

Arquero RR
11/102 to 8/18/04

REQUEST FOR INFORMATION

PROJECT No. Arapaho Phase III

RFI # 14

Date : August 18, 2004

Submitted To
HNTB
5910 W. Plano Parkway, Ste 200
Plano, Texas 75093
Guy Van Bulen c/o Daniel Filer

Submitted By
Archer Western Contractors, Ltd.

Andrew Schneemann

Subject	Discipline	Co-Author	Copies To
Existing Concrete at The Rink	Civil		Steve Chutchian

Cost Impact	Amount	Schedule Impact	Days	Drawing Impact
Unknown	Unknown	Unknown	Unknown	Unknown

Information Requested

Please Review the Following Sheets:

1. Sheet 24 shows removal of the paving in question at approx sta 61+65 to 62+65.
2. Sheet 59 shows removing the Stripping in the area in question
3. Sheet 63 shows matching the existing paving with the curb and gutter in the area in question.

The previous lets Archer Western to believe that sheet 24 is a mistake and the paving in question is not to be removed.

Please provide direction on the exact areas to be demolished in the Rink parking lot.

Response

Weekly Meeting Agenda

Date: Tuesday, August 17, 2004
Time 11:00 AM
Location: Field Office

Arapaho Road

I. Safety Issues

II. Schedule

- 1 Review Weekly Schedule

III. Submittals

IV. Old Business

VI. Change Orders

1. HNTB requests pricing on temporary fence at D.W.U. water plant. A/W is in the process of getting price.

VII. Miscellaneous

1. Has Temporary Construction Easement been secured with D.G.N. & O railroad for site grading purposes?
2. Paving removal discrepancy at "The Rink".
3. A/W requests to move our construction entrance at Surveyor Blvd. to be located at the intersection of the proposed new Arapaho Road & Surveyor Blvd.

8/17/2004

ARAPAHO ROAD



Activity Description	Prod	Current Week						Next Week						Following Week						Equipment
		M	T	W	T	F	S/S	M	T	W	T	F	S/S	M	T	W	T	F	S/S	
		16	17	18	19	20	21	23	24	25	26	27	28	30	31	1	2	3	4	
TXU Conduit				X	X	X	/	X	X				/						/	S&J Electrical
Demo/Haul Storage Concrete					X	/		X	X	X		/						/	Stomper	
Sewer/Water /Trailers				X	X	X	/						/						/	
Demo Trees/ Prep ROW		X	X	X	X	X	/	X	X	X	X	X	/	X	X	X	X	X	/	
Orange Fence-60" water line		X	X	X	X	X	/						/						/	
Temp Fence at DWU plant							/	X	X	X	X	X	/						/	C.O. ?
Saw Cut Site & Streets		X	X	X	X	X	/	X	X	X			/						/	
Construction Entrances							/	X	X	X			/						/	North Texas
Temp RR Crossings							/	X	X	X	X	X	/						/	Lone Star
Filter Dam At Midway							/						/						/	North Texas-T.C.E. ?
Box Culvert A & B							/						/	X	X	X	X	X	/	John Griffin
							/						/						/	
							/						/						/	
							/						/						/	
							/						/						/	
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							/						/						/	
Crew Size:							/						/						/	

EXHIBIT "A"

Lying and situated in the Town of Addison, Dallas County, Texas, the Edward Cook Survey, Abstract No. 326 and being a part of Iceoplex Addition, an addition to the Town of Addison, according to the map or plat thereof recorded in Volume 95210, page 03012, Deed Records of Dallas County, Texas (D.R.D.C.T.) conveyed to Hard To The Net Hockey, L.L.C. by a Deed recorded in Volume 2004069, page 02089, D.R.D.C.T. and being more particularly described as follows:

BEGINNING at a 1/2-inch iron rod found at the intersection of the east right of way line of Midway Road (100 feet wide) with the south right of way line of the St. Louis & Southwestern Railroad for the northwest corner of said addition and being 195.00 feet, N 89° 41' 00" W along said railroad right of way line from a 1/2-inch iron rod found;

THENCE S 89° 41' 00" E, along the south right of way line of said railroad, 15.00 feet;

THENCE S 00° 42' 00" E, 11.74 feet to the beginning of a curve to the right having a radius of 1019.93 feet, a central angle of 12° 14' 20", and a chord that bears S 05° 25' 10" W, 217.45 feet;

THENCE Southwesterly along said curve, an arc distance of 217.87 feet;

THENCE S 11° 32' 20" W, a distance of 20.00 feet;

THENCE N 78° 27' 40" W, 15.00 feet to a point on the east right of way line of Midway Road;

THENCE N 11° 32' 20" E, along said east right of way line, 20.00 feet to a 1/2-inch rod found at the beginning of a curve to the left having a radius of 1004.93 feet, a central angle of 12° 14' 20", and a chord that bears N 05° 25' 10" E, 214.25 feet;

THENCE Northeasterly along said curving east right of way line an arc distance of 214.66 feet to a 1/2-inch iron rod found;

THENCE N 00° 42' 00" W, 12.01 feet to the place of beginning and containing 3,722.11 square feet of land, more or less.

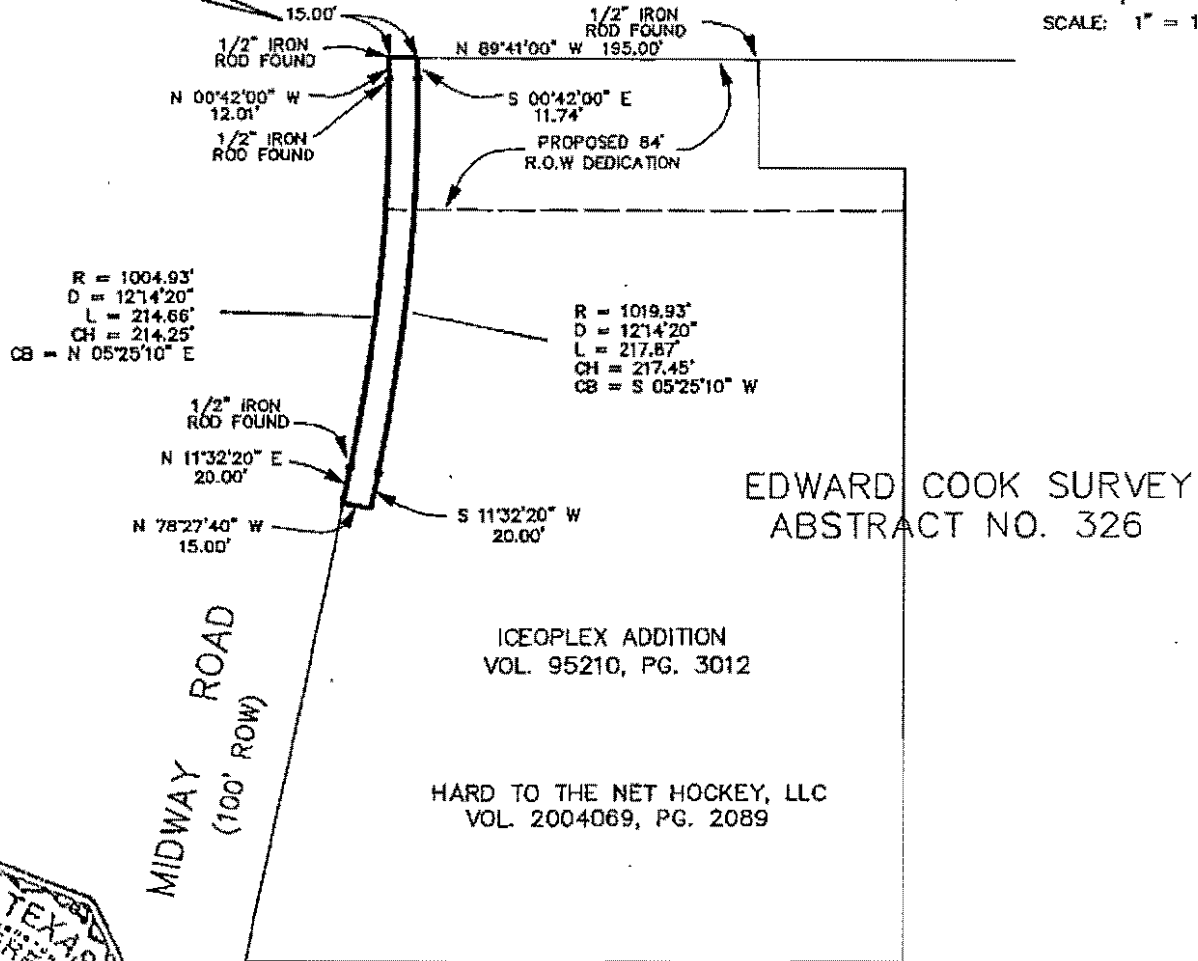
WR#2041434.2

BEARING BASIS:
THE WEST RIGHT OF WAY LINE OF MIDWAY ROAD
PER PLAT RECORDED IN VOL. 95210, PG. 3012,
DEED RECORDS OF DALLAS COUNTY, TEXAS.

POINT OF BEGINNING

ST. LOUIS & SOUTHWESTERN R.R.

SCALE: 1" = 100'



KNOW ALL MEN BY THESE PRESENTS:

THAT I WILLIAM S. WARD, REGISTERED PROFESSIONAL LAND SURVEYOR DO HEREBY DECLARE THAT THIS PLAT IS THE RESULT OF A SURVEY MADE ON THE GROUND MY PERSONAL SUPERVISION ON MAY 17, 2004 AND ALL DIMENSIONS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

William S. Ward
 WILLIAM S. WARD, R.P.L.S., NO. 4238

EXHIBIT "A"
TXU ELECTRIC DELIVERY CO. EASEMENT
IN THE CITY OF DALLAS
DALLAS COUNTY, TEXAS



TXU
Electric Delivery

Fax Cover

TXU Electric Delivery
Project Management and Design Services
301 S. Harwood, 6 South
Dallas, TX 75201

Date: 08.03.04

To: Steve Chutchian

Company: _____ Fax: 972-450-2837

From: James Davis Phone: 214-875-2380

Dept: _____ Fax: 214-875-2266

Re: Ice Rink Easement

Urgent For Review Please Reply Please Reply When Received

Steve,

Included is the exhibit drawing to be affixed to the easement document and signature page. Can you send me the document you propose the grantor to sign by e-mail or fax?

Thanks,
James

If any pages are not received, please call: _____

Number of pages (include cover page): 3

This communication (including any attachments) contains or may contain confidential information intended only for the addressee, and is subject to copyright protection. If you are not the intended recipient of this communication, or the employee or agent responsible for delivering it to the intended recipient, please be advised that any reading, dissemination, distribution, copying or use of this communication or its attachments is strictly prohibited. If you have received this communication in error, please notify the sender immediately by telephone at the direct dial number noted above, and return the original message to us at the above address via the U.S. postal service.



ARCHITECTS ENGINEERS PLANNERS

5910 West Plano Parkway
Suite 200
Plano, Texas
75093
(972) 661-5626
FAX (972) 661-5614
www.hntb.com

August 2, 2004

Mr. Jim Pierce
Town of Addison
16801 Westgrove Drive
Addison, TX 75001-9010

RE: SHOP DRAWING REVIEW AND PROJECT ADMINISTRATION – ARAPAHO PHASE 3
CONSTRUCTION PROJECT

Dear Mr. Pierce:

Enclosed for your review and signatures are two copies of a Consultant Professional Services Agreement for engineering services for the Arapaho Phase 3 Construction Project. Upon review of the Agreement, please sign and return one fully executed copy to, HNTB Corporation; 5910 West Plano Parkway, Suite 200; Plano, TX 75093.

If you have any questions or require any additional information, please feel free to call (972) 628-3116.

Thank you,

HNTB CORPORATION

Erica T Bourne
Project Administrator

Enclosures

The HNTB Companies

OFFICES: ALEXANDRIA, VA; ANNAPOLIS, MD; ATLANTA, GA; AUSTIN, TX; BATON ROUGE, LA; BOSTON, MA; CHARLESTON, SC; CHARLESTON, WV; CHICAGO, IL; CLEVELAND, OH; COLUMBUS, OH; DALLAS, TX; DENVER, CO; DETROIT, MI; ELKINS, WV; FAIRFIELD, NJ; FT. WORTH, TX; HARTFORD, CT; HOUSTON, TX; INDIANAPOLIS, IN; IRVINE, CA; KANSAS CITY, MO; KNOXVILLE, TN; LANSING, MI; LOS ANGELES, CA; LOUISVILLE, KY; MADISON, WI; MIAMI, FL; MILWAUKEE, WI; MINNEAPOLIS, MN; NASHVILLE, TN; NEW YORK, NY; OAKLAND, CA; ORLANDO, FL; OVERLAND PARK, KS; PHOENIX/TEMPE, AZ; PORTLAND, ME; PORTLAND, OR; RALEIGH, NC; ST. LOUIS, MO; SALT LAKE CITY, UT; SAN ANTONIO, TX; SAN BERNARDINO, CA; SAN FRANCISCO, CA; SAN JOSE, CA; SEATTLE, WA; TAMPA, FL; TOLEDO, OH; WASHINGTON, D.C.

DATE SUBMITTED: August 1, 2004
FOR COUNCIL MEETING: August 10, 2004

Council Agenda Item:

SUMMARY:

This item is for the approval of an Engineering Services Contract with HNTB Corporation, in an amount not to exceed \$55,964.00, for Construction Administration and Bridge Shop Drawing Review on Arapaho Road, Phase III, from Surveyor Blvd. to Addison Road.

FINANCIAL IMPACT:

Budgeted Amount: Not specifically budgeted

Cost: \$55,964.00

Source of Funds: Funds are available from the FY 2004 Bond Sale and from unallocated Bond Fund Proceeds

BACKGROUND:

The third phase of the proposed Arapaho Road extension project extends from Surveyor Blvd. to Addison Road. Construction of this section of Arapaho Road will complete an east-west minor arterial roadway that is necessary to relieve traffic congestion on Belt Line Road. The firm of HNTB completed design of this phase of the project and will continue to perform inspection and general contract administration of the proposed roadway and drainage infrastructure. However, it was determined that certain shop drawing review and contract administration related to the proposed bridge construction should be handled by HNTB. Accordingly, a proposal was submitted that included the following items:

1. Management and Administration
2. Shop Drawing Review
3. Response to requests for Information by the Contractor
4. Site Visits

This agreement will permit an optimum level of inspection and construction administration of the bridge, roadway and drainage components of the project.

RECOMMENDATION:

It is recommended that Council authorize the City Manager to enter into a contract with HNTB Corporation, in an amount not to exceed \$55,964.00, for Construction Administration and Bridge Shop Drawing Review on Arapaho Road, Phase III, from Surveyor Blvd. to Addison Road.

AGREEMENT

THIS AGREEMENT is made by and between HNTB Corporation, hereinafter called "ENGINEER", and the Town of Addison, Texas, hereinafter called "OWNER."

WHEREAS, OWNER desires ENGINEER to perform certain work set forth in Section 2, Scope of Services.

WHEREAS, the ENGINEER has expressed a willingness to perform said services, hereinafter referred to only as "services", specified in said Scope of Services, and enumerated under Section 2 of this Agreement.

NOW, THEREFORE, all parties agree as follows:

SECTION 2. SCOPE OF SERVICES

The following Basic and Additional Services, when authorized in writing by a notice-to-proceed, shall be performed by the ENGINEER in accordance with the OWNER's requirements to provide shop drawing review and project administration during the construction of the Arapaho Road Phase 3 Bridge over Midway Road in Addison, Texas.

A Shop Drawing Review

ENGINEER will review the construction contractor's shop drawing submittals for compliance with and adherence to the plans, standard specifications, special provisions to the standard specifications, and special specifications (CONTRACT DOCUMENTS).

Sole responsibility for correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the construction contractor. Review of shop drawings, and similar submittals by ENGINEER shall not be construed as his approval of the methods, construction procedures nor facilities to be used in construction of this work.

ENGINEER will not review any temporary structures, including shoring and form work, for structural integrity. ENGINEER will not bear any responsibility for structural integrity of temporary structures including shoring and form work.

The shop drawing submittals will be limited to those specifically called for in the contract documents. The shop drawings required from the standard specifications, special provisions to the standard specifications, and special specifications are limited to the following sections:

SECTION BC – BRIDGE CONSTRUCTION
SECTION SSH – STEEL STRUCTURE HANGERS

SECTION IB – INDUCTION BENDING OF STRUCTURAL MEMBERS
SECTION BELF – BRIDGE EXTERIOR LIGHTING FIXTURES

Shop drawing submittals received by ENGINEER will consist of the following number of copies:

- Drawing /Plan Sheets..... 5
- Supporting Calculations..... 3
- Material Specification,
Manufacture's Literature,
Miscellaneous Documents.....3

Submittals not complying with the above guidelines will be reviewed, however, the submittal response will not be returned until the submittal is made complete.

The shop drawing submittals will be received from OWNER's construction project personnel. The reviewed shop drawing submittal will be returned to OWNER's construction project personnel for further distribution as necessary.

ENGINEER will provide OWNER's construction project personnel a written response detailing the results of the review. The written response will include a cover letter summarizing the results of the review and marked copies of the submitted material. A review stamp indicating the results of the review will be affixed to the first sheet of each packet of submitted material. A representation of the stamp is shown below.

REVIEW	NO EXCEPTIONS TAKEN	<input type="checkbox"/>
	MAKE CORRETIONS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>
<p>Review is only for general conformance with design concept and intent of Contract Documents. Contractor is solely responsible for verifying dimensions, for establishing fabrication processes, means, techniques, sequences and procedures of construction and for coordination of work of all trades. Exceptions taken and noted to information shown does not authorize work resulting in contract cost revisions unless so stated in separate letter or Change Order.</p>		
HNTB ARCHITECTS ENGINEERS PLANNERS 5910 W. PLANO PARKWAY, SUITE 200 PLANO, TX 75093 972-661-5626	BY: _____	
	DATE: ___/___/___	

ENGINEER will review the submittals and provide a response as quickly as possible; however, ENGINEER will have a minimum of 7 calendar

days from the date when the submittal was received by ENGINEER to provide a response to OWNER's construction project personnel.

ENGINEER will log and track all shop drawing submittals. ENGINEER will provide a written status report of shop drawings in the review process for use during regular construction project meetings.

Submission of shop drawings is anticipated to begin soon after a contract with OWNER has been finalized and cease on or before the construction projects scheduled completion date of October 2005. Lengthening of this duration, in excess of that detailed above, is beyond the scope of this agreement.

B Request For Information (RFI)

ENGINEER will provide consulting services to answer questions concerning the design intent during the construction period.

All RFI's will be forwarded to ENGINEER for response. ENGINEER will log and track all RFI's. ENGINEER will provide a written status report of outstanding RFI's for use during regular construction project meetings.

RFI's concerning value engineering proposals are not part of this agreement. When authorized by subsequent supplemental agreement, ENGINEER will review, evaluate and comment on value engineering proposals submitted to OWNER from the construction contractor.

C Site Visits

ENGINEER will visit the construction site to evaluate construction related issues upon request of OWNER's construction project personnel.

Construction related issues pertaining to construction contractor errors are not part of this agreement. When authorized by subsequent supplemental agreement, ENGINEER will review, evaluate and prepare the necessary plan sheets to resolve the issue.

ENGINEER will not have authority to make modifications to the construction contract or stop the contractor's work. ENGINEER will not be responsible for or have authority over job site safety or construction means and methods.

SECTION 3. PAYMENT

OWNER shall pay ENGINEER for services authorized in writing as properly performed by ENGINEER on the basis herein described, subject to additions or deletions for changes or extras agreed upon in writing.

Basis of Compensation

OWNER shall make payment monthly to ENGINEER based upon statements submitted by the ENGINEER for work performed.

Compensation for performing Basic and Additional Services shall be as shown in Exhibit A on a Lump Sum amount of \$55,964.

SECTION 4. RESPONSIBILITIES

OWNER shall perform and provide the following in a timely manner so as not to delay the Services of ENGINEER, and ENGINEER may rely on the accuracy and completeness of the following:

- Authorize ENGINEER in writing to proceed [authorization to proceed is given by the execution of this Agreement].
- Place at ENGINEER's disposal all available information pertinent to the Project, including previous reports, drawings, specifications or any other data relative to the design or construction of the Project.
- Designate in writing a person to act as OWNER's representative, such person to have complete authority to transmit instructions, receive information, and interpret and define OWNER's decisions with respect to ENGINEER's Services for the Project.
- Render decisions and approvals as promptly as necessary to allow for the expeditious performance of ENGINEER's Services.
- Obtain, arrange, and pay for all surveys, advertisements for bids, permits, licenses, easements, rights-of-way, and access necessary for the performance of ENGINEER's Services.
- Make OWNER's facilities available to ENGINEER as required for performance of the Services under this Agreement, and provide labor and safety equipment required for access.
- Require all construction contracts to include provisions requiring Contractors to indemnify OWNER and ENGINEER and requiring Contractors to name OWNER, ENGINEER, and its parent company, affiliated and subsidiary entities, directors, officers and employees, as Additional Insureds on Contractors' liability insurance policies.
- Maintain property insurance on all pre-existing physical facilities.
- Provide a Builder's Risk All-Risk insurance policy for full replacement value for all Project work, which will include, without limitation, coverage for loss due to defects in materials and workmanship and errors in design, and will include OWNER, ENGINEER and Contractor as insureds.

- Give prompt written notice to ENGINEER whenever OWNER becomes aware of any development that does or may affect the scope or timing of ENGINEER's Services, or any defect in the Services of ENGINEER or its subconsultants, or the work of construction Contractors.
- Advise ENGINEER of the identity and scope of services of any independent consultants retained by OWNER to provide services in regard to the Project.

Unless otherwise provided in this Agreement, OWNER shall bear all costs incident to compliance with the above items.

SECTION 5. TIME FOR PERFORMANCE

ENGINEER shall perform all services as provided for under this Agreement in a proper, efficient and professional manner in accordance with the terms of this Agreement.

In the event ENGINEER's performance of this Agreement is delayed or interfered with by acts of the OWNER or others, ENGINEER may request an extension of time for the performance of same as hereinafter provided. If such delay is in excess of 60 days on any one occurrence or a cumulative delay of over 180 days, ENGINEER shall have the right to renegotiate the remainder of this contract. A delay shall be defined as any event caused by others that substantially inhibits the ENGINEER from proceeding with its services on the project. This shall include, but is not limited to, OWNER reviews, right-of-way negotiations and awaiting critical information to be supplied by OWNER or franchised utility companies.

No allowance of any extension of time, for any cause whatever, shall be claimed or made by the ENGINEER, unless ENGINEER shall have made written request upon OWNER for such extension within 14 calendar days after the cause for such extension occurred, and unless OWNER and ENGINEER have agreed in writing upon the allowance of additional time to be made. Provided, however, ENGINEER shall not be considered in default hereunder in delays are caused by reasons beyond its reasonable control.

SECTION 6. DOCUMENTS

All instruments of service (including plans, specifications, drawings, reports, designs, computations, computer files, estimates, surveys, other data or work items, etc.) prepared under this Agreement shall be submitted for approval of the OWNER. All completed instruments of service shall be professionally sealed as may be required by law or by OWNER.

Such instruments of service, together with necessary supporting documents, shall be delivered to OWNER, and OWNER shall have unlimited rights, for the benefit of OWNER, in all instruments of service, including the right to use same on any other work of OWNER without additional cost to OWNER. If, in the event, OWNER uses such instruments of service on any work of OWNER other than that intended in the Scope of Services, defined in Section 2, under those circumstances OWNER hereby agrees to protect, defend, indemnify and hold harmless the ENGINEER, their officers, agents,

servants and employees (hereinafter individually and collectively referred to as "Indemnities"), from and against suits, actions, claims, losses, liability or damage of any character, and from and against costs and expenses, including, in part, attorney fees incidental to the defense of such suits, actions, claims, losses, damages or liability on account of injury, disease, sickness, including death, to any person or damage to property including, in part, the loss of use resulting therefrom, arising from any inaccuracy, such use of such instruments of service with respect to such other work except where ENGINEER is hired to modify such instrument for such other work.

ENGINEER agrees to and does hereby grant to OWNER a royalty-free license to such instruments of service which ENGINEER may cover by copyright and to designs as to which ENGINEER may cover by copyright and to designs as to which ENGINEER may assert any rights or establish any claim under the design patent or copyright laws. ENGINEER, after completion of the services, agrees to furnish the originals of such instruments of service to the OWNER. ENGINEER may, however, retain copies of any and all documents produced. The license granted herein by ENGINEER shall survive termination of this Agreement for any reason.

SECTION 7. TERMINATION

OWNER may suspend or terminate this Agreement for cause or without cause at any time by giving five (5) days written notice to the ENGINEER. In the event termination is for cause however, such shall be in accordance with section 14 hereof. In the event suspension or termination is without cause, payment to ENGINEER, in accordance with the terms of this Agreement, will be made on the basis of services reasonably determined by OWNER to be satisfactorily performed to date of suspension or termination. Such payment will be due upon delivery of all instruments of service to OWNER.

Should the OWNER require a material modification of this Agreement, and in the event OWNER and ENGINEER fail to agree upon such modification to this Agreement, OWNER shall have the option of terminating this Agreement and the ENGINEER's services hereunder at no additional cost other than the payment to ENGINEER, in accordance with the terms of this Agreement, for the services reasonably determined by OWNER to be properly performed by the ENGINEER prior to such termination date.

ENGINEER may terminate this Agreement upon written notice to OWNER in the event of substantial failure by the OWNER to perform in accordance with the terms of this Agreement. OWNER shall have 14 calendar days from the receipt of the termination notice to cure or to submit a plan for cure acceptable to the ENGINEER. In the event the parties cannot agree upon an acceptable cure within a reasonable period of time from the date of notice, ENGINEER may terminate this Agreement.

SECTION 8. INSURANCE

ENGINEER shall provide and maintain Worker's Compensation and Employer's Liability Insurance for the protection of ENGINEER's employees, as required by law. ENGINEER shall also provide and maintain in full force and effect during the term of this Agreement, insurance (including insurance covering the operation of automobiles,

trucks and other vehicles) protecting ENGINEER and OWNER against liability from damages because of injuries, including death, suffered by any person or persons other than employees of ENGINEER, and liability for damages to property, arising from or growing out of ENGINEER's operations in connection with the performance of this Agreement.

Such insurance covering personal and bodily injuries or death shall be in the sum of not less than Two Hundred Fifty Thousand Dollars (\$250,000.00) for one (1) person, and not less than Three Hundred Thousand Dollars (\$300,000.00) for any one (1) occurrence. Insurance covering damages to property shall be in the sum of not less Three Hundred Thousand Dollars (\$300,000.00) aggregate.

ENGINEER shall also provide and maintain Professional Liability Insurance coverage to protect ENGINEER from liability arising out of the performance of professional services under this Agreement. Such coverage shall be in the sum of not less than \$1,000,000.00.

A signed Certificate of Insurance, showing compliance with the requirements of this Section, shall be furnished to OWNER before any services are performed under this Agreement. Such Certificate of Insurance shall provide for ten (10) days written notice to OWNER prior to the cancellation or modification of any insurance referred to therein. Such Certificates shall terminate after completion of the project.

OWNER shall be named as an "additional insured" party on all insurance policies, except for Worker's Compensation and Professional Liability policies.

SECTION 9. INDEMNIFICATION FOR INJURY AND PERFORMANCE

ENGINEER further specifically obligates itself to OWNER in the following respects, to wit:

The ENGINEER hereby agrees to protect, indemnify and hold harmless the OWNER, their officers, agents, servants and employees (hereinafter individually and collectively referred to as "Indemnities"), from and against losses, liability or damage of any character, including defense costs, expenses and attorney fees incidental to the defense of such losses, damages or liability on account of injury, disease, sickness, including death, to any person or damage to property including the loss of use resulting therefrom, from any negligent act, error, or omission of the ENGINEER, its officers, employees, or subcontractors, or anyone else for whom ENGINEER is legally liable which are resulting from or caused by the performance of any services called for by this Agreement. In the event the parties are found to be jointly or derivatively negligent or liable for such damage or injury, the indemnification shall be assessed on a proportionate basis in accordance with the final judgment, after all appeals are exhausted, determining such joint or derivative negligence or liability.

The ENGINEER is not responsible for the actions of the OWNER's contractor or any other party contracting with OWNER to perform the construction of the improvements covered under this Agreement.

Acceptance and approval of the final plans by the OWNER shall not constitute nor be deemed a release of the responsibility and liability of ENGINEER, its employees, associates, agents and ENGINEERS for the accuracy or competency of their designs, working drawings and specifications, or other documents and services provided by ENGINEER hereunder; nor shall such approval be deemed to be an assumption of such responsibility by the OWNER for any defect in the designs, working drawings and specifications, or other documents and services provided by ENGINEER hereunder; or other documents prepared by ENGINEER, its employees, and subconsultants.

SECTION 10. INDEMNIFICATION FOR UNEMPLOYMENT COMPENSATION

ENGINEER agrees that it is an independent contractor and not an agent of the OWNER, and that ENGINEER is subject, as an employer, to all applicable Unemployment Compensation Statutes, so as to relieve OWNER of any responsibility or liability from treating ENGINEER's employees as employees of OWNER for the purpose of keeping records, making reports or payments of Unemployment Compensation taxes or contributions. ENGINEER further agrees to indemnify and hold OWNER harmless and reimburse it for any expenses or liability incurred under said Statutes in connection with employees of ENGINEER.

SECTION 11. INDEMNIFICATION FOR NON-PAYMENT

To the extent OWNER has paid ENGINEER in full hereunder for same, ENGINEER shall defend and indemnify OWNER against and hold OWNER and the premises harmless from any and all claims, suits or liens based upon or alleged to be based upon the non-payment of labor, tools, materials, equipment, supplies, transportation and management costs incurred by ENGINEER in performing this Agreement.

SECTION 12. ASSIGNMENT

Neither party shall assign or sublet this Agreement or any part thereof, without the prior written consent of the other party.

SECTION 13. APPLICABLE LAWS

ENGINEER shall comply with all federal, state, county and municipal laws, ordinances, regulations, safety orders, resolutions and building codes applicable to services to be performed under this Agreement.

SECTION 14. DEFAULT OF ENGINEER

In the event ENGINEER fails to comply or is unable to comply with the provisions of this Agreement as to the quality or character of the service or time of performance, and the failure is not corrected within fourteen (14) days after written notice by OWNER to ENGINEER, OWNER may, at its sole discretion without prejudice to any other right or remedy:

- Terminate this Agreement and be relieved of the payment of any further consideration to ENGINEER except for all services determined by OWNER to be satisfactorily completed prior to termination. Payment for work satisfactorily completed shall be for percentage of completion by ENGINEER through such date of termination. In the event of, of such termination, OWNER may proceed to complete the services in any manner deemed proper by OWNER, either by the use of its own forces or by resubletting to others. In either event, the ENGINEER shall be liable for all reasonable, unmitigatable costs in excess of the total contract price under this Agreement incurred to complete the services herein provided for and the costs so incurred may be due or that may thereafter become due to ENGINEER under and by virtue of this Agreement.
- OWNER may, without terminating this Agreement or taking over the services, furnish the necessary materials, equipment, supplies and/or help necessary to remedy the situation. The reasonable expense for same may be offset against amounts due the ENGINEER. In such case, ENGINEER shall not be liable with respect to indemnity or otherwise for any such services performed, arranged, or furnished by OWNER. ENGINEER shall not be considered in default of this Agreement for delays in performance caused by acts of the OWNER or other circumstances beyond the reasonable control of the ENGINEER.

SECTION 15. ADJUSTMENTS IN SERVICES

No claims for extra services, additional services or change in the services will be made by ENGINEER without a written agreement with OWNER prior to the performance of such services.

SECTION 16. EXECUTION BECOMES EFFECTIVE

This Agreement will be effective upon execution by and between ENGINEER and OWNER.

SECTION 16-A. VENUE LOCATION

In the event of any dispute or action under this Contract, venue for any and all disputes or actions shall be instituted and maintained in Dallas County, Texas. The parties agree that the laws of the State of Texas shall apply to the interpretation, validity and enforcement of this Contract; and, with respect to any conflict of law provisions, the parties agree that such conflict of law provisions shall not affect the application of the law of Texas (without reference to its conflict of law provisions) to the interpretation, validity and enforcement of this Agreement.

THIS AREA INTENTIONALLY
LEFT BLANK

SECTION 17. AGREEMENT AMENDMENTS

This Agreement contains the entire understanding of the parties with respect to the subject matter hereof and there are no oral understandings, statements, or stipulation bearing upon the meaning or effect of this Agreement, which have not been incorporated herein. This Agreement may only be modified, amended, supplemented or waived by a written instrument executed by the parties except as may be otherwise provided therein.

