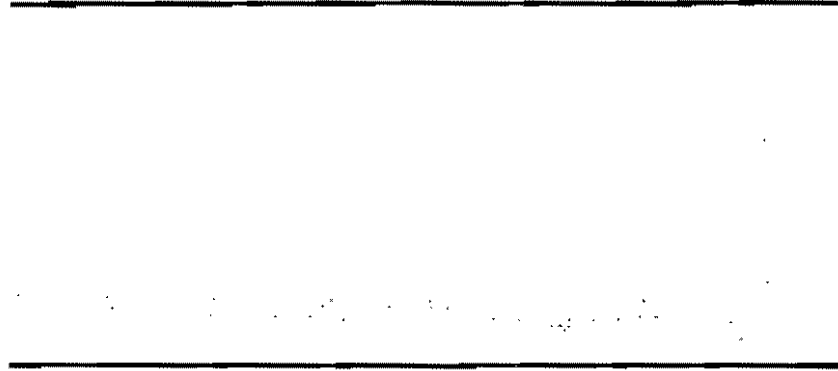


91-07 SITE LOCATION  
ADJACENT TO PUMP STATION  
IMMEDIATELY TO THE SOUTH  
15130 SURVEYOR BLVD.  
ADDISON TX 75244



ESPEY,  
HUSTON &  
ASSOCIATES, INC.  
Engineering & Environmental Consultants

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ESPEY,  
HUSTON &  
ASSOCIATES, INC.

Engineering & Environmental Consultants

Document No.  
EH&A Job No. 13169

PROJECT MANUAL FOR  
PARKING IMPROVEMENTS  
SURVEYOR RECYCLING CENTER  
FOR  
TOWN OF ADDISON, TEXAS

Prepared for:

Town of Addison  
P.O. Box 144  
Addison, Texas 75001

Prepared by:

Espey, Huston & Associated, Inc.  
17811 Waterview Parkway  
Dallas, Texas 75252

February 1991

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**SECTION AB**  
**ADVERTISEMENT FOR BIDS**

**SECTION AB**  
**ADVERTISEMENT FOR BIDS**

1. Sealed bids addressed to the Town of Addison of Addison, Texas for PARKING IMPROVEMENTS FOR SURVEYOR RECYCLING CENTER, for the Town of Addison, Texas, hereinafter called "City" in accordance with plans, specifications and contract documents prepared by Espey, Huston & Associates, Inc., will be received at the Main Conference Room of the Town of Addison Finance Building, 5350 Beltline Road, Addison, Texas until 10:00 a.m. on the 28th day of March, 1991. Bids received by the appointed time will be opened and read aloud. Any bids received after closing time will be returned unopened.
2. The Contractor shall identify his bid on the outside of the envelope by writing the words TOWN OF ADDISON PARKING IMPROVEMENTS FOR SURVEYOR RECYCLING CENTER.
3. Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a reliable surety company as a guarantee that the bidder will enter into a contract and execute Performance Bond within ten (10) days after notice of award of contract to him.
4. Plans, specifications and bidding documents may be secured from the Town of Addison Purchasing Department, Finance Building, 5350 Beltline Road, Addison, Texas 75240.
5. The right is reserved by the Mayor and the City Council as the interest of the City may require to reject any and all bids and to waive any informality in bids received.
6. The Bidder (Proposer) must supply all the information required by the Proposal Form.
7. A Performance Bond, Labor and Material Payment Bond and Maintenance Bond will be required by the Owner; each Bond shall be in the amount of 100% of the total contract amount.

TOWN OF ADDISON, TEXAS

**SECTION IB**  
**INSTRUCTIONS TO BIDDERS**

**SECTION IB**  
**INSTRUCTIONS TO BIDDERS**

- A. **PROJECT:** Parking Improvements for Surveyor Recycling Center in the Town of Addison.
- B. **PROJECT DESCRIPTION:** This project consists of providing paving, drainage and fencing improvements for the Surveyor Recycling Center, as shown on the plans and in accordance with the specifications.
- C. **PROPOSALS:** Proposals must be in accordance with these instructions in order to receive consideration.
- D. **DOCUMENTS:** Documents include the Bidding Requirements, General Provisions, Special Provisions, Technical Specifications, Drawings plus Addenda which may be issued by the Consultant during the bidding period. Bidding Documents may be viewed and/or obtained under the terms and conditions set forth in the Advertisement for Bids, Section AB of this project Manual.
- E. **EXAMINATION OF DOCUMENTS AND SITE:** Bidders shall carefully examine the Bidding Documents and the construction site to obtain first-hand knowledge of the scope and the conditions of the Work. Each Contractor, Subcontractor and Sub-subcontractor, by submitting a proposal to perform any portion of the Work, represents and warrants that he has examined the Drawings, Specifications (Project Manual) and the site of the Work, and from his own investigation has satisfied himself as to the scope, accessibility, nature and location of the Work; the character of the equipment and other facilities needed for the performance of the Work; the character and extent of other work to be performed; the local conditions; labor availability, practices and jurisdictions and other circumstances that may affect the performance of the Work. No additional compensation will be allowed by the Owner for the failure of such Contractor, Subcontractor or Sub-subcontractor to inform himself as to conditions affecting the Work.
- F. **INTERPRETATION OF DOCUMENTS:** If any person contemplating submitting a bid for the proposed Contract is in doubt as to the meaning of any part of the Drawings, Specifications (Project Manual) or other proposed Contract Documents, he may submit to the Consultant, not later than seven (7) calendar days prior to the date set for opening bids, a written request for an interpretation or clarification. Bidders should act promptly and allow sufficient time for a reply to reach them before preparing their bids. Any interpretation or clarification will be in the form of an Addendum duly issued. No alleged verbal interpretation or ruling will be held binding upon the Owner.

- G. **SUBSTITUTIONS:** Conditions governing the submission of substitutions for specific materials, products, equipment and processes are in the Special Provisions. Requests for substitutions must be received by the Consultant seven (7) calendar days prior to the established bid date.
- H. **ADDENDA:** Interpretations, clarifications, additions, deletions and modifications to the Documents during the bidding period will be issued in the form of Addenda and a copy of such Addenda will be mailed or delivered to each person who has been issued a set of the Bidding Documents. Addenda will be a part of the Bidding Documents and the Contract Documents, and receipt of them shall be acknowledged in the Bid Form. All such interpretations and supplemental instructions will be in the form of written addenda to the contract documents which, if issued, will be sent by telegram, certified or registered mail, or hand delivered to all prospective bidders (at the respective addresses furnished for such purposes) not later than three (3) calendar days prior to the date fixed for the opening of bids. If any bidder fails to acknowledge the receipt of such addenda in the space provided in the bid form, his bid will nevertheless be construed as though the receipt of such addenda had been acknowledged.
- I. **COMPLETION TIME:** A reasonable completion time has been established by the Owner and is indicated in the Proposal Form.
- J. **PREPARATION OF BIDS:** Prices quoted shall include all items of cost, expense, taxes, fees and charges incurred, or arising out of, the performance of the work to be performed under the Contract. Bids shall be submitted in duplicate and shall be signed in ink. Any bid on other than the required form will be considered informal and may be rejected. Erasures or other changes in a bid must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures and alterations, or irregularities of any kind may be rejected as informal. The prices should be expressed in words and figures or they may be deemed informal and may be rejected. In case of discrepancy between the prices written in the bid and those given in the figures, the price in writing will be considered as the bid. Failure to submit all requested information will make a bid irregular and subject to rejection. Bids shall be signed with name typed or printed below signature, and, if a partnership, give full name of all partners. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.
- K. **SUBMITTAL OF BIDS:** Sealed proposals will be received at the time, date and place stated in the Advertisement for Bids. Proposals shall be made on unaltered Proposal Forms furnished by the Consultant. Submit proposal in an opaque, sealed envelope addressed to the Owner and plainly mark on the outside of the envelope the project name, and the name and address of the bidder. The Bid Bond must be completed and signed by each bidder and



submitted with the bid. Submit Bids by mail or in person prior to the time for receiving bids set forth in the Advertisement for Bids issued by the City.

- L. **MODIFICATION AND WITHDRAWAL OF BIDS:** Prior to the time set for bid opening, bids may be withdrawn or modified. Bids may be modified only on the official bid form and must be signed by a person legally empowered to bind the bidder. No bidder shall modify, withdraw or cancel his bid or any part thereof for thirty (30) calendar days after the time agreed upon for the receipt of bids.
- M. **DISQUALIFICATION:** The Owner reserves the right to disqualify proposals, before or after the opening, upon evidence of collusion with intent to defraud or other illegal practices relating to this proposal upon the part of the bidder.
- N. **SUBMISSION OF POST-BID INFORMATION:** Upon notification of acceptance, the selected bidder shall, within five (5) calendar days, submit the following:
  - 1. A designation of the portions of the Work proposed to be performed by the bidder with his own force.
  - 2. A list of names of the subcontractors or other persons or organizations, including those who are to furnish materials and equipment fabricated to a special design proposed for such portions of the Work as may be designated in the Bidding Documents or as may be requested by the Consultant. The bidder will be required to establish to the satisfaction of the Owner and the Consultant the reliability and responsibility of the proposed Subcontractors and suppliers to furnish and perform the Work.
- O. **AWARD:** The Owner reserves the right to accept any or to reject any bids without compensation to bidders and to waive irregularities and informalities.

The Consultant, in making his recommendation, will consider the following elements:

- 1. Whether the bidder is a contractor with experience in the type of work involved.
- 2. Whether the bidder has adequate plant, equipment and personnel to perform the work properly and expeditiously.
- 3. Whether the bidder has a suitable financial status and reputation for meeting obligations incident to work of the kind specified.

- P. **EXECUTION OF THE CONTRACT:** The successful bidder will be required to enter into a contract with the Owner within fifteen (15) calendar days of notice by the Owner that his bid has been accepted. Failure to enter into contract within the established time limit without proper justification shall be considered grounds for forfeiture of the bid bond.
- Q. **CONSTRUCTION SCHEDULE:** It is the Owner's desire to have the project completed and operational in as short a time as possible. The number of calendar days for completion of the project will begin with the date specified in the Notice to Proceed. The Notice to Proceed will be issued in a manner to facilitate a smooth construction of the project.

In no instance shall the number of calendar days for completion of the work measured from the proposed date of beginning exceed 45 calendar days.

- R. **LIQUIDATED DAMAGES:** The time of completion is the essence of this contract. For each calendar day that any work shall remain uncompleted after the specified in the proposal and the contract, or the increased time granted by the Owner, or as equitably increased by additional work or materials ordered after the contract is signed, the sum per day given in the following schedule shall be deducted from the monies due the Contractor:

\$100 per Calendar Day

The sum of money thus deducted for such delay, failure or non-completion is not to be considered as a penalty, but shall be deemed, taken and treated as reasonable liquidated damages, per calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work. The said amounts are fixed and agreed upon by and between Owner and Contractor because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner in such event would sustain; and said amounts are agreed to be the amounts of damages which the Owner would sustain and which shall be retained from the monies due, or that may become due, the Contractor under this contract; and if said monies be insufficient to cover the amount owing, then the Contractor or his surety shall immediately pay any additional amounts due. If the Contractor finds it impossible, for reasons beyond his control, to complete the work within the contract time as specified, the Contractor may make a written request for an extension of time in accordance with the General Provisions.

- S. **FORM OF CONTRACT:** The contract for the construction of the project will be drawn up by the Owner. A sample form of agreement is included in the Contract Agreement Section.
- T. **BONDS:** A Performance Bond, a Labor and Material Payment Bond and a Maintenance Bond will be required by the Owner. Sample forms have been included in the Performance Bond, and Maintenance Bond sections.
- U. **BID SECURITY:** Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a reliable surety company as a guarantee that the bidder will enter into a contract and execute Performance Bond within ten (10) calendar days after notice of award of contract to him. Such checks or bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids, and the remaining checks or bid bonds will be returned promptly after the Owner has made an award of contract, or, if no award has been made within thirty (30) calendar days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.
- V. **RESOLUTIONS:** If the bidder is a corporation, a copy of the resolution empowering the person submitting the bid to bind the bidder must be included with the bid.
- W. **CONSTRUCTION STAKING:** The Owner will provide the Contractor with primary horizontal and vertical control to consist of one construction baseline and two benchmarks. Restaking shall be paid for by the Contractor.

END OF SECTION IB

**SECTION PF**  
**PROPOSAL FORM**

BID FORM

\_\_\_\_\_, 19\_\_

TO: The Honorable Mayor and City Council  
Town of Addison, Texas

Gentlemen:

The undersigned bidder, having examined the plans, specifications and contract documents, and the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all equipment and to perform labor and work necessary for completion of the work described by and in accordance with the Plans, Specifications and Contract for the following prices, to wit:

Signed by: \_\_\_\_\_

ACKNOWLEDGEMENT OF ADDENDA:

The Bidder acknowledges receipt of the following addenda:

Addendum No. 1 \_\_\_\_\_

Addendum No. 2 \_\_\_\_\_

Addendum No. 3 \_\_\_\_\_

BID SCHEDULE A

PARKING LOT FOR  
SURVEYOR RECYCLING CENTER  
ADDISON, TEXAS

<u>Item No.</u>	<u>Est. Quan.</u>	<u>Units</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Price</u>
101	1	L.S.	Mobilization, bonds and insurance  _____ dollars _____ cents	\$ _____	\$ _____
102	1,600	C.Y.	Unclassified excavation, including hauling and disposal of surplus material  _____ dollars _____ cents	\$ _____	\$ _____
103	1,630	S.Y.	6", 3000 PSI reinforced concrete pavement, including replacement of existing pavement, complete in place  _____ dollars _____ cents	\$ _____	\$ _____
104	580	L.F.	6" concrete integral curb, complete in place  _____ dollars _____ cents	\$ _____	\$ _____
105	1,680	S.Y.	6" lime stabilized subgrade, including preparation, lime incorporation and compaction  _____ dollars _____ cents	\$ _____	\$ _____
106	26	TON	Type "A" hydrated lime for subgrade stablization (@30 pounds per S.Y.), complete in place  _____ dollars _____ cents	\$ _____	\$ _____

<u>Item No.</u>	<u>Est. Quan.</u>	<u>Units</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Price</u>
107	160	L.F.	Full depth sawed breakout groove _____ dollars _____ cents	\$ _____	\$ _____
108	113	L.F.	18" Class III reinforced concrete pipe, complete in place _____ dollars _____ cents	\$ _____	\$ _____
109	1	EA.	5' standard curb inlet, complete in place _____ dollars _____ cents	\$ _____	\$ _____
110	1	EA.	Pipe-to-pipe connection, including concrete collar, complete in place _____ dollars _____ cents	\$ _____	\$ _____
111	30	S.Y.	Remove existing concrete pavement, including hauling and disposal _____ dollars _____ cents	\$ _____	\$ _____
112	500	L.F.	6' high chain link fence, including 30' cantilever gate, 26' cantilever gate and all necessary appurtenances, complete in place _____ dollars _____ cents	\$ _____	\$ _____
113	1	L.S.	Transplant existing 8" Live Oak tree, including fertilizer, proper backfill material and watering, complete in place _____ dollars _____ cents	\$ _____	\$ _____

<u>Item No.</u>	<u>Est. Quan.</u>	<u>Units</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Price</u>
114	348	L.F.	Install 4" wide white thermoplastic lane marking, complete in place	\$ _____	\$ _____
			_____ dollars		
			_____ cents		
115	128	L.F.	Install 4" diameter schedule 40 PVC pipe, including eight caps, complete in place	\$ _____	\$ _____
			_____ dollars		
			_____ cents		

**TOTAL PROJECT BID - SCHEDULE A** \$ \_\_\_\_\_

\_\_\_\_\_ dollars

\_\_\_\_\_ cents

The total contract time for this project is 45 calendar days.



BID SCHEDULE B

PARKING LOT FOR  
SURVEYOR RECYCLING CENTER  
ADDISON, TEXAS

<u>Item No.</u>	<u>Est. Quan.</u>	<u>Units</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Price</u>
105	1,680	S.Y.	5-inch thick cement treated base (CTB), complete in place	\$ _____	\$ _____
				_____ dollars	
				_____ cents (Line 1)	
106	Reserved				

The sum of Items 100 through 104 and 107 through 115 inclusive from Bid Schedule A \$ \_\_\_\_\_

\_\_\_\_\_ dollars  
\_\_\_\_\_ cents (Line 2)

**TOTAL PROJECT BID - SCHEDULE B**

The sum of Items 100 through 104 and 107 through 115 Bid Schedule A and Items 105 and 106 from Bid Schedule B. \$ \_\_\_\_\_

\_\_\_\_\_ dollars  
\_\_\_\_\_ cents (Lines 1 & 2)

If BIDDER is:

An Individual

By \_\_\_\_\_ (SEAL)  
(Individual's Name)

doing business as \_\_\_\_\_

Business address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone No. \_\_\_\_\_

A Partnership

By \_\_\_\_\_ (SEAL)  
(Firm Name)

\_\_\_\_\_ (General Partner)

Business address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone No. \_\_\_\_\_

A Corporation

By \_\_\_\_\_  
(Corporation Name)

\_\_\_\_\_  
(State of Incorporation)

By \_\_\_\_\_  
(Name of Person Authorized to Sign)

\_\_\_\_\_  
(Title)

(Corporate Seal)

Attest \_\_\_\_\_  
(Secretary)

Business address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone No. \_\_\_\_\_

A Joint Venture

By \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

SECTION CA  
CONTRACT AGREEMENT

SECTION CA  
AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its Mayor, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and \_\_\_\_\_, of the City of \_\_\_\_\_, County of \_\_\_\_\_, State of \_\_\_\_\_, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

Parking Improvements for Surveyor Recycling Center

and all extra work in connection therewith, under the terms as stated in the General and Specific Provisions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within ten (10) working days after the date of written notice to do so shall have been given to him, and to substantially complete the work within 45 calendar days after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the Contract in accordance with the conditions and prices stated in the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein. The quantities and totals on unit price items, and the Total Contract Amount stated in the Proposal are approximate only, being inserted for the purpose of establishing the face amount of bonds to be provided by the Contractor. Payment of work covered by the unit price items will be made only on the basis of actual quantities of work complete in place as authorized and as measured as provided in the Contract Documents.

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON  
(OWNER)

ATTEST:

By: \_\_\_\_\_

\_\_\_\_\_  
City Secretary

\_\_\_\_\_  
Party of the Second Part  
(CONTRACTOR)

ATTEST:

\_\_\_\_\_

By: \_\_\_\_\_

The following to be executed if the CONTRACTOR is a corporation:

I, \_\_\_\_\_, certify that I am the secretary of the corporation named as CONTRACTOR herein; that \_\_\_\_\_, who signed this Contract on behalf of the CONTRACTOR is the \_\_\_\_\_ of said corporation; that said  
(official title)

Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Signed: \_\_\_\_\_

Corporate Seal

**SECTION PrB**  
**PERFORMANCE BOND**

SECTION PrB  
PERFORMANCE BOND

STATE OF TEXAS

COUNTY OF DALLAS

Date Bond Executed: \_\_\_\_\_

PRINCIPAL: \_\_\_\_\_

SURETY: \_\_\_\_\_

PENAL SUM OF BOND (express in words and figures): \_\_\_\_\_

DATE OF CONTRACT: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held firmly bound unto the Town of Addison, Texas, hereinafter called the OWNER, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas the PRINCIPAL entered into a certain Contract with the OWNER, numbered and dated as shown above and attached hereto;

NOW THEREFORE, if the PRINCIPAL shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extension thereof that may be granted by the OWNER, with or without notice to the SURETY, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications of said SURETY being hereby waived, then this obligation to be void, otherwise in full force and virtue.



IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

SEAL

CONTRACTOR

By: \_\_\_\_\_

Address: \_\_\_\_\_

WITNESS \_\_\_\_\_

SEAL

ATTEST:

SURETY

By: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_

(Surety to Attach Power of Attorney)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, \_\_\_\_\_, certify that I am the secretary of the corporation named as PRINCIPAL in the within bond that \_\_\_\_\_, who signed the said bond on behalf of the PRINCIPAL, is the \_\_\_\_\_ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body.

\_\_\_\_\_  
(Corporate Seal)

**SECTION PyB**  
**PAYMENT BOND**

**PyB-1**

SECTION PyB  
PAYMENT BOND

STATE OF TEXAS

COUNTY OF DALLAS

Date Bond Executed: \_\_\_\_\_

PRINCIPAL: \_\_\_\_\_  
\_\_\_\_\_

SURETY: \_\_\_\_\_  
\_\_\_\_\_

PENAL SUM OF BOND (express in words and figures): \_\_\_\_\_  
\_\_\_\_\_

DATE OF CONTRACT: \_\_\_\_\_  
\_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held firmly bound unto the Town of Addison, Texas, hereinafter called the OWNER, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas the PRINCIPAL entered into a certain Contract with the OWNER, numbered and dated as shown above and attached hereto;

NOW THEREFORE, if the PRINCIPAL shall promptly make payment to all persons supplying labor and materials in the prosecution of the work provided for in said Contract, and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then this obligation to be void, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

SEAL

\_\_\_\_\_  
CONTRACTOR

By: \_\_\_\_\_

Address: \_\_\_\_\_

WITNESS \_\_\_\_\_

SEAL

ATTEST: \_\_\_\_\_

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
Title: \_\_\_\_\_

(Surety to Attach Power of Attorney)

**CERTIFICATE AS TO CORPORATE PRINCIPAL**

I, \_\_\_\_\_, certify that I am the secretary of the corporation named as PRINCIPAL in the within bond that \_\_\_\_\_, who signed the said bond on behalf of the PRINCIPAL, is the \_\_\_\_\_ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body.

\_\_\_\_\_  
(Corporate Seal)

**SECTION MB**  
**MAINTENANCE BOND**

SECTION MB  
MAINTENANCE BOND

STATE OF TEXAS

COUNTY OF DALLAS

That \_\_\_\_\_ as principal and  
\_\_\_\_\_, a corporation organized  
under the laws of \_\_\_\_\_ and  
\_\_\_\_\_ as sureties, said sureties

being authorized to do business in the State of Texas, do hereby expressly ac-  
knowledge themselves to be held and bound to pay unto the Town of Addison, a  
municipal corporation, chartered by virtue of a Special Act of Legislature of the  
State of Texas, as Addison, Dallas County, Texas, the sum of

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) for the payment of which sum will and truly to be  
made unto said Town of Addison and its successors, said principal and sureties do  
hereby bind themselves, their assigns and successors, jointly and severally.

This obligation is conditioned, however, that whereas said

\_\_\_\_\_  
has this day entered into a written contract with the said Town of Addison to build  
and construct the

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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which contract and the Plans and Specifications therein mentioned adopted by the Town of Addison, are hereby expressly made a part hereof as though the same were written and embodied herein.

WHEREAS, under the Plans, Specifications and Contract it is provided that the Contractor will maintain and keep in good repair the work herein contracted to be done and performed for a period of one (1) year from the date of acceptance, and to do all necessary backfilling that may arise on account of sunken conditions in ditches, or otherwise, and to do and perform all necessary work and repair any defective condition growing out of or arising from the improper joining of the same, or on account of any breaking of the same caused by the said Contractor in laying or building the same, or on account of any defect arising in any of said part of said work laid or constructed by the said Contractor, or on account of improper excavation or backfilling; it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, work or labor performed by the said Contractor; and in case the said Contractor shall fail to do, it is agreed that the City may do said work and supply such materials, and charge the same against the said Contractor and sureties on this obligation, and the said Contractor and sureties hereon shall be subject to the liquidated damages mentioned in said contract for each day's failure on its part to comply with the terms of the said provisions of said contract;

NOW THEREFORE, if the said Contractor shall keep and perform its said agreement to maintain said work and keep the same in repair for the said maintenance period of one (1) year, as provided, then these presents shall be null and void and have no further effect; but if default shall be made by the said Contractor in the performance of its contract to so maintain and repair said work, then these presents shall have full force and effect, and said Town of Addison shall have and recover from the Contractor and its sureties damages in the premises, as provided, and it is further understood and agreed that this obligation shall be a continuing one against the principal and sureties hereon and that successive recoveries may be had hereon for successive branches until the full amount shall have been exhausted; and it is further understood that the obligation herein to maintain said work shall continue throughout said maintenance period, and the same shall not be changed, diminished, or in any manner affected from any cause during said time.

IN WITNESS WHEREOF, the said \_\_\_\_\_ has  
caused these presents to be executed by \_\_\_\_\_ and  
the said \_\_\_\_\_ has hereunto set his hand  
this the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

SURETY

PRINCIPAL

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
By: \_\_\_\_\_

By: \_\_\_\_\_  
Attorney in Fact

ATTEST

By: \_\_\_\_\_  
Surety

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
Agency and Address

**NOTE: Date of Maintenance Bond must not be prior to date of Contract.**



**SECTION BP**  
**CONTRACTOR'S AFFIDAVIT OF BILLS PAID**

SECTION BP  
CONTRACTOR'S AFFIDAVIT OF BILLS PAID

STATE OF TEXAS

COUNTY OF DALLAS

Personally, before me the undersigned authority, on this day appeared \_\_\_\_\_  
\_\_\_\_\_, who, being duly sworn, on oath, says that he is a legal representative  
of \_\_\_\_\_,  
(full name of Contractor as in contract)

and that the contract for the construction of the project, designated as  
\_\_\_\_\_  
(Project No.)  
\_\_\_\_\_  
\_\_\_\_\_

has been satisfactorily completed and that all bills for materials, apparatus,  
fixtures, machinery and labor used in connection with the construction of this  
project have, to the best of my knowledge and belief, been fully paid.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for

\_\_\_\_\_ County, Texas

**Instructions:**

If the contractor is an individual, he shall sign the affidavit. If the contractor is a partnership, any partner may sign the affidavit. If the contractor is a corporation, a

person authorized by the by-laws or by the Board of Directors shall sign the affidavit. If the Contractor is a joint-venture of individuals, any of the individuals may sign the affidavit. If the Contractor is a joint-venture of partnerships, or of individuals and partnerships, the affidavit may be signed by the individual or any partner of any partnership. If the contractor is a joint-venture in which a corporation is a party, separate affidavits must be executed in the name of the joint-venture: one by each corporation and one by each individual or partnership. Signatures for corporations should be by a duly authorized officer. If signature is by another, a showing of authority to sign must accompany the affidavit.

SECTION GP  
GENERAL PROVISIONS

## GENERAL PROVISIONS

1. The General Provisions of the Contract shall be as stated in the Standard Specifications for Public Works Construction, North Central Texas Council of Governments (1983), under Part I, "General Provisions," Items 1.0 through 1.63 inclusive, as amended or supplemented and except as modified by the Special Provisions.

**SECTION SP**  
**SPECIAL PROVISIONS**

**SECTION SP**  
**SPECIAL PROVISIONS**

1. **OWNER**

The Town of Addison, herein referred to as Owner, party of the First Part of these Contract Documents.

2. **ENGINEER**

Espey, Huston and Associates, Inc., Engineer of the Owner, or other representative as may be authorized by said Owner to act in any particular position.

3. **FORMS, PLANS AND SPECIFICATIONS**

Forms of Proposal, Contract, Bonds and Plans may be obtained from the Town of Addison Purchasing Department, Finance Building, 5350 Beltline Road, Addison, Texas 75240.

4. **COPIES OF PLANS FURNISHED**

Three (3) sets of Plans shall be furnished to the Contractor, at no charge, for construction purposes. Additional copies may be obtained at cost of reproduction upon request.

5. **PRODUCT RECORD DOCUMENTS**

**Maintenance of Documents.** The Contractor shall maintain at the job site one record copy of the Contract Drawings, Specifications, Shop Drawings, Change Orders, other modifications to the Contract, field test records and other documents submitted by Contractor in compliance with specification requirements. These documents shall be maintained at the job site apart from documents used for construction. These documents are not to be used for construction purposes. The documents shall be maintained in clean, legible condition. The documents shall be made available at all times for inspection by the Owner.

**Recording.** Each document shall be labeled Project Record Copy in 2-inch high printed letters. The record documents shall be kept current. No work shall be covered until required information has been recorded.

**Contract Drawings.** The appropriate drawing shall be legibly marked to record, where applicable:

Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.

Field changes of dimension and detail made during construction process.

Changes made by Change Order or Supplemental Agreement.

Details not on original Contract Drawings.

Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.

Changes made by Change Order or Supplemental Agreement.

Other matters not originally specified.

Shop Drawings. The Contractor shall maintain the Shop Drawings as record drawings and legibly annotate shop drawings to record changes made after review. A red felt-tip marking pen shall be used for all recording.

Submittal. At the completion of the project, the Contractor shall deliver record drawings to the Owner. The transmittal letter shall be accompanied, in duplicate, with:

Date, project title and number.

Contractor's name and address.

Title and number of each record document.

Certification that each document as submitted is complete and accurate.

Signature of Contractor or his authorized representative.

6. HORIZONTAL AND VERTICAL SURVEY CONTROL

The Owner shall furnish sufficient horizontal and vertical survey control, one time only, to enable the Contractor to perform construction staking for the proposed improvements.

The Contractor shall give the Owner 48 hours notice as to when and where survey control will be needed.

The Contractor shall be responsible for his own surveying beyond those items listed prior in this section.



7. PERMITS, LICENSES, AND REGULATIONS

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. If the Contractor observes that the Drawings and Specifications are at variance therewith, he shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the Work. The Contractor shall comply with all federal, state and local laws, rules and regulations of every kind and nature applicable to the performance of its Work hereunder, and shall hold the Owner harmless therefrom.

8. REFERENCE SPECIFICATIONS

Where reference is made to specifications compiled by others, such are hereby made a part of these Specifications.

9. REVIEW OF WORK

The Owner shall have the right to review the Work while such Work is in progress to ascertain that the Work is being accomplished in compliance with the standards and requirements set forth in the Contract Documents. It is also contemplated that similar review will be conducted by governmental inspectors. Notwithstanding such review, the Contractor will be held responsible for the finished Work, and any acceptance of the Work by the Owner or governmental agencies will not relieve the Contractor from responsibility for the Work. The Owner reserves the right to place full-time construction observers at the site of the Work.

The Owner and his representatives shall at all times have access to the Work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access, and for review.

If the Specifications, the Owner's instructions, laws, ordinances, or any public authority require any Work to be specially tested, the Contractor shall give the Owner timely notice of its readiness for testing, and if the testing is by an authority other than the Owner, of the date fixed for such testing. Tests by the Owner shall be made promptly, and where practicable at the source of supply.

Re-examination of any Work may be ordered by the Owner, and, if so ordered, the Work must be uncovered by the Contractor. If such Work is found to be in accordance with the Contract Documents, the Owner shall pay the cost of re-examination and replacement. If such Work is not in accordance with the Contract Documents, the Contractor shall pay such cost.

10. SCOPE OF WORK

The Work for this Project consists of furnishing all materials, labor, equipment, tools and incidentals necessary to construct, in accordance with the Plans and Specifications, the proposed drainage improvements for Bellbrook Estates Addition.

11. PROPERTY LINES AND MONUMENTS

All property corners, control monumentations, construction and survey stakes and marks shall be carefully preserved by the Contractor, and in case of careless destruction or removal by Contractor or his employees, such stakes or marks shall be replaced at the Contractor's expense as required by the Owner.

12. DISCREPANCIES

If the Contractor, in the course of the Work, finds any discrepancy between the Contract Documents and the physical conditions of the locality, or any errors or omissions in drawings or in the layout as given by survey points and instructions, or if it appears that any Plan, Specification or other Contract Document is or may be not in compliance with any building code or other requirement of any governmental body, he shall immediately inform the Owner in writing, and the Owner shall promptly verify the same. Any Work done after such discovery, until authorized, will be done at the Contractor's risk.

13. TIME ALLOTTED FOR COMPLETION

All items of Work included under these contracts shall be completed within the time stipulated in the Proposal. The time shall commence on the tenth (10th) day after the issuance of the Notice to Proceed. The Notice to Proceed shall consist of a written request by the Owner for the Contractor to proceed with construction of the Project.

14. EXISTING STRUCTURES

The Plans show the location of all known surface and subsurface structures. However, the Owner assumes no responsibility for failure to show any or all of these structures on the Plans, or to show them in their exact location. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation or extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or require the building of special work, provisions for which are not made in the Plans and Proposal, in which case the provisions in these Specifications for extra work shall apply.

15. EXISTING UTILITIES AND SERVICE LINES

The Contractor shall be responsible for the protection of all existing utilities or service lines crossed or exposed by his construction operation. Where existing utilities or service lines are cut, broken or damaged, the Contractor shall replace the utilities or service lines with the same type of original construction, or better, at his own cost and expense. All replacement, backfill and compaction shall be accomplished in strict accordance with the requirements of the owner of the utility or service line.

16. PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED

In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until authorized by the utility company and approved by the Owner. The right is reserved to the owner of public utilities to enter upon the limits of the Project for the purpose of making such changes or repairs of this contract.

17. LIGHTS AND POWER

The Contractor shall provide, at his own expense, temporary lighting and power facilities required for the proper execution of the Work.

18. PERMITS AND RIGHTS-OF-WAY

The Owner will provide rights-of-way for the purpose of construction without cost to the Contractor by securing permits in areas of public dedication or by obtaining easements across privately-owned property. It shall be the responsibility of the Contractor, prior to the initiation of construction on easements through private property, to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of the Work.

19. PRECONSTRUCTION CONFERENCE

The successful Contractor(s) and Owner shall meet at the call of the Owner on this Project. Prior to the meeting, the Contractor(s) shall prepare schedules showing the sequencing and progress of their work and its effect on others. These schedules shall be delivered to the Owner in advance of the meeting for his review. The general nature of the work, materials used, and methods of construction as well as the schedules will be discussed at the meeting. A final composite schedule will be prepared during this conference to allow an orderly sequence of project construction.

20. ADDENDA

Bidders desiring further information, or interpretation of the Plans and Specifications, must make written request for such information to the Engineer (prior to forty-eight (48) hours before the Bid opening). Answers to all such requests will be given in writing to all Bidders in addendum form and all addenda will be bound with and made a part of the Contract Documents. No other explanation or interpretation will be considered official or binding. Should a Bidder find discrepancies in, or omissions from, the Plans, Specifications or Contract Documents, or should he be in doubt as to their meaning, he shall at once notify the Engineer in writing in order that a written addendum may be sent to all Bidders.

21. WATER FOR CONSTRUCTION

The Contractor shall make the necessary arrangements with the Town of Addison for securing and transporting all water required in the construction, including water required for mixing of concrete, sprinkling, testing, flushing, flooding or jetting. Water required for construction shall be paid for by the Contractor at the Town of Addison prevailing rates. There will be no separate pay item for connection into the existing water system and quantity of water required for construction purposes.

22. EXCAVATION

The Contractor shall exercise precautions to insure that drainage from adjacent properties is not blocked by his excavations.

23. CONTRACTOR'S BID

The Contractor's Bid shall be on a Unit Price basis for construction of the Project as shown on the Plans and described in the Specifications.

24. OWNER'S STATUS

The Owner shall perform technical review of the Work. He shall also have authority to reject all Work and materials which do not conform to the Contract and to decide questions which arise in the execution of the Work.

25. OWNER'S DECISIONS

The Owner shall, within a reasonable time after their presentation to him, make decisions in writing on all claims of the Contractor and on all other matters relating to the execution and progress of the Work or the interpretation of the Contract Documents.

26. LANDS FOR WORK

The Owner shall provide as indicated on the Plans for this Project, the lands upon which the Work under this Contract is to be done, right-of-way for access to same, and such other lands which are designated on the Plans or in the Specifications for the use of the Contractor. Such lands and rights-of-way shall be adequate for the performance of the Contract. Should the Contractor be delayed as the result of lack of access, this shall be cause for an extension of time but not for additional cost.

The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that may be required for temporary construction facilities.

27. CLEANING UP

The Contractor shall remove at his own expense all temporary structures, rubbish and waste materials resulting from his operations. These requirements shall not apply to property used for permanent disposal of rubbish or waste materials in accordance with permission of such disposal granted to the Contractor by the Owner thereof.

28. LIQUIDATED DAMAGES FOR DELAY BY CONTRACTOR

The time of completion is of the essence in this contract. For each calendar day that any Work shall remain incompleted after the time specified in paragraph 38, liquidated damages shall be deducted from the monies due the Contractor in the amount of \$100.00 per day.

29. USE OF EXPLOSIVES

Use of explosives will not be allowed.

30. PROJECT MAINTENANCE

The Contractor shall maintain, and keep in good repair, the improvements covered by these Plans and Specifications during the life of his contract.

31. DISPOSAL OF WASTE AND SURPLUS EXCAVATION

All asphalt, concrete, rock or excavated material, or other debris removed from the site as a preliminary to the construction shall be removed from the property. Any required disposal permits shall be the sole responsibility of the Contractor.

32. REMOVALS, ADJUSTMENTS AND REPLACEMENTS

Existing pavements, driveways, curbs, gutters, sidewalks, etc., to be removed to facilitate the construction of the improvements shall be broken up and disposed of. Care shall be exercised to leave a neat, uniform edge or joint at the excavation limits or sections removed where only portions are to be removed. The Owner will designate the limits to be removed. Where pavements, driveways, curbs, gutters, sidewalks, etc., shall be replaced, then said replacements shall be to the standard of the previously removed portion or better.

Existing structures such as manholes, inlets, cleanouts, valve boxes, etc. which are not the property of a private firm or company, or an individual required to move their own property, shall be adjusted, altered or reset to the requirement elevation and alignment. New materials and workmanship necessary shall conform to the requirements of these Specifications covering the particular Work. Salvaged materials in good condition may be used in rebuilding such structures, provided the materials are thoroughly cleaned before their use.

All private obstruction which are indicated on the Plans to be moved, will be removed and replaced, or moved to new permanent locations by the Contractor, without additional payment to the Contractor. Any such additional item which the Contractor moves or causes to be moved for his own convenience shall be at his own expense.

33. TOWN OF ADDISON APPROVAL

This project is subject to final approval and acceptance by Town of Addison.

34. TRAFFIC CONTROL

The Contractor shall be responsible for providing traffic control during the construction of this Project consistent with the provisions set forth in the

"1980 Texas Manual on Uniform Traffic Control Devices for Streets and Highways" issued under the authority of the "State of Texas Uniform Act Regulating Traffic on Highways", codified as Article 6701d Vernon's Civil Statutes, pertinent sections being Section Nos. 27, 29, 30 and 31. The Contractor will not remove any regulatory sign, instructional sign, street name sign, or other sign which has been erected by the City. If it is determined that a sign must be removed to permit required construction, the Contractor shall contact the Town of Addison to remove the sign. In the case of regulatory signs, the Contractor must replace the permanent sign with a temporary sign meeting the requirements of the above-referenced manual, and such a temporary sign must be installed prior to the removal of the existing sign.

There will be no separate pay item for Traffic Control.

35. CERTIFICATION

The Contractor shall submit a manufacturer's certification that the material was manufactured and tested in accordance with the referenced Specifications and a report of test results. The certification shall be submitted prior to material shipment.

36. FINAL ACCEPTANCE OF WORK

Final acceptance of the Work is subject to final testing and approval of the Work by the Town of Addison.

37. WORK AREA

Contractor shall restrict his construction activity to the project site.

38. CONTRACT TIME

It is the Owner's desire to have the project completed and operational in as short a time as possible. The number of calendar days for completion of the project will begin with the date specified in the Notice to Proceed. In no instance shall the number of calendar days for the completion of the Work measured from the proposed date of beginning exceed 45 calendar days.

39. CONTRACTOR'S AFFIDAVIT OF BILLS PAID

The Contractor shall be required to execute the form provided in Section BP prior to the acceptance of the project.

40. PAY ITEMS

Pay items provided are intended to be all-inclusive of the work required on this project. Work required by the plans or specifications but not provided with a specific pay item shall be considered incidental to other items of work.

41. SAMPLES AND TESTS OF MATERIALS

Modify the General Provisions, Section GP 5.16, Samples and Tests of Materials.

"The Contractor shall designate and pay a recognized testing laboratory to perform all testing and concrete design for this project. Such designation shall be subject to the approval of the Engineer. All testing services that the Contractor is required to provide will not be paid for separately, but shall be considered subsidiary to other items of work.

"All samples and tests shall be performed in accordance with the Standard Specifications for Public Works Construction, North Central Texas Council of Governments (1983) as amended or supplemented."

42. CONSTRUCTION STAKING

The Owner will provide the Contractor with primary horizontal and vertical control to consist of one construction baseline and two benchmarks. Restaking shall be paid for by the Contractor.



SECTION T  
TECHNICAL SPECIFICATIONS

SECTION T  
TECHNICAL SPECIFICATIONS

I. GENERAL

- A. All materials and construction methods for this project shall be in conformance with Town of Addison standards and specifications, the North Central Texas Council of Governments "Standard Specifications for Public Works Construction" (1983), as currently amended or supplemented, and the City of Dallas 251-D Construction Standards, as currently amended. Where conflicts exist, Town of Addison standards and specifications shall govern.

II. SUPPLEMENTAL SPECIFICATIONS

The following specifications are applicable where specifically referenced in the Plans or Specifications:

- A. City of Dallas 251-D Construction Standards (not included).
- B. Specification for Fences and Gates (included).
- C. Specification for Excavation Safety System (included).

**SECTION FG**  
**FENCE AND GATES**

**1.01 SCOPE**

This section covers the furnishing and installation of chain link fence, posts, and gates plus all accessories and specials necessary for and incidental to the proper erection and installation of the fence and gates in the location shown on the drawings.

**1.02 SUBMITTALS**

Drawings, specifications, installation schedules and other data showing complete details of the fabrication, construction, and installation of the fence and gates together with complete data covering all materials proposed for use, shall be submitted to the Engineer for review prior to construction.

**1.03 GENERAL**

The Contractor shall follow the drawings in all matters concerning the location and placement of fences and gates. No changes shall be made from the drawings without approval of the Engineer.

The Contractor should familiarize himself with the plans and the location at which the new fence is to be constructed. All workmanship is to be first-class in every detail, and equal to the best standards of workmanship for similar types of installations.

The Contractor shall construct a six (6) foot high, chain link fence including posts and gates as located on the plans and in accordance with this specification.

**2.01 MATERIALS**

1. **Style of Fence.** The fence shall be six (6) feet in overall height consisting of a six (6) foot high panel of wire fabric. Wire fabric shall be held in alignment by top rail and a bottom tension wire.
2. **Fabric.** Fabric shall be of chain link wire woven in a 2 inch mesh. Fabric shall be woven of #9 (.148 diameter) gauge wire before galvanizing.

Top and bottom edges of fabric shall have a twisted finish.

The fabric shall be heavily zinc coated, by the hot dip process after weaving, in accordance with ASTM Designation A392, Class 2.

3. **Line Posts.** Line posts shall be hot dipped galvanized, 2 1/2 inch diameter, schedule 40 steel pipe spaced on centers not to exceed ten (10) feet. Fabric shall be attached to line posts with #6 gauge aluminum tie wire on 14 inch centers. Posts shall be set in 2,500 psi concrete in a nine (9) inch diameter hole not less than 39 inches deep. Galvanizing shall be in accordance with ASTM Designation A-123.

4. **Terminal Posts.** End, corner and pull posts shall be hot dipped galvanized three (3) inch diameter schedule 40 pipe set in 2,500 psi concrete in a twelve (12) inch hole not less than 39 inches deep. Galvanizing shall be in accordance with ASTM Designation A-123. Fabric shall be attached to terminal posts with 1/4" x 3/4" tension bars and 3/4" wide tension bands spaced at 14" intervals.
5. **Terminal Post Fittings.** All post fittings including tension bands and brace connections shall be made of not less than 14 gauge hot-dipped galvanized steel. Bands shall be manufactured in a fashion which will not result in sharp and dangerous edges. All bands and connections shall be securely fastened with 5/16 inch x 1-1/4 inch galvanized carriage bolts and nuts. Tension bars shall be hot-dipped galvanized a minimum of 3/4 inch wide and 1/4 inch thick sheared ends shall be given two coats of aluminum paint. No aluminum or pot metal fittings will be acceptable.
6. **Top Rails.** 1-5/8" nominal diameter Schedule 40 pipe, passing through the line post tops to form a continuous brace for each stretch of fence. Rails should be securely fastened to the terminal posts with malleable rail end cup and 7/8" beveled steel brace band. Provide outside sleeve type couplings at least seven (7) inches long. Provide every fifth coupling with a heavy spring to take up expansion and contraction of the rail.
7. **Bottom Tension Wire.** Bottom tension wire shall be #7 gauge galvanized steel spring coil tension wire, fastened to chain link fabric with #11 gauge galvanized hog rings on 24 inch centers. Tension wires shall run the entire length of the fence.
8. **Braces.** Brace material shall be 1 1/4-inch Schedule 40 pipe, hot dipped galvanized and shall extend from terminal post to first adjacent line post.

Braces shall be securely fastened to posts by suitable pressed steel or malleable connections, then trussed from line post back to terminal with 3/8 inch galvanized round rod with tightener. Braces shall be used at end posts, corner posts and gate posts.

9. **Gates.** Gate frames shall be fabricated of two (2) inch O.D. hot dipped galvanized Schedule 40 pipe with galvanized pressed steel or malleable iron corner ells, securely attached to the frame. Internal bracing shall be 1 1/4-inch Schedule 40 hot dipped galvanized pipe, with 3/8 inch adjustable truss rods. The bottom hinge is to be ball and socket type, or type allowing pivot on vertical member of gate frame preventing removal of gate without disassembling of hinge, made of malleable iron; upper hinges to be 180° wrap around type, made of malleable iron, base galvanized, to allow gate to swing 180°. Gates shall be complete with padlocking device, center rests and semiautomatic catch to secure gates in open positions.

Fabric is to match that used in the line fence and to be centered in the frame, attached by means of tension bars and bands. Top bar of gate frame shall be on level plane and at the same heights as top rail.

10. Gate Posts. Gate posts supporting drive gate leaves shall be hot dipped galvanized six and five-eighths (6 5/8) inch diameter schedule 40 pipe set in 2,500 psi concrete in a twelve (12) inch hole not less than sixty three (63) inches deep. Galvanizing shall be in accordance with ASTM Designation A-123. Gate posts supporting walk gates shall comply with the requirements for terminal posts.
11. Miscellaneous. Supply Master Lock Company padlocks for all gates. Key all locks alike.

3.01

#### CONSTRUCTION

The fence shall be installed by skilled and experienced fence erectors, and on lines and grades indicated on the drawings. All posts shall be set plumb and in concrete footings of the size specified under corresponding post section of this specification. The concrete shall extend a minimum of three (3) inches below the bottom of the posts. Concrete shall be crowned slightly above grade and troweled to provide a smooth, neat appearance. Posts shall be uniformly spaced between corner posts. The bottom of the fabric shall be held as uniformly as is practical to one (1) inch above the finish grade.

END OF SECTION

**SECTION ES**  
**EXCAVATION SAFETY SYSTEM**

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A This item is for furnishing all labor and materials for installation and maintenance of an excavation safety system.
- B For any trench excavation in materials other than solid rock, greater than 5 feet in depth, or where shown on the plans, the Contractor shall provide a excavation safety system.
- C The excavation safety system shall meet the appropriate requirements established in the Occupational Safety and Health Administration (OSHA) Safety and Health Regulations, Part 1926, Subpart P, "Excavations, Trenching and Shoring," pages 12 through 20.

**1.02 SUBMITTALS**

- A The Contractor shall submit to the Engineer, prior to construction, a "Excavation Safety Plan" for protecting employees and the public exposed to danger from moving ground for all excavations. The Plan shall describe which method of protection or type of system will be used and where it will be used for each condition or situation encountered on the job. The Plan shall comply with applicable OSHA standards.
- B For any trench shoring system to be used other than that shown in Table P-2 from OSHA standard for excavating operations and/or from detailed drawings in plans, the Contractor must provide certification by a Registered Professional Engineer that the system proposed by the Contractor provides protection "equal to" or "greater than" the protection provided by the trench shoring system shown in OSHA Table P-2.
- C Excavation and Trenching Plan. All excavation and trench operations shall be in accordance with 29 CFR Part 1926, Subpart P. Prior to commencing any excavation or trenching operation, the Contractor shall submit seven (7) copies of a detailed Excavation and Trenching Plan for review by the Engineer. Such Plan shall indicate the intended procedures to be used by the Contractor to comply with OSHA requirements. Such Plan should further identify the "Competent Person," as required by paragraph 1926.651(k)(1), who will work with each crew. A copy of said Plan shall be available for review at the job site at all times.

### 1.03 DESIGN CRITERIA

- A All trenches more than 5 feet deep shall be sloped, shored, sheeted, braced or otherwise supported as to meet or exceed minimum OSHA excavating operation standards. However, sloping shall not be permitted in the trench area within the existing concrete parking lot.
- B Trenches less than 5 feet deep shall also be effectively protected when hazardous ground movement may be expected.
- C Trenches 4 feet deep or more shall have adequate means of exit, such as a ladder or steps, which shall be located as to require no more than 25 feet of lateral travel.

### 1.04 MEASUREMENT

- A Measurement of the Excavation Safety System shall be made by the linear foot of trench measured along the centerline of the trench, for the depth indicated. The depths shall be indicated as follows:
  - 1. From 5 to 10 feet;
  - 2. From 10 to 15 feet;
  - 3. From 15 to 20 feet;
  - 4. Greater than 20 feet.

### 1.05 PAYMENT

- A The work performed and materials furnished as prescribed by this item and measured as provided under "Measurement" shall be paid for at the Contract unit price bid for "Excavation Safety System," which price shall be full compensation for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A Timber for trench sheeting shall be hardwood, a minimum of 2 inches in thickness, solid and sound, and free from weakening defects such as loose knots and splits.
- B Steel sheet piling shall conform to one of the following specifications:
  - 1. ASTM A328;

2. ASTM A572, Grade 50;
  3. ASTM A690.
- C Steel for stringers and cross-bracing shall conform to ASTM A588.
- D Portable trench boxes shall be constructed of steel conforming to ASTM A36. Connecting bolts used shall conform to ASTM A307. All welds and welding shall conform to AWS D1.1.

### **PART 3 - EXECUTION**

#### **3.01 GENERAL**

- A The excavation safety system shall be constructed, installed and maintained in accordance with the plans and minimum OSHA standards to prevent death or injury to personnel or damage to structures in or near these trench excavations. Materials excavated from the trench shall be stored no closer to the edge of the trench than one-half the depth of the trench.

#### **3.02 SUPERVISION**

- A The Contractor shall provide competent supervisory personnel at each trench while work is in progress to ensure that the Contractor's methods, procedures, equipment and materials pertaining to the safety systems of this Item are sufficient to meet the requirements of OSHA Standards and Regulations.

#### **3.03 INSPECTION**

- A The Contractor shall make a daily inspection of the excavation safety system to ensure that the system meets OSHA requirements. Daily inspections shall be made by competent personnel. If evidence of possible cave-ins or slides is apparent, all work in the trench shall cease until necessary precautions have been taken to safeguard personnel entering the trench. The Contractor shall maintain permanent records of all daily inspections.

#### **3.04 REMOVAL**

- A Backfilling and removal of trench supports shall progress together from bottom of trench upward. The Contractor shall remove no braces or trench supports until all personnel have evacuated the trench. The trench shall be backfilled to within 5 feet of natural ground prior to removal of the entire trench safety system. None of the Excavation Safety System can remain in place without the written permission of the Engineer.

**END OF SECTION**



**SECTION CTB**  
**CEMENT TREATED BASE**

CTB-1

**SECTION CTB**  
**CEMENT TREATED BASE**

1.0 GENERAL

1.1 Description

Cement Treated Base (CTB) shall consist of aggregate, cement and water uniformly mixed in a central plant, transported to the project, spread, compacted, shaped, finished, and cured in accordance with these specifications. It shall conform to the lines, grades, thicknesses and typical cross-section shown on the plans.

2.0 MATERIALS

2.1 Cement

Cement shall comply with the latest specifications for Portland cement-ASTM C 150 (Type I) or Portland-ASTM C 595 (Type IP).

2.2 Water

Water shall be free from substances deleterious to the hardening of the Cement Treated Base.

2.3 Aggregate

The aggregate may be any granular material or combinations of aggregates that will, when mixed with adequate amounts of cement and water, produce laboratory mix design Unconfined Compression Test strengths as specified in paragraph 2.5 in accordance with ASTM D 1633 Method "A". The preceding tests will utilize the Moisture-Density Relation as determined by ASTM D-558; AASHTO T-134. The aggregate size shall meet the requirements of Texas State Department of Highways and Public Transportation - 1982 Standard Specifications of Highways, Streets and Bridges, "Item 274.2(3) Cement Stabilized Base - Base Materials."

2.4 Laboratory Mix Design

Test results shall be submitted by the supplier of the CTB material to the Engineer/Architect for approval.

2.5 Strength Requirements

The unconfined compressive strengths required for the CTB material will be as follows:

2.5.1 Class A CTB; 400 psi - seven days

### 3.0 EQUIPMENT

#### 3.1 Description

Cement Treated Base may be constructed with any combination of machines or equipment that will produce the results meeting these specifications.

### 4.0 CONSTRUCTION METHODS

#### 4.1 Preparation

Before other construction operations are begun, the area to be paved shall be graded and shaped as required to receive the Cement Treated Base in conformance with the grades, lines, thicknesses and typical cross-section shown on the plans. Unsuitable subgrade soil or material shall be removed and replaced with acceptable soil.

The subgrade shall be firm and able to support without displacement of the construction equipment and the compaction hereinafter specified. Soft or yielding subgrade shall be corrected and made stable before construction proceeds.

#### 4.2 Central Mixing Plant

The aggregate, cement and water shall be mixed in a pug mill as approved by the Engineer/Architect. The plant shall be equipped with feed and metering devices that will add the aggregate, cement and water into the mixer in the specified quantities to produce a mixture that will meet or exceed the mix design criteria as stated above. The aggregate and cement shall be mixed sufficiently to prevent cement balls from forming when the mix water is added. The mixing time shall be sufficient to assure an intimate, uniform mixture of aggregate, cement and water.

The percentage of moisture in the aggregate, at the time of cement application shall be the amount that assures a uniform and intimate mixture of aggregate and cement during mixing operations. It shall not exceed the specified moisture content required for adequate compaction.

Free access to the plant shall be provided to the Engineer/Architect, his inspector and his designated Commercial Testing Laboratory for construction quality control. The mixture shall be hauled to the paving area in trucks having beds cleaned of deleterious material.

#### 4.3 Placement and Compaction

The mixture shall be placed on a moistened subgrade in a uniform layer by any approved method of spreading that will deposit the required quantity per lineal foot, without segregation, to produce a uniformly compacted base conforming to the grade and cross-section. Not more than 30 minutes shall elapse between placement of CTB in adjacent lanes at any location except at longitudinal and transverse construction joints.

No CTB mixture shall be placed when the subgrade is frozen or when the air temperature is less than 40° F in the shade. The Engineer/Architect may allow placement when the temperature is 35° F and clearly rising.

Compaction shall start as soon as possible after spreading. The elapsed time between the addition of water to the CTB mixture and the start of compaction shall not exceed 60 minutes under normal conditions. The Engineer/Architect may alter this time if environmental conditions, such as temperature, humidity or wind conditions would justify such a change. Laboratory tests may be required to verify changes in compaction time limits.

At the start of compaction, the percentage of moisture in the mixture shall not be more than one percentage point below or two percentage points above the specified optimum moisture content, and shall be less than that quantity which will cause the Cement Treated Base mixture to become unstable during compaction and finishing. The specified optimum moisture content and density shall be determined in the field by a Moisture-Density Test, AASHTO T 134 or ASTM D 558, on representative samples of Cement Treated Base mixture obtained from the area prior to compaction. Prior to compaction, the mixture shall be in a loose condition for its full depth. The loose mixture shall then be compacted uniformly to the specified density. During compaction operations, initial shaping may be required to obtain uniform compaction and required grade and cross-section.

#### 4.4 Finishing

When initial compaction is completed, the surface of the Cement Treated Base shall be shaped to the required lines, grades and cross-section. The moisture content of the surface material shall be maintained at not less than its specified optimum moisture content during finishing operations.

If any reshaping of the surface is necessary, it shall be lightly scarified to remove any compaction planes, scales or smooth surfaces left by equipment. Final compaction shall then be continued until uniform and adequate density is obtained.

The CTB shall be uniformly compacted to a minimum of 96% of maximum density.

Compaction and finishing shall be done in such a manner as to produce, in not longer than two hours, a smooth, dense surface free of compaction planes, cracks, ridges, or loose material.

#### 4.5 Cutting

After the CTB has been finished as specified herein, it shall be protected against drying for seven days by the application of a bituminous prime coat, or other acceptable methods. The finished CTB shall be kept continually moist until the curing material has been placed. The curing material shall be applied as soon as possible, but not later than at the end of each day's construction.

If the bituminous cure is used:

#### 4.5.1 Curing, Bituminous Prime Coat

At the time the bituminous prime coat is applied, the Cement Treated Base surface shall be dense, shall be free of all loose and extraneous material and shall contain sufficient moisture to prevent excessive penetration of the bituminous material. The bituminous prime coat specified shall be uniformly applied to the surface of the completed Cement Treated Base at the rate of approximately 0.1 gallons per square yard with approved heating and distributing equipment. The exact rate and temperature of application for complete coverage without excessive runoff will be approved by the Engineer/Architect.

Should it be necessary for construction equipment or other traffic to use the bituminous-covered surface before the bituminous prime coat has cured sufficiently to prevent "pick-ups", sufficient granular cover shall be applied before such use. The curing material shall be maintained by the contractor during the seven day protection period so that all of the Cement Treated Base will be covered effectively during this period. Finished portions of Cement Treated Base that are traveled on by equipment used in constructing an adjoining section shall be protected in such a manner as to prevent equipment from marring or damaging completed work.

Cement Treated Base shall be protected against freezing for seven days after its construction and until it has hardened.

#### 4.5.2 Curing, Other Methods

If curing is achieved by methods other than Bituminous Prime Coat, the Engineer/Architect must approve and curing must be performed in accordance with manufacturer's recommendations.

#### 4.6 Construction Joints

At the end of each day's construction a transverse construction joint shall be formed by cutting back into the completed work to form a full depth vertical face.

Cement Treated Base for large, wide areas shall be built in a series of parallel lanes of convenient length and width meeting the approval of the Engineer/Architect. Longitudinal joints shall be formed at the edge of each day's construction by cutting back into the completed work to form a full depth vertical face free of loose or shattered materials.

#### 4.7 Traffic

Completed portions of Cement Treated Base may be opened immediately to light traffic and to construction equipment provided the curing material or surface is not impaired as specified in 4.5. The section may be opened to all traffic after the seven day curing period provided the Cement Treated Base has hardened sufficiently to prevent marring or distorting of the surface by equipment or traffic.

4.8 Maintenance

The contractor shall be required within the limits of his contract to maintain the Cement Treated Base in good condition until all work has been completed and accepted. Maintenance shall include immediate repairs of any defects that may occur. This work shall be done by the contractor at his own expense and repeated as often as may be necessary to keep the area continuously intact.

Faulty work shall be corrected.

Any low areas shall be remedied by replacing the material for the full depth of treatment rather than by adding a thin layer of Cement Treated Base to the completed work.

5.0 CONSTRUCTION QUALITY CONTROL PROGRAM

To insure that the construction phase of the Cement Treated Base is in accordance with the provisions of these specifications, the following quality control testing program will be performed by a testing laboratory approved or retained by the Engineer/Architect.

5.1 Establish the field moisture density curve in accordance with ASTM D 558 or AASHTO T 134 (Standard Compactive Effort). The results of this test performed on representative samples of CTB obtained from the area being processed at a time of about midway through the initial compaction phase will establish the optimum moisture content to be incorporated at the central mixing plant and the maximum density will serve as a basis for establishing the density for acceptance.

5.2 The Field-Density of the compacted CTB mixture shall be determined by any of the following: (1) Nuclear Method ASTM D 2922, (2) Sand Cone Method ASTM D 1556, (3) Water Balloon Method ASTM D 2167.

5.3 Where strength of Cement Treated Base material is specified, compliance shall be determined by testing a set of three unconfined cylinders molded from a representative sample of uncompacted Cement Treated Base material taken within one hour from the addition of mixing water to the Cement Treated Base material. Strengths of Cement Treated Base material shall be determined by compressive tests at seven (7) days in accordance with ASTM D 1833, Paragraph 5, "Test Specimens." Paragraph 5.1.1, Method A specifies mold size. Specimens will be molded in accordance with ASTM D 558 Method B.

5.4 Visual inspection of loose and compacted thickness of the CTB layer will be included in the report as well as observations on surface scaling, construction joints and curing.

6.0 MEASUREMENTS AND BASIS OF PAYMENT

6.1 Measurements

This work will be measured in square yards of completed and accepted Cement Treated Base course.

6.2

**Basis of Payment**

This work will be paid for at the contract unit price per square yard of completed and accepted Cement Treated Base course.

Contract unit prices will be full payment for furnishing all materials, equipment, tools, labor, and incidentals necessary to complete the work and to carry out the maintenance provisions in these specifications.

No allowances will be made for any materials used or work done outside the lines established by the Engineer/Architect unless approved in writing prior to the work.

END OF SECTION