates and describes the lands owned and rights-of-way acquire.

The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

29. Guaranty

The Contractor shall guarantee all materials and equipment furnished and Work performed for a period of one (1) year from the date of final acceptance. The Contractor warrants and guarantees for a period of one (1) year from the date of Substantial Completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. 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 Owner 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.

30. Taxes

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

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31. Determination of Lowest Qualified Bidder

The Owner may make such investigations as it deems necessary to determine the ability of the bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner 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 outfitted to carry out the obligations of the Contract and to complete the work contemplated therein. Responsibility of the Bidder will be based on whether a permanent place of business is maintained, has adequate plant equipment to do the work properly and within the established time limit, and has financial status to meet his obligations contingent to the Work. Only qualified Bidders who have adequate experience, finances, equipment and personnel will be considered in making awards. The Owner also reserves the right to make and award for an amount of work less than the total indicated, in order to come within proposed funds for the project. Except where the Owner exercises the right reserved herein to reject any or all proposals, the Contract will be awarded by the Owner to both a qualified and responsible Bidder who has submitted the lowest bid.

32. Acceptance or Rejection of Proposals

The Owner reserves the right to waive informalities in or to reject any or all bids. Bid envelopes must, however, bear on the outside the name of the Bidder and his address. Otherwise the bid shall not be opened. Any proposal which is incomplete, obscure, or irregular may be rejected; any proposal having erasures or corrections in the Bid Proposal may be rejected; any proposal which omits a bid price may be rejected; any Proposal in which manufacturers of equipment or subcontractors are not listed may be rejected; any Proposal accompanied by an insufficient or irregular certified check of Bid Bond may be rejected. Conditional bids will not be accepted. Any proposals may be withdrawn prior to the scheduled time for opening of such or authorized postponement thereof. Any Proposal received after the time and date specified shall not be considered. No Bidder may withdraw a Proposal within thirty (30) days after the actual date of the opening thereof. Should there be any reason why the Contract cannot be awarded within thirty (30) days after the opening of the proposals, the time may be extended by mutual agreement between the Owner and the Bidder.

33. Pre-Construction Conference

Shortly after the Notice of Award and the signing of the Contract forms, the Engineer shall notify the Contractor(s) of the date for a Pre-Construction conference. The Contractor(s) shall attend this conference and be prepared

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to discuss organization, construction schedules, supervision, communication, safety, and various other pertinent items. Include some kind of statement concerning the minutes of the meeting.

34. **Experience-Process Equipment Manufacturers**

Process equipment manufacturers shall have a minimum of five years experience in the design and manufacturing of their product. The manufacturer of each item of equipment shall, in writing provide to the Engineer a list of installations of their equipment and operational data from a similar type installation. Test data or pilot plant data is NOT acceptable. In lieu of the above, the Owner shall require a Performance Bond or Cash Bond of not less than 150% of the cost of the equipment including installation, and also a five year warranty guarantee on the piece of equipment, unless otherwise stipulated under other specific items in these specifications.

35. **As-Built Records**

As-built records shall be kept by each Contractor showing any items of construction and equipment, for which he is responsible. These records shall also show any additional work, existing features, or utilities revealed by construction work which are not shown on the Contract Drawings. These records shall be kept up-to-date daily. They may be kept on a marked set of Contract Drawings to be furnished prior to the beginning of the work. They shall be available at all times during construction for reference by the Engineer and the Owner, and shall be delivered to the Engineer to the Engineer upon completion of the Work prior to final payment.

36. **Operating, Maintenance and Service Manuals**

If applicable, each Contractor is required to provide six complete Operating, Maintenance and Service Manuals for all equipment for the entire system as furnished under his contract. The manuals shall be indexed and bound in hard cover binders containing full information for each system, piece of equipment and all controls. Material submitted shall include but not be limited to the following:

1. Manufacturer's descriptive literature
2. Normal equipment operating characteristics
3. Performance data, curves, ratings, etc.
4. Wiring diagrams
5. Control diagrams with written descriptions of operations
6. Manufacturer's maintenance and service manuals
7. Spare parts and replacement parts lists
8. Name, address, and telephone number of local or nearest manufacturer's service organization.