SECTION 18. WRITTEN NOTICES

All notices, demands and communications hereunder shall be in writing and may be served or delivered personally upon the party for whom intended, or mailed to the party to whom intended at the address set forth on the signature page of this Agreement. The address of a party may be changed by notice given pursuant to this Section.

SECTION 19. GENDER AND NUMBER

The use of any gender in this Agreement shall be applicable to all genders, and the use of singular numbers shall include the plural conversely.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on this the _____ day of August, 2004.

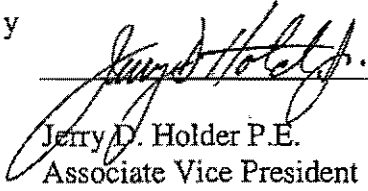
OWNER:
TOWN OF ADDISON, TEXAS

ENGINEER:
HNTB CORPORATION

By
: _____

Ron Whitehead, City Manager
5300 Beltline Road
P.O. Box 9010
Addison, Texas 75001-9010

By
: _____


Jerry D. Holder P.E.
Associate Vice President
5910 Plano Parkway, Suite 200
Plano, Texas 75093

Witness:

Witness: 

EXHIBIT A

**ARAPAHO ROAD PHASE 3
SHOP DRAWING REVIEW**

Description	Number of Sheets	Project Manager	Senior Engineer	Design Engineer	CADD Technician	Clerical	Total	
I. General								
Management and administration	N/A	16	40	24		24	104	
II. Shop Drawing Review								
Strands	10	2	5	10	0	0	17	
Prestressed Concrete Beams	65	4	16	30	0	4	54	
Prestressed Concrete Panels or Permanent Metal Deck Forms	45	3	11	20	0	4	38	
Sealed Expansion Joints	9	2	2	4	0	2	10	
Arch Ribs	51	6	24	51	0	4	85	
Fence	10	2	2	5	0	0	9	
Rail	10	2	2	5	0	0	9	
Lights	2	0	2	2	0	0	4	
III. Request For Information (RFI)								
Design Intent	N/A	16	32	16	4	16	84	
IV. Site Visits								
	N/A	4	12	12	0	4	32	
	Labor Hours	202 Sheets	57	148	179	4	58	446
	Labor Rate		\$56	\$46	\$36	\$25	\$19	
	Total Direct Labor		\$3,192	\$6,808	\$6,444	\$100	\$1,102	\$17,646
	Indirect Labor and Overhead		\$5,139	\$10,961	\$10,375	\$161	\$1,774	\$28,410
	Subtotal		\$8,331	\$17,769	\$16,819	\$261	\$2,876	\$46,056
	Profit							\$6,908
	Expenses							
	Printing and Reproduction							\$1,250
	Courier, Mailing, & Misc. exp.							\$1,750
	Subtotal							\$3,000
	Total Labor and Expenses							\$55,964



17 August 2004

PUBLIC WORKS DEPARTMENT

Post Office Box 9010 Addison, Texas 75001-9010

Steve
Addison 50!

50 YEARS OF FUN!

(972) 450-2871 FAX (972)450-2837

16801 Westgrove

VIA FAX to 214-243-1110

Mr. Marco Ramirez
DWU Relocations
Water Utilities Department
Engineering Services-Relocations
2121 Main Street, #400
Dallas, TX 75201

RE: Arapaho Road Phase III
Breakdown of DWU Portion of Construction Cost

Dear Mr. Ramirez:

Per the attached bidder's proposal form submitted by Archer Western, the selected contractor on the above referenced project, the construction cost for the DWU water line valve and relocation is as follows:

Bid Item 263 - 60" RCCP water lowering including but not limited to all thrust blocking, fittings and appurtenances (per DWU standards) - \$113,119.20
(\$1,413.99 per linear foot)

Bid Item 270 - 60" Butterfly Valve and Appurtenances, per plans - \$18,309.88
(lump sum)

DWU is responsible for the cost of Bid Item 270, \$18,309.88, and any other costs as covered in the ILA agreement between the Town of Addison and the City of Dallas. All other construction costs shall be the responsibility of the Town of Addison.

Sincerely,

Mike Murphy, P.E.
Director of Public Works

Attachment: Archer Western Bid Sheet

cc: Peter Fitzwilliams, DWU Program Manager

Archer Western Contractors

260	8" Reinforced Concrete Parking Lot sawcut/removal/replacement at Pump Station	SY	73.67	45	3,315.15
261	Fire Hydrant (including 6" water lead and valve)	EA.	2,591.65	1	2,591.65
262	8" C909 PVC Class 150 water line	L.F.	55.18	85	4,690.30
263	60" RCCP water lowering including but not limited to all thrust blocking, fittings, and appurtenances (per DWU standards)	L.F.	1,413.99	80	113,119.20
264	16" C900 PVC Class 150 Water lowering	L.F.	143.17	30	4,295.10
265	8" C909 PVC Class 150 Water lowering	L.F.	145.67	40	5,826.80
266	Trench Safety	L.F.	1.00	14,536	14,536.00
267	Sediment removal, inside 66" RCP	CY	30.74	250	7,685.00
268	Remove 9'x5' Headwall on West side of Midway Road	EA.	1,256.75	1	1,256.75
269	Preparation and implementation of SWPPP, per specifications and TCEQ requirements	LS	500.00	1	500.00
270	60" Butterfly Valve and Appurtenances, per plans	LS	18,309.88	1	18,309.88
271	Grouted Riprap	SY	36.29	750	27,217.50
272	Temporary 8" thick Asphalt Pavement (2" HMAc Type D, 6" HMAc Type B), per Traffic Control Plan	SY	23.05	500	11,525.00
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE II, ITEMS 200 THROUGH 272, INCLUSIVE					3741,303.93
301	Traffic Signals - Arapaho Road at Addison Road	L.S.	23,000.00	1	23,000.00
302	Traffic Signals - Arapho Road at Surveyor Boulevard	L.S.	10,500.00	1	10,500.00
303	Conduit, 2" schedule 40 PVC	L.F.	5.00	11,003	55,015.00
304	Conduit, 2" schedule 40 PVC, bored and trenched	L.F.	20.00	108	2,160.00
305	Conduit, 4" schedule 40 PVC, bored and trenched	L.F.	25.00	195	4,875.00
306	Conduit (RM)(1-1/2")	L.F.	20.00	243	4,860.00
307	35' 3" street light pole	EA.	2,000.00	9	18,000.00
308	Pedestrian base and light pole	EA.	3,400.00	64	217,600.00
309	Combination, street light w/pedestrian fixture	EA.	8,500.00	13	110,500.00
310	Retaining Wall Mounted Light Pole	EA.	1,500.00	4	6,000.00
311	70W wall mounted luminaire fixture	EA.	6,750.00	4	27,000.00
312	Cable, insulated, #6 AWG	L.F.	1.00	22,706	22,706.00
313	Cable, insulated, #8 AWG	L.F.	0.85	770	654.50
314	Bare ground, #8 AWG	L.F.	0.85	385	327.25
315	Bare ground, #6 AWG	L.F.	1.00	11,353	11,353.00
316	Cable, insulated, #4 AWG	L.F.	1.00	780	780.00
317	Bare ground, #4 AWG	L.F.	1.00	390	390.00
318	Foundation, 35' 3" street light pole	EA.	800.00	21	16,800.00



Archer Western
Contractors

2121 Avenue "J", Suite 103
Arlington, TX 76006
Phone: 817/640-3898
Fax: 817/640-8734

Letter of Transmittal

To: Town of Addison
Public Works Department
16801 Westgrove Drive
Addison, TX 75001

Transmittal: 204059 - 001 005
Date: August 16, 2004
Project: ARRAPAHO ROAD PHASE III

Attn: Steven Chotchian P.E.

From: Andrew Schneemann
Delivered via : _____

We are sending you X attached _____ under separate cover the following items:

_____ Submittals	_____ Plans	_____ O & M's
_____ Photos	_____ Specifications	_____ Invoice
_____ Copy of Letter	_____ Shop Drawings	<u>X</u> Other :
_____ Disks	_____ CD/DVD's	_____ Other :

No.	ITEM	DATE	Description
1		8-16-04	Notice of Intent (NOI) For Storm Water Discharges
1		8-16-04	Construction Site Notice

These are Transmitted as checked below:

_____ For Approval	_____ Approved as Submitted	_____ Resubmit Copies for Approval
<u>X</u> For Your Use	_____ Approved as Noted	_____ Resubmit Copies for Distribution
_____ As Requested	_____ Returned for Corrections	_____ Return Corrected Prints
_____ For Review & Comment		

Comments:



CONSTRUCTION SITE NOTICE

FOR THE
Texas Commission on Environmental Quality (TCEQ)
Storm Water Program
TPDES GENERAL PERMIT TXR150000

The following information is posted in compliance with Part II.D.2. of the TCEQ General Permit Number TXR150000 for discharges of storm water runoff from construction sites. Additional information regarding the TCEQ storm water permit program may be found on the internet at:

www.tnrcc.state.tx.us/permitting/waterperm/wwperm/tpdestorm

Contact Name and Phone Number:	Don Good 817-401-5456
Project Description: (Physical address or description of the site's location, estimated start date and projected end date, or date that disturbed soils will be stabilized)	Arapaho Rd from Surveyor Blvd to Addison Ranch. Start Date Aug 9th, 2004 End Date Nov 30, 2005
Location of Storm Water Pollution Prevention Plan:	Project Field Office 15150 Surveyor Blvd, Addison, TX

For Construction Sites Authorized Under Part II.D.2. (Obtaining Authorization to Discharge) the following certification must be completed:

I BEN J. WICKERD (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.D.2. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A storm water pollution prevention plan has been developed and implemented according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4 system. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title

Date



ARCHITECTS ENGINEERS PLANNERS

5910 W. Plano Parkway
Suite 200
Plano, Texas
75093
(972) 661-5626
FAX (972) 661-5611
www.hntb.com

August 12, 2004

Archer Western Contractors, Ltd.
2121 Avenue "J"
Suite 103
Arlington, Texas 76006

Attention: Mr. Andrew Schneemann

ARAPAHO ROAD - PHASE III
DWU WORKING TIME LINE

Dear Mr. Schneemann:

We have received an email from DWU indicating the time they will allow the 60-inch water line for this project to be worked on. In the email they state there is a 2-week window in which they will allow work on the waterline. This time period is from November 1, 2004 thru November 15, 2004.

DWU also requests that you submit laying plans and plans for testing the tie-in for their staff review.

The email has been attached to this letter for your reference. Please call with any questions regarding this matter.

Sincerely,

HNTB CORPORATION

Jerry D. Holder, Jr., P.E.
Director of Municipal Services

Attachment

- c: Steve Chutchian, Town of Addison
- Katura Curry, Grantham & Associates
- Daniel Filer, HNTB Corporation
- Theodore Keptra, DWU
- Guy Van-Baulen, HNTB Corporation

M:\JOBS\25768Phase3\COMMMTGS\LETTERS\2004\08042004AW-DWU-timeline.doc

The HNTB Companies

OFFICES: ALEXANDRIA, VA; ANNAPOLIS, MD; ATLANTA, GA; AUSTIN, TX; BATON ROUGE, LA; BOSTON, MA; CHARLESTON, SC; CHARLESTON, WV; CHICAGO, IL; CLEVELAND, OH; COLUMBUS, OH; DALLAS, TX; DENVER, CO; DETROIT, MI; DUKES, VA; FARMINGDALE, NY; FORT WORTH, TX; HARTFORD, CT; HOUSTON, TX; INDIANAPOLIS, IN; IRVINE, CA; KANSAS CITY, MO; LEONARD, VA; LOS ANGELES, CA; LOUISVILLE, KY; MADISON, WI; MIAMI, FL; MILWAUKEE, WI; MINNEAPOLIS, MN; NASHVILLE, TN; NEW YORK, NY; OAKLAND, CA; ORLANDO, FL; OVERLAND PARK, KS; PLYMOUTH MEETING, PA; PORTLAND, ME; PORTLAND, OR; RALEIGH, NC; ST. LOUIS, MO; SALT LAKE CITY, UT; SAN ANTONIO, TX; SAN BERNARDINO, CA; SAN FRANCISCO, CA; SAN JOSE, CA; SEATTLE, WA; TAMPA, FL; TORONTO, ON; WASHINGTON, D.C.

Angela Winkler

From: Theodore Keprta [tkeprta@mail.ci.dallas.tx.us]
Sent: Monday, August 02, 2004 9:03 AM
To: lawrence.scalf@dallascityhall.com; peter.fitzwilliams@dallascityhall.com; drobinso@dwu.ci.dallas.tx.us; maramir@dwu.ci.dallas.tx.us; bgrantham@gra-ce.net; kcurry@gra-ce.net; Jenny Nicewander; Gary Lewis; Jose Orozco; Johnny Helton; Rick Galceran; Randy Payton; Theodore Keprta
Subject: 60-inch tie-in window

Katura

I have just received word from Pumping regarding the tie-in window for the pipe lowering and valve replacement on the 60-inch pipe along Arapaho Road.

Pumping is giving a two week window between November 1, 2004 and November 15, 2004 to complete the tie-in. Please submit laying plans and plans for testing and tie-in in time for review and approval by DWU staff in time to complete the construction work with in the time allotted.

Pumping and Distribution can not accommodate any other shut downs of the main at this time.

If you have any questions, please call me.

Thank you.

Theodore Raymond Keprta, Jr.
Engineer Assistant
Dallas Water Utilities - Relocation Section
214-671-9531 (phone)
214-243-1110 (fax)

Section Number	Submittal Number	Specification Section	Description (Specification/Submittal)	HNTB Review						Posted / Published	Comments
				Type	Provider	Date Submitted	Returned	Days Out	Status		
TxDot 421	1.1	TxDot 425	Portland cement concrete	Mix design	Southern Star	8/10/04	09/02/04	23	AAN		
BC	2.1	Spec BC	Arch Rib and Stinger Shop Drawings	Shop drawings	King	8/10/04	08/31/04	21	AAN		
Bld Item 146	3.1	Addendum 3	Bollards	Shop drawings	Reliance Foundry	8/20/04					
TxDot 462	4.1	TxDot 462	RCB Lay Schedule	Lay Schedule	Hanson	8/23/04	09/07/04	15	RR		
TxDot 462	5.1	TxDot 462	RCP Lay Schedule	Lay Schedule	Hanson	8/23/04	09/07/04	15	RR		
TxDot 423	6.1	TxDot 423	MSE Backfill, Crushed Concrete	Test Reports	BigCity	8/23/04					
TxDot 132	7.1	TxDot 132	Embankment Material - NTTA	Test Reports	Archer Western	8/24/04					
Void	8.1	Void	Void	Void	Void	Void	Void	Void	Void	Void	Void
TxDot 440	9.1	TxDot 440.2	Rebar - Drill Shafts - All	Placing Sheets	Lofland	8/27/04					
TxDot 440	10.1	TxDot 440.2	Rebar - Columns 2-8 & 11-14	Placing Sheets	Lofland	8/27/04					
TxDot 440	11.1	TxDot 440.2	Rebar - Abutments 1 & 15	Placing Sheets	Lofland	8/27/04					
TxDot 440	12.1	TxDot 440.2	Rebar - Bents 2 - 8 & 11-14	Placing Sheets	Lofland	8/27/04					
NTCOG 805	13.1	805.3.4.1,2,3	Conduit	Product Data	S&J Electric	8/27/04					
TxDot	14.1	Sht. 329	Type A&C Pull Boxes	Product Data	S&J Electric	8/27/04					
BELF	15.1	BELF	Exterior Fixtures	Product Data	S&J Electric	8/27/04					
SLL	16.1	BELF,SLL	Street Lights and Fixtures	Product Data	S&J Electric	8/27/04					
TxDot 423	17.1	TxDot 423	MSE Wall Calculations	Calculations	Robertson Eng	8/27/04					
WML	18.1	WML	Wall Mount Light	Product Data	S&J Electric	8/27/04					
NTCOG 805	19.1	805.3.5	Wire and Cable	Product Data	S&J Electric	8/27/04					
TxDot 423	20.1	TxDot 423	MSE Wall Shop Drawings	Shop drawings	Robertson Eng	9/1/04					

DATE SUBMITTED: August 2, 2004
FOR COUNCIL MEETING: August 19, 2004

Council Agenda Item:

SUMMARY:

This item is for Council authorization for the City Manager to enter into a Contract Agreement with TXU Electric Delivery for the relocation and installation of electrical services in connection with the extension of Arapaho Road, Phase III, from Addison Road to Surveyor Blvd.

FINANCIAL IMPACT:

Budgeted Amount: Not specifically budgeted
Cost: \$282,948.00
Source of Funds: Funds are available from the Arapaho Road Capital Project Fund.

BACKGROUND:

Of the many aspects relating to the Arapaho Road, Phase III construction project, the relocation of electric utilities is a substantial undertaking. In accordance with the attached agreement with TXU Electric Delivery, the Town of Addison's contractor will install conduit for services that will be relocated during construction. TXU Electric Delivery will pull wires through this conduit and perform other relocation of overhead electric facilities within the project site. Money had been allocated to accommodate funding requirements for this portion of the project and it is within the existing budget limits.

RECOMMENDATION:

Staff recommends that the City Manager be authorized to sign this agreement with TXU Electric Delivery in the amount of \$282,948.00.

GO-BYS
FOR DUCT BANK
AGENDA ITEM

DATE SUBMITTED: March 2, 2004
FOR COUNCIL MEETING: March 9, 2004

Council Agenda Item

SUMMARY:

This item is for Council approval of a change order, in the amount of \$101,587.00, for the construction of Spectrum Drive North/South Extension Project.

FINANCIAL IMPACT:

Budgeted Amount:	\$3,100,000
Change Order Cost:	\$101,587.00
Source of Funds:	\$2,600,000 from Bond Sale. Remaining amount from Unallocated Bond Fund Proceeds

BACKGROUND:

The Spectrum Drive North/South Extension Project was established as part of the Year 2000 General Obligation Bond Program. In December 2003, a construction contract was awarded to Site Concrete, Inc., in the amount of \$2,536,979.50, which is approximately \$563,000 under the budgeted amount. During the construction of these improvements, Public Works Department staff and the Contractor have identified several necessary field changes. Accordingly, a change order in the total amount of \$101,587.00 was prepared and submitted to Council for consideration. This change order is the result of the following construction issues:

- The design engineer, Huitt-Zollars, Inc., inadvertently omitted pay quantities in the contract proposal for the removal and replacement of an existing concrete drive and fire lane at the Millenium building site. This work is an integral component of the project, and was included in the engineering design. It is necessary because a proposed outfall box culvert storm sewer system must be constructed under the existing drive and fire lane. Staff evaluated the possibility of moving the culvert to either side of the concrete drive. However, development plans on the Millenium side include the construction of a new structural facility that will prevent any encroachment from this project. The box culvert cannot be placed on the other side of the drive due to the proximity of the DART right-of-way and the location of numerous utility and fiber optic lines. The Contractor originally designed the drive replacement with 6" reinforced concrete over a lime stabilized subgrade. Equivalent work on other areas of this project was bid at \$30.00 per square yard for concrete and \$2.00 per square yard for lime stabilization, with a total unit cost of \$32.00 per square yard. However, the

change order for the drive reflects construction of 8" reinforced concrete over a compacted subgrade at a reduced total unit cost of \$28.00 per square yard.

- Staff determined the need for changes to the design of a proposed retaining wall and tree grates, with a total net increase in cost of \$17,972.00. A milsap stone façade will be placed on the originally designed concrete retaining wall. The IronSmith tree grates will be replaced with Neenah tree grates.
- Due to the review of engineering plans and specifications for the proposed Parkview at Addison Circle Townhome development, adjacent to Spectrum Drive, staff was able to reduce the planned water and sanitary sewer facilities to serve the area. The change order reflects a reduction in total utility installation cost by \$6,050.00.

It should be noted that the drive and fire lane replacement portion of the project must be performed at this time, and is included in the original design plans and specifications. The cost of performing these improvements would have been part of the original bid package if the Engineer had placed the quantities in the proposal. The resulting total construction cost is increased to \$2,638,566.50, which remains under the budgeted amount by approximately \$461,000.

RECOMMENDATION:

It is recommended that Council approve a change order, in the amount of \$101,587.00, for the construction of the Spectrum Drive North/South Extension Project.

DATE SUBMITTED: June 11, 2004
FOR COUNCIL MEETING: June 22, 2004

Council Agenda Item:

SUMMARY:

This item is for the award of a contract to Archer Western Contractors, Ltd., for construction of Arapaho Road and Bridge, Phase III, from Surveyor Blvd. to Addison Road, including Alternate Bid #1 & #2.

FINANCIAL IMPACT:

Construction Cost: \$16,702,578.42

Source of Funds: Funds are available from the FY 2002 & 2004 General Obligation Bond Program (Arapaho Road & Midway Road), DART LAP Funds, & Dallas County, Project No. 83300.

BACKGROUND:

The third phase of the proposed Arapaho Road extension project extends from Surveyor Blvd. to Addison Road. Construction of these improvements will complete an east-west minor arterial roadway that is necessary to relieve traffic congestion on Belt Line Road. It is anticipated that the new road will initially absorb approximately 11,000 vehicles per day, with a maximum future count of 15,000 vehicles per day. A proposed signature bridge over Midway Road and a pedestrian trail system are also proposed as an integral part of the roadway section in this phase. The firm of HNTB Corporation acted as the principal designer for this project. Bids were received on June 7, 2004 for construction of the project, and included the following items:

- Roadway Improvements
- Utility Improvements
- Lighting and Signalization Improvements
- Streetscape Improvements
- Bridge Construction
- Bridge Lighting

Attached is a bid tabulation for these improvements. The bid proposal in the specifications for construction was structured to provide an incentive/disincentive method of bidding the project. Specifically, each bid submitted was required to consist of two parts whereby:

DATE SUBMITTED: August 2, 2004
FOR COUNCIL MEETING: August 19, 2004

Council Agenda Item:

SUMMARY:

This item is for Council authorization for the City Manager to enter into a Contract Agreement with TXU Electric Delivery for the relocation and installation of electrical services in connection with the extension of Arapaho Road, Phase III, from Addison Road to Surveyor Blvd.

FINANCIAL IMPACT:

Budgeted Amount:	Not specifically budgeted
Cost:	\$282,948.00
Source of Funds:	Funds are available from the Arapaho Road Capital Project Fund.

BACKGROUND:

Of the many aspects relating to the Arapaho Road, Phase III construction project, the relocation of electric utilities is a substantial undertaking. In accordance with the attached agreement with TXU Electric Delivery, the Town of Addison's contractor will install conduit for services that will be relocated during construction. TXU Electric Delivery will pull wires through this conduit and perform other relocation of overhead electric facilities within the project site. Money had been allocated to accommodate funding requirements for this portion of the project and it is within the existing budget limits.

RECOMMENDATION:

Staff recommends that the City Manager be authorized to sign this agreement with TXU Electric Delivery in the amount of \$282,948.00.

Tariff for Retail Delivery Service TXU Electric Delivery Company

6.3 Agreements and Forms

Applicable: Entire Certified Service Area
Effective Date: January 1, 2002

Page 2 of 23
Revision: Original

6.3.1 Facilities Extension Agreement

Project Number

WR Number 1992829 and 2041434

Region/District Farmers Branch

This Agreement is made between Town of Addison, hereinafter called "Customer" and TXU Electric Delivery Company, a Texas corporation, hereinafter called "Company" for the extension of Company Delivery System facilities, as hereinafter described, to the following location: crossing Arapaho Road underground at seven locations between Surveyor and Midway Roads from pole line on south side of railroad tracks; underground approximately 400 feet in duct bank on east side of Midway where Arapaho Road bridge crosses Midway Road and crossing Midway north and south of the railroad tracks; and from pole line on east side of Addison Road across Addison Road approximately 100 feet west of intersection with Arapaho Road to relocated pole in Arapaho Road right of way.

The Company has received a request for the extension of: (check all that apply)

STANDARD DELIVERY SYSTEM FACILITIES TO NON-RESIDENTIAL DEVELOPMENT

Company shall extend standard Delivery System facilities necessary to serve Customer's estimated maximum demand requirement of _____ kW ("Contract kW"). The Delivery System facilities installed hereunder will be of the character commonly described as _____ volt, _____ phase, at 60 hertz, with reasonable variation to be allowed.

STANDARD DELIVERY SYSTEM FACILITIES TO RESIDENTIAL DEVELOPMENT

Company shall extend standard Delivery System facilities necessary to serve:

_____, All-electric residential lot(s)/apartment units, or
(Number of lots/apartments)

_____, Electric and gas residential lot(s)/apartment units.
(Number of lots/apartments)

The Delivery System facilities installed hereunder will be of the character commonly described as _____ volt, _____ phase, at 60 hertz, with reasonable variation to be allowed.

NON-STANDARD DELIVERY SYSTEM FACILITIES

Company shall extend/install the following non-standard facilities:

TXU Electric Delivery removes seven overhead services that cross Arapaho Road from Surveyor to Midway and replaces with underground cable. Company installs pads and sets two new padmounted transformers to serve two of these customers. Bulloughs-Lykos and Absolute Systems, who are converting their point of delivery from overhead to underground. Town of Addison supplies and installs at its expense conduit and spurs for all six services. Town of Addison also performs all electric work past the company's point of ownership at each service location. Company removes overhead lines on east and west sides of Midway where Arapaho Road crosses, replaces with underground cable, and installs the four overhead/underground transitions at existing or relocated pole locations. Town of Addison reserves the option to perform all civil work associated with the relocation of the overhead wires at the above mentioned Midway crossing to underground, including the duct bank and the two bores across Midway, north and south of the railroad tracks. The transformer pole serving the customers at 15289 Addison Road at the southwest corner of the intersection of Arapaho and Addison Roads will be relocated to clear Arapaho Road and retain its overhead wire attachments until the Addison Road project replaces the overhead wires with underground cable.

ARTICLE I - PAYMENT BY CUSTOMER

At the time of acceptance of this Agreement by Customer, Customer will pay to Company Two hundred and eighty two thousand nine hundred and forty eight Dollars (\$ 282,948) as payment for the Customer's portion of the cost of the

Tariff for Retail Delivery Service TXU Electric Delivery Company

6.3 Agreements and Forms

Applicable: Entire Certified Service Area

Effective Date: January 1, 2002

Page 2 of 23
Revision: Original

extension of Company facilities, in accordance with Company's Facilities Extension Policy, such payment to be and remain the property of the Company.

ARTICLE II - NON-UTILIZATION CLAUSE FOR STANDARD DELIVERY SYSTEM FACILITIES

This Article II applies only to the installation of standard Delivery System facilities.

a. The amount of Contribution in Aid of Construction ("CIAC") to be paid by Customer under Article I above is calculated based on the estimated data (i.e., Contract kW or number and type of lots/units) supplied by Customer and specified above. Company will conduct a review of the actual load or number and type of lots/units at the designated location to determine the accuracy of the estimated data supplied by Customer. If, within two (2) years after Company completes the extension of Delivery System facilities, the estimated load as measured by actual maximum kW billing demand at said location has not materialized or the estimated number and type of dwelling units/lots at said location have not been substantially completed, Company will re-calculate the CIAC based on actual maximum kW billing demand realized or the number and type of substantially completed dwelling units/lots. For purposes of this Agreement, a dwelling unit/lot shall be deemed substantially completed upon the installation of Company's meter. The installation of a Company meter in connection with Temporary Delivery Service does not constitute substantial completion.

b. Customer will pay to Company a "non-utilization charge" in an amount equal to the difference between the re-calculated CIAC amount and the amount paid by Customer under Article I, above. Company's Invoice to Customer for such "non-utilization charge" is due and payable within fifteen (15) days after the date of the invoice.

ARTICLE III - TITLE AND OWNERSHIP

Company at all times shall have title to and complete ownership and control over the Delivery System facilities extended under this Agreement.

ARTICLE IV - GENERAL CONDITIONS

Delivery service is not provided under this Agreement. However, Customer understands that, as a result of the installation provided for in this Agreement, the Delivery of Electric Power and Energy by Company to the specified location will be provided in accordance with Rate Schedule _____, which may from time to time be amended or succeeded.

This Agreement supersedes all previous agreements or representations, either written or oral, between Company and Customer made with respect to the matters herein contained, and when duly executed constitutes the agreement between the parties hereto and is not binding upon Company unless and until signed by one of its duly authorized representatives.

ARTICLE V - OTHER SPECIAL CONDITIONS

The (entity name) agrees that the payment indicated in ARTICLE I of this Agreement shall be made within 30 days of the date the project is completed or the date the invoice is received, whichever is later.

ACCEPTED BY COMPANY:


Signature

Senior Engineer
Title

August 3, 2004
Date Signed

ACCEPTED BY CUSTOMER:

Signature

Title

Date Signed

Steve Chutchian

From: JDAVIS4@bxued.com
Sent: Tuesday, August 03, 2004 9:59 AM
To: Steve Chutchian; Mike Murphy
Subject: BREAKOUT OF COST FOR TXU ED RELOCATION ON ARAPAHO ROAD PHASE III

Mike and Steve,

The following is a breakout of cost for the TXU ED relocation for Arapaho Road Phase III:

(1) \$ 82,570 WR#1992629 : Relocation of all overhead wires crossing Arapaho Road between Surveyor and Midway to underground, relocation of overhead service to Charter Furniture on west side of Midway to underground, and relocation of one pole just west of Arapaho and Addison Road intersection.

(2) \$329,481 WR#2041434 : Cost to relocate overhead wires on east and west sides of Midway to underground in duct bank. This is cost for TXU ED to perform electrical and all civil construction, including the material for and construction of duct bank, two manholes, conduits, and performance of two bores across Midway. The total civil construction cost is \$205,943. The non-civil or electrical portion of the cost is \$123,538.

(3) \$119,103 WR#2008401: Cost to clear Arapaho Road bridge on east and west sides of Midway by increasing height of overhead wires with taller poles.

Total TXU ED cost is the cost of item #1 and the difference in cost between items #2 and #3. This amount is \$282,948. If you have any questions about these costs, please contact me.

Sincerely,
James Davis
Senior Engineer
TXU Electric Delivery Company

Confidentiality Notice: This email message, including any attachments, contains or may contain confidential information intended only for the addressee. If you are not an intended recipient of this message, be advised that any reading, dissemination, forwarding, printing, copying or other use of this message or its attachments is strictly prohibited. If you have received this message in error, please notify the sender immediately by reply message and delete this email message and any attachments from your system. .

Archer Western Contractors

260	8" Reinforced Concrete Parking Lot sawcut/removal/replacement at Pump Station	SY	73.67	45	3,315.15
261	Fire Hydrant (including 6" water lead and valve)	EA.	2,591.65	1	2,591.65
262	8" C909 PVC Class 150 water line	L.F.	55.18	85	4,690.30
* → 263	60" RCCP water lowering including but not limited to all thrust blocking, fittings, and appurtenances (per DWU standards)	L.F.	1,413.99	80	113,119.20
264	16" C900 PVC Class 150 Water lowering	L.F.	143.17	30	4,295.10
265	8" C909 PVC Class 150 Water lowering	L.F.	145.67	40	5,826.80
266	Trench Safety	L.F.	1.00	14,536	14,536.00
267	Sediment removal, inside 66" RCP	CY	30.74	250	7,685.00
268	Remove 9'x5' Headwall on West side of Midway Road	EA.	1,256.75	1	1,256.75
269	Preparation and implementation of SWPPP, per specifications and TCEQ requirements	LS	500.00	1	500.00
* → 270	60" Butterfly Valve and Appurtenances, per plans	LS	18,309.88	1	18,309.88
271	Grouted Riprap	SY	36.29	750	27,217.50
272	Temporary 8" thick Asphalt Pavement (2" HMAC Type D, 6" HMAC Type B), per Traffic Control Plan	SY	23.05	500	11,525.00
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES SCHEDULE II, ITEMS 200 THROUGH 272, INCLUSIVE					\$ 3,741,303.93
301	Traffic Signals - Arapaho Road at Addison Road	L.S.	23,000.00	1	23,000.00
302	Traffic Signals - Arapho Road at Surveyor Boulevard	L.S.	10,500.00	1	10,500.00
303	Conduit, 2" schedule 40 PVC	L.F.	5.00	11,003	55,015.00
304	Conduit, 2" schedule 40 PVC, bored and trenched	L.F.	20.00	108	2,160.00
305	Conduit, 4" schedule 40 PVC, bored and trenched	L.F.	25.00	195	4,875.00
306	Conduit (RM)(1-1/2")	L.F.	20.00	243	4,860.00
307	35' 3" street light pole	EA.	2,000.00	9	18,000.00
308	Pedestrian base and light pole	EA.	3,400.00	64	217,600.00
309	Combination, street light w/pedestrian fixture	EA.	8,500.00	13	110,500.00
310	Retaining Wall Mounted Light Pole	EA.	1,500.00	4	6,000.00
311	70W wall mounted luminaire fixture	EA.	6,750.00	4	27,000.00
312	Cable, insulated, #6 AWG	L.F.	1.00	22,706	22,706.00
313	Cable, insulated, #8 AWG	L.F.	0.85	770	654.50
314	Bare ground, #8 AWG	L.F.	0.85	385	327.25
315	Bare ground, #6 AWG	L.F.	1.00	11,353	11,353.00
316	Cable, insulated, #4 AWG	L.F.	1.00	780	780.00
317	Bare ground, #4 AWG	L.F.	1.00	390	390.00
318	Foundation, 35' 3" street light pole	EA.	800.00	21	16,800.00

Steve Chutchian

To: Schneemann, Andrew

Subject: RE: TEMPORARY ELECTRIC POLE FOR JOB TRAILERS

Andrew: it is satisfactory to place the pole on this corner, with the provision that it does not impede the Town's ability to move municipal vehicles into and out of the site. Thanks.

Steve C.

-----Original Message-----

From: Schneemann, Andrew [mailto:aschneemann@walshgroup.com]

Sent: Tuesday, July 27, 2004 5:09 PM

To: Steve Chutchian

Cc: Withered, Ben

Subject: TEMPORARY ELECTRIC POLE FOR JOB TRAILERS

Steve

Please review the attached Sketch. Archer Western and Oncor need to install a temporary electric pole on the north east corner of Surveyor Blvd. and Arapaho Rd, approximately Surveyor Blvd. station 49+08, 33' LT. The power line will extend across Surveyor Blvd. and then across proposed Arapaho Rd. to the trailer site. The Pole will be removed after the completion of the project. Will it be acceptable to the Town of Addison to locate the temporary electric pole on this corner? Please let me know as soon as possible, so that we can proceed with hooking up power to the trailer site.

Thank You

Andrew Schneemann

Archer Western Contractors, Ltd.

W-(817) 503-0298

F-(817) 503-0289

7/28/2004

HP LaserJet 3200se



HP LASERJET 3200

JUL-23-2004 7:49AM

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
279	7/23/2004	7:48:32AM	Send	92147483586	1:19	3	OK

**TOWN OF ADDISON
PUBLIC WORKS**

To: "Cowboy" Gary
Company: Dallas Light & Power
FAX #: 214-748-3586
Date: 7/23/04
No. of Pages (including cover): 3

From: Michael E. Murphy, P.E.
Director of Public Works
Office: 972/450-2878
Fax: 972/450-2637
16801 Westgrove
P.O. Box 9010
Addison, TX 75001-9010

Steve,
For Arepato
File
DEW JDA

DATE 7/22/04

NAME "Cowboy" with Dallas Light Bar HOME# 214-748-3586 Fax

ADDRESS cell-214-882-8272 OFFICE WORK# 214-748-5791

REQUEST FOR SERVICE Dallas Light Bar needs for Archer Western

signage for Arapaho III - 48x48 or 36x36?

Project signs - faxed

Message boards? Ours or theirs? When?

ACTION TAKEN I told him signs could be placed according to MUTCD

minimums, but could be "spread out" further to accommodate

sight lines + local conditions. Size could be changed

ROBIN _____ # if OK'd by engineer. He asked if we would contact engineer for direction.

AL _____

MITCH _____ * faxed him Project Sign Info.

JAMES _____ DEW 7/23/04

JEFF _____

JOHN _____

**TOWN OF ADDISON
PUBLIC WORKS**

To: "Cowboy" Gary

Company: Dallas Light + Barricade

FAX #: 214-748-3586

Date: 7/23/04

No. of Pages(including cover): 3

From: Michael E. Murphy, P.E.
Director of Public Works

Office: 972/450-2878
Fax: 972/450-2837

16801 Westgrove
P.O. Box 9010
Addison, TX 75001-9010

Public Works DEPARTMENT

**PLEASE PARDON THE TEMPORARY
INCONVENIENCE DURING THIS PROJECT**

ARAPAHO ROAD -- PHASE III:

- CONSTRUCTION OF ARAPAHO ROAD FROM
SURVEYOR BOULEVARD TO ADDISON ROAD
- BRIDGE OVER MIDWAY ROAD

CONTRACTOR: *Archer-Western Ph.#* — — —

ESTIMATED COMPLETION DATE: *Fall, 2005*
October

**AN ADDISON PROJECT; FUNDED BY BONDS
FOR MORE INFORMATION, PLEASE CALL 972-450-2860**

2871

PROJECT SIGN

Quantity:

(4) Project Designation signs will be constructed and installed on the project site as directed by the Owner. It will be the responsibility of the Contractor to maintain the sign in presentable condition at all times during construction. Maintenance will include cleaning and repairs as directed by the City Engineer or his appointee. The locations of signs will be given to the Contractor by the Town of Addison at the pre-construction meeting.

Material:

Signs shall be constructed of 3/4-inch thick smooth finish fir ply-wood (Grade A-C, or better).

Signs will be securely mounted to 6" x 6" square posts. Nuts and bolts will not protrude from face of sign. Posts will be mounted to a support system that will provide adequate stabilization to ensure the sign will not fall over in heavy winds. Sand bags or other techniques may be necessary to protect sign.

Dimensions:

Size of sign will be four feet tall and six feet wide. The height and arrangement of the lettering shall be in accordance with the attached detail.

Paint:

Signs will be one-sided and will have a white background. Text will be black, except for the word "Addison!" which will be a blue color approved by the City Engineer. The paint will be an outdoor paint and will be maintained throughout the project in proper condition. The quality of the paint, painting, lettering on the signs shall be approved by the City Engineer or his appointee.

Payment:

Signs will not be a separate pay item, but will be subsidiary to other bid items. This will include all labor, equipment, tools, and incidentals necessary to complete and install the signs.



The HNTB Companies
5910 W. Plano Parkway
Plano, Texas 75093
(972) 661-5626
(972) 661-5614 FAX

Town of Addison, Texas
Arapaho Phase 3
HNTB Job No. 25768

MEETING MINUTES

July 14, 2004

2:00 pm, 16801 Westgrove, Addison, Texas

The following represents the undersigned's understanding of the issues discussed and the resolutions agreed upon. Any objection to any item(s) in these minutes must be submitted in writing to the undersigned within ten (10) calendar days of the issue date of these minutes or these minutes shall become part of the permanent project record.

Attendees:	Name	Organization
	Mike Murphy	Town of Addison
	Steve Chutchian	Town of Addison
	Robin Jones	Town of Addison
	Josh Newman	Lone Star Railroad Contractors
	Joseph Angelone	American Landscape Systems
	Chris Langford	Archer-Western
	Kelly Brannum	Archer-Western
	Andrew Schermann	Archer-Western
	Don Good	Archer-Western
	Ben Withered	Archer-Western
	Tim Sparks	S&J Electric
	Tommy Curtis	S&J Electric
	James A. Ward	S&J Electric
	Jay Galler	Dallas Lite and Barricade
	Ben Claybour	DART
	Rick Poe	Hanson
	James Davis	TXU ED
	David Barnes	H-T-S Drilling
	David Robinson	Dallas Water Utilities
	Erick Steitle	Dallas Water Utilities
	Raymond Keppta	Dallas Water Utilities
	Bruce Grantham	G&A
	Mike Preston	HNTB Corporation
	David Boles	HNTB Corporation
	Daniel J. Filer	HNTB Corporation
	Guy Nan Baulen	HNTB Corporation
	Mike Ebling	HNTB Corporation
	Jenny Nicewander	HNTB Corporation

I. Arapaho Phase 3 Preconstruction Conference

A. Introductions

B. Agenda Items – J. Nicewander

1. Project Information –(See Agenda.)
2. Notice to Proceed to be issued tentative date August 9, 2004
3. Purpose of the preconstruction meeting explained. (See Agenda.)
4. Environmental issues – None outstanding. NOI application to be filed with TCEQ. Contractor to file for both the contractor and the Town.
5. Utility overview –
 - David Robinson was concerned with shut down schedule and outages. He expressed the importance to letting DWU be aware of what was happening to give them enough lead time. He wants to review the final plans and be informed to schedule outages.
 - B. Grantham mentioned some design issues, but feels they are close to establishing a schedule for shut down; there was a change to original design that will ease the tie-in; after a final design, a scheduling meeting will be necessary; DWU is providing the valve; Town of Addison will bring in Ben W. once design is complete; design is expected within 2 weeks.
 - Mark (SBC) is concerned with Midway Road because of fiber lines; he stressed that there are many customers along that trunk.
 - James (Oncor/TXU) mentioned that relocation at Dallas Water Station will be first critical issue; we are still lacking easement along Midway which will be needed before relocation can proceed; Ben W. insisted that change to Oncore line at water tank requires more details/drawings;
 - Jose Flores or Dave Wilde will work closely with utility relocation
6. Review of General Conditions. (See Agenda.)
7. HNTB to provide electronic format of monthly estimate to contractor.
8. ROW – ROW has been acquired. Only outstanding ROW issue is easement for the Oncor transformer. The Town is working with Oncor to facilitate obtaining this easement.
9. Work Hours
 - Not restricted except for within a 300 feet of hotels. The Contractor was asked to formally submit a letter to the town requesting unrestricted work hours outside of the hotel restriction.
10. Project signs
 - Project signs should be placed at both ends of project and on both directions of Midway; spec book has layout information; signs should be placed ASAP
11. Public Involvement
 - By 01Sep04, key personnel should have “face-to-face” meeting with individual business owners along project site;
 - Public involvement is critical because of high exposure of this project
12. DART
 - Need to be cognizant of protecting the rail at all times. CONTRACTORS ARE TO STAY OFF THE TRACKS

13. Staging plan

- Staging of equipment plan may need to be addressed because of ROW issues.

C. Action Items

1. HNTB to provide electronic format of monthly estimate to contractor.
2. Team to set up weekly progress meetings after the NTP.
3. Contractor to provide an electronic copy of the schedule for review

Author of Meeting Minutes:

Jenny Nicewander, P.E.
HNTB Corporation

Issue Date: July 19, 2004

PRECONSTRUCTION CONFERENCE

Project: Arapaho Road – Phase III – Surveyor Boulevard to Addison Road

1.0 Introductions

2.0 Project Information:

Nature and Size of the Project: Paving, Structures, Storm Sewer, Water, Sanitary Sewer, Signalization, Streetscape Improvements

Bid Date: May 27, 2004

Number of Bidders: 3

Low Bid: \$16,710,548.42 including Alternate 1

Contractor: Archer Western Contractors

Schedule: 425 Calendar Days

Notice to Proceed Issued: August 9, 2004 - Tentatively

Time Charges Begin: August 9, 2004 - Tentatively

3.0 Purpose

The purpose of the conference is for all parties to get acquainted; establish lines of authority and communication; determine the responsibilities and duties of the contractor's personnel, subcontractors, Town and consultant personnel; clarify potential sources of misunderstanding and work out the details necessary for a successful project completion.

The Contractor must adhere to all provisions of the Standard Specifications and Special Provisions and all other provisions of the signed contract regardless of whether these specifications are specifically discussed in this preconstruction conference.

4.0 Environmental Issues

Status of the NOI Application

Town of Addison NOI Application

5.0 Review of General Conditions

Standard Specifications: shall be the Standard Specifications for Public Works Construction, North Central Texas Council of Governments, 4th Edition, 2002.

Special Provisions: shall be that section of the contract titled Section SP, Special Provisions.

Permits and Licenses shall be secured and paid for by the Contractor.

All property corners and control monumentations shall be carefully preserved by the Contractor.

The Contractor shall contact all utility companies which have facilities in the vicinity of the proposed improvements to confirm the horizontal and vertical locations of their respective facilities; the Contractor shall be responsible for the protection of all existing utilities and service lines within the project limits.

Traffic Control shall be provided by the Contractor in accordance with the provisions of the latest edition of the Texas Manual on Uniform Traffic Control Devices for Streets and Highways

The Contractor shall provide an Engineer's Field Office in accordance with the provisions of Special Provision 53, Project Trailer and Staging Area.

The Contractor should take note of the allowed work hours as noted in Special Provision 55, Restricted Work Hours.

6.0 Waivers of Lien

The Contractor must submit Waivers of Lien in accordance with Section WOL, Waiver of Lien.

7.0 Submittals

The Contractor shall submit seven (7) copies of all submittals. All submittals must be clearly stamped with the Contractor's name and date as checked/reviewed by the Contractor prior to submittal to the Engineer. Submittals received by the Engineer without the Contractor's stamp will be returned not reviewed. The contractor will receive three (3) copies of submittals back following review by the Engineer.

8.0 Subcontractors

A complete list of all subcontractors must be submitted to the Engineer prior to the start of any work.

9.0 Partial Pay Requests

Monthly pay estimates will be processed in accordance with Standard Specification 109.5. The Engineer will provide an electronic format of the partial pay estimate for use by the Contractor.

10.0 Requests for Information

The Engineer will provide an electronic format for Requests for Information (RFI's) for all questions submitted to the Engineer by the Contractor.

11.0 Coordination with Property Owners

12.0 Construction Traffic Entrances

13.0 Dallas Water Utility

Open forum to specifically discuss the water utility issues.

14.0 Open Forum for Questions/Discussion

This will be an open forum for anyone to discuss any issues not covered above.

PRECONSTRUCTION CONFERENCE

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13.0 Dallas Water Utility

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14.0 Open Forum for Questions/Discussion

This will be an open forum for anyone to discuss any issues not covered above.

July 13, 2004

Matthew Walsh
Archer Western Contractors, Ltd.
2121 Avenue J, Suite 103
Arlington, TX 7600650

Re: NOTICE TO PROCEED- Bid 04-22 Arapaho Rd Phase III

Dear Mr. Walsh:

This document shall serve as your Notice to Proceed for the above referenced project, and is issued and effective to commence work August 9, 2004 to provide all labor and materials as outlined in the specifications, and under the terms and conditions of the contract documents. Enclosed is your copy of the signed contract.

The proposed improvements and work shall be completed within the calendar days and with the original price of the contract. Please include Bid No. and Name: 04-22 Arapaho Rd Phase III, on all monthly invoices or other correspondence to the Town of Addison.

Should you have any questions, please contact my office at 972-450-7091.

Sincerely,

Minok Suh
Purchasing Coordinator

Enclosure

Cc: Jim Pierce
Steve Chutchian



Archer Western
Contractors

June 29, 2004

Steve Chutchian
Town of Addison
Department of Public Works
16801 Westgrove
Addison, TX. 75001

Dear Mr. Chutchian,

Per Item N of the special Provisions, the tentative work to be performed by Archer Western will be as follows:

- General Site Preparation
- Excavation
- Embankment
- Removals and Disposals
- Reinforced Concrete Pavement
- Retaining Walls
- Bridge Construction
- Sanitary Sewer
- Storm Sewer
- Water Line

We are currently evaluating proposals from subcontractors for storm sewer and concrete pavement construction. We will notify the town of Addison if we choose to subcontract this work.

Attached is a list of subcontractors and suppliers which will be used on this project.

If you have any questions do not hesitate to contact me at 817-503-0298.

Thank You


Ben Withered
Project Manager

A Member of The Walsh Group
An Equal Opportunity Employer

No.	Subcontractors	Item of Work	Address	Phone	Fax	Contact
2	American Landscape Systems	Landscaping/ Irrigation	2314 Glenda Lane, Dallas, TX. 75229	972-484-5858	972-484-7470	
3	ATS Drilling	Drill Shafts	PO Box 48353, Ft Worth, TX. 76148	817-498-0040	817-831-2938	
5	Dallas Light and Barricade	Traffic Control	1607 Ft. Worth Avenue, Dallas, TX. 75208	214-748-5791	214-748-3586	
7	Haukos	Trenching	18352 Dallas Pkwy Suite 136-313, Dallas, TX. 75267	972-386-4220	972-490-5059	
9	Longhorn Road Boring Co.	Jack and Bore	PO Box 810001, Dallas, TX. 75381	972-241-8686	972-241-5557	
10	North Texas Erosion	Erosion Control	2426 Westwood Avenue, Mesquite, TX. 75150	214-664-9700	214-664-9701	
11	Paver Construction	Brick Pavers	PO Box 660, Cedar Hill, TX. 75106	972-299-2246	972-299-2256	
12	Primate Construction	Saw and Seal	PO Box 1509, Humble, TX. 77347	281-441-3355	281-441-3414	
13	Renolds Asphalt & Construction	Asphalt	PO Box 370, Euless, TX. 76039	817-267-3131	817-267-1878	
14	BTA	Striping	PO Box 850 Rockwall, TX. 75087	972-771-3832	972-771-6525	
15	S&J Electric	Electrical	PO Box 121516, Fort Worth, TX. 76121	817-443-3591	817-443-3692	
16	Scott Derr Painting	Paint	PO Box 1848 Friendswood Tx 77549	281-480-0158	281-480-0157	
17	Lone Star Railroad Contractors	Rail Crossings	PO Box 1150, Ennis, TX. 75120	972-878-9500	972-878-9503	
	Suppliers					
25	CBSI	Strand	245 McCarty Dr., Houston, TX. 77029	713-675-1180	713-675-1140	
27	Gordon Specialties Inc.	SEJ 4"	720 W. Wintergreen Hutchins, Texas 75141	972-225-1660	972-225-6662	
28	Hanson Pipe Products	RCP/RCB	1003 N MacArthur Blvd, Grand Prairie, TX. 75050	972-262-3600	972-266-7456	
29	Hardrock Products	River Cobble	PO Box 1007, Azle, TX. 76020	817-237-9100	817-238-7272	
30	King Fabrication	Steel Arch	19300 West Hardy Road, Houston, TX. 77073	281-209-0811	281-209-1774	
31	Lofland	Rebar	4100 North I-35E, Waxahachie, TX. 75165	972-299-5106	972-938-9419	
32	Martin Marietta	Aggregates	PO Box 2466, Denton, TX. 76202	940-243-8520	940-323-1270	
33	North Texas Trucking	Select Fill	PO Box 542842, Dallas, TX 75354	214-904-8263	214-904-8089	
35	Southern Star Concrete	Concrete	8505 Freeport Pkwy, Irving, TX. 75063	972-621-0345	469-417-1387	
36	Structural & Steel Products	Metal Deck	1320 S University # 701 Ft Worth Tx 76107	817-332-7417	817-332-2992	
37	Texas Welded Wire	Precast Wall Panels	645 West Hurst Blvd. Hurst, TX. 76053	817-282-4560	817-285-9608	

Arapaho Rd Phase III

6-28-04

Liz Olyphant Meeting -

- 1) Announcement to local businesses impacted
give basic info, contacts,
ref. web page.
We need names & addresses of those
to contact
- 2) Postcard update every 3 or 4 months
- 3) Broad publicity - local news media
Professional Organizations
- 4) Professionally video the progress
of const.
- 5) Ribbon cutting on completion

Memorandum - on Midway Rd -

Contact Carrollton & Farmers Branch

Individual business impacted

(425 day bid)

June 22, 2004

Matthew Walsh
Archer Western Contractors, Ltd.
2121 Avenue J, Suite 103
Arlington, TX 76006

NOTICE OF AWARD: Bid 04-22 Arapaho Rd Phase III

Dear Mr. Walsh:

Receipt of this document authorizes your company to provide all labor and materials as outlined in the specifications, and under the terms and conditions of the contract documents for Bid No: 04-22.

Enclosed please find four completed copies of the contract to be signed by an authorized officer or principal of your firm.

Please send the signed contracts along with the necessary insurance certificates and bonds as soon as possible, but no later than July 6, 2004. Once we receive these items a Notice to Proceed will be issued.

If you have any questions or if I can be of assistance to you, please contact me at 972-450-7091.

Sincerely,

Minok Suh
Purchasing Coordinator

Enclosures

Copy: Steve Chutchian
Jim Pierce

SECTION CA

CONTRACT AGREEMENT

SECTION CA
CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this 22 day of June, 2004, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its Mayor or City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and Archer Western Contractors, Ltd. of the City of Arlington, County of Tarrant, State of TX, 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:

Paving, Storm Sewer, Water, Sanitary Sewer, Signalization and Streetscape Improvements for ARAPAHO ROAD - PHASE III - SURVEYOR BOULEVARD TO ADDISON ROAD

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) calendar days after the date of written notice to do so has been given to him, and to complete all work within the number of days he bid (Calendar Days "B") in the proposal after he commences work, subject to such extensions or reductions of time as are provided by these Contract Documents.

The OWNER agrees to pay the CONTRACTOR \$ 16,702,578.42 in current funds for the performance of the Contract in accordance with 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.

IN WITNESS THEREOF, 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 Arapaho Road – Phase III – From Surveyor Boulevard to Addison Road 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

→ ACTC PRE-CONST. MTH.

DATE SUBMITTED: June 14, 2004
FOR COUNCIL MEETING: June 22, 2004

Council Agenda Item:

SUMMARY:

This item is for the approval of a Supplemental Contract Amendment with HNTB Corporation, Inc., for engineering services related to materials inspection and testing on the Arapaho Road, Phase III improvements.

FINANCIAL IMPACT:

Cost: \$99,250.00

Source of Funds: Funds are available from FY 2002 & 2004 General Obligation Bond Program (Arapaho Road & Midway Road), DART LAP Funds, & Dallas County, Project No. 83300.

BACKGROUND:

Bids for the construction of Arapaho Road, Phase III, from Surveyor Blvd. to Addison Road, were recently received and are being submitted for contract award consideration. Based on previous experiences on similar construction projects, it was determined that material testing and inspection should be controlled by the Town in lieu of permitting the Contractor to select his own testing firm and perform all the necessary testing throughout the life of the project. It is important that all testing of subgrades, concrete and bridge improvements be accurate, complete, and all results obtained on a timely basis. With a construction project on the scale of the Arapaho Road bridge and roadway improvements, the Town should be in control of these activities. Consequently, the firm of HNTB Corporation, Inc. submitted a supplemental agreement for all materials testing and inspection for this project, in the amount of \$99,250.00. Rone Engineers is the testing lab that will be performing all testing and inspection, and will submit continuous reports to the Town, under the supervision of HNTB Corporation. Rone Engineers has performed this type of work for the Town of Addison and other surrounding communities with excellent results.

RECOMMENDATION:

Staff recommends that Council authorize the City Manager to enter into a Supplemental Contract amendment with HNTB Corporation, Inc., in the amount of \$99,250.00, for engineering services related to materials inspection and testing on the Arapaho Road, Phase III improvements.

SUPPLEMENTAL AGREEMENT

This Supplemental Agreement, Number 11, to the AGREEMENT FOR ENGINEERING SERVICES, dated January 23, 2001 (the Agreement), between Town of Addison (Owner) and HNTB Corporation (Engineer) is made effective as of the 11th day of June, 2004

1. Engineer shall perform the following Services:
 - See Attachment A
2. In conjunction with the performance of the foregoing Services, Engineer shall provide the following submittals/deliverables (Documents) to Owner:
 - Test results for documented scope in Attachment A
3. Engineer shall perform the Services and deliver the related Documents (if any) according to the following schedule:

There will be no change in the schedule due to the above mentioned items.

In return for the performance of the foregoing obligations, Owner shall pay to Engineer the amount of \$ 99,250, payable according to the following terms:

Payments will be made based upon the provisions of the original contract, with a corresponding increase in the total contract amount to \$1,145,929.00.

Except to the extent modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Town of Addison
(Owner)

Signature: _____

Name: _____

Title: _____

Date: _____

HNTB Corporation
(Engineer)

Signature:  _____

Name: Benjamin J. Biller

Title: Vice President

Date: 6/11/2004

ATTACHMENT A

DESCRIPTION	Estimated Quantity
EARTHWORK	
Moisture Density Relationship ASTM D-698 (each)	4.0
Relative Density ASTM D-4253 (each)	1.0
Moisture Density Relationship TXDOT 113-E (each)	4.0
Atterberg Limits (each)	8.0
Wet Ball Mill Test (each)	2.0
Soil Sulfate Test (each)	26.0
Engineering Technician (hourly)	432.0
Engineering Technician Overtime (hourly)	64.0
In Place Density Test (each)	708.0
Base Depth Checks (each)	26.0
Transportation Charge (trip)	154.0
Engineering & Report Review (hourly)	54.1

Assumptions: 1 density test for every 10,000 square feet of paving subgrade, 1 density test for every 150 lineal feet of trench backfill per lift.

PIER INSPECTION

Senior Engineering Technician (hourly)	90.0
Senior Engineering Technician Overtime (hourly)	22.0
Concrete Test Cylinders (each)	44.0
Transportation Charge (trip)	12.0
Engineering & Report Review (hourly)	8.8

Assumptions: 11 days of pier drilling with one technician and 1 drilling rig.

CONCRETE

Concrete Mix Design Review (each)	3.0
Concrete Inspection (hourly)	531.0
Concrete Inspection Overtime (hourly)	68.0
Concrete Test Cylinders (each)	448.0
Concrete Test Flexural Beams (each)	580.0
Reinforcing Steel Inspection (hourly)	226.0
Transportation Charge (trip)	147.0
Engineering & Report Review (hourly)	88.2
Structural Steel Inspection (hourly, min. 5 hours)	45.0
Ultrasonic Steel Inspection (hourly, min. 5 hours)	15.0
Transportation Charge (trip)	12.0
Engineering & Report Review (hourly)	6.0

Assumptions: 1 set of 4 concrete test cylinders for every 100 yards of concrete placed in structures.

1 set of 4 concrete test flexural beams for every 100 yards of concrete placed in paving. Concrete Inspection time is based on delivery of concrete at 50 yards per hour.

Project Engineering services on materials engineering and testing for consultation shall include analysis, report preparation and review, supervision and scheduling of field and laboratory personnel.

DATE SUBMITTED: June 11, 2004
FOR COUNCIL MEETING: June 22, 2004

Council Agenda Item:

SUMMARY:

This item is for the award of a contract to Archer Western Contractors, Ltd., for construction of Arapaho Road and Bridge, Phase III, from Surveyor Blvd. to Addison Road, including Alternate Bid #1 & #2.

FINANCIAL IMPACT:

Construction Cost: \$16,702,578.42

Source of Funds: Funds are available from the FY 2002 & 2004 General Obligation Bond Program (Arapaho Road & Midway Road), DART LAP Funds, & Dallas County, Project No. 83300.

BACKGROUND:

The third phase of the proposed Arapaho Road extension project extends from Surveyor Blvd. to Addison Road. Construction of these improvements will complete an east-west minor arterial roadway that is necessary to relieve traffic congestion on Belt Line Road. It is anticipated that the new road will initially absorb approximately 11,000 vehicles per day, with a maximum future count of 15,000 vehicles per day. A proposed signature bridge over Midway Road and a pedestrian trail system are also proposed as an integral part of the roadway section in this phase. The firm of HNTB Corporation acted as the principal designer for this project. Bids were received on June 7, 2004 for construction of the project, and included the following items:

- Roadway Improvements
- Utility Improvements
- Lighting and Signalization Improvements
- Streetscape Improvements
- Bridge Construction
- Bridge Lighting

Attached is a bid tabulation for these improvements. The bid proposal in the specifications for construction was structured to provide an incentive/disincentive method of bidding the project. Specifically, each bid submitted was required to consist of two parts whereby:

- a. The Contractor submits a standard bid (A), which is the summation of the products of the estimated quantities shown in the proposal, multiplied by their bid unit prices.
- b. The Contractor submits a time bid (B), which is the product of the number of calendar days required to construct the project, determined by the Contractor, and the Daily Value established by the Town. The Daily Value was established in the contract at \$4,000. The number of calendar days is intended to include inclement weather, holidays, etc.

The lowest bid (Total) for award of the contract was determined as the lowest sum of the standard bid (A) plus time bid (B). The contract establishes the actual contract amount for payment to the successful contractor to be the value indicated in the standard bid (A). Also included in the bidding process was a provision whereby the Contractor is awarded an incentive payment if construction is completed prior to the number of calendar days he submitted. The total amount of the incentive is the product of the Daily Value (\$4,000) and the number of days the Contractor completes the project prior to the established contract time. Accordingly, the contract provides for a disincentive amount to be established based on the product of the Daily Value (\$4,000) and amount of time that the Contractor exceeds the established contract time. The total incentive payment cannot exceed \$400,000. However, there is no limit to the amount of disincentive reduction (same as liquidated damages) from the Contractor's final payment that the Town will impose for going over the contract time limit.

Archer Western Contractors, Ltd. submitted the lowest Total bid (A + B), in the amount of \$18,098,232.40 and 425 calendar days. The actual amount of the standard bid (A) recommended for award is \$16,398,232.40. In addition, the Engineer estimated that it would take approximately 540 calendar days to complete a project of this magnitude and complexity. The number of calendar days submitted by Archer Western Contractors, Ltd. (425 calendar days) represents a potential reduction of total construction time by approximately 4.0 months. In addition, two alternate bids were received. Alternate bid #1, in the amount of \$339,446.02, provides for the construction of two pocket parks within the project limits. One park would be located on the south side of Arapaho Road and situated on the tract of land once owned by the DGNO Railroad. The other park would be located adjacent to the Surveyor Pump Station and along the north side of the roadway. Alternate bid #2 provides a reduction in cost, in the amount of \$35,100, for elimination of aluminum type street lights along the roadway's length and installation of steel type street lights. The contractor was subject to an extensive reference check by the Engineer and staff, and was found to have successfully completed construction of numerous related improvements in the State and throughout the country.

RECOMMENDATION:

Staff recommends that Council authorize the City Manager to enter into a contract with Archer Western Contractors, Ltd., for Arapaho Road, Phase III, from Surveyor Blvd. to Addison Road, including Alternate Bids # 1 & #2, in the total amount of \$16,702,578.42.

PAVING, UTILITIES, SIGNALIZATION, AND STREETScape
BID SCHEDULE SUMMARY
ARAPAHO ROAD - PHASE III
MARSH LANE TO SURVEYOR BOULEVARD

Bid Schedule & Description	ENGINEER'S ESTIMATE	
	Total Amount Materials & Services	
I. Roadway Improvements	\$	4,886,680.00
II. Utility Improvements	\$	3,688,007.00
III. Signalization and Lighting	\$	864,190.00
V. Bridge	\$	4,427,693.40
VI. Bridge Lighting	\$	646,678.25
VII. Streetscape	\$	1,905,416.60
(A) TOTAL BID FOR SCHEDULES I - VII	\$	16,418,665.25
(B) TOTAL DAYS BID @ \$4000		
TOTAL PROJECT A+B		
VIII (A) Alternate Bid 1	\$	340,280.00
(B) TOTAL DAYS BID @ \$4000		
TOTAL PROJECT A+B		
VIII (A) Alternate Bid 2	\$	0.00
(B) TOTAL DAYS BID @ \$4000		
TOTAL PROJECT A+B		

Archer	Orval	Austin Bridge	Average Bid
\$ 4,947,345.22	\$ 7,105,503.70	\$ 5,951,268.42	\$ 6,000,842.45
\$ 3,741,303.93	\$ 4,036,269.65	\$ 4,335,466.93	\$ 4,037,680.14
\$ 614,220.75	\$ 637,020.76	\$ 677,946.97	\$ 643,062.62
\$ 5,255,580.09	\$ 5,625,147.44	\$ 5,229,213.90	\$ 5,438,647.14
\$ 709,871.76	\$ 714,371.75	\$ 755,848.19	\$ 726,630.56
\$ 1,129,910.66	\$ 1,254,216.60	\$ 1,374,098.16	\$ 1,252,742.14
\$ 18,398,232.40	\$ 19,672,628.78	\$ 18,323,643.57	\$ 18,097,603.25
425	550	480	485
\$ 1,700,000.00	\$ 2,200,000.00	\$ 1,920,000.00	\$ 1,940,000.00
\$ 18,098,232.40	\$ 21,772,628.78	\$ 20,243,643.57	\$ 20,038,135.25
\$ 339,448.02	\$ 356,518.60	\$ 428,866.08	\$ 374,943.5667
1	1	1	1
\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000
\$ 343,448.02	\$ 360,518.60	\$ 432,866.08	\$ 378,943.67
\$ (35,100.00)	\$ (35,100.00)	\$ (25,162.00)	\$ (31,784.00)
1	1	1	1
\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
\$ (31,100.00)	\$ (31,100.00)	\$ (21,162.00)	\$ (27,784.00)
\$ 18,410,578.42	\$ 22,101,948.39	\$ 20,655,357.85	\$ 20,369,294.82

ARAPAHO ROAD, MARSH LANE TO ADDISON ROAD

Project Budget	Project #	83300
Description	Amount	Notes
Bond Funds	\$20,500,000	2000 bonds
County funds	\$1,432,812	grant obtained by Public Works
Dart Lap	\$2,363,878	
Morris Road available funds	\$300,000	
Addison Road/Excel	\$230,000	
Midway Road	\$2,650,000	2000 bonds
Addison Road Dart Lap	\$1,000,000	
total available funds	\$28,476,690	
Phase II, Marsh to Surveyor		
HNTB initial fee	\$294,124	
HNTB Urban Design (streetscape)	\$29,000	
Supplementary Agreement #1	\$1,556	
ROW analysis	\$44,977	
HNTB Design Fee	\$1,046,679	
Evaluation Associates	\$39,000	
HNTB Urban Design (streetscape)	\$51,000	
HNTB Landscape Architecture	\$87,291	
Gensler lighting	\$13,000	
Metro Brick Parcel #1	\$95,150	
Joe's Auto Body Parcel #2	\$173,202	
Union Pacific Railway Company Parcel #3	\$1,204,217	
The City of Dallas Parcel #4	\$13,018	
Heritage Inn Parcel #5	\$60,869	
Motel 6 Parcel #6	\$332,795	
Charter Furniture Parcel #7	\$166,446	
Gary Crouch/MBNA Parcel #8	\$225,000	
John Wilson Parcel #9	\$58,921	
Harbour Group Parcel #10	\$29,768	
Dale Bullough/Metrocrest 1 Parcel #11	\$29,357	
Public Storage of Dallas, Ltd. Parcel #12	\$1,583,210	
Public Storage of Dallas, Ltd. Parcel #13	included in #12	
Audit and Legal Fees	\$125,000	
Bridge Design	\$550,965	
roadway improvements 4947345	\$4,947,345	
Utility improvements	\$3,741,304	
Lighting and Signalization Improvements	\$614,221	
Streetscape Improvements	\$1,129,911	
Bridge Construction	\$5,255,580	
Bridge Lighting	\$709,872	
Bridge Design Stipend	\$30,000	
URS bridge concept meeting	\$19,570	
Wye Track Crossing Fee	\$2,500	
Environmental reports	\$7,210	
Hipes & Associates	\$40,365	
Pat Haggerty	\$2,805	
Evaluation Associates	\$21,750	
Bridge Pre-Submittal meeting @ Stone Cottage	\$706	
Alternate #1	\$343,446	
Alternate #2	\$31,100	
Total, Phase III	\$22,765,349	
Total Expenses	\$26,999,238	
Total under available budget	\$1,477,452	
yellow represents changes in original scope		

Year 2000 General Obligation Bond Program
\$48.03 mil

2000 Bond Sale
\$9.905 mil

2002 Bond Sale
\$19.096 mil

2006 Bond Sale
\$7.90 mil

Arapaho Rd. Phase II
\$4.005 mil

Arapaho Rd. Phase II
\$4.005 mil

Spectrum Drive Ext.
(Engr. Only)
\$3 mil

Outdoor Storage
\$3 mil

Belt Line Rd. Streetscp.
Construction
\$8.625 mil

Morris Rd. Extension
\$65 mil

Public Works
\$65 mil

Midway Rd. Rehab.
(Engr. Only)
\$35 mil

Midway Rd. Rehab.
\$35 mil

Midway Rd. Rehab.
Construction
\$4.65 mil

Town Hall Purch.
\$1.3 mil

Town Hall Purch.
\$1.3 mil

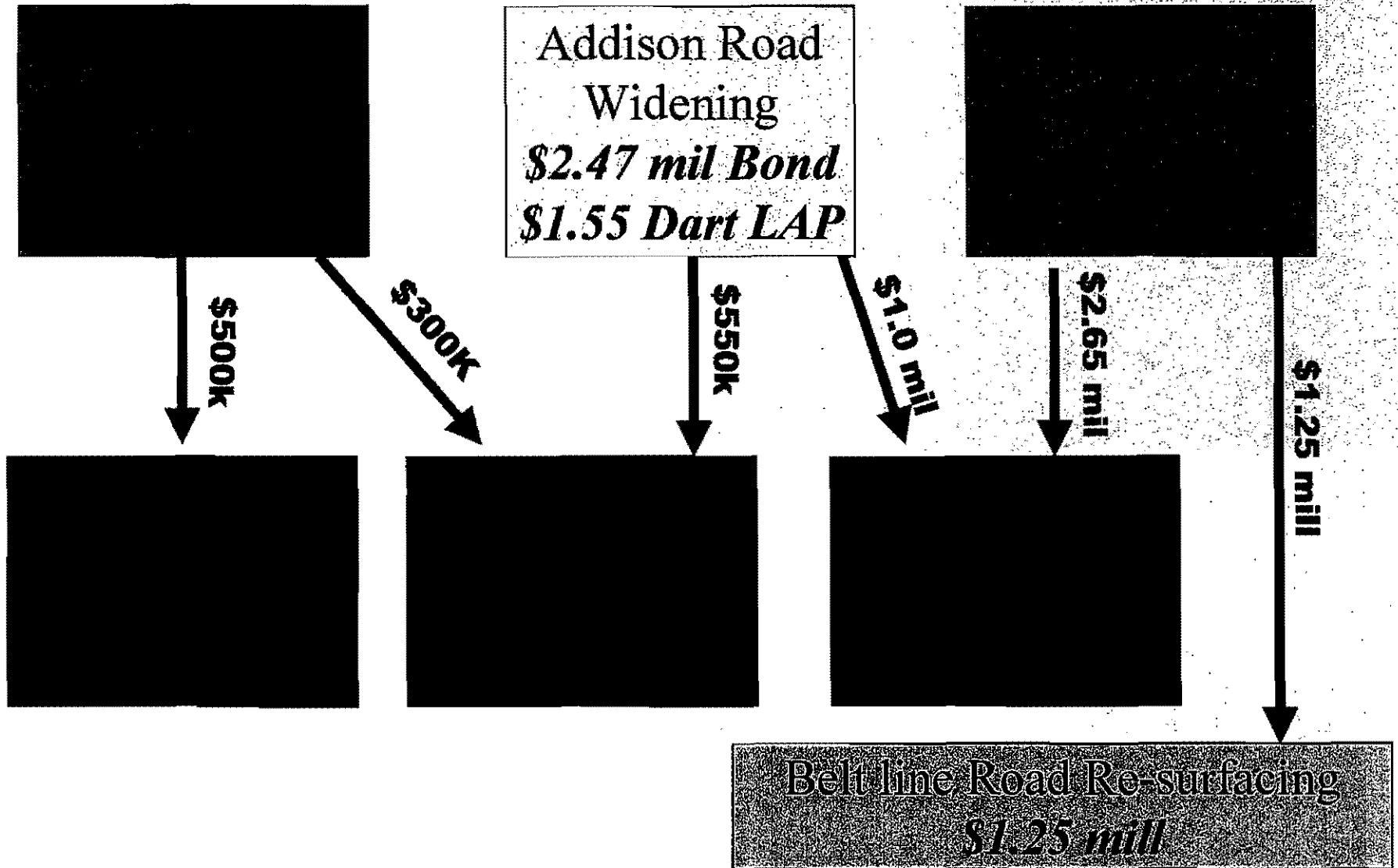
Athletic Club Exp.
\$3.0 mil

Belt Line Rd.
Grant Application
\$25 k

Belt Line Rd. Streetscp.
(Arch. Design Only)
\$275 mil

Fund Reallocation

2004

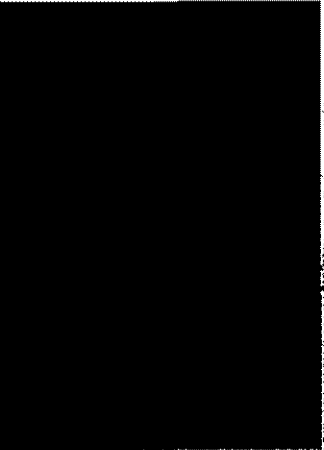
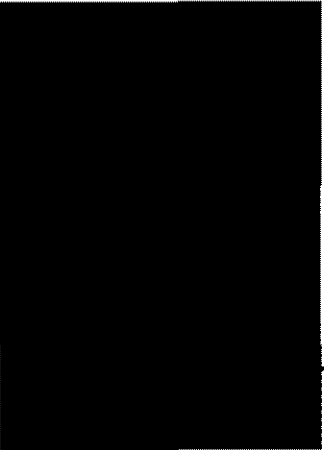
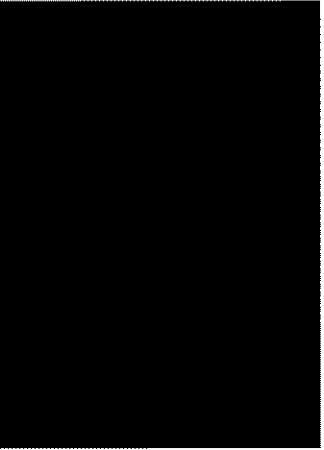


Fund Reallocation

2004



Addison Road
Widening
\$2.47 mil



\$500k

\$300k

\$550k

\$1.0 mil

\$2.65 mil

\$1.25 mil

Belt Line R

MIKE SAID TO PAY D CAD
THE \$258K ON LANDMARK
IT IS CO VERED

WE SHOULD HAVE
HNTBS BRIDGE
INSPECTOR REVIEW
SHOP DRAWINGS!
NO EXTRA CHARGE!

NOT POSSIBLE FROM
LIABILITY STAND POINT

HOW MUCH WAS BASIC BRIDGE LIGHT PACKAGE
THAT WE SETTLED --- HOW MUCH DID
CLIFF TELL COUNCIL. I
I REMEMBER \$150K-250K

I THINK
225-250

CLIFF H.
IS PROFESSIONALLY
BRAIN DEAD

June 8, 2004

Town of Addison
16801 Westgrove Drive
P.O. Box 9010
Addison, Texas 75001-9010

Attn: Mr. Steve Z. Chutchian, P.E.

ARAPAHO ROAD – PHASE III BID

Dear Steve:

We have reviewed the bids for the referenced project. All three of the bidders attended the required pre-bid conference. The low bidder for the project is Archer Western Contractors, Ltd. Attached are three copies of the bid tab. Numbers highlighted in yellow indicate values that we determined to be incorrect on the bid documents due to mathematical errors. None of the errors were on Archer Western Contractors bid and none of the errors resulted in a change in the low bidder.

As a reminder, item 20 of the Special Provisions in the specifications requires a preconstruction conference to be held. Prior to the meeting the contractor has to deliver a schedule to you that we can discuss at the meeting. Let us know when you schedule this meeting and we will be glad to attend. Thank you for letting us work on this project with you and your staff.

Very truly yours,

HNTB CORPORATION

Jerry D. Holder, Jr., P.E.
Director of Municipal Services

JDH/rmh

Enclosure



CHUBB GROUP OF INSURANCE COMPANIES

Surety Department, 15 Mountain View Road, P.O. Box 1615, Warren, NJ 07061-1615
Phone: (908) 903-3485 • Facsimile: (908) 903-3656

FEDERAL INSURANCE COMPANY

BID BOND

Bond No. W-9043

Amount \$ 5% of GAB

Know All Men By These Presents,

That we, Austin Bridge & Road, LP

(hereinafter called the Principal),

as Principal, and the FEDERAL INSURANCE COMPANY, Warren, New Jersey, a corporation duly organized under the laws of the State of Indiana, (hereinafter called the Surety), as Surety, are held and firmly bound unto Town of Addison

(hereinafter called the Obligee),

in the sum of Five Percent (5%) of Five Percent (5%) of the Greatest Amount Bid Dollars (\$ ****5% of GAB****), for the payment of which we, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 7th day of June, 2004

WHEREAS, the Principal has submitted a bid, dated for "Arapaho Road - Phase III - Surveyor Boulevard to Addison Road Addison, Texas"

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with such bid and give bond with good and sufficient surety for the faithful performance of such contract, or in the event of the failure of the Principal to enter into such contract and give such bond, if the Principal shall pay to the Obligee the difference, not to exceed the penalty hereof, between the amount specified in said bid and the amount for which the Obligee may legally contract with another party to perform the work covered by said bid, if the latter amount be in excess of the former, then this obligation shall be null and void, otherwise to remain in full force and effect.

Austin Bridge & Road, LP Principal
By: Jerry Barnes Vice President
FEDERAL INSURANCE COMPANY
By: Daniel T. Howard Attorney-in-Fact



**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn.: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint Dawn Knight, Paul W. Hill, Daniel T. Howard and J.E. Schranz of Dallas, Texas

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

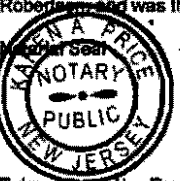
In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this 8th day of February, 2002


Kenneth C. Wendel, Assistant Secretary



Frank E. Robertson, Vice President

STATE OF NEW JERSEY }
County of Somerset } ss.

On this 8th day of February, 2002, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel being by me duly sworn, did depose and say that he is Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with Frank E. Robertson, and knows him to be Vice President of said Companies; and that the signature of Frank E. Robertson, subscribed to said Power of Attorney is in the genuine handwriting of Frank E. Robertson and was thereto subscribed by authority of said By-Laws and in deponent's presence.



Karen A. Price
Notary Public State of New Jersey
No. 2231647


Notary Public

Commission Expires October 2004

Extract from the By-Laws of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY**:

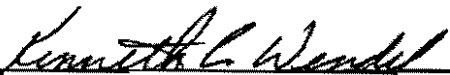
"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U. S. Treasury Department, further, Federal and Vigilant are licensed in Puerto Rico and the U. S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 7th day of June, 2004




Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY
Telephone (908) 903-3485 Fax (908) 903-3656 e-mail: surety@chubb.com

This Notice pertains to the following Surety Bond issued by a member insurer of the Chubb Group of Insurance Companies, including Federal Insurance Company, Vigilant Insurance Company and Pacific Indemnity Company.

Bond Number: _____

POLICYHOLDER DISCLOSURE NOTICE
TERRORISM RISK INSURANCE ACT OF 2002

You are hereby notified that pursuant to the Terrorism Risk Insurance Act of 2002 (the "Act") effective November 26, 2002, we are making available to you coverage for losses arising out of certain acts of international terrorism. Terrorism is defined as any act certified by the Secretary of the Treasury, in concurrence with the Secretary of State and the Attorney General of the United States, to be an act of terrorism; to be a violent act or an act that is dangerous to human life, property or infrastructure; to have resulted in damage within the United States, or outside the United States in the case of an air carrier or vessel or the premises of a United States Mission; and to have been committed by an individual or individuals acting on behalf of any foreign person or foreign interest, as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion. Coverage for acts of terrorism is already included in the captioned Surety Bond.

You should know that, effective November 26, 2002, any losses caused by acts of terrorism covered by your Surety Bond will be partially reimbursed by the United States under the formula set forth in the Act. Under this formula, the United States of America pays 90% of covered terrorism losses that exceed the statutorily established deductible to be paid by the insurance company providing the coverage. The portion of your premium that is attributable to coverage for such acts of terrorism is zero, because we could not distinguish (and separately charge for) acts of terrorism from other causes of loss when we calculated your premium.

If you have any questions about this notice, please contact your agent or broker.



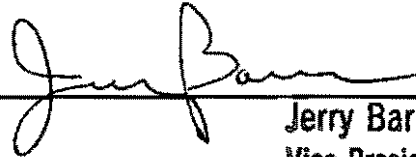
**SECTION PF
PROPOSAL FORM**

JUNE 7, 2004

TO: The Honorable Mayor and Town 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: 
Jerry Barnes
Vice President

ACKNOWLEDGEMENT OF ADDENDA:

The Bidder acknowledges receipt of the following addenda:

Addendum No. 1 Dated: MAY 17, 2004 JWB

Addendum No. 2 Dated: MAY 19, 2004 JWB

Addendum No. 3 Dated: MAY 26, 2004 JWB

Addendum No. 4 Dated: MAY 28, 2004 JWB

Addendum No. 5 Dated: JUNE 3, 2004 JWB

Addendum No. 6 Dated: JUNE 4, 2004 JWB

Addendum No. 7 Dated: JUNE 4, 2004 JWB

PROPOSAL FORM Austin Bridge & Road, LP
6330 Commerce Drive, Suite 150
Irving, Texas 75063

Place _____

Date JUNE 7, 2004

Proposal of _____

a Corporation

organized and existing under the laws of the State of _____

OR

Proposal of AUSTIN BRIDGE & ROAD, LP

a partnership consisting of AUSTIN BRIDGE & ROAD, INC.

and AUSTIN BRONZE, INC.

OR

Proposal of _____

an individual trading as _____

OR

Proposal of _____

a Joint Venture consisting of _____

and _____

TO: Town of Addison, Texas

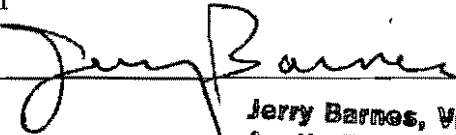
Sealed bids addressed to the Town of Addison, Texas, for the Construction of Paving, Storm Sewer, Water, Sanitary Sewer, Signalization and Streetscape Improvements for ARAPAHO ROAD - PHASE III - SURVEYOR BOULEVARD TO ADDISON ROAD for the Town of Addison, Texas, hereinafter called "Town", in accordance with the plans, specifications and contract documents prepared by HNTB Corporation, will be received at the office of Ms. Minok Suh, Purchasing Coordinator, Finance Building, 5350 Belt Line Road, Addison, Texas until **2:00 p.m. on Thursday, the 7th day of June, 2004.** Bids received by the appointed time will be opened and read aloud. Any bids received after stated time will be returned unopened.

The undersigned Bidder, having visited the site of the work, having examined the Plans, Specifications, and other Contract Documents, including all Addenda, and being familiar with all of the conditions relating to the proposed project, hereby proposes to furnish all material, supplies, equipment, and appliances specified for the project and to furnish all labor, tools, equipment and incidentals to complete the work in accordance with the Specifications, and other Contract Documents at and for the unit prices proposed herein:


The undersigned Bidder agrees that this bid may not be withdrawn for a period of sixty (60) days after the opening of the bids.

In submitting this bid, it is understood by the undersigned Bidder that the right is reserved by the Town of Addison to reject any and all bids.

AUSTIN BRIDGE & ROAD, LP
Name of Bidder

By: 
(Signature) **Jerry Barnes, Vice President
Austin Bridge & Road, Inc.
General Partner**

(Print Name and Title)

Witness: 
(Signature) **Austin Bridge & Road, LP
6330 Commerce Drive, Suite 150
Irving, Texas 75063**

(Office Address of Bidder)

Bidder's Tax I.D. No. or Employer No. 75-2846900

SEAL (If Bidder is a Corporation)

NOTES: Sign in ink. Do not detach.

PAVING, UTILITIES, SIGNALIZATION, AND STREETScape
 BID SCHEDULE SUMMARY
 ARAPAHO ROAD - PHASE III
 SURVEYOR BOULEVARD TO ADDISON ROAD

Base Bid Bid Schedule & Description	Total Amount Materials & Services
I. Roadway Improvements	\$ <u>5,951,268.⁴²</u>
II. Utility Improvements	\$ <u>4,335,466.⁹³</u>
III. Lighting and Signalization Improvements	\$ 4,677,946. ⁹⁷ <u>677,946.</u> <u>JWB</u>
IV. Streetscape Improvements	\$ <u>1,374,099.¹⁶</u>
V. Bridge Construction	\$ <u>5,229,213.⁹⁰</u>
VI. ^{ays} Bridge Lighting	\$ <u>755,648.¹⁹</u>
TOTAL BID FOR SCHEDULES I - VI = TOTAL OF STANDARD BID (A):	\$ <u>18,323,643.⁵⁷</u>

WRITTEN IN WORDS: Eighteen Million Three Hundred
Twenty Three Thousand Six Hundred Forty Three ^{Dollars} and
Fifty Seven Cents

TOTAL OF TIME BID: 480 (Calendar Days)

TOTAL OF CALENDAR DAYS x \$4,000 (B): 1,920,000.⁰⁰

BASIS FOR COMPARISON OF BIDS:
 (A) + (B) = TOTAL BID: 20,243,643.⁵⁷

WRITTEN IN WORDS: Twenty Million Two Hundred Forty Three
Thousand Six Hundred Forty Three Dollars and
Fifty Seven Cents

Additive Alternate I

Bid Schedule & Description	Total Amount Materials & Services
VII. Roadway Lighting	\$ 12,565. ²⁶
VIII. Streetscape Improvements	\$ 431,720. ⁹²
IX. Deductions if alternative #1 is Accepted	\$ -15,420. ¹⁰
TOTAL BID FOR ADDITIVE ALTERNATE I	
= TOTAL OF ADDITIVE ALTERNATE BID (A):	428,866.⁰⁸
TOTAL OF CALENDAR DAYS x \$4,000 (B):	0
BASIS FOR COMPARISON OF BIDS:	
Additive Alternate I (A) + (B) = TOTAL BID:	428,866.⁰⁸
WRITTEN IN WORDS:	Four Hundred Twenty Eight Thousand Eight Hundred Sixty Six Dollars and Eight cents

Additive Alternate II

Bid Schedule & Description	Total Amount Materials & Services
X. Roadway Lighting	\$ 341,548. ⁰⁰
XI. Deductions if alternative #2 is Accepted	\$ -366,700. ⁰⁰
TOTAL BID FOR ADDITIVE ALTERNATE II	
= TOTAL OF ADDITIVE ALTERNATE BID (A):	-25,152.⁰⁰
TOTAL OF CALENDAR DAYS x \$4,000 (B):	0
BASIS FOR COMPARISON OF BIDS:	
Additive Alternate II (A) + (B) = TOTAL BID:	-25,152.⁰⁰
WRITTEN IN WORDS:	Minus Twenty Five Thousand One Hundred Fifty Two Dollars and No cents

NOTES:

1. All items, labor, materials, equipment, facilities, incidentals, and work required for construction of the project are to be provided and installed by the Contractor as part of the project and payment for the cost of such shall be included in the price bid for the construction of the project.
2. Prices must be shown in words and figures for each item listed in this proposal. In the event of discrepancy, the words shall control.
3. It is understood the the Bid Security shall be collected and retained by the Owner as liquidated damages in the event a contract is made by the Owner based on this proposal within ninety (90) calendar days after receiving bids and the undersigned fails to execute the contract and required bonds within ten (10) days from the date the Contractor is notified and has received the conformed documents. After this period, if the contract has been executed and the required bonds have been submitted, the said Bid Security shall be returned to the undersigned upon demand.
4. One contract will be awarded based on the total value of items I through VI, (A) plus (B). Contractor will be paid in accordance with A+B Bidding which specifies the contract amount is based on (A) with incentives and disincentives being (B)

Bidder's Tax I.D. No. or Employer No.

75-2846900

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
101	Mobilization	one million nine hundred ninety thousand dollars 00 cents	L.S.	\$1,990,000.00	1.00	\$1,990,000.00
102	General Site Preparation	nine thousand two hundred dollars 00 cents	STA.	\$9,200.00	54.00	\$496,800.00
103	Full depth saw cut existing concrete	three dollars 00 cents	L.F.	\$3.00	1564.00	\$4,692.00
104	Remove and dispose of existing concrete pavement, including curb	five dollars 00 cents	S.Y.	\$5.00	6588.00	\$32,940.00
105	Remove and dispose of existing concrete sidewalk	ten dollars 00 cents	S.Y.	\$10.00	67.00	\$670.00
106	Remove and dispose of existing driveway	ten dollars 00 cents	S.Y.	\$10.00	86.00	\$860.00
107	Unclassified street excavation	three dollars 00 cents	C.Y.	\$3.00	16000.00	\$48,000.00
108	Embankment	three dollars 60 cents	C.Y.	\$3.60	56000.00	\$201,600.00
109	Furnish and place 10" thick reinforced concrete pavement, 5000 psi @ 28 days	forty dollars 00 cents	S.Y.	\$40.00	29400.00	\$1,176,000.00
110	Furnish and place 6" thick integral concrete curb, 4000 psi @ 28 days	one dollars 05 cents	L.F.	\$1.05	11325.00	\$11,891.25
111	Furnish and place monolithic median nose, 4000 psi @ 28 days	two thousand six hundred dollars 00 cents	EA.	\$2,600.00	8.00	\$20,800.00
112	Furnish and place 8" thick reinforced concrete driveway, 4000 psi @ 28 days	forty one dollars 00 cents	S.Y.	\$41.00	450.00	\$18,450.00
113	Furnish and place reinforced concrete island, 4000 psi @ 28 days	forty seven dollars 00 cents	S.Y.	\$47.00	300.00	\$14,100.00
114	not used	zero dollars 00 cents	EA.	\$0.00	0.00	\$0.00
115	Remove and relocate roadside sign	one hundred eighty dollars 87 cents	EA.	\$180.87	1.00	\$180.87
116	Furnish and install Stop sign (R1-1)	three hundred thirty dollars 74 cents	EA.	\$330.74	2.00	\$661.48
117	Furnish and Install Speed Limit sign (R2-1)	three hundred ten dollars 07 cents	EA.	\$310.07	5.00	\$1,550.35
118	Furnish and install Left Lane Must Turn Left Sign (R3-7L)	three hundred thirty dollars 74 cents	EA.	\$330.74	3.00	\$992.22
119	Furnish and install Right Lane Must Turn Right sign (R3-7R)	three hundred thirty dollars 74 cents	EA.	\$330.74	2.00	\$661.48
120	Furnish and install Merge Right sign (R4-7)	three hundred ten dollars 06 cents	EA.	\$310.06	3.00	\$930.18
121	Furnish and install Signal Ahead sign (W3-3)	three hundred seventy six dollars 21 cents	EA.	\$376.21	1.00	\$376.21
122	Furnish and install Wrong Way Sign (R5-1A)	three hundred ten dollars 06 cents	EA.	\$310.06	2.00	\$620.12
123	Furnish and install Keep Right sign (R4-7A)	three hundred ten dollars 06 cents	EA.	\$310.06	2.00	\$620.12
124	Furnish and install No Parking sign (R8-3A)	three hundred ten dollars 07 cents	EA.	\$310.07	3.00	\$930.21
125	Furnish and install Divided Highway sign (R6-3A)	two hundred seventy six dollars 99 cents	EA.	\$276.99	2.00	\$553.98
126	Furnish and install Left Lane Ends sign (R9-2L)	three hundred ten dollars 06 cents	EA.	\$310.06	1.00	\$310.06
127	Furnish and install RR XING (W10-1)	three hundred seventy six dollars 21 cents	EA.	\$376.21	4.00	\$1,504.84
128	Furnish and install Do Not Stop on Tracks sign (R8-8)	three hundred ten dollars 07 cents	EA.	\$310.07	4.00	\$1,240.28
129	Furnish and install RR XING, Cross Bucks sign (R15-1)	three hundred seventy two dollars 08 cents	EA.	\$372.08	4.00	\$1,488.32
130	Furnish and install 2 Tracks sign (R15-2)	three hundred ten dollars 07 cents	EA.	\$310.07	4.00	\$1,240.28
131	Furnish and install One Way sign (R6-1R)	two hundred seventy three dollars 89 cents	EA.	\$273.89	1.00	\$273.89
132	Furnish, place and maintain traffic control devices	sixty eight thousand seven hundred eighty two dollars 71	L.S.	\$68,782.71	1.00	\$68,782.71

Arapaho Road - Phase III

Item Number	Description	Unit Price In Words	UM	Unit Price	Estimated Quantity	Amount Bid
133	Furnish and place 4" white/red reflective square acrylic buttons	two dollars 47 cents	EA.	\$2.47	550.00	\$1,358.50
134	Furnish and place 4" white non-reflective raised ceramic buttons	one dollars 76 cents	EA.	\$1.76	550.00	\$968.00
135	Furnish and place 4" yellow double-reflective square acrylic buttons	two dollars 47 cents	EA.	\$2.47	497.00	\$1,227.59
136	Furnish and place 6" x 6" white joggle bar tiles	fourteen dollars 10 cents	EA.	\$14.10	122.00	\$1,720.20
137	Remove existing pavement markings and buttons	seven hundred four dollars 84 cents	L.S.	\$704.84	1.00	\$704.84
138	Furnish and place pavement directions markers	seventy seven dollars 53 cents	EA.	\$77.53	22.00	\$1,705.66
139	White thermoplastic reflective pavement marking ("ONLY")	eighty four dollars 58 cents	EA.	\$84.58	16.00	\$1,353.28
140	RR Xing Pavement Markings, as shown on plans	two hundred forty six dollars 69 cents	EA.	\$246.69	8.00	\$1,973.52
141	Furnish and place 24" solid white thermoplastic stop bar	four dollars 23 cents	L.F.	\$4.23	128.00	\$541.44
142	Furnish and place 4" solid yellow thermoplastic stripe	zero dollars 70 cents	L.F.	\$0.70	100.00	\$70.00
143	Furnish and place MSE retaining wall TxDOT ITEM 423	thirty three dollars 50 cents	S.F.	\$33.50	15000.00	\$502,500.00
144	Furnish and place concrete retaining wall Class F Concrete (CIP Wall), Fc=4000 psi	three hundred eighty five dollars 00 cents	C.Y.	\$385.00	950.00	\$365,750.00
145	Structural excavation	twenty dollars 00 cents	C.Y.	\$20.00	463.00	\$9,260.00
146	Furnish and place bollards	five hundred dollars 00 cents	EA.	\$500.00	4.00	\$2,000.00
147	Provide underground electrical service	one hundred thirty four thousand dollars 00 cents	L.S.	\$134,000.00	1.00	\$134,000.00
148	Furnish and install temporary construction fence (orange plastic)	one dollars 25 cents	L.F.	\$1.25	8100.00	\$10,125.00
149	Furnish and install Pedestrian Rail (TXDOT Item 450)	eighty seven dollars 85 cents	L.F.	\$87.85	690.00	\$60,616.50
150	Furnish and install Traffic Rail Type T4 (S) (MOD) (TxDOT item 450)	seventy two dollars 35 cents	L.F.	\$72.35	1950.00	\$141,082.50
151	Furnish and install Single Guardrail Terminal TxDOT item SGT (8)-03A	forty seven dollars 20 cents	L.F.	\$47.20	150.00	\$7,080.00
152	Furnish and install wheel stops	twenty five dollars 84 cents	EA.	\$25.84	116.00	\$2,997.44
153	Engineer's Field Office	two thousand dollars 00 cents	Month	\$2,000.00	16.00	\$32,000.00
154	not used	zero dollars 00 cents		\$0.00	0.00	\$0.00
155	Install and Furnish Concrete Railroad Crossing	seven hundred fifty dollars 00 cents	L.F.	\$750.00	380.00	\$285,000.00
156	Deleted	zero dollars 00 cents	L.S.	\$0.00	1.00	\$0.00
157	Deleted	zero dollars 00 cents	L.S.	\$0.00	1.00	\$0.00
158	Deleted	zero dollars 00 cents	L.S.	\$0.00	1.00	\$0.00
159	Deleted	zero dollars 00 cents	L.S.	\$0.00	1.00	\$0.00
160	Deleted	zero dollars 00 cents	L.S.	\$0.00	1.00	\$0.00
161	Unclassified Brickyard excavation	nine dollars 40 cents	C.Y.	\$9.40	30000.00	\$282,000.00
162	Furnish and place 4" white stripe	zero dollars 56 cents	L.F.	\$0.56	2740.00	\$1,534.40
163	Furnish and place 10' chain link fence	thirty six dollars 17 cents	L.F.	\$36.17	110.00	\$3,978.70

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE I, ITEMS 101 THROUGH 161, INCLUSIVE						
						\$5,951,268.42
200	Furnish and install 10" PVC SDR 35 sanitary sewer pipe, including embedment	fifty eight dollars 69 cents	L.F.	\$58.69	1396.00	\$81,931.24
201	Furnish and install 12"PVC SDR35 sanitary sewer pipe, including embedment	sixty four dollars 98 cents	L.F.	\$64.98	1177.00	\$76,481.46
202	Furnish and install 4' diameter sanitary sewer manhole, complete and in place	three thousand thirty nine dollars 26 cents	EA.	\$3,039.26	6.00	\$18,235.56
203	Furnish and install 4' diameter sanitary sewer manhole with internal drop, complete and in place	three thousand nine hundred eighty two dollars 48 cents	EA.	\$3,982.48	4.00	\$15,929.92
204	Install and connect various size sanitary sewer services, including clean-outs, per plans	one thousand one hundred fifty two dollars 82 cents	EA.	\$1,152.82	6.00	\$6,916.92
205	Furnish and install 24" steel encasement pipe for sanitary sewer lines as shown on the plans, including spacers and embedment	one hundred dollars 61 cents	L.F.	\$100.61	300.00	\$30,183.00
206	RESERVED	zero dollars 00 cents		\$0.00		\$0.00
207	Remove and dispose of existing manhole	six hundred eighty one dollars 21 cents	EA.	\$681.21	5.00	\$3,406.05
208	Furnish, install, maintain and remove erosion control devices	thirty six thousand dollars 00 cents	L.S.	\$36,000.00	1.00	\$36,000.00
209	Remove concrete channel lining	one hundred thousand dollars 00 cents	L.S.	\$100,000.00	1.00	\$100,000.00
210	Remove existing 66" RCP	forty one dollars 92 cents	L.F.	\$41.92	763.00	\$31,984.96
211	Remove 3-66" Headwall	one thousand four hundred sixty seven dollars 23 cents	EA.	\$1,467.23	2.00	\$2,934.46
212	Remove 54" headwall and RCP	thirty four dollars 58 cents	L.F.	\$34.58	28.00	\$968.24
213	Remove 9'x5' box culvert	ninety eight dollars 51 cents	L.F.	\$98.51	30.00	\$2,955.30
214	Remove 24" RCP	seven dollars 34 cents	L.F.	\$7.34	60.00	\$440.40
215	Remove 30" RCP	ten dollars 48 cents	L.F.	\$10.48	16.00	\$167.68
216	Remove 30" headwall	five hundred twenty four dollars 01 cents	EA.	\$524.01	1.00	\$524.01
217	Remove CMP and headwall	twelve dollars 58 cents	L.F.	\$12.58	39.00	\$490.62
218	Remove 2-4x2' headwall	six hundred twenty eight dollars 81 cents	EA.	\$628.81	2.00	\$1,257.62
219	Salvage Fire hydrant and valve	four hundred nineteen dollars 21 cents	EA.	\$419.21	1.00	\$419.21
220	Construct concrete pilot channel	forty seven dollars 16 cents	S.Y	\$47.16	85.00	\$4,008.60
221	8' standard curb inlet	one thousand eight hundred eight dollars 71 cents	EA.	\$1,808.71	6.00	\$10,852.26
222	10' standard curb inlet	two thousand forty six dollars 43 cents	EA.	\$2,046.43	3.00	\$6,139.29
223	12' standard curb inlet	two thousand three hundred ninety seven dollars 83	EA.	\$2,397.83	1.00	\$2,397.83
224	8' Recessed curb inlet	one thousand eight hundred eight dollars 71 cents	EA.	\$1,808.71	7.00	\$12,660.97
225	10' Recessed curb inlet	two thousand forty six dollars 43 cents	EA.	\$2,046.43	11.00	\$22,510.73
226	2-8' Recess curb inlet	three thousand seven hundred twenty dollars 78 cents	EA.	\$3,720.78	1.00	\$3,720.78
227	10' modified curb inlet	two thousand five hundred eighty three dollars 88 cents	EA.	\$2,583.88	1.00	\$2,583.88
228	2-Grate Inlet	two thousand three hundred seventy seven dollars 17	EA.	\$2,377.17	4.00	\$9,508.68

Arapaho Road - Phase III

Item Number	Description	Unit Price In Words	UM	Unit Price	Estimated Quantity	Amount Bid
229	"Y" Inlet	one thousand four hundred forty six dollars 97 cents	EA.	\$1,446.97	13.00	\$18,810.61
230	1'x1' grate inlet	two thousand sixty seven dollars 10 cents	EA.	\$2,067.10	1.00	\$2,067.10
231	Double 10'x6' PW Wingwall for one end treatment	four hundred forty five dollars 41 cents	EA.	\$445.41	1.00	\$445.41
232	1-6'x5' PW Wingwall for one end treatment	four hundred forty five dollars 41 cents	EA.	\$445.41	1.00	\$445.41
233	30" Type "A" headwall	one thousand thirty three dollars 55 cents	EA.	\$1,033.55	1.00	\$1,033.55
234	36" Type "B" headwall	one thousand two hundred forty dollars 26 cents	EA.	\$1,240.26	1.00	\$1,240.26
235	Box Culvert Storm Manhole	nine hundred forty three dollars 22 cents	EA.	\$943.22	6.00	\$5,659.32
236	Type A storm sewer manhole	one thousand nine hundred sixty three dollars 75 cents	EA.	\$1,963.75	1.00	\$1,963.75
237	18" RCP storm sewer pipe	forty one dollars 92 cents	L.F.	\$41.92	8.00	\$335.36
238	21" RCP storm sewer pipe	forty six dollars 11 cents	L.F.	\$46.11	914.00	\$42,144.54
239	24" RCP storm sewer pipe	fifty dollars 30 cents	L.F.	\$50.30	925.00	\$46,527.50
240	30" RCP storm sewer pipe	sixty two dollars 88 cents	L.F.	\$62.88	583.00	\$36,659.04
241	36" RCP storm sewer pipe	eighty five dollars 94 cents	L.F.	\$85.94	40.00	\$3,437.60
242	54" RCP storm sewer pipe	one hundred fifty five dollars 11 cents	L.F.	\$155.11	19.00	\$2,947.09
243	60" RCP storm sewer pipe	one hundred seventy eight dollars 16 cents	L.F.	\$178.16	6.00	\$1,068.96
244	4'X2' box culvert	one hundred thirty six dollars 24 cents	L.F.	\$136.24	24.00	\$3,269.76
245	6'X3' box culvert	two hundred fifteen dollars 89 cents	L.F.	\$215.89	244.00	\$52,677.16
246	6'X5' box culvert	two hundred sixty nine dollars 34 cents	L.F.	\$269.34	112.00	\$30,166.08
247	7'X5' box culvert	three hundred fifteen dollars 45 cents	L.F.	\$315.45	260.00	\$82,017.00
248	8'X5' box culvert	three hundred thirty eight dollars 51 cents	L.F.	\$338.51	590.00	\$199,720.90
249	9'X5' box culvert	three hundred eighty five dollars 67 cents	L.F.	\$385.67	4516.00	\$1,741,685.72
250	10'X5' box culvert	four hundred fifty nine dollars 03 cents	L.F.	\$459.03	512.00	\$235,023.36
251	10'X6' box culvert	five hundred eight dollars 29 cents	L.F.	\$508.29	1395.00	\$709,064.55
252	21" RCP w/36" steel encasement by bore and jack	four hundred thirty one dollars 78 cents	L.F.	\$431.78	48.00	\$20,725.44
253	24" RCP w/36" steel encasement by bore and jack	four hundred thirty seven dollars 02 cents	L.F.	\$437.02	42.00	\$18,354.84
254	30" RCP w/42" steel encasement by bore and jack	five hundred thirty nine dollars 73 cents	L.F.	\$539.73	38.00	\$20,509.74
255	4" schedule 40 PVC pipe	thirty six dollars 68 cents	L.F.	\$36.68	1572.00	\$57,660.96
256	8" schedule 40 PVC pipe	forty one dollars 92 cents	L.F.	\$41.92	15.00	\$628.80
257	PVC Fittings for Schedule 40 PVC pipe	three thousand one hundred forty four dollars 06 cents	L.S.	\$3,144.06	1.00	\$3,144.06
258	12" HDPE storm sewer pipe	forty six dollars 11 cents	L.F.	\$46.11	124.00	\$5,717.64
259	10" Reinforced Concrete Pavement sawcut/removal/replacement at Surveyor Blvd. and Midway Road (including Midway Road median)	seventy eight dollars 60 cents	S.Y	\$78.60	510.00	\$40,086.00
260	6" Reinforced Concrete Parking Lot sawcut/removal/replacement at Pump Station	forty seven dollars 16 cents	S.Y	\$47.16	45.00	\$2,122.20
261	Fire Hydrant (including 6" water lead and valve)	four thousand one hundred ninety two dollars 08 cents	EA.	\$4,192.08	1.00	\$4,192.08
262	8" C909 PVC Class 150 waterline	forty seven dollars 16 cents	L.F.	\$47.16	85.00	\$4,008.60
263	60" RCCP water lowering including but not limited to all thrust blocking, fittings, and appurtenances (per DWU standards)	one thousand nine hundred seven dollars 40 cents	LF	\$1,907.40	80.00	\$152,592.00
264	16" C900 PVC Class 150 Water lowering	two hundred thirty five dollars 80 cents	LF	\$235.80	30.00	\$7,074.00

Arapaho Road - Phase III

Item Number	Description	Unit Price In Words	UM	Unit Price	Estimated Quantity	Amount Bid
265	8" C909 PVC Class 150 waterline lowering	one hundred thirty one dollars 00 cents	LF	\$131.00	40.00	\$5,240.00
266	Trench Safety	one dollars 05 cents	LF	\$1.05	14536.00	\$15,262.80
267	Sediment removal, inside 66" RCP	sixty eight dollars 12 cents	CY	\$68.12	250.00	\$17,030.00
268	Remove 9'x5' Headwall on West Side of Midway Road	one thousand four hundred sixty seven dollars 23 cents	EA	\$1,467.23	1.00	\$1,467.23
269	Preparation and Implementation of SWPPP, per specifications and TCEQ requirements	one hundred fifteen thousand nine hundred four dollars 17 cents	LS	\$115,904.17	1.00	\$115,904.17
270	60" Butterfly Valve and Appurtenances, per plans	eighty nine thousand eighty one dollars 67 cents	LS	\$89,081.67	1.00	\$89,081.67
271	Grouted Riprap	forty one dollars 92 cents	SY	\$41.92	750.00	\$31,440.00
272	Temporary 8" thick Asphalt Pavement (2" HMAC Type D, 6" HMAC Type B) per Traffic Control Plan	thirty eight dollars 41 cents	SY	\$38.41	500.00	\$19,205.00
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE II, ITEMS 200 THROUGH 272, INCLUSIVE						\$4,335,466.93
301	Traffic Signals - Arapaho Road at Addison Road	twenty four thousand four hundred eighty four dollars 80	L.S.	\$24,484.80	1.00	\$24,484.80
302	Traffic Signals - Arapaho Road at Surveyor Blvd	eleven thousand one hundred seventy seven dollars 84	L.S.	\$11,177.84	1.00	\$11,177.84
303	Conduit, 2" schedule 40 PVC	five dollars 32 cents	L.F.	\$5.32	11003.00	\$58,535.96
304	Conduit, 2" schedule 40 PVC, bored and trenched	twenty one dollars 29 cents	L.F.	\$21.29	108.00	\$2,299.32
305	Conduit, 4" schedule 40 PVC, bored and trenched	twenty six dollars 61 cents	L.F.	\$26.61	195.00	\$5,188.95
306	Conduit (RM) (1-1/2")	twenty one dollars 29 cents	L.F.	\$21.29	243.00	\$5,173.47
307	35' 3" street light pole	two thousand one hundred twenty nine dollars 11 cents	EA.	\$2,129.11	9.00	\$19,161.99
308	Pedestrian base and light pole	three thousand six hundred nineteen dollars 49 cents	EA.	\$3,619.49	64.00	\$231,647.36
309	Combination, street light w/ pedestrian fixture	nine thousand forty eight dollars 73 cents	EA.	\$9,048.73	13.00	\$117,633.49
310	Retaining Wall Mounted Light Pole	seven thousand six hundred sixty four dollars 81 cents	EA.	\$7,664.81	4.00	\$30,659.24
311	70W wall mounted luminaire fixture	seven thousand one hundred eighty five dollars 76 cents	EA.	\$7,185.76	4.00	\$28,743.04
312	Cable, insulated, #8 AWG	one dollars 06 cents	L.F.	\$1.06	22706.00	\$24,068.36
313	Cable, insulated, #8 AWG	zero dollars 90 cents	L.F.	\$0.90	770.00	\$693.00
314	Bare ground, #8 AWG	zero dollars 90 cents	L.F.	\$0.90	385.00	\$346.50
315	Bare ground, #6 AWG	one dollars 06 cents	L.F.	\$1.06	11353.00	\$12,034.18
316	Cable, insulated #4 AWG	one dollars 06 cents	L.F.	\$1.06	780.00	\$826.80
317	Bare ground, #4 AWG	one dollars 06 cents	L.F.	\$1.06	390.00	\$413.40
318	Foundation, 35'3" street light pole	eight hundred fifty one dollars 65 cents	EA.	\$851.65	21.00	\$17,884.65
319	Foundation, pedestrian light pole	eight hundred fifty one dollars 65 cents	L.F.	\$851.65	64.00	\$54,505.60
320	Ground mounted pullbox, Type A	five hundred thirty two dollars 28 cents	EA.	\$532.28	24.00	\$12,774.72
321	Ground mounted pullbox, Type C	five hundred thirty two dollars 28 cents	EA.	\$532.28	1.00	\$532.28
322	Lighting control cabinet	six thousand three hundred eighty seven dollars 34 cents	EA.	\$6,387.34	3.00	\$19,162.02
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE III, ITEMS 301 THROUGH 322, INCLUSIVE						\$677,946.97
401	Furnish and install Shumard Oak (4" cal.)	seven hundred eighteen dollars 83 cents	EA.	\$718.83	36.00	\$25,877.88

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Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
402	Furnish and install Shantung Maple (3" cal.)	three hundred eighty seven dollars 06 cents	EA.	\$387.06	37.00	\$14,321.22
403	Furnish and install Savannah Holly (30 gal. specimen)	two hundred ten dollars 12 cents	EA.	\$210.12	105.00	\$22,062.60
404	Furnish and install Vitex/Chaste Tree (30 gal. Specimen)	two hundred fifty four dollars 36 cents	EA.	\$254.36	8.00	\$2,034.88
405	Furnish and install Cape Myrtle (30 gal.)	one hundred eighty eight dollars 00 cents	EA.	\$188.00	43.00	\$8,084.00
406	Furnish and install Dwarf Burford Holly (5 gal.)	seventeen dollars 69 cents	EA.	\$17.69	225.00	\$3,980.25
407	Furnish and install Fringe Flower (5 gal.)	nineteen dollars 91 cents	EA.	\$19.91	108.00	\$2,150.28
408	Furnish and install Harbor Dwarf Nandina (3 gal.)	sixteen dollars 59 cents	EA.	\$16.59	263.00	\$4,363.17
409	Furnish and install Mary Nell Holly (5 gal.)	nineteen dollars 91 cents	EA.	\$19.91	178.00	\$3,543.98
410	Furnish and install purple wintercreeper (1 gal.)	six dollars 19 cents	EA.	\$6.19	1727.00	\$10,690.13
411	Furnish and install Asian Jasmine (1 gal.)	two dollars 32 cents	EA.	\$2.32	14706.00	\$34,117.92
412	Furnish and install Indian Grass (5 gal)	twenty two dollars 12 cents	EA.	\$22.12	66.00	\$1,459.92
413	Furnish and install Bushy Bluestem Grass (5 gal)	twenty two dollars 12 cents	EA.	\$22.12	130.00	\$2,875.60
414	Furnish and install Little Bluestem Grass (3 gal)	seventeen dollars 69 cents	EA.	\$17.69	615.00	\$10,879.35
415	Furnish and install Lindheimer's Muhly (3 gal)	seventeen dollars 69 cents	EA.	\$17.69	104.00	\$1,839.76
416	Furnish and place solid sod (Bermuda)	two dollars 49 cents	S.Y.	\$2.49	12800.00	\$31,872.00
417	Furnish and place Hydromulch (Bermuda)	zero dollars 06 cents	S.F.	\$0.06	105082.00	\$6,304.92
418	Furnish and install tree protection	one dollars 66 cents	L.F.	\$1.66	4000.00	\$6,640.00
419	Furnish and place compost in turf areas (sod only)	thirty three dollars 18 cents	C.Y.	\$33.18	363.00	\$12,044.34
420	Furnish and install finely shredded hardwood bark mulch	thirty three dollars 18 cents	C.Y.	\$33.18	346.00	\$11,480.28
421	Furnish and install bed preparation with compost	thirty five dollars 39 cents	C.Y.	\$35.39	346.00	\$12,244.94
422	Furnish and install irrigation system, turnkey	one hundred forty seven thousand seven hundred twenty	L.S.	\$147,725.92	1.00	\$147,725.92
423	Furnish and install crosswalk brick pavers (see specs)	thirteen dollars 87 cents	S.F.	\$13.87	2016.00	\$27,961.92
424	Furnish and install median pavers (see specs)	eighteen dollars 33 cents	S.F.	\$18.33	3724.00	\$68,260.92
425	Furnish and install walkway pavers (see specs)	fourteen dollars 16 cents	S.F.	\$14.16	4472.00	\$63,323.52
426	Furnish and place 5" reinforced concrete paving	three dollars 69 cents	S.F.	\$3.69	43207.00	\$159,433.83
427	Furnish and place 5" reinforced concrete path	three dollars 69 cents	S.F.	\$3.69	28845.00	\$106,438.05
428	Furnish and place 12" concrete bands	nine dollars 64 cents	L.F.	\$9.64	2396.00	\$23,097.44
429	Embankment	eighteen dollars 51 cents	C.Y.	\$18.51	248.00	\$4,590.48
430	Furnish and install flush concrete stripe (2'x10')	ten dollars 28 cents	S.F.	\$10.28	20.00	\$205.60
431	Furnish and place decomposed granite paving	two dollars 76 cents	S.F.	\$2.76	32488.00	\$89,666.88
432	Furnish and place river cobbles with drain pipe, if shown	four hundred fourteen dollars 71 cents	C.Y.	\$414.71	59.00	\$24,467.89
433	Furnish and install flagstone paving	twenty dollars 53 cents	S.F.	\$20.53	6100.00	\$125,233.00
434	Furnish and install ADA ramp	one thousand one dollars 51 cents	EA.	\$1,001.51	7.00	\$7,010.57
435	Furnish and install tree grate	one thousand six hundred fifty eight dollars 85 cents	EA.	\$1,658.85	22.00	\$36,494.70
436	Furnish and place concrete benches (18" ht)	six hundred twenty nine dollars 47 cents	EA.	\$629.47	3.00	\$1,888.41
437	Furnish and install CMU wall (includes footing)	fifty one dollars 47 cents	L.F.	\$51.47	144.00	\$7,411.68
438	Furnish and install brick veneer (see specs)	four dollars 71 cents	S.F.	\$4.71	608.00	\$2,863.68
439	Furnish and install cast stone cap	twenty two dollars 39 cents	L.F.	\$22.39	144.00	\$3,224.16

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
440	Furnish and install modular retaining wall system (Mesa)	nineteen dollars 91 cents	S.F.	\$19.91	1708.00	\$34,006.28
441	Furnish and install security fence on retaining wall	one hundred twenty one dollars 53 cents	L.F.	\$121.53	477.00	\$57,969.81
442	Furnish and install decorative metal fence	one hundred nineteen dollars 54 cents	L.F.	\$119.54	895.00	\$106,988.30
443	Furnish and install decorative metal gate	eight thousand seven hundred eighty five dollars 18 cents	EA.	\$8,785.18	1.00	\$8,785.18
444	Furnish and place brick columns	nine hundred ninety five dollars 31 cents	EA.	\$995.31	6.00	\$5,971.86
445	Furnish and install pedestal voice communication unit (inclu	ten thousand three hundred thirty five dollars 50 cents	EA.	\$10,335.50	3.00	\$31,006.50
446	Furnish and install steel edging	two dollars 49 cents	L.F.	\$2.49	484.00	\$1,205.16
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE IV, ITEMS 401 THROUGH 446, INCLUSIVE						\$1,374,099.16
501	48" Dia. Concrete Drilled Shaft (TXDOT Item 416)	one hundred forty nine dollars 51 cents	LF	\$149.51	147.00	\$21,977.97
502	60" Dia. Concrete Drilled Shaft (TXDOT Item 416)	two hundred forty dollars 75 cents	LF	\$240.75	312.00	\$75,114.00
503	96" Dia. Concrete Drilled Shaft (TXDOT Item 416)	five hundred thirty eight dollars 81 cents	LF	\$538.81	365.00	\$196,665.65
504	Cast-in-Place Concrete Abutment (TXDOT Item 420) (Class F Concrete - 5000 psf)	four hundred seventy six dollars 25 cents	CY	\$476.25	79.30	\$37,766.63
505	Cast-in-Place Concrete Bents 2-8 & 1-14 (TXDOT Item 420) (Class F Concrete - 5000 psf)	six hundred five dollars 47 cents	CY	\$605.47	1037.50	\$628,175.13
506	Cast-in-Place Concrete Bents 9 & 10 (TXDOT Item 420) (Class F Concrete - 5000 psf)	four hundred eighty three dollars 01 cents	CY	\$483.01	505.20	\$244,016.65
507	Cast-in-Place Concrete Diaphragm (TXDOT Item 420) (Class F Concrete - 5000 psf)	one thousand two hundred ninety two dollars 92 cents	CY	\$1,292.92	99.40	\$128,516.25
508	Construct Reinforced Concrete Slab (TXDOT Item 422) (Class S Concrete)	eleven dollars 73 cents	SF	\$11.73	83680.00	\$981,566.40
509	Precast Prestressed Concrete Members (TXDOT Item 425) (U54 Beams)	two hundred forty seven dollars 87 cents	LF	\$247.87	6089.00	\$1,509,280.43
510	Concrete Surface Treatment (TXDOT Item 428)	zero dollars 78 cents	SY	\$0.78	9298.00	\$7,252.44
511	Structural Steel for Steel Arch (TXDOT Item 442)	four dollars 40 cents	LB	\$4.40	175000.00	\$770,000.00
512	Structural Steel for Steel Stinger (TXDOT Item 442)	three dollars 45 cents	LB	\$3.45	12701.00	\$43,818.45
513	Furnish, Install & Tension Structural Strands, 2 1/2" Dia (Tech Spec SSH)	one hundred fifty six thousand six hundred forty three dollars 42 cents	LS	\$156,643.42	1.00	\$156,643.42
514	Pedestrian Rail (TXDOT 450)	eighty six dollars 27 cents	LF	\$86.27	1604.00	\$138,377.08
515	Traffic Rail Type T4 (S) (MOD) "A" (TXDOT Item 450)	seventy dollars 93 cents	LF	\$70.93	1577.00	\$111,856.61
516	Traffic Rail Type T4 (S) (MOD) "B" (TXDOT Item 450)	seventy dollars 93 cents	LF	\$70.93	1576.00	\$111,785.68
517	Sealed Expansion Joint (4") (TXDOT Item 454)	seventy eight dollars 54 cents	LF	\$78.54	363.70	\$28,565.00
518	Structural Approach Slab (TXDOT ITEM 442)	two hundred seventy five dollars 35 cents	CY	\$275.35	73.60	\$20,265.76
519	"Addison" Logo Form Liner	twelve thousand four hundred two dollars 60 cents	LS	\$12,402.60	1.00	\$12,402.60
520	Standard 24" x 24" Monument Plaque	two thousand five hundred eighty three dollars 88 cents	EA	\$2,583.88	2.00	\$5,167.76

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE V, ITEMS 501						
THROUGH 520, INCLUSIVE						\$5,229,213.90
601	Furnish & Install Conduit, 3/4" schedule 40 PVC	three dollars 19 cents	LF	\$3.19	3870.00	\$12,345.30
602	Furnish & Install Conduit, 2" schedule 80 PVC	six dollars 39 cents	LF	\$6.39	760.00	\$4,856.40
603	Furnish & Install Conduit, 3/4" schedule 40 RMC	ten dollars 65 cents	LF	\$10.65	3620.00	\$38,553.00
604	Furnish & Install Conduit, 1" schedule 40 RMC	ten dollars 65 cents	LF	\$10.65	150.00	\$1,597.50
605	Furnish & Install Electrical Conductor, #2, Bare	two dollars 13 cents	LF	\$2.13	450.00	\$958.50
606	Furnish & Install Electrical Conductor, #2, Insulated	two dollars 13 cents	LF	\$2.13	1000.00	\$2,130.00
607	Furnish & Install Electrical Conductor, #6, Bare	one dollars 06 cents	LF	\$1.06	1040.00	\$1,102.40
608	Furnish & Install Electrical Conductor, #6, Insulated	one dollars 06 cents	LF	\$1.06	3680.00	\$3,900.80
609	Furnish & Install Electrical Conductor, #8, Bare	zero dollars 90 cents	LF	\$0.90	1485.00	\$1,336.50
610	Furnish & Install Electrical Conductor, #8, Insulated	zero dollars 90 cents	LF	\$0.90	3130.00	\$2,817.00
611	Furnish & Install Electrical Conductor, #10, Bare	zero dollars 48 cents	LF	\$0.48	4830.00	\$2,222.40
612	Furnish & Install Electrical Conductor, #10, Insulated	zero dollars 48 cents	LF	\$0.48	10410.00	\$4,996.80
613	Furnish & Install Electrical Conductor, #12, Bare	zero dollars 37 cents	LF	\$0.37	3420.00	\$1,265.40
614	Furnish & Install Electrical Conductor, #12, Insulated	zero dollars 37 cents	LF	\$0.37	6840.00	\$2,530.80
615	Furnish and install Ground Box (Type E)	five hundred thirty two dollars 28 cents	EA	\$532.28	9.00	\$4,790.52
616	Furnish and install Junction Box	one hundred fifty nine dollars 68 cents	EA	\$159.68	52.00	\$8,303.36
617	Furnish and install Fused Disconnects	eight hundred fifty one dollars 65 cents	EA	\$851.65	3.00	\$2,554.95
618	Furnish and install Pedestal Service & Foundation	six thousand three hundred eighty seven dollars 34 cents	EA	\$6,387.34	1.00	\$6,387.34
619	Furnish and install Load Distribution Center & Foundation	twelve thousand seven hundred seventy four dollars 68 cents	EA	\$12,774.68	2.00	\$25,549.36
620	Furnish and install 120v Weatherproof Duplex Receptacles	two hundred twelve dollars 91 cents	EA	\$212.91	12.00	\$2,554.92
621	Furnish and install LED Drivers	one thousand sixty four dollars 56 cents	EA	\$1,064.56	36.00	\$38,324.16
622	Furnish and install Fixtures & Mounting Type "A-1A" Arch Floodlight w/ Baffles, 175w	five thousand three dollars 42 cents	EA	\$5,003.42	2.00	\$10,006.84
623	Furnish and install Fixtures & Mounting Type "A-1B" Arch Floodlight w/ Baffles, 250w	five thousand one hundred sixty three dollars 10 cents	EA	\$5,163.10	4.00	\$20,652.40
624	Furnish and install Fixtures & Mounting Type "A-1C" Arch Floodlight w/ Baffles, 400w	five thousand four hundred twenty nine dollars 24 cents	EA	\$5,429.24	3.00	\$16,287.72
625	Furnish and install Fixtures & Mounting Type "A-2A" Arch Floodlight , 175w	four thousand three hundred sixty four dollars 68 cents	EA	\$4,364.68	2.00	\$8,729.36
626	Furnish and install Fixtures & Mounting Type "A-1B" Arch Floodlight , 250w	four thousand five hundred twenty four dollars 37 cents	EA	\$4,524.37	4.00	\$18,097.48
627	Furnish and install Fixtures & Mounting Type "A-2C" Arch Floodlight , 400w	four thousand seven hundred ninety dollars 50 cents	EA	\$4,790.50	3.00	\$14,371.50
628	Furnish and install Fixtures & Mounting Type "B", Blue LED Marker Light	five thousand eight hundred fifty five dollars 06 cents	EA	\$5,855.06	22.00	\$128,811.32

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
629	Furnish and install Fixtures & Mounting Type "C-1", LED Linear Grazing Accent, 18"	one thousand sixty four dollars 56 cents	EA	\$1,064.56	54.00	\$57,486.24
630	Furnish and install Fixtures & Mounting Type "C-2", LED Linear Grazing Accent, 12"	one thousand sixty four dollars 56 cents	EA	\$1,064.56	54.00	\$57,486.24
631	Furnish and install Fixtures & Mounting Type "D", Induction Area Light	one thousand eight hundred sixty two dollars 97 cents	EA	\$1,862.97	48.00	\$89,422.56
632	Furnish and install Fixtures & Mounting Type "E-1", Stinger Lighting, Deck Mount	two thousand four hundred forty eight dollars 48 cents	EA	\$2,448.48	2.00	\$4,896.96
633	Furnish and install Fixtures & Mounting Type "E-2", Stinger Lighting, Triangular Bent Mount	two thousand four hundred forty eight dollars 48 cents	EA	\$2,448.48	2.00	\$4,896.96
634	Furnish and install Fixtures & Mounting Type "F", Roadway Lighting, 20' Height	five thousand one hundred nine dollars 87 cents	EA	\$5,109.87	20.00	\$102,197.40
635	Furnish and install Fixtures & Mounting Type "G", Roadway Lighting, 35' Height	five thousand three hundred twenty two dollars 78 cents	EA	\$5,322.78	9.00	\$47,905.02
636	Grounding of Steel Structures	five thousand three hundred twenty two dollars 78 cents	LS	\$5,322.78	1.00	\$5,322.78
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE VI, ITEMS 601 THROUGH 636, INCLUSIVE						\$755,648.19
701	Pedestrian base and light pole	three thousand one hundred ninety three dollars 67 cents	EA.	\$3,193.67	3.00	\$9,581.01
702	Foundation, pedestrian light pole	eight hundred fifty one dollars 65 cents	EA.	\$851.65	3.00	\$2,554.95
703	Bare ground, #6 AWG	one dollars 06 cents	L.F.	\$1.06	135.00	\$143.10
704	Cable, insulated #6 AWG	one dollars 06 cents	L.F.	\$1.06	270.00	\$286.20
TOTAL AMOUNT BID FOR MATERIALS AND SERVICES, SCHEDULE VII, ITEMS 701 THROUGH 704, INCLUSIVE						\$12,565.26
801	Furnish and install Shantung Maple (3" cal.)	three hundred seventy four dollars 50 cents	EA.	\$374.50	22.00	\$8,239.00
802	Furnish and install Vitex/Chaste Tree (30 gal. Specimen)	two hundred forty six dollars 10 cents	EA.	\$246.10	9.00	\$2,214.90
803	Furnish and install Wildflower Mix (seed)	zero dollars 16 cents	S.F.	\$0.16	2642.00	\$422.72
804	Furnish and install Indian Grass (5 gal)	twenty one dollars 40 cents	EA.	\$21.40	9.00	\$192.60
805	Furnish and install Little Bluestem Grass (3 gal)	seventeen dollars 12 cents	EA.	\$17.12	522.00	\$8,936.64
806	Furnish and install Lindheimer's Muhly (3 gal)	seventeen dollars 12 cents	EA.	\$17.12	136.00	\$2,328.32
807	Furnish and install Weeping Love Grass (see specs)	zero dollars 67 cents	S.Y.	\$0.67	1323.00	\$886.41
808	Furnish and install solid sod (Buffalo 609)	four dollars 01 cents	S.Y.	\$4.01	5616.00	\$22,520.16
809	Furnish and install solid sod (Bermuda)	two dollars 41 cents	S.Y.	\$2.41	2790.00	\$6,723.90
810	Furnish and place compost @ sod (Bermuda), wildflower & Weeping Love grass	thirty two dollars 10 cents	C.Y.	\$32.10	233.00	\$7,479.30
811	Furnish and install finely shredded hardwood bark mulch	thirty two dollars 10 cents	C.Y.	\$32.10	40.00	\$1,284.00

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
812	Furnish and install bed preparation with compost	thirty four dollars 24 cents	C.Y.	\$34.24	40.00	\$1,369.60
813	Furnish and install walkway pavers (see specs)	thirteen dollars 43 cents	S.F.	\$13.43	2465.00	\$33,104.95
814	Furnish and install 12" concrete bands	nine dollars 32 cents	L.F.	\$9.32	2245.00	\$20,923.40
815	Furnish and install 6" concrete bands	eight dollars 02 cents	L.F.	\$8.02	540.00	\$4,330.80
816	Embankment	fifteen dollars 35 cents	C.Y.	\$15.35	8060.00	\$123,721.00
817	Furnish and install concrete strips (2'x10')	nine dollars 95 cents	S.F.	\$9.95	100.00	\$995.00
818	Furnish and place river cobbles with drain pipe, if shown	four hundred one dollars 25 cents	C.Y.	\$401.25	15.00	\$6,018.75
819	Furnish and place landscape boulders	eight hundred two dollars 50 cents	EA.	\$802.50	26.00	\$20,865.00
820	Furnish and install flagstone paving	nineteen dollars 86 cents	S.F.	\$19.86	4888.00	\$97,075.68
821	Furnish and place concrete benches (18" ht.)	six hundred nine dollars 04 cents	EA.	\$609.04	18.00	\$10,962.72
822	Furnish and place concrete benches (22" ht.)	seven hundred eight dollars 72 cents	EA.	\$708.72	7.00	\$4,961.04
823	Furnish and place concrete retaining wall (includes footing)	five hundred sixty dollars 49 cents	C.Y.	\$560.49	82.00	\$45,960.18
824	Furnish and install steel edging	two dollars 41 cents	L.F.	\$2.41	85.00	\$204.85
SUB-TOTAL AMOUNT BID ALTERNATIVE #1 FOR MATERIALS AND SERVICES, SCHEDULE VIII, ITEMS 801 THROUGH 824, INCLUSIVE						\$431,720.92
901	Furnish and place 5" reinforced concrete paving	three dollars 50 cents	S.F.	\$3.50	-2476.00	-\$8,666.00
902	Furnish and place Hydromulch (Bermuda)	zero dollars 05 cents	S.F.	\$0.05	-105082.00	-\$5,254.10
903	Furnish and install tree grate	one thousand five hundred dollars 00 cents	EA.	\$1,500.00	-1.00	-\$1,500.00
SUB-TOTAL AMOUNT OF DEDUCTIONS FOR BID ALTERNATE #1 FOR MATERIALS AND SERVICES, SCHEDULE IX, ITEMS 901 THROUGH 903, INCLUSIVE						-\$15,420.10
TOTAL AMOUNT BID ALTERNATE #1 FOR MATERIALS AND SERVICES, SCHEDULE VI THROUGH SCHEDULE IX, ITEMS 701 THROUGH 903, INCLUSIVE ALL DEDUCTIONS						\$428,866.08
1001	35' 3" Street Light Pole (Steel Type)	one thousand two hundred thirty six dollars 00 cents	EA.	\$1,236.00	9.00	\$11,124.00
1002	Pedestrian Light Pole (Steel Type)	three thousand two hundred ninety six dollars 00 cents	EA.	\$3,296.00	64.00	\$210,944.00
1003	Combination, Street Light w/ Pedestrian Fixture (Steel Type)	seven thousand four hundred sixteen dollars 00 cents	EA.	\$7,416.00	13.00	\$96,408.00
1004	Retaining Wall Mounted Light Pole (Steel Type)	five thousand seven hundred sixty eight dollars 00 cents	EA.	\$5,768.00	4.00	\$23,072.00
TOTAL AMOUNT BID FOR MATERIAL AND SERVICES, SCHEDULE X, ITEMS 1001 THROUGH 1004, INCLUSIVE						\$341,548.00
1101	35' 3" Street Light Pole (aluminum)	two thousand dollars 00 cents	EA.	\$2,000.00	-9.00	-\$18,000.00
1102	Pedestrian Light Pole (aluminum)	three thousand three hundred dollars 00 cents	EA.	\$3,300.00	-64.00	-\$211,200.00

publish

Arapaho Road - Phase III

Item Number	Description	Unit Price in Words	UM	Unit Price	Estimated Quantity	Amount Bid
1103	Combination, Street Light w/ Pedestrian Fixture (aluminum)	eight thousand five hundred dollars 00 cents	EA.	\$8,500.00	-13.00	-\$110,500.00
1104	Retaining Wall Mounted Light Pole (aluminum)	six thousand seven hundred fifty dollars 00 cents	EA.	\$6,750.00	-4.00	-\$27,000.00
SUB-TOTAL AMOUNT OF DEDUCTIONS FOR BID ALTERNATE #2 FOR MATERIALS AND SERVICES, SCHEDULE XI, ITEMS 1101 THROUGH 1104, INCLUSIVE						-\$366,700.00
TOTAL AMOUNT BID ALTERNATE #2 FOR MATERIALS AND SERVICES, SCHEDULE X THROUGH SCHEDULE XI, ITEMS 1001 THROUGH 1104, INCLUSIVE ALL DEDUCTIONS						-\$25,152.00

TRANSMITTAL OF ADDENDUM

INSTRUCTIONS:

Acknowledge receipt of Addenda with the form below, please FAX to (972) 450-7096 upon receipt and Acknowledgement of Addenda on outer envelope of bid.

Addendum Acknowledgment Should be faxed to (972) 450-7096

I Acknowledge the receipt of Addendum No.: 6 Total # Pages: 2

Town of: ADDISON, TEXAS

Project Name: 04-22 Arapaho Rd Phase III

By Facsimile Transmission on this date: June 4, 2004

The undersigned bidder hereby certifies that Addendum No. 6 has been incorporated into the proposal and if accepted becomes part of the contract.

Company Name:	
Signed By (print name):	
Signature:	
Date:	
Phone No:	

**PLEASE SIGN & FAX THIS PAGE
BACK TO TOWN OF ADDISON**

(As verification that you received this update)

972-450-7096

Town of Addison
Bid 04-22 Arapaho Rd Phase III
ADDENDUM NO. 6
Bid Due: Monday, June 7, 2004 @ 2:00PM

1. Delete or enter \$0.00 for Roadway pay items 156-160.
2. All Railroad control will be done by others.

All updates and addendum notices will be posted on www.ci.addison.tx.us under Purchasing or www.demandstar.com.

ACKNOWLEDGED BY BIDDING CONTRACTOR:

_____ Date: _____

TRANSMITTAL OF ADDENDUM

INSTRUCTIONS:

Acknowledge receipt of Addenda with the form below, please FAX to (972) 450-7096 upon receipt and Acknowledgement of Addenda on outer envelope of bid.

Addendum Acknowledgment Should be faxed to (972) 450-7096

I Acknowledge the receipt of Addendum No.: 7 Total # Pages: 6

Town of: ADDISON, TEXAS

Project Name: 04-22 Arapaho Rd Phase III

By Facsimile Transmission on this date: June 4, 2004

The undersigned bidder hereby certifies that Addendum No. 7 has been incorporated into the proposal and if accepted becomes part of the contract.

Company Name:	
Signed By (print name):	
Signature:	
Date:	
Phone No:	

**PLEASE SIGN & FAX THIS PAGE
BACK TO TOWN OF ADDISON**

**(As verification that you received this update)
972-450-7096**

Town of Addison
Bid 04-22 Arapaho Rd Phase III
ADDENDUM NO. 7
Bid Due: Monday, June 7, 2004 @ 2:00PM

1. Replace the following bid sheets (4 pages).

All updates and addendum notices will be posted on www.ci.addison.tx.us under Purchasing or www.demandstar.com.

ACKNOWLEDGED BY BIDDING CONTRACTOR:

_____ Date: _____

Mr. Jim Pierce
June 1, 2004
Page 2

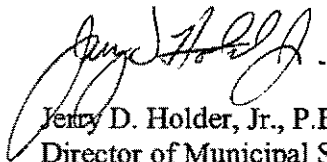
The scores were very close between first and second, with third and fourth having more separation. The key factors that put Rone in first place were:

- Testing laboratory was both AASHTO and ALLA certified
- They have over 40 field technicians in the Dallas area
- They have experience with large drilled shaft construction (DNT & SH 121 most recent)
- Their point of contact, Larry Bracken, was very eager to work on this project

This is not to say the other firms weren't eager or didn't have applicable experience, but Rone's experience came across as being better suited for this project than the others. Our recommendation to the Town of Addison is to select Rone Engineers for the testing services during construction of the Arapaho Road Phase III project. We will be happy to meet with you and go over our notes and answer any questions you have. We understand this is a Town of Addison project and not an HNTB project, so we want your input before any final selection is made. We look forward to discussing this selection with you and your staff.

Very truly yours,

HNTB CORPORATION



Jerry D. Holder, Jr., P.E.
Director of Municipal Services

JDH

Enclosure

25768 DS 301

May 26, 2004 3:00pm, Pre Bid Meeting Sign in Sheet

04-22 Arapaho Rd Phase III,

817-401-1267

Add 3	Company	Name	Phone	Fax
	MARTIN K. EBY CONST. Co.	KURT GRIER	214-880-0028	214-880-9916
✓	MARTIN K. EBY CONST. Co.	CRAIG CHRISTIAN	817-268-0514	817-268-1309
	" " " "	RICHARD MCGORD	" " "	" " "
	Archer Westerm	Andrew Schneemann	817-640-3898	817-640-8734
	L.H. Lucy Co	Darlene Conely	214-357-0146	214-350-1062
	MARIO SINAROLA Sons	LARRY M. LAMP	(2) 387-3900	(2) 387-3940
	Orval Hall Excavating Co.	Lori Nelson	817-624-7207	817-625-2941
	Texas Steeling Const	Carl D. Wall	972-606-2733	972-606-2713
	A.H. Beck Foundation Co.	Robin L. Reeves	972-998-0316	972-846-2107
	MELS ELECTRIC L.P	KEITH ROBERTSON	214-565-1074	214-565-1081
	ECS, Ltd	Bobby Ray	972-392-3222	972-392-0102
	"	Chris Eddy	"	"
	GREAT WESTERN ERECTORS	PETE SELF	214.637.2500	214.637.2504
	BEND TEC	MICHAEL WHITNEY	972-247-9250	972-247-9252
	BEND TEC	BOB MEERHOFF	"	"
*	AUSTIN BRIDGE & ROAD	CHARLEY SPENCE	214 596 7300	214 596 7395
	AUSTIN BRIDGE & ROAD	TONY STEHLING	" " "	214-596-7371
	"	Jeromy Shaw	" " "	" " 7395
	URS URS	Cliff Hall	972.406.6950	972.406.6951

* will not bid with 4th Edition Indemnification provisions.

Steve Chutchian

From: Mike Murphy
Sent: Tuesday, May 18, 2004 2:23 PM
To: Bryan Langley; Randy Moravec
Cc: Chris Terry; Steve Chutchian; Jim Pierce
Subject: Arapaho Phase III

Randy, Bryan,

As you know we are in the home stretch of starting construction on Arapaho Road Phase III. It is our goal to award the Road and Bridge construction contract during our June 22nd Council Meeting. Therefore, please make whatever arrangements necessary to begin process to acquire remaining Arapaho Road Bond Funds.

Please let me know what me or my staff can do to assist. Although I don't know how much will be requested on a monthly basis, I would guess that payments would be made in range of half million dollar to million dollar increments over an eighteen month period.

Thanks,

Call with any questions.

Mike

Michael E. Murphy, PE

Director of Public Works

(972) 450-2878 Work

(214) 215-5280 Mobile

(972) 450-2837 Fax

E-Mail: mmurphy@ci.addison.tx.us

Sign in Sheet
 TxDOT Arapaho Phase 3
 Pre-Bid Meeting

17-May-04

	Name	Company	Phone # / FAX
1	Bryan Piper	Site Concrete, Inc.	972-313-0733 Fax 972-513-0661
2	Steve Goodman	North Texas Rmldge	1-214-1355 1-214-1772
3	JIM SMITH	COPELL CONSTRUCTION Co., INC	P 940-995-5101 F 940-995-2416
4	Chris Carroll	Duracore Corp.	P 817-205-9197 F 817-788-5221
5	Cliff Carroll	" "	817-528-9881
6	JAY Simms	ED BELL CONST.	214 358 6581 214 352 3201
7	Jared Fecht	American Civil Constructors	972-827-0150 827 0151 fax
8	MARK LOHSE	ARCHER WESTERN CONTRACTORS	PH 817-640-3898 FAX 817-640-8734
9	BEN WITHERED cell: 817 401 7202	ARCHER WESTERN	817 401 7202
10	Randy Lackner/Bob Meierhoff	Bendtec	218 722-0205 (218) 722-6598
11	Stan Hudson	EPI	940-627-0684/0687 fax
12	Rick Burgett	REBCON, Inc.	972 444 8230 972 444 8234
13	KEITH ROBERTSON	MELS ELECTRIC	214-565-1074 214-565-1081
14	TROY CHILDERS	TTSBO PAVING	972 289-0723 972 216-5637

	Name	Company	Phone # / FAX
15	Loni Nelson	Orcutt Hall Excavating Co	817-625-2941 F 817-624-7207 P
16	DOUG D. WALL	Texas Sterling Const. Co	972-606-2733 Tel 972-606-2713 Fax
17	CRAIG CHRISTIAN	MARTIN K. EBY CONST. Co.	817-268-0514 (TEL.) 817-268-1309 (FAX)
18	Norm Heersink	" " " "	"
19	RICHARD McCORD	" " " "	"
20	Jim Pierce	Town of Addison	972-450-2879
21	Dave Wilde	Town of Addison	972-450-2847
22	Cliff Hall	URS	972.406.6950 972.406.6951 (FAX)
23	Bruce Grantham	G&A	972-864-2338 Ph. " " 2374 Fax
24	Katrina Curry	"	"
25	MIKE MURPHY (DIRECTOR)	TOWN OF ADDISON	972-450-2828
26	LUKE JALBERT (P.M.)	" " "	972-450-2828
27			
28			
29			
30			

	Name	Company	Phone # / FAX
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	Name	Company	Phone # / FAX
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Arapaho Rd Phase III

5-17-04

Pre Bid Meeting

Ron Whitehead - Don't damage water main

Must lower 60" water line

New proposal form to come out

Bridge Splice, special weld rod? Traffic control?

Traffic control subsidiary - Bridge Shoring,
Traffic Barriers, Lightning protection?

Cast Box in place? - common wall with
differing floor lines. Cast in place detail?

10% or 100% maintenance bond. Kiosk questions

Channel removal lump sum. Embankment
inside MSE walls? Check specs on fill.

Matl inside MSE walls -

Delay bids by one week - ?

Existing Utilities - On cor... SBL... MCI/Grant...

Describe A+B bidding \$ 4,000/day

Work hour restrictions wrt motels

relocation of utilities
~~water line lowering timing~~

AFAZ
AZ

CIT 60

DATE 451574371990 TIME
07/28/2004 07:37:04 14:30:58

AND T FOOD MART NO 7
4191 BELTLINE RD
ADDISON, TX 75001
9724909968

TERMINAL TOTALS



TIM BEST

NEMA FARZIN

ASSISTANT HOCKEY DIRECTOR

nema@addisonsquaregarden.com

EXTENSION: 228

15100 MIDWAY ROAD
ADDISON, TEXAS 75001

972-960-7465

FAX: 972-991-7465



AntiqueLand USA, Inc.

E-Mail: sharik@antiquelandusa.com
www.antiquelandusa.com

Shari King
General Manager

Forestwood Antique Mall
5333 Forest Lane
Dallas, TX 75244
Phone: 972-661-0001
Fax: 972-661-0477

Unlimited, Ltd. Antique Mall
15201 Midway Road
Addison, TX 75001
Phone: 972-490-4085
Fax: 972-490-0579

NIK BHAKTA
MANAGER
CHALAK INVESTMENT GROUP, LP, INC.
"INDEPENDENTLY OWNED AND OPERATED"
4201 BELTLINE RD. SUITE 1
ADDISON, TEXAS 75001
972.503.9144 PM
972.503.9990 FAX

genghisgrill.com

Mon. - Sat. 12 - 9
Sun. 1 - 6

www.animepopshop.com

SUN-LITE CLEANERS

ANIME POP

Anime • DVD / Video Rental • Imported Toys

4151 Beltline #122
Addison, TX 75001

Phone (972) 503-5311
N.W. Corner Beltline & Midway



John Terri
JEH/MSI Supply



~~RICK GALLION~~
OUTSIDE SALES
METAL SPECIALIST

15200 MIDWAY RD.
ADDISON, TX 75001

972-364-0545
TOLL FREE 800-534-1800
FAX 972-364-0554
CELL 972-365-9420

"An Eagle Supply Group, Inc. Company"

ADDISON COMFORT SUITES



BY CHOICE HOTELS

JAMER SAMONTE
GENERAL MANAGER

4555 BELT LINE ROAD
ADDISON, TX 75001
PHONE/FAX 972.503.6500



Maggiore Realty
3004 Canyon Creek Dr. • Suite 100
Richardson, Texas 75080

Real Estate Investment
Property Management

PETER C. MAGGIORE, CPM
President
972/669-9400
Fax 972/699-8364

MAPSCO

Dorothy Moorman

RETAIL STORE MANAGER

MAPSCO, INC.
4181 CENTURION WAY • ADDISON, TX 75001
(972) 450-9380 • FAX (972) 450-9305
dmoorman@mapSCO.com

mapSCO.com



*FOR LIST OF
U.S. OFFICES*

Kelly Kellett-Drzymala
General Manager • Mentor
Area Certifier - Trainer
Motel 6 #1125

4325 Beltline Rd.

Addison, Texas 75001

Tel: 972-386-4577

Fax: 972-386-4579

For Reservations Call 800 4-Motel 6



**Absolute
Systems**

469-916-2929 x222

4139 Centurion Way
Addison, Tx 75001

Gene Harris

CEO

Fax: (469) 916-2930
Cel: (214) 793-8989

gene.harris@absolutesystems.com

Arapaho Phase III Affected
Property Owners

Public Storage of Dallas, Ltd.
A. Starke Taylor, III, President
Watson & Taylor Management, Inc.
3934 Belt Line Road
Addison, TX 75001

Parcels ~~11 & 12~~
12 & 13

Bullough / Lykos Office Bldg No 1, L.P.
Mr. Dale C. Bullough
4101 Centurian Way
Addison, TX 75001

Parcel 11

4125 Centurian Way, L.P.
John A. Winslow
4125 Centurian Way
Addison TX 75001

Parcel 10

Interest Companies ~~Addition~~

Parcel 9

Mr. John Wilson
4131 Centurian Way
Addison, TX 75001-4379

Parcel 8 — 4139 Centurian Way

Absolute Systems, LTD

Mr. Gary B. Crouch

ADR Partners

4444 Westgrove Drive, Suite 210

Parcel 7 — Addison TX 75001-3208

15101 Midway Road Partners, LTD.

Midway-Centurian, LTD

Mr. Bill Crepeau

15101 Midway Road
Addison, TX 75001

} Both appear in the files

most correspondence to

owner & contact

The Rink in Addison

Parcel 6

Motel 6 Operating L.P.

Mr. Randy Lee, V.P.

Accor Economy Lodging

14651 Dallas Parkway, Suite 500

Dallas, TX 75254

owner

mgr:

Kelly Kellett-Drzymala, General Manager

Motel 6 # 1125

4325 Belt Line Rd

Addison, TX 75001

Parcel 5

Heritage Inn Number XIII, LP

owner:

1201 Page Drive

local
contact:

Fargo, ND 58103

attn: Mr. Rick Larsen

(also Tharaldson Development)

City of Dallas (DWU)

Mr. Eric Steidle, Relocation Section, Interim mgr.

Dallas Water Utilities

2121 Main Street, Suite 400

Dallas, TX 75201

15211 Addison Road Joint Venture

Parcel
2

Mr. Kim Forsythe

3333 Earhart Suite 250

Carrollton, TX 75006

DART

Ms. Jan Seidner, Mgr., Railroad Facilities
~~1111~~ P.O. Box 660163
Dallas, TX 75266-7210



CWOTS # 4185T03
4801 Matlock Road, Room B16
Arlington, Texas 76018

December 31, 2003

TOWN OF ADDISON
P O Box 9010
Addison, TX 75001

Dear Mr. Jalbert,

This letter is in regards to your request for Southwestern Bell Telephone, L.P. to perform custom work for you. Enclosed please find an Application and Letter of Agency for Custom Work. This application describes the custom work you have requested along with the associated charges for us to do the work. We require an advance payment on this amount, which is shown on the application.

Both the signed application and the advance payment must be received by our office before we can proceed on your behalf. Our mailing address for these documents is listed below:

Southwestern Bell Telephone, L.P.
Attn: Shirley Meadows
4801 Matlock Road, Room B16
Arlington, Texas 76018

If you decide not to proceed with this work, please call our business office so that we may cancel your request. As always, please feel free to contact our business office at 1 800 303-7477 if you have any questions regarding this matter. Please refer to the record number at the top of your application to assist us in locating your file.

Sincerely,

Shirley Meadows

Shirley Meadows
CWOTS Department
Southwestern Bell Telephone, L.P.
817 467-8124 or 1-888-321-8535 Phone
817 467-8198 or 1-800-851-7311 Fax



APPLICATION and LETTER OF AGENCY FOR CUSTOM WORK

December 31, 2003

CWOTS Number: 4185T03

Customer Billing Telephone Number: 972 450-7000

BILL TO: TOWN OF ADDISON
P O Box 9010
Addison, TX 75001

DESCRIPTION OF CUSTOM WORK:

This cost estimate is for the extension of Arapaho Road from Surveyor Road to Addison Road. This job will reroute conduit run under new box culvert. Contract engineer will design job.

CHARGE FOR CUSTOM WORK: ESTIMATED COST: \$ 44,359.10+ tax

(Actual charges may exceed this estimated cost.)

IF USING A PURCHASE ORDER ESTIMATED COST WILL BE \$45,124.75

ESTIMATED LABOR: \$ 34,064.31; ESTIMATED MATERIALS: \$ 6,128.88;

ESTIMATED OVERHEAD EXPENSE: \$ 4,165.91

Applicant requests that Southwestern Bell Telephone, L.P. act as its agent in performing the above-described custom work on Applicant's behalf. Applicant agrees to pay the charge(s) indicated above for such work. The work is to be done on an "Actual Cost" basis, all charge(s) will be computed in accordance with Southwestern Bell Corporation's ordinary accounting practices under the Uniform System of Accounts for Class A telephone companies and will include allocated costs for labor, engineering, materials, transportation, motor vehicles, tool and supply expenses and sundry billings from sub-contractors and suppliers for work and materials related to the job. The Applicant affirms that the cost estimate furnished by the Telephone Company has been considered only as an estimate of approximate costs and that the actual costs incurred by the Telephone Company in doing the work at the particular time and location might be higher. Said estimated cost is subject to change due to any number of factors including, but not limited to, changing conditions in the field, weather delays, or changes in the scope of the work.

CHANGE ORDERS

Should concealed conditions exist, including conditions that may exist below the surface of the ground, or if conditions exist that could not have been anticipated by SBC at the time of this agreement, SBC will be entitled to additional funds and/or additional time to complete the work. SBC will request such additional funding and/or additional time through a request for a change order.

Should Applicant or its agents, servants, or employees order or seek changes in the scope of the work, SBC is entitled to seek from Applicant, its agents, servants, or employees, additional funds as necessary to perform the work, and additional time, as necessary to complete the work. Said request for additional funds and/or additional time will be through change order.

All change orders will be in writing.

All change orders will be submitted and accepted by Applicant, its agents, servants or employees, before SBC proceeds to execute the work or, if work has been initiated on the project, continues with executing the work except in an emergency endangering life or property.

Applicant, its agents, servants or employees, are deemed to have accepted the terms of any change order by signing where indicated on the change order.

8056 Actual Cost

Under no circumstances will SBC's request for a change order be deemed or used as evidence of delay on the project. Nor will any change order issued in this project be used to charge SBC with responsibility for any alleged delay on the project.

TIME TO COMPLETE

Any representation by SBC, its agents, servants or employees that the project, or any additional work authorized by change order, will be complete by a certain date or certain time period is strictly an estimate and not binding on SBC, its agents, servants, or employees. All estimated completion dates are subject to changing conditions in the field, changes in the scope of the work, relocation of existing utilities not within SBC's control, Acts of God, weather delays, labor disputes, vendor/contractor disputes, and other conditions or circumstances that SBC, its agents, servants, or employees, could not reasonably anticipate at the time of the estimate.

PAYMENT

Applicant agrees to make an advance payment of \$ 44,359.10 prior to commencement of the work and agrees to pay the applicable taxes when the work is completed. Applicable charges for Custom Work will be billed on a special bill separate from the bill that Applicant receives for telephone service.

Applicant, its agents, servants, or employees agree to make payment on change orders within thirty (30) days of the date of signature on the change order. Failure to make payment within the designated thirty (30) day time period will operate to cancel the change order and SBC will cease all work activity on the project until payment is made.

When the Applicant agrees to Interval Billing *, the balance of the Contract Price or Actual Cost (as applicable) will be made in monthly payments. If the Actual Cost made varies from the Estimated Cost, then a correcting adjustment will be made in the last payment.

CANCELLATION

If the applicant cancels the work prior to completion, Applicant agrees to pay Southwestern Bell Telephone, L.P. for the costs it has incurred in starting performance under the contract and before being notified to cease only.

ESTIMATED PRICE QUOTE

The above estimated price is guaranteed for 60 days from December 31, 2003. If the charges are not accepted within 60 days the order will be cancelled and a new order will need to be placed. The second estimate may be higher than the estimated price set out above.

CHOICE OF LAW AND ARBITRATION

Should any dispute arise between the parties concerning the subject matter of this agreement, or any term contained therein, the parties agree that the dispute or claim shall be submitted to binding arbitration before the American Arbitration Association. The parties further agree that the prevailing party in any such dispute will be entitled to recover attorney's fees and costs of arbitration.

Texas law governs the application of this agreement and all terms contained therein.

INDEMNIFICATION AND HOLD HARMLESS

Applicant, its agents, servants, and employees hereby agree to indemnify and hold harmless SBC, and its employees, agents and contractors, from and against any and all claims, costs, expenses, judgments or actions for damage to property or injury or death to persons, and/or arising from or relating to the work that is the subject of this agreement, to the extent any such claims are caused by the negligent acts or omissions of the Applicant, its agents, servants, or employees.

ENTIRE AGREEMENT

The parties agree that the terms set forth herein constitute the entire agreement and there are no other agreements regarding the project that is the subject of this agreement between the parties.

MODIFICATION & NOTICE

Any modification to this agreement must be made in writing and signed by both parties.

Any party to this agreement may provide the other party with notice of any fact or condition by providing such information in writing and serving said writing via certified mail, return receipt requested.

8056 Actual Cost

ACCEPTED FOR CUSTOMER:

ACCEPTED FOR SOUTHWESTERN BELL TELEPHONE, L.P.:

Authorized Signature, Title or
Relationship to Company or Individual
Company: _____

Title: Mgr Oprs-Cntl/CWOTS

Date: _____

Date: _____

* Applicable to orders over \$25,000 and work will take 6 or more months to complete.



The HNTB Companies

5910 West Plano Parkway, Suite 200 - Plano, Texas 75093 (972) 661-5626

LETTER OF TRANSMITTAL

Job No. 25768-DS-301

Date October 23, 2003

To: Mr. Jim Pierce
Town of Addison
16801 Westgrove Drive
P.O. Box 9010
Addison, TX 75001-9010

Re: Arapaho Road Phase 3
Revised Proposal for Additional Services

Steve
↓
SLADE IS HANDLING THIS 10/03

WE ARE FORWARDING TO YOU:

NO. OF COPIES	SHEET NO.	LAST DATED	DESCRIPTION
1	Attachment A	09/08/2003	Tree Survey - East of Midway Road
1	Attachment B	09/08/2003	Y'Track Additional Topographic Survey
1	Attachment C	09/08/2003	Additional Drainage Services

THESE ARE TRANSMITTED:

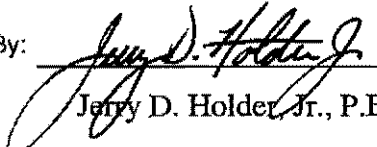
- For approval
 For your use
 As requested
 For review & comment

PLEASE NOTE:

COPY TO:

Slade Strickland - Town of Addison

25768-DS-301

By: 
Jerry D. Holder, Jr., P.E.

**Attachment A
Compensation**

**Arapaho Road Extension
Phase 3 - PS&E
Tree Survey - East of Midway Road
Estimate of Manhours
Grantham & Associates, Inc.**

Task	Manhour Projection							Survey Crew Expense
	Assistant Project Manager	Project Engineer	Design Tech	CADD Operator	Clerical	Survey Manager	Survey Technician	Survey Crew
Tree Survey (approx. 500 lf)	0.5	2	0	0	0	4	8	20
Total Hours	0.5	2	0	0	0	4	8	20
Hourly Rate	\$45.00	\$41.00	\$24.00	\$16.00	\$16.00	\$40.00	\$25.00	\$110.00
Direct Labor Cost	\$22.50	\$82.00	\$0.00	\$0.00	\$0.00	\$160.00	\$200.00	\$2,200.00

G&A Direct Labor	\$	464.50
Indirect Labor, Overhead (1.8775)	\$	872.10
Subtotal	\$	1,336.60
Profit & Contingency	\$	200.49
Survey Crew Expense	\$	2,200.00
Direct Expense	\$	500.00
G&A Fee	\$	4,237.09

**Attachment B
Compensation**

**Arapaho Road Extension
Phase 3 - PS&E
Y' Track Additional Topographic Survey
Estimate of Manhours
Grantham & Associates, Inc.**

Task	Manhour Projection							Survey Crew Expense
	Assistant Project Manager	Project Engineer	Design Tech	CADD Operator	Clerical	Survey Manager	Survey Technician	Survey Crew
Topographic Survey	0.5	2	0	0	0	4	8	16
Total Hours	0.5	2	0	0	0	4	8	16
Hourly Rate	\$45.00	\$41.00	\$24.00	\$16.00	\$16.00	\$40.00	\$25.00	\$110.00
Direct Labor Cost	\$22.50	\$82.00	\$0.00	\$0.00	\$0.00	\$160.00	\$200.00	\$1,760.00

G&A Direct Labor \$ 464.50
 Indirect Labor, Overhead (1.8775) \$ 872.10
 Subtotal \$ 1,336.60
 Profit & Contingency \$ 200.49
 Survey Crew Expense \$ 1,760.00
 Direct Expense \$ 500.00
G&A Fee \$ 3,797.09

**Attachment C
Compensation**

**Arapaho Road Extension
Phase 3 - PS&E
Additional Drainage Services
Estimate of Manhours
Grantham & Associates, Inc.**

Manhour Projection					
Task	Assistant Project Manager	Project Engineer	Design Tech	CADD Operator	Clerical
Addison Road Drainage					
Plans and Specifications	4	8	4	8	4
Total Hours	4	8	4	8	4
Hourly Rate	\$ 45.00	\$ 41.00	\$ 24.00	\$ 16.00	\$ 16.00
Direct Labor Cost	\$ 180.00	\$ 328.00	\$ 96.00	\$ 128.00	\$ 64.00

G&A Direct Labor \$ 796.00
 Indirect Labor, Overhead (1.8775) \$ 1,494.49
 Subtotal \$ 2,290.49
 Profit & Contingency \$ 343.57
 Direct Expense \$ 250.00
G&A Fee \$ 2,884.06

'Y' Track Drainage					
Drainage Plan / Profile	4	8	8	16	
Drainage Calculations	4	8	4	8	
Utility Coordination	2	4	2	6	4
Total Hours	10	20	14	30	4
Hourly Rate	\$ 45.00	\$ 41.00	\$ 24.00	\$ 16.00	\$ 16.00
Direct Labor Cost	\$ 450.00	\$ 820.00	\$ 336.00	\$ 480.00	\$ 64.00

G&A Direct Labor \$ 2,150.00
 Indirect Labor, Overhead (1.8775) \$ 4,036.63
 Subtotal \$ 6,186.63
 Profit & Contingency \$ 927.99
 Direct Expense \$ 250.00
G&A Fee \$ 7,364.62



TOWN OF ADDISON
9724502837
FEB-7-2003 16:25

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
171	2/ 7/2003	16:23:56	Send	99726615614	0:58	2	OK

TOWN OF
ADDISON

PUBLIC WORKS

To: Jerry Holder, P.E.

From: Jim Pierce, P.E.

Company: HUTB

Asst. Public Wks. Dir.

Phone: 972/450-2879

FAX: 972/450-2837

jpierce@ci.addison.tx.us

FAX #: 972-661-5614

Date: 2-7-03

16801 Westgrove

P.O. Box 9010

Addison, TX 75001-9010

of pages (including cover): 2

Re: Arapaho Rd Phase III

Original in mail Per your request FYI Call me

Comments: Comments attached to you
draft letter of 2-6-03 re
60" water main issues

Jim

DRAFT

February 6, 2003

Mr. Mike Murphy, P.E.
Public Works Director, Town of Addison
16801 Westgrove Drive
P.O. Box 9010
Addison, TX 75001-9010

*adjacent to Dallas Water Utilities'
60" water main*

Dear Mr. Murphy:

This correspondence is in response to your request during a meeting in your conference room on February 5, 2003. The purpose of this letter is to discuss the steps HNTB plans to implement during our design of the retaining walls along the north side Arapaho Road on the east and west sides of Midway Road. For reference, the walls are located at the following approximate station locations along the Arapaho Road, Phase 3 Extension centerline:

West Side of Midway Road: Station 46+00 to Station 51+00
East Side of Midway Road: Station 67+00 to Station 71+00

(cliffs letter should fall in the "blank")

The preliminary plans for the phase 3 extension of Arapaho Road anticipated the use of Mechanically Stabilized Retaining (MSE) retaining walls on the approaches to the Midway Road Overpass. MSE walls are typically founded on a small footing with stability provided by anchors embedded in the retained embankment. Due to the proximity of a 60" water line located approximately 8 feet from the wall, the Dallas Water Utilities Department (DWU) has expressed concern that a water line rupture would cause erosion that might undermine the wall footing and result in wall failure.

To ^{address} minimize these concerns, a revised wall design is proposed ^{will} that ~~should~~ ^{to} protect the wall and roadway from damaging erosion. The revised design would be founded on drilled shafts supporting a curtain wall that would extend to a depth below the flow line of the water line. A 9' by 6' box drainage culvert ~~may~~ be cast integrally with the curtain wall and together form the footing of a cast-in place retaining wall. A rupture of the water line causing a localized erosion of soil would expose the face of the curtain wall but ~~should~~ ^{would} not result in a failure of the wall or roadway.

and would extend into rock.

The revised wall will be designed with the standard of care that ^{will} ~~should~~ protect the roadway from damage based on our judgment of the erosion that could result from a water line rupture. ~~We cannot and will not guarantee that in the extreme case of water line rupture, some damage to the wall and roadway would occur.~~

We trust the ~~revised~~ design described will provide the DWU with reasonable assurance that precautions and measures ~~will be~~ ^{are being} taken to avoid a major incident in the event of a water line rupture.

Sincerely,
HNTB Corporation

Jerry D. Holder, Jr., P.E.

*Jerry D. Holder, Jr.
Seal*



U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

Subject: OPERATIONAL SAFETY ON AIRPORTS
DURING CONSTRUCTION

Date: 1/17/03
Initiated by: AAS-300

AC No: 150/5370-2E
Change:

1. THE PURPOSE OF THIS ADVISORY CIRCULAR (AC).

Aviation safety is the primary consideration at airports, especially during construction. This AC sets forth guidelines for operational safety on airports during construction. It contains major changes to the following areas: "Runway Safety Area," paragraph 3-2; "Taxiway Safety Areas/Object-Free Areas," paragraph 3-3; "Overview," paragraph 3-4; "Marking Guidelines for Temporary Threshold," paragraph 3-5; and "Hazard Marking and Lighting," paragraph 3-9.

2. WHAT THIS AC CANCELS.

This AC cancels AC 150/5370-2D, *Operational Safety on Airports During Construction*, dated May 31, 2002.

3. READING MATERIAL RELATED TO THIS AC.

Appendix 1 contains a list of reading materials on airport construction, design, and potential safety hazards during construction, as well as instructions for ordering these documents. Many of them, including this AC, are available on the Federal Aviation Administration (FAA) Web site.

4. WHO THIS AC AFFECTS.

This AC assists airport operators in complying with 14 Code of Federal Regulations (CFR), part 139, Certification and Operation: Land Airports Serving Certain Air Carriers, and with the requirements of airport construction projects receiving funds under the Airport Improvement Program or from the Passenger Facility Charge Program. While the FAA does not require noncertificated airports without grant agreements to adhere to these guidelines, we recommend that they do so as it will help these airports maintain a desirable level of operational safety during construction.

5. ADDITIONAL BACKGROUND INFORMATION.

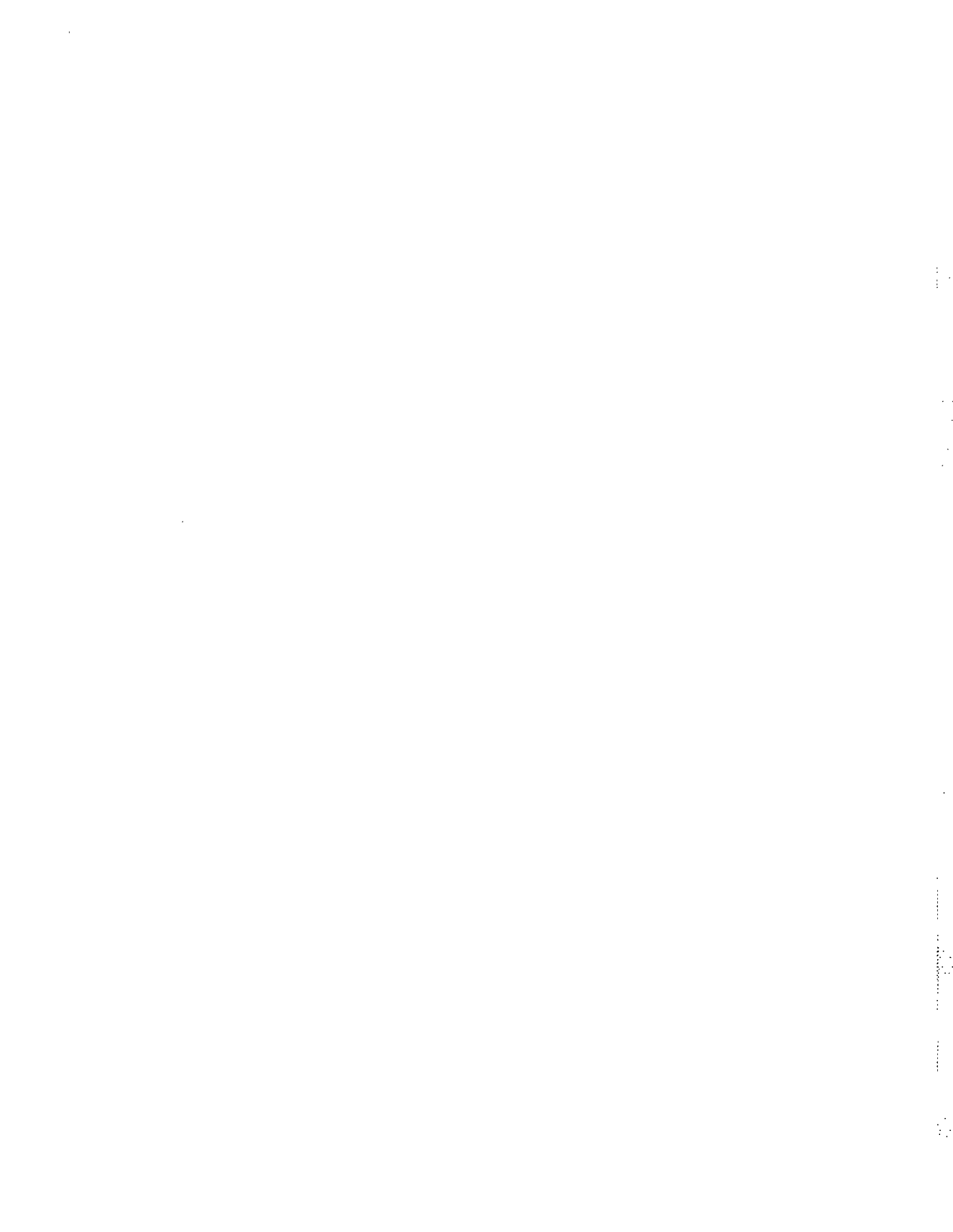
Appendix 2 contains definitions of terms used in this AC. Appendix 3 provides airport operators with boilerplate format and language for developing a safety plan for an airport construction project. Appendix 4 is a sample Notice to Airmen form.

6. HAZARD LIGHTING IMPLEMENTATION TIME LINE.

Supplemental hazard lighting must be red in color by October 1, 2004. See paragraph 3-9 for more information.

DAVID L. BENNETT

Director, Office of Airport Safety and Standards



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CHAPTER 1. GENERAL SAFETY REQUIREMENTS AND RESPONSIBILITIES

1-1. OVERVIEW.

Hazardous practices and marginal conditions created by construction activities can decrease or jeopardize operational safety on airports. To minimize disruption of normal aircraft operations and to avoid situations that compromise the airport's operational safety, the airport operator must carefully plan, schedule, and coordinate construction activities. While the guidance in this AC is primarily used for construction operations, some of the methods and procedures described may also enhance day-to-day maintenance operations.

1-2. WHO IS RESPONSIBLE FOR SAFETY DURING CONSTRUCTION.

An airport operator has overall responsibility for construction activities on an airport. This includes the pre-design, design, preconstruction, construction, and inspection phases. Additional information on these responsibilities can be found throughout this AC.

a. Airport operator's responsibilities—

- (1) Develop internally or approve a construction safety plan developed by an outside consultant/contractor that complies with the safety guidelines in Chapter 2, "Safety Plans," and Appendix 3, "Airport Construction Safety Planning Guide," of this AC.
- (2) Require contractors to submit plans indicating how they intend to comply with the safety requirements of the project.
- (3) Convene a meeting with the construction contractor, consultant, airport employees, and, if appropriate, tenant sponsor to review and discuss project safety before beginning construction activity.
- (4) Ensure contact information is accurate for each representative/point of contact identified in the safety plan.
- (5) Hold weekly or, if necessary, daily safety meetings to coordinate activities.
- (6) Notify users, especially aircraft rescue and fire fighting (ARFF) personnel, of construction activity and conditions that may adversely affect the operational safety of the airport via Notices to Airmen (NOTAMs) or other methods, as appropriate. Convene a meeting for review and discussion if necessary.
- (7) Ensure that construction personnel know of any applicable airport procedures and of changes to those procedures that may affect their work.

(8) Ensure that construction contractors and subcontractors undergo training required by the safety plan.

(9) Develop and/or coordinate a construction vehicle plan with airport tenants, the airport traffic control tower (ATCT), and construction contractors. Include the vehicle plan in the safety plan. See Chapter 2, section 2, of this AC for additional information.

(10) Ensure tenants and contractors comply with standards and procedures for vehicle lighting, marking, access, operation, and communication.

(11) At certificated airports, ensure that each tenant's construction safety plan is consistent with 14 CFR part 139, Certification and Operations: Land Airports Serving Certain Air Carriers.

(12) Conduct frequent inspections to ensure construction contractors and tenants comply with the safety plan and that altered construction activities do not create potential safety hazards.

(13) Resolve safety deficiencies immediately.

(14) Ensure construction access complies with the security requirements of 49 CFR part 1542, Airport Security.

(15) Notify appropriate parties when conditions exist that invoke provisions of the safety plan (e.g., implementation of low-visibility operations).

b. Construction contractor's responsibilities—

- (1) Submit plans to the airport operator on how to comply with the safety requirements of the project.
- (2) Have available a copy of the project safety plan.
- (3) Comply with the safety plan associated with the construction project and ensure that construction personnel are familiar with safety procedures and regulations on the airport.
- (4) Provide a point of contact who will coordinate an immediate response to correct any construction-related activity that may adversely affect the operational safety of the airport.
- (5) Provide a safety officer/construction inspector familiar with airport safety to monitor construction activities.
- (6) Restrict movement of construction vehicles to construction areas by flagging and barricading, erecting temporary fencing, or providing escorts, as appropriate.

(7) Ensure that no construction employees, employees of subcontractors or suppliers, or other persons enter any part of the air operations areas (AOAs) from the construction site unless authorized.

c. Tenant's responsibilities if planning construction activities on leased property—

(1) Develop a safety plan, and submit it to the airport operator for approval prior to issuance of a Notice to Proceed.

(2) Provide a point of contact who will coordinate an immediate response to correct any

construction-related activity that may adversely affect the operational safety of the airport.

(3) Ensure that no tenant or construction employees, employees of subcontractors or suppliers, or any other persons enter any part of the AOA from the construction site unless authorized.

(4) Restrict movement of construction vehicles to construction areas by flagging and barricading or erecting temporary fencing.

CHAPTER 2. SAFETY PLANS

Section 1. Basic Safety Plan Considerations

2-1. OVERVIEW.

Airport operators should coordinate safety issues with the air carriers, FAA Airway Facilities, and other airport tenants before the design phase of the project. The airport operator should identify project safety concerns, requirements, and impacts before making arrangements with contractors and other personnel to perform work on an airport. These safety concerns will serve as the foundation for the construction safety plan and help maintain a high level of aviation safety during the project.

The airport operator should determine the level of complexity of the safety plan that is necessary for each construction project and its phases. The safety plan may be detailed in the specifications included in the invitation for bids, or the invitation for bid may specify that the contractor develop the safety plan and the airport operator approve it. In the latter case, the invitation for bid should contain sufficient information to allow the contractor to develop and determine the costs associated with the safety plan. In either case, safety plan costs should be incorporated into the total cost of the project. The airport operator has final approval authority and responsibility for all safety plans.

Coordination will vary from formal predesign conferences to informal contacts throughout the duration of the construction project.

Details of a specified safety plan, or requirements for a contractor-developed safety plan, should be discussed at the predesign and preconstruction conferences and should include the following, as appropriate:

- a. Actions necessary before starting construction, including defining and assigning responsibilities.
- b. Basic responsibilities and procedures for disseminating instructions about airport procedures to the contractor's personnel.
- c. Means of separating construction areas from aeronautical-use areas.
- d. Navigational aid (NAVAID) requirements and weather.
- e. Marking and lighting plan illustrations.
- f. Methods of coordinating significant changes in airport operations with all the appropriate parties.

2-2. SAFETY PLAN CHECKLIST.

To the extent applicable, the safety plan should address the following:

- a. Scope of work to be performed, including proposed duration of work.
- b. Runway and taxiway marking and lighting.
- c. Procedures for protecting all runway and taxiway safety areas, obstacle-free zones (OFZs), object-free areas (OFAs), and threshold citing criteria outlined in AC 150/5300-13, *Airport Design*, and as described in this AC. This includes limitations on equipment height and stockpiled material.
- d. Areas and operations affected by the construction activity, including possible safety problems.
- e. NAVAIDs that could be affected, especially critical area boundaries.
- f. Methods of separating vehicle and pedestrian construction traffic from the airport movement areas. This may include fencing off construction areas to keep equipment operators in restricted areas in which they are authorized to operate. Fencing, or some other form of restrictive barrier, is an operational necessity in some cases.
- g. Procedures and equipment, such as barricades (identify type), to delineate closed construction areas from the airport operational areas, as necessary.
- h. Limitations on construction.
- i. Required compliance of contractor personnel with all airport safety and security measures.
- j. Location of stockpiled construction materials, construction site parking, and access and haul roads.
- k. Radio communications.
- l. Vehicle identification.
- m. Trenches and excavations and cover requirements.

- n. Procedures for notifying ARFF personnel if water lines or fire hydrants must be deactivated or if emergency access routes must be rerouted or blocked.
- o. Emergency notification procedures for medical and police response.
- p. Use of temporary visual aids.
- q. Wildlife management.
- r. Foreign object debris (FOD) control provisions.
- s. Hazardous materials (HAZMAT) management.
- t. NOTAM issuance.
- u. Inspection requirements.
- v. Procedures for locating and protecting existing underground utilities, cables, wires, pipelines, and other underground facilities in excavation areas.
- w. Procedures for contacting responsible representatives/points of contact for all involved parties. This should include off-duty contact information so an immediate response may be coordinated to correct any construction-related activity that could adversely affect the operational safety of the airport. Particular care should be taken to ensure that appropriate Airways Facilities personnel are identified in the event that an unanticipated utility outage or cable cut occurs that impacts FAA NAVAIDS.
- x. Vehicle operator training.
- y. Penalty provisions for noncompliance with airport rules and regulations and the safety plan (e.g., if a vehicle is involved in a runway incursion).
- z. Any special conditions that affect the operation of the airport and will require a portion of the safety plan to be activated (e.g., low-visibility operations, snow removal).

Section 2. Safety and Security Measures

2-3. OVERVIEW.

Airport operators are responsible for closely monitoring tenant and construction contractor activity during the construction project to ensure continual compliance with all safety and security requirements. Airports subject to 49 CFR part 1542, Airport Security, must meet standards for access control, movement of ground vehicles, and identification of construction contractor and tenant personnel. In addition, airport operators should use safety program standards, as described in Chapter 3 of this AC, to develop specific safety measures to which tenants and construction contractors must adhere throughout the duration of construction activities.

General safety provisions are contained in AC 150/5370-10, *Standards for Specifying Construction of Airports*, paragraphs 40-05, "Maintenance of Traffic"; 70-08, "Barricades, Warning Signs, and Hazard Markings"; and 80-04, "Limitation of Operations." At any time during construction, aircraft operations, weather, security, or local airport rules may dictate more stringent safety measures. The airport operator should ensure that both general and specific safety requirements are coordinated with airport tenants and ATCT personnel. The airport operator should also include these parties in the coordination of all bid documents, construction plans, and specifications for on-airport construction projects.

2-4. VEHICLE OPERATION AND MARKING AND PEDESTRIAN CONTROL.

Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals onto the AOA. This includes aircraft movement and nonmovement areas. The airport operator should develop and coordinate a construction vehicle plan with airport tenants, contractors, and the ATCT. The safety plan or invitation for bid should include specific vehicle and pedestrian requirements.

The vehicle plan should contain the following items:

- a. Airport operator's rules and regulations for vehicle marking, lighting, and operation.
- b. Requirements for marking and identifying vehicles in accordance with AC 150/5210-5, *Painting, Marking, and Lighting of Vehicles Used on an Airport*.
- c. Description of proper vehicle operations on movement and nonmovement areas under normal, lost communications, and emergency conditions.
- d. Penalties for noncompliance with driving rules and regulations.
- e. Training requirements for vehicle drivers to ensure compliance with the airport operator's vehicle rules and regulations.
- f. Provisions for radio communication training for construction contractor personnel engaged in construction activities around aircraft movement areas. Some drivers,

such as construction drivers under escort, may not require this training.

g. Escort procedures for construction vehicles requiring access to aircraft movement areas. A vehicle in the movement area must have a working aviation-band, two-way radio unless it is under escort. Vehicles can be in closed areas without a radio if the closed area is properly marked and lighted to prevent incursions and a NOTAM regarding the closure is issued.

h. Monitoring procedures to ensure that vehicle drivers are in compliance with the construction vehicle plan.

i. Procedures for, if appropriate, personnel to control access through gates and fencing or across aircraft movement areas.

2-5. CONSTRUCTION EMPLOYEE PARKING AREAS.

Designate in advance vehicle parking areas for contractor employees to prevent any unauthorized entry of persons or vehicles onto the airport movement area. These areas should provide reasonable contractor employee access to the job site.

2-6. CONSTRUCTION VEHICLE EQUIPMENT PARKING.

Construction employees must park and service all construction vehicles in an area designated by the airport operator outside the runway safety areas and OFZs and never on a closed taxiway or runway. Employees should also park construction vehicles outside the OFA when not in use by construction personnel (e.g., overnight, on weekends, or during other periods when construction is not active). Parking areas must not obstruct the clear line of sight by the ATCT to any taxiways or runways under air traffic control nor obstruct any runway visual aids, signs, or navigational aids. The FAA must also study those areas to determine effects on 14 CFR part 77, *Objects Affecting Navigable Airspace*, surfaces (see paragraph 2-13 for further information).

2-7. RADIO COMMUNICATION TRAINING.

The airport operator must ensure that tenant and construction contractor personnel engaged in activities involving unescorted operation on aircraft movement

areas observe the proper procedures for communications, including using appropriate radio frequencies at airports with and without ATCTs. Training of contractors on proper communication procedures is essential for maintaining airport operational safety. When operating vehicles on or near open runways or taxiways, construction personnel must understand the critical importance of maintaining radio contact with airport operations, ATCT, or the Common Traffic Advisory Frequency, which may include UNICOM, MULTICOM, or one of the FAA Flight Service Stations (FSS), as directed by airport management.

Vehicular traffic crossing active movement areas must be controlled either by two-way radio with the ATCT, escort, flagman, signal light, or other means appropriate for the particular airport. Vehicle drivers must confirm by personal observation that no aircraft is approaching their position when given clearance to cross a runway. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

Even though radio communication is maintained, escort vehicle drivers must also familiarize themselves with ATCT light gun signals in the event of radio failure (see the FAA safety placard "Ground Vehicle Guide to Airport Signs and Markings"). This safety placard may be ordered through the Runway Safety Program Web site at <http://www.faarsp.org> or obtained from the Regional Airports Division Office.

2-8. FENCING AND GATES.

Airport operators and contractors must take care to maintain a high level of safety and security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Temporary gates should be equipped so they can be securely closed and locked to prevent access by animals and people (especially minors). Procedures should be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit "piggybacking" behind another person or vehicle. The Department of Transportation (DOT) document DOT/FAA/AR-00/52, *Recommended Security Guidelines for Airport Planning and Construction*, provides more specific information on fencing. A copy of this document can be obtained from the Airport Consultants Council, Airports Council International, or American Association of Airport Executives.

Section 3. Notification of Construction Activities

2-9. GENERAL.

In order to maintain the desired levels of operational safety on airports during construction activities, the safety

plan should contain the notification actions described below.

2-10. ENSURING PROMPT NOTIFICATIONS.

The airport operator should establish and follow procedures for the immediate notification of airport users and the FAA of any conditions adversely affecting the operational safety of an airport.

2-11. NOTICES TO AIRMEN (NOTAMS).

The airport operator must provide information on closed or hazardous conditions on airport movement areas to the FSS so it can issue a NOTAM. The airport operator must coordinate the issuance, maintenance, and cancellation of NOTAMs about airport conditions resulting from construction activities with tenants and the local air traffic facility (control tower, approach control, or air traffic control center. Refer to AC 150/5200-28, *Notices to Airmen (NOTAMS) for Airport Operators*, and Appendix 4 in this AC for a sample NOTAM form. Only the FAA may issue or cancel NOTAMs on shutdown or irregular operation of FAA-owned facilities. Only the airport operator or an authorized representative may issue or cancel NOTAMs on airport conditions. (The airport owner/operator is the only entity that can close or open a runway.) The airport operator must file and maintain this list of authorized representatives with the FSS. Any person having reason to believe that a NOTAM is missing, incomplete, or inaccurate must notify the airport operator.

2-12. AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) NOTIFICATION.

The safety plan must provide procedures for notifying ARFF personnel, mutual aid providers, and other emergency services if construction requires shutting off or otherwise disrupting any water line or fire hydrant on the airport or adjoining areas and if contractors work with hazardous material on the airfield. Notification procedures must also be developed for notifying ARFF and all other emergency personnel when the work performed will close or affect any emergency routes. Likewise, the procedures must address appropriate notifications when services are restored.

2-13. NOTIFICATION TO THE FAA.

For certain airport projects, 14 CFR part 77 requires notification to the FAA. In addition to applications made for Federally funded construction, 14 CFR part 157, Notice of Construction, Alteration, Activation, and

Deactivation of Airports, requires that the airport operator notify the FAA in writing whenever a non-Federally funded project involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport. Notification involves submitting FAA Form 7480-1, Notice of Landing Area Proposal, to the nearest FAA Regional Airports Division Office or Airports District Office.

Also, any person proposing any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR part 77 must notify the FAA. This includes construction equipment and proposed parking areas for this equipment (i.e., cranes, graders, etc.). FAA Form 7460-1, Notice of Proposed Construction or Alteration, can be used for this purpose and submitted to the FAA Regional Airports Division Office or Airports District Office. (See AC 70/7460-2, *Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace*.)

If construction operations require a shutdown of an airport owned NAVAID from service for more than 24 hours or in excess of 4 hours daily on consecutive days, we recommend a 45-day minimum notice prior to facility shutdown. Coordinate work for a FAA owned NAVAID shutdown with the local FAA Airways Facilities Office. In addition, procedures that address unanticipated utility outages and cable cuts that could impact FAA NAVAIDS must be addressed.

2-14. WORK SCHEDULING AND ACCOMPLISHMENT.

Airport operators—or tenants having construction on their leased properties—should use predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction (see AC 150/5300-9, *Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects*). The airport operator, tenants, and construction contractors should integrate operational safety requirements into their planning and work schedules as early as practical. Operational safety should be a standing agenda item for discussion during progress meetings throughout the project. The contractor and airport operator should carry out onsite inspections throughout the project and immediately remedy any deficiencies, whether caused by negligence, oversight, or project scope change.

CHAPTER 3. SAFETY STANDARDS AND GUIDELINES

Section 1. Runway and Taxiway Safety Areas, Obstacle-Free Zones, and Object-Free Areas

3-1. OVERVIEW.

Airport operators must use these safety guidelines when preparing plans and specifications for construction activities in areas that may interfere with aircraft operations. The safety plan should recognize and address these standards for each airport construction project. However, the safety plan must reflect the specific needs of a particular project, and for this reason, these safety guidelines should not be incorporated verbatim into project specifications. For additional guidance on meeting safety and security requirements, refer to the planning guide template included in Appendix 3 of this AC.

3-2. RUNWAY SAFETY AREA (RSA)/ OBSTACLE-FREE ZONE (OFZ).

A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway (see AC 150/5300-13, *Airport Design*). Construction activities within the standard RSA are subject to the following conditions:

a. Runway edges.

(1) No construction may occur closer than 200 feet (60m) from the runway centerline unless the runway is closed or restricted to aircraft operations, requiring an RSA that is equal to the RSA width available during construction, or 400 feet, whichever is less (see AC 150/5300-13, Tables 3-1 through 3-3).

(2) Personnel, material, and/or equipment must not penetrate the OFZ, as defined in AC 150/5300-13.

(3) The airport operator must coordinate the construction activity in the RSA as permitted above with the ATCT and the FAA Regional Airports Division Office or appropriate Airports District Office and issue a local NOTAM.

b. Runway ends.

(1) An RSA must be maintained of such dimensions that it extends beyond the end of the runway a distance equal to that which existed before construction activity, unless the runway is closed or restricted to aircraft operations for which the reduced RSA is adequate (see AC 150/5300-13). The temporary use of declared distances and/or partial runway closures may help provide the necessary RSA.

In addition, all personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces, as defined in Appendix 2, "Threshold Siting Requirements," of AC 150/5300-13.¹ Consult with the appropriate FAA Regional Airports Division Office or Airports District Office to determine the appropriate approach surface required.

(2) Personnel, material, and/or equipment must not penetrate the OFZ, as defined in AC 150/5300-13.

(3) The safety plan must provide procedures for ensuring adequate distance for blast protection, if required by operational considerations.

(4) The airport operator must coordinate construction activity in this portion of the RSA with the ATCT and the FAA Regional Airports Division Office or appropriate Airports District Office and issue a local NOTAM.

c. Excavations.

(1) Construction contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

(2) Open trenches or excavations are not permitted within 200 feet (60m) of the runway centerline and at least the existing RSA distance from the runway threshold while the runway is open. If the runway must be opened before excavations are backfilled, cover the excavations appropriately. Coverings for open trenches or excavations must be of sufficient strength to support the weight of the heaviest aircraft operating on the runway.

3-3. TAXIWAY SAFETY AREAS/OBJECT-FREE AREAS.

a. Unrestricted construction activity is permissible adjacent to taxiways when the taxiway is restricted to aircraft such that the available taxiway safety area is equal

¹If a full safety area cannot be obtained through declared distances and partial closures, or other methods such as alternate runway use, construction activity may operate in the RSA as long as conditions cited in paragraph 3-1b(2) thru (4) are met. In addition, various surfaces outlined in AC 150/5300-13 and Terminal Instrument Procedures (TERPS) must be protected through an aeronautical study.

to at least ½ of the widest wingspan of the aircraft expected to use the taxiway and the available taxiway object-free area is equal to at least .7 times the widest wingspan plus 10 feet. (See AC 150/5300-13 for guidance on taxiway safety and object-free areas.)

Construction activity may be accomplished closer to a taxiway, subject to the following restrictions:

- (1) The activity is first coordinated with the airport operator.
- (2) Appropriate NOTAMs are issued.
- (3) Marking and lighting meeting the provisions of paragraph 3-9 are implemented.
- (4) Adequate clearance is maintained between equipment and materials and any part of an aircraft. If such clearance can only be maintained if an aircraft does not have full use of the entire taxiway width (with its

main landing gear at the edge of the pavement), then it will be necessary to move personnel and equipment for each passing aircraft. In these situations, flag persons will be used to direct construction equipment, and wing walkers may be necessary to guide aircraft. Wing walkers should be airline/aviation personnel rather than construction workers.

b. Construction contractors must prominently mark open trenches and excavations at the construction site, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness

c. Excavations and open trenches may be permitted up to the edge of a structural taxiway and apron pavement provided the dropoff is marked and lighted per paragraph 3-9, "Hazard Marking and Lighting."

Section 2. Temporary Runway Thresholds

3-4. OVERVIEW.

Construction activity in a runway approach area may result in the need to partially close a runway or displace the existing runway threshold. In either case, locate the threshold in accordance with Appendix 2 of AC 150/5300-13, *Airport Design*. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate these objects with the FAA's Regional Airports Office or appropriate Airports District Office, as necessary. Refer to the current edition of AC 150/5300-13 for guidance on threshold siting requirements. The partial runway closure, the displacement of the runway threshold, as well as closures of the complete runway and other portions of the movement area also requires coordination with appropriate ATCT personnel and airport users.

Caution regarding partial runway closures: When filing a NOTAM for a partial runway closure, clearly state to FSS personnel that the portion of pavement located prior to the threshold is not available for landing and departing traffic. In this case, the threshold has been moved for both landing and takeoff purposes (this is different than a displaced threshold).

Example NOTAM: "North 1,000 feet of Runway 18/36 is closed; 7,000 feet remain available on Runway 18 and Runway 36 for arrivals and departures." There may be situations where the portion of closed runway is available for taxiing only. If so, the NOTAM must reflect this condition.

Caution regarding displaced thresholds: Implementation of a displaced threshold affects runway length available for aircraft landing over the displacement. Depending on the reason for the displacement (to provide obstruction clearance or RSA),

such a displacement may also require an adjustment in the landing distance available and accelerate-stop distance available in the opposite direction. If project scope includes personnel, equipment, excavation, etc. within the RSA of any usable runway end, we do not recommend a displaced threshold unless arrivals and departures toward the construction activity are prohibited. Instead, implement a partial closure.

3-5. MARKING GUIDELINES FOR TEMPORARY THRESHOLD.

Ensure that markings for temporary displaced thresholds are clearly visible to pilots approaching the airport to land. When construction personnel and equipment are located close to any threshold, a temporary visual NAVAID, such as runway end identifier lights (REIL), may be required (even on unlighted runways) to define the new beginning of the runway clearly. A visual vertical guidance device, such as a visual approach slope indicator (VASI), pulse light approach slope indicator (PLASI), or precision approach path indicator (PAPI), may be necessary to assure landing clearance over personnel, vehicles, equipment, and/or above-grade stockpiled materials. If such devices are installed, ensure an appropriate descriptive NOTAM is issued to inform pilots of these conditions. The current edition of AC 150/5340-1, *Standards for Airport Markings*, describes standard marking colors and layouts. In addition, we recommend that a temporary runway threshold be marked using the following guidelines:

a. Airport markings must be clearly visible to pilots; not misleading, confusing, or deceptive; secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents; and constructed of

materials that would minimize damage to an aircraft in the event of inadvertent contact.

(1) Pavement markings for temporary closed portions of the runway should consist of yellow chevrons to identify pavement areas that are unsuitable for takeoff/landing (see AC 150/5340-1). If unable to paint the markings on the pavement, construct them from any of the following materials: double-layered painted snow fence, colored plastic, painted sheets of plywood, or similar materials. They must be properly configured and secured to prevent movement by prop wash, jet blast, or other wind currents.

(2) It may be necessary to remove or cover runway markings, such as runway designation markings and aiming point markings, depending on the length of construction and type of activity at the airport.

(3) When threshold markings are needed to identify the temporary beginning of the runway that is available for landing, use a white threshold bar of the dimensions specified in AC 150/5340-1.

(4) If temporary outboard elevated or flush threshold bars are used, locate them outside of the runway pavement surface, one on each side of the runway. They should be at least 10 feet (3m) in width and extend outboard from each side of the runway so they are clearly visible to landing and departing aircraft. These threshold bars are white. If the white threshold bars are not discernable on grass or snow, apply a black background with appropriate material over the ground to ensure the markings are clearly visible.

(5) A temporary threshold may also be marked with the use of retroreflective, elevated markers. One side of such markers is green to denote the approach end of the runway; the side that is seen by pilots on rollout is red. See AC 150/5345-39, *FAA Specification L-853, Runway and Taxiway Retroreflective Markers*.

(6) At 14 CFR part 139 certificated airports, temporary elevated threshold markers must be mounted with a frangible fitting (see 14 CFR part 139.309). However, at noncertificated airports, the temporary elevated threshold markings may either be mounted with a frangible fitting or be flexible. See AC 150/5345-39.

b. The application rate of the paint to mark a short-term temporary runway threshold may deviate from the standard (see Item P-620, "Runway and Taxiway Painting," in AC 150/5370-10, *Standards for Specifying Construction of Airports*), but the dimensions must meet the existing standards, unless coordinated with the appropriate offices.

c. When a runway is partially closed, the distance remaining signs for aircraft landing in the opposite direction should be covered or removed during the construction.

3-6. LIGHTING GUIDELINES FOR TEMPORARY THRESHOLD.

A temporary runway threshold must be lighted if the runway is lighted and it is the intended threshold for night landings or instrument meteorological conditions. We recommend that temporary threshold lights and related visual NAVAIDs be installed outboard of the edges of the full-strength pavement with bases at grade level or as low as possible, but not to exceed 3 inches (7.6cm) above ground. When any portion of a base is above grade, place properly compacted fill around the base to minimize the rate of gradient change so aircraft can, in an emergency, cross at normal landing or takeoff speeds without incurring significant damage (see AC 150/5370-10). We recommend that the following be observed when using temporary runway threshold lighting:

a. Maintain threshold and edge lighting color and spacing standards as described in AC 150/5340-24, *Runway and Taxiway Edge Lighting System*.

Battery-powered, solar, or portable lights that meet the criteria in AC 150/5345-50, *Specification for Portable Runway Lights*, may be used. These systems are intended primarily for visual flight rules (VFR) aircraft operation but may be used for instrument flight rules (IFR) aircraft operations, upon individual approval from the Flight Standards Division of the applicable FAA Regional Office.

b. When the runway has been partially closed, disconnect edge and threshold lights with associated isolation transformers on that part of the runway at and behind the threshold (i.e., the portion of the runway that is closed). Alternately, cover the light fixture in such a way as to prevent light leakage. Avoid removing the lamp from energized fixtures because an excessive number of isolation transformers with open secondaries may damage the regulators and/or increase the current above its normal value.

c. Secure, identify, and place any temporary exposed wiring in conduit to prevent electrocution and fire ignition sources.

d. Reconfigure yellow lenses (caution zone), as necessary. If the runway has centerline lights, reconfigure the red lenses, as necessary, or place the centerline lights out of service.

e. Relocate the visual glide slope indicator (VGSI), such as VASI and PAPI; other airport lights, such as REIL; and approach lights to identify the temporary threshold. Another option is to disable the VGSI or any equipment that would give misleading indications to pilots as to the new threshold location. Installation of temporary visual aids may be necessary to provide adequate guidance to pilots on approach to the affected runway. If the FAA owns and operates the VGSI,

coordinate its installation or disabling with the local Airway Facilities Systems Management Office.

f. Issue a NOTAM to inform pilots of temporary lighting conditions.

Section 3. Other Construction Marking and Lighting Activities

3-7. OVERVIEW.

Ensure that construction areas, including closed runways, are clearly and visibly separated from movement areas and that hazards, facilities, cables, and power lines are identified prominently for construction contractors. Throughout the duration of the construction project, verify that these areas remain clearly marked and visible at all times and that marking and lighting aids remain in place and operational. Routine inspections must be made of temporary construction lighting, especially battery-powered lighting since weather conditions can limit battery life.

3-8. CLOSED RUNWAY AND TAXIWAY MARKING AND LIGHTING.

Closed runway markings consist of a yellow "X" in compliance with the standards of AC 150/5340-1, *Standards for Airport Markings*. A very effective and preferable visual aid to depict temporary closure is the lighted "X" signal placed on or near the runway designation numbers. This device is much more discernible to approaching aircraft than the other materials described. If the lighted "X" is not available, construct the marking of any of the following materials: double-layered painted snow fence, colored plastic, painted sheets of plywood, or similar materials. They must be properly configured and secured to prevent movement by prop wash, jet blast, or other wind currents. In addition, the airport operator may install barricades, traffic cones, activate stop bars, or other acceptable visual devices at major entrances to the runways to prevent aircraft from entering a closed portion of runway. The placement of even a single reflective barricade with a "do not enter" sign on a taxiway centerline can prevent an aircraft from continuing onto a closed runway. If the taxiway must remain open for aircraft crossings, barricades or markings, as described above or in paragraph 3-9, should be placed on the runway.

a. Permanently closed runways.

For runways and taxiways that have been permanently closed, disconnect the lighting circuits. For runways, obliterate the threshold marking, runway designation marking, and touchdown zone markings, and place "X's" at each end and at 1,000-foot (300-m) intervals. For taxiways, place an "X" at the entrance of the closed taxiway.

b. Temporarily closed runway and taxiways.

For runways that have been temporarily closed, place an "X" at the each end of the runway. With taxiways, place an "X" at the entrance of the closed taxiway.

c. Temporarily closed airport.

When the airport is closed temporarily, mark the runways as closed and turn off the airport beacon.

d. Permanently closed airports

When the airport is closed permanently, mark the runways as permanently closed, disconnect the airport beacon, and place an "X" in the segmented circle or at a central location if no segmented circle exists.

3-9. HAZARD MARKING AND LIGHTING.

Provide prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles. Using appropriate hazard marking and lighting may prevent damage, injury, traffic delays, and/or facility closures. Hazard marking and lighting must restrict access and make specific hazards obvious to pilots, vehicle drivers, and other personnel. Barricades, traffic cones (weighted or sturdily attached to the surface), or flashers are acceptable methods used to identify and define the limits of construction and hazardous areas on airports.

Provide temporary hazard marking and lighting to prevent aircraft from taxiing onto a closed runway for takeoff and to identify open manholes, small areas under repair, stockpiled material, and waste areas. Also consider less obvious construction-related hazards and include markings to identify FAA, airport, and National Weather Service facilities cables and power lines; instrument landing system (ILS) critical areas; airport surfaces, such as RSA, OFA, and OFZ; and other sensitive areas to make it easier for contractor personnel to avoid these areas.

The construction specifications must include a provision requiring the contractor to have a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The contractor must file the contact person's information with the airport.

a. Nonmovement areas.

Indicate construction locations on nonmovement areas in which no part of an aircraft may enter by using barricades that are marked with diagonal, alternating orange and white stripes. Barricades may be supplemented with alternating

orange and white flags at least 20 by 20 inches (50 by 50 cm) square and made and installed so they are always in an extended position, properly oriented, and securely fastened to eliminate jet engine ingestion. Such barricades may be many different shapes and made from various materials, including railroad ties, sawhorses, jersey barriers, or barrels. During reduced visibility or night hours, supplement the barricades with red lights, either flashing or steady-burning, which should meet the luminance requirements of the State Highway Department (yellow lights are not acceptable after October 1, 2004). The intensity of the lights and spacing for barricade flags and lights must adequately and without ambiguity delineate the hazardous area.

b. Movement areas.

Use orange traffic cones; red lights, either flashing or steady-burning, which should meet the luminance requirements of the State Highway Department (yellow lights are not acceptable after October 1, 2004); collapsible barricades marked with diagonal, alternating orange and white stripes; and/or signs to separate all construction/maintenance areas from the movement area. All barricades, temporary markers, and other objects placed and left in safety areas associated with any open runway, taxiway, or taxiway must be as low as possible to the ground; of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. If affixed to the surface, they must be frangible at grade level or as low as possible, but not to exceed 3 inches (7.6cm) above the ground. Do not use nonfrangible hazard markings, such as concrete barriers and/or metal-drum-type barricades, in aircraft movement areas. Do not use railroad ties on runways.

Use highly reflective barriers with flashing or steady-burning red lights to barricade taxiways leading to closed runways. Evaluate all operating factors when determining how to mark temporary closures that can last from 10 to 15 minutes to a much longer period of time. However, we strongly recommend that, even for closures of relatively short duration, major taxiway/runway intersections be identified with barricades spaced no greater than 20 feet (6m) apart. Mark the barricades with a flashing or steady-burning red light. At a minimum, use a single barricade placed on the taxiway centerline.

3-10. CONSTRUCTION NEAR NAVIGATIONAL AIDS (NAVAIDS).

Construction activities, materials/equipment storage, and vehicle parking near electronic NAVAIDS require special consideration since they may interfere with signals essential to air navigation. Evaluate the effect of construction activity and the required distance and direction from the NAVAID for each construction project. Pay particular attention to stockpiling material, as well as

to movement and parking of equipment that may interfere with line of sight from the ATCT or with electronic emissions. Interference from construction may require NAVAID shutdown or adjustment of instrument approach minimums for IFR. This condition requires that a NOTAM be filed. Construction activities and materials/equipment storage near a NAVAID may also obstruct access to the equipment and instruments for maintenance. Before commencing construction activity, parking vehicles, or storing construction equipment and materials near a NAVAID, consult with the nearest FAA Airway Facilities Office.

3-11. CONSTRUCTION SITE ACCESS AND HAUL ROADS.

Determine the construction contractor's access to the construction sites and haul roads. Do not permit the construction contractor to use any access or haul roads other than those approved. Construction contractors must submit specific proposed routes associated with construction activities to the airport operator for evaluation and approval as part of the safety plan before beginning construction activities. These proposed routes must also provide specifications to prevent inadvertent entry to movement areas. Pay special attention to ensure that ARFF right of way on access and haul roads is not impeded at any time and that construction traffic on haul roads does not interfere with NAVAIDS or approach surfaces of operational runways.

3-12. CONSTRUCTION MATERIAL STOCKPILING.

Stockpiled materials and equipment storage are not permitted within the RSA and OFZ of an operational runway. The airport operator must ensure that stockpiled materials and equipment adjacent to these areas are prominently marked and lighted during hours of restricted visibility or darkness. This includes determining and verifying that materials are stored at an approved location to prevent foreign object damage and attraction of wildlife.

3-13. OTHER LIMITATIONS ON CONSTRUCTION.

Contractors may not use open-flame welding or torches unless adequate fire safety precautions are provided and the airport operator has approved their use. Under no circumstances should flare pots be used within the AOA at any time. The use of electrical blasting caps must not be permitted on or within 1,000 feet (300m) of the airport property (see AC 150/5370-10, *Standards for Specifying Construction of Airports*).

3-14. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT.

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Construction contractors must

not leave or place FOD on or near active aircraft movement areas. Materials tracked onto these areas must be continuously removed during the construction project. We also recommend that airport operators and construction contractors carefully control and continuously remove waste or loose materials that might attract wildlife.

Section 4. Safety Hazards and Impacts

3-15. OVERVIEW.

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. Airport operators and contractors should consider the following when performing inspections of construction activity:

- a. Excavation adjacent to runways, taxiways, and aprons.
- b. Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxilane; in the related object-free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.
- c. Runway resurfacing projects resulting in lips exceeding 3 inches (7.6cm) from pavement edges and ends.
- d. Heavy equipment (stationary or mobile) operating or idle near AOA's, in runway approaches and departures areas, or in OFZ's.
- e. Equipment or material near NAVAID's that may degrade or impair radiated signals and/or the monitoring of navigational and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.
- f. Tall and especially relatively low-visibility units (i.e., equipment with slim profiles)—cranes, drills, and similar objects—located in critical areas, such as OFZ's and approach zones.
- g. Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxilane or in a related safety, approach, or departure area.
- h. Obstacles, loose pavement, trash, and other debris on or near AOA's. Construction debris (gravel,

sand, mud, paving materials, etc.) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.

- i. Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA's create aviation hazards.
- j. Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA's create aviation hazards.
- k. Wildlife attractants—such as trash (food scraps not collected from construction personnel activity), grass seeds, or ponded water—on or near airports.
- l. Obliterated or faded markings on active operational areas.
- m. Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.
- n. Failure to issue, update, or cancel NOTAM's about airport or runway closures or other construction-related airport conditions.
- o. Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway/taxiway lighting; loss of navigational, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.
- p. Restrictions on ARFF access from fire stations to the runway-taxiway system or airport buildings.
- q. Lack of radio communications with construction vehicles in airport movement areas.
- r. Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport

that could be distracting, confusing, or alarming to pilots during aircraft operations.

s. Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.

t. Spillage from vehicles (gasoline, diesel fuel, oil, etc.) on active pavement areas, such as runways, taxiways, ramps, and airport roadways.

u. Failure to maintain drainage system integrity during construction (e.g., no temporary drainage provided when working on a drainage system).

v. Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.

w. Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.

x. Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.

y. Site burning, which can cause possible obscuration.

z. Construction work taking place outside of designated work areas and out of phase.



APPENDIX 1. RELATED READING MATERIAL

1. Obtain the latest version of the following free publications from the FAA on its Web site at <http://www.faa.gov/arp/>. In addition, these ACs are available by contacting the U.S. Department of Transportation, Subsequent Distribution Office, SVC-121.23, Ardmore East Business Center, 3341 Q 75th Avenue, Landover, MD 20785.

a. AC 150/5200-28, *Notices to Airmen (NOTAM) for Airport Operators*. Provides guidance for the use of the NOTAM System in airport reporting.

b. AC 150/5200-30, *Airport Winter Safety and Operations*. Provides guidance to airport owners/operators on the development of an acceptable airport snow and ice control program and on appropriate field condition reporting procedures.

c. AC 150/5200-33, *Hazardous Wildlife Attractants On or Near Airports*. Provides guidance on locating certain land uses having the potential to attract hazardous wildlife to public-use airports.

d. AC 150/5210-5, *Painting, Marking, and Lighting of Vehicles Used on an Airport*. Provides guidance, specifications, and standards for painting, marking, and lighting vehicles operating in the airport air operations areas.

e. AC 150/5220-4, *Water Supply Systems for Aircraft Fire and Rescue Protection*. Provides guidance for the selection of a water source and standards for the design of a distribution system to support aircraft rescue and fire fighting service operations on airports.

f. AC 150/5340-1, *Standards for Airport Markings*. Contains FAA standards for markings used on airport runways, taxiways, and aprons.

g. AC 150/5340-14B, *Economy Approach Lighting Aids*. Describes standards for the design, selection, siting, and maintenance of economy approach lighting aids.

h. AC 150/5340-18, *Standards for Airport Sign Systems*. Contains FAA standards for the siting and installation of signs on airport runways and taxiways.

i. AC 150/5345-28, *Precision Approach Path Indicator (PAPI) Systems*. Contains the FAA standards for PAPI systems, which provide pilots with visual glide slope guidance during approach for landing.

j. AC 150/5380-5, *Debris Hazards at Civil Airports*. Discusses problems at airports, gives information on foreign objects, and explains how to eliminate such objects from operational areas.

k. AC 70/7460-2, *Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace*. Provides information to persons proposing to erect or alter an object that may affect navigable airspace and explains the need to notify the FAA before construction begins and the FAA's response to those notices, as required by 14 CFR part 77.

2. Obtain copies of the following publications from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Send a check or money order made payable to the Superintendent of Documents in the amount stated with your request. The Government Printing Office does not accept C.O.D. orders. In addition, the FAA makes these ACs available at no charge on the Web site at <http://www.faa.gov/arp/>.

a. AC 150/5300-13, *Airport Design*. Contains FAA standards and recommendations for airport design, establishes approach visibility minimums as an airport design parameter, and contains the object-free area and the obstacle free-zone criteria. (\$26. Supt. Docs.) SN050-007-01208-0.

b. AC 150/5370-10, *Standards for Specifying Construction of Airports*. Provides standards for construction of airports. Items covered include earthwork, drainage, paving, turfing, lighting, and incidental construction. (\$18. Supt. Docs.) SN050-007-0821-0.

APPENDIX 2. DEFINITIONS OF TERMS USED IN THE AC

- 1. AIR OPERATIONS AREA (AOA).** Any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runways, taxiways, or aprons.
- 2. CONSTRUCTION.** The presence and movement of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.
- 3. CERTIFICATED AIRPORT.** An airport that has been issued an Airport Operating Certificate by the FAA under the authority of 14 CFR part 139, Certification and Operation: Land Airports Serving Certain Air Carriers, or its subsequent revisions.
- 4. FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION.** The form submitted to the FAA Regional Air Traffic or Airports Division Office as formal written notification of any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR part 77, Objects Affecting Navigable Airspace (see AC 70/7460-2, *Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace*, found at <http://www.faa.gov/arp/>).
- 5. FAA FORM 7480-1, NOTICE OF LANDING AREA PROPOSAL.** Form submitted to the FAA Airports Regional Division Office or Airports District Office as formal written notification whenever a project without an airport layout plan on file with the FAA involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport (found at <http://www.faa.gov/arp/>).
- 6. MOVEMENT AREA.** The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and aircraft parking areas (reference 14 CFR part 139).
- 7. OBSTRUCTION.** Any object/obstacle exceeding the obstruction standards specified by 14 CFR part 77, subpart C.
- 8. OBJECT-FREE AREA (OFA).** An area on the ground centered on the runway, taxiway, or taxilane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes (see AC 150/5300-13, *Airport Design*, for additional guidance on OFA standards and wingtip clearance criteria).
- 9. OBSTACLE-FREE ZONE (OFZ).** The airspace below 150 feet (45m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway and for missed approaches (refer to AC 150/5300-13 for guidance on OFZs).
- 10. RUNWAY SAFETY AREA (RSA).** A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with AC 150/5300-13.
- 11. TAXIWAY SAFETY AREA.** A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway, in accordance with AC 150/5300-13.
- 12. THRESHOLD.** The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
- 13. DISPLACED THRESHOLD.** The portion of pavement behind a displaced threshold that may be available for takeoffs in either direction or landing from the opposite direction.
- 14. VISUAL GLIDE SLOPE INDICATOR (VGSI).** This device provides a visual glide slope indicator to landing pilots. These systems include precision approach path indicators (PAPIs), visual approach slope indicators (VASIs), and pulse light approach slope indicators (PLASIs).

APPENDIX 3. AIRPORT CONSTRUCTION SAFETY PLANNING GUIDE

Aviation Safety Requirements During Construction

PURPOSE. *This appendix provides airport operators with boilerplate format and language for developing a safety plan for an airport construction project. Adapt this appendix, as applicable, to specific conditions found on the airport for which the plan is being developed. Consider including a copy of this safety plan in the construction drawings for easy access by contractor personnel. Plans should contain the following:*

1. GENERAL SAFETY REQUIREMENTS.

Throughout the construction project, the following safety and operational practices should be observed:

- Operational safety should be a standing agenda item during progress meetings throughout the construction project.
- The contractor and airport operator must perform onsite inspections throughout the project, with immediate remedy of any deficiencies, whether caused by negligence, oversight, or project scope change.
- Airport runways and taxiways should remain in use by aircraft to the maximum extent possible.
- Aircraft use of areas near the contractor's work should be controlled to minimize disturbance to the contractor's operation.
- Contractor, subcontractor, and supplier employees or any unauthorized persons must be restricted from entering an airport area that would be hazardous.
- Construction that is within the safety area of an active runway, taxiway, or apron that is performed under normal operational conditions must be performed when the runway, taxiway, or apron is closed or use-restricted and initiated only with prior permission from the airport operator.
- The contracting officer, airport operator, or other designated airport representative may order the contractor to suspend operations; move personnel, equipment, and materials to a safe location; and stand by until aircraft use is completed.

2. CONSTRUCTION MAINTENANCE AND FACILITIES MAINTENANCE.

Before beginning any construction activity, the contractor must, through the airport operator, give notice [using the

Notice to Airmen (NOTAM) System] of proposed location, time, and date of commencement of construction. Upon completion of work and return of all such areas to standard conditions, the contractor must, through the airport operator, verify the cancellation of all notices issued via the NOTAM System. Throughout the duration of the construction project, the contractor must—

- a. Be aware of and understand the safety problems and hazards described in AC 150/5370-2, *Operational Safety on Airports During Construction*.
- b. Conduct activities so as not to violate any safety standards contained in AC 150/5370-2 or any of the references therein.
- c. Inspect all construction and storage areas as often as necessary to be aware of conditions.
- d. Promptly take all actions necessary to prevent or remedy any unsafe or potentially unsafe conditions as soon as they are discovered.

3. APPROACH CLEARANCE TO RUNWAYS.

Runway thresholds must provide an unobstructed approach surface over equipment and materials. (Refer to Appendix 2 in AC 150/5300-13, *Airport Design*, for guidance in this area.)

4. RUNWAY AND TAXIWAY SAFETY AREA (RSA AND TSA).

Limit construction to outside of the approved RSA, as shown on the approved airport layout plan—unless the runway is closed or restricted to aircraft operations, requiring a lesser standard RSA that is equal to the RSA available during construction (see AC 150/5370-2 for exceptions). Construction activity within the TSA is permissible when the taxiway is open to aircraft traffic if adequate wingtip clearance exists between the aircraft and equipment/material; excavations, trenches, or other conditions are conspicuously marked and lighted; and local NOTAMs are in effect for the activity (see AC 150/5300-13 for wingtip clearance requirements). The NOTAM should state that, "personnel and equipment are working adjacent to Taxiway ____."

a. Procedures for protecting runway edges.

- Limit construction to no closer than 200 feet (60m) from the runway centerline—unless the runway is closed or restricted to aircraft operations, requiring a lesser standard RSA

- that is equal to the RSA available during construction.
- Prevent personnel, material, and/or equipment, as defined in AC 150/5300-13, Paragraph 306, "Obstacle Free Zone (OFZ)," from penetrating the OFZ.
- Coordinate construction activity with the Airport Traffic Control Tower (ATCT) and FAA Regional Airports Division Office or Airports District Office, and through the airport operator, issue an appropriate NOTAM.

Complete the following chart to determine the area that must be protected along the runway edges:

Runway	Aircraft Approach Category*	Airplane Design Group*	RSA Width in Feet Divided by 2*
	A, B, C, or D	I, II, III, or IV	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

*See AC 150/5300-13, *Airport Design*, to complete the chart for a specific runway.

b. Procedures for protecting runway ends.

- Maintain the RSA from the runway threshold to a point at least the distance from the runway threshold as existed before construction activity—unless the runway is closed or restricted to aircraft operations, requiring an RSA that is equal to the RSA length available during construction in accordance with AC 150/5300-13. This may involve the use of declared distances and partial runway closures (see AC 150/5370-2 for exceptions).
- Ensure all personnel, materials, and/or equipment are clear of the applicable threshold siting criteria surface, as defined in Appendix 2, "Threshold Siting Requirements," of AC 150/5300-13.
- Prevent personnel, material, and/or equipment, as defined in AC 150/5300-13, from penetrating the obstacle-free zone.
- Ensure adequate distance for blast protection is provided, as needed.
- Coordinate construction activity with the ATCT and FAA Regional Airports Division Office or Airports District Office, and through the airport operator, issue an appropriate NOTAM.
- Provide a drawing showing the profile of the appropriate surfaces of each runway end where construction will take place. Where operations by turbojet aircraft are anticipated, review takeoff procedures and jet blast characteristics of aircraft and incorporate safety measures for construction workers in the contract documents.

Complete the following chart to determine the area that must be protected before the runway threshold:

Runway End Number	Airplane Design Group* I, II, III, or IV	Aircraft Approach Category* A, B, C, or D	Minimum Safety Area Prior to the Threshold*	Minimum Unobstructed Approach Slope
_____	_____	_____	_____ : FEET	_____ : 1 to (threshold)
_____	_____	_____	_____ : FEET	_____ : 1 to (threshold)
_____	_____	_____	_____ : FEET	_____ : 1 to (threshold)
_____	_____	_____	_____ : FEET	_____ : 1 to (threshold)

*See AC 150/5300-13, *Airport Design*, to complete the chart for a specific runway.

5. MARKING AND LIGHTING FOR TEMPORARY THRESHOLDS.

Marking and lighting for a temporary threshold is ___/is not ___ required. The airport owner or contractor, as specified in the contract, will furnish and maintain markings for temporary thresholds. Precision approach path indicators (PAPIs) or runway end identification lights (REIL) are ___/are not ___ required. The airport owner or contractor, as specified in the contract, will furnish and install all temporary lighting. Include appropriate items per AC 150/5370-2, Chapter 3, "Safety Standards and Guidelines." *If marking and lighting for the temporary threshold is not required, delete this section of the safety plan. If visual aids and/or markings are necessary, provide details. (Include applicable 14 CFR part 77 surfaces in the contract documents.)*

6. CLOSED RUNWAY MARKINGS AND LIGHTING.

The following must be specified for closed runways. Closed runway marking are ___/are not ___ required. Closed runway markings will be as shown on the plans ___/as furnished by the airport owner ___/other ___ (specify). Barricades, flagging, and flashers are ___/are not ___ required at Taxiway ___ and Runway ___ and will be supplied by the airport ___/other ___ (specify).

7. HAZARDOUS AREA MARKING AND LIGHTING.

Hazardous areas on the movement area will be marked with barricades, traffic cones, flags, or flashers (specify). These markings restrict access and make hazards obvious to aircraft, personnel, and vehicles. During periods of low visibility and at night, identify hazardous areas with red flashing or steady-burning lights (specify). The hazardous area marking and lighting will be supplied by

the airport operator/contractor, as specified in the contract, and will be depicted on the plans.

8. TEMPORARY LIGHTING AND MARKING.

Airport markings, lighting, and/or signs will be altered in the following manner (specify) during the period from ___ to ___. The alterations are depicted on the plans.

9. VEHICLE OPERATION MARKING AND CONTROL.

Include the following provisions in the construction contract, and address them in the safety plans:

a. When any vehicle, other than one that has prior approval from the airport operator, must travel over any portion of an aircraft movement area, it will be escorted and properly identified. To operate in those areas during daylight hours, the vehicle must have a flag or beacon attached to it. Any vehicle operating on the movement areas during hours of darkness or reduced visibility must be equipped with a flashing dome-type light, the color of which is in accordance with local or state codes.

b. It may be desirable to clearly identify the vehicles for control purposes by either assigned initials or numbers that are prominently displayed on each side of the vehicle. The identification symbols should be at minimum 8-inch (20-cm) block-type characters of a contrasting color and easy to read. They may be applied either by using tape or a water-soluble paint to facilitate removal. Magnetic signs are also acceptable. In addition, vehicles must display identification media, as specified in the approved security plan. *(This section should be revised to conform to the airport operator's requirements.)*

c. Employee parking shall be _____ (specify location), as designated by the airport manager _____ / project engineer _____ / other _____ (specify).

d. Access to the job site shall be via _____ (specify route), as shown on the plans _____ / designated by the engineer _____ / designated by the superintendent _____ / designated by the airport manager _____ / other _____ (specify).

e. At 14 CFR part 139 certificated and towered airports, all vehicle operators having access to the movement area must be familiar with airport procedures for the operation of ground vehicles and the consequences of noncompliance.

f. If the airport is certificated and/or has a security plan, the airport operator should check for guidance on the additional identification and control of construction equipment.

10. NAVIGATIONAL AIDS.

The contractor must not conduct any construction activity within navigational aid restricted areas without prior approval from the local FAA Airway Facilities sector representative. Navigational aids include instrument landing system components and very high-frequency omnidirectional range, airport surveillance radar. Such restricted areas are depicted on construction plans.

11. LIMITATIONS ON CONSTRUCTION.

Additional limitations on construction include—

a. Prohibiting open-flame welding or torch cutting operations unless adequate fire safety precautions are provided and these operations have been authorized by the airport operator (*as tailored to conform to local requirements and restrictions*).

b. Prominently marking open trenches, excavations, and stockpiled materials at the construction and lighting these obstacles during hours of restricted visibility and darkness.

c. Marking and lighting closed, deceptive, and hazardous areas on airports, as appropriate.

d. Constraining stockpiled material to prevent its movement as a result of the maximum anticipated aircraft blast and forecast wind conditions.

12. RADIO COMMUNICATIONS.

Vehicular traffic located in or crossing an active movement area must have a working two-way radio in contact with the control tower or be escorted by a person in radio contact with the tower. The driver, through personal observation, should confirm that no aircraft is approaching the vehicle position. Construction personnel may operate in a movement area without two-way radio communication provided a NOTAM is issued closing the area and the area is properly marked to prevent incursions. Two-way radio communications are _____ / are not _____ required between contractors and the Airport Traffic Control Tower _____ / FAA Flight Service Station _____ / Airport Aeronautical Advisory Stations (UNICOM/CTAF) _____. Radio contact is _____ / is not _____ required between the hours of _____ and _____. Continuous monitoring is required _____ / or is required only when equipment movement is necessary in certain areas _____. (*This section may be tailored to suit the specific vehicle and safety requirements of the airport sponsor.*)

13. DEBRIS.

Waste and loose material must not be placed in active movement areas. Materials tracked onto these areas must be removed continuously during the work project.

APPENDIX 4. SAMPLE NOTAM

_____ AIRPORT

FAA NOTAM # _____ DATE: _____
AIRPORT I.D. # _____ TIME: _____

NOTAM TEXT:

NOTIFICATION:

TOWER _____
PHONE # INITIALS TIME CALLED IN BY

FSS _____
PHONE # INITIALS TIME CALLED IN BY

AIRLINES

CANCELLED:

NOTIFICATION:

TOWER _____
PHONE # INITIALS TIME CALLED IN BY

FSS _____
PHONE # INITIALS TIME CALLED IN BY

AIRLINES

**Tariff for Retail Delivery Service
TXU Electric Delivery Company**

6.3 Agreements and Forms
Applicable: Entire Certified Service Area
Effective Date: January 1, 2002

Page 2 of 23
Revision: Original

6.3.1 Facilities Extension Agreement

Project Number	
WR Number	1992629 and 2041434
Region/District	Farmers Branch

This Agreement is made between Town of Addison, hereinafter called "Customer" and TXU Electric Delivery Company, a Texas corporation, hereinafter called "Company" for the extension of Company Delivery System facilities, as hereinafter described, to the following location: crossing Arapaho Road underground at seven locations between Surveyor and Midway Roads from pole line on south side of railroad tracks; underground approximately 400 feet in duct bank on east side of Midway where Arapaho Road bridge crosses Midway Road and crossing Midway north and south of the railroad tracks; and from pole line on east side of Addison Road across Addison Road approximately 100 feet west of intersection with Arapaho Road to relocated pole in Arapaho Road right of way.

The Company has received a request for the extension of: (check all that apply)

STANDARD DELIVERY SYSTEM FACILITIES TO NON-RESIDENTIAL DEVELOPMENT

Company shall extend standard Delivery System facilities necessary to serve Customer's estimated maximum demand requirement of _____ kW ("Contract kW"). The Delivery System facilities installed hereunder will be of the character commonly described as _____ volt, _____ phase, at 60 hertz, with reasonable variation to be allowed.

STANDARD DELIVERY SYSTEM FACILITIES TO RESIDENTIAL DEVELOPMENT

Company shall extend standard Delivery System facilities necessary to serve:

_____ All-electric residential lot(s)/apartment units, or
(Number of lots/units)

_____ Electric and gas residential lot(s)/apartment units.
(Number of lots/units)

The Delivery System facilities installed hereunder will be of the character commonly described as _____ volt, _____ phase, at 60 hertz, with reasonable variation to be allowed.

NON-STANDARD DELIVERY SYSTEM FACILITIES

Company shall extend/install the following non-standard facilities:

TXU Electric Delivery removes seven overhead services that cross Arapaho Road from Surveyor to Midway and replaces with underground cable. Company installs pads and sets two new padmounted transformers to serve two of these customers, Bulloughs-Lykos and Absolute Systems, who are converting their point of delivery from overhead to underground. Town of Addison supplies and installs at its expense conduit and spare for all six services. Town of Addison also performs all electric work past the company's point of ownership at each service location. Company removes overhead lines on east and west sides of Midway where Arapaho Road crosses, replaces with underground cable, and installs the four overhead/underground transitions at existing or relocated pole locations. Town of Addison reserves the option to perform all civil work associated with the relocation of the overhead wires at the above mentioned Midway crossing to underground, including the duct bank and the two bores across Midway, north and south of the railroad tracks. The transformer pole serving the customers at 15269 Addison Road at the southwest corner of the intersection of Arapaho and Addison Roads will be relocated to clear Arapaho Road and retain its overhead wire attachments until the Addison Road project replaces the overhead wires with underground cable.

ARTICLE I - PAYMENT BY CUSTOMER

At the time of acceptance of this Agreement by Customer, Customer will pay to Company Two hundred and eighty two thousand nine hundred and forty eight Dollars (\$ 282,948) as payment for the Customer's portion of the cost of the

**Tariff for Retail Delivery Service
TXU Electric Delivery Company**

6.3 Agreements and Forms

Applicable: Entire Certified Service Area
Effective Date: January 1, 2002

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Revision: Original

extension of Company facilities, in accordance with Company's Facilities Extension Policy, such payment to be and remain the property of the Company.

ARTICLE II - NON-UTILIZATION CLAUSE FOR STANDARD DELIVERY SYSTEM FACILITIES

This Article II applies only to the installation of standard Delivery System facilities.

- a. The amount of Contribution in Aid of Construction ("CIAC") to be paid by Customer under Article I above is calculated based on the estimated data (i.e., Contract kW or number and type of lots/units) supplied by Customer and specified above. Company will conduct a review of the actual load or number and type of lots/units at the designated location to determine the accuracy of the estimated data supplied by Customer. If, within two (2) years after Company completes the extension of Delivery System facilities, the estimated load as measured by actual maximum kW billing demand at said location has not materialized or the estimated number and type of dwelling units/lots at said location have not been substantially completed, Company will re-calculate the CIAC based on actual maximum kW billing demand realized or the number and type of substantially completed dwelling units/lots. For purposes of this Agreement, a dwelling unit/lot shall be deemed substantially completed upon the installation of Company's meter. The installation of a Company meter in connection with Temporary Delivery Service does not constitute substantial completion.

- b. Customer will pay to Company a "non-utilization charge" in an amount equal to the difference between the re-calculated CIAC amount and the amount paid by Customer under Article I, above. Company's invoice to Customer for such "non-utilization charge" is due and payable within fifteen (15) days after the date of the invoice.

ARTICLE III - TITLE AND OWNERSHIP

Company at all times shall have title to and complete ownership and control over the Delivery System facilities extended under this Agreement.

ARTICLE IV - GENERAL CONDITIONS

Delivery service is not provided under this Agreement. However, Customer understands that, as a result of the installation provided for in this Agreement, the Delivery of Electric Power and Energy by Company to the specified location will be provided in accordance with Rate Schedule _____, which may from time to time be amended or succeeded.

This Agreement supersedes all previous agreements or representations, either written or oral, between Company and Customer made with respect to the matters herein contained, and when duly executed constitutes the agreement between the parties hereto and is not binding upon Company unless and until signed by one of its duly authorized representatives.

ARTICLE V - OTHER SPECIAL CONDITIONS

The (entity name) agrees that the payment indicated in ARTICLE I of this Agreement shall be made within 30 days of the date the project is completed or the date the invoice is received, whichever is later.

ACCEPTED BY COMPANY:

Jane E. Davis
Signature

Senior Engineer
Title

August 3, 2004
Date Signed

ACCEPTED BY CUSTOMER:

Ron Whitten
Signature

City Manager
Title

8/17/04
Date Signed