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All items shall be identified with the same identification, name, mark, number, etc., as indicated on drawings. All material must be submitted to the Engineer and within six months after award of the Contract.

37. Operating Instructions

Unless otherwise specified in the Project Specifications, the following requirements shall be met:

- (a) Contractors shall make available to the Owner, after all equipment is in operation and at a time agreed upon by Owner and Contractor, competent instructors well versed in the operation of the process, mechanical and electrical systems for the purpose of training Owner's personnel in all phases of operation of the equipment and systems.
- (b) Instructions shall be conducted during consecutive normal working days, for a period satisfactory to the Owner, and as specified for particular equipment in DIVISION 15.
- (c) When deemed necessary by the Engineer, or Owner, these instructions shall include the services of factory approved representatives for all major equipment including controls.

38. Examination of Plans, Site, Etc.

The bidder must examine for themselves the Specifications, Plans, profiles, etc., the location of the proposed work, and exercise their own judgement as to the extent of the work to be done, and difficulties attending the erection of the work; and the Contractor must assume all risks of variance in any computations, by whosoever made, of statements of amounts or quantities necessary to complete the work required by the Contract, and agree to fully complete said work in accordance with all plans and Specifications for the price bid. Any item or quantities contained either in the Specifications, or on profiles or Drawings, but omitted from the other respectively, will be considered part of the work. Insofar as possible, the Contractor, in the carrying out of his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor or services.

SPECIAL PROVISIONS

SP.1.0 SCOPE

The work to be done under these specifications shall include the furnishing and installation of all materials, labor, equipment, supervision, appurtenances and all else incidental therefor and necessary to construct the paving, drainage, grading and excavation as shown on the plans and/or specified herein. Where not called out on the plans or specified herein, all work, and payment for same, shall conform to the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", edition of 1986. The intent of this Contract is to provide for the construction and completion of every detail of the work described in the Contract shown on the typical. Should any detail or details be omitted from these typicals and/or specifications or be incorrect, it shall be the responsibility of the Contractor to bring this omission or inaccuracy to the attention of the Engineer and to furnish and install said details to properly complete the work so that the project will serve its intended function.

S.P.2.0 PVC LINER

2.01 SCOPE OF WORK: Furnish and install PVC flexible membrane lining in the areas shown on the drawings. All work shall be done in strict accordance with the project drawings, these specifications and the membrane lining supplier's approved shop drawings.

Sufficient lining material shall be furnished to cover all lined areas shown on the plans including panel overlaps at field seams and anchor trenches. One percent shall be added to the length of each panel to allow for shrink and wrinkles.

The liner shall be installed in a relaxed condition and shall be free of tension or stress upon completion of the installation. Stretching of the liner to fit will not be allowed.

It is the intent of these specifications to ensure a quality finished product. It shall be the responsibility of the contractor to ensure that this requirement is met.

- 2.02 PRODUCTS; The lining material shall be polyvinyl chloride (PVC) membrane. The lining material shall be uniform in color, thickness, size and surface texture. The finished liner shall be free from pinholes, blisters, and contaminants.

The PVC liner shall have a smooth or matte finish on both sides and shall not be embossed.

The membrane shall be manufactured from a composition of high quality ingredients specifically compounded to meet the requirements of these specifications. Reprocessed or reground materials will not be acceptable. Clean rework (edge trim) of the same virgin ingredients generated from the manufacturer's own production run will be allowed.

The lining material must have the minimum property values shown in Table A, listed on page 43 & 43a.

- 2.03 SUBMITTALS; The fabricator of PVC panels used in this work shall prepare shop drawings with a proposed panel lay-out to cover the lined area shown in the project plans. Shop drawings shall indicate the direction of factory seams and shall show panel sizes consistent with the material quantity requirements of Section 2.01.

Details shall be included to show the termination of the panels at the perimeter of lined areas and the methods of sealing around penetrations. If the manufacturers details differ from plan details no additional payment will be made for said differences.

Placement of the PVC lining shall not commence until the shop drawings and details have been approved by the Engineer.

2.04 FABRICATION; The individual widths of PVC liner shall be factory fabricated into large sheets custom designed for this project so as to minimize field seaming. All factory seams shall provide a bond between the sheets sufficiently strong to meet the test requirements of these specifications. The factory seaming shall be accomplished by use of dielectric fusion welding. The dielectric weld shall be a nominal one inch wide continuous bond. The PVC lining shall be as furnished by Palco Linings, Inc., Stanton, California and South Plainfield, New Jersey or Engineer approved equal.

2.05 TESTING OF ROLL GOODS PRIOR TO FABRICATION; The fabricator of PVC panels used in this work shall take samples from every 10,000 pounds of roll goods received from the PVC manufacturer. Samples shall be tested by a qualified laboratory for the following properties as specified in Section 2.02, TABLE A:

- 1) Thickness
- 2) Minimum Tensile Properties
- 3) Tear Resistance
- 4) Low Temperature Impact
- 5) Dimensional Stability

2.06 INSPECTION OF ROLL GOODS PRIOR TO FABRICATION: Prior to factory seaming, all roll goods shall be unwound and inspected on both sides for unmixed or poorly dispersed ingredients, the presence of contaminants or foreign particles, pin holes and any other defects. All defects and impurities will be removed or repaired before the membrane is fabricated into panels. Thickness shall be measured according to ASTM D882 at the center and each edge of the beginning and end of each roll of material used in this work. A log shall be maintained showing the material type, roll number, lot number, and three thickness measurements at the beginning and end of each roll. A copy of this log shall be furnished to the owner or Engineer.

2.07 INSPECTION AND TESTING OF FACTORY SEAMS: The fabricator shall perform 100% continuous visual inspection of each lineal foot of seam as it is produced. Upon discovery of any defective seam, the fabricator shall stop production of panels used in this work and shall repair the seam and determine and rectify the cause of the defect prior to continuation of the seaming process. As evidence that the fabricator has complied with the inspection requirement of this section. A mark which identifies the inspector by name or number shall be hand stamped with indelible ink no less frequently than five feet on center along each factory seam. A 48 inch (1.2 meter) sample shall be taken from each factory seam welding unit used in this work at the beginning of every work shift and every four hours of production thereafter. Samples shall be non-destructive, i.e., will not require patching of fabricated panels. Test specimens shall be cut at quarter points from each 48 inch (1.2 meter) seam sample (a total of three places) and tested for factory seam strength and peel adhesion as specified in Section 2.02, TABLE A, "MINIMUM FACTORY SEAM REQUIREMENTS". A log shall be maintained showing the date, time, panel number and test results. A copy of this log shall be furnished to the owner or Engineer.

2.08 CERTIFICATION AND TEST REPORTS: Prior to installation of the PVC panels, the fabricator shall provide the Engineer with the following certification and test reports specified in Sections 2.08.1 thru 2.08.4.

- 2.08.1 Written certification that the material meets all of the requirements of Section 2.02.
- 2.08.2 Written test results for the testing required by Section 2.05.
- 2.08.3 Written certification that inspection and thickness measurements have been performed according to Section 2.06.
- 2.08.4 Written certification that the factory seams were inspected and tested in accordance with Section 2.07.

- 2.08.5 The contractor is responsible to provide written certification from the manufacturer that installation was performed in accordance with the manufacturers specifications.
- 2.09 PANEL PACKAGING AND STORAGE: Factory fabricated PVC panels shall be accordion folded onto a sturdy wooden pallet designed to be moved by a forklift or similar equipment. Each factory fabricated panel shall be prominently and indelibly marked with the panel size. Panels shall be fully enclosed in heavy, water resistant cardboard and protected to prevent damage to the panel during shipment. The outside of each container shall also be prominently marked with the panel size.
- Panels which have been delivered to the project site shall be stored in their original, unopened containers in a dry area and protected from the direct heat of the sun where possible, especially when stored for a long period of time. Pallets shall not be stacked.
- 2.10 QUALIFICATION OF SUPPLIERS: The fabricator of the PVC synthetic membrane liner shall provide the Engineer with a list of not less than ten projects and not less than 10 million square feet of successfully installed PVC synthetic lining. The project list shall show the name, address, and telephone number of an appropriate party to contact in each case.
- The installer of the PVC lining shall be experienced in the installation of flexible membrane lining and shall provide the Engineer with a list of similar projects and not less than 1 million square feet of successfully installed PVC synthetic lining. The project list shall show the name, address, and telephone number of an appropriate party to contact in each case.
- 2.11 SUBGRADE PREPARATION: Lining installation shall not begin until a proper base has been prepared to accept the membrane lining. Base material shall be free from angular rocks, roots, grass and vegetation. Foreign materials and protrusions shall be removed and all cracks and voids shall be filled and the surface made level or uniformly sloping as indicated on the drawings. The prepared surface shall be free from loose earth, rocks, rubble and other foreign matter. The subbase shall be uniformly compacted to ensure against settlement and shall be steel wheel rolled prior to liner installation.

The surface on which the lining is to be placed shall be maintained in a firm, clean, dry and smooth condition during lining installation. If groundwater is present within 12 inches below the surface to be lined, the general contractor shall dewater the area prior to and during installation of the liner.

2.12

LINING INSTALLATION: The PVC lining shall be placed over the prepared surface in such a manner as to assure minimum handling. Anchor trench excavation and any structure seal preparation should be completed before lining installation begins. The sheets shall be of such lengths and widths and shall be placed in such a manner as to minimize field seaming. Horizontal field seams on the slopes shall be kept to a minimum. Only those sheets of lining material which can be anchored and/or sealed together in one day shall be unpackaged and placed in position.

In areas where wind is prevalent lining installation should be started at the upwind side of the project and proceed downwind. The leading edge of the liner shall be secured at all times with sand bags or other means sufficient to hold it down during high winds.

Sandbags or rubber tires may be used as required to hold the lining in position during installation. Tires shall not have exposed steel cords or other sharp edges which may snag or cut the lining. Materials, equipment or other items shall not be dragged across the surface of the liner or be allowed to slide down slopes on the lining. All parties walking or working upon the lining material shall wear soft-sole shoes. Lining sheets shall be closely fit and sealed around inlets, outlets and other projections through the lining. Lining to concrete seals shall be made with a mechanical anchor or as shown on the drawings. All piping, structures and other projections through the lining shall be sealed with approved sealing methods. The liner shall be installed in a relaxed condition and shall be free of tension or stress upon completion of the installation. Stretching of the liner to fit will not be allowed.

2.13

FIELD SEAMS: All seaming adhesives, caulking and mastics shall be of a type or types recommended and supplied by the manufacturer or fabricator of the PVC panels and shall be delivered in original one gallon containers each with an indelible label bearing the brand name and complete directions as to proper storage and use.

Field lap joints shall be formed by lapping the edges of panels a minimum of six (6) inches. The contact surfaces of panels to be seamed shall be wiped clean to remove all dirt, dust, moisture and other foreign materials. Sufficient liner to liner bonding adhesive shall be applied to the joint area so as to form a continuous solvent weld approximately 2 - 3 inches wide. In applying adhesive, care must be taken to tie-in to the end of the previously completed seamed area so that leak paths or weak points in the seam do not occur. The surfaces should be pressed together immediately and a roller or flat wooden paddle used to squeeze the adhesive toward the leading edge of the panel. Any wrinkles shall be smoothed out. A small amount of adhesive should extrude and appear at the edge of the seam to indicate that sufficient adhesive has been applied. Excess adhesive should be wiped off with a clean rag. Seams shall be inspected after the initial seal and any loose edges shall be resealed, using the same procedure, to eliminate all free edges.

Extreme care shall be taken to avoid fishmouths in the field seams. Where fishmouths do occur, they shall be slit out far enough from the seam to dissipate them, lapped, seamed together in the lapped area and patched. Any portion of the lining damaged during installation, by any cause, shall be removed or repaired by using an additional piece of PVC lining as specified hereinafter.

2.14

INSPECTION: Upon completion of the liner installation and prior to placement of the earth cover the liner contractor shall fully test all field seams with an air lance tester, hook or other Engineer approved method. Once the seams have been tested, the installation supervisor and the Engineer's field representative shall fully inspect every lineal foot of field seam and all seals to penetrations. Any doubtful areas shall be tested with a vacuum seam tester or other device as directed by the Engineer.

All joints, on completion of the work, shall be tightly bonded. Any lining surface showing injury due to scuffing, penetration by foreign objects, or distress from rough subgrade shall, as directed by the Engineer, be replaced or covered and sealed with an additional layer of PVC lining of the proper size in accordance with the patching procedures.

- 2.15 PATCHING: Any repairs to the PVC lining shall be patched with the lining material and liner to liner bonding adhesive. The patch material shall have rounded corners and shall extend a minimum of four (4) inches in each direction from the damaged area.

- 2.16 EARTH COVER: GENERAL REQUIREMENTS:

36" of earth cover shall be placed over the PVC lining unless otherwise shown on the drawings. Cover material shall be approved by the Engineer prior to placement. Soil containing sharp, jagged rock, roots, debris or any other material which may be abrasive to or may puncture the membrane shall not be used as cover material.

The contractor must satisfactorily demonstrate to the Engineer that the use of chosen cover material will not have any detrimental effects on the liner. Onsite materials approved by the Engineer shall be stockpiled as excavated for backfill over the liner.

The cover material shall be placed over the lining as soon after liner placement as possible. The cover soil shall be placed over the lining in such a manner and with such equipment as the contractor may choose, provided it is satisfactorily demonstrated to the Engineer that such manner and such equipment does not damage the lining. In general, low ground pressure (LGP) equipment shall be used to spread the earth cover.

- 2.17 PAYMENT: Payment for liner shall be made for the quantity installed and measured in place as determined by the Engineer to be necessary to complete the job. Payment shall be at the price bid per square yard for the Item "30 MIL PVC LINER" on the bid schedule. Said price and payment shall be full compensation for furnishing and installing all labor, materials, equipment and all else incidental therefor and necessary to complete the work.

TABLE A
PVC LINER SPECIFICATIONS
MINIMUM MATERIAL PROPERTIES

PROPERTY	TEST METHOD	TEST VALUE
Gauge (nominal)		30 mils
Thickness, minimum	ASTM D792 Par.9.1.3	28.5 mils
Specific Gravity	ASTM D792 MTD A-1	1.24 to 1.30
Minimum Tensile Properties (each direction)	ASTM D882	
1. Breaking Factor (lbs/inch width)	MTD A or B one inch wide	69 lbs/in width (2300 psi)
2. Elongation at Break (percent)	MTD A or B	300%
3. Modulus (Force) @ 100% Elongation (lbs/inch width)	MTD A or B	27 lbs/in width (900 psi)
Tear Resistance (minimum average pounds)	ASTM D1004 Die C	8 lbs (267 lbs/in)
Low Temperature Impact (50% pass)	ASTM D1790	-15 F
Dimensional Stability (each direction, percent change maximum)	ASTM D1204 212 F 15 min.	+/- 5%
Water Extraction (max % wt loss)	ASTM D3083 (as modified by NSF)	0.35%
Volatile Loss (max % wt loss)	ASTM D1203 MTD A	0.7%
Resistance to Soil Burial (percent change maximum in original value)	ASTM D3083 (as modified by NSF)	
1. Breaking Factor		5%
2. Elongation at Break		20%
3. Modulus @ 100% Elongation		20%
Hydrostatic Resistance (pounds/sq in minimum)	ASTM D751 MTD A	82 psi

FACTORY SEAM REQUIREMENTS

Factory Seaming Method	Dielectric Fusion Weld
Bonded Seam Strength	ASTM D3083 55.2 lbs/in width
(factory seam breaking factor, ppi width)	(as modified by NSF)
Peel Adhesion	ASTM D413 10 lbs/in width or
(pounds/inch minimum)	(as modified film tearing bond by NSF)
Resistance to Soil Burial	ASTM D3083
(percent change maximum in original value)	(as modified by NSF)
Bonded Seam Strength	-20%
Peel Adhesion	-20%

FIELD SEAM REQUIREMENTS

Field Seaming Method	Bodied Solvent Weld
Bonded Seam Strength	ASTM D3083 55.2 lbs/in width
(Seam Breaking Factor)	(as modified by NSF)

SP.3.0 SURVEYWORK

The County shall provide all the work necessary to establish the property corners and provide a bench mark.

- The Contractor shall be responsible for maintaining all bench marks and reference points and roadway centerlines.
- It shall be the responsibility of the Contractor to protect existing property corner monuments. If said monuments are disturbed, it is the responsibility of the Contractor to have them reset by a Registered Land Surveyor at no cost to Citrus County.
- Payment for all necessary survey work will not be paid as a separate item and shall be considered as incidental to the Contract.
- Upon completion of this project, the contractor is responsible to have an aerial photograph with 2' contours made to verify that the project is in compliance with the plans.

SP.4.0 TRAFFIC CONTROL

The landfill will remain open throughout the duration of this project. Area III and Area IV shown on the drawings are active cells receiving solid waste daily. The contractor will be responsible to maintain safe public access to all active areas. The contractor shall be aware that these requirements also apply during and after the removal of the existing access road. All signs, barricades and flagmen will be the responsibility of the contractor.

Payment for all necessary traffic control will not be paid as a separate item and shall be considered as incidental to the contract.

SP.5.0 TESTING

The Contractor shall have all materials inspected and tested by a Certified Testing Laboratory and the results shall be submitted to the Engineer, in writing, for approval before the materials are incorporated in the work. Any work in which untested materials are used without approval or written permission of the Engineer shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the Engineer, shall be removed at the Contractor's expense. All materials being used are subject to inspection, test or rejection at any time prior to final acceptance of the work. The County reserves the right to inspect, sample, or test any materials at any time when deemed necessary.

Unless otherwise designated, all tests shall be in accordance with the most recent cited standard methods of A.A.S.H.T.O. and A.S.T.M. which are current on the date of advertisement for bids.

One density test per acre per 12" lift will be required for fill material. Roadway testing shall comply with FDOT testing requirements.

Payment for all necessary testing will not be paid as a separate item and shall be considered as incidental to the Contract.

SP.6.0 GAS VENTS

Gas vents shall be constructed and located as shown on the plans.

Payment for the gas vents shall be made for each vent installed at the unit price shown on the bid schedule. All work shall include the furnishing and installation of all materials, labor, equipment, supervision, appurtenances and all else incidental therefore necessary to construct said vents.

SP.7.0 SODDING

The work specified in this Section consists of the establishing of a stand of grass within the area shown in the plans or as directed by the Engineer, by furnishing and placing of grass sod, and fertilizing, watering, and maintaining the sodded areas such as to assure a healthy stand of grass. The work shall conform with Sections 570 and 575 of the FDOT Standard Specifications.

Payment for sodding shall be made for the quantity as determined above, measured by the square yard, at the price bid for the item, SODDING in the bid form, which price and payment shall be full compensation for furnishing and installing all labor, materials, sod, fertilizer and/or dolomitic limestone (based on three (3) applications), watering, equipment and all else incidental therefore and necessary to complete the work.

SP.8.0 SEEDING & MULCH

The work specified in this section consists of establishing a stand of grass on all disturbed areas not requiring sod. The contractor will be responsible for erosion control during construction and any wash-outs that occur before final acceptance of the project by the Engineer.

Seeding and mulching shall include the application of seed, mulch, fertilizer and watering. The work shall conform with Section 570 of the FDOT standard specification for road and bridge construction.

Payment for Seeding and Mulching shall be made for the quantity measured as a lump sum, at the price bid for the item SEEDING AND MULCHING in the Bid Schedule, which price and payment shall be full compensation for furnishing and installing all labor, materials, seed, mulch, fertilizer and/or dolomitic limestone (based on three (3) applications), watering, equipment and all else incidental therefor and necessary to complete the work.

S.P.9.0 EARTHWORK

The work specified in this section shall consist of all excavation, embankment, hauling and placement of fill and grading required to achieve the final contours as shown on the plans.

This includes compaction to required densities as shown on the drawings.

The earthwork quantities include approximately 93,000 c.y. of cut and 126,000 c.y. of fill. 33,000 c.y. of fill material is available from the adjacent portion of the existing landfill. The remainder of the fill material is located within the project boundaries.

S.P.10.0 SOLID WASTE RELOCATION

The work specified in this section shall consist of all excavation, embankment, hauling and placement of fill and grading required to achieve the final contours as shown on the plans.

This includes the relocation of approximately 34,000 c.y. of solid waste. An additional 40,000 c.y. of fill (clay-mix) will be required for an under layer and cap as shown on the plans.

S.P.11.0 PISTOL RANGE

The work specified in this section consists of re-establishing the pistol range to its original configuration as shown on construction plans.

11.01 CONCRETE: All concrete construction shall conform to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. All concrete shall be a minimum of 3000 psi. Test cylinders shall be taken for each days pour.

11.02 PAYMENT: Payment for reestablishment of the pistol range shall be made at the lump sum price for the item "Pistol Range" on the bid schedule. Said price and payment shall be full compensation for furnishing and installing all labor, materials, equipment and all else incidental therefor and necessary to complete the work.

S.P.12.0 TYPE II ASPHALTIC CONCRETE

The work specified in this section consists of the application of Type II Asphaltic Concrete Surface Course properly laid upon a prepared base. The plant, operations methods, equipment, general construction requirements, materials and compositions shall conform to Sections 320, 330, 331 and 333 of the FDOT Standard Specifications, with a minimum stability of 750 pounds as determined by the Marshall Stability Test.

Payment for the Type II Asphalt Concrete (750 lbs. stability) shall be made for the quantity measured in tons, at the price bid for the item Type II Asphaltic Concrete (750 lbs. stability) in the Bid Schedule, which price and payment shall be full compensation for furnishing and installing all labor, materials, equipment and all else incidental thereafter and necessary to complete the work.

S.P.13.0 LIMEROCK

The work specified in this section consist of the construction of a 6" limerock base in accordance with the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction".

Payment for Limerock shall be made for the quantity measured in square yards, at the price bid for the item LIMEROCK in the Bid Schedule, which price and payment shall be full compensation for furnishing and installing all labor, materials, equipment and all else incidental thereto and necessary to complete the work.

S.P.14.0 CONSTRUCTION PHOTOGRAPHS

GENERAL

14.01 REQUIREMENTS INCLUDED

- A. Employ competent photographer to take construction record photographs periodically during course of work.

14.02 PHOTOGRAPHY REQUIRED

- A. Provide photographs taken on cut-off date for each schedule application for payment.
- B. Provide photographs taken at each major stage of construction:
 - 1. Completion of site clearing and excavation.
 - 2. Completion of foundations.
 - 3. Completion of framing.
 - 4. Completion of enclosure of building or structures.
 - 5. Equipment and facilities as directed by engineer's field representative.
- C. View and quantities required:
 - 1. At each specified time, photograph project from a minimum of two (2) difference locations, as approved by the Engineer for each area.
 - 2. Provide three (3) prints of each view.
 - 3. Aerial photographs may be used upon approval by the owner.

- D. Negatives:
 - 1. Remain property of photographer.
 - 2. Require the photographer maintain negatives for a period of two (2) years from date of completion of entire project.
 - 3. Photographer shall agree to furnish additional prints to owner and the engineer at time of purchase.

14.03 COST OF PHOTOGRAPHY

- A. Pay cost for specified photography and prints:
 - 1. Parties requiring additional photography or prints will pay photographer directly.

PRODUCTS

14.04 PRINTS

- A. Black and White:
 - 1. Paper: Single weight, neutral black image tone, white base.
 - 2. Finish: Smooth surface, glossy.
 - 3. Size: 8-inch x 10-inch
- B. Identify each print on back, listing:
 - 1. Name of Project.
 - 2. Orientation of View.
 - 3. Date and Time of exposure.
 - 4. Name and address of photographer.
 - 5. Photographer's numbered identification of exposure.
- C. Aerial photographs to be color.

EXECUTION

14.05 TECHNIQUE

- A. Factual Presentation.
- B. Correct exposure and focus:
 - 1. High resolution and sharpness.
 - 2. Maximum depth-of-field.
 - 3. Minimum distortion.

14.06 VIEWS REQUIRED

- A. Photograph from locations to adequately illustrate condition of construction and state of progress:

1. At successive periods of photography, take at least one (1) photograph from the same overall view as previously.
2. Consult with the engineer at each period of photography for instructions concerning views required.

14.07

DELIVERY OF PRINTS

- A. Deliver prints to the engineer to accompany each application for payment.
- B. Distribution of prints as soon as processed is anticipated.
 1. Owner (one(1) set).
 2. Engineer (one (1) set).
 3. Contractor (one (1) set